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|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| superior conj | 5100 Apr 30 18:58 | 11°♄27'17 | -1°18'37 | desc. node | 5101 Mar 05 13:29 | 22°♁26'40 | |
| minimum elong | 5100 Apr 30 23:15 | 11°♄48'08 | 1°17'58 | | 5101 Mar 11 04:23 | 0°♄ | |
| evening rise | 5100 May 09 08:07 | 28°♄25'59 | | | 5101 Mar 30 20:37 | 0°♄ | |
| asc. node | 5100 May 09 06:33 | 28°♄18'10 | | morning set | 5101 Apr 01 16:03 | 3°♄00'24 | |
| | 5100 May 10 03:01 | 0°♄ | | max. Earth dist. | 5101 Apr 05 21:22 | 10°♄11'58 | 1.39487 AU |
| evening max el | 5100 May 26 04:18 | 25°♄48'20 | 19°19'33 | | | | |
| | 5100 Jun 01 23:09 | 0°♄ | | superior conj | 5101 Apr 13 13:15 | 23°♄55'36 | -1°44'29 |
| retrograde | 5100 Jun 04 09:27 | 0°♄18'18 | | minimum elong | 5101 Apr 13 18:16 | 24°♄18'48 | 1°43'57 |
| evening set | 5100 Jun 06 08:38 | 0°♄06'54 | | | 5101 Apr 16 19:11 | 0°♄ | |
| | 5100 Jun 06 21:29 | 30°♄ | | evening rise | 5101 Apr 23 01:45 | 12°♄00'46 | |
| inferior conj | 5100 Jun 14 21:11 | 25°♄58'55 | -0°04'05 | asc. node | 5101 Apr 26 03:36 | 17°♄53'04 | |
| minimum elong | 5100 Jun 14 21:01 | 25°♄59'12 | 0°04'02 | | 5101 May 03 00:41 | 0°♄ | |
| transit middle | 5100 Jun 14 21:01 | 25°♄59'12 | 0°04'02 | evening max el | 5101 May 09 06:17 | 8°♄05'35 | 18°35'30 |
| transit begin | 5100 Jun 14 17:17 | 26°♄05'20 | | retrograde | 5101 May 17 01:57 | 11°♄56'59 | |
| transit end | 5100 Jun 15 00:45 | 25°♄53'03 | | evening set | 5101 May 19 07:09 | 11°♄39'26 | |
| desc. node | 5100 Jun 14 15:41 | 26°♄07'58 | | inferior conj | 5101 May 26 23:39 | 7°♄12'35 | 1°33'20 |
| min. Earth dist. | 5100 Jun 17 14:35 | 24°♄11'53 | 0.56003 AU | minimum elong | 5101 May 27 02:43 | 7°♄06'41 | 1°32'20 |
| morning rise | 5100 Jun 23 06:28 | 21°♄15'10 | | min. Earth dist. | 5101 May 30 08:21 | 4°♄38'31 | 0.57755 AU |
| direct | 5100 Jun 28 02:52 | 20°♄21'23 | | desc. node | 5101 Jun 01 12:41 | 3°♄09'12 | |
| morning max el | 5100 Jul 12 06:02 | 27°♄31'56 | 25°15'16 | morning rise | 5101 Jun 03 19:02 | 1°♄53'54 | |
| | 5100 Jul 14 16:06 | 0°♄ | | direct | 5101 Jun 09 13:34 | 0°♄30'06 | |
| | 5100 Aug 03 04:13 | 0°♄ | | morning max el | 5101 Jun 23 22:37 | 8°♄06'32 | 26°40'25 |
| asc. node | 5100 Aug 05 05:50 | 4°♄08'19 | | | 5101 Jul 10 09:36 | 0°♄ | |
| morning set | 5100 Aug 07 21:56 | 9°♄41'58 | | morning set | 5101 Jul 23 08:11 | 24°♄28'33 | |
| | | | | asc. node | 5101 Jul 23 02:51 | 24°♄00'28 | |
| | | | | | 5101 Jul 25 22:05 | 0°♄ | |
| superior conj | 5100 Aug 14 20:13 | 24°♄46'17 | 1°25'18 | | | | |
| minimum elong | 5100 Aug 14 18:01 | 24°♄34'18 | 1°25'02 | superior conj | 5101 Jul 30 07:52 | 9°♄41'02 | 1°08'58 |
| max. Earth dist. | 5100 Aug 16 02:43 | 27°♄33'13 | 1.32490 AU | minimum elong | 5101 Jul 30 05:34 | 9°♄28'22 | 1°08'36 |
| | 5100 Aug 17 05:43 | 0°♄ | | max. Earth dist. | 5101 Jul 30 13:10 | 10°♄10'20 | 1.32014 AU |
| evening rise | 5100 Aug 21 23:05 | 10°♄00'39 | | evening rise | 5101 Aug 06 04:54 | 24°♄37'35 | |
| | 5100 Sep 01 11:28 | 0°♄ | | | 5101 Aug 08 19:16 | 0°♄ | |
| desc. node | 5100 Sep 10 14:57 | 14°♄30'23 | | | 5101 Aug 26 06:44 | 0°♄ | |
| | 5100 Sep 23 11:14 | 0°♄ | | desc. node | 5101 Aug 28 11:58 | 2°♄59'38 | |
| evening max el | 5100 Sep 23 09:47 | 29°♄56'33 | 27°23'50 | evening max el | 5101 Sep 05 13:59 | 12°♄09'17 | 26°51'32 |
| retrograde | 5100 Oct 07 04:30 | 7°♄11'06 | | retrograde | 5101 Sep 19 11:35 | 19°♄19'10 | |
| evening set | 5100 Oct 14 08:39 | 4°♄43'42 | | evening set | 5101 Sep 26 10:04 | 17°♄14'56 | |
| min. Earth dist. | 5100 Oct 17 23:48 | 1°♄47'46 | 0.62465 AU | min. Earth dist. | 5101 Sep 30 04:04 | 14°♄37'15 | 0.60463 AU |
| | 5100 Oct 19 21:46 | 30°♄ | | inferior conj | 5101 Oct 03 08:59 | 11°♄58'25 | -4°27'29 |
| inferior conj | 5100 Oct 20 20:58 | 29°♄04'48 | -3°31'30 | minimum elong | 5101 Oct 03 15:09 | 11°♄45'36 | 4°26'05 |
| minimum elong | 5100 Oct 21 02:51 | 28°♄50'53 | 3°29'39 | morning rise | 5101 Oct 10 22:14 | 7°♄13'11 | |
| morning rise | 5100 Oct 27 22:47 | 23°♄58'16 | | direct | 5101 Oct 13 06:03 | 6°♄52'23 | |
| direct | 5100 Oct 30 07:19 | 23°♄33'18 | | asc. node | 5101 Oct 19 02:06 | 9°♄10'04 | |
| asc. node | 5100 Nov 01 05:06 | 23°♄50'09 | | morning max el | 5101 Oct 20 14:57 | 10°♄30'57 | 18°05'32 |
| morning max el | 5100 Nov 06 01:59 | 27°♄01'03 | 17°50'19 | | 5101 Nov 02 10:21 | 0°♄ | |
| | 5100 Nov 08 16:56 | 0°♄ | | morning set | 5101 Nov 05 09:11 | 5°♄28'54 | |
| morning set | 5100 Nov 22 01:39 | 21°♄53'39 | | | | | |
| | 5100 Nov 26 15:16 | 0°♄ | | superior conj | 5101 Nov 15 03:35 | 23°♄26'38 | 1°03'11 |
| | | | | minimum elong | 5101 Nov 15 07:33 | 23°♄44'17 | 1°02'42 |
| superior conj | 5100 Dec 03 07:58 | 11°♄34'11 | 0°29'50 | | 5101 Nov 18 21:04 | 0°♄ | |
| minimum elong | 5100 Dec 03 10:42 | 11°♄45'43 | 0°29'28 | max. Earth dist. | 5101 Nov 22 19:23 | 6°♄41'46 | 1.41718 AU |
| desc. node | 5100 Dec 07 14:13 | 18°♄41'02 | | desc. node | 5101 Nov 24 11:15 | 9°♄27'44 | |
| max. Earth dist. | 5100 Dec 10 08:05 | 23°♄09'59 | 1.43475 AU | evening rise | 5101 Nov 28 03:41 | 15°♄28'21 | |
| | 5100 Dec 14 14:34 | 0°♄ | | | 5101 Dec 07 11:52 | 0°♄ | |
| evening rise | 5100 Dec 18 02:31 | 5°♄28'53 | | | 5101 Dec 29 15:04 | 0°♄ | |
| | 5101 Jan 03 12:09 | 0°♄ | | evening max el | 5101 Dec 31 14:34 | 2°♄05'32 | 22°44'40 |
| evening max el | 5101 Jan 17 21:29 | 18°♄28'46 | 21°27'06 | retrograde | 5102 Jan 10 13:56 | 8°♄00'51 | |
| retrograde | 5101 Jan 26 18:15 | 23°♄44'14 | | evening set | 5102 Jan 15 07:37 | 6°♄04'32 | |
| asc. node | 5101 Jan 28 04:21 | 23°♄33'24 | | asc. node | 5102 Jan 15 01:22 | 6°♄17'10 | |
| evening set | 5101 Jan 31 00:20 | 22°♄03'45 | | | 5102 Jan 20 11:05 | 30°♄ | |
| inferior conj | 5101 Feb 05 08:25 | 15°♄47'53 | 2°28'01 | inferior conj | 5102 Jan 20 16:28 | 29°♄41'23 | 1°48'07 |
| minimum elong | 5101 Feb 05 06:00 | 15°♄56'16 | 2°27'18 | minimum elong | 5102 Jan 20 14:20 | 29°♄48'46 | 1°47'22 |
| min. Earth dist. | 5101 Feb 05 13:57 | 15°♄28'45 | 0.67961 AU | min. Earth dist. | 5102 Jan 20 10:24 | 0°♄02'22 | 0.68115 AU |
| morning rise | 5101 Feb 10 11:30 | 9°♄35'38 | | morning rise | 5102 Jan 25 20:58 | 23°♄32'45 | |
| direct | 5101 Feb 15 14:27 | 7°♄21'59 | | direct | 5102 Jan 30 09:19 | 21°♄41'53 | |
| morning max el | 5101 Feb 25 20:04 | 13°♄26'24 | 23°11'31 | | | | |

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|------------------|-------------------|---------------------------|------------|------------------|-------------------|---------------------------|------------|
| morning max el | 5102 Feb 08 09:05 | 26° Z 56'41 | 21°44'52 | morning max el | 5103 Jan 22 05:05 | 10° Z 38'25 | 20°27'33 |
| | 5102 Feb 11 04:54 | 0° \approx | | | 5103 Feb 06 00:41 | 0° \approx | |
| desc. node | 5102 Feb 20 10:31 | 11° \approx 56'31 | | desc. node | 5103 Feb 07 07:33 | 1° \approx 53'20 | |
| | 5102 Mar 04 18:15 | 0° X | | morning set | 5103 Feb 19 17:27 | 20° \approx 41'46 | |
| morning set | 5102 Mar 12 16:25 | 12° X 21'39 | | | 5103 Feb 25 15:56 | 0° X | |
| max. Earth dist. | 5102 Mar 18 20:56 | 22° X 26'11 | 1.41627 AU | max. Earth dist. | 5103 Mar 01 03:30 | 5° X 33'48 | 1.43441 AU |
| | 5102 Mar 23 08:32 | 0° Y | | | | | |
| superior conj | 5102 Mar 26 12:11 | 5° Y 27'37 | -2°02'57 | superior conj | 5103 Mar 07 11:04 | 15° X 53'33 | -2°08'46 |
| minimum elong | 5102 Mar 26 15:52 | 5° Y 43'49 | 2°02'47 | minimum elong | 5103 Mar 07 10:15 | 15° X 50'07 | 2°08'46 |
| evening rise | 5102 Apr 06 07:22 | 24° Y 58'05 | | | 5103 Mar 15 18:25 | 0° Y | |
| | 5102 Apr 09 01:10 | 0° Z | | evening rise | 5103 Mar 19 20:41 | 7° Y 08'33 | |
| asc. node | 5102 Apr 13 00:38 | 7° Z 07'13 | | asc. node | 5103 Mar 30 21:41 | 25° Y 53'55 | |
| evening max el | 5102 Apr 22 15:08 | 20° Z 53'05 | 18°11'34 | | 5103 Apr 02 17:26 | 0° Z | |
| retrograde | 5102 Apr 29 13:06 | 24° Z 22'11 | | evening max el | 5103 Apr 06 03:29 | 4° Z 02'16 | 18°07'11 |
| evening set | 5102 May 02 01:07 | 23° Z 55'30 | | retrograde | 5103 Apr 12 14:59 | 7° Z 24'21 | |
| inferior conj | 5102 May 08 23:25 | 19° Z 07'59 | 2°39'47 | evening set | 5103 Apr 15 09:23 | 6° Z 46'39 | |
| minimum elong | 5102 May 09 02:46 | 19° Z 00'26 | 2°38'59 | inferior conj | 5103 Apr 21 17:20 | 1° Z 39'18 | 3°17'25 |
| min. Earth dist. | 5102 May 12 08:10 | 16° Z 07'53 | 0.59891 AU | minimum elong | 5103 Apr 21 19:25 | 1° Z 33'57 | 3°17'09 |
| morning rise | 5102 May 16 01:50 | 13° Z 22'18 | | | 5103 Apr 23 07:44 | 30° R Y | |
| desc. node | 5102 May 19 09:44 | 11° Z 51'55 | | min. Earth dist. | 5103 Apr 24 16:17 | 28° Y 37'53 | 0.62081 AU |
| direct | 5102 May 22 13:08 | 11° Z 24'05 | | morning rise | 5103 Apr 28 03:48 | 25° Y 37'12 | |
| morning max el | 5102 Jun 05 21:37 | 19° Z 16'42 | 27°35'17 | direct | 5103 May 04 23:30 | 23° Y 09'18 | |
| | 5102 Jun 14 23:45 | 0° II | | desc. node | 5103 May 06 06:46 | 23° Y 14'22 | |
| | 5102 Jul 03 03:28 | 0° E | | | 5103 May 17 22:01 | 0° Z | |
| morning set | 5102 Jul 07 15:19 | 9° E 03'23 | | morning max el | 5103 May 19 02:42 | 1° Z 09'34 | 27°52'53 |
| asc. node | 5102 Jul 09 23:52 | 14° E 02'01 | | | 5103 Jun 09 04:10 | 0° II | |
| max. Earth dist. | 5102 Jul 14 00:28 | 22° E 47'25 | 1.31953 AU | morning set | 5103 Jun 21 17:21 | 23° II 20'25 | |
| | | | | | 5103 Jun 24 22:19 | 0° E | |
| superior conj | 5102 Jul 14 19:24 | 24° E 31'47 | 0°48'26 | asc. node | 5103 Jun 26 20:56 | 4° E 08'39 | |
| minimum elong | 5102 Jul 14 17:29 | 24° E 21'09 | 0°48'02 | max. Earth dist. | 5103 Jun 27 08:41 | 5° E 11'58 | 1.32319 AU |
| | 5102 Jul 17 06:54 | 0° O | | | | | |
| evening rise | 5102 Jul 21 14:35 | 9° O 22'58 | | superior conj | 5103 Jun 29 05:08 | 9° E 13'12 | 0°24'13 |
| | 5102 Aug 01 04:25 | 0° P | | minimum elong | 5103 Jun 29 04:02 | 9° E 07'12 | 0°23'58 |
| desc. node | 5102 Aug 15 08:59 | 20° P 22'00 | | evening rise | 5103 Jul 06 02:11 | 24° E 10'37 | |
| evening max el | 5102 Aug 18 10:31 | 23° P 31'51 | 25°47'03 | | 5103 Jul 08 20:55 | 0° O | |
| | 5102 Aug 28 09:13 | 0° U | | | 5103 Jul 27 02:56 | 0° P | |
| retrograde | 5102 Sep 01 09:29 | 0° U 38'12 | | evening max el | 5103 Jul 31 00:28 | 4° P 11'16 | 24°18'43 |
| | 5102 Sep 05 09:11 | 30° R P | | desc. node | 5103 Aug 02 06:00 | 6° P 11'07 | |
| evening set | 5102 Sep 07 13:46 | 29° P 07'52 | | retrograde | 5103 Aug 13 20:22 | 11° P 09'19 | |
| min. Earth dist. | 5102 Sep 11 22:43 | 26° P 31'30 | 0.58398 AU | evening set | 5103 Aug 18 17:04 | 10° P 16'41 | |
| inferior conj | 5102 Sep 15 03:12 | 24° P 14'23 | -5°07'11 | min. Earth dist. | 5103 Aug 24 11:21 | 7° P 22'42 | 0.56545 AU |
| minimum elong | 5102 Sep 15 07:01 | 24° P 07'29 | 5°06'46 | inferior conj | 5103 Aug 27 01:19 | 5° P 45'26 | -5°15'43 |
| morning rise | 5102 Sep 23 02:34 | 19° P 52'30 | | minimum elong | 5103 Aug 26 23:31 | 5° P 48'15 | 5°15'39 |
| direct | 5102 Sep 25 13:03 | 19° P 33'30 | | morning rise | 5103 Sep 04 08:28 | 1° P 44'18 | |
| morning max el | 5102 Oct 03 21:08 | 23° P 32'38 | 18°41'13 | direct | 5103 Sep 07 00:55 | 1° P 25'06 | |
| asc. node | 5102 Oct 05 23:09 | 25° P 45'48 | | morning max el | 5103 Sep 16 17:21 | 5° P 56'37 | 19°38'35 |
| | 5102 Oct 09 03:50 | 0° U | | asc. node | 5103 Sep 22 20:12 | 13° P 22'19 | |
| morning set | 5102 Oct 20 04:02 | 19° U 35'29 | | | 5103 Oct 02 05:47 | 0° U | |
| | 5102 Oct 25 12:27 | 0° M | | morning set | 5103 Oct 04 06:37 | 4° U 03'48 | |
| superior conj | 5102 Oct 28 20:13 | 6° M 20'06 | 1°25'55 | | | | |
| minimum elong | 5102 Oct 28 23:28 | 6° M 35'20 | 1°25'36 | superior conj | 5103 Oct 12 04:33 | 19° U 59'23 | 1°38'53 |
| max. Earth dist. | 5102 Nov 05 01:34 | 19° M 29'02 | 1.39659 AU | minimum elong | 5103 Oct 12 06:18 | 20° U 08'01 | 1°38'48 |
| evening rise | 5102 Nov 09 02:42 | 26° M 27'14 | | | 5103 Oct 17 09:11 | 0° M | |
| desc. node | 5102 Nov 11 08:16 | 0° X 10'47 | | max. Earth dist. | 5103 Oct 18 06:09 | 1° M 37'55 | 1.37563 AU |
| | 5102 Nov 11 05:39 | 0° X | | evening rise | 5103 Oct 22 00:20 | 8° M 27'59 | |
| | 5102 Dec 01 03:26 | 0° Z | | desc. node | 5103 Oct 29 05:17 | 20° M 46'13 | |
| evening max el | 5102 Dec 14 04:18 | 15° Z 45'14 | 24°04'39 | | 5103 Nov 04 01:06 | 0° X | |
| retrograde | 5102 Dec 25 06:22 | 22° Z 16'24 | | evening max el | 5103 Nov 26 16:54 | 29° X 28'17 | 25°20'14 |
| evening set | 5102 Dec 30 12:52 | 20° Z 04'39 | | | 5103 Nov 27 06:01 | 0° Z | |
| asc. node | 5103 Jan 01 22:24 | 17° Z 37'01 | | retrograde | 5103 Dec 08 18:29 | 6° Z 25'47 | |
| inferior conj | 5103 Jan 04 23:52 | 13° Z 38'16 | 1°01'08 | evening set | 5103 Dec 14 14:26 | 4° Z 00'19 | |
| minimum elong | 5103 Jan 04 22:29 | 13° Z 42'57 | 1°00'36 | | 5103 Dec 18 07:49 | 30° R X | |
| min. Earth dist. | 5103 Jan 04 06:50 | 14° Z 35'53 | 0.67896 AU | min. Earth dist. | 5103 Dec 19 00:53 | 29° X 05'48 | 0.67325 AU |
| morning rise | 5103 Jan 10 08:09 | 7° Z 34'50 | | asc. node | 5103 Dec 19 19:28 | 28° X 05'42 | |
| direct | 5103 Jan 14 06:46 | 6° Z 06'33 | | inferior conj | 5103 Dec 20 04:49 | 27° X 35'21 | 0°07'57 |
| | | | | minimum elong | 5103 Dec 20 04:37 | 27° X 36'01 | 0°07'53 |
| | | | | transit middle | 5103 Dec 20 04:37 | 27° X 36'01 | 0°07'53 |

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|---------------------|-------------------|----------------------|------------|---------------------|-------------------|----------------------|------------|
| transit begin | 5103 Dec 20 02:11 | 27° ♁ 43'55 | | inferior conj | 5104 Dec 03 05:25 | 11° ♁ 29'43 | -0°50'21 |
| transit end | 5103 Dec 20 07:03 | 27° ♁ 28'07 | | minimum elong | 5104 Dec 03 06:47 | 11° ♁ 25'31 | 0°49'45 |
| morning rise | 5103 Dec 25 19:05 | 21° ♁ 39'13 | | asc. node | 5104 Dec 05 16:30 | 8° ♁ 38'07 | |
| direct | 5103 Dec 29 05:32 | 20° ♁ 31'12 | | morning rise | 5104 Dec 09 03:41 | 5° ♁ 43'27 | |
| morning max el | 5104 Jan 05 08:57 | 24° ♁ 30'41 | 19°23'45 | direct | 5104 Dec 12 03:54 | 4° ♁ 52'15 | |
| | 5104 Jan 10 01:49 | 0° ♁ | | morning max el | 5104 Dec 18 19:41 | 8° ♁ 30'26 | 18°35'42 |
| greatest brilliancy | 5104 Jan 18 13:47 | 12° ♁ 05'37 | -0.7m | | 5105 Jan 03 01:46 | 0° ♁ | |
| desc. node | 5104 Jan 25 04:33 | 22° ♁ 09'16 | | morning set | 5105 Jan 08 11:04 | 8° ♁ 31'49 | |
| morning set | 5104 Jan 29 15:42 | 29° ♁ 02'20 | | desc. node | 5105 Jan 11 01:35 | 12° ♁ 39'19 | |
| | 5104 Jan 30 06:37 | 0° ♁ | | | 5105 Jan 22 02:01 | 0° ♁ | |
| max. Earth dist. | 5104 Feb 11 16:45 | 19° ♁ 24'11 | 1.44714 AU | | | | |
| | | | | superior conj | 5105 Jan 24 13:21 | 3° ♁ 52'35 | -1°24'51 |
| superior conj | 5104 Feb 15 08:40 | 25° ♁ 13'08 | -1°56'35 | minimum elong | 5105 Jan 24 04:04 | 3° ♁ 16'14 | 1°23'51 |
| minimum elong | 5104 Feb 15 01:35 | 24° ♁ 44'52 | 1°56'07 | max. Earth dist. | 5105 Jan 24 10:51 | 3° ♁ 42'47 | 1.45305 AU |
| | 5104 Feb 18 08:16 | 0° ♁ | | evening rise | 5105 Feb 09 06:28 | 28° ♁ 40'31 | |
| evening rise | 5104 Feb 29 13:13 | 18° ♁ 23'03 | | | 5105 Feb 10 02:26 | 0° ♁ | |
| | 5104 Mar 07 12:40 | 0° ♁ | | greatest brilliancy | 5105 Feb 17 19:42 | 12° ♁ 17'00 | -0.8m |
| asc. node | 5104 Mar 16 18:45 | 14° ♁ 03'47 | | | 5105 Mar 02 06:29 | 0° ♁ | |
| evening max el | 5104 Mar 19 16:14 | 17° ♁ 24'31 | 18°21'38 | evening max el | 5105 Mar 03 02:50 | 0° ♁ 53'54 | 18°53'58 |
| retrograde | 5104 Mar 26 02:57 | 20° ♁ 53'11 | | asc. node | 5105 Mar 03 15:47 | 1° ♁ 25'55 | |
| evening set | 5104 Mar 29 03:39 | 20° ♁ 03'11 | | retrograde | 5105 Mar 09 21:12 | 4° ♁ 41'14 | |
| inferior conj | 5104 Apr 04 01:10 | 14° ♁ 37'17 | 3°32'15 | evening set | 5105 Mar 13 04:37 | 3° ♁ 38'04 | |
| minimum elong | 5104 Apr 04 01:37 | 14° ♁ 36'01 | 3°32'14 | | 5105 Mar 17 02:08 | 30° ♁ | |
| min. Earth dist. | 5104 Apr 06 09:34 | 11° ♁ 55'56 | 0.64068 AU | inferior conj | 5105 Mar 18 19:08 | 27° ♁ 55'04 | 3°29'45 |
| morning rise | 5104 Apr 09 22:42 | 8° ♁ 26'54 | | minimum elong | 5105 Mar 18 18:10 | 27° ♁ 58'05 | 3°29'40 |
| direct | 5104 Apr 16 18:18 | 5° ♁ 41'07 | | min. Earth dist. | 5105 Mar 20 11:51 | 25° ♁ 48'03 | 0.65698 AU |
| desc. node | 5104 Apr 22 03:48 | 7° ♁ 08'33 | | morning rise | 5105 Mar 24 07:18 | 21° ♁ 41'13 | |
| morning max el | 5104 Apr 30 11:29 | 13° ♁ 39'02 | 27°33'38 | direct | 5105 Mar 30 19:56 | 18° ♁ 51'26 | |
| | 5104 May 13 15:47 | 0° ♁ | | desc. node | 5105 Apr 09 00:51 | 23° ♁ 02'39 | |
| | 5104 May 31 18:14 | 0° ♁ | | morning max el | 5105 Apr 12 21:26 | 26° ♁ 34'48 | 26°42'59 |
| morning set | 5104 Jun 04 11:46 | 7° ♁ 11'38 | | | 5105 Apr 16 01:45 | 0° ♁ | |
| max. Earth dist. | 5104 Jun 09 09:53 | 17° ♁ 12'05 | 1.33132 AU | | 5105 May 07 06:20 | 0° ♁ | |
| | | | | morning set | 5105 May 18 19:18 | 20° ♁ 27'24 | |
| superior conj | 5104 Jun 12 11:07 | 23° ♁ 39'04 | -0°03'00 | max. Earth dist. | 5105 May 23 00:53 | 28° ♁ 42'01 | 1.34413 AU |
| minimum elong | 5104 Jun 12 11:16 | 23° ♁ 39'54 | 0°02'59 | | 5105 May 23 16:29 | 0° ♁ | |
| behind sun begin | 5104 Jun 12 05:57 | 23° ♁ 11'29 | | | | | |
| behind sun end | 5104 Jun 12 16:35 | 24° ♁ 08'20 | | superior conj | 5105 May 27 11:08 | 7° ♁ 42'49 | -0°32'12 |
| asc. node | 5104 Jun 12 18:01 | 24° ♁ 15'59 | | minimum elong | 5105 May 27 12:52 | 7° ♁ 51'49 | 0°31'52 |
| | 5104 Jun 15 10:02 | 0° ♁ | | asc. node | 5105 May 30 15:02 | 14° ♁ 19'38 | |
| evening rise | 5104 Jun 19 13:47 | 8° ♁ 54'16 | | evening rise | 5105 Jun 03 23:27 | 23° ♁ 27'47 | |
| | 5104 Jun 30 13:49 | 0° ♁ | | | 5105 Jun 07 04:09 | 0° ♁ | |
| evening max el | 5104 Jul 11 13:43 | 14° ♁ 32'45 | 22°41'10 | evening max el | 5105 Jun 23 10:10 | 25° ♁ 08'48 | 21°09'36 |
| desc. node | 5104 Jul 19 03:02 | 19° ♁ 53'50 | | | 5105 Jun 30 09:07 | 0° ♁ | |
| retrograde | 5104 Jul 24 18:29 | 21° ♁ 06'58 | | retrograde | 5105 Jul 05 07:29 | 1° ♁ 00'02 | |
| evening set | 5104 Jul 28 02:38 | 20° ♁ 42'31 | | desc. node | 5105 Jul 06 00:04 | 0° ♁ 58'54 | |
| min. Earth dist. | 5104 Aug 04 21:39 | 17° ♁ 16'44 | 0.55246 AU | evening set | 5105 Jul 07 13:53 | 0° ♁ 48'04 | |
| inferior conj | 5104 Aug 06 04:52 | 16° ♁ 32'11 | -4°37'12 | | 5105 Jul 10 12:19 | 30° ♁ | |
| minimum elong | 5104 Aug 05 21:11 | 16° ♁ 43'10 | 4°35'43 | inferior conj | 5105 Jul 16 22:16 | 26° ♁ 50'02 | -3°08'17 |
| morning rise | 5104 Aug 14 17:47 | 12° ♁ 41'56 | | minimum elong | 5105 Jul 16 14:05 | 27° ♁ 01'32 | 3°05'39 |
| direct | 5104 Aug 17 19:03 | 12° ♁ 20'25 | | min. Earth dist. | 5105 Jul 17 08:04 | 26° ♁ 36'17 | 0.54792 AU |
| morning max el | 5104 Aug 29 01:27 | 17° ♁ 35'19 | 20°57'29 | morning rise | 5105 Jul 25 14:43 | 22° ♁ 53'16 | |
| | 5104 Sep 07 15:50 | 0° ♁ | | direct | 5105 Jul 29 04:17 | 22° ♁ 25'54 | |
| asc. node | 5104 Sep 08 17:15 | 1° ♁ 45'57 | | morning max el | 5105 Aug 10 22:18 | 28° ♁ 29'30 | 22°33'53 |
| morning set | 5104 Sep 17 14:18 | 18° ♁ 46'41 | | | 5105 Aug 12 11:09 | 0° ♁ | |
| | 5104 Sep 22 23:28 | 0° ♁ | | asc. node | 5105 Aug 26 14:16 | 20° ♁ 44'46 | |
| | | | | | 5105 Aug 31 07:04 | 0° ♁ | |
| superior conj | 5104 Sep 25 00:05 | 4° ♁ 11'40 | 1°43'29 | morning set | 5105 Sep 02 00:52 | 3° ♁ 37'14 | |
| minimum elong | 5104 Sep 25 00:17 | 4° ♁ 12'43 | 1°43'29 | | | | |
| max. Earth dist. | 5104 Sep 29 15:09 | 13° ♁ 31'24 | 1.35659 AU | superior conj | 5105 Sep 09 03:15 | 18° ♁ 45'37 | 1°41'01 |
| evening rise | 5104 Oct 03 17:13 | 21° ♁ 22'24 | | minimum elong | 5105 Sep 09 02:12 | 18° ♁ 39'58 | 1°40'59 |
| | 5104 Oct 08 11:15 | 0° ♁ | | max. Earth dist. | 5105 Sep 12 08:17 | 25° ♁ 30'02 | 1.34100 AU |
| desc. node | 5104 Oct 15 02:18 | 11° ♁ 09'25 | | | 5105 Sep 14 13:03 | 0° ♁ | |
| | 5104 Oct 27 21:48 | 0° ♁ | | evening rise | 5105 Sep 17 00:56 | 4° ♁ 57'53 | |
| evening max el | 5104 Nov 08 05:43 | 13° ♁ 11'30 | 26°23'58 | | 5105 Oct 01 04:38 | 0° ♁ | |
| retrograde | 5104 Nov 21 01:23 | 20° ♁ 23'47 | | desc. node | 5105 Oct 01 23:20 | 1° ♁ 13'32 | |
| evening set | 5104 Nov 27 10:31 | 17° ♁ 48'06 | | evening max el | 5105 Oct 21 18:28 | 26° ♁ 44'52 | 27°08'31 |
| min. Earth dist. | 5104 Dec 01 14:11 | 13° ♁ 28'48 | 0.66409 AU | | 5105 Oct 25 12:49 | 0° ♁ | |

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|---------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| retrograde | 5105 Nov 04 02:27 | 4°♄02'27 | | retrograde | 5106 Oct 17 21:18 | 17°♄13'10 | |
| evening set | 5105 Nov 10 22:52 | 1°♄22'23 | | evening set | 5106 Oct 25 00:42 | 14°♄37'32 | |
| | 5105 Nov 12 13:00 | 30°♄ | | min. Earth dist. | 5106 Oct 28 17:06 | 11°♄26'15 | 0.63533 AU |
| min. Earth dist. | 5105 Nov 14 20:16 | 27°♄38'26 | 0.65142 AU | inferior conj | 5106 Oct 31 08:12 | 8°♄47'21 | -2°55'52 |
| inferior conj | 5105 Nov 16 23:24 | 25°♄15'44 | -1°52'25 | minimum elong | 5106 Oct 31 13:17 | 8°♄34'32 | 2°54'03 |
| minimum elong | 5105 Nov 17 02:38 | 25°♄06'40 | 1°51'06 | morning rise | 5106 Nov 07 03:23 | 3°♄30'23 | |
| asc. node | 5105 Nov 22 13:31 | 20°♄06'19 | | asc. node | 5106 Nov 09 10:32 | 3°♄01'44 | |
| morning rise | 5105 Nov 23 07:28 | 19°♄42'27 | | direct | 5106 Nov 09 13:53 | 3°♄01'38 | |
| direct | 5105 Nov 25 23:38 | 19°♄04'19 | | morning max el | 5106 Nov 16 03:47 | 6°♄26'34 | 17°50'14 |
| morning max el | 5105 Dec 02 10:55 | 22°♄31'21 | 18°04'18 | | 5106 Dec 01 15:07 | 0°♄ | |
| | 5105 Dec 08 08:48 | 0°♄ | | morning set | 5106 Dec 02 15:14 | 1°♄44'33 | |
| morning set | 5105 Dec 20 12:04 | 19°♄30'17 | | | | | |
| | 5105 Dec 26 21:36 | 0°♄ | | superior conj | 5106 Dec 14 22:44 | 22°♄37'44 | 0°06'07 |
| desc. node | 5105 Dec 28 22:36 | 3°♄18'34 | | minimum elong | 5106 Dec 14 23:23 | 22°♄40'26 | 0°06'03 |
| | | | | behind sun begin | 5106 Dec 14 14:24 | 22°♄03'26 | |
| superior conj | 5106 Jan 03 20:00 | 12°♄44'24 | -0°40'08 | behind sun end | 5106 Dec 15 08:22 | 23°♄17'23 | |
| minimum elong | 5106 Jan 03 15:02 | 12°♄24'45 | 0°39'27 | desc. node | 5106 Dec 15 19:36 | 24°♄03'24 | |
| max. Earth dist. | 5106 Jan 07 06:36 | 18°♄10'43 | 1.45146 AU | | 5106 Dec 19 11:29 | 0°♄ | |
| | 5106 Jan 14 20:09 | 0°♄ | | max. Earth dist. | 5106 Dec 21 00:36 | 2°♄28'44 | 1.44264 AU |
| evening rise | 5106 Jan 20 03:01 | 8°♄11'40 | | evening rise | 5106 Dec 30 13:14 | 17°♄23'56 | |
| greatest brilliancy | 5106 Feb 02 11:49 | 28°♄37'54 | -0.7m | | 5107 Jan 07 20:20 | 0°♄ | |
| | 5106 Feb 03 09:57 | 0°♄ | | evening max el | 5107 Jan 28 10:14 | 27°♄59'37 | 20°45'48 |
| evening max el | 5106 Feb 14 09:14 | 14°♄26'13 | 19°42'48 | | 5107 Jan 30 13:30 | 0°♄ | |
| asc. node | 5106 Feb 18 12:48 | 17°♄47'01 | | asc. node | 5107 Feb 05 09:49 | 2°♄52'18 | |
| retrograde | 5106 Feb 21 18:42 | 18°♄42'40 | | retrograde | 5107 Feb 05 16:58 | 2°♄52'47 | |
| evening set | 5106 Feb 25 09:47 | 17°♄25'35 | | evening set | 5107 Feb 09 17:04 | 1°♄21'04 | |
| inferior conj | 5106 Mar 02 20:04 | 11°♄27'33 | 3°13'54 | | 5107 Feb 11 04:58 | 30°♄ | |
| minimum elong | 5106 Mar 02 18:09 | 11°♄33'53 | 3°13'34 | inferior conj | 5107 Feb 15 01:24 | 25°♄10'38 | 2°47'23 |
| min. Earth dist. | 5106 Mar 03 21:58 | 10°♄01'40 | 0.66904 AU | minimum elong | 5107 Feb 14 23:02 | 25°♄18'46 | 2°46'47 |
| morning rise | 5106 Mar 08 02:18 | 5°♄12'53 | | min. Earth dist. | 5107 Feb 15 13:57 | 24°♄27'30 | 0.67688 AU |
| direct | 5106 Mar 14 03:23 | 2°♄31'04 | | morning rise | 5107 Feb 20 04:48 | 18°♄56'53 | |
| morning max el | 5106 Mar 26 06:50 | 9°♄46'07 | 25°29'30 | direct | 5107 Feb 25 16:01 | 16°♄31'31 | |
| desc. node | 5106 Mar 26 21:52 | 10°♄24'40 | | morning max el | 5107 Mar 08 15:32 | 23°♄04'53 | 24°03'01 |
| | 5106 Apr 11 06:38 | 0°♄ | | desc. node | 5107 Mar 13 18:53 | 28°♄49'28 | |
| | 5106 Apr 29 20:35 | 0°♄ | | | 5107 Mar 14 17:58 | 0°♄ | |
| morning set | 5106 May 01 11:39 | 2°♄55'45 | | | 5107 Apr 04 15:28 | 0°♄ | |
| max. Earth dist. | 5106 May 05 04:56 | 9°♄49'00 | 1.36140 AU | morning set | 5107 Apr 13 07:11 | 14°♄20'48 | |
| | | | | max. Earth dist. | 5107 Apr 17 01:09 | 20°♄55'32 | 1.38213 AU |
| superior conj | 5106 May 11 02:28 | 21°♄16'49 | -1°02'00 | | 5107 Apr 22 00:18 | 0°♄ | |
| minimum elong | 5106 May 11 05:54 | 21°♄33'58 | 1°01'24 | | | | |
| | 5106 May 15 09:58 | 0°♄ | | superior conj | 5107 Apr 24 05:34 | 4°♄11'19 | -1°30'13 |
| asc. node | 5106 May 17 12:04 | 4°♄15'59 | | minimum elong | 5107 Apr 24 10:20 | 4°♄34'00 | 1°29'34 |
| evening rise | 5106 May 19 05:02 | 7°♄44'40 | | evening rise | 5107 May 03 03:53 | 21°♄36'38 | |
| | 5106 May 31 12:43 | 0°♄ | | asc. node | 5107 May 04 09:05 | 23°♄59'45 | |
| evening max el | 5106 Jun 05 18:40 | 6°♄22'16 | 19°54'04 | | 5107 May 07 12:01 | 0°♄ | |
| retrograde | 5106 Jun 15 23:13 | 11°♄21'19 | | evening max el | 5107 May 19 15:02 | 18°♄17'13 | 18°58'21 |
| evening set | 5106 Jun 17 21:16 | 11°♄11'29 | | retrograde | 5107 May 28 04:56 | 22°♄29'19 | |
| desc. node | 5106 Jun 22 21:06 | 9°♄26'04 | | evening set | 5107 May 30 06:07 | 22°♄15'53 | |
| inferior conj | 5106 Jun 26 19:58 | 7°♄10'32 | -1°10'57 | inferior conj | 5107 Jun 07 10:12 | 18°♄00'27 | 0°40'45 |
| minimum elong | 5106 Jun 26 16:41 | 7°♄15'33 | 1°09'44 | minimum elong | 5107 Jun 07 11:48 | 17°♄57'39 | 0°40'09 |
| min. Earth dist. | 5106 Jun 28 20:29 | 5°♄56'45 | 0.55297 AU | desc. node | 5107 Jun 09 18:07 | 16°♄22'04 | |
| morning rise | 5106 Jul 05 10:12 | 2°♄47'17 | | min. Earth dist. | 5107 Jun 10 12:09 | 15°♄51'16 | 0.56670 AU |
| direct | 5106 Jul 09 17:33 | 2°♄06'39 | | morning rise | 5107 Jun 15 14:10 | 13°♄00'54 | |
| morning max el | 5106 Jul 23 12:49 | 8°♄55'45 | 24°17'51 | direct | 5107 Jun 20 20:02 | 11°♄55'30 | |
| | 5106 Aug 08 00:58 | 0°♄ | | morning max el | 5107 Jul 05 03:14 | 19°♄19'15 | 25°54'29 |
| asc. node | 5106 Aug 13 11:18 | 10°♄09'58 | | | 5107 Jul 14 04:10 | 0°♄ | |
| morning set | 5106 Aug 17 12:35 | 18°♄30'23 | | asc. node | 5107 Jul 31 08:20 | 29°♄53'39 | |
| | 5106 Aug 22 20:14 | 0°♄ | | | 5107 Jul 31 09:34 | 0°♄ | |
| superior conj | 5106 Aug 24 11:24 | 3°♄33'15 | 1°32'34 | morning set | 5107 Aug 01 23:49 | 3°♄20'25 | |
| minimum elong | 5106 Aug 24 09:29 | 3°♄22'54 | 1°32'24 | | | | |
| max. Earth dist. | 5106 Aug 26 09:57 | 7°♄44'59 | 1.32955 AU | superior conj | 5107 Aug 08 22:18 | 18°♄26'57 | 1°18'56 |
| evening rise | 5106 Aug 31 19:39 | 19°♄04'16 | | minimum elong | 5107 Aug 08 20:01 | 18°♄14'22 | 1°18'37 |
| | 5106 Sep 06 10:19 | 0°♄ | | max. Earth dist. | 5107 Aug 09 17:54 | 20°♄14'47 | 1.32232 AU |
| desc. node | 5106 Sep 18 20:21 | 20°♄50'18 | | | 5107 Aug 14 05:53 | 0°♄ | |
| | 5106 Sep 25 10:13 | 0°♄ | | evening rise | 5107 Aug 15 22:10 | 3°♄31'54 | |
| evening max el | 5106 Oct 04 05:39 | 9°♄56'14 | 27°26'58 | desc. node | 5107 Aug 30 04:41 | 0°♄ | |
| | | | | | 5107 Sep 05 17:22 | 9°♄48'24 | |

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|------------------|-------------------|-------------------------------|------------|------------------|-------------------|-------------------------------|------------|
| evening max el | 5107 Sep 16 13:00 | 22° Ω 33'07 | 27°14'08 | evening max el | 5108 Aug 28 14:10 | 4° Ω 24'59 | 26°27'49 |
| retrograde | 5107 Sep 30 09:21 | 29° Ω 46'30 | | retrograde | 5108 Sep 11 13:03 | 11° Ω 33'41 | |
| evening set | 5107 Oct 07 12:23 | 27° Ω 27'07 | | evening set | 5108 Sep 18 05:11 | 9° Ω 43'05 | |
| min. Earth dist. | 5107 Oct 11 03:34 | 24° Ω 40'46 | 0.61633 AU | min. Earth dist. | 5108 Sep 22 03:44 | 7° Ω 08'00 | 0.59571 AU |
| inferior conj | 5107 Oct 14 04:48 | 21° Ω 57'16 | -3°56'34 | inferior conj | 5108 Sep 25 09:40 | 4° Ω 36'06 | -4°47'10 |
| minimum elong | 5107 Oct 14 11:02 | 21° Ω 43'17 | 3°54'47 | minimum elong | 5108 Sep 25 15:15 | 4° Ω 25'11 | 4°46'10 |
| morning rise | 5107 Oct 21 11:37 | 16° Ω 59'44 | | morning rise | 5108 Oct 03 03:27 | 0° Ω 00'34 | |
| direct | 5107 Oct 23 19:18 | 16° Ω 37'01 | | | 5108 Oct 03 04:17 | 30° \mathbb{R} \mathbb{M} | |
| asc. node | 5107 Oct 27 07:34 | 17° Ω 31'03 | | direct | 5108 Oct 05 11:49 | 29° \mathbb{M} 40'53 | |
| morning max el | 5107 Oct 30 19:10 | 20° Ω 08'22 | 17°54'23 | | 5108 Oct 07 18:02 | 0° Ω | |
| | 5107 Nov 07 02:46 | 0° \mathbb{M} | | morning max el | 5108 Oct 13 05:41 | 3° Ω 27'25 | 18°18'05 |
| morning set | 5107 Nov 15 14:09 | 14° \mathbb{M} 55'09 | | asc. node | 5108 Oct 13 04:38 | 3° Ω 24'53 | |
| | 5107 Nov 23 23:33 | 0° \mathbb{A} | | morning set | 5108 Oct 29 03:03 | 28° Ω 45'14 | |
| | | | | | 5108 Oct 29 18:46 | 0° \mathbb{M} | |
| superior conj | 5107 Nov 26 03:59 | 3° \mathbb{A} 48'37 | 0°45'17 | superior conj | 5108 Nov 07 09:12 | 16° \mathbb{M} 08'40 | 1°14'06 |
| minimum elong | 5107 Nov 26 07:33 | 4° \mathbb{A} 04'04 | 0°44'48 | minimum elong | 5108 Nov 07 13:01 | 16° \mathbb{M} 26'05 | 1°13'40 |
| desc. node | 5107 Dec 02 16:37 | 14° \mathbb{A} 50'34 | | max. Earth dist. | 5108 Nov 14 22:53 | 29° \mathbb{M} 31'34 | 1.40864 AU |
| max. Earth dist. | 5107 Dec 03 14:12 | 16° \mathbb{A} 19'22 | 1.42774 AU | | 5108 Nov 15 05:33 | 0° \mathbb{A} | |
| evening rise | 5107 Dec 10 04:57 | 26° \mathbb{A} 56'39 | | | 5108 Nov 18 13:38 | 5° \mathbb{A} 36'10 | |
| | 5107 Dec 12 03:52 | 0° \mathbb{Z} | | desc. node | 5108 Nov 19 14:59 | 7° \mathbb{A} 20'33 | |
| | 5108 Jan 01 16:15 | 0° \approx | | evening rise | 5108 Dec 04 06:52 | 0° \mathbb{Z} | |
| evening max el | 5108 Jan 11 05:56 | 11° \approx 35'02 | 21°59'27 | | 5108 Dec 23 21:29 | 25° \mathbb{Z} 13'22 | 23°18'52 |
| retrograde | 5108 Jan 20 14:06 | 17° \approx 08'16 | | | 5108 Dec 29 18:42 | 0° \approx | |
| asc. node | 5108 Jan 23 06:50 | 16° \approx 29'37 | | retrograde | 5109 Jan 03 08:30 | 1° \approx 24'38 | |
| evening set | 5108 Jan 25 00:49 | 15° \approx 21'14 | | | 5109 Jan 07 11:39 | 30° \mathbb{R} \mathbb{Z} | |
| inferior conj | 5108 Jan 30 09:02 | 9° \approx 01'41 | 2°12'01 | evening set | 5109 Jan 08 07:25 | 29° \mathbb{Z} 21'56 | |
| minimum elong | 5108 Jan 30 06:41 | 9° \approx 09'51 | 2°11'17 | asc. node | 5109 Jan 09 03:54 | 28° \mathbb{Z} 35'18 | |
| min. Earth dist. | 5108 Jan 30 09:34 | 8° \approx 59'51 | 0.68068 AU | inferior conj | 5109 Jan 13 17:03 | 23° \mathbb{Z} 57'01 | 1°29'00 |
| morning rise | 5108 Feb 04 12:23 | 2° \approx 50'31 | | minimum elong | 5109 Jan 13 15:11 | 23° \mathbb{Z} 03'27 | 1°28'19 |
| direct | 5108 Feb 09 09:01 | 0° \approx 46'20 | | min. Earth dist. | 5109 Jan 13 06:22 | 23° \mathbb{Z} 33'43 | 0.68068 AU |
| morning max el | 5108 Feb 19 01:49 | 6° \approx 29'59 | 22°33'50 | morning rise | 5109 Jan 18 22:51 | 16° \mathbb{Z} 50'11 | |
| desc. node | 5108 Feb 28 15:54 | 17° \approx 59'37 | | direct | 5109 Jan 23 05:17 | 15° \mathbb{Z} 08'52 | |
| | 5108 Mar 08 05:04 | 0° \mathbb{H} | | morning max el | 5109 Jan 31 17:22 | 20° \mathbb{Z} 04'11 | 21°10'25 |
| morning set | 5108 Mar 24 00:07 | 24° \mathbb{H} 28'44 | | | 5109 Feb 08 23:55 | 0° \approx | |
| | 5108 Mar 27 07:59 | 0° \mathbb{Y} | | desc. node | 5109 Feb 14 12:55 | 7° \approx 41'53 | |
| max. Earth dist. | 5108 Mar 28 20:59 | 2° \mathbb{Y} 36'17 | 1.40417 AU | | 5109 Mar 01 10:12 | 0° \mathbb{H} | |
| | | | | morning set | 5109 Mar 03 12:55 | 3° \mathbb{H} 18'18 | |
| superior conj | 5108 Apr 05 16:14 | 16° \mathbb{Y} 16'55 | -1°53'30 | max. Earth dist. | 5109 Mar 10 23:11 | 15° \mathbb{H} 12'55 | 1.42458 AU |
| minimum elong | 5108 Apr 05 21:01 | 16° \mathbb{Y} 38'34 | 1°53'08 | | | | |
| | 5108 Apr 13 02:08 | 0° \mathbb{B} | | superior conj | 5109 Mar 18 05:26 | 27° \mathbb{H} 21'53 | -2°07'19 |
| evening rise | 5108 Apr 15 16:53 | 4° \mathbb{B} 56'17 | | minimum elong | 5109 Mar 18 07:37 | 27° \mathbb{H} 31'14 | 2°07'16 |
| asc. node | 5108 Apr 20 06:08 | 13° \mathbb{B} 26'21 | | | 5109 Mar 19 18:13 | 0° \mathbb{Y} | |
| | 5108 May 01 01:30 | 0° \mathbb{I} | | evening rise | 5109 Mar 29 16:04 | 17° \mathbb{Y} 34'18 | |
| evening max el | 5108 May 01 20:25 | 0° \mathbb{I} 48'23 | 18°22'55 | | 5109 Apr 05 15:47 | 0° \mathbb{B} | |
| retrograde | 5108 May 09 05:24 | 4° \mathbb{I} 28'05 | | asc. node | 5109 Apr 07 03:11 | 2° \mathbb{B} 29'37 | |
| evening set | 5108 May 11 13:30 | 4° \mathbb{I} 07'00 | | evening max el | 5109 Apr 15 07:13 | 13° \mathbb{B} 46'25 | 18°07'23 |
| | 5108 May 18 08:06 | 30° \mathbb{R} \mathbb{B} | | retrograde | 5109 Apr 21 23:13 | 17° \mathbb{B} 10'20 | |
| inferior conj | 5108 May 18 21:54 | 29° \mathbb{B} 31'44 | 2°05'19 | evening set | 5109 Apr 24 14:10 | 16° \mathbb{B} 39'00 | |
| minimum elong | 5108 May 19 01:22 | 29° \mathbb{B} 24'35 | 2°04'18 | inferior conj | 5109 May 01 05:51 | 11° \mathbb{B} 42'58 | 2°58'55 |
| min. Earth dist. | 5108 May 22 08:25 | 26° \mathbb{B} 43'19 | 0.58640 AU | minimum elong | 5109 May 01 08:46 | 11° \mathbb{B} 35'59 | 2°58'21 |
| morning rise | 5108 May 26 10:09 | 24° \mathbb{B} 00'11 | | min. Earth dist. | 5109 May 04 11:21 | 8° \mathbb{B} 39'26 | 0.60841 AU |
| desc. node | 5108 May 26 15:09 | 23° \mathbb{B} 53'39 | | morning rise | 5109 May 08 01:14 | 5° \mathbb{B} 49'26 | |
| direct | 5108 Jun 01 12:53 | 22° \mathbb{B} 21'20 | | desc. node | 5109 May 13 12:10 | 3° \mathbb{B} 41'45 | |
| | 5108 Jun 15 19:39 | 0° \mathbb{I} | | direct | 5109 May 14 17:25 | 3° \mathbb{B} 37'27 | |
| morning max el | 5108 Jun 15 22:15 | 0° \mathbb{I} 06'22 | 27°07'58 | morning max el | 5109 May 28 23:46 | 11° \mathbb{B} 33'42 | 27°47'27 |
| | 5108 Jul 07 03:23 | 0° \mathbb{G} | | | 5109 Jun 12 11:07 | 0° \mathbb{I} | |
| morning set | 5108 Jul 16 08:57 | 18° \mathbb{G} 02'06 | | | 5109 Jun 29 08:52 | 0° \mathbb{G} | |
| asc. node | 5108 Jul 17 05:23 | 19° \mathbb{G} 50'00 | | morning set | 5109 Jun 30 14:11 | 2° \mathbb{G} 30'08 | |
| | 5108 Jul 21 21:50 | 0° Ω | | asc. node | 5109 Jul 04 02:27 | 9° \mathbb{G} 54'20 | |
| | | | | max. Earth dist. | 5109 Jul 06 15:27 | 15° \mathbb{G} 25'15 | 1.32055 AU |
| superior conj | 5108 Jul 23 10:08 | 3° Ω 20'26 | 1°00'45 | | | | |
| minimum elong | 5108 Jul 23 07:57 | 3° Ω 08'18 | 1°00'21 | superior conj | 5109 Jul 07 21:10 | 18° \mathbb{G} 08'11 | 0°38'35 |
| max. Earth dist. | 5108 Jul 23 04:57 | 2° Ω 51'44 | 1.31932 AU | minimum elong | 5109 Jul 07 19:32 | 17° \mathbb{G} 59'12 | 0°38'14 |
| evening rise | 5108 Jul 30 05:53 | 18° Ω 12'53 | | | 5109 Jul 13 07:04 | 0° Ω | |
| | 5108 Aug 05 01:23 | 0° \mathbb{M} | | evening rise | 5109 Jul 14 16:40 | 3° Ω 00'29 | |
| desc. node | 5108 Aug 22 14:24 | 27° \mathbb{M} 51'51 | | | 5109 Jul 29 03:10 | 0° \mathbb{M} | |
| | 5108 Aug 24 09:23 | 0° Ω | | | | | |

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| desc. node | 5109 Aug 09 11:26 | 14° \mathbb{M} 38'44 | | behind sun end | 5110 Jun 22 08:00 | 2° \mathfrak{G} 57'04 | |
| evening max el | 5109 Aug 10 07:51 | 15° \mathbb{M} 28'43 | 25°11'46 | evening rise | 5110 Jun 29 04:29 | 17° \mathfrak{G} 47'17 | |
| retrograde | 5109 Aug 24 06:15 | 22° \mathbb{M} 31'47 | | | 5110 Jul 05 04:28 | 0° \mathcal{Q} | |
| evening set | 5109 Aug 29 22:31 | 21° \mathbb{M} 18'00 | | evening max el | 5110 Jul 22 20:24 | 25° \mathcal{Q} 55'55 | 23°37'19 |
| min. Earth dist. | 5109 Sep 03 19:27 | 18° \mathbb{M} 36'17 | 0.57563 AU | desc. node | 5110 Jul 27 08:29 | 29° \mathcal{Q} 38'27 | |
| inferior conj | 5109 Sep 06 19:35 | 16° \mathbb{M} 34'27 | -5°15'39 | | 5110 Jul 27 21:39 | 0° \mathbb{M} | |
| minimum elong | 5109 Sep 06 21:22 | 16° \mathbb{M} 31'26 | 5°15'35 | retrograde | 5110 Aug 05 11:20 | 2° \mathbb{M} 46'10 | |
| morning rise | 5109 Sep 14 22:29 | 12° \mathbb{M} 21'43 | | evening set | 5110 Aug 09 16:35 | 2° \mathbb{M} 07'05 | |
| direct | 5109 Sep 17 11:17 | 12° \mathbb{M} 02'44 | | | 5110 Aug 14 13:03 | 30° \mathcal{R} \mathcal{Q} | |
| morning max el | 5109 Sep 26 07:57 | 16° \mathbb{M} 14'17 | 19°02'54 | min. Earth dist. | 5110 Aug 16 06:16 | 29° \mathcal{Q} 01'22 | 0.55907 AU |
| asc. node | 5109 Sep 30 01:41 | 20° \mathbb{M} 28'34 | | inferior conj | 5110 Aug 18 09:11 | 27° \mathcal{Q} 45'19 | -5°05'49 |
| | 5109 Oct 06 04:31 | 0° \mathfrak{L} | | minimum elong | 5110 Aug 18 04:34 | 27° \mathcal{Q} 52'13 | 5°05'20 |
| morning set | 5109 Oct 13 01:40 | 13° \mathfrak{L} 02'59 | | morning rise | 5110 Aug 26 19:02 | 23° \mathcal{Q} 50'52 | |
| | | | | direct | 5110 Aug 29 15:05 | 23° \mathcal{Q} 30'54 | |
| superior conj | 5109 Oct 21 09:11 | 29° \mathfrak{L} 23'49 | 1°32'31 | morning max el | 5110 Sep 08 23:03 | 28° \mathcal{Q} 19'05 | 20°09'43 |
| minimum elong | 5109 Oct 21 11:50 | 29° \mathfrak{L} 36'33 | 1°32'19 | | 5110 Sep 10 15:12 | 0° \mathbb{M} | |
| | 5109 Oct 21 16:43 | 0° \mathbb{M} | | asc. node | 5110 Sep 16 22:44 | 8° \mathbb{M} 26'22 | |
| max. Earth dist. | 5109 Oct 28 04:22 | 12° \mathbb{M} 03'25 | 1.38764 AU | morning set | 5110 Sep 27 06:42 | 27° \mathbb{M} 38'19 | |
| evening rise | 5109 Oct 31 24:00 | 18° \mathbb{M} 47'06 | | | 5110 Sep 28 10:25 | 0° \mathfrak{L} | |
| desc. node | 5109 Nov 05 10:41 | 26° \mathbb{M} 16'55 | | | | | |
| | 5109 Nov 07 17:30 | 0° \mathcal{X} | | superior conj | 5110 Oct 04 22:46 | 13° \mathfrak{L} 18'32 | 1°41'46 |
| | 5109 Nov 28 13:34 | 0° \mathfrak{Z} | | minimum elong | 5110 Oct 04 23:50 | 13° \mathfrak{L} 23'56 | 1°41'44 |
| evening max el | 5109 Dec 06 10:42 | 8° \mathfrak{Z} 55'33 | 24°37'43 | max. Earth dist. | 5110 Oct 10 10:20 | 24° \mathfrak{L} 03'28 | 1.36718 AU |
| retrograde | 5109 Dec 17 23:01 | 15° \mathfrak{Z} 38'21 | | | 5110 Oct 13 14:37 | 0° \mathbb{M} | |
| evening set | 5109 Dec 23 11:18 | 13° \mathfrak{Z} 20'29 | | evening rise | 5110 Oct 14 06:16 | 1° \mathbb{M} 11'29 | |
| asc. node | 5109 Dec 27 00:56 | 9° \mathfrak{Z} 27'56 | | desc. node | 5110 Oct 23 07:44 | 16° \mathbb{M} 47'52 | |
| min. Earth dist. | 5109 Dec 28 02:01 | 8° \mathfrak{Z} 06'18 | 0.67707 AU | | 5110 Oct 31 20:56 | 0° \mathcal{X} | |
| inferior conj | 5109 Dec 28 23:38 | 6° \mathfrak{Z} 54'24 | 0°39'17 | evening max el | 5110 Nov 18 23:12 | 22° \mathcal{X} 39'04 | 25°49'08 |
| minimum elong | 5109 Dec 28 22:42 | 6° \mathfrak{Z} 57'31 | 0°38'55 | retrograde | 5110 Dec 01 08:57 | 29° \mathcal{X} 44'05 | |
| morning rise | 5110 Jan 03 10:13 | 0° \mathfrak{Z} 53'53 | | evening set | 5110 Dec 07 10:47 | 27° \mathcal{X} 13'25 | |
| | 5110 Jan 05 00:37 | 30° \mathcal{R} \mathcal{X} | | min. Earth dist. | 5110 Dec 11 18:12 | 22° \mathcal{X} 34'06 | 0.66983 AU |
| direct | 5110 Jan 07 03:33 | 29° \mathcal{X} 34'25 | | inferior conj | 5110 Dec 13 02:58 | 20° \mathcal{X} 50'43 | -0°16'12 |
| | 5110 Jan 09 08:33 | 0° \mathfrak{Z} | | minimum elong | 5110 Dec 13 03:23 | 20° \mathcal{X} 49'22 | 0°16'01 |
| morning max el | 5110 Jan 14 16:43 | 3° \mathfrak{Z} 50'34 | 19°58'31 | transit middle | 5110 Dec 13 03:23 | 20° \mathcal{X} 49'22 | 0°16'01 |
| desc. node | 5110 Feb 01 09:56 | 27° \mathfrak{Z} 47'34 | | transit begin | 5110 Dec 13 03:02 | 20° \mathcal{X} 50'30 | |
| | 5110 Feb 02 21:05 | 0° \approx | | transit end | 5110 Dec 13 03:45 | 20° \mathcal{X} 48'15 | |
| morning set | 5110 Feb 10 09:31 | 11° \approx 29'02 | | asc. node | 5110 Dec 13 21:58 | 19° \mathcal{X} 51'09 | |
| max. Earth dist. | 5110 Feb 21 09:20 | 28° \approx 42'32 | 1.44068 AU | morning rise | 5110 Dec 18 20:26 | 14° \mathcal{X} 58'46 | |
| | 5110 Feb 22 04:43 | 0° \mathcal{H} | | direct | 5110 Dec 22 02:17 | 13° \mathcal{X} 58'25 | |
| | | | | morning max el | 5110 Dec 28 23:50 | 17° \mathcal{X} 47'14 | 19°01'20 |
| superior conj | 5110 Feb 26 17:15 | 7° \mathcal{H} 18'13 | -2°06'02 | | 5111 Jan 07 10:24 | 0° \mathfrak{Z} | |
| minimum elong | 5110 Feb 26 13:43 | 7° \mathcal{H} 03'46 | 2°05'54 | desc. node | 5111 Jan 19 06:58 | 18° \mathfrak{Z} 10'22 | |
| evening rise | 5110 Mar 11 21:00 | 29° \mathcal{H} 21'37 | | morning set | 5111 Jan 20 14:39 | 20° \mathfrak{Z} 13'48 | |
| | 5110 Mar 12 05:57 | 0° \mathcal{Y} | | | 5111 Jan 26 20:58 | 0° \approx | |
| asc. node | 5110 Mar 25 00:14 | 21° \mathcal{Y} 01'41 | | max. Earth dist. | 5111 Feb 04 01:16 | 12° \approx 48'25 | 1.45054 AU |
| evening max el | 5110 Mar 29 20:04 | 27° \mathcal{Y} 01'51 | 18°11'03 | | | | |
| | 5110 Apr 03 01:20 | 0° \mathfrak{B} | | superior conj | 5111 Feb 06 05:54 | 16° \approx 15'43 | -1°45'18 |
| retrograde | 5110 Apr 05 06:01 | 0° \mathfrak{B} 25'07 | | minimum elong | 5111 Feb 05 21:01 | 15° \approx 40'43 | 1°44'33 |
| | 5110 Apr 07 10:43 | 30° \mathcal{R} \mathcal{Y} | | | 5111 Feb 14 20:49 | 0° \mathcal{H} | |
| evening set | 5110 Apr 08 03:10 | 29° \mathcal{Y} 42'09 | | evening rise | 5111 Feb 21 03:48 | 10° \mathcal{H} 12'20 | |
| inferior conj | 5110 Apr 14 06:10 | 24° \mathcal{Y} 26'25 | 3°26'10 | | 5111 Mar 05 10:26 | 0° \mathcal{Y} | |
| minimum elong | 5110 Apr 14 07:33 | 24° \mathcal{Y} 22'41 | 3°26'02 | asc. node | 5111 Mar 11 21:16 | 8° \mathcal{Y} 53'00 | |
| min. Earth dist. | 5110 Apr 16 23:06 | 21° \mathcal{Y} 31'41 | 0.62964 AU | evening max el | 5111 Mar 13 08:07 | 10° \mathcal{Y} 27'47 | 18°33'13 |
| morning rise | 5110 Apr 20 10:43 | 18° \mathcal{Y} 20'08 | | retrograde | 5111 Mar 19 21:14 | 14° \mathcal{Y} 03'23 | |
| direct | 5110 Apr 27 07:16 | 15° \mathcal{Y} 43'20 | | evening set | 5111 Mar 23 00:38 | 13° \mathcal{Y} 07'56 | |
| desc. node | 5110 Apr 30 09:12 | 16° \mathcal{Y} 11'45 | | inferior conj | 5111 Mar 28 18:47 | 7° \mathcal{Y} 34'19 | 3°33'03 |
| morning max el | 5110 May 11 06:45 | 23° \mathcal{Y} 43'09 | 27°49'05 | minimum elong | 5111 Mar 28 18:34 | 7° \mathcal{Y} 34'56 | 3°33'02 |
| | 5110 May 16 21:45 | 0° \mathfrak{B} | | min. Earth dist. | 5111 Mar 30 20:25 | 5° \mathcal{Y} 06'20 | 0.64805 AU |
| | 5110 Jun 05 18:44 | 0° \mathbb{I} | | morning rise | 5111 Apr 03 11:52 | 1° \mathcal{Y} 21'46 | |
| morning set | 5110 Jun 14 13:17 | 16° \mathbb{I} 37'00 | | | 5111 Apr 05 08:38 | 30° \mathcal{R} \mathcal{H} | |
| max. Earth dist. | 5110 Jun 19 21:21 | 27° \mathbb{I} 41'39 | 1.32611 AU | direct | 5111 Apr 10 05:00 | 28° \mathcal{H} 32'50 | |
| asc. node | 5110 Jun 20 23:29 | 0° \mathfrak{G} 01'34 | | | 5111 Apr 15 12:08 | 0° \mathcal{Y} | |
| | 5110 Jun 20 23:11 | 0° \mathfrak{G} | | desc. node | 5111 Apr 17 06:12 | 1° \mathcal{Y} 01'28 | |
| | | | | morning max el | 5111 Apr 23 16:37 | 6° \mathcal{Y} 26'41 | 27°15'33 |
| superior conj | 5110 Jun 22 05:30 | 2° \mathfrak{G} 43'30 | 0°13'00 | | 5111 May 11 18:06 | 0° \mathfrak{B} | |
| minimum elong | 5110 Jun 22 04:53 | 2° \mathfrak{G} 40'08 | 0°12'51 | morning set | 5111 May 29 03:32 | 0° \mathbb{I} 14'53 | |
| behind sun begin | 5110 Jun 22 01:45 | 2° \mathfrak{G} 23'13 | | | 5111 May 29 00:28 | 0° \mathbb{I} | |

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|---------------------|-------------------|---------------------------------|------------|---------------------|-------------------|-----------------------------|------------|
| max. Earth dist. | 5111 Jun 02 18:44 | 9° Π 30'27 | 1.33620 AU | | 5112 May 03 19:52 | 0° \mathcal{B} | |
| | | | | morning set | 5112 May 11 05:12 | 13° \mathcal{B} 12'21 | |
| superior conj | 5111 Jun 06 09:12 | 17° Π 00'47 | -0°15'13 | max. Earth dist. | 5112 May 15 04:37 | 20° \mathcal{B} 47'19 | 1.35094 AU |
| minimum elong | 5111 Jun 06 10:00 | 17° Π 04'59 | 0°15'03 | | 5112 May 19 19:30 | 0° Π | |
| behind sun begin | 5111 Jun 06 08:06 | 16° Π 54'59 | | | | | |
| behind sun end | 5111 Jun 06 11:53 | 17° Π 14'58 | | superior conj | 5112 May 20 05:52 | 0° Π 52'46 | -0°44'54 |
| asc. node | 5111 Jun 07 20:32 | 20° Π 08'02 | | minimum elong | 5112 May 20 08:20 | 1° Π 05'22 | 0°44'25 |
| | 5111 Jun 12 11:34 | 0° \mathcal{E} | | asc. node | 5112 May 24 17:33 | 10° Π 09'09 | |
| evening rise | 5111 Jun 13 15:30 | 2° \mathcal{E} 27'31 | | evening rise | 5112 May 27 23:39 | 16° Π 54'26 | |
| | 5111 Jun 29 01:31 | 0° \mathcal{O} | | | 5112 Jun 03 15:03 | 0° \mathcal{E} | |
| evening max el | 5111 Jul 04 11:35 | 6° \mathcal{O} 19'01 | 22°00'39 | evening max el | 5112 Jun 15 12:56 | 17° \mathcal{E} 09'39 | 20°35'12 |
| desc. node | 5111 Jul 14 05:29 | 12° \mathcal{O} 17'01 | | retrograde | 5112 Jun 26 17:39 | 22° \mathcal{E} 38'46 | |
| retrograde | 5111 Jul 17 05:05 | 12° \mathcal{O} 37'49 | | evening set | 5112 Jun 28 18:15 | 22° \mathcal{E} 28'45 | |
| evening set | 5111 Jul 20 00:05 | 12° \mathcal{O} 20'25 | | desc. node | 5112 Jun 30 02:28 | 22° \mathcal{E} 11'37 | |
| min. Earth dist. | 5111 Jul 28 16:19 | 8° \mathcal{O} 36'50 | 0.54937 AU | inferior conj | 5112 Jul 08 00:16 | 18° \mathcal{E} 31'40 | -2°19'55 |
| inferior conj | 5111 Jul 29 06:51 | 8° \mathcal{O} 16'25 | -4°04'56 | minimum elong | 5112 Jul 07 17:47 | 18° \mathcal{E} 40'59 | 2°17'38 |
| minimum elong | 5111 Jul 28 22:06 | 8° \mathcal{O} 28'43 | 4°02'42 | min. Earth dist. | 5112 Jul 09 03:48 | 17° \mathcal{E} 52'02 | 0.54887 AU |
| morning rise | 5111 Aug 06 21:43 | 4° \mathcal{O} 26'02 | | morning rise | 5112 Jul 16 16:36 | 14° \mathcal{E} 25'16 | |
| direct | 5111 Aug 10 03:24 | 4° \mathcal{O} 02'50 | | direct | 5112 Jul 20 12:56 | 13° \mathcal{E} 53'22 | |
| morning max el | 5111 Aug 22 02:08 | 9° \mathcal{O} 38'16 | 21°36'51 | morning max el | 5112 Aug 02 19:34 | 20° \mathcal{E} 18'11 | 23°17'59 |
| asc. node | 5111 Sep 03 19:45 | 27° \mathcal{O} 05'55 | | | 5112 Aug 11 00:21 | 0° \mathcal{O} | |
| | 5111 Sep 05 09:59 | 0° \mathcal{M} | | asc. node | 5112 Aug 20 16:47 | 16° \mathcal{O} 17'07 | |
| morning set | 5111 Sep 11 15:46 | 12° \mathcal{M} 24'43 | | morning set | 5112 Aug 26 03:00 | 27° \mathcal{O} 17'01 | |
| | | | | | 5112 Aug 27 09:42 | 0° \mathcal{M} | |
| superior conj | 5111 Sep 18 21:54 | 27° \mathcal{M} 41'07 | 1°43'14 | | | | |
| minimum elong | 5111 Sep 18 21:31 | 27° \mathcal{M} 39'08 | 1°43'14 | superior conj | 5112 Sep 02 03:29 | 12° \mathcal{M} 22'08 | 1°38'07 |
| | 5111 Sep 20 00:37 | 0° \mathcal{L} | | minimum elong | 5112 Sep 02 02:00 | 12° \mathcal{M} 14'13 | 1°38'02 |
| max. Earth dist. | 5111 Sep 22 22:08 | 5° \mathcal{L} 55'04 | 1.34942 AU | max. Earth dist. | 5112 Sep 04 18:49 | 17° \mathcal{M} 59'21 | 1.33557 AU |
| evening rise | 5111 Sep 27 05:54 | 14° \mathcal{L} 24'16 | | evening rise | 5112 Sep 09 18:45 | 28° \mathcal{M} 14'40 | |
| | 5111 Oct 05 21:40 | 0° \mathcal{M} | | | 5112 Sep 10 16:03 | 0° \mathcal{L} | |
| desc. node | 5111 Oct 10 04:46 | 7° \mathcal{M} 03'41 | | desc. node | 5112 Sep 26 01:47 | 26° \mathcal{L} 57'33 | |
| | 5111 Oct 26 15:07 | 0° \mathcal{X} | | | 5112 Sep 28 02:05 | 0° \mathcal{M} | |
| evening max el | 5111 Nov 01 11:50 | 6° \mathcal{X} 18'27 | 26°45'42 | evening max el | 5112 Oct 14 00:12 | 19° \mathcal{M} 44'42 | 27°20'03 |
| retrograde | 5111 Nov 14 13:37 | 13° \mathcal{X} 34'54 | | retrograde | 5112 Oct 27 12:20 | 27° \mathcal{M} 03'05 | |
| evening set | 5111 Nov 21 03:53 | 10° \mathcal{X} 56'11 | | evening set | 5112 Nov 03 12:11 | 24° \mathcal{M} 23'51 | |
| min. Earth dist. | 5111 Nov 25 04:40 | 6° \mathcal{X} 52'10 | 0.65906 AU | min. Earth dist. | 5112 Nov 07 07:14 | 20° \mathcal{M} 54'05 | 0.64487 AU |
| inferior conj | 5111 Nov 27 01:00 | 4° \mathcal{X} 41'57 | -1°16'22 | inferior conj | 5112 Nov 09 15:28 | 18° \mathcal{M} 23'21 | -2°19'23 |
| minimum elong | 5111 Nov 27 03:09 | 4° \mathcal{X} 35'38 | 1°15'27 | minimum elong | 5112 Nov 09 19:31 | 18° \mathcal{M} 12'29 | 2°17'48 |
| asc. node | 5111 Nov 30 18:59 | 0° \mathcal{X} 41'23 | | morning rise | 5112 Nov 16 04:07 | 12° \mathcal{M} 56'27 | |
| | 5111 Dec 01 14:55 | 30° \mathcal{R} \mathcal{M} | | asc. node | 5112 Nov 16 16:00 | 12° \mathcal{M} 44'47 | |
| morning rise | 5111 Dec 03 03:16 | 29° \mathcal{M} 01'01 | | direct | 5112 Nov 18 17:27 | 12° \mathcal{M} 22'49 | |
| direct | 5111 Dec 05 23:40 | 28° \mathcal{M} 16'01 | | morning max el | 5112 Nov 25 05:08 | 15° \mathcal{M} 48'19 | 17°56'09 |
| | 5111 Dec 10 11:05 | 0° \mathcal{X} | | | 5112 Dec 05 08:31 | 0° \mathcal{X} | |
| morning max el | 5111 Dec 12 12:51 | 1° \mathcal{X} 48'35 | 18°20'17 | morning set | 5112 Dec 12 11:25 | 11° \mathcal{X} 54'52 | |
| morning set | 5111 Dec 31 22:28 | 0° \mathcal{Z} 21'06 | | desc. node | 5112 Dec 23 01:02 | 29° \mathcal{X} 27'23 | |
| | 5111 Dec 31 17:14 | 0° \mathcal{Z} | | | 5112 Dec 23 09:03 | 0° \mathcal{Z} | |
| desc. node | 5112 Jan 06 03:59 | 8° \mathcal{Z} 44'54 | | | | | |
| | | | | superior conj | 5112 Dec 25 22:31 | 4° \mathcal{Z} 08'22 | -0°20'06 |
| superior conj | 5112 Jan 16 08:51 | 24° \mathcal{Z} 53'52 | -1°06'49 | minimum elong | 5112 Dec 25 20:08 | 3° \mathcal{Z} 58'46 | 0°19'44 |
| minimum elong | 5112 Jan 16 00:50 | 24° \mathcal{Z} 22'24 | 1°05'50 | max. Earth dist. | 5112 Dec 30 15:03 | 11° \mathcal{Z} 36'54 | 1.44853 AU |
| max. Earth dist. | 5112 Jan 17 20:02 | 27° \mathcal{Z} 11'55 | 1.45321 AU | evening rise | 5113 Jan 11 01:57 | 29° \mathcal{Z} 27'04 | |
| | 5112 Jan 19 14:57 | 0° \approx | | | 5113 Jan 11 10:31 | 0° \approx | |
| evening rise | 5112 Feb 01 11:30 | 20° \approx 07'54 | | greatest brilliancy | 5113 Jan 25 18:16 | 21° \approx 38'26 | -0.6m |
| | 5112 Feb 07 18:29 | 0° \mathcal{H} | | | 5113 Jan 31 15:57 | 0° \mathcal{H} | |
| greatest brilliancy | 5112 Feb 12 07:09 | 7° \mathcal{H} 01'59 | -0.8m | evening max el | 5113 Feb 06 21:22 | 7° \mathcal{H} 32'30 | 20°08'03 |
| evening max el | 5112 Feb 24 17:05 | 23° \mathcal{H} 58'49 | 19°12'50 | asc. node | 5113 Feb 12 15:17 | 11° \mathcal{H} 42'18 | |
| asc. node | 5112 Feb 26 18:17 | 25° \mathcal{H} 51'10 | | retrograde | 5113 Feb 14 15:13 | 12° \mathcal{H} 03'36 | |
| retrograde | 5112 Mar 02 17:14 | 27° \mathcal{H} 57'44 | | evening set | 5113 Feb 18 09:56 | 10° \mathcal{H} 40'31 | |
| evening set | 5112 Mar 06 03:39 | 26° \mathcal{H} 48'56 | | inferior conj | 5113 Feb 23 19:10 | 4° \mathcal{H} 37'07 | 3°03'48 |
| inferior conj | 5112 Mar 11 16:04 | 20° \mathcal{H} 59'22 | 3°24'27 | minimum elong | 5113 Feb 23 17:00 | 4° \mathcal{H} 44'26 | 3°03'22 |
| minimum elong | 5112 Mar 11 14:38 | 21° \mathcal{H} 03'57 | 3°24'17 | min. Earth dist. | 5113 Feb 24 15:18 | 3° \mathcal{H} 29'11 | 0.67296 AU |
| min. Earth dist. | 5112 Mar 13 02:23 | 19° \mathcal{H} 09'03 | 0.66262 AU | | 5113 Feb 27 09:47 | 30° \mathcal{R} \approx | |
| morning rise | 5112 Mar 17 01:17 | 14° \mathcal{H} 44'40 | | morning rise | 5113 Feb 28 23:51 | 28° \approx 22'41 | |
| direct | 5112 Mar 23 09:24 | 11° \mathcal{H} 56'44 | | direct | 5113 Mar 06 19:22 | 25° \approx 46'44 | |
| desc. node | 5112 Apr 03 03:13 | 17° \mathcal{H} 36'28 | | | 5113 Mar 15 12:39 | 0° \mathcal{H} | |
| morning max el | 5112 Apr 05 02:32 | 19° \mathcal{H} 30'44 | 26°13'52 | morning max el | 5113 Mar 18 11:16 | 2° \mathcal{H} 45'15 | 24°53'32 |
| | 5112 Apr 14 01:03 | 0° \mathcal{Y} | | desc. node | 5113 Mar 21 00:15 | 5° \mathcal{H} 27'54 | |

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|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| | 5113 Apr 08 04:58 | 0°♿ | | desc. node | 5114 Mar 07 21:17 | 24°♿14'01 | |
| morning set | 5113 Apr 23 13:25 | 25°♿15'46 | | | 5114 Mar 12 06:24 | 0°♿ | |
| | 5113 Apr 26 04:33 | 0°♿ | | | 5114 Apr 01 05:10 | 0°♿ | |
| max. Earth dist. | 5113 Apr 27 04:13 | 1°♿48'31 | 1.36994 AU | morning set | 5114 Apr 04 22:19 | 6°♿10'04 | |
| | | | | max. Earth dist. | 5114 Apr 08 23:50 | 13°♿08'35 | 1.39155 AU |
| superior conj | 5113 May 03 16:30 | 14°♿11'32 | -1°14'20 | | | | |
| minimum elong | 5113 May 03 20:35 | 14°♿31'33 | 1°13'42 | superior conj | 5114 Apr 16 13:18 | 26°♿47'44 | -1°40'55 |
| asc. node | 5113 May 11 14:35 | 0°♿00'48 | | minimum elong | 5114 Apr 16 18:18 | 27°♿11'04 | 1°40'22 |
| | 5113 May 11 14:25 | 0°♿ | | | 5114 Apr 18 06:18 | 0°♿ | |
| evening rise | 5113 May 12 02:42 | 1°♿01'37 | | evening rise | 5114 Apr 25 21:53 | 14°♿41'57 | |
| evening max el | 5113 May 29 02:51 | 28°♿41'34 | 19°27'51 | asc. node | 5114 Apr 28 11:37 | 19°♿38'38 | |
| | 5113 May 30 13:31 | 0°♿ | | | 5114 May 04 04:27 | 0°♿ | |
| retrograde | 5113 Jun 07 13:46 | 3°♿18'39 | | evening max el | 5114 May 12 03:32 | 10°♿53'50 | 18°40'46 |
| evening set | 5113 Jun 09 12:27 | 3°♿07'47 | | retrograde | 5114 May 20 03:33 | 14°♿50'13 | |
| desc. node | 5113 Jun 16 23:29 | 29°♿47'04 | | evening set | 5114 May 22 07:40 | 14°♿33'50 | |
| | 5113 Jun 16 15:11 | 30°♿ | | inferior conj | 5114 May 30 03:08 | 10°♿09'54 | 1°20'26 |
| inferior conj | 5113 Jun 18 03:50 | 29°♿01'56 | -0°21'06 | minimum elong | 5114 May 30 05:55 | 10°♿04'41 | 1°19'31 |
| minimum elong | 5113 Jun 18 02:54 | 29°♿03'26 | 0°20'46 | min. Earth dist. | 5114 Jun 02 10:31 | 7°♿41'47 | 0.57457 AU |
| min. Earth dist. | 5113 Jun 20 17:23 | 27°♿23'18 | 0.55792 AU | desc. node | 5114 Jun 03 20:31 | 6°♿43'22 | |
| morning rise | 5113 Jun 26 14:39 | 24°♿23'49 | | morning rise | 5114 Jun 07 00:53 | 4°♿55'57 | |
| direct | 5113 Jul 01 07:39 | 23°♿33'48 | | direct | 5114 Jun 12 16:11 | 3°♿37'16 | |
| | 5113 Jul 14 16:19 | 0°♿ | | morning max el | 5114 Jun 27 01:04 | 11°♿10'37 | 26°29'26 |
| morning max el | 5113 Jul 15 09:02 | 0°♿39'00 | 25°00'51 | | 5114 Jul 11 13:59 | 0°♿ | |
| | 5113 Aug 04 14:33 | 0°♿ | | asc. node | 5114 Jul 25 10:53 | 25°♿41'36 | |
| asc. node | 5113 Aug 07 13:50 | 5°♿51'11 | | morning set | 5114 Jul 26 01:19 | 26°♿57'29 | |
| morning set | 5113 Aug 10 14:43 | 12°♿09'30 | | | 5114 Jul 27 11:35 | 0°♿ | |
| | | | | | | | |
| superior conj | 5113 Aug 17 13:01 | 27°♿13'13 | 1°27'23 | superior conj | 5114 Aug 02 00:35 | 12°♿08'03 | 1°11'45 |
| minimum elong | 5113 Aug 17 10:54 | 27°♿01'35 | 1°27'08 | minimum elong | 5114 Aug 01 22:16 | 11°♿55'19 | 1°11'23 |
| | 5113 Aug 18 19:34 | 0°♿ | | max. Earth dist. | 5114 Aug 02 09:38 | 12°♿58'01 | 1.32058 AU |
| max. Earth dist. | 5113 Aug 18 23:37 | 0°♿22'01 | 1.32596 AU | evening rise | 5114 Aug 08 22:13 | 27°♿06'28 | |
| evening rise | 5113 Aug 24 17:09 | 12°♿31'34 | | | 5114 Aug 10 07:35 | 0°♿ | |
| | 5113 Sep 02 19:59 | 0°♿ | | | 5114 Aug 27 06:45 | 0°♿ | |
| desc. node | 5113 Sep 12 22:47 | 16°♿19'40 | | desc. node | 5114 Aug 30 19:49 | 4°♿57'03 | |
| | 5113 Sep 23 17:12 | 0°♿ | | evening max el | 5114 Sep 08 15:24 | 15°♿03'10 | 26°58'23 |
| evening max el | 5113 Sep 26 10:20 | 2°♿44'06 | 27°25'42 | retrograde | 5114 Sep 22 12:34 | 22°♿13'53 | |
| retrograde | 5113 Oct 10 04:15 | 9°♿58'59 | | evening set | 5114 Sep 29 12:43 | 20°♿05'14 | |
| evening set | 5113 Oct 17 08:29 | 7°♿29'07 | | min. Earth dist. | 5114 Oct 03 05:37 | 17°♿25'54 | 0.60774 AU |
| min. Earth dist. | 5113 Oct 20 23:52 | 4°♿29'29 | 0.62754 AU | inferior conj | 5114 Oct 06 09:51 | 14°♿45'16 | -4°19'49 |
| inferior conj | 5113 Oct 23 19:30 | 1°♿47'17 | -3°22'19 | minimum elong | 5114 Oct 06 16:07 | 14°♿32'00 | 4°18'18 |
| minimum elong | 5113 Oct 24 01:13 | 1°♿33'33 | 3°20'25 | morning rise | 5114 Oct 13 21:29 | 9°♿56'52 | |
| | 5113 Oct 25 17:23 | 30°♿ | | direct | 5114 Oct 16 05:12 | 9°♿35'39 | |
| morning rise | 5113 Oct 30 19:36 | 26°♿37'51 | | asc. node | 5114 Oct 21 10:07 | 11°♿27'34 | |
| direct | 5113 Nov 02 04:35 | 26°♿11'57 | | morning max el | 5114 Oct 23 11:25 | 13°♿11'52 | 18°02'00 |
| asc. node | 5113 Nov 03 13:03 | 26°♿20'35 | | | 5114 Nov 03 19:37 | 0°♿ | |
| morning max el | 5113 Nov 08 21:43 | 29°♿38'39 | 17°49'41 | morning set | 5114 Nov 08 05:15 | 8°♿04'59 | |
| | 5113 Nov 09 06:10 | 0°♿ | | | | | |
| morning set | 5113 Nov 24 23:48 | 24°♿35'51 | | superior conj | 5114 Nov 18 04:22 | 26°♿16'09 | 0°58'49 |
| | 5113 Nov 28 01:15 | 0°♿ | | minimum elong | 5114 Nov 18 08:18 | 26°♿33'32 | 0°58'19 |
| | | | | | 5114 Nov 20 07:22 | 0°♿ | |
| superior conj | 5113 Dec 06 12:22 | 14°♿34'11 | 0°23'54 | max. Earth dist. | 5114 Nov 25 19:42 | 9°♿23'35 | 1.42004 AU |
| minimum elong | 5113 Dec 06 14:38 | 14°♿43'45 | 0°23'34 | desc. node | 5114 Nov 26 19:04 | 11°♿00'35 | |
| desc. node | 5113 Dec 09 22:03 | 20°♿13'41 | | evening rise | 5114 Dec 01 10:56 | 18°♿35'09 | |
| max. Earth dist. | 5113 Dec 13 07:46 | 25°♿46'32 | 1.43701 AU | | 5114 Dec 08 18:41 | 0°♿ | |
| | 5113 Dec 15 23:04 | 0°♿ | | | 5114 Dec 30 07:39 | 0°♿ | |
| evening rise | 5113 Dec 21 12:35 | 8°♿43'43 | | evening max el | 5115 Jan 03 13:51 | 4°♿43'27 | 22°32'52 |
| | 5114 Jan 04 16:26 | 0°♿ | | retrograde | 5115 Jan 13 09:18 | 10°♿33'22 | |
| evening max el | 5114 Jan 20 20:12 | 21°♿07'22 | 21°16'07 | asc. node | 5115 Jan 17 09:22 | 9°♿09'43 | |
| retrograde | 5114 Jan 29 13:08 | 26°♿16'51 | | evening set | 5115 Jan 18 01:08 | 8°♿39'22 | |
| asc. node | 5114 Jan 30 12:19 | 26°♿11'50 | | inferior conj | 5115 Jan 23 09:46 | 2°♿16'57 | 1°54'39 |
| evening set | 5114 Feb 02 17:40 | 24°♿38'34 | | minimum elong | 5115 Jan 23 07:34 | 2°♿24'35 | 1°53'54 |
| inferior conj | 5114 Feb 08 01:45 | 18°♿24'01 | 2°33'22 | min. Earth dist. | 5115 Jan 23 05:21 | 2°♿32'13 | 0.68112 AU |
| minimum elong | 5114 Feb 07 23:20 | 18°♿32'23 | 2°32'42 | | 5115 Jan 25 01:56 | 30°♿ | |
| min. Earth dist. | 5114 Feb 08 09:02 | 17°♿58'49 | 0.67903 AU | morning rise | 5115 Jan 28 13:53 | 26°♿07'38 | |
| morning rise | 5114 Feb 13 04:50 | 12°♿11'26 | | direct | 5115 Feb 02 04:19 | 24°♿13'24 | |
| direct | 5114 Feb 18 09:56 | 9°♿54'42 | | morning max el | 5115 Feb 11 08:28 | 29°♿35'39 | 21°57'20 |
| morning max el | 5114 Feb 28 20:12 | 16°♿06'35 | 23°24'55 | | 5115 Feb 11 18:03 | 0°♿ | |

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|------------------|-------------------|----------------------------|------------|------------------|-------------------|---------------------------|------------|
| desc. node | 5115 Feb 22 18:19 | 13° \approx 39'02 | | desc. node | 5116 Feb 09 15:20 | 3° \approx 32'25 | |
| | 5115 Mar 06 00:42 | 0° H | | morning set | 5116 Feb 23 06:27 | 24° \approx 09'17 | |
| morning set | 5115 Mar 16 02:59 | 15° H 43'22 | | | 5116 Feb 27 00:01 | 0° H | |
| max. Earth dist. | 5115 Mar 21 22:18 | 25° H 13'51 | 1.41318 AU | max. Earth dist. | 5116 Mar 03 03:29 | 8° H 12'52 | 1.43201 AU |
| | 5115 Mar 24 18:07 | 0° Y | | | | | |
| superior conj | 5115 Mar 29 15:25 | 8° Y 28'47 | -2°00'51 | superior conj | 5116 Mar 09 18:05 | 19° H 04'56 | -2°08'58 |
| minimum elong | 5115 Mar 29 19:30 | 8° Y 46'50 | 2°00'37 | minimum elong | 5116 Mar 09 18:09 | 19° H 05'11 | 2°08'57 |
| evening rise | 5115 Apr 09 05:35 | 27° Y 45'36 | | | 5116 Mar 16 03:52 | 0° Y | |
| | 5115 Apr 10 10:37 | 0° B | | evening rise | 5116 Mar 21 21:35 | 10° Y 03'20 | |
| asc. node | 5115 Apr 15 08:40 | 8° B 56'27 | | asc. node | 5116 Apr 01 05:43 | 27° Y 47'47 | |
| evening max el | 5115 Apr 25 11:35 | 23° B 37'27 | 18°13'53 | | 5116 Apr 02 16:09 | 0° B | |
| retrograde | 5115 May 02 12:09 | 27° B 08'55 | | evening max el | 5116 Apr 07 23:38 | 6° B 44'01 | 18°06'38 |
| evening set | 5115 May 04 23:05 | 26° B 43'50 | | retrograde | 5116 Apr 14 11:59 | 10° B 06'04 | |
| inferior conj | 5115 May 11 23:53 | 21° B 59'30 | 2°31'38 | evening set | 5116 Apr 17 05:30 | 9° B 30'05 | |
| minimum elong | 5115 May 12 03:20 | 21° B 51'54 | 2°30'45 | inferior conj | 5116 Apr 23 15:20 | 4° B 25'45 | 3°13'18 |
| min. Earth dist. | 5115 May 15 09:27 | 19° B 01'34 | 0.59562 AU | minimum elong | 5116 Apr 23 17:39 | 4° B 19'53 | 3°12'56 |
| morning rise | 5115 May 19 04:50 | 16° B 17'00 | | min. Earth dist. | 5116 Apr 26 16:13 | 1° B 22'57 | 0.61766 AU |
| desc. node | 5115 May 21 17:33 | 15° B 05'07 | | | 5116 Apr 28 04:17 | 30° R Y | |
| direct | 5115 May 25 14:07 | 14° B 23'42 | | morning rise | 5116 Apr 30 04:02 | 28° Y 25'35 | |
| morning max el | 5115 Jun 08 23:06 | 22° B 14'52 | 27°29'22 | direct | 5116 May 06 23:07 | 26° Y 01'21 | |
| | 5115 Jun 15 19:02 | 0° II | | desc. node | 5116 May 07 14:35 | 26° Y 02'34 | |
| | 5115 Jul 04 14:09 | 0° E | | | 5116 May 16 14:07 | 0° B | |
| morning set | 5115 Jul 10 09:03 | 11° E 34'26 | | morning max el | 5116 May 21 03:15 | 4° B 01'01 | 27°52'38 |
| asc. node | 5115 Jul 12 07:56 | 15° E 42'03 | | | 5116 Jun 09 10:41 | 0° II | |
| max. Earth dist. | 5115 Jul 16 20:56 | 25° E 35'13 | 1.31934 AU | morning set | 5116 Jun 23 11:58 | 25° II 54'31 | |
| | | | | | 5116 Jun 25 11:25 | 0° E | |
| superior conj | 5115 Jul 17 12:17 | 26° E 59'50 | 0°51'48 | asc. node | 5116 Jun 28 04:59 | 5° E 48'11 | |
| minimum elong | 5115 Jul 17 10:16 | 26° E 48'43 | 0°51'24 | max. Earth dist. | 5116 Jun 29 05:47 | 8° E 02'04 | 1.32235 AU |
| | 5115 Jul 18 20:54 | 0° O | | | | | |
| evening rise | 5115 Jul 24 07:29 | 11° O 50'55 | | superior conj | 5116 Jun 30 22:23 | 11° E 43'09 | 0°28'07 |
| | 5115 Aug 02 12:05 | 0° np | | minimum elong | 5116 Jun 30 21:08 | 11° E 36'17 | 0°27'50 |
| desc. node | 5115 Aug 17 16:51 | 22° np 31'05 | | evening rise | 5116 Jul 07 18:55 | 26° E 38'44 | |
| evening max el | 5115 Aug 21 13:05 | 26° np 33'09 | 25°58'27 | | 5116 Jul 09 09:02 | 0° O | |
| | 5115 Aug 25 16:11 | 0° E | | | 5116 Jul 26 17:57 | 0° np | |
| retrograde | 5115 Sep 04 12:14 | 3° E 40'29 | | evening max el | 5116 Aug 02 03:53 | 7° np 18'28 | 24°32'54 |
| evening set | 5115 Sep 10 20:00 | 2° E 04'38 | | desc. node | 5116 Aug 03 13:52 | 8° np 36'31 | |
| | 5115 Sep 14 07:53 | 30° R np | | retrograde | 5116 Aug 16 00:52 | 14° np 18'10 | |
| min. Earth dist. | 5115 Sep 15 01:38 | 29° np 29'13 | 0.58696 AU | evening set | 5116 Aug 21 02:50 | 13° np 20'21 | |
| inferior conj | 5115 Sep 18 06:56 | 27° np 07'35 | -5°02'50 | min. Earth dist. | 5116 Aug 26 15:03 | 10° np 29'59 | 0.56791 AU |
| minimum elong | 5115 Sep 18 11:20 | 26° np 59'28 | 5°02'17 | inferior conj | 5116 Aug 29 08:05 | 8° np 45'58 | -5°17'12 |
| morning rise | 5115 Sep 26 04:56 | 22° np 42'17 | | minimum elong | 5116 Aug 29 07:18 | 8° np 47'14 | 5°17'12 |
| direct | 5115 Sep 28 14:43 | 22° np 23'14 | | morning rise | 5116 Sep 06 14:12 | 4° np 41'57 | |
| morning max el | 5115 Oct 06 18:54 | 26° np 18'50 | 18°34'33 | direct | 5116 Sep 09 05:32 | 4° np 22'53 | |
| asc. node | 5115 Oct 08 07:10 | 27° np 53'04 | | morning max el | 5116 Sep 18 16:44 | 8° np 49'06 | 19°28'39 |
| | 5115 Oct 10 01:10 | 0° E | | asc. node | 5116 Sep 24 04:13 | 15° np 21'35 | |
| morning set | 5115 Oct 22 22:43 | 22° E 07'59 | | | 5116 Oct 02 16:33 | 0° E | |
| | 5115 Oct 27 00:13 | 0° M | | morning set | 5116 Oct 06 00:22 | 6° E 33'58 | |
| | | | | | | | |
| superior conj | 5115 Oct 31 18:16 | 9° M 01'59 | 1°23'06 | superior conj | 5116 Oct 14 00:34 | 22° E 35'33 | 1°37'28 |
| minimum elong | 5115 Oct 31 21:42 | 9° M 17'58 | 1°22'46 | minimum elong | 5116 Oct 14 02:34 | 22° E 45'19 | 1°37'21 |
| max. Earth dist. | 5115 Nov 08 02:21 | 22° M 17'08 | 1.39973 AU | | 5116 Oct 17 20:47 | 0° M | |
| evening rise | 5115 Nov 12 06:35 | 29° M 25'19 | | max. Earth dist. | 5116 Oct 20 06:57 | 4° M 31'30 | 1.37868 AU |
| | 5115 Nov 12 14:52 | 0° X | | evening rise | 5116 Oct 24 01:02 | 11° M 17'47 | |
| desc. node | 5115 Nov 13 16:07 | 1° X 44'48 | | desc. node | 5116 Oct 30 13:08 | 22° M 22'00 | |
| | 5115 Dec 02 05:56 | 0° Z | | | 5116 Nov 04 07:47 | 0° X | |
| evening max el | 5115 Dec 17 03:58 | 18° Z 22'59 | 23°52'52 | | 5116 Nov 26 15:24 | 0° Z | |
| retrograde | 5115 Dec 28 02:19 | 24° Z 49'31 | | evening max el | 5116 Nov 28 16:42 | 2° Z 06'16 | 25°09'32 |
| evening set | 5116 Jan 02 06:47 | 22° Z 40'06 | | retrograde | 5116 Dec 10 15:03 | 9° Z 00'15 | |
| asc. node | 5116 Jan 04 06:25 | 20° Z 41'07 | | evening set | 5116 Dec 16 08:58 | 6° Z 36'47 | |
| min. Earth dist. | 5116 Jan 07 02:00 | 17° Z 06'12 | 0.67950 AU | min. Earth dist. | 5116 Dec 20 20:33 | 1° Z 37'02 | 0.67437 AU |
| inferior conj | 5116 Jan 07 17:23 | 16° Z 13'52 | 1°08'43 | asc. node | 5116 Dec 21 03:27 | 1° Z 14'37 | |
| minimum elong | 5116 Jan 07 15:51 | 16° Z 19'04 | 1°08'07 | inferior conj | 5116 Dec 21 22:48 | 0° Z 11'22 | 0°16'25 |
| morning rise | 5116 Jan 13 00:57 | 10° Z 09'25 | | minimum elong | 5116 Dec 21 22:23 | 0° Z 12'43 | 0°16'15 |
| direct | 5116 Jan 17 01:31 | 8° Z 37'50 | | | 5116 Dec 22 02:17 | 30° R X | |
| morning max el | 5116 Jan 25 03:15 | 13° Z 15'37 | 20°38'13 | morning rise | 5116 Dec 27 12:02 | 24° X 13'56 | |
| | 5116 Feb 07 04:47 | 0° \approx | | direct | 5116 Dec 31 00:14 | 23° X 02'59 | |
| | | | | morning max el | 5117 Jan 07 05:55 | 27° X 06'25 | 19°32'14 |

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|---------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| | 5117 Jan 09 21:04 | 0°♄ | | morning max el | 5117 Dec 21 15:43 | 11°♄05'26 | 18°41'46 |
| greatest brilliancy | 5117 Jan 20 07:46 | 14°♄24'42 | -0.7m | | 5118 Jan 04 08:06 | 0°♄ | |
| desc. node | 5117 Jan 26 12:21 | 23°♄46'01 | | morning set | 5118 Jan 11 18:36 | 11°♄41'33 | |
| | 5117 Jan 30 13:51 | 0°♄ | | desc. node | 5118 Jan 13 09:23 | 14°♄14'23 | |
| morning set | 5117 Feb 01 03:22 | 2°♄24'41 | | | 5118 Jan 23 10:08 | 0°♄ | |
| max. Earth dist. | 5117 Feb 13 15:54 | 21°♄58'08 | 1.44571 AU | max. Earth dist. | 5118 Jan 27 09:40 | 6°♄14'32 | 1.45268 AU |
| superior conj | 5117 Feb 17 19:10 | 28°♄33'29 | -1°59'43 | superior conj | 5118 Jan 28 01:16 | 7°♄15'45 | -1°30'43 |
| minimum elong | 5117 Feb 17 12:56 | 28°♄08'28 | 1°59'22 | minimum elong | 5118 Jan 27 15:51 | 6°♄38'48 | 1°29'45 |
| | 5117 Feb 18 16:43 | 0°♄ | | | 5118 Feb 11 10:03 | 0°♄ | |
| evening rise | 5117 Mar 03 17:21 | 21°♄26'12 | | evening rise | 5118 Feb 12 14:01 | 1°♄51'56 | |
| | 5117 Mar 08 19:41 | 0°♄ | | greatest brilliancy | 5118 Feb 20 04:31 | 14°♄02'58 | -0.9m |
| asc. node | 5117 Mar 19 02:44 | 16°♄03'45 | | | 5118 Mar 02 21:47 | 0°♄ | |
| evening max el | 5117 Mar 22 12:29 | 20°♄04'46 | 18°18'21 | asc. node | 5118 Mar 05 23:44 | 3°♄33'50 | |
| retrograde | 5117 Mar 28 22:40 | 23°♄31'29 | | evening max el | 5118 Mar 05 23:29 | 3°♄33'11 | 18°48'04 |
| evening set | 5117 Mar 31 22:28 | 22°♄43'18 | | retrograde | 5118 Mar 12 16:12 | 7°♄17'07 | |
| inferior conj | 5117 Apr 06 21:18 | 17°♄20'02 | 3°31'13 | evening set | 5118 Mar 15 22:35 | 6°♄15'53 | |
| minimum elong | 5117 Apr 06 21:59 | 17°♄18'06 | 3°31'10 | inferior conj | 5118 Mar 21 13:56 | 0°♄35'12 | 3°31'01 |
| min. Earth dist. | 5117 Apr 09 07:58 | 14°♄34'44 | 0.63793 AU | minimum elong | 5118 Mar 21 13:09 | 0°♄37'36 | 3°30'59 |
| morning rise | 5117 Apr 12 20:33 | 11°♄10'39 | | | 5118 Mar 22 01:17 | 30°♄ | |
| direct | 5117 Apr 19 16:42 | 8°♄26'46 | | min. Earth dist. | 5118 Mar 23 08:54 | 28°♄22'34 | 0.65479 AU |
| desc. node | 5117 Apr 24 11:35 | 9°♄35'36 | | morning rise | 5118 Mar 27 03:16 | 24°♄21'38 | |
| morning max el | 5117 May 03 11:33 | 16°♄25'22 | 27°38'44 | direct | 5118 Apr 02 17:11 | 21°♄31'47 | |
| | 5117 May 14 16:29 | 0°♄ | | desc. node | 5118 Apr 11 08:36 | 25°♄13'43 | |
| | 5117 Jun 02 04:41 | 0°♄ | | morning max el | 5118 Apr 15 21:31 | 29°♄18'07 | 26°52'17 |
| morning set | 5117 Jun 07 07:41 | 9°♄50'22 | | | 5118 Apr 16 13:52 | 0°♄ | |
| max. Earth dist. | 5117 Jun 12 08:19 | 20°♄07'08 | 1.32980 AU | | 5118 May 08 13:26 | 0°♄ | |
| superior conj | 5117 Jun 15 05:03 | 26°♄12'10 | 0°01'20 | morning set | 5118 May 21 17:02 | 23°♄11'57 | |
| minimum elong | 5117 Jun 15 04:59 | 26°♄11'48 | 0°01'18 | | 5118 May 25 04:39 | 0°♄ | |
| behind sun begin | 5117 Jun 14 23:39 | 25°♄43'11 | | max. Earth dist. | 5118 May 26 01:06 | 1°♄42'13 | 1.34190 AU |
| behind sun end | 5117 Jun 15 10:20 | 26°♄40'27 | | superior conj | 5118 May 30 06:03 | 10°♄19'24 | -0°27'41 |
| asc. node | 5117 Jun 15 02:01 | 25°♄55'53 | | minimum elong | 5118 May 30 07:32 | 10°♄27'07 | 0°27'24 |
| | 5117 Jun 16 23:24 | 0°♄ | | asc. node | 5118 Jun 01 23:02 | 16°♄00'25 | |
| evening rise | 5117 Jun 22 06:38 | 11°♄23'55 | | evening rise | 5118 Jun 06 16:40 | 25°♄59'18 | |
| | 5117 Jul 01 18:53 | 0°♄ | | | 5118 Jun 08 15:15 | 0°♄ | |
| evening max el | 5117 Jul 14 16:46 | 17°♄41'10 | 22°55'41 | evening max el | 5118 Jun 26 11:36 | 28°♄12'47 | 21°22'25 |
| desc. node | 5117 Jul 21 10:52 | 22°♄41'14 | | | 5118 Jun 28 11:06 | 0°♄ | |
| retrograde | 5117 Jul 28 00:34 | 24°♄19'57 | | desc. node | 5118 Jul 08 07:53 | 4°♄11'36 | |
| evening set | 5117 Jul 31 14:04 | 23°♄52'13 | | retrograde | 5118 Jul 08 14:31 | 4°♄11'47 | |
| min. Earth dist. | 5117 Aug 08 01:23 | 20°♄32'07 | 0.55395 AU | evening set | 5118 Jul 10 23:41 | 3°♄58'44 | |
| inferior conj | 5117 Aug 09 14:06 | 19°♄39'14 | -4°46'31 | inferior conj | 5118 Jul 20 08:10 | 29°♄59'32 | -3°24'22 |
| minimum elong | 5117 Aug 09 07:05 | 19°♄49'22 | 4°45'18 | minimum elong | 5118 Jul 19 23:36 | 0°♄11'31 | 3°21'47 |
| morning rise | 5117 Aug 18 02:15 | 15°♄48'23 | | | 5118 Jul 20 07:50 | 30°♄ | |
| direct | 5117 Aug 21 02:12 | 15°♄27'17 | | min. Earth dist. | 5118 Jul 20 11:30 | 29°♄54'52 | 0.54798 AU |
| morning max el | 5117 Sep 01 02:37 | 20°♄34'55 | 20°44'26 | morning rise | 5118 Jul 29 00:21 | 26°♄05'16 | |
| | 5117 Sep 08 18:18 | 0°♄ | | direct | 5118 Aug 01 11:42 | 25°♄39'13 | |
| asc. node | 5117 Sep 11 01:15 | 3°♄39'07 | | | 5118 Aug 12 04:58 | 0°♄ | |
| morning set | 5117 Sep 20 07:25 | 21°♄15'26 | | morning max el | 5118 Aug 14 00:58 | 1°♄35'17 | 22°18'43 |
| | 5117 Sep 24 12:29 | 0°♄ | | asc. node | 5118 Aug 28 22:16 | 22°♄33'18 | |
| superior conj | 5117 Sep 27 18:40 | 6°♄43'48 | 1°43'16 | | 5118 Sep 01 18:40 | 0°♄ | |
| minimum elong | 5117 Sep 27 19:06 | 6°♄45'58 | 1°43'15 | morning set | 5118 Sep 04 17:39 | 6°♄05'13 | |
| max. Earth dist. | 5117 Oct 02 15:07 | 16°♄26'33 | 1.35927 AU | superior conj | 5118 Sep 11 20:53 | 21°♄15'09 | 1°41'49 |
| evening rise | 5117 Oct 06 15:19 | 24°♄05'00 | | minimum elong | 5118 Sep 11 19:59 | 21°♄10'25 | 1°41'46 |
| | 5117 Oct 09 21:18 | 0°♄ | | max. Earth dist. | 5118 Sep 15 06:53 | 28°♄23'16 | 1.34309 AU |
| desc. node | 5117 Oct 17 10:10 | 12°♄47'41 | | | 5118 Sep 16 01:47 | 0°♄ | |
| | 5117 Oct 28 22:38 | 0°♄ | | evening rise | 5118 Sep 19 21:03 | 7°♄34'54 | |
| evening max el | 5117 Nov 11 05:29 | 15°♄50'03 | 26°15'27 | | 5118 Oct 02 11:16 | 0°♄ | |
| retrograde | 5117 Nov 23 22:38 | 23°♄00'27 | | desc. node | 5118 Oct 04 07:12 | 2°♄55'10 | |
| evening set | 5117 Nov 30 05:58 | 20°♄25'58 | | evening max el | 5118 Oct 24 18:13 | 29°♄25'17 | 27°03'19 |
| min. Earth dist. | 5117 Dec 04 10:38 | 16°♄01'28 | 0.66575 AU | | 5118 Oct 25 08:57 | 0°♄ | |
| inferior conj | 5117 Dec 06 00:08 | 14°♄06'23 | -0°41'13 | retrograde | 5118 Nov 07 00:39 | 6°♄42'43 | |
| minimum elong | 5117 Dec 06 01:15 | 14°♄02'57 | 0°40'43 | evening set | 5118 Nov 13 19:38 | 4°♄02'38 | |
| asc. node | 5117 Dec 08 00:27 | 11°♄42'44 | | min. Earth dist. | 5118 Nov 17 17:51 | 0°♄13'39 | 0.65353 AU |
| morning rise | 5117 Dec 11 21:07 | 8°♄18'32 | | | 5118 Nov 17 22:46 | 30°♄ | |
| direct | 5117 Dec 14 22:46 | 7°♄25'01 | | inferior conj | 5118 Nov 19 19:15 | 27°♄53'55 | -1°42'52 |

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|---------------------|-------------------|------------------------|------------|------------------|-------------------|------------------------|------------|
| minimum elong | 5118 Nov 19 22:12 | 27° \mathbb{M} 45'34 | 1°41'39 | morning rise | 5119 Nov 09 23:07 | 6° \mathbb{M} 08'43 | |
| asc. node | 5118 Nov 24 21:28 | 22° \mathbb{M} 59'45 | | asc. node | 5119 Nov 11 18:32 | 5° \mathbb{M} 41'00 | |
| morning rise | 5118 Nov 26 01:47 | 22° \mathbb{M} 18'41 | | direct | 5119 Nov 12 10:13 | 5° \mathbb{M} 38'52 | |
| direct | 5118 Nov 28 18:59 | 21° \mathbb{M} 38'53 | | morning max el | 5119 Nov 18 23:22 | 9° \mathbb{M} 03'44 | 17°51'13 |
| morning max el | 5118 Dec 05 06:30 | 25° \mathbb{M} 06'57 | 18°07'55 | | 5119 Dec 02 23:46 | 0° \mathbb{M} | |
| | 5118 Dec 09 08:43 | 0° \mathbb{M} | | morning set | 5119 Dec 05 14:58 | 4° \mathbb{M} 31'50 | |
| morning set | 5118 Dec 23 15:16 | 22° \mathbb{M} 27'31 | | | | | |
| | 5118 Dec 28 06:02 | 0° \mathbb{M} | | superior conj | 5119 Dec 18 05:28 | 25° \mathbb{M} 45'30 | -0°00'35 |
| desc. node | 5118 Dec 31 06:27 | 4° \mathbb{M} 52'56 | | minimum elong | 5119 Dec 18 05:24 | 25° \mathbb{M} 45'13 | 0°00'34 |
| | | | | behind sun begin | 5119 Dec 17 19:37 | 25° \mathbb{M} 05'11 | |
| superior conj | 5119 Jan 07 06:23 | 16° \mathbb{M} 02'49 | -0°47'17 | behind sun end | 5119 Dec 18 15:11 | 26° \mathbb{M} 25'10 | |
| minimum elong | 5119 Jan 07 00:32 | 15° \mathbb{M} 39'43 | 0°46'29 | desc. node | 5119 Dec 18 03:29 | 25° \mathbb{M} 37'20 | |
| max. Earth dist. | 5119 Jan 10 05:28 | 20° \mathbb{M} 42'54 | 1.45214 AU | | 5119 Dec 20 20:08 | 0° \mathbb{M} | |
| | 5119 Jan 16 03:55 | 0° \mathbb{M} | | max. Earth dist. | 5119 Dec 23 23:37 | 5° \mathbb{M} 02'32 | 1.44434 AU |
| evening rise | 5119 Jan 23 13:17 | 11° \mathbb{M} 29'21 | | evening rise | 5120 Jan 03 00:06 | 20° \mathbb{M} 42'05 | |
| | 5119 Feb 04 14:02 | 0° \mathbb{M} | | | 5120 Jan 09 02:28 | 0° \mathbb{M} | |
| greatest brilliancy | 5119 Feb 05 07:20 | 1° \mathbb{M} 05'05 | -0.7m | | 5120 Jan 30 17:30 | 0° \mathbb{M} | |
| evening max el | 5119 Feb 17 06:35 | 17° \mathbb{M} 05'31 | 19°34'30 | evening max el | 5120 Jan 31 08:27 | 0° \mathbb{M} 39'06 | 20°35'38 |
| asc. node | 5119 Feb 20 20:45 | 20° \mathbb{M} 05'30 | | asc. node | 5120 Feb 07 17:47 | 5° \mathbb{M} 23'34 | |
| retrograde | 5119 Feb 24 13:27 | 21° \mathbb{M} 17'16 | | retrograde | 5120 Feb 08 11:46 | 5° \mathbb{M} 26'35 | |
| evening set | 5119 Feb 28 03:16 | 20° \mathbb{M} 02'21 | | evening set | 5120 Feb 12 10:24 | 3° \mathbb{M} 57'12 | |
| inferior conj | 5119 Mar 05 14:01 | 14° \mathbb{M} 06'19 | 3°16'59 | | 5120 Feb 16 03:44 | 30° \mathbb{R} | |
| minimum elong | 5119 Mar 05 12:13 | 14° \mathbb{M} 12'15 | 3°16'44 | inferior conj | 5120 Feb 17 18:53 | 27° \mathbb{M} 48'29 | 2°51'59 |
| min. Earth dist. | 5119 Mar 06 18:02 | 12° \mathbb{M} 34'03 | 0.66752 AU | minimum elong | 5120 Feb 17 16:34 | 27° \mathbb{M} 56'28 | 2°51'26 |
| morning rise | 5119 Mar 10 20:55 | 7° \mathbb{M} 51'30 | | min. Earth dist. | 5120 Feb 18 09:23 | 26° \mathbb{M} 58'52 | 0.67600 AU |
| direct | 5119 Mar 16 23:52 | 5° \mathbb{M} 07'53 | | morning rise | 5120 Feb 22 22:32 | 21° \mathbb{M} 34'24 | |
| desc. node | 5119 Mar 29 05:38 | 12° \mathbb{M} 24'33 | | direct | 5120 Feb 28 11:54 | 19° \mathbb{M} 06'02 | |
| morning max el | 5119 Mar 29 07:11 | 12° \mathbb{M} 28'27 | 25°41'28 | morning max el | 5120 Mar 10 15:52 | 25° \mathbb{M} 46'30 | 24°16'14 |
| | 5119 Apr 12 09:35 | 0° \mathbb{M} | | | 5120 Mar 14 12:36 | 0° \mathbb{M} | |
| | 5119 May 01 06:23 | 0° \mathbb{M} | | desc. node | 5120 Mar 15 02:41 | 0° \mathbb{M} 41'26 | |
| morning set | 5119 May 04 11:57 | 5° \mathbb{M} 48'12 | | | 5120 Apr 04 22:37 | 0° \mathbb{M} | |
| max. Earth dist. | 5119 May 08 06:36 | 12° \mathbb{M} 51'07 | 1.35857 AU | morning set | 5120 Apr 15 11:00 | 17° \mathbb{M} 24'00 | |
| | | | | max. Earth dist. | 5120 Apr 19 03:20 | 23° \mathbb{M} 54'37 | 1.37892 AU |
| superior conj | 5119 May 13 22:51 | 23° \mathbb{M} 58'02 | -0°57'32 | | 5120 Apr 22 11:15 | 0° \mathbb{M} | |
| minimum elong | 5119 May 14 02:02 | 24° \mathbb{M} 14'03 | 0°56'58 | | | | |
| | 5119 May 16 22:16 | 0° \mathbb{M} | | superior conj | 5120 Apr 26 04:04 | 6° \mathbb{M} 59'14 | -1°26'10 |
| asc. node | 5119 May 19 20:04 | 5° \mathbb{M} 58'01 | | minimum elong | 5120 Apr 26 08:41 | 7° \mathbb{M} 21'24 | 1°25'32 |
| evening rise | 5119 May 21 22:59 | 10° \mathbb{M} 18'49 | | evening rise | 5120 May 04 23:03 | 24° \mathbb{M} 14'58 | |
| | 5119 Jun 01 12:41 | 0° \mathbb{M} | | asc. node | 5120 May 05 17:06 | 25° \mathbb{M} 43'58 | |
| evening max el | 5119 Jun 08 18:09 | 9° \mathbb{M} 19'28 | 20°04'07 | | 5120 May 07 21:34 | 0° \mathbb{M} | |
| retrograde | 5119 Jun 19 05:05 | 14° \mathbb{M} 26'26 | | evening max el | 5120 May 21 12:56 | 21° \mathbb{M} 08'36 | 19°05'20 |
| evening set | 5119 Jun 21 03:16 | 14° \mathbb{M} 16'47 | | retrograde | 5120 May 30 08:00 | 25° \mathbb{M} 26'39 | |
| desc. node | 5119 Jun 25 04:52 | 12° \mathbb{M} 59'48 | | evening set | 5120 Jun 01 08:21 | 25° \mathbb{M} 14'03 | |
| inferior conj | 5119 Jun 30 04:13 | 10° \mathbb{M} 17'12 | -1°29'06 | inferior conj | 5120 Jun 09 15:28 | 21° \mathbb{M} 01'27 | 0°25'16 |
| minimum elong | 5119 Jun 30 00:03 | 10° \mathbb{M} 23'27 | 1°27'34 | minimum elong | 5120 Jun 09 16:29 | 20° \mathbb{M} 15'41 | 0°24'54 |
| min. Earth dist. | 5119 Jul 01 23:37 | 9° \mathbb{M} 12'13 | 0.55159 AU | desc. node | 5120 Jun 11 01:53 | 20° \mathbb{M} 02'06 | |
| morning rise | 5119 Jul 08 19:14 | 5° \mathbb{M} 58'42 | | min. Earth dist. | 5120 Jun 12 14:50 | 18° \mathbb{M} 59'36 | 0.56420 AU |
| direct | 5119 Jul 12 23:27 | 5° \mathbb{M} 20'43 | | morning rise | 5120 Jun 17 21:23 | 16° \mathbb{M} 07'20 | |
| morning max el | 5119 Jul 26 16:03 | 12° \mathbb{M} 04'01 | 24°02'30 | direct | 5120 Jun 22 23:58 | 15° \mathbb{M} 06'08 | |
| | 5119 Aug 09 06:50 | 0° \mathbb{M} | | morning max el | 5120 Jul 07 06:01 | 22° \mathbb{M} 25'47 | 25°41'18 |
| asc. node | 5119 Aug 15 19:20 | 11° \mathbb{M} 54'55 | | | 5120 Jul 13 23:05 | 0° \mathbb{M} | |
| morning set | 5119 Aug 20 05:18 | 20° \mathbb{M} 58'08 | | | 5120 Jul 31 21:35 | 0° \mathbb{M} | |
| | 5119 Aug 24 09:58 | 0° \mathbb{M} | | asc. node | 5120 Aug 01 16:24 | 1° \mathbb{M} 36'21 | |
| | | | | morning set | 5120 Aug 03 16:45 | 5° \mathbb{M} 49'03 | |
| superior conj | 5119 Aug 27 04:26 | 6° \mathbb{M} 01'13 | 1°34'13 | | | | |
| minimum elong | 5119 Aug 27 02:37 | 5° \mathbb{M} 51'26 | 1°34'03 | superior conj | 5120 Aug 10 15:05 | 20° \mathbb{M} 54'41 | 1°21'19 |
| max. Earth dist. | 5119 Aug 29 07:14 | 10° \mathbb{M} 34'54 | 1.33095 AU | minimum elong | 5120 Aug 10 12:50 | 20° \mathbb{M} 42'16 | 1°21'01 |
| evening rise | 5119 Sep 03 14:20 | 21° \mathbb{M} 37'13 | | max. Earth dist. | 5120 Aug 11 14:25 | 23° \mathbb{M} 02'49 | 1.32307 AU |
| | 5119 Sep 07 21:02 | 0° \mathbb{M} | | | 5120 Aug 14 19:14 | 0° \mathbb{M} | |
| desc. node | 5119 Sep 21 04:12 | 22° \mathbb{M} 36'42 | | evening rise | 5120 Aug 17 15:53 | 6° \mathbb{M} 02'35 | |
| | 5119 Sep 26 08:14 | 0° \mathbb{M} | | | 5120 Aug 30 10:33 | 0° \mathbb{M} | |
| evening max el | 5119 Oct 07 05:41 | 12° \mathbb{M} 40'37 | 27°26'07 | desc. node | 5120 Sep 07 01:12 | 11° \mathbb{M} 41'42 | |
| retrograde | 5119 Oct 20 20:36 | 19° \mathbb{M} 58'22 | | evening max el | 5120 Sep 18 13:55 | 25° \mathbb{M} 24'21 | 27°18'18 |
| evening set | 5119 Oct 27 23:17 | 17° \mathbb{M} 21'20 | | | 5120 Sep 24 09:23 | 0° \mathbb{M} | |
| min. Earth dist. | 5119 Oct 31 16:14 | 14° \mathbb{M} 05'30 | 0.63788 AU | retrograde | 5120 Oct 02 09:52 | 2° \mathbb{M} 38'19 | |
| inferior conj | 5119 Nov 03 05:38 | 11° \mathbb{M} 28'16 | -2°46'22 | evening set | 5120 Oct 09 13:26 | 0° \mathbb{M} 15'54 | |
| minimum elong | 5119 Nov 03 10:27 | 11° \mathbb{M} 15'53 | 2°44'35 | | 5120 Oct 09 22:55 | 30° \mathbb{R} | |

| | | | | | | | |
|------------------|-------------------|-------------------------------|------------|------------------|-------------------|-------------------------------|------------|
| min. Earth dist. | 5120 Oct 13 04:26 | 27° Ω 26'25 | 0.61928 AU | min. Earth dist. | 5121 Sep 25 06:04 | 10° Ω 01'33 | 0.59882 AU |
| inferior conj | 5120 Oct 16 04:20 | 24° Ω 42'43 | -3°47'49 | inferior conj | 5121 Sep 28 11:48 | 7° Ω 26'56 | -4°40'35 |
| minimum elong | 5120 Oct 16 10:29 | 24° Ω 28'41 | 3°46'00 | minimum elong | 5121 Sep 28 17:39 | 7° Ω 15'14 | 4°39'27 |
| morning rise | 5120 Oct 23 09:25 | 19° Ω 41'58 | | morning rise | 5121 Oct 06 04:01 | 2° Ω 47'53 | |
| direct | 5120 Oct 25 17:18 | 19° Ω 18'32 | | direct | 5121 Oct 08 12:06 | 2° Ω 27'52 | |
| asc. node | 5120 Oct 28 15:37 | 19° Ω 56'56 | | asc. node | 5121 Oct 15 12:41 | 5° Ω 38'51 | |
| morning max el | 5120 Nov 01 15:14 | 22° Ω 48'34 | 17°52'32 | morning max el | 5121 Oct 16 02:39 | 6° Ω 11'27 | 18°13'14 |
| | 5120 Nov 07 06:09 | 0° \mathbb{M} | | | 5121 Oct 31 05:23 | 0° \mathbb{M} | |
| morning set | 5120 Nov 17 11:24 | 17° \mathbb{M} 35'47 | | morning set | 5121 Oct 31 22:33 | 1° \mathbb{M} 21'04 | |
| | 5120 Nov 24 09:40 | 0° \mathbb{X} | | | | | |
| superior conj | 5120 Nov 28 06:49 | 6° \mathbb{X} 45'08 | 0°39'58 | superior conj | 5121 Nov 10 08:47 | 18° \mathbb{M} 55'51 | 1°10'23 |
| minimum elong | 5120 Nov 28 10:09 | 6° \mathbb{X} 59'25 | 0°39'30 | minimum elong | 5121 Nov 10 12:41 | 19° \mathbb{M} 13'29 | 1°09'56 |
| desc. node | 5120 Dec 04 00:30 | 16° \mathbb{X} 24'33 | | | 5121 Nov 16 15:20 | 0° \mathbb{X} | |
| max. Earth dist. | 5120 Dec 05 14:00 | 18° \mathbb{X} 58'27 | 1.43033 AU | max. Earth dist. | 5121 Nov 17 23:43 | 2° \mathbb{X} 18'11 | 1.41172 AU |
| | 5120 Dec 12 11:34 | 0° \mathbb{Z} | | desc. node | 5121 Nov 20 21:32 | 7° \mathbb{X} 10'37 | |
| evening rise | 5120 Dec 12 14:05 | 0° \mathbb{Z} 09'52 | | evening rise | 5121 Nov 22 20:56 | 10° \mathbb{X} 25'08 | |
| | 5121 Jan 01 17:29 | 0° \approx | | | 5121 Dec 05 12:06 | 0° \mathbb{Z} | |
| evening max el | 5121 Jan 13 05:00 | 14° \approx 14'32 | 21°48'00 | evening max el | 5121 Dec 26 21:05 | 27° \mathbb{Z} 52'31 | 23°06'52 |
| retrograde | 5121 Jan 22 09:10 | 19° \approx 41'30 | | | 5121 Dec 29 03:22 | 0° \approx | |
| asc. node | 5121 Jan 24 14:50 | 19° \approx 14'50 | | retrograde | 5122 Jan 06 03:59 | 3° \approx 58'07 | |
| evening set | 5121 Jan 26 18:12 | 17° \approx 56'50 | | evening set | 5122 Jan 11 01:05 | 1° \approx 57'38 | |
| inferior conj | 5121 Feb 01 02:21 | 11° \approx 38'32 | 2°17'55 | asc. node | 5122 Jan 11 11:54 | 1° \approx 33'57 | |
| minimum elong | 5121 Jan 31 23:58 | 11° \approx 46'49 | 2°17'10 | | 5122 Jan 13 00:20 | 30° \mathbb{R} \mathbb{Z} | |
| min. Earth dist. | 5121 Feb 01 04:38 | 11° \approx 30'37 | 0.68041 AU | inferior conj | 5122 Jan 16 10:25 | 25° \mathbb{Z} 33'20 | 1°36'01 |
| morning rise | 5121 Feb 06 05:33 | 5° \approx 26'55 | | minimum elong | 5122 Jan 16 08:27 | 25° \mathbb{Z} 40'08 | 1°35'17 |
| direct | 5121 Feb 11 04:25 | 3° \approx 19'19 | | min. Earth dist. | 5122 Jan 16 01:21 | 26° \mathbb{Z} 04'34 | 0.68097 AU |
| morning max el | 5121 Feb 21 01:38 | 9° \approx 10'12 | 22°46'51 | morning rise | 5122 Jan 21 15:43 | 19° \mathbb{Z} 25'52 | |
| desc. node | 5121 Mar 01 23:44 | 19° \approx 45'40 | | direct | 5122 Jan 26 00:14 | 17° \mathbb{Z} 41'10 | |
| | 5121 Mar 09 09:20 | 0° \mathbb{H} | | morning max el | 5122 Feb 03 16:14 | 22° \mathbb{Z} 42'58 | 21°22'12 |
| morning set | 5121 Mar 27 08:11 | 27° \mathbb{H} 44'02 | | | 5122 Feb 09 22:49 | 0° \approx | |
| | 5121 Mar 28 16:58 | 0° \mathbb{Y} | | desc. node | 5122 Feb 16 20:46 | 9° \approx 23'46 | |
| max. Earth dist. | 5121 Mar 31 22:49 | 5° \mathbb{Y} 28'51 | 1.40095 AU | | 5122 Mar 02 17:23 | 0° \mathbb{H} | |
| | | | | morning set | 5122 Mar 07 00:53 | 6° \mathbb{H} 44'15 | |
| superior conj | 5121 Apr 08 17:31 | 19° \mathbb{Y} 13'11 | -1°50'29 | max. Earth dist. | 5122 Mar 14 00:09 | 17° \mathbb{H} 58'10 | 1.42176 AU |
| minimum elong | 5121 Apr 08 22:26 | 19° \mathbb{Y} 35'36 | 1°50'02 | | | | |
| | 5121 Apr 14 12:49 | 0° \mathbb{B} | | superior conj | 5122 Mar 21 10:14 | 0° \mathbb{Y} 28'07 | -2°06'05 |
| evening rise | 5121 Apr 18 13:46 | 7° \mathbb{B} 40'10 | | minimum elong | 5122 Mar 21 13:02 | 0° \mathbb{Y} 40'11 | 2°05'59 |
| asc. node | 5121 Apr 22 14:08 | 15° \mathbb{B} 13'36 | | | 5122 Mar 21 03:43 | 0° \mathbb{Y} | |
| | 5121 May 01 14:27 | 0° \mathbb{I} | | evening rise | 5122 Apr 01 15:19 | 20° \mathbb{Y} 25'26 | |
| evening max el | 5121 May 04 17:16 | 3° \mathbb{I} 35'22 | 18°26'54 | | 5122 Apr 06 22:54 | 0° \mathbb{B} | |
| retrograde | 5121 May 12 05:40 | 7° \mathbb{I} 18'42 | | asc. node | 5122 Apr 09 11:10 | 4° \mathbb{B} 21'03 | |
| evening set | 5121 May 14 12:47 | 6° \mathbb{I} 58'53 | | evening max el | 5122 Apr 18 03:29 | 16° \mathbb{B} 30'17 | 18°08'26 |
| inferior conj | 5121 May 21 23:58 | 2° \mathbb{I} 26'36 | 1°54'32 | retrograde | 5122 Apr 24 21:19 | 19° \mathbb{B} 55'40 | |
| minimum elong | 5121 May 22 03:21 | 2° \mathbb{I} 19'48 | 1°53'31 | evening set | 5122 Apr 27 11:16 | 19° \mathbb{B} 25'59 | |
| | 5121 May 25 01:10 | 30° \mathbb{R} \mathbb{B} | | inferior conj | 5122 May 04 05:10 | 14° \mathbb{B} 32'49 | 2°52'37 |
| min. Earth dist. | 5121 May 25 10:11 | 29° \mathbb{B} 42'42 | 0.58324 AU | minimum elong | 5122 May 04 08:16 | 14° \mathbb{B} 25'33 | 2°51'57 |
| desc. node | 5121 May 28 22:56 | 27° \mathbb{B} 20'35 | | min. Earth dist. | 5122 May 07 11:57 | 11° \mathbb{B} 30'05 | 0.60509 AU |
| morning rise | 5121 May 29 14:45 | 26° \mathbb{B} 59'25 | | morning rise | 5122 May 11 03:00 | 8° \mathbb{B} 41'51 | |
| direct | 5121 Jun 04 14:50 | 25° \mathbb{B} 25'48 | | desc. node | 5122 May 15 19:58 | 6° \mathbb{B} 45'03 | |
| | 5121 Jun 15 11:10 | 0° \mathbb{I} | | direct | 5122 May 17 17:39 | 6° \mathbb{B} 34'37 | |
| morning max el | 5121 Jun 19 00:07 | 3° \mathbb{I} 07'58 | 26°59'05 | morning max el | 5122 Jun 01 00:46 | 14° \mathbb{B} 29'30 | 27°44'00 |
| | 5121 Jul 08 11:03 | 0° \mathbb{E} | | | 5122 Jun 13 12:38 | 0° \mathbb{I} | |
| morning set | 5121 Jul 19 02:17 | 20° \mathbb{E} 32'20 | | | 5122 Jun 30 20:43 | 0° \mathbb{E} | |
| asc. node | 5121 Jul 19 13:26 | 21° \mathbb{E} 31'07 | | morning set | 5122 Jul 03 08:13 | 5° \mathbb{E} 02'50 | |
| | 5121 Jul 23 11:40 | 0° \mathbb{Q} | | asc. node | 5122 Jul 06 10:27 | 11° \mathbb{E} 34'28 | |
| superior conj | 5121 Jul 26 02:53 | 5° \mathbb{Q} 48'33 | 1°03'47 | max. Earth dist. | 5122 Jul 09 12:12 | 18° \mathbb{E} 15'02 | 1.32013 AU |
| minimum elong | 5121 Jul 26 00:39 | 5° \mathbb{Q} 36'10 | 1°03'24 | | | | |
| max. Earth dist. | 5121 Jul 26 01:19 | 5° \mathbb{Q} 39'50 | 1.31949 AU | superior conj | 5122 Jul 10 14:07 | 20° \mathbb{E} 37'24 | 0°42'11 |
| evening rise | 5121 Aug 01 22:59 | 20° \mathbb{Q} 42'10 | | minimum elong | 5122 Jul 10 12:22 | 20° \mathbb{E} 27'47 | 0°41'49 |
| | 5121 Aug 06 12:06 | 0° \mathbb{P} | | | 5122 Jul 14 20:28 | 0° \mathbb{Q} | |
| desc. node | 5121 Aug 24 22:14 | 29° \mathbb{P} 54'36 | | evening rise | 5122 Jul 17 09:26 | 5° \mathbb{Q} 29'06 | |
| | 5121 Aug 24 23:57 | 0° \mathbb{L} | | | 5122 Jul 30 06:35 | 0° \mathbb{P} | |
| evening max el | 5121 Aug 31 16:16 | 7° \mathbb{L} 23'45 | 26°36'52 | desc. node | 5122 Aug 11 19:14 | 16° \mathbb{P} 54'22 | |
| retrograde | 5121 Sep 14 14:44 | 14° \mathbb{L} 32'43 | | evening max el | 5122 Aug 13 10:51 | 18° \mathbb{P} 33'23 | 25°24'31 |
| evening set | 5121 Sep 21 09:21 | 12° \mathbb{L} 37'12 | | retrograde | 5122 Aug 27 09:26 | 25° \mathbb{P} 37'33 | |
| | | | | evening set | 5122 Sep 02 06:16 | 24° \mathbb{P} 17'56 | |
| | | | | min. Earth dist. | 5122 Sep 06 22:36 | 21° \mathbb{P} 38'31 | 0.57850 AU |

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|------------------|-------------------|--------------------------------|------------|---------------------|-------------------|--------------------------------|------------|
| inferior conj | 5122 Sep 10 00:34 | 19° \mathbb{M} 31'02 | -5°13'27 | inferior conj | 5123 Aug 21 17:01 | 0° \mathbb{M} 48'30 | -5°10'30 |
| minimum elong | 5122 Sep 10 03:09 | 19° \mathbb{M} 26'33 | 5°13'17 | minimum elong | 5123 Aug 21 13:24 | 0° \mathbb{M} 54'02 | 5°10'11 |
| morning rise | 5122 Sep 18 02:17 | 15° \mathbb{M} 15'11 | | | 5123 Aug 23 01:12 | 30° \mathbb{R} \mathcal{Q} | |
| direct | 5122 Sep 20 14:16 | 14° \mathbb{M} 56'11 | | morning rise | 5123 Aug 30 01:59 | 26° \mathcal{Q} 52'03 | |
| morning max el | 5122 Sep 29 06:17 | 19° \mathbb{M} 03'06 | 18°54'53 | direct | 5123 Sep 01 20:43 | 26° \mathcal{Q} 32'24 | |
| asc. node | 5122 Oct 02 09:43 | 22° \mathbb{M} 32'26 | | | 5123 Sep 10 12:52 | 0° \mathbb{M} | |
| | 5122 Oct 07 10:41 | 0° \mathcal{A} | | morning max el | 5123 Sep 11 23:11 | 1° \mathbb{M} 14'31 | 19°58'28 |
| morning set | 5122 Oct 15 19:53 | 15° \mathcal{A} 34'45 | | asc. node | 5123 Sep 19 06:44 | 10° \mathbb{M} 22'41 | |
| | 5122 Oct 23 04:32 | 0° \mathbb{M} | | | 5123 Sep 29 22:35 | 0° \mathcal{A} | |
| | | | | morning set | 5123 Sep 30 00:04 | 0° \mathcal{A} 07'34 | |
| superior conj | 5122 Oct 24 06:16 | 2° \mathbb{M} 03'20 | 1°30'20 | superior conj | 5123 Oct 07 18:05 | 15° \mathcal{A} 52'51 | 1°40'54 |
| minimum elong | 5122 Oct 24 09:08 | 2° \mathbb{M} 17'01 | 1°30'06 | minimum elong | 5123 Oct 07 19:23 | 15° \mathcal{A} 59'25 | 1°40'51 |
| max. Earth dist. | 5122 Oct 31 05:23 | 14° \mathbb{M} 55'07 | 1.39077 AU | max. Earth dist. | 5123 Oct 13 10:42 | 26° \mathcal{A} 57'34 | 1.37003 AU |
| evening rise | 5122 Nov 04 02:25 | 21° \mathbb{M} 41'38 | | | 5123 Oct 15 01:43 | 0° \mathbb{M} | |
| desc. node | 5122 Nov 07 18:32 | 27° \mathbb{M} 51'58 | | evening rise | 5123 Oct 17 05:42 | 3° \mathbb{M} 57'48 | |
| | 5122 Nov 09 01:48 | 0° \mathcal{A} | | desc. node | 5123 Oct 25 15:33 | 18° \mathbb{M} 24'31 | |
| | 5122 Nov 29 12:08 | 0° \mathcal{B} | | | 5123 Nov 02 01:45 | 0° \mathcal{A} | |
| evening max el | 5122 Dec 09 10:24 | 11° \mathcal{B} 33'38 | 24°26'15 | evening max el | 5123 Nov 21 22:51 | 25° \mathcal{A} 17'03 | 25°39'18 |
| retrograde | 5122 Dec 20 19:10 | 18° \mathcal{B} 12'31 | | | 5123 Nov 27 15:52 | 0° \mathcal{B} | |
| evening set | 5122 Dec 26 05:27 | 15° \mathcal{B} 56'42 | | retrograde | 5123 Dec 04 05:54 | 2° \mathcal{B} 19'52 | |
| asc. node | 5122 Dec 29 08:56 | 12° \mathcal{B} 35'17 | | evening set | 5123 Dec 10 05:41 | 29° \mathcal{A} 50'53 | |
| min. Earth dist. | 5122 Dec 30 21:16 | 10° \mathcal{B} 37'28 | 0.67783 AU | | 5123 Dec 10 01:18 | 30° \mathbb{R} \mathcal{A} | |
| inferior conj | 5122 Dec 31 17:18 | 9° \mathcal{B} 30'24 | 0°47'15 | min. Earth dist. | 5123 Dec 14 14:07 | 25° \mathcal{A} 06'17 | 0.67109 AU |
| minimum elong | 5122 Dec 31 16:12 | 9° \mathcal{B} 34'07 | 0°46'49 | inferior conj | 5123 Dec 15 21:13 | 23° \mathcal{A} 27'13 | -0°07'27 |
| morning rise | 5123 Jan 06 03:02 | 3° \mathcal{B} 28'55 | | minimum elong | 5123 Dec 15 21:24 | 23° \mathcal{A} 26'37 | 0°07'21 |
| direct | 5123 Jan 09 22:11 | 2° \mathcal{B} 06'27 | | transit middle | 5123 Dec 15 21:24 | 23° \mathcal{A} 26'37 | 0°07'21 |
| morning max el | 5123 Jan 17 14:23 | 6° \mathcal{B} 27'43 | 20°08'21 | transit begin | 5123 Dec 15 18:54 | 23° \mathcal{A} 34'37 | |
| desc. node | 5123 Feb 03 17:48 | 29° \mathcal{B} 26'21 | | transit end | 5123 Dec 15 23:55 | 23° \mathcal{A} 18'38 | |
| | 5123 Feb 04 02:48 | 0° \approx | | asc. node | 5123 Dec 16 05:57 | 22° \mathcal{A} 59'25 | |
| morning set | 5123 Feb 13 22:30 | 14° \approx 56'34 | | morning rise | 5123 Dec 21 13:31 | 17° \mathcal{A} 33'47 | |
| | 5123 Feb 23 12:59 | 0° \mathcal{H} | | direct | 5123 Dec 24 20:55 | 16° \mathcal{A} 30'53 | |
| max. Earth dist. | 5123 Feb 24 09:08 | 1° \mathcal{H} 20'31 | 1.43862 AU | morning max el | 5123 Dec 31 20:25 | 20° \mathcal{A} 23'16 | 19°08'53 |
| superior conj | 5123 Mar 02 01:53 | 10° \mathcal{H} 34'20 | -2°07'25 | | 5124 Jan 08 12:48 | 0° \mathcal{B} | |
| minimum elong | 5123 Mar 01 23:20 | 10° \mathcal{H} 23'51 | 2°07'21 | greatest brilliancy | 5124 Jan 14 17:44 | 9° \mathcal{B} 11'27 | -0.8m |
| | 5123 Mar 13 14:37 | 0° \mathcal{Y} | | desc. node | 5124 Jan 21 14:49 | 19° \mathcal{B} 46'55 | |
| evening rise | 5123 Mar 14 23:14 | 2° \mathcal{Y} 20'45 | | morning set | 5124 Jan 24 00:49 | 23° \mathcal{B} 31'58 | |
| asc. node | 5123 Mar 27 08:11 | 22° \mathcal{Y} 58'16 | | | 5124 Jan 28 04:36 | 0° \approx | |
| evening max el | 5123 Apr 01 16:10 | 29° \mathcal{Y} 43'12 | 18°09'17 | max. Earth dist. | 5124 Feb 07 00:11 | 15° \approx 21'26 | 1.44952 AU |
| | 5123 Apr 01 23:02 | 0° \mathcal{B} | | | | | |
| retrograde | 5123 Apr 08 02:29 | 3° \mathcal{B} 05'53 | | superior conj | 5124 Feb 09 17:28 | 19° \approx 39'10 | -1°49'43 |
| evening set | 5123 Apr 10 22:39 | 2° \mathcal{B} 24'48 | | minimum elong | 5124 Feb 09 09:06 | 19° \approx 06'03 | 1°49'05 |
| | 5123 Apr 14 08:19 | 30° \mathbb{R} \mathcal{Y} | | | 5124 Feb 16 05:02 | 0° \mathcal{H} | |
| inferior conj | 5123 Apr 17 03:18 | 27° \mathcal{Y} 11'54 | 3°23'27 | evening rise | 5124 Feb 24 09:30 | 13° \mathcal{H} 19'57 | |
| minimum elong | 5123 Apr 17 04:56 | 27° \mathcal{Y} 07'33 | 3°23'15 | | 5124 Mar 05 14:24 | 0° \mathcal{Y} | |
| min. Earth dist. | 5123 Apr 19 22:23 | 24° \mathcal{Y} 14'25 | 0.62660 AU | asc. node | 5124 Mar 13 05:13 | 10° \mathcal{Y} 56'24 | |
| morning rise | 5123 Apr 23 09:51 | 21° \mathcal{Y} 06'51 | | evening max el | 5124 Mar 15 04:29 | 13° \mathcal{Y} 07'49 | 18°28'45 |
| direct | 5123 Apr 30 06:12 | 18° \mathcal{Y} 32'59 | | retrograde | 5124 Mar 21 16:37 | 16° \mathcal{Y} 40'47 | |
| desc. node | 5123 May 02 17:00 | 18° \mathcal{Y} 50'56 | | evening set | 5124 Mar 24 19:02 | 15° \mathcal{Y} 47'18 | |
| morning max el | 5123 May 14 07:10 | 26° \mathcal{Y} 33'13 | 27°51'12 | inferior conj | 5124 Mar 30 14:18 | 10° \mathcal{Y} 16'24 | 3°33'02 |
| | 5123 May 17 12:32 | 0° \mathcal{B} | | minimum elong | 5124 Mar 30 14:19 | 10° \mathcal{Y} 16'20 | 3°33'02 |
| | 5123 Jun 07 03:09 | 0° \mathbb{I} | | min. Earth dist. | 5124 Apr 01 18:20 | 7° \mathcal{Y} 43'22 | 0.64557 AU |
| morning set | 5123 Jun 17 08:22 | 19° \mathbb{I} 13'15 | | morning rise | 5124 Apr 05 08:53 | 4° \mathcal{Y} 04'25 | |
| | 5123 Jun 22 12:34 | 0° \mathcal{B} | | direct | 5124 Apr 12 02:59 | 1° \mathcal{Y} 16'15 | |
| max. Earth dist. | 5123 Jun 22 19:01 | 0° \mathcal{B} 34'33 | 1.32500 AU | desc. node | 5124 Apr 18 14:02 | 3° \mathcal{Y} 21'22 | |
| asc. node | 5123 Jun 23 07:28 | 1° \mathcal{B} 41'19 | | morning max el | 5124 Apr 25 16:45 | 9° \mathcal{Y} 12'02 | 27°22'27 |
| | | | | | 5124 May 11 22:18 | 0° \mathcal{B} | |
| superior conj | 5123 Jun 24 22:57 | 5° \mathcal{B} 14'41 | 0°17'04 | | 5124 May 29 11:49 | 0° \mathbb{I} | |
| minimum elong | 5123 Jun 24 22:09 | 5° \mathcal{B} 10'20 | 0°16'53 | morning set | 5124 May 31 00:07 | 2° \mathbb{I} 55'45 | |
| evening rise | 5123 Jul 01 21:11 | 20° \mathcal{B} 16'05 | | max. Earth dist. | 5124 Jun 04 17:42 | 12° \mathbb{I} 26'46 | 1.33438 AU |
| | 5123 Jul 06 14:32 | 0° \mathcal{Q} | | | | | |
| evening max el | 5123 Jul 25 23:39 | 29° \mathcal{Q} 03'46 | 23°51'51 | superior conj | 5124 Jun 08 03:28 | 19° \mathbb{I} 34'51 | -0°10'48 |
| | 5123 Jul 26 23:42 | 0° \mathbb{M} | | minimum elong | 5124 Jun 08 04:02 | 19° \mathbb{I} 37'48 | 0°10'42 |
| desc. node | 5123 Jul 29 16:14 | 2° \mathbb{M} 12'08 | | behind sun begin | 5124 Jun 07 23:55 | 19° \mathbb{I} 16'01 | |
| retrograde | 5123 Aug 08 16:36 | 5° \mathbb{M} 57'13 | | behind sun end | 5124 Jun 08 08:08 | 19° \mathbb{I} 59'36 | |
| evening set | 5123 Aug 13 03:20 | 5° \mathbb{M} 13'36 | | asc. node | 5124 Jun 09 04:29 | 21° \mathbb{I} 47'50 | |
| min. Earth dist. | 5123 Aug 19 09:52 | 2° \mathbb{M} 12'15 | 0.56116 AU | | 5124 Jun 13 00:28 | 0° \mathcal{B} | |

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|---------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| evening rise | 5124 Jun 15 08:25 | 4°☿57'16 | | evening rise | 5125 May 30 17:10 | 19°♄26'48 | |
| | 5124 Jun 28 22:32 | 0°♌ | | | 5125 Jun 04 23:38 | 0°☿ | |
| evening max el | 5124 Jul 06 13:58 | 9°♌25'27 | 22°14'38 | evening max el | 5125 Jun 18 13:38 | 20°☿11'07 | 20°46'56 |
| desc. node | 5124 Jul 15 13:15 | 15°♌14'03 | | retrograde | 5125 Jun 30 00:17 | 25°☿48'02 | |
| retrograde | 5124 Jul 19 11:51 | 15°♌50'08 | | evening set | 5125 Jul 02 02:33 | 25°☿37'30 | |
| evening set | 5124 Jul 22 11:05 | 15°♌30'37 | | desc. node | 5125 Jul 02 10:16 | 25°☿34'05 | |
| min. Earth dist. | 5124 Jul 30 20:02 | 11°♌53'31 | 0.55024 AU | inferior conj | 5125 Jul 11 09:44 | 21°☿40'33 | -2°37'36 |
| inferior conj | 5124 Jul 31 16:33 | 11°♌24'35 | -4°17'28 | minimum elong | 5125 Jul 11 02:33 | 21°☿50'46 | 2°35'09 |
| minimum elong | 5124 Jul 31 08:02 | 11°♌36'37 | 4°15'29 | min. Earth dist. | 5125 Jul 12 07:13 | 21°☿09'57 | 0.54833 AU |
| morning rise | 5124 Aug 09 06:45 | 7°♌34'35 | | morning rise | 5125 Jul 20 02:14 | 17°☿37'54 | |
| direct | 5124 Aug 12 10:45 | 7°♌12'05 | | direct | 5125 Jul 23 20:08 | 17°☿07'43 | |
| morning max el | 5124 Aug 24 03:59 | 12°♌40'23 | 21°22'46 | morning max el | 5125 Aug 05 22:32 | 23°☿25'15 | 23°02'24 |
| asc. node | 5124 Sep 05 03:45 | 28°♌56'39 | | | 5125 Aug 11 19:49 | 0°♌ | |
| | 5124 Sep 05 18:05 | 0°♍ | | asc. node | 5125 Aug 23 00:48 | 18°♌03'47 | |
| morning set | 5124 Sep 13 08:40 | 14°♍52'33 | | morning set | 5125 Aug 28 19:45 | 29°♌44'32 | |
| | | | | | 5125 Aug 28 22:40 | 0°♍ | |
| superior conj | 5124 Sep 20 15:59 | 0°♍11'44 | 1°43'28 | superior conj | 5125 Sep 04 20:48 | 14°♍50'38 | 1°39'17 |
| minimum elong | 5124 Sep 20 15:48 | 0°♍10'48 | 1°43'27 | minimum elong | 5125 Sep 04 19:28 | 14°♍43'29 | 1°39'12 |
| | 5124 Sep 20 13:43 | 0°♍ | | max. Earth dist. | 5125 Sep 07 16:49 | 20°♍51'06 | 1.33741 AU |
| max. Earth dist. | 5124 Sep 24 21:18 | 8°♍48'38 | 1.35182 AU | | 5125 Sep 12 04:11 | 0°♍ | |
| evening rise | 5124 Sep 29 03:02 | 17°♍04'07 | | evening rise | 5125 Sep 12 14:13 | 0°♍49'47 | |
| | 5124 Oct 06 06:37 | 0°♎ | | desc. node | 5125 Sep 28 09:35 | 28°♍40'25 | |
| desc. node | 5124 Oct 11 12:33 | 8°♎42'47 | | | 5125 Sep 29 06:18 | 0°♎ | |
| | 5124 Oct 26 10:21 | 0°♏ | | evening max el | 5125 Oct 17 00:10 | 22°♎26'42 | 27°16'35 |
| evening max el | 5124 Nov 03 11:32 | 8°♏57'36 | 26°38'35 | retrograde | 5125 Oct 30 10:56 | 29°♎44'44 | |
| retrograde | 5124 Nov 16 11:24 | 16°♏13'01 | | evening set | 5125 Nov 06 09:38 | 27°♎05'06 | |
| evening set | 5124 Nov 22 23:52 | 13°♏35'16 | | min. Earth dist. | 5125 Nov 10 05:31 | 23°♎30'22 | 0.64724 AU |
| min. Earth dist. | 5124 Nov 27 01:39 | 9°♏25'51 | 0.66086 AU | inferior conj | 5125 Nov 12 11:56 | 21°♎02'21 | -2°09'47 |
| inferior conj | 5124 Nov 28 20:11 | 7°♏19'23 | -1°07'02 | minimum elong | 5125 Nov 12 15:42 | 20°♎52'05 | 2°08'16 |
| minimum elong | 5124 Nov 28 22:03 | 7°♏13'50 | 1°06'12 | morning rise | 5125 Nov 18 22:57 | 15°♎33'03 | |
| asc. node | 5124 Dec 02 03:00 | 3°♏41'50 | | asc. node | 5125 Nov 19 00:02 | 15°♎31'51 | |
| morning rise | 5124 Dec 04 21:00 | 1°♏36'30 | | direct | 5125 Nov 21 13:14 | 14°♎57'54 | |
| direct | 5124 Dec 07 18:40 | 0°♏49'26 | | morning max el | 5125 Nov 28 00:37 | 18°♎23'45 | 17°58'37 |
| morning max el | 5124 Dec 14 08:39 | 4°♏23'51 | 18°25'21 | | 5125 Dec 06 14:12 | 0°♏ | |
| | 5125 Jan 01 00:50 | 0°♐ | | morning set | 5125 Dec 15 13:01 | 14°♏47'00 | |
| morning set | 5125 Jan 03 04:10 | 3°♐25'36 | | | 5125 Dec 24 17:54 | 0°♐ | |
| desc. node | 5125 Jan 07 11:50 | 10°♐19'42 | | desc. node | 5125 Dec 25 08:52 | 1°♐00'49 | |
| superior conj | 5125 Jan 18 20:36 | 28°♐16'34 | -1°13'29 | superior conj | 5125 Dec 29 07:25 | 7°♐21'43 | -0°27'12 |
| minimum elong | 5125 Jan 18 12:00 | 27°♐42'52 | 1°12'27 | minimum elong | 5125 Dec 29 04:07 | 7°♐08'32 | 0°26'43 |
| | 5125 Jan 19 22:59 | 0°♑ | | max. Earth dist. | 5126 Jan 02 13:59 | 14°♐09'06 | 1.44970 AU |
| max. Earth dist. | 5125 Jan 19 18:36 | 29°♐42'51 | 1.45332 AU | | 5126 Jan 12 17:55 | 0°♑ | |
| evening rise | 5125 Feb 03 20:26 | 23°♑22'44 | | evening rise | 5126 Jan 14 12:44 | 2°♑45'04 | |
| | 5125 Feb 08 01:10 | 0°♒ | | greatest brilliancy | 5126 Jan 28 21:11 | 24°♑31'10 | -0.6m |
| greatest brilliancy | 5125 Feb 13 22:05 | 9°♒12'27 | -0.8m | | 5126 Feb 01 16:18 | 0°♒ | |
| evening max el | 5125 Feb 26 14:04 | 26°♒38'26 | 19°05'53 | evening max el | 5126 Feb 09 19:10 | 10°♒11'45 | 19°58'58 |
| asc. node | 5125 Feb 28 02:15 | 28°♒03'29 | | asc. node | 5126 Feb 14 23:18 | 14°♒05'43 | |
| | 5125 Mar 03 01:08 | 0°♓ | | retrograde | 5126 Feb 17 09:55 | 14°♒37'27 | |
| retrograde | 5125 Mar 05 12:03 | 0°♓33'02 | | evening set | 5126 Feb 21 03:22 | 13°♒16'26 | |
| | 5125 Mar 07 21:15 | 30°♓♈ | | inferior conj | 5126 Feb 26 12:55 | 7°♒14'55 | 3°07'35 |
| evening set | 5125 Mar 08 21:24 | 29°♓26'15 | | minimum elong | 5126 Feb 26 10:50 | 7°♒21'54 | 3°07'12 |
| inferior conj | 5125 Mar 14 10:30 | 23°♓39'00 | 3°26'32 | min. Earth dist. | 5126 Feb 27 11:02 | 6°♒00'42 | 0.67169 AU |
| minimum elong | 5125 Mar 14 09:14 | 23°♓43'03 | 3°26'25 | morning rise | 5126 Mar 03 18:05 | 1°♒00'24 | |
| min. Earth dist. | 5125 Mar 15 23:04 | 21°♓42'38 | 0.66077 AU | | 5126 Mar 04 23:46 | 30°♓♈ | |
| morning rise | 5125 Mar 19 20:41 | 17°♓24'34 | | direct | 5126 Mar 09 15:36 | 28°♓22'16 | |
| direct | 5125 Mar 26 06:30 | 14°♓35'40 | | | 5126 Mar 14 20:19 | 0°♓ | |
| desc. node | 5125 Apr 05 11:04 | 19°♓42'24 | | morning max el | 5126 Mar 21 11:36 | 5°♓26'39 | 25°06'19 |
| morning max el | 5125 Apr 08 02:40 | 22°♓13'14 | 26°24'26 | desc. node | 5126 Mar 23 08:07 | 7°♓23'46 | |
| | 5125 Apr 14 22:23 | 0°♔ | | | 5126 Apr 09 10:12 | 0°♔ | |
| | 5125 May 05 04:25 | 0°♕ | | morning set | 5126 Apr 26 15:09 | 28°♔12'25 | |
| morning set | 5125 May 14 03:57 | 16°♕00'01 | | | 5126 Apr 27 15:04 | 0°♕ | |
| max. Earth dist. | 5125 May 18 05:21 | 23°♕47'49 | 1.34845 AU | max. Earth dist. | 5126 Apr 30 06:29 | 4°♕50'45 | 1.36691 AU |
| | 5125 May 21 07:57 | 0°♖ | | | | | |
| superior conj | 5125 May 23 01:24 | 3°♖31'19 | -0°40'21 | superior conj | 5126 May 06 13:47 | 16°♕55'41 | -1°09'59 |
| minimum elong | 5125 May 23 03:36 | 3°♖42'38 | 0°39'56 | minimum elong | 5126 May 06 17:39 | 17°♕14'44 | 1°09'21 |
| asc. node | 5125 May 27 01:31 | 11°♖50'05 | | | 5126 May 13 02:07 | 0°♖ | |

| | | | | | | | |
|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| asc. node | 5126 May 13 22:34 | 1°♊43'27 | | | 5127 Apr 19 17:28 | 0°♋ | |
| evening rise | 5126 May 14 21:12 | 3°♊37'34 | | evening rise | 5127 Apr 28 17:47 | 17°♋22'25 | |
| | 5126 May 30 13:03 | 0°♋ | | asc. node | 5127 Apr 30 19:38 | 21°♋23'39 | |
| evening max el | 5126 Jun 01 01:41 | 1°♋36'21 | 19°36'35 | | 5127 May 05 10:34 | 0°♌ | |
| retrograde | 5126 Jun 10 18:36 | 6°♋20'54 | | evening max el | 5127 May 15 00:55 | 13°♌42'33 | 18°46'24 |
| evening set | 5126 Jun 12 16:54 | 6°♋10'28 | | retrograde | 5127 May 23 05:35 | 17°♌44'12 | |
| desc. node | 5126 Jun 19 07:19 | 3°♋26'01 | | evening set | 5127 May 25 08:35 | 17°♌28'57 | |
| inferior conj | 5126 Jun 21 10:59 | 2°♋06'31 | -0°38'36 | inferior conj | 5127 Jun 02 07:04 | 13°♌07'56 | 1°06'53 |
| minimum elong | 5126 Jun 21 09:15 | 2°♋09'16 | 0°37'57 | minimum elong | 5127 Jun 02 09:29 | 13°♌03'29 | 1°06'03 |
| min. Earth dist. | 5126 Jun 23 20:16 | 0°♋36'30 | 0.55603 AU | min. Earth dist. | 5127 Jun 05 12:51 | 10°♌46'05 | 0.57174 AU |
| | 5126 Jun 24 20:28 | 30°♋♌ | | desc. node | 5127 Jun 06 04:21 | 10°♌19'24 | |
| morning rise | 5126 Jun 29 23:10 | 27°♌33'52 | | morning rise | 5127 Jun 10 07:04 | 7°♌58'51 | |
| direct | 5126 Jul 04 12:47 | 26°♌47'22 | | direct | 5127 Jun 15 19:06 | 6°♌44'59 | |
| | 5126 Jul 13 20:26 | 0°♌ | | morning max el | 5127 Jun 30 03:38 | 14°♌15'10 | 26°17'47 |
| morning max el | 5126 Jul 18 12:13 | 3°♌47'00 | 24°46'05 | | 5127 Jul 12 16:39 | 0°♌ | |
| | 5126 Aug 05 23:55 | 0°♍ | | asc. node | 5127 Jul 27 18:54 | 27°♌22'34 | |
| asc. node | 5126 Aug 09 21:51 | 7°♍34'40 | | morning set | 5127 Jul 28 18:24 | 29°♌25'56 | |
| morning set | 5126 Aug 13 07:32 | 14°♍37'21 | | | 5127 Jul 29 00:50 | 0°♍ | |
| superior conj | 5126 Aug 20 05:56 | 29°♍40'31 | 1°29'21 | superior conj | 5127 Aug 04 17:19 | 14°♍34'50 | 1°14'24 |
| minimum elong | 5126 Aug 20 03:53 | 29°♍29'18 | 1°29'07 | minimum elong | 5127 Aug 04 15:00 | 14°♍22'06 | 1°14'03 |
| | 5126 Aug 20 09:30 | 0°♎ | | max. Earth dist. | 5127 Aug 05 06:02 | 15°♍45'01 | 1.32110 AU |
| max. Earth dist. | 5126 Aug 21 20:42 | 3°♎11'25 | 1.32715 AU | evening rise | 5127 Aug 11 15:38 | 29°♍35'16 | |
| evening rise | 5126 Aug 27 11:25 | 15°♎03'06 | | | 5127 Aug 11 20:22 | 0°♎ | |
| | 5126 Sep 04 05:15 | 0°♏ | | | 5127 Aug 28 08:56 | 0°♏ | |
| desc. node | 5126 Sep 15 06:36 | 18°♏07'50 | | desc. node | 5127 Sep 02 03:37 | 6°♏52'46 | |
| | 5126 Sep 24 06:01 | 0°♐ | | evening max el | 5127 Sep 11 16:36 | 17°♏55'41 | 27°04'34 |
| evening max el | 5126 Sep 29 10:45 | 5°♐30'32 | 27°26'47 | retrograde | 5127 Sep 25 13:29 | 25°♏07'26 | |
| retrograde | 5126 Oct 13 03:50 | 12°♐45'56 | | evening set | 5127 Oct 02 14:55 | 22°♏54'41 | |
| evening set | 5126 Oct 20 07:58 | 10°♐13'49 | | min. Earth dist. | 5127 Oct 06 06:58 | 20°♏13'19 | 0.61076 AU |
| min. Earth dist. | 5126 Oct 23 23:39 | 7°♐10'17 | 0.63034 AU | inferior conj | 5127 Oct 09 10:20 | 17°♏31'15 | -4°11'49 |
| inferior conj | 5126 Oct 26 17:45 | 4°♐29'03 | -3°12'58 | minimum elong | 5127 Oct 09 16:39 | 17°♏17'38 | 4°10'12 |
| minimum elong | 5126 Oct 26 23:15 | 4°♐15'36 | 3°11'06 | morning rise | 5127 Oct 16 20:20 | 12°♏39'43 | |
| | 5126 Nov 01 03:43 | 30°♐♑ | | direct | 5127 Oct 19 03:57 | 12°♏18'02 | |
| morning rise | 5126 Nov 02 16:07 | 29°♑16'54 | | asc. node | 5127 Oct 23 18:09 | 13°♑47'00 | |
| direct | 5126 Nov 05 01:36 | 28°♑50'03 | | morning max el | 5127 Oct 26 07:47 | 15°♑52'19 | 17°58'56 |
| asc. node | 5126 Nov 05 21:06 | 28°♑53'13 | | | 5127 Nov 05 03:54 | 0°♒ | |
| | 5126 Nov 08 21:34 | 0°♒ | | morning set | 5127 Nov 11 01:36 | 10°♒41'51 | |
| morning max el | 5126 Nov 11 17:23 | 2°♒15'51 | 17°49'30 | superior conj | 5127 Nov 21 05:39 | 29°♒07'11 | 0°54'12 |
| morning set | 5126 Nov 27 22:20 | 27°♒19'01 | | minimum elong | 5127 Nov 21 09:30 | 29°♒24'05 | 0°53'42 |
| | 5126 Nov 29 11:01 | 0°♓ | | | 5127 Nov 21 17:42 | 0°♓ | |
| superior conj | 5126 Dec 09 17:19 | 17°♓35'55 | 0°17'44 | max. Earth dist. | 5127 Nov 28 19:49 | 12°♓04'11 | 1.42279 AU |
| minimum elong | 5126 Dec 09 19:05 | 17°♓43'17 | 0°17'29 | desc. node | 5127 Nov 29 02:54 | 12°♓33'28 | |
| desc. node | 5126 Dec 12 05:54 | 21°♓46'36 | | evening rise | 5127 Dec 04 18:40 | 21°♓43'21 | |
| max. Earth dist. | 5126 Dec 16 07:21 | 28°♓22'26 | 1.43908 AU | | 5127 Dec 01 01:53 | 0°♔ | |
| | 5126 Dec 17 07:42 | 0°♕ | | | 5127 Dec 31 03:50 | 0°♕ | |
| evening rise | 5126 Dec 24 22:54 | 11°♕59'21 | | evening max el | 5128 Jan 06 13:01 | 7°♕21'23 | 22°21'07 |
| | 5127 Jan 05 21:22 | 0°♖ | | retrograde | 5128 Jan 16 04:33 | 13°♕05'42 | |
| evening max el | 5127 Jan 23 18:46 | 23°♖46'07 | 21°05'20 | asc. node | 5128 Jan 19 17:24 | 12°♖00'01 | |
| retrograde | 5127 Feb 01 08:02 | 28°♖49'52 | | evening set | 5128 Jan 20 18:35 | 11°♖14'08 | |
| asc. node | 5127 Feb 01 20:21 | 28°♖48'27 | | inferior conj | 5128 Jan 26 03:01 | 4°♖52'34 | 2°01'02 |
| evening set | 5127 Feb 05 11:00 | 27°♖13'48 | | minimum elong | 5128 Jan 26 00:46 | 5°♖00'25 | 2°00'16 |
| inferior conj | 5127 Feb 10 19:07 | 21°♖00'35 | 2°38'34 | min. Earth dist. | 5128 Jan 26 00:19 | 5°♖01'58 | 0.68102 AU |
| minimum elong | 5127 Feb 10 16:43 | 21°♖08'54 | 2°37'55 | | 5128 Jan 29 22:35 | 30°♖♗ | |
| min. Earth dist. | 5127 Feb 11 04:12 | 20°♖29'14 | 0.67834 AU | morning rise | 5128 Jan 31 06:49 | 28°♗42'31 | |
| morning rise | 5127 Feb 15 22:16 | 14°♖47'38 | | direct | 5128 Feb 04 23:22 | 26°♗44'51 | |
| direct | 5127 Feb 21 05:30 | 12°♖27'50 | | | 5128 Feb 11 21:44 | 0°♘ | |
| morning max el | 5127 Mar 03 20:27 | 18°♖47'19 | 23°38'19 | morning max el | 5128 Feb 14 07:57 | 2°♘14'38 | 22°09'57 |
| desc. node | 5127 Mar 10 05:09 | 26°♖02'41 | | desc. node | 5128 Feb 25 02:10 | 15°♘22'18 | |
| | 5127 Mar 13 07:01 | 0°♙ | | | 5128 Mar 06 06:46 | 0°♙ | |
| | 5127 Apr 02 13:23 | 0°♙ | | morning set | 5128 Mar 18 12:53 | 19°♙03'05 | |
| morning set | 5127 Apr 08 03:58 | 9°♙18'02 | | max. Earth dist. | 5128 Mar 23 23:40 | 28°♙01'59 | 1.41005 AU |
| max. Earth dist. | 5127 Apr 12 02:19 | 16°♙06'06 | 1.38826 AU | | 5128 Mar 25 03:38 | 0°♚ | |
| superior conj | 5127 Apr 19 12:56 | 29°♙38'38 | -1°37'14 | superior conj | 5128 Mar 31 18:04 | 11°♙28'07 | -1°58'29 |
| minimum elong | 5127 Apr 19 17:53 | 0°♚01'55 | 1°36'37 | minimum elong | 5128 Mar 31 22:29 | 11°♙47'43 | 1°58'11 |

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|------------------|-------------------|----------------------|--|---------------------|-------------------|----------------------|--|
| | 5128 Apr 10 20:36 | 0°♄ | | evening rise | 5129 Mar 24 21:54 | 12°♎56'03 | |
| evening rise | 5128 Apr 11 03:23 | 0°♄31'35 | | asc. node | 5129 Apr 03 13:40 | 29°♎40'10 | |
| asc. node | 5128 Apr 16 16:40 | 10°♄44'40 | | | 5129 Apr 03 18:37 | 0°♄ | |
| evening max el | 5128 Apr 27 08:06 | 26°♄21'58 18°16'38 | | evening max el | 5129 Apr 10 19:45 | 9°♄25'32 18°06'34 | |
| retrograde | 5128 May 04 11:24 | 29°♄56'03 | | retrograde | 5129 Apr 17 09:09 | 12°♄47'53 | |
| evening set | 5128 May 06 21:19 | 29°♄32'26 | | evening set | 5129 Apr 20 01:47 | 12°♄13'33 | |
| inferior conj | 5128 May 14 00:43 | 24°♄51'20 2°22'49 | | inferior conj | 5129 Apr 26 13:35 | 7°♄12'11 3°08'37 | |
| minimum elong | 5128 May 14 04:13 | 24°♄43'49 2°21'53 | | minimum elong | 5129 Apr 26 16:08 | 7°♄05'52 3°08'11 | |
| min. Earth dist. | 5128 May 17 10:53 | 21°♄56'07 0.59235 AU | | min. Earth dist. | 5129 Apr 29 16:15 | 4°♄08'37 0.61442 AU | |
| morning rise | 5128 May 21 08:13 | 19°♄12'21 | | morning rise | 5129 May 03 04:34 | 1°♄14'12 | |
| desc. node | 5128 May 23 01:22 | 18°♄21'36 | | | 5129 May 05 07:23 | 30°♎♎ | |
| direct | 5128 May 27 15:21 | 17°♄24'02 | | direct | 5129 May 09 22:53 | 28°♎53'57 | |
| morning max el | 5128 Jun 11 00:39 | 25°♄13'28 27°22'38 | | desc. node | 5129 May 09 22:24 | 28°♎53'57 | |
| | 5128 Jun 15 10:26 | 0°♄ | | | 5129 May 14 20:23 | 0°♄ | |
| | 5128 Jul 05 00:14 | 0°♄ | | morning max el | 5129 May 24 03:49 | 6°♄52'41 27°51'38 | |
| morning set | 5128 Jul 12 02:39 | 14°♄04'52 | | | 5129 Jun 10 16:10 | 0°♄ | |
| asc. node | 5128 Jul 13 15:56 | 17°♄21'45 | | morning set | 5129 Jun 26 06:23 | 28°♄27'46 | |
| max. Earth dist. | 5128 Jul 18 17:19 | 28°♄22'30 1.31921 AU | | | 5129 Jun 27 00:17 | 0°♄ | |
| | | | | asc. node | 5129 Jun 30 12:56 | 7°♄27'14 | |
| superior conj | 5128 Jul 19 05:06 | 29°♄27'34 0°55'06 | | max. Earth dist. | 5129 Jul 02 02:44 | 10°♄51'41 1.32161 AU | |
| minimum elong | 5128 Jul 19 03:01 | 29°♄16'02 0°54'42 | | | | | |
| | 5128 Jul 19 10:58 | 0°♄ | | superior conj | 5129 Jul 03 15:32 | 14°♄12'34 0°31'57 | |
| evening rise | 5128 Jul 26 00:24 | 14°♄18'48 | | minimum elong | 5129 Jul 03 14:08 | 14°♄04'53 0°31'38 | |
| | 5128 Aug 02 20:52 | 0°♄ | | evening rise | 5129 Jul 10 11:37 | 29°♄06'40 | |
| desc. node | 5128 Aug 19 00:37 | 24°♄38'02 | | | 5129 Jul 10 21:38 | 0°♄ | |
| evening max el | 5128 Aug 23 15:33 | 29°♄33'42 26°09'21 | | | 5129 Jul 27 13:58 | 0°♄ | |
| | 5128 Aug 24 02:46 | 0°♄ | | evening max el | 5129 Aug 05 07:17 | 10°♄25'12 24°46'52 | |
| retrograde | 5128 Sep 06 14:46 | 6°♄41'44 | | desc. node | 5129 Aug 05 21:39 | 10°♄59'00 | |
| evening set | 5128 Sep 13 01:42 | 5°♄00'33 | | retrograde | 5129 Aug 19 04:59 | 17°♄26'11 | |
| min. Earth dist. | 5128 Sep 17 04:28 | 2°♄25'39 0.58998 AU | | evening set | 5129 Aug 24 12:09 | 16°♄22'55 | |
| inferior conj | 5128 Sep 20 10:15 | 29°♄59'59 -4°57'51 | | min. Earth dist. | 5129 Aug 29 18:40 | 13°♄35'53 0.57053 AU | |
| minimum elong | 5128 Sep 20 15:09 | 29°♄50'45 4°57'09 | | inferior conj | 5129 Sep 01 14:28 | 11°♄45'24 -5°17'38 | |
| | 5128 Sep 20 10:14 | 30°♎♄ | | minimum elong | 5129 Sep 01 14:38 | 11°♄45'07 5°17'38 | |
| morning rise | 5128 Sep 28 06:50 | 25°♄31'08 | | morning rise | 5129 Sep 09 19:29 | 7°♄38'22 | |
| direct | 5128 Sep 30 15:59 | 25°♄11'57 | | direct | 5129 Sep 12 09:52 | 7°♄19'22 | |
| morning max el | 5128 Oct 08 16:26 | 29°♄04'16 18°28'20 | | morning max el | 5129 Sep 21 15:50 | 11°♄40'18 19°19'09 | |
| asc. node | 5128 Oct 09 15:11 | 0°♄01'53 | | asc. node | 5129 Sep 26 12:12 | 17°♄21'37 | |
| | 5128 Oct 09 14:29 | 0°♄ | | | 5129 Oct 04 02:29 | 0°♄ | |
| morning set | 5128 Oct 24 17:35 | 24°♄40'59 | | morning set | 5129 Oct 08 18:13 | 9°♄04'11 | |
| | 5128 Oct 27 11:50 | 0°♄ | | | | | |
| | | | | superior conj | 5129 Oct 16 20:51 | 25°♄12'06 1°35'52 | |
| superior conj | 5128 Nov 02 16:41 | 11°♄44'51 1°20'04 | | minimum elong | 5129 Oct 16 23:05 | 25°♄22'58 1°35'43 | |
| minimum elong | 5128 Nov 02 20:16 | 12°♄01'26 1°19'42 | | | 5129 Oct 19 08:37 | 0°♄ | |
| max. Earth dist. | 5128 Nov 10 03:06 | 25°♄04'25 1.40289 AU | | max. Earth dist. | 5129 Oct 23 07:53 | 7°♄24'26 1.38182 AU | |
| | 5128 Nov 13 00:21 | 0°♄ | | evening rise | 5129 Oct 27 02:12 | 14°♄08'27 | |
| evening rise | 5128 Nov 14 10:58 | 2°♄24'49 | | desc. node | 5129 Nov 01 20:56 | 23°♄56'56 | |
| desc. node | 5128 Nov 14 23:55 | 3°♄18'26 | | | 5129 Nov 05 15:07 | 0°♄ | |
| | 5128 Dec 02 09:30 | 0°♄ | | | 5129 Nov 27 06:33 | 0°♄ | |
| evening max el | 5128 Dec 19 03:36 | 21°♄00'37 23°40'59 | | evening max el | 5129 Dec 01 16:31 | 4°♄43'47 24°58'33 | |
| retrograde | 5128 Dec 29 22:06 | 27°♄22'01 | | retrograde | 5129 Dec 13 11:26 | 11°♄33'54 | |
| evening set | 5129 Jan 04 00:34 | 25°♄14'58 | | evening set | 5129 Dec 19 03:22 | 9°♄12'27 | |
| asc. node | 5129 Jan 05 14:25 | 23°♄43'13 | | asc. node | 5129 Dec 23 11:26 | 4°♄22'40 | |
| inferior conj | 5129 Jan 09 10:49 | 18°♄49'03 1°16'07 | | min. Earth dist. | 5129 Dec 23 16:04 | 4°♄07'35 0.67543 AU | |
| minimum elong | 5129 Jan 09 09:09 | 18°♄54'43 1°15'29 | | inferior conj | 5129 Dec 24 16:40 | 2°♄46'43 0°24'44 | |
| min. Earth dist. | 5129 Jan 08 21:04 | 19°♄35'58 0.68002 AU | | minimum elong | 5129 Dec 24 16:04 | 2°♄48'44 0°24'30 | |
| morning rise | 5129 Jan 14 17:42 | 12°♄43'39 | | | 5129 Dec 26 21:13 | 30°♎♄ | |
| direct | 5129 Jan 18 20:18 | 11°♄08'39 | | morning rise | 5129 Dec 30 04:56 | 26°♄48'06 | |
| morning max el | 5129 Jan 27 01:32 | 15°♄52'27 20°49'08 | | direct | 5130 Jan 02 18:55 | 25°♄34'12 | |
| | 5129 Feb 07 08:00 | 0°♄ | | morning max el | 5130 Jan 10 03:00 | 29°♄41'43 19°41'04 | |
| desc. node | 5129 Feb 10 23:11 | 5°♄11'51 | | | 5130 Jan 10 10:15 | 0°♄ | |
| morning set | 5129 Feb 25 19:11 | 27°♄35'40 | | greatest brilliancy | 5130 Jan 23 04:34 | 16°♄53'33 -0.7m | |
| | 5129 Feb 27 08:04 | 0°♄ | | desc. node | 5130 Jan 28 20:13 | 25°♄22'54 | |
| max. Earth dist. | 5129 Mar 06 03:33 | 10°♄52'13 1.42951 AU | | | 5130 Jan 31 20:53 | 0°♄ | |
| | | | | morning set | 5130 Feb 04 15:27 | 5°♄48'01 | |
| superior conj | 5129 Mar 13 00:25 | 22°♄13'59 -2°08'44 | | max. Earth dist. | 5130 Feb 16 15:14 | 24°♄32'30 1.44411 AU | |
| minimum elong | 5129 Mar 13 01:18 | 22°♄17'42 2°08'44 | | | 5130 Feb 20 01:19 | 0°♄ | |
| | 5129 Mar 17 13:29 | 0°♄ | | | | | |

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|------------------|-------------------|----------------------------------|------------|---------------------|-------------------|----------------------------------|------------|
| superior conj | 5130 Feb 21 05:13 | 1° K 52'13 | -2°02'23 | minimum elong | 5131 Jan 31 03:55 | 10° \approx 02'03 | 1°35'21 |
| minimum elong | 5130 Feb 20 23:53 | 1° K 30'45 | 2°02'08 | | 5131 Feb 12 18:03 | 0° K | |
| evening rise | 5130 Mar 06 20:57 | 24° K 27'37 | | evening rise | 5131 Feb 15 21:12 | 5° K 02'14 | |
| | 5130 Mar 10 03:28 | 0° Y | | greatest brilliancy | 5131 Feb 22 02:45 | 15° K 05'37 | -0.9m |
| asc. node | 5130 Mar 21 10:41 | 18° Y 02'07 | | | 5131 Mar 03 19:09 | 0° Y | |
| evening max el | 5130 Mar 25 08:39 | 22° Y 44'38 | 18°15'27 | asc. node | 5131 Mar 08 07:44 | 5° Y 40'04 | |
| retrograde | 5130 Mar 31 18:31 | 26° Y 09'49 | | evening max el | 5131 Mar 08 20:04 | 6° Y 12'12 | 18°42'29 |
| evening set | 5130 Apr 03 17:26 | 25° Y 23'25 | | retrograde | 5131 Mar 15 11:21 | 9° Y 52'59 | |
| inferior conj | 5130 Apr 09 17:38 | 20° Y 02'45 | 3°29'45 | evening set | 5131 Mar 18 16:41 | 8° Y 53'45 | |
| minimum elong | 5130 Apr 09 18:34 | 20° Y 00'09 | 3°29'41 | inferior conj | 5131 Mar 24 08:56 | 3° Y 15'25 | 3°32'01 |
| min. Earth dist. | 5130 Apr 12 06:32 | 17° Y 13'51 | 0.63508 AU | minimum elong | 5131 Mar 24 08:21 | 3° Y 17'12 | 3°31'59 |
| morning rise | 5130 Apr 15 18:41 | 13° Y 54'24 | | min. Earth dist. | 5131 Mar 26 06:13 | 0° Y 57'17 | 0.65252 AU |
| direct | 5130 Apr 22 15:07 | 11° Y 12'46 | | | 5131 Mar 27 01:43 | 30° R K | |
| desc. node | 5130 Apr 26 19:26 | 12° Y 05'12 | | morning rise | 5131 Mar 29 23:31 | 27° K 02'08 | |
| morning max el | 5130 May 06 11:39 | 19° Y 11'50 | 27°43'07 | direct | 5131 Apr 05 14:38 | 24° K 12'26 | |
| | 5130 May 15 15:30 | 0° B | | desc. node | 5131 Apr 13 16:29 | 27° K 26'45 | |
| | 5130 Jun 03 14:47 | 0° II | | | 5131 Apr 16 19:01 | 0° Y | |
| morning set | 5130 Jun 10 03:20 | 12° II 27'35 | | morning max el | 5131 Apr 18 21:42 | 2° Y 01'38 | 27°01'00 |
| max. Earth dist. | 5130 Jun 15 06:33 | 23° II 01'06 | 1.32840 AU | | 5131 May 09 20:02 | 0° B | |
| asc. node | 5130 Jun 17 09:58 | 27° II 34'51 | | morning set | 5131 May 24 14:28 | 25° B 54'46 | |
| | | | | | 5131 May 26 16:49 | 0° II | |
| superior conj | 5130 Jun 17 22:49 | 28° II 43'54 | 0°05'35 | max. Earth dist. | 5131 May 29 01:02 | 4° II 40'52 | 1.33980 AU |
| minimum elong | 5130 Jun 17 22:32 | 28° II 42'26 | 0°05'30 | | | | |
| behind sun begin | 5130 Jun 17 17:31 | 28° II 15'27 | | superior conj | 5131 Jun 02 00:48 | 12° II 54'26 | -0°23'12 |
| behind sun end | 5130 Jun 18 03:34 | 29° II 09'28 | | minimum elong | 5131 Jun 02 02:02 | 13° II 00'53 | 0°22'58 |
| | 5130 Jun 18 12:56 | 0° E | | asc. node | 5131 Jun 04 07:00 | 17° II 39'56 | |
| evening rise | 5130 Jun 24 23:24 | 13° E 52'35 | | evening rise | 5131 Jun 09 09:49 | 28° II 29'31 | |
| | 5130 Jul 03 01:54 | 0° Ω | | | 5131 Jun 10 03:09 | 0° E | |
| evening max el | 5130 Jul 17 19:54 | 20° Ω 48'47 | 23°10'15 | | 5131 Jun 28 07:27 | 0° Ω | |
| desc. node | 5130 Jul 23 18:39 | 25° Ω 24'07 | | evening max el | 5131 Jun 29 13:15 | 1° Ω 16'21 | 21°35'32 |
| retrograde | 5130 Jul 31 06:23 | 27° Ω 31'49 | | desc. node | 5131 Jul 10 15:41 | 7° Ω 19'06 | |
| evening set | 5130 Aug 04 01:25 | 27° Ω 00'24 | | retrograde | 5131 Jul 11 21:34 | 7° Ω 22'45 | |
| min. Earth dist. | 5130 Aug 11 05:00 | 23° Ω 45'39 | 0.55562 AU | evening set | 5131 Jul 14 09:49 | 7° Ω 08'25 | |
| inferior conj | 5130 Aug 12 22:59 | 22° Ω 44'30 | -4°54'33 | inferior conj | 5131 Jul 23 18:01 | 3° Ω 07'44 | -3°39'42 |
| minimum elong | 5130 Aug 12 16:45 | 22° Ω 53'37 | 4°53'37 | minimum elong | 5131 Jul 23 09:14 | 3° Ω 20'01 | 3°37'10 |
| morning rise | 5130 Aug 21 10:22 | 18° Ω 52'43 | | min. Earth dist. | 5131 Jul 23 14:58 | 3° Ω 12'00 | 0.54825 AU |
| direct | 5130 Aug 24 09:00 | 18° Ω 32'00 | | | 5131 Jul 30 00:47 | 30° R E | |
| morning max el | 5130 Sep 04 03:30 | 23° Ω 32'32 | 20°31'50 | morning rise | 5131 Aug 01 09:49 | 29° E 15'23 | |
| | 5130 Sep 09 17:21 | 0° H | | direct | 5131 Aug 04 19:05 | 28° E 50'28 | |
| asc. node | 5130 Sep 13 09:14 | 5° H 32'13 | | | 5131 Aug 10 07:05 | 0° Ω | |
| morning set | 5130 Sep 23 00:36 | 23° H 43'27 | | morning max el | 5131 Aug 17 03:27 | 4° Ω 39'12 | 22°03'52 |
| | 5130 Sep 26 01:30 | 0° $\underline{\text{A}}$ | | asc. node | 5131 Aug 31 06:17 | 24° Ω 21'23 | |
| | | | | | 5131 Sep 03 05:45 | 0° H | |
| superior conj | 5130 Sep 30 13:25 | 9° $\underline{\text{A}}$ 15'33 | 1°42'52 | morning set | 5131 Sep 07 10:30 | 8° H 32'22 | |
| minimum elong | 5130 Sep 30 14:05 | 9° $\underline{\text{A}}$ 18'52 | 1°42'51 | | | | |
| max. Earth dist. | 5130 Oct 05 15:13 | 19° $\underline{\text{A}}$ 20'47 | 1.36201 AU | superior conj | 5131 Sep 14 14:38 | 23° H 44'13 | 1°42'26 |
| evening rise | 5130 Oct 09 13:44 | 26° $\underline{\text{A}}$ 47'33 | | minimum elong | 5131 Sep 14 13:55 | 23° H 40'26 | 1°42'26 |
| | 5130 Oct 11 07:54 | 0° M | | | 5131 Sep 17 14:50 | 0° $\underline{\text{A}}$ | |
| desc. node | 5130 Oct 19 17:56 | 14° M 24'18 | | max. Earth dist. | 5131 Sep 18 05:38 | 1° $\underline{\text{A}}$ 15'46 | 1.34520 AU |
| | 5130 Oct 30 01:05 | 0° J | | evening rise | 5131 Sep 22 17:25 | 10° $\underline{\text{A}}$ 11'47 | |
| evening max el | 5130 Nov 14 05:13 | 18° J 27'34 | 26°06'33 | | 5131 Oct 03 18:52 | 0° M | |
| retrograde | 5130 Nov 26 19:49 | 25° J 36'06 | | desc. node | 5131 Oct 06 14:58 | 4° M 35'02 | |
| evening set | 5130 Dec 03 01:16 | 23° J 02'51 | | | 5131 Oct 25 16:13 | 0° J | |
| min. Earth dist. | 5130 Dec 07 06:54 | 18° J 33'13 | 0.66727 AU | evening max el | 5131 Oct 27 17:55 | 2° J 04'34 | 26°57'37 |
| inferior conj | 5130 Dec 08 18:45 | 16° J 42'08 | -0°32'11 | retrograde | 5131 Nov 09 22:48 | 9° J 21'57 | |
| minimum elong | 5130 Dec 08 19:36 | 16° J 39'28 | 0°31'48 | evening set | 5131 Nov 16 16:15 | 6° J 42'07 | |
| asc. node | 5130 Dec 10 08:29 | 14° J 47'35 | | min. Earth dist. | 5131 Nov 20 15:20 | 2° J 47'58 | 0.65554 AU |
| morning rise | 5130 Dec 14 14:27 | 10° J 52'51 | | inferior conj | 5131 Nov 22 14:58 | 0° J 31'21 | -1°33'21 |
| direct | 5130 Dec 17 17:34 | 9° J 56'59 | | minimum elong | 5131 Nov 22 17:38 | 0° J 23'43 | 1°32'14 |
| morning max el | 5130 Dec 24 11:56 | 13° J 40'01 | 18°48'18 | | 5131 Nov 23 01:56 | 30° R M | |
| | 5131 Jan 05 13:54 | 0° Z | | asc. node | 5131 Nov 27 05:32 | 25° M 54'29 | |
| morning set | 5131 Jan 15 02:55 | 14° Z 53'07 | | morning rise | 5131 Nov 28 19:59 | 24° M 54'09 | |
| desc. node | 5131 Jan 15 17:14 | 15° Z 49'20 | | direct | 5131 Dec 01 14:14 | 24° M 12'39 | |
| | 5131 Jan 24 18:18 | 0° \approx | | morning max el | 5131 Dec 08 02:13 | 27° M 42'03 | 18°11'55 |
| max. Earth dist. | 5131 Jan 30 08:42 | 8° \approx 46'36 | 1.45210 AU | | 5131 Dec 10 04:13 | 0° J | |
| | | | | morning set | 5131 Dec 26 19:08 | 25° J 25'59 | |
| superior conj | 5131 Jan 31 13:18 | 10° \approx 38'55 | -1°36'15 | | 5131 Dec 29 14:31 | 0° Z | |

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|---------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| desc. node | 5132 Jan 02 14:15 | 6°♄26'33 | | superior conj | 5132 Dec 20 12:49 | 28°♄54'17 | -0°07'28 |
| | | | | minimum elong | 5132 Dec 20 11:59 | 28°♄50'51 | 0°07'19 |
| superior conj | 5132 Jan 10 17:16 | 19°♄22'05 | -0°54'21 | behind sun begin | 5132 Dec 20 03:00 | 28°♄14'20 | |
| minimum elong | 5132 Jan 10 10:35 | 18°♄55'43 | 0°53'29 | behind sun end | 5132 Dec 20 20:57 | 29°♄27'18 | |
| max. Earth dist. | 5132 Jan 13 04:13 | 23°♄13'55 | 1.45267 AU | | 5132 Dec 21 05:01 | 0°♄ | |
| | 5132 Jan 17 11:58 | 0°♄ | | max. Earth dist. | 5132 Dec 25 22:33 | 7°♄35'03 | 1.44596 AU |
| evening rise | 5132 Jan 26 23:20 | 14°♄45'57 | | evening rise | 5133 Jan 05 11:03 | 23°♄59'53 | |
| | 5132 Feb 05 19:13 | 0°♄ | | | 5133 Jan 09 09:13 | 0°♄ | |
| greatest brilliancy | 5132 Feb 08 01:48 | 3°♄27'56 | -0.7m | | 5133 Jan 30 07:58 | 0°♄ | |
| evening max el | 5132 Feb 20 03:53 | 19°♄44'21 | 19°26'34 | evening max el | 5133 Feb 02 06:37 | 3°♄17'58 | 20°25'44 |
| asc. node | 5132 Feb 23 04:48 | 22°♄21'49 | | asc. node | 5133 Feb 09 01:52 | 7°♄52'00 | |
| retrograde | 5132 Feb 27 08:17 | 23°♄51'31 | | retrograde | 5133 Feb 10 06:34 | 7°♄59'40 | |
| evening set | 5132 Mar 01 20:53 | 22°♄38'47 | | evening set | 5133 Feb 14 03:46 | 6°♄32'33 | |
| inferior conj | 5132 Mar 07 08:09 | 16°♄44'55 | 3°19'53 | inferior conj | 5133 Feb 19 12:28 | 0°♄25'41 | 2°56'24 |
| minimum elong | 5132 Mar 07 06:29 | 16°♄50'23 | 3°19'38 | minimum elong | 5133 Feb 19 10:12 | 0°♄33'27 | 2°55'53 |
| min. Earth dist. | 5132 Mar 08 14:21 | 15°♄06'14 | 0.66592 AU | | 5133 Feb 19 20:00 | 30°♄ | |
| morning rise | 5132 Mar 12 15:48 | 10°♄29'59 | | min. Earth dist. | 5133 Feb 20 04:56 | 29°♄29'34 | 0.67504 AU |
| direct | 5132 Mar 18 20:35 | 7°♄44'41 | | morning rise | 5133 Feb 24 16:25 | 24°♄11'23 | |
| desc. node | 5132 Mar 30 13:32 | 14°♄25'37 | | direct | 5133 Mar 02 07:58 | 21°♄40'10 | |
| morning max el | 5132 Mar 31 07:32 | 15°♄10'24 | 25°53'05 | morning max el | 5133 Mar 13 16:12 | 28°♄27'18 | 24°29'20 |
| | 5132 Apr 12 11:36 | 0°♄ | | | 5133 Mar 15 03:41 | 0°♄ | |
| | 5132 May 01 16:04 | 0°♄ | | desc. node | 5133 Mar 17 10:33 | 2°♄33'47 | |
| morning set | 5132 May 06 11:52 | 8°♄38'41 | | | 5133 Apr 06 05:31 | 0°♄ | |
| max. Earth dist. | 5132 May 10 08:01 | 15°♄51'54 | 1.35583 AU | morning set | 5133 Apr 18 14:17 | 20°♄24'55 | |
| | | | | max. Earth dist. | 5133 Apr 22 05:33 | 26°♄53'53 | 1.37573 AU |
| | | | | | 5133 Apr 23 22:14 | 0°♄ | |
| superior conj | 5132 May 15 19:01 | 26°♄37'44 | -0°53'03 | | | | |
| minimum elong | 5132 May 15 21:57 | 26°♄52'34 | 0°52'31 | | | | |
| | 5132 May 17 10:51 | 0°♄ | | superior conj | 5133 Apr 29 02:15 | 9°♄45'43 | -1°22'02 |
| asc. node | 5132 May 21 04:03 | 7°♄38'44 | | minimum elong | 5133 Apr 29 06:42 | 10°♄07'14 | 1°21'22 |
| evening rise | 5132 May 23 16:51 | 12°♄51'39 | | evening rise | 5133 May 07 18:03 | 26°♄52'10 | |
| | 5132 Jun 01 16:19 | 0°♄ | | asc. node | 5133 May 08 01:07 | 27°♄27'13 | |
| evening max el | 5132 Jun 10 17:55 | 12°♄16'52 | 20°14'34 | | 5133 May 09 08:03 | 0°♄ | |
| retrograde | 5132 Jun 21 11:13 | 17°♄31'40 | | evening max el | 5133 May 24 11:07 | 24°♄00'39 | 19°12'47 |
| evening set | 5132 Jun 23 09:50 | 17°♄22'03 | | retrograde | 5133 Jun 02 11:31 | 28°♄25'00 | |
| desc. node | 5132 Jun 26 12:44 | 16°♄29'52 | | evening set | 5133 Jun 04 11:11 | 28°♄13'06 | |
| inferior conj | 5132 Jul 02 12:49 | 13°♄23'39 | -1°47'18 | inferior conj | 5133 Jun 12 21:16 | 24°♄03'08 | 0°09'14 |
| minimum elong | 5132 Jul 02 07:48 | 13°♄31'04 | 1°45'27 | minimum elong | 5133 Jun 12 21:39 | 24°♄02'29 | 0°09'04 |
| min. Earth dist. | 5132 Jul 04 02:56 | 12°♄27'27 | 0.55041 AU | transit middle | 5133 Jun 12 21:39 | 24°♄02'29 | 0°09'04 |
| morning rise | 5132 Jul 11 04:25 | 9°♄09'37 | | transit begin | 5133 Jun 12 18:30 | 24°♄07'46 | |
| direct | 5132 Jul 15 05:41 | 8°♄33'59 | | transit end | 5133 Jun 13 00:49 | 23°♄57'11 | |
| morning max el | 5132 Jul 28 19:14 | 15°♄11'13 | 23°47'03 | desc. node | 5133 Jun 13 09:46 | 23°♄42'07 | |
| | 5132 Aug 09 11:00 | 0°♄ | | min. Earth dist. | 5133 Jun 15 17:37 | 22°♄09'06 | 0.56184 AU |
| asc. node | 5132 Aug 17 03:20 | 13°♄39'14 | | morning rise | 5133 Jun 21 05:01 | 19°♄14'36 | |
| morning set | 5132 Aug 21 22:02 | 23°♄25'04 | | direct | 5133 Jun 26 04:19 | 18°♄17'27 | |
| | 5132 Aug 24 23:44 | 0°♄ | | morning max el | 5133 Jul 10 08:55 | 25°♄32'28 | 25°27'34 |
| | | | | | 5133 Jul 14 13:19 | 0°♄ | |
| superior conj | 5132 Aug 28 21:33 | 8°♄28'40 | 1°35'43 | | 5133 Aug 02 09:07 | 0°♄ | |
| minimum elong | 5132 Aug 28 19:51 | 8°♄19'30 | 1°35'35 | asc. node | 5133 Aug 04 00:22 | 3°♄18'15 | |
| max. Earth dist. | 5132 Aug 31 04:38 | 13°♄24'19 | 1.33242 AU | morning set | 5133 Aug 06 09:37 | 8°♄16'52 | |
| evening rise | 5132 Sep 05 09:13 | 24°♄10'02 | | | | | |
| | 5132 Sep 08 08:21 | 0°♄ | | superior conj | 5133 Aug 13 07:53 | 23°♄21'43 | 1°23'36 |
| desc. node | 5132 Sep 22 12:00 | 24°♄21'15 | | minimum elong | 5133 Aug 13 05:40 | 23°♄09'31 | 1°23'19 |
| | 5132 Sep 26 08:35 | 0°♄ | | max. Earth dist. | 5133 Aug 14 11:04 | 25°♄50'42 | 1.32397 AU |
| evening max el | 5132 Oct 09 05:43 | 15°♄23'59 | 27°24'40 | | 5133 Aug 16 08:53 | 0°♄ | |
| retrograde | 5132 Oct 22 19:52 | 22°♄42'18 | | evening rise | 5133 Aug 20 09:45 | 8°♄32'57 | |
| evening set | 5132 Oct 29 21:38 | 20°♄04'15 | | | 5133 Aug 31 17:42 | 0°♄ | |
| min. Earth dist. | 5132 Nov 02 15:14 | 16°♄43'41 | 0.64038 AU | desc. node | 5133 Sep 09 09:01 | 13°♄32'52 | |
| inferior conj | 5132 Nov 05 02:52 | 14°♄08'24 | -2°36'45 | evening max el | 5133 Sep 21 14:43 | 28°♄13'44 | 27°21'37 |
| minimum elong | 5132 Nov 05 07:25 | 13°♄56'31 | 2°35'02 | | 5133 Sep 23 14:10 | 0°♄ | |
| morning rise | 5132 Nov 11 18:39 | 8°♄46'14 | | retrograde | 5133 Oct 05 10:04 | 5°♄27'59 | |
| asc. node | 5132 Nov 13 02:36 | 8°♄22'00 | | evening set | 5133 Oct 12 14:00 | 3°♄02'48 | |
| direct | 5132 Nov 14 06:26 | 8°♄15'12 | | min. Earth dist. | 5133 Oct 16 05:03 | 0°♄09'54 | 0.62221 AU |
| morning max el | 5132 Nov 20 18:58 | 11°♄40'11 | 17°52'32 | | 5133 Oct 16 09:27 | 30°♄ | |
| | 5132 Dec 03 08:00 | 0°♄ | | inferior conj | 5133 Oct 19 03:30 | 27°♄26'28 | -3°38'53 |
| morning set | 5132 Dec 07 15:11 | 7°♄19'53 | | minimum elong | 5133 Oct 19 09:31 | 27°♄12'27 | 3°37'01 |
| desc. node | 5132 Dec 19 11:16 | 27°♄10'11 | | morning rise | 5133 Oct 26 06:50 | 22°♄22'31 | |
| | | | | direct | 5133 Oct 28 15:00 | 21°♄58'19 | |

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| asc. node | 5133 Oct 30 23:37 | 22°♄23'42 | | asc. node | 5134 Oct 17 20:37 | 7°♄53'08 | |
| morning max el | 5133 Nov 04 11:07 | 25°♄27'04 | 17°51'06 | morning max el | 5134 Oct 18 23:21 | 8°♄53'29 | 18°08'54 |
| | 5133 Nov 08 06:23 | 0°♄ | | | 5134 Nov 01 15:41 | 0°♄ | |
| morning set | 5133 Nov 20 08:57 | 20°♄16'17 | | morning set | 5134 Nov 03 18:11 | 3°♄56'18 | |
| | 5133 Nov 25 19:55 | 0°♄ | | | | | |
| superior conj | 5133 Dec 01 10:09 | 9°♄42'06 | 0°34'25 | superior conj | 5134 Nov 13 08:43 | 21°♄43'07 | 1°06'29 |
| minimum elong | 5133 Dec 01 13:10 | 9°♄54'57 | 0°34'01 | minimum elong | 5134 Nov 13 12:40 | 22°♄00'50 | 1°05'59 |
| desc. node | 5133 Dec 06 08:17 | 17°♄57'09 | | | 5134 Nov 18 01:27 | 0°♄ | |
| max. Earth dist. | 5133 Dec 08 13:46 | 21°♄36'04 | 1.43281 AU | max. Earth dist. | 5134 Nov 21 00:21 | 5°♄02'33 | 1.41469 AU |
| | 5133 Dec 13 19:43 | 0°♄ | | desc. node | 5134 Nov 23 05:19 | 8°♄43'45 | |
| evening rise | 5133 Dec 15 23:33 | 3°♄23'04 | | evening rise | 5134 Nov 26 03:16 | 13°♄29'52 | |
| | 5134 Jan 02 20:15 | 0°♄ | | | 5134 Dec 06 18:04 | 0°♄ | |
| evening max el | 5134 Jan 16 03:56 | 16°♄53'11 | 21°36'42 | evening max el | 5134 Dec 29 08:26 | 0°♄ | |
| retrograde | 5134 Jan 25 04:06 | 22°♄13'53 | | | 5134 Dec 29 20:32 | 0°♄30'50 | 22°54'56 |
| asc. node | 5134 Jan 26 22:54 | 21°♄56'52 | | retrograde | 5135 Jan 08 23:22 | 6°♄30'56 | |
| evening set | 5134 Jan 29 11:33 | 20°♄31'28 | | evening set | 5135 Jan 13 18:38 | 4°♄32'40 | |
| inferior conj | 5134 Feb 03 19:38 | 14°♄14'29 | 2°23'35 | asc. node | 5135 Jan 13 19:54 | 4°♄30'01 | |
| minimum elong | 5134 Feb 03 17:14 | 14°♄22'49 | 2°22'52 | | 5135 Jan 17 19:18 | 30°♄ | |
| min. Earth dist. | 5134 Feb 03 23:40 | 14°♄00'32 | 0.68005 AU | inferior conj | 5135 Jan 19 03:42 | 28°♄08'59 | 1°42'49 |
| morning rise | 5134 Feb 08 22:44 | 8°♄02'31 | | minimum elong | 5135 Jan 19 01:39 | 28°♄16'07 | 1°42'06 |
| direct | 5134 Feb 13 23:49 | 5°♄51'36 | | min. Earth dist. | 5135 Jan 18 20:15 | 28°♄34'45 | 0.68112 AU |
| morning max el | 5134 Feb 24 01:31 | 11°♄49'47 | 23°00'02 | morning rise | 5135 Jan 24 08:33 | 22°♄00'54 | |
| desc. node | 5134 Mar 04 07:33 | 21°♄31'38 | | direct | 5135 Jan 28 19:08 | 20°♄12'52 | |
| | 5134 Mar 10 12:58 | 0°♄ | | morning max el | 5135 Feb 06 15:14 | 25°♄21'30 | 21°34'16 |
| | 5134 Mar 30 01:54 | 0°♄ | | | 5135 Feb 10 19:13 | 0°♄ | |
| morning set | 5134 Mar 30 15:37 | 0°♄56'54 | | desc. node | 5135 Feb 19 04:35 | 11°♄05'29 | |
| max. Earth dist. | 5134 Apr 04 00:53 | 8°♄22'26 | 1.39768 AU | | 5135 Mar 04 00:21 | 0°♄ | |
| | | | | morning set | 5135 Mar 10 12:23 | 10°♄08'28 | |
| superior conj | 5134 Apr 11 18:21 | 22°♄07'39 | -1°47'15 | max. Earth dist. | 5135 Mar 17 01:17 | 20°♄44'05 | 1.41885 AU |
| minimum elong | 5134 Apr 11 23:21 | 22°♄30'37 | 1°46'46 | | 5135 Mar 22 13:20 | 0°♄ | |
| | 5134 Apr 15 23:45 | 0°♄ | | superior conj | 5135 Mar 24 14:26 | 3°♄32'02 | -2°04'30 |
| evening rise | 5134 Apr 21 10:23 | 10°♄22'46 | | minimum elong | 5135 Mar 24 17:46 | 3°♄46'32 | 2°04'22 |
| asc. node | 5134 Apr 24 22:09 | 17°♄00'00 | | evening rise | 5135 Apr 04 14:09 | 23°♄14'47 | |
| | 5134 May 02 11:43 | 0°♄ | | | 5135 Apr 08 07:08 | 0°♄ | |
| evening max el | 5134 May 07 14:15 | 6°♄22'32 | 18°31'19 | asc. node | 5135 Apr 11 19:11 | 6°♄11'27 | |
| retrograde | 5134 May 15 06:24 | 10°♄10'00 | | evening max el | 5135 Apr 20 23:45 | 19°♄13'37 | 18°09'55 |
| evening set | 5134 May 17 12:29 | 9°♄51'26 | | retrograde | 5135 Apr 27 19:42 | 22°♄40'54 | |
| inferior conj | 5134 May 25 02:31 | 5°♄22'04 | 1°43'01 | evening set | 5135 Apr 30 08:36 | 22°♄12'51 | |
| minimum elong | 5134 May 25 05:44 | 5°♄15'44 | 1°42'00 | inferior conj | 5135 May 07 04:50 | 17°♄22'39 | 2°45'38 |
| min. Earth dist. | 5134 May 28 12:03 | 2°♄43'17 | 0.58014 AU | minimum elong | 5135 May 07 08:05 | 17°♄15'12 | 2°44'55 |
| desc. node | 5134 May 31 06:47 | 0°♄50'01 | | min. Earth dist. | 5135 May 10 12:44 | 14°♄21'09 | 0.60178 AU |
| morning rise | 5134 Jun 01 19:47 | 29°♄59'25 | | morning rise | 5135 May 14 05:08 | 11°♄34'26 | |
| | 5134 Jun 01 19:19 | 30°♄ | | desc. node | 5135 May 18 03:48 | 9°♄51'10 | |
| direct | 5134 Jun 07 17:00 | 28°♄31'06 | | direct | 5135 May 20 18:01 | 9°♄32'03 | |
| | 5134 Jun 13 17:59 | 0°♄ | | morning max el | 5135 Jun 04 01:55 | 17°♄25'40 | 27°39'40 |
| morning max el | 5134 Jun 22 02:09 | 6°♄10'11 | 26°49'24 | | 5135 Jun 14 12:22 | 0°♄ | |
| | 5134 Jul 09 17:41 | 0°♄ | | | 5135 Jul 02 08:12 | 0°♄ | |
| morning set | 5134 Jul 21 19:32 | 23°♄01'41 | | morning set | 5135 Jul 06 02:05 | 7°♄34'27 | |
| asc. node | 5134 Jul 21 21:23 | 23°♄11'27 | | asc. node | 5135 Jul 08 18:25 | 13°♄13'57 | |
| | 5134 Jul 25 01:29 | 0°♄ | | max. Earth dist. | 5135 Jul 12 08:50 | 21°♄03'42 | 1.31977 AU |
| superior conj | 5134 Jul 28 19:36 | 8°♄15'51 | 1°06'44 | superior conj | 5135 Jul 13 06:59 | 23°♄05'37 | 0°45'43 |
| minimum elong | 5134 Jul 28 17:20 | 8°♄03'17 | 1°06'20 | minimum elong | 5135 Jul 13 05:08 | 22°♄55'25 | 0°45'19 |
| max. Earth dist. | 5134 Jul 28 21:42 | 8°♄27'26 | 1.31979 AU | | 5135 Jul 16 10:11 | 0°♄ | |
| evening rise | 5134 Aug 04 16:09 | 23°♄10'54 | | evening rise | 5135 Jul 20 02:12 | 7°♄56'57 | |
| | 5134 Aug 07 23:33 | 0°♄ | | | 5135 Jul 31 11:55 | 0°♄ | |
| | 5134 Aug 25 19:10 | 0°♄ | | desc. node | 5135 Aug 14 03:04 | 19°♄07'12 | |
| desc. node | 5134 Aug 27 06:03 | 1°♄54'47 | | evening max el | 5135 Aug 16 13:39 | 21°♄36'24 | 25°36'51 |
| evening max el | 5134 Sep 03 18:03 | 10°♄20'02 | 26°45'04 | retrograde | 5135 Aug 30 12:26 | 28°♄41'44 | |
| retrograde | 5134 Sep 17 16:01 | 17°♄29'23 | | evening set | 5135 Sep 05 13:27 | 27°♄16'18 | |
| evening set | 5134 Sep 24 12:52 | 15°♄29'07 | | min. Earth dist. | 5135 Sep 10 01:36 | 24°♄38'45 | 0.58140 AU |
| min. Earth dist. | 5134 Sep 28 08:02 | 12°♄52'30 | 0.60195 AU | inferior conj | 5135 Sep 13 05:03 | 22°♄25'56 | -5°10'26 |
| inferior conj | 5134 Oct 01 13:22 | 10°♄15'32 | -4°33'37 | minimum elong | 5135 Sep 13 08:21 | 22°♄20'05 | 5°10'08 |
| minimum elong | 5134 Oct 01 19:26 | 10°♄03'09 | 4°32'19 | morning rise | 5135 Sep 21 05:33 | 18°♄06'55 | |
| morning rise | 5134 Oct 09 04:02 | 5°♄33'06 | | direct | 5135 Sep 23 16:42 | 17°♄47'56 | |
| direct | 5134 Oct 11 11:56 | 5°♄12'41 | | morning max el | 5135 Oct 02 04:22 | 21°♄50'34 | 18°47'22 |

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|------------------|-------------------|-------------------------------|----------------|---------------------|------------------------|-------------------------------|
| asc. node | 5135 Oct 04 17:39 | 24° \mathbb{M} 36'52 | | 5136 Sep 07 04:56 | 0° \mathbb{M} | |
| | 5135 Oct 08 14:32 | 0° \mathbb{L} | morning max el | 5136 Sep 13 23:06 | 4° \mathbb{M} 09'22 | 19°47'36 |
| morning set | 5135 Oct 18 14:12 | 18° \mathbb{L} 06'22 | asc. node | 5136 Sep 20 14:41 | 12° \mathbb{M} 20'03 | |
| | 5135 Oct 24 16:22 | 0° \mathbb{M} | morning set | 5136 Sep 30 10:17 | 0° \mathbb{L} | |
| | | | | 5136 Oct 01 17:35 | 2° \mathbb{L} 37'19 | |
| superior conj | 5135 Oct 27 03:37 | 4° \mathbb{M} 43'19 | 1°27'57 | superior conj | 5136 Oct 09 13:38 | 18° \mathbb{L} 28'01 |
| minimum elong | 5135 Oct 27 06:42 | 4° \mathbb{M} 57'54 | 1°27'40 | minimum elong | 5136 Oct 09 15:12 | 18° \mathbb{L} 35'44 |
| max. Earth dist. | 5135 Nov 03 06:19 | 17° \mathbb{M} 45'23 | 1.39387 AU | max. Earth dist. | 5136 Oct 15 11:13 | 29° \mathbb{L} 51'36 |
| evening rise | 5135 Nov 07 05:16 | 24° \mathbb{M} 36'59 | | | 5136 Oct 15 13:00 | 0° \mathbb{M} |
| desc. node | 5135 Nov 10 02:19 | 29° \mathbb{M} 26'12 | | evening rise | 5136 Oct 19 05:36 | 6° \mathbb{M} 45'33 |
| | 5135 Nov 10 10:31 | 0° \mathbb{X} | | desc. node | 5136 Oct 26 23:21 | 20° \mathbb{M} 00'46 |
| | 5135 Nov 30 12:28 | 0° \mathbb{Z} | | | 5136 Nov 02 07:22 | 0° \mathbb{X} |
| evening max el | 5135 Dec 12 10:03 | 14° \mathbb{Z} 11'23 | 24°14'40 | evening max el | 5136 Nov 23 22:34 | 27° \mathbb{X} 54'58 |
| retrograde | 5135 Dec 23 15:14 | 20° \mathbb{Z} 46'13 | | | 5136 Nov 26 04:41 | 0° \mathbb{Z} |
| evening set | 5135 Dec 28 23:29 | 18° \mathbb{Z} 32'32 | | retrograde | 5136 Dec 06 02:44 | 4° \mathbb{Z} 55'09 |
| asc. node | 5135 Dec 31 16:55 | 15° \mathbb{Z} 41'30 | | evening set | 5136 Dec 12 00:28 | 2° \mathbb{Z} 28'01 |
| min. Earth dist. | 5136 Jan 02 16:25 | 13° \mathbb{Z} 08'13 | 0.67848 AU | | 5136 Dec 14 11:25 | 30° \mathbb{R} \mathbb{X} |
| inferior conj | 5136 Jan 03 10:52 | 12° \mathbb{Z} 06'06 | 0°55'03 | min. Earth dist. | 5136 Dec 16 09:58 | 27° \mathbb{X} 38'04 |
| minimum elong | 5136 Jan 03 09:36 | 12° \mathbb{Z} 10'22 | 0°54'34 | inferior conj | 5136 Dec 17 15:22 | 26° \mathbb{X} 03'33 |
| morning rise | 5136 Jan 08 19:48 | 6° \mathbb{Z} 03'37 | | minimum elong | 5136 Dec 17 15:20 | 26° \mathbb{X} 03'40 |
| direct | 5136 Jan 12 16:48 | 4° \mathbb{Z} 38'03 | | transit middle | 5136 Dec 17 15:20 | 26° \mathbb{X} 03'40 |
| morning max el | 5136 Jan 20 12:13 | 9° \mathbb{Z} 04'53 | 20°18'32 | transit begin | 5136 Dec 17 12:33 | 26° \mathbb{X} 12'39 |
| | 5136 Feb 05 08:02 | 0° \mathbb{A} | | transit end | 5136 Dec 17 18:08 | 25° \mathbb{X} 54'41 |
| desc. node | 5136 Feb 06 01:35 | 1° \mathbb{A} 04'58 | | asc. node | 5136 Dec 17 13:56 | 26° \mathbb{X} 08'11 |
| morning set | 5136 Feb 17 11:35 | 18° \mathbb{A} 24'23 | | morning rise | 5136 Dec 23 06:33 | 20° \mathbb{X} 08'37 |
| | 5136 Feb 24 21:11 | 0° \mathbb{X} | | direct | 5136 Dec 26 15:34 | 19° \mathbb{X} 03'00 |
| max. Earth dist. | 5136 Feb 27 09:01 | 3° \mathbb{X} 58'54 | 1.43644 AU | morning max el | 5137 Jan 02 17:07 | 22° \mathbb{X} 59'07 |
| | | | | | 5137 Jan 08 13:15 | 0° \mathbb{Z} |
| superior conj | 5136 Mar 04 09:56 | 13° \mathbb{X} 48'44 | -2°08'22 | greatest brilliancy | 5137 Jan 16 03:22 | 10° \mathbb{Z} 59'12 |
| minimum elong | 5136 Mar 04 08:21 | 13° \mathbb{X} 42'10 | 2°08'20 | desc. node | 5137 Jan 22 22:37 | 21° \mathbb{Z} 23'18 |
| | 5136 Mar 13 23:37 | 0° \mathbb{Y} | | morning set | 5137 Jan 26 11:32 | 26° \mathbb{Z} 51'35 |
| evening rise | 5136 Mar 17 00:58 | 5° \mathbb{Y} 18'14 | | | 5137 Jan 28 12:07 | 0° \mathbb{A} |
| asc. node | 5136 Mar 28 16:13 | 24° \mathbb{Y} 53'57 | | max. Earth dist. | 5137 Feb 08 23:02 | 17° \mathbb{A} 54'12 |
| | 5136 Apr 01 08:31 | 0° \mathbb{B} | | | | 1.44835 AU |
| evening max el | 5136 Apr 03 12:14 | 2° \mathbb{B} 24'27 | 18°07'58 | superior conj | 5137 Feb 12 04:43 | 23° \mathbb{A} 01'39 |
| retrograde | 5136 Apr 09 23:07 | 5° \mathbb{B} 46'42 | | minimum elong | 5137 Feb 11 21:00 | 22° \mathbb{A} 31'00 |
| evening set | 5136 Apr 12 18:19 | 5° \mathbb{B} 07'28 | | | 5137 Feb 16 13:21 | 0° \mathbb{X} |
| | 5136 Apr 18 23:47 | 30° \mathbb{R} \mathbb{Y} | | evening rise | 5137 Feb 26 14:38 | 16° \mathbb{X} 25'57 |
| inferior conj | 5136 Apr 19 00:43 | 29° \mathbb{Y} 57'33 | 3°20'12 | | 5137 Mar 06 19:47 | 0° \mathbb{Y} |
| minimum elong | 5136 Apr 19 02:36 | 29° \mathbb{Y} 52'37 | 3°19'58 | asc. node | 5137 Mar 15 13:15 | 12° \mathbb{Y} 58'50 |
| min. Earth dist. | 5136 Apr 21 21:55 | 26° \mathbb{Y} 57'42 | 0.62352 AU | evening max el | 5137 Mar 18 00:49 | 15° \mathbb{Y} 48'01 |
| morning rise | 5136 Apr 25 09:21 | 23° \mathbb{Y} 53'56 | | retrograde | 5137 Mar 24 12:07 | 19° \mathbb{Y} 18'33 |
| direct | 5136 May 02 05:23 | 21° \mathbb{Y} 23'12 | | evening set | 5137 Mar 27 13:36 | 18° \mathbb{Y} 26'58 |
| desc. node | 5136 May 04 00:50 | 21° \mathbb{Y} 32'59 | | inferior conj | 5137 Apr 02 10:03 | 12° \mathbb{Y} 58'45 |
| morning max el | 5136 May 16 07:40 | 29° \mathbb{Y} 23'40 | 27°52'27 | minimum elong | 5137 Apr 02 10:18 | 12° \mathbb{Y} 58'01 |
| | 5136 May 16 22:01 | 0° \mathbb{B} | | min. Earth dist. | 5137 Apr 04 16:27 | 10° \mathbb{Y} 21'04 |
| | 5136 Jun 07 10:57 | 0° \mathbb{I} | | morning rise | 5137 Apr 08 06:12 | 6° \mathbb{Y} 47'33 |
| morning set | 5136 Jun 19 03:16 | 21° \mathbb{I} 48'37 | | direct | 5137 Apr 15 01:09 | 4° \mathbb{Y} 00'30 |
| | 5136 Jun 23 01:52 | 0° \mathbb{G} | | desc. node | 5137 Apr 20 21:52 | 5° \mathbb{Y} 43'46 |
| max. Earth dist. | 5136 Jun 24 16:26 | 3° \mathbb{G} 26'11 | 1.32395 AU | morning max el | 5137 Apr 28 16:49 | 11° \mathbb{Y} 57'40 |
| asc. node | 5136 Jun 24 15:28 | 3° \mathbb{G} 20'55 | | | 5137 May 13 01:20 | 0° \mathbb{B} |
| | | | | | 5137 May 30 22:51 | 0° \mathbb{I} |
| superior conj | 5136 Jun 26 16:19 | 7° \mathbb{G} 45'19 | 0°21'05 | morning set | 5137 Jun 02 20:30 | 5° \mathbb{I} 36'05 |
| minimum elong | 5136 Jun 26 15:20 | 7° \mathbb{G} 40'01 | 0°20'52 | max. Earth dist. | 5137 Jun 07 16:28 | 15° \mathbb{I} 22'40 |
| evening rise | 5136 Jul 03 13:52 | 22° \mathbb{G} 44'29 | | | | 1.33265 AU |
| | 5136 Jul 07 01:31 | 0° \mathbb{Q} | | superior conj | 5137 Jun 10 21:39 | 22° \mathbb{I} 08'50 |
| | 5136 Jul 25 23:43 | 0° \mathbb{M} | | minimum elong | 5137 Jun 10 21:59 | 22° \mathbb{I} 10'35 |
| evening max el | 5136 Jul 28 03:01 | 2° \mathbb{M} 11'48 | 24°06'26 | behind sun begin | 5137 Jun 10 16:58 | 21° \mathbb{I} 43'52 |
| desc. node | 5136 Jul 31 00:05 | 4° \mathbb{M} 43'03 | | behind sun end | 5137 Jun 11 03:00 | 22° \mathbb{I} 37'20 |
| retrograde | 5136 Aug 10 21:44 | 9° \mathbb{M} 07'59 | | asc. node | 5137 Jun 11 12:31 | 23° \mathbb{I} 28'04 |
| evening set | 5136 Aug 15 13:53 | 8° \mathbb{M} 19'35 | | | 5137 Jun 14 13:34 | 0° \mathbb{G} |
| min. Earth dist. | 5136 Aug 21 13:37 | 5° \mathbb{M} 22'21 | 0.56338 AU | evening rise | 5137 Jun 18 01:20 | 7° \mathbb{G} 27'14 |
| inferior conj | 5136 Aug 24 00:35 | 3° \mathbb{M} 51'13 | -5°13'59 | | 5137 Jun 29 23:23 | 0° \mathbb{Q} |
| minimum elong | 5136 Aug 23 21:59 | 3° \mathbb{M} 55'16 | 5°13'50 | evening max el | 5137 Jul 09 16:41 | 12° \mathbb{Q} 33'13 |
| | 5136 Aug 31 20:28 | 30° \mathbb{R} \mathbb{Q} | | desc. node | 5137 Jul 17 21:07 | 18° \mathbb{Q} 08'06 |
| morning rise | 5136 Sep 01 08:36 | 29° \mathbb{Q} 52'23 | | retrograde | 5137 Jul 22 18:28 | 19° \mathbb{Q} 03'17 |
| direct | 5136 Sep 04 02:02 | 29° \mathbb{Q} 33'00 | | | | |

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|---------------------|-------------------|------------------------|------------|---------------------|-------------------|------------------------|------------|
| evening set | 5137 Jul 25 22:24 | 18° Ω 41'15 | | evening set | 5138 Jul 05 11:24 | 28° Ω 47'12 | |
| min. Earth dist. | 5137 Aug 02 23:53 | 15° Ω 10'25 | 0.55134 AU | inferior conj | 5138 Jul 14 19:24 | 24° Ω 49'51 | -2°54'51 |
| inferior conj | 5137 Aug 04 02:13 | 14° Ω 33'03 | -4°28'58 | minimum elong | 5138 Jul 14 11:36 | 25° Ω 00'51 | 2°52'16 |
| minimum elong | 5137 Aug 03 18:06 | 14° Ω 44'35 | 4°27'15 | min. Earth dist. | 5138 Jul 15 10:37 | 24° Ω 28'22 | 0.54803 AU |
| morning rise | 5137 Aug 12 15:43 | 10° Ω 43'05 | | morning rise | 5138 Jul 23 11:53 | 20° Ω 50'37 | |
| direct | 5137 Aug 15 18:13 | 10° Ω 21'08 | | direct | 5138 Jul 27 03:28 | 20° Ω 21'59 | |
| morning max el | 5137 Aug 27 05:41 | 15° Ω 42'15 | 21°08'59 | morning max el | 5138 Aug 09 01:25 | 26° Ω 32'02 | 22°46'58 |
| asc. node | 5137 Sep 07 11:45 | 0° \mathbb{M} 48'29 | | | 5138 Aug 12 09:23 | 0° Ω | |
| | 5137 Sep 07 00:24 | 0° \mathbb{M} | | asc. node | 5138 Aug 25 08:50 | 19° Ω 51'17 | |
| morning set | 5137 Sep 16 01:42 | 17° \mathbb{M} 21'13 | | | 5138 Aug 30 11:12 | 0° \mathbb{M} | |
| | 5137 Sep 22 02:49 | 0° Ω | | morning set | 5138 Aug 31 12:32 | 2° \mathbb{M} 12'27 | |
| superior conj | 5137 Sep 23 10:18 | 2° Ω 43'23 | 1°43'31 | superior conj | 5138 Sep 07 14:16 | 17° \mathbb{M} 19'39 | 1°40'17 |
| minimum elong | 5137 Sep 23 10:20 | 2° Ω 43'33 | 1°43'31 | minimum elong | 5138 Sep 07 13:05 | 17° \mathbb{M} 13'20 | 1°40'14 |
| max. Earth dist. | 5137 Sep 27 20:50 | 11° Ω 43'21 | 1.35436 AU | max. Earth dist. | 5138 Sep 10 15:06 | 23° \mathbb{M} 43'46 | 1.33932 AU |
| evening rise | 5137 Oct 02 00:34 | 19° Ω 45'31 | | | 5138 Sep 13 16:34 | 0° Ω | |
| | 5137 Oct 07 15:59 | 0° \mathbb{M} | | evening rise | 5138 Sep 15 09:55 | 3° Ω 25'43 | |
| desc. node | 5137 Oct 13 20:23 | 10° \mathbb{M} 21'48 | | | 5138 Sep 30 11:31 | 0° \mathbb{M} | |
| | 5137 Oct 27 08:07 | 0° \mathbb{M} | | desc. node | 5138 Sep 30 17:24 | 0° \mathbb{M} 22'57 | |
| evening max el | 5137 Nov 06 11:20 | 11° \mathbb{M} 36'59 | 26°30'54 | evening max el | 5138 Oct 20 00:05 | 25° \mathbb{M} 08'28 | 27°12'30 |
| retrograde | 5137 Nov 19 09:03 | 18° \mathbb{M} 50'49 | | | 5138 Oct 26 02:14 | 0° \mathbb{M} | |
| evening set | 5137 Nov 25 19:41 | 16° \mathbb{M} 14'12 | | retrograde | 5138 Nov 02 09:22 | 2° \mathbb{M} 26'11 | |
| min. Earth dist. | 5137 Nov 29 22:30 | 11° \mathbb{M} 59'25 | 0.66264 AU | | 5138 Nov 08 23:40 | 30° \mathbb{M} | |
| inferior conj | 5137 Dec 01 15:14 | 9° \mathbb{M} 56'52 | -0°57'41 | evening set | 5138 Nov 09 06:53 | 29° \mathbb{M} 46'17 | |
| minimum elong | 5137 Dec 01 16:50 | 9° \mathbb{M} 52'04 | 0°57'00 | min. Earth dist. | 5138 Nov 13 03:36 | 26° \mathbb{M} 06'36 | 0.64952 AU |
| asc. node | 5137 Dec 04 10:59 | 6° \mathbb{M} 44'20 | | inferior conj | 5138 Nov 15 08:14 | 23° \mathbb{M} 41'24 | -2°00'08 |
| morning rise | 5137 Dec 07 14:40 | 4° \mathbb{M} 12'07 | | minimum elong | 5138 Nov 15 11:42 | 23° \mathbb{M} 31'48 | 1°58'44 |
| direct | 5137 Dec 10 13:42 | 3° \mathbb{M} 22'51 | | asc. node | 5138 Nov 21 08:03 | 18° \mathbb{M} 21'42 | |
| morning max el | 5137 Dec 17 04:34 | 6° \mathbb{M} 59'12 | 18°30'44 | morning rise | 5138 Nov 21 17:39 | 18° \mathbb{M} 09'54 | |
| | 5138 Jan 02 08:00 | 0° \mathbb{M} | | direct | 5138 Nov 24 08:55 | 17° \mathbb{M} 33'11 | |
| morning set | 5138 Jan 06 10:32 | 6° \mathbb{M} 32'09 | | morning max el | 5138 Nov 30 20:09 | 20° \mathbb{M} 59'33 | 18°01'29 |
| desc. node | 5138 Jan 09 19:39 | 11° \mathbb{M} 54'37 | | | 5138 Dec 07 18:14 | 0° \mathbb{M} | |
| | 5138 Jan 21 07:02 | 0° \approx | | morning set | 5138 Dec 18 15:10 | 17° \mathbb{M} 41'13 | |
| superior conj | 5138 Jan 22 08:31 | 1° \approx 39'54 | -1°19'52 | | 5138 Dec 26 02:34 | 0° \mathbb{M} | |
| minimum elong | 5138 Jan 21 23:29 | 1° \approx 04'29 | 1°18'52 | desc. node | 5138 Dec 27 16:39 | 2° \mathbb{M} 34'38 | |
| max. Earth dist. | 5138 Jan 22 17:17 | 2° \approx 14'15 | 1.45324 AU | superior conj | 5139 Jan 01 16:52 | 10° \mathbb{M} 37'13 | -0°34'21 |
| evening rise | 5138 Feb 07 04:58 | 26° \approx 36'48 | | minimum elong | 5139 Jan 01 12:40 | 10° \mathbb{M} 20'27 | 0°33'45 |
| | 5138 Feb 09 08:13 | 0° \mathbb{M} | | max. Earth dist. | 5139 Jan 05 12:59 | 16° \mathbb{M} 41'57 | 1.45069 AU |
| greatest brilliancy | 5138 Feb 16 11:45 | 11° \mathbb{M} 18'07 | -0.8m | | 5139 Jan 14 01:23 | 0° \approx | |
| evening max el | 5138 Mar 01 11:01 | 29° \mathbb{M} 18'37 | 18°59'19 | evening rise | 5139 Jan 17 23:24 | 6° \approx 03'31 | |
| asc. node | 5138 Mar 02 10:17 | 0° \mathbb{Y} 14'53 | | greatest brilliancy | 5139 Jan 31 20:07 | 27° \approx 10'18 | -0.7m |
| | 5138 Mar 02 03:52 | 0° \mathbb{Y} | | | 5139 Feb 02 18:21 | 0° \mathbb{M} | |
| retrograde | 5138 Mar 08 06:57 | 3° \mathbb{Y} 09'08 | | evening max el | 5139 Feb 12 16:50 | 12° \mathbb{M} 51'32 | 19°50'08 |
| evening set | 5138 Mar 11 15:16 | 2° \mathbb{Y} 04'18 | | asc. node | 5139 Feb 17 07:19 | 16° \mathbb{M} 27'54 | |
| | 5138 Mar 14 02:00 | 30° \mathbb{M} | | retrograde | 5139 Feb 20 04:39 | 17° \mathbb{M} 12'08 | |
| inferior conj | 5138 Mar 17 05:06 | 26° \mathbb{M} 19'23 | 3°28'24 | evening set | 5139 Feb 23 20:50 | 15° \mathbb{M} 53'11 | |
| minimum elong | 5138 Mar 17 04:00 | 26° \mathbb{M} 22'51 | 3°28'18 | inferior conj | 5139 Mar 01 06:44 | 9° \mathbb{M} 53'31 | 3°11'10 |
| min. Earth dist. | 5138 Mar 18 19:55 | 24° \mathbb{M} 17'09 | 0.65877 AU | minimum elong | 5139 Mar 01 04:45 | 10° \mathbb{M} 00'10 | 3°10'48 |
| morning rise | 5138 Mar 22 16:20 | 20° \mathbb{M} 05'14 | | min. Earth dist. | 5139 Mar 02 06:52 | 8° \mathbb{M} 33'04 | 0.67031 AU |
| direct | 5138 Mar 29 03:42 | 17° \mathbb{M} 15'44 | | morning rise | 5139 Mar 06 12:27 | 3° \mathbb{M} 38'57 | |
| desc. node | 5138 Apr 07 18:55 | 21° \mathbb{M} 50'40 | | direct | 5139 Mar 12 11:55 | 0° \mathbb{M} 58'46 | |
| morning max el | 5138 Apr 11 02:47 | 24° \mathbb{M} 56'33 | 26°34'39 | morning max el | 5139 Mar 24 11:58 | 8° \mathbb{M} 08'58 | 25°18'55 |
| | 5138 Apr 15 16:55 | 0° \mathbb{Y} | | desc. node | 5139 Mar 25 15:56 | 9° \mathbb{M} 21'30 | |
| | 5138 May 06 12:22 | 0° \mathbb{B} | | | 5139 Apr 10 14:32 | 0° \mathbb{Y} | |
| morning set | 5138 May 17 02:25 | 18° \mathbb{B} 47'10 | | | 5139 Apr 29 01:14 | 0° \mathbb{B} | |
| max. Earth dist. | 5138 May 21 06:00 | 26° \mathbb{B} 49'05 | 1.34608 AU | morning set | 5139 Apr 29 16:24 | 1° \mathbb{B} 08'10 | |
| | 5138 May 22 20:15 | 0° \mathbb{M} | | max. Earth dist. | 5139 May 03 08:40 | 7° \mathbb{B} 53'57 | 1.36395 AU |
| superior conj | 5138 May 25 20:47 | 6° \mathbb{M} 09'47 | -0°35'49 | superior conj | 5139 May 09 10:46 | 19° \mathbb{B} 39'19 | -1°05'34 |
| minimum elong | 5138 May 25 22:43 | 6° \mathbb{M} 19'49 | 0°35'25 | minimum elong | 5139 May 09 14:24 | 19° \mathbb{B} 57'22 | 1°04'57 |
| asc. node | 5138 May 29 09:34 | 13° \mathbb{M} 31'34 | | | 5139 May 14 14:00 | 0° \mathbb{M} | |
| evening rise | 5138 Jun 02 10:38 | 21° \mathbb{M} 59'25 | | asc. node | 5139 May 16 06:36 | 3° \mathbb{M} 26'34 | |
| | 5138 Jun 06 09:21 | 0° \mathbb{B} | | evening rise | 5139 May 17 15:31 | 6° \mathbb{M} 13'28 | |
| evening max el | 5138 Jun 21 14:37 | 23° \mathbb{B} 13'46 | 20°58'57 | | 5139 May 31 02:47 | 0° \mathbb{B} | |
| retrograde | 5138 Jul 03 07:03 | 28° \mathbb{B} 58'25 | | evening max el | 5139 Jun 04 00:43 | 4° \mathbb{B} 32'19 | 19°45'43 |
| desc. node | 5138 Jul 04 18:09 | 28° \mathbb{B} 53'20 | | retrograde | 5139 Jun 13 23:50 | 9° \mathbb{B} 24'34 | |

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|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| evening set | 5139 Jun 15 21:53 | 9°☿14'31 | | retrograde | 5140 May 25 07:58 | 20°♊39'42 | |
| desc. node | 5139 Jun 21 15:11 | 7°☿03'46 | | evening set | 5140 May 27 09:56 | 20°♊25'29 | |
| inferior conj | 5139 Jun 24 18:33 | 5°☿12'12 | -0°56'21 | inferior conj | 5140 Jun 04 11:26 | 16°♊07'27 | 0°52'39 |
| minimum elong | 5139 Jun 24 15:57 | 5°☿16'13 | 0°55'24 | minimum elong | 5140 Jun 04 13:26 | 16°♊03'53 | 0°51'56 |
| min. Earth dist. | 5139 Jun 26 23:14 | 3°☿50'54 | 0.55433 AU | min. Earth dist. | 5140 Jun 07 15:19 | 13°♊52'13 | 0.56899 AU |
| morning rise | 5139 Jul 03 07:53 | 0°☿44'45 | | desc. node | 5140 Jun 07 12:12 | 13°♊57'35 | |
| direct | 5139 Jul 07 18:08 | 0°☿01'30 | | morning rise | 5140 Jun 12 13:36 | 11°♊03'24 | |
| morning max el | 5139 Jul 21 15:26 | 6°☿55'28 | 24°31'03 | direct | 5140 Jun 17 22:19 | 9°♊54'08 | |
| | 5139 Aug 07 08:05 | 0°♊ | | morning max el | 5140 Jul 02 06:16 | 17°♊21'00 | 26°05'33 |
| asc. node | 5139 Aug 12 05:52 | 9°♊18'56 | | | 5140 Jul 12 16:49 | 0°☿ | |
| morning set | 5139 Aug 16 00:18 | 17°♊05'24 | | asc. node | 5140 Jul 29 02:53 | 29°☿04'29 | |
| | 5139 Aug 21 23:22 | 0°♊ | | | 5140 Jul 29 13:32 | 0°♊ | |
| | | | | morning set | 5140 Jul 30 11:22 | 1°♊54'51 | |
| superior conj | 5139 Aug 22 22:53 | 2°♊08'16 | 1°31'11 | superior conj | 5140 Aug 06 10:01 | 17°♊02'22 | 1°17'00 |
| minimum elong | 5139 Aug 22 20:54 | 1°♊57'30 | 1°30'59 | minimum elong | 5140 Aug 06 07:43 | 16°♊49'41 | 1°16'38 |
| max. Earth dist. | 5139 Aug 24 17:48 | 6°♊01'06 | 1.32837 AU | max. Earth dist. | 5140 Aug 07 02:25 | 18°♊32'43 | 1.32168 AU |
| evening rise | 5139 Aug 30 05:48 | 17°♊35'17 | | | 5140 Aug 12 09:18 | 0°♊ | |
| | 5139 Sep 05 15:04 | 0°♊ | | evening rise | 5140 Aug 13 09:07 | 2°♊05'05 | |
| desc. node | 5139 Sep 17 14:26 | 19°♊55'50 | | | 5140 Aug 28 12:36 | 0°♊ | |
| | 5139 Sep 24 23:08 | 0°♊ | | desc. node | 5140 Sep 03 11:28 | 8°♊48'20 | |
| evening max el | 5139 Oct 02 11:00 | 8°♊16'40 | 27°27'15 | evening max el | 5140 Sep 13 17:40 | 20°♊48'13 | 27°10'04 |
| retrograde | 5139 Oct 16 03:20 | 15°♊32'56 | | retrograde | 5140 Sep 27 14:19 | 28°♊00'56 | |
| evening set | 5139 Oct 23 07:10 | 12°♊58'50 | | evening set | 5140 Oct 04 16:42 | 25°♊44'28 | |
| min. Earth dist. | 5139 Oct 26 23:11 | 9°♊51'14 | 0.63303 AU | min. Earth dist. | 5140 Oct 08 08:09 | 23°♊00'37 | 0.61375 AU |
| inferior conj | 5139 Oct 29 15:42 | 7°♊11'07 | -3°03'35 | inferior conj | 5140 Oct 11 10:27 | 20°♊17'34 | -4°03'34 |
| minimum elong | 5139 Oct 29 20:59 | 6°♊58'00 | 3°01'43 | minimum elong | 5140 Oct 11 16:45 | 20°♊03'43 | 4°01'51 |
| morning rise | 5139 Nov 05 12:22 | 1°♊56'24 | | morning rise | 5140 Oct 18 18:46 | 15°♊22'50 | |
| direct | 5139 Nov 07 22:22 | 1°♊28'34 | | direct | 5140 Oct 21 02:22 | 15°♊00'38 | |
| asc. node | 5139 Nov 08 05:06 | 1°♊28'57 | | asc. node | 5140 Oct 25 02:07 | 16°♊09'13 | |
| morning max el | 5139 Nov 14 13:03 | 4°♊53'45 | 17°49'42 | morning max el | 5140 Oct 28 04:01 | 18°♊33'17 | 17°56'18 |
| morning set | 5139 Nov 30 21:16 | 0°♊04'12 | | | 5140 Nov 05 10:37 | 0°♊ | |
| | 5139 Nov 30 20:18 | 0°♊ | | morning set | 5140 Nov 12 22:15 | 13°♊20'38 | |
| superior conj | 5139 Dec 12 22:54 | 20°♊40'23 | 0°11'22 | | 5140 Nov 22 03:51 | 0°♊ | |
| minimum elong | 5139 Dec 13 00:05 | 20°♊45'16 | 0°11'13 | superior conj | 5140 Nov 23 07:29 | 2°♊00'51 | 0°49'20 |
| behind sun begin | 5139 Dec 12 17:14 | 20°♊16'52 | | minimum elong | 5140 Nov 23 11:12 | 2°♊17'01 | 0°48'50 |
| behind sun end | 5139 Dec 13 06:57 | 21°♊13'37 | | desc. node | 5140 Nov 30 10:41 | 14°♊07'07 | |
| desc. node | 5139 Dec 14 13:40 | 23°♊20'04 | | max. Earth dist. | 5140 Nov 30 19:50 | 14°♊44'51 | 1.42551 AU |
| | 5139 Dec 18 16:13 | 0°♊ | | evening rise | 5140 Dec 07 02:56 | 24°♊54'08 | |
| max. Earth dist. | 5139 Dec 19 06:44 | 0°♊58'13 | 1.44105 AU | | 5140 Dec 10 09:10 | 0°♊ | |
| evening rise | 5139 Dec 28 09:28 | 15°♊16'32 | | | 5140 Dec 31 02:14 | 0°♊ | |
| | 5140 Jan 07 02:41 | 0°♊ | | evening max el | 5141 Jan 08 12:09 | 10°♊00'24 | 22°09'24 |
| evening max el | 5140 Jan 26 17:11 | 26°♊25'24 | 20°54'42 | retrograde | 5141 Jan 17 23:44 | 15°♊38'49 | |
| | 5140 Jan 30 23:00 | 0°♊ | | asc. node | 5141 Jan 21 01:23 | 14°♊49'01 | |
| retrograde | 5140 Feb 04 02:53 | 1°♊23'28 | | evening set | 5141 Jan 22 11:58 | 13°♊49'40 | |
| asc. node | 5140 Feb 04 04:22 | 1°♊23'27 | | inferior conj | 5141 Jan 27 20:16 | 7°♊29'07 | 2°07'12 |
| | 5140 Feb 07 22:52 | 30°♊ | | minimum elong | 5141 Jan 27 17:57 | 7°♊37'10 | 2°06'27 |
| evening set | 5140 Feb 08 04:19 | 29°♊49'43 | | min. Earth dist. | 5141 Jan 27 19:18 | 7°♊32'31 | 0.68090 AU |
| inferior conj | 5140 Feb 13 12:30 | 23°♊37'56 | 2°43'31 | morning rise | 5141 Feb 01 23:48 | 1°♊18'25 | |
| minimum elong | 5140 Feb 13 10:07 | 23°♊46'10 | 2°42'55 | | 5141 Feb 03 21:41 | 30°♊ | |
| min. Earth dist. | 5140 Feb 13 23:26 | 23°♊00'17 | 0.67761 AU | direct | 5141 Feb 06 18:32 | 29°♊17'14 | |
| morning rise | 5140 Feb 18 15:46 | 17°♊24'32 | | | 5141 Feb 09 20:24 | 0°♊ | |
| direct | 5140 Feb 24 01:08 | 15°♊01'43 | | morning max el | 5141 Feb 16 07:32 | 4°♊54'31 | 22°22'40 |
| morning max el | 5140 Mar 05 20:43 | 21°♊28'44 | 23°51'36 | desc. node | 5141 Feb 26 09:56 | 17°♊06'47 | |
| desc. node | 5140 Mar 11 12:56 | 27°♊52'40 | | | 5141 Mar 07 12:07 | 0°♊ | |
| | 5140 Mar 13 05:43 | 0°♊ | | morning set | 5141 Mar 21 22:06 | 22°♊21'34 | |
| | 5140 Apr 02 21:07 | 0°♊ | | | 5141 Mar 26 12:50 | 0°♊ | |
| morning set | 5140 Apr 10 08:52 | 12°♊24'27 | | max. Earth dist. | 5141 Mar 27 01:01 | 0°♊51'26 | 1.40687 AU |
| max. Earth dist. | 5140 Apr 14 04:39 | 19°♊04'24 | 1.38497 AU | | | | |
| | 5140 Apr 20 04:29 | 0°♊ | | superior conj | 5141 Apr 03 20:11 | 14°♊26'37 | -1°55'51 |
| superior conj | 5140 Apr 21 12:04 | 2°♊28'34 | -1°33'23 | minimum elong | 5141 Apr 04 00:50 | 14°♊47'29 | 1°55'30 |
| minimum elong | 5140 Apr 21 16:56 | 2°♊51'36 | 1°32'46 | | 5141 Apr 12 06:50 | 0°♊ | |
| evening rise | 5140 Apr 30 13:20 | 20°♊02'18 | | evening rise | 5141 Apr 14 00:47 | 3°♊17'04 | |
| asc. node | 5140 May 02 03:38 | 23°♊08'51 | | asc. node | 5141 Apr 19 00:40 | 12°♊33'06 | |
| | 5140 May 05 18:12 | 0°♊ | | evening max el | 5141 Apr 30 04:41 | 29°♊07'51 | 18°19'53 |
| evening max el | 5140 May 16 22:25 | 16°♊32'31 | 18°52'35 | | 5141 May 01 03:22 | 0°♊ | |

| | | | | | | | |
|------------------|-------------------|-------------------------|------------|---------------------|-------------------|-------------------------|------------|
| retrograde | 5141 May 07 10:57 | 2° Π 44'50 | | evening max el | 5142 Apr 13 15:54 | 12° \mathcal{B} 08'14 | 18°06'53 |
| evening set | 5141 May 09 19:52 | 2° Π 22'37 | | retrograde | 5142 Apr 20 06:36 | 15° \mathcal{B} 31'16 | |
| | 5141 May 14 05:56 | 30° \mathcal{R} 8 | | evening set | 5142 Apr 22 22:19 | 14° \mathcal{B} 58'33 | |
| inferior conj | 5141 May 17 01:57 | 27° \mathcal{B} 44'44 | 2°13'18 | inferior conj | 5142 Apr 29 12:10 | 10° \mathcal{B} 00'04 | 3°03'23 |
| minimum elong | 5141 May 17 05:27 | 27° \mathcal{B} 37'23 | 2°12'19 | minimum elong | 5142 Apr 29 14:56 | 9° \mathcal{B} 53'21 | 3°02'53 |
| min. Earth dist. | 5141 May 20 12:25 | 24° \mathcal{B} 52'56 | 0.58907 AU | min. Earth dist. | 5142 May 02 16:27 | 6° \mathcal{B} 56'18 | 0.61115 AU |
| morning rise | 5141 May 24 11:59 | 22° \mathcal{B} 09'39 | | morning rise | 5142 May 06 05:31 | 4° \mathcal{B} 04'27 | |
| desc. node | 5141 May 25 09:11 | 21° \mathcal{B} 42'35 | | desc. node | 5142 May 12 06:13 | 1° \mathcal{B} 49'56 | |
| direct | 5141 May 30 16:50 | 20° \mathcal{B} 26'24 | | direct | 5142 May 12 22:47 | 1° \mathcal{B} 48'33 | |
| morning max el | 5141 Jun 14 02:14 | 28° \mathcal{B} 13'42 | 27°15'08 | morning max el | 5142 May 27 04:28 | 9° \mathcal{B} 46'00 | 27°49'49 |
| | 5141 Jun 15 19:50 | 0° Π | | | 5142 Jun 11 20:14 | 0° Π | |
| | 5141 Jul 06 09:21 | 0° \mathcal{E} | | | 5142 Jun 28 12:44 | 0° \mathcal{E} | |
| morning set | 5141 Jul 14 20:07 | 16° \mathcal{E} 35'48 | | morning set | 5142 Jun 29 00:39 | 1° \mathcal{E} 01'09 | |
| asc. node | 5141 Jul 15 23:54 | 19° \mathcal{E} 02'30 | | asc. node | 5142 Jul 02 20:56 | 9° \mathcal{E} 07'13 | |
| | 5141 Jul 21 00:50 | 0° Ω | | max. Earth dist. | 5142 Jul 04 23:37 | 13° \mathcal{E} 41'49 | 1.32098 AU |
| superior conj | 5141 Jul 21 21:51 | 1° Ω 56'04 | 0°58'19 | superior conj | 5142 Jul 06 08:36 | 16° \mathcal{E} 42'17 | 0°35'42 |
| minimum elong | 5141 Jul 21 19:42 | 1° Ω 44'11 | 0°57'54 | minimum elong | 5142 Jul 06 07:04 | 16° \mathcal{E} 33'52 | 0°35'21 |
| max. Earth dist. | 5141 Jul 21 13:37 | 1° Ω 10'35 | 1.31922 AU | | 5142 Jul 12 10:32 | 0° Ω | |
| evening rise | 5141 Jul 28 17:21 | 16° Ω 47'47 | | evening rise | 5142 Jul 13 04:19 | 1° Ω 35'15 | |
| | 5141 Aug 04 06:24 | 0° \mathcal{N} | | | 5142 Jul 28 13:22 | 0° \mathcal{N} | |
| desc. node | 5141 Aug 21 08:30 | 26° \mathcal{N} 44'09 | | desc. node | 5142 Aug 08 05:31 | 13° \mathcal{N} 19'29 | |
| | 5141 Aug 24 05:01 | 0° \mathcal{A} | | evening max el | 5142 Aug 08 10:34 | 13° \mathcal{N} 31'37 | 25°00'25 |
| evening max el | 5141 Aug 26 17:49 | 2° \mathcal{A} 33'56 | 26°19'34 | retrograde | 5142 Aug 22 08:41 | 20° \mathcal{N} 33'39 | |
| retrograde | 5141 Sep 09 16:54 | 9° \mathcal{A} 42'20 | | evening set | 5142 Aug 27 20:53 | 19° \mathcal{N} 24'46 | |
| evening set | 5141 Sep 16 06:45 | 7° \mathcal{A} 55'59 | | min. Earth dist. | 5142 Sep 01 22:05 | 16° \mathcal{N} 40'43 | 0.57328 AU |
| min. Earth dist. | 5141 Sep 20 07:08 | 5° \mathcal{A} 21'06 | 0.59307 AU | inferior conj | 5142 Sep 04 20:19 | 14° \mathcal{N} 44'01 | -5°17'01 |
| inferior conj | 5141 Sep 23 13:03 | 2° \mathcal{A} 51'57 | -4°52'15 | minimum elong | 5142 Sep 04 21:24 | 14° \mathcal{N} 42'13 | 5°17'00 |
| minimum elong | 5141 Sep 23 18:22 | 2° \mathcal{A} 41'44 | 4°51'23 | morning rise | 5142 Sep 13 00:14 | 10° \mathcal{N} 33'54 | |
| | 5141 Sep 27 14:23 | 30° \mathcal{R} 10 | | direct | 5142 Sep 15 13:46 | 10° \mathcal{N} 14'54 | |
| morning rise | 5141 Oct 01 08:11 | 28° \mathcal{N} 19'28 | | morning max el | 5142 Sep 24 14:37 | 14° \mathcal{N} 30'43 | 19°10'10 |
| direct | 5141 Oct 03 16:50 | 28° \mathcal{N} 00'04 | | asc. node | 5142 Sep 28 20:10 | 19° \mathcal{N} 23'01 | |
| | 5141 Oct 09 09:23 | 0° \mathcal{A} | | | 5142 Oct 05 11:14 | 0° \mathcal{A} | |
| morning max el | 5141 Oct 11 13:41 | 1° \mathcal{A} 49'12 | 18°22'36 | morning set | 5142 Oct 11 12:10 | 11° \mathcal{A} 34'59 | |
| asc. node | 5141 Oct 11 23:08 | 2° \mathcal{A} 12'28 | | superior conj | 5142 Oct 19 17:22 | 27° \mathcal{A} 49'37 | 1°34'04 |
| morning set | 5141 Oct 27 12:37 | 27° \mathcal{A} 15'02 | | minimum elong | 5142 Oct 19 19:50 | 28° \mathcal{A} 01'32 | 1°33'53 |
| | 5141 Oct 28 23:05 | 0° \mathcal{M} | | | 5142 Oct 20 20:27 | 0° \mathcal{M} | |
| superior conj | 5141 Nov 05 15:27 | 14° \mathcal{M} 29'13 | 1°16'49 | max. Earth dist. | 5142 Oct 26 08:49 | 10° \mathcal{M} 16'57 | 1.38496 AU |
| minimum elong | 5141 Nov 05 19:10 | 14° \mathcal{M} 46'19 | 1°16'24 | evening rise | 5142 Oct 30 03:45 | 17° \mathcal{M} 00'21 | |
| max. Earth dist. | 5141 Nov 13 03:46 | 27° \mathcal{M} 51'14 | 1.40604 AU | desc. node | 5142 Nov 04 04:47 | 25° \mathcal{M} 32'13 | |
| | 5141 Nov 14 09:55 | 0° \mathcal{X} | | | 5142 Nov 06 22:49 | 0° \mathcal{X} | |
| desc. node | 5141 Nov 17 07:44 | 4° \mathcal{X} 52'37 | | | 5142 Nov 28 01:16 | 0° \mathcal{Z} | |
| evening rise | 5141 Nov 17 15:53 | 5° \mathcal{X} 26'14 | | evening max el | 5142 Dec 04 16:20 | 7° \mathcal{Z} 21'49 | 24°47'27 |
| | 5141 Dec 03 13:45 | 0° \mathcal{Z} | | retrograde | 5142 Dec 16 07:43 | 14° \mathcal{Z} 08'03 | |
| evening max el | 5141 Dec 22 03:13 | 23° \mathcal{Z} 39'02 | 23°29'04 | evening set | 5142 Dec 21 21:42 | 11° \mathcal{Z} 48'33 | |
| retrograde | 5142 Jan 01 17:44 | 29° \mathcal{Z} 55'03 | | asc. node | 5142 Dec 25 19:25 | 7° \mathcal{Z} 30'59 | |
| evening set | 5142 Jan 06 18:17 | 27° \mathcal{Z} 50'22 | | min. Earth dist. | 5142 Dec 26 11:28 | 6° \mathcal{Z} 38'42 | 0.67634 AU |
| asc. node | 5142 Jan 07 22:24 | 26° \mathcal{Z} 44'27 | | inferior conj | 5142 Dec 27 10:29 | 5° \mathcal{Z} 22'36 | 0°32'56 |
| min. Earth dist. | 5142 Jan 11 16:06 | 22° \mathcal{Z} 06'21 | 0.68045 AU | minimum elong | 5142 Dec 27 09:41 | 5° \mathcal{Z} 25'14 | 0°32'37 |
| inferior conj | 5142 Jan 12 04:11 | 21° \mathcal{Z} 24'56 | 1°23'22 | | 5143 Jan 01 02:41 | 30° \mathcal{R} 21 | |
| minimum elong | 5142 Jan 12 02:25 | 21° \mathcal{Z} 31'02 | 1°22'42 | morning rise | 5143 Jan 01 21:48 | 29° \mathcal{X} 22'58 | |
| morning rise | 5142 Jan 17 10:28 | 15° \mathcal{Z} 18'43 | | direct | 5143 Jan 05 13:36 | 28° \mathcal{X} 06'04 | |
| direct | 5142 Jan 21 15:08 | 13° \mathcal{Z} 40'17 | | | 5143 Jan 10 09:06 | 0° \mathcal{Z} | |
| morning max el | 5142 Jan 29 23:58 | 18° \mathcal{Z} 30'10 | 21°00'24 | morning max el | 5143 Jan 13 00:19 | 2° \mathcal{Z} 18'02 | 19°50'19 |
| | 5142 Feb 08 09:47 | 0° \approx | | greatest brilliancy | 5143 Jan 26 07:25 | 19° \mathcal{Z} 45'05 | -0.6m |
| desc. node | 5142 Feb 13 06:58 | 6° \approx 52'15 | | desc. node | 5143 Jan 31 04:01 | 27° \mathcal{Z} 00'35 | |
| | 5142 Feb 28 15:44 | 0° \mathcal{H} | | | 5143 Feb 02 03:23 | 0° \approx | |
| morning set | 5142 Mar 01 07:43 | 1° \mathcal{H} 02'31 | | morning set | 5143 Feb 08 04:00 | 9° \approx 13'41 | |
| max. Earth dist. | 5142 Mar 09 03:54 | 13° \mathcal{H} 33'52 | 1.42690 AU | max. Earth dist. | 5143 Feb 19 14:58 | 27° \approx 09'23 | 1.44234 AU |
| | | | | | 5143 Feb 21 09:43 | 0° \mathcal{H} | |
| superior conj | 5142 Mar 16 06:13 | 25° \mathcal{H} 22'30 | -2°08'08 | superior conj | 5143 Feb 24 14:50 | 5° \mathcal{H} 10'42 | -2°04'37 |
| minimum elong | 5142 Mar 16 07:51 | 25° \mathcal{H} 29'26 | 2°08'06 | minimum elong | 5143 Feb 24 10:29 | 4° \mathcal{H} 53'03 | 2°04'26 |
| | 5142 Mar 18 23:00 | 0° \mathcal{Y} | | evening rise | 5143 Mar 10 00:07 | 27° \mathcal{H} 28'52 | |
| evening rise | 5142 Mar 27 21:50 | 15° \mathcal{Y} 48'33 | | | 5143 Mar 11 11:34 | 0° \mathcal{Y} | |
| | 5142 Apr 04 23:20 | 0° \mathcal{B} | | asc. node | 5143 Mar 23 18:44 | 20° \mathcal{Y} 00'21 | |
| asc. node | 5142 Apr 05 21:41 | 1° \mathcal{B} 32'43 | | | | | |

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|------------------|-------------------|----------------------|------------|------------------|-------------------|----------------------|------------|
| evening max el | 5143 Mar 28 04:50 | 25° Υ 25'25 | 18°12'53 | | 5144 Mar 03 19:50 | 0° Υ | |
| retrograde | 5143 Apr 03 14:37 | 28° Υ 49'25 | | asc. node | 5144 Mar 09 15:47 | 7° Υ 45'44 | |
| evening set | 5143 Apr 06 12:36 | 28° Υ 04'50 | | evening max el | 5144 Mar 10 16:37 | 8° Υ 51'59 | 18°37'17 |
| inferior conj | 5143 Apr 12 14:17 | 22° Υ 46'48 | 3°27'51 | retrograde | 5144 Mar 17 06:39 | 12° Υ 29'52 | |
| minimum elong | 5143 Apr 12 15:27 | 22° Υ 43'34 | 3°27'45 | evening set | 5144 Mar 20 10:56 | 11° Υ 32'40 | |
| min. Earth dist. | 5143 Apr 15 05:22 | 19° Υ 54'35 | 0.63219 AU | inferior conj | 5144 Mar 26 04:10 | 5° Υ 56'49 | 3°32'39 |
| morning rise | 5143 Apr 18 17:12 | 16° Υ 39'29 | | minimum elong | 5144 Mar 26 03:48 | 5° Υ 57'56 | 3°32'38 |
| direct | 5143 Apr 25 13:44 | 14° Υ 00'24 | | min. Earth dist. | 5144 Mar 28 03:47 | 3° Υ 33'17 | 0.65019 AU |
| desc. node | 5143 Apr 29 03:14 | 14° Υ 38'27 | | morning rise | 5144 Mar 31 20:05 | 29° Υ 43'49 | |
| morning max el | 5143 May 09 11:54 | 21° Υ 59'52 | 27°46'40 | | 5144 Mar 31 12:39 | 30° Υ 43'49 | |
| | 5143 May 16 12:03 | 0° Υ | | direct | 5144 Apr 07 12:19 | 26° Υ 54'27 | |
| | 5143 Jun 05 00:17 | 0° Υ | | desc. node | 5144 Apr 15 00:16 | 29° Υ 42'24 | |
| morning set | 5143 Jun 12 22:47 | 15° Υ 04'28 | | | 5144 Apr 15 10:21 | 0° Υ | |
| max. Earth dist. | 5143 Jun 18 04:36 | 25° Υ 54'46 | 1.32712 AU | morning max el | 5144 Apr 20 21:55 | 4° Υ 46'19 | 27°09'03 |
| asc. node | 5143 Jun 19 18:00 | 29° Υ 14'30 | | | 5144 May 10 01:47 | 0° Υ | |
| | 5143 Jun 20 02:28 | 0° Υ | | morning set | 5144 May 26 11:38 | 28° Υ 37'11 | |
| | | | | | 5144 May 27 04:41 | 0° Υ | |
| superior conj | 5143 Jun 20 16:28 | 1° Υ 15'28 | 0°09'45 | max. Earth dist. | 5144 May 31 00:38 | 7° Υ 38'50 | 1.33780 AU |
| minimum elong | 5143 Jun 20 16:00 | 1° Υ 12'55 | 0°09'38 | | | | |
| behind sun begin | 5143 Jun 20 11:46 | 0° Υ 50'03 | | superior conj | 5144 Jun 03 19:25 | 15° Υ 29'22 | -0°18'45 |
| behind sun end | 5143 Jun 20 20:14 | 1° Υ 35'49 | | minimum elong | 5144 Jun 03 20:24 | 15° Υ 34'33 | 0°18'33 |
| evening rise | 5143 Jun 27 16:09 | 16° Υ 21'23 | | asc. node | 5144 Jun 05 15:04 | 19° Υ 20'07 | |
| | 5143 Jul 04 10:18 | 0° Υ | | | 5144 Jun 10 15:32 | 0° Υ | |
| evening max el | 5143 Jul 20 23:05 | 23° Υ 56'38 | 23°24'50 | evening rise | 5144 Jun 11 02:55 | 0° Υ 59'52 | |
| desc. node | 5143 Jul 26 02:32 | 28° Υ 03'51 | | | 5144 Jun 27 17:41 | 0° Υ | |
| | 5143 Jul 30 03:06 | 0° Υ | | evening max el | 5144 Jul 01 15:10 | 4° Υ 21'12 | 21°48'57 |
| retrograde | 5143 Aug 03 12:03 | 0° Υ 43'40 | | desc. node | 5144 Jul 11 23:32 | 10° Υ 23'06 | |
| evening set | 5143 Aug 07 12:37 | 0° Υ 08'13 | | retrograde | 5144 Jul 14 04:38 | 10° Υ 34'36 | |
| | 5143 Aug 07 23:32 | 30° Υ 08'13 | | evening set | 5144 Jul 16 20:20 | 10° Υ 18'44 | |
| min. Earth dist. | 5143 Aug 14 08:35 | 26° Υ 58'30 | 0.55742 AU | inferior conj | 5144 Jul 26 03:53 | 6° Υ 16'24 | -3°54'09 |
| inferior conj | 5143 Aug 16 07:33 | 25° Υ 49'13 | -5°01'24 | minimum elong | 5144 Jul 25 19:03 | 6° Υ 28'47 | 3°51'45 |
| minimum elong | 5143 Aug 16 02:10 | 25° Υ 57'11 | 5°00'43 | min. Earth dist. | 5144 Jul 25 18:36 | 6° Υ 29'24 | 0.54870 AU |
| morning rise | 5143 Aug 24 18:07 | 21° Υ 56'10 | | morning rise | 5144 Aug 03 19:11 | 2° Υ 25'23 | |
| direct | 5143 Aug 27 15:22 | 21° Υ 35'51 | | direct | 5144 Aug 07 02:27 | 2° Υ 01'28 | |
| morning max el | 5143 Sep 07 04:08 | 26° Υ 29'35 | 20°19'45 | morning max el | 5144 Aug 19 05:47 | 7° Υ 43'04 | 21°49'16 |
| | 5143 Sep 10 10:47 | 0° Υ | | asc. node | 5144 Sep 01 14:19 | 26° Υ 10'45 | |
| asc. node | 5143 Sep 15 17:14 | 7° Υ 26'36 | | | 5144 Sep 03 15:49 | 0° Υ | |
| morning set | 5143 Sep 25 17:51 | 26° Υ 12'13 | | morning set | 5144 Sep 09 03:23 | 11° Υ 00'13 | |
| | 5143 Sep 27 14:13 | 0° Υ | | | | | |
| superior conj | 5143 Oct 03 08:22 | 11° Υ 48'28 | 1°42'18 | superior conj | 5144 Sep 16 08:32 | 26° Υ 14'21 | 1°42'56 |
| minimum elong | 5143 Oct 03 09:15 | 11° Υ 52'56 | 1°42'17 | minimum elong | 5144 Sep 16 08:00 | 26° Υ 11'33 | 1°42'56 |
| max. Earth dist. | 5143 Oct 08 15:31 | 22° Υ 15'38 | 1.36477 AU | | 5144 Sep 18 03:53 | 0° Υ | |
| evening rise | 5143 Oct 12 12:29 | 29° Υ 31'36 | | max. Earth dist. | 5144 Sep 20 04:32 | 4° Υ 09'05 | 1.34741 AU |
| | 5143 Oct 12 18:42 | 0° Υ | | evening rise | 5144 Sep 24 14:04 | 12° Υ 50'09 | |
| desc. node | 5143 Oct 22 01:49 | 16° Υ 01'33 | | | 5144 Oct 04 02:58 | 0° Υ | |
| | 5143 Oct 31 04:29 | 0° Υ | | desc. node | 5144 Oct 07 22:50 | 6° Υ 15'19 | |
| evening max el | 5143 Nov 17 04:56 | 21° Υ 05'28 | 25°57'21 | | 5144 Oct 25 05:28 | 0° Υ | |
| retrograde | 5143 Nov 29 16:57 | 28° Υ 12'10 | | evening max el | 5144 Oct 29 17:36 | 4° Υ 44'01 | 26°51'23 |
| evening set | 5143 Dec 05 20:29 | 25° Υ 40'14 | | retrograde | 5144 Nov 11 20:52 | 12° Υ 01'04 | |
| min. Earth dist. | 5143 Dec 10 03:03 | 21° Υ 05'27 | 0.66868 AU | evening set | 5144 Nov 18 12:38 | 9° Υ 21'44 | |
| inferior conj | 5143 Dec 11 13:15 | 19° Υ 18'25 | -0°23'13 | min. Earth dist. | 5144 Nov 22 12:37 | 5° Υ 22'18 | 0.65750 AU |
| minimum elong | 5143 Dec 11 13:52 | 19° Υ 16'30 | 0°22'57 | inferior conj | 5144 Nov 24 10:30 | 3° Υ 08'59 | -1°23'51 |
| asc. node | 5143 Dec 12 16:29 | 17° Υ 54'13 | | minimum elong | 5144 Nov 24 12:53 | 3° Υ 02'05 | 1°22'51 |
| morning rise | 5143 Dec 17 07:44 | 13° Υ 27'43 | | | 5144 Nov 27 07:28 | 30° Υ 00'00 | |
| direct | 5143 Dec 20 12:19 | 12° Υ 29'28 | | asc. node | 5144 Nov 28 13:31 | 28° Υ 51'40 | |
| morning max el | 5143 Dec 27 08:18 | 16° Υ 15'28 | 18°55'09 | morning rise | 5144 Nov 30 14:02 | 27° Υ 29'47 | |
| | 5144 Jan 06 18:37 | 0° Υ | | direct | 5144 Dec 03 09:24 | 26° Υ 46'27 | |
| morning set | 5144 Jan 18 11:54 | 18° Υ 07'18 | | | 5144 Dec 09 14:51 | 0° Υ | |
| desc. node | 5144 Jan 18 01:02 | 17° Υ 24'52 | | morning max el | 5144 Dec 09 21:57 | 0° Υ 17'24 | 18°16'12 |
| | 5144 Jan 26 02:14 | 0° Υ | | morning set | 5144 Dec 28 23:35 | 28° Υ 26'19 | |
| max. Earth dist. | 5144 Feb 02 07:43 | 11° Υ 19'25 | 1.45135 AU | | 5144 Dec 29 22:44 | 0° Υ | |
| | | | | desc. node | 5145 Jan 03 22:05 | 8° Υ 00'38 | |
| superior conj | 5144 Feb 04 01:14 | 14° Υ 02'41 | -1°41'25 | superior conj | 5145 Jan 13 04:27 | 22° Υ 42'29 | -1°01'18 |
| minimum elong | 5144 Feb 03 16:03 | 13° Υ 26'34 | 1°40'36 | minimum elong | 5145 Jan 12 21:00 | 22° Υ 13'09 | 1°00'21 |
| | 5144 Feb 14 02:06 | 0° Υ | | max. Earth dist. | 5145 Jan 15 02:44 | 25° Υ 44'12 | 1.45307 AU |
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

































































































































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|---------------------|-------------------|---------------------|------------|------------------|-------------------|---------------------|------------|
| evening rise | 5145 Jan 29 08:58 | 18° \approx 01'42 | | evening rise | 5146 Jan 08 21:57 | 27° \approx 17'46 | |
| | 5145 Feb 06 01:05 | 0° \approx | | | 5146 Jan 10 16:15 | 0° \approx | |
| greatest brilliancy | 5145 Feb 09 19:19 | 5° \approx 47'34 | -0.7m | | 5146 Jan 31 03:36 | 0° \approx | |
| evening max el | 5145 Feb 22 01:03 | 22° \approx 23'18 | 19°19'00 | evening max el | 5146 Feb 05 04:37 | 5° \approx 56'57 | 20°16'09 |
| asc. node | 5145 Feb 24 12:48 | 24° \approx 36'30 | | asc. node | 5146 Feb 11 09:49 | 10° \approx 18'25 | |
| retrograde | 5145 Mar 01 03:07 | 26° \approx 25'58 | | retrograde | 5146 Feb 13 01:15 | 10° \approx 32'52 | |
| evening set | 5145 Mar 04 14:31 | 25° \approx 15'22 | | evening set | 5146 Feb 16 21:06 | 9° \approx 07'57 | |
| inferior conj | 5145 Mar 10 02:23 | 19° \approx 23'48 | 3°22'27 | inferior conj | 5146 Feb 22 06:04 | 3° \approx 02'57 | 3°00'34 |
| minimum elong | 5145 Mar 10 00:50 | 19° \approx 28'46 | 3°22'16 | minimum elong | 5146 Feb 22 03:51 | 3° \approx 10'29 | 3°00'06 |
| min. Earth dist. | 5145 Mar 11 10:48 | 17° \approx 38'45 | 0.66421 AU | min. Earth dist. | 5146 Feb 23 00:30 | 2° \approx 00'26 | 0.67395 AU |
| morning rise | 5145 Mar 15 10:50 | 13° \approx 08'54 | | | 5146 Feb 24 13:04 | 30° \approx | |
| direct | 5145 Mar 21 17:25 | 10° \approx 22'04 | | morning rise | 5146 Feb 27 10:22 | 26° \approx 48'34 | |
| desc. node | 5145 Apr 01 21:18 | 16° \approx 28'04 | | direct | 5146 Mar 05 04:05 | 24° \approx 14'42 | |
| morning max el | 5145 Apr 03 07:48 | 17° \approx 52'28 | 26°04'23 | | 5146 Mar 15 12:46 | 0° \approx | |
| | 5145 Apr 13 12:05 | 0° \approx | | morning max el | 5146 Mar 16 16:29 | 1° \approx 08'10 | 24°42'26 |
| | 5145 May 03 01:19 | 0° \approx | | desc. node | 5146 Mar 19 18:20 | 4° \approx 27'09 | |
| morning set | 5145 May 09 11:23 | 11° \approx 28'29 | | | 5146 Apr 07 11:50 | 0° \approx | |
| max. Earth dist. | 5145 May 13 09:12 | 18° \approx 52'52 | 1.35315 AU | morning set | 5146 Apr 21 17:00 | 23° \approx 24'25 | |
| | | | | | 5146 Apr 25 09:01 | 0° \approx | |
| superior conj | 5145 May 18 14:59 | 29° \approx 17'20 | -0°48'31 | max. Earth dist. | 5146 Apr 25 07:48 | 29° \approx 54'27 | 1.37257 AU |
| minimum elong | 5145 May 18 17:40 | 29° \approx 30'56 | 0°48'01 | | | | |
| | 5145 May 18 23:23 | 0° \approx | | superior conj | 5146 May 02 00:06 | 12° \approx 31'31 | -1°17'47 |
| asc. node | 5145 May 23 12:06 | 9° \approx 20'05 | | minimum elong | 5146 May 02 04:22 | 12° \approx 52'15 | 1°17'09 |
| evening rise | 5145 May 26 10:36 | 15° \approx 24'33 | | asc. node | 5146 May 10 09:07 | 29° \approx 10'27 | |
| | 5145 Jun 02 22:16 | 0° \approx | | evening rise | 5146 May 10 12:50 | 29° \approx 29'00 | |
| evening max el | 5145 Jun 13 18:02 | 15° \approx 16'03 | 20°25'29 | | 5146 May 10 19:03 | 0° \approx | |
| retrograde | 5145 Jun 24 17:32 | 20° \approx 38'38 | | evening max el | 5146 May 27 09:32 | 26° \approx 53'48 | 19°20'42 |
| evening set | 5145 Jun 26 17:02 | 20° \approx 28'53 | | | 5146 May 31 10:47 | 0° \approx | |
| desc. node | 5145 Jun 28 20:33 | 19° \approx 57'44 | | retrograde | 5146 Jun 05 15:29 | 1° \approx 24'50 | |
| inferior conj | 5145 Jul 05 21:47 | 16° \approx 31'24 | -2°05'25 | evening set | 5146 Jun 07 14:34 | 1° \approx 13'32 | |
| minimum elong | 5145 Jul 05 15:56 | 16° \approx 39'55 | 2°03'19 | | 5146 Jun 11 05:08 | 30° \approx 11 | |
| min. Earth dist. | 5145 Jul 07 06:19 | 15° \approx 44'03 | 0.54945 AU | desc. node | 5146 Jun 15 17:33 | 27° \approx 22'14 | |
| morning rise | 5145 Jul 14 13:48 | 12° \approx 21'37 | | inferior conj | 5146 Jun 16 03:33 | 27° \approx 05'52 | -0°07'26 |
| direct | 5145 Jul 18 12:23 | 11° \approx 48'04 | | minimum elong | 5146 Jun 16 03:14 | 27° \approx 06'24 | 0°07'19 |
| morning max el | 5145 Jul 31 22:23 | 18° \approx 18'51 | 23°31'29 | transit middle | 5146 Jun 16 03:14 | 27° \approx 06'24 | 0°07'19 |
| | 5145 Aug 10 12:31 | 0° \approx | | transit begin | 5146 Jun 15 23:48 | 27° \approx 12'02 | |
| asc. node | 5145 Aug 19 11:21 | 15° \approx 24'42 | | transit end | 5146 Jun 16 06:40 | 27° \approx 00'46 | |
| morning set | 5145 Aug 24 14:46 | 25° \approx 25'27 | | min. Earth dist. | 5146 Jun 18 20:24 | 25° \approx 20'04 | 0.55968 AU |
| | 5145 Aug 26 13:12 | 0° \approx | | morning rise | 5146 Jun 24 13:00 | 22° \approx 23'00 | |
| | | | | direct | 5146 Jun 29 08:59 | 21° \approx 29'44 | |
| superior conj | 5145 Aug 31 14:45 | 10° \approx 56'46 | 1°37'07 | morning max el | 5146 Jul 13 11:53 | 28° \approx 39'32 | 25°13'21 |
| minimum elong | 5145 Aug 31 13:10 | 10° \approx 48'17 | 1°37'00 | | 5146 Jul 14 20:21 | 0° \approx | |
| max. Earth dist. | 5145 Sep 03 02:14 | 16° \approx 14'44 | 1.33404 AU | | 5146 Aug 03 19:57 | 0° \approx | |
| evening rise | 5145 Sep 08 04:18 | 26° \approx 43'58 | | asc. node | 5146 Aug 06 08:23 | 5° \approx 00'51 | |
| | 5145 Sep 09 19:59 | 0° \approx | | morning set | 5146 Aug 09 02:24 | 10° \approx 44'20 | |
| desc. node | 5145 Sep 24 19:51 | 26° \approx 05'36 | | | | | |
| | 5145 Sep 27 10:36 | 0° \approx | | superior conj | 5146 Aug 16 00:40 | 25° \approx 48'29 | 1°25'46 |
| evening max el | 5145 Oct 12 05:43 | 18° \approx 07'01 | 27°22'27 | minimum elong | 5146 Aug 15 22:30 | 25° \approx 36'36 | 1°25'29 |
| retrograde | 5145 Oct 25 18:52 | 25° \approx 25'28 | | max. Earth dist. | 5146 Aug 17 07:48 | 28° \approx 38'44 | 1.32501 AU |
| evening set | 5145 Nov 01 19:36 | 22° \approx 46'41 | | | 5146 Aug 17 22:43 | 0° \approx | |
| min. Earth dist. | 5145 Nov 05 13:58 | 19° \approx 21'11 | 0.64285 AU | evening rise | 5146 Aug 23 03:42 | 11° \approx 03'26 | |
| inferior conj | 5145 Nov 07 23:47 | 16° \approx 48'14 | -2°27'08 | | 5146 Sep 02 01:48 | 0° \approx | |
| minimum elong | 5145 Nov 08 04:04 | 16° \approx 36'53 | 2°25'29 | desc. node | 5146 Sep 11 16:51 | 15° \approx 22'43 | |
| morning rise | 5145 Nov 14 13:53 | 11° \approx 23'27 | | | 5146 Sep 23 13:53 | 0° \approx | |
| asc. node | 5145 Nov 15 10:33 | 11° \approx 05'13 | | evening max el | 5146 Sep 24 15:21 | 1° \approx 01'44 | 27°24'08 |
| direct | 5145 Nov 17 02:28 | 10° \approx 51'04 | | retrograde | 5146 Oct 08 09:56 | 8° \approx 16'15 | |
| morning max el | 5145 Nov 23 14:29 | 14° \approx 16'17 | 17°54'15 | evening set | 5146 Oct 15 14:06 | 5° \approx 48'30 | |
| | 5145 Dec 04 15:25 | 0° \approx | | min. Earth dist. | 5146 Oct 19 05:19 | 2° \approx 52'01 | 0.62510 AU |
| morning set | 5145 Dec 10 15:51 | 10° \approx 09'20 | | inferior conj | 5146 Oct 22 02:15 | 0° \approx 09'10 | -3°29'49 |
| desc. node | 5145 Dec 21 19:06 | 28° \approx 43'26 | | minimum elong | 5146 Oct 22 08:07 | 29° \approx 55'17 | 3°27'56 |
| | 5145 Dec 22 13:55 | 0° \approx | | | 5146 Oct 22 06:08 | 30° \approx 11 | |
| | | | | morning rise | 5146 Oct 29 03:51 | 25° \approx 02'12 | |
| superior conj | 5145 Dec 23 20:42 | 2° \approx 04'40 | -0°14'25 | direct | 5146 Oct 31 12:25 | 24° \approx 37'07 | |
| minimum elong | 5145 Dec 23 19:01 | 1° \approx 57'52 | 0°14'09 | asc. node | 5146 Nov 02 07:35 | 24° \approx 52'09 | |
| behind sun begin | 5145 Dec 23 14:05 | 1° \approx 37'55 | | morning max el | 5146 Nov 07 06:51 | 28° \approx 04'41 | 17°50'08 |
| behind sun end | 5145 Dec 23 23:57 | 2° \approx 17'49 | | | 5146 Nov 09 01:09 | 0° \approx | |
| max. Earth dist. | 5145 Dec 28 21:24 | 10° \approx 07'12 | 1.44743 AU | morning set | 5146 Nov 23 06:46 | 22° \approx 57'28 | |

| | | | | | | | |
|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| | 5146 Nov 27 06:01 | 0°♊ | | minimum elong | 5147 Nov 16 13:05 | 24°♎49'17 | 1°01'48 |
| superior conj | 5146 Dec 04 13:59 | 12°♊40'28 | 0°28'40 | max. Earth dist. | 5147 Nov 19 11:43 | 0°♊ | |
| minimum elong | 5146 Dec 04 16:37 | 12°♊51'36 | 0°28'18 | desc. node | 5147 Nov 24 00:55 | 7°♊45'56 | 1.41759 AU |
| desc. node | 5146 Dec 08 16:07 | 19°♊29'54 | | evening rise | 5147 Nov 25 13:09 | 10°♊16'49 | |
| max. Earth dist. | 5146 Dec 11 13:27 | 24°♊12'58 | 1.43513 AU | | 5147 Nov 29 10:08 | 16°♊35'51 | |
| | 5146 Dec 15 04:05 | 0°♋ | | | 5147 Dec 08 00:35 | 0°♋ | |
| evening rise | 5146 Dec 19 09:18 | 6°♋37'04 | | evening max el | 5147 Dec 29 21:51 | 0°♋ | |
| | 5147 Jan 03 23:59 | 0°♋ | | retrograde | 5148 Jan 01 19:54 | 3°♋08'56 | 22°42'58 |
| evening max el | 5147 Jan 19 02:43 | 19°♋31'50 | 21°25'34 | asc. node | 5148 Jan 11 18:44 | 9°♋03'32 | |
| retrograde | 5147 Jan 27 22:57 | 24°♋46'26 | | evening set | 5148 Jan 16 03:51 | 7°♋24'09 | |
| asc. node | 5147 Jan 29 06:50 | 24°♋36'59 | | inferior conj | 5148 Jan 21 20:58 | 0°♋44'27 | 1°49'30 |
| evening set | 5147 Feb 01 04:50 | 23°♋06'13 | | minimum elong | 5148 Jan 21 18:50 | 0°♋51'53 | 1°48'45 |
| inferior conj | 5147 Feb 06 12:55 | 16°♋50'33 | 2°29'06 | min. Earth dist. | 5148 Jan 21 15:08 | 1°♋04'39 | 0.68120 AU |
| minimum elong | 5147 Feb 06 10:30 | 16°♋58'55 | 2°28'25 | | 5148 Jan 22 09:50 | 30°♌♋ | |
| min. Earth dist. | 5147 Feb 06 18:41 | 16°♋30'33 | 0.67956 AU | morning rise | 5148 Jan 27 01:24 | 24°♋35'43 | |
| morning rise | 5147 Feb 11 15:59 | 10°♋38'15 | | direct | 5148 Jan 31 14:04 | 22°♋44'22 | |
| direct | 5147 Feb 16 19:14 | 8°♋24'09 | | morning max el | 5148 Feb 09 14:26 | 28°♋00'09 | 21°46'33 |
| morning max el | 5147 Feb 27 01:30 | 14°♋29'37 | 23°13'22 | | 5148 Feb 11 11:47 | 0°♌ | |
| desc. node | 5147 Mar 06 15:21 | 23°♌18'21 | | desc. node | 5148 Feb 21 12:23 | 12°♌47'27 | |
| | 5147 Mar 11 15:39 | 0°♍ | | | 5148 Mar 04 07:04 | 0°♍ | |
| | 5147 Mar 31 10:35 | 0°♎ | | morning set | 5148 Mar 12 23:21 | 13°♍30'59 | |
| morning set | 5147 Apr 02 22:22 | 4°♎07'52 | | max. Earth dist. | 5148 Mar 19 02:34 | 23°♍30'41 | 1.41587 AU |
| max. Earth dist. | 5147 Apr 07 03:08 | 11°♎17'34 | 1.39440 AU | | 5148 Mar 22 22:59 | 0°♎ | |
| superior conj | 5147 Apr 14 18:42 | 25°♎00'39 | -1°43'50 | superior conj | 5148 Mar 26 18:04 | 6°♎33'57 | -2°02'38 |
| minimum elong | 5147 Apr 14 23:44 | 25°♎23'55 | 1°43'18 | minimum elong | 5148 Mar 26 21:51 | 6°♎50'32 | 2°02'26 |
| | 5147 Apr 17 10:47 | 0°♏ | | evening rise | 5148 Apr 06 12:35 | 26°♎02'35 | |
| evening rise | 5147 Apr 24 06:40 | 13°♏04'23 | | | 5148 Apr 08 16:14 | 0°♏ | |
| asc. node | 5147 Apr 27 06:08 | 18°♏45'40 | | asc. node | 5148 Apr 13 03:09 | 8°♏00'31 | |
| | 5147 May 03 13:35 | 0°♐ | | evening max el | 5148 Apr 22 20:04 | 21°♏56'55 | 18°11'51 |
| evening max el | 5147 May 10 11:20 | 9°♐10'03 | 18°36'12 | retrograde | 5148 Apr 29 18:24 | 25°♏26'21 | |
| retrograde | 5147 May 18 07:35 | 13°♐02'09 | | evening set | 5148 May 02 06:14 | 24°♏59'54 | |
| evening set | 5147 May 20 12:36 | 12°♐44'47 | | inferior conj | 5148 May 09 04:54 | 20°♏12'49 | 2°38'05 |
| inferior conj | 5147 May 28 05:33 | 8°♐18'18 | 1°30'44 | minimum elong | 5148 May 09 08:16 | 20°♏05'15 | 2°37'15 |
| minimum elong | 5147 May 28 08:33 | 8°♐12'33 | 1°29'46 | min. Earth dist. | 5148 May 12 13:46 | 17°♏12'59 | 0.59846 AU |
| min. Earth dist. | 5147 May 31 14:03 | 5°♐45'07 | 0.57713 AU | morning rise | 5148 May 16 07:41 | 14°♏27'31 | |
| desc. node | 5147 Jun 02 14:35 | 4°♐22'01 | | desc. node | 5148 May 19 11:36 | 13°♏00'34 | |
| morning rise | 5147 Jun 05 01:15 | 3°♐00'18 | | direct | 5148 May 22 18:40 | 12°♏30'01 | |
| direct | 5147 Jun 10 19:21 | 1°♐37'12 | | morning max el | 5148 Jun 06 03:15 | 20°♏22'26 | 27°34'32 |
| morning max el | 5147 Jun 25 04:22 | 9°♐13'08 | 26°38'58 | | 5148 Jun 14 09:45 | 0°♑ | |
| | 5147 Jul 10 23:02 | 0°♑ | | | 5148 Jul 02 19:17 | 0°♑ | |
| asc. node | 5147 Jul 24 05:25 | 24°♑52'08 | | morning set | 5148 Jul 07 19:53 | 10°♑05'27 | |
| morning set | 5147 Jul 24 12:40 | 25°♑30'23 | | asc. node | 5148 Jul 10 02:27 | 14°♑53'28 | |
| | 5147 Jul 26 15:09 | 0°♒ | | max. Earth dist. | 5148 Jul 14 05:24 | 23°♑51'42 | 1.31947 AU |
| superior conj | 5147 Jul 31 12:17 | 10°♒42'35 | 1°09'35 | superior conj | 5148 Jul 14 23:52 | 25°♑33'26 | 0°49'09 |
| minimum elong | 5147 Jul 31 09:59 | 10°♒29'54 | 1°09'11 | minimum elong | 5148 Jul 14 21:55 | 25°♑22'42 | 0°48'46 |
| max. Earth dist. | 5147 Jul 31 18:05 | 11°♒14'39 | 1.32018 AU | | 5148 Jul 17 00:10 | 0°♒ | |
| evening rise | 5147 Aug 07 09:23 | 25°♒39'20 | | evening rise | 5148 Jul 21 19:02 | 10°♒24'33 | |
| | 5147 Aug 09 11:38 | 0°♓ | | | 5148 Jul 31 18:50 | 0°♓ | |
| | 5147 Aug 26 17:41 | 0°♓ | | desc. node | 5148 Aug 15 10:54 | 21°♓17'42 | |
| desc. node | 5147 Aug 29 13:53 | 3°♓53'06 | | evening max el | 5148 Aug 18 16:22 | 24°♓38'26 | 25°48'44 |
| evening max el | 5147 Sep 06 19:39 | 13°♓14'49 | 26°52'35 | | 5148 Aug 25 22:25 | 0°♓ | |
| retrograde | 5147 Sep 20 17:11 | 20°♓24'50 | | retrograde | 5148 Sep 01 15:22 | 1°♓44'54 | |
| evening set | 5147 Sep 27 15:55 | 18°♓19'58 | | evening set | 5148 Sep 07 20:10 | 0°♓13'44 | |
| min. Earth dist. | 5147 Oct 01 09:45 | 15°♓42'05 | 0.60503 AU | | 5148 Sep 08 07:21 | 30°♔♓ | |
| inferior conj | 5147 Oct 04 14:34 | 13°♓03'01 | -4°26'13 | min. Earth dist. | 5148 Sep 12 04:36 | 27°♔37'34 | 0.58435 AU |
| minimum elong | 5147 Oct 04 20:46 | 12°♓50'06 | 4°24'48 | inferior conj | 5148 Sep 15 09:11 | 25°♔19'51 | -5°06'39 |
| morning rise | 5147 Oct 12 03:37 | 8°♓17'23 | | minimum elong | 5148 Sep 15 13:08 | 25°♔12'42 | 5°06'14 |
| direct | 5147 Oct 14 11:24 | 7°♓56'32 | | morning rise | 5148 Sep 23 08:23 | 20°♔57'30 | |
| asc. node | 5147 Oct 20 04:37 | 10°♓09'08 | | direct | 5148 Sep 25 18:44 | 20°♔38'31 | |
| morning max el | 5147 Oct 21 19:55 | 11°♓34'49 | 18°05'02 | morning max el | 5148 Oct 04 02:18 | 24°♔37'16 | 18°40'18 |
| | 5147 Nov 03 01:24 | 0°♕ | | asc. node | 5148 Oct 06 01:41 | 26°♔42'50 | |
| morning set | 5147 Nov 06 14:04 | 6°♕32'02 | | | 5148 Oct 08 14:57 | 0°♕ | |
| | | | | morning set | 5148 Oct 20 08:45 | 20°♕38'16 | |
| superior conj | 5147 Nov 16 09:08 | 24°♕31'42 | 1°02'18 | | 5148 Oct 25 04:16 | 0°♕ | |

| | | | | | | | |
|------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| superior conj | 5148 Oct 29 01:24 | 7°♍24'14 | 1°25'19 | minimum elong | 5149 Oct 12 11:16 | 21°♊11'56 | 1°38'28 |
| minimum elong | 5148 Oct 29 04:41 | 7°♍39'37 | 1°25'01 | | 5149 Oct 17 00:40 | 0°♍ | |
| max. Earth dist. | 5148 Nov 05 07:14 | 20°♍34'27 | 1.39702 AU | max. Earth dist. | 5149 Oct 18 11:49 | 2°♍44'21 | 1.37607 AU |
| evening rise | 5148 Nov 09 08:44 | 27°♍33'44 | | evening rise | 5149 Oct 22 05:57 | 9°♍33'43 | |
| | 5148 Nov 10 19:40 | 0°♌ | | desc. node | 5149 Oct 29 07:13 | 21°♍36'09 | |
| desc. node | 5148 Nov 11 10:11 | 1°♌00'09 | | | 5149 Nov 03 13:55 | 0°♌ | |
| | 5148 Nov 30 14:20 | 0°♌ | | | 5149 Nov 26 09:24 | 0°♌ | |
| evening max el | 5148 Dec 14 09:43 | 16°♌48'45 | 24°02'56 | evening max el | 5149 Nov 26 22:20 | 0°♌32'04 | 25°18'40 |
| retrograde | 5148 Dec 25 11:15 | 23°♌19'17 | | retrograde | 5149 Dec 08 23:28 | 7°♌29'06 | |
| evening set | 5148 Dec 30 17:28 | 21°♌07'52 | | evening set | 5149 Dec 14 19:08 | 5°♌03'57 | |
| asc. node | 5149 Jan 02 00:54 | 18°♌46'23 | | min. Earth dist. | 5149 Dec 19 05:45 | 0°♌08'40 | 0.67347 AU |
| min. Earth dist. | 5149 Jan 04 11:36 | 15°♌38'23 | 0.67910 AU | | 5149 Dec 19 08:26 | 30°♌♌ | |
| inferior conj | 5149 Jan 05 04:25 | 14°♌41'27 | 1°02'46 | asc. node | 5149 Dec 19 21:58 | 29°♌16'12 | |
| minimum elong | 5149 Jan 05 03:00 | 14°♌46'15 | 1°02'12 | inferior conj | 5149 Dec 20 09:27 | 28°♌38'52 | 0°09'46 |
| morning rise | 5149 Jan 10 12:35 | 8°♌37'53 | | minimum elong | 5149 Dec 20 09:12 | 28°♌39'40 | 0°09'40 |
| direct | 5149 Jan 14 11:29 | 7°♌09'06 | | transit middle | 5149 Dec 20 09:12 | 28°♌39'40 | 0°09'40 |
| morning max el | 5149 Jan 22 10:16 | 11°♌41'45 | 20°28'58 | transit begin | 5149 Dec 20 06:58 | 28°♌46'56 | |
| | 5149 Feb 05 12:44 | 0°♌ | | transit end | 5149 Dec 20 11:26 | 28°♌32'25 | |
| desc. node | 5149 Feb 07 09:26 | 2°♌43'34 | | morning rise | 5149 Dec 25 23:33 | 22°♌42'33 | |
| morning set | 5149 Feb 20 00:41 | 21°♌51'45 | | direct | 5149 Dec 29 10:16 | 21°♌34'05 | |
| | 5149 Feb 25 05:25 | 0°♌ | | morning max el | 5150 Jan 05 13:58 | 25°♌34'02 | 19°24'52 |
| max. Earth dist. | 5149 Mar 01 08:53 | 6°♌36'51 | 1.43414 AU | | 5150 Jan 09 11:07 | 0°♌ | |
| | | | | greatest brilliancy | 5150 Jan 18 18:19 | 13°♌06'14 | -0.7m |
| superior conj | 5149 Mar 07 17:27 | 17°♌01'06 | -2°08'53 | desc. node | 5150 Jan 25 06:28 | 22°♌59'17 | |
| minimum elong | 5149 Mar 07 16:48 | 16°♌58'22 | 2°08'52 | morning set | 5150 Jan 29 22:46 | 0°♌11'56 | |
| | 5149 Mar 15 09:00 | 0°♌ | | | 5150 Jan 29 19:41 | 0°♌ | |
| evening rise | 5149 Mar 20 02:15 | 8°♌13'49 | | max. Earth dist. | 5150 Feb 11 22:00 | 20°♌26'42 | 1.44700 AU |
| asc. node | 5149 Mar 31 00:12 | 26°♌48'01 | | | | | |
| | 5149 Apr 02 03:58 | 0°♌ | | superior conj | 5150 Feb 15 15:35 | 26°♌22'24 | -1°57'13 |
| evening max el | 5149 Apr 06 08:21 | 5°♌05'32 | 18°07'05 | minimum elong | 5150 Feb 15 08:38 | 25°♌54'40 | 1°56'48 |
| retrograde | 5149 Apr 12 19:57 | 8°♌27'34 | | | 5150 Feb 17 21:55 | 0°♌ | |
| evening set | 5149 Apr 15 14:13 | 7°♌50'07 | | evening rise | 5150 Mar 01 19:15 | 19°♌29'51 | |
| inferior conj | 5149 Apr 21 22:26 | 2°♌43'14 | 3°16'31 | | 5150 Mar 08 02:22 | 0°♌ | |
| minimum elong | 5149 Apr 22 00:34 | 2°♌37'46 | 3°16'12 | asc. node | 5150 Mar 17 21:14 | 14°♌59'21 | |
| | 5149 Apr 24 14:11 | 30°♌♌ | | evening max el | 5150 Mar 20 21:08 | 18°♌27'50 | 18°21'07 |
| min. Earth dist. | 5149 Apr 24 21:41 | 29°♌41'31 | 0.62035 AU | retrograde | 5150 Mar 27 07:44 | 21°♌56'10 | |
| morning rise | 5149 Apr 28 09:14 | 26°♌41'21 | | evening set | 5150 Mar 30 08:18 | 21°♌06'25 | |
| direct | 5149 May 05 04:50 | 24°♌13'59 | | inferior conj | 5150 Apr 05 06:00 | 15°♌40'53 | 3°31'56 |
| desc. node | 5149 May 06 08:38 | 24°♌17'59 | | minimum elong | 5150 Apr 05 06:30 | 15°♌39'29 | 3°31'55 |
| | 5149 May 16 23:07 | 0°♌ | | min. Earth dist. | 5150 Apr 07 14:45 | 12°♌58'54 | 0.64031 AU |
| morning max el | 5149 May 19 08:12 | 2°♌14'19 | 27°53'00 | morning rise | 5150 Apr 11 03:48 | 9°♌30'37 | |
| | 5149 Jun 08 18:03 | 0°♌ | | direct | 5150 Apr 17 23:28 | 6°♌45'06 | |
| morning set | 5149 Jun 21 22:04 | 24°♌23'15 | | desc. node | 5150 Apr 23 05:40 | 8°♌08'15 | |
| | 5149 Jun 24 15:05 | 0°♌ | | morning max el | 5150 May 01 16:53 | 14°♌43'11 | 27°34'26 |
| asc. node | 5149 Jun 26 23:30 | 5°♌00'17 | | | 5150 May 14 03:09 | 0°♌ | |
| max. Earth dist. | 5149 Jun 27 13:44 | 6°♌16'56 | 1.32299 AU | | 5150 Jun 01 09:38 | 0°♌ | |
| | | | | morning set | 5150 Jun 05 16:38 | 8°♌15'05 | |
| superior conj | 5149 Jun 29 09:40 | 10°♌15'32 | 0°25'03 | max. Earth dist. | 5150 Jun 10 15:05 | 18°♌17'45 | 1.33105 AU |
| minimum elong | 5149 Jun 29 08:32 | 10°♌09'20 | 0°24'48 | | | | |
| evening rise | 5149 Jul 06 06:37 | 25°♌12'37 | | superior conj | 5150 Jun 13 15:43 | 24°♌41'51 | -0°02'06 |
| | 5149 Jul 08 13:18 | 0°♌ | | minimum elong | 5150 Jun 13 15:49 | 24°♌42'24 | 0°02'05 |
| | 5149 Jul 26 10:23 | 0°♌ | | behind sun begin | 5150 Jun 13 10:28 | 24°♌13'47 | |
| evening max el | 5149 Jul 31 06:28 | 5°♌19'20 | 24°20'51 | behind sun end | 5150 Jun 13 21:11 | 25°♌11'02 | |
| desc. node | 5149 Aug 02 07:55 | 7°♌10'38 | | asc. node | 5150 Jun 13 20:32 | 25°♌07'35 | |
| retrograde | 5149 Aug 14 02:32 | 12°♌17'38 | | | 5150 Jun 16 02:57 | 0°♌ | |
| evening set | 5149 Aug 19 00:05 | 11°♌24'12 | | evening rise | 5150 Jun 20 18:12 | 9°♌56'29 | |
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| inferior conj | 5149 Aug 27 07:49 | 6°♌52'35 | -5°16'22 | evening max el | 5150 Jul 12 19:37 | 15°♌40'47 | 22°43'17 |
| minimum elong | 5149 Aug 27 06:13 | 6°♌55'07 | 5°16'18 | desc. node | 5150 Jul 20 04:56 | 20°♌57'45 | |
| morning rise | 5149 Sep 04 14:49 | 2°♌51'03 | | retrograde | 5150 Jul 26 00:49 | 22°♌15'41 | |
| direct | 5149 Sep 07 07:05 | 2°♌31'53 | | evening set | 5150 Jul 29 09:48 | 21°♌50'46 | |
| morning max el | 5149 Sep 16 22:48 | 7°♌02'42 | 19°37'09 | min. Earth dist. | 5150 Aug 06 03:39 | 18°♌25'53 | 0.55266 AU |
| asc. node | 5149 Sep 22 22:45 | 14°♌18'13 | | inferior conj | 5150 Aug 07 11:40 | 17°♌40'06 | -4°39'15 |
| | 5149 Oct 01 21:35 | 0°♌ | | minimum elong | 5150 Aug 07 04:06 | 17°♌50'58 | 4°37'49 |
| morning set | 5149 Oct 04 11:14 | 5°♌06'41 | | morning rise | 5150 Aug 16 00:27 | 13°♌49'50 | |
| | | | | direct | 5150 Aug 19 01:35 | 13°♌28'20 | |
| superior conj | 5149 Oct 12 09:28 | 21°♌03'04 | 1°38'34 | morning max el | 5150 Aug 30 07:07 | 18°♌42'12 | 20°55'34 |

































































































































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|---------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| | 5150 Sep 08 04:44 | 0°♍ | | direct | 5151 Jul 30 10:46 | 23°♊34'33 | |
| asc. node | 5150 Sep 09 19:48 | 2°♍40'33 | | morning max el | 5151 Aug 12 04:07 | 29°♊37'02 | 22°31'45 |
| morning set | 5150 Sep 18 18:47 | 19°♍49'05 | | | 5151 Aug 12 13:50 | 0°♊ | |
| | 5150 Sep 23 16:03 | 0°♊ | | asc. node | 5151 Aug 27 16:50 | 21°♊38'29 | |
| | | | | | 5151 Aug 31 23:20 | 0°♍ | |
| superior conj | 5150 Sep 26 04:45 | 5°♊14'26 | 1°43'25 | morning set | 5151 Sep 03 05:18 | 4°♍39'34 | |
| minimum elong | 5150 Sep 26 05:00 | 5°♊15'42 | 1°43'25 | | | | |
| max. Earth dist. | 5150 Sep 30 20:36 | 14°♊37'29 | 1.35699 AU | superior conj | 5151 Sep 10 07:47 | 19°♍48'04 | 1°41'11 |
| evening rise | 5150 Oct 04 22:24 | 22°♊26'40 | | minimum elong | 5151 Sep 10 06:46 | 19°♍42'37 | 1°41'08 |
| | 5150 Oct 09 01:58 | 0°♍ | | max. Earth dist. | 5151 Sep 13 13:33 | 26°♍36'01 | 1.34129 AU |
| desc. node | 5150 Oct 16 04:15 | 11°♍59'37 | | | 5151 Sep 15 05:21 | 0°♊ | |
| | 5150 Oct 28 08:11 | 0°♌ | | evening rise | 5151 Sep 18 05:49 | 6°♊01'24 | |
| evening max el | 5150 Nov 09 11:09 | 14°♌15'10 | 26°22'49 | | 5151 Oct 01 17:49 | 0°♍ | |
| retrograde | 5150 Nov 22 06:29 | 21°♌27'13 | | desc. node | 5151 Oct 03 01:15 | 2°♍04'25 | |
| evening set | 5150 Nov 28 15:20 | 18°♌51'45 | | evening max el | 5151 Oct 22 23:53 | 27°♍48'53 | 27°07'51 |
| min. Earth dist. | 5150 Dec 02 19:09 | 14°♌31'43 | 0.66433 AU | | 5151 Oct 25 10:17 | 0°♌ | |
| inferior conj | 5150 Dec 04 10:09 | 12°♌33'09 | -0°48'29 | retrograde | 5151 Nov 05 07:40 | 5°♌06'28 | |
| minimum elong | 5150 Dec 04 11:28 | 12°♌29'06 | 0°47'54 | evening set | 5151 Nov 12 03:52 | 2°♌26'25 | |
| asc. node | 5150 Dec 06 19:01 | 9°♌47'16 | | | 5151 Nov 14 19:57 | 30°♌ | |
| morning rise | 5150 Dec 10 08:13 | 6°♌46'41 | | min. Earth dist. | 5151 Nov 16 01:24 | 28°♌41'46 | 0.65171 AU |
| direct | 5150 Dec 13 08:39 | 5°♌55'10 | | inferior conj | 5151 Nov 18 04:17 | 26°♌19'27 | -1°50'33 |
| morning max el | 5150 Dec 20 00:33 | 9°♌33'36 | 18°36'29 | minimum elong | 5151 Nov 18 07:29 | 26°♌10'31 | 1°49'14 |
| | 5151 Jan 03 14:52 | 0°♎ | | asc. node | 5151 Nov 23 16:04 | 21°♌13'03 | |
| morning set | 5151 Jan 09 17:32 | 9°♎39'46 | | morning rise | 5151 Nov 24 12:08 | 20°♌45'55 | |
| desc. node | 5151 Jan 12 03:29 | 13°♎29'06 | | direct | 5151 Nov 27 04:26 | 20°♌07'34 | |
| | 5151 Jan 22 15:17 | 0°♏ | | morning max el | 5151 Dec 03 15:43 | 23°♌34'41 | 18°04'46 |
| | | | | | 5151 Dec 08 20:10 | 0°♌ | |
| superior conj | 5151 Jan 25 20:28 | 5°♏02'37 | -1°26'01 | morning set | 5151 Dec 21 17:52 | 20°♌36'25 | |
| minimum elong | 5151 Jan 25 11:09 | 4°♏26'05 | 1°25'00 | | 5151 Dec 27 11:16 | 0°♎ | |
| max. Earth dist. | 5151 Jan 25 16:08 | 4°♏45'37 | 1.45300 AU | desc. node | 5151 Dec 30 00:30 | 4°♎08'15 | |
| evening rise | 5151 Feb 10 13:00 | 29°♏48'59 | | | | | |
| | 5151 Feb 10 15:46 | 0°♐ | | superior conj | 5152 Jan 05 02:51 | 13°♎53'39 | -0°41'31 |
| greatest brilliancy | 5151 Feb 18 23:24 | 13°♐14'58 | -0.8m | minimum elong | 5152 Jan 04 21:43 | 13°♎33'21 | 0°40'47 |
| | 5151 Mar 02 13:04 | 0°♑ | | max. Earth dist. | 5152 Jan 08 11:54 | 19°♎13'43 | 1.45155 AU |
| evening max el | 5151 Mar 04 07:49 | 1°♑57'48 | 18°53'04 | | 5152 Jan 15 09:14 | 0°♏ | |
| asc. node | 5151 Mar 04 18:16 | 2°♑23'46 | | evening rise | 5152 Jan 21 09:53 | 9°♏20'54 | |
| retrograde | 5151 Mar 11 01:55 | 5°♑44'34 | | greatest brilliancy | 5152 Feb 03 16:54 | 29°♏41'08 | -0.7m |
| evening set | 5151 Mar 14 09:12 | 4°♑41'39 | | | 5152 Feb 03 21:57 | 0°♐ | |
| | 5151 Mar 19 04:06 | 30°♐ | | evening max el | 5152 Feb 15 14:18 | 15°♐30'11 | 19°41'35 |
| inferior conj | 5151 Mar 19 23:48 | 28°♐59'02 | 3°29'53 | asc. node | 5152 Feb 19 15:18 | 18°♐47'13 | |
| minimum elong | 5151 Mar 19 22:53 | 29°♐01'54 | 3°29'50 | retrograde | 5152 Feb 22 23:24 | 19°♐45'57 | |
| min. Earth dist. | 5151 Mar 21 16:51 | 26°♐51'08 | 0.65669 AU | evening set | 5152 Feb 26 14:18 | 18°♐29'08 | |
| morning rise | 5151 Mar 25 12:09 | 22°♐45'09 | | inferior conj | 5152 Mar 03 00:37 | 12°♐31'24 | 3°14'26 |
| direct | 5151 Apr 01 00:57 | 19°♐55'24 | | minimum elong | 5152 Mar 02 22:45 | 12°♐37'38 | 3°14'09 |
| desc. node | 5151 Apr 10 02:41 | 23°♐59'47 | | min. Earth dist. | 5152 Mar 04 02:50 | 11°♐04'35 | 0.66887 AU |
| morning max el | 5151 Apr 14 02:53 | 27°♐39'14 | 26°44'20 | morning rise | 5152 Mar 08 06:58 | 6°♐16'40 | |
| | 5151 Apr 16 08:10 | 0°♑ | | direct | 5152 Mar 14 08:18 | 3°♐34'36 | |
| | 5151 May 07 19:57 | 0°♒ | | morning max el | 5152 Mar 26 12:19 | 10°♐50'28 | 25°31'09 |
| morning set | 5151 May 20 00:25 | 21°♒31'55 | | desc. node | 5152 Mar 26 23:43 | 11°♐19'36 | |
| | 5151 May 24 08:37 | 0°♓ | | | 5152 Apr 10 18:16 | 0°♑ | |
| max. Earth dist. | 5151 May 24 06:22 | 29°♒48'45 | 1.34383 AU | | 5152 Apr 29 11:20 | 0°♒ | |
| | | | | morning set | 5152 May 01 17:06 | 4°♒01'17 | |
| superior conj | 5151 May 28 15:53 | 8°♓46'18 | -0°31'16 | max. Earth dist. | 5152 May 05 10:33 | 10°♒55'43 | 1.36104 AU |
| minimum elong | 5151 May 28 17:34 | 8°♓55'03 | 0°30'57 | | | | |
| asc. node | 5151 May 31 17:33 | 15°♓11'43 | | superior conj | 5152 May 11 07:23 | 22°♒20'48 | -1°01'07 |
| evening rise | 5151 Jun 05 03:56 | 24°♓30'29 | | minimum elong | 5152 May 11 10:47 | 22°♒37'45 | 1°00'32 |
| | 5151 Jun 07 20:08 | 0°♈ | | | 5152 May 15 02:16 | 0°♓ | |
| evening max el | 5151 Jun 24 15:47 | 26°♈16'01 | 21°11'22 | asc. node | 5152 May 17 14:35 | 5°♓08'15 | |
| | 5151 Jun 29 09:07 | 0°♉ | | evening rise | 5152 May 19 09:37 | 8°♓47'39 | |
| retrograde | 5151 Jul 06 13:55 | 2°♉08'24 | | | 5152 May 30 23:58 | 0°♈ | |
| desc. node | 5151 Jul 07 01:56 | 2°♉07'48 | | evening max el | 5152 Jun 05 23:57 | 7°♈28'09 | 19°55'22 |
| evening set | 5151 Jul 08 20:41 | 1°♉56'17 | | retrograde | 5152 Jun 16 05:24 | 12°♈28'21 | |
| | 5151 Jul 14 10:13 | 30°♉ | | evening set | 5152 Jun 18 03:24 | 12°♈18'34 | |
| inferior conj | 5151 Jul 18 05:06 | 27°♈58'05 | -3°11'26 | desc. node | 5152 Jun 22 22:55 | 10°♈38'53 | |
| minimum elong | 5151 Jul 17 20:49 | 28°♈09'42 | 3°08'49 | inferior conj | 5152 Jun 27 02:27 | 8°♈17'50 | -1°14'26 |
| min. Earth dist. | 5151 Jul 18 13:57 | 27°♈45'39 | 0.54792 AU | minimum elong | 5152 Jun 26 23:00 | 8°♈23'05 | 1°13'08 |
| morning rise | 5151 Jul 26 21:27 | 24°♈01'46 | | min. Earth dist. | 5152 Jun 29 02:17 | 7°♈05'15 | 0.55276 AU |

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|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| morning rise | 5152 Jul 05 16:44 | 3°☾55'18 | | min. Earth dist. | 5153 Jun 10 17:55 | 16°♊59'20 | 0.56632 AU |
| direct | 5152 Jul 09 23:41 | 3°☾15'01 | | morning rise | 5153 Jun 15 20:32 | 14°♊08'44 | |
| morning max el | 5152 Jul 23 18:38 | 10°☾03'20 | 24°15'52 | direct | 5153 Jun 21 01:58 | 13°♊03'54 | |
| | 5152 Aug 07 14:59 | 0°♏ | | morning max el | 5153 Jul 05 09:01 | 20°♊27'07 | 25°52'45 |
| asc. node | 5152 Aug 13 13:52 | 11°♏03'04 | | | 5153 Jul 13 14:07 | 0°☾ | |
| morning set | 5152 Aug 17 17:02 | 19°♏32'57 | | asc. node | 5153 Jul 31 10:53 | 0°♏46'31 | |
| | 5152 Aug 22 13:13 | 0°♐ | | | 5153 Jul 31 01:51 | 0°♏ | |
| | | | | morning set | 5153 Aug 02 04:18 | 4°♏23'21 | |
| superior conj | 5152 Aug 24 15:52 | 4°♐35'47 | 1°32'56 | | | | |
| minimum elong | 5152 Aug 24 13:59 | 4°♐25'33 | 1°32'45 | superior conj | 5153 Aug 09 02:45 | 19°♏29'45 | 1°19'27 |
| max. Earth dist. | 5152 Aug 26 15:01 | 8°♐50'39 | 1.32967 AU | minimum elong | 5153 Aug 09 00:28 | 19°♏17'11 | 1°19'08 |
| evening rise | 5152 Sep 01 00:20 | 20°♐07'31 | | max. Earth dist. | 5153 Aug 09 22:52 | 21°♏20'28 | 1.32237 AU |
| | 5152 Sep 06 01:33 | 0°♑ | | | 5153 Aug 13 22:34 | 0°♐ | |
| desc. node | 5152 Sep 18 22:15 | 21°♑42'32 | | evening rise | 5153 Aug 16 02:43 | 4°♐35'05 | |
| | 5152 Sep 24 19:38 | 0°♒ | | | 5153 Aug 29 17:48 | 0°♑ | |
| evening max el | 5152 Oct 04 11:08 | 11°♒01'33 | 27°26'58 | desc. node | 5153 Sep 05 19:16 | 10°♑42'07 | |
| retrograde | 5152 Oct 18 02:44 | 18°♒18'42 | | evening max el | 5153 Sep 16 18:37 | 23°♑39'34 | 27°14'49 |
| evening set | 5152 Oct 25 06:00 | 15°♒42'53 | | | 5153 Sep 26 01:45 | 0°♒ | |
| min. Earth dist. | 5152 Oct 28 22:28 | 12°♒30'59 | 0.63567 AU | retrograde | 5153 Sep 30 14:57 | 0°♒53'03 | |
| inferior conj | 5152 Oct 31 13:22 | 9°♒52'15 | -2°54'03 | | 5153 Oct 05 00:10 | 30°♒♑ | |
| minimum elong | 5152 Oct 31 18:24 | 9°♒39'31 | 2°52'14 | evening set | 5153 Oct 07 18:02 | 28°♑33'15 | |
| morning rise | 5152 Nov 07 08:19 | 4°♒34'56 | | min. Earth dist. | 5153 Oct 11 09:11 | 25°♑46'27 | 0.61674 AU |
| direct | 5152 Nov 09 18:53 | 4°♒06'04 | | inferior conj | 5153 Oct 14 10:14 | 23°♑02'55 | -3°54'58 |
| asc. node | 5152 Nov 09 13:05 | 4°♒06'21 | | minimum elong | 5153 Oct 14 16:29 | 22°♑48'55 | 3°53'12 |
| morning max el | 5152 Nov 16 08:40 | 7°♒30'58 | 17°50'20 | morning rise | 5153 Oct 21 16:50 | 18°♑04'55 | |
| | 5152 Dec 01 05:21 | 0°♓ | | direct | 5153 Oct 24 00:31 | 17°♑42'08 | |
| morning set | 5152 Dec 02 20:38 | 2°♓50'04 | | asc. node | 5153 Oct 27 10:07 | 18°♑32'58 | |
| | | | | morning max el | 5153 Oct 31 00:08 | 21°♑13'20 | 17°54'05 |
| superior conj | 5152 Dec 15 05:09 | 23°♓46'12 | 0°04'49 | | 5153 Nov 06 15:34 | 0°♒ | |
| minimum elong | 5152 Dec 15 05:40 | 23°♓48'19 | 0°04'45 | morning set | 5153 Nov 15 19:13 | 15°♒59'55 | |
| behind sun begin | 5152 Dec 14 20:23 | 23°♓10'08 | | | 5153 Nov 23 14:07 | 0°♓ | |
| behind sun end | 5152 Dec 15 14:56 | 24°♓26'25 | | | | | |
| desc. node | 5152 Dec 15 21:33 | 24°♓53'29 | | superior conj | 5153 Nov 26 09:51 | 4°♓55'36 | 0°44'12 |
| | 5152 Dec 19 00:59 | 0°♔ | | minimum elong | 5153 Nov 26 13:22 | 5°♓10'49 | 0°43'43 |
| max. Earth dist. | 5152 Dec 21 05:56 | 3°♔32'21 | 1.44292 AU | desc. node | 5153 Dec 02 18:34 | 15°♓40'42 | |
| evening rise | 5152 Dec 30 20:13 | 18°♔33'42 | | max. Earth dist. | 5153 Dec 03 19:40 | 17°♓23'55 | 1.42817 AU |
| | 5153 Jan 07 08:43 | 0°♕ | | evening rise | 5153 Dec 10 11:42 | 28°♓05'50 | |
| evening max el | 5153 Jan 28 15:27 | 29°♕03'50 | 20°44'19 | | 5153 Dec 11 16:52 | 0°♔ | |
| | 5153 Jan 29 14:11 | 0°♖ | | | 5154 Jan 01 02:40 | 0°♕ | |
| retrograde | 5153 Feb 05 21:41 | 3°♖56'11 | | evening max el | 5154 Jan 11 11:15 | 12°♕39'14 | 21°57'50 |
| asc. node | 5153 Feb 05 12:19 | 3°♖55'22 | | retrograde | 5154 Jan 20 18:51 | 18°♕11'33 | |
| evening set | 5153 Feb 09 21:36 | 2°♖24'46 | | asc. node | 5154 Jan 23 09:21 | 17°♕35'32 | |
| | 5153 Feb 12 08:39 | 30°♗ | | evening set | 5154 Jan 25 05:21 | 16°♕24'50 | |
| inferior conj | 5153 Feb 15 05:56 | 26°♕14'35 | 2°48'18 | inferior conj | 5154 Jan 30 13:33 | 10°♕05'27 | 2°13'16 |
| minimum elong | 5153 Feb 15 03:34 | 26°♕22'41 | 2°47'43 | minimum elong | 5154 Jan 30 11:12 | 10°♕13'38 | 2°12'31 |
| min. Earth dist. | 5153 Feb 15 18:46 | 25°♕30'29 | 0.67681 AU | min. Earth dist. | 5154 Jan 30 14:20 | 10°♕02'45 | 0.68069 AU |
| morning rise | 5153 Feb 20 09:22 | 20°♕00'45 | | morning rise | 5154 Feb 04 16:53 | 3°♕54'13 | |
| direct | 5153 Feb 25 20:53 | 17°♕34'57 | | direct | 5154 Feb 09 13:50 | 1°♕49'31 | |
| morning max el | 5153 Mar 08 21:02 | 24°♕09'20 | 24°04'50 | morning max el | 5154 Feb 19 07:15 | 7°♕34'12 | 22°35'36 |
| desc. node | 5153 Mar 13 20:46 | 29°♕43'00 | | desc. node | 5154 Feb 28 17:49 | 18°♕52'01 | |
| | 5153 Mar 14 02:24 | 0°♗ | | | 5154 Mar 08 16:57 | 0°♖ | |
| | 5153 Apr 04 04:41 | 0°♘ | | morning set | 5154 Mar 25 06:44 | 25°♖38'05 | |
| morning set | 5153 Apr 13 13:10 | 15°♘28'15 | | | 5154 Mar 27 21:58 | 0°♘ | |
| max. Earth dist. | 5153 Apr 17 06:53 | 22°♘02'15 | 1.38168 AU | max. Earth dist. | 5154 Mar 30 02:38 | 3°♘42'08 | 1.40368 AU |
| | 5153 Apr 21 15:36 | 0°♙ | | | | | |
| superior conj | 5153 Apr 24 10:49 | 5°♙16'37 | -1°29'27 | superior conj | 5154 Apr 06 21:52 | 17°♘23'36 | -1°53'00 |
| minimum elong | 5153 Apr 24 15:34 | 5°♙39'14 | 1°28'49 | minimum elong | 5154 Apr 07 02:42 | 17°♘45'27 | 1°52'35 |
| evening rise | 5153 May 03 08:40 | 22°♙40'36 | | | 5154 Apr 13 17:25 | 0°♙ | |
| asc. node | 5153 May 04 11:36 | 24°♙52'44 | | evening rise | 5154 Apr 16 21:55 | 6°♙01'21 | |
| | 5153 May 07 03:13 | 0°♚ | | asc. node | 5154 Apr 21 08:38 | 14°♙20'16 | |
| evening max el | 5153 May 19 20:08 | 19°♚22'50 | 18°59'16 | | 5154 May 01 07:11 | 0°♚ | |
| retrograde | 5153 May 28 10:45 | 23°♚35'48 | | evening max el | 5154 May 03 01:26 | 1°♚54'01 | 18°23'32 |
| evening set | 5153 May 30 11:46 | 23°♚22'31 | | retrograde | 5154 May 10 10:55 | 5°♚34'17 | |
| inferior conj | 5153 Jun 07 16:20 | 19°♚07'29 | 0°37'41 | evening set | 5154 May 12 18:51 | 5°♚13'24 | |
| minimum elong | 5153 Jun 07 17:49 | 19°♚04'53 | 0°37'09 | inferior conj | 5154 May 20 03:39 | 0°♚38'35 | 2°03'06 |
| desc. node | 5153 Jun 09 19:57 | 17°♚36'52 | | minimum elong | 5154 May 20 07:07 | 0°♚31'30 | 2°02'05 |
| | | | | | 5154 May 20 22:22 | 30°♚♙ | |

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|------------------|-------------------|---|------------|------------------|-------------------|---|------------|
| min. Earth dist. | 5154 May 23 14:07 | 27°  50'51 | 0.58588 AU | min. Earth dist. | 5155 May 05 16:52 | 9°  45'14 | 0.60791 AU |
| morning rise | 5154 May 27 16:15 | 25°  07'42 | | morning rise | 5155 May 09 06:55 | 6°  55'29 | |
| desc. node | 5154 May 27 17:00 | 25°  06'44 | | desc. node | 5155 May 14 14:03 | 4°  49'37 | |
| direct | 5154 Jun 02 18:37 | 23°  29'37 | | direct | 5155 May 15 22:51 | 4°  44'12 | |
| | 5154 Jun 15 20:35 | 0°  II | | morning max el | 5155 May 30 05:19 | 12°  40'16 | 27°47'04 |
| morning max el | 5154 Jun 17 03:59 | 1°  II14'17 | 27°06'49 | | 5155 Jun 12 22:57 | 0°  II | |
| | 5154 Jul 07 17:42 | 0°  ☿ | | | 5155 Jun 30 00:56 | 0°  ☿ | |
| morning set | 5154 Jul 17 13:30 | 19°  ☿05'48 | | morning set | 5155 Jul 01 18:48 | 3°  ☿33'42 | |
| asc. node | 5154 Jul 18 07:55 | 20°  ☿43'01 | | asc. node | 5155 Jul 05 04:58 | 10°  ☿46'50 | |
| | 5154 Jul 22 14:47 | 0°  ♊ | | max. Earth dist. | 5155 Jul 07 20:27 | 16°  ☿31'14 | 1.32047 AU |
| superior conj | 5154 Jul 24 14:36 | 4°  ♊23'49 | 1°01'25 | superior conj | 5155 Jul 09 01:37 | 19°  ☿11'16 | 0°39'21 |
| minimum elong | 5154 Jul 24 12:24 | 4°  ♊11'38 | 1°01'01 | minimum elong | 5155 Jul 08 23:58 | 19°  ☿02'08 | 0°39'00 |
| max. Earth dist. | 5154 Jul 24 09:56 | 3°  ♊58'02 | 1.31934 AU | | 5155 Jul 13 23:51 | 0°  ♊ | |
| evening rise | 5154 Jul 31 10:23 | 19°  ♊16'23 | | evening rise | 5155 Jul 15 21:05 | 4°  ♊03'25 | |
| | 5154 Aug 05 16:49 | 0°  ♊ | | | 5155 Jul 29 15:34 | 0°  ♊ | |
| desc. node | 5154 Aug 23 16:16 | 28°  ♊47'34 | | desc. node | 5155 Aug 10 13:17 | 15°  ♊36'43 | |
| | 5154 Aug 24 16:05 | 0°  ♊ | | evening max el | 5155 Aug 11 13:45 | 16°  ♊36'53 | 25°13'36 |
| evening max el | 5154 Aug 29 19:59 | 5°  ♊32'42 | 26°29'08 | retrograde | 5155 Aug 25 12:09 | 23°  ♊40'02 | |
| retrograde | 5154 Sep 12 18:45 | 12°  ♊41'19 | | evening set | 5155 Aug 31 05:08 | 22°  ♊25'22 | |
| evening set | 5154 Sep 19 11:18 | 10°  ♊49'59 | | min. Earth dist. | 5155 Sep 05 01:22 | 19°  ♊44'02 | 0.57605 AU |
| min. Earth dist. | 5154 Sep 23 09:36 | 8°  ♊14'47 | 0.59619 AU | inferior conj | 5155 Sep 08 01:45 | 17°  ♊41'25 | -5°15'34 |
| inferior conj | 5154 Sep 26 15:28 | 5°  ♊42'34 | -4°46'06 | minimum elong | 5155 Sep 08 03:41 | 17°  ♊38'06 | 5°15'28 |
| minimum elong | 5154 Sep 26 21:07 | 5°  ♊31'29 | 4°45'05 | morning rise | 5155 Sep 16 04:31 | 13°  ♊28'14 | |
| morning rise | 5154 Oct 04 09:04 | 1°  ♊06'29 | | direct | 5155 Sep 18 17:10 | 13°  ♊09'15 | |
| direct | 5154 Oct 06 17:22 | 0°  ♊46'48 | | morning max el | 5155 Sep 27 13:11 | 17°  ♊20'12 | 19°01'44 |
| asc. node | 5154 Oct 14 07:11 | 4°  ♊24'21 | | asc. node | 5155 Oct 01 04:14 | 21°  ♊25'53 | |
| morning max el | 5154 Oct 14 10:45 | 4°  ♊32'54 | 18°17'20 | | 5155 Oct 06 18:31 | 0°  ♊ | |
| morning set | 5154 Oct 30 07:52 | 29°  ♊49'20 | | morning set | 5155 Oct 14 06:17 | 14°  ♊06'26 | |
| | 5154 Oct 30 10:07 | 0°  ♊ | | | 5155 Oct 22 08:18 | 0°  ♊ | |
| superior conj | 5154 Nov 08 14:36 | 17°  ♊14'21 | 1°13'19 | superior conj | 5155 Oct 22 14:12 | 0°  ♊28'19 | 1°32'03 |
| minimum elong | 5154 Nov 08 18:26 | 17°  ♊31'48 | 1°12'53 | minimum elong | 5155 Oct 22 16:53 | 0°  ♊41'14 | 1°31'50 |
| | 5154 Nov 15 19:46 | 0°  ♊ | | max. Earth dist. | 5155 Oct 29 09:57 | 13°  ♊09'45 | 1.38808 AU |
| max. Earth dist. | 5154 Nov 16 04:27 | 0°  ♊37'06 | 1.40912 AU | evening rise | 5155 Nov 02 05:46 | 19°  ♊53'48 | |
| desc. node | 5154 Nov 19 15:36 | 6°  ♊26'28 | | desc. node | 5155 Nov 06 12:36 | 27°  ♊07'15 | |
| evening rise | 5154 Nov 20 21:17 | 8°  ♊28'42 | | | 5155 Nov 08 06:54 | 0°  ♊ | |
| | 5154 Dec 04 18:46 | 0°  ☿ | | | 5155 Nov 28 22:35 | 0°  ☿ | |
| evening max el | 5154 Dec 25 02:52 | 26°  ☿17'46 | 23°17'10 | evening max el | 5155 Dec 07 16:07 | 10°  ☿00'06 | 24°36'07 |
| | 5154 Dec 29 08:36 | 0°  ☿ | | retrograde | 5155 Dec 19 03:57 | 16°  ☿42'25 | |
| retrograde | 5155 Jan 04 13:19 | 2°  ☿28'13 | | evening set | 5155 Dec 24 15:57 | 14°  ☿24'51 | |
| evening set | 5155 Jan 09 11:59 | 0°  ☿25'50 | | asc. node | 5155 Dec 28 03:28 | 10°  ☿38'52 | |
| | 5155 Jan 09 23:43 | 30°  ☿  | | min. Earth dist. | 5155 Dec 29 06:48 | 9°  ☿10'00 | 0.67718 AU |
| asc. node | 5155 Jan 10 06:25 | 29°  ☿44'12 | | inferior conj | 5155 Dec 30 04:13 | 7°  ☿58'42 | 0°40'59 |
| inferior conj | 5155 Jan 14 21:35 | 24°  ☿00'59 | 1°30'31 | minimum elong | 5155 Dec 30 03:15 | 8°  ☿01'57 | 0°40'36 |
| minimum elong | 5155 Jan 14 19:42 | 24°  ☿07'29 | 1°29'48 | morning rise | 5156 Jan 04 14:40 | 1°  ☿58'05 | |
| min. Earth dist. | 5155 Jan 14 11:07 | 24°  ☿36'57 | 0.68076 AU | direct | 5156 Jan 08 08:16 | 0°  ☿38'11 | |
| morning rise | 5155 Jan 20 03:19 | 17°  ☿54'05 | | morning max el | 5156 Jan 15 21:50 | 4°  ☿55'00 | 19°59'54 |
| direct | 5155 Jan 24 10:03 | 16°  ☿12'15 | | desc. node | 5156 Feb 02 11:54 | 28°  ☿39'07 | |
| morning max el | 5155 Feb 01 22:39 | 21°  ☿08'22 | 21°12'00 | | 5156 Feb 03 09:24 | 0°  ☿ | |
| | 5155 Feb 09 09:57 | 0°  ☿ | | morning set | 5156 Feb 11 16:51 | 12°  ☿40'41 | |
| desc. node | 5155 Feb 15 14:52 | 8°  ☿33'40 | | max. Earth dist. | 5156 Feb 22 14:50 | 29°  ☿47'16 | 1.44043 AU |
| | 5155 Mar 01 23:09 | 0°  ☿ | | | 5156 Feb 22 18:02 | 0°  ☿ | |
| morning set | 5155 Mar 04 20:03 | 4°  ☿29'04 | | superior conj | 5156 Feb 27 23:59 | 8°  ☿28'08 | -2°06'21 |
| max. Earth dist. | 5155 Mar 12 04:42 | 16°  ☿17'44 | 1.42420 AU | minimum elong | 5156 Feb 27 20:37 | 8°  ☿14'24 | 2°06'16 |
| superior conj | 5155 Mar 19 11:32 | 28°  ☿29'51 | -2°07'10 | | 5156 Mar 11 20:02 | 0°  ☿ | |
| minimum elong | 5155 Mar 19 13:51 | 28°  ☿39'45 | 2°07'06 | evening rise | 5156 Mar 12 02:50 | 0°  ☿29'10 | |
| | 5155 Mar 20 08:32 | 0°  ☿ | | asc. node | 5156 Mar 25 02:44 | 21°  ☿57'34 | |
| evening rise | 5155 Mar 30 21:26 | 18°  ☿40'16 | | evening max el | 5156 Mar 30 00:58 | 28°  ☿06'27 | 18°10'42 |
| | 5155 Apr 06 05:44 | 0°  ☿ | | | 5156 Apr 01 06:23 | 0°  ☿ | |
| asc. node | 5155 Apr 08 05:41 | 3°  ☿24'16 | | retrograde | 5156 Apr 05 10:55 | 1°  ☿29'33 | |
| evening max el | 5155 Apr 16 12:08 | 14°  ☿51'16 | 18°07'31 | evening set | 5156 Apr 08 07:56 | 0°  ☿46'52 | |
| retrograde | 5155 Apr 23 04:23 | 18°  ☿15'23 | | | 5156 Apr 09 15:49 | 30°  ☿  | |
| evening set | 5155 Apr 25 19:10 | 17°  ☿44'18 | | inferior conj | 5156 Apr 14 11:10 | 25°  ☿31'31 | 3°25'29 |
| inferior conj | 5155 May 02 11:10 | 12°  ☿48'40 | 2°57'34 | minimum elong | 5156 Apr 14 12:36 | 25°  ☿27'39 | 3°25'20 |
| minimum elong | 5155 May 02 14:07 | 12°  ☿41'37 | 2°56'58 | min. Earth dist. | 5156 Apr 17 04:25 | 22°  ☿36'18 | 0.62925 AU |

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|------------------|-------------------|---------------------------------|------------|------------------|-------------------|---------------------------------|------------|
| morning rise | 5156 Apr 20 16:02 | 19° Υ 25'18 | | asc. node | 5157 Mar 11 23:46 | 9° Υ 50'13 | |
| direct | 5156 Apr 27 12:31 | 16° Υ 48'58 | | evening max el | 5157 Mar 13 13:02 | 11° Υ 31'59 | 18°32'32 |
| desc. node | 5156 Apr 30 11:06 | 17° Υ 14'52 | | retrograde | 5157 Mar 20 02:00 | 15° Υ 07'10 | |
| morning max el | 5156 May 11 12:15 | 24° Υ 48'53 | 27°49'26 | evening set | 5157 Mar 23 05:16 | 14° Υ 11'59 | |
| | 5156 May 16 05:28 | 0° \mathcal{B} | | inferior conj | 5157 Mar 28 23:32 | 8° Υ 38'45 | 3°32'55 |
| | 5156 Jun 05 09:10 | 0° Π | | minimum elong | 5157 Mar 28 23:23 | 8° Υ 39'13 | 3°32'55 |
| morning set | 5156 Jun 14 18:03 | 17° Π 40'50 | | min. Earth dist. | 5157 Mar 31 01:32 | 6° Υ 09'58 | 0.64773 AU |
| max. Earth dist. | 5156 Jun 20 02:26 | 28° Π 47'39 | 1.32592 AU | morning rise | 5157 Apr 03 16:51 | 2° Υ 26'12 | |
| | 5156 Jun 20 15:58 | 0° \mathcal{E} | | | 5157 Apr 07 21:57 | 30° \mathcal{K} | |
| asc. node | 5156 Jun 21 02:00 | 0° \mathcal{E} 53'51 | | direct | 5157 Apr 10 10:07 | 29° \mathcal{K} 37'22 | |
| | | | | | 5157 Apr 13 01:08 | 0° Υ | |
| superior conj | 5156 Jun 22 10:02 | 3° \mathcal{E} 46'39 | 0°13'52 | desc. node | 5157 Apr 17 08:07 | 2° Υ 00'41 | |
| minimum elong | 5156 Jun 22 09:22 | 3° \mathcal{E} 43'05 | 0°13'42 | morning max el | 5157 Apr 23 22:04 | 7° Υ 31'35 | 27°16'34 |
| behind sun begin | 5156 Jun 22 06:40 | 3° \mathcal{E} 28'29 | | | 5157 May 11 06:31 | 0° \mathcal{B} | |
| behind sun end | 5156 Jun 22 12:04 | 3° \mathcal{E} 57'42 | | | 5157 May 28 16:08 | 0° Π | |
| evening rise | 5156 Jun 29 08:53 | 18° \mathcal{E} 50'01 | | morning set | 5157 May 29 08:30 | 1° Π 19'22 | |
| | 5156 Jul 04 19:51 | 0° Ω | | max. Earth dist. | 5157 Jun 02 23:58 | 10° Π 36'45 | 1.33588 AU |
| evening max el | 5156 Jul 23 02:18 | 27° Ω 04'25 | 23°39'25 | | | | |
| | 5156 Jul 26 11:59 | 0° \mathcal{M} | | superior conj | 5157 Jun 06 13:52 | 18° Π 04'24 | -0°14'17 |
| desc. node | 5156 Jul 27 10:19 | 0° \mathcal{M} 40'03 | | minimum elong | 5157 Jun 06 14:36 | 18° Π 08'20 | 0°14'10 |
| retrograde | 5156 Aug 05 17:32 | 3° \mathcal{M} 55'10 | | behind sun begin | 5157 Jun 06 12:00 | 17° Π 54'36 | |
| evening set | 5156 Aug 09 23:37 | 3° \mathcal{M} 15'24 | | behind sun end | 5157 Jun 06 17:12 | 18° Π 22'03 | |
| min. Earth dist. | 5156 Aug 16 12:12 | 0° \mathcal{M} 10'23 | 0.55933 AU | asc. node | 5157 Jun 07 23:02 | 21° Π 00'17 | |
| | 5156 Aug 16 19:14 | 30° \mathcal{K} Ω | | | 5157 Jun 12 04:10 | 0° \mathcal{E} | |
| inferior conj | 5156 Aug 18 15:44 | 28° Ω 53'14 | -5°07'03 | evening rise | 5157 Jun 13 19:56 | 3° \mathcal{E} 30'28 | |
| minimum elong | 5156 Aug 18 11:18 | 28° Ω 59'54 | 5°06'35 | | 5157 Jun 28 11:20 | 0° Ω | |
| morning rise | 5156 Aug 27 01:27 | 24° Ω 58'33 | | evening max el | 5157 Jul 04 17:22 | 7° Ω 27'28 | 22°02'41 |
| direct | 5156 Aug 29 21:19 | 24° Ω 38'38 | | desc. node | 5157 Jul 14 07:20 | 13° Ω 23'43 | |
| morning max el | 5156 Sep 09 04:32 | 29° Ω 25'59 | 20°08'07 | retrograde | 5157 Jul 17 11:33 | 13° Ω 47'16 | |
| | 5156 Sep 09 18:43 | 0° \mathcal{M} | | evening set | 5157 Jul 20 07:10 | 13° Ω 29'34 | |
| asc. node | 5156 Sep 17 01:17 | 9° \mathcal{M} 22'22 | | min. Earth dist. | 5157 Jul 28 22:19 | 9° Ω 47'00 | 0.54941 AU |
| morning set | 5156 Sep 27 11:12 | 28° \mathcal{M} 41'36 | | inferior conj | 5157 Jul 29 13:43 | 9° Ω 25'22 | -4°07'32 |
| | 5156 Sep 28 02:34 | 0° \mathcal{L} | | minimum elong | 5157 Jul 29 04:58 | 9° Ω 37'39 | 4°05'22 |
| | | | | morning rise | 5157 Aug 07 04:25 | 5° Ω 35'08 | |
| superior conj | 5156 Oct 05 03:31 | 14° \mathcal{L} 22'28 | 1°41'34 | direct | 5157 Aug 10 09:53 | 5° Ω 12'02 | |
| minimum elong | 5156 Oct 05 04:39 | 14° \mathcal{L} 28'07 | 1°41'32 | morning max el | 5157 Aug 22 07:53 | 10° Ω 46'31 | 21°34'53 |
| max. Earth dist. | 5156 Oct 10 15:53 | 25° \mathcal{L} 10'34 | 1.36757 AU | asc. node | 5157 Sep 03 22:18 | 28° Ω 01'04 | |
| | 5156 Oct 13 05:40 | 0° \mathcal{M} | | | 5157 Sep 05 00:41 | 0° \mathcal{M} | |
| evening rise | 5156 Oct 14 11:37 | 2° \mathcal{M} 17'11 | | morning set | 5157 Sep 11 20:15 | 13° \mathcal{M} 28'17 | |
| desc. node | 5156 Oct 23 09:35 | 17° \mathcal{M} 38'26 | | | | | |
| | 5156 Oct 31 08:44 | 0° \mathcal{J} | | superior conj | 5157 Sep 19 02:31 | 28° \mathcal{M} 44'59 | 1°43'16 |
| evening max el | 5156 Nov 19 04:35 | 23° \mathcal{J} 43'31 | 25°47'45 | minimum elong | 5157 Sep 19 02:11 | 28° \mathcal{M} 43'14 | 1°43'16 |
| | 5156 Nov 27 19:48 | 0° \mathcal{B} | | | 5157 Sep 19 16:56 | 0° \mathcal{L} | |
| retrograde | 5156 Dec 01 13:58 | 0° \mathcal{B} 48'18 | | max. Earth dist. | 5157 Sep 23 03:32 | 7° \mathcal{L} 02'31 | 1.34975 AU |
| | 5156 Dec 05 01:34 | 30° \mathcal{K} \mathcal{J} | | evening rise | 5157 Sep 27 10:58 | 15° \mathcal{L} 29'30 | |
| evening set | 5156 Dec 07 15:31 | 28° \mathcal{J} 17'54 | | | 5157 Oct 05 11:36 | 0° \mathcal{M} | |
| min. Earth dist. | 5156 Dec 11 23:04 | 23° \mathcal{J} 37'50 | 0.67005 AU | desc. node | 5157 Oct 10 06:36 | 7° \mathcal{M} 54'54 | |
| inferior conj | 5156 Dec 13 07:37 | 21° \mathcal{J} 54'59 | -0°14'24 | | 5157 Oct 25 22:46 | 0° \mathcal{J} | |
| minimum elong | 5156 Dec 13 07:59 | 21° \mathcal{J} 53'48 | 0°14'13 | evening max el | 5157 Nov 01 17:15 | 7° \mathcal{J} 23'19 | 26°44'39 |
| transit middle | 5156 Dec 13 07:59 | 21° \mathcal{J} 53'48 | 0°14'13 | retrograde | 5157 Nov 14 18:47 | 14° \mathcal{J} 39'36 | |
| transit begin | 5156 Dec 13 06:39 | 21° \mathcal{J} 58'03 | | evening set | 5157 Nov 21 08:46 | 12° \mathcal{J} 01'04 | |
| transit end | 5156 Dec 13 09:20 | 21° \mathcal{J} 49'34 | | min. Earth dist. | 5157 Nov 25 09:42 | 7° \mathcal{J} 56'17 | 0.65939 AU |
| asc. node | 5156 Dec 14 00:31 | 21° \mathcal{J} 01'52 | | inferior conj | 5157 Nov 27 05:48 | 5° \mathcal{J} 46'30 | -1°14'28 |
| morning rise | 5156 Dec 19 00:55 | 16° \mathcal{J} 02'50 | | minimum elong | 5157 Nov 27 07:53 | 5° \mathcal{J} 40'21 | 1°13'34 |
| direct | 5156 Dec 22 06:59 | 15° \mathcal{J} 02'08 | | asc. node | 5157 Nov 30 21:32 | 1° \mathcal{J} 50'34 | |
| morning max el | 5156 Dec 29 04:47 | 18° \mathcal{J} 51'23 | 19°02'20 | morning rise | 5157 Dec 03 07:52 | 0° \mathcal{J} 05'18 | |
| | 5157 Jan 06 21:59 | 0° \mathcal{B} | | | 5157 Dec 03 12:02 | 30° \mathcal{R} \mathcal{M} | |
| desc. node | 5157 Jan 19 08:53 | 19° \mathcal{B} 01'10 | | direct | 5157 Dec 06 04:26 | 29° \mathcal{M} 20'01 | |
| morning set | 5157 Jan 20 21:28 | 21° \mathcal{B} 23'35 | | | 5157 Dec 08 22:00 | 0° \mathcal{J} | |
| | 5157 Jan 26 09:57 | 0° \approx | | morning max el | 5157 Dec 12 17:41 | 2° \mathcal{J} 52'43 | 18°20'52 |
| max. Earth dist. | 5157 Feb 04 06:32 | 13° \approx 51'55 | 1.45045 AU | | 5157 Dec 31 06:33 | 0° \mathcal{B} | |
| | | | | morning set | 5158 Jan 01 04:36 | 1° \mathcal{B} 28'44 | |
| superior conj | 5157 Feb 06 12:57 | 17° \approx 26'16 | -1°46'12 | desc. node | 5158 Jan 06 05:53 | 9° \mathcal{B} 35'11 | |
| minimum elong | 5157 Feb 06 04:09 | 16° \approx 51'32 | 1°45'27 | | | | |
| | 5157 Feb 14 10:13 | 0° \mathcal{K} | | superior conj | 5158 Jan 16 15:51 | 26° \mathcal{B} 04'03 | -1°08'06 |
| evening rise | 5157 Feb 21 10:03 | 11° \mathcal{K} 20'40 | | minimum elong | 5158 Jan 16 07:44 | 25° \mathcal{B} 32'08 | 1°07'05 |
| | 5157 Mar 04 22:44 | 0° Υ | | max. Earth dist. | 5158 Jan 18 01:10 | 28° \mathcal{B} 14'41 | 1.45329 AU |

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|---------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| | 5158 Jan 19 04:02 | 0°♊ | | evening rise | 5159 Jan 12 08:49 | 0°♊36'30 | |
| evening rise | 5158 Feb 01 18:07 | 21°♊16'52 | | greatest brilliancy | 5159 Jan 27 00:33 | 22°♊46'10 | -0.6m |
| | 5158 Feb 07 07:24 | 0°♋ | | | 5159 Feb 01 02:17 | 0°♋ | |
| greatest brilliancy | 5158 Feb 12 11:30 | 8°♋02'53 | -0.8m | evening max el | 5159 Feb 08 02:30 | 8°♋36'42 | 20°06'46 |
| evening max el | 5158 Feb 24 22:05 | 25°♋02'54 | 19°11'51 | asc. node | 5159 Feb 13 17:49 | 12°♋43'47 | |
| asc. node | 5158 Feb 26 20:47 | 26°♋50'12 | | retrograde | 5159 Feb 15 19:54 | 13°♋07'00 | |
| retrograde | 5158 Mar 03 21:54 | 29°♋01'09 | | evening set | 5159 Feb 19 14:27 | 11°♋44'10 | |
| evening set | 5158 Mar 07 08:11 | 27°♋52'37 | | inferior conj | 5159 Feb 24 23:42 | 5°♋41'04 | 3°04'32 |
| inferior conj | 5158 Mar 12 20:41 | 22°♋03'24 | 3°24'47 | minimum elong | 5159 Feb 24 21:34 | 5°♋48'18 | 3°04'07 |
| minimum elong | 5158 Mar 12 19:17 | 22°♋07'52 | 3°24'38 | min. Earth dist. | 5159 Feb 25 20:07 | 4°♋32'13 | 0.67280 AU |
| min. Earth dist. | 5158 Mar 14 07:21 | 20°♋12'09 | 0.66238 AU | | 5159 Mar 01 14:26 | 30°♌ | |
| morning rise | 5158 Mar 18 06:02 | 15°♋48'41 | | morning rise | 5159 Mar 02 04:27 | 29°♌26'36 | |
| direct | 5158 Mar 24 14:23 | 13°♋00'37 | | direct | 5159 Mar 08 00:15 | 26°♌50'21 | |
| desc. node | 5158 Apr 04 05:08 | 18°♋32'56 | | | 5159 Mar 15 10:19 | 0°♌ | |
| morning max el | 5158 Apr 06 07:57 | 20°♋35'11 | 26°15'21 | morning max el | 5159 Mar 19 16:45 | 3°♌49'46 | 24°55'20 |
| | 5158 Apr 14 10:34 | 0°♍ | | desc. node | 5159 Mar 22 02:10 | 6°♌22'28 | |
| | 5158 May 04 09:58 | 0°♎ | | | 5159 Apr 08 17:21 | 0°♍ | |
| morning set | 5158 May 12 10:28 | 14°♎17'43 | | morning set | 5159 Apr 24 19:06 | 26°♍22'33 | |
| max. Earth dist. | 5158 May 16 10:08 | 21°♎54'21 | 1.35056 AU | | 5159 Apr 26 19:30 | 0°♎ | |
| | 5158 May 20 11:43 | 0°♏ | | max. Earth dist. | 5159 Apr 28 09:59 | 2°♎56'06 | 1.36952 AU |
| superior conj | 5158 May 21 10:42 | 1°♏56'58 | -0°43'58 | superior conj | 5159 May 04 21:35 | 15°♎16'38 | -1°13'30 |
| minimum elong | 5158 May 21 13:07 | 2°♏09'19 | 0°43'31 | minimum elong | 5159 May 05 01:38 | 15°♎36'29 | 1°12'51 |
| asc. node | 5158 May 25 20:03 | 11°♏01'32 | | | 5159 May 12 06:25 | 0°♏ | |
| evening rise | 5158 May 29 04:12 | 17°♏57'44 | | asc. node | 5159 May 12 17:05 | 0°♏53'41 | |
| | 5158 Jun 04 05:51 | 0°♐ | | evening rise | 5159 May 13 07:24 | 2°♏05'35 | |
| evening max el | 5158 Jun 16 18:28 | 18°♐17'07 | 20°36'51 | evening max el | 5159 May 30 08:07 | 29°♏48'02 | 19°29'02 |
| retrograde | 5158 Jun 28 00:01 | 23°♐47'24 | | | 5159 May 30 13:03 | 0°♐ | |
| evening set | 5158 Jun 30 00:50 | 23°♐37'19 | | retrograde | 5159 Jun 08 19:52 | 4°♐26'10 | |
| desc. node | 5158 Jul 01 04:22 | 23°♐23'10 | | evening set | 5159 Jun 10 18:28 | 4°♐15'23 | |
| inferior conj | 5158 Jul 09 07:02 | 19°♐40'17 | -2°23'22 | desc. node | 5159 Jun 18 01:23 | 1°♐01'50 | |
| minimum elong | 5158 Jul 09 00:25 | 19°♐49'48 | 2°21'03 | inferior conj | 5159 Jun 19 10:15 | 0°♐09'45 | -0°24'31 |
| min. Earth dist. | 5158 Jul 10 09:42 | 19°♐01'57 | 0.54876 AU | minimum elong | 5159 Jun 19 09:10 | 0°♐11'29 | 0°24'07 |
| morning rise | 5158 Jul 17 23:20 | 15°♐34'30 | | | 5159 Jun 19 16:19 | 30°♑ | |
| direct | 5158 Jul 21 19:24 | 15°♐02'48 | | min. Earth dist. | 5159 Jun 21 23:11 | 28°♑32'23 | 0.55767 AU |
| morning max el | 5158 Aug 04 01:26 | 21°♐26'35 | 23°15'50 | morning rise | 5159 Jun 27 21:13 | 25°♑32'27 | |
| | 5158 Aug 11 10:34 | 0°♒ | | direct | 5159 Jul 02 13:49 | 24°♑42'52 | |
| asc. node | 5158 Aug 21 19:19 | 17°♒10'55 | | | 5159 Jul 14 15:01 | 0°♒ | |
| morning set | 5158 Aug 27 07:28 | 28°♒20'04 | | morning max el | 5159 Jul 16 14:53 | 1°♒47'10 | 24°58'51 |
| | 5158 Aug 28 02:20 | 0°♓ | | | 5159 Aug 05 05:49 | 0°♒ | |
| superior conj | 5158 Sep 03 08:00 | 13°♓25'15 | 1°38'22 | asc. node | 5159 Aug 08 16:21 | 6°♒44'01 | |
| minimum elong | 5158 Sep 03 06:33 | 13°♓17'30 | 1°38'16 | morning set | 5159 Aug 11 19:11 | 13°♒12'14 | |
| max. Earth dist. | 5158 Sep 06 00:01 | 19°♓05'56 | 1.33581 AU | superior conj | 5159 Aug 18 17:30 | 28°♒15'49 | 1°27'48 |
| evening rise | 5158 Sep 10 23:34 | 29°♓18'44 | | minimum elong | 5159 Aug 18 15:23 | 28°♒04'16 | 1°27'33 |
| | 5158 Sep 11 07:53 | 0°♔ | | | 5159 Aug 19 12:34 | 0°♓ | |
| desc. node | 5158 Sep 27 03:38 | 27°♔49'12 | | max. Earth dist. | 5159 Aug 20 04:40 | 1°♓27'40 | 1.32611 AU |
| | 5158 Sep 28 14:02 | 0°♕ | | evening rise | 5159 Aug 25 21:48 | 13°♓34'45 | |
| evening max el | 5158 Oct 15 05:40 | 20°♕49'38 | 27°19'35 | | 5159 Sep 03 10:34 | 0°♔ | |
| retrograde | 5158 Oct 28 17:36 | 28°♕07'57 | | desc. node | 5159 Sep 14 00:40 | 17°♔12'03 | |
| evening set | 5158 Nov 04 17:16 | 25°♕28'42 | | | 5159 Sep 23 22:43 | 0°♕ | |
| min. Earth dist. | 5158 Nov 08 12:28 | 21°♕58'12 | 0.64523 AU | evening max el | 5159 Sep 27 15:52 | 3°♕49'26 | 27°25'55 |
| inferior conj | 5158 Nov 10 20:26 | 19°♕27'50 | -2°17'30 | retrograde | 5159 Oct 11 09:39 | 11°♕04'22 | |
| minimum elong | 5158 Nov 11 00:26 | 19°♕17'05 | 2°15'56 | evening set | 5159 Oct 18 13:52 | 8°♕34'13 | |
| morning rise | 5158 Nov 17 08:52 | 14°♕00'35 | | min. Earth dist. | 5159 Oct 22 05:18 | 5°♕34'02 | 0.62791 AU |
| asc. node | 5158 Nov 17 18:34 | 13°♕50'51 | | inferior conj | 5159 Oct 25 00:44 | 2°♕51'58 | -3°20'34 |
| direct | 5158 Nov 19 22:19 | 13°♕26'46 | | minimum elong | 5159 Oct 25 06:25 | 2°♕38'16 | 3°18'42 |
| morning max el | 5158 Nov 26 09:57 | 16°♕52'16 | 17°56'25 | | 5159 Oct 28 04:50 | 30°♖ | |
| | 5158 Dec 05 21:44 | 0°♗ | | morning rise | 5159 Nov 01 00:36 | 27°♖42'09 | |
| morning set | 5158 Dec 13 17:00 | 13°♗00'44 | | direct | 5159 Nov 03 09:38 | 27°♖16'08 | |
| | 5158 Dec 23 22:41 | 0°♘ | | asc. node | 5159 Nov 04 15:36 | 27°♖23'31 | |
| desc. node | 5158 Dec 24 02:55 | 0°♙ | | | 5159 Nov 09 08:24 | 0°♗ | |
| superior conj | 5158 Dec 27 05:08 | 5°♙17'15 | -0°21'27 | morning max el | 5159 Nov 10 02:34 | 0°♗42'42 | 17°49'38 |
| minimum elong | 5158 Dec 27 02:35 | 5°♙06'57 | 0°21'05 | morning set | 5159 Nov 26 05:01 | 25°♗40'33 | |
| max. Earth dist. | 5158 Dec 31 20:18 | 12°♙40'04 | 1.44873 AU | | 5159 Nov 28 15:48 | 0°♘ | |
| | 5159 Jan 11 23:20 | 0°♚ | | superior conj | 5159 Dec 07 18:28 | 15°♘41'30 | 0°22'41 |

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|------------------|-------------------|--|------------|------------------|-------------------|--|------------|
| minimum elong | 5159 Dec 07 20:39 | 15°  50'39 | 0°22'23 | desc. node | 5160 Nov 26 20:59 | 11°  50'25 | |
| desc. node | 5159 Dec 10 23:57 | 21°  03'20 | | evening rise | 5160 Dec 01 17:32 | 19°  43'58 | |
| max. Earth dist. | 5159 Dec 14 13:10 | 26°  50'21 | 1.43732 AU | | 5160 Dec 08 07:22 | 0°  | |
| | 5159 Dec 16 12:28 | 0°  | | | 5160 Dec 29 15:48 | 0°  | |
| evening rise | 5159 Dec 22 19:26 | 9°  52'54 | | evening max el | 5161 Jan 03 19:12 | 5°  47'39 | 22°31'06 |
| | 5160 Jan 05 04:19 | 0°  | | retrograde | 5161 Jan 13 14:05 | 11°  36'43 | |
| evening max el | 5160 Jan 22 01:25 | 22°  11'18 | 21°14'33 | asc. node | 5161 Jan 17 11:54 | 10°  16'53 | |
| retrograde | 5160 Jan 30 17:50 | 27°  19'57 | | evening set | 5161 Jan 18 05:40 | 9°  43'03 | |
| asc. node | 5160 Jan 31 14:52 | 27°  15'50 | | inferior conj | 5161 Jan 23 14:16 | 3°  20'43 | 1°56'00 |
| evening set | 5160 Feb 03 22:09 | 25°  41'56 | | minimum elong | 5161 Jan 23 12:03 | 3°  28'23 | 1°55'15 |
| inferior conj | 5160 Feb 09 06:14 | 19°  27'34 | 2°34'26 | min. Earth dist. | 5161 Jan 23 10:06 | 3°  35'12 | 0.68119 AU |
| minimum elong | 5160 Feb 09 03:50 | 19°  35'55 | 2°33'46 | | 5161 Jan 26 02:20 | 30°  | |
| min. Earth dist. | 5160 Feb 09 13:46 | 19°  01'31 | 0.67899 AU | morning rise | 5161 Jan 28 18:20 | 27°  31'16 | |
| morning rise | 5160 Feb 14 09:20 | 13°  14'55 | | direct | 5161 Feb 02 09:05 | 25°  31'63 | |
| direct | 5160 Feb 19 14:44 | 10°  57'45 | | | 5161 Feb 10 21:40 | 0°  | |
| morning max el | 5160 Mar 01 01:38 | 17°  10'38 | 23°26'42 | morning max el | 5161 Feb 11 13:51 | 0°  39'46 | 21°58'59 |
| desc. node | 5160 Mar 07 23:12 | 25°  06'49 | | desc. node | 5161 Feb 22 20:15 | 14°  30'52 | |
| | 5160 Mar 11 16:58 | 0°  | | | 5161 Mar 05 13:15 | 0°  | |
| | 5160 Mar 31 18:51 | 0°  | | morning set | 5161 Mar 16 09:47 | 16°  52'43 | |
| morning set | 5160 Apr 05 04:29 | 7°  17'39 | | max. Earth dist. | 5161 Mar 22 03:52 | 26°  18'37 | 1.41280 AU |
| max. Earth dist. | 5160 Apr 09 05:33 | 14°  14'37 | 1.39113 AU | | 5161 Mar 24 08:25 | 0°  | |
| | | | | | | | |
| superior conj | 5160 Apr 16 18:38 | 27°  52'56 | -1°40'16 | superior conj | 5161 Mar 29 21:11 | 9°  35'07 | -2°00'27 |
| minimum elong | 5160 Apr 16 23:38 | 28°  16'18 | 1°39'41 | minimum elong | 5161 Mar 30 01:21 | 9°  53'31 | 2°00'13 |
| | 5160 Apr 17 21:46 | 0°  | | evening rise | 5161 Apr 09 10:42 | 28°  50'07 | |
| evening rise | 5160 Apr 26 02:43 | 15°  45'46 | | | 5161 Apr 10 01:46 | 0°  | |
| asc. node | 5160 Apr 28 14:08 | 20°  31'31 | | asc. node | 5161 Apr 15 11:10 | 9°  49'54 | |
| | 5160 May 03 18:15 | 0°  | | evening max el | 5161 Apr 25 16:29 | 24°  41'33 | 18°14'14 |
| evening max el | 5160 May 12 08:32 | 11°  58'36 | 18°41'31 | retrograde | 5161 May 02 17:25 | 28°  13'22 | |
| retrograde | 5160 May 20 09:13 | 15°  55'46 | | evening set | 5161 May 05 04:11 | 27°  48'30 | |
| evening set | 5160 May 22 13:08 | 15°  39'34 | | inferior conj | 5161 May 12 05:22 | 23°  04'38 | 2°29'49 |
| inferior conj | 5160 May 30 09:03 | 11°  16'01 | 1°17'48 | minimum elong | 5161 May 12 08:49 | 22°  57'03 | 2°28'56 |
| minimum elong | 5160 May 30 11:45 | 11°  10'56 | 1°16'53 | min. Earth dist. | 5161 May 15 15:02 | 20°  07'02 | 0.59513 AU |
| min. Earth dist. | 5160 Jun 02 16:13 | 8°  48'45 | 0.57416 AU | morning rise | 5161 May 19 10:40 | 17°  22'36 | |
| desc. node | 5160 Jun 03 22:25 | 7°  56'45 | | desc. node | 5161 May 21 19:28 | 16°  14'39 | |
| morning rise | 5160 Jun 07 07:04 | 6°  02'44 | | direct | 5161 May 25 19:40 | 15°  30'00 | |
| direct | 5160 Jun 12 21:56 | 4°  44'43 | | morning max el | 5161 Jun 09 04:43 | 23°  21'03 | 27°28'34 |
| morning max el | 5160 Jun 27 06:47 | 12°  17'38 | 26°27'58 | | 5161 Jun 15 03:35 | 0°  | |
| | 5160 Jul 11 02:39 | 0°  | | | 5161 Jul 04 05:34 | 0°  | |
| asc. node | 5160 Jul 25 13:25 | 26°  33'42 | | morning set | 5161 Jul 10 13:36 | 12°  37'08 | |
| morning set | 5160 Jul 26 05:49 | 27°  59'59 | | asc. node | 5161 Jul 12 10:26 | 16°  33'50 | |
| | 5160 Jul 27 04:24 | 0°  | | max. Earth dist. | 5161 Jul 17 01:53 | 26°  40'17 | 1.31925 AU |
| | | | | | | | |
| superior conj | 5160 Aug 02 05:01 | 13°  01'19 | 1°12'19 | superior conj | 5161 Jul 17 16:43 | 28°  02'10 | 0°52'31 |
| minimum elong | 5160 Aug 02 02:43 | 12°  57'34 | 1°11'58 | minimum elong | 5161 Jul 17 14:41 | 27°  50'58 | 0°52'07 |
| max. Earth dist. | 5160 Aug 02 14:34 | 14°  03'02 | 1.32058 AU | | 5161 Jul 18 14:03 | 0°  | |
| evening rise | 5160 Aug 09 02:44 | 28°  09'00 | | evening rise | 5161 Jul 24 11:55 | 12°  53'13 | |
| | 5160 Aug 10 00:00 | 0°  | | | 5161 Aug 02 02:47 | 0°  | |
| | 5160 Aug 26 18:21 | 0°  | | desc. node | 5161 Aug 17 18:43 | 23°  17'09 | |
| desc. node | 5160 Aug 30 21:41 | 5°  50'54 | | evening max el | 5161 Aug 21 18:57 | 27°  17'40'36 | 26°00'09 |
| evening max el | 5160 Sep 08 21:06 | 16°  09'36 | 26°59'25 | | 5161 Aug 24 10:29 | 0°  | |
| retrograde | 5160 Sep 22 18:15 | 23°  02'29 | | retrograde | 5161 Sep 04 18:06 | 4°  48'02 | |
| evening set | 5160 Sep 29 18:34 | 21°  01'13 | | evening set | 5161 Sep 11 02:23 | 3°  11'22 | |
| min. Earth dist. | 5160 Oct 03 11:19 | 18°  31'40 | 0.60811 AU | min. Earth dist. | 5161 Sep 15 07:34 | 0°  36'04 | 0.58736 AU |
| inferior conj | 5160 Oct 06 15:26 | 15°  50'49 | -4°18'27 | | 5161 Sep 16 03:38 | 30°  | |
| minimum elong | 5160 Oct 06 21:44 | 15°  37'28 | 4°16'55 | inferior conj | 5161 Sep 18 12:55 | 28°  13'52 | -5°02'11 |
| morning rise | 5160 Oct 14 02:52 | 11°  01'59 | | minimum elong | 5161 Sep 18 17:26 | 28°  10'53'31 | 5°01'36 |
| direct | 5160 Oct 16 10:31 | 10°  40'44 | | morning rise | 5161 Sep 26 10:46 | 23°  17'48'03 | |
| asc. node | 5160 Oct 21 12:39 | 12°  02'8'03 | | direct | 5161 Sep 28 20:24 | 23°  17'29'00 | |
| morning max el | 5160 Oct 23 16:26 | 14°  01'6'45 | 18°01'35 | morning max el | 5161 Oct 07 00:04 | 27°  17'24'10 | 18°33'38 |
| | 5160 Nov 03 10:08 | 0°  | | asc. node | 5161 Oct 08 09:43 | 28°  17'51'08 | |
| morning set | 5160 Nov 08 10:14 | 9°  09'19 | | | 5161 Oct 09 09:27 | 0°  | |
| | | | | | | | |
| superior conj | 5160 Nov 18 10:04 | 27°  11'22'33 | 0°57'52 | morning set | 5161 Oct 23 03:28 | 23°  11'24 | |
| minimum elong | 5160 Nov 18 13:58 | 27°  11'39'50 | 0°57'21 | | 5161 Oct 26 15:53 | 0°  | |
| | 5160 Nov 19 21:53 | 0°  | | superior conj | 5161 Oct 31 23:31 | 10°  10'06'48 | 1°22'28 |
| max. Earth dist. | 5160 Nov 26 01:19 | 10°  07'28'50 | 1.42044 AU | minimum elong | 5161 Nov 01 02:58 | 10°  10'22'53 | 1°22'07 |

| | | | | | | | |
|------------------|-------------------|-------------------------------|------------|---------------------|-------------------|-------------------------------|------------|
| max. Earth dist. | 5161 Nov 08 07:59 | 23° \mathbb{M} 22'46 | 1.40020 AU | max. Earth dist. | 5162 Oct 21 12:31 | 5° \mathbb{M} 37'17 | 1.37916 AU |
| | 5161 Nov 12 04:55 | 0° \mathbb{A} | | evening rise | 5162 Oct 25 06:40 | 12° \mathbb{M} 23'18 | |
| evening rise | 5161 Nov 12 12:41 | 0° \mathbb{A} 32'31 | | desc. node | 5162 Oct 31 14:59 | 23° \mathbb{M} 11'23 | |
| desc. node | 5161 Nov 13 17:59 | 2° \mathbb{A} 34'21 | | | 5162 Nov 04 20:53 | 0° \mathbb{A} | |
| | 5161 Dec 01 17:09 | 0° \mathbb{B} | | | 5162 Nov 26 21:24 | 0° \mathbb{B} | |
| evening max el | 5161 Dec 17 09:22 | 19° \mathbb{B} 26'49 | 23°51'09 | evening max el | 5162 Nov 29 22:08 | 3° \mathbb{B} 09'50 | 25°08'00 |
| retrograde | 5161 Dec 28 07:11 | 25° \mathbb{B} 52'40 | | retrograde | 5162 Dec 11 20:01 | 10° \mathbb{B} 03'17 | |
| evening set | 5162 Jan 02 11:22 | 23° \mathbb{B} 43'35 | | evening set | 5162 Dec 17 13:39 | 7° \mathbb{B} 40'07 | |
| asc. node | 5162 Jan 04 08:57 | 21° \mathbb{B} 50'24 | | min. Earth dist. | 5162 Dec 22 01:22 | 2° \mathbb{B} 39'40 | 0.67453 AU |
| inferior conj | 5162 Jan 07 21:56 | 17° \mathbb{B} 17'21 | 1°10'17 | asc. node | 5162 Dec 22 06:00 | 2° \mathbb{B} 24'38 | |
| minimum elong | 5162 Jan 07 20:22 | 17° \mathbb{B} 22'39 | 1°09'41 | inferior conj | 5162 Dec 23 03:25 | 1° \mathbb{B} 14'37 | 0°18'09 |
| min. Earth dist. | 5162 Jan 07 06:46 | 18° \mathbb{B} 08'57 | 0.67963 AU | minimum elong | 5162 Dec 23 02:57 | 1° \mathbb{B} 16'06 | 0°17'59 |
| morning rise | 5162 Jan 13 05:23 | 11° \mathbb{B} 12'46 | | | 5162 Dec 24 02:27 | 30° \mathbb{R} \mathbb{A} | |
| direct | 5162 Jan 17 06:14 | 9° \mathbb{B} 40'40 | | morning rise | 5162 Dec 28 16:29 | 25° \mathbb{A} 17'02 | |
| morning max el | 5162 Jan 25 08:27 | 14° \mathbb{B} 19'15 | 20°39'40 | direct | 5163 Jan 01 04:57 | 24° \mathbb{A} 05'38 | |
| | 5162 Feb 06 16:24 | 0° \mathbb{A} | | morning max el | 5163 Jan 08 10:55 | 28° \mathbb{A} 09'34 | 19°33'25 |
| desc. node | 5162 Feb 09 17:17 | 4° \mathbb{A} 23'20 | | | 5163 Jan 10 04:20 | 0° \mathbb{B} | |
| morning set | 5162 Feb 23 13:42 | 25° \mathbb{A} 19'44 | | greatest brilliancy | 5163 Jan 21 12:01 | 15° \mathbb{B} 24'10 | -0.7m |
| | 5162 Feb 26 13:21 | 0° \mathbb{H} | | desc. node | 5163 Jan 27 14:17 | 24° \mathbb{B} 36'11 | |
| max. Earth dist. | 5162 Mar 04 08:52 | 9° \mathbb{H} 16'23 | 1.43169 AU | | 5163 Jan 31 02:48 | 0° \mathbb{A} | |
| | | | | morning set | 5163 Feb 02 10:31 | 3° \mathbb{A} 34'37 | |
| superior conj | 5162 Mar 11 00:25 | 20° \mathbb{H} 12'50 | -2°08'59 | max. Earth dist. | 5163 Feb 14 21:16 | 23° \mathbb{A} 01'10 | 1.44550 AU |
| minimum elong | 5162 Mar 11 00:38 | 20° \mathbb{H} 13'45 | 2°09'00 | | | | |
| | 5162 Mar 16 18:21 | 0° \mathbb{Y} | | superior conj | 5163 Feb 19 02:04 | 29° \mathbb{A} 42'52 | -2°00'18 |
| evening rise | 5162 Mar 23 03:05 | 11° \mathbb{Y} 09'00 | | minimum elong | 5163 Feb 18 19:59 | 29° \mathbb{A} 18'27 | 1°59'58 |
| asc. node | 5162 Apr 02 08:13 | 28° \mathbb{Y} 42'13 | | | 5163 Feb 19 06:20 | 0° \mathbb{H} | |
| | 5162 Apr 03 04:10 | 0° \mathbb{B} | | evening rise | 5163 Mar 04 23:21 | 22° \mathbb{H} 33'11 | |
| evening max el | 5162 Apr 09 04:30 | 7° \mathbb{B} 47'51 | 18°06'35 | | 5163 Mar 09 09:36 | 0° \mathbb{Y} | |
| retrograde | 5162 Apr 15 16:58 | 11° \mathbb{B} 09'56 | | asc. node | 5163 Mar 20 05:15 | 16° \mathbb{Y} 59'28 | |
| evening set | 5162 Apr 18 10:21 | 10° \mathbb{B} 34'11 | | evening max el | 5163 Mar 23 17:23 | 21° \mathbb{Y} 08'27 | 18°17'51 |
| inferior conj | 5162 Apr 24 20:28 | 5° \mathbb{B} 30'17 | 3°12'14 | retrograde | 5163 Mar 30 03:28 | 24° \mathbb{Y} 34'52 | |
| minimum elong | 5162 Apr 24 22:50 | 5° \mathbb{B} 24'20 | 3°11'52 | evening set | 5163 Apr 02 03:09 | 23° \mathbb{Y} 46'55 | |
| min. Earth dist. | 5162 Apr 27 21:38 | 2° \mathbb{B} 27'18 | 0.61718 AU | inferior conj | 5163 Apr 08 02:10 | 18° \mathbb{Y} 24'01 | 3°30'47 |
| | 5162 Apr 30 17:20 | 30° \mathbb{R} \mathbb{Y} | | minimum elong | 5163 Apr 08 02:54 | 18° \mathbb{Y} 21'57 | 3°30'45 |
| morning rise | 5162 May 01 09:30 | 29° \mathbb{Y} 30'24 | | min. Earth dist. | 5163 Apr 10 13:10 | 15° \mathbb{Y} 38'09 | 0.63755 AU |
| direct | 5162 May 08 04:28 | 27° \mathbb{Y} 06'44 | | morning rise | 5163 Apr 14 01:42 | 12° \mathbb{Y} 14'44 | |
| desc. node | 5162 May 08 16:30 | 27° \mathbb{Y} 07'29 | | direct | 5163 Apr 20 21:52 | 9° \mathbb{Y} 31'11 | |
| | 5162 May 16 06:55 | 0° \mathbb{B} | | desc. node | 5163 Apr 25 13:31 | 10° \mathbb{Y} 36'15 | |
| morning max el | 5162 May 22 08:44 | 5° \mathbb{B} 06'21 | 27°52'37 | morning max el | 5163 May 04 16:58 | 17° \mathbb{Y} 29'51 | 27°39'22 |
| | 5162 Jun 10 00:02 | 0° \mathbb{II} | | | 5163 May 15 03:09 | 0° \mathbb{B} | |
| morning set | 5162 Jun 24 16:38 | 26° \mathbb{II} 57'37 | | | 5163 Jun 02 19:54 | 0° \mathbb{II} | |
| | 5162 Jun 26 03:59 | 0° \mathbb{E} | | morning set | 5163 Jun 08 12:29 | 10° \mathbb{II} 53'25 | |
| asc. node | 5162 Jun 29 07:28 | 6° \mathbb{E} 39'54 | | max. Earth dist. | 5163 Jun 13 13:28 | 21° \mathbb{II} 12'26 | 1.32961 AU |
| max. Earth dist. | 5162 Jun 30 10:47 | 9° \mathbb{E} 07'26 | 1.32220 AU | | | | |
| | | | | superior conj | 5163 Jun 16 09:36 | 27° \mathbb{II} 14'29 | 0°02'14 |
| superior conj | 5162 Jul 02 02:52 | 12° \mathbb{E} 45'45 | 0°28'56 | minimum elong | 5163 Jun 16 09:29 | 27° \mathbb{II} 13'55 | 0°02'11 |
| minimum elong | 5162 Jul 02 01:35 | 12° \mathbb{E} 38'42 | 0°28'39 | behind sun begin | 5163 Jun 16 04:11 | 26° \mathbb{II} 45'27 | |
| evening rise | 5162 Jul 08 23:19 | 27° \mathbb{E} 41'03 | | behind sun end | 5163 Jun 16 14:48 | 27° \mathbb{II} 42'25 | |
| | 5162 Jul 10 01:33 | 0° \mathbb{Q} | | asc. node | 5163 Jun 16 04:29 | 26° \mathbb{II} 47'06 | |
| | 5162 Jul 27 03:22 | 0° \mathbb{P} | | | 5163 Jun 17 16:22 | 0° \mathbb{E} | |
| evening max el | 5162 Aug 03 09:51 | 8° \mathbb{P} 26'38 | 24°34'58 | evening rise | 5163 Jun 23 11:01 | 12° \mathbb{E} 25'43 | |
| desc. node | 5162 Aug 04 15:43 | 9° \mathbb{P} 35'35 | | | 5163 Jul 02 09:08 | 0° \mathbb{Q} | |
| retrograde | 5162 Aug 17 06:56 | 15° \mathbb{P} 26'28 | | evening max el | 5163 Jul 15 22:36 | 18° \mathbb{Q} 48'26 | 22°57'41 |
| evening set | 5162 Aug 22 09:44 | 14° \mathbb{P} 27'49 | | desc. node | 5163 Jul 22 12:44 | 23° \mathbb{Q} 43'39 | |
| min. Earth dist. | 5162 Aug 27 21:04 | 11° \mathbb{P} 37'59 | 0.56830 AU | retrograde | 5163 Jul 29 06:48 | 25° \mathbb{Q} 27'48 | |
| inferior conj | 5162 Aug 30 14:30 | 9° \mathbb{P} 53'02 | -5°17'38 | evening set | 5163 Aug 01 21:06 | 24° \mathbb{Q} 59'32 | |
| minimum elong | 5162 Aug 30 13:54 | 9° \mathbb{P} 54'01 | 5°17'37 | min. Earth dist. | 5163 Aug 09 07:17 | 21° \mathbb{Q} 40'15 | 0.55417 AU |
| morning rise | 5162 Sep 07 20:28 | 5° \mathbb{P} 48'34 | | inferior conj | 5163 Aug 10 20:45 | 20° \mathbb{Q} 46'13 | -4°48'17 |
| direct | 5162 Sep 10 11:41 | 5° \mathbb{P} 29'30 | | minimum elong | 5163 Aug 10 13:51 | 20° \mathbb{Q} 56'11 | 4°47'08 |
| morning max el | 5162 Sep 19 22:07 | 9° \mathbb{P} 54'59 | 19°27'14 | morning rise | 5163 Aug 19 08:46 | 16° \mathbb{Q} 55'17 | |
| asc. node | 5162 Sep 25 06:45 | 16° \mathbb{P} 17'36 | | direct | 5163 Aug 22 08:33 | 16° \mathbb{Q} 34'13 | |
| | 5162 Oct 03 08:03 | 0° \mathbb{U} | | morning max el | 5163 Sep 02 08:10 | 21° \mathbb{Q} 40'53 | 20°42'41 |
| morning set | 5162 Oct 07 04:57 | 7° \mathbb{U} 36'38 | | | 5163 Sep 09 06:02 | 0° \mathbb{P} | |
| | | | | asc. node | 5163 Sep 12 03:45 | 4° \mathbb{P} 33'16 | |
| superior conj | 5162 Oct 15 05:29 | 23° \mathbb{U} 39'01 | 1°37'07 | morning set | 5163 Sep 21 11:54 | 22° \mathbb{P} 17'23 | |
| minimum elong | 5162 Oct 15 07:31 | 23° \mathbb{U} 49'01 | 1°37'00 | | 5163 Sep 25 05:05 | 0° \mathbb{U} | |
| | 5162 Oct 18 12:24 | 0° \mathbb{M} | | | | | |



































































































































| | | | | | | | |
|---------------------|-------------------|---------------------------|------------|---------------------|-------------------|----------------------|------------|
| superior conj | 5163 Sep 28 23:20 | 7° Ω 46'12 | 1°43'09 | morning set | 5164 Sep 04 22:06 | 7° Π 07'00 | |
| minimum elong | 5163 Sep 28 23:49 | 7° Ω 48'37 | 1°43'09 | | | | |
| max. Earth dist. | 5163 Oct 03 20:34 | 17° Ω 32'21 | 1.35963 AU | superior conj | 5164 Sep 12 01:25 | 22° Π 17'06 | 1°41'55 |
| evening rise | 5163 Oct 07 20:31 | 25° Ω 09'00 | | minimum elong | 5164 Sep 12 00:34 | 22° Π 12'35 | 1°41'54 |
| | 5163 Oct 10 12:15 | 0° Π | | max. Earth dist. | 5164 Sep 15 12:08 | 29° Π 28'41 | 1.34333 AU |
| desc. node | 5163 Oct 18 12:00 | 13° Π 37'07 | | | 5164 Sep 15 18:15 | 0° Ω | |
| | 5163 Oct 29 09:39 | 0° Υ | | evening rise | 5164 Sep 20 01:57 | 8° Ω 38'00 | |
| evening max el | 5163 Nov 12 10:54 | 16° Υ 53'33 | 26°14'17 | | 5164 Oct 02 00:51 | 0° Π | |
| retrograde | 5163 Nov 25 03:44 | 24° Υ 03'45 | | desc. node | 5164 Oct 04 09:01 | 3° Π 45'14 | |
| evening set | 5163 Dec 01 10:46 | 21° Υ 29'27 | | | 5164 Oct 24 11:40 | 0° Υ | |
| min. Earth dist. | 5163 Dec 05 15:34 | 17° Υ 04'16 | 0.66594 AU | evening max el | 5164 Oct 24 23:37 | 0° Υ 28'56 | 27°02'35 |
| inferior conj | 5163 Dec 07 04:52 | 15° Υ 09'41 | -0°39'22 | retrograde | 5164 Nov 07 05:52 | 7° Υ 46'28 | |
| minimum elong | 5163 Dec 07 05:56 | 15° Υ 06'25 | 0°38'53 | evening set | 5164 Nov 14 00:37 | 5° Υ 06'28 | |
| asc. node | 5163 Dec 09 03:01 | 12° Υ 51'56 | | min. Earth dist. | 5164 Nov 17 22:58 | 1° Υ 16'46 | 0.65381 AU |
| morning rise | 5163 Dec 13 01:39 | 9° Υ 21'40 | | | 5164 Nov 19 02:11 | 30° Υ Π | |
| direct | 5163 Dec 16 03:30 | 8° Υ 27'49 | | inferior conj | 5164 Nov 20 00:08 | 28° Π 57'24 | -1°40'57 |
| morning max el | 5163 Dec 22 20:38 | 12° Υ 08'34 | 18°42'41 | minimum elong | 5164 Nov 20 03:02 | 28° Π 49'10 | 1°39'45 |
| | 5164 Jan 04 21:01 | 0° Ξ | | asc. node | 5164 Nov 25 00:03 | 24° Π 06'41 | |
| morning set | 5164 Jan 13 01:14 | 12° Ξ 49'55 | | morning rise | 5164 Nov 26 06:27 | 23° Π 21'54 | |
| desc. node | 5164 Jan 14 11:16 | 15° Ξ 04'00 | | direct | 5164 Nov 28 23:48 | 22° Π 41'53 | |
| | 5164 Jan 23 23:26 | 0° \approx | | morning max el | 5164 Dec 05 11:22 | 26° Π 10'04 | 18°08'26 |
| max. Earth dist. | 5164 Jan 28 15:04 | 7° \approx 17'38 | 1.45260 AU | | 5164 Dec 08 18:37 | 0° Υ | |
| | | | | morning set | 5164 Dec 23 21:12 | 23° Υ 33'33 | |
| superior conj | 5164 Jan 29 08:28 | 8° \approx 25'56 | -1°31'49 | | 5164 Dec 27 19:49 | 0° Ξ | |
| minimum elong | 5164 Jan 28 23:03 | 7° \approx 48'56 | 1°30'52 | desc. node | 5164 Dec 31 08:17 | 5° Ξ 41'50 | |
| | 5164 Feb 11 23:31 | 0° Υ | | | | | |
| evening rise | 5164 Feb 13 20:34 | 3° Υ 00'23 | | superior conj | 5165 Jan 07 13:19 | 17° Ξ 11'46 | -0°48'38 |
| greatest brilliancy | 5164 Feb 21 07:40 | 14° Υ 58'31 | -0.9m | minimum elong | 5165 Jan 07 07:19 | 16° Ξ 48'02 | 0°47'49 |
| | 5164 Mar 02 07:14 | 0° Υ | | max. Earth dist. | 5165 Jan 10 10:43 | 21° Ξ 45'08 | 1.45225 AU |
| evening max el | 5164 Mar 06 04:30 | 4° Υ 37'02 | 18°47'12 | | 5165 Jan 15 17:12 | 0° \approx | |
| asc. node | 5164 Mar 06 02:17 | 4° Υ 31'25 | | evening rise | 5165 Jan 23 20:06 | 12° \approx 37'51 | |
| retrograde | 5164 Mar 12 20:58 | 8° Υ 20'27 | | | 5165 Feb 04 02:35 | 0° Υ | |
| evening set | 5164 Mar 16 03:13 | 7° Υ 19'29 | | greatest brilliancy | 5165 Feb 05 12:10 | 2° Υ 06'46 | -0.7m |
| inferior conj | 5164 Mar 21 18:40 | 1° Υ 39'07 | 3°31'08 | evening max el | 5165 Feb 17 11:39 | 18° Υ 08'48 | 19°33'23 |
| minimum elong | 5164 Mar 21 17:56 | 1° Υ 41'23 | 3°31'05 | asc. node | 5165 Feb 20 23:20 | 21° Υ 04'44 | |
| | 5164 Mar 23 02:43 | 30° Υ Υ | | retrograde | 5165 Feb 24 18:10 | 22° Υ 19'53 | |
| min. Earth dist. | 5164 Mar 23 13:58 | 29° Υ 25'41 | 0.65451 AU | evening set | 5165 Feb 28 07:50 | 21° Υ 05'14 | |
| morning rise | 5164 Mar 27 08:12 | 25° Υ 25'32 | | inferior conj | 5165 Mar 05 18:38 | 15° Υ 09'31 | 3°17'32 |
| direct | 5164 Apr 02 22:17 | 22° Υ 35'44 | | minimum elong | 5165 Mar 05 16:52 | 15° Υ 15'21 | 3°17'16 |
| desc. node | 5164 Apr 11 10:33 | 26° Υ 11'19 | | min. Earth dist. | 5165 Mar 06 22:59 | 13° Υ 36'17 | 0.66731 AU |
| | 5164 Apr 15 18:02 | 0° Υ | | morning rise | 5165 Mar 11 01:39 | 8° Υ 54'38 | |
| morning max el | 5164 Apr 16 03:00 | 0° Υ 22'28 | 26°53'30 | direct | 5165 Mar 17 04:50 | 6° Υ 10'47 | |
| | 5164 May 08 02:53 | 0° Υ | | desc. node | 5165 Mar 29 07:34 | 13° Υ 19'17 | |
| morning set | 5164 May 21 22:07 | 24° Υ 15'50 | | morning max el | 5165 Mar 29 12:41 | 13° Υ 32'10 | 25°43'07 |
| | 5164 May 24 20:48 | 0° Π | | | 5165 Apr 11 21:00 | 0° Υ | |
| max. Earth dist. | 5164 May 26 06:30 | 2° Π 48'09 | 1.34164 AU | | 5165 Apr 30 21:08 | 0° Υ | |
| | | | | morning set | 5165 May 04 17:25 | 6° Υ 53'17 | |
| superior conj | 5164 May 30 10:47 | 11° Π 22'13 | -0°26'46 | max. Earth dist. | 5165 May 08 12:16 | 13° Υ 57'34 | 1.35815 AU |
| minimum elong | 5164 May 30 12:12 | 11° Π 29'41 | 0°26'29 | | | | |
| asc. node | 5164 Jun 02 01:31 | 16° Π 51'43 | | superior conj | 5165 May 14 03:47 | 25° Υ 01'40 | -0°56'39 |
| evening rise | 5164 Jun 06 21:09 | 27° Π 01'21 | | minimum elong | 5165 May 14 06:56 | 25° Υ 17'27 | 0°56'04 |
| | 5164 Jun 08 07:36 | 0° Ξ | | | 5165 May 16 14:41 | 0° Π | |
| evening max el | 5164 Jun 26 17:12 | 29° Ξ 19'13 | 21°24'09 | asc. node | 5165 May 19 22:35 | 6° Π 49'46 | |
| | 5164 Jun 27 10:20 | 0° Ω | | evening rise | 5165 May 22 03:36 | 11° Π 21'28 | |
| desc. node | 5164 Jul 08 09:47 | 5° Ω 18'45 | | | 5165 Jun 01 01:29 | 0° Ξ | |
| retrograde | 5164 Jul 08 20:53 | 5° Ω 19'15 | | evening max el | 5165 Jun 08 23:33 | 10° Ξ 25'35 | 20°05'35 |
| evening set | 5164 Jul 11 06:27 | 5° Ω 06'02 | | retrograde | 5165 Jun 19 11:25 | 15° Ξ 33'46 | |
| inferior conj | 5164 Jul 20 14:54 | 1° Ω 06'39 | -3°27'25 | evening set | 5165 Jun 21 09:37 | 15° Ξ 24'08 | |
| minimum elong | 5164 Jul 20 06:17 | 1° Ω 18'42 | 3°24'49 | desc. node | 5165 Jun 25 06:49 | 14° Ξ 12'15 | |
| min. Earth dist. | 5164 Jul 20 17:22 | 1° Ω 03'12 | 0.54801 AU | inferior conj | 5165 Jun 30 10:53 | 11° Ξ 24'46 | -1°32'40 |
| | 5164 Jul 22 15:03 | 30° Υ Ξ | | minimum elong | 5165 Jun 30 06:34 | 11° Ξ 31'14 | 1°31'04 |
| morning rise | 5164 Jul 29 06:58 | 27° Ξ 12'42 | | min. Earth dist. | 5165 Jul 02 05:33 | 10° Ξ 21'03 | 0.55139 AU |
| direct | 5164 Aug 01 18:05 | 26° Ξ 46'47 | | morning rise | 5165 Jul 09 01:55 | 7° Ξ 06'56 | |
| | 5164 Aug 10 23:07 | 0° Ω | | direct | 5165 Jul 13 05:46 | 6° Ξ 29'16 | |
| morning max el | 5164 Aug 14 06:42 | 2° Ω 41'50 | 22°16'43 | morning max el | 5165 Jul 26 21:58 | 13° Ξ 11'43 | 24°00'22 |
| asc. node | 5164 Aug 29 00:47 | 23° Ω 26'14 | | | 5165 Aug 08 20:14 | 0° Ω | |
| | 5164 Sep 01 10:46 | 0° Π | | asc. node | 5165 Aug 15 21:49 | 12° Ω 47'22 | |

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| morning set | 5165 Aug 20 09:46 | 22°♌00'22 | | | 5166 Aug 01 13:46 | 0°♌ | |
| | 5165 Aug 24 03:00 | 0°♍ | | asc. node | 5166 Aug 02 18:52 | 2°♌28'14 | |
| | | | | morning set | 5166 Aug 04 21:13 | 6°♌51'18 | |
| superior conj | 5165 Aug 27 08:56 | 7°♍03'29 | 1°34'32 | | | | |
| minimum elong | 5165 Aug 27 07:09 | 6°♍53'50 | 1°34'23 | superior conj | 5166 Aug 11 19:32 | 21°♌56'46 | 1°21'49 |
| max. Earth dist. | 5165 Aug 29 12:22 | 11°♍40'25 | 1.33113 AU | minimum elong | 5166 Aug 11 17:17 | 21°♌44'23 | 1°21'31 |
| evening rise | 5165 Sep 03 19:05 | 22°♍40'15 | | max. Earth dist. | 5166 Aug 12 19:26 | 24°♌07'58 | 1.32321 AU |
| | 5165 Sep 07 12:36 | 0°♎ | | | 5166 Aug 15 12:09 | 0°♍ | |
| desc. node | 5165 Sep 21 06:05 | 23°♎28'01 | | evening rise | 5166 Aug 18 20:29 | 7°♍05'06 | |
| | 5165 Sep 25 18:44 | 0°♏ | | | 5166 Aug 31 00:22 | 0°♎ | |
| evening max el | 5165 Oct 07 11:11 | 13°♏45'13 | 27°25'57 | desc. node | 5166 Sep 08 03:07 | 12°♎34'07 | |
| retrograde | 5165 Oct 21 02:01 | 21°♏03'03 | | evening max el | 5166 Sep 19 19:29 | 26°♎29'19 | 27°18'45 |
| evening set | 5165 Oct 28 04:32 | 18°♏25'55 | | | 5166 Sep 24 00:16 | 0°♏ | |
| min. Earth dist. | 5165 Oct 31 21:35 | 15°♏09'23 | 0.63826 AU | retrograde | 5166 Oct 03 15:20 | 3°♏43'14 | |
| inferior conj | 5165 Nov 03 10:45 | 12°♏32'24 | -2°44'28 | evening set | 5166 Oct 10 18:57 | 1°♏20'28 | |
| minimum elong | 5165 Nov 03 15:32 | 12°♏20'07 | 2°42'43 | | 5166 Oct 12 15:19 | 30°♏♎ | |
| morning rise | 5165 Nov 10 04:00 | 7°♏12'27 | | min. Earth dist. | 5166 Oct 14 10:01 | 28°♎30'26 | 0.61971 AU |
| asc. node | 5165 Nov 11 21:04 | 6°♏45'19 | | inferior conj | 5166 Oct 17 09:40 | 25°♎46'50 | -3°46'12 |
| direct | 5165 Nov 12 15:11 | 6°♏42'28 | | minimum elong | 5166 Oct 17 15:49 | 25°♎32'47 | 3°44'23 |
| morning max el | 5165 Nov 19 04:14 | 10°♏07'21 | 17°51'20 | morning rise | 5166 Oct 24 14:32 | 20°♎45'37 | |
| | 5165 Dec 02 14:01 | 0°♐ | | direct | 5166 Oct 26 22:26 | 20°♎22'06 | |
| morning set | 5165 Dec 05 20:25 | 5°♐36'38 | | asc. node | 5166 Oct 29 18:06 | 20°♎57'46 | |
| | | | | morning max el | 5166 Nov 02 20:06 | 23°♎51'57 | 17°52'17 |
| superior conj | 5165 Dec 18 11:57 | 26°♐53'12 | -0°01'57 | | 5166 Nov 07 18:05 | 0°♏ | |
| minimum elong | 5165 Dec 18 11:44 | 26°♐52'20 | 0°01'54 | morning set | 5166 Nov 18 16:28 | 18°♏39'15 | |
| behind sun begin | 5165 Dec 18 01:58 | 26°♐12'22 | | | 5166 Nov 25 00:30 | 0°♐ | |
| behind sun end | 5165 Dec 18 21:31 | 27°♐32'13 | | | | | |
| desc. node | 5165 Dec 18 05:19 | 26°♐26'03 | | superior conj | 5166 Nov 29 12:42 | 7°♐50'57 | 0°38'52 |
| | 5165 Dec 20 09:54 | 0°♑ | | minimum elong | 5166 Nov 29 15:58 | 8°♐04'57 | 0°38'25 |
| max. Earth dist. | 5165 Dec 24 04:55 | 6°♑05'05 | 1.44464 AU | desc. node | 5166 Dec 05 02:22 | 17°♐13'14 | |
| evening rise | 5166 Jan 03 07:03 | 21°♑50'49 | | max. Earth dist. | 5166 Dec 06 19:23 | 20°♐01'29 | 1.43070 AU |
| | 5166 Jan 08 15:16 | 0°♒ | | | 5166 Dec 13 00:57 | 0°♑ | |
| | 5166 Jan 29 23:42 | 0°♓ | | evening rise | 5166 Dec 13 20:50 | 1°♑17'56 | |
| evening max el | 5166 Jan 31 13:39 | 1°♓42'14 | 20°34'13 | | 5167 Jan 02 04:42 | 0°♒ | |
| asc. node | 5166 Feb 07 20:22 | 6°♓25'06 | | evening max el | 5167 Jan 14 10:17 | 15°♒17'50 | 21°46'24 |
| retrograde | 5166 Feb 08 16:29 | 6°♓28'52 | | retrograde | 5167 Jan 23 13:53 | 20°♒43'55 | |
| evening set | 5166 Feb 12 14:55 | 4°♓59'46 | | asc. node | 5167 Jan 25 17:23 | 20°♒19'22 | |
| | 5166 Feb 17 03:15 | 30°♒♑ | | evening set | 5167 Jan 27 22:43 | 18°♒59'32 | |
| inferior conj | 5166 Feb 17 23:26 | 28°♒51'19 | 2°52'52 | inferior conj | 5167 Feb 02 06:51 | 12°♒41'26 | 2°19'05 |
| minimum elong | 5166 Feb 17 21:07 | 28°♒59'15 | 2°52'20 | minimum elong | 5167 Feb 02 04:28 | 12°♒49'44 | 2°18'22 |
| min. Earth dist. | 5166 Feb 18 14:13 | 28°♒00'44 | 0.67590 AU | min. Earth dist. | 5167 Feb 02 09:22 | 12°♒32'40 | 0.68039 AU |
| morning rise | 5166 Feb 23 03:06 | 22°♒37'11 | | morning rise | 5167 Feb 07 10:01 | 6°♒29'47 | |
| direct | 5166 Feb 28 16:48 | 20°♒08'23 | | direct | 5167 Feb 12 09:13 | 4°♒21'40 | |
| morning max el | 5166 Mar 11 21:22 | 26°♒49'51 | 24°18'02 | morning max el | 5167 Feb 22 07:03 | 10°♒13'35 | 22°48'42 |
| | 5166 Mar 14 20:04 | 0°♔ | | desc. node | 5167 Mar 03 01:38 | 20°♒37'19 | |
| desc. node | 5166 Mar 16 04:36 | 1°♔34'12 | | | 5167 Mar 09 21:09 | 0°♔ | |
| | 5166 Apr 05 11:54 | 0°♕ | | morning set | 5167 Mar 28 14:43 | 28°♔52'18 | |
| morning set | 5166 Apr 16 16:55 | 18°♕30'24 | | | 5167 Mar 29 07:04 | 0°♕ | |
| max. Earth dist. | 5166 Apr 20 09:04 | 25°♕00'33 | 1.37843 AU | max. Earth dist. | 5167 Apr 02 04:31 | 6°♕34'04 | 1.40049 AU |
| | 5166 Apr 23 02:40 | 0°♖ | | | | | |
| superior conj | 5166 Apr 27 09:17 | 8°♖03'41 | -1°25'23 | superior conj | 5167 Apr 09 23:07 | 20°♕18'50 | -1°49'54 |
| minimum elong | 5166 Apr 27 13:53 | 8°♖25'46 | 1°24'44 | minimum elong | 5167 Apr 10 04:04 | 20°♕41'25 | 1°49'27 |
| evening rise | 5166 May 06 03:49 | 25°♖18'11 | | | 5167 Apr 15 04:21 | 0°♖ | |
| asc. node | 5166 May 06 19:38 | 26°♖36'16 | | evening rise | 5167 Apr 19 18:47 | 8°♖44'13 | |
| | 5166 May 08 13:14 | 0°♗ | | asc. node | 5167 Apr 23 16:42 | 16°♖06'40 | |
| evening max el | 5166 May 22 18:09 | 22°♗14'04 | 19°06'25 | | 5167 May 02 00:21 | 0°♗ | |
| retrograde | 5166 May 31 13:59 | 26°♗33'04 | | evening max el | 5167 May 05 22:17 | 4°♗39'59 | 18°27'31 |
| evening set | 5166 Jun 02 14:11 | 26°♗20'35 | | retrograde | 5167 May 13 11:14 | 8°♗23'55 | |
| inferior conj | 5166 Jun 10 21:45 | 22°♗08'23 | 0°22'08 | evening set | 5167 May 15 18:09 | 8°♗04'19 | |
| minimum elong | 5166 Jun 10 22:39 | 22°♗06'50 | 0°21'46 | inferior conj | 5167 May 23 05:46 | 3°♗32'26 | 1°52'11 |
| desc. node | 5166 Jun 12 03:51 | 21°♗16'40 | | minimum elong | 5167 May 23 09:07 | 3°♗25'43 | 1°51'10 |
| min. Earth dist. | 5166 Jun 13 20:40 | 20°♗07'43 | 0.56382 AU | min. Earth dist. | 5167 May 26 15:53 | 0°♗49'17 | 0.58277 AU |
| morning rise | 5166 Jun 19 03:54 | 17°♗15'08 | | | 5167 May 27 18:43 | 30°♖♗ | |
| direct | 5166 Jun 24 06:04 | 16°♗14'29 | | desc. node | 5167 May 30 00:52 | 28°♖32'55 | |
| morning max el | 5166 Jul 08 11:53 | 23°♗33'28 | 25°39'24 | morning rise | 5167 May 30 20:53 | 28°♖05'56 | |
| | 5166 Jul 14 07:36 | 0°♘ | | direct | 5167 Jun 05 20:34 | 26°♖33'05 | |
| | | | | | 5167 Jun 15 04:52 | 0°♗ | |

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| morning max el | 5167 Jun 20 05:50 | 4° Π 14'46 | 26°57'49 | | 5168 Jun 13 00:08 | 0° Π | |
| | 5167 Jul 09 01:13 | 0° Θ | | | 5168 Jun 30 12:49 | 0° Θ | |
| morning set | 5167 Jul 20 06:49 | 21° Θ 34'43 | | morning set | 5168 Jul 03 12:49 | 6° Θ 05'13 | |
| asc. node | 5167 Jul 20 15:56 | 22° Θ 22'48 | | asc. node | 5168 Jul 06 12:59 | 12° Θ 25'55 | |
| | 5167 Jul 24 04:47 | 0° Ω | | max. Earth dist. | 5168 Jul 09 17:10 | 19° Θ 19'44 | 1.31999 AU |
| superior conj | 5167 Jul 27 07:20 | 6° Ω 50'38 | 1°04'26 | superior conj | 5168 Jul 10 18:34 | 21° Θ 39'20 | 0°42'56 |
| minimum elong | 5167 Jul 27 05:05 | 6° Ω 38'12 | 1°04'02 | minimum elong | 5168 Jul 10 16:48 | 21° Θ 29'35 | 0°42'34 |
| max. Earth dist. | 5167 Jul 27 06:17 | 6° Ω 44'47 | 1.31952 AU | | 5168 Jul 14 13:33 | 0° Ω | |
| evening rise | 5167 Aug 03 03:29 | 21° Ω 44'22 | | evening rise | 5168 Jul 17 13:50 | 6° Ω 30'56 | |
| | 5167 Aug 07 04:02 | 0° Π | | | 5168 Jul 29 19:56 | 0° Π | |
| | 5167 Aug 25 08:53 | 0° Ω | | desc. node | 5168 Aug 11 21:08 | 17° Π 51'22 | |
| desc. node | 5167 Aug 26 00:08 | 0° Ω 48'48 | | evening max el | 5168 Aug 13 16:47 | 19° Π 40'53 | 25°26'27 |
| evening max el | 5167 Sep 01 21:59 | 8° Ω 29'50 | 26°38'03 | retrograde | 5168 Aug 27 15:23 | 26° Π 45'15 | |
| retrograde | 5167 Sep 15 20:21 | 15° Ω 38'43 | | evening set | 5168 Sep 02 12:53 | 25° Π 24'43 | |
| evening set | 5167 Sep 22 15:19 | 13° Ω 42'31 | | min. Earth dist. | 5168 Sep 07 04:32 | 22° Π 45'42 | 0.57887 AU |
| min. Earth dist. | 5167 Sep 26 11:48 | 11° Ω 06'44 | 0.59928 AU | inferior conj | 5168 Sep 10 06:44 | 20° Π 37'26 | -5°13'12 |
| inferior conj | 5167 Sep 29 17:28 | 8° Ω 31'48 | -4°39'30 | minimum elong | 5168 Sep 10 09:28 | 20° Π 32'41 | 5°13'00 |
| minimum elong | 5167 Sep 29 23:23 | 8° Ω 19'57 | 4°38'19 | morning rise | 5168 Sep 18 08:19 | 16° Π 21'09 | |
| morning rise | 5167 Oct 07 09:31 | 3° Ω 52'14 | | direct | 5168 Sep 20 20:08 | 16° Π 02'11 | |
| direct | 5167 Oct 09 17:33 | 3° Ω 32'12 | | morning max el | 5168 Sep 29 11:32 | 20° Π 08'31 | 18°53'46 |
| asc. node | 5167 Oct 16 15:10 | 6° Ω 37'11 | | asc. node | 5168 Oct 02 12:12 | 23° Π 29'20 | |
| morning max el | 5167 Oct 17 07:39 | 7° Ω 15'24 | 18°12'33 | | 5168 Oct 06 23:56 | 0° Ω | |
| | 5167 Oct 31 20:48 | 0° Π | | morning set | 5168 Oct 16 00:31 | 16° Ω 37'48 | |
| morning set | 5167 Nov 02 03:20 | 2° Π 23'48 | | | 5168 Oct 22 20:15 | 0° Π | |
| superior conj | 5167 Nov 11 14:10 | 20° Π 00'15 | 1°09'36 | superior conj | 5168 Oct 24 11:20 | 3° Π 07'31 | 1°29'49 |
| minimum elong | 5167 Nov 11 18:04 | 20° Π 17'54 | 1°09'08 | minimum elong | 5168 Oct 24 14:15 | 3° Π 21'23 | 1°29'34 |
| | 5167 Nov 17 05:54 | 0° Σ | | max. Earth dist. | 5168 Oct 31 11:04 | 16° Π 01'14 | 1.39123 AU |
| max. Earth dist. | 5167 Nov 19 05:12 | 3° Σ 22'13 | 1.41215 AU | evening rise | 5168 Nov 04 08:17 | 22° Π 48'04 | |
| desc. node | 5167 Nov 21 23:22 | 7° Σ 59'22 | | desc. node | 5168 Nov 07 20:23 | 28° Π 41'25 | |
| evening rise | 5167 Nov 24 03:12 | 11° Σ 32'00 | | | 5168 Nov 08 15:30 | 0° Σ | |
| | 5167 Dec 06 00:31 | 0° Θ | | | 5168 Nov 28 22:05 | 0° Θ | |
| evening max el | 5167 Dec 28 02:26 | 28° Θ 55'49 | 23°05'11 | evening max el | 5168 Dec 09 15:48 | 12° Θ 37'21 | 24°24'33 |
| | 5167 Dec 29 04:47 | 0° \approx | | retrograde | 5168 Dec 21 00:04 | 19° Θ 15'41 | |
| retrograde | 5168 Jan 07 08:46 | 5° \approx 00'41 | | evening set | 5168 Dec 26 10:03 | 17° Θ 00'09 | |
| evening set | 5168 Jan 12 05:36 | 3° \approx 00'30 | | asc. node | 5168 Dec 29 11:26 | 13° Θ 45'11 | |
| asc. node | 5168 Jan 12 14:25 | 2° \approx 41'21 | | min. Earth dist. | 5168 Dec 31 02:01 | 11° Θ 40'14 | 0.67799 AU |
| | 5168 Jan 15 01:54 | 30° Σ 36'16 | | inferior conj | 5168 Dec 31 21:51 | 10° Θ 33'48 | 0°48'54 |
| inferior conj | 5168 Jan 17 14:54 | 26° Θ 36'16 | 1°37'25 | minimum elong | 5168 Dec 31 20:43 | 10° Θ 37'38 | 0°48'27 |
| minimum elong | 5168 Jan 17 12:55 | 26° Θ 43'08 | 1°36'43 | morning rise | 5169 Jan 06 07:28 | 4° Θ 32'11 | |
| min. Earth dist. | 5168 Jan 17 06:03 | 27° Θ 06'48 | 0.68101 AU | direct | 5169 Jan 10 02:53 | 3° Θ 09'16 | |
| morning rise | 5168 Jan 22 20:08 | 20° Θ 28'45 | | morning max el | 5169 Jan 17 19:30 | 7° Θ 31'15 | 20°09'42 |
| direct | 5168 Jan 27 04:57 | 18° Θ 43'33 | | desc. node | 5169 Feb 03 19:39 | 0° \approx 16'39 | |
| morning max el | 5168 Feb 04 21:30 | 23° Θ 46'15 | 21°23'51 | | 5169 Feb 03 15:11 | 0° \approx | |
| | 5168 Feb 10 08:11 | 0° \approx | | morning set | 5169 Feb 14 05:45 | 16° \approx 06'59 | |
| desc. node | 5168 Feb 17 22:38 | 10° \approx 14'30 | | | 5169 Feb 23 02:28 | 0° Σ | |
| | 5168 Mar 02 06:25 | 0° Σ | | max. Earth dist. | 5169 Feb 24 14:33 | 2° Σ 23'57 | 1.43838 AU |
| morning set | 5168 Mar 07 07:56 | 7° Σ 53'55 | | superior conj | 5169 Mar 02 08:26 | 11° Σ 42'45 | -2°07'40 |
| max. Earth dist. | 5168 Mar 14 05:45 | 19° Σ 02'27 | 1.42140 AU | minimum elong | 5169 Mar 02 06:03 | 11° Σ 32'59 | 2°07'37 |
| | 5168 Mar 20 18:13 | 0° Υ | | | 5169 Mar 13 05:00 | 0° Υ | |
| superior conj | 5168 Mar 21 16:15 | 1° Υ 34'47 | -2°05'51 | evening rise | 5169 Mar 15 04:56 | 3° Υ 26'52 | |
| minimum elong | 5168 Mar 21 19:09 | 1° Υ 47'21 | 2°05'45 | asc. node | 5169 Mar 27 10:44 | 23° Υ 53'12 | |
| evening rise | 5168 Apr 01 20:36 | 21° Υ 30'07 | | | 5169 Apr 01 03:03 | 0° Σ | |
| | 5168 Apr 06 13:30 | 0° Σ | | evening max el | 5169 Apr 01 21:01 | 0° Σ 46'42 | 18°09'02 |
| asc. node | 5168 Apr 09 13:43 | 5° Σ 14'42 | | retrograde | 5169 Apr 08 07:24 | 4° Σ 09'15 | |
| evening max el | 5168 Apr 18 08:22 | 17° Σ 33'48 | 18°08'35 | evening set | 5169 Apr 11 03:25 | 3° Σ 28'27 | |
| retrograde | 5168 Apr 25 02:27 | 20° Σ 59'25 | | | 5169 Apr 15 16:04 | 30° Σ 37'09 | |
| evening set | 5168 Apr 27 16:14 | 20° Σ 29'58 | | inferior conj | 5169 Apr 17 08:19 | 28° Υ 15'57 | 3°22'40 |
| inferior conj | 5168 May 04 10:29 | 15° Σ 37'13 | 2°51'07 | minimum elong | 5169 Apr 17 09:59 | 28° Υ 11'29 | 3°22'29 |
| minimum elong | 5168 May 04 13:36 | 15° Σ 29'54 | 2°50'27 | min. Earth dist. | 5169 Apr 20 03:42 | 25° Υ 18'04 | 0.62618 AU |
| min. Earth dist. | 5168 May 07 17:26 | 12° Σ 34'35 | 0.60463 AU | morning rise | 5169 Apr 23 15:10 | 22° Υ 11'02 | |
| morning rise | 5168 May 11 08:40 | 9° Σ 46'34 | | direct | 5169 Apr 30 11:28 | 19° Υ 37'37 | |
| desc. node | 5168 May 15 21:53 | 7° Σ 52'07 | | desc. node | 5169 May 02 18:54 | 19° Υ 53'35 | |
| direct | 5168 May 17 23:03 | 7° Σ 40'03 | | morning max el | 5169 May 14 12:39 | 27° Υ 37'59 | 27°51'27 |
| morning max el | 5168 Jun 01 06:20 | 15° Σ 34'50 | 27°43'33 | | 5169 May 16 18:48 | 0° Σ | |

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| | 5169 Jun 06 17:30 | 0°♊ | | min. Earth dist. | 5170 Apr 02 23:30 | 8°♊46'38 | 0.64520 AU |
| morning set | 5169 Jun 17 13:06 | 20°♊16'12 | | morning rise | 5170 Apr 06 13:54 | 5°♊08'30 | |
| | 5169 Jun 22 05:26 | 0°♊ | | direct | 5170 Apr 13 08:06 | 2°♊20'31 | |
| max. Earth dist. | 5169 Jun 23 00:03 | 1°♊39'32 | 1.32478 AU | desc. node | 5170 Apr 19 15:55 | 4°♊20'38 | |
| asc. node | 5169 Jun 23 10:00 | 2°♊32'56 | | morning max el | 5170 Apr 26 22:10 | 10°♊16'36 | 27°23'25 |
| | | | | | 5170 May 12 10:22 | 0°♊ | |
| superior conj | 5169 Jun 25 03:28 | 6°♊17'03 | 0°17'56 | | 5170 May 30 03:24 | 0°♊ | |
| minimum elong | 5169 Jun 25 02:38 | 6°♊12'30 | 0°17'44 | morning set | 5170 Jun 01 05:05 | 3°♊59'55 | |
| evening rise | 5169 Jul 02 01:35 | 21°♊18'04 | | max. Earth dist. | 5170 Jun 05 22:59 | 13°♊33'05 | 1.33410 AU |
| | 5169 Jul 06 06:26 | 0°♊ | | | | | |
| evening max el | 5169 Jul 26 05:37 | 0°♊11'56 | 23°54'03 | superior conj | 5170 Jun 09 08:08 | 20°♊38'13 | -0°09'54 |
| | 5169 Jul 26 00:42 | 0°♊ | | minimum elong | 5170 Jun 09 08:39 | 20°♊40'55 | 0°09'48 |
| desc. node | 5169 Jul 29 18:10 | 3°♊12'54 | | behind sun begin | 5170 Jun 09 04:17 | 20°♊17'46 | |
| retrograde | 5169 Aug 08 22:51 | 7°♊05'54 | | behind sun end | 5170 Jun 09 13:01 | 21°♊04'06 | |
| evening set | 5169 Aug 13 10:26 | 6°♊21'34 | | asc. node | 5170 Jun 10 07:02 | 22°♊40'02 | |
| min. Earth dist. | 5169 Aug 19 15:54 | 3°♊20'54 | 0.56141 AU | | 5170 Jun 13 17:13 | 0°♊ | |
| inferior conj | 5169 Aug 21 23:37 | 1°♊56'06 | -5°11'29 | evening rise | 5170 Jun 16 12:53 | 6°♊00'01 | |
| minimum elong | 5169 Aug 21 20:10 | 2°♊01'22 | 5°11'14 | | 5170 Jun 29 10:06 | 0°♊ | |
| | 5169 Aug 25 07:20 | 30°♊00' | | evening max el | 5170 Jul 07 19:49 | 10°♊33'44 | 22°16'40 |
| morning rise | 5169 Aug 30 08:26 | 27°♊59'22 | | desc. node | 5170 Jul 16 15:11 | 16°♊19'40 | |
| direct | 5169 Sep 02 02:58 | 27°♊39'47 | | retrograde | 5170 Jul 20 18:17 | 16°♊59'14 | |
| | 5169 Sep 09 06:01 | 0°♊ | | evening set | 5170 Jul 23 18:13 | 16°♊39'21 | |
| morning max el | 5169 Sep 12 04:42 | 2°♊21'08 | 19°56'54 | min. Earth dist. | 5170 Aug 01 02:04 | 13°♊03'12 | 0.55038 AU |
| asc. node | 5169 Sep 19 09:14 | 11°♊18'16 | | inferior conj | 5170 Aug 01 23:24 | 12°♊33'05 | -4°19'56 |
| | 5169 Sep 29 14:41 | 0°♊ | | minimum elong | 5170 Aug 01 14:56 | 12°♊45'03 | 4°17'59 |
| morning set | 5169 Sep 30 04:38 | 1°♊10'38 | | morning rise | 5170 Aug 10 13:28 | 8°♊43'08 | |
| | | | | direct | 5170 Aug 13 17:19 | 8°♊20'40 | |
| superior conj | 5169 Oct 07 22:55 | 16°♊56'35 | 1°40'38 | morning max el | 5170 Aug 25 09:44 | 13°♊48'01 | 21°20'50 |
| minimum elong | 5169 Oct 08 00:17 | 17°♊03'24 | 1°40'36 | asc. node | 5170 Sep 06 06:17 | 29°♊51'12 | |
| max. Earth dist. | 5169 Oct 13 16:19 | 28°♊04'19 | 1.37047 AU | | 5170 Sep 06 08:18 | 0°♊ | |
| | 5169 Oct 14 17:00 | 0°♊ | | morning set | 5170 Sep 14 13:11 | 15°♊55'34 | |
| evening rise | 5169 Oct 17 11:11 | 5°♊03'23 | | | 5170 Sep 21 06:14 | 0°♊ | |
| desc. node | 5169 Oct 25 17:25 | 19°♊14'29 | | | | | |
| | 5169 Nov 01 14:04 | 0°♊ | | superior conj | 5170 Sep 21 20:40 | 1°♊15'07 | 1°43'27 |
| evening max el | 5169 Nov 22 04:15 | 26°♊20'48 | 25°37'48 | minimum elong | 5170 Sep 21 20:32 | 1°♊14'25 | 1°43'27 |
| | 5169 Nov 26 08:55 | 0°♊ | | max. Earth dist. | 5170 Sep 26 02:46 | 9°♊55'27 | 1.35219 AU |
| retrograde | 5169 Dec 04 10:54 | 3°♊23'16 | | evening rise | 5170 Sep 30 08:11 | 18°♊08'55 | |
| evening set | 5169 Dec 10 10:24 | 0°♊54'35 | | | 5170 Oct 06 20:56 | 0°♊ | |
| | 5169 Dec 11 10:22 | 30°♊00' | | desc. node | 5170 Oct 12 14:27 | 9°♊33'26 | |
| min. Earth dist. | 5169 Dec 14 18:59 | 26°♊09'13 | 0.67133 AU | | 5170 Oct 26 19:20 | 0°♊ | |
| inferior conj | 5169 Dec 16 01:52 | 24°♊30'43 | -0°05'37 | evening max el | 5170 Nov 04 16:59 | 10°♊01'53 | 26°37'29 |
| minimum elong | 5169 Dec 16 02:00 | 24°♊30'16 | 0°05'33 | retrograde | 5170 Nov 17 16:33 | 17°♊17'02 | |
| transit middle | 5169 Dec 16 02:00 | 24°♊30'16 | 0°05'33 | evening set | 5170 Nov 24 04:44 | 14°♊39'29 | |
| transit begin | 5169 Dec 15 23:22 | 24°♊38'42 | | min. Earth dist. | 5170 Nov 28 06:41 | 10°♊29'18 | 0.66115 AU |
| transit end | 5169 Dec 16 04:39 | 24°♊21'50 | | inferior conj | 5170 Nov 30 00:58 | 8°♊23'21 | -1°05'05 |
| asc. node | 5169 Dec 16 08:28 | 24°♊09'40 | | minimum elong | 5170 Nov 30 02:47 | 8°♊17'56 | 1°04'18 |
| morning rise | 5169 Dec 21 18:00 | 18°♊37'05 | | asc. node | 5170 Dec 03 05:30 | 4°♊50'56 | |
| direct | 5169 Dec 25 01:37 | 17°♊33'48 | | morning rise | 5170 Dec 06 01:36 | 2°♊40'11 | |
| morning max el | 5170 Jan 01 01:22 | 21°♊26'35 | 19°09'51 | direct | 5170 Dec 08 23:28 | 1°♊52'48 | |
| | 5170 Jan 07 23:55 | 0°♊ | | morning max el | 5170 Dec 15 13:32 | 5°♊27'26 | 18°26'00 |
| greatest brilliancy | 5170 Jan 14 20:18 | 10°♊04'42 | -0.7m | | 5171 Jan 01 14:10 | 0°♊ | |
| desc. node | 5170 Jan 21 16:40 | 20°♊36'42 | | morning set | 5171 Jan 04 10:25 | 4°♊33'03 | |
| morning set | 5170 Jan 24 07:39 | 24°♊40'58 | | desc. node | 5171 Jan 08 13:42 | 11°♊09'21 | |
| | 5170 Jan 27 17:44 | 0°♊ | | | | | |
| max. Earth dist. | 5170 Feb 07 05:20 | 16°♊23'45 | 1.44938 AU | superior conj | 5171 Jan 20 03:39 | 29°♊26'25 | -1°14'42 |
| | | | | minimum elong | 5171 Jan 19 18:58 | 28°♊52'20 | 1°13'41 |
| superior conj | 5170 Feb 10 00:25 | 20°♊48'39 | -1°50'31 | | 5171 Jan 20 12:13 | 0°♊ | |
| minimum elong | 5170 Feb 09 16:09 | 20°♊15'56 | 1°49'54 | max. Earth dist. | 5171 Jan 20 23:48 | 0°♊45'26 | 1.45334 AU |
| | 5170 Feb 15 18:37 | 0°♊ | | evening rise | 5171 Feb 05 03:02 | 24°♊31'14 | |
| evening rise | 5170 Feb 24 15:38 | 14°♊27'14 | | | 5171 Feb 08 14:19 | 0°♊ | |
| | 5170 Mar 06 03:25 | 0°♊ | | greatest brilliancy | 5171 Feb 15 02:17 | 10°♊12'23 | -0.8m |
| asc. node | 5170 Mar 14 07:45 | 11°♊52'58 | | evening max el | 5171 Feb 27 19:05 | 27°♊42'20 | 19°04'57 |
| evening max el | 5170 Mar 16 09:24 | 14°♊11'32 | 18°28'11 | asc. node | 5171 Mar 01 04:47 | 29°♊02'01 | |
| retrograde | 5170 Mar 22 21:24 | 17°♊44'07 | | | 5171 Mar 02 10:06 | 0°♊ | |
| evening set | 5170 Mar 25 23:41 | 16°♊50'54 | | retrograde | 5171 Mar 06 16:45 | 1°♊36'18 | |
| inferior conj | 5170 Mar 31 19:06 | 11°♊20'24 | 3°32'53 | evening set | 5171 Mar 10 01:58 | 0°♊29'46 | |
| minimum elong | 5170 Mar 31 19:10 | 11°♊20'12 | 3°32'52 | | 5171 Mar 10 18:38 | 30°♊00' | |

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|---------------------|-------------------|---------------------------|------------|------------------|-------------------|----------------------------|------------|
| inferior conj | 5171 Mar 15 15:09 | 24° H 42'52 | 3°26'51 | evening set | 5172 Feb 22 07:54 | 14° H 20'17 | |
| minimum elong | 5171 Mar 15 13:55 | 24° H 46'47 | 3°26'44 | inferior conj | 5172 Feb 27 17:29 | 8° H 19'02 | 3°08'16 |
| min. Earth dist. | 5171 Mar 17 04:03 | 22° H 45'38 | 0.66050 AU | minimum elong | 5172 Feb 27 15:26 | 8° H 25'57 | 3°07'53 |
| morning rise | 5171 Mar 21 01:29 | 18° H 28'27 | | min. Earth dist. | 5172 Feb 28 15:54 | 7° H 03'55 | 0.67156 AU |
| direct | 5171 Mar 27 11:31 | 15° H 39'29 | | morning rise | 5172 Mar 03 22:44 | 2° H 04'30 | |
| desc. node | 5171 Apr 06 12:57 | 20° H 38'58 | | | 5172 Mar 07 01:40 | 30° R \approx | |
| morning max el | 5171 Apr 09 08:06 | 23° H 17'36 | 26°25'53 | direct | 5172 Mar 09 20:32 | 29° \approx 26'04 | |
| | 5171 Apr 15 07:02 | 0° Y | | | 5172 Mar 12 19:56 | 0° H | |
| | 5171 May 05 18:22 | 0° B | | morning max el | 5172 Mar 21 17:06 | 6° H 31'13 | 25°08'02 |
| morning set | 5171 May 15 09:10 | 17° B 04'58 | | desc. node | 5172 Mar 23 09:59 | 8° H 18'29 | |
| max. Earth dist. | 5171 May 19 10:52 | 24° B 54'43 | 1.34813 AU | | 5172 Apr 08 22:20 | 0° Y | |
| | 5171 May 22 00:09 | 0° II | | morning set | 5172 Apr 26 20:44 | 29° Y 18'36 | |
| | | | | | 5172 Apr 27 05:58 | 0° B | |
| superior conj | 5171 May 24 06:12 | 4° II 35'08 | -0°39'26 | max. Earth dist. | 5172 Apr 30 12:11 | 5° B 57'53 | 1.36652 AU |
| minimum elong | 5171 May 24 08:21 | 4° II 46'12 | 0°39'01 | | | | |
| asc. node | 5171 May 28 04:04 | 12° II 42'27 | | superior conj | 5172 May 06 18:47 | 18° B 00'13 | -1°09'07 |
| evening rise | 5171 May 31 21:41 | 20° II 29'45 | | minimum elong | 5172 May 06 22:37 | 18° B 19'06 | 1°08'30 |
| | 5171 Jun 05 15:01 | 0° E | | | 5172 May 12 18:15 | 0° II | |
| evening max el | 5171 Jun 19 19:10 | 21° E 18'09 | 20°48'33 | asc. node | 5172 May 14 01:07 | 2° II 36'15 | |
| retrograde | 5171 Jul 01 06:37 | 26° E 56'08 | | evening rise | 5172 May 15 01:50 | 4° II 41'01 | |
| evening set | 5171 Jul 03 09:10 | 26° E 45'31 | | | 5172 May 29 19:40 | 0° E | |
| desc. node | 5171 Jul 03 12:13 | 26° E 44'13 | | evening max el | 5172 Jun 01 06:55 | 2° E 42'26 | 19°37'48 |
| inferior conj | 5171 Jul 12 16:29 | 22° E 48'30 | -2°40'56 | retrograde | 5172 Jun 11 00:43 | 7° E 28'06 | |
| minimum elong | 5171 Jul 12 09:10 | 22° E 58'53 | 2°38'27 | evening set | 5172 Jun 12 22:57 | 7° E 17'45 | |
| min. Earth dist. | 5171 Jul 13 13:05 | 22° E 19'11 | 0.54829 AU | desc. node | 5172 Jun 19 09:15 | 4° E 39'54 | |
| morning rise | 5171 Jul 21 08:54 | 18° E 46'24 | | inferior conj | 5172 Jun 21 17:25 | 3° E 13'59 | -0°41'59 |
| direct | 5171 Jul 25 02:34 | 18° E 16'22 | | minimum elong | 5172 Jun 21 15:31 | 3° E 16'59 | 0°41'17 |
| morning max el | 5171 Aug 07 04:21 | 24° E 32'49 | 23°00'20 | min. Earth dist. | 5172 Jun 24 02:04 | 1° E 45'13 | 0.55579 AU |
| | 5171 Aug 12 04:19 | 0° O | | | 5172 Jun 27 04:09 | 30° R II | |
| asc. node | 5171 Aug 24 03:20 | 18° O 57'11 | | morning rise | 5172 Jun 30 05:42 | 28° II 42'06 | |
| | 5171 Aug 29 15:16 | 0° P | | direct | 5172 Jul 04 18:54 | 27° II 56'02 | |
| morning set | 5171 Aug 30 00:13 | 0° P 47'04 | | | 5172 Jul 12 05:26 | 0° E | |
| | | | | morning max el | 5172 Jul 18 18:02 | 4° E 54'49 | 24°44'04 |
| superior conj | 5171 Sep 06 01:21 | 15° P 53'15 | 1°39'29 | | 5172 Aug 05 14:46 | 0° O | |
| minimum elong | 5171 Sep 06 00:03 | 15° P 46'17 | 1°39'25 | asc. node | 5172 Aug 10 00:22 | 8° O 27'34 | |
| max. Earth dist. | 5171 Sep 08 22:02 | 21° P 57'05 | 1.33763 AU | morning set | 5172 Aug 13 11:58 | 15° O 39'52 | |
| | 5171 Sep 12 20:16 | 0° A | | | | | |
| evening rise | 5171 Sep 13 19:04 | 1° A 53'26 | | superior conj | 5172 Aug 20 10:23 | 0° P 42'58 | 1°29'45 |
| desc. node | 5171 Sep 29 11:30 | 29° A 31'49 | | minimum elong | 5172 Aug 20 08:20 | 0° P 31'51 | 1°29'31 |
| | 5171 Sep 29 18:47 | 0° M | | | 5172 Aug 20 02:31 | 0° P | |
| evening max el | 5171 Oct 18 05:39 | 23° M 31'32 | 27°16'07 | max. Earth dist. | 5172 Aug 22 01:43 | 4° P 16'55 | 1.32727 AU |
| | 5171 Oct 27 12:45 | 0° X | | evening rise | 5172 Aug 27 16:03 | 16° P 06'11 | |
| retrograde | 5171 Oct 31 16:13 | 0° X 49'36 | | | 5172 Sep 03 20:06 | 0° A | |
| | 5171 Nov 04 13:50 | 30° R M | | desc. node | 5172 Sep 15 08:32 | 19° A 00'27 | |
| evening set | 5171 Nov 07 14:45 | 28° M 10'00 | | | 5172 Sep 23 13:24 | 0° M | |
| min. Earth dist. | 5171 Nov 11 10:45 | 24° M 34'35 | 0.64752 AU | evening max el | 5172 Sep 29 16:17 | 6° M 36'04 | 27°26'59 |
| inferior conj | 5171 Nov 13 16:56 | 22° M 06'55 | -2°07'51 | retrograde | 5172 Oct 13 09:17 | 13° M 51'40 | |
| minimum elong | 5171 Nov 13 20:39 | 21° M 56'47 | 2°06'22 | evening set | 5172 Oct 20 13:21 | 11° M 19'17 | |
| morning rise | 5171 Nov 20 03:43 | 16° M 37'20 | | min. Earth dist. | 5172 Oct 24 05:05 | 8° M 15'14 | 0.63067 AU |
| asc. node | 5171 Nov 20 02:33 | 16° M 38'39 | | inferior conj | 5172 Oct 26 22:58 | 5° M 34'07 | -3°11'15 |
| direct | 5171 Nov 22 18:08 | 16° M 01'59 | | minimum elong | 5172 Oct 27 04:26 | 5° M 20'43 | 3°09'21 |
| morning max el | 5171 Nov 29 05:29 | 19° M 27'52 | 17°59'01 | morning rise | 5172 Nov 02 21:06 | 0° M 21'38 | |
| | 5171 Dec 07 02:52 | 0° X | | | 5172 Nov 04 05:13 | 30° R A | |
| morning set | 5171 Dec 16 18:46 | 15° X 53'35 | | direct | 5172 Nov 05 06:38 | 29° A 54'40 | |
| | 5171 Dec 25 07:31 | 0° Z | | asc. node | 5172 Nov 05 23:37 | 29° A 57'04 | |
| desc. node | 5171 Dec 26 10:44 | 1° Z 50'42 | | | 5172 Nov 06 07:56 | 0° M | |
| | | | | morning max el | 5172 Nov 11 22:16 | 3° M 20'24 | 17°49'31 |
| superior conj | 5171 Dec 30 14:14 | 8° Z 31'23 | -0°28'36 | morning set | 5172 Nov 28 03:38 | 28° M 24'28 | |
| minimum elong | 5171 Dec 30 10:46 | 8° Z 17'31 | 0°28'05 | | 5172 Nov 29 01:25 | 0° X | |
| max. Earth dist. | 5172 Jan 03 19:21 | 15° Z 12'50 | 1.44987 AU | | | | |
| | 5172 Jan 13 06:47 | 0° \approx | | superior conj | 5172 Dec 09 23:35 | 18° X 44'09 | 0°16'28 |
| evening rise | 5172 Jan 15 19:43 | 3° \approx 55'04 | | minimum elong | 5172 Dec 10 01:14 | 18° X 51'02 | 0°16'15 |
| greatest brilliancy | 5172 Jan 30 02:34 | 25° \approx 35'47 | -0.6m | desc. node | 5172 Dec 12 07:46 | 22° X 36'31 | |
| | 5172 Feb 02 03:23 | 0° H | | max. Earth dist. | 5172 Dec 16 12:49 | 29° X 26'52 | 1.43939 AU |
| evening max el | 5172 Feb 11 00:18 | 11° H 16'09 | 19°57'39 | | 5172 Dec 16 21:04 | 0° Z | |
| asc. node | 5172 Feb 16 01:50 | 15° H 06'58 | | evening rise | 5172 Dec 25 05:52 | 13° Z 09'18 | |
| retrograde | 5172 Feb 18 14:36 | 15° H 41'03 | | | 5173 Jan 05 09:23 | 0° \approx | |

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| evening max el | 5173 Jan 23 24:00 | 24°  50'28 | 21°03'44 | asc. node | 5174 Jan 19 19:54 | 13°  07'10 | |
| retrograde | 5173 Feb 01 12:45 | 29°  53'21 | | evening set | 5174 Jan 20 23:07 | 12°  18'11 | |
| asc. node | 5173 Feb 01 22:52 | 29°  52'23 | | inferior conj | 5174 Jan 26 07:32 | 5°  56'43 | 2°02'19 |
| evening set | 5173 Feb 05 15:31 | 28°  17'35 | | minimum elong | 5174 Jan 26 05:15 | 6°  04'37 | 2°01'34 |
| inferior conj | 5173 Feb 10 23:38 | 22°  04'33 | 2°39'33 | min. Earth dist. | 5174 Jan 26 05:04 | 6°  05'18 | 0.68107 AU |
| minimum elong | 5173 Feb 10 21:14 | 22°  12'50 | 2°38'55 | morning rise | 5174 Jan 31 11:16 | 29°  46'35 | |
| min. Earth dist. | 5173 Feb 11 08:58 | 21°  32'18 | 0.67832 AU | | 5174 Jan 31 05:06 | 30°  R  | |
| morning rise | 5173 Feb 16 02:47 | 15°  51'29 | | direct | 5174 Feb 05 04:08 | 27°  34'23 | |
| direct | 5173 Feb 21 10:20 | 13°  31'16 | | | 5174 Feb 10 18:03 | 0°  | |
| morning max el | 5173 Mar 04 01:55 | 19°  51'46 | 23°40'04 | morning max el | 5174 Feb 14 13:20 | 3°  19'12 | 22°11'40 |
| desc. node | 5173 Mar 10 07:00 | 26°  55'44 | | desc. node | 5174 Feb 25 04:01 | 16°  54'31 | |
| | 5173 Mar 12 16:53 | 0°  X | | | 5174 Mar 06 18:58 | 0°  X | |
| | 5173 Apr 02 02:51 | 0°  Y | | morning set | 5174 Mar 19 19:38 | 20°  X  | 12'57 |
| morning set | 5173 Apr 08 10:02 | 10°  Y25'40 | | max. Earth dist. | 5174 Mar 25 05:13 | 29°  X  | 07'22 1.40963 AU |
| max. Earth dist. | 5173 Apr 12 08:00 | 17°  Y12'25 | 1.38781 AU | | 5174 Mar 25 17:43 | 0°  Y | |
| | 5173 Apr 19 08:50 | 0°  8 | | superior conj | 5174 Apr 01 23:49 | 12°  Y35'03 | -1°58'02 |
| superior conj | 5173 Apr 19 18:12 | 0°  843'59 | -1°36'31 | minimum elong | 5174 Apr 02 04:17 | 12°  Y54'57 | 1°57'44 |
| minimum elong | 5173 Apr 19 23:09 | 1°  807'16 | 1°35'55 | | 5174 Apr 11 11:45 | 0°  8 | |
| evening rise | 5173 Apr 28 22:34 | 18°  826'26 | | evening rise | 5174 Apr 12 08:28 | 1°  836'46 | |
| asc. node | 5173 Apr 30 22:10 | 22°  817'00 | | asc. node | 5174 Apr 17 19:12 | 11°  838'51 | |
| | 5173 May 05 00:58 | 0°  II | | evening max el | 5174 Apr 28 13:00 | 27°  826'58 | 18°17'03 |
| evening max el | 5173 May 15 05:57 | 14°  II47'58 | 18°47'17 | | 5174 May 01 21:15 | 0°  II | |
| retrograde | 5173 May 23 11:19 | 18°  II50'28 | | retrograde | 5174 May 05 16:43 | 1°  II01'26 | |
| evening set | 5173 May 25 14:08 | 18°  II35'24 | | evening set | 5174 May 08 02:27 | 0°  II38'04 | |
| inferior conj | 5173 Jun 02 13:04 | 14°  II14'51 | 1°04'05 | | 5174 May 09 15:38 | 30°  R  | |
| minimum elong | 5173 Jun 02 15:24 | 14°  II10'34 | 1°03'16 | inferior conj | 5174 May 15 06:15 | 25°  857'26 | 2°20'51 |
| min. Earth dist. | 5173 Jun 05 18:35 | 11°  II53'56 | 0.57129 AU | minimum elong | 5174 May 15 09:45 | 25°  849'56 | 2°19'55 |
| desc. node | 5173 Jun 06 06:15 | 11°  II33'48 | | min. Earth dist. | 5174 May 18 16:29 | 23°  802'40 | 0.59185 AU |
| morning rise | 5173 Jun 10 13:20 | 9°  II06'30 | | morning rise | 5174 May 22 14:06 | 20°  818'59 | |
| direct | 5173 Jun 16 00:54 | 7°  II53'18 | | desc. node | 5174 May 24 03:16 | 19°  832'45 | |
| morning max el | 5173 Jun 30 09:23 | 15°  II23'07 | 26°16'13 | direct | 5174 May 28 20:56 | 18°  831'23 | |
| | 5173 Jul 12 04:18 | 0°  6 | | morning max el | 5174 Jun 12 06:15 | 26°  820'35 | 27°21'43 |
| asc. node | 5173 Jul 27 21:25 | 28°  615'32 | | | 5174 Jun 15 16:52 | 0°  II | |
| morning set | 5173 Jul 28 22:52 | 0°  829'11 | | | 5174 Jul 05 15:11 | 0°  6 | |
| | 5173 Jul 28 17:20 | 0°  8 | | morning set | 5174 Jul 13 07:10 | 15°  608'14 | |
| | | | | asc. node | 5174 Jul 14 18:27 | 18°  614'28 | |
| superior conj | 5173 Aug 04 21:44 | 15°  837'51 | 1°14'59 | superior conj | 5174 Jul 20 09:30 | 0°  830'36 | 0°55'48 |
| minimum elong | 5173 Aug 04 19:25 | 15°  825'07 | 1°14'37 | minimum elong | 5174 Jul 20 07:24 | 0°  818'59 | 0°55'23 |
| max. Earth dist. | 5173 Aug 05 11:00 | 16°  851'04 | 1.32113 AU | max. Earth dist. | 5174 Jul 19 22:13 | 29°  628'16 | 1.31918 AU |
| evening rise | 5173 Aug 11 20:09 | 0°  838'37 | | | 5174 Jul 20 03:58 | 0°  8 | |
| | 5173 Aug 11 12:47 | 0°  8 | | evening rise | 5174 Jul 27 04:49 | 15°  821'49 | |
| | 5173 Aug 27 21:03 | 0°  8 | | | 5174 Aug 03 11:48 | 0°  8 | |
| desc. node | 5173 Sep 02 05:33 | 7°  847'18 | | desc. node | 5174 Aug 20 02:34 | 25°  834'26 | |
| evening max el | 5173 Sep 11 22:16 | 19°  802'35 | 27°05'27 | | 5174 Aug 24 04:15 | 0°  8 | |
| retrograde | 5173 Sep 25 19:06 | 26°  814'27 | | evening max el | 5174 Aug 24 21:18 | 0°  841'13 | 26°10'50 |
| evening set | 5173 Oct 02 20:42 | 24°  801'09 | | retrograde | 5174 Sep 07 20:29 | 7°  849'14 | |
| min. Earth dist. | 5173 Oct 06 12:40 | 21°  819'25 | 0.61119 AU | evening set | 5174 Sep 14 07:53 | 6°  807'18 | |
| inferior conj | 5173 Oct 09 15:52 | 18°  837'14 | -4°10'24 | min. Earth dist. | 5174 Sep 18 10:18 | 3°  832'23 | 0.59043 AU |
| minimum elong | 5173 Oct 09 22:11 | 18°  823'33 | 4°08'45 | inferior conj | 5174 Sep 21 16:05 | 1°  806'15 | -4°57'01 |
| morning rise | 5173 Oct 17 01:39 | 13°  845'13 | | minimum elong | 5174 Sep 21 21:04 | 0°  856'49 | 4°56'18 |
| direct | 5173 Oct 19 09:13 | 13°  823'31 | | | 5174 Sep 23 03:45 | 30°  R  | |
| asc. node | 5173 Oct 23 20:39 | 14°  848'17 | | morning rise | 5174 Sep 29 12:31 | 26°  836'52 | |
| morning max el | 5173 Oct 26 12:45 | 16°  857'34 | 17°58'31 | direct | 5174 Oct 01 21:33 | 26°  817'40 | |
| | 5173 Nov 04 17:51 | 0°  8 | | | 5174 Oct 09 17:28 | 0°  8 | |
| morning set | 5173 Nov 11 06:35 | 11°  846'35 | | morning max el | 5174 Oct 09 21:30 | 0°  809'33 | 18°27'27 |
| superior conj | 5173 Nov 21 11:23 | 0°  814'06 | 0°53'13 | asc. node | 5174 Oct 10 17:40 | 1°  800'22 | |
| minimum elong | 5173 Nov 21 15:12 | 0°  830'50 | 0°52'42 | morning set | 5174 Oct 25 22:17 | 25°  844'31 | |
| | 5173 Nov 21 08:11 | 0°  8 | | | 5174 Oct 28 03:22 | 0°  8 | |
| max. Earth dist. | 5173 Nov 29 01:20 | 13°  809'20 | 1.42322 AU | superior conj | 5174 Nov 03 21:54 | 12°  849'47 | 1°19'24 |
| desc. node | 5173 Nov 29 04:48 | 13°  823'39 | | minimum elong | 5174 Nov 04 01:30 | 13°  806'28 | 1°19'01 |
| evening rise | 5173 Dec 05 01:19 | 22°  852'39 | | max. Earth dist. | 5174 Nov 11 08:32 | 26°  809'32 | 1.40335 AU |
| | 5173 Dec 09 14:37 | 0°  8 | | | 5174 Nov 13 14:26 | 0°  8 | |
| | 5173 Dec 30 12:57 | 0°  8 | | evening rise | 5174 Nov 15 17:03 | 3°  832'10 | |
| evening max el | 5174 Jan 06 18:22 | 8° 825'57 | 22°19'23 | desc. node | 5174 Nov 16 01:49 | 4° 808'30 | |
| retrograde | 5174 Jan 16 09:20 | 14° 809'26 | | | | | |

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| | 5174 Dec 02 20:57 | 0°♄ | | retrograde | 5175 Dec 14 16:22 | 12°♄37'37 | |
| evening max el | 5174 Dec 20 08:59 | 22°♄04'56 23°39'21 | | evening set | 5175 Dec 20 08:01 | 10°♄16'26 | |
| retrograde | 5174 Dec 31 02:57 | 28°♄25'41 | | asc. node | 5175 Dec 24 13:57 | 5°♄33'24 | |
| evening set | 5175 Jan 05 05:08 | 26°♄18'59 | | min. Earth dist. | 5175 Dec 24 20:51 | 5°♄10'55 | 0.67555 AU |
| asc. node | 5175 Jan 06 16:55 | 24°♄52'50 | | inferior conj | 5175 Dec 25 21:15 | 3°♄50'40 | 0°26'28 |
| min. Earth dist. | 5175 Jan 10 01:49 | 20°♄39'17 0.68007 AU | | minimum elong | 5175 Dec 25 20:36 | 3°♄52'48 | 0°26'12 |
| inferior conj | 5175 Jan 10 15:20 | 19°♄53'07 1°17'40 | | | 5175 Dec 29 00:12 | 30°♄♂ | |
| minimum elong | 5175 Jan 10 13:39 | 19°♄58'53 1°17'01 | | morning rise | 5175 Dec 31 09:22 | 27°♄51'56 | |
| morning rise | 5175 Jan 15 22:07 | 13°♄47'37 | | direct | 5176 Jan 03 23:37 | 26°♄37'35 | |
| direct | 5175 Jan 20 01:01 | 12°♄12'07 | | | 5176 Jan 10 13:03 | 0°♄ | |
| morning max el | 5175 Jan 28 06:44 | 16°♄56'44 20°50'43 | | morning max el | 5176 Jan 11 08:03 | 0°♄45'41 | 19°42'20 |
| | 5175 Feb 07 18:57 | 0°♄ | | greatest brilliancy | 5176 Jan 24 09:23 | 17°♄55'57 | -0.7m |
| desc. node | 5175 Feb 12 01:02 | 6°♄03'21 | | desc. node | 5176 Jan 29 22:03 | 26°♄13'39 | |
| morning set | 5175 Feb 27 02:29 | 28°♄47'18 | | | 5176 Feb 01 09:30 | 0°♄ | |
| | 5175 Feb 27 21:05 | 0°♄ | | morning set | 5176 Feb 05 22:39 | 6°♄59'01 | |
| max. Earth dist. | 5175 Mar 07 09:04 | 11°♄57'17 1.42914 AU | | max. Earth dist. | 5176 Feb 17 20:42 | 25°♄36'55 | 1.44386 AU |
| | | | | | 5176 Feb 20 14:41 | 0°♄ | |
| superior conj | 5175 Mar 14 06:45 | 23°♄22'57 -2°08'42 | | superior conj | 5176 Feb 22 12:02 | 3°♄02'16 | -2°02'53 |
| minimum elong | 5175 Mar 14 07:47 | 23°♄27'19 2°08'41 | | minimum elong | 5176 Feb 22 06:52 | 2°♄41'29 | 2°02'39 |
| | 5175 Mar 18 03:45 | 0°♄ | | evening rise | 5176 Mar 07 02:53 | 25°♄35'23 | |
| evening rise | 5175 Mar 26 03:25 | 14°♄02'49 | | | 5176 Mar 09 17:20 | 0°♄ | |
| | 5175 Apr 04 07:26 | 0°♄ | | asc. node | 5176 Mar 21 13:15 | 18°♄58'40 | |
| asc. node | 5175 Apr 04 16:13 | 0°♄35'37 | | evening max el | 5176 Mar 25 13:35 | 23°♄49'21 | 18°15'02 |
| evening max el | 5175 Apr 12 00:39 | 10°♄30'35 18°06'32 | | retrograde | 5176 Mar 31 23:24 | 27°♄14'17 | |
| retrograde | 5175 Apr 18 14:12 | 13°♄52'58 | | evening set | 5176 Apr 03 22:11 | 26°♄28'09 | |
| evening set | 5175 Apr 21 06:42 | 13°♄18'53 | | inferior conj | 5176 Apr 09 22:36 | 21°♄07'51 | 3°29'14 |
| inferior conj | 5175 Apr 27 18:48 | 8°♄17'55 3°07'27 | | minimum elong | 5176 Apr 09 23:35 | 21°♄05'07 | 3°29'10 |
| minimum elong | 5175 Apr 27 21:23 | 8°♄11'31 3°07'00 | | min. Earth dist. | 5176 Apr 12 11:48 | 18°♄18'27 | 0.63470 AU |
| min. Earth dist. | 5175 Apr 30 21:42 | 5°♄14'16 0.61397 AU | | morning rise | 5176 Apr 15 23:56 | 14°♄59'34 | |
| morning rise | 5175 May 04 10:08 | 2°♄20'13 | | direct | 5176 Apr 22 20:22 | 12°♄18'20 | |
| direct | 5175 May 11 04:17 | 0°♄00'37 | | desc. node | 5176 Apr 26 21:17 | 13°♄07'19 | |
| desc. node | 5175 May 11 00:16 | 0°♄00'42 | | morning max el | 5176 May 06 17:08 | 20°♄17'27 | 27°43'38 |
| morning max el | 5175 May 25 09:19 | 7°♄59'08 27°51'26 | | | 5176 May 15 01:05 | 0°♄ | |
| | 5175 Jun 11 04:53 | 0°♄ | | | 5176 Jun 03 05:36 | 0°♄ | |
| morning set | 5175 Jun 27 11:02 | 29°♄31'24 | | morning set | 5176 Jun 10 08:09 | 13°♄31'31 | |
| | 5175 Jun 27 16:35 | 0°♄ | | max. Earth dist. | 5176 Jun 15 11:41 | 24°♄07'09 | 1.32821 AU |
| asc. node | 5175 Jul 01 15:29 | 8°♄19'53 | | asc. node | 5176 Jun 17 12:32 | 28°♄27'23 | |
| max. Earth dist. | 5175 Jul 03 07:43 | 11°♄57'34 1.32151 AU | | | | | |
| superior conj | 5175 Jul 04 20:00 | 15°♄15'41 0°32'44 | | superior conj | 5176 Jun 18 03:23 | 29°♄47'12 | 0°06'27 |
| minimum elong | 5175 Jul 04 18:34 | 15°♄07'51 0°32'26 | | minimum elong | 5176 Jun 18 03:04 | 29°♄45'29 | 0°06'23 |
| evening rise | 5175 Jul 11 16:00 | 0°♄09'32 | | behind sun begin | 5176 Jun 17 22:10 | 29°♄19'07 | |
| | 5175 Jul 11 14:13 | 0°♄ | | behind sun end | 5176 Jun 18 07:58 | 0°♄11'53 | |
| | 5175 Jul 28 00:43 | 0°♄ | | | 5176 Jun 18 05:46 | 0°♄ | |
| evening max el | 5175 Aug 06 13:11 | 11°♄33'30 24°48'48 | | evening rise | 5176 Jun 25 03:49 | 14°♄55'23 | |
| desc. node | 5175 Aug 06 23:34 | 11°♄58'03 | | | 5176 Jul 02 16:34 | 0°♄ | |
| retrograde | 5175 Aug 20 10:56 | 18°♄34'33 | | evening max el | 5176 Jul 18 01:47 | 21°♄57'15 | 23°12'19 |
| evening set | 5175 Aug 25 18:52 | 17°♄30'26 | | desc. node | 5176 Jul 23 20:34 | 26°♄27'02 | |
| min. Earth dist. | 5175 Aug 31 00:35 | 14°♄43'53 0.57092 AU | | retrograde | 5176 Jul 31 12:39 | 28°♄40'53 | |
| inferior conj | 5175 Sep 02 20:43 | 12°♄52'33 -5°17'49 | | evening set | 5176 Aug 04 08:30 | 28°♄08'52 | |
| minimum elong | 5175 Sep 02 21:04 | 12°♄51'59 5°17'50 | | min. Earth dist. | 5176 Aug 11 10:57 | 24°♄54'55 | 0.55582 AU |
| morning rise | 5175 Sep 11 01:37 | 8°♄45'03 | | inferior conj | 5176 Aug 13 05:39 | 23°♄52'38 | -4°56'11 |
| direct | 5175 Sep 13 15:51 | 8°♄26'04 | | minimum elong | 5176 Aug 12 23:33 | 24°♄01'34 | 4°55'17 |
| morning max el | 5175 Sep 22 21:06 | 12°♄46'19 19°17'50 | | morning rise | 5176 Aug 21 16:53 | 20°♄00'45 | |
| asc. node | 5175 Sep 27 14:43 | 18°♄18'19 | | direct | 5176 Aug 24 15:20 | 19°♄40'05 | |
| | 5175 Oct 04 17:27 | 0°♄ | | morning max el | 5176 Sep 04 09:04 | 24°♄39'42 | 20°30'10 |
| morning set | 5175 Oct 09 22:46 | 10°♄07'17 | | | 5176 Sep 09 02:52 | 0°♄ | |
| | | | | asc. node | 5176 Sep 13 11:46 | 6°♄27'46 | |
| superior conj | 5175 Oct 18 01:44 | 26°♄16'04 1°35'28 | | morning set | 5176 Sep 23 05:07 | 24°♄46'54 | |
| minimum elong | 5175 Oct 18 04:01 | 26°♄27'08 1°35'19 | | | 5176 Sep 25 17:49 | 0°♄ | |
| | 5175 Oct 20 00:09 | 0°♄ | | superior conj | 5176 Sep 30 18:10 | 10°♄19'30 | 1°42'44 |
| max. Earth dist. | 5175 Oct 24 13:25 | 8°♄30'39 1.38227 AU | | minimum elong | 5176 Sep 30 18:52 | 10°♄23'04 | 1°42'43 |
| evening rise | 5175 Oct 28 07:48 | 15°♄14'27 | | max. Earth dist. | 5176 Oct 05 20:48 | 20°♄28'17 | 1.36237 AU |
| desc. node | 5175 Nov 02 22:50 | 24°♄47'12 | | evening rise | 5176 Oct 09 19:02 | 27°♄53'11 | |
| | 5175 Nov 06 04:15 | 0°♄ | | | 5176 Oct 10 22:44 | 0°♄ | |
| | 5175 Nov 27 13:56 | 0°♄ | | desc. node | 5176 Oct 19 19:53 | 15°♄15'26 | |
| evening max el | 5175 Dec 02 21:55 | 5°♄48'00 24°57'04 | | | | | |

| | | | | | | | |
|------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| | 5176 Oct 29 12:14 | 0°♊ | | | 5177 Oct 03 08:28 | 0°♌ | |
| evening max el | 5176 Nov 14 10:39 | 19°♊32'15 | 26°05'15 | desc. node | 5177 Oct 06 16:55 | 5°♌26'36 | |
| retrograde | 5176 Nov 27 00:53 | 26°♊40'33 | | | 5177 Oct 24 21:18 | 0°♊ | |
| evening set | 5176 Dec 03 06:04 | 24°♊07'31 | | evening max el | 5177 Oct 27 23:21 | 3°♊09'18 | 26°56'43 |
| min. Earth dist. | 5176 Dec 07 11:49 | 19°♊37'10 | 0.66751 AU | retrograde | 5177 Nov 10 04:01 | 10°♊26'38 | |
| inferior conj | 5176 Dec 08 23:28 | 17°♊46'35 | -0°30'17 | evening set | 5177 Nov 16 21:11 | 7°♊46'54 | |
| minimum elong | 5176 Dec 09 00:16 | 17°♊44'04 | 0°29'56 | min. Earth dist. | 5177 Nov 20 20:24 | 3°♊52'01 | 0.65586 AU |
| asc. node | 5176 Dec 10 10:58 | 15°♊58'25 | | inferior conj | 5177 Nov 22 19:49 | 1°♊35'47 | -1°31'25 |
| morning rise | 5176 Dec 14 18:59 | 11°♊57'06 | | minimum elong | 5177 Nov 22 22:26 | 1°♊28'18 | 1°30'19 |
| direct | 5176 Dec 17 22:19 | 11°♊00'55 | | | 5177 Nov 24 05:45 | 30°♌♌ | |
| morning max el | 5176 Dec 24 16:52 | 14°♊44'15 | 18°49'11 | asc. node | 5177 Nov 27 08:01 | 27°♌02'58 | |
| | 5177 Jan 05 02:15 | 0°♊ | | morning rise | 5177 Nov 29 00:38 | 25°♌58'19 | |
| morning set | 5177 Jan 15 09:35 | 16°♊02'24 | | direct | 5177 Dec 01 19:02 | 25°♌16'33 | |
| desc. node | 5177 Jan 15 19:07 | 16°♊39'50 | | morning max el | 5177 Dec 08 07:04 | 28°♌46'06 | 18°12'26 |
| | 5177 Jan 24 07:22 | 0°♊ | | | 5177 Dec 09 11:00 | 0°♊ | |
| max. Earth dist. | 5177 Jan 30 13:58 | 9°♊50'02 | 1.45205 AU | morning set | 5177 Dec 27 01:08 | 26°♊33'03 | |
| | | | | | 5177 Dec 29 04:03 | 0°♊ | |
| superior conj | 5177 Jan 31 20:24 | 11°♊49'32 | -1°37'16 | desc. node | 5178 Jan 02 16:11 | 7°♊16'40 | |
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| evening max el | 5177 Mar 09 01:03 | 7°♋16'35 | 18°41'44 | evening rise | 5178 Jan 27 06:04 | 15°♊55'00 | |
| retrograde | 5177 Mar 15 16:09 | 10°♋56'56 | | | 5178 Feb 05 07:50 | 0°♋ | |
| evening set | 5177 Mar 18 21:21 | 9°♋57'58 | | greatest brilliancy | 5178 Feb 08 06:26 | 4°♋29'43 | -0.7m |
| inferior conj | 5177 Mar 24 13:42 | 4°♋19'59 | 3°32'02 | evening max el | 5178 Feb 20 08:55 | 20°♋48'19 | 19°25'30 |
| minimum elong | 5177 Mar 24 13:10 | 4°♋21'37 | 3°32'01 | asc. node | 5178 Feb 23 07:17 | 23°♋21'16 | |
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| | 5177 Mar 28 05:48 | 30°♋♋ | | evening set | 5178 Mar 03 01:26 | 23°♋42'22 | |
| morning rise | 5177 Mar 30 04:29 | 28°♋06'40 | | inferior conj | 5178 Mar 08 12:46 | 17°♋48'52 | 3°20'20 |
| direct | 5177 Apr 05 19:44 | 25°♋17'02 | | minimum elong | 5178 Mar 08 11:07 | 17°♋54'13 | 3°20'07 |
| desc. node | 5177 Apr 13 18:19 | 28°♋25'12 | | min. Earth dist. | 5178 Mar 09 19:18 | 16°♋09'12 | 0.66566 AU |
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| morning max el | 5177 Apr 19 03:10 | 3°♋06'41 | 27°02'09 | direct | 5178 Mar 20 01:33 | 8°♋48'23 | |
| | 5177 May 09 08:59 | 0°♌ | | desc. node | 5178 Mar 31 15:23 | 15°♋21'16 | |
| morning set | 5177 May 24 19:32 | 26°♌59'37 | | morning max el | 5178 Apr 01 13:02 | 16°♋14'56 | 25°54'45 |
| | 5177 May 26 08:40 | 0°♌ | | | 5178 Apr 12 22:14 | 0°♋ | |
| max. Earth dist. | 5177 May 29 06:26 | 5°♌47'48 | 1.33949 AU | | 5178 May 02 06:26 | 0°♌ | |
| | | | | morning set | 5178 May 07 17:18 | 9°♌44'48 | |
| superior conj | 5177 Jun 02 05:32 | 13°♌58'20 | -0°22'17 | max. Earth dist. | 5178 May 11 13:41 | 16°♌59'34 | 1.35539 AU |
| minimum elong | 5177 Jun 02 06:43 | 14°♌04'31 | 0°22'02 | | | | |
| asc. node | 5177 Jun 04 09:35 | 18°♌32'37 | | superior conj | 5178 May 16 23:58 | 27°♌42'30 | -0°52'07 |
| evening rise | 5177 Jun 09 14:19 | 29°♌32'44 | | minimum elong | 5178 May 17 02:51 | 27°♌57'06 | 0°51'36 |
| | 5177 Jun 09 19:32 | 0°♍ | | | 5178 May 18 03:04 | 0°♌ | |
| | 5177 Jun 27 12:34 | 0°♍ | | asc. node | 5178 May 22 06:37 | 8°♌31'46 | |
| evening max el | 5177 Jun 29 18:58 | 2°♍24'29 | 21°37'25 | evening rise | 5178 May 24 21:28 | 13°♌55'27 | |
| desc. node | 5177 Jul 10 17:36 | 8°♍27'06 | | | 5178 Jun 02 05:54 | 0°♍ | |
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| | 5177 Aug 04 15:46 | 30°♍♍ | | min. Earth dist. | 5178 Jul 05 08:54 | 13°♍37'53 | 0.55024 AU |
| direct | 5177 Aug 05 01:35 | 29°♍59'38 | | morning rise | 5178 Jul 12 11:14 | 10°♍19'23 | |
| | 5177 Aug 05 11:22 | 0°♍ | | direct | 5178 Jul 16 12:11 | 9°♍44'00 | |
| morning max el | 5177 Aug 17 09:15 | 5°♍47'22 | 22°01'50 | morning max el | 5178 Jul 30 01:12 | 16°♍20'17 | 23°44'49 |
| asc. node | 5177 Aug 31 08:49 | 25°♍15'53 | | | 5178 Aug 09 23:14 | 0°♍ | |
| | 5177 Sep 02 21:15 | 0°♎ | | asc. node | 5178 Aug 18 05:53 | 14°♍33'10 | |
| morning set | 5177 Sep 07 14:59 | 9°♎35'37 | | morning set | 5178 Aug 23 02:31 | 24°♍28'18 | |
| | | | | | 5178 Aug 25 16:31 | 0°♎ | |
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| minimum elong | 5177 Sep 14 18:34 | 24°♎44'09 | 1°42'31 | superior conj | 5178 Aug 30 02:05 | 9°♎31'54 | 1°36'01 |
| | 5177 Sep 17 07:09 | 0°♏ | | minimum elong | 5178 Aug 30 00:25 | 9°♎22'54 | 1°35'53 |
| max. Earth dist. | 5177 Sep 18 10:59 | 2°♏22'44 | 1.34549 AU | max. Earth dist. | 5178 Sep 01 09:49 | 14°♎30'52 | 1.33267 AU |
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






























































































































| | | | | | | | |
|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| | 5178 Sep 08 23:57 | 0°♄ | | superior conj | 5179 Aug 14 12:19 | 24°♄24'06 | 1°24'04 |
| desc. node | 5178 Sep 23 13:55 | 25°♄13'20 | | minimum elong | 5179 Aug 14 10:06 | 24°♄11'58 | 1°23'47 |
| | 5178 Sep 26 19:38 | 0°♄ | | max. Earth dist. | 5179 Aug 15 16:03 | 26°♄56'04 | 1.32410 AU |
| evening max el | 5178 Oct 10 11:11 | 16°♄29'00 | 27°24'20 | | 5179 Aug 17 01:49 | 0°♄ | |
| retrograde | 5178 Oct 24 01:11 | 23°♄47'17 | | evening rise | 5179 Aug 21 14:20 | 9°♄35'50 | |
| evening set | 5178 Oct 31 02:47 | 21°♄09'10 | | | 5179 Sep 01 07:47 | 0°♄ | |
| min. Earth dist. | 5178 Nov 03 20:32 | 17°♄47'50 | 0.64076 AU | desc. node | 5179 Sep 10 10:56 | 14°♄25'36 | |
| inferior conj | 5178 Nov 06 07:54 | 15°♄12'54 | -2°34'54 | evening max el | 5179 Sep 22 20:17 | 29°♄19'14 | 27°22'03 |
| minimum elong | 5178 Nov 06 12:24 | 15°♄01'06 | 2°33'11 | | 5179 Sep 23 13:53 | 0°♄ | |
| morning rise | 5178 Nov 12 23:27 | 9°♄50'21 | | retrograde | 5179 Oct 06 15:32 | 6°♄33'29 | |
| asc. node | 5178 Nov 14 05:05 | 9°♄27'11 | | evening set | 5179 Oct 13 19:29 | 4°♄07'58 | |
| direct | 5178 Nov 15 11:20 | 9°♄19'08 | | min. Earth dist. | 5179 Oct 17 10:34 | 1°♄14'33 | 0.62261 AU |
| morning max el | 5178 Nov 21 23:47 | 12°♄44'07 | 17°52'43 | | 5179 Oct 18 19:00 | 30°♄ | |
| | 5178 Dec 03 21:51 | 0°♄ | | inferior conj | 5179 Oct 20 08:48 | 28°♄31'12 | -3°37'15 |
| morning set | 5178 Dec 08 20:40 | 8°♄25'22 | | minimum elong | 5179 Oct 20 14:49 | 28°♄17'11 | 3°35'22 |
| desc. node | 5178 Dec 20 13:12 | 28°♄00'04 | | morning rise | 5179 Oct 27 11:55 | 23°♄26'49 | |
| | | | | direct | 5179 Oct 29 20:07 | 23°♄02'30 | |
| superior conj | 5178 Dec 21 19:20 | 0°♄02'46 | -0°08'48 | asc. node | 5179 Nov 01 02:09 | 23°♄25'41 | |
| minimum elong | 5178 Dec 21 18:20 | 29°♄58'41 | 0°08'39 | morning max el | 5179 Nov 05 15:59 | 26°♄31'06 | 17°50'55 |
| behind sun begin | 5178 Dec 21 09:48 | 29°♄24'01 | | | 5179 Nov 08 16:14 | 0°♄ | |
| behind sun end | 5178 Dec 22 02:52 | 0°♄33'18 | | morning set | 5179 Nov 21 14:02 | 21°♄20'36 | |
| | 5178 Dec 21 18:40 | 0°♄ | | | 5179 Nov 26 10:34 | 0°♄ | |
| max. Earth dist. | 5178 Dec 27 03:47 | 8°♄38'06 | 1.44620 AU | superior conj | 5179 Dec 02 16:06 | 10°♄48'54 | 0°33'17 |
| evening rise | 5179 Jan 06 17:59 | 25°♄09'17 | | minimum elong | 5179 Dec 02 19:03 | 11°♄01'25 | 0°32'52 |
| | 5179 Jan 09 21:56 | 0°♄ | | desc. node | 5179 Dec 07 10:12 | 18°♄46'49 | |
| | 5179 Jan 30 16:17 | 0°♄ | | max. Earth dist. | 5179 Dec 09 19:10 | 22°♄39'55 | 1.43314 AU |
| evening max el | 5179 Feb 03 11:45 | 4°♄21'53 | 20°24'21 | | 5179 Dec 14 09:00 | 0°♄ | |
| asc. node | 5179 Feb 10 04:19 | 8°♄53'50 | | evening rise | 5179 Dec 17 06:21 | 4°♄32'06 | |
| retrograde | 5179 Feb 11 11:13 | 9°♄02'43 | | | 5180 Jan 03 07:38 | 0°♄ | |
| evening set | 5179 Feb 15 08:15 | 7°♄35'53 | | evening max el | 5180 Jan 17 09:13 | 17°♄57'18 | 21°35'04 |
| inferior conj | 5179 Feb 20 16:59 | 1°♄29'17 | 2°57'13 | retrograde | 5180 Jan 26 08:48 | 23°♄17'07 | |
| minimum elong | 5179 Feb 20 14:43 | 1°♄37'00 | 2°56'43 | asc. node | 5180 Jan 28 01:21 | 23°♄01'51 | |
| min. Earth dist. | 5179 Feb 21 09:44 | 0°♄32'13 | 0.67492 AU | evening set | 5180 Jan 30 16:02 | 21°♄34'59 | |
| | 5179 Feb 21 19:16 | 30°♄ | | inferior conj | 5180 Feb 05 00:07 | 15°♄18'12 | 2°24'44 |
| morning rise | 5179 Feb 25 20:58 | 25°♄14'58 | | minimum elong | 5180 Feb 04 21:43 | 15°♄26'32 | 2°24'02 |
| direct | 5179 Mar 03 12:50 | 22°♄43'20 | | min. Earth dist. | 5180 Feb 05 04:23 | 15°♄03'23 | 0.68002 AU |
| morning max el | 5179 Mar 14 21:39 | 29°♄31'24 | 24°31'10 | morning rise | 5180 Feb 10 03:13 | 9°♄06'10 | |
| | 5179 Mar 15 08:51 | 0°♄ | | direct | 5180 Feb 15 04:37 | 6°♄54'47 | |
| desc. node | 5179 Mar 18 12:25 | 3°♄27'29 | | morning max el | 5180 Feb 25 06:56 | 12°♄53'54 | 23°01'52 |
| | 5179 Apr 06 18:24 | 0°♄ | | desc. node | 5180 Mar 04 09:26 | 22°♄24'07 | |
| morning set | 5179 Apr 19 20:06 | 21°♄31'40 | | | 5180 Mar 10 00:14 | 0°♄ | |
| max. Earth dist. | 5179 Apr 23 11:15 | 28°♄00'32 | 1.37528 AU | | 5180 Mar 29 15:45 | 0°♄ | |
| | 5179 Apr 24 13:24 | 0°♄ | | morning set | 5180 Mar 30 22:00 | 2°♄05'12 | |
| superior conj | 5179 Apr 30 07:23 | 10°♄50'35 | -1°21'13 | max. Earth dist. | 5180 Apr 04 06:37 | 9°♄28'24 | 1.39728 AU |
| minimum elong | 5179 Apr 30 11:49 | 11°♄11'59 | 1°20'34 | | | | |
| evening rise | 5179 May 08 22:46 | 27°♄55'48 | | superior conj | 5180 Apr 11 23:50 | 23°♄13'20 | -1°46'38 |
| asc. node | 5179 May 09 03:38 | 28°♄19'59 | | minimum elong | 5180 Apr 12 04:51 | 23°♄36'25 | 1°46'08 |
| | 5179 May 09 23:49 | 0°♄ | | | 5180 Apr 15 15:12 | 0°♄ | |
| evening max el | 5179 May 25 16:19 | 25°♄06'34 | 19°13'54 | evening rise | 5180 Apr 21 15:18 | 11°♄26'51 | |
| retrograde | 5179 Jun 03 17:31 | 29°♄31'54 | | asc. node | 5180 Apr 25 00:38 | 17°♄52'55 | |
| evening set | 5179 Jun 05 17:03 | 29°♄20'06 | | | 5180 May 01 23:38 | 0°♄ | |
| inferior conj | 5179 Jun 14 03:35 | 25°♄10'27 | 0°05'57 | evening max el | 5180 May 07 19:13 | 7°♄27'08 | 18°31'56 |
| minimum elong | 5179 Jun 14 03:50 | 25°♄10'02 | 0°05'51 | retrograde | 5180 May 15 11:56 | 11°♄15'15 | |
| transit middle | 5179 Jun 14 03:50 | 25°♄10'02 | 0°05'51 | evening set | 5180 May 17 17:50 | 10°♄56'52 | |
| transit begin | 5179 Jun 14 00:16 | 25°♄16'00 | | inferior conj | 5180 May 25 08:18 | 6°♄27'53 | 1°40'35 |
| transit end | 5179 Jun 14 07:24 | 25°♄04'04 | | minimum elong | 5180 May 25 11:29 | 6°♄21'39 | 1°39'33 |
| desc. node | 5179 Jun 14 11:38 | 24°♄56'58 | | min. Earth dist. | 5180 May 28 17:42 | 3°♄49'52 | 0.57971 AU |
| min. Earth dist. | 5179 Jun 16 23:26 | 23°♄17'38 | 0.56152 AU | desc. node | 5180 May 31 08:39 | 2°♄02'39 | |
| morning rise | 5179 Jun 22 11:32 | 20°♄22'48 | | morning rise | 5180 Jun 02 01:54 | 1°♄05'53 | |
| direct | 5179 Jun 27 10:24 | 19°♄26'10 | | | 5180 Jun 05 00:53 | 30°♄ | |
| morning max el | 5179 Jul 11 14:45 | 26°♄40'22 | 25°25'37 | direct | 5180 Jun 07 22:41 | 29°♄38'18 | |
| | 5179 Jul 14 19:28 | 0°♄ | | | 5180 Jun 10 21:24 | 0°♄ | |
| | 5179 Aug 03 00:57 | 0°♄ | | morning max el | 5180 Jun 22 07:50 | 7°♄16'56 | 26°48'05 |
| asc. node | 5179 Aug 05 02:56 | 4°♄11'07 | | | 5180 Jul 09 07:20 | 0°♄ | |
| morning set | 5179 Aug 07 14:04 | 9°♄19'24 | | asc. node | 5180 Jul 21 23:57 | 24°♄03'38 | |
| | | | | morning set | 5180 Jul 22 00:01 | 24°♄04'03 | |

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|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| | 5180 Jul 24 18:29 | 0°♎ | | max. Earth dist. | 5181 Jul 12 13:49 | 22°♊08'51 | 1.31965 AU |
| superior conj | 5180 Jul 29 00:01 | 9°♎17'55 | 1°07'21 | superior conj | 5181 Jul 13 11:28 | 24°♊08'01 | 0°46'27 |
| minimum elong | 5180 Jul 28 21:44 | 9°♎05'20 | 1°06'57 | minimum elong | 5181 Jul 13 09:35 | 23°♊57'41 | 0°46'04 |
| max. Earth dist. | 5180 Jul 29 02:38 | 9°♎32'25 | 1.31978 AU | | 5181 Jul 16 03:18 | 0°♎ | |
| evening rise | 5180 Aug 04 20:37 | 24°♎13'12 | | evening rise | 5181 Jul 20 06:38 | 8°♎59'16 | |
| | 5180 Aug 07 15:41 | 0°♎ | | | 5181 Jul 31 01:49 | 0°♎ | |
| | 5180 Aug 25 05:18 | 0°♎ | | desc. node | 5181 Aug 14 04:57 | 20°♎04'03 | |
| desc. node | 5180 Aug 27 07:56 | 2°♎49'02 | | evening max el | 5181 Aug 16 19:35 | 22°♎44'11 | 25°38'41 |
| evening max el | 5180 Sep 03 23:48 | 11°♎26'34 | 26°46'17 | retrograde | 5181 Aug 30 18:23 | 29°♎49'43 | |
| retrograde | 5180 Sep 17 21:42 | 18°♎35'58 | | evening set | 5181 Sep 05 20:02 | 28°♎23'23 | |
| evening set | 5180 Sep 24 18:50 | 16°♎34'59 | | min. Earth dist. | 5181 Sep 10 07:34 | 25°♎46'07 | 0.58180 AU |
| min. Earth dist. | 5180 Sep 28 13:47 | 13°♎58'16 | 0.60236 AU | inferior conj | 5181 Sep 13 11:12 | 23°♎32'35 | -5°10'00 |
| inferior conj | 5180 Oct 01 19:03 | 11°♎20'59 | -4°32'24 | minimum elong | 5181 Sep 13 14:39 | 23°♎26'28 | 5°09'41 |
| minimum elong | 5180 Oct 02 01:10 | 11°♎08'29 | 4°31'05 | morning rise | 5181 Sep 21 11:33 | 19°♎13'05 | |
| morning rise | 5180 Oct 09 09:31 | 6°♎38'06 | | direct | 5181 Sep 23 22:33 | 18°♎54'09 | |
| direct | 5180 Oct 11 17:22 | 6°♎17'39 | | morning max el | 5181 Oct 02 09:37 | 22°♎56'14 | 18°46'18 |
| asc. node | 5180 Oct 17 23:12 | 8°♎52'40 | | asc. node | 5181 Oct 04 20:13 | 25°♎34'32 | |
| morning max el | 5180 Oct 19 04:22 | 9°♎58'06 | 18°08'17 | | 5181 Oct 08 02:30 | 0°♎ | |
| | 5180 Nov 01 06:47 | 0°♎ | | morning set | 5181 Oct 18 18:55 | 19°♎09'42 | |
| morning set | 5180 Nov 03 23:02 | 4°♎59'52 | | | 5181 Oct 24 08:07 | 0°♎ | |
| superior conj | 5180 Nov 13 14:12 | 22°♎48'29 | 1°05'36 | superior conj | 5181 Oct 27 08:48 | 5°♎47'53 | 1°27'22 |
| minimum elong | 5180 Nov 13 18:09 | 23°♎06'09 | 1°05'08 | minimum elong | 5181 Oct 27 11:55 | 6°♎02'37 | 1°27'05 |
| | 5180 Nov 17 15:58 | 0°♎ | | max. Earth dist. | 5181 Nov 03 11:59 | 18°♎51'17 | 1.39438 AU |
| max. Earth dist. | 5180 Nov 21 05:57 | 6°♎07'30 | 1.41514 AU | evening rise | 5181 Nov 07 11:16 | 25°♎43'48 | |
| desc. node | 5180 Nov 23 07:13 | 9°♎33'10 | | desc. node | 5181 Nov 10 04:14 | 0°♎15'47 | |
| evening rise | 5180 Nov 26 09:40 | 14°♎37'40 | | | 5181 Nov 10 00:25 | 0°♎ | |
| | 5180 Dec 06 06:34 | 0°♎ | | | 5181 Nov 29 23:03 | 0°♎ | |
| | 5180 Dec 28 13:41 | 0°♎ | | evening max el | 5181 Dec 12 15:27 | 15°♎14'50 | 24°12'56 |
| evening max el | 5180 Dec 30 01:53 | 1°♎34'29 | 22°53'11 | retrograde | 5181 Dec 23 20:07 | 21°♎49'04 | |
| retrograde | 5181 Jan 09 04:09 | 7°♎33'48 | | evening set | 5181 Dec 29 04:05 | 19°♎35'42 | |
| evening set | 5181 Jan 13 23:10 | 5°♎35'48 | | asc. node | 5181 Dec 31 19:27 | 16°♎50'53 | |
| asc. node | 5181 Jan 13 22:24 | 5°♎37'23 | | min. Earth dist. | 5182 Jan 02 21:12 | 14°♎10'39 | 0.67865 AU |
| | 5181 Jan 18 18:20 | 30°♎ | | inferior conj | 5182 Jan 03 15:26 | 13°♎09'12 | 0°56'41 |
| inferior conj | 5181 Jan 19 08:12 | 29°♎12'10 | 1°44'14 | minimum elong | 5182 Jan 03 14:08 | 13°♎13'36 | 0°56'11 |
| minimum elong | 5181 Jan 19 06:07 | 29°♎19'22 | 1°43'29 | morning rise | 5182 Jan 09 00:14 | 7°♎06'33 | |
| min. Earth dist. | 5181 Jan 19 00:57 | 29°♎37'13 | 0.68120 AU | direct | 5182 Jan 12 21:31 | 5°♎40'32 | |
| morning rise | 5181 Jan 24 12:58 | 23°♎04'01 | | morning max el | 5182 Jan 20 17:22 | 10°♎08'04 | 20°19'52 |
| direct | 5181 Jan 28 23:51 | 21°♎15'29 | | | 5182 Feb 04 20:16 | 0°♎ | |
| morning max el | 5181 Feb 06 20:32 | 26°♎25'04 | 21°35'54 | desc. node | 5182 Feb 06 03:29 | 1°♎55'11 | |
| | 5181 Feb 10 03:11 | 0°♎ | | morning set | 5182 Feb 17 18:48 | 19°♎34'19 | |
| desc. node | 5181 Feb 19 06:27 | 11°♎56'34 | | | 5182 Feb 24 10:41 | 0°♎ | |
| | 5181 Mar 03 13:13 | 0°♎ | | max. Earth dist. | 5182 Feb 27 14:20 | 5°♎01'40 | 1.43614 AU |
| morning set | 5181 Mar 10 19:20 | 11°♎18'01 | | superior conj | 5182 Mar 05 16:23 | 14°♎56'32 | -2°08'32 |
| max. Earth dist. | 5181 Mar 17 06:51 | 21°♎48'29 | 1.41847 AU | minimum elong | 5182 Mar 05 14:58 | 14°♎50'42 | 2°08'31 |
| | 5181 Mar 22 03:45 | 0°♎ | | | 5182 Mar 14 14:07 | 0°♎ | |
| superior conj | 5181 Mar 24 20:21 | 4°♎38'37 | -2°04'13 | evening rise | 5182 Mar 18 06:35 | 6°♎23'51 | |
| minimum elong | 5181 Mar 24 23:47 | 4°♎53'33 | 2°04'04 | asc. node | 5182 Mar 29 18:42 | 25°♎48'19 | |
| evening rise | 5181 Apr 04 19:22 | 24°♎19'29 | | | 5182 Apr 01 17:25 | 0°♎ | |
| | 5181 Apr 07 21:59 | 0°♎ | | evening max el | 5182 Apr 04 17:06 | 3°♎27'55 | 18°07'49 |
| asc. node | 5181 Apr 11 21:40 | 7°♎04'52 | | retrograde | 5182 Apr 11 04:04 | 6°♎50'07 | |
| evening max el | 5181 Apr 21 04:37 | 20°♎17'27 | 18°10'08 | evening set | 5182 Apr 13 23:08 | 6°♎11'09 | |
| retrograde | 5181 Apr 28 00:53 | 23°♎45'00 | | inferior conj | 5182 Apr 20 05:46 | 1°♎01'39 | 3°19'22 |
| evening set | 5181 Apr 30 13:36 | 23°♎17'12 | | minimum elong | 5182 Apr 20 07:42 | 0°♎56'37 | 3°19'07 |
| inferior conj | 5181 May 07 10:11 | 18°♎27'27 | 2°44'05 | | 5182 Apr 21 05:17 | 30°♎ | |
| minimum elong | 5181 May 07 13:27 | 18°♎19'58 | 2°43'19 | min. Earth dist. | 5182 Apr 23 03:17 | 28°♎01'28 | 0.62304 AU |
| min. Earth dist. | 5181 May 10 18:14 | 15°♎26'07 | 0.60128 AU | morning rise | 5182 Apr 26 14:43 | 24°♎58'14 | |
| morning rise | 5181 May 14 10:50 | 12°♎39'35 | | direct | 5182 May 03 10:40 | 22°♎27'59 | |
| desc. node | 5181 May 18 05:39 | 10°♎59'17 | | desc. node | 5182 May 05 02:42 | 22°♎36'18 | |
| direct | 5181 May 20 23:28 | 10°♎37'54 | | | 5182 May 17 01:34 | 0°♎ | |
| morning max el | 5181 Jun 04 07:29 | 18°♎31'28 | 27°39'08 | morning max el | 5182 May 17 13:08 | 0°♎28'32 | 27°52'40 |
| | 5181 Jun 13 22:55 | 0°♎ | | | 5182 Jun 08 00:59 | 0°♎ | |
| | 5181 Jul 02 00:02 | 0°♎ | | morning set | 5182 Jun 20 08:00 | 22°♎51'36 | |
| morning set | 5181 Jul 06 06:42 | 8°♎37'16 | | | 5182 Jun 23 18:39 | 0°♎ | |
| asc. node | 5181 Jul 08 20:58 | 14°♎05'49 | | asc. node | 5182 Jun 25 17:59 | 4°♎12'24 | |

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| max. Earth dist. | 5182 Jun 25 21:31 | 4°☾31'23 | 1.32377 AU | | 5183 May 31 14:22 | 0°♊ | |
| | | | | morning set | 5183 Jun 04 01:24 | 6°♊39'31 | |
| superior conj | 5182 Jun 27 20:50 | 8°☾47'43 | 0°21'56 | max. Earth dist. | 5183 Jun 08 21:43 | 16°♊28'20 | 1.33242 AU |
| minimum elong | 5182 Jun 27 19:50 | 8°☾42'14 | 0°21'42 | | | | |
| evening rise | 5182 Jul 04 18:17 | 23°☾46'31 | | superior conj | 5183 Jun 12 02:17 | 23°♊11'30 | -0°05'32 |
| | 5182 Jul 07 17:44 | 0°♊ | | minimum elong | 5183 Jun 12 02:34 | 23°♊12'59 | 0°05'29 |
| | 5182 Jul 26 05:23 | 0°♊ | | behind sun begin | 5183 Jun 11 21:26 | 22°♊45'39 | |
| evening max el | 5182 Jul 29 08:59 | 3°♊19'37 | 24°08'31 | behind sun end | 5183 Jun 12 07:42 | 23°♊40'21 | |
| desc. node | 5182 Aug 01 01:58 | 5°♊42'49 | | asc. node | 5183 Jun 12 15:02 | 24°♊19'28 | |
| retrograde | 5182 Aug 12 03:53 | 10°♊16'06 | | | 5183 Jun 15 06:30 | 0°☾ | |
| evening set | 5182 Aug 16 20:52 | 9°♊26'57 | | evening rise | 5183 Jun 19 05:46 | 8°☾29'16 | |
| min. Earth dist. | 5182 Aug 22 19:37 | 6°♊30'19 | 0.56371 AU | | 5183 Jun 30 12:20 | 0°♊ | |
| inferior conj | 5182 Aug 25 07:05 | 4°♊58'10 | -5°14'46 | evening max el | 5183 Jul 10 22:32 | 13°♊40'39 | 22°30'53 |
| minimum elong | 5182 Aug 25 04:40 | 5°♊01'57 | 5°14'38 | desc. node | 5183 Jul 18 22:59 | 19°♊11'56 | |
| morning rise | 5182 Sep 02 14:58 | 0°♊58'58 | | retrograde | 5183 Jul 24 00:48 | 20°♊11'21 | |
| direct | 5182 Sep 05 08:14 | 0°♊39'38 | | evening set | 5183 Jul 27 05:28 | 19°♊48'54 | |
| morning max el | 5182 Sep 15 04:34 | 5°♊15'16 | 19°46'06 | min. Earth dist. | 5183 Aug 04 05:51 | 16°♊18'54 | 0.55152 AU |
| asc. node | 5182 Sep 21 17:16 | 13°♊15'31 | | inferior conj | 5183 Aug 05 08:59 | 15°♊40'22 | -4°31'08 |
| | 5182 Oct 01 02:19 | 0°♊ | | minimum elong | 5183 Aug 05 00:56 | 15°♊51'49 | 4°29'28 |
| morning set | 5182 Oct 02 22:10 | 3°♊39'46 | | morning rise | 5183 Aug 13 22:20 | 11°♊50'22 | |
| | | | | direct | 5183 Aug 17 00:42 | 11°♊28'27 | |
| superior conj | 5182 Oct 10 18:31 | 19°♊31'12 | 1°39'33 | morning max el | 5183 Aug 28 11:20 | 16°♊48'34 | 21°07'07 |
| minimum elong | 5182 Oct 10 20:08 | 19°♊39'10 | 1°39'28 | | 5183 Sep 07 14:02 | 0°♊ | |
| | 5182 Oct 16 04:32 | 0°♊ | | asc. node | 5183 Sep 08 14:18 | 1°♊42'24 | |
| max. Earth dist. | 5182 Oct 16 16:46 | 0°♊57'19 | 1.37345 AU | morning set | 5183 Sep 17 06:12 | 18°♊23'09 | |
| evening rise | 5182 Oct 20 11:08 | 7°♊50'36 | | | 5183 Sep 22 19:30 | 0°♊ | |
| desc. node | 5182 Oct 28 01:17 | 20°♊50'19 | | | | | |
| | 5182 Nov 02 20:09 | 0°♊ | | superior conj | 5183 Sep 24 14:58 | 3°♊45'42 | 1°43'29 |
| evening max el | 5182 Nov 25 03:59 | 28°♊58'17 | 25°27'39 | minimum elong | 5183 Sep 24 15:03 | 3°♊46'07 | 1°43'29 |
| | 5182 Nov 26 05:54 | 0°♊ | | max. Earth dist. | 5183 Sep 29 02:16 | 12°♊49'03 | 1.35471 AU |
| retrograde | 5182 Dec 07 07:46 | 5°♊58'04 | | evening rise | 5183 Oct 03 05:43 | 20°♊49'21 | |
| evening set | 5182 Dec 13 05:11 | 3°♊31'14 | | | 5183 Oct 08 06:41 | 0°♊ | |
| | 5182 Dec 16 13:27 | 30°♊♊ | | desc. node | 5183 Oct 14 22:19 | 11°♊11'40 | |
| min. Earth dist. | 5182 Dec 17 14:51 | 28°♊40'33 | 0.67250 AU | | 5183 Oct 27 18:11 | 0°♊ | |
| inferior conj | 5182 Dec 18 20:02 | 27°♊06'37 | 0°03'01 | evening max el | 5183 Nov 07 16:47 | 12°♊40'28 | 26°29'49 |
| minimum elong | 5182 Dec 18 19:57 | 27°♊06'52 | 0°03'00 | retrograde | 5183 Nov 20 14:10 | 19°♊54'07 | |
| transit middle | 5182 Dec 18 19:57 | 27°♊06'52 | 0°03'00 | evening set | 5183 Nov 27 00:33 | 17°♊17'42 | |
| transit begin | 5182 Dec 18 17:12 | 27°♊15'44 | | min. Earth dist. | 5183 Dec 01 03:31 | 13°♊02'12 | 0.66288 AU |
| transit end | 5182 Dec 18 22:42 | 26°♊58'01 | | inferior conj | 5183 Dec 02 20:01 | 11°♊00'09 | -0°55'49 |
| asc. node | 5182 Dec 18 16:29 | 27°♊18'03 | | minimum elong | 5183 Dec 02 21:34 | 10°♊55'30 | 0°55'08 |
| morning rise | 5182 Dec 24 11:03 | 21°♊11'31 | | asc. node | 5183 Dec 05 13:33 | 7°♊53'03 | |
| direct | 5182 Dec 27 20:18 | 20°♊05'29 | | morning rise | 5183 Dec 08 19:15 | 5°♊15'10 | |
| morning max el | 5183 Jan 03 22:08 | 24°♊02'04 | 19°17'46 | direct | 5183 Dec 11 18:28 | 4°♊25'36 | |
| | 5183 Jan 08 23:30 | 0°♊ | | morning max el | 5183 Dec 18 09:28 | 8°♊02'10 | 18°31'29 |
| greatest brilliancy | 5183 Jan 17 07:16 | 11°♊57'07 | -0.7m | | 5184 Jan 02 21:20 | 0°♊ | |
| desc. node | 5183 Jan 24 00:32 | 22°♊12'59 | | morning set | 5184 Jan 07 16:55 | 7°♊39'28 | |
| morning set | 5183 Jan 27 18:30 | 28°♊00'36 | | desc. node | 5184 Jan 10 21:34 | 12°♊44'00 | |
| | 5183 Jan 29 01:18 | 0°♊ | | | 5184 Jan 21 20:26 | 0°♊ | |
| max. Earth dist. | 5183 Feb 10 04:18 | 18°♊56'33 | 1.44817 AU | | | | |
| | | | | superior conj | 5184 Jan 23 15:37 | 2°♊49'21 | -1°21'05 |
| superior conj | 5183 Feb 13 11:40 | 24°♊10'47 | -1°54'26 | minimum elong | 5184 Jan 23 06:31 | 2°♊13'40 | 1°20'03 |
| minimum elong | 5183 Feb 13 04:04 | 23°♊40'36 | 1°53'55 | max. Earth dist. | 5184 Jan 23 22:35 | 3°♊16'38 | 1.45326 AU |
| | 5183 Feb 17 03:02 | 0°♊ | | evening rise | 5184 Feb 08 11:32 | 27°♊44'42 | |
| evening rise | 5183 Feb 27 20:44 | 17°♊32'49 | | | 5184 Feb 09 21:38 | 0°♊ | |
| | 5183 Mar 07 09:18 | 0°♊ | | greatest brilliancy | 5184 Feb 17 15:34 | 12°♊15'50 | -0.8m |
| asc. node | 5183 Mar 16 15:45 | 13°♊54'42 | | | 5184 Mar 01 07:37 | 0°♊ | |
| evening max el | 5183 Mar 19 05:46 | 16°♊51'30 | 18°24'13 | evening max el | 5184 Mar 01 16:00 | 0°♊21'42 | 18°58'22 |
| retrograde | 5183 Mar 25 16:56 | 20°♊21'40 | | asc. node | 5184 Mar 02 12:48 | 1°♊12'16 | |
| evening set | 5183 Mar 28 18:17 | 19°♊30'20 | | retrograde | 5184 Mar 08 11:39 | 4°♊11'37 | |
| inferior conj | 5183 Apr 03 14:54 | 14°♊02'32 | 3°32'24 | evening set | 5184 Mar 11 19:51 | 3°♊07'01 | |
| minimum elong | 5183 Apr 03 15:12 | 14°♊01'39 | 3°32'24 | | 5184 Mar 15 05:48 | 30°♊♊ | |
| min. Earth dist. | 5183 Apr 05 21:39 | 11°♊24'10 | 0.64261 AU | inferior conj | 5184 Mar 17 09:46 | 27°♊22'25 | 3°28'34 |
| morning rise | 5183 Apr 09 11:17 | 7°♊51'25 | | minimum elong | 5184 Mar 17 08:42 | 27°♊25'45 | 3°28'30 |
| direct | 5183 Apr 16 06:20 | 5°♊04'36 | | min. Earth dist. | 5184 Mar 19 00:54 | 25°♊19'21 | 0.65854 AU |
| desc. node | 5183 Apr 21 23:44 | 6°♊43'11 | | morning rise | 5184 Mar 22 21:10 | 21°♊08'15 | |
| morning max el | 5183 Apr 29 22:16 | 13°♊01'59 | 27°29'36 | direct | 5184 Mar 29 08:44 | 18°♊18'45 | |
| | 5183 May 13 13:02 | 0°♊ | | desc. node | 5184 Apr 07 20:47 | 22°♊46'38 | |

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| morning max el | 5184 Apr 11 08:12 | 25° X 59'57 | 26°35'57 | morning rise | 5185 Mar 06 17:07 | 4° X 41'53 | |
| | 5184 Apr 15 00:39 | 0° Y | | direct | 5185 Mar 12 16:51 | 2° X 01'28 | |
| | 5184 May 06 02:19 | 0° B | | morning max el | 5185 Mar 24 17:27 | 9° X 12'24 | 25°20'32 |
| morning set | 5184 May 17 07:31 | 19° B 50'43 | | desc. node | 5185 Mar 25 17:50 | 10° X 15'27 | |
| max. Earth dist. | 5184 May 21 11:23 | 27° B 54'28 | 1.34576 AU | | 5185 Apr 10 02:39 | 0° Y | |
| | 5184 May 22 12:35 | 0° II | | | 5185 Apr 28 16:15 | 0° B | |
| | | | | morning set | 5185 Apr 29 21:54 | 2° B 12'55 | |
| superior conj | 5184 May 26 01:30 | 7° II 12'19 | -0°34'54 | max. Earth dist. | 5185 May 03 14:16 | 8° B 59'40 | 1.36354 AU |
| minimum elong | 5184 May 26 03:24 | 7° II 22'06 | 0°34'32 | | | | |
| asc. node | 5184 May 29 12:05 | 14° II 22'45 | | superior conj | 5185 May 09 15:42 | 20° B 42'33 | -1°04'42 |
| evening rise | 5184 Jun 02 15:06 | 23° II 01'10 | | minimum elong | 5185 May 09 19:18 | 21° B 00'24 | 1°04'06 |
| | 5184 Jun 06 01:17 | 0° B | | | 5185 May 14 06:24 | 0° II | |
| evening max el | 5184 Jun 21 20:09 | 24° B 19'59 | 21°00'42 | asc. node | 5185 May 16 09:06 | 4° II 18'04 | |
| | 5184 Jul 02 00:27 | 0° Q | | evening rise | 5185 May 17 20:06 | 7° II 15'40 | |
| retrograde | 5184 Jul 03 13:25 | 0° Q 05'49 | | | 5185 May 30 12:56 | 0° B | |
| desc. node | 5184 Jul 04 19:59 | 0° Q 01'56 | | evening max el | 5185 Jun 04 05:58 | 5° B 37'33 | 19°47'04 |
| | 5184 Jul 05 02:57 | 30° R B | | retrograde | 5185 Jun 14 06:00 | 10° B 31'02 | |
| evening set | 5184 Jul 05 18:06 | 29° B 54'28 | | evening set | 5185 Jun 16 04:01 | 10° B 21'03 | |
| inferior conj | 5184 Jul 15 02:08 | 25° B 57'03 | -2°58'06 | desc. node | 5185 Jun 21 17:01 | 8° B 16'36 | |
| minimum elong | 5184 Jul 14 18:15 | 26° B 08'11 | 2°55'30 | inferior conj | 5185 Jun 25 01:01 | 6° B 19'00 | -0°59'52 |
| min. Earth dist. | 5184 Jul 15 16:29 | 25° B 36'49 | 0.54796 AU | minimum elong | 5185 Jun 24 22:16 | 6° B 23'15 | 0°58'50 |
| morning rise | 5184 Jul 23 18:32 | 21° B 58'17 | | min. Earth dist. | 5185 Jun 27 05:01 | 4° B 58'57 | 0.55403 AU |
| direct | 5184 Jul 27 09:52 | 21° B 29'49 | | morning rise | 5185 Jul 03 14:26 | 1° B 52'20 | |
| morning max el | 5184 Aug 09 07:11 | 27° B 38'49 | 22°44'56 | direct | 5185 Jul 08 00:16 | 1° B 09'29 | |
| | 5184 Aug 11 15:11 | 0° Q | | morning max el | 5185 Jul 21 21:16 | 8° B 02'42 | 24°29'03 |
| asc. node | 5184 Aug 25 11:21 | 20° Q 44'15 | | | 5185 Aug 06 22:32 | 0° Q | |
| | 5184 Aug 30 03:40 | 0° P | | asc. node | 5185 Aug 12 08:23 | 10° Q 11'22 | |
| morning set | 5184 Aug 31 16:59 | 3° P 14'27 | | morning set | 5185 Aug 16 04:44 | 18° Q 07'29 | |
| | | | | | 5185 Aug 21 16:26 | 0° P | |
| superior conj | 5184 Sep 07 18:48 | 18° P 21'46 | 1°40'29 | superior conj | 5185 Aug 23 03:19 | 3° P 10'15 | 1°31'34 |
| minimum elong | 5184 Sep 07 17:39 | 18° P 15'38 | 1°40'25 | minimum elong | 5185 Aug 23 01:22 | 2° P 59'37 | 1°31'22 |
| max. Earth dist. | 5184 Sep 10 20:22 | 24° P 49'28 | 1.33954 AU | max. Earth dist. | 5185 Aug 24 22:53 | 7° P 06'30 | 1.32850 AU |
| | 5184 Sep 13 08:52 | 0° B | | evening rise | 5185 Aug 30 10:27 | 18° P 37'58 | |
| evening rise | 5184 Sep 15 14:48 | 4° B 28'58 | | | 5185 Sep 05 06:17 | 0° B | |
| | 5184 Sep 30 00:32 | 0° M | | desc. node | 5185 Sep 17 16:18 | 20° B 47'28 | |
| desc. node | 5184 Sep 30 19:19 | 1° M 13'44 | | | 5185 Sep 24 08:05 | 0° M | |
| evening max el | 5184 Oct 20 05:34 | 26° M 12'45 | 27°11'55 | evening max el | 5185 Oct 02 16:30 | 9° M 21'21 | 27°27'16 |
| | 5184 Oct 24 17:22 | 0° X | | retrograde | 5185 Oct 16 08:43 | 16° M 37'45 | |
| retrograde | 5184 Nov 02 14:39 | 3° X 30'30 | | evening set | 5185 Oct 23 12:27 | 14° M 03'25 | |
| evening set | 5184 Nov 09 11:57 | 0° X 50'38 | | min. Earth dist. | 5185 Oct 27 04:33 | 10° M 55'12 | 0.63341 AU |
| | 5184 Nov 10 12:22 | 30° R M | | inferior conj | 5185 Oct 29 20:51 | 8° M 15'16 | -3°01'45 |
| min. Earth dist. | 5184 Nov 13 08:47 | 27° M 10'16 | 0.64982 AU | minimum elong | 5185 Oct 30 02:06 | 8° M 02'12 | 2°59'54 |
| inferior conj | 5184 Nov 15 13:11 | 24° M 45'25 | -1°58'13 | morning rise | 5185 Nov 05 17:17 | 3° M 00'10 | |
| minimum elong | 5184 Nov 15 16:37 | 24° M 35'56 | 1°56'49 | direct | 5185 Nov 08 03:21 | 2° M 32'13 | |
| asc. node | 5184 Nov 21 10:35 | 19° M 28'26 | | asc. node | 5185 Nov 08 07:37 | 2° M 32'22 | |
| morning rise | 5184 Nov 21 22:23 | 19° M 13'38 | | morning max el | 5185 Nov 14 17:53 | 5° M 57'21 | 17°49'46 |
| direct | 5184 Nov 24 13:48 | 18° M 36'41 | | | 5185 Nov 30 10:49 | 0° X | |
| morning max el | 5184 Dec 01 01:01 | 22° M 03'07 | 18°01'56 | morning set | 5185 Dec 01 02:35 | 1° X 08'45 | |
| | 5184 Dec 07 06:16 | 0° X | | | | | |
| morning set | 5184 Dec 18 21:01 | 18° X 47'26 | | superior conj | 5185 Dec 13 05:14 | 21° X 47'51 | 0°10'05 |
| | 5184 Dec 25 16:20 | 0° B | | minimum elong | 5185 Dec 13 06:17 | 21° X 52'11 | 0°09'56 |
| desc. node | 5184 Dec 27 18:37 | 3° B 24'13 | | behind sun begin | 5185 Dec 12 22:45 | 21° X 21'00 | |
| | | | | behind sun end | 5185 Dec 13 13:50 | 22° X 23'20 | |
| superior conj | 5185 Jan 01 23:48 | 11° B 46'30 | -0°35'45 | desc. node | 5185 Dec 14 15:37 | 24° X 09'24 | |
| minimum elong | 5185 Jan 01 19:25 | 11° B 29'03 | 0°35'08 | | 5185 Dec 18 05:54 | 0° B | |
| max. Earth dist. | 5185 Jan 05 18:22 | 17° B 44'56 | 1.45089 AU | max. Earth dist. | 5185 Dec 19 12:06 | 2° B 01'14 | 1.44136 AU |
| | 5185 Jan 13 14:33 | 0° B | | evening rise | 5185 Dec 28 16:26 | 16° B 25'29 | |
| evening rise | 5185 Jan 18 06:24 | 7° B 12'46 | | | 5186 Jan 06 15:09 | 0° B | |
| greatest brilliancy | 5185 Feb 01 01:08 | 28° B 12'40 | -0.7m | evening max el | 5186 Jan 26 22:23 | 27° B 28'48 | 20°53'11 |
| | 5185 Feb 02 06:15 | 0° X | | | 5186 Jan 29 16:35 | 0° X | |
| evening max el | 5185 Feb 12 21:56 | 13° X 54'49 | 19°48'48 | retrograde | 5186 Feb 04 07:36 | 2° X 26'03 | |
| asc. node | 5185 Feb 17 09:50 | 17° X 27'39 | | asc. node | 5186 Feb 04 06:51 | 2° X 26'03 | |
| retrograde | 5185 Feb 20 09:19 | 18° X 14'38 | | evening set | 5186 Feb 08 08:49 | 0° X 52'36 | |
| evening set | 5185 Feb 24 01:21 | 16° X 55'57 | | | 5186 Feb 09 09:05 | 30° R B | |
| inferior conj | 5185 Mar 01 11:18 | 10° X 56'33 | 3°11'45 | inferior conj | 5186 Feb 13 17:01 | 24° B 41'02 | 2°44'31 |
| minimum elong | 5185 Mar 01 09:21 | 11° X 03'06 | 3°11'25 | minimum elong | 5186 Feb 13 14:38 | 24° B 49'14 | 2°43'54 |
| min. Earth dist. | 5185 Mar 02 11:44 | 9° X 35'08 | 0.67020 AU | | | | |

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|------------------|-------------------|---------------------|------------|------------------|-------------------|---------------------|------------|
| min. Earth dist. | 5186 Feb 14 04:13 | 24° \approx 02'28 | 0.67754 AU | direct | 5187 Feb 07 23:18 | 0° \approx 19'54 | |
| morning rise | 5186 Feb 18 20:18 | 18° \approx 27'34 | | morning max el | 5187 Feb 17 12:56 | 5° \approx 58'14 | 22°24'29 |
| direct | 5186 Feb 24 05:58 | 16° \approx 04'19 | | desc. node | 5187 Feb 27 11:53 | 17° \approx 58'42 | |
| morning max el | 5186 Mar 07 02:14 | 22° \approx 32'26 | 23°53'27 | | 5187 Mar 08 00:18 | 0° \approx | |
| desc. node | 5186 Mar 12 14:52 | 28° \approx 45'25 | | morning set | 5187 Mar 23 04:48 | 23° \approx 30'40 | |
| | 5186 Mar 13 15:01 | 0° \approx | | | 5187 Mar 27 02:59 | 0° \approx | |
| | 5186 Apr 03 10:37 | 0° \approx | | max. Earth dist. | 5187 Mar 28 06:43 | 1° \approx 56'46 | 1.40645 AU |
| morning set | 5186 Apr 11 14:57 | 13° \approx 31'24 | | | | | |
| max. Earth dist. | 5186 Apr 15 10:23 | 20° \approx 10'17 | 1.38451 AU | superior conj | 5187 Apr 05 01:54 | 15° \approx 32'50 | -1°55'21 |
| | 5186 Apr 20 19:58 | 0° \approx | | minimum elong | 5187 Apr 05 06:36 | 15° \approx 53'57 | 1°54'59 |
| | | | | | 5187 Apr 12 22:13 | 0° \approx | |
| superior conj | 5186 Apr 22 17:21 | 3° \approx 33'17 | -1°32'39 | evening rise | 5187 Apr 15 05:53 | 4° \approx 21'34 | |
| minimum elong | 5186 Apr 22 22:12 | 3° \approx 56'17 | 1°32'02 | asc. node | 5187 Apr 20 03:09 | 13° \approx 26'10 | |
| evening rise | 5186 May 01 18:09 | 21° \approx 05'41 | | | 5187 May 01 04:43 | 0° \approx | |
| asc. node | 5186 May 03 06:07 | 24° \approx 01'09 | | evening max el | 5187 May 01 09:39 | 0° \approx 12'13 | 18°20'18 |
| | 5186 May 06 09:16 | 0° \approx | | retrograde | 5187 May 08 16:20 | 3° \approx 49'38 | |
| evening max el | 5186 May 18 03:30 | 17° \approx 37'27 | 18°53'30 | evening set | 5187 May 11 01:06 | 3° \approx 27'38 | |
| retrograde | 5186 May 26 13:48 | 21° \approx 45'30 | | | 5187 May 16 21:34 | 30° \approx | |
| evening set | 5186 May 28 15:34 | 21° \approx 31'27 | | inferior conj | 5187 May 18 07:35 | 28° \approx 50'10 | 2°11'14 |
| inferior conj | 5186 Jun 05 17:32 | 17° \approx 13'53 | 0°49'42 | minimum elong | 5187 May 18 11:04 | 28° \approx 42'51 | 2°10'14 |
| minimum elong | 5186 Jun 05 19:26 | 17° \approx 10'30 | 0°49'00 | min. Earth dist. | 5187 May 21 18:05 | 25° \approx 58'54 | 0.58865 AU |
| desc. node | 5186 Jun 08 14:02 | 15° \approx 11'48 | | morning rise | 5187 May 25 18:00 | 23° \approx 15'38 | |
| min. Earth dist. | 5186 Jun 08 21:06 | 14° \approx 59'40 | 0.56856 AU | desc. node | 5187 May 26 11:05 | 22° \approx 53'38 | |
| morning rise | 5186 Jun 13 19:58 | 12° \approx 10'38 | | direct | 5187 May 31 22:30 | 21° \approx 33'07 | |
| direct | 5186 Jun 19 04:15 | 11° \approx 01'59 | | morning max el | 5187 Jun 15 07:53 | 29° \approx 19'59 | 27°14'01 |
| morning max el | 5186 Jul 03 12:04 | 18° \approx 28'22 | 26°03'51 | | 5187 Jun 15 23:56 | 0° \approx | |
| | 5186 Jul 13 03:41 | 0° \approx | | | 5187 Jul 07 00:13 | 0° \approx | |
| asc. node | 5186 Jul 30 05:25 | 29° \approx 56'45 | | morning set | 5187 Jul 16 00:38 | 17° \approx 37'53 | |
| | 5186 Jul 30 06:02 | 0° \approx | | asc. node | 5187 Jul 17 02:26 | 19° \approx 54'05 | |
| morning set | 5186 Jul 31 15:50 | 2° \approx 57'14 | | | 5187 Jul 21 18:03 | 0° \approx | |
| | | | | | | | |
| superior conj | 5186 Aug 07 14:26 | 18° \approx 04'31 | 1°17'31 | superior conj | 5187 Jul 23 02:16 | 2° \approx 57'49 | 0°58'58 |
| minimum elong | 5186 Aug 07 12:08 | 17° \approx 51'52 | 1°17'11 | minimum elong | 5187 Jul 23 00:06 | 2° \approx 45'52 | 0°58'34 |
| max. Earth dist. | 5186 Aug 08 07:23 | 19° \approx 03'52 | 1.32174 AU | max. Earth dist. | 5187 Jul 22 18:30 | 2° \approx 14'54 | 1.31921 AU |
| | 5186 Aug 13 02:02 | 0° \approx | | evening rise | 5187 Jul 29 21:47 | 17° \approx 49'35 | |
| evening rise | 5186 Aug 14 13:38 | 3° \approx 07'33 | | | 5187 Aug 04 21:55 | 0° \approx | |
| | 5186 Aug 29 01:34 | 0° \approx | | desc. node | 5187 Aug 22 10:19 | 27° \approx 38'45 | |
| desc. node | 5186 Sep 04 13:18 | 9° \approx 41'15 | | | 5187 Aug 24 10:37 | 0° \approx | |
| evening max el | 5186 Sep 14 23:15 | 21° \approx 53'46 | 27°10'48 | evening max el | 5187 Aug 27 23:35 | 3° \approx 40'21 | 26°21'01 |
| retrograde | 5186 Sep 28 19:52 | 29° \approx 06'35 | | retrograde | 5187 Sep 10 22:38 | 10° \approx 48'45 | |
| evening set | 5186 Oct 05 22:21 | 26° \approx 49'38 | | evening set | 5187 Sep 17 12:54 | 9° \approx 01'41 | |
| min. Earth dist. | 5186 Oct 09 13:47 | 24° \approx 05'20 | 0.61419 AU | min. Earth dist. | 5187 Sep 21 12:56 | 6° \approx 26'48 | 0.59347 AU |
| inferior conj | 5186 Oct 12 15:54 | 21° \approx 22'13 | -4°02'02 | inferior conj | 5187 Sep 24 18:52 | 3° \approx 57'14 | -4°51'21 |
| minimum elong | 5186 Oct 12 22:12 | 21° \approx 08'19 | 4°00'19 | minimum elong | 5187 Sep 25 00:15 | 3° \approx 46'50 | 4°50'27 |
| morning rise | 5186 Oct 20 00:00 | 16° \approx 27'01 | | | 5187 Sep 30 21:34 | 30° \approx | |
| direct | 5186 Oct 22 07:34 | 16° \approx 04'46 | | morning rise | 5187 Oct 02 13:48 | 29° \approx 24'15 | |
| asc. node | 5186 Oct 26 04:40 | 17° \approx 09'46 | | direct | 5187 Oct 04 22:21 | 29° \approx 04'51 | |
| morning max el | 5186 Oct 29 08:55 | 19° \approx 37'12 | 17°55'54 | | 5187 Oct 08 18:59 | 0° \approx | |
| | 5186 Nov 06 00:09 | 0° \approx | | morning max el | 5187 Oct 12 18:45 | 2° \approx 53'38 | 18°21'50 |
| morning set | 5186 Nov 14 03:12 | 14° \approx 24'05 | | asc. node | 5187 Oct 13 01:42 | 3° \approx 10'41 | |
| | 5186 Nov 22 18:36 | 0° \approx | | morning set | 5187 Oct 28 17:22 | 28° \approx 18'03 | |
| | | | | | 5187 Oct 29 14:42 | 0° \approx | |
| superior conj | 5186 Nov 24 13:12 | 3° \approx 06'31 | 0°48'18 | superior conj | 5187 Nov 06 20:44 | 15° \approx 33'45 | 1°16'05 |
| minimum elong | 5186 Nov 24 16:52 | 3° \approx 22'30 | 0°47'49 | minimum elong | 5187 Nov 07 00:28 | 15° \approx 50'54 | 1°15'41 |
| desc. node | 5186 Dec 01 12:36 | 14° \approx 56'18 | | max. Earth dist. | 5187 Nov 14 09:19 | 28° \approx 56'05 | 1.40646 AU |
| max. Earth dist. | 5186 Dec 02 01:10 | 15° \approx 48'11 | 1.42591 AU | | 5187 Nov 15 00:15 | 0° \approx | |
| evening rise | 5186 Dec 08 09:33 | 26° \approx 02'08 | | desc. node | 5187 Nov 18 09:37 | 5° \approx 41'53 | |
| | 5186 Dec 10 22:18 | 0° \approx | | evening rise | 5187 Nov 18 22:03 | 6° \approx 33'14 | |
| | 5186 Dec 31 12:27 | 0° \approx | | | 5187 Dec 04 01:40 | 0° \approx | |
| evening max el | 5187 Jan 09 17:28 | 11° \approx 03'57 | 22°07'47 | evening max el | 5187 Dec 23 08:38 | 24° \approx 42'59 | 23°27'25 |
| retrograde | 5187 Jan 19 04:30 | 16° \approx 41'35 | | | 5187 Dec 30 04:06 | 0° \approx | |
| asc. node | 5187 Jan 22 03:54 | 15° \approx 54'46 | | retrograde | 5188 Jan 02 22:36 | 0° \approx 58'15 | |
| evening set | 5187 Jan 23 16:30 | 14° \approx 52'46 | | | 5188 Jan 06 09:38 | 30° \approx | |
| inferior conj | 5187 Jan 29 00:46 | 8° \approx 32'23 | 2°08'30 | evening set | 5188 Jan 07 22:52 | 28° \approx 53'53 | |
| minimum elong | 5187 Jan 28 22:27 | 8° \approx 40'27 | 2°07'45 | asc. node | 5188 Jan 09 00:56 | 27° \approx 53'13 | |
| min. Earth dist. | 5187 Jan 29 00:03 | 8° \approx 34'55 | 0.68088 AU | inferior conj | 5188 Jan 13 08:44 | 22° \approx 28'32 | 1°24'53 |
| morning rise | 5187 Feb 03 04:15 | 2° \approx 21'36 | | | | | |

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|------------------|-------------------|---|------------|------------------|-------------------|--|------------|
| minimum elong | 5188 Jan 13 06:55 | 22°  34'43 | 1°24'13 | morning rise | 5189 Jan 02 02:15 | 0°  26'26 | |
| min. Earth dist. | 5188 Jan 12 20:52 | 23°  09'14 | 0.68050 AU | | 5189 Jan 02 18:47 | 30°  12'17 | |
| morning rise | 5188 Jan 18 14:55 | 16°  22'15 | | direct | 5189 Jan 05 18:19 | 29°  09'06 | |
| direct | 5188 Jan 22 19:53 | 14°  34'18 | | | 5189 Jan 08 21:47 | 0°  00 | |
| morning max el | 5188 Jan 31 05:14 | 19°  34'02 | 21°02'01 | morning max el | 5189 Jan 13 05:24 | 3°  21'39 | 19°51'35 |
| | 5188 Feb 08 20:20 | 0°  00 | | desc. node | 5189 Jan 31 05:56 | 27°  51'08 | |
| desc. node | 5188 Feb 14 08:54 | 7°  43'36 | | | 5189 Feb 01 16:01 | 0°  00 | |
| | 5188 Feb 29 04:48 | 0°  00 | | morning set | 5189 Feb 08 11:13 | 10°  24'06 | |
| morning set | 5188 Mar 01 14:59 | 2°  13'28 | | max. Earth dist. | 5189 Feb 19 20:20 | 28°  12'47 | 1.44210 AU |
| max. Earth dist. | 5188 Mar 09 09:33 | 14°  38'50 | 1.42655 AU | | 5189 Feb 20 23:13 | 0°  00 | |
| superior conj | 5188 Mar 16 12:29 | 26°  13'09 | -2°08'01 | superior conj | 5189 Feb 24 21:32 | 6°  19'44 | -2°05'01 |
| minimum elong | 5188 Mar 16 14:15 | 26°  13'12 | 2°07'59 | minimum elong | 5189 Feb 24 17:21 | 6°  02'46 | 2°04'51 |
| | 5188 Mar 18 13:24 | 0°  00 | | evening rise | 5189 Mar 10 05:57 | 28°  13'37 | |
| evening rise | 5188 Mar 28 03:19 | 16°  05'43 | | | 5189 Mar 11 01:44 | 0°  00 | |
| | 5188 Apr 04 13:03 | 0°  00 | | asc. node | 5189 Mar 23 21:15 | 20°  05'53 | |
| asc. node | 5188 Apr 06 00:12 | 2°  27'04 | | evening max el | 5189 Mar 28 09:44 | 26°  29'27 | 18°12'35 |
| evening max el | 5188 Apr 13 20:51 | 13°  12'39 | 18°06'53 | retrograde | 5189 Apr 03 19:33 | 29°  05'19 | |
| retrograde | 5188 Apr 20 11:44 | 16°  35'45 | | evening set | 5189 Apr 06 17:23 | 29°  09'01 | |
| evening set | 5188 Apr 23 03:18 | 16°  03'18 | | inferior conj | 5189 Apr 12 19:16 | 23°  05'22 | 3°27'14 |
| inferior conj | 5188 Apr 29 17:28 | 11°  05'11 | 3°02'05 | minimum elong | 5189 Apr 12 20:30 | 23°  07'59 | 3°27'09 |
| minimum elong | 5188 Apr 29 20:16 | 10°  58'24 | 3°01'34 | min. Earth dist. | 5189 Apr 15 10:40 | 20°  05'42 | 0.63175 AU |
| min. Earth dist. | 5188 May 02 21:56 | 8°  01'27 | 0.61074 AU | morning rise | 5189 Apr 18 22:28 | 17°  04'10 | |
| morning rise | 5188 May 06 11:10 | 5°  09'51 | | direct | 5189 Apr 25 18:58 | 15°  05'30 | |
| desc. node | 5188 May 12 08:08 | 2°  56'42 | | desc. node | 5189 Apr 29 05:10 | 15°  04'43 | |
| direct | 5188 May 13 04:15 | 2°  54'38 | | morning max el | 5189 May 09 17:23 | 23°  05'09 | 27°47'10 |
| morning max el | 5188 May 27 10:02 | 10°  51'50 | 27°49'26 | | 5189 May 15 20:41 | 0°  00 | |
| | 5188 Jun 11 08:39 | 0°  00 | | | 5189 Jun 04 14:56 | 0°  00 | |
| | 5188 Jun 28 05:05 | 0°  00 | | morning set | 5189 Jun 13 03:37 | 16°  08'21 | |
| morning set | 5188 Jun 29 05:18 | 2°  03'49 | | max. Earth dist. | 5189 Jun 18 09:48 | 27°  00'56 | 1.32691 AU |
| asc. node | 5188 Jul 02 23:28 | 9°  58'43 | | asc. node | 5189 Jun 19 20:31 | 0°  00 | |
| max. Earth dist. | 5188 Jul 05 04:36 | 14°  46'35 | 1.32091 AU | | 5189 Jun 19 19:19 | 0°  00 | |
| superior conj | 5188 Jul 06 13:05 | 17°  44'29 | 0°36'29 | superior conj | 5189 Jun 20 21:04 | 2°  18'41 | 0°10'38 |
| minimum elong | 5188 Jul 06 11:31 | 17°  35'54 | 0°36'08 | minimum elong | 5189 Jun 20 20:33 | 2°  15'55 | 0°10'30 |
| | 5188 Jul 12 03:27 | 0°  00 | | behind sun begin | 5189 Jun 20 16:34 | 1°  54'20 | |
| evening rise | 5188 Jul 13 08:45 | 2°  03'15 | | behind sun end | 5189 Jun 21 00:33 | 2°  37'32 | |
| | 5188 Jul 28 01:29 | 0°  00 | | evening rise | 5189 Jun 27 20:37 | 17°  24'12 | |
| desc. node | 5188 Aug 08 07:22 | 14°  16'59 | | | 5189 Jul 04 01:30 | 0°  00 | |
| evening max el | 5188 Aug 08 16:29 | 14°  19'02 | 25°02'19 | evening max el | 5189 Jul 21 05:02 | 25°  05'10 | 23°26'55 |
| retrograde | 5188 Aug 22 14:38 | 21°  14'11 | | desc. node | 5189 Jul 26 04:24 | 29°  05'59 | |
| evening set | 5188 Aug 28 03:34 | 20°  13'27 | | | 5189 Jul 27 17:22 | 0°  00 | |
| min. Earth dist. | 5188 Sep 02 04:01 | 17°  14'51 | 0.57362 AU | retrograde | 5189 Aug 03 18:20 | 1°  19'52'45 | |
| inferior conj | 5188 Sep 05 02:32 | 15°  17'04 | -5°17'07 | evening set | 5189 Aug 07 19:46 | 1°  16'40 | |
| minimum elong | 5188 Sep 05 03:47 | 15°  18'18 | 5°17'04 | | 5189 Aug 11 02:59 | 30°  00'00 | |
| morning rise | 5188 Sep 13 06:19 | 11°  19'52 | | min. Earth dist. | 5189 Aug 14 14:36 | 28°  07'40 | 0.55768 AU |
| direct | 5188 Sep 15 19:41 | 11°  20'54 | | inferior conj | 5189 Aug 16 14:13 | 26°  07'16 | -5°02'46 |
| morning max el | 5188 Sep 24 19:53 | 15°  36'06 | 19°09'00 | minimum elong | 5189 Aug 16 09:00 | 27°  05'01 | 5°02'08 |
| asc. node | 5188 Sep 28 22:45 | 20°  19'37 | | morning rise | 5189 Aug 25 00:39 | 23°  04'02 | |
| | 5188 Oct 05 01:47 | 0°  00 | | direct | 5189 Aug 27 21:44 | 22°  04'34'46 | |
| morning set | 5188 Oct 11 16:48 | 12°  23'00 | | morning max el | 5189 Sep 07 09:43 | 27°  03'37 | 20°18'04 |
| | | | | | 5189 Sep 09 17:22 | 0°  00 | |
| superior conj | 5188 Oct 19 22:22 | 28°  53'37 | 1°33'38 | asc. node | 5189 Sep 15 19:47 | 8°  19'22'08 | |
| minimum elong | 5188 Oct 20 00:52 | 29°  05'44 | 1°33'26 | morning set | 5189 Sep 25 22:25 | 27°  01'52'27 | |
| | 5188 Oct 20 12:08 | 0°  00 | | | 5189 Sep 27 06:31 | 0°  00 | |
| max. Earth dist. | 5188 Oct 26 14:31 | 11°  23'23 | 1.38538 AU | superior conj | 5189 Oct 03 13:10 | 12°  52'15 | 1°42'08 |
| evening rise | 5188 Oct 30 09:29 | 18°  06'30 | | minimum elong | 5189 Oct 03 14:06 | 12°  56'59 | 1°42'06 |
| desc. node | 5188 Nov 04 06:38 | 26°  12'51 | | max. Earth dist. | 5189 Oct 08 21:05 | 23°  52'35 | 1.36517 AU |
| | 5188 Nov 06 12:14 | 0°  00 | | | 5189 Oct 12 09:46 | 0°  00 | |
| | 5188 Nov 27 09:54 | 0°  00 | | evening rise | 5189 Oct 12 17:52 | 0°  00'37'06 | |
| evening max el | 5188 Dec 04 21:45 | 8°  25'45 | 24°45'50 | desc. node | 5189 Oct 22 03:40 | 16°  05'14'49 | |
| retrograde | 5188 Dec 16 12:38 | 15°  31'12 | | | 5189 Oct 30 16:11 | 0°  00 | |
| evening set | 5188 Dec 22 02:20 | 12°  32'13 | | evening max el | 5189 Nov 17 10:20 | 22°  09'37 | 25°55'56 |
| asc. node | 5188 Dec 25 21:59 | 8°  34'11 | | retrograde | 5189 Nov 29 21:59 | 29°  16'03 | |
| min. Earth dist. | 5188 Dec 26 16:16 | 7°  34'41 | 0.67651 AU | evening set | 5189 Dec 06 01:13 | 26°  14'42'22 | |
| inferior conj | 5188 Dec 27 15:04 | 6°  26'12 | 0°34'37 | min. Earth dist. | 5189 Dec 10 07:56 | 22°  08'51 | 0.66893 AU |
| minimum elong | 5188 Dec 27 14:14 | 6°  28'58 | 0°34'18 | | | | |

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| inferior conj | 5189 Dec 11 17:56 | 20° ♊ 22'19 | -0°21'24 | inferior conj | 5190 Nov 25 15:18 | 4° ♊ 12'55 | -1°21'58 |
| minimum elong | 5189 Dec 11 18:30 | 20° ♊ 20'33 | 0°21'08 | minimum elong | 5190 Nov 25 17:37 | 4° ♊ 06'10 | 1°20'59 |
| asc. node | 5189 Dec 12 19:02 | 19° ♊ 04'29 | | asc. node | 5190 Nov 29 16:03 | 29° ♌ 59'53 | |
| morning rise | 5189 Dec 17 12:15 | 14° ♊ 31'26 | | | 5190 Nov 29 16:00 | 30° ♌ | |
| direct | 5189 Dec 20 17:02 | 13° ♊ 32'51 | | morning rise | 5190 Dec 01 18:37 | 28° ♌ 33'27 | |
| morning max el | 5189 Dec 27 13:14 | 17° ♊ 19'11 | 18°56'04 | direct | 5190 Dec 04 14:08 | 27° ♌ 49'52 | |
| | 5190 Jan 06 06:40 | 0° ♋ | | | 5190 Dec 09 15:06 | 0° ♊ | |
| desc. node | 5190 Jan 18 02:57 | 18° ♋ 15'07 | | morning max el | 5190 Dec 11 02:47 | 1° ♊ 21'02 | 18°16'49 |
| morning set | 5190 Jan 18 18:36 | 19° ♋ 16'12 | | morning set | 5190 Dec 30 05:39 | 29° ♊ 33'34 | |
| | 5190 Jan 25 15:23 | 0° ♌ | | | 5190 Dec 30 12:11 | 0° ♋ | |
| max. Earth dist. | 5190 Feb 02 12:54 | 12° ♌ 22'04 | 1.45127 AU | desc. node | 5191 Jan 04 23:59 | 8° ♋ 50'41 | |
| superior conj | 5190 Feb 04 08:15 | 15° ♌ 12'32 | -1°42'22 | superior conj | 5191 Jan 14 11:28 | 23° ♋ 52'35 | -1°02'37 |
| minimum elong | 5190 Feb 03 23:07 | 14° ♌ 36'36 | 1°41'33 | minimum elong | 5191 Jan 14 03:52 | 23° ♋ 22'45 | 1°01'40 |
| | 5190 Feb 13 15:35 | 0° ♌ | | max. Earth dist. | 5191 Jan 16 07:56 | 26° ♋ 47'09 | 1.45311 AU |
| evening rise | 5190 Feb 19 10:10 | 9° ♌ 19'49 | | | 5191 Jan 18 09:10 | 0° ♌ | |
| | 5190 Mar 04 07:48 | 0° ♍ | | evening rise | 5191 Jan 30 15:40 | 19° ♌ 10'54 | |
| asc. node | 5190 Mar 10 18:17 | 8° ♍ 42'45 | | | 5191 Feb 06 13:52 | 0° ♌ | |
| evening max el | 5190 Mar 11 21:32 | 9° ♍ 55'46 | 18°36'38 | greatest brilliancy | 5191 Feb 10 23:46 | 6° ♌ 48'55 | -0.7m |
| retrograde | 5190 Mar 18 11:24 | 13° ♍ 33'15 | | evening max el | 5191 Feb 23 06:03 | 23° ♌ 27'32 | 19°17'58 |
| evening set | 5190 Mar 21 15:33 | 12° ♍ 36'19 | | asc. node | 5191 Feb 25 15:19 | 25° ♌ 35'56 | |
| inferior conj | 5190 Mar 27 08:55 | 7° ♍ 00'52 | 3°32'36 | retrograde | 5191 Mar 02 07:47 | 27° ♌ 29'32 | |
| minimum elong | 5190 Mar 27 08:35 | 7° ♍ 01'51 | 3°32'36 | evening set | 5191 Mar 05 19:03 | 26° ♌ 19'12 | |
| min. Earth dist. | 5190 Mar 29 08:53 | 4° ♍ 36'29 | 0.64981 AU | inferior conj | 5191 Mar 11 06:58 | 20° ♌ 27'59 | 3°22'53 |
| morning rise | 5190 Apr 02 01:01 | 0° ♍ 47'53 | | minimum elong | 5191 Mar 11 05:28 | 20° ♌ 32'51 | 3°22'42 |
| | 5190 Apr 03 01:16 | 30° ♌ | | min. Earth dist. | 5191 Mar 12 15:44 | 18° ♌ 42'00 | 0.66396 AU |
| direct | 5190 Apr 08 17:22 | 27° ♌ 58'37 | | morning rise | 5191 Mar 16 15:34 | 14° ♌ 13'04 | |
| | 5190 Apr 15 00:27 | 0° ♍ | | direct | 5191 Mar 22 22:24 | 11° ♌ 26'04 | |
| desc. node | 5190 Apr 16 02:12 | 0° ♍ 41'02 | | desc. node | 5191 Apr 02 23:13 | 17° ♌ 24'26 | |
| morning max el | 5190 Apr 22 03:21 | 5° ♍ 50'59 | 27°10'13 | morning max el | 5191 Apr 04 13:15 | 18° ♌ 57'09 | 26°05'59 |
| | 5190 May 10 14:26 | 0° ♎ | | | 5191 Apr 13 22:01 | 0° ♍ | |
| morning set | 5190 May 27 16:39 | 29° ♎ 41'53 | | | 5191 May 03 15:28 | 0° ♎ | |
| | 5190 May 27 20:23 | 0° ♎ | | morning set | 5191 May 10 16:41 | 12° ♎ 34'12 | |
| max. Earth dist. | 5190 Jun 01 06:02 | 8° ♎ 45'55 | 1.33748 AU | max. Earth dist. | 5191 May 14 14:45 | 20° ♎ 00'12 | 1.35276 AU |
| superior conj | 5190 Jun 05 00:06 | 16° ♎ 33'09 | -0°17'48 | superior conj | 5191 May 19 19:50 | 0° ♎ 21'46 | -0°47'37 |
| minimum elong | 5190 Jun 05 01:02 | 16° ♎ 38'05 | 0°17'38 | minimum elong | 5191 May 19 22:27 | 0° ♎ 35'08 | 0°47'07 |
| asc. node | 5190 Jun 06 17:32 | 20° ♎ 12'17 | | | 5191 May 19 15:33 | 0° ♎ | |
| | 5190 Jun 11 08:03 | 0° ♏ | | asc. node | 5191 May 24 14:34 | 10° ♎ 12'40 | |
| evening rise | 5190 Jun 12 07:23 | 2° ♏ 03'00 | | evening rise | 5191 May 27 15:08 | 16° ♎ 28'03 | |
| | 5190 Jun 28 02:06 | 0° ♏ | | | 5191 Jun 03 12:38 | 0° ♏ | |
| evening max el | 5190 Jul 02 20:57 | 5° ♏ 29'36 | 21°50'56 | evening max el | 5191 Jun 14 23:31 | 16° ♏ 23'34 | 20°27'06 |
| desc. node | 5190 Jul 13 01:26 | 11° ♏ 30'24 | | retrograde | 5191 Jun 25 23:55 | 21° ♏ 47'18 | |
| retrograde | 5190 Jul 15 11:07 | 11° ♏ 43'58 | | evening set | 5191 Jun 27 23:34 | 21° ♏ 37'32 | |
| evening set | 5190 Jul 18 03:25 | 11° ♏ 27'50 | | desc. node | 5191 Jun 29 22:26 | 21° ♏ 10'00 | |
| inferior conj | 5190 Jul 27 10:47 | 7° ♏ 25'14 | -3°56'52 | inferior conj | 5191 Jul 07 04:33 | 17° ♏ 40'07 | -2°08'58 |
| minimum elong | 5190 Jul 27 01:57 | 7° ♏ 37'38 | 3°54'32 | minimum elong | 5191 Jul 06 22:32 | 17° ♏ 48'50 | 2°06'49 |
| min. Earth dist. | 5190 Jul 27 00:35 | 7° ♏ 39'32 | 0.54882 AU | min. Earth dist. | 5191 Jul 08 12:14 | 16° ♏ 54'06 | 0.54935 AU |
| morning rise | 5190 Aug 05 01:57 | 3° ♏ 34'22 | | morning rise | 5191 Jul 15 20:33 | 13° ♏ 30'58 | |
| direct | 5190 Aug 08 09:01 | 3° ♏ 10'32 | | direct | 5191 Jul 19 18:49 | 12° ♏ 57'38 | |
| morning max el | 5190 Aug 20 11:35 | 8° ♏ 51'05 | 21°47'09 | morning max el | 5191 Aug 02 04:15 | 19° ♏ 27'21 | 23°29'16 |
| asc. node | 5190 Sep 02 16:49 | 27° ♏ 05'03 | | | 5191 Aug 10 23:38 | 0° ♏ | |
| | 5190 Sep 04 06:56 | 0° ♐ | | asc. node | 5191 Aug 20 13:50 | 16° ♏ 18'16 | |
| morning set | 5190 Sep 10 07:50 | 12° ♐ 03'01 | | morning set | 5191 Aug 25 19:12 | 26° ♏ 55'17 | |
| | | | | | 5191 Aug 27 05:55 | 0° ♐ | |
| superior conj | 5190 Sep 17 13:08 | 27° ♐ 17'25 | 1°42'59 | superior conj | 5191 Sep 01 19:14 | 11° ♐ 59'39 | 1°37'22 |
| minimum elong | 5190 Sep 17 12:39 | 27° ♐ 14'51 | 1°42'59 | minimum elong | 5191 Sep 01 17:41 | 11° ♐ 51'20 | 1°37'16 |
| | 5190 Sep 18 20:19 | 0° ♑ | | max. Earth dist. | 5191 Sep 04 07:22 | 17° ♐ 20'52 | 1.33430 AU |
| max. Earth dist. | 5190 Sep 21 09:51 | 5° ♑ 15'25 | 1.34777 AU | evening rise | 5191 Sep 09 09:04 | 27° ♐ 47'46 | |
| evening rise | 5190 Sep 25 19:05 | 13° ♑ 54'28 | | | 5191 Sep 10 11:46 | 0° ♑ | |
| | 5190 Oct 04 16:57 | 0° ♑ | | desc. node | 5191 Sep 25 21:43 | 26° ♑ 57'08 | |
| desc. node | 5190 Oct 09 00:42 | 7° ♑ 05'58 | | | 5191 Sep 27 22:18 | 0° ♑ | |
| | 5190 Oct 25 12:32 | 0° ♒ | | evening max el | 5191 Oct 13 11:09 | 19° ♑ 11'47 | 27°22'04 |
| evening max el | 5190 Oct 30 22:59 | 5° ♒ 48'09 | 26°50'27 | retrograde | 5191 Oct 27 00:09 | 26° ♑ 30'12 | |
| retrograde | 5190 Nov 13 02:02 | 13° ♒ 05'08 | | evening set | 5191 Nov 03 00:43 | 23° ♑ 51'25 | |
| evening set | 5190 Nov 19 17:31 | 10° ♒ 25'58 | | min. Earth dist. | 5191 Nov 06 19:13 | 20° ♑ 25'11 | 0.64319 AU |
| min. Earth dist. | 5190 Nov 23 17:39 | 6° ♒ 25'46 | 0.65777 AU | | | | |




































































































































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|---------------------|-------------------|-------------------------------|------------|------------------|-------------------|-------------------------------|------------|
| inferior conj | 5191 Nov 09 04:47 | 17° \mathbb{M} 52'34 | -2°25'15 | evening rise | 5192 Aug 23 08:18 | 12° \mathbb{M} 07'00 | |
| minimum elong | 5191 Nov 09 09:00 | 17° \mathbb{M} 41'20 | 2°23'37 | | 5192 Sep 01 16:04 | 0° \mathbb{A} | |
| morning rise | 5191 Nov 15 18:39 | 12° \mathbb{M} 27'27 | | desc. node | 5192 Sep 11 18:43 | 16° \mathbb{A} 15'52 | |
| asc. node | 5191 Nov 16 13:06 | 12° \mathbb{M} 10'46 | | | 5192 Sep 22 17:27 | 0° \mathbb{M} | |
| direct | 5191 Nov 18 07:20 | 11° \mathbb{M} 54'53 | | evening max el | 5192 Sep 24 20:57 | 2° \mathbb{M} 08'06 | 27°24'30 |
| morning max el | 5191 Nov 24 19:16 | 15° \mathbb{M} 20'06 | 17°54'30 | retrograde | 5192 Oct 08 15:25 | 9° \mathbb{M} 22'40 | |
| | 5191 Dec 05 04:55 | 0° \mathbb{A} | | evening set | 5192 Oct 15 19:36 | 6° \mathbb{M} 54'34 | |
| morning set | 5191 Dec 11 21:22 | 11° \mathbb{A} 15'05 | | min. Earth dist. | 5192 Oct 19 10:50 | 3° \mathbb{M} 57'35 | 0.62550 AU |
| desc. node | 5191 Dec 22 20:58 | 29° \mathbb{A} 33'17 | | inferior conj | 5192 Oct 22 07:35 | 1° \mathbb{M} 14'49 | -3°28'04 |
| | 5191 Dec 23 03:32 | 0° \mathbb{B} | | minimum elong | 5192 Oct 22 13:25 | 1° \mathbb{M} 00'57 | 3°26'12 |
| | | | | | 5192 Oct 23 15:35 | 30° \mathbb{R} \mathbb{A} | |
| superior conj | 5191 Dec 25 03:16 | 3° \mathbb{B} 13'29 | -0°15'46 | morning rise | 5192 Oct 29 08:57 | 26° \mathbb{A} 07'25 | |
| minimum elong | 5191 Dec 25 01:26 | 3° \mathbb{B} 06'02 | 0°15'29 | direct | 5192 Oct 31 17:33 | 25° \mathbb{A} 42'15 | |
| behind sun begin | 5191 Dec 24 22:32 | 2° \mathbb{B} 54'19 | | asc. node | 5192 Nov 02 10:08 | 25° \mathbb{A} 55'34 | |
| behind sun end | 5191 Dec 25 04:20 | 3° \mathbb{B} 17'45 | | morning max el | 5192 Nov 07 11:45 | 29° \mathbb{A} 09'39 | 17°50'00 |
| max. Earth dist. | 5191 Dec 30 02:38 | 11° \mathbb{B} 10'28 | 1.44763 AU | | 5192 Nov 08 07:12 | 0° \mathbb{M} | |
| evening rise | 5192 Jan 10 04:52 | 28° \mathbb{B} 27'27 | | morning set | 5192 Nov 23 11:58 | 24° \mathbb{M} 02'49 | |
| | 5192 Jan 11 04:59 | 0° \mathbb{A} | | | 5192 Nov 26 20:30 | 0° \mathbb{A} | |
| greatest brilliancy | 5192 Jan 24 20:06 | 20° \mathbb{A} 32'31 | -0.6m | | | | |
| | 5192 Jan 31 13:15 | 0° \mathbb{H} | | superior conj | 5192 Dec 04 20:05 | 13° \mathbb{A} 48'23 | 0°27'28 |
| evening max el | 5192 Feb 06 09:44 | 7° \mathbb{H} 01'12 | 20°14'46 | minimum elong | 5192 Dec 04 22:38 | 13° \mathbb{A} 59'07 | 0°27'07 |
| asc. node | 5192 Feb 12 12:22 | 11° \mathbb{H} 20'16 | | desc. node | 5192 Dec 08 18:00 | 20° \mathbb{A} 19'59 | |
| retrograde | 5192 Feb 14 05:54 | 11° \mathbb{H} 36'16 | | max. Earth dist. | 5192 Dec 11 18:56 | 25° \mathbb{A} 17'40 | 1.43551 AU |
| evening set | 5192 Feb 18 01:35 | 10° \mathbb{H} 11'36 | | | 5192 Dec 14 17:19 | 0° \mathbb{B} | |
| inferior conj | 5192 Feb 23 10:34 | 4° \mathbb{H} 06'54 | 3°01'21 | evening rise | 5192 Dec 19 16:12 | 7° \mathbb{B} 46'58 | |
| minimum elong | 5192 Feb 23 08:22 | 4° \mathbb{H} 14'21 | 3°00'53 | | 5193 Jan 03 11:34 | 0° \mathbb{A} | |
| min. Earth dist. | 5192 Feb 24 05:17 | 3° \mathbb{H} 03'26 | 0.67385 AU | evening max el | 5193 Jan 19 08:00 | 20° \mathbb{A} 36'22 | 21°23'56 |
| | 5192 Feb 26 14:27 | 30° \mathbb{R} \mathbb{A} | | retrograde | 5193 Jan 28 03:40 | 25° \mathbb{A} 50'04 | |
| morning rise | 5192 Feb 28 14:56 | 27° \mathbb{A} 52'28 | | asc. node | 5193 Jan 29 09:24 | 25° \mathbb{A} 41'50 | |
| direct | 5192 Mar 05 08:56 | 25° \mathbb{A} 18'15 | | evening set | 5193 Feb 01 09:21 | 24° \mathbb{A} 10'07 | |
| | 5192 Mar 14 14:17 | 0° \mathbb{H} | | inferior conj | 5193 Feb 06 17:25 | 17° \mathbb{A} 54'37 | 2°30'12 |
| morning max el | 5192 Mar 16 21:54 | 2° \mathbb{H} 12'30 | 24°44'11 | minimum elong | 5193 Feb 06 15:00 | 18° \mathbb{A} 02'59 | 2°29'30 |
| desc. node | 5192 Mar 19 20:14 | 5° \mathbb{H} 21'30 | | min. Earth dist. | 5193 Feb 06 23:25 | 17° \mathbb{A} 33'47 | 0.67955 AU |
| | 5192 Apr 07 00:24 | 0° \mathbb{Y} | | morning rise | 5193 Feb 11 20:29 | 11° \mathbb{A} 42'16 | |
| morning set | 5192 Apr 21 22:40 | 24° \mathbb{Y} 30'51 | | direct | 5193 Feb 17 00:03 | 9° \mathbb{A} 27'43 | |
| | 5192 Apr 25 00:03 | 0° \mathbb{B} | | morning max el | 5193 Feb 27 06:57 | 15° \mathbb{A} 34'12 | 23°15'09 |
| max. Earth dist. | 5192 Apr 25 13:25 | 1° \mathbb{B} 01'05 | 1.37217 AU | desc. node | 5193 Mar 06 17:16 | 24° \mathbb{A} 11'29 | |
| | | | | | 5193 Mar 11 02:23 | 0° \mathbb{H} | |
| superior conj | 5192 May 02 05:09 | 13° \mathbb{B} 36'10 | -1°16'59 | | 5193 Mar 31 00:13 | 0° \mathbb{Y} | |
| minimum elong | 5192 May 02 09:22 | 13° \mathbb{B} 56'45 | 1°16'19 | morning set | 5193 Apr 03 04:39 | 5° \mathbb{Y} 16'16 | |
| asc. node | 5192 May 10 11:37 | 0° \mathbb{I} 03'10 | | max. Earth dist. | 5193 Apr 07 08:52 | 12° \mathbb{Y} 24'00 | 1.39397 AU |
| | 5192 May 10 10:59 | 0° \mathbb{I} | | | | | |
| evening rise | 5192 May 10 17:28 | 0° \mathbb{I} 32'26 | | superior conj | 5193 Apr 15 00:07 | 26° \mathbb{Y} 06'35 | -1°43'11 |
| evening max el | 5192 May 27 14:40 | 27° \mathbb{I} 59'36 | 19°21'49 | minimum elong | 5193 Apr 15 05:09 | 26° \mathbb{Y} 29'56 | 1°42'39 |
| | 5192 May 29 22:52 | 0° \mathbb{B} | | | 5193 Apr 17 02:08 | 0° \mathbb{B} | |
| retrograde | 5192 Jun 05 21:27 | 2° \mathbb{B} 31'42 | | evening rise | 5193 Apr 24 11:33 | 14° \mathbb{B} 08'49 | |
| evening set | 5192 Jun 07 20:25 | 2° \mathbb{B} 20'29 | | asc. node | 5193 Apr 27 08:39 | 19° \mathbb{B} 39'11 | |
| | 5192 Jun 13 13:38 | 30° \mathbb{R} \mathbb{I} | | | 5193 May 03 02:40 | 0° \mathbb{I} | |
| desc. node | 5192 Jun 15 19:27 | 28° \mathbb{I} 36'33 | | evening max el | 5193 May 10 16:19 | 10° \mathbb{I} 15'17 | 18°36'54 |
| inferior conj | 5192 Jun 16 09:49 | 28° \mathbb{I} 13'09 | -0°10'42 | retrograde | 5193 May 18 13:11 | 14° \mathbb{I} 08'06 | |
| minimum elong | 5192 Jun 16 09:21 | 28° \mathbb{I} 13'55 | 0°10'32 | evening set | 5193 May 20 18:00 | 13° \mathbb{I} 50'55 | |
| transit middle | 5192 Jun 16 09:21 | 28° \mathbb{I} 13'55 | 0°10'32 | inferior conj | 5193 May 28 11:23 | 9° \mathbb{I} 24'51 | 1°28'13 |
| transit begin | 5192 Jun 16 06:27 | 28° \mathbb{I} 18'40 | | minimum elong | 5193 May 28 14:19 | 9° \mathbb{I} 19'13 | 1°27'14 |
| transit end | 5192 Jun 16 12:16 | 28° \mathbb{I} 09'09 | | min. Earth dist. | 5193 May 31 19:42 | 6° \mathbb{I} 52'28 | 0.57666 AU |
| min. Earth dist. | 5192 Jun 19 02:09 | 26° \mathbb{I} 28'30 | 0.55933 AU | desc. node | 5193 Jun 02 16:29 | 5° \mathbb{I} 35'33 | |
| morning rise | 5192 Jun 24 19:26 | 23° \mathbb{I} 31'08 | | morning rise | 5193 Jun 05 07:23 | 4° \mathbb{I} 07'31 | |
| direct | 5192 Jun 29 14:58 | 22° \mathbb{I} 38'22 | | direct | 5193 Jun 11 01:04 | 2° \mathbb{I} 45'07 | |
| morning max el | 5192 Jul 13 17:40 | 29° \mathbb{I} 47'28 | 25°11'31 | morning max el | 5193 Jun 25 10:05 | 10° \mathbb{I} 20'42 | 26°37'39 |
| | 5192 Jul 13 22:53 | 0° \mathbb{B} | | | 5193 Jul 10 11:55 | 0° \mathbb{B} | |
| | 5192 Aug 03 11:22 | 0° \mathbb{Q} | | asc. node | 5193 Jul 24 07:54 | 25° \mathbb{B} 44'53 | |
| asc. node | 5192 Aug 06 10:52 | 5° \mathbb{Q} 53'52 | | morning set | 5193 Jul 24 17:12 | 26° \mathbb{B} 33'48 | |
| morning set | 5192 Aug 09 06:52 | 11° \mathbb{Q} 47'26 | | | 5193 Jul 26 07:53 | 0° \mathbb{Q} | |
| | | | | | | | |
| superior conj | 5192 Aug 16 05:06 | 26° \mathbb{Q} 51'28 | 1°26'12 | superior conj | 5193 Jul 31 16:43 | 11° \mathbb{Q} 45'42 | 1°10'11 |
| minimum elong | 5192 Aug 16 02:57 | 26° \mathbb{Q} 39'39 | 1°25'56 | minimum elong | 5193 Jul 31 14:25 | 11° \mathbb{Q} 33'00 | 1°09'48 |
| max. Earth dist. | 5192 Aug 17 12:50 | 29° \mathbb{Q} 44'55 | 1.32509 AU | max. Earth dist. | 5193 Jul 31 23:04 | 12° \mathbb{Q} 20'48 | 1.32014 AU |
| | 5192 Aug 17 15:36 | 0° \mathbb{M} | | evening rise | 5193 Aug 07 13:53 | 26° \mathbb{Q} 42'43 | |

| | | | | | | | |
|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| | 5193 Aug 09 03:47 | 0°♎ | | | 5194 Aug 01 09:04 | 0°♎ | |
| | 5193 Aug 26 04:31 | 0°♏ | | desc. node | 5194 Aug 16 12:47 | 22°♎14'53 | |
| desc. node | 5193 Aug 29 15:45 | 4°♏48'05 | | evening max el | 5194 Aug 19 22:14 | 25°♎46'42 | 25°50'26 |
| evening max el | 5193 Sep 07 01:22 | 14°♏22'16 | 26°53'42 | | 5194 Aug 25 04:46 | 0°♏ | |
| retrograde | 5193 Sep 20 22:50 | 21°♏32'24 | | retrograde | 5194 Sep 02 21:15 | 2°♏53'17 | |
| evening set | 5193 Sep 27 21:51 | 19°♏26'53 | | evening set | 5194 Sep 09 02:37 | 1°♏21'17 | |
| min. Earth dist. | 5193 Oct 01 15:30 | 16°♏48'48 | 0.60547 AU | | 5194 Sep 11 13:20 | 30°♎♎ | |
| inferior conj | 5193 Oct 04 20:14 | 14°♏09'28 | -4°24'54 | min. Earth dist. | 5194 Sep 13 10:31 | 28°♎45'17 | 0.58477 AU |
| minimum elong | 5193 Oct 05 02:28 | 13°♏56'26 | 4°23'27 | inferior conj | 5194 Sep 16 15:13 | 26°♎26'55 | -5°06'06 |
| morning rise | 5193 Oct 12 09:06 | 9°♏23'22 | | minimum elong | 5194 Sep 16 19:18 | 26°♎19'32 | 5°05'38 |
| direct | 5193 Oct 14 16:49 | 9°♏02'30 | | morning rise | 5194 Sep 24 14:16 | 22°♎04'04 | |
| asc. node | 5193 Oct 20 07:10 | 11°♏10'00 | | direct | 5194 Sep 27 00:29 | 21°♎45'06 | |
| morning max el | 5193 Oct 22 00:57 | 12°♏40'26 | 18°04'28 | morning max el | 5194 Oct 05 07:30 | 25°♎43'23 | 18°39'18 |
| | 5193 Nov 02 16:02 | 0°♎ | | asc. node | 5194 Oct 07 04:12 | 27°♎41'16 | |
| morning set | 5193 Nov 06 18:59 | 7°♎36'38 | | | 5194 Oct 09 00:47 | 0°♏ | |
| | | | | morning set | 5194 Oct 21 13:28 | 21°♏42'14 | |
| superior conj | 5193 Nov 16 14:43 | 25°♎38'10 | 1°01'23 | | 5194 Oct 25 19:51 | 0°♎ | |
| minimum elong | 5193 Nov 16 18:40 | 25°♎55'41 | 1°00'53 | | | | |
| | 5193 Nov 19 02:07 | 0°♎ | | superior conj | 5194 Oct 30 06:36 | 8°♎29'29 | 1°24'43 |
| max. Earth dist. | 5193 Nov 24 06:27 | 8°♎51'18 | 1.41807 AU | minimum elong | 5194 Oct 30 09:54 | 8°♎45'00 | 1°24'23 |
| desc. node | 5193 Nov 25 15:01 | 11°♎06'48 | | max. Earth dist. | 5194 Nov 06 12:49 | 21°♎40'32 | 1.39751 AU |
| evening rise | 5193 Nov 29 16:39 | 17°♎44'39 | | evening rise | 5194 Nov 10 14:45 | 28°♎41'16 | |
| | 5193 Dec 07 13:05 | 0°♎ | | | 5194 Nov 11 09:32 | 0°♎ | |
| | 5193 Dec 29 05:01 | 0°♎ | | desc. node | 5194 Nov 12 12:03 | 1°♎50'13 | |
| evening max el | 5194 Jan 02 01:15 | 4°♎13'15 | 22°41'16 | | 5194 Dec 01 01:09 | 0°♎ | |
| retrograde | 5194 Jan 11 23:32 | 10°♎07'06 | | evening max el | 5194 Dec 15 15:07 | 17°♎53'05 | 24°01'15 |
| asc. node | 5194 Jan 16 06:26 | 8°♎31'47 | | retrograde | 5194 Dec 26 16:09 | 24°♎22'59 | |
| evening set | 5194 Jan 16 16:43 | 8°♎11'23 | | evening set | 5194 Dec 31 22:05 | 22°♎11'53 | |
| inferior conj | 5194 Jan 22 01:30 | 1°♎48'24 | 1°50'51 | asc. node | 5195 Jan 03 03:28 | 19°♎56'22 | |
| minimum elong | 5194 Jan 21 23:20 | 1°♎55'53 | 1°50'07 | min. Earth dist. | 5195 Jan 05 16:23 | 16°♎41'42 | 0.67922 AU |
| min. Earth dist. | 5194 Jan 21 19:54 | 2°♎07'49 | 0.68125 AU | inferior conj | 5195 Jan 06 08:59 | 15°♎45'26 | 1°04'20 |
| | 5194 Jan 23 09:09 | 30°♎♎ | | minimum elong | 5195 Jan 06 07:32 | 15°♎50'21 | 1°03'47 |
| morning rise | 5194 Jan 27 05:52 | 25°♎39'34 | | morning rise | 5195 Jan 11 17:03 | 9°♎41'45 | |
| direct | 5194 Jan 31 18:49 | 23°♎47'43 | | direct | 5195 Jan 15 16:14 | 8°♎12'30 | |
| morning max el | 5194 Feb 09 19:48 | 29°♎04'32 | 21°48'12 | morning max el | 5195 Jan 23 15:27 | 12°♎45'53 | 20°30'21 |
| | 5194 Feb 10 17:21 | 0°♎ | | | 5195 Feb 06 00:25 | 0°♎ | |
| desc. node | 5194 Feb 21 14:18 | 13°♎39'31 | | desc. node | 5195 Feb 08 11:20 | 3°♎34'49 | |
| | 5194 Mar 04 19:35 | 0°♎ | | morning set | 5195 Feb 21 07:55 | 23°♎02'46 | |
| morning set | 5194 Mar 14 06:16 | 14°♎41'19 | | | 5195 Feb 25 18:37 | 0°♎ | |
| max. Earth dist. | 5194 Mar 20 08:08 | 24°♎36'01 | 1.41544 AU | max. Earth dist. | 5195 Mar 02 14:18 | 7°♎41'04 | 1.43382 AU |
| | 5194 Mar 23 13:10 | 0°♎ | | | | | |
| superior conj | 5194 Mar 27 23:57 | 7°♎41'22 | -2°02'16 | superior conj | 5195 Mar 08 23:51 | 18°♎09'49 | -2°08'59 |
| minimum elong | 5194 Mar 28 03:49 | 7°♎58'22 | 2°02'05 | minimum elong | 5195 Mar 08 23:21 | 18°♎07'47 | 2°08'59 |
| evening rise | 5194 Apr 07 17:48 | 27°♎08'16 | | | 5195 Mar 15 23:18 | 0°♎ | |
| | 5194 Apr 09 07:06 | 0°♎ | | evening rise | 5195 Mar 21 07:50 | 9°♎20'23 | |
| asc. node | 5194 Apr 14 05:42 | 8°♎55'06 | | asc. node | 5195 Apr 01 02:45 | 27°♎43'28 | |
| evening max el | 5194 Apr 24 01:00 | 23°♎02'03 | 18°12'10 | | 5195 Apr 02 14:53 | 0°♎ | |
| retrograde | 5194 Apr 30 23:42 | 26°♎31'51 | | evening max el | 5195 Apr 07 13:15 | 6°♎10'09 | 18°06'58 |
| evening set | 5194 May 03 11:21 | 26°♎05'40 | | retrograde | 5195 Apr 14 00:57 | 9°♎32'09 | |
| inferior conj | 5194 May 10 10:22 | 21°♎19'02 | 2°36'19 | evening set | 5195 Apr 16 19:05 | 8°♎54'57 | |
| minimum elong | 5194 May 10 13:45 | 21°♎11'27 | 2°35'30 | inferior conj | 5195 Apr 23 03:34 | 3°♎48'29 | 3°15'30 |
| min. Earth dist. | 5194 May 13 19:22 | 18°♎19'29 | 0.59795 AU | minimum elong | 5195 Apr 23 05:44 | 3°♎42'55 | 3°15'12 |
| morning rise | 5194 May 17 13:31 | 15°♎34'10 | | min. Earth dist. | 5195 Apr 26 03:05 | 0°♎46'33 | 0.61991 AU |
| desc. node | 5194 May 20 13:32 | 14°♎10'44 | | | 5195 Apr 26 22:35 | 30°♎♎ | |
| direct | 5194 May 24 00:12 | 13°♎37'22 | | morning rise | 5195 Apr 29 14:41 | 27°♎46'49 | |
| morning max el | 5194 Jun 07 08:52 | 21°♎29'39 | 27°33'49 | direct | 5195 May 06 10:11 | 25°♎20'01 | |
| | 5194 Jun 14 18:51 | 0°♎ | | desc. node | 5195 May 07 10:34 | 25°♎23'05 | |
| | 5194 Jul 03 10:39 | 0°♎ | | | 5195 May 16 21:26 | 0°♎ | |
| morning set | 5194 Jul 09 00:29 | 11°♎09'13 | | morning max el | 5195 May 20 13:41 | 3°♎20'17 | 27°52'59 |
| asc. node | 5194 Jul 11 04:57 | 15°♎46'08 | | | 5195 Jun 09 07:31 | 0°♎ | |
| max. Earth dist. | 5194 Jul 15 10:23 | 24°♎57'48 | 1.31940 AU | morning set | 5195 Jun 23 02:44 | 25°♎26'44 | |
| | | | | | 5195 Jun 25 07:38 | 0°♎ | |
| superior conj | 5194 Jul 16 04:20 | 26°♎36'46 | 0°49'53 | asc. node | 5195 Jun 28 02:00 | 5°♎52'24 | |
| minimum elong | 5194 Jul 16 02:22 | 26°♎25'55 | 0°49'29 | max. Earth dist. | 5195 Jun 28 18:43 | 7°♎22'32 | 1.32288 AU |
| | 5194 Jul 17 17:09 | 0°♎ | | | | | |
| evening rise | 5194 Jul 22 23:28 | 11°♎27'49 | | superior conj | 5195 Jun 30 14:09 | 11°♎18'28 | 0°25'53 |
| | | | | minimum elong | 5195 Jun 30 12:58 | 11°♎12'05 | 0°25'37 |

| | | | | | | | |
|---------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| evening rise | 5195 Jul 07 11:00 | 26°☿15'13 | | superior conj | 5196 Jun 13 20:17 | 25°♊44'55 | -0°01'12 |
| | 5195 Jul 09 05:38 | 0°♊ | | minimum elong | 5196 Jun 13 20:21 | 25°♊45'15 | 0°01'12 |
| | 5195 Jul 26 18:33 | 0°♊ | | behind sun begin | 5196 Jun 13 14:59 | 25°♊16'32 | |
| evening max el | 5195 Aug 01 12:23 | 6°♊27'32 | 24°22'51 | behind sun end | 5196 Jun 14 01:43 | 26°♊14'00 | |
| desc. node | 5195 Aug 03 09:49 | 8°♊10'20 | | asc. node | 5196 Jun 13 23:02 | 25°♊59'37 | |
| retrograde | 5195 Aug 15 08:36 | 13°♊25'59 | | | 5196 Jun 15 19:47 | 0°♊ | |
| evening set | 5195 Aug 20 06:56 | 12°♊31'48 | | evening rise | 5196 Jun 20 22:37 | 10°♊59'00 | |
| min. Earth dist. | 5195 Aug 25 23:22 | 9°♊38'56 | 0.56609 AU | | 5196 Jun 30 16:54 | 0°♊ | |
| inferior conj | 5195 Aug 28 14:10 | 7°♊59'50 | -5°16'55 | evening max el | 5196 Jul 13 01:25 | 16°♊48'45 | 22°45'17 |
| minimum elong | 5195 Aug 28 12:45 | 8°♊02'05 | 5°16'53 | desc. node | 5196 Jul 20 06:50 | 22°♊01'28 | |
| morning rise | 5195 Sep 05 21:02 | 3°♊57'52 | | retrograde | 5196 Jul 26 07:02 | 23°♊24'16 | |
| direct | 5195 Sep 08 13:07 | 3°♊38'44 | | evening set | 5196 Jul 29 16:50 | 22°♊58'51 | |
| morning max el | 5195 Sep 18 04:09 | 8°♊08'54 | 19°35'48 | min. Earth dist. | 5196 Aug 06 09:34 | 19°♊34'46 | 0.55284 AU |
| asc. node | 5195 Sep 24 01:14 | 15°♊14'23 | | inferior conj | 5196 Aug 07 18:20 | 18°♊47'54 | -4°41'13 |
| | 5195 Oct 02 13:10 | 0°♊ | | minimum elong | 5196 Aug 07 10:52 | 18°♊58'37 | 4°39'50 |
| morning set | 5195 Oct 05 15:48 | 6°♊09'58 | | morning rise | 5196 Aug 16 06:58 | 14°♊57'34 | |
| | | | | direct | 5196 Aug 19 07:58 | 14°♊36'06 | |
| superior conj | 5195 Oct 13 14:21 | 22°♊07'11 | 1°38'15 | morning max el | 5196 Aug 30 12:40 | 19°♊49'00 | 20°53'49 |
| minimum elong | 5195 Oct 13 16:12 | 22°♊16'18 | 1°38'09 | | 5196 Sep 07 17:04 | 0°♊ | |
| | 5195 Oct 17 16:05 | 0°♊ | | asc. node | 5196 Sep 09 22:17 | 3°♊35'13 | |
| max. Earth dist. | 5195 Oct 19 17:24 | 3°♊51'09 | 1.37646 AU | morning set | 5196 Sep 18 23:15 | 20°♊51'55 | |
| evening rise | 5195 Oct 23 11:30 | 10°♊39'52 | | | 5196 Sep 23 08:31 | 0°♊ | |
| desc. node | 5195 Oct 30 09:04 | 22°♊26'25 | | | | | |
| | 5195 Nov 04 02:40 | 0°♊ | | superior conj | 5196 Sep 26 09:24 | 6°♊17'41 | 1°43'20 |
| | 5195 Nov 26 13:37 | 0°♊ | | minimum elong | 5196 Sep 26 09:42 | 6°♊19'13 | 1°43'21 |
| evening max el | 5195 Nov 28 03:47 | 1°♊36'43 | 25°17'11 | max. Earth dist. | 5196 Oct 01 02:02 | 15°♊44'13 | 1.35730 AU |
| retrograde | 5195 Dec 10 04:29 | 8°♊33'19 | | evening rise | 5196 Oct 05 03:33 | 23°♊31'32 | |
| evening set | 5195 Dec 15 23:50 | 6°♊08'28 | | | 5196 Oct 08 16:37 | 0°♊ | |
| min. Earth dist. | 5195 Dec 20 10:36 | 1°♊12'29 | 0.67363 AU | desc. node | 5196 Oct 16 06:05 | 12°♊50'10 | |
| asc. node | 5195 Dec 21 00:29 | 0°♊27'32 | | | 5196 Oct 27 18:35 | 0°♊ | |
| | 5195 Dec 21 08:57 | 30°♊ | | evening max el | 5196 Nov 09 16:34 | 15°♊19'41 | 26°21'39 |
| inferior conj | 5195 Dec 21 14:05 | 29°♊43'17 | 0°11'33 | retrograde | 5196 Nov 22 11:34 | 22°♊31'32 | |
| minimum elong | 5195 Dec 21 13:48 | 29°♊44'14 | 0°11'26 | evening set | 5196 Nov 28 20:08 | 19°♊56'17 | |
| transit middle | 5195 Dec 21 13:48 | 29°♊44'14 | 0°11'26 | min. Earth dist. | 5196 Dec 03 00:05 | 15°♊35'33 | 0.66456 AU |
| transit begin | 5195 Dec 21 11:50 | 29°♊50'38 | | inferior conj | 5196 Dec 04 14:52 | 13°♊37'28 | -0°46'35 |
| transit end | 5195 Dec 21 15:46 | 29°♊37'50 | | minimum elong | 5196 Dec 04 16:08 | 13°♊33'35 | 0°46'01 |
| morning rise | 5195 Dec 27 04:02 | 23°♊46'47 | | asc. node | 5196 Dec 06 21:31 | 10°♊57'23 | |
| direct | 5195 Dec 30 15:00 | 22°♊37'54 | | morning rise | 5196 Dec 10 12:45 | 7°♊50'48 | |
| morning max el | 5196 Jan 06 19:00 | 26°♊38'21 | 19°26'02 | direct | 5196 Dec 13 13:23 | 6°♊58'56 | |
| | 5196 Jan 09 19:26 | 0°♊ | | morning max el | 5196 Dec 20 05:26 | 10°♊37'37 | 18°37'20 |
| greatest brilliancy | 5196 Jan 19 22:51 | 14°♊07'48 | -0.7m | | 5197 Jan 03 03:44 | 0°♊ | |
| desc. node | 5196 Jan 26 08:21 | 23°♊50'10 | | morning set | 5197 Jan 10 00:02 | 10°♊48'32 | |
| | 5196 Jan 30 08:28 | 0°♊ | | desc. node | 5197 Jan 12 05:21 | 14°♊19'17 | |
| morning set | 5196 Jan 31 05:54 | 1°♊22'45 | | | 5197 Jan 22 04:26 | 0°♊ | |
| max. Earth dist. | 5196 Feb 13 03:23 | 21°♊30'43 | 1.44685 AU | | | | |
| | | | | superior conj | 5197 Jan 26 03:37 | 6°♊13'11 | -1°27'08 |
| superior conj | 5196 Feb 16 22:33 | 27°♊32'50 | -1°57'53 | minimum elong | 5197 Jan 25 18:16 | 5°♊36'31 | 1°26'09 |
| minimum elong | 5196 Feb 16 15:45 | 27°♊05'41 | 1°57'28 | max. Earth dist. | 5197 Jan 25 21:26 | 5°♊48'58 | 1.45301 AU |
| | 5196 Feb 18 11:19 | 0°♊ | | | 5197 Feb 10 05:03 | 0°♊ | |
| evening rise | 5196 Mar 02 01:20 | 20°♊37'50 | | evening rise | 5197 Feb 10 19:31 | 0°♊57'44 | |
| | 5196 Mar 07 15:56 | 0°♊ | | greatest brilliancy | 5197 Feb 19 02:47 | 14°♊11'57 | -0.8m |
| asc. node | 5196 Mar 17 23:47 | 15°♊56'03 | | | 5197 Mar 01 20:58 | 0°♊ | |
| evening max el | 5196 Mar 21 02:03 | 19°♊32'14 | 18°20'34 | evening max el | 5197 Mar 04 12:47 | 3°♊01'43 | 18°52'11 |
| retrograde | 5196 Mar 27 12:33 | 23°♊00'12 | | asc. node | 5197 Mar 04 20:48 | 3°♊21'46 | |
| evening set | 5196 Mar 30 13:00 | 22°♊10'42 | | retrograde | 5197 Mar 11 06:37 | 6°♊47'56 | |
| inferior conj | 5196 Apr 05 10:53 | 16°♊45'32 | 3°31'35 | evening set | 5197 Mar 14 13:46 | 5°♊45'16 | |
| minimum elong | 5196 Apr 05 11:25 | 16°♊43'59 | 3°31'33 | inferior conj | 5197 Mar 20 04:29 | 0°♊02'57 | 3°30'04 |
| min. Earth dist. | 5196 Apr 07 19:57 | 14°♊02'57 | 0.63997 AU | minimum elong | 5197 Mar 20 03:36 | 0°♊05'42 | 3°30'00 |
| morning rise | 5196 Apr 11 08:57 | 10°♊35'20 | | | 5197 Mar 20 05:26 | 30°♊ | |
| direct | 5196 Apr 18 04:40 | 7°♊50'08 | | min. Earth dist. | 5197 Mar 21 21:52 | 27°♊54'12 | 0.65643 AU |
| desc. node | 5196 Apr 23 07:36 | 9°♊09'07 | | morning rise | 5197 Mar 25 17:01 | 23°♊49'04 | |
| morning max el | 5196 May 01 22:19 | 15°♊48'17 | 27°35'07 | direct | 5197 Apr 01 05:58 | 20°♊59'20 | |
| | 5196 May 13 14:02 | 0°♊ | | desc. node | 5197 Apr 10 04:37 | 24°♊57'10 | |
| | 5196 Jun 01 00:50 | 0°♊ | | morning max el | 5197 Apr 14 08:19 | 28°♊43'36 | 26°45'37 |
| morning set | 5196 Jun 05 21:28 | 9°♊18'53 | | | 5197 Apr 15 13:48 | 0°♊ | |
| max. Earth dist. | 5196 Jun 10 20:14 | 19°♊23'34 | 1.33084 AU | | 5197 May 07 09:27 | 0°♊ | |
| | | | | morning set | 5197 May 20 05:32 | 22°♊36'30 | |

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|---------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| | 5197 May 24 00:40 | 0°♂ | | | 5198 Apr 11 05:46 | 0°♂ | |
| max. Earth dist. | 5197 May 24 11:47 | 0°♂55'21 | 1.34348 AU | | 5198 Apr 30 02:01 | 0°♂ | |
| | | | | morning set | 5198 May 02 22:35 | 5°♂06'56 | |
| superior conj | 5197 May 28 20:36 | 9°♂49'52 | -0°30'22 | max. Earth dist. | 5198 May 06 16:12 | 12°♂02'39 | 1.36063 AU |
| minimum elong | 5197 May 28 22:15 | 9°♂58'22 | 0°30'02 | | | | |
| asc. node | 5197 May 31 20:05 | 16°♂03'56 | | superior conj | 5198 May 12 12:20 | 23°♂24'58 | -1°00'14 |
| evening rise | 5197 Jun 05 08:24 | 25°♂33'18 | | minimum elong | 5198 May 12 15:41 | 23°♂41'43 | 0°59'39 |
| | 5197 Jun 07 12:10 | 0°♂ | | | 5198 May 15 18:33 | 0°♂ | |
| evening max el | 5197 Jun 24 21:24 | 27°♂23'39 | 21°13'13 | asc. node | 5198 May 18 17:06 | 6°♂00'39 | |
| | 5197 Jun 27 22:09 | 0°♂ | | evening rise | 5198 May 20 14:13 | 9°♂50'49 | |
| retrograde | 5197 Jul 06 20:22 | 3°♂17'16 | | | 5198 May 31 11:47 | 0°♂ | |
| desc. node | 5197 Jul 07 03:51 | 3°♂17'02 | | evening max el | 5198 Jun 07 05:18 | 8°♂34'38 | 19°56'47 |
| evening set | 5197 Jul 09 03:33 | 3°♂04'59 | | retrograde | 5198 Jun 17 11:43 | 13°♂36'01 | |
| | 5197 Jul 16 21:37 | 30°♂ | | evening set | 5198 Jun 19 09:41 | 13°♂26'18 | |
| inferior conj | 5197 Jul 18 11:57 | 29°♂06'41 | -3°14'41 | desc. node | 5198 Jun 24 00:53 | 11°♂52'13 | |
| minimum elong | 5197 Jul 18 03:35 | 29°♂18'24 | 3°12'03 | inferior conj | 5198 Jun 28 09:05 | 9°♂25'45 | -1°17'56 |
| min. Earth dist. | 5197 Jul 18 19:52 | 28°♂55'35 | 0.54788 AU | minimum elong | 5198 Jun 28 05:27 | 9°♂31'15 | 1°16'36 |
| morning rise | 5197 Jul 27 04:12 | 25°♂10'48 | | min. Earth dist. | 5198 Jun 30 08:09 | 8°♂14'29 | 0.55253 AU |
| direct | 5197 Jul 30 17:16 | 24°♂43'45 | | morning rise | 5198 Jul 06 23:24 | 5°♂03'59 | |
| | 5197 Aug 11 13:55 | 0°♂ | | direct | 5198 Jul 11 05:58 | 4°♂24'01 | |
| morning max el | 5197 Aug 12 09:57 | 0°♂45'11 | 22°29'38 | morning max el | 5198 Jul 25 00:32 | 11°♂11'30 | 24°13'43 |
| asc. node | 5197 Aug 27 19:19 | 22°♂32'26 | | | 5198 Aug 08 04:43 | 0°♂ | |
| | 5197 Aug 31 15:21 | 0°♂ | | asc. node | 5198 Aug 14 16:21 | 11°♂55'56 | |
| morning set | 5197 Sep 03 09:45 | 5°♂42'33 | | morning set | 5198 Aug 18 21:28 | 20°♂35'27 | |
| | | | | | 5198 Aug 23 06:12 | 0°♂ | |
| superior conj | 5197 Sep 10 12:19 | 20°♂51'10 | 1°41'19 | superior conj | 5198 Aug 25 20:19 | 5°♂38'13 | 1°33'16 |
| minimum elong | 5197 Sep 10 11:20 | 20°♂45'56 | 1°41'18 | minimum elong | 5198 Aug 25 18:27 | 5°♂28'06 | 1°33'05 |
| max. Earth dist. | 5197 Sep 13 18:51 | 27°♂42'48 | 1.34156 AU | max. Earth dist. | 5198 Aug 27 20:06 | 9°♂56'22 | 1.32987 AU |
| | 5197 Sep 14 21:34 | 0°♂ | | evening rise | 5198 Sep 02 05:02 | 21°♂10'38 | |
| evening rise | 5197 Sep 18 10:43 | 7°♂05'38 | | | 5198 Sep 06 16:57 | 0°♂ | |
| | 5197 Oct 01 06:59 | 0°♂ | | desc. node | 5198 Sep 20 00:09 | 22°♂34'15 | |
| desc. node | 5197 Oct 03 03:06 | 2°♂55'37 | | | 5198 Sep 25 05:35 | 0°♂ | |
| evening max el | 5197 Oct 23 05:20 | 28°♂53'35 | 27°07'07 | evening max el | 5198 Oct 05 16:34 | 12°♂06'04 | 27°26'51 |
| | 5197 Oct 24 09:57 | 0°♂ | | retrograde | 5198 Oct 19 08:05 | 19°♂23'19 | |
| retrograde | 5197 Nov 05 12:52 | 6°♂11'08 | | evening set | 5198 Oct 26 11:14 | 16°♂47'21 | |
| evening set | 5197 Nov 12 08:51 | 3°♂31'07 | | min. Earth dist. | 5198 Oct 30 03:49 | 13°♂34'45 | 0.63604 AU |
| | 5197 Nov 16 01:17 | 30°♂ | | inferior conj | 5198 Nov 01 18:27 | 10°♂56'15 | -2°52'14 |
| min. Earth dist. | 5197 Nov 16 06:31 | 29°♂45'45 | 0.65203 AU | minimum elong | 5198 Nov 01 23:27 | 10°♂43'35 | 2°50'26 |
| inferior conj | 5197 Nov 18 09:11 | 27°♂23'48 | -1°48'36 | morning rise | 5198 Nov 08 13:11 | 5°♂38'35 | |
| minimum elong | 5197 Nov 18 12:18 | 27°♂15'01 | 1°47'19 | direct | 5198 Nov 10 23:48 | 5°♂09'35 | |
| asc. node | 5197 Nov 23 18:33 | 22°♂20'35 | | asc. node | 5198 Nov 10 15:35 | 5°♂10'10 | |
| morning rise | 5197 Nov 24 16:49 | 21°♂49'59 | | morning max el | 5198 Nov 17 13:28 | 8°♂34'27 | 17°50'25 |
| direct | 5197 Nov 27 09:14 | 21°♂11'24 | | | 5198 Dec 01 19:41 | 0°♂ | |
| morning max el | 5197 Dec 03 20:33 | 24°♂38'37 | 18°05'13 | morning set | 5198 Dec 04 01:57 | 3°♂54'42 | |
| | 5197 Dec 08 06:52 | 0°♂ | | | | | |
| morning set | 5197 Dec 21 23:44 | 21°♂43'06 | | superior conj | 5198 Dec 16 11:29 | 24°♂53'48 | 0°03'30 |
| | 5197 Dec 27 00:53 | 0°♂ | | minimum elong | 5198 Dec 16 11:51 | 24°♂55'23 | 0°03'29 |
| desc. node | 5197 Dec 30 02:20 | 4°♂57'57 | | behind sun begin | 5198 Dec 16 02:22 | 24°♂16'22 | |
| | | | | behind sun end | 5198 Dec 16 21:21 | 25°♂34'18 | |
| superior conj | 5198 Jan 05 09:45 | 15°♂03'22 | -0°42'53 | desc. node | 5198 Dec 16 23:23 | 25°♂42'38 | |
| minimum elong | 5198 Jan 05 04:28 | 14°♂42'23 | 0°42'09 | | 5198 Dec 19 14:38 | 0°♂ | |
| max. Earth dist. | 5198 Jan 08 17:12 | 20°♂16'56 | 1.45169 AU | max. Earth dist. | 5198 Dec 22 11:10 | 4°♂35'09 | 1.44315 AU |
| | 5198 Jan 14 22:18 | 0°♂ | | evening rise | 5199 Jan 01 03:07 | 19°♂42'44 | |
| evening rise | 5198 Jan 21 16:45 | 10°♂30'21 | | | 5199 Jan 07 21:15 | 0°♂ | |
| | 5198 Feb 03 10:05 | 0°♂ | | | 5199 Jan 29 17:37 | 0°♂ | |
| greatest brilliancy | 5198 Feb 03 21:42 | 0°♂43'27 | -0.7m | evening max el | 5199 Jan 29 20:38 | 0°♂07'47 | 20°42'53 |
| evening max el | 5198 Feb 15 19:22 | 16°♂34'06 | 19°40'22 | asc. node | 5199 Feb 06 14:52 | 4°♂58'08 | |
| asc. node | 5198 Feb 19 17:50 | 19°♂47'18 | | retrograde | 5199 Feb 07 02:24 | 4°♂59'23 | |
| retrograde | 5198 Feb 23 04:04 | 20°♂49'09 | | evening set | 5199 Feb 11 02:07 | 3°♂28'15 | |
| evening set | 5198 Feb 26 18:49 | 19°♂32'37 | | | 5199 Feb 14 10:02 | 30°♂ | |
| inferior conj | 5198 Mar 04 05:12 | 13°♂35'08 | 3°15'02 | inferior conj | 5199 Feb 16 10:27 | 27°♂18'20 | 2°49'13 |
| minimum elong | 5198 Mar 04 03:20 | 13°♂41'17 | 3°14'44 | minimum elong | 5199 Feb 16 08:06 | 27°♂26'23 | 2°48'40 |
| min. Earth dist. | 5198 Mar 05 07:42 | 12°♂07'23 | 0.66868 AU | min. Earth dist. | 5199 Feb 16 23:34 | 26°♂33'18 | 0.67667 AU |
| morning rise | 5198 Mar 09 11:38 | 7°♂20'21 | | morning rise | 5199 Feb 21 13:54 | 21°♂04'27 | |
| direct | 5198 Mar 15 13:14 | 4°♂38'02 | | direct | 5199 Feb 27 01:44 | 18°♂38'11 | |
| morning max el | 5198 Mar 27 17:48 | 11°♂54'44 | 25°32'50 | morning max el | 5199 Mar 10 02:32 | 25°♂13'38 | 24°06'44 |
| desc. node | 5198 Mar 28 01:37 | 12°♂14'39 | | | | | |

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|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| | 5199 Mar 14 10:25 | 0°♄ | | desc. node | 5200 Feb 29 19:39 | 19°≈43'40 | |
| desc. node | 5199 Mar 14 22:38 | 0°♄36'23 | | | 5200 Mar 08 04:51 | 0°♄ | |
| | 5199 Apr 04 17:52 | 0°♄ | | morning set | 5200 Mar 25 13:19 | 26°♄46'46 | |
| morning set | 5199 Apr 14 19:12 | 16°♄35'45 | | | 5200 Mar 27 12:03 | 0°♄ | |
| max. Earth dist. | 5199 Apr 18 12:40 | 23°♄09'08 | 1.38125 AU | max. Earth dist. | 5200 Mar 30 08:22 | 4°♄47'40 | 1.40325 AU |
| | 5199 Apr 22 06:54 | 0°♄ | | | | | |
| | | | | superior conj | 5200 Apr 07 03:30 | 18°♄29'33 | -1°52'27 |
| superior conj | 5199 Apr 25 16:06 | 6°♄21'55 | -1°28'40 | minimum elong | 5200 Apr 07 08:22 | 18°♄51'36 | 1°52'02 |
| minimum elong | 5199 Apr 25 20:50 | 6°♄44'29 | 1°28'02 | | 5200 Apr 13 08:53 | 0°♄ | |
| evening rise | 5199 May 04 13:29 | 23°♄44'34 | | evening rise | 5200 Apr 17 02:58 | 7°♄05'36 | |
| asc. node | 5199 May 05 14:10 | 25°♄45'43 | | asc. node | 5200 Apr 21 11:12 | 15°♄13'33 | |
| | 5199 May 07 18:35 | 0°♄ | | | 5200 Apr 30 15:06 | 0°♄ | |
| evening max el | 5199 May 21 01:17 | 20°♄28'21 | 19°00'11 | evening max el | 5200 May 03 06:25 | 2°♄58'25 | 18°24'01 |
| retrograde | 5199 May 29 16:38 | 24°♄42'09 | | retrograde | 5200 May 10 16:21 | 6°♄39'09 | |
| evening set | 5199 May 31 17:29 | 24°♄29'01 | | evening set | 5200 May 13 00:07 | 6°♄18'29 | |
| inferior conj | 5199 Jun 08 22:30 | 20°♄14'22 | 0°34'39 | inferior conj | 5200 May 20 09:21 | 1°♄44'04 | 2°00'51 |
| minimum elong | 5199 Jun 08 23:53 | 20°♄11'58 | 0°34'08 | minimum elong | 5200 May 20 12:46 | 1°♄37'02 | 1°59'51 |
| desc. node | 5199 Jun 10 21:54 | 18°♄51'22 | | | 5200 May 22 12:02 | 30°♄ | |
| min. Earth dist. | 5199 Jun 11 23:45 | 18°♄07'14 | 0.56599 AU | min. Earth dist. | 5200 May 23 19:46 | 28°♄56'57 | 0.58545 AU |
| morning rise | 5199 Jun 17 02:58 | 15°♄16'23 | | morning rise | 5200 May 27 22:18 | 26°♄13'46 | |
| direct | 5199 Jun 22 07:59 | 14°♄12'06 | | desc. node | 5200 May 27 18:55 | 26°♄18'14 | |
| morning max el | 5199 Jul 06 14:51 | 21°♄34'38 | 25°50'56 | direct | 5200 Jun 03 00:19 | 24°♄36'25 | |
| | 5199 Jul 13 23:41 | 0°♄ | | | 5200 Jun 14 20:03 | 0°♄ | |
| | 5199 Jul 31 18:11 | 0°♄ | | morning max el | 5200 Jun 17 09:39 | 2°♄20'39 | 27°05'40 |
| asc. node | 5199 Aug 01 13:24 | 1°♄38'38 | | | 5200 Jul 07 08:12 | 0°♄ | |
| morning set | 5199 Aug 03 08:47 | 5°♄25'37 | | morning set | 5200 Jul 17 18:04 | 20°♄08'05 | |
| | | | | asc. node | 5200 Jul 18 10:28 | 21°♄34'40 | |
| | | | | | 5200 Jul 22 07:58 | 0°♄ | |
| superior conj | 5199 Aug 10 07:12 | 20°♄31'50 | 1°19'58 | superior conj | 5200 Jul 24 19:04 | 5°♄25'48 | 1°02'05 |
| minimum elong | 5199 Aug 10 04:55 | 20°♄19'19 | 1°19'38 | minimum elong | 5200 Jul 24 16:51 | 5°♄13'34 | 1°01'40 |
| max. Earth dist. | 5199 Aug 11 03:50 | 22°♄25'18 | 1.32247 AU | max. Earth dist. | 5200 Jul 24 14:53 | 5°♄02'40 | 1.31931 AU |
| | 5199 Aug 14 15:27 | 0°♄ | | evening rise | 5200 Jul 31 14:52 | 20°♄18'29 | |
| evening rise | 5199 Aug 17 07:17 | 5°♄37'32 | | | 5200 Aug 05 08:37 | 0°♄ | |
| | 5199 Aug 30 07:19 | 0°♄ | | desc. node | 5200 Aug 23 18:13 | 29°♄42'22 | |
| desc. node | 5199 Sep 06 21:11 | 11°♄34'56 | | | 5200 Aug 23 23:54 | 0°♄ | |
| evening max el | 5199 Sep 18 00:13 | 24°♄44'51 | 27°15'26 | evening max el | 5200 Aug 30 01:48 | 6°♄39'25 | 26°30'32 |
| | 5199 Sep 24 22:56 | 0°♄ | | retrograde | 5200 Sep 13 00:31 | 13°♄48'04 | |
| retrograde | 5199 Oct 01 20:29 | 1°♄58'21 | | evening set | 5200 Sep 19 17:26 | 11°♄56'01 | |
| | 5199 Oct 08 09:34 | 30°♄ | | min. Earth dist. | 5200 Sep 23 15:27 | 9°♄20'47 | 0.59658 AU |
| evening set | 5199 Oct 08 23:38 | 29°♄38'09 | | inferior conj | 5200 Sep 26 21:17 | 6°♄48'13 | -4°45'05 |
| min. Earth dist. | 5199 Oct 12 14:46 | 26°♄50'55 | 0.61715 AU | minimum elong | 5200 Sep 27 03:00 | 6°♄36'57 | 4°44'02 |
| inferior conj | 5199 Oct 15 15:38 | 24°♄07'21 | -3°53'27 | morning rise | 5200 Oct 04 14:42 | 2°♄11'39 | |
| minimum elong | 5199 Oct 15 21:52 | 23°♄53'19 | 3°51'39 | direct | 5200 Oct 06 22:54 | 1°♄51'56 | |
| morning rise | 5199 Oct 22 22:01 | 19°♄08'53 | | asc. node | 5200 Oct 14 09:41 | 5°♄23'02 | |
| direct | 5199 Oct 25 05:41 | 18°♄46'02 | | morning max el | 5200 Oct 14 15:51 | 5°♄37'41 | 18°16'38 |
| asc. node | 5199 Oct 28 12:38 | 19°♄33'45 | | | 5200 Oct 30 01:34 | 0°♄ | |
| morning max el | 5199 Nov 01 05:01 | 22°♄17'04 | 17°53'46 | morning set | 5200 Oct 30 12:43 | 0°♄52'51 | |
| | 5199 Nov 07 04:12 | 0°♄ | | | | | |
| morning set | 5199 Nov 17 00:13 | 17°♄03'25 | | superior conj | 5200 Nov 08 20:01 | 18°♄19'28 | 1°12'33 |
| | 5199 Nov 24 04:55 | 0°♄ | | minimum elong | 5200 Nov 08 23:51 | 18°♄36'57 | 1°12'05 |
| superior conj | 5199 Nov 27 15:38 | 6°♄01'22 | 0°43'09 | | 5200 Nov 15 10:12 | 0°♄ | |
| minimum elong | 5199 Nov 27 19:06 | 6°♄16'20 | 0°42'40 | max. Earth dist. | 5200 Nov 16 10:08 | 1°♄42'27 | 1.40958 AU |
| desc. node | 5199 Dec 03 20:24 | 16°♄29'32 | | desc. node | 5200 Nov 19 17:28 | 7°♄15'44 | |
| max. Earth dist. | 5199 Dec 05 01:01 | 18°♄27'14 | 1.42853 AU | evening rise | 5200 Nov 21 03:37 | 9°♄36'17 | |
| evening rise | 5199 Dec 11 18:20 | 29°♄13'52 | | | 5200 Dec 04 06:57 | 0°♄ | |
| | 5199 Dec 12 06:06 | 0°♄ | | evening max el | 5200 Dec 25 08:16 | 27°♄21'24 | 23°15'24 |
| | 5200 Jan 01 13:28 | 0°≈ | | | 5200 Dec 28 05:15 | 0°≈ | |
| evening max el | 5200 Jan 12 16:33 | 13°≈42'50 | 21°56'14 | retrograde | 5201 Jan 04 18:07 | 3°≈31'02 | |
| retrograde | 5200 Jan 21 23:37 | 19°≈14'18 | | evening set | 5201 Jan 09 16:33 | 1°≈28'55 | |
| asc. node | 5200 Jan 24 11:55 | 18°≈40'45 | | asc. node | 5201 Jan 10 08:56 | 0°≈52'11 | |
| evening set | 5200 Jan 26 09:53 | 17°≈27'53 | | | 5201 Jan 11 05:26 | 30°♄ | |
| inferior conj | 5200 Jan 31 18:03 | 11°≈08'41 | 2°14'26 | min. Earth dist. | 5201 Jan 14 15:52 | 25°♄39'22 | 0.68087 AU |
| minimum elong | 5200 Jan 31 15:42 | 11°≈16'53 | 2°13'43 | inferior conj | 5201 Jan 15 02:06 | 25°♄04'09 | 1°31'57 |
| min. Earth dist. | 5200 Jan 31 19:04 | 11°≈05'09 | 0.68066 AU | minimum elong | 5201 Jan 15 00:12 | 25°♄10'43 | 1°31'15 |
| morning rise | 5200 Feb 05 21:20 | 4°≈57'23 | | morning rise | 5201 Jan 20 07:45 | 18°♄57'09 | |
| direct | 5200 Feb 10 18:38 | 2°≈52'11 | | direct | 5201 Jan 24 14:48 | 17°♄14'48 | |
| morning max el | 5200 Feb 20 12:39 | 8°≈37'53 | 22°37'25 | | | | |

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| morning max el | 5201 Feb 02 03:55 | 22°  11'46 | 21°13'34 | | | 5202 Feb 02 22:02 | 0°  | | |
| | 5201 Feb 08 19:55 | 0°  | | morning set | | 5202 Feb 12 00:03 | 13°  50'23 | | |
| desc. node | 5201 Feb 15 16:41 | 9°  24'12 | | | | 5202 Feb 22 07:38 | 0°  | | |
| | 5201 Mar 01 12:15 | 0°  | | max. Earth dist. | | 5202 Feb 22 20:08 | 0°  49'48 | 1.44016 AU | |
| morning set | 5201 Mar 05 03:09 | 5°  38'52 | | | | | | | |
| max. Earth dist. | 5201 Mar 12 10:13 | 17°  21'40 | 1.42383 AU | superior conj | | 5202 Feb 28 06:33 | 9°  36'10 | -2°06'42 | |
| | | | | minimum elong | | 5202 Feb 28 03:22 | 9°  23'09 | 2°06'36 | |
| superior conj | 5201 Mar 19 17:37 | 29°  36'46 | -2°06'59 | | | 5202 Mar 12 10:25 | 0°  | | |
| minimum elong | 5201 Mar 19 20:03 | 29°  47'13 | 2°06'55 | evening rise | | 5202 Mar 13 08:33 | 1°  34'58 | | |
| | 5201 Mar 19 23:02 | 0°  | | asc. node | | 5202 Mar 26 05:15 | 22°  52'23 | | |
| evening rise | 5201 Mar 31 02:46 | 19°  45'11 | | evening max el | | 5202 Mar 31 05:50 | 29°  09'51 | 18°10'29 | |
| | 5201 Apr 05 20:04 | 0°  | | | | 5202 Apr 01 03:10 | 0°  | | |
| asc. node | 5201 Apr 08 08:14 | 4°  18'11 | | retrograde | | 5202 Apr 06 15:51 | 2°  32'54 | | |
| evening max el | 5201 Apr 16 17:02 | 15°  55'07 | 18°07'40 | evening set | | 5202 Apr 09 12:42 | 1°  50'28 | | |
| retrograde | 5201 Apr 23 09:32 | 19°  19'27 | | | | 5202 Apr 12 05:42 | 30°  R  | | |
| evening set | 5201 Apr 26 00:10 | 18°  48'36 | | inferior conj | | 5202 Apr 15 16:10 | 26°  35'33 | 3°24'49 | |
| inferior conj | 5201 May 02 16:28 | 13°  53'21 | 2°56'10 | minimum elong | | 5202 Apr 15 17:39 | 26°  31'34 | 3°24'40 | |
| minimum elong | 5201 May 02 19:28 | 13°  46'15 | 2°55'34 | min. Earth dist. | | 5202 Apr 18 09:44 | 23°  39'53 | 0.62875 AU | |
| min. Earth dist. | 5201 May 05 22:21 | 10°  50'01 | 0.60741 AU | morning rise | | 5202 Apr 21 21:19 | 20°  29'29 | | |
| morning rise | 5201 May 09 12:35 | 8°  00'30 | | direct | | 5202 Apr 28 17:44 | 17°  53'36 | | |
| desc. node | 5201 May 14 15:57 | 5°  56'34 | | desc. node | | 5202 May 01 12:57 | 18°  17'07 | | |
| direct | 5201 May 16 04:17 | 5°  49'55 | | morning max el | | 5202 May 12 17:44 | 25°  53'45 | 27°49'53 | |
| morning max el | 5201 May 30 10:52 | 13°  45'50 | 27°46'42 | | | 5202 May 16 12:50 | 0°  | | |
| | 5201 Jun 12 10:47 | 0°  | | | | 5202 Jun 05 23:37 | 0°  | | |
| | 5201 Jun 29 17:06 | 0°  | | morning set | | 5202 Jun 15 22:49 | 18°  II44'14 | | |
| morning set | 5201 Jul 01 23:26 | 4°  36'23 | | | | 5202 Jun 21 08:49 | 0°  | | |
| asc. node | 5201 Jul 05 07:30 | 11°  38'26 | | max. Earth dist. | | 5202 Jun 21 07:37 | 29°  II53'36 | 1.32571 AU | |
| max. Earth dist. | 5201 Jul 08 01:27 | 17°  36'18 | 1.32036 AU | asc. node | | 5202 Jun 22 04:32 | 1°  34'54 | | |
| | | | | | | | | | |
| superior conj | 5201 Jul 09 06:06 | 20°  31'32 | 0°40'08 | superior conj | | 5202 Jun 23 14:34 | 4°  49'24 | 0°14'44 | |
| minimum elong | 5201 Jul 09 04:25 | 20°  30'41 | 0°39'47 | minimum elong | | 5202 Jun 23 13:52 | 4°  45'36 | 0°14'35 | |
| | 5201 Jul 13 16:52 | 0°  | | behind sun begin | | 5202 Jun 23 11:45 | 4°  34'03 | | |
| evening rise | 5201 Jul 16 01:31 | 5°  05'33 | | behind sun end | | 5202 Jun 23 16:00 | 4°  57'09 | | |
| | 5201 Jul 29 04:29 | 0°  | | evening rise | | 5202 Jun 30 13:18 | 19°  52'23 | | |
| desc. node | 5201 Aug 10 15:15 | 16°  13'14 | | | | 5202 Jul 05 11:30 | 0°  | | |
| evening max el | 5201 Aug 11 19:42 | 17°  14'31 | 25°15'30 | evening max el | | 5202 Jul 24 08:17 | 28°  01'24 | 23°41'34 | |
| retrograde | 5201 Aug 25 18:06 | 24°  14'47 | | | | 5202 Jul 26 07:41 | 0°  | | |
| evening set | 5201 Aug 31 11:49 | 23°  13'14 | | desc. node | | 5202 Jul 28 12:14 | 1°  41'17 | | |
| min. Earth dist. | 5201 Sep 05 07:20 | 20°  51'16 | 0.57644 AU | retrograde | | 5202 Aug 06 23:48 | 5°  13'50 | | |
| inferior conj | 5201 Sep 08 07:58 | 18°  47'52 | -5°15'23 | evening set | | 5202 Aug 11 06:46 | 4°  13'21 | | |
| minimum elong | 5201 Sep 08 10:04 | 18°  44'17 | 5°15'17 | min. Earth dist. | | 5202 Aug 17 18:13 | 1°  18'59 | 0.55966 AU | |
| morning rise | 5201 Sep 16 10:36 | 14°  13'16 | | inferior conj | | 5202 Aug 19 22:23 | 0°  10'42 | -5°08'12 | |
| direct | 5201 Sep 18 23:08 | 14°  15'17 | | minimum elong | | 5202 Aug 19 18:08 | 0°  10'07 | 5°07'47 | |
| morning max el | 5201 Sep 27 18:28 | 18°  25'36 | 19°00'33 | | | 5202 Aug 19 22:51 | 30°  R  | | |
| asc. node | 5201 Oct 01 06:44 | 22°  22'24 | | morning rise | | 5202 Aug 28 07:58 | 26°  05'43 | | |
| | 5201 Oct 06 08:23 | 0°  | | direct | | 5202 Aug 31 03:39 | 25°  04'50 | | |
| morning set | 5201 Oct 14 10:57 | 15°  09'18 | | | | 5202 Sep 09 19:49 | 0°  | | |
| | 5201 Oct 22 00:06 | 0°  | | morning max el | | 5202 Sep 10 10:04 | 0°  32'18 | 20°06'26 | |
| | | | | asc. node | | 5202 Sep 18 03:46 | 10°  17'16 | | |
| superior conj | 5201 Oct 22 19:16 | 1°  32'14 | 1°31'34 | morning set | | 5202 Sep 28 15:44 | 29°  14'57 | | |
| minimum elong | 5201 Oct 22 22:00 | 1°  45'21 | 1°31'20 | | | 5202 Sep 28 18:53 | 0°  | | |
| max. Earth dist. | 5201 Oct 29 15:38 | 14°  15'35 | 1.38856 AU | | | | | | |
| evening rise | 5201 Nov 02 11:37 | 20°  59'53 | | superior conj | | 5202 Oct 06 08:20 | 15°  05'28 | 1°41'21 | |
| desc. node | 5201 Nov 06 14:30 | 27°  56'38 | | minimum elong | | 5202 Oct 06 09:30 | 15°  03'22 | 1°41'19 | |
| | 5201 Nov 07 20:37 | 0°  | | max. Earth dist. | | 5202 Oct 11 21:25 | 26°  16'24 | 1.36802 AU | |
| | 5201 Nov 28 08:14 | 0°  | | | | 5202 Oct 13 21:03 | 0°  | | |
| evening max el | 5201 Dec 07 21:31 | 11°  03'24 | 24°34'26 | evening rise | | 5202 Oct 15 17:02 | 3°  12'56 | | |
| retrograde | 5201 Dec 19 08:51 | 17°  45'09 | | desc. node | | 5202 Oct 24 11:31 | 18°  12'01 | | |
| evening set | 5201 Dec 24 20:34 | 15°  27'53 | | | | 5202 Oct 31 21:03 | 0°  | | |
| asc. node | 5201 Dec 28 05:57 | 11°  48'30 | | evening max el | | 5202 Nov 20 09:59 | 24°  14'43 | 25°46'19 | |
| min. Earth dist. | 5201 Dec 29 11:34 | 10°  12'19 | 0.67736 AU | | | 5202 Nov 26 22:44 | 0°  | | |
| inferior conj | 5201 Dec 30 08:47 | 9°  01'38 | 0°42'41 | retrograde | | 5202 Dec 02 19:00 | 1°  51'12 | | |
| minimum elong | 5201 Dec 30 07:46 | 9°  05'01 | 0°42'16 | | | 5202 Dec 08 00:22 | 30°  R  | | |
| morning rise | 5202 Jan 04 19:06 | 3°  00'54 | | evening set | | 5202 Dec 08 20:14 | 29°  12'04 | | |
| direct | 5202 Jan 08 12:58 | 1°  40'34 | | min. Earth dist. | | 5202 Dec 13 03:56 | 24°  14'07 | 0.67025 AU | |
| morning max el | 5202 Jan 16 02:56 | 5°  57'59 | 20°01'09 | inferior conj | | 5202 Dec 14 12:16 | 22°  17'59 | -0°12'32 | |
| desc. node | 5202 Feb 02 13:44 | 29°  28'51 | | minimum elong | | 5202 Dec 14 12:35 | 22°  15'57 | 0°12'24 | |

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| transit middle | 5202 Dec 14 12:35 | 22°♄56'57 | 0°12'24 | min. Earth dist. | 5203 Nov 26 14:45 | 8°♄59'14 | 0.65962 AU |
| transit begin | 5202 Dec 14 10:47 | 23°♄02'41 | | inferior conj | 5203 Nov 28 10:36 | 6°♄49'57 | -1°12'32 |
| transit end | 5202 Dec 14 14:24 | 22°♄51'13 | | minimum elong | 5203 Nov 28 12:39 | 6°♄43'57 | 1°11'40 |
| asc. node | 5202 Dec 15 02:59 | 22°♄11'36 | | asc. node | 5203 Dec 02 00:02 | 2°♄58'53 | |
| morning rise | 5202 Dec 20 05:23 | 17°♄05'38 | | morning rise | 5203 Dec 04 12:28 | 1°♄08'29 | |
| direct | 5202 Dec 23 11:40 | 16°♄04'34 | | direct | 5203 Dec 07 09:13 | 0°♄22'55 | |
| morning max el | 5202 Dec 30 09:43 | 19°♄54'16 | 19°03'19 | morning max el | 5203 Dec 13 22:34 | 3°♄55'52 | 18°21'34 |
| | 5203 Jan 07 09:41 | 0°♄ | | | 5203 Dec 31 20:05 | 0°♄ | |
| desc. node | 5203 Jan 20 10:45 | 19°♄50'34 | | morning set | 5204 Jan 02 10:52 | 2°♄35'57 | |
| morning set | 5203 Jan 22 04:17 | 22°♄32'09 | | desc. node | 5204 Jan 07 07:46 | 10°♄24'33 | |
| | 5203 Jan 26 23:14 | 0°♄ | | | | | |
| max. Earth dist. | 5203 Feb 05 11:48 | 14°♄54'13 | 1.45033 AU | superior conj | 5204 Jan 17 23:01 | 27°♄14'00 | -1°09'23 |
| | | | | minimum elong | 5204 Jan 17 14:46 | 26°♄41'38 | 1°08'23 |
| superior conj | 5203 Feb 07 19:59 | 18°♄35'36 | -1°47'03 | max. Earth dist. | 5204 Jan 19 06:27 | 29°♄17'14 | 1.45332 AU |
| minimum elong | 5203 Feb 07 11:16 | 18°♄01'10 | 1°46'21 | | 5204 Jan 19 17:21 | 0°♄ | |
| | 5203 Feb 14 23:54 | 0°♄ | | evening rise | 5204 Feb 03 00:54 | 22°♄25'40 | |
| evening rise | 5203 Feb 22 16:17 | 12°♄27'49 | | | 5204 Feb 07 20:32 | 0°♄ | |
| | 5203 Mar 05 11:32 | 0°♄ | | greatest brilliancy | 5204 Feb 13 15:47 | 9°♄02'50 | -0.8m |
| asc. node | 5203 Mar 13 02:16 | 10°♄46'22 | | evening max el | 5204 Feb 26 03:07 | 26°♄06'28 | 19°10'46 |
| evening max el | 5203 Mar 14 17:56 | 12°♄35'08 | 18°31'52 | asc. node | 5204 Feb 27 23:18 | 27°♄48'32 | |
| retrograde | 5203 Mar 21 06:44 | 16°♄09'53 | | | 5204 Mar 03 06:19 | 0°♄ | |
| evening set | 5203 Mar 24 09:52 | 15°♄14'59 | | retrograde | 5204 Mar 04 02:36 | 0°♄04'02 | |
| inferior conj | 5203 Mar 30 04:18 | 9°♄42'09 | 3°32'50 | | 5204 Mar 04 22:38 | 30°♄ | |
| minimum elong | 5203 Mar 30 04:11 | 9°♄42'29 | 3°32'49 | evening set | 5204 Mar 07 12:45 | 28°♄55'45 | |
| min. Earth dist. | 5203 Apr 01 06:39 | 7°♄12'35 | 0.64739 AU | inferior conj | 5204 Mar 13 01:19 | 23°♄06'52 | 3°25'08 |
| morning rise | 5203 Apr 04 21:50 | 3°♄29'38 | | minimum elong | 5204 Mar 12 23:58 | 23°♄11'13 | 3°24'59 |
| direct | 5203 Apr 11 15:12 | 0°♄40'56 | | min. Earth dist. | 5204 Mar 14 12:19 | 21°♄14'43 | 0.66218 AU |
| desc. node | 5203 Apr 18 09:59 | 2°♄58'56 | | morning rise | 5204 Mar 18 10:50 | 16°♄52'09 | |
| morning max el | 5203 Apr 25 03:29 | 8°♄35'32 | 27°17'34 | direct | 5204 Mar 24 19:25 | 14°♄03'57 | |
| | 5203 May 11 19:00 | 0°♄ | | desc. node | 5204 Apr 04 07:01 | 19°♄28'38 | |
| | 5203 May 29 07:54 | 0°♄ | | morning max el | 5204 Apr 06 13:24 | 21°♄38'58 | 26°16'47 |
| morning set | 5203 May 30 13:26 | 2°♄22'45 | | | 5204 Apr 13 20:01 | 0°♄ | |
| max. Earth dist. | 5203 Jun 04 05:13 | 11°♄42'14 | 1.33561 AU | | 5204 May 04 00:13 | 0°♄ | |
| | | | | morning set | 5204 May 12 15:41 | 15°♄21'54 | |
| superior conj | 5203 Jun 07 18:29 | 19°♄06'54 | -0°13'24 | max. Earth dist. | 5204 May 16 15:35 | 23°♄00'03 | 1.35024 AU |
| minimum elong | 5203 Jun 07 19:10 | 19°♄10'35 | 0°13'15 | | 5204 May 20 04:06 | 0°♄ | |
| behind sun begin | 5203 Jun 07 16:03 | 18°♄54'05 | | | | | |
| behind sun end | 5203 Jun 07 22:17 | 19°♄27'05 | | superior conj | 5204 May 21 15:29 | 2°♄59'56 | -0°43'04 |
| asc. node | 5203 Jun 09 01:33 | 21°♄51'47 | | minimum elong | 5204 May 21 17:51 | 3°♄12'02 | 0°42'37 |
| | 5203 Jun 12 20:59 | 0°♄ | | asc. node | 5204 May 25 22:35 | 11°♄53'09 | |
| evening rise | 5203 Jun 15 00:20 | 4°♄32'17 | | evening rise | 5204 May 29 08:42 | 18°♄59'46 | |
| | 5203 Jun 28 22:10 | 0°♄ | | | 5204 Jun 03 21:07 | 0°♄ | |
| evening max el | 5203 Jul 05 23:06 | 8°♄34'37 | 22°04'40 | evening max el | 5204 Jun 16 23:55 | 19°♄23'08 | 20°38'27 |
| desc. node | 5203 Jul 15 09:14 | 14°♄28'52 | | retrograde | 5204 Jun 28 06:19 | 24°♄54'33 | |
| retrograde | 5203 Jul 18 17:56 | 14°♄55'16 | | evening set | 5204 Jun 30 07:21 | 24°♄44'24 | |
| evening set | 5203 Jul 21 14:11 | 14°♄37'15 | | desc. node | 5204 Jul 01 06:15 | 24°♄33'02 | |
| min. Earth dist. | 5203 Jul 30 04:16 | 10°♄55'38 | 0.54953 AU | inferior conj | 5204 Jul 09 13:44 | 20°♄47'27 | -2°26'46 |
| inferior conj | 5203 Jul 30 20:30 | 10°♄32'48 | -4°10'09 | minimum elong | 5204 Jul 09 06:58 | 20°♄57'09 | 2°24'25 |
| minimum elong | 5203 Jul 30 11:47 | 10°♄45'03 | 4°07'59 | min. Earth dist. | 5204 Jul 10 15:34 | 20°♄10'22 | 0.54864 AU |
| morning rise | 5203 Aug 08 11:04 | 6°♄42'38 | | morning rise | 5204 Jul 18 05:58 | 16°♄42'16 | |
| direct | 5203 Aug 11 16:20 | 6°♄19'36 | | direct | 5204 Jul 22 01:47 | 16°♄10'46 | |
| morning max el | 5203 Aug 23 13:35 | 11°♄53'06 | 21°32'55 | morning max el | 5204 Aug 04 07:14 | 22°♄33'34 | 23°13'46 |
| asc. node | 5203 Sep 05 00:49 | 28°♄54'37 | | | 5204 Aug 10 20:30 | 0°♄ | |
| | 5203 Sep 05 15:28 | 0°♄ | | asc. node | 5204 Aug 21 21:51 | 18°♄03'48 | |
| morning set | 5203 Sep 13 00:42 | 14°♄30'11 | | morning set | 5204 Aug 27 11:54 | 29°♄21'58 | |
| | | | | | 5204 Aug 27 19:06 | 0°♄ | |
| superior conj | 5203 Sep 20 07:08 | 29°♄47'14 | 1°43'17 | | | | |
| minimum elong | 5203 Sep 20 06:50 | 29°♄45'42 | 1°43'18 | superior conj | 5204 Sep 03 12:29 | 14°♄27'14 | 1°38'36 |
| | 5203 Sep 20 09:35 | 0°♄ | | minimum elong | 5204 Sep 03 11:04 | 14°♄19'40 | 1°38'30 |
| max. Earth dist. | 5203 Sep 24 08:53 | 8°♄08'07 | 1.35008 AU | max. Earth dist. | 5204 Sep 06 05:11 | 20°♄11'22 | 1.33601 AU |
| evening rise | 5203 Sep 28 16:01 | 16°♄33'08 | | | 5204 Sep 10 23:59 | 0°♄ | |
| | 5203 Oct 06 01:59 | 0°♄ | | evening rise | 5204 Sep 11 04:21 | 0°♄21'43 | |
| desc. node | 5203 Oct 11 08:31 | 8°♄44'57 | | desc. node | 5204 Sep 27 05:33 | 28°♄40'08 | |
| | 5203 Oct 26 07:20 | 0°♄ | | | 5204 Sep 28 02:24 | 0°♄ | |
| evening max el | 5203 Nov 02 22:40 | 8°♄26'55 | 26°43'41 | evening max el | 5204 Oct 15 11:08 | 21°♄53'56 | 27°19'10 |
| retrograde | 5203 Nov 15 23:57 | 15°♄43'08 | | retrograde | 5204 Oct 28 22:55 | 29°♄12'13 | |
| evening set | 5203 Nov 22 13:40 | 13°♄04'48 | | evening set | 5204 Nov 04 22:24 | 26°♄32'57 | |

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|---------------------|-------------------|-------------------------------|------------|------------------|-------------------|-------------------------------|------------|
| min. Earth dist. | 5204 Nov 08 17:43 | 23° \mathbb{M} 01'47 | 0.64556 AU | evening max el | 5205 Sep 27 21:26 | 4° \mathbb{M} 54'51 | 27°26'08 |
| inferior conj | 5204 Nov 11 01:27 | 20° \mathbb{M} 31'45 | -2°15'37 | retrograde | 5205 Oct 11 15:06 | 12° \mathbb{M} 09'51 | |
| minimum elong | 5204 Nov 11 05:24 | 20° \mathbb{M} 21'06 | 2°14'03 | evening set | 5205 Oct 18 19:19 | 9° \mathbb{M} 39'24 | |
| morning rise | 5204 Nov 17 13:39 | 15° \mathbb{M} 04'09 | | min. Earth dist. | 5205 Oct 22 10:48 | 6° \mathbb{M} 38'39 | 0.62833 AU |
| asc. node | 5204 Nov 17 21:05 | 14° \mathbb{M} 56'30 | | inferior conj | 5205 Oct 25 06:01 | 3° \mathbb{M} 56'42 | -3°18'50 |
| direct | 5204 Nov 20 03:14 | 14° \mathbb{M} 30'07 | | minimum elong | 5205 Oct 25 11:40 | 3° \mathbb{M} 43'03 | 3°16'56 |
| morning max el | 5204 Nov 26 14:47 | 17° \mathbb{M} 55'38 | 17°56'43 | | 5205 Oct 29 20:56 | 30° \mathbb{R} \mathbb{A} | |
| | 5204 Dec 05 10:57 | 0° \mathbb{A} | | morning rise | 5205 Nov 01 05:39 | 28° \mathbb{A} 46'29 | |
| morning set | 5204 Dec 13 22:39 | 14° \mathbb{A} 06'09 | | direct | 5205 Nov 03 14:44 | 28° \mathbb{A} 20'22 | |
| | 5204 Dec 23 12:30 | 0° \mathbb{B} | | asc. node | 5205 Nov 04 18:07 | 28° \mathbb{A} 26'32 | |
| desc. node | 5204 Dec 24 04:47 | 1° \mathbb{B} 06'17 | | | 5205 Nov 08 05:19 | 0° \mathbb{M} | |
| | | | | morning max el | 5205 Nov 10 07:27 | 1° \mathbb{M} 46'45 | 17°49'32 |
| superior conj | 5204 Dec 27 11:50 | 6° \mathbb{B} 25'40 | -0°22'51 | morning set | 5205 Nov 26 10:14 | 26° \mathbb{M} 45'02 | |
| minimum elong | 5204 Dec 27 09:07 | 6° \mathbb{B} 14'42 | 0°22'26 | | 5205 Nov 28 06:27 | 0° \mathbb{A} | |
| max. Earth dist. | 5205 Jan 01 01:38 | 13° \mathbb{B} 42'46 | 1.44894 AU | | | | |
| | 5205 Jan 11 12:24 | 0° \mathbb{A} | | superior conj | 5205 Dec 08 00:38 | 16° \mathbb{A} 48'37 | 0°21'27 |
| evening rise | 5205 Jan 12 15:46 | 1° \mathbb{A} 45'24 | | minimum elong | 5205 Dec 08 02:43 | 16° \mathbb{A} 57'19 | 0°21'10 |
| greatest brilliancy | 5205 Jan 27 06:39 | 23° \mathbb{A} 52'22 | -0.6m | desc. node | 5205 Dec 11 01:50 | 21° \mathbb{A} 52'32 | |
| | 5205 Jan 31 13:11 | 0° \mathbb{H} | | max. Earth dist. | 5205 Dec 14 18:35 | 27° \mathbb{A} 53'47 | 1.43769 AU |
| evening max el | 5205 Feb 08 07:39 | 9° \mathbb{H} 40'06 | 20°05'27 | | 5205 Dec 16 02:01 | 0° \mathbb{B} | |
| asc. node | 5205 Feb 13 20:21 | 13° \mathbb{H} 44'19 | | evening rise | 5205 Dec 23 02:20 | 11° \mathbb{B} 01'46 | |
| retrograde | 5205 Feb 16 00:35 | 14° \mathbb{H} 09'33 | | | 5206 Jan 04 16:25 | 0° \mathbb{A} | |
| evening set | 5205 Feb 19 18:59 | 12° \mathbb{H} 46'59 | | evening max el | 5206 Jan 22 06:40 | 23° \mathbb{A} 14'47 | 21°13'00 |
| inferior conj | 5205 Feb 25 04:16 | 6° \mathbb{H} 44'09 | 3°05'14 | retrograde | 5206 Jan 30 22:34 | 28° \mathbb{A} 22'37 | |
| minimum elong | 5205 Feb 25 02:09 | 6° \mathbb{H} 51'19 | 3°04'50 | asc. node | 5206 Jan 31 17:24 | 28° \mathbb{A} 19'19 | |
| min. Earth dist. | 5205 Feb 26 00:58 | 5° \mathbb{H} 34'24 | 0.67267 AU | evening set | 5206 Feb 04 02:42 | 26° \mathbb{A} 44'52 | |
| morning rise | 5205 Mar 02 09:05 | 0° \mathbb{H} 29'39 | | inferior conj | 5206 Feb 09 10:46 | 20° \mathbb{A} 30'41 | 2°35'27 |
| | 5205 Mar 02 22:48 | 30° \mathbb{R} \mathbb{A} | | minimum elong | 5206 Feb 09 08:21 | 20° \mathbb{A} 39'01 | 2°34'48 |
| direct | 5205 Mar 08 05:10 | 27° \mathbb{A} 53'06 | | min. Earth dist. | 5206 Feb 09 18:33 | 20° \mathbb{A} 03'45 | 0.67895 AU |
| | 5205 Mar 14 04:03 | 0° \mathbb{H} | | morning rise | 5206 Feb 14 13:51 | 14° \mathbb{A} 17'58 | |
| morning max el | 5205 Mar 19 22:14 | 4° \mathbb{H} 53'21 | 24°57'04 | direct | 5206 Feb 19 19:34 | 12° \mathbb{A} 00'21 | |
| desc. node | 5205 Mar 22 04:02 | 7° \mathbb{H} 16'00 | | morning max el | 5206 Mar 02 07:07 | 18° \mathbb{A} 14'19 | 23°28'31 |
| | 5205 Apr 08 05:53 | 0° \mathbb{Y} | | desc. node | 5206 Mar 09 01:04 | 25° \mathbb{A} 59'00 | |
| morning set | 5205 Apr 25 00:46 | 27° \mathbb{Y} 28'10 | | | 5206 Mar 12 03:27 | 0° \mathbb{H} | |
| | 5205 Apr 26 10:38 | 0° \mathbb{B} | | | 5206 Apr 01 08:33 | 0° \mathbb{Y} | |
| max. Earth dist. | 5205 Apr 28 15:42 | 4° \mathbb{B} 02'19 | 1.36909 AU | morning set | 5206 Apr 06 10:43 | 8° \mathbb{Y} 25'12 | |
| | | | | max. Earth dist. | 5206 Apr 10 11:18 | 15° \mathbb{Y} 20'33 | 1.39066 AU |
| superior conj | 5205 May 05 02:39 | 16° \mathbb{B} 20'36 | -1°12'38 | | | | |
| minimum elong | 5205 May 05 06:40 | 16° \mathbb{B} 40'18 | 1°12'00 | superior conj | 5206 Apr 18 00:02 | 28° \mathbb{Y} 58'09 | -1°39'34 |
| | 5205 May 11 22:38 | 0° \mathbb{H} | | minimum elong | 5206 Apr 18 05:03 | 29° \mathbb{Y} 21'34 | 1°39'00 |
| asc. node | 5205 May 12 19:38 | 1° \mathbb{H} 45'49 | | | 5206 Apr 18 13:16 | 0° \mathbb{B} | |
| evening rise | 5205 May 13 12:04 | 3° \mathbb{H} 08'23 | | evening rise | 5206 Apr 27 07:37 | 16° \mathbb{B} 49'39 | |
| | 5205 May 29 16:24 | 0° \mathbb{B} | | asc. node | 5206 Apr 29 16:41 | 21° \mathbb{B} 24'24 | |
| evening max el | 5205 May 30 13:21 | 0° \mathbb{B} 53'31 | 19°30'15 | | 5206 May 04 08:22 | 0° \mathbb{H} | |
| retrograde | 5205 Jun 09 01:59 | 5° \mathbb{B} 32'47 | | evening max el | 5206 May 13 13:36 | 13° \mathbb{H} 03'34 | 18°42'17 |
| evening set | 5205 Jun 11 00:29 | 5° \mathbb{B} 22'05 | | retrograde | 5206 May 21 14:57 | 17° \mathbb{H} 01'31 | |
| desc. node | 5205 Jun 18 03:17 | 2° \mathbb{B} 15'40 | | evening set | 5206 May 23 18:40 | 16° \mathbb{H} 45'31 | |
| inferior conj | 5205 Jun 19 16:40 | 1° \mathbb{B} 16'45 | -0°27'54 | inferior conj | 5206 May 31 15:01 | 12° \mathbb{H} 22'22 | 1°15'03 |
| minimum elong | 5205 Jun 19 15:26 | 1° \mathbb{B} 18'44 | 0°27'27 | minimum elong | 5206 May 31 17:39 | 12° \mathbb{H} 17'27 | 1°14'10 |
| | 5205 Jun 21 16:38 | 30° \mathbb{R} \mathbb{H} | | min. Earth dist. | 5206 Jun 03 21:57 | 9° \mathbb{H} 56'01 | 0.57373 AU |
| min. Earth dist. | 5205 Jun 22 05:00 | 29° \mathbb{H} 40'37 | 0.55734 AU | desc. node | 5206 Jun 05 00:18 | 9° \mathbb{H} 10'33 | |
| morning rise | 5205 Jun 28 03:46 | 26° \mathbb{H} 40'19 | | morning rise | 5206 Jun 08 13:21 | 7° \mathbb{H} 09'49 | |
| direct | 5205 Jul 02 19:56 | 25° \mathbb{H} 51'13 | | direct | 5206 Jun 14 03:45 | 5° \mathbb{H} 52'27 | |
| | 5205 Jul 13 10:49 | 0° \mathbb{B} | | morning max el | 5206 Jun 28 12:34 | 13° \mathbb{H} 24'56 | 26°26'25 |
| morning max el | 5205 Jul 16 20:45 | 2° \mathbb{B} 54'47 | 24°56'55 | | 5206 Jul 11 15:01 | 0° \mathbb{B} | |
| | 5205 Aug 04 20:59 | 0° \mathbb{Q} | | asc. node | 5206 Jul 26 15:56 | 27° \mathbb{B} 25'52 | |
| asc. node | 5205 Aug 08 18:54 | 7° \mathbb{Q} 36'43 | | morning set | 5206 Jul 27 10:19 | 29° \mathbb{B} 02'27 | |
| morning set | 5205 Aug 11 23:40 | 14° \mathbb{Q} 14'46 | | | 5206 Jul 27 21:10 | 0° \mathbb{Q} | |
| | | | | | | | |
| superior conj | 5205 Aug 18 21:58 | 29° \mathbb{Q} 18'12 | 1°28'14 | superior conj | 5206 Aug 03 09:27 | 14° \mathbb{Q} 12'30 | 1°12'55 |
| minimum elong | 5205 Aug 18 19:52 | 29° \mathbb{Q} 06'45 | 1°27'59 | minimum elong | 5206 Aug 03 07:09 | 13° \mathbb{Q} 59'46 | 1°12'32 |
| | 5205 Aug 19 05:36 | 0° \mathbb{H} | | max. Earth dist. | 5206 Aug 03 19:31 | 15° \mathbb{Q} 08'06 | 1.32064 AU |
| max. Earth dist. | 5205 Aug 20 09:46 | 2° \mathbb{H} 33'29 | 1.32622 AU | evening rise | 5206 Aug 10 07:15 | 29° \mathbb{Q} 11'26 | |
| evening rise | 5205 Aug 26 02:27 | 14° \mathbb{H} 37'47 | | | 5206 Aug 10 16:32 | 0° \mathbb{H} | |
| | 5205 Sep 03 01:18 | 0° \mathbb{A} | | | 5206 Aug 27 06:19 | 0° \mathbb{A} | |
| desc. node | 5205 Sep 14 02:36 | 18° \mathbb{A} 04'30 | | desc. node | 5206 Aug 31 23:37 | 6° \mathbb{A} 44'39 | |
| | 5205 Sep 23 05:05 | 0° \mathbb{M} | | evening max el | 5206 Sep 10 02:43 | 17° \mathbb{A} 15'23 | 27°00'18 |

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|------------------|-------------------|-------------------------------|------------|------------------|-------------------|-------------------------------|------------|
| retrograde | 5206 Sep 23 23:49 | 24° Ω 26'23 | | retrograde | 5207 Sep 05 23:54 | 5° Ω 54'53 | |
| evening set | 5206 Oct 01 00:20 | 22° Ω 16'34 | | evening set | 5207 Sep 12 08:38 | 4° Ω 17'26 | |
| min. Earth dist. | 5206 Oct 04 16:58 | 19° Ω 36'42 | 0.60854 AU | min. Earth dist. | 5207 Sep 16 13:24 | 1° Ω 42'12 | 0.58777 AU |
| inferior conj | 5206 Oct 07 20:57 | 16° Ω 55'41 | -4°17'04 | | 5207 Sep 18 21:04 | 30° \mathbb{R} \mathbb{M} | |
| minimum elong | 5206 Oct 08 03:16 | 16° Ω 42'14 | 4°15'31 | inferior conj | 5207 Sep 19 18:47 | 29° \mathbb{M} 19'30 | -5°01'27 |
| morning rise | 5206 Oct 15 08:12 | 12° Ω 06'25 | | minimum elong | 5207 Sep 19 23:25 | 29° \mathbb{M} 10'56 | 5°00'52 |
| direct | 5206 Oct 17 15:48 | 11° Ω 45'07 | | morning rise | 5207 Sep 27 16:28 | 24° \mathbb{M} 53'10 | |
| asc. node | 5206 Oct 22 15:09 | 13° Ω 27'56 | | direct | 5207 Sep 30 01:58 | 24° \mathbb{M} 34'08 | |
| morning max el | 5206 Oct 24 21:23 | 15° Ω 20'53 | 18°01'06 | morning max el | 5207 Oct 08 05:09 | 28° \mathbb{M} 28'56 | 18°32'45 |
| | 5206 Nov 04 00:37 | 0° \mathbb{M} | | asc. node | 5207 Oct 09 12:12 | 29° \mathbb{M} 48'48 | |
| morning set | 5206 Nov 09 15:08 | 10° \mathbb{M} 12'45 | | | 5207 Oct 09 16:15 | 0° Ω | |
| | | | | morning set | 5207 Oct 24 08:09 | 24° Ω 14'24 | |
| | | | | | 5207 Oct 27 07:35 | 0° \mathbb{M} | |
| superior conj | 5206 Nov 19 15:40 | 28° \mathbb{M} 28'00 | 0°56'55 | | | | |
| minimum elong | 5206 Nov 19 19:33 | 28° \mathbb{M} 45'10 | 0°56'25 | | | | |
| | 5206 Nov 20 12:34 | 0° \mathbb{X} | | superior conj | 5207 Nov 02 04:41 | 11° \mathbb{M} 11'12 | 1°21'49 |
| max. Earth dist. | 5206 Nov 27 06:44 | 11° \mathbb{X} 32'42 | 1.42085 AU | minimum elong | 5207 Nov 02 08:10 | 11° \mathbb{M} 27'24 | 1°21'28 |
| desc. node | 5206 Nov 27 22:54 | 12° \mathbb{X} 39'45 | | max. Earth dist. | 5207 Nov 09 13:30 | 24° \mathbb{M} 27'53 | 1.40063 AU |
| evening rise | 5206 Dec 03 00:02 | 20° \mathbb{X} 51'45 | | | 5207 Nov 12 19:03 | 0° \mathbb{X} | |
| | 5206 Dec 08 20:15 | 0° \mathbb{Z} | | evening rise | 5207 Nov 13 18:42 | 1° \mathbb{X} 39'18 | |
| | 5206 Dec 30 00:35 | 0° \approx | | desc. node | 5207 Nov 14 19:55 | 3° \mathbb{X} 24'04 | |
| evening max el | 5207 Jan 05 00:31 | 6° \approx 51'12 | 22°29'27 | | 5207 Dec 02 04:31 | 0° \mathbb{Z} | |
| retrograde | 5207 Jan 14 18:51 | 12° \approx 39'32 | | evening max el | 5207 Dec 18 14:44 | 20° \mathbb{Z} 30'37 | 23°49'29 |
| asc. node | 5207 Jan 18 14:24 | 11° \approx 23'28 | | retrograde | 5207 Dec 29 12:01 | 26° \mathbb{Z} 55'48 | |
| evening set | 5207 Jan 19 10:12 | 10° \approx 46'12 | | evening set | 5208 Jan 03 15:55 | 24° \mathbb{Z} 47'03 | |
| inferior conj | 5207 Jan 24 18:46 | 4° \approx 23'57 | 1°57'20 | asc. node | 5208 Jan 05 11:26 | 22° \mathbb{Z} 59'42 | |
| minimum elong | 5207 Jan 24 16:33 | 4° \approx 31'41 | 1°56'35 | min. Earth dist. | 5208 Jan 08 11:29 | 19° \mathbb{Z} 11'44 | 0.67972 AU |
| min. Earth dist. | 5207 Jan 24 14:50 | 4° \approx 37'38 | 0.68120 AU | inferior conj | 5208 Jan 09 02:26 | 18° \mathbb{Z} 20'51 | 1°11'51 |
| | 5207 Jan 28 04:07 | 30° \mathbb{R} \mathbb{Z} | | minimum elong | 5208 Jan 09 00:51 | 18° \mathbb{Z} 26'15 | 1°11'15 |
| morning rise | 5207 Jan 29 22:47 | 28° \mathbb{Z} 14'25 | | morning rise | 5208 Jan 14 09:47 | 12° \mathbb{Z} 16'08 | |
| direct | 5207 Feb 03 13:50 | 26° \mathbb{Z} 19'11 | | direct | 5208 Jan 18 10:57 | 10° \mathbb{Z} 43'31 | |
| | 5207 Feb 10 23:23 | 0° \approx | | morning max el | 5208 Jan 26 13:38 | 15° \mathbb{Z} 22'55 | 20°41'10 |
| morning max el | 5207 Feb 12 19:13 | 1° \approx 43'28 | 22°00'44 | | 5208 Feb 07 03:49 | 0° \approx | |
| desc. node | 5207 Feb 23 22:06 | 15° \approx 22'13 | | desc. node | 5208 Feb 10 19:08 | 5° \approx 14'07 | |
| | 5207 Mar 06 01:45 | 0° \mathbb{X} | | morning set | 5208 Feb 24 20:54 | 26° \approx 30'14 | |
| morning set | 5207 Mar 17 16:38 | 18° \mathbb{X} 02'20 | | | 5208 Feb 27 02:35 | 0° \mathbb{X} | |
| max. Earth dist. | 5207 Mar 23 09:30 | 27° \mathbb{X} 23'41 | 1.41235 AU | max. Earth dist. | 5208 Mar 04 14:18 | 10° \mathbb{X} 20'18 | 1.43138 AU |
| | 5207 Mar 24 22:40 | 0° \mathbb{Y} | | | | | |
| | | | | superior conj | 5208 Mar 11 06:42 | 21° \mathbb{X} 20'44 | -2°09'01 |
| superior conj | 5207 Mar 31 03:01 | 10° \mathbb{Y} 41'49 | -2°00'04 | minimum elong | 5208 Mar 11 07:04 | 21° \mathbb{X} 22'19 | 2°09'00 |
| minimum elong | 5207 Mar 31 07:15 | 11° \mathbb{Y} 00'33 | 1°59'48 | | 5208 Mar 16 08:46 | 0° \mathbb{Y} | |
| evening rise | 5207 Apr 10 15:53 | 29° \mathbb{Y} 55'05 | | evening rise | 5208 Mar 23 08:34 | 12° \mathbb{Y} 14'42 | |
| | 5207 Apr 10 16:56 | 0° \mathbb{Z} | | asc. node | 5208 Apr 02 10:44 | 29° \mathbb{Y} 36'46 | |
| asc. node | 5207 Apr 16 13:43 | 10° \mathbb{Z} 43'43 | | | 5208 Apr 02 16:36 | 0° \mathbb{Z} | |
| evening max el | 5207 Apr 26 21:26 | 25° \mathbb{Z} 46'09 | 18°14'36 | evening max el | 5208 Apr 09 09:22 | 8° \mathbb{Z} 51'49 | 18°06'33 |
| retrograde | 5207 May 03 22:45 | 29° \mathbb{Z} 18'21 | | retrograde | 5208 Apr 15 21:58 | 12° \mathbb{Z} 13'52 | |
| evening set | 5207 May 06 09:21 | 28° \mathbb{Z} 53'44 | | evening set | 5208 Apr 18 15:13 | 11° \mathbb{Z} 38'23 | |
| inferior conj | 5207 May 13 10:55 | 24° \mathbb{Z} 10'19 | 2°27'56 | inferior conj | 5208 Apr 25 01:36 | 6° \mathbb{Z} 34'54 | 3°11'11 |
| minimum elong | 5207 May 13 14:22 | 24° \mathbb{Z} 02'45 | 2°27'03 | minimum elong | 5208 Apr 25 04:01 | 6° \mathbb{Z} 28'51 | 3°10'47 |
| min. Earth dist. | 5207 May 16 20:40 | 21° \mathbb{Z} 13'05 | 0.59466 AU | min. Earth dist. | 5208 Apr 28 03:02 | 3° \mathbb{Z} 31'46 | 0.61673 AU |
| morning rise | 5207 May 20 16:35 | 18° \mathbb{Z} 28'45 | | morning rise | 5208 May 01 14:59 | 0° \mathbb{Z} 35'16 | |
| desc. node | 5207 May 22 21:19 | 17° \mathbb{Z} 24'58 | | | 5208 May 02 12:30 | 30° \mathbb{R} \mathbb{Y} | |
| direct | 5207 May 27 01:15 | 16° \mathbb{Z} 36'53 | | direct | 5208 May 08 09:50 | 28° \mathbb{Y} 12'12 | |
| morning max el | 5207 Jun 10 10:21 | 24° \mathbb{Z} 27'41 | 27°27'40 | desc. node | 5208 May 08 18:20 | 28° \mathbb{Y} 12'34 | |
| | 5207 Jun 15 11:26 | 0° \mathbb{I} | | | 5208 May 14 17:03 | 0° \mathbb{Z} | |
| | 5207 Jul 04 20:51 | 0° \mathbb{E} | | morning max el | 5208 May 22 14:13 | 6° \mathbb{Z} 11'44 | 27°52'33 |
| morning set | 5207 Jul 11 18:10 | 13° \mathbb{E} 39'50 | | | 5208 Jun 09 13:13 | 0° \mathbb{I} | |
| asc. node | 5207 Jul 13 12:59 | 17° \mathbb{E} 25'55 | | morning set | 5208 Jun 24 21:18 | 28° \mathbb{I} 00'41 | |
| | | | | | 5208 Jun 25 20:28 | 0° \mathbb{E} | |
| superior conj | 5207 Jul 18 21:09 | 29° \mathbb{E} 04'28 | 0°53'13 | asc. node | 5208 Jun 29 10:01 | 7° \mathbb{E} 32'00 | |
| minimum elong | 5207 Jul 18 19:06 | 28° \mathbb{E} 53'10 | 0°52'49 | max. Earth dist. | 5208 Jun 30 15:46 | 10° \mathbb{E} 12'36 | 1.32204 AU |
| max. Earth dist. | 5207 Jul 18 06:48 | 27° \mathbb{E} 45'15 | 1.31923 AU | | | | |
| | 5207 Jul 19 07:13 | 0° \mathbb{Q} | | superior conj | 5208 Jul 02 07:21 | 13° \mathbb{E} 48'21 | 0°29'44 |
| evening rise | 5207 Jul 25 16:21 | 13° \mathbb{Q} 55'28 | | minimum elong | 5208 Jul 02 06:02 | 13° \mathbb{E} 41'08 | 0°29'28 |
| | 5207 Aug 02 17:40 | 0° \mathbb{M} | | evening rise | 5208 Jul 09 03:42 | 28° \mathbb{E} 43'22 | |
| desc. node | 5207 Aug 18 20:38 | 24° \mathbb{M} 22'56 | | | 5208 Jul 09 18:07 | 0° \mathbb{Q} | |
| evening max el | 5207 Aug 23 00:44 | 28° \mathbb{M} 47'26 | 26°01'41 | | 5208 Jul 26 13:22 | 0° \mathbb{M} | |
| | 5207 Aug 24 08:28 | 0° Ω | | evening max el | 5208 Aug 03 15:48 | 9° \mathbb{M} 34'53 | 24°37'02 |

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|---------------------|-------------------|----------------------|------------|---------------------|-------------------|---------------------------------|
| desc. node | 5208 Aug 04 17:37 | 10° \cap 34'47 | | 5209 Jul 01 23:27 | 0° Ω | |
| retrograde | 5208 Aug 17 12:59 | 16° \cap 34'55 | | evening max el | 5209 Jul 16 04:32 | 19° Ω 57'08 22°59'52 |
| evening set | 5208 Aug 22 16:36 | 15° \cap 35'26 | | desc. node | 5209 Jul 22 14:37 | 24° Ω 47'19 |
| min. Earth dist. | 5208 Aug 28 03:04 | 12° \cap 46'08 | 0.56862 AU | retrograde | 5209 Jul 29 13:07 | 26° Ω 37'11 |
| inferior conj | 5208 Aug 30 20:53 | 11° \cap 00'20 | -5°18'01 | evening set | 5209 Aug 02 04:18 | 26° Ω 08'22 |
| minimum elong | 5208 Aug 30 20:27 | 11° \cap 01'01 | 5°18'01 | min. Earth dist. | 5209 Aug 09 13:16 | 22° Ω 49'56 0.55436 AU |
| morning rise | 5208 Sep 08 02:42 | 6° \cap 55'27 | | inferior conj | 5209 Aug 11 03:31 | 21° Ω 54'41 -4°50'07 |
| direct | 5208 Sep 10 17:45 | 6° \cap 36'25 | | minimum elong | 5209 Aug 10 20:44 | 22° Ω 04'30 4°49'00 |
| morning max el | 5208 Sep 20 03:27 | 11° \cap 01'13 | 19°25'53 | morning rise | 5209 Aug 19 15:23 | 18° Ω 03'42 |
| asc. node | 5208 Sep 25 09:15 | 17° \cap 14'09 | | direct | 5209 Aug 22 15:02 | 17° Ω 42'40 |
| | 5208 Oct 02 23:15 | 0° Ω | | morning max el | 5209 Sep 02 13:48 | 22° Ω 48'22 20°40'52 |
| morning set | 5208 Oct 07 09:32 | 8° Ω 40'01 | | | 5209 Sep 08 16:46 | 0° \cap |
| | | | | asc. node | 5209 Sep 12 06:18 | 5° \cap 28'47 |
| superior conj | 5208 Oct 15 10:24 | 24° Ω 43'17 | 1°36'45 | morning set | 5209 Sep 21 16:24 | 23° \cap 20'42 |
| minimum elong | 5208 Oct 15 12:29 | 24° Ω 53'30 | 1°36'37 | | 5209 Sep 24 21:28 | 0° Ω |
| | 5208 Oct 18 03:53 | 0° \cap | | | | |
| max. Earth dist. | 5208 Oct 21 18:10 | 6° \cap 44'13 | 1.37959 AU | superior conj | 5209 Sep 29 04:03 | 8° Ω 49'58 1°43'03 |
| evening rise | 5208 Oct 25 12:18 | 13° \cap 29'43 | | minimum elong | 5209 Sep 29 04:34 | 8° Ω 52'37 1°43'03 |
| desc. node | 5208 Oct 31 16:56 | 24° \cap 01'58 | | max. Earth dist. | 5209 Oct 04 02:07 | 18° Ω 39'37 1.36003 AU |
| | 5208 Nov 04 09:52 | 0° \nearrow | | evening rise | 5209 Oct 08 01:46 | 26° Ω 14'22 |
| | 5208 Nov 26 03:47 | 0° \searrow | | | 5209 Oct 10 03:03 | 0° \cap |
| evening max el | 5208 Nov 30 03:34 | 4° \searrow 14'19 | 25°06'24 | desc. node | 5209 Oct 18 13:56 | 14° \cap 28'06 |
| retrograde | 5208 Dec 12 00:58 | 11° \searrow 07'14 | | | 5209 Oct 28 20:36 | 0° \nearrow |
| evening set | 5208 Dec 17 18:18 | 8° \searrow 44'24 | | evening max el | 5209 Nov 12 16:20 | 17° \nearrow 58'01 26°12'59 |
| asc. node | 5208 Dec 22 08:27 | 3° \searrow 35'54 | | retrograde | 5209 Nov 25 08:47 | 25° \nearrow 07'55 |
| min. Earth dist. | 5208 Dec 22 06:11 | 3° \searrow 43'14 | 0.67473 AU | evening set | 5209 Dec 01 15:33 | 22° \nearrow 33'50 |
| inferior conj | 5208 Dec 23 08:00 | 2° \searrow 18'49 | 0°19'57 | min. Earth dist. | 5209 Dec 05 20:29 | 18° \nearrow 07'56 0.66620 AU |
| minimum elong | 5208 Dec 23 07:31 | 2° \searrow 20'26 | 0°19'45 | inferior conj | 5209 Dec 07 09:34 | 16° \nearrow 13'51 -0°37'28 |
| | 5208 Dec 25 03:33 | 30° \nearrow | | minimum elong | 5209 Dec 07 10:35 | 16° \nearrow 10'45 0°37'01 |
| morning rise | 5208 Dec 28 20:56 | 26° \nearrow 21'04 | | asc. node | 5209 Dec 09 05:30 | 14° \nearrow 02'15 |
| direct | 5209 Jan 01 09:40 | 25° \nearrow 09'14 | | morning rise | 5209 Dec 13 06:10 | 10° \nearrow 25'39 |
| morning max el | 5209 Jan 08 15:57 | 29° \nearrow 13'38 | 19°34'36 | direct | 5209 Dec 16 08:14 | 9° \nearrow 31'28 |
| | 5209 Jan 09 09:59 | 0° \searrow | | morning max el | 5209 Dec 23 01:32 | 13° \nearrow 12'30 18°43'31 |
| greatest brilliancy | 5209 Jan 21 16:59 | 16° \searrow 27'11 | -0.7m | | 5210 Jan 04 09:37 | 0° \searrow |
| desc. node | 5209 Jan 27 16:10 | 25° \searrow 26'58 | | morning set | 5210 Jan 13 07:48 | 13° \searrow 58'50 |
| | 5209 Jan 30 15:32 | 0° \approx | | desc. node | 5210 Jan 14 13:12 | 15° \searrow 54'34 |
| morning set | 5209 Feb 02 17:38 | 4° \approx 45'12 | | | 5210 Jan 23 12:32 | 0° \approx |
| max. Earth dist. | 5209 Feb 15 02:34 | 24° \approx 04'40 | 1.44535 AU | max. Earth dist. | 5210 Jan 28 20:21 | 8° \approx 21'00 1.45255 AU |
| | 5209 Feb 18 19:47 | 0° \bowtie | | | | |
| superior conj | 5209 Feb 19 08:53 | 0° \bowtie 52'35 | -2°00'51 | superior conj | 5210 Jan 29 15:36 | 9° \approx 36'30 -1°32'54 |
| minimum elong | 5209 Feb 19 02:58 | 0° \bowtie 28'48 | 2°00'32 | minimum elong | 5210 Jan 29 06:09 | 8° \approx 59'28 1°31'57 |
| evening rise | 5209 Mar 05 05:17 | 23° \bowtie 40'26 | | | 5210 Feb 11 12:48 | 0° \bowtie |
| | 5209 Mar 08 23:26 | 0° Υ | | evening rise | 5210 Feb 14 03:01 | 4° \bowtie 09'09 |
| asc. node | 5209 Mar 20 07:44 | 17° Υ 55'24 | | greatest brilliancy | 5210 Feb 21 10:40 | 15° \bowtie 54'07 -0.9m |
| evening max el | 5209 Mar 23 22:16 | 22° Υ 12'23 | 18°17'24 | | 5210 Mar 02 17:13 | 0° Υ |
| retrograde | 5209 Mar 30 08:17 | 25° Υ 38'31 | | asc. node | 5210 Mar 07 04:45 | 5° Υ 29'19 |
| evening set | 5209 Apr 02 07:50 | 24° Υ 50'49 | | evening max el | 5210 Mar 07 09:27 | 5° Υ 41'20 18°46'23 |
| inferior conj | 5209 Apr 08 07:03 | 19° Υ 28'16 | 3°30'22 | retrograde | 5210 Mar 14 01:42 | 9° Υ 24'14 |
| minimum elong | 5209 Apr 08 07:50 | 19° Υ 26'04 | 3°30'19 | evening set | 5210 Mar 17 07:48 | 8° Υ 23'33 |
| min. Earth dist. | 5209 Apr 10 18:23 | 16° Υ 41'50 | 0.63717 AU | inferior conj | 5210 Mar 22 23:22 | 2° Υ 43'32 3°31'13 |
| morning rise | 5209 Apr 14 06:51 | 13° Υ 19'04 | | minimum elong | 5210 Mar 22 22:40 | 2° Υ 45'40 3°31'11 |
| direct | 5209 Apr 21 03:02 | 10° Υ 35'53 | | min. Earth dist. | 5210 Mar 24 19:01 | 0° Υ 29'14 0.65419 AU |
| desc. node | 5209 Apr 25 15:22 | 11° Υ 37'11 | | | 5210 Mar 25 04:46 | 30° \nearrow |
| morning max el | 5209 May 04 22:22 | 18° Υ 34'36 | 27°40'02 | morning rise | 5210 Mar 28 13:05 | 26° \bowtie 29'56 |
| | 5209 May 14 13:24 | 0° \bowtie | | direct | 5210 Apr 04 03:19 | 23° \bowtie 40'11 |
| | 5209 Jun 02 10:55 | 0° \cap | | desc. node | 5210 Apr 12 12:24 | 27° \bowtie 09'26 |
| morning set | 5209 Jun 08 17:19 | 11° \cap 57'11 | | | 5210 Apr 15 20:37 | 0° Υ |
| max. Earth dist. | 5209 Jun 13 18:36 | 22° \cap 18'23 | 1.32935 AU | morning max el | 5210 Apr 17 08:28 | 1° Υ 27'26 26°54'48 |
| asc. node | 5209 Jun 16 07:02 | 27° \cap 39'22 | | | 5210 May 08 15:58 | 0° \bowtie |
| | | | | morning set | 5210 May 23 03:13 | 25° \bowtie 20'55 |
| superior conj | 5209 Jun 16 14:10 | 28° \cap 17'38 | 0°03'06 | | 5210 May 25 12:40 | 0° \cap |
| minimum elong | 5209 Jun 16 14:01 | 28° \cap 16'47 | 0°03'04 | max. Earth dist. | 5210 May 27 11:57 | 3° \cap 55'27 1.34131 AU |
| behind sun begin | 5209 Jun 16 08:45 | 27° \cap 48'33 | | | | |
| behind sun end | 5209 Jun 16 19:16 | 28° \cap 45'03 | | superior conj | 5210 May 31 15:31 | 12° \cap 26'21 -0°25'50 |
| | 5209 Jun 17 09:12 | 0° \bowtie | | minimum elong | 5210 May 31 16:54 | 12° \cap 33'33 0°25'34 |
| evening rise | 5209 Jun 23 15:25 | 13° \bowtie 28'22 | | asc. node | 5210 Jun 03 04:04 | 17° \cap 44'31 |
| | | | | evening rise | 5210 Jun 08 01:38 | 28° \cap 04'45 |

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|---------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| | 5210 Jun 08 23:48 | 0°☿ | | | 5211 May 17 06:53 | 0°♊ | |
| | 5210 Jun 27 11:50 | 0°♊ | | asc. node | 5211 May 21 01:06 | 7°♊42'36 | |
| evening max el | 5210 Jun 27 22:55 | 0°♊27'36 | 21°26'03 | evening rise | 5211 May 23 08:11 | 12°♊25'08 | |
| desc. node | 5210 Jul 09 11:38 | 6°♊27'46 | | | 5211 Jun 01 14:31 | 0°☿ | |
| retrograde | 5210 Jul 10 03:25 | 6°♊28'47 | | evening max el | 5211 Jun 10 04:54 | 11°☿32'26 | 20°06'58 |
| evening set | 5210 Jul 12 13:26 | 6°♊15'23 | | retrograde | 5211 Jun 20 17:41 | 16°☿41'43 | |
| inferior conj | 5210 Jul 21 21:49 | 2°♊15'48 | -3°30'29 | evening set | 5211 Jun 22 15:54 | 16°☿32'07 | |
| minimum elong | 5210 Jul 21 13:08 | 2°♊27'56 | 3°27'54 | desc. node | 5211 Jun 26 08:40 | 15°☿25'11 | |
| min. Earth dist. | 5210 Jul 21 23:19 | 2°♊13'41 | 0.54802 AU | inferior conj | 5211 Jul 01 17:30 | 12°☿32'54 | -1°36'10 |
| | 5210 Jul 26 03:59 | 30°☿☿ | | minimum elong | 5211 Jul 01 13:00 | 12°☿39'36 | 1°34'30 |
| morning rise | 5210 Jul 30 13:46 | 28°☿22'13 | | min. Earth dist. | 5211 Jul 03 11:26 | 11°☿30'23 | 0.55123 AU |
| direct | 5210 Aug 03 00:38 | 27°☿56'25 | | morning rise | 5211 Jul 10 08:32 | 8°☿15'44 | |
| | 5210 Aug 10 09:08 | 0°♊ | | direct | 5211 Jul 14 12:02 | 7°☿38'21 | |
| morning max el | 5210 Aug 15 12:33 | 3°♊50'24 | 22°14'35 | morning max el | 5211 Jul 28 03:49 | 14°☿19'56 | 23°58'18 |
| asc. node | 5210 Aug 30 03:22 | 24°♊21'03 | | | 5211 Aug 09 09:09 | 0°♊ | |
| | 5210 Sep 02 02:27 | 0°♊ | | asc. node | 5211 Aug 17 00:25 | 13°♊41'05 | |
| morning set | 5210 Sep 06 02:35 | 8°♊10'23 | | morning set | 5211 Aug 21 14:14 | 23°♊03'18 | |
| | | | | | 5211 Aug 24 19:52 | 0°♊ | |
| superior conj | 5210 Sep 13 06:01 | 23°♊20'39 | 1°42'03 | superior conj | 5211 Aug 28 13:25 | 8°♊06'24 | 1°34'51 |
| minimum elong | 5210 Sep 13 05:12 | 23°♊16'21 | 1°42'01 | minimum elong | 5211 Aug 28 11:40 | 7°♊56'54 | 1°34'42 |
| | 5210 Sep 16 10:32 | 0°♊ | | max. Earth dist. | 5211 Aug 30 17:27 | 12°♊46'23 | 1.33129 AU |
| max. Earth dist. | 5210 Sep 16 17:30 | 0°♊35'49 | 1.34365 AU | evening rise | 5211 Sep 04 23:48 | 23°♊43'55 | |
| evening rise | 5210 Sep 21 06:56 | 9°♊42'42 | | | 5211 Sep 08 04:06 | 0°♊ | |
| | 5210 Oct 02 14:19 | 0°♊ | | desc. node | 5211 Sep 22 07:58 | 24°♊20'12 | |
| desc. node | 5210 Oct 05 10:57 | 4°♊36'43 | | | 5211 Sep 26 05:18 | 0°♊ | |
| | 5210 Oct 24 15:15 | 0°♊ | | evening max el | 5211 Oct 08 16:40 | 14°♊50'38 | 27°25'51 |
| evening max el | 5210 Oct 26 05:03 | 1°♊33'38 | 27°01'45 | retrograde | 5211 Oct 22 07:26 | 22°♊08'37 | |
| retrograde | 5210 Nov 08 11:04 | 8°♊51'09 | | evening set | 5211 Oct 29 09:47 | 19°♊31'23 | |
| evening set | 5210 Nov 15 05:35 | 6°♊11'13 | | min. Earth dist. | 5211 Nov 02 02:56 | 16°♊14'12 | 0.63859 AU |
| min. Earth dist. | 5210 Nov 19 04:04 | 2°♊20'46 | 0.65412 AU | inferior conj | 5211 Nov 04 15:52 | 13°♊37'26 | -2°42'39 |
| inferior conj | 5210 Nov 21 05:01 | 0°♊01'48 | -1°39'04 | minimum elong | 5211 Nov 04 20:36 | 13°♊25'14 | 2°40'53 |
| minimum elong | 5210 Nov 21 07:51 | 29°♊53'43 | 1°37'52 | morning rise | 5211 Nov 11 08:54 | 8°♊17'09 | |
| | 5210 Nov 21 05:39 | 30°♊♊ | | asc. node | 5211 Nov 12 23:38 | 7°♊50'40 | |
| asc. node | 5210 Nov 26 02:34 | 25°♊14'41 | | direct | 5211 Nov 13 20:08 | 7°♊47'01 | |
| morning rise | 5210 Nov 27 11:07 | 24°♊26'03 | | morning max el | 5211 Nov 20 09:06 | 11°♊11'54 | 17°51'28 |
| direct | 5210 Nov 30 04:35 | 23°♊45'48 | | | 5211 Dec 03 03:57 | 0°♊ | |
| morning max el | 5210 Dec 06 16:12 | 27°♊14'06 | 18°08'55 | morning set | 5211 Dec 07 01:52 | 6°♊42'35 | |
| | 5210 Dec 09 03:19 | 0°♊ | | desc. node | 5211 Dec 19 07:15 | 27°♊16'31 | |
| morning set | 5210 Dec 25 03:07 | 24°♊40'35 | | | | | |
| | 5210 Dec 28 09:21 | 0°♊ | | superior conj | 5211 Dec 19 18:26 | 28°♊02'12 | -0°03'17 |
| desc. node | 5211 Jan 01 10:13 | 6°♊32'14 | | minimum elong | 5211 Dec 19 18:04 | 28°♊00'42 | 0°03'14 |
| | | | | behind sun begin | 5211 Dec 19 08:22 | 27°♊21'05 | |
| superior conj | 5211 Jan 08 20:16 | 18°♊21'53 | -0°50'00 | behind sun end | 5211 Dec 20 03:46 | 28°♊40'14 | |
| minimum elong | 5211 Jan 08 14:06 | 17°♊57'32 | 0°49'10 | | 5211 Dec 20 23:23 | 0°♊ | |
| max. Earth dist. | 5211 Jan 11 15:57 | 22°♊48'24 | 1.45233 AU | max. Earth dist. | 5211 Dec 25 10:13 | 7°♊08'59 | 1.44487 AU |
| | 5211 Jan 16 06:13 | 0°♊ | | evening rise | 5212 Jan 04 14:02 | 23°♊01'01 | |
| evening rise | 5211 Jan 25 02:56 | 13°♊47'35 | | | 5212 Jan 09 03:44 | 0°♊ | |
| | 5211 Feb 04 14:54 | 0°♊ | | | 5212 Jan 30 06:27 | 0°♊ | |
| greatest brilliancy | 5211 Feb 06 17:03 | 3°♊09'55 | -0.7m | evening max el | 5212 Feb 01 18:51 | 2°♊47'06 | 20°32'47 |
| evening max el | 5211 Feb 18 16:43 | 19°♊13'21 | 19°32'14 | asc. node | 5212 Feb 08 22:52 | 7°♊28'14 | |
| asc. node | 5211 Feb 22 01:49 | 22°♊05'02 | | retrograde | 5212 Feb 09 21:12 | 7°♊32'53 | |
| retrograde | 5211 Feb 25 22:53 | 23°♊23'47 | | evening set | 5212 Feb 13 19:27 | 6°♊04'05 | |
| evening set | 5211 Mar 01 12:23 | 22°♊09'26 | | inferior conj | 5212 Feb 19 03:59 | 29°♊55'55 | 2°53'44 |
| inferior conj | 5211 Mar 06 23:14 | 16°♊14'03 | 3°18'02 | minimum elong | 5212 Feb 19 01:41 | 0°♊03'48 | 2°53'13 |
| minimum elong | 5211 Mar 06 21:30 | 16°♊19'45 | 3°17'47 | | 5212 Feb 19 02:48 | 30°♊ | |
| min. Earth dist. | 5211 Mar 08 03:54 | 14°♊39'51 | 0.66709 AU | min. Earth dist. | 5212 Feb 19 19:03 | 29°♊04'23 | 0.67579 AU |
| morning rise | 5211 Mar 12 06:21 | 9°♊59'06 | | morning rise | 5212 Feb 24 07:42 | 23°♊41'44 | |
| direct | 5211 Mar 18 09:48 | 7°♊15'01 | | direct | 5212 Feb 29 21:42 | 21°♊12'31 | |
| desc. node | 5211 Mar 30 09:27 | 14°♊15'18 | | morning max el | 5212 Mar 12 02:52 | 27°♊54'57 | 24°19'52 |
| morning max el | 5211 Mar 30 18:11 | 14°♊37'12 | 25°44'46 | | 5212 Mar 14 02:15 | 0°♊ | |
| | 5211 Apr 12 07:50 | 0°♊ | | desc. node | 5212 Mar 16 06:29 | 2°♊28'38 | |
| | 5211 May 01 11:31 | 0°♊ | | | 5212 Apr 05 00:43 | 0°♊ | |
| morning set | 5211 May 05 22:51 | 7°♊59'26 | | morning set | 5212 Apr 16 22:50 | 19°♊38'10 | |
| max. Earth dist. | 5211 May 09 17:54 | 15°♊05'07 | 1.35780 AU | max. Earth dist. | 5212 Apr 20 14:50 | 26°♊08'07 | 1.37802 AU |
| | | | | | 5212 Apr 22 17:44 | 0°♊ | |
| superior conj | 5211 May 15 08:43 | 26°♊06'19 | -0°55'44 | | | | |
| minimum elong | 5211 May 15 11:49 | 26°♊21'54 | 0°55'11 | | | | |

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|------------------|-------------------|-------------|------------|------------------|-------------------|------------|------------|
| superior conj | 5212 Apr 27 14:29 | 9°8'09"24 | -1°24'35" | minimum elong | 5213 Apr 10 09:37 | 21°9'48"04 | 1°48'52" |
| minimum elong | 5212 Apr 27 19:03 | 9°8'31"23 | 1°23'56" | | 5213 Apr 14 19:37 | 0°8' | |
| evening rise | 5212 May 06 08:35 | 26°8'22"34 | | evening rise | 5213 Apr 19 23:44 | 9°8'49"09 | |
| asc. node | 5212 May 06 22:08 | 27°8'29"31 | | asc. node | 5213 Apr 23 19:10 | 17°8'00"26 | |
| | 5212 May 08 04:46 | 0°II | | | 5213 May 01 10:54 | 0°II | |
| evening max el | 5212 May 22 23:17 | 23°II'20"12 | 19°07'22" | evening max el | 5213 May 06 03:17 | 5°II'45"37 | 18°28'09" |
| retrograde | 5212 May 31 19:51 | 27°II'40"05 | | retrograde | 5213 May 13 16:46 | 9°II'30"11 | |
| evening set | 5212 Jun 02 19:56 | 27°II'27"43 | | evening set | 5213 May 15 23:31 | 9°II'10"47 | |
| inferior conj | 5212 Jun 11 03:57 | 23°II'15"51 | 0°18'57" | inferior conj | 5213 May 23 11:32 | 4°II'39"19 | 1°49'50" |
| minimum elong | 5212 Jun 11 04:44 | 23°II'14"32 | 0°18'40" | minimum elong | 5213 May 23 14:51 | 4°II'32"42 | 1°48'48" |
| desc. node | 5212 Jun 12 05:42 | 22°II'31"46 | | min. Earth dist. | 5213 May 26 21:33 | 1°II'56"56 | 0.58228 AU |
| min. Earth dist. | 5212 Jun 14 02:28 | 21°II'16"17 | 0.56350 AU | | 5213 May 29 17:34 | 30°R8' | |
| morning rise | 5212 Jun 19 10:20 | 18°II'23"24 | | desc. node | 5213 May 30 02:43 | 29°8'46"28 | |
| direct | 5212 Jun 24 12:06 | 17°II'23"17 | | morning rise | 5213 May 31 03:01 | 29°8'13"30 | |
| morning max el | 5212 Jul 08 17:41 | 24°II'41"33 | 25°37'34" | direct | 5213 Jun 06 02:17 | 27°8'41"24 | |
| | 5212 Jul 13 15:12 | 0°☾ | | | 5213 Jun 13 16:08 | 0°II | |
| | 5212 Aug 01 05:42 | 0°♊ | | morning max el | 5213 Jun 20 11:31 | 5°II'22"40 | 26°56'34" |
| asc. node | 5212 Aug 02 21:26 | 3°♊'21"20 | | | 5213 Jul 08 14:55 | 0°☾ | |
| morning set | 5212 Aug 05 01:41 | 7°♊'54"13 | | morning set | 5213 Jul 20 11:21 | 22°☾'38"21 | |
| | | | | asc. node | 5213 Jul 20 18:26 | 23°☾'15"47 | |
| superior conj | 5212 Aug 11 23:58 | 22°♊'59"33 | 1°22'18" | | 5213 Jul 23 21:39 | 0°♊ | |
| minimum elong | 5212 Aug 11 21:44 | 22°♊'47"14 | 1°22'00" | | | | |
| max. Earth dist. | 5212 Aug 13 00:23 | 25°♊'13"36 | 1.32328 AU | superior conj | 5213 Jul 27 11:46 | 7°♊'53"59 | 1°05'04" |
| | 5212 Aug 15 04:58 | 0°♎ | | minimum elong | 5213 Jul 27 09:31 | 7°♊'41"31 | 1°04'41" |
| evening rise | 5212 Aug 19 01:03 | 8°♎'08"21 | | max. Earth dist. | 5213 Jul 27 11:15 | 7°♊'51"03 | 1.31953 AU |
| | 5212 Aug 30 14:06 | 0°♎ | | evening rise | 5213 Aug 03 07:58 | 22°♊'47"55 | |
| desc. node | 5212 Sep 08 05:00 | 13°♎'27"36 | | | 5213 Aug 06 19:50 | 0°♎ | |
| evening max el | 5212 Sep 20 01:07 | 27°♎'35"48 | 27°19'22" | | 5213 Aug 24 17:55 | 0°♎ | |
| | 5212 Sep 22 19:00 | 0°♎ | | desc. node | 5213 Aug 26 02:00 | 1°♎'44"18 | |
| retrograde | 5212 Oct 03 20:54 | 4°♎'49"47 | | evening max el | 5213 Sep 02 03:46 | 9°♎'37"32 | 26°39'17" |
| evening set | 5212 Oct 11 00:33 | 2°♎'26"39 | | retrograde | 5213 Sep 16 02:02 | 16°♎'46"26 | |
| | 5212 Oct 14 04:42 | 30°R♎ | | evening set | 5213 Sep 22 21:21 | 14°♎'49"31 | |
| min. Earth dist. | 5212 Oct 14 15:36 | 29°♎'36"09 | 0.62008 AU | min. Earth dist. | 5213 Sep 26 17:37 | 12°♎'13"36 | 0.59973 AU |
| inferior conj | 5212 Oct 17 15:05 | 26°♎'52"35 | -3°44'35" | inferior conj | 5213 Sep 29 23:13 | 9°♎'38"22 | -4°38'18" |
| minimum elong | 5212 Oct 17 21:12 | 26°♎'38"31 | 3°42'45" | minimum elong | 5213 Sep 30 05:11 | 9°♎'26"22 | 4°37'06" |
| morning rise | 5212 Oct 24 19:43 | 21°♎'50"54 | | morning rise | 5213 Oct 07 15:04 | 4°♎'58"18 | |
| direct | 5212 Oct 27 03:36 | 21°♎'27"19 | | direct | 5213 Oct 09 23:03 | 4°♎'38"13 | |
| asc. node | 5212 Oct 29 20:41 | 22°♎'00"24 | | asc. node | 5213 Oct 16 17:42 | 7°♎'37"17 | |
| morning max el | 5212 Nov 03 01:02 | 24°♎'57"01 | 17°52'03" | morning max el | 5213 Oct 17 12:41 | 8°♎'21"02 | 18°11'54" |
| | 5212 Nov 07 04:57 | 0°♎ | | | 5213 Oct 31 11:53 | 0°♎ | |
| morning set | 5212 Nov 18 21:34 | 19°♎'44"22 | | morning set | 5213 Nov 02 08:11 | 3°♎'28"19 | |
| | 5212 Nov 24 15:02 | 0°♎ | | | | | |
| superior conj | 5212 Nov 29 18:38 | 8°♎'58"25 | 0°37'44" | superior conj | 5213 Nov 11 19:39 | 21°♎'06"28 | 1°08'45" |
| minimum elong | 5212 Nov 29 21:50 | 9°♎'12"06 | 0°37'18" | minimum elong | 5213 Nov 11 23:33 | 21°♎'24"07 | 1°08'18" |
| desc. node | 5212 Dec 05 04:17 | 18°♎'03"29 | | | 5213 Nov 16 20:13 | 0°♎ | |
| max. Earth dist. | 5212 Dec 07 00:52 | 21°♎'06"23 | 1.43109 AU | max. Earth dist. | 5213 Nov 19 10:49 | 4°♎'28"04 | 1.41263 AU |
| | 5212 Dec 12 14:01 | 0°♎ | | desc. node | 5213 Nov 22 01:18 | 8°♎'49"44 | |
| evening rise | 5212 Dec 14 03:37 | 2°♎'27"33 | | evening rise | 5213 Nov 24 09:37 | 12°♎'40"41 | |
| | 5213 Jan 01 15:42 | 0°♎ | | | 5213 Dec 05 12:41 | 0°♎ | |
| evening max el | 5213 Jan 14 15:34 | 16°♎'22"19 | 21°44'45" | evening max el | 5213 Dec 28 07:42 | 0°♎ | |
| retrograde | 5213 Jan 23 18:36 | 21°♎'47"29 | | retrograde | 5213 Dec 28 07:48 | 0°♎'00"15 | 23°03'25" |
| asc. node | 5213 Jan 25 19:55 | 21°♎'24"58 | | retrograde | 5214 Jan 07 13:32 | 6°♎'04"16 | |
| evening set | 5213 Jan 28 03:14 | 20°♎'03"23 | | evening set | 5214 Jan 12 10:08 | 4°♎'04"23 | |
| inferior conj | 5213 Feb 02 11:21 | 13°♎'45"27 | 2°20'15" | asc. node | 5214 Jan 12 16:56 | 3°♎'49"45 | |
| minimum elong | 5213 Feb 02 08:57 | 13°♎'53"45 | 2°19'32" | | 5214 Jan 16 02:19 | 30°R♎ | |
| min. Earth dist. | 5213 Feb 02 14:07 | 13°♎'35"50 | 0.68041 AU | inferior conj | 5214 Jan 17 19:25 | 27°♎'40"12 | 1°38'53" |
| morning rise | 5213 Feb 07 14:30 | 7°♎'33"45 | | minimum elong | 5214 Jan 17 17:24 | 27°♎'47"08 | 1°38'09" |
| direct | 5213 Feb 12 14:01 | 5°♎'25"08 | | min. Earth dist. | 5214 Jan 17 10:46 | 28°♎'09"59 | 0.68112 AU |
| morning max el | 5213 Feb 22 12:28 | 11°♎'18"03 | 22°50'27" | morning rise | 5214 Jan 23 00:34 | 21°♎'32"35 | |
| desc. node | 5213 Mar 03 03:31 | 21°♎'30"03 | | direct | 5214 Jan 27 09:41 | 19°♎'46"54 | |
| | 5213 Mar 09 08:31 | 0°♎ | | morning max el | 5214 Feb 05 02:46 | 24°♎'50"27 | 21°25'26" |
| morning set | 5213 Mar 28 21:10 | 0°♎'01"20 | | | 5214 Feb 09 16:50 | 0°♎ | |
| | 5213 Mar 28 20:51 | 0°♎ | | desc. node | 5214 Feb 18 00:33 | 11°♎'06"18 | |
| max. Earth dist. | 5213 Apr 02 10:10 | 7°♎'40"12 | 1.40002 AU | | 5214 Feb 02 19:11 | 0°♎ | |
| | | | | morning set | 5214 Mar 08 14:57 | 9°♎'04"18 | |
| superior conj | 5213 Apr 10 04:38 | 21°♎'25"19 | -1°49'20" | max. Earth dist. | 5214 Mar 15 11:14 | 20°♎'07"10 | 1.42100 AU |
| | | | | | 5214 Mar 21 08:29 | 0°♎ | |

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|------------------|-------------------|-------------------------|------------|---------------------|-------------------|------------------------------|------------|
| superior conj | 5214 Mar 22 22:14 | 2° Υ 42'17 | -2°05'37 | evening rise | 5215 Mar 16 10:40 | 4° Υ 33'52 | |
| minimum elong | 5214 Mar 23 01:15 | 2° Υ 55'21 | 2°05'30 | asc. node | 5215 Mar 28 13:13 | 24° Υ 48'42 | |
| evening rise | 5214 Apr 03 01:52 | 22° Υ 35'43 | | | 5215 Apr 01 09:13 | 0° \mathcal{B} | |
| | 5214 Apr 07 03:58 | 0° \mathcal{B} | | evening max el | 5215 Apr 03 01:54 | 1° \mathcal{B} 51'12 | 18°08'49 |
| asc. node | 5214 Apr 10 16:11 | 6° \mathcal{B} 09'04 | | retrograde | 5215 Apr 09 12:20 | 5° \mathcal{B} 13'39 | |
| evening max el | 5214 Apr 19 13:15 | 18° \mathcal{B} 38'35 | 18°08'48 | evening set | 5215 Apr 12 08:13 | 4° \mathcal{B} 33'07 | |
| retrograde | 5214 Apr 26 07:39 | 22° \mathcal{B} 04'32 | | | 5215 Apr 17 22:33 | 30° $\mathcal{R}\Upsilon$ | |
| evening set | 5214 Apr 28 21:15 | 21° \mathcal{B} 35'20 | | inferior conj | 5215 Apr 18 13:21 | 29° Υ 21'04 | 3°21'53 |
| inferior conj | 5214 May 05 15:49 | 16° \mathcal{B} 43'00 | 2°49'39 | minimum elong | 5215 Apr 18 15:05 | 29° Υ 16'28 | 3°21'41 |
| minimum elong | 5214 May 05 18:58 | 16° \mathcal{B} 35'40 | 2°48'57 | min. Earth dist. | 5215 Apr 21 09:04 | 26° Υ 22'46 | 0.62573 AU |
| min. Earth dist. | 5214 May 08 22:57 | 13° \mathcal{B} 40'31 | 0.60409 AU | morning rise | 5215 Apr 24 20:32 | 23° Υ 16'17 | |
| morning rise | 5214 May 12 14:22 | 10° \mathcal{B} 52'45 | | direct | 5215 May 01 16:45 | 20° Υ 43'21 | |
| desc. node | 5214 May 16 23:45 | 9° \mathcal{B} 00'48 | | desc. node | 5215 May 03 20:47 | 20° Υ 57'25 | |
| direct | 5214 May 19 04:28 | 8° \mathcal{B} 46'58 | | morning max el | 5215 May 15 18:09 | 28° Υ 43'51 | 27°51'43 |
| morning max el | 5214 Jun 02 11:53 | 16° \mathcal{B} 41'38 | 27°43'04 | | 5215 May 16 23:49 | 0° \mathcal{B} | |
| | 5214 Jun 13 10:54 | 0° \mathbb{I} | | | 5215 Jun 07 07:31 | 0° \mathbb{I} | |
| | 5214 Jul 01 04:33 | 0° \mathcal{E} | | morning set | 5215 Jun 18 17:50 | 21° \mathbb{I} 20'02 | |
| morning set | 5214 Jul 04 17:25 | 7° \mathcal{E} 08'58 | | | 5215 Jun 22 22:05 | 0° \mathcal{E} | |
| asc. node | 5214 Jul 07 15:27 | 13° \mathcal{E} 18'26 | | max. Earth dist. | 5215 Jun 24 05:08 | 2° \mathcal{E} 45'39 | 1.32461 AU |
| max. Earth dist. | 5214 Jul 10 22:10 | 20° \mathcal{E} 26'02 | 1.31992 AU | asc. node | 5215 Jun 24 12:29 | 3° \mathcal{E} 25'07 | |
| superior conj | 5214 Jul 11 23:01 | 22° \mathcal{E} 42'36 | 0°43'42 | superior conj | 5215 Jun 26 07:59 | 7° \mathcal{E} 20'14 | 0°18'47 |
| minimum elong | 5214 Jul 11 21:13 | 22° \mathcal{E} 32'42 | 0°43'20 | minimum elong | 5215 Jun 26 07:06 | 7° \mathcal{E} 15'28 | 0°18'35 |
| | 5214 Jul 15 06:26 | 0° Ω | | evening rise | 5215 Jul 03 05:58 | 22° \mathcal{E} 20'50 | |
| evening rise | 5214 Jul 18 18:15 | 7° Ω 34'06 | | | 5215 Jul 06 22:19 | 0° Ω | |
| | 5214 Jul 30 09:18 | 0° \mathcal{N} | | | 5215 Jul 26 03:33 | 0° \mathcal{N} | |
| desc. node | 5214 Aug 12 23:00 | 18° \mathcal{N} 49'01 | | evening max el | 5215 Jul 27 11:33 | 1° \mathcal{N} 20'27 | 23°56'08 |
| evening max el | 5214 Aug 14 22:38 | 20° \mathcal{N} 49'03 | 25°28'12 | desc. node | 5215 Jul 30 20:01 | 4° \mathcal{N} 13'44 | |
| retrograde | 5214 Aug 28 21:14 | 27° \mathcal{N} 53'27 | | retrograde | 5215 Aug 10 05:01 | 8° \mathcal{N} 14'44 | |
| evening set | 5214 Sep 03 19:24 | 26° \mathcal{N} 32'01 | | evening set | 5215 Aug 14 17:27 | 7° \mathcal{N} 29'40 | |
| min. Earth dist. | 5214 Sep 08 10:25 | 23° \mathcal{N} 53'16 | 0.57932 AU | min. Earth dist. | 5215 Aug 20 21:53 | 4° \mathcal{N} 29'37 | 0.56174 AU |
| inferior conj | 5214 Sep 11 12:49 | 21° \mathcal{N} 44'16 | -5°12'52 | inferior conj | 5215 Aug 23 06:08 | 3° \mathcal{N} 03'46 | -5°12'27 |
| minimum elong | 5214 Sep 11 15:42 | 21° \mathcal{N} 39'15 | 5°12'39 | minimum elong | 5215 Aug 23 02:52 | 3° \mathcal{N} 08'46 | 5°12'12 |
| morning rise | 5214 Sep 19 14:15 | 17° \mathcal{N} 27'30 | | | 5215 Aug 28 21:53 | 30° $\mathcal{R}\Omega$ | |
| direct | 5214 Sep 22 01:56 | 17° \mathcal{N} 08'33 | | morning rise | 5215 Aug 31 14:49 | 29° Ω 06'41 | |
| morning max el | 5214 Sep 30 16:43 | 21° \mathcal{N} 14'17 | 18°52'39 | direct | 5215 Sep 03 09:10 | 28° Ω 47'08 | |
| asc. node | 5214 Oct 03 14:43 | 24° \mathcal{N} 26'51 | | | 5215 Sep 08 12:41 | 0° \mathcal{N} | |
| | 5214 Oct 07 12:37 | 0° \mathcal{A} | | morning max el | 5215 Sep 13 10:08 | 3° \mathcal{N} 27'40 | 19°55'19 |
| morning set | 5214 Oct 17 05:09 | 17° \mathcal{A} 41'08 | | asc. node | 5215 Sep 20 11:46 | 12° \mathcal{N} 14'08 | |
| | 5214 Oct 23 11:55 | 0° \mathcal{M} | | | 5215 Sep 30 06:41 | 0° \mathcal{A} | |
| superior conj | 5214 Oct 25 16:24 | 4° \mathcal{M} 12'01 | 1°29'18 | morning set | 5215 Oct 01 09:09 | 2° \mathcal{A} 13'28 | |
| minimum elong | 5214 Oct 25 19:21 | 4° \mathcal{M} 26'03 | 1°29'02 | superior conj | 5215 Oct 09 03:42 | 18° \mathcal{A} 00'08 | 1°40'24 |
| max. Earth dist. | 5214 Nov 01 16:37 | 17° \mathcal{M} 07'04 | 1.39169 AU | minimum elong | 5215 Oct 09 05:06 | 18° \mathcal{A} 07'11 | 1°40'20 |
| evening rise | 5214 Nov 05 14:08 | 23° \mathcal{M} 54'44 | | max. Earth dist. | 5215 Oct 14 21:48 | 29° \mathcal{A} 10'33 | 1.37090 AU |
| desc. node | 5214 Nov 08 22:19 | 29° \mathcal{M} 31'31 | | | 5215 Oct 15 08:20 | 0° \mathcal{M} | |
| | 5214 Nov 09 05:13 | 0° \mathcal{X} | | evening rise | 5215 Oct 18 16:35 | 6° \mathcal{M} 08'44 | |
| | 5214 Nov 29 08:09 | 0° \mathcal{Z} | | desc. node | 5215 Oct 26 19:18 | 20° \mathcal{M} 04'36 | |
| evening max el | 5214 Dec 10 21:12 | 13° \mathcal{Z} 41'29 | 24°22'57 | | 5215 Nov 02 02:30 | 0° \mathcal{X} | |
| retrograde | 5214 Dec 22 04:58 | 20° \mathcal{Z} 19'19 | | evening max el | 5215 Nov 23 09:38 | 27° \mathcal{X} 24'44 | 25°36'25 |
| evening set | 5214 Dec 27 14:40 | 18° \mathcal{Z} 04'05 | | | 5215 Nov 26 06:03 | 0° \mathcal{Z} | |
| asc. node | 5214 Dec 30 13:58 | 14° \mathcal{Z} 55'28 | | retrograde | 5215 Dec 05 15:55 | 4° \mathcal{Z} 26'56 | |
| min. Earth dist. | 5215 Jan 01 06:46 | 12° \mathcal{Z} 43'29 | 0.67808 AU | evening set | 5215 Dec 11 15:07 | 1° \mathcal{Z} 58'31 | |
| inferior conj | 5215 Jan 02 02:24 | 11° \mathcal{Z} 37'40 | 0°50'34 | | 5215 Dec 13 15:43 | 30° $\mathcal{R}\mathcal{X}$ | |
| minimum elong | 5215 Jan 02 01:13 | 11° \mathcal{Z} 41'37 | 0°50'06 | min. Earth dist. | 5215 Dec 15 23:51 | 27° \mathcal{X} 12'24 | 0.67150 AU |
| morning rise | 5215 Jan 07 11:53 | 5° \mathcal{Z} 35'57 | | inferior conj | 5215 Dec 17 06:30 | 25° \mathcal{X} 34'30 | -0°03'51 |
| direct | 5215 Jan 11 07:35 | 4° \mathcal{Z} 12'34 | | minimum elong | 5215 Dec 17 06:36 | 25° \mathcal{X} 34'12 | 0°03'47 |
| morning max el | 5215 Jan 19 00:38 | 8° \mathcal{Z} 35'18 | 20°11'06 | transit middle | 5215 Dec 17 06:36 | 25° \mathcal{X} 34'12 | 0°03'47 |
| | 5215 Feb 04 03:20 | 0° \approx | | transit begin | 5215 Dec 17 03:52 | 25° \mathcal{X} 42'56 | |
| desc. node | 5215 Feb 04 21:35 | 1° \approx 07'51 | | transit end | 5215 Dec 17 09:20 | 25° \mathcal{X} 25'28 | |
| morning set | 5215 Feb 15 13:04 | 17° \approx 18'16 | | asc. node | 5215 Dec 17 11:01 | 25° \mathcal{X} 20'04 | |
| | 5215 Feb 23 15:45 | 0° \mathcal{H} | | morning rise | 5215 Dec 22 22:28 | 19° \mathcal{X} 40'40 | |
| max. Earth dist. | 5215 Feb 25 20:00 | 3° \mathcal{H} 28'14 | 1.43808 AU | direct | 5215 Dec 26 06:19 | 18° \mathcal{X} 36'59 | |
| superior conj | 5215 Mar 03 15:01 | 12° \mathcal{H} 52'02 | -2°07'55 | morning max el | 5216 Jan 02 06:21 | 22° \mathcal{X} 30'16 | 19°10'55 |
| minimum elong | 5215 Mar 03 12:49 | 12° \mathcal{H} 43'00 | 2°07'52 | | 5216 Jan 08 10:35 | 0° \mathcal{Z} | |
| | 5215 Mar 13 19:13 | 0° Υ | | greatest brilliancy | 5216 Jan 15 23:12 | 10° \mathcal{Z} 59'37 | -0.7m |
| | | | | desc. node | 5216 Jan 22 18:35 | 21° \mathcal{Z} 27'08 | |

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|------------------|-------------------|-----------------------|------------|---------------------|-------------------|---------------------------|------------|
| morning set | 5216 Jan 25 14:35 | 25° Z 50'43 | | desc. node | 5217 Jan 08 15:37 | 11° Z 59'27 | |
| | 5216 Jan 28 06:45 | 0° \approx | | | | | |
| max. Earth dist. | 5216 Feb 08 10:38 | 17° \approx 27'01 | 1.44925 AU | superior conj | 5217 Jan 20 10:46 | 0° \approx 36'37 | -1°15'57 |
| | | | | minimum elong | 5217 Jan 20 02:00 | 0° \approx 02'13 | 1°14'55 |
| superior conj | 5216 Feb 11 07:26 | 21° \approx 58'48 | -1°51'20 | | 5217 Jan 20 01:26 | 0° \approx | |
| minimum elong | 5216 Feb 10 23:17 | 21° \approx 26'28 | 1°50'43 | max. Earth dist. | 5217 Jan 21 05:04 | 1° \approx 48'19 | 1.45340 AU |
| | 5216 Feb 16 08:06 | 0° X | | evening rise | 5217 Feb 05 09:41 | 25° \approx 40'01 | |
| evening rise | 5216 Feb 25 21:49 | 15° X 35'05 | | | 5217 Feb 08 03:30 | 0° X | |
| | 5216 Mar 05 16:31 | 0° Y | | greatest brilliancy | 5217 Feb 15 06:27 | 11° X 12'08 | -0.8m |
| asc. node | 5216 Mar 14 10:17 | 12° Y 49'38 | | evening max el | 5217 Feb 28 00:07 | 28° X 46'10 | 19°03'58 |
| evening max el | 5216 Mar 16 14:19 | 15° Y 15'29 | 18°27'33 | asc. node | 5217 Mar 01 07:20 | 0° Y 00'23 | |
| retrograde | 5216 Mar 23 02:11 | 18° Y 47'40 | | | 5217 Mar 01 07:09 | 0° Y | |
| evening set | 5216 Mar 26 04:21 | 17° Y 54'42 | | retrograde | 5217 Mar 06 21:27 | 2° Y 39'28 | |
| inferior conj | 5216 Mar 31 23:55 | 12° Y 24'35 | 3°32'38 | evening set | 5217 Mar 10 06:33 | 1° Y 33'10 | |
| minimum elong | 5216 Apr 01 00:02 | 12° Y 24'13 | 3°32'38 | | 5217 Mar 12 04:19 | 30° R X | |
| min. Earth dist. | 5216 Apr 03 04:39 | 9° Y 50'05 | 0.64488 AU | inferior conj | 5217 Mar 15 19:49 | 25° X 46'37 | 3°27'05 |
| morning rise | 5216 Apr 06 18:57 | 6° Y 12'42 | | minimum elong | 5217 Mar 15 18:37 | 25° X 50'24 | 3°26'59 |
| direct | 5216 Apr 13 13:16 | 3° Y 24'52 | | min. Earth dist. | 5217 Mar 17 09:03 | 23° X 48'29 | 0.66027 AU |
| desc. node | 5216 Apr 19 17:49 | 5° Y 20'04 | | morning rise | 5217 Mar 21 06:19 | 19° X 32'09 | |
| morning max el | 5216 Apr 27 03:36 | 11° Y 21'10 | 27°24'17 | direct | 5217 Mar 27 16:33 | 16° X 43'07 | |
| | 5216 May 11 22:17 | 0° Z | | desc. node | 5217 Apr 06 14:52 | 21° X 35'22 | |
| | 5216 May 29 18:56 | 0° II | | morning max el | 5217 Apr 09 13:32 | 24° X 21'40 | 26°27'16 |
| morning set | 5216 Jun 01 09:59 | 5° II 03'41 | | | 5217 Apr 14 15:21 | 0° Y | |
| max. Earth dist. | 5216 Jun 06 04:10 | 14° II 38'41 | 1.33382 AU | | 5217 May 05 08:19 | 0° Z | |
| | | | | morning set | 5217 May 15 14:23 | 18° Z 09'30 | |
| superior conj | 5216 Jun 09 12:45 | 21° II 41'11 | -0°08'59 | max. Earth dist. | 5217 May 19 16:19 | 26° Z 00'55 | 1.34778 AU |
| minimum elong | 5216 Jun 09 13:13 | 21° II 43'38 | 0°08'55 | | 5217 May 21 16:24 | 0° II | |
| behind sun begin | 5216 Jun 09 08:38 | 21° II 19'19 | | | | | |
| behind sun end | 5216 Jun 09 17:48 | 22° II 07'58 | | superior conj | 5217 May 24 11:00 | 5° II 38'35 | -0°38'31 |
| asc. node | 5216 Jun 10 09:33 | 23° II 31'49 | | minimum elong | 5217 May 24 13:07 | 5° II 49'25 | 0°38'07 |
| | 5216 Jun 13 10:02 | 0° O | | asc. node | 5217 May 28 06:36 | 13° II 34'18 | |
| evening rise | 5216 Jun 16 17:17 | 7° O 02'21 | | evening rise | 5217 Jun 01 02:13 | 21° II 32'21 | |
| | 5216 Jun 28 22:13 | 0° O | | | 5217 Jun 05 06:38 | 0° O | |
| evening max el | 5216 Jul 08 01:38 | 11° O 41'43 | 22°18'44 | evening max el | 5217 Jun 20 00:43 | 22° O 25'07 | 20°50'15 |
| desc. node | 5216 Jul 16 17:02 | 17° O 24'50 | | retrograde | 5217 Jul 01 13:01 | 28° O 04'17 | |
| retrograde | 5216 Jul 21 00:41 | 18° O 08'05 | | evening set | 5217 Jul 03 15:51 | 27° O 53'35 | |
| evening set | 5216 Jul 24 01:19 | 17° O 47'51 | | desc. node | 5217 Jul 03 14:04 | 27° O 54'18 | |
| min. Earth dist. | 5216 Aug 01 08:04 | 14° O 12'40 | 0.55046 AU | inferior conj | 5217 Jul 12 23:16 | 23° O 56'34 | -2°44'19 |
| inferior conj | 5216 Aug 02 06:14 | 13° O 41'22 | -4°22'18 | minimum elong | 5217 Jul 12 15:50 | 24° O 07'07 | 2°41'49 |
| minimum elong | 5216 Aug 01 21:49 | 13° O 53'16 | 4°20'25 | min. Earth dist. | 5217 Jul 13 18:59 | 23° O 28'34 | 0.54817 AU |
| morning rise | 5216 Aug 10 20:08 | 9° O 51'30 | | morning rise | 5217 Jul 21 15:36 | 19° O 55'04 | |
| direct | 5216 Aug 13 23:48 | 9° O 29'06 | | direct | 5217 Jul 25 09:02 | 19° O 25'13 | |
| morning max el | 5216 Aug 25 15:27 | 14° O 55'30 | 21°18'55 | morning max el | 5217 Aug 07 10:11 | 25° O 40'40 | 22°58'16 |
| | 5216 Sep 05 22:11 | 0° P | | | 5217 Aug 11 11:49 | 0° O | |
| asc. node | 5216 Sep 06 08:49 | 0° P 45'58 | | asc. node | 5217 Aug 24 05:52 | 19° O 50'49 | |
| morning set | 5216 Sep 14 17:41 | 16° P 58'39 | | | 5217 Aug 29 07:43 | 0° P | |
| | 5216 Sep 20 22:43 | 0° P | | morning set | 5217 Aug 30 04:42 | 1° P 49'54 | |
| | | | | | | | |
| superior conj | 5216 Sep 22 01:20 | 2° P 18'32 | 1°43'27 | superior conj | 5217 Sep 06 05:54 | 16° P 56'10 | 1°39'42 |
| minimum elong | 5216 Sep 22 01:14 | 2° P 18'05 | 1°43'27 | minimum elong | 5217 Sep 06 04:38 | 16° P 49'23 | 1°39'37 |
| max. Earth dist. | 5216 Sep 26 08:13 | 11° P 02'29 | 1.35252 AU | max. Earth dist. | 5217 Sep 09 03:21 | 23° P 03'46 | 1.33786 AU |
| evening rise | 5216 Sep 30 13:19 | 19° P 13'50 | | | 5217 Sep 12 12:22 | 0° P | |
| | 5216 Oct 06 11:18 | 0° P | | evening rise | 5217 Sep 13 23:56 | 2° P 57'23 | |
| desc. node | 5216 Oct 12 16:20 | 10° P 24'14 | | | 5217 Sep 29 07:26 | 0° P | |
| | 5216 Oct 26 04:35 | 0° P | | desc. node | 5217 Sep 29 13:22 | 0° P 23'02 | |
| evening max el | 5216 Nov 04 22:27 | 11° P 06'29 | 26°36'23 | evening max el | 5217 Oct 18 11:07 | 24° P 36'14 | 27°15'31 |
| retrograde | 5216 Nov 17 21:44 | 18° P 21'24 | | | 5217 Oct 25 11:25 | 0° P | |
| evening set | 5216 Nov 24 09:38 | 15° P 44'04 | | retrograde | 5217 Oct 31 21:29 | 1° P 54'12 | |
| min. Earth dist. | 5216 Nov 28 11:43 | 11° P 33'07 | 0.66145 AU | | 5217 Nov 06 18:23 | 30° R P | |
| inferior conj | 5216 Nov 30 05:47 | 9° P 27'38 | -1°03'11 | evening set | 5217 Nov 07 19:49 | 29° P 14'35 | |
| minimum elong | 5216 Nov 30 07:32 | 9° P 22'23 | 1°02'25 | min. Earth dist. | 5217 Nov 11 15:58 | 25° P 38'27 | 0.64790 AU |
| asc. node | 5216 Dec 03 08:04 | 6° P 00'23 | | inferior conj | 5217 Nov 13 21:54 | 23° P 11'09 | -2°05'55 |
| morning rise | 5216 Dec 06 06:12 | 3° P 44'12 | | minimum elong | 5217 Nov 14 01:34 | 23° P 01'09 | 2°04'28 |
| direct | 5216 Dec 09 04:16 | 2° P 56'31 | | morning rise | 5217 Nov 20 08:29 | 17° P 41'14 | |
| morning max el | 5216 Dec 15 18:25 | 6° P 31'19 | 18°26'40 | asc. node | 5217 Nov 20 05:06 | 17° P 45'07 | |
| | 5217 Jan 01 03:25 | 0° Z | | direct | 5217 Nov 22 23:01 | 17° P 05'40 | |
| morning set | 5217 Jan 04 16:43 | 5° Z 40'56 | | morning max el | 5217 Nov 29 10:19 | 20° P 31'32 | 17°59'19 |

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|---------------------|-------------------|----------------------|------------------|-------------------|-----------|------------|
| | 5217 Dec 06 15:22 | 0°♊ | morning max el | 5218 Nov 13 03:07 | 4°♎24'08 | 17°49'29 |
| morning set | 5217 Dec 17 00:28 | 16°♊59'21 | morning set | 5218 Nov 29 08:53 | 29°♎28'52 | |
| | 5217 Dec 24 21:17 | 0°♊ | | 5218 Nov 29 15:59 | 0°♊ | |
| desc. node | 5217 Dec 26 12:39 | 2°♊40'14 | | | | |
| | | | superior conj | 5218 Dec 11 05:47 | 19°♊51'17 | 0°15'13 |
| superior conj | 5217 Dec 30 20:58 | 9°♊40'06 -0°29'58 | minimum elong | 5218 Dec 11 07:19 | 19°♊57'41 | 0°15'00 |
| minimum elong | 5217 Dec 30 17:20 | 9°♊25'33 0°29'27 | behind sun begin | 5218 Dec 11 03:56 | 19°♊43'33 | |
| max. Earth dist. | 5218 Jan 04 00:37 | 16°♊15'29 1.45008 AU | behind sun end | 5218 Dec 11 10:43 | 20°♊11'48 | |
| | 5218 Jan 12 19:52 | 0°♊ | desc. node | 5218 Dec 13 09:40 | 23°♊25'44 | |
| evening rise | 5218 Jan 16 02:36 | 5°♊03'59 | | 5218 Dec 17 10:42 | 0°♊ | |
| greatest brilliancy | 5218 Jan 30 07:59 | 26°♊39'43 -0.6m | max. Earth dist. | 5218 Dec 17 18:07 | 0°♊29'49 | 1.43972 AU |
| | 5218 Feb 01 14:54 | 0°♊ | evening rise | 5218 Dec 26 12:44 | 14°♊18'01 | |
| evening max el | 5218 Feb 11 05:25 | 12°♊19'40 19°56'24 | | 5219 Jan 05 21:42 | 0°♊ | |
| asc. node | 5218 Feb 16 04:22 | 16°♊07'20 | evening max el | 5219 Jan 25 05:11 | 25°♊53'48 | 21°02'14 |
| retrograde | 5218 Feb 18 19:18 | 16°♊43'50 | | 5219 Jan 30 08:18 | 0°♊ | |
| evening set | 5218 Feb 22 12:26 | 15°♊23'19 | retrograde | 5219 Feb 02 17:26 | 0°♊55'53 | |
| inferior conj | 5218 Feb 27 22:03 | 9°♊22'19 3°08'57 | asc. node | 5219 Feb 03 01:23 | 0°♊55'18 | |
| minimum elong | 5218 Feb 27 20:01 | 9°♊29'09 3°08'34 | | 5219 Feb 05 21:06 | 30°♊ | |
| min. Earth dist. | 5218 Feb 28 20:44 | 8°♊06'17 0.67138 AU | evening set | 5219 Feb 06 20:00 | 29°♊20'25 | |
| morning rise | 5218 Mar 05 03:23 | 3°♊07'46 | inferior conj | 5219 Feb 12 04:07 | 23°♊07'34 | 2°40'35 |
| direct | 5218 Mar 11 01:26 | 0°♊29'03 | minimum elong | 5219 Feb 12 01:44 | 23°♊15'51 | 2°39'57 |
| morning max el | 5218 Mar 22 22:35 | 7°♊35'07 25°09'49 | min. Earth dist. | 5219 Feb 12 13:43 | 22°♊34'26 | 0.67825 AU |
| desc. node | 5218 Mar 24 11:55 | 9°♊12'44 | morning rise | 5219 Feb 17 07:17 | 16°♊54'27 | |
| | 5218 Apr 09 10:29 | 0°♊ | direct | 5219 Feb 22 15:08 | 14°♊33'48 | |
| | 5218 Apr 27 20:54 | 0°♊ | morning max el | 5219 Mar 05 07:23 | 20°♊55'21 | 23°41'54 |
| morning set | 5218 Apr 28 02:23 | 0°♊24'36 | desc. node | 5219 Mar 11 08:56 | 27°♊48'22 | |
| max. Earth dist. | 5218 May 01 17:56 | 7°♊04'48 1.36608 AU | | 5219 Mar 13 02:41 | 0°♊ | |
| | | | | 5219 Apr 02 16:24 | 0°♊ | |
| superior conj | 5218 May 07 23:51 | 19°♊04'37 -1°08'15 | morning set | 5219 Apr 09 16:08 | 11°♊32'43 | |
| minimum elong | 5218 May 08 03:38 | 19°♊23'20 1°07'37 | max. Earth dist. | 5219 Apr 13 13:45 | 18°♊18'22 | 1.38737 AU |
| | 5218 May 13 10:29 | 0°♊ | | 5219 Apr 20 00:18 | 0°♊ | |
| asc. node | 5218 May 15 03:38 | 3°♊28'34 | | | | |
| evening rise | 5218 May 16 06:31 | 5°♊44'21 | superior conj | 5219 Apr 20 23:30 | 1°♊48'44 | -1°35'49 |
| | 5218 May 30 03:49 | 0°♊ | minimum elong | 5219 Apr 21 04:27 | 2°♊12'00 | 1°35'12 |
| evening max el | 5218 Jun 02 12:14 | 3°♊48'35 19°39'05 | evening rise | 5219 Apr 30 03:23 | 19°♊29'50 | |
| retrograde | 5218 Jun 12 06:55 | 8°♊35'24 | asc. node | 5219 May 02 00:39 | 23°♊09'19 | |
| evening set | 5218 Jun 14 05:05 | 8°♊25'07 | | 5219 May 05 15:44 | 0°♊ | |
| desc. node | 5218 Jun 20 11:06 | 5°♊54'02 | evening max el | 5219 May 16 11:00 | 15°♊52'36 | 18°48'06 |
| inferior conj | 5218 Jun 22 23:56 | 4°♊21'35 -0°45'30 | retrograde | 5219 May 24 17:04 | 19°♊55'56 | |
| minimum elong | 5218 Jun 22 21:52 | 4°♊24'50 0°44'44 | evening set | 5219 May 26 19:41 | 19°♊41'01 | |
| min. Earth dist. | 5218 Jun 25 07:54 | 2°♊54'05 0.55551 AU | inferior conj | 5219 Jun 03 19:04 | 15°♊20'51 | 1°01'16 |
| | 5218 Jul 01 01:17 | 30°♊ | minimum elong | 5219 Jun 03 21:19 | 15°♊16'45 | 1°00'28 |
| morning rise | 5218 Jul 01 12:20 | 29°♊50'31 | min. Earth dist. | 5219 Jun 07 00:19 | 13°♊00'53 | 0.57091 AU |
| direct | 5218 Jul 06 01:06 | 29°♊04'52 | desc. node | 5219 Jun 07 08:09 | 12°♊47'22 | |
| | 5218 Jul 10 23:33 | 0°♊ | morning rise | 5219 Jun 11 19:38 | 10°♊13'13 | |
| morning max el | 5218 Jul 19 23:56 | 6°♊02'47 24°42'02 | direct | 5219 Jun 17 06:45 | 9°♊00'38 | |
| | 5218 Aug 06 05:28 | 0°♊ | morning max el | 5219 Jul 01 15:09 | 16°♊29'56 | 26°14'35 |
| asc. node | 5218 Aug 11 02:54 | 9°♊20'20 | | 5219 Jul 12 15:57 | 0°♊ | |
| morning set | 5218 Aug 14 16:27 | 16°♊42'27 | asc. node | 5219 Jul 28 23:55 | 29°♊07'09 | |
| | 5218 Aug 20 19:34 | 0°♊ | | 5219 Jul 29 10:03 | 0°♊ | |
| | | | morning set | 5219 Jul 30 03:20 | 1°♊31'00 | |
| superior conj | 5218 Aug 21 14:52 | 1°♊45'25 1°30'07 | | | | |
| minimum elong | 5218 Aug 21 12:50 | 1°♊34'24 1°29'55 | superior conj | 5219 Aug 06 02:08 | 16°♊39'26 | 1°15'31 |
| max. Earth dist. | 5218 Aug 23 06:48 | 5°♊22'37 1.32741 AU | minimum elong | 5219 Aug 05 23:50 | 16°♊26'43 | 1°15'10 |
| evening rise | 5218 Aug 28 20:44 | 17°♊09'16 | max. Earth dist. | 5219 Aug 06 15:54 | 17°♊55'22 | 1.32116 AU |
| | 5218 Sep 04 11:08 | 0°♊ | | 5219 Aug 12 05:33 | 0°♊ | |
| desc. node | 5218 Sep 16 10:22 | 19°♊52'17 | evening rise | 5219 Aug 13 00:39 | 1°♊40'28 | |
| | 5218 Sep 23 21:30 | 0°♊ | | 5219 Aug 28 09:47 | 0°♊ | |
| evening max el | 5218 Sep 30 21:47 | 7°♊41'01 27°27'04 | desc. node | 5219 Sep 03 07:23 | 8°♊40'05 | |
| retrograde | 5218 Oct 14 14:40 | 14°♊56'43 | evening max el | 5219 Sep 13 03:53 | 20°♊07'59 | 27°06'20 |
| evening set | 5218 Oct 21 18:42 | 12°♊24'06 | retrograde | 5219 Sep 27 00:43 | 27°♊20'02 | |
| min. Earth dist. | 5218 Oct 25 10:28 | 9°♊19'26 0.63107 AU | evening set | 5219 Oct 04 02:25 | 25°♊06'12 | |
| inferior conj | 5218 Oct 28 04:09 | 6°♊38'28 -3°09'25 | min. Earth dist. | 5219 Oct 07 18:17 | 22°♊24'09 | 0.61155 AU |
| minimum elong | 5218 Oct 28 09:35 | 6°♊25'06 3°07'33 | inferior conj | 5219 Oct 10 21:21 | 19°♊41'51 | -4°08'57 |
| morning rise | 5218 Nov 04 02:04 | 1°♊25'37 | minimum elong | 5219 Oct 11 03:41 | 19°♊28'06 | 4°07'17 |
| direct | 5218 Nov 06 11:40 | 0°♊58'32 | morning rise | 5219 Oct 18 06:55 | 14°♊49'24 | |
| asc. node | 5218 Nov 07 02:09 | 1°♊00'17 | direct | 5219 Oct 20 14:26 | 14°♊27'39 | |

| | | | | | | | |
|------------------|-------------------|-------------------------------|------------|------------------|-------------------|-------------------------------|------------|
| asc. node | 5219 Oct 24 23:10 | 15° Ω 48'28 | | | 5220 Sep 24 23:08 | 30° \mathbb{R} \mathbb{M} | |
| morning max el | 5219 Oct 27 17:41 | 18° Ω 01'33 | 17°58'09 | morning rise | 5220 Sep 29 18:12 | 27° \mathbb{M} 41'40 | |
| | 5219 Nov 05 07:48 | 0° \mathbb{M} | | direct | 5220 Oct 02 03:07 | 27° \mathbb{M} 22'28 | |
| morning set | 5219 Nov 12 11:33 | 12° \mathbb{M} 50'14 | | | 5220 Oct 08 16:58 | 0° Ω | |
| | 5219 Nov 21 22:54 | 0° \mathbb{A} | | morning max el | 5220 Oct 10 02:35 | 1° Ω 14'00 | 18°26'40 |
| | | | | asc. node | 5220 Oct 10 20:12 | 1° Ω 58'09 | |
| superior conj | 5219 Nov 22 17:06 | 1° \mathbb{A} 19'57 | 0°52'12 | morning set | 5220 Oct 26 03:02 | 26° Ω 47'30 | |
| minimum elong | 5219 Nov 22 20:53 | 1° \mathbb{A} 36'31 | 0°51'42 | | 5220 Oct 27 19:04 | 0° \mathbb{M} | |
| desc. node | 5219 Nov 30 06:40 | 14° \mathbb{A} 12'50 | | | | | |
| max. Earth dist. | 5219 Nov 30 06:51 | 14° \mathbb{A} 13'35 | 1.42360 AU | superior conj | 5220 Nov 04 03:11 | 13° \mathbb{M} 54'17 | 1°18'42 |
| evening rise | 5219 Dec 06 07:57 | 24° \mathbb{A} 00'55 | | minimum elong | 5220 Nov 04 06:48 | 14° \mathbb{M} 11'03 | 1°18'19 |
| | 5219 Dec 10 03:38 | 0° \mathbb{B} | | max. Earth dist. | 5220 Nov 11 14:10 | 27° \mathbb{M} 14'43 | 1.40378 AU |
| | 5219 Dec 30 22:39 | 0° \approx | | | 5220 Nov 13 04:45 | 0° \mathbb{A} | |
| evening max el | 5220 Jan 07 23:41 | 9° \approx 29'39 | 22°17'41 | evening rise | 5220 Nov 15 23:14 | 4° \mathbb{A} 39'11 | |
| retrograde | 5220 Jan 17 14:06 | 15° \approx 12'18 | | desc. node | 5220 Nov 16 03:40 | 4° \mathbb{A} 57'34 | |
| asc. node | 5220 Jan 20 22:25 | 14° \approx 13'22 | | | 5220 Dec 02 08:44 | 0° \mathbb{B} | |
| evening set | 5220 Jan 22 03:37 | 13° \approx 21'23 | | evening max el | 5220 Dec 20 14:23 | 23° \mathbb{B} 08'33 | 23°37'36 |
| inferior conj | 5220 Jan 27 12:01 | 7° \approx 00'03 | 2°03'38 | retrograde | 5220 Dec 31 07:46 | 29° \mathbb{B} 28'31 | |
| minimum elong | 5220 Jan 27 09:44 | 7° \approx 07'59 | 2°02'53 | evening set | 5221 Jan 05 09:42 | 27° \mathbb{B} 22'09 | |
| min. Earth dist. | 5220 Jan 27 09:47 | 7° \approx 07'48 | 0.68111 AU | asc. node | 5221 Jan 06 19:27 | 26° \mathbb{B} 01'27 | |
| morning rise | 5220 Feb 01 15:43 | 0° \approx 49'48 | | inferior conj | 5221 Jan 10 19:51 | 20° \mathbb{B} 56'20 | 1°19'11 |
| | 5220 Feb 02 18:15 | 30° \mathbb{R} \mathbb{B} | | minimum elong | 5221 Jan 10 18:09 | 21° \mathbb{B} 02'12 | 1°18'33 |
| direct | 5220 Feb 06 08:55 | 28° \mathbb{B} 51'04 | | min. Earth dist. | 5221 Jan 10 06:34 | 21° \mathbb{B} 41'46 | 0.68020 AU |
| | 5220 Feb 10 07:31 | 0° \approx | | morning rise | 5221 Jan 16 02:32 | 14° \mathbb{B} 50'43 | |
| morning max el | 5220 Feb 15 18:43 | 4° \approx 22'55 | 22°13'23 | direct | 5221 Jan 20 05:45 | 13° \mathbb{B} 14'42 | |
| desc. node | 5220 Feb 26 05:57 | 17° \approx 06'11 | | morning max el | 5221 Jan 28 11:57 | 18° \mathbb{B} 00'05 | 20°52'13 |
| | 5220 Mar 06 07:19 | 0° \mathbb{H} | | | 5221 Feb 07 06:01 | 0° \approx | |
| morning set | 5220 Mar 20 02:20 | 21° \mathbb{H} 21'43 | | desc. node | 5221 Feb 12 02:58 | 6° \approx 54'03 | |
| | 5220 Mar 25 07:57 | 0° \mathbb{Y} | | morning set | 5221 Feb 27 09:40 | 29° \approx 57'13 | |
| max. Earth dist. | 5220 Mar 25 10:49 | 0° \mathbb{Y} 12'04 | 1.40924 AU | | 5221 Feb 27 10:22 | 0° \mathbb{H} | |
| | | | | max. Earth dist. | 5221 Mar 07 14:29 | 13° \mathbb{H} 00'33 | 1.42884 AU |
| superior conj | 5220 Apr 02 05:30 | 13° \mathbb{Y} 40'51 | -1°57'34 | | | | |
| minimum elong | 5220 Apr 02 10:02 | 14° \mathbb{Y} 01'03 | 1°57'16 | superior conj | 5221 Mar 14 12:58 | 24° \mathbb{H} 30'07 | -2°08'38 |
| | 5220 Apr 11 03:08 | 0° \mathbb{B} | | minimum elong | 5221 Mar 14 14:08 | 24° \mathbb{H} 35'06 | 2°08'38 |
| evening rise | 5220 Apr 12 13:32 | 2° \mathbb{B} 40'48 | | | 5221 Mar 17 18:18 | 0° \mathbb{Y} | |
| asc. node | 5220 Apr 17 21:40 | 12° \mathbb{B} 31'40 | | evening rise | 5221 Mar 26 08:50 | 15° \mathbb{Y} 07'47 | |
| evening max el | 5220 Apr 28 17:56 | 28° \mathbb{B} 30'48 | 18°17'28 | | 5221 Apr 03 20:55 | 0° \mathbb{B} | |
| | 5220 Apr 30 10:53 | 0° \mathbb{I} | | asc. node | 5221 Apr 04 18:42 | 1° \mathbb{B} 29'17 | |
| retrograde | 5220 May 05 22:02 | 2° \mathbb{I} 05'39 | | evening max el | 5221 Apr 12 05:30 | 11° \mathbb{B} 33'55 | 18°06'32 |
| evening set | 5220 May 08 07:37 | 1° \mathbb{I} 42'30 | | retrograde | 5221 Apr 18 19:14 | 14° \mathbb{B} 56'22 | |
| | 5220 May 11 16:58 | 30° \mathbb{R} \mathbb{B} | | evening set | 5221 Apr 21 11:34 | 14° \mathbb{B} 22'32 | |
| inferior conj | 5220 May 15 11:48 | 27° \mathbb{B} 02'18 | 2°18'54 | inferior conj | 5221 Apr 27 23:58 | 9° \mathbb{B} 21'58 | 3°06'16 |
| minimum elong | 5220 May 15 15:18 | 26° \mathbb{B} 54'50 | 2°17'56 | minimum elong | 5221 Apr 28 02:35 | 9° \mathbb{B} 15'29 | 3°05'48 |
| min. Earth dist. | 5220 May 18 22:05 | 24° \mathbb{B} 08'00 | 0.59140 AU | min. Earth dist. | 5221 May 01 03:07 | 6° \mathbb{B} 18'14 | 0.61350 AU |
| morning rise | 5220 May 22 20:01 | 21° \mathbb{B} 24'22 | | morning rise | 5221 May 04 15:39 | 3° \mathbb{B} 24'35 | |
| desc. node | 5220 May 24 05:10 | 20° \mathbb{B} 42'44 | | direct | 5221 May 11 09:38 | 1° \mathbb{B} 05'37 | |
| direct | 5220 May 29 02:32 | 19° \mathbb{B} 37'28 | | desc. node | 5221 May 11 02:12 | 1° \mathbb{B} 05'54 | |
| morning max el | 5220 Jun 12 11:51 | 27° \mathbb{B} 26'22 | 27°20'44 | morning max el | 5221 May 25 14:48 | 9° \mathbb{B} 04'00 | 27°51'17 |
| | 5220 Jun 14 22:56 | 0° \mathbb{I} | | | 5221 Jun 10 17:43 | 0° \mathbb{I} | |
| | 5220 Jul 05 06:18 | 0° \mathbb{G} | | | 5221 Jun 27 09:03 | 0° \mathbb{G} | |
| morning set | 5220 Jul 13 11:41 | 16° \mathbb{G} 10'05 | | morning set | 5221 Jun 27 15:41 | 0° \mathbb{G} 33'57 | |
| asc. node | 5220 Jul 14 20:56 | 19° \mathbb{G} 05'37 | | asc. node | 5221 Jul 01 17:58 | 9° \mathbb{G} 11'04 | |
| | 5220 Jul 19 21:14 | 0° \mathbb{Q} | | max. Earth dist. | 5221 Jul 03 12:43 | 13° \mathbb{G} 02'23 | 1.32136 AU |
| max. Earth dist. | 5220 Jul 20 03:06 | 0° \mathbb{Q} 32'21 | 1.31913 AU | | | | |
| superior conj | 5220 Jul 20 13:55 | 1° \mathbb{Q} 32'07 | 0°56'29 | superior conj | 5221 Jul 05 00:29 | 16° \mathbb{G} 17'47 | 0°33'33 |
| minimum elong | 5220 Jul 20 11:48 | 1° \mathbb{Q} 20'26 | 0°56'04 | minimum elong | 5221 Jul 04 23:01 | 16° \mathbb{G} 09'47 | 0°33'14 |
| evening rise | 5220 Jul 27 09:14 | 16° \mathbb{Q} 23'22 | | | 5221 Jul 11 07:03 | 0° \mathbb{Q} | |
| | 5220 Aug 03 03:12 | 0° \mathbb{M} | | evening rise | 5221 Jul 11 20:25 | 1° \mathbb{Q} 11'26 | |
| desc. node | 5220 Aug 20 04:24 | 26° \mathbb{M} 29'12 | | | 5221 Jul 27 12:10 | 0° \mathbb{M} | |
| | 5220 Aug 23 07:51 | 0° Ω | | evening max el | 5221 Aug 06 19:10 | 12° \mathbb{M} 41'15 | 24°50'50 |
| evening max el | 5220 Aug 25 03:06 | 1° Ω 47'39 | 26°12'25 | desc. node | 5221 Aug 07 01:26 | 12° \mathbb{M} 56'08 | |
| retrograde | 5220 Sep 08 02:16 | 8° Ω 55'43 | | retrograde | 5221 Aug 20 16:58 | 19° \mathbb{M} 42'24 | |
| evening set | 5220 Sep 14 14:07 | 7° Ω 13'01 | | evening set | 5221 Aug 26 01:42 | 18° \mathbb{M} 37'27 | |
| min. Earth dist. | 5220 Sep 18 16:10 | 4° Ω 38'08 | 0.59080 AU | min. Earth dist. | 5221 Aug 31 06:35 | 15° \mathbb{M} 51'23 | 0.57129 AU |
| inferior conj | 5220 Sep 21 21:57 | 2° Ω 11'33 | -4°56'16 | inferior conj | 5221 Sep 03 03:04 | 13° \mathbb{M} 59'10 | -5°18'02 |
| minimum elong | 5220 Sep 22 03:02 | 2° Ω 01'55 | 4°55'29 | minimum elong | 5221 Sep 03 03:35 | 13° \mathbb{M} 58'18 | 5°18'02 |
| | | | | morning rise | 5221 Sep 11 07:49 | 9° \mathbb{M} 51'14 | |


































































































































| | | | | | | | |
|---------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| direct | 5221 Sep 13 21:56 | 9°♎32'15 | | minimum elong | 5222 Aug 14 06:22 | 25°♏08'28 | 4°56'52 |
| morning max el | 5221 Sep 23 02:27 | 13°♎51'49 | 19°16'32 | morning rise | 5222 Aug 22 23:26 | 21°♏07'41 | |
| asc. node | 5221 Sep 27 17:15 | 19°♎14'25 | | direct | 5222 Aug 25 21:42 | 20°♏47'04 | |
| | 5221 Oct 04 08:23 | 0°♏ | | morning max el | 5222 Sep 05 14:38 | 25°♏45'42 | 20°28'25 |
| morning set | 5221 Oct 10 03:24 | 11°♏09'57 | | | 5222 Sep 09 11:48 | 0°♎ | |
| | | | | asc. node | 5222 Sep 14 14:18 | 7°♎22'07 | |
| superior conj | 5221 Oct 18 06:44 | 27°♏19'38 | 1°35'04 | morning set | 5222 Sep 24 09:38 | 25°♎48'50 | |
| minimum elong | 5221 Oct 18 09:03 | 27°♏30'55 | 1°34'54 | | 5222 Sep 26 10:23 | 0°♏ | |
| | 5221 Oct 19 15:55 | 0°♎ | | | | | |
| max. Earth dist. | 5221 Oct 24 19:04 | 9°♎36'30 | 1.38273 AU | superior conj | 5222 Oct 01 22:53 | 11°♏21'55 | 1°42'35 |
| evening rise | 5221 Oct 28 13:31 | 16°♎20'09 | | minimum elong | 5222 Oct 01 23:38 | 11°♏25'44 | 1°42'34 |
| desc. node | 5221 Nov 03 00:41 | 25°♎36'22 | | max. Earth dist. | 5222 Oct 07 02:18 | 21°♏33'54 | 1.36277 AU |
| | 5221 Nov 05 17:42 | 0°♎ | | evening rise | 5222 Oct 11 00:17 | 28°♏57'11 | |
| | 5221 Nov 26 22:05 | 0°♎ | | | 5222 Oct 11 13:59 | 0°♎ | |
| evening max el | 5221 Dec 03 03:22 | 6°♎51'29 | 24°55'27 | desc. node | 5222 Oct 20 21:44 | 16°♎04'37 | |
| retrograde | 5221 Dec 14 21:19 | 13°♎40'32 | | | 5222 Oct 29 23:59 | 0°♎ | |
| evening set | 5221 Dec 20 12:41 | 11°♎19'39 | | evening max el | 5222 Nov 15 16:03 | 20°♎35'24 | 26°04'01 |
| asc. node | 5221 Dec 24 16:30 | 6°♎43'15 | | retrograde | 5222 Nov 28 05:58 | 27°♎43'31 | |
| min. Earth dist. | 5221 Dec 25 01:40 | 6°♎13'26 | 0.67573 AU | evening set | 5222 Dec 04 10:51 | 25°♎10'41 | |
| inferior conj | 5221 Dec 26 01:51 | 4°♎53'48 | 0°28'10 | min. Earth dist. | 5222 Dec 08 16:45 | 20°♎39'39 | 0.66769 AU |
| minimum elong | 5221 Dec 26 01:10 | 4°♎56'04 | 0°27'54 | inferior conj | 5222 Dec 10 04:10 | 18°♎49'34 | -0°28'28 |
| | 5221 Dec 30 05:47 | 30°♎♎ | | minimum elong | 5222 Dec 10 04:56 | 18°♎47'12 | 0°28'07 |
| morning rise | 5221 Dec 31 13:49 | 28°♎54'57 | | asc. node | 5222 Dec 11 13:33 | 17°♎07'32 | |
| direct | 5222 Jan 04 04:20 | 27°♎40'08 | | morning rise | 5222 Dec 15 23:31 | 12°♎59'56 | |
| | 5222 Jan 09 12:57 | 0°♎ | | direct | 5222 Dec 19 03:02 | 12°♎03'24 | |
| morning max el | 5222 Jan 11 13:06 | 1°♎48'47 | 19°43'34 | morning max el | 5222 Dec 25 21:48 | 15°♎47'07 | 18°50'07 |
| greatest brilliancy | 5222 Jan 24 14:23 | 18°♎58'02 | -0.7m | | 5223 Jan 05 14:47 | 0°♎ | |
| desc. node | 5222 Jan 29 23:58 | 27°♎03'41 | | morning set | 5223 Jan 16 16:16 | 17°♎10'47 | |
| | 5222 Jan 31 22:21 | 0°♎ | | desc. node | 5223 Jan 16 20:59 | 17°♎39'16 | |
| morning set | 5222 Feb 06 05:52 | 8°♎08'56 | | | 5223 Jan 24 20:40 | 0°♎ | |
| max. Earth dist. | 5222 Feb 18 02:06 | 26°♎39'51 | 1.44365 AU | max. Earth dist. | 5223 Jan 31 19:19 | 10°♎52'50 | 1.45191 AU |
| | 5222 Feb 20 04:20 | 0°♎ | | | | | |
| | | | | superior conj | 5223 Feb 02 03:33 | 12°♎59'27 | -1°38'18 |
| superior conj | 5222 Feb 22 18:50 | 4°♎11'05 | -2°03'22 | minimum elong | 5223 Feb 01 18:12 | 12°♎22'44 | 1°37'25 |
| minimum elong | 5222 Feb 22 13:50 | 3°♎50'58 | 2°03'08 | | 5223 Feb 12 20:56 | 0°♎ | |
| evening rise | 5222 Mar 08 08:48 | 26°♎41'49 | | evening rise | 5223 Feb 17 10:03 | 7°♎18'59 | |
| | 5222 Mar 10 07:32 | 0°♎ | | | 5223 Mar 03 17:27 | 0°♎ | |
| asc. node | 5222 Mar 22 15:46 | 19°♎53'43 | | asc. node | 5223 Mar 09 12:50 | 7°♎35'11 | |
| evening max el | 5222 Mar 26 18:28 | 24°♎52'40 | 18°14'37 | evening max el | 5223 Mar 10 06:03 | 8°♎20'25 | 18°40'57 |
| retrograde | 5222 Apr 02 04:15 | 28°♎17'23 | | retrograde | 5223 Mar 16 20:56 | 12°♎00'19 | |
| evening set | 5222 Apr 05 02:54 | 27°♎31'30 | | evening set | 5223 Mar 20 01:59 | 11°♎01'39 | |
| inferior conj | 5222 Apr 11 03:30 | 22°♎11'35 | 3°28'43 | inferior conj | 5223 Mar 25 18:28 | 5°♎24'01 | 3°32'03 |
| minimum elong | 5222 Apr 11 04:32 | 22°♎08'42 | 3°28'38 | minimum elong | 5223 Mar 25 17:59 | 5°♎25'31 | 3°32'02 |
| min. Earth dist. | 5222 Apr 13 17:02 | 19°♎21'38 | 0.63428 AU | min. Earth dist. | 5223 Mar 27 16:26 | 3°♎04'15 | 0.65188 AU |
| morning rise | 5222 Apr 17 05:07 | 16°♎03'23 | | | 5223 Mar 30 11:51 | 30°♎♎ | |
| direct | 5222 Apr 24 01:32 | 13°♎22'34 | | morning rise | 5223 Mar 31 09:27 | 29°♎10'42 | |
| desc. node | 5222 Apr 27 23:15 | 14°♎08'23 | | direct | 5223 Apr 07 00:51 | 26°♎21'09 | |
| morning max el | 5222 May 07 22:34 | 21°♎21'49 | 27°44'13 | desc. node | 5223 Apr 14 20:16 | 29°♎23'23 | |
| | 5222 May 15 10:39 | 0°♎ | | | 5223 Apr 15 16:08 | 0°♎ | |
| | 5222 Jun 03 20:33 | 0°♎ | | morning max el | 5223 Apr 20 08:40 | 4°♎11'14 | 27°03'20 |
| morning set | 5222 Jun 11 12:57 | 14°♎34'30 | | | 5223 May 09 21:57 | 0°♎ | |
| max. Earth dist. | 5222 Jun 16 16:51 | 25°♎12'31 | 1.32800 AU | morning set | 5223 May 26 00:36 | 28°♎03'40 | |
| asc. node | 5222 Jun 18 15:00 | 29°♎18'27 | | | 5223 May 27 00:36 | 0°♎ | |
| | 5222 Jun 18 22:45 | 0°♎ | | max. Earth dist. | 5223 May 30 11:50 | 6°♎54'02 | 1.33924 AU |
| | | | | | | | |
| superior conj | 5222 Jun 19 07:56 | 0°♎49'29 | 0°07'21 | superior conj | 5223 Jun 03 10:15 | 15°♎01'21 | -0°21'21 |
| minimum elong | 5222 Jun 19 07:35 | 0°♎47'34 | 0°07'14 | minimum elong | 5223 Jun 03 11:23 | 15°♎07'17 | 0°21'08 |
| behind sun begin | 5222 Jun 19 02:49 | 0°♎21'56 | | asc. node | 5223 Jun 05 12:04 | 19°♎24'03 | |
| behind sun end | 5222 Jun 19 12:21 | 1°♎13'13 | | evening rise | 5223 Jun 10 18:48 | 0°♎35'03 | |
| evening rise | 5222 Jun 26 08:13 | 15°♎57'14 | | | 5223 Jun 10 12:07 | 0°♎ | |
| | 5222 Jul 03 07:38 | 0°♎ | | | 5223 Jun 27 19:29 | 0°♎ | |
| evening max el | 5222 Jul 19 07:42 | 23°♎04'48 | 23°14'24 | evening max el | 5223 Jul 01 00:39 | 3°♎31'26 | 21°39'14 |
| desc. node | 5222 Jul 24 22:29 | 27°♎28'51 | | desc. node | 5223 Jul 11 19:31 | 9°♎33'41 | |
| retrograde | 5222 Aug 01 18:54 | 29°♎48'59 | | retrograde | 5223 Jul 13 10:27 | 9°♎39'54 | |
| evening set | 5222 Aug 05 15:37 | 29°♎16'22 | | evening set | 5223 Jul 15 23:42 | 9°♎25'08 | |
| min. Earth dist. | 5222 Aug 12 16:54 | 26°♎03'10 | 0.55609 AU | inferior conj | 5223 Jul 25 07:41 | 5°♎24'01 | -3°45'29 |
| inferior conj | 5222 Aug 14 12:19 | 24°♎59'44 | -4°57'41 | minimum elong | 5223 Jul 24 22:51 | 5°♎36'23 | 3°43'00 |

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|---------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| min. Earth dist. | 5223 Jul 25 02:53 | 5°Ω30'44 | 0.54837 AU | min. Earth dist. | 5224 Jul 05 14:46 | 14°Ω46'28 | 0.55009 AU |
| morning rise | 5223 Aug 02 23:14 | 1°Ω32'07 | | morning rise | 5224 Jul 12 17:51 | 11°Ω27'24 | |
| direct | 5223 Aug 06 08:02 | 1°Ω07'26 | | direct | 5224 Jul 16 18:30 | 10°Ω52'16 | |
| morning max el | 5223 Aug 18 15:01 | 6°Ω54'09 | 21°59'47 | morning max el | 5224 Jul 30 07:02 | 17°Ω27'40 | 23°42'44 |
| asc. node | 5223 Sep 01 11:19 | 26°Ω09'04 | | | 5224 Aug 09 11:21 | 0°Ω | |
| | 5223 Sep 03 12:50 | 0°Π | | asc. node | 5224 Aug 18 08:21 | 15°Ω25'43 | |
| morning set | 5223 Sep 08 19:26 | 10°Π37'26 | | morning set | 5224 Aug 23 06:57 | 25°Ω30'28 | |
| | | | | | 5224 Aug 25 09:26 | 0°Π | |
| superior conj | 5223 Sep 15 23:49 | 25°Π49'45 | 1°42'37 | superior conj | 5224 Aug 30 06:34 | 10°Π34'10 | 1°36'18 |
| minimum elong | 5223 Sep 15 23:11 | 25°Π46'25 | 1°42'36 | minimum elong | 5224 Aug 30 04:55 | 10°Π25'18 | 1°36'11 |
| | 5223 Sep 17 23:45 | 0°Ω | | | 5224 Sep 01 14:56 | 15°Π36'21 | 1.33285 AU |
| max. Earth dist. | 5223 Sep 19 16:15 | 3°Ω28'03 | 1.34579 AU | max. Earth dist. | 5224 Sep 06 18:45 | 26°Π17'13 | |
| evening rise | 5223 Sep 24 03:23 | 12°Ω19'43 | | evening rise | 5224 Sep 08 15:45 | 0°Ω | |
| | 5223 Oct 03 22:30 | 0°Π | | | 5224 Sep 23 15:48 | 26°Ω04'38 | |
| desc. node | 5223 Oct 07 18:46 | 6°Π16'29 | | desc. node | 5224 Sep 26 07:04 | 0°Π | |
| | 5223 Oct 25 03:39 | 0°♂ | | | 5224 Oct 10 16:40 | 17°Π33'44 | 27°24'05 |
| evening max el | 5223 Oct 29 04:44 | 4°♂12'44 | 26°55'55 | evening max el | 5224 Oct 24 06:34 | 24°Π52'06 | |
| retrograde | 5223 Nov 11 09:13 | 11°♂30'06 | | retrograde | 5224 Oct 31 07:59 | 22°Π13'56 | |
| evening set | 5223 Nov 18 02:08 | 8°♂50'30 | | evening set | 5224 Nov 04 01:51 | 18°Π51'54 | 0.64110 AU |
| min. Earth dist. | 5223 Nov 22 01:28 | 4°♂54'53 | 0.65612 AU | min. Earth dist. | 5224 Nov 06 12:58 | 16°Π17'16 | -2°32'59 |
| inferior conj | 5223 Nov 24 00:40 | 2°♂39'03 | -1°29'31 | inferior conj | 5224 Nov 06 17:26 | 16°Π05'34 | 2°31'18 |
| minimum elong | 5223 Nov 24 03:13 | 2°♂31'41 | 1°28'26 | minimum elong | 5224 Nov 13 04:18 | 10°Π54'19 | |
| | 5223 Nov 26 10:21 | 30°♂Π | | morning rise | 5224 Nov 14 07:36 | 10°Π32'21 | |
| asc. node | 5223 Nov 28 10:36 | 28°Π10'10 | | asc. node | 5224 Nov 15 16:16 | 10°Π22'57 | |
| morning rise | 5223 Nov 30 05:16 | 27°Π01'19 | | direct | 5224 Nov 22 04:38 | 13°Π47'58 | 17°52'55 |
| direct | 5223 Dec 02 23:50 | 26°Π19'20 | | morning max el | 5224 Dec 03 11:40 | 0°♂ | |
| morning max el | 5223 Dec 09 11:55 | 29°Π49'02 | 18°12'59 | | 5224 Dec 09 02:12 | 9°♂30'47 | |
| | 5223 Dec 09 16:16 | 0°♂ | | morning set | 5224 Dec 20 15:03 | 28°♂49'19 | |
| morning set | 5223 Dec 28 07:08 | 27°♂39'16 | | desc. node | 5224 Dec 21 08:24 | 0°♂ | |
| | 5223 Dec 29 17:46 | 0°♂ | | | | | |
| desc. node | 5224 Jan 03 18:00 | 8°♂05'38 | | | | | |
| | | | | superior conj | 5224 Dec 22 01:55 | 1°♂11'10 | -0°10'10 |
| superior conj | 5224 Jan 12 07:12 | 21°♂41'06 | -0°57'01 | minimum elong | 5224 Dec 22 00:45 | 1°♂06'26 | 0°09'59 |
| minimum elong | 5224 Jan 12 00:13 | 21°♂13'36 | 0°56'06 | behind sun begin | 5224 Dec 21 16:48 | 0°♂34'07 | |
| max. Earth dist. | 5224 Jan 14 14:36 | 25°♂18'51 | 1.45283 AU | behind sun end | 5224 Dec 22 08:43 | 1°♂38'43 | |
| | 5224 Jan 17 14:24 | 0°≈ | | max. Earth dist. | 5224 Dec 27 09:06 | 9°♂41'05 | 1.44646 AU |
| evening rise | 5224 Jan 28 12:50 | 17°≈03'31 | | evening rise | 5225 Jan 07 00:57 | 26°♂18'31 | |
| | 5224 Feb 05 20:40 | 0°♂ | | | 5225 Jan 09 10:46 | 0°≈ | |
| greatest brilliancy | 5224 Feb 09 11:15 | 5°♂31'35 | -0.7m | | 5225 Jan 30 01:21 | 0°♂ | |
| evening max el | 5224 Feb 21 13:58 | 21°♂51'51 | 19°24'25 | evening max el | 5225 Feb 03 16:55 | 5°♂25'29 | 20°22'57 |
| asc. node | 5224 Feb 24 09:53 | 24°♂20'21 | | asc. node | 5225 Feb 10 06:53 | 9°♂55'18 | |
| retrograde | 5224 Feb 28 17:42 | 25°♂57'41 | | retrograde | 5225 Feb 11 15:54 | 10°♂05'26 | |
| evening set | 5224 Mar 03 05:59 | 24°♂45'30 | | evening set | 5225 Feb 15 12:45 | 8°♂38'52 | |
| inferior conj | 5224 Mar 08 17:23 | 18°♂52'20 | 3°20'47 | inferior conj | 5225 Feb 20 21:31 | 2°♂32'33 | 2°58'02 |
| minimum elong | 5224 Mar 08 15:46 | 18°♂57'35 | 3°20'34 | minimum elong | 5225 Feb 20 19:16 | 2°♂40'12 | 2°57'33 |
| min. Earth dist. | 5224 Mar 10 00:14 | 17°♂11'43 | 0.66545 AU | min. Earth dist. | 5225 Feb 21 14:33 | 1°♂34'33 | 0.67481 AU |
| morning rise | 5224 Mar 14 01:16 | 12°♂37'20 | | | 5225 Feb 22 18:53 | 30°♂≈ | |
| direct | 5224 Mar 20 06:31 | 9°♂51'37 | | morning rise | 5225 Feb 26 01:33 | 26°≈18'11 | |
| desc. node | 5224 Mar 31 17:17 | 16°♂16'33 | | direct | 5225 Mar 03 17:44 | 23°≈46'10 | |
| morning max el | 5224 Apr 01 18:30 | 17°♂18'51 | 25°56'18 | | 5225 Mar 14 13:02 | 0°♂ | |
| | 5224 Apr 12 08:49 | 0°♀ | | morning max el | 5225 Mar 15 03:08 | 0°♂35'09 | 24°32'58 |
| | 5224 May 01 20:53 | 0°♂ | | desc. node | 5225 Mar 18 14:18 | 4°♂20'54 | |
| morning set | 5224 May 07 22:38 | 10°♂49'38 | | | 5225 Apr 06 07:16 | 0°♀ | |
| max. Earth dist. | 5224 May 11 19:15 | 18°♂05'55 | 1.35503 AU | morning set | 5225 Apr 20 01:54 | 22°♀38'04 | |
| | | | | max. Earth dist. | 5225 Apr 23 16:56 | 29°♀06'51 | 1.37481 AU |
| | | | | | 5225 Apr 24 04:35 | 0°♂ | |
| superior conj | 5224 May 17 04:50 | 28°♂45'59 | -0°51'14 | | | | |
| minimum elong | 5224 May 17 07:40 | 29°♂00'21 | 0°50'42 | superior conj | 5225 Apr 30 12:31 | 11°♂55'09 | -1°20'25 |
| | 5224 May 17 19:26 | 0°Π | | minimum elong | 5225 Apr 30 16:55 | 12°♂16'25 | 1°19'45 |
| asc. node | 5224 May 22 09:08 | 9°Π23'33 | | evening rise | 5225 May 09 03:28 | 28°♂59'08 | |
| evening rise | 5224 May 25 02:01 | 14°Π57'57 | | asc. node | 5225 May 09 06:09 | 29°♂12'32 | |
| | 5224 Jun 01 20:04 | 0°Ω | | | 5225 May 09 15:43 | 0°Π | |
| evening max el | 5224 Jun 12 04:49 | 14°Ω30'40 | 20°17'38 | evening max el | 5225 May 25 21:30 | 26°Π12'17 | 19°15'01 |
| retrograde | 5224 Jun 22 23:55 | 19°Ω47'48 | | | 5225 May 31 11:48 | 0°Ω | |
| evening set | 5224 Jun 24 22:44 | 19°Ω38'11 | | retrograde | 5225 Jun 03 23:30 | 0°Ω38'38 | |
| desc. node | 5224 Jun 27 16:31 | 18°Ω54'41 | | evening set | 5225 Jun 05 22:55 | 0°Ω26'57 | |
| inferior conj | 5224 Jul 04 02:16 | 15°Ω40'06 | -1°54'24 | | 5225 Jun 07 14:57 | 30°♂Π | |
| minimum elong | 5224 Jul 03 20:55 | 15°Ω47'58 | 1°52'27 | | | | |

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|------------------|-------------------|--------------------|------------|------------------|-------------------|--------------------|------------|
| inferior conj | 5225 Jun 14 09:53 | 26° Π 17'38 | 0°02'43 | evening max el | 5226 May 09 00:15 | 8° Π 32'29 | 18°32'40 |
| minimum elong | 5225 Jun 14 09:59 | 26° Π 17'27 | 0°02'39 | retrograde | 5226 May 16 17:35 | 12° Π 21'21 | |
| transit middle | 5225 Jun 14 09:59 | 26° Π 17'27 | 0°02'39 | evening set | 5226 May 18 23:17 | 12° Π 03'10 | |
| transit begin | 5225 Jun 14 06:12 | 26° Π 23'45 | | inferior conj | 5226 May 26 14:11 | 7° Π 34'36 | 1°38'03 |
| transit end | 5225 Jun 14 13:46 | 26° Π 11'08 | | minimum elong | 5226 May 26 17:19 | 7° Π 28'29 | 1°37'03 |
| desc. node | 5225 Jun 14 13:32 | 26° Π 11'32 | | min. Earth dist. | 5226 May 29 23:26 | 4° Π 57'26 | 0.57921 AU |
| min. Earth dist. | 5225 Jun 17 05:13 | 24° Π 26'02 | 0.56115 AU | desc. node | 5226 Jun 01 10:33 | 3° Π 16'23 | |
| morning rise | 5225 Jun 22 18:02 | 21° Π 30'53 | | morning rise | 5226 Jun 03 08:07 | 2° Π 13'20 | |
| direct | 5225 Jun 27 16:28 | 20° Π 34'47 | | direct | 5226 Jun 09 04:27 | 0° Π 46'31 | |
| morning max el | 5225 Jul 11 20:34 | 27° Π 48'14 | 25°23'43 | morning max el | 5226 Jun 23 13:35 | 8° Π 24'43 | 26°46'42 |
| | 5225 Jul 14 00:32 | 0° Ξ | | | 5226 Jul 09 20:35 | 0° Ξ | |
| | 5225 Aug 02 16:38 | 0° Ω | | morning set | 5226 Jul 23 04:32 | 25° Ξ 07'17 | |
| asc. node | 5225 Aug 05 05:23 | 5° Ω 03'31 | | asc. node | 5226 Jul 23 02:26 | 24° Ξ 56'10 | |
| morning set | 5225 Aug 07 18:31 | 10° Ω 22'05 | | | 5226 Jul 25 11:19 | 0° Ω | |
| superior conj | 5225 Aug 14 16:45 | 25° Ω 26'38 | 1°24'32 | superior conj | 5226 Jul 30 04:27 | 10° Ω 20'50 | 1°07'58 |
| minimum elong | 5225 Aug 14 14:33 | 25° Ω 14'34 | 1°24'15 | minimum elong | 5226 Jul 30 02:10 | 10° Ω 08'13 | 1°07'35 |
| max. Earth dist. | 5225 Aug 15 21:04 | 28° Ω 01'47 | 1.32422 AU | max. Earth dist. | 5226 Jul 30 07:38 | 10° Ω 38'25 | 1.31982 AU |
| | 5225 Aug 16 18:45 | 0° Π | | evening rise | 5226 Aug 06 01:07 | 25° Ω 16'18 | |
| evening rise | 5225 Aug 21 18:55 | 10° Π 38'55 | | | 5226 Aug 08 07:47 | 0° Π | |
| | 5225 Aug 31 21:59 | 0° Ξ | | | 5226 Aug 25 15:43 | 0° Ξ | |
| desc. node | 5225 Sep 10 12:49 | 15° Ξ 18'21 | | desc. node | 5226 Aug 28 09:49 | 3° Ξ 43'40 | |
| | 5225 Sep 22 15:27 | 0° Π | | evening max el | 5226 Sep 05 05:30 | 12° Ξ 33'21 | 26°47'20 |
| evening max el | 5225 Sep 23 01:51 | 0° Π 24'49 | 27°22'25 | retrograde | 5226 Sep 19 03:19 | 19° Ξ 42'44 | |
| retrograde | 5225 Oct 06 20:58 | 7° Π 39'04 | | evening set | 5226 Sep 26 00:44 | 17° Ξ 41'05 | |
| evening set | 5225 Oct 14 00:57 | 5° Π 13'14 | | min. Earth dist. | 5226 Sep 29 19:30 | 15° Ξ 04'09 | 0.60285 AU |
| min. Earth dist. | 5225 Oct 17 16:06 | 2° Π 19'16 | 0.62304 AU | inferior conj | 5226 Oct 03 00:42 | 12° Ξ 26'36 | -4°31'10 |
| | 5225 Oct 20 03:54 | 30° Π 2 | | minimum elong | 5226 Oct 03 06:51 | 12° Ξ 13'58 | 4°29'48 |
| inferior conj | 5225 Oct 20 14:06 | 29° Ξ 36'02 | -3°35'33 | morning rise | 5226 Oct 10 14:58 | 7° Ξ 43'13 | |
| minimum elong | 5225 Oct 20 20:05 | 29° Ξ 22'01 | 3°33'40 | direct | 5226 Oct 12 22:46 | 7° Ξ 22'44 | |
| morning rise | 5225 Oct 27 17:00 | 24° Ξ 31'12 | | asc. node | 5226 Oct 19 01:39 | 9° Ξ 52'14 | |
| direct | 5225 Oct 30 01:13 | 24° Ξ 06'47 | | morning max el | 5226 Oct 20 09:20 | 11° Ξ 02'49 | 18°07'40 |
| asc. node | 5225 Nov 01 04:37 | 24° Ξ 27'49 | | | 5226 Nov 01 21:45 | 0° Π | |
| morning max el | 5225 Nov 05 20:50 | 27° Ξ 35'12 | 17°50'44 | morning set | 5226 Nov 05 03:51 | 6° Π 03'28 | |
| | 5225 Nov 08 00:56 | 0° Π | | | | | |
| morning set | 5225 Nov 21 19:10 | 22° Π 24'57 | | superior conj | 5226 Nov 14 19:40 | 23° Π 53'53 | 1°04'45 |
| | 5225 Nov 26 01:15 | 0° Ξ | | minimum elong | 5226 Nov 14 23:37 | 24° Π 11'31 | 1°04'15 |
| superior conj | 5225 Dec 02 22:06 | 11° Ξ 55'43 | 0°32'07 | | 5226 Nov 18 06:30 | 0° Ξ | |
| minimum elong | 5225 Dec 03 00:58 | 12° Ξ 07'52 | 0°31'43 | max. Earth dist. | 5226 Nov 22 11:25 | 7° Ξ 12'02 | 1.41559 AU |
| desc. node | 5225 Dec 07 12:04 | 19° Ξ 36'07 | | desc. node | 5226 Nov 24 09:05 | 10° Ξ 22'36 | |
| max. Earth dist. | 5225 Dec 10 00:33 | 23° Ξ 43'32 | 1.43353 AU | evening rise | 5226 Nov 27 16:03 | 15° Ξ 45'27 | |
| | 5225 Dec 13 22:22 | 0° Ξ | | | 5226 Dec 06 19:06 | 0° Ξ | |
| evening rise | 5225 Dec 17 13:09 | 5° Ξ 40'57 | | evening max el | 5226 Dec 28 19:49 | 0° Ξ | |
| | 5226 Jan 02 19:13 | 0° Ξ | | retrograde | 5226 Dec 31 07:13 | 2° Ξ 38'23 | 22°51'31 |
| evening max el | 5226 Jan 17 14:28 | 19° Ξ 01'00 | 21°33'29 | evening set | 5227 Jan 10 08:56 | 8° Ξ 36'57 | |
| retrograde | 5226 Jan 26 13:30 | 24° Ξ 19'55 | | asc. node | 5227 Jan 15 03:42 | 6° Ξ 39'16 | |
| asc. node | 5226 Jan 28 03:53 | 24° Ξ 06'14 | | min. Earth dist. | 5227 Jan 15 00:55 | 6° Ξ 44'59 | |
| evening set | 5226 Jan 30 20:32 | 22° Ξ 38'04 | | inferior conj | 5227 Jan 20 05:40 | 0° Ξ 40'00 | 0.68123 AU |
| inferior conj | 5226 Feb 05 04:37 | 16° Ξ 21'28 | 2°25'52 | minimum elong | 5227 Jan 20 12:41 | 0° Ξ 15'42 | 1°45'37 |
| minimum elong | 5226 Feb 05 02:12 | 16° Ξ 29'49 | 2°25'10 | | 5227 Jan 20 10:35 | 0° Ξ 22'57 | 1°44'53 |
| min. Earth dist. | 5226 Feb 05 09:08 | 16° Ξ 05'47 | 0.68000 AU | morning rise | 5227 Jan 20 17:14 | 30° Π 2 | |
| morning rise | 5226 Feb 10 07:41 | 10° Ξ 09'24 | | direct | 5227 Jan 25 17:24 | 24° Ξ 07'28 | |
| direct | 5226 Feb 15 09:24 | 7° Ξ 57'32 | | morning max el | 5227 Jan 30 04:35 | 22° Ξ 18'28 | |
| morning max el | 5226 Feb 25 12:22 | 13° Ξ 57'41 | 23°03'42 | | 5227 Feb 08 01:51 | 27° Ξ 29'02 | 21°37'36 |
| desc. node | 5226 Mar 05 11:21 | 23° Ξ 16'24 | | | 5227 Feb 10 10:18 | 0° Ξ | |
| | 5226 Mar 10 11:26 | 0° Π | | desc. node | 5227 Feb 20 08:21 | 12° Ξ 48'08 | |
| | 5226 Mar 30 05:34 | 0° Π | | | 5227 Mar 04 01:54 | 0° Π | |
| morning set | 5226 Apr 01 04:24 | 3° Π 13'34 | | morning set | 5227 Mar 12 02:19 | 12° Π 28'13 | |
| max. Earth dist. | 5226 Apr 05 12:18 | 10° Π 34'12 | 1.39677 AU | max. Earth dist. | 5227 Mar 18 12:30 | 22° Π 53'40 | 1.41807 AU |
| | | | | | 5227 Mar 22 18:02 | 0° Π | |
| superior conj | 5226 Apr 13 05:19 | 24° Π 19'13 | -1°46'01 | superior conj | 5227 Mar 26 02:17 | 5° Π 45'48 | -2°03'54 |
| minimum elong | 5226 Apr 13 10:22 | 24° Π 42'24 | 1°45'30 | minimum elong | 5227 Mar 26 05:49 | 6° Π 01'10 | 2°03'46 |
| | 5226 Apr 16 06:36 | 0° Ξ | | evening rise | 5227 Apr 06 00:37 | 25° Π 24'48 | |
| evening rise | 5226 Apr 22 20:14 | 12° Ξ 31'13 | | | 5227 Apr 08 12:48 | 0° Ξ | |
| asc. node | 5226 Apr 26 03:11 | 18° Ξ 46'24 | | asc. node | 5227 Apr 13 00:13 | 7° Ξ 59'06 | |
| | 5226 May 02 12:02 | 0° Π | | evening max el | 5227 Apr 22 09:32 | 21° Ξ 21'58 | 18°10'23 |

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| retrograde | 5227 Apr 29 06:08 | 24°♄49'50 | | retrograde | 5228 Apr 11 09:03 | 7°♄54'28 | |
| evening set | 5227 May 01 18:41 | 24°♄22'17 | | evening set | 5228 Apr 14 03:58 | 7°♄15'46 | |
| inferior conj | 5227 May 08 15:36 | 19°♄32'57 | 2°42'25 | inferior conj | 5228 Apr 20 10:52 | 2°♄06'41 | 3°18'27 |
| minimum elong | 5227 May 08 18:54 | 19°♄25'27 | 2°41'40 | minimum elong | 5228 Apr 20 12:51 | 2°♄01'32 | 3°18'11 |
| min. Earth dist. | 5227 May 11 23:48 | 16°♄31'51 | 0.60080 AU | | 5228 Apr 22 11:25 | 30°♄° | |
| morning rise | 5227 May 15 16:37 | 13°♄45'28 | | min. Earth dist. | 5228 Apr 23 08:40 | 29°♄06'11 | 0.62264 AU |
| desc. node | 5227 May 19 07:36 | 12°♄08'14 | | morning rise | 5228 Apr 26 20:09 | 26°♄03'25 | |
| direct | 5227 May 22 04:57 | 11°♄44'31 | | direct | 5228 May 03 16:02 | 23°♄33'40 | |
| morning max el | 5227 Jun 05 13:06 | 19°♄37'58 | 27°38'30 | desc. node | 5228 May 05 04:38 | 23°♄40'37 | |
| | 5227 Jun 14 08:56 | 0°♄ | | | 5228 May 16 03:24 | 0°♄ | |
| | 5227 Jul 02 15:40 | 0°♄ | | morning max el | 5228 May 17 18:38 | 1°♄34'12 | 27°52'46 |
| morning set | 5227 Jul 07 11:17 | 9°♄40'19 | | | 5228 Jun 07 14:44 | 0°♄ | |
| asc. node | 5227 Jul 09 23:29 | 14°♄57'57 | | morning set | 5228 Jun 20 12:44 | 23°♄55'04 | |
| max. Earth dist. | 5227 Jul 13 18:46 | 23°♄14'16 | 1.31957 AU | | 5228 Jun 23 11:17 | 0°♄ | |
| | | | | asc. node | 5228 Jun 25 20:32 | 5°♄04'35 | |
| superior conj | 5227 Jul 14 15:54 | 25°♄10'37 | 0°47'12 | max. Earth dist. | 5228 Jun 26 02:31 | 5°♄36'46 | 1.32360 AU |
| minimum elong | 5227 Jul 14 14:00 | 25°♄00'10 | 0°46'48 | | | | |
| | 5227 Jul 16 20:21 | 0°♄ | | superior conj | 5228 Jun 28 01:22 | 9°♄50'38 | 0°22'46 |
| evening rise | 5227 Jul 21 11:02 | 10°♄01'46 | | minimum elong | 5228 Jun 28 00:19 | 9°♄44'56 | 0°22'32 |
| | 5227 Jul 31 15:53 | 0°♄ | | evening rise | 5228 Jul 04 22:42 | 24°♄49'03 | |
| desc. node | 5227 Aug 15 06:51 | 21°♄00'59 | | | 5228 Jul 07 09:58 | 0°♄ | |
| evening max el | 5227 Aug 18 01:26 | 23°♄51'54 | 25°40'28 | | 5228 Jul 25 11:57 | 0°♄ | |
| | 5227 Aug 27 01:31 | 0°♄ | | evening max el | 5228 Jul 29 14:55 | 4°♄28'04 | 24°10'37 |
| retrograde | 5227 Sep 01 00:16 | 0°♄57'35 | | desc. node | 5228 Aug 01 03:53 | 6°♄43'10 | |
| | 5227 Sep 05 22:32 | 30°♄° | | retrograde | 5228 Aug 12 10:03 | 11°♄24'54 | |
| evening set | 5227 Sep 07 02:30 | 29°♄30'22 | | evening set | 5228 Aug 17 03:52 | 10°♄35'01 | |
| min. Earth dist. | 5227 Sep 11 13:28 | 26°♄53'22 | 0.58220 AU | min. Earth dist. | 5228 Aug 23 01:38 | 7°♄39'00 | 0.56398 AU |
| inferior conj | 5227 Sep 14 17:16 | 24°♄39'09 | -5°09'34 | inferior conj | 5228 Aug 25 13:34 | 6°♄05'53 | -5°15'31 |
| minimum elong | 5227 Sep 14 20:50 | 24°♄32'47 | 5°09'13 | minimum elong | 5228 Aug 25 11:20 | 6°♄09'24 | 5°15'25 |
| morning rise | 5227 Sep 22 17:27 | 20°♄19'11 | | morning rise | 5228 Sep 02 21:18 | 2°♄06'21 | |
| direct | 5227 Sep 25 04:17 | 20°♄00'17 | | direct | 5228 Sep 05 14:24 | 1°♄47'03 | |
| morning max el | 5227 Oct 03 14:49 | 24°♄01'51 | 18°45'15 | morning max el | 5228 Sep 15 10:01 | 6°♄22'01 | 19°44'38 |
| asc. node | 5227 Oct 05 22:43 | 26°♄32'11 | | asc. node | 5228 Sep 21 19:46 | 14°♄11'49 | |
| | 5227 Oct 08 13:43 | 0°♄ | | | 5228 Sep 30 18:02 | 0°♄ | |
| morning set | 5227 Oct 19 23:34 | 20°♄13'08 | | morning set | 5228 Oct 03 02:44 | 4°♄43'16 | |
| | 5227 Oct 24 23:47 | 0°♄ | | | | | |
| superior conj | 5227 Oct 28 13:55 | 6°♄52'36 | 1°26'48 | superior conj | 5228 Oct 10 23:23 | 20°♄35'27 | 1°39'14 |
| minimum elong | 5227 Oct 28 17:04 | 7°♄07'29 | 1°26'31 | minimum elong | 5228 Oct 11 01:02 | 20°♄43'39 | 1°39'10 |
| max. Earth dist. | 5227 Nov 04 17:36 | 19°♄57'22 | 1.39483 AU | | 5228 Oct 15 19:53 | 0°♄ | |
| evening rise | 5227 Nov 08 17:12 | 26°♄50'49 | | max. Earth dist. | 5228 Oct 16 22:22 | 2°♄04'24 | 1.37387 AU |
| | 5227 Nov 10 14:16 | 0°♄ | | evening rise | 5228 Oct 20 16:39 | 8°♄56'49 | |
| desc. node | 5227 Nov 11 06:06 | 1°♄05'40 | | desc. node | 5228 Oct 28 03:07 | 21°♄40'41 | |
| | 5227 Nov 30 09:37 | 0°♄ | | | 5228 Nov 02 08:45 | 0°♄ | |
| evening max el | 5227 Dec 13 20:51 | 16°♄19'10 | 24°11'16 | evening max el | 5228 Nov 25 08:17 | 0°♄ | |
| retrograde | 5227 Dec 25 01:02 | 22°♄52'52 | | retrograde | 5228 Nov 25 09:25 | 0°♄02'45 | 25°26'08 |
| evening set | 5227 Dec 30 08:42 | 20°♄39'50 | | evening set | 5228 Dec 07 12:47 | 7°♄02'06 | |
| asc. node | 5228 Jan 01 21:58 | 18°♄01'16 | | | 5228 Dec 13 09:53 | 4°♄35'35 | |
| min. Earth dist. | 5228 Jan 04 01:58 | 15°♄14'04 | 0.67876 AU | | 5228 Dec 17 14:44 | 30°♄° | |
| inferior conj | 5228 Jan 04 19:59 | 14°♄13'18 | 0°58'19 | min. Earth dist. | 5228 Dec 17 19:42 | 29°♄44'09 | 0.67272 AU |
| minimum elong | 5228 Jan 04 18:39 | 14°♄17'48 | 0°57'48 | asc. node | 5228 Dec 18 19:01 | 28°♄29'03 | |
| morning rise | 5228 Jan 10 04:40 | 8°♄10'32 | | inferior conj | 5228 Dec 19 00:40 | 28°♄10'50 | 0°04'48 |
| direct | 5228 Jan 14 02:14 | 6°♄44'02 | | minimum elong | 5228 Dec 19 00:32 | 28°♄11'14 | 0°04'46 |
| morning max el | 5228 Jan 21 22:33 | 11°♄12'22 | 20°21'18 | transit middle | 5228 Dec 19 00:32 | 28°♄11'14 | 0°04'46 |
| | 5228 Feb 05 08:08 | 0°♄ | | transit begin | 5228 Dec 18 21:52 | 28°♄19'51 | |
| desc. node | 5228 Feb 07 05:22 | 2°♄46'24 | | transit end | 5228 Dec 19 03:13 | 28°♄02'37 | |
| morning set | 5228 Feb 19 02:08 | 20°♄45'48 | | morning rise | 5228 Dec 24 15:32 | 22°♄15'32 | |
| | 5228 Feb 24 23:54 | 0°♄ | | direct | 5228 Dec 28 01:02 | 21°♄09'05 | |
| max. Earth dist. | 5228 Feb 28 19:49 | 6°♄06'11 | 1.43586 AU | morning max el | 5229 Jan 04 03:07 | 25°♄06'06 | 19°18'49 |
| | | | | | 5229 Jan 08 08:53 | 0°♄ | |
| superior conj | 5228 Mar 05 22:55 | 16°♄05'45 | -2°08'42 | greatest brilliancy | 5229 Jan 17 11:18 | 12°♄56'35 | -0.7m |
| minimum elong | 5228 Mar 05 21:41 | 16°♄00'38 | 2°08'41 | desc. node | 5229 Jan 24 02:23 | 23°♄03'28 | |
| | 5228 Mar 14 04:23 | 0°♄ | | morning set | 5229 Jan 28 01:28 | 29°♄10'40 | |
| evening rise | 5228 Mar 18 12:17 | 7°♄30'46 | | | 5229 Jan 28 14:12 | 0°♄ | |
| asc. node | 5228 Mar 29 21:16 | 26°♄43'50 | | max. Earth dist. | 5229 Feb 10 09:31 | 19°♄59'44 | 1.44804 AU |
| | 5228 Apr 01 03:08 | 0°♄ | | | | | |
| evening max el | 5228 Apr 04 22:01 | 4°♄32'22 | 18°07'36 | superior conj | 5229 Feb 13 18:36 | 25°♄20'51 | -1°55'09 |
| | | | | minimum elong | 5229 Feb 13 11:08 | 24°♄51'11 | 1°54'38 |

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|------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| | 5229 Feb 16 16:28 | 0°♄ | | evening rise | 5230 Feb 08 18:02 | 28°♄53'28 | |
| evening rise | 5229 Feb 28 02:49 | 18°♄40'34 | | | 5230 Feb 09 10:48 | 0°♄ | |
| | 5229 Mar 06 22:41 | 0°♄ | | greatest brilliancy | 5230 Feb 17 19:25 | 13°♄14'51 | -0.8m |
| asc. node | 5229 Mar 16 18:19 | 14°♄51'30 | | | 5230 Mar 01 13:11 | 0°♄ | |
| evening max el | 5229 Mar 19 10:40 | 17°♄55'45 | 18°23'40 | evening max el | 5230 Mar 02 20:59 | 1°♄25'55 | 18°57'30 |
| retrograde | 5229 Mar 25 21:43 | 21°♄25'33 | | asc. node | 5230 Mar 03 15:20 | 2°♄10'47 | |
| evening set | 5229 Mar 28 22:58 | 20°♄34'28 | | retrograde | 5230 Mar 09 16:21 | 5°♄15'15 | |
| inferior conj | 5229 Apr 03 19:44 | 15°♄07'04 | 3°32'09 | evening set | 5230 Mar 13 00:24 | 4°♄10'54 | |
| minimum elong | 5229 Apr 03 20:05 | 15°♄06'03 | 3°32'07 | | 5230 Mar 17 08:16 | 30°♄♄ | |
| min. Earth dist. | 5229 Apr 06 02:50 | 12°♄28'01 | 0.64224 AU | inferior conj | 5230 Mar 18 14:25 | 28°♄26'38 | 3°28'49 |
| morning rise | 5229 Apr 09 16:22 | 8°♄56'02 | | minimum elong | 5230 Mar 18 13:24 | 28°♄29'51 | 3°28'44 |
| direct | 5229 Apr 16 11:30 | 6°♄09'28 | | min. Earth dist. | 5230 Mar 20 05:53 | 26°♄22'43 | 0.65824 AU |
| desc. node | 5229 Apr 22 01:39 | 7°♄43'34 | | morning rise | 5230 Mar 24 01:59 | 22°♄12'29 | |
| morning max el | 5229 Apr 30 03:42 | 14°♄07'03 | 27°30'27 | direct | 5230 Mar 30 13:44 | 19°♄22'58 | |
| | 5229 May 13 00:16 | 0°♄ | | desc. node | 5230 Apr 08 22:40 | 23°♄44'01 | |
| | 5229 May 31 05:37 | 0°♄ | | morning max el | 5230 Apr 12 13:38 | 27°♄04'43 | 26°37'22 |
| morning set | 5229 Jun 04 06:20 | 7°♄44'00 | | | 5230 Apr 15 07:18 | 0°♄ | |
| max. Earth dist. | 5229 Jun 09 02:58 | 17°♄34'51 | 1.33214 AU | | 5230 May 06 15:49 | 0°♄ | |
| | | | | morning set | 5230 May 18 12:41 | 20°♄56'02 | |
| superior conj | 5229 Jun 12 06:56 | 24°♄15'14 | -0°04'37 | max. Earth dist. | 5230 May 22 16:52 | 29°♄01'51 | 1.34542 AU |
| minimum elong | 5229 Jun 12 07:10 | 24°♄16'29 | 0°04'35 | | 5230 May 23 04:34 | 0°♄ | |
| behind sun begin | 5229 Jun 12 01:57 | 23°♄48'38 | | | | | |
| behind sun end | 5229 Jun 12 12:24 | 24°♄44'21 | | superior conj | 5230 May 27 06:17 | 8°♄16'36 | -0°33'58 |
| asc. node | 5229 Jun 12 17:35 | 25°♄12'04 | | minimum elong | 5230 May 27 08:07 | 8°♄26'08 | 0°33'36 |
| | 5229 Jun 14 23:16 | 0°♄ | | asc. node | 5230 May 30 14:36 | 15°♄15'33 | |
| evening rise | 5229 Jun 19 10:14 | 9°♄32'24 | | evening rise | 5230 Jun 03 19:36 | 24°♄04'39 | |
| | 5229 Jun 30 01:21 | 0°♄ | | | 5230 Jun 06 17:04 | 0°♄ | |
| evening max el | 5229 Jul 11 04:26 | 14°♄49'35 | 22°32'59 | evening max el | 5230 Jun 23 01:46 | 25°♄27'56 | 21°02'26 |
| desc. node | 5229 Jul 19 00:55 | 20°♄17'14 | | | 5230 Jun 29 08:22 | 0°♄ | |
| retrograde | 5229 Jul 24 07:14 | 21°♄21'02 | | retrograde | 5230 Jul 04 19:50 | 1°♄14'54 | |
| evening set | 5229 Jul 27 12:39 | 20°♄58'10 | | desc. node | 5230 Jul 05 21:57 | 1°♄12'04 | |
| min. Earth dist. | 5229 Aug 04 11:52 | 17°♄29'07 | 0.55165 AU | evening set | 5230 Jul 07 00:52 | 1°♄03'25 | |
| inferior conj | 5229 Aug 05 15:49 | 16°♄49'23 | -4°33'22 | | 5230 Jul 10 15:40 | 30°♄♄ | |
| minimum elong | 5229 Aug 05 07:51 | 17°♄00'43 | 4°31'44 | inferior conj | 5230 Jul 16 08:58 | 27°♄05'53 | -3°01'22 |
| morning rise | 5229 Aug 14 05:01 | 12°♄59'25 | | minimum elong | 5230 Jul 16 00:58 | 27°♄17'09 | 2°58'45 |
| direct | 5229 Aug 17 07:14 | 12°♄37'32 | | min. Earth dist. | 5230 Jul 16 22:23 | 26°♄46'58 | 0.54794 AU |
| morning max el | 5229 Aug 28 17:03 | 17°♄56'42 | 21°05'14 | morning rise | 5230 Jul 25 01:16 | 23°♄07'36 | |
| | 5229 Sep 07 02:52 | 0°♄ | | direct | 5230 Jul 28 16:21 | 22°♄39'18 | |
| asc. node | 5229 Sep 08 16:49 | 2°♄37'50 | | morning max el | 5230 Aug 10 13:01 | 28°♄47'09 | 22°42'49 |
| morning set | 5229 Sep 17 10:44 | 19°♄26'54 | | | 5230 Aug 11 18:57 | 0°♄ | |
| | 5229 Sep 22 11:54 | 0°♄ | | asc. node | 5230 Aug 26 13:51 | 21°♄38'19 | |
| | | | | | 5230 Aug 30 19:50 | 0°♄ | |
| superior conj | 5229 Sep 24 19:40 | 4°♄49'49 | 1°43'25 | morning set | 5230 Sep 01 21:26 | 4°♄17'35 | |
| minimum elong | 5229 Sep 24 19:48 | 4°♄50'28 | 1°43'26 | | | | |
| max. Earth dist. | 5229 Sep 29 07:48 | 13°♄56'51 | 1.35508 AU | superior conj | 5230 Sep 08 23:20 | 19°♄24'58 | 1°40'39 |
| evening rise | 5229 Oct 03 10:55 | 21°♄54'58 | | minimum elong | 5230 Sep 08 22:13 | 19°♄19'02 | 1°40'36 |
| | 5229 Oct 07 21:08 | 0°♄ | | max. Earth dist. | 5230 Sep 12 01:37 | 25°♄56'10 | 1.33981 AU |
| desc. node | 5229 Oct 15 00:10 | 12°♄02'48 | | | 5230 Sep 14 01:02 | 0°♄ | |
| | 5229 Oct 27 04:05 | 0°♄ | | evening rise | 5230 Sep 16 19:40 | 5°♄33'14 | |
| evening max el | 5229 Nov 07 22:14 | 13°♄45'23 | 26°28'37 | | 5230 Sep 30 13:28 | 0°♄ | |
| retrograde | 5229 Nov 20 19:17 | 20°♄58'43 | | desc. node | 5230 Oct 01 21:13 | 2°♄05'24 | |
| evening set | 5229 Nov 27 05:23 | 18°♄22'30 | | evening max el | 5230 Oct 21 10:59 | 27°♄17'37 | 27°11'18 |
| min. Earth dist. | 5229 Dec 01 08:30 | 14°♄06'14 | 0.66319 AU | | 5230 Oct 24 12:44 | 0°♄ | |
| inferior conj | 5229 Dec 03 00:47 | 12°♄04'42 | -0°53'53 | retrograde | 5230 Nov 03 19:52 | 4°♄35'23 | |
| minimum elong | 5229 Dec 03 02:16 | 12°♄00'13 | 0°53'14 | evening set | 5230 Nov 10 16:58 | 1°♄55'32 | |
| asc. node | 5229 Dec 05 16:03 | 9°♄03'10 | | | 5230 Nov 12 21:12 | 30°♄♄ | |
| morning rise | 5229 Dec 08 23:49 | 6°♄19'28 | | min. Earth dist. | 5230 Nov 14 13:55 | 28°♄14'28 | 0.65013 AU |
| direct | 5229 Dec 11 23:15 | 5°♄29'34 | | inferior conj | 5230 Nov 16 18:06 | 25°♄49'59 | -1°56'17 |
| morning max el | 5229 Dec 18 14:20 | 9°♄06'20 | 18°32'11 | minimum elong | 5230 Nov 16 21:28 | 25°♄40'38 | 1°54'55 |
| | 5230 Jan 02 10:19 | 0°♄ | | asc. node | 5230 Nov 22 13:04 | 20°♄35'49 | |
| morning set | 5230 Jan 07 23:15 | 8°♄47'45 | | morning rise | 5230 Nov 23 03:05 | 20°♄17'56 | |
| desc. node | 5230 Jan 10 23:24 | 13°♄34'08 | | direct | 5230 Nov 25 18:37 | 19°♄40'46 | |
| | 5230 Jan 21 09:32 | 0°♄ | | morning max el | 5230 Dec 02 05:50 | 23°♄07'15 | 18°02'20 |
| | | | | | 5230 Dec 07 17:40 | 0°♄ | |
| superior conj | 5230 Jan 23 22:40 | 3°♄59'40 | -1°22'14 | morning set | 5230 Dec 20 02:46 | 19°♄54'06 | |
| minimum elong | 5230 Jan 23 13:30 | 3°♄23'45 | 1°21'13 | | 5230 Dec 26 05:54 | 0°♄ | |
| max. Earth dist. | 5230 Jan 24 03:47 | 4°♄19'46 | 1.45328 AU | desc. node | 5230 Dec 28 20:26 | 4°♄34'10 | |

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|---------------------|-------------------|--|------------------|-------------------|---|------------|
| superior conj | 5231 Jan 03 06:36 | 12°  56'12 -0°37'08 | behind sun end | 5231 Dec 14 20:34 | 23°  33'28 | |
| minimum elong | 5231 Jan 03 02:02 | 12°  38'05 0°36'29 | desc. node | 5231 Dec 15 17:28 | 24°  59'22 | |
| max. Earth dist. | 5231 Jan 06 23:37 | 18°  48'23 1.45103 AU | | 5231 Dec 18 19:20 | 0°  | |
| | 5231 Jan 14 03:27 | 0°  | max. Earth dist. | 5231 Dec 20 17:28 | 3°  05'21 | 1.44163 AU |
| evening rise | 5231 Jan 19 13:15 | 8°  22'31 | evening rise | 5231 Dec 29 23:22 | 17°  35'24 | |
| greatest brilliancy | 5231 Feb 02 06:12 | 29°  16'26 -0.7m | | 5232 Jan 07 03:24 | 0°  | |
| | 5231 Feb 02 17:58 | 0°  | evening max el | 5232 Jan 28 03:33 | 28°  33'10 | 20°51'39 |
| evening max el | 5231 Feb 14 03:00 | 14°  59'14 19°47'35 | | 5232 Jan 29 15:29 | 0°  | |
| asc. node | 5231 Feb 18 12:21 | 18°  18'235 | asc. node | 5232 Feb 05 09:22 | 3°  18'29 | |
| retrograde | 5231 Feb 21 13:59 | 19°  18'22 | retrograde | 5232 Feb 05 12:17 | 3°  18'29 | |
| evening set | 5231 Feb 25 05:52 | 17°  59'57 | evening set | 5232 Feb 09 13:18 | 1°  56'25 | |
| inferior conj | 5231 Mar 02 15:51 | 12°  00'50 3°12'22 | | 5232 Feb 11 14:10 | 30°  | |
| minimum elong | 5231 Mar 02 13:55 | 12°  07'17 3°12'03 | inferior conj | 5232 Feb 14 21:30 | 25°  45'04 | 2°45'26 |
| min. Earth dist. | 5231 Mar 03 16:35 | 10°  38'29 0.67001 AU | minimum elong | 5232 Feb 14 19:08 | 25°  53'14 | 2°44'51 |
| morning rise | 5231 Mar 07 21:46 | 5°  46'07 | min. Earth dist. | 5232 Feb 15 08:58 | 25°  05'35 | 0.67749 AU |
| direct | 5231 Mar 13 21:44 | 3°  05'26 | morning rise | 5232 Feb 20 00:48 | 19°  31'30 | |
| morning max el | 5231 Mar 25 22:55 | 10°  17'13 25°22'15 | direct | 5232 Feb 25 10:48 | 17°  07'49 | |
| desc. node | 5231 Mar 26 19:40 | 11°  10'43 | morning max el | 5232 Mar 07 07:41 | 23°  36'57 | 23°55'12 |
| | 5231 Apr 10 14:11 | 0°  | desc. node | 5232 Mar 12 16:41 | 29°  38'48 | |
| | 5231 Apr 29 06:50 | 0°  | | 5232 Mar 12 23:38 | 0°  | |
| morning set | 5231 May 01 03:24 | 3°  19'24 | | 5232 Apr 02 23:48 | 0°  | |
| max. Earth dist. | 5231 May 04 19:59 | 10°  07'28 1.36314 AU | morning set | 5232 Apr 11 20:54 | 14°  38'45 | |
| | | | max. Earth dist. | 5232 Apr 15 16:02 | 21°  16'43 | 1.38409 AU |
| | | | | 5232 Apr 20 11:12 | 0°  | |
| superior conj | 5231 May 10 20:40 | 21°  47'27 -1°03'50 | | | | |
| minimum elong | 5231 May 11 00:13 | 22°  05'06 1°03'13 | | | | |
| | 5231 May 14 22:31 | 0°  | superior conj | 5232 Apr 22 22:33 | 4°  38'27 | -1°31'55 |
| asc. node | 5231 May 17 11:38 | 5°  11'15 | minimum elong | 5232 Apr 23 03:24 | 5°  01'25 | 1°31'17 |
| evening rise | 5231 May 19 00:42 | 8°  19'34 | evening rise | 5232 May 01 22:53 | 22°  09'32 | |
| | 5231 May 30 23:30 | 0°  | asc. node | 5232 May 03 08:40 | 24°  54'26 | |
| evening max el | 5231 Jun 05 11:16 | 6°  44'23 19°48'23 | | 5232 May 06 00:20 | 0°  | |
| retrograde | 5231 Jun 15 12:13 | 11°  39'03 | evening max el | 5232 May 18 08:33 | 18°  42'53 | 18°54'25 |
| evening set | 5231 Jun 17 10:11 | 11°  29'06 | retrograde | 5232 May 26 19:33 | 22°  51'46 | |
| desc. node | 5231 Jun 22 18:57 | 9°  30'42 | evening set | 5232 May 28 21:09 | 22°  53'53 | |
| inferior conj | 5231 Jun 26 07:34 | 7°  27'14 -1°03'20 | inferior conj | 5232 Jun 05 23:35 | 18°  20'45 | 0°46'45 |
| minimum elong | 5231 Jun 26 04:38 | 7°  31'44 1°02'15 | minimum elong | 5232 Jun 06 01:22 | 18°  21'33 | 0°46'07 |
| min. Earth dist. | 5231 Jun 28 10:51 | 6°  08'26 0.55383 AU | desc. node | 5232 Jun 08 15:56 | 16°  26'16 | |
| morning rise | 5231 Jul 04 21:02 | 3°  01'16 | min. Earth dist. | 5232 Jun 09 02:49 | 16°  27'32 | 0.56816 AU |
| direct | 5231 Jul 09 06:28 | 2°  18'47 | morning rise | 5232 Jun 14 02:15 | 13°  18'17 | |
| morning max el | 5231 Jul 23 03:07 | 9°  11'07 24°26'57 | direct | 5232 Jun 19 10:06 | 12°  10'14 | |
| | 5231 Aug 07 12:34 | 0°  | morning max el | 5232 Jul 03 17:50 | 19°  36'09 | 26°02'13 |
| asc. node | 5231 Aug 13 10:52 | 11°  04'35 | | 5232 Jul 12 13:56 | 0°  | |
| morning set | 5231 Aug 17 09:10 | 19°  10'20 | | 5232 Jul 29 22:20 | 0°  | |
| | 5231 Aug 22 09:23 | 0°  | asc. node | 5232 Jul 30 07:55 | 0°  | |
| | | | morning set | 5232 Jul 31 20:18 | 4°  00'16 | |
| superior conj | 5231 Aug 24 07:46 | 4°  13'03 1°31'56 | | | | |
| minimum elong | 5231 Aug 24 05:50 | 4°  02'32 1°31'44 | superior conj | 5232 Aug 07 18:51 | 19°  07'23 | 1°18'04 |
| max. Earth dist. | 5231 Aug 26 03:55 | 8°  12'19 1.32867 AU | minimum elong | 5232 Aug 07 16:34 | 18°  05'46 | 1°17'43 |
| evening rise | 5231 Aug 31 15:07 | 19°  41'25 | max. Earth dist. | 5232 Aug 08 12:20 | 20°  04'37 | 1.32178 AU |
| | 5231 Sep 05 21:28 | 0°  | | 5232 Aug 12 18:41 | 0°  | |
| desc. node | 5231 Sep 18 18:15 | 21°  40'02 | evening rise | 5232 Aug 14 18:10 | 4°  10'48 | |
| | 5231 Sep 24 17:16 | 0°  | | 5232 Aug 28 14:33 | 0°  | |
| evening max el | 5231 Oct 03 21:58 | 10°  26'43 27°27'18 | desc. node | 5232 Sep 04 15:15 | 10°  43'57 | |
| retrograde | 5231 Oct 17 14:07 | 17°  43'16 | evening max el | 5232 Sep 15 04:54 | 23°  00'28 | 27°11'36 |
| evening set | 5231 Oct 24 17:45 | 15°  08'43 | | 5232 Sep 26 19:04 | 0°  | |
| min. Earth dist. | 5231 Oct 28 09:54 | 11°  05'55 0.63374 AU | retrograde | 5232 Sep 29 01:28 | 0°  | |
| inferior conj | 5231 Oct 31 01:59 | 9°  12'09 -2°59'58 | | 5232 Oct 01 06:53 | 30°  | |
| minimum elong | 5231 Oct 31 07:11 | 9°  07'09 2°58'07 | evening set | 5232 Oct 06 04:04 | 27°  56'01 | |
| morning rise | 5231 Nov 06 22:11 | 4°  04'43 | min. Earth dist. | 5232 Oct 09 19:27 | 25°  11'17 | 0.61457 AU |
| direct | 5231 Nov 09 08:18 | 3°  36'38 | inferior conj | 5232 Oct 12 21:23 | 22°  28'07 | -4°00'32 |
| asc. node | 5231 Nov 09 10:06 | 3°  36'39 | minimum elong | 5232 Oct 13 03:41 | 22°  14'10 | 3°58'47 |
| morning max el | 5231 Nov 15 22:43 | 7°  01'44 17°49'51 | morning rise | 5232 Oct 20 05:16 | 17°  32'26 | |
| | 5231 Dec 01 01:04 | 0°  | direct | 5232 Oct 22 12:48 | 17°  32'26 | |
| morning set | 5231 Dec 02 07:55 | 2°  14'15 | asc. node | 5232 Oct 26 07:08 | 18°  11'32 | |
| | | | morning max el | 5232 Oct 29 13:53 | 20°  42'25 | 17°55'36 |
| superior conj | 5231 Dec 14 11:33 | 22°  56'15 0°08'47 | | 5232 Nov 05 13:05 | 0°  | |
| minimum elong | 5231 Dec 14 12:28 | 23°  00'04 0°08'40 | morning set | 5232 Nov 14 08:16 | 15°  29'09 | |
| behind sun begin | 5231 Dec 14 04:23 | 22°  26'36 | | 5232 Nov 22 09:08 | 0°  | |

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|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| superior conj | 5232 Nov 24 19:03 | 4°♊13'52 | 0°47'15 | minimum elong | 5233 Nov 07 05:50 | 16°♎56'25 | 1°14'56 |
| minimum elong | 5232 Nov 24 22:41 | 4°♊29'37 | 0°46'45 | max. Earth dist. | 5233 Nov 14 14:53 | 0°♊01'36 | 1.40693 AU |
| desc. node | 5232 Dec 01 14:30 | 15°♊46'38 | | desc. node | 5233 Nov 14 14:30 | 0°♊ | |
| max. Earth dist. | 5232 Dec 02 06:42 | 16°♊53'25 | 1.42631 AU | evening rise | 5233 Nov 18 11:32 | 6°♊31'59 | |
| evening rise | 5232 Dec 08 16:19 | 27°♊11'51 | | evening rise | 5233 Nov 19 04:17 | 7°♊41'09 | |
| | 5232 Dec 10 11:12 | 0°♋ | | | 5233 Dec 03 13:33 | 0°♋ | |
| | 5232 Dec 30 22:35 | 0°♌ | | evening max el | 5233 Dec 23 14:03 | 25°♋47'22 | 23°25'43 |
| evening max el | 5233 Jan 09 22:48 | 12°♌08'38 | 22°06'02 | | 5233 Dec 28 13:09 | 0°♌ | |
| retrograde | 5233 Jan 19 09:16 | 17°♌45'21 | | retrograde | 5234 Jan 03 03:26 | 2°♌01'51 | |
| asc. node | 5233 Jan 22 06:24 | 17°♌01'27 | | evening set | 5234 Jan 08 03:27 | 29°♋57'48 | |
| evening set | 5233 Jan 23 21:01 | 15°♌56'51 | | | 5234 Jan 08 02:25 | 30°♎♋ | |
| inferior conj | 5233 Jan 29 05:17 | 9°♌36'37 | 2°09'44 | asc. node | 5234 Jan 09 03:27 | 29°♋02'25 | |
| minimum elong | 5233 Jan 29 02:57 | 9°♌44'43 | 2°08'59 | min. Earth dist. | 5234 Jan 13 01:38 | 24°♋12'28 | 0.68058 AU |
| min. Earth dist. | 5233 Jan 29 04:48 | 9°♌38'18 | 0.68094 AU | inferior conj | 5234 Jan 13 13:16 | 23°♋32'31 | 1°26'24 |
| morning rise | 5233 Feb 03 08:44 | 3°♌25'45 | | minimum elong | 5234 Jan 13 11:27 | 23°♋38'47 | 1°25'43 |
| direct | 5233 Feb 08 04:07 | 1°♌23'30 | | morning rise | 5234 Jan 18 19:22 | 17°♋26'08 | |
| morning max el | 5233 Feb 17 18:20 | 7°♌02'49 | 22°26'12 | direct | 5234 Jan 23 00:39 | 15°♋46'40 | |
| desc. node | 5233 Feb 27 13:44 | 18°♌51'02 | | morning max el | 5234 Jan 31 10:30 | 20°♋38'13 | 21°03'36 |
| | 5233 Mar 07 12:11 | 0°♍ | | | 5234 Feb 08 06:32 | 0°♍ | |
| morning set | 5233 Mar 23 11:25 | 24°♍39'58 | | desc. node | 5234 Feb 14 10:46 | 8°♍35'02 | |
| | 5233 Mar 26 16:58 | 0°♎ | | | 5234 Feb 28 17:46 | 0°♍ | |
| max. Earth dist. | 5233 Mar 28 12:16 | 3°♎02'06 | 1.40606 AU | morning set | 5234 Mar 02 22:13 | 3°♍24'33 | |
| | | | | max. Earth dist. | 5234 Mar 10 15:05 | 15°♍43'40 | 1.42617 AU |
| superior conj | 5233 Apr 05 07:32 | 16°♎39'17 | -1°54'51 | superior conj | 5234 Mar 17 18:42 | 27°♍38'54 | -2°07'54 |
| minimum elong | 5233 Apr 05 12:17 | 17°♎00'38 | 1°54'29 | minimum elong | 5234 Mar 17 20:36 | 27°♍47'02 | 2°07'52 |
| | 5233 Apr 12 13:30 | 0°♏ | | | 5234 Mar 19 03:41 | 0°♎ | |
| evening rise | 5233 Apr 15 10:54 | 5°♏26'16 | | evening rise | 5234 Mar 29 08:44 | 18°♎00'41 | |
| asc. node | 5233 Apr 20 05:42 | 14°♏20'00 | | | 5234 Apr 05 02:53 | 0°♏ | |
| | 5233 Apr 30 09:14 | 0°♐ | | asc. node | 5234 Apr 07 02:45 | 3°♏21'56 | |
| evening max el | 5233 May 01 14:34 | 1°♐17'00 | 18°20'47 | evening max el | 5234 Apr 15 01:45 | 14°♏17'22 | 18°06'56 |
| retrograde | 5233 May 08 21:43 | 4°♐54'52 | | retrograde | 5234 Apr 21 16:50 | 17°♏40'36 | |
| evening set | 5233 May 11 06:17 | 4°♐33'06 | | evening set | 5234 Apr 24 08:16 | 17°♏08'23 | |
| | 5233 May 18 11:17 | 30°♎♏ | | inferior conj | 5234 Apr 30 22:44 | 12°♏10'41 | 3°00'47 |
| inferior conj | 5233 May 18 13:11 | 29°♏56'03 | 2°09'07 | minimum elong | 5234 May 01 01:34 | 12°♏03'50 | 3°00'15 |
| minimum elong | 5233 May 18 16:39 | 29°♏48'48 | 2°08'07 | min. Earth dist. | 5234 May 04 03:25 | 9°♏06'57 | 0.61025 AU |
| min. Earth dist. | 5233 May 21 23:41 | 27°♏05'20 | 0.58816 AU | morning rise | 5234 May 07 16:48 | 6°♏15'39 | |
| morning rise | 5233 May 25 23:57 | 24°♏22'08 | | desc. node | 5234 May 13 09:59 | 4°♏04'00 | |
| desc. node | 5233 May 26 12:58 | 24°♏05'14 | | direct | 5234 May 14 09:40 | 4°♏01'09 | |
| direct | 5233 Jun 01 04:07 | 22°♏40'20 | | morning max el | 5234 May 28 15:35 | 11°♏58'11 | 27°49'09 |
| | 5233 Jun 15 02:24 | 0°♑ | | | 5234 Jun 11 20:39 | 0°♑ | |
| morning max el | 5233 Jun 15 13:30 | 0°♑26'53 | 27°13'01 | morning set | 5234 Jun 28 21:12 | 0°♑ | |
| | 5233 Jul 06 14:43 | 0°♒ | | asc. node | 5234 Jun 30 09:56 | 3°♒07'21 | |
| morning set | 5233 Jul 16 05:10 | 18°♒41'06 | | asc. node | 5234 Jul 04 02:01 | 10°♒51'18 | |
| asc. node | 5233 Jul 17 04:58 | 20°♒46'44 | | max. Earth dist. | 5234 Jul 06 09:37 | 15°♒52'34 | 1.32080 AU |
| | 5233 Jul 21 11:04 | 0°♓ | | | | | |
| superior conj | 5233 Jul 23 06:42 | 4°♓00'46 | 0°59'39 | superior conj | 5234 Jul 07 17:34 | 18°♒47'32 | 0°37'16 |
| minimum elong | 5233 Jul 23 04:31 | 3°♓48'44 | 0°59'15 | minimum elong | 5234 Jul 07 15:58 | 18°♒38'48 | 0°36'56 |
| max. Earth dist. | 5233 Jul 22 23:26 | 3°♓20'36 | 1.31915 AU | | 5234 Jul 12 20:15 | 0°♓ | |
| evening rise | 5233 Jul 30 02:13 | 18°♓52'36 | | evening rise | 5234 Jul 14 13:10 | 3°♓40'08 | |
| | 5233 Aug 04 13:21 | 0°♐ | | | 5234 Jul 28 13:42 | 0°♐ | |
| desc. node | 5233 Aug 22 12:17 | 28°♐34'49 | | desc. node | 5234 Aug 09 09:17 | 15°♐15'30 | |
| | 5233 Aug 23 16:46 | 0°♑ | | evening max el | 5234 Aug 09 22:27 | 15°♐47'29 | 25°04'15 |
| evening max el | 5233 Aug 28 05:24 | 4°♑48'03 | 26°22'29 | retrograde | 5234 Aug 23 20:36 | 22°♐49'41 | |
| retrograde | 5233 Sep 11 04:24 | 11°♑56'26 | | evening set | 5234 Aug 29 10:18 | 21°♐39'03 | |
| evening set | 5233 Sep 17 19:05 | 10°♑08'38 | | min. Earth dist. | 5234 Sep 03 09:59 | 18°♐55'53 | 0.57404 AU |
| min. Earth dist. | 5233 Sep 21 18:49 | 7°♑33'44 | 0.59391 AU | inferior conj | 5234 Sep 06 08:49 | 16°♐57'36 | -5°17'04 |
| inferior conj | 5233 Sep 25 00:43 | 5°♑03'44 | -4°50'23 | minimum elong | 5234 Sep 06 10:14 | 16°♐55'12 | 5°17'02 |
| minimum elong | 5233 Sep 25 06:12 | 4°♑53'09 | 4°49'27 | morning rise | 5234 Sep 14 12:27 | 12°♐46'36 | |
| morning rise | 5233 Oct 02 19:29 | 0°♑30'12 | | direct | 5234 Sep 17 01:41 | 12°♐27'38 | |
| direct | 5233 Oct 05 03:57 | 0°♑10'47 | | morning max el | 5234 Sep 26 01:11 | 16°♐42'08 | 19°07'43 |
| morning max el | 5233 Oct 12 23:51 | 3°♑59'10 | 18°21'01 | asc. node | 5234 Sep 30 01:16 | 21°♐16'35 | |
| asc. node | 5233 Oct 13 04:12 | 4°♑09'47 | | | 5234 Oct 05 15:58 | 0°♑ | |
| morning set | 5233 Oct 28 22:10 | 29°♑22'01 | | morning set | 5234 Oct 12 21:25 | 13°♑41'11 | |
| | 5233 Oct 29 06:07 | 0°♒ | | | | | |
| superior conj | 5233 Nov 07 02:05 | 16°♒39'12 | 1°15'21 | superior conj | 5234 Oct 21 03:21 | 29°♑57'44 | 1°33'10 |
| | | | | minimum elong | 5234 Oct 21 05:54 | 0°♒10'03 | 1°32'59 |

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|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| | 5234 Oct 21 03:49 | 0°♄ | | | 5235 Sep 27 22:50 | 0°♄ | |
| max. Earth dist. | 5234 Oct 27 20:08 | 12°♄29'33 | 1.38586 AU | | | | |
| evening rise | 5234 Oct 31 15:13 | 19°♄12'43 | | superior conj | 5235 Oct 04 17:55 | 13°♄55'31 | 1°41'56 |
| desc. node | 5234 Nov 05 08:34 | 27°♄11'52 | | minimum elong | 5235 Oct 04 18:54 | 14°♄00'29 | 1°41'55 |
| | 5234 Nov 07 01:44 | 0°♄ | | max. Earth dist. | 5235 Oct 10 02:36 | 24°♄29'01 | 1.36554 AU |
| | 5234 Nov 27 18:55 | 0°♄ | | | 5235 Oct 13 00:58 | 0°♄ | |
| evening max el | 5234 Dec 06 03:10 | 9°♄29'42 | 24°44'17 | evening rise | 5235 Oct 13 23:11 | 1°♄42'04 | |
| retrograde | 5234 Dec 17 17:35 | 16°♄14'54 | | desc. node | 5235 Oct 23 05:35 | 17°♄42'05 | |
| evening set | 5234 Dec 23 07:00 | 13°♄55'55 | | | 5235 Oct 31 04:06 | 0°♄ | |
| asc. node | 5234 Dec 27 00:30 | 9°♄51'37 | | evening max el | 5235 Nov 18 15:44 | 23°♄13'37 | 25°54'38 |
| min. Earth dist. | 5234 Dec 27 21:04 | 8°♄44'43 | 0.67663 AU | | 5235 Nov 28 17:50 | 0°♄ | |
| inferior conj | 5234 Dec 28 19:40 | 7°♄29'51 | 0°36'20 | retrograde | 5235 Dec 01 03:03 | 0°♄19'53 | |
| minimum elong | 5234 Dec 28 18:47 | 7°♄32'45 | 0°35'59 | | 5235 Dec 03 09:32 | 30°♄♄ | |
| morning rise | 5235 Jan 03 06:42 | 1°♄29'59 | | evening set | 5235 Dec 07 06:00 | 27°♄48'26 | |
| direct | 5235 Jan 06 23:02 | 0°♄12'11 | | min. Earth dist. | 5235 Dec 11 12:51 | 23°♄12'11 | 0.66912 AU |
| morning max el | 5235 Jan 14 10:29 | 4°♄25'23 | 19°52'53 | inferior conj | 5235 Dec 12 22:37 | 21°♄26'10 | -0°19'31 |
| desc. node | 5235 Feb 01 07:47 | 28°♄41'43 | | minimum elong | 5235 Dec 12 23:08 | 21°♄24'34 | 0°19'17 |
| | 5235 Feb 02 04:32 | 0°♄ | | asc. node | 5235 Dec 13 21:32 | 20°♄14'56 | |
| morning set | 5235 Feb 09 18:29 | 11°♄35'00 | | morning rise | 5235 Dec 18 16:45 | 15°♄35'06 | |
| max. Earth dist. | 5235 Feb 21 01:49 | 29°♄16'57 | 1.44182 AU | direct | 5235 Dec 21 21:46 | 14°♄36'10 | |
| | 5235 Feb 21 12:37 | 0°♄ | | morning max el | 5235 Dec 28 18:12 | 18°♄22'54 | 18°57'03 |
| | | | | | 5236 Jan 06 18:33 | 0°♄ | |
| superior conj | 5235 Feb 26 04:18 | 7°♄29'19 | -2°05'25 | desc. node | 5236 Jan 19 04:50 | 19°♄05'14 | |
| minimum elong | 5235 Feb 26 00:18 | 7°♄13'05 | 2°05'16 | morning set | 5236 Jan 20 01:24 | 20°♄25'34 | |
| evening rise | 5235 Mar 11 11:50 | 29°♄42'56 | | | 5236 Jan 26 04:30 | 0°♄ | |
| | 5235 Mar 11 15:50 | 0°♄ | | max. Earth dist. | 5236 Feb 03 18:13 | 13°♄25'17 | 1.45115 AU |
| asc. node | 5235 Mar 24 23:47 | 21°♄51'46 | | | | | |
| evening max el | 5235 Mar 29 14:39 | 27°♄33'50 | 18°12'13 | superior conj | 5236 Feb 05 15:23 | 16°♄23'00 | -1°43'19 |
| | 5235 Apr 01 16:34 | 0°♄ | | minimum elong | 5236 Feb 05 06:19 | 15°♄47'16 | 1°42'31 |
| retrograde | 5235 Apr 05 00:27 | 0°♄57'30 | | | 5236 Feb 14 05:02 | 0°♄ | |
| evening set | 5235 Apr 07 22:09 | 0°♄13'29 | | evening rise | 5236 Feb 20 16:33 | 10°♄28'13 | |
| | 5235 Apr 08 08:18 | 30°♄♄ | | | 5236 Mar 03 19:59 | 0°♄ | |
| inferior conj | 5235 Apr 14 00:15 | 24°♄56'12 | 3°26'38 | asc. node | 5236 Mar 10 20:48 | 9°♄39'58 | |
| minimum elong | 5235 Apr 14 01:32 | 24°♄52'41 | 3°26'31 | evening max el | 5236 Mar 12 02:30 | 10°♄59'55 | 18°35'53 |
| min. Earth dist. | 5235 Apr 16 15:57 | 22°♄03'04 | 0.63135 AU | retrograde | 5236 Mar 18 16:12 | 14°♄36'58 | |
| morning rise | 5235 Apr 20 03:45 | 18°♄49'04 | | evening set | 5236 Mar 21 20:13 | 13°♄40'18 | |
| direct | 5235 Apr 27 00:13 | 16°♄10'51 | | inferior conj | 5236 Mar 27 13:42 | 8°♄05'14 | 3°32'32 |
| desc. node | 5235 Apr 30 07:01 | 16°♄43'13 | | minimum elong | 5236 Mar 27 13:25 | 8°♄06'04 | 3°32'31 |
| morning max el | 5235 May 10 22:52 | 24°♄10'33 | 27°47'34 | min. Earth dist. | 5236 Mar 29 14:02 | 5°♄40'03 | 0.64950 AU |
| | 5235 May 16 04:49 | 0°♄ | | morning rise | 5236 Apr 02 06:02 | 1°♄52'14 | |
| | 5235 Jun 05 05:28 | 0°♄ | | | 5236 Apr 05 00:26 | 30°♄♄ | |
| morning set | 5235 Jun 14 08:22 | 17°♄11'43 | | direct | 5236 Apr 08 22:30 | 29°♄03'03 | |
| max. Earth dist. | 5235 Jun 19 14:53 | 28°♄06'28 | 1.32676 AU | | 5236 Apr 13 03:44 | 0°♄ | |
| asc. node | 5235 Jun 20 23:04 | 0°♄58'26 | | desc. node | 5236 Apr 16 04:03 | 1°♄39'45 | |
| | 5235 Jun 20 12:10 | 0°♄ | | morning max el | 5236 Apr 22 08:49 | 6°♄55'46 | 27°11'15 |
| | | | | | 5236 May 10 03:00 | 0°♄ | |
| superior conj | 5235 Jun 22 01:36 | 3°♄21'22 | 0°11'30 | morning set | 5236 May 27 21:39 | 0°♄45'57 | |
| minimum elong | 5235 Jun 22 01:03 | 3°♄18'23 | 0°11'22 | | 5236 May 27 12:09 | 0°♄ | |
| behind sun begin | 5235 Jun 21 21:19 | 2°♄58'16 | | max. Earth dist. | 5236 Jun 01 11:21 | 9°♄52'02 | 1.33723 AU |
| behind sun end | 5235 Jun 22 04:46 | 3°♄38'31 | | | | | |
| evening rise | 5235 Jun 29 01:00 | 18°♄26'25 | | superior conj | 5236 Jun 05 04:47 | 17°♄36'15 | -0°16'54 |
| | 5235 Jul 04 16:55 | 0°♄ | | minimum elong | 5236 Jun 05 05:40 | 17°♄40'55 | 0°16'43 |
| evening max el | 5235 Jul 22 10:54 | 26°♄12'53 | 23°28'57 | asc. node | 5236 Jun 06 20:05 | 21°♄04'13 | |
| desc. node | 5235 Jul 27 06:18 | 0°♄07'21 | | | 5236 Jun 11 00:44 | 0°♄ | |
| | 5235 Jul 27 01:49 | 0°♄ | | evening rise | 5236 Jun 12 11:50 | 3°♄05'23 | |
| retrograde | 5235 Aug 05 00:30 | 3°♄01'00 | | | 5236 Jun 27 11:41 | 0°♄ | |
| evening set | 5235 Aug 09 02:47 | 2°♄24'15 | | evening max el | 5236 Jul 03 02:38 | 6°♄36'48 | 21°52'47 |
| | 5235 Aug 14 13:40 | 30°♄♄ | | desc. node | 5236 Jul 13 03:18 | 12°♄36'19 | |
| min. Earth dist. | 5235 Aug 15 20:32 | 29°♄15'57 | 0.55792 AU | retrograde | 5236 Jul 15 17:28 | 12°♄52'03 | |
| inferior conj | 5235 Aug 17 20:46 | 28°♄04'30 | -5°04'08 | evening set | 5236 Jul 18 10:19 | 12°♄35'40 | |
| minimum elong | 5235 Aug 17 15:43 | 28°♄12'01 | 5°03'32 | inferior conj | 5236 Jul 27 17:32 | 8°♄32'50 | -3°59'34 |
| morning rise | 5235 Aug 26 07:04 | 24°♄11'04 | | minimum elong | 5236 Jul 27 08:41 | 8°♄45'14 | 3°57'15 |
| direct | 5235 Aug 29 03:57 | 23°♄50'52 | | min. Earth dist. | 5236 Jul 27 06:30 | 8°♄48'18 | 0.54889 AU |
| morning max el | 5235 Sep 08 15:13 | 28°♄42'52 | 20°16'28 | morning rise | 5236 Aug 05 08:33 | 4°♄42'07 | |
| | 5235 Sep 09 22:26 | 0°♄ | | direct | 5236 Aug 08 15:26 | 4°♄18'22 | |
| asc. node | 5235 Sep 16 22:18 | 9°♄17'15 | | morning max el | 5236 Aug 20 17:17 | 9°♄57'59 | 21°45'13 |
| morning set | 5235 Sep 27 02:55 | 28°♄18'06 | | asc. node | 5236 Sep 02 19:20 | 27°♄58'54 | |

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|---------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| | 5236 Sep 03 21:58 | 0°♎ | | asc. node | 5237 Aug 20 16:22 | 17°♏11'36 | |
| morning set | 5236 Sep 10 12:16 | 13°♎05'18 | | morning set | 5237 Aug 25 23:38 | 27°♏57'50 | |
| | | | | | 5237 Aug 26 22:40 | 0°♎ | |
| superior conj | 5236 Sep 17 17:42 | 28°♎20'01 | 1°43'03 | superior conj | 5237 Sep 01 23:44 | 13°♎02'15 | 1°37'38 |
| minimum elong | 5236 Sep 17 17:16 | 28°♎17'41 | 1°43'02 | minimum elong | 5237 Sep 01 22:13 | 12°♎54'05 | 1°37'31 |
| | 5236 Sep 18 12:52 | 0°♏ | | max. Earth dist. | 5237 Sep 04 12:34 | 18°♎26'55 | 1.33455 AU |
| max. Earth dist. | 5236 Sep 21 15:09 | 6°♏21'24 | 1.34804 AU | evening rise | 5237 Sep 09 13:52 | 28°♎51'17 | |
| evening rise | 5236 Sep 26 00:05 | 14°♏58'23 | | | 5237 Sep 10 03:42 | 0°♏ | |
| | 5236 Oct 04 07:05 | 0°♎ | | desc. node | 5237 Sep 25 23:37 | 27°♏48'31 | |
| desc. node | 5236 Oct 09 02:36 | 7°♎56'35 | | | 5237 Sep 27 10:19 | 0°♎ | |
| | 5236 Oct 24 20:13 | 0°♎ | | evening max el | 5237 Oct 13 16:37 | 20°♎16'16 | 27°21'39 |
| evening max el | 5236 Oct 31 04:23 | 6°♎52'13 | 26°49'32 | retrograde | 5237 Oct 27 05:26 | 27°♎34'39 | |
| retrograde | 5236 Nov 13 07:13 | 14°♎09'09 | | evening set | 5237 Nov 03 05:50 | 24°♎55'52 | |
| evening set | 5236 Nov 19 22:25 | 11°♎30'08 | | min. Earth dist. | 5237 Nov 07 00:29 | 21°♎28'52 | 0.64356 AU |
| min. Earth dist. | 5236 Nov 23 22:41 | 7°♎29'12 | 0.65805 AU | inferior conj | 5237 Nov 09 09:47 | 18°♎56'37 | -2°23'23 |
| inferior conj | 5236 Nov 25 20:06 | 5°♎16'46 | -1°20'03 | minimum elong | 5237 Nov 09 13:57 | 18°♎45'29 | 2°21'45 |
| minimum elong | 5236 Nov 25 22:22 | 5°♎10'09 | 1°19'04 | morning rise | 5237 Nov 15 23:25 | 13°♎31'08 | |
| asc. node | 5236 Nov 29 18:33 | 1°♎08'14 | | asc. node | 5237 Nov 16 15:34 | 13°♎16'09 | |
| | 5236 Dec 01 07:07 | 30°♎ | | direct | 5237 Nov 18 12:13 | 12°♎58'23 | |
| morning rise | 5236 Dec 01 23:13 | 29°♎37'01 | | morning max el | 5237 Nov 25 00:05 | 16°♎23'35 | 17°54'45 |
| direct | 5236 Dec 04 18:55 | 28°♎53'09 | | | 5237 Dec 04 18:23 | 0°♎ | |
| | 5236 Dec 08 08:22 | 0°♎ | | morning set | 5237 Dec 12 02:56 | 12°♎20'23 | |
| morning max el | 5236 Dec 11 07:38 | 2°♎24'32 | 18°17'25 | desc. node | 5237 Dec 22 22:53 | 0°♎22'34 | |
| morning set | 5236 Dec 30 11:46 | 0°♎40'28 | | | 5237 Dec 22 17:20 | 0°♎ | |
| | 5236 Dec 30 01:45 | 0°♎ | | superior conj | 5237 Dec 25 09:54 | 4°♎21'47 | -0°17'08 |
| desc. node | 5237 Jan 05 01:51 | 9°♎40'09 | | minimum elong | 5237 Dec 25 07:53 | 4°♎13'40 | 0°16'50 |
| superior conj | 5237 Jan 14 18:29 | 25°♎02'07 | -1°03'56 | max. Earth dist. | 5237 Dec 30 07:54 | 12°♎13'02 | 1.44787 AU |
| minimum elong | 5237 Jan 14 10:46 | 24°♎31'47 | 1°02'57 | evening rise | 5238 Jan 10 11:48 | 29°♎36'23 | |
| max. Earth dist. | 5237 Jan 16 13:07 | 27°♎49'27 | 1.45320 AU | | 5238 Jan 10 17:57 | 0°♎ | |
| | 5237 Jan 17 22:26 | 0°♎ | | greatest brilliancy | 5238 Jan 25 04:11 | 21°♎45'57 | -0.6m |
| evening rise | 5237 Jan 30 22:21 | 20°♎19'18 | | | 5238 Jan 30 23:35 | 0°♎ | |
| | 5237 Feb 06 02:53 | 0°♎ | | evening max el | 5238 Feb 06 14:52 | 8°♎04'32 | 20°13'25 |
| greatest brilliancy | 5237 Feb 11 04:10 | 7°♎49'17 | -0.8m | asc. node | 5238 Feb 12 14:50 | 12°♎21'03 | |
| evening max el | 5237 Feb 23 11:04 | 24°♎30'56 | 19°16'57 | retrograde | 5238 Feb 14 10:33 | 12°♎38'45 | |
| asc. node | 5237 Feb 25 17:49 | 26°♎34'24 | | evening set | 5238 Feb 18 06:05 | 11°♎14'20 | |
| retrograde | 5237 Mar 02 12:28 | 28°♎32'16 | | inferior conj | 5238 Feb 23 15:06 | 5°♎09'54 | 3°02'06 |
| evening set | 5237 Mar 05 23:36 | 27°♎22'12 | | minimum elong | 5238 Feb 23 12:55 | 5°♎17'18 | 3°01'39 |
| inferior conj | 5237 Mar 11 11:35 | 21°♎31'20 | 3°23'15 | min. Earth dist. | 5238 Feb 24 10:07 | 4°♎05'31 | 0.67371 AU |
| minimum elong | 5237 Mar 11 10:07 | 21°♎36'05 | 3°23'05 | | 5238 Feb 27 17:25 | 30°♎ | |
| min. Earth dist. | 5237 Mar 12 20:41 | 19°♎44'24 | 0.66371 AU | morning rise | 5238 Feb 28 19:32 | 28°♎55'27 | |
| morning rise | 5237 Mar 16 20:19 | 15°♎16'25 | | direct | 5238 Mar 06 13:50 | 26°♎20'53 | |
| direct | 5237 Mar 23 03:24 | 12°♎29'14 | | | 5238 Mar 14 13:56 | 0°♎ | |
| desc. node | 5237 Apr 03 01:04 | 18°♎19'51 | | morning max el | 5238 Mar 18 03:22 | 3°♎16'00 | 24°45'59 |
| morning max el | 5237 Apr 04 18:43 | 20°♎01'02 | 26°07'33 | desc. node | 5238 Mar 20 22:07 | 6°♎14'50 | |
| | 5237 Apr 13 07:54 | 0°♎ | | | 5238 Apr 07 13:04 | 0°♎ | |
| | 5237 May 03 05:43 | 0°♎ | | morning set | 5238 Apr 23 04:24 | 25°♎36'52 | |
| morning set | 5237 May 10 22:01 | 13°♎39'15 | | | 5238 Apr 25 15:11 | 0°♎ | |
| max. Earth dist. | 5237 May 14 20:18 | 21°♎06'50 | 1.35234 AU | max. Earth dist. | 5238 Apr 26 19:08 | 2°♎07'24 | 1.37170 AU |
| | 5237 May 19 07:50 | 0°♎ | | superior conj | 5238 May 03 10:15 | 14°♎40'28 | -1°16'08 |
| superior conj | 5237 May 20 00:42 | 1°♎25'34 | -0°46'41 | minimum elong | 5238 May 03 14:26 | 15°♎00'55 | 1°15'30 |
| minimum elong | 5237 May 20 03:16 | 1°♎38'42 | 0°46'12 | | 5238 May 11 03:04 | 0°♎ | |
| asc. node | 5237 May 24 17:06 | 11°♎04'49 | | evening rise | 5238 May 11 22:10 | 1°♎35'35 | |
| evening rise | 5237 May 27 19:41 | 17°♎30'54 | | asc. node | 5238 May 11 14:07 | 0°♎55'24 | |
| | 5237 Jun 03 03:25 | 0°♎ | | evening max el | 5238 May 28 19:56 | 29°♎05'28 | 19°23'03 |
| evening max el | 5237 Jun 15 05:02 | 17°♎30'38 | 20°28'45 | | 5238 May 29 19:26 | 0°♎ | |
| retrograde | 5237 Jun 26 06:20 | 22°♎55'32 | | retrograde | 5238 Jun 07 03:34 | 3°♎38'40 | |
| evening set | 5237 Jun 28 06:09 | 22°♎45'43 | | evening set | 5238 Jun 09 02:26 | 3°♎27'33 | |
| desc. node | 5237 Jun 30 00:19 | 22°♎21'43 | | desc. node | 5238 Jun 16 21:20 | 29°♎51'08 | |
| inferior conj | 5237 Jul 07 11:21 | 18°♎48'24 | -2°12'29 | | 5238 Jun 16 15:48 | 30°♎ | |
| minimum elong | 5237 Jul 07 05:11 | 18°♎57'20 | 2°10'18 | inferior conj | 5238 Jun 17 16:16 | 29°♎20'29 | -0°14'05 |
| min. Earth dist. | 5237 Jul 08 18:10 | 18°♎03'44 | 0.54921 AU | minimum elong | 5238 Jun 17 15:39 | 29°♎21'29 | 0°13'52 |
| morning rise | 5237 Jul 16 03:19 | 14°♎39'54 | | transit middle | 5238 Jun 17 15:39 | 29°♎21'29 | 0°13'52 |
| direct | 5237 Jul 20 01:19 | 14°♎06'47 | | transit begin | 5238 Jun 17 13:43 | 29°♎24'38 | |
| morning max el | 5237 Aug 02 10:09 | 20°♎35'29 | 23°27'03 | transit end | 5238 Jun 17 17:35 | 29°♎18'20 | |
| | 5237 Aug 10 10:21 | 0°♎ | | | | | |

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|------------------|-------------------|-----------------------------------|------------|------------------|-------------------|-----------------------------------|------------|
| min. Earth dist. | 5238 Jun 20 08:00 | 27° Π 37'08 | 0.55901 AU | desc. node | 5239 Jun 03 18:22 | 6° Π 48'47 | |
| morning rise | 5238 Jun 26 02:03 | 24° Π 39'22 | | morning rise | 5239 Jun 06 13:37 | 5° Π 14'07 | |
| direct | 5238 Jun 30 21:08 | 23° Π 47'06 | | direct | 5239 Jun 12 06:51 | 3° Π 52'28 | |
| | 5238 Jul 13 23:40 | 0° \mathfrak{E} | | morning max el | 5239 Jun 26 15:51 | 11° Π 27'36 | 26°36'10 |
| morning max el | 5238 Jul 14 23:32 | 0° \mathfrak{E} 55'17 | 25°09'28 | | 5239 Jul 11 00:49 | 0° \mathfrak{E} | |
| | 5238 Aug 04 02:46 | 0° Ω | | asc. node | 5239 Jul 25 10:28 | 26° \mathfrak{E} 36'47 | |
| asc. node | 5238 Aug 07 13:25 | 6° Ω 46'21 | | morning set | 5239 Jul 25 21:42 | 27° \mathfrak{E} 35'56 | |
| morning set | 5238 Aug 10 11:19 | 12° Ω 49'38 | | | 5239 Jul 27 00:49 | 0° Ω | |
| superior conj | 5238 Aug 17 09:33 | 27° Ω 53'32 | 1°26'39 | superior conj | 5239 Aug 01 21:10 | 12° Ω 47'31 | 1°10'46 |
| minimum elong | 5238 Aug 17 07:24 | 27° Ω 41'48 | 1°26'23 | minimum elong | 5239 Aug 01 18:52 | 12° Ω 34'49 | 1°10'23 |
| | 5238 Aug 18 08:40 | 0° \mathfrak{M} | | max. Earth dist. | 5239 Aug 02 04:03 | 13° Ω 25'35 | 1.32018 AU |
| max. Earth dist. | 5238 Aug 18 17:52 | 0° \mathfrak{M} 50'10 | 1.32527 AU | evening rise | 5239 Aug 08 18:24 | 27° Ω 44'47 | |
| evening rise | 5238 Aug 24 12:56 | 13° \mathfrak{M} 09'37 | | | 5239 Aug 09 20:17 | 0° \mathfrak{M} | |
| | 5238 Sep 02 06:44 | 0° \mathfrak{L} | | | 5239 Aug 26 16:08 | 0° \mathfrak{L} | |
| desc. node | 5238 Sep 12 20:39 | 17° \mathfrak{L} 07'55 | | desc. node | 5239 Aug 30 17:39 | 5° \mathfrak{L} 41'30 | |
| | 5238 Sep 22 22:41 | 0° \mathfrak{M} | | evening max el | 5239 Sep 08 07:03 | 15° \mathfrak{L} 27'54 | 26°54'42 |
| evening max el | 5238 Sep 26 02:28 | 3° \mathfrak{M} 12'45 | 27°24'44 | retrograde | 5239 Sep 22 04:26 | 22° \mathfrak{L} 38'05 | |
| retrograde | 5238 Oct 09 20:49 | 10° \mathfrak{M} 27'16 | | evening set | 5239 Sep 29 03:41 | 20° \mathfrak{L} 31'54 | |
| evening set | 5238 Oct 17 00:59 | 7° \mathfrak{M} 58'53 | | min. Earth dist. | 5239 Oct 02 21:11 | 17° \mathfrak{L} 53'36 | 0.60591 AU |
| min. Earth dist. | 5238 Oct 20 16:17 | 5° \mathfrak{M} 01'20 | 0.62592 AU | inferior conj | 5239 Oct 06 01:49 | 15° \mathfrak{L} 14'02 | -4°23'35 |
| inferior conj | 5238 Oct 23 12:48 | 2° \mathfrak{M} 18'43 | -3°26'23 | minimum elong | 5239 Oct 06 08:05 | 15° \mathfrak{L} 00'54 | 4°22'07 |
| minimum elong | 5238 Oct 23 18:37 | 2° \mathfrak{M} 04'52 | 3°24'29 | morning rise | 5239 Oct 13 14:29 | 10° \mathfrak{L} 27'28 | |
| | 5238 Oct 26 01:42 | 30° \mathfrak{R} \mathfrak{L} | | direct | 5239 Oct 15 22:08 | 10° \mathfrak{L} 06'34 | |
| morning rise | 5238 Oct 30 13:57 | 27° \mathfrak{L} 10'54 | | asc. node | 5239 Oct 21 09:42 | 12° \mathfrak{L} 09'12 | |
| direct | 5238 Nov 01 22:36 | 26° \mathfrak{L} 45'36 | | morning max el | 5239 Oct 23 05:55 | 13° \mathfrak{L} 44'11 | 18°03'56 |
| asc. node | 5238 Nov 03 12:38 | 26° \mathfrak{L} 57'19 | | | 5239 Nov 03 06:52 | 0° \mathfrak{M} | |
| | 5238 Nov 08 11:18 | 0° \mathfrak{M} | | morning set | 5239 Nov 07 23:50 | 8° \mathfrak{M} 39'30 | |
| morning max el | 5238 Nov 08 16:35 | 0° \mathfrak{M} 12'51 | 17°49'53 | superior conj | 5239 Nov 17 20:15 | 26° \mathfrak{M} 42'58 | 1°00'28 |
| morning set | 5238 Nov 24 17:06 | 25° \mathfrak{M} 06'30 | | minimum elong | 5239 Nov 18 00:10 | 27° \mathfrak{M} 00'24 | 0°59'59 |
| | 5238 Nov 27 11:17 | 0° \mathfrak{X} | | | 5239 Nov 19 16:53 | 0° \mathfrak{X} | |
| superior conj | 5238 Dec 06 02:07 | 14° \mathfrak{X} 54'39 | 0°26'18 | max. Earth dist. | 5239 Nov 25 11:57 | 9° \mathfrak{X} 55'09 | 1.41847 AU |
| minimum elong | 5238 Dec 06 04:34 | 15° \mathfrak{X} 05'00 | 0°25'56 | desc. node | 5239 Nov 26 16:56 | 11° \mathfrak{X} 55'44 | |
| desc. node | 5238 Dec 09 19:55 | 21° \mathfrak{X} 08'59 | | evening rise | 5239 Nov 30 23:05 | 18° \mathfrak{X} 51'50 | |
| max. Earth dist. | 5238 Dec 13 00:17 | 26° \mathfrak{X} 20'35 | 1.43582 AU | | 5239 Dec 08 01:59 | 0° \mathfrak{Z} | |
| | 5238 Dec 15 06:55 | 0° \mathfrak{Z} | | | 5239 Dec 29 13:10 | 0° \mathfrak{Z} | |
| evening rise | 5238 Dec 20 23:01 | 8° \mathfrak{Z} 55'17 | | evening max el | 5240 Jan 03 06:34 | 5° \mathfrak{Z} 16'24 | 22°39'35 |
| | 5239 Jan 03 23:33 | 0° \mathfrak{Z} | | retrograde | 5240 Jan 13 04:18 | 11° \mathfrak{Z} 09'31 | |
| evening max el | 5239 Jan 20 13:14 | 21° \mathfrak{Z} 39'46 | 21°22'22 | asc. node | 5240 Jan 17 08:56 | 9° \mathfrak{Z} 38'16 | |
| retrograde | 5239 Jan 29 08:22 | 26° \mathfrak{Z} 52'38 | | evening set | 5240 Jan 17 21:14 | 9° \mathfrak{Z} 14'07 | |
| asc. node | 5239 Jan 30 11:52 | 26° \mathfrak{Z} 45'36 | | inferior conj | 5240 Jan 23 05:59 | 2° \mathfrak{Z} 51'12 | 1°52'13 |
| evening set | 5239 Feb 02 13:51 | 25° \mathfrak{Z} 12'58 | | minimum elong | 5240 Jan 23 03:49 | 2° \mathfrak{Z} 58'44 | 1°51'28 |
| inferior conj | 5239 Feb 07 21:54 | 18° \mathfrak{Z} 57'40 | 2°31'17 | min. Earth dist. | 5240 Jan 23 00:36 | 3° \mathfrak{Z} 09'52 | 0.68128 AU |
| minimum elong | 5239 Feb 07 19:29 | 19° \mathfrak{Z} 06'01 | 2°30'36 | | 5240 Jan 25 08:46 | 30° \mathfrak{R} \mathfrak{Z} | |
| min. Earth dist. | 5239 Feb 08 04:10 | 18° \mathfrak{Z} 35'58 | 0.67949 AU | morning rise | 5240 Jan 28 10:17 | 26° \mathfrak{Z} 42'18 | |
| morning rise | 5239 Feb 13 00:57 | 12° \mathfrak{Z} 45'16 | | direct | 5240 Feb 01 23:33 | 24° \mathfrak{Z} 49'56 | |
| direct | 5239 Feb 18 04:51 | 10° \mathfrak{Z} 30'16 | | | 5240 Feb 10 22:01 | 0° \mathfrak{Z} | |
| morning max el | 5239 Feb 28 12:24 | 16° \mathfrak{Z} 37'47 | 23°17'01 | morning max el | 5240 Feb 11 01:08 | 0° \mathfrak{Z} 07'48 | 21°49'55 |
| desc. node | 5239 Mar 07 19:09 | 25° \mathfrak{Z} 03'34 | | desc. node | 5240 Feb 22 16:11 | 14° \mathfrak{Z} 30'25 | |
| | 5239 Mar 11 13:13 | 0° \mathfrak{H} | | | 5240 Mar 04 08:19 | 0° \mathfrak{H} | |
| | 5239 Mar 31 14:01 | 0° \mathfrak{Y} | | morning set | 5240 Mar 14 13:09 | 15° \mathfrak{H} 50'26 | |
| morning set | 5239 Apr 04 10:58 | 6° \mathfrak{Y} 23'59 | | max. Earth dist. | 5240 Mar 20 13:45 | 25° \mathfrak{H} 40'22 | 1.41505 AU |
| max. Earth dist. | 5239 Apr 08 14:40 | 13° \mathfrak{Y} 29'56 | 1.39353 AU | | 5240 Mar 23 03:34 | 0° \mathfrak{Y} | |
| superior conj | 5239 Apr 16 05:34 | 27° \mathfrak{Y} 11'49 | -1°42'31 | superior conj | 5240 Mar 28 05:48 | 8° \mathfrak{Y} 47'27 | -2°01'56 |
| minimum elong | 5239 Apr 16 10:37 | 27° \mathfrak{Y} 35'14 | 1°41'59 | minimum elong | 5240 Mar 28 09:45 | 9° \mathfrak{Y} 04'50 | 2°01'42 |
| | 5239 Apr 17 17:39 | 0° \mathfrak{B} | | evening rise | 5240 Apr 07 22:59 | 28° \mathfrak{Y} 12'31 | |
| evening rise | 5239 Apr 25 16:29 | 15° \mathfrak{B} 12'34 | | | 5240 Apr 08 22:18 | 0° \mathfrak{B} | |
| asc. node | 5239 Apr 28 11:10 | 20° \mathfrak{B} 31'47 | | asc. node | 5240 Apr 14 08:13 | 9° \mathfrak{B} 48'07 | |
| | 5239 May 03 16:20 | 0° \mathfrak{H} | | evening max el | 5240 Apr 24 05:54 | 24° \mathfrak{B} 05'35 | 18°12'27 |
| evening max el | 5239 May 11 21:22 | 11° \mathfrak{H} 19'52 | 18°37'36 | retrograde | 5240 May 01 04:57 | 27° \mathfrak{B} 35'41 | |
| retrograde | 5239 May 19 18:51 | 15° \mathfrak{H} 13'26 | | evening set | 5240 May 03 16:25 | 27° \mathfrak{B} 09'46 | |
| evening set | 5239 May 21 23:29 | 14° \mathfrak{H} 56'28 | | inferior conj | 5240 May 10 15:48 | 22° \mathfrak{B} 23'34 | 2°34'36 |
| inferior conj | 5239 May 29 17:18 | 10° \mathfrak{H} 30'47 | 1°25'34 | minimum elong | 5240 May 10 19:12 | 22° \mathfrak{B} 15'59 | 2°33'45 |
| minimum elong | 5239 May 29 20:11 | 10° \mathfrak{H} 25'17 | 1°24'37 | min. Earth dist. | 5240 May 14 00:56 | 19° \mathfrak{B} 24'17 | 0.59747 AU |
| min. Earth dist. | 5239 Jun 02 01:26 | 7° \mathfrak{H} 59'15 | 0.57623 AU | morning rise | 5240 May 17 19:18 | 16° \mathfrak{B} 39'07 | |

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|------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| desc. node | 5240 May 20 15:23 | 15°♄19'21 | | morning rise | 5241 Apr 29 20:07 | 28°♄51'00 | |
| direct | 5240 May 24 05:44 | 14°♄43'01 | | direct | 5241 May 06 15:29 | 26°♄24'43 | |
| morning max el | 5240 Jun 07 14:29 | 22°♄35'12 | 27°33'09 | desc. node | 5241 May 07 12:25 | 26°♄26'59 | |
| | 5240 Jun 14 03:57 | 0°♄ | | | 5241 May 15 17:20 | 0°♄ | |
| | 5240 Jul 03 02:14 | 0°♄ | | morning max el | 5241 May 20 19:08 | 4°♄24'57 | 27°53'03 |
| morning set | 5240 Jul 09 05:06 | 12°♄11'32 | | | 5241 Jun 08 21:06 | 0°♄ | |
| asc. node | 5240 Jul 11 07:32 | 16°♄37'43 | | morning set | 5241 Jun 23 07:26 | 26°♄29'25 | |
| max. Earth dist. | 5240 Jul 15 15:19 | 26°♄02'21 | 1.31927 AU | | 5241 Jun 25 00:17 | 0°♄ | |
| | | | | asc. node | 5241 Jun 28 04:32 | 6°♄43'49 | |
| superior conj | 5240 Jul 16 08:48 | 27°♄38'42 | 0°50'36 | max. Earth dist. | 5241 Jun 28 23:44 | 8°♄27'21 | 1.32269 AU |
| minimum elong | 5240 Jul 16 06:49 | 27°♄27'45 | 0°50'13 | | | | |
| | 5240 Jul 17 10:23 | 0°♄ | | superior conj | 5241 Jun 30 18:39 | 12°♄20'39 | 0°26'42 |
| evening rise | 5240 Jul 23 03:55 | 12°♄29'40 | | minimum elong | 5241 Jun 30 17:27 | 12°♄14'04 | 0°26'26 |
| | 5240 Jul 31 23:46 | 0°♄ | | evening rise | 5241 Jul 07 15:25 | 27°♄17'05 | |
| desc. node | 5240 Aug 16 14:40 | 23°♄10'51 | | | 5241 Jul 08 22:12 | 0°♄ | |
| evening max el | 5240 Aug 20 04:07 | 26°♄53'56 | 25°52'13 | | 5241 Jul 26 03:37 | 0°♄ | |
| | 5240 Aug 23 19:47 | 0°♄ | | evening max el | 5241 Aug 01 18:23 | 7°♄35'30 | 24°24'59 |
| retrograde | 5240 Sep 03 03:11 | 4°♄00'43 | | desc. node | 5241 Aug 03 11:41 | 9°♄09'31 | |
| evening set | 5240 Sep 09 09:06 | 2°♄27'53 | | retrograde | 5241 Aug 15 14:46 | 14°♄34'14 | |
| | 5240 Sep 13 11:55 | 30°♄ | | evening set | 5241 Aug 20 13:55 | 13°♄39'15 | |
| min. Earth dist. | 5240 Sep 13 16:29 | 29°♄52'05 | 0.58515 AU | min. Earth dist. | 5241 Aug 26 05:24 | 10°♄47'00 | 0.56641 AU |
| inferior conj | 5240 Sep 16 21:18 | 27°♄33'04 | -5°05'29 | inferior conj | 5241 Aug 28 20:39 | 9°♄06'55 | -5°17'30 |
| minimum elong | 5240 Sep 17 01:29 | 27°♄25'26 | 5°05'00 | minimum elong | 5241 Aug 28 19:25 | 9°♄08'53 | 5°17'28 |
| morning rise | 5240 Sep 24 20:11 | 23°♄09'45 | | morning rise | 5241 Sep 06 03:22 | 5°♄04'34 | |
| direct | 5240 Sep 27 06:14 | 22°♄50'49 | | direct | 5241 Sep 08 19:18 | 4°♄45'27 | |
| morning max el | 5240 Oct 05 12:44 | 26°♄48'38 | 18°38'19 | morning max el | 5241 Sep 18 09:35 | 9°♄14'56 | 19°34'21 |
| asc. node | 5240 Oct 07 06:46 | 28°♄38'59 | | asc. node | 5241 Sep 24 03:48 | 16°♄10'21 | |
| | 5240 Oct 08 09:47 | 0°♄ | | | 5241 Oct 02 04:45 | 0°♄ | |
| morning set | 5240 Oct 21 18:11 | 22°♄45'22 | | morning set | 5241 Oct 05 20:24 | 7°♄12'44 | |
| | 5240 Oct 25 11:37 | 0°♄ | | | | | |
| superior conj | 5240 Oct 30 11:48 | 9°♄33'56 | 1°24'04 | superior conj | 5241 Oct 13 19:16 | 23°♄10'44 | 1°37'54 |
| minimum elong | 5240 Oct 30 15:08 | 9°♄49'35 | 1°23'46 | minimum elong | 5241 Oct 13 21:09 | 23°♄20'04 | 1°37'48 |
| max. Earth dist. | 5240 Nov 06 18:27 | 22°♄46'01 | 1.39799 AU | | 5241 Oct 17 07:43 | 0°♄ | |
| evening rise | 5240 Nov 10 20:49 | 29°♄48'03 | | max. Earth dist. | 5241 Oct 19 23:03 | 4°♄57'23 | 1.37694 AU |
| | 5240 Nov 10 23:39 | 0°♄ | | evening rise | 5241 Oct 23 17:06 | 11°♄45'24 | |
| desc. node | 5240 Nov 12 13:58 | 2°♄39'41 | | desc. node | 5241 Oct 30 11:00 | 23°♄16'06 | |
| | 5240 Nov 30 12:23 | 0°♄ | | | 5241 Nov 03 15:45 | 0°♄ | |
| evening max el | 5240 Dec 15 20:31 | 18°♄56'31 | 23°59'31 | | 5241 Nov 25 19:14 | 0°♄ | |
| retrograde | 5240 Dec 26 21:01 | 25°♄25'44 | | evening max el | 5241 Nov 28 09:12 | 2°♄40'07 | 25°15'37 |
| evening set | 5241 Jan 01 02:40 | 23°♄14'59 | | retrograde | 5241 Dec 10 09:27 | 9°♄36'09 | |
| asc. node | 5241 Jan 03 05:59 | 21°♄05'29 | | evening set | 5241 Dec 16 04:30 | 7°♄11'37 | |
| min. Earth dist. | 5241 Jan 05 21:09 | 17°♄44'04 | 0.67937 AU | min. Earth dist. | 5241 Dec 20 15:26 | 2°♄14'54 | 0.67386 AU |
| inferior conj | 5241 Jan 06 13:31 | 16°♄48'31 | 1°05'57 | asc. node | 5241 Dec 21 03:00 | 1°♄37'25 | |
| minimum elong | 5241 Jan 06 12:03 | 16°♄53'32 | 1°05'22 | inferior conj | 5241 Dec 21 18:42 | 0°♄46'19 | 0°13'19 |
| morning rise | 5241 Jan 11 21:28 | 10°♄44'40 | | minimum elong | 5241 Dec 21 18:22 | 0°♄47'24 | 0°13'11 |
| direct | 5241 Jan 15 20:57 | 9°♄14'55 | | transit middle | 5241 Dec 21 18:22 | 0°♄47'24 | 0°13'11 |
| morning max el | 5241 Jan 23 20:37 | 13°♄49'03 | 20°31'45 | transit begin | 5241 Dec 21 16:45 | 0°♄52'39 | |
| | 5241 Feb 05 12:15 | 0°♄ | | transit end | 5241 Dec 21 19:59 | 0°♄42'10 | |
| desc. node | 5241 Feb 08 13:13 | 4°♄25'05 | | | 5241 Dec 22 09:01 | 30°♄ | |
| morning set | 5241 Feb 21 15:08 | 24°♄12'41 | | morning rise | 5241 Dec 27 08:30 | 24°♄49'39 | |
| | 5241 Feb 25 08:02 | 0°♄ | | direct | 5241 Dec 30 19:43 | 23°♄40'19 | |
| max. Earth dist. | 5241 Mar 02 19:38 | 8°♄43'57 | 1.43352 AU | morning max el | 5242 Jan 06 24:00 | 27°♄41'14 | 19°27'06 |
| | | | | | 5242 Jan 09 03:16 | 0°♄ | |
| superior conj | 5241 Mar 09 06:12 | 19°♄17'19 | -2°09'04 | greatest brilliancy | 5242 Jan 20 03:14 | 15°♄07'32 | -0.7m |
| minimum elong | 5241 Mar 09 05:53 | 19°♄15'59 | 2°09'04 | desc. node | 5242 Jan 26 10:15 | 24°♄39'57 | |
| | 5241 Mar 15 13:50 | 0°♄ | | | 5242 Jan 29 21:32 | 0°♄ | |
| evening rise | 5241 Mar 21 13:23 | 10°♄25'41 | | morning set | 5242 Jan 31 12:52 | 2°♄31'48 | |
| asc. node | 5241 Apr 01 05:15 | 28°♄37'30 | | max. Earth dist. | 5242 Feb 13 08:37 | 22°♄32'58 | 1.44666 AU |
| | 5241 Apr 02 02:44 | 0°♄ | | | | | |
| evening max el | 5241 Apr 07 18:06 | 7°♄13'26 | 18°06'52 | superior conj | 5242 Feb 17 05:22 | 28°♄41'35 | -1°58'30 |
| retrograde | 5241 Apr 14 05:54 | 10°♄35'25 | | minimum elong | 5242 Feb 16 22:43 | 28°♄14'59 | 1°58'07 |
| evening set | 5241 Apr 16 23:55 | 9°♄58'28 | | | 5242 Feb 18 00:58 | 0°♄ | |
| inferior conj | 5241 Apr 23 08:39 | 4°♄52'25 | 3°14'32 | evening rise | 5242 Mar 03 07:18 | 21°♄44'19 | |
| minimum elong | 5241 Apr 23 10:52 | 4°♄46'45 | 3°14'12 | | 5242 Mar 08 05:49 | 0°♄ | |
| min. Earth dist. | 5241 Apr 26 08:29 | 1°♄50'14 | 0.61946 AU | asc. node | 5242 Mar 19 02:16 | 16°♄51'33 | |
| | 5241 Apr 28 08:43 | 30°♄ | | evening max el | 5242 Mar 22 06:57 | 20°♄35'39 | 18°20'08 |
| | | | | retrograde | 5242 Mar 28 17:21 | 24°♄03'18 | |

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|---------------------|-------------------|--------------------------------|------------|------------------|-------------------|-------------------------------|------------|
| evening set | 5242 Mar 31 17:41 | 23° Υ 14'03 | | retrograde | 5243 Mar 12 11:19 | 7° Υ 50'47 | |
| inferior conj | 5242 Apr 06 15:44 | 17° Υ 49'17 | 3°31'13 | evening set | 5243 Mar 15 18:20 | 6° Υ 48'22 | |
| minimum elong | 5242 Apr 06 16:19 | 17° Υ 47'36 | 3°31'11 | inferior conj | 5243 Mar 21 09:09 | 1° Υ 06'23 | 3°30'11 |
| min. Earth dist. | 5242 Apr 09 01:08 | 15° Υ 06'06 | 0.63955 AU | minimum elong | 5243 Mar 21 08:19 | 1° Υ 08'59 | 3°30'08 |
| morning rise | 5242 Apr 12 14:03 | 11° Υ 39'11 | | | 5243 Mar 22 06:25 | 30° \Re \mathfrak{H} | |
| direct | 5242 Apr 19 09:49 | 8° Υ 54'19 | | min. Earth dist. | 5243 Mar 23 02:52 | 28° \mathfrak{H} 56'49 | 0.65614 AU |
| desc. node | 5242 Apr 24 09:26 | 10° Υ 09'10 | | morning rise | 5243 Mar 26 21:52 | 24° \mathfrak{H} 52'30 | |
| morning max el | 5242 May 03 03:44 | 16° Υ 52'40 | 27°35'54 | direct | 5243 Apr 02 10:58 | 22° \mathfrak{H} 02'47 | |
| | 5242 May 14 00:50 | 0° \mathfrak{B} | | desc. node | 5243 Apr 11 06:29 | 25° \mathfrak{H} 54'04 | |
| | 5242 Jun 01 16:02 | 0° Π | | morning max el | 5243 Apr 15 13:44 | 29° \mathfrak{H} 47'29 | 26°46'55 |
| morning set | 5242 Jun 07 02:20 | 10° Π 22'26 | | | 5243 Apr 15 18:39 | 0° Υ | |
| max. Earth dist. | 5242 Jun 12 01:27 | 20° Π 29'26 | 1.33061 AU | | 5243 May 07 22:54 | 0° \mathfrak{B} | |
| | | | | morning set | 5243 May 21 10:36 | 23° \mathfrak{B} 40'28 | |
| superior conj | 5242 Jun 15 00:54 | 26° Π 47'49 | -0°00'17 | | 5243 May 24 16:46 | 0° Π | |
| minimum elong | 5242 Jun 15 00:54 | 26° Π 47'52 | 0°00'18 | max. Earth dist. | 5243 May 25 17:11 | 2° Π 01'28 | 1.34318 AU |
| behind sun begin | 5242 Jun 14 19:32 | 26° Π 19'09 | | | | | |
| behind sun end | 5242 Jun 15 06:16 | 27° Π 16'37 | | superior conj | 5243 May 30 01:18 | 10° Π 52'49 | -0°29'26 |
| asc. node | 5242 Jun 15 01:33 | 26° Π 51'22 | | minimum elong | 5243 May 30 02:53 | 11° Π 01'03 | 0°29'08 |
| | 5242 Jun 16 12:42 | 0° \mathfrak{E} | | asc. node | 5243 Jun 01 22:33 | 16° Π 55'28 | |
| evening rise | 5242 Jun 22 03:02 | 12° \mathfrak{E} 01'20 | | evening rise | 5243 Jun 06 12:51 | 26° Π 35'30 | |
| | 5242 Jul 01 06:56 | 0° Ω | | | 5243 Jun 08 04:25 | 0° \mathfrak{E} | |
| evening max el | 5242 Jul 14 07:20 | 17° Ω 56'48 | 22°47'22 | evening max el | 5243 Jun 26 02:58 | 28° \mathfrak{E} 30'18 | 21°14'57 |
| desc. node | 5242 Jul 21 08:40 | 23° Ω 04'58 | | | 5243 Jun 27 18:09 | 0° Ω | |
| retrograde | 5242 Jul 27 13:22 | 24° Ω 32'57 | | retrograde | 5243 Jul 08 02:43 | 4° Ω 25'02 | |
| evening set | 5242 Jul 30 23:59 | 24° Ω 07'01 | | desc. node | 5243 Jul 08 05:41 | 4° Ω 25'00 | |
| min. Earth dist. | 5242 Aug 07 15:34 | 20° Ω 43'47 | 0.55305 AU | evening set | 5243 Jul 10 10:17 | 4° Ω 12'36 | |
| inferior conj | 5242 Aug 09 01:07 | 19° Ω 55'44 | -4°43'11 | inferior conj | 5243 Jul 19 18:42 | 0° Ω 14'08 | -3°17'46 |
| minimum elong | 5242 Aug 08 17:45 | 20° Ω 06'18 | 4°41'51 | minimum elong | 5243 Jul 19 10:15 | 0° Ω 25'57 | 3°15'08 |
| morning rise | 5242 Aug 17 13:36 | 16° Ω 05'20 | | min. Earth dist. | 5243 Jul 20 01:43 | 0° Ω 04'16 | 0.54789 AU |
| direct | 5242 Aug 20 14:26 | 15° Ω 43'54 | | | 5243 Jul 20 04:46 | 30° \Re \mathfrak{E} | |
| morning max el | 5242 Aug 31 18:19 | 20° Ω 55'46 | 20°51'58 | morning rise | 5243 Jul 28 10:50 | 26° \mathfrak{E} 18'38 | |
| | 5242 Sep 08 04:59 | 0° \mathfrak{M} | | direct | 5243 Jul 31 23:39 | 25° \mathfrak{E} 51'44 | |
| asc. node | 5242 Sep 11 00:49 | 4° \mathfrak{M} 29'49 | | | 5243 Aug 11 11:18 | 0° Ω | |
| morning set | 5242 Sep 20 03:46 | 21° \mathfrak{M} 54'27 | | morning max el | 5243 Aug 13 15:42 | 1° Ω 52'07 | 22°27'37 |
| | 5242 Sep 24 01:06 | 0° $\underline{\Omega}$ | | asc. node | 5243 Aug 28 21:51 | 23° Ω 25'48 | |
| | | | | | 5243 Sep 01 07:27 | 0° \mathfrak{M} | |
| superior conj | 5242 Sep 27 14:07 | 7° $\underline{\Omega}$ 20'38 | 1°43'16 | morning set | 5243 Sep 04 14:12 | 6° \mathfrak{M} 44'41 | |
| minimum elong | 5242 Sep 27 14:28 | 7° $\underline{\Omega}$ 22'24 | 1°43'16 | | | | |
| max. Earth dist. | 5242 Oct 02 07:33 | 16° $\underline{\Omega}$ 50'38 | 1.35770 AU | superior conj | 5243 Sep 11 16:52 | 21° \mathfrak{M} 53'29 | 1°41'29 |
| evening rise | 5242 Oct 06 08:47 | 24° $\underline{\Omega}$ 36'03 | | minimum elong | 5243 Sep 11 15:55 | 21° \mathfrak{M} 48'27 | 1°41'26 |
| | 5242 Oct 09 07:31 | 0° \mathfrak{M} | | max. Earth dist. | 5243 Sep 15 00:06 | 28° \mathfrak{M} 48'28 | 1.34180 AU |
| desc. node | 5242 Oct 17 08:00 | 13° \mathfrak{M} 40'16 | | | 5243 Sep 15 14:00 | 0° $\underline{\Omega}$ | |
| | 5242 Oct 28 05:27 | 0° \mathfrak{J} | | evening rise | 5243 Sep 19 15:37 | 8° $\underline{\Omega}$ 09'06 | |
| evening max el | 5242 Nov 10 22:00 | 16° \mathfrak{J} 23'22 | 26°20'25 | | 5243 Oct 01 20:27 | 0° \mathfrak{M} | |
| retrograde | 5242 Nov 23 16:38 | 23° \mathfrak{J} 34'56 | | desc. node | 5243 Oct 04 05:00 | 3° \mathfrak{M} 46'21 | |
| evening set | 5242 Nov 30 00:57 | 20° \mathfrak{J} 59'54 | | | 5243 Oct 24 11:40 | 0° \mathfrak{J} | |
| min. Earth dist. | 5242 Dec 04 05:03 | 16° \mathfrak{J} 38'26 | 0.66483 AU | evening max el | 5243 Oct 24 10:46 | 29° \mathfrak{M} 57'53 | 27°06'27 |
| inferior conj | 5242 Dec 05 19:36 | 14° \mathfrak{J} 40'51 | -0°44'42 | retrograde | 5243 Nov 06 18:08 | 7° \mathfrak{J} 15'33 | |
| minimum elong | 5242 Dec 05 20:49 | 14° \mathfrak{J} 37'08 | 0°44'10 | evening set | 5243 Nov 13 13:53 | 4° \mathfrak{J} 35'35 | |
| asc. node | 5242 Dec 08 00:02 | 12° \mathfrak{J} 06'38 | | min. Earth dist. | 5243 Nov 17 11:39 | 0° \mathfrak{J} 49'32 | 0.65229 AU |
| morning rise | 5242 Dec 11 17:18 | 8° \mathfrak{J} 53'59 | | | 5243 Nov 18 05:28 | 30° \Re \mathfrak{M} | |
| direct | 5242 Dec 14 18:08 | 8° \mathfrak{J} 01'48 | | inferior conj | 5243 Nov 19 14:06 | 28° \mathfrak{M} 27'56 | -1°46'42 |
| morning max el | 5242 Dec 21 10:19 | 11° \mathfrak{J} 40'42 | 18°38'07 | minimum elong | 5243 Nov 19 17:10 | 28° \mathfrak{M} 19'17 | 1°45'25 |
| | 5243 Jan 03 16:44 | 0° \mathfrak{Z} | | asc. node | 5243 Nov 24 21:05 | 23° \mathfrak{M} 28'01 | |
| morning set | 5243 Jan 11 06:30 | 11° \mathfrak{Z} 56'14 | | morning rise | 5243 Nov 25 21:30 | 22° \mathfrak{M} 53'53 | |
| desc. node | 5243 Jan 13 07:17 | 15° \mathfrak{Z} 08'59 | | direct | 5243 Nov 28 14:05 | 22° \mathfrak{M} 15'04 | |
| | 5243 Jan 22 17:46 | 0° \approx | | morning max el | 5243 Dec 05 01:25 | 25° \mathfrak{M} 42'25 | 18°05'45 |
| | | | | | 5243 Dec 08 16:58 | 0° \mathfrak{J} | |
| superior conj | 5243 Jan 27 10:42 | 7° \approx 22'45 | -1°28'16 | morning set | 5243 Dec 23 05:41 | 22° \mathfrak{J} 49'57 | |
| minimum elong | 5243 Jan 27 01:18 | 6° \approx 45'57 | 1°27'17 | | 5243 Dec 27 14:34 | 0° \mathfrak{Z} | |
| max. Earth dist. | 5243 Jan 27 02:41 | 6° \approx 51'20 | 1.45298 AU | desc. node | 5243 Dec 31 04:18 | 5° \mathfrak{Z} 47'57 | |
| | 5243 Feb 10 18:29 | 0° \mathfrak{H} | | | | | |
| evening rise | 5243 Feb 12 01:59 | 2° \mathfrak{H} 05'38 | | superior conj | 5244 Jan 06 16:46 | 16° \mathfrak{Z} 13'17 | -0°44'17 |
| greatest brilliancy | 5243 Feb 20 06:16 | 15° \mathfrak{H} 08'39 | -0.8m | minimum elong | 5244 Jan 06 11:18 | 15° \mathfrak{Z} 51'39 | 0°43'32 |
| | 5243 Mar 02 06:03 | 0° Υ | | max. Earth dist. | 5244 Jan 09 22:34 | 21° \mathfrak{Z} 20'17 | 1.45182 AU |
| evening max el | 5243 Mar 05 17:44 | 4° Υ 05'05 | 18°51'19 | | 5244 Jan 15 11:25 | 0° \approx | |
| asc. node | 5243 Mar 05 23:17 | 4° Υ 19'01 | | evening rise | 5244 Jan 22 23:42 | 11° \approx 39'57 | |

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|---------------------|-------------------|-----------------------|------------|------------------|-------------------|---------------------------|------------|
| | 5244 Feb 03 22:21 | 0° H | | | 5245 Jan 07 09:47 | 0° \approx | |
| greatest brilliancy | 5244 Feb 05 02:31 | 1° H 45'40 | -0.7m | | 5245 Jan 28 22:48 | 0° H | |
| evening max el | 5244 Feb 17 00:27 | 17° H 37'59 | 19°39'07 | evening max el | 5245 Jan 30 01:51 | 1° H 11'49 | 20°41'23 |
| asc. node | 5244 Feb 20 20:19 | 20° H 47'10 | | asc. node | 5245 Feb 06 17:23 | 6° H 00'47 | |
| retrograde | 5244 Feb 24 08:46 | 21° H 52'16 | | retrograde | 5245 Feb 07 07:07 | 6° H 02'33 | |
| evening set | 5244 Feb 27 23:21 | 20° H 36'02 | | evening set | 5245 Feb 11 06:38 | 4° H 31'44 | |
| inferior conj | 5244 Mar 04 09:47 | 14° H 38'51 | 3°15'35 | | 5245 Feb 15 10:08 | 30° R \approx | |
| minimum elong | 5244 Mar 04 07:57 | 14° H 44'54 | 3°15'18 | inferior conj | 5245 Feb 16 15:00 | 28° \approx 22'03 | 2°50'09 |
| min. Earth dist. | 5244 Mar 05 12:37 | 13° H 10'07 | 0.66853 AU | minimum elong | 5245 Feb 16 12:40 | 28° \approx 30'04 | 2°49'35 |
| morning rise | 5244 Mar 09 16:20 | 8° H 23'58 | | min. Earth dist. | 5245 Feb 17 04:23 | 27° \approx 36'04 | 0.67662 AU |
| direct | 5244 Mar 15 18:11 | 5° H 41'25 | | morning rise | 5245 Feb 21 18:29 | 22° \approx 08'05 | |
| morning max el | 5244 Mar 27 23:18 | 12° H 58'53 | 25°34'26 | direct | 5245 Feb 27 06:37 | 19° \approx 41'23 | |
| desc. node | 5244 Mar 28 03:32 | 13° H 09'38 | | morning max el | 5245 Mar 10 08:02 | 26° \approx 17'51 | 24°08'30 |
| | 5244 Apr 10 17:09 | 0° Y | | | 5245 Mar 13 17:56 | 0° H | |
| | 5244 Apr 29 16:41 | 0° B | | desc. node | 5245 Mar 15 00:34 | 1° H 29'53 | |
| morning set | 5244 May 03 04:01 | 6° B 12'05 | | | 5245 Apr 04 07:00 | 0° Y | |
| max. Earth dist. | 5244 May 06 21:49 | 13° B 09'06 | 1.36025 AU | morning set | 5245 Apr 15 01:08 | 17° Y 42'43 | |
| | | | | max. Earth dist. | 5245 Apr 18 18:19 | 24° Y 15'11 | 1.38080 AU |
| superior conj | 5244 May 12 17:14 | 24° B 28'37 | -0°59'21 | | 5245 Apr 21 22:10 | 0° B | |
| minimum elong | 5244 May 12 20:32 | 24° B 45'09 | 0°58'47 | | | | |
| | 5244 May 15 10:53 | 0° II | | superior conj | 5245 Apr 25 21:19 | 7° B 26'48 | -1°27'54 |
| asc. node | 5244 May 18 19:35 | 6° II 52'31 | | minimum elong | 5245 Apr 26 02:01 | 7° B 49'17 | 1°27'15 |
| evening rise | 5244 May 20 18:46 | 10° II 53'28 | | evening rise | 5245 May 04 18:14 | 24° B 48'10 | |
| | 5244 May 31 00:17 | 0° E | | asc. node | 5245 May 05 16:38 | 26° B 38'16 | |
| evening max el | 5244 Jun 07 10:36 | 9° E 40'29 | 19°58'11 | | 5245 May 07 10:04 | 0° II | |
| retrograde | 5244 Jun 17 17:56 | 14° E 43'04 | | evening max el | 5245 May 21 06:24 | 21° II 33'53 | 19°01'12 |
| evening set | 5244 Jun 19 15:53 | 14° E 33'22 | | retrograde | 5245 May 29 22:31 | 25° II 48'36 | |
| desc. node | 5244 Jun 24 02:43 | 13° E 04'50 | | evening set | 5245 May 31 23:12 | 25° II 35'36 | |
| inferior conj | 5244 Jun 28 15:37 | 10° E 33'02 | -1°21'28 | inferior conj | 5245 Jun 09 04:41 | 21° II 21'23 | 0°31'34 |
| minimum elong | 5244 Jun 28 11:50 | 10° E 38'46 | 1°20'03 | minimum elong | 5245 Jun 09 05:56 | 21° II 19'12 | 0°31'06 |
| min. Earth dist. | 5244 Jun 30 13:58 | 9° E 23'01 | 0.55231 AU | desc. node | 5245 Jun 10 23:46 | 20° II 06'09 | |
| morning rise | 5244 Jul 07 05:59 | 6° E 11'58 | | min. Earth dist. | 5245 Jun 12 05:32 | 19° II 15'22 | 0.56557 AU |
| direct | 5244 Jul 11 12:11 | 5° E 32'21 | | morning rise | 5245 Jun 17 09:22 | 16° II 24'17 | |
| morning max el | 5244 Jul 25 06:23 | 12° E 19'02 | 24°11'40 | direct | 5245 Jun 22 13:57 | 15° II 20'34 | |
| | 5244 Aug 07 18:14 | 0° O | | morning max el | 5245 Jul 06 20:39 | 22° II 42'34 | 25°49'11 |
| asc. node | 5244 Aug 14 18:53 | 12° O 48'49 | | | 5245 Jul 13 08:30 | 0° E | |
| morning set | 5244 Aug 19 01:54 | 21° O 37'43 | | | 5245 Jul 31 10:16 | 0° O | |
| | 5244 Aug 22 23:12 | 0° P | | asc. node | 5245 Aug 01 15:56 | 2° O 31'30 | |
| | | | | morning set | 5245 Aug 03 13:15 | 6° O 28'37 | |
| superior conj | 5244 Aug 26 00:46 | 6° P 40'29 | 1°33'36 | | | | |
| minimum elong | 5244 Aug 25 22:56 | 6° P 30'31 | 1°33'26 | superior conj | 5245 Aug 10 11:38 | 21° O 34'40 | 1°20'28 |
| max. Earth dist. | 5244 Aug 28 01:10 | 11° P 01'52 | 1.33001 AU | minimum elong | 5245 Aug 10 09:22 | 21° O 22'12 | 1°20'10 |
| evening rise | 5244 Sep 02 09:42 | 22° P 13'40 | | max. Earth dist. | 5245 Aug 11 08:49 | 23° O 31'12 | 1.32254 AU |
| | 5244 Sep 06 08:27 | 0° A | | | 5245 Aug 14 08:13 | 0° P | |
| desc. node | 5244 Sep 20 02:00 | 23° A 26'00 | | evening rise | 5245 Aug 17 11:51 | 6° P 40'48 | |
| | 5244 Sep 24 15:49 | 0° M | | | 5245 Aug 29 20:50 | 0° A | |
| evening max el | 5244 Oct 05 22:04 | 13° M 11'08 | 27°26'50 | desc. node | 5245 Sep 06 23:02 | 12° A 28'20 | |
| retrograde | 5244 Oct 19 13:30 | 20° M 28'35 | | evening max el | 5245 Sep 18 05:50 | 25° A 51'11 | 27°16'04 |
| evening set | 5244 Oct 26 16:31 | 17° M 52'28 | | | 5245 Sep 23 08:44 | 0° M | |
| min. Earth dist. | 5244 Oct 30 09:11 | 14° M 39'14 | 0.63637 AU | retrograde | 5245 Oct 02 02:03 | 3° M 04'44 | |
| inferior conj | 5244 Nov 01 23:35 | 12° M 00'57 | -2°50'24 | evening set | 5245 Oct 09 05:17 | 0° M 44'08 | |
| minimum elong | 5244 Nov 02 04:33 | 11° M 48'22 | 2°48'36 | | 5245 Oct 10 06:58 | 30° R A | |
| morning rise | 5244 Nov 08 18:05 | 6° M 42'54 | | min. Earth dist. | 5245 Oct 12 20:25 | 27° A 56'24 | 0.61758 AU |
| asc. node | 5244 Nov 10 18:09 | 6° M 14'45 | | inferior conj | 5245 Oct 15 21:04 | 25° A 12'50 | -3°51'50 |
| direct | 5244 Nov 11 04:46 | 6° M 13'47 | | minimum elong | 5245 Oct 16 03:18 | 24° A 58'46 | 3°50'02 |
| morning max el | 5244 Nov 17 18:21 | 9° M 38'40 | 17°50'33 | morning rise | 5245 Oct 23 03:14 | 20° A 13'54 | |
| | 5244 Dec 01 09:52 | 0° J | | direct | 5245 Oct 25 10:54 | 19° A 50'58 | |
| morning set | 5244 Dec 04 07:24 | 5° J 00'13 | | asc. node | 5245 Oct 28 15:12 | 20° A 35'39 | |
| | | | | morning max el | 5245 Nov 01 09:57 | 23° A 21'48 | 17°53'27 |
| superior conj | 5244 Dec 16 17:57 | 26° J 02'21 | 0°02'10 | | 5245 Nov 06 16:07 | 0° M | |
| minimum elong | 5244 Dec 16 18:11 | 26° J 03'19 | 0°02'09 | morning set | 5245 Nov 17 05:16 | 18° M 07'59 | |
| behind sun begin | 5244 Dec 16 08:33 | 25° J 23'45 | | | 5245 Nov 23 19:34 | 0° J | |
| behind sun end | 5244 Dec 17 03:49 | 26° J 42'47 | | | | | |
| desc. node | 5244 Dec 17 01:19 | 26° J 32'31 | | superior conj | 5245 Nov 27 21:30 | 7° J 08'14 | 0°42'03 |
| | 5244 Dec 19 04:14 | 0° Z | | minimum elong | 5245 Nov 28 00:55 | 7° J 22'56 | 0°41'36 |
| max. Earth dist. | 5244 Dec 22 16:34 | 5° Z 38'55 | 1.44344 AU | desc. node | 5245 Dec 03 22:20 | 17° J 19'27 | |
| evening rise | 5245 Jan 01 10:09 | 20° Z 52'32 | | max. Earth dist. | 5245 Dec 05 06:25 | 19° J 31'26 | 1.42893 AU |

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| | 5245 Dec 11 19:14 | 0°♁ | | evening rise | 5246 Nov 22 09:51 | 10°♁43'53 | |
| evening rise | 5245 Dec 12 01:06 | 0°♁23'03 | | | 5246 Dec 04 19:06 | 0°♁ | |
| | 5246 Jan 01 00:17 | 0°♁ | | evening max el | 5246 Dec 26 13:39 | 28°♁25'44 | 23°13'46 |
| evening max el | 5246 Jan 12 21:53 | 14°♁47'09 | 21°54'35 | | 5246 Dec 28 05:02 | 0°♁ | |
| retrograde | 5246 Jan 22 04:22 | 20°♁17'43 | | retrograde | 5247 Jan 05 22:57 | 4°♁34'38 | |
| asc. node | 5246 Jan 24 14:27 | 19°♁46'35 | | evening set | 5247 Jan 10 21:07 | 2°♁32'49 | |
| evening set | 5246 Jan 26 14:25 | 18°♁31'36 | | asc. node | 5247 Jan 11 11:29 | 2°♁00'51 | |
| inferior conj | 5246 Jan 31 22:35 | 12°♁12'36 | 2°15'41 | | 5247 Jan 13 08:20 | 30°♁♁ | |
| minimum elong | 5246 Jan 31 20:13 | 12°♁20'49 | 2°14'57 | inferior conj | 5247 Jan 16 06:38 | 26°♁08'07 | 1°33'26 |
| min. Earth dist. | 5246 Jan 31 23:51 | 12°♁08'11 | 0.68067 AU | minimum elong | 5247 Jan 16 04:41 | 26°♁14'47 | 1°32'43 |
| morning rise | 5246 Feb 06 01:50 | 6°♁01'14 | | min. Earth dist. | 5247 Jan 15 20:36 | 26°♁42'38 | 0.68090 AU |
| direct | 5246 Feb 10 23:27 | 3°♁55'31 | | morning rise | 5247 Jan 21 12:11 | 20°♁01'05 | |
| morning max el | 5246 Feb 20 18:04 | 9°♁42'12 | 22°39'12 | direct | 5247 Jan 25 19:32 | 18°♁18'14 | |
| desc. node | 5246 Mar 01 21:36 | 20°♁36'18 | | morning max el | 5247 Feb 03 09:12 | 23°♁16'08 | 21°15'15 |
| | 5246 Mar 08 16:30 | 0°♁ | | | 5247 Feb 09 05:12 | 0°♁ | |
| morning set | 5246 Mar 26 19:55 | 27°♁56'01 | | desc. node | 5247 Feb 16 18:37 | 10°♁16'10 | |
| | 5246 Mar 28 01:57 | 0°♁ | | | 5247 Mar 02 01:01 | 0°♁ | |
| max. Earth dist. | 5246 Mar 31 14:02 | 5°♁53'31 | 1.40282 AU | morning set | 5247 Mar 06 10:22 | 6°♁50'19 | |
| | | | | max. Earth dist. | 5247 Mar 13 15:55 | 18°♁27'29 | 1.42343 AU |
| superior conj | 5246 Apr 08 09:09 | 19°♁36'05 | -1°51'54 | superior conj | 5247 Mar 20 23:48 | 0°♁45'20 | -2°06'48 |
| minimum elong | 5246 Apr 08 14:03 | 19°♁58'20 | 1°51'28 | minimum elong | 5247 Mar 21 02:22 | 0°♁56'20 | 2°06'43 |
| | 5246 Apr 14 00:13 | 0°♁ | | | 5247 Mar 20 13:14 | 0°♁ | |
| evening rise | 5246 Apr 18 08:00 | 8°♁10'28 | | evening rise | 5247 Apr 01 08:11 | 20°♁51'42 | |
| asc. node | 5246 Apr 22 13:42 | 16°♁07'03 | | | 5247 Apr 06 10:16 | 0°♁ | |
| | 5246 May 01 00:12 | 0°♁ | | asc. node | 5247 Apr 09 10:45 | 5°♁13'03 | |
| evening max el | 5246 May 04 11:24 | 4°♁03'31 | 18°24'32 | evening max el | 5247 Apr 17 21:58 | 17°♁00'16 | 18°07'44 |
| retrograde | 5246 May 11 21:48 | 7°♁44'47 | | retrograde | 5247 Apr 24 14:43 | 20°♁24'45 | |
| evening set | 5246 May 14 05:24 | 7°♁24'19 | | evening set | 5247 Apr 27 05:10 | 19°♁54'10 | |
| inferior conj | 5246 May 21 15:02 | 2°♁50'18 | 1°58'39 | inferior conj | 5247 May 03 21:48 | 14°♁59'18 | 2°54'44 |
| minimum elong | 5246 May 21 18:27 | 2°♁43'22 | 1°57'37 | minimum elong | 5247 May 04 00:49 | 14°♁52'09 | 2°54'06 |
| min. Earth dist. | 5246 May 25 01:26 | 0°♁03'50 | 0.58499 AU | min. Earth dist. | 5247 May 07 03:51 | 11°♁56'05 | 0.60697 AU |
| | 5246 May 25 03:25 | 30°♁♁ | | morning rise | 5247 May 10 18:17 | 9°♁06'46 | |
| desc. node | 5246 May 28 20:49 | 27°♁30'42 | | desc. node | 5247 May 15 17:50 | 7°♁04'55 | |
| morning rise | 5246 May 29 04:21 | 27°♁20'39 | | direct | 5247 May 17 09:46 | 6°♁56'55 | |
| direct | 5246 Jun 04 05:59 | 25°♁44'03 | | morning max el | 5247 May 31 16:27 | 14°♁52'36 | 27°46'13 |
| | 5246 Jun 14 16:20 | 0°♁ | | | 5247 Jun 12 22:05 | 0°♁ | |
| morning max el | 5246 Jun 18 15:18 | 3°♁27'50 | 27°04'29 | | 5247 Jun 30 09:02 | 0°♁ | |
| | 5246 Jul 07 22:17 | 0°♁ | | morning set | 5247 Jul 03 04:03 | 5°♁39'44 | |
| morning set | 5246 Jul 18 22:34 | 21°♁11'04 | | asc. node | 5247 Jul 06 09:59 | 12°♁30'36 | |
| asc. node | 5246 Jul 19 12:58 | 22°♁27'01 | | max. Earth dist. | 5247 Jul 09 06:24 | 18°♁41'52 | 1.32030 AU |
| | 5246 Jul 23 00:57 | 0°♁ | | | | | |
| superior conj | 5246 Jul 25 23:28 | 6°♁28'29 | 1°02'43 | superior conj | 5247 Jul 10 10:33 | 21°♁16'23 | 0°40'54 |
| minimum elong | 5246 Jul 25 21:15 | 6°♁16'12 | 1°02'19 | minimum elong | 5247 Jul 10 08:51 | 21°♁06'59 | 0°40'32 |
| max. Earth dist. | 5246 Jul 25 19:48 | 6°♁08'11 | 1.31931 AU | | 5247 Jul 14 09:47 | 0°♁ | |
| evening rise | 5246 Aug 01 19:19 | 21°♁21'17 | | evening rise | 5247 Jul 17 05:55 | 6°♁08'14 | |
| | 5246 Aug 06 00:22 | 0°♁ | | | 5247 Jul 29 17:33 | 0°♁ | |
| | 5246 Aug 24 08:13 | 0°♁ | | desc. node | 5247 Aug 11 17:05 | 17°♁31'46 | |
| desc. node | 5246 Aug 24 20:04 | 0°♁37'23 | | evening max el | 5247 Aug 13 01:33 | 18°♁52'19 | 25°17'18 |
| evening max el | 5246 Aug 31 07:32 | 7°♁46'26 | 26°31'49 | retrograde | 5247 Aug 26 23:56 | 25°♁55'41 | |
| retrograde | 5246 Sep 14 06:10 | 14°♁55'00 | | evening set | 5247 Sep 01 18:22 | 24°♁39'15 | |
| evening set | 5246 Sep 20 23:28 | 13°♁02'15 | | min. Earth dist. | 5247 Sep 06 13:12 | 21°♁58'39 | 0.57682 AU |
| min. Earth dist. | 5246 Sep 24 21:13 | 10°♁26'57 | 0.59703 AU | inferior conj | 5247 Sep 09 14:04 | 19°♁54'32 | -5°15'15 |
| inferior conj | 5246 Sep 28 03:01 | 7°♁54'02 | -4°44'01 | minimum elong | 5247 Sep 09 16:20 | 19°♁50'40 | 5°15'08 |
| minimum elong | 5246 Sep 28 08:48 | 7°♁42'36 | 4°42'56 | morning rise | 5247 Sep 17 16:34 | 15°♁40'29 | |
| morning rise | 5246 Oct 05 20:15 | 3°♁16'56 | | direct | 5247 Sep 20 04:57 | 15°♁21'33 | |
| direct | 5246 Oct 08 04:22 | 2°♁57'12 | | morning max el | 5247 Sep 28 23:40 | 19°♁31'15 | 18°59'26 |
| asc. node | 5246 Oct 15 12:14 | 6°♁22'10 | | asc. node | 5247 Oct 02 09:15 | 23°♁19'39 | |
| morning max el | 5246 Oct 15 20:51 | 6°♁42'34 | 18°15'54 | | 5247 Oct 06 21:43 | 0°♁ | |
| | 5246 Oct 30 16:53 | 0°♁ | | morning set | 5247 Oct 15 15:32 | 16°♁12'36 | |
| morning set | 5246 Oct 31 17:28 | 1°♁56'25 | | | 5247 Oct 22 15:45 | 0°♁ | |
| superior conj | 5246 Nov 10 01:21 | 19°♁24'37 | 1°11'45 | superior conj | 5247 Oct 24 00:15 | 2°♁36'35 | 1°31'05 |
| minimum elong | 5246 Nov 10 05:12 | 19°♁42'07 | 1°11'19 | minimum elong | 5247 Oct 24 03:01 | 2°♁49'52 | 1°30'51 |
| | 5246 Nov 16 00:35 | 0°♁ | | max. Earth dist. | 5247 Oct 30 21:12 | 15°♁21'50 | 1.38899 AU |
| max. Earth dist. | 5246 Nov 17 15:38 | 2°♁47'30 | 1.41002 AU | evening rise | 5247 Nov 03 17:22 | 22°♁06'23 | |
| desc. node | 5246 Nov 20 19:21 | 8°♁05'28 | | desc. node | 5247 Nov 07 16:21 | 28°♁46'37 | |

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| | 5247 Nov 08 10:12 | 0°♊ | | max. Earth dist. | 5248 Oct 12 02:59 | 27°♊23'48 | 1.36841 AU |
| | 5247 Nov 28 17:52 | 0°♋ | | | 5248 Oct 13 12:11 | 0°♌ | |
| evening max el | 5247 Dec 09 02:53 | 12°♋07'35 | 24°32'51 | evening rise | 5248 Oct 15 22:26 | 4°♌28'05 | |
| retrograde | 5247 Dec 20 13:44 | 18°♋48'51 | | desc. node | 5248 Oct 24 13:22 | 19°♌18'51 | |
| evening set | 5247 Dec 26 01:10 | 16°♋31'52 | | | 5248 Oct 31 09:05 | 0°♊ | |
| asc. node | 5247 Dec 29 08:31 | 12°♋58'49 | | evening max el | 5248 Nov 20 15:23 | 25°♊51'30 | 25°44'53 |
| min. Earth dist. | 5247 Dec 30 16:19 | 11°♋15'38 | 0.67748 AU | | 5248 Nov 25 12:13 | 0°♋ | |
| inferior conj | 5247 Dec 31 13:20 | 10°♋05'34 | 0°44'18 | retrograde | 5248 Dec 03 00:02 | 2°♋55'41 | |
| minimum elong | 5247 Dec 31 12:17 | 10°♋09'04 | 0°43'54 | evening set | 5248 Dec 09 00:57 | 0°♋25'49 | |
| morning rise | 5248 Jan 05 23:31 | 4°♋04'43 | | | 5248 Dec 09 12:46 | 30°♋♊ | |
| direct | 5248 Jan 09 17:39 | 2°♋43'57 | | min. Earth dist. | 5248 Dec 13 08:48 | 25°♊44'18 | 0.67049 AU |
| morning max el | 5248 Jan 17 08:01 | 7°♋02'03 | 20°02'30 | inferior conj | 5248 Dec 14 16:55 | 24°♊02'31 | -0°10'43 |
| | 5248 Feb 03 10:17 | 0°♌ | | minimum elong | 5248 Dec 14 17:12 | 24°♊01'38 | 0°10'35 |
| desc. node | 5248 Feb 03 15:37 | 0°♌19'56 | | transit middle | 5248 Dec 14 17:12 | 24°♊01'38 | 0°10'35 |
| morning set | 5248 Feb 13 07:17 | 15°♌01'31 | | transit begin | 5248 Dec 14 15:04 | 24°♊08'24 | |
| | 5248 Feb 22 20:55 | 0°♍ | | transit end | 5248 Dec 14 19:20 | 23°♊54'53 | |
| max. Earth dist. | 5248 Feb 24 01:32 | 1°♍54'00 | 1.43989 AU | asc. node | 5248 Dec 15 05:31 | 23°♊22'44 | |
| | | | | morning rise | 5248 Dec 20 09:52 | 18°♊09'58 | |
| superior conj | 5248 Feb 29 13:09 | 10°♍45'34 | -2°07'00 | direct | 5248 Dec 23 16:24 | 17°♊08'32 | |
| minimum elong | 5248 Feb 29 10:09 | 10°♍33'16 | 2°06'55 | morning max el | 5248 Dec 30 14:41 | 20°♊58'38 | 19°04'17 |
| | 5248 Mar 12 00:32 | 0°♎ | | | 5249 Jan 06 20:43 | 0°♋ | |
| evening rise | 5248 Mar 13 14:18 | 2°♎42'08 | | desc. node | 5249 Jan 20 12:39 | 20°♋41'23 | |
| asc. node | 5248 Mar 26 07:46 | 23°♎48'18 | | morning set | 5249 Jan 22 11:06 | 23°♋41'59 | |
| | 5248 Mar 31 05:01 | 0°♏ | | | 5249 Jan 26 12:11 | 0°♌ | |
| evening max el | 5248 Mar 31 10:43 | 0°♏14'24 | 18°10'14 | max. Earth dist. | 5249 Feb 05 17:01 | 15°♌57'32 | 1.45024 AU |
| retrograde | 5248 Apr 06 20:47 | 3°♏37'22 | | | | | |
| evening set | 5248 Apr 09 17:30 | 2°♏55'13 | | superior conj | 5249 Feb 08 02:58 | 19°♌45'59 | -1°47'55 |
| | 5248 Apr 13 15:08 | 30°♎♎ | | minimum elong | 5249 Feb 07 18:20 | 19°♌11'53 | 1°47'13 |
| inferior conj | 5248 Apr 15 21:11 | 27°♎40'41 | 3°24'04 | | 5249 Feb 14 13:15 | 0°♍ | |
| minimum elong | 5248 Apr 15 22:43 | 27°♎36'34 | 3°23'55 | evening rise | 5249 Feb 22 22:28 | 13°♍35'56 | |
| min. Earth dist. | 5248 Apr 18 15:04 | 24°♎44'36 | 0.62833 AU | | 5249 Mar 05 00:13 | 0°♎ | |
| morning rise | 5248 Apr 22 02:38 | 21°♎34'44 | | asc. node | 5249 Mar 13 04:47 | 11°♎43'36 | |
| direct | 5248 Apr 28 23:00 | 18°♎59'18 | | evening max el | 5249 Mar 14 22:51 | 13°♎39'27 | 18°31'15 |
| desc. node | 5248 May 01 14:51 | 19°♎20'32 | | retrograde | 5249 Mar 21 11:30 | 17°♎13'47 | |
| morning max el | 5248 May 12 23:13 | 26°♎59'33 | 27°50'12 | evening set | 5249 Mar 24 14:30 | 16°♎19'08 | |
| | 5248 May 15 19:12 | 0°♏ | | inferior conj | 5249 Mar 30 09:05 | 10°♎46'43 | 3°32'40 |
| | 5248 Jun 05 13:47 | 0°♐ | | minimum elong | 5249 Mar 30 09:01 | 10°♎46'54 | 3°32'40 |
| morning set | 5248 Jun 16 03:35 | 19°♐48'10 | | min. Earth dist. | 5249 Apr 01 11:48 | 8°♎16'22 | 0.64703 AU |
| | 5248 Jun 21 01:30 | 0°♑ | | morning rise | 5249 Apr 05 02:50 | 4°♎34'13 | |
| max. Earth dist. | 5248 Jun 21 12:42 | 0°♑59'41 | 1.32552 AU | direct | 5249 Apr 11 20:20 | 1°♎45'41 | |
| asc. node | 5248 Jun 22 07:01 | 2°♑37'53 | | desc. node | 5249 Apr 18 11:53 | 3°♎58'29 | |
| | | | | morning max el | 5249 Apr 25 08:56 | 9°♎40'40 | 27°18'35 |
| superior conj | 5248 Jun 23 19:07 | 5°♑52'41 | 0°15'36 | | 5249 May 11 07:01 | 0°♏ | |
| minimum elong | 5248 Jun 23 18:22 | 5°♑48'41 | 0°15'25 | | 5249 May 28 23:20 | 0°♐ | |
| behind sun begin | 5248 Jun 23 17:03 | 5°♑41'32 | | morning set | 5249 May 30 18:24 | 3°♐27'32 | |
| behind sun end | 5248 Jun 23 19:41 | 5°♑55'51 | | max. Earth dist. | 5249 Jun 04 10:31 | 12°♐49'12 | 1.33530 AU |
| evening rise | 5248 Jun 30 17:43 | 20°♑55'17 | | | | | |
| | 5248 Jul 05 03:11 | 0°♒ | | superior conj | 5249 Jun 07 23:08 | 20°♐10'52 | -0°12'28 |
| evening max el | 5248 Jul 24 14:12 | 29°♒21'21 | 23°43'40 | minimum elong | 5249 Jun 07 23:47 | 20°♐14'17 | 0°12'21 |
| | 5248 Jul 25 06:32 | 0°♓ | | behind sun begin | 5249 Jun 07 20:15 | 19°♐55'34 | |
| desc. node | 5248 Jul 28 14:05 | 2°♓42'51 | | behind sun end | 5249 Jun 08 03:19 | 20°♐33'01 | |
| retrograde | 5248 Aug 07 06:01 | 6°♓13'01 | | asc. node | 5249 Jun 09 04:02 | 22°♐44'16 | |
| evening set | 5248 Aug 11 13:50 | 5°♓31'52 | | | 5249 Jun 12 13:36 | 0°♑ | |
| min. Earth dist. | 5248 Aug 18 00:12 | 2°♓28'10 | 0.55990 AU | evening rise | 5249 Jun 15 04:48 | 5°♑35'37 | |
| inferior conj | 5248 Aug 20 04:57 | 1°♓08'49 | -5°09'19 | | 5249 Jun 28 09:13 | 0°♒ | |
| minimum elong | 5248 Aug 20 00:52 | 1°♓15'00 | 5°08'57 | evening max el | 5249 Jul 06 04:57 | 9°♒43'34 | 22°06'44 |
| | 5248 Aug 22 03:25 | 30°♓♒ | | desc. node | 5249 Jul 15 11:07 | 15°♒35'37 | |
| morning rise | 5248 Aug 28 14:23 | 27°♒13'36 | | retrograde | 5249 Jul 19 00:26 | 16°♒05'04 | |
| direct | 5248 Aug 31 09:54 | 26°♒53'46 | | evening set | 5249 Jul 21 21:19 | 15°♒46'44 | |
| | 5248 Sep 08 16:28 | 0°♓ | | min. Earth dist. | 5249 Jul 30 10:17 | 12°♒06'06 | 0.54964 AU |
| morning max el | 5248 Sep 10 15:34 | 1°♓39'29 | 20°04'53 | inferior conj | 5249 Jul 31 03:24 | 11°♒42'01 | -4°12'40 |
| asc. node | 5248 Sep 18 06:16 | 11°♓13'20 | | minimum elong | 5249 Jul 30 18:43 | 11°♒54'14 | 4°10'34 |
| | 5248 Sep 28 10:54 | 0°♔ | | morning rise | 5249 Aug 08 17:49 | 7°♒51'56 | |
| morning set | 5248 Sep 28 20:17 | 0°♔47'37 | | direct | 5249 Aug 11 22:54 | 7°♒28'58 | |
| | | | | morning max el | 5249 Aug 23 19:21 | 13°♒01'27 | 21°30'53 |
| superior conj | 5248 Oct 06 13:08 | 16°♔29'49 | 1°41'08 | asc. node | 5249 Sep 05 03:18 | 29°♒49'35 | |
| minimum elong | 5248 Oct 06 14:21 | 16°♔35'57 | 1°41'05 | | 5249 Sep 05 05:40 | 0°♓ | |

| | | | | | | | |
|---------------------|-------------------|-------------------------------|------------|---------------------|-------------------|-------------------------------|------------|
| morning set | 5249 Sep 13 05:11 | 15° \mathbb{M} 33'40 | | morning set | 5250 Aug 28 11:33 | 0° \mathbb{M} | |
| | | | | | 5250 Aug 28 16:23 | 0° \mathbb{M} 25'25 | |
| superior conj | 5249 Sep 20 11:46 | 0° \mathbb{A} 51'02 | 1°43'19 | superior conj | 5250 Sep 04 17:02 | 15° \mathbb{M} 30'44 | 1°38'49 |
| minimum elong | 5249 Sep 20 11:31 | 0° \mathbb{A} 49'45 | 1°43'19 | minimum elong | 5250 Sep 04 15:39 | 15° \mathbb{M} 23'20 | 1°38'44 |
| | 5249 Sep 20 01:59 | 0° \mathbb{A} | | max. Earth dist. | 5250 Sep 07 10:26 | 21° \mathbb{M} 18'18 | 1.33630 AU |
| max. Earth dist. | 5249 Sep 24 14:17 | 9° \mathbb{A} 15'24 | 1.35044 AU | | 5250 Sep 11 15:56 | 0° \mathbb{A} | |
| evening rise | 5249 Sep 28 21:07 | 17° \mathbb{A} 38'20 | | evening rise | 5250 Sep 12 09:13 | 1° \mathbb{A} 26'12 | |
| | 5249 Oct 05 16:10 | 0° \mathbb{M} | | desc. node | 5250 Sep 28 07:25 | 29° \mathbb{A} 31'51 | |
| desc. node | 5249 Oct 11 10:24 | 9° \mathbb{M} 36'08 | | | 5250 Sep 28 14:43 | 0° \mathbb{M} | |
| | 5249 Oct 25 15:56 | 0° \mathbb{A} | | evening max el | 5250 Oct 16 16:37 | 22° \mathbb{M} 59'02 | 27°18'38 |
| evening max el | 5249 Nov 03 04:05 | 9° \mathbb{A} 31'40 | 26°42'38 | | 5250 Oct 27 18:16 | 0° \mathbb{A} | |
| retrograde | 5249 Nov 16 05:06 | 16° \mathbb{A} 47'43 | | retrograde | 5250 Oct 30 04:11 | 0° \mathbb{A} 17'12 | |
| evening set | 5249 Nov 22 18:32 | 14° \mathbb{A} 09'34 | | | 5250 Nov 01 12:04 | 30° \mathbb{R} \mathbb{M} | |
| min. Earth dist. | 5249 Nov 26 19:47 | 10° \mathbb{A} 03'12 | 0.65991 AU | evening set | 5250 Nov 06 03:28 | 27° \mathbb{M} 37'58 | |
| inferior conj | 5249 Nov 28 15:23 | 7° \mathbb{A} 54'27 | -1°10'37 | min. Earth dist. | 5250 Nov 09 22:56 | 24° \mathbb{M} 06'02 | 0.64591 AU |
| minimum elong | 5249 Nov 28 17:22 | 7° \mathbb{A} 48'35 | 1°09'46 | inferior conj | 5250 Nov 12 06:25 | 21° \mathbb{M} 36'22 | -2°13'41 |
| asc. node | 5249 Dec 02 02:32 | 4° \mathbb{A} 08'11 | | minimum elong | 5250 Nov 12 10:19 | 21° \mathbb{M} 25'51 | 2°12'09 |
| morning rise | 5249 Dec 04 17:02 | 2° \mathbb{A} 12'41 | | morning rise | 5250 Nov 18 18:24 | 16° \mathbb{M} 08'26 | |
| direct | 5249 Dec 07 13:57 | 1° \mathbb{A} 26'50 | | asc. node | 5250 Nov 18 23:37 | 16° \mathbb{M} 02'58 | |
| morning max el | 5249 Dec 14 03:24 | 4° \mathbb{A} 59'59 | 18°22'13 | direct | 5250 Nov 21 08:06 | 15° \mathbb{M} 34'12 | |
| | 5249 Dec 31 09:21 | 0° \mathbb{B} | | morning max el | 5250 Nov 27 19:35 | 18° \mathbb{M} 59'42 | 17°57'01 |
| morning set | 5250 Jan 02 17:03 | 3° \mathbb{B} 43'53 | | | 5250 Dec 05 23:44 | 0° \mathbb{A} | |
| desc. node | 5250 Jan 07 09:42 | 11° \mathbb{B} 15'03 | | morning set | 5250 Dec 15 04:17 | 15° \mathbb{A} 12'24 | |
| | | | | | 5250 Dec 24 02:08 | 0° \mathbb{B} | |
| superior conj | 5250 Jan 18 06:05 | 28° \mathbb{B} 24'29 | -1°10'39 | desc. node | 5250 Dec 25 06:42 | 1° \mathbb{B} 56'26 | |
| minimum elong | 5250 Jan 17 21:43 | 27° \mathbb{B} 51'42 | 1°09'39 | | | | |
| | 5250 Jan 19 06:26 | 0° \mathbb{A} | | superior conj | 5250 Dec 28 18:32 | 7° \mathbb{B} 34'59 | -0°24'13 |
| max. Earth dist. | 5250 Jan 19 11:38 | 0° \mathbb{A} 20'23 | 1.45337 AU | minimum elong | 5250 Dec 28 15:38 | 7° \mathbb{B} 23'21 | 0°23'47 |
| evening rise | 5250 Feb 03 07:32 | 23° \mathbb{A} 34'54 | | max. Earth dist. | 5251 Jan 02 06:53 | 14° \mathbb{B} 46'09 | 1.44912 AU |
| | 5250 Feb 07 09:29 | 0° \mathbb{H} | | | 5251 Jan 12 01:13 | 0° \mathbb{A} | |
| greatest brilliancy | 5250 Feb 13 20:00 | 10° \mathbb{H} 03'23 | -0.8m | evening rise | 5251 Jan 13 22:43 | 2° \mathbb{A} 55'18 | |
| evening max el | 5250 Feb 26 08:07 | 27° \mathbb{H} 10'48 | 19°09'47 | greatest brilliancy | 5251 Jan 28 12:45 | 24° \mathbb{A} 59'39 | -0.6m |
| asc. node | 5250 Feb 28 01:48 | 28° \mathbb{H} 47'40 | | | 5251 Feb 01 00:03 | 0° \mathbb{H} | |
| | 5250 Mar 01 17:50 | 0° \mathbb{Y} | | evening max el | 5251 Feb 09 12:46 | 10° \mathbb{H} 44'32 | 20°04'07 |
| retrograde | 5250 Mar 05 07:16 | 1° \mathbb{Y} 07'43 | | asc. node | 5251 Feb 14 22:52 | 14° \mathbb{H} 45'53 | |
| evening set | 5250 Mar 08 17:17 | 29° \mathbb{H} 59'42 | | retrograde | 5251 Feb 17 05:15 | 15° \mathbb{H} 13'12 | |
| | 5250 Mar 08 17:06 | 30° \mathbb{R} \mathbb{H} | | evening set | 5251 Feb 20 23:29 | 13° \mathbb{H} 50'53 | |
| inferior conj | 5250 Mar 14 05:56 | 24° \mathbb{H} 11'10 | 3°25'28 | inferior conj | 5251 Feb 26 08:48 | 7° \mathbb{H} 48'19 | 3°05'59 |
| minimum elong | 5250 Mar 14 04:37 | 24° \mathbb{H} 15'23 | 3°25'20 | minimum elong | 5251 Feb 26 06:42 | 7° \mathbb{H} 55'24 | 3°05'34 |
| min. Earth dist. | 5250 Mar 15 17:16 | 22° \mathbb{H} 18'06 | 0.66191 AU | min. Earth dist. | 5251 Feb 27 05:48 | 6° \mathbb{H} 37'38 | 0.67253 AU |
| morning rise | 5250 Mar 19 15:36 | 17° \mathbb{H} 56'28 | | morning rise | 5251 Mar 03 13:42 | 1° \mathbb{H} 33'47 | |
| direct | 5250 Mar 26 00:25 | 15° \mathbb{H} 08'08 | | | 5251 Mar 05 16:05 | 30° \mathbb{R} \mathbb{A} | |
| desc. node | 5250 Apr 05 08:56 | 20° \mathbb{H} 25'31 | | direct | 5251 Mar 09 10:03 | 28° \mathbb{A} 56'55 | |
| morning max el | 5250 Apr 07 18:51 | 22° \mathbb{H} 43'47 | 26°18'20 | | 5251 Mar 13 12:23 | 0° \mathbb{H} | |
| | 5250 Apr 14 04:44 | 0° \mathbb{Y} | | morning max el | 5251 Mar 21 03:42 | 5° \mathbb{H} 57'57 | 24°58'50 |
| morning set | 5250 May 04 14:03 | 0° \mathbb{B} | | desc. node | 5251 Mar 23 05:59 | 8° \mathbb{H} 10'55 | |
| | 5250 May 13 20:58 | 16° \mathbb{B} 27'46 | | | 5251 Apr 08 18:01 | 0° \mathbb{Y} | |
| max. Earth dist. | 5250 May 17 21:08 | 24° \mathbb{B} 07'38 | 1.34984 AU | morning set | 5251 Apr 26 06:25 | 28° \mathbb{Y} 34'43 | |
| | 5250 May 20 20:08 | 0° \mathbb{H} | | | 5251 Apr 27 01:29 | 0° \mathbb{B} | |
| superior conj | 5250 May 22 20:20 | 4° \mathbb{H} 04'39 | -0°42'09 | max. Earth dist. | 5251 Apr 29 21:25 | 5° \mathbb{B} 09'37 | 1.36869 AU |
| minimum elong | 5250 May 22 22:39 | 4° \mathbb{H} 16'30 | 0°41'42 | | | | |
| asc. node | 5250 May 27 01:05 | 12° \mathbb{H} 46'03 | | superior conj | 5251 May 06 07:41 | 17° \mathbb{B} 25'27 | -1°11'48 |
| evening rise | 5250 May 30 13:15 | 20° \mathbb{H} 03'36 | | minimum elong | 5251 May 06 11:40 | 17° \mathbb{B} 44'58 | 1°11'09 |
| | 5250 Jun 04 12:14 | 0° \mathbb{B} | | | 5251 May 12 14:41 | 0° \mathbb{H} | |
| evening max el | 5250 Jun 18 05:31 | 20° \mathbb{B} 31'24 | 20°40'10 | asc. node | 5251 May 13 22:08 | 2° \mathbb{H} 38'36 | |
| retrograde | 5250 Jun 29 12:47 | 26° \mathbb{B} 04'00 | | evening rise | 5251 May 14 16:43 | 4° \mathbb{H} 12'05 | |
| evening set | 5250 Jul 01 14:04 | 25° \mathbb{B} 53'47 | | | 5251 May 29 21:48 | 0° \mathbb{B} | |
| desc. node | 5250 Jul 02 08:08 | 25° \mathbb{B} 45'07 | | evening max el | 5251 May 31 18:34 | 1° \mathbb{B} 59'42 | 19°31'26 |
| inferior conj | 5250 Jul 10 20:36 | 21° \mathbb{B} 56'50 | -2°30'18 | retrograde | 5251 Jun 10 08:03 | 6° \mathbb{B} 40'06 | |
| minimum elong | 5250 Jul 10 13:42 | 22° \mathbb{B} 06'43 | 2°27'54 | evening set | 5251 Jun 12 06:28 | 6° \mathbb{B} 29'28 | |
| min. Earth dist. | 5250 Jul 11 21:32 | 21° \mathbb{B} 21'07 | 0.54856 AU | desc. node | 5251 Jun 19 05:11 | 3° \mathbb{B} 30'00 | |
| morning rise | 5250 Jul 19 12:48 | 17° \mathbb{B} 52'16 | | inferior conj | 5251 Jun 20 23:04 | 2° \mathbb{B} 24'24 | -0°31'17 |
| direct | 5250 Jul 23 08:19 | 17° \mathbb{B} 20'57 | | minimum elong | 5251 Jun 20 21:40 | 2° \mathbb{B} 26'38 | 0°30'46 |
| morning max el | 5250 Aug 05 13:08 | 23° \mathbb{B} 42'37 | 23°11'32 | min. Earth dist. | 5251 Jun 23 10:47 | 0° \mathbb{B} 49'29 | 0.55705 AU |
| | 5250 Aug 11 05:11 | 0° \mathbb{Q} | | | 5251 Jun 24 19:35 | 30° \mathbb{R} \mathbb{H} | |
| asc. node | 5250 Aug 23 00:22 | 18° \mathbb{Q} 58'00 | | morning rise | 5251 Jun 29 10:18 | 27° \mathbb{H} 48'47 | |

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|------------------|-------------------|-----------------------------------|------------|------------------|-------------------|-----------------------------------|------------|
| direct | 5251 Jul 04 02:02 | 27° Π 00'09 | | direct | 5252 Jun 14 09:32 | 7° Π 00'13 | |
| | 5251 Jul 13 01:39 | 0° \mathfrak{E} | | morning max el | 5252 Jun 28 18:18 | 14° Π 32'16 | 26°24'56 |
| morning max el | 5251 Jul 18 02:36 | 4° \mathfrak{E} 02'55 | 24°54'57 | | 5252 Jul 11 03:00 | 0° \mathfrak{E} | |
| | 5251 Aug 05 11:53 | 0° \mathcal{O} | | asc. node | 5252 Jul 26 18:27 | 28° \mathfrak{E} 18'17 | |
| asc. node | 5251 Aug 09 21:26 | 8° \mathcal{O} 29'50 | | morning set | 5252 Jul 27 14:48 | 0° \mathcal{O} 05'14 | |
| morning set | 5251 Aug 13 04:08 | 15° \mathcal{O} 17'41 | | | 5252 Jul 27 13:48 | 0° \mathcal{O} | |
| | 5251 Aug 19 22:35 | 0° \mathfrak{P} | | | | | |
| superior conj | 5251 Aug 20 02:25 | 0° \mathfrak{P} 20'59 | 1°28'37 | superior conj | 5252 Aug 03 13:52 | 15° \mathcal{O} 15'02 | 1°13'28 |
| minimum elong | 5251 Aug 20 00:20 | 0° \mathfrak{P} 09'38 | 1°28'24 | minimum elong | 5252 Aug 03 11:33 | 15° \mathcal{O} 02'18 | 1°13'06 |
| max. Earth dist. | 5251 Aug 21 14:49 | 3° \mathfrak{P} 39'27 | 1.32633 AU | max. Earth dist. | 5252 Aug 04 00:27 | 16° \mathcal{O} 13'28 | 1.32063 AU |
| evening rise | 5251 Aug 27 07:05 | 15° \mathfrak{P} 41'10 | | evening rise | 5252 Aug 10 11:44 | 0° \mathfrak{P} 14'14 | |
| | 5251 Sep 03 16:05 | 0° \mathfrak{A} | | | 5252 Aug 10 09:02 | 0° \mathfrak{P} | |
| desc. node | 5251 Sep 15 04:26 | 18° \mathfrak{A} 57'04 | | desc. node | 5252 Aug 26 18:24 | 0° \mathfrak{A} | |
| | 5251 Sep 23 12:02 | 0° \mathfrak{M} | | evening max el | 5252 Sep 01 01:28 | 7° \mathfrak{A} 38'43 | |
| evening max el | 5251 Sep 29 03:00 | 6° \mathfrak{M} 00'41 | 27°26'23 | retrograde | 5252 Sep 10 08:23 | 18° \mathfrak{A} 22'05 | 27°01'20 |
| retrograde | 5251 Oct 12 20:33 | 13° \mathfrak{M} 15'47 | | evening set | 5252 Sep 24 05:28 | 25° \mathfrak{A} 33'19 | |
| evening set | 5251 Oct 20 00:44 | 10° \mathfrak{M} 45'02 | | min. Earth dist. | 5252 Oct 01 06:11 | 23° \mathfrak{A} 22'53 | |
| min. Earth dist. | 5251 Oct 23 16:16 | 7° \mathfrak{M} 43'45 | 0.62870 AU | inferior conj | 5252 Oct 04 22:41 | 20° \mathfrak{A} 42'46 | 0.60894 AU |
| inferior conj | 5251 Oct 26 11:16 | 5° \mathfrak{M} 01'55 | -3°17'03 | minimum elong | 5252 Oct 08 02:33 | 18° \mathfrak{A} 01'32 | -4°15'42 |
| minimum elong | 5251 Oct 26 16:53 | 4° \mathfrak{M} 48'19 | 3°15'10 | morning rise | 5252 Oct 08 08:53 | 17° \mathfrak{A} 48'00 | 4°14'06 |
| morning rise | 5251 Nov 02 10:41 | 29° \mathfrak{A} 51'20 | | direct | 5252 Oct 15 13:35 | 13° \mathfrak{A} 11'50 | |
| | 5251 Nov 02 01:45 | 30° \mathfrak{R} \mathfrak{A} | | asc. node | 5252 Oct 17 21:08 | 12° \mathfrak{A} 50'31 | |
| direct | 5251 Nov 04 19:48 | 29° \mathfrak{A} 25'06 | | morning max el | 5252 Oct 22 17:43 | 14° \mathfrak{A} 28'54 | |
| asc. node | 5251 Nov 05 20:41 | 29° \mathfrak{A} 30'12 | | | 5252 Oct 25 02:22 | 16° \mathfrak{A} 26'00 | 18°00'37 |
| | 5251 Nov 07 12:53 | 0° \mathfrak{M} | | morning set | 5252 Nov 03 14:44 | 0° \mathfrak{M} | |
| morning max el | 5251 Nov 11 12:20 | 2° \mathfrak{M} 51'21 | 17°49'29 | | 5252 Nov 09 20:04 | 11° \mathfrak{M} 17'07 | |
| morning set | 5251 Nov 27 15:28 | 27° \mathfrak{M} 50'17 | | superior conj | 5252 Nov 19 21:19 | 29° \mathfrak{M} 34'24 | 0°55'57 |
| | 5251 Nov 28 20:54 | 0° \mathfrak{X} | | minimum elong | 5252 Nov 20 01:10 | 29° \mathfrak{M} 51'26 | 0°55'27 |
| superior conj | 5251 Dec 09 06:48 | 17° \mathfrak{X} 56'35 | 0°20'12 | | 5252 Nov 20 03:07 | 0° \mathfrak{X} | |
| minimum elong | 5251 Dec 09 08:47 | 18° \mathfrak{X} 04'51 | 0°19'57 | max. Earth dist. | 5252 Nov 27 12:15 | 12° \mathfrak{X} 37'44 | 1.42129 AU |
| desc. node | 5251 Dec 12 03:42 | 22° \mathfrak{X} 42'30 | | desc. node | 5252 Nov 28 00:43 | 13° \mathfrak{X} 29'23 | |
| max. Earth dist. | 5251 Dec 16 00:02 | 28° \mathfrak{X} 58'16 | 1.43799 AU | evening rise | 5252 Dec 03 06:36 | 22° \mathfrak{X} 00'30 | |
| | 5251 Dec 16 15:24 | 0° \mathfrak{Z} | | | 5252 Dec 08 09:02 | 0° \mathfrak{Z} | |
| evening rise | 5251 Dec 24 09:15 | 12° \mathfrak{Z} 11'37 | | | 5252 Dec 29 09:35 | 0° \mathfrak{A} | |
| | 5252 Jan 05 04:20 | 0° \mathfrak{A} | | evening max el | 5253 Jan 05 05:50 | 7° \mathfrak{A} 55'19 | 22°27'44 |
| evening max el | 5252 Jan 23 11:55 | 24° \mathfrak{A} 19'22 | 21°11'25 | retrograde | 5253 Jan 14 23:37 | 13° \mathfrak{A} 42'51 | |
| retrograde | 5252 Feb 01 03:17 | 29° \mathfrak{A} 26'21 | | asc. node | 5253 Jan 18 16:58 | 12° \mathfrak{A} 30'21 | |
| asc. node | 5252 Feb 01 19:56 | 29° \mathfrak{A} 23'46 | | evening set | 5253 Jan 19 14:43 | 11° \mathfrak{A} 49'49 | |
| evening set | 5252 Feb 05 07:12 | 27° \mathfrak{A} 48'54 | | inferior conj | 5253 Jan 24 23:16 | 5° \mathfrak{A} 27'41 | 1°58'38 |
| inferior conj | 5252 Feb 10 15:16 | 21° \mathfrak{A} 34'53 | 2°36'31 | minimum elong | 5253 Jan 24 21:02 | 5° \mathfrak{A} 35'27 | 1°57'53 |
| minimum elong | 5252 Feb 10 12:52 | 21° \mathfrak{A} 43'12 | 2°35'52 | min. Earth dist. | 5253 Jan 24 19:34 | 5° \mathfrak{A} 40'32 | 0.68126 AU |
| min. Earth dist. | 5252 Feb 10 23:18 | 21° \mathfrak{A} 07'05 | 0.67890 AU | | 5253 Jan 29 08:45 | 30° \mathfrak{R} \mathfrak{Z} | |
| morning rise | 5252 Feb 15 18:22 | 15° \mathfrak{A} 22'06 | | morning rise | 5253 Jan 30 03:13 | 29° \mathfrak{Z} 18'01 | |
| direct | 5252 Feb 21 00:23 | 13° \mathfrak{A} 04'02 | | direct | 5253 Feb 03 18:34 | 27° \mathfrak{Z} 22'16 | |
| morning max el | 5252 Mar 02 12:36 | 19° \mathfrak{A} 19'04 | 23°30'21 | | 5253 Feb 09 21:50 | 0° \mathfrak{A} | |
| desc. node | 5252 Mar 09 03:00 | 26° \mathfrak{A} 52'30 | | morning max el | 5253 Feb 13 00:33 | 2° \mathfrak{A} 47'34 | 22°02'24 |
| | 5252 Mar 11 13:23 | 0° \mathfrak{H} | | desc. node | 5253 Feb 23 24:00 | 16° \mathfrak{A} 14'09 | |
| | 5252 Mar 31 21:58 | 0° \mathfrak{Y} | | | 5253 Mar 05 14:04 | 0° \mathfrak{H} | |
| morning set | 5252 Apr 06 16:55 | 9° \mathfrak{Y} 33'21 | | morning set | 5253 Mar 17 23:25 | 19° \mathfrak{H} 11'56 | |
| max. Earth dist. | 5252 Apr 10 17:04 | 16° \mathfrak{Y} 27'18 | 1.39025 AU | max. Earth dist. | 5253 Mar 23 15:01 | 28° \mathfrak{H} 28'35 | 1.41193 AU |
| | | | | | 5253 Mar 24 12:47 | 0° \mathfrak{Y} | |
| superior conj | 5252 Apr 18 05:24 | 0° \mathfrak{B} 03'52 | -1°38'53 | superior conj | 5253 Mar 31 08:47 | 11° \mathfrak{Y} 48'31 | -1°59'39 |
| minimum elong | 5252 Apr 18 10:24 | 0° \mathfrak{B} 27'18 | 1°38'17 | minimum elong | 5253 Mar 31 13:05 | 12° \mathfrak{Y} 07'36 | 1°59'23 |
| | 5252 Apr 18 04:34 | 0° \mathfrak{B} | | | 5253 Apr 10 08:04 | 0° \mathfrak{B} | |
| evening rise | 5252 Apr 27 12:28 | 17° \mathfrak{B} 53'53 | | evening rise | 5253 Apr 10 20:59 | 1° \mathfrak{B} 00'03 | |
| asc. node | 5252 Apr 29 19:11 | 22° \mathfrak{B} 17'35 | | asc. node | 5253 Apr 16 16:13 | 11° \mathfrak{B} 37'34 | |
| | 5252 May 03 22:37 | 0° \mathfrak{I} | | evening max el | 5253 Apr 27 02:20 | 26° \mathfrak{B} 50'46 | 18°14'58 |
| evening max el | 5252 May 13 18:37 | 14° \mathfrak{I} 08'41 | 18°43'01 | | 5253 May 01 20:03 | 0° \mathfrak{I} | |
| retrograde | 5252 May 21 20:36 | 18° \mathfrak{I} 07'22 | | retrograde | 5253 May 04 04:02 | 0° \mathfrak{I} 23'21 | |
| evening set | 5252 May 24 00:07 | 17° \mathfrak{I} 51'33 | | evening set | 5253 May 06 14:27 | 29° \mathfrak{B} 58'58 | |
| inferior conj | 5252 May 31 20:56 | 13° \mathfrak{I} 28'48 | 1°12'23 | | 5253 May 06 13:11 | 30° \mathfrak{R} \mathfrak{B} | |
| minimum elong | 5252 May 31 23:29 | 13° \mathfrak{I} 24'02 | 1°11'29 | inferior conj | 5253 May 13 16:24 | 25° \mathfrak{B} 16'01 | 2°26'04 |
| min. Earth dist. | 5252 Jun 04 03:38 | 11° \mathfrak{I} 03'19 | 0.57332 AU | minimum elong | 5253 May 13 19:52 | 25° \mathfrak{B} 08'28 | 2°25'09 |
| desc. node | 5252 Jun 05 02:14 | 10° \mathfrak{I} 24'16 | | min. Earth dist. | 5253 May 17 02:15 | 22° \mathfrak{B} 19'09 | 0.59416 AU |
| morning rise | 5252 Jun 08 19:33 | 8° \mathfrak{I} 16'56 | | morning rise | 5253 May 20 22:26 | 19° \mathfrak{B} 34'56 | |

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|------------------|-------------------|-----------|------------|---------------------|-------------------|----------------------|
| desc. node | 5253 May 22 23:15 | 18°♄35'17 | | 5254 May 05 22:20 | 30°♄♂ | |
| direct | 5253 May 27 06:47 | 17°♄43'46 | direct | 5254 May 09 15:10 | 29°♂17'51 | |
| morning max el | 5253 Jun 10 15:57 | 25°♄34'22 | 27°26'51 | desc. node | 5254 May 09 20:16 | 29°♂17'59 |
| | 5253 Jun 14 18:32 | 0°♂ | | 5254 May 13 12:00 | 0°♄ | |
| | 5253 Jul 04 11:55 | 0°♄ | | morning max el | 5254 May 23 19:40 | 7°♄17'17 27°52'29 |
| morning set | 5253 Jul 11 22:43 | 14°♄43'00 | | 5254 Jun 10 02:10 | 0°♂ | |
| asc. node | 5253 Jul 13 15:28 | 18°♄18'03 | | morning set | 5254 Jun 26 01:56 | 29°♂03'46 |
| max. Earth dist. | 5253 Jul 18 11:44 | 28°♄50'45 | 1.31915 AU | 5254 Jun 26 12:53 | 0°♄ | |
| | | | | asc. node | 5254 Jun 30 12:29 | 8°♄23'37 |
| superior conj | 5253 Jul 19 01:36 | 0°♂07'17 | 0°53'56 | max. Earth dist. | 5254 Jul 01 20:45 | 11°♄17'59 1.32193 AU |
| minimum elong | 5253 Jul 18 23:32 | 29°♄55'54 | 0°53'32 | | | |
| | 5253 Jul 19 00:16 | 0°♂ | | superior conj | 5254 Jul 03 11:49 | 14°♄50'56 0°30'34 |
| evening rise | 5253 Jul 25 20:47 | 14°♂58'16 | | minimum elong | 5254 Jul 03 10:28 | 14°♄43'33 0°30'16 |
| | 5253 Aug 02 08:36 | 0°♄ | | evening rise | 5254 Jul 10 08:05 | 29°♄45'40 |
| desc. node | 5253 Aug 18 22:29 | 25°♄19'15 | | 5254 Jul 10 10:46 | 0°♂ | |
| | 5253 Aug 23 08:35 | 0°♄ | | 5254 Jul 26 23:58 | 0°♄ | |
| evening max el | 5253 Aug 23 06:35 | 29°♄55'15 | 26°03'19 | evening max el | 5254 Aug 04 21:43 | 10°♄42'40 24°38'59 |
| retrograde | 5253 Sep 06 05:45 | 7°♄02'46 | | desc. node | 5254 Aug 05 19:31 | 11°♄33'31 |
| evening set | 5253 Sep 12 14:59 | 5°♄24'31 | | retrograde | 5254 Aug 18 18:57 | 17°♄42'45 |
| min. Earth dist. | 5253 Sep 16 19:18 | 2°♄49'24 | 0.58819 AU | evening set | 5254 Aug 23 23:21 | 16°♄42'27 |
| inferior conj | 5253 Sep 20 00:45 | 0°♄26'08 | -5°00'45 | min. Earth dist. | 5254 Aug 29 09:00 | 13°♄53'37 0.56899 AU |
| minimum elong | 5253 Sep 20 05:29 | 0°♄17'20 | 5°00'06 | inferior conj | 5254 Sep 01 03:09 | 12°♄06'58 -5°18'19 |
| | 5253 Sep 20 14:52 | 30°♄♄ | | minimum elong | 5254 Sep 01 02:54 | 12°♄07'22 5°18'20 |
| morning rise | 5253 Sep 27 22:16 | 25°♄59'17 | | morning rise | 5254 Sep 09 08:51 | 8°♄01'38 |
| direct | 5253 Sep 30 07:39 | 25°♄40'15 | | direct | 5254 Sep 11 23:45 | 7°♄42'37 |
| morning max el | 5253 Oct 08 10:19 | 29°♄34'38 | 18°31'50 | morning max el | 5254 Sep 21 08:46 | 12°♄06'44 19°24'34 |
| | 5253 Oct 08 20:39 | 0°♄ | | asc. node | 5254 Sep 26 11:44 | 18°♄10'00 |
| asc. node | 5253 Oct 09 14:43 | 0°♄47'19 | | 5254 Oct 03 14:27 | 0°♄ | |
| morning set | 5253 Oct 24 12:53 | 25°♄18'09 | | morning set | 5254 Oct 08 14:06 | 9°♄42'41 |
| | 5253 Oct 26 23:12 | 0°♄ | | | | |
| superior conj | 5253 Nov 02 09:57 | 12°♄16'19 | 1°21'09 | superior conj | 5254 Oct 16 15:19 | 25°♄46'48 1°36'23 |
| minimum elong | 5253 Nov 02 13:27 | 12°♄32'37 | 1°20'47 | minimum elong | 5254 Oct 16 17:27 | 25°♄57'14 1°36'15 |
| max. Earth dist. | 5253 Nov 09 19:05 | 25°♄33'35 | 1.40113 AU | 5254 Oct 18 19:35 | 0°♄ | |
| | 5253 Nov 12 09:10 | 0°♄ | | max. Earth dist. | 5254 Oct 22 23:44 | 7°♄50'05 1.38003 AU |
| evening rise | 5253 Nov 14 00:50 | 2°♄46'46 | | evening rise | 5254 Oct 26 17:54 | 14°♄35'17 |
| desc. node | 5253 Nov 14 21:44 | 4°♄13'39 | | desc. node | 5254 Nov 01 18:46 | 24°♄51'25 |
| | 5253 Dec 01 15:59 | 0°♄ | | 5254 Nov 04 23:09 | 0°♄ | |
| evening max el | 5253 Dec 18 20:07 | 21°♄34'31 | 23°47'45 | 5254 Nov 26 11:02 | 0°♄ | |
| retrograde | 5253 Dec 29 16:52 | 27°♄58'55 | | evening max el | 5254 Dec 01 08:58 | 5°♄18'01 25°04'54 |
| evening set | 5254 Jan 03 20:30 | 25°♄50'31 | | retrograde | 5254 Dec 13 05:54 | 12°♄10'27 |
| asc. node | 5254 Jan 05 13:59 | 24°♄08'45 | | evening set | 5254 Dec 18 22:58 | 9°♄47'54 |
| min. Earth dist. | 5254 Jan 08 16:14 | 20°♄14'29 | 0.67986 AU | asc. node | 5254 Dec 23 11:00 | 4°♄46'06 |
| inferior conj | 5254 Jan 09 06:58 | 19°♄24'18 | 1°13'23 | min. Earth dist. | 5254 Dec 23 11:00 | 4°♄46'03 0.67488 AU |
| minimum elong | 5254 Jan 09 05:21 | 19°♄29'48 | 1°12'46 | inferior conj | 5254 Dec 24 12:36 | 3°♄22'16 0°21'40 |
| morning rise | 5254 Jan 14 14:12 | 13°♄19'28 | | minimum elong | 5254 Dec 24 12:04 | 3°♄24'01 0°21'28 |
| direct | 5254 Jan 18 15:41 | 11°♄34'21 | | 5254 Dec 27 05:41 | 30°♄♄ | |
| morning max el | 5254 Jan 26 18:48 | 16°♄26'29 | 20°42'35 | morning rise | 5254 Dec 30 01:23 | 27°♄24'22 |
| | 5254 Feb 06 15:06 | 0°♄ | | direct | 5255 Jan 02 14:23 | 26°♄12'06 |
| desc. node | 5254 Feb 10 21:00 | 6°♄04'56 | | 5255 Jan 09 14:04 | 0°♄ | |
| morning set | 5254 Feb 25 04:04 | 27°♄40'31 | | morning max el | 5255 Jan 09 21:00 | 0°♄17'02 19°35'49 |
| | 5254 Feb 26 15:48 | 0°♄ | | greatest brilliancy | 5255 Jan 22 21:57 | 17°♄29'30 -0.7m |
| max. Earth dist. | 5254 Mar 05 19:40 | 11°♄23'51 | 1.43104 AU | desc. node | 5255 Jan 28 18:02 | 26°♄17'06 |
| | | | | 5255 Jan 31 04:23 | 0°♄ | |
| superior conj | 5254 Mar 12 12:58 | 22°♄28'33 | -2°09'01 | morning set | 5255 Feb 04 00:48 | 5°♄55'22 |
| minimum elong | 5254 Mar 12 13:30 | 22°♄30'47 | 2°09'01 | max. Earth dist. | 5255 Feb 16 07:57 | 25°♄08'00 1.44513 AU |
| | 5254 Mar 16 23:10 | 0°♄ | | 5255 Feb 19 09:18 | 0°♄ | |
| evening rise | 5254 Mar 24 14:02 | 13°♄20'23 | | superior conj | 5255 Feb 20 15:44 | 2°♄02'00 -2°01'24 |
| | 5254 Apr 03 05:24 | 0°♄ | | minimum elong | 5255 Feb 20 09:58 | 1°♄38'52 2°01'06 |
| asc. node | 5254 Apr 03 13:15 | 0°♄31'24 | | evening rise | 5255 Mar 06 11:15 | 24°♄47'30 |
| evening max el | 5254 Apr 10 14:14 | 9°♄55'53 | 18°06'32 | 5255 Mar 09 13:24 | 0°♄ | |
| retrograde | 5254 Apr 17 02:58 | 13°♄17'58 | | asc. node | 5255 Mar 21 10:17 | 18°♄51'21 |
| evening set | 5254 Apr 19 20:04 | 12°♄42'43 | | evening max el | 5255 Mar 25 03:11 | 23°♄16'20 18°16'59 |
| inferior conj | 5254 Apr 26 06:45 | 7°♄39'40 | 3°10'04 | retrograde | 5255 Mar 31 13:08 | 26°♄42'13 |
| minimum elong | 5254 Apr 26 09:12 | 7°♄33'31 | 3°09'40 | evening set | 5255 Apr 03 12:34 | 25°♄54'46 |
| min. Earth dist. | 5254 Apr 29 08:25 | 4°♄36'25 | 0.61625 AU | inferior conj | 5255 Apr 09 11:57 | 20°♄32'36 3°29'54 |
| morning rise | 5254 May 02 20:27 | 1°♄40'18 | | minimum elong | 5255 Apr 09 12:48 | 20°♄30'14 3°29'51 |

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|---------------------|-------------------|-------------------------|------------|---------------------|-------------------|-------------------------|------------|
| min. Earth dist. | 5255 Apr 11 23:37 | 17° Υ 45'37 | 0.63677 AU | minimum elong | 5256 Mar 23 03:27 | 3° Υ 48'57 | 3°31'15 |
| morning rise | 5255 Apr 15 12:02 | 14° Υ 23'29 | | min. Earth dist. | 5256 Mar 25 00:05 | 1° Υ 31'49 | 0.65392 AU |
| direct | 5255 Apr 22 08:14 | 11° Υ 40'40 | | | 5256 Mar 26 07:31 | 30° \Re \mathcal{H} | |
| desc. node | 5255 Apr 26 17:17 | 12° Υ 38'22 | | morning rise | 5256 Mar 28 18:00 | 27° \mathcal{H} 33'19 | |
| morning max el | 5255 May 06 03:49 | 19° Υ 39'28 | 27°40'40 | direct | 5256 Apr 04 08:22 | 24° \mathcal{H} 43'38 | |
| | 5255 May 14 23:21 | 0° \mathcal{B} | | desc. node | 5256 Apr 12 14:19 | 28° \mathcal{H} 06'41 | |
| | 5255 Jun 03 01:52 | 0° Π | | | 5256 Apr 14 22:00 | 0° Υ | |
| morning set | 5255 Jun 09 22:07 | 13° Π 00'37 | | morning max el | 5256 Apr 17 13:55 | 2° Υ 31'17 | 26°55'57 |
| max. Earth dist. | 5255 Jun 14 23:46 | 23° Π 24'06 | 1.32916 AU | | 5256 May 08 05:13 | 0° \mathcal{B} | |
| asc. node | 5255 Jun 17 09:31 | 28° Π 30'57 | | morning set | 5256 May 23 08:15 | 26° \mathcal{B} 24'32 | |
| | | | | | 5256 May 25 04:43 | 0° Π | |
| superior conj | 5255 Jun 17 18:44 | 29° Π 20'20 | 0°04'00 | max. Earth dist. | 5256 May 27 17:19 | 5° Π 01'07 | 1.34099 AU |
| minimum elong | 5255 Jun 17 18:32 | 29° Π 19'17 | 0°03'56 | | | | |
| behind sun begin | 5255 Jun 17 13:20 | 28° Π 51'24 | | superior conj | 5256 May 31 20:12 | 13° Π 28'58 | -0°24'56 |
| behind sun end | 5255 Jun 17 23:44 | 29° Π 47'12 | | minimum elong | 5256 May 31 21:32 | 13° Π 35'56 | 0°24'40 |
| | 5255 Jun 18 02:06 | 0° \mathcal{E} | | asc. node | 5256 Jun 03 06:35 | 18° Π 35'56 | |
| evening rise | 5255 Jun 24 19:49 | 14° \mathcal{E} 30'35 | | evening rise | 5256 Jun 08 06:05 | 29° Π 06'42 | |
| | 5255 Jul 02 14:08 | 0° Ω | | | 5256 Jun 08 16:18 | 0° \mathcal{E} | |
| evening max el | 5255 Jul 17 10:22 | 21° Ω 04'45 | 23°01'52 | | 5256 Jun 26 16:06 | 0° Ω | |
| desc. node | 5255 Jul 23 16:33 | 25° Ω 49'49 | | evening max el | 5256 Jun 28 04:33 | 1° Ω 34'28 | 21°27'57 |
| retrograde | 5255 Jul 30 19:17 | 27° Ω 45'20 | | desc. node | 5256 Jul 09 13:34 | 7° Ω 35'08 | |
| evening set | 5255 Aug 03 11:20 | 27° Ω 15'56 | | retrograde | 5256 Jul 10 09:51 | 7° Ω 36'50 | |
| min. Earth dist. | 5255 Aug 10 19:12 | 23° Ω 58'14 | 0.55461 AU | evening set | 5256 Jul 12 20:20 | 7° Ω 23'14 | |
| inferior conj | 5255 Aug 12 10:09 | 23° Ω 01'53 | -4°51'47 | inferior conj | 5256 Jul 22 04:38 | 3° Ω 23'28 | -3°33'32 |
| minimum elong | 5255 Aug 12 03:31 | 23° Ω 11'31 | 4°50'44 | minimum elong | 5256 Jul 21 19:54 | 3° Ω 35'41 | 3°30'57 |
| morning rise | 5255 Aug 20 21:54 | 19° Ω 10'45 | | min. Earth dist. | 5256 Jul 22 05:14 | 3° Ω 22'39 | 0.54801 AU |
| direct | 5255 Aug 23 21:24 | 18° Ω 49'46 | | | 5256 Jul 29 04:08 | 30° \Re \mathcal{E} | |
| morning max el | 5255 Sep 03 19:20 | 23° Ω 54'27 | 20°39'08 | morning rise | 5256 Jul 30 20:28 | 29° \mathcal{E} 30'14 | |
| | 5255 Sep 09 03:05 | 0° \mathcal{H} | | direct | 5256 Aug 03 07:06 | 29° \mathcal{E} 04'34 | |
| asc. node | 5255 Sep 13 08:46 | 6° \mathcal{H} 22'57 | | | 5256 Aug 08 05:19 | 0° Ω | |
| morning set | 5255 Sep 22 20:52 | 24° \mathcal{H} 22'50 | | morning max el | 5256 Aug 15 18:21 | 4° Ω 57'33 | 22°12'34 |
| | 5255 Sep 25 14:02 | 0° \mathcal{L} | | asc. node | 5256 Aug 30 05:50 | 25° Ω 14'19 | |
| | | | | | 5256 Sep 01 18:11 | 0° \mathcal{H} | |
| superior conj | 5255 Sep 30 08:44 | 9° \mathcal{L} 52'33 | 1°42'56 | morning set | 5256 Sep 06 07:02 | 9° \mathcal{H} 12'39 | |
| minimum elong | 5255 Sep 30 09:18 | 9° \mathcal{L} 55'27 | 1°42'56 | | | | |
| max. Earth dist. | 5255 Oct 05 07:33 | 19° \mathcal{L} 45'27 | 1.36038 AU | superior conj | 5256 Sep 13 10:35 | 24° \mathcal{H} 23'09 | 1°42'09 |
| evening rise | 5255 Oct 09 06:58 | 27° \mathcal{L} 18'34 | | minimum elong | 5256 Sep 13 09:48 | 24° \mathcal{H} 19'03 | 1°42'08 |
| | 5255 Oct 10 18:08 | 0° \mathcal{M} | | | 5256 Sep 16 03:01 | 0° \mathcal{L} | |
| desc. node | 5255 Oct 19 15:48 | 15° \mathcal{M} 17'50 | | max. Earth dist. | 5256 Sep 16 22:49 | 1° \mathcal{L} 41'55 | 1.34390 AU |
| | 5255 Oct 29 07:59 | 0° \mathcal{J} | | evening rise | 5256 Sep 21 11:53 | 10° \mathcal{L} 46'23 | |
| evening max el | 5255 Nov 13 21:44 | 19° \mathcal{J} 01'40 | 26°11'47 | | 5256 Oct 02 04:05 | 0° \mathcal{M} | |
| retrograde | 5255 Nov 26 13:52 | 26° \mathcal{J} 11'24 | | desc. node | 5256 Oct 05 12:50 | 5° \mathcal{M} 27'20 | |
| evening set | 5255 Dec 02 20:21 | 23° \mathcal{J} 37'32 | | | 5256 Oct 23 20:08 | 0° \mathcal{J} | |
| min. Earth dist. | 5255 Dec 07 01:24 | 19° \mathcal{J} 10'57 | 0.66640 AU | evening max el | 5256 Oct 26 10:30 | 2° \mathcal{J} 37'49 | 27°00'58 |
| inferior conj | 5255 Dec 08 14:17 | 17° \mathcal{J} 17'21 | -0°35'36 | retrograde | 5256 Nov 08 16:19 | 9° \mathcal{J} 55'22 | |
| minimum elong | 5255 Dec 08 15:15 | 17° \mathcal{J} 14'23 | 0°35'10 | evening set | 5256 Nov 15 10:35 | 7° \mathcal{J} 15'30 | |
| asc. node | 5255 Dec 10 08:02 | 15° \mathcal{J} 11'49 | | min. Earth dist. | 5256 Nov 19 09:11 | 3° \mathcal{J} 24'19 | 0.65442 AU |
| morning rise | 5255 Dec 14 10:41 | 11° \mathcal{J} 28'58 | | inferior conj | 5256 Nov 21 09:54 | 1° \mathcal{J} 05'44 | -1°37'05 |
| direct | 5255 Dec 17 12:59 | 10° \mathcal{J} 34'27 | | minimum elong | 5256 Nov 21 12:41 | 0° \mathcal{J} 57'49 | 1°35'56 |
| morning max el | 5255 Dec 24 06:27 | 14° \mathcal{J} 15'47 | 18°44'25 | | 5256 Nov 22 09:13 | 30° \Re \mathcal{M} | |
| | 5256 Jan 04 22:18 | 0° \mathcal{Z} | | asc. node | 5256 Nov 26 05:04 | 26° \mathcal{M} 22'23 | |
| morning set | 5256 Jan 14 14:25 | 15° \mathcal{Z} 07'12 | | morning rise | 5256 Nov 27 15:47 | 25° \mathcal{M} 29'43 | |
| desc. node | 5256 Jan 15 15:03 | 16° \mathcal{Z} 44'05 | | direct | 5256 Nov 30 09:24 | 24° \mathcal{M} 49'14 | |
| | 5256 Jan 24 01:49 | 0° \approx | | morning max el | 5256 Dec 06 21:04 | 28° \mathcal{M} 17'41 | 18°09'28 |
| max. Earth dist. | 5256 Jan 30 01:41 | 9° \approx 23'52 | 1.45251 AU | | 5256 Dec 08 10:58 | 0° \mathcal{J} | |
| | | | | morning set | 5256 Dec 25 09:08 | 25° \mathcal{J} 47'15 | |
| superior conj | 5256 Jan 30 22:43 | 10° \approx 46'22 | -1°33'58 | | 5256 Dec 27 23:03 | 0° \mathcal{Z} | |
| minimum elong | 5256 Jan 30 13:17 | 10° \approx 09'20 | 1°33'02 | desc. node | 5257 Jan 01 12:05 | 7° \mathcal{Z} 21'35 | |
| | 5256 Feb 12 02:18 | 0° \mathcal{H} | | | | | |
| evening rise | 5256 Feb 15 09:27 | 5° \mathcal{H} 17'07 | | superior conj | 5257 Jan 09 03:18 | 19° \mathcal{Z} 31'32 | -0°51'22 |
| greatest brilliancy | 5256 Feb 22 13:13 | 16° \mathcal{H} 47'06 | -0.9m | minimum elong | 5257 Jan 08 20:59 | 19° \mathcal{Z} 06'34 | 0°50'31 |
| | 5256 Mar 02 04:02 | 0° Υ | | max. Earth dist. | 5257 Jan 11 21:17 | 23° \mathcal{Z} 51'14 | 1.45246 AU |
| asc. node | 5256 Mar 07 07:20 | 6° Υ 26'28 | | | 5257 Jan 15 19:28 | 0° \approx | |
| evening max el | 5256 Mar 07 14:24 | 6° Υ 44'41 | 18°45'32 | evening rise | 5257 Jan 25 09:50 | 14° \approx 56'38 | |
| retrograde | 5256 Mar 14 06:26 | 10° Υ 27'05 | | | 5257 Feb 04 03:34 | 0° \mathcal{H} | |
| evening set | 5256 Mar 17 12:24 | 9° Υ 26'39 | | greatest brilliancy | 5257 Feb 06 21:44 | 4° \mathcal{H} 11'12 | -0.7m |
| inferior conj | 5256 Mar 23 04:05 | 3° Υ 46'58 | 3°31'17 | evening max el | 5257 Feb 18 21:48 | 20° \mathcal{H} 16'46 | 19°31'02 |

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|------------------|-------------------|-----------------------|------------|------------------|-------------------|--------------------------|------------|
| asc. node | 5257 Feb 22 04:23 | 23° K 04'11 | | asc. node | 5258 Feb 09 01:24 | 8° K 29'56 | |
| retrograde | 5257 Feb 26 03:35 | 24° K 26'27 | | retrograde | 5258 Feb 10 01:54 | 8° K 35'31 | |
| evening set | 5257 Mar 01 16:56 | 23° K 12'24 | | evening set | 5258 Feb 13 23:58 | 7° K 07'00 | |
| inferior conj | 5257 Mar 07 03:51 | 17° K 17'18 | 3°18'32 | inferior conj | 5258 Feb 19 08:31 | 0° K 59'08 | 2°54'37 |
| minimum elong | 5257 Mar 07 02:08 | 17° K 22'55 | 3°18'17 | minimum elong | 5258 Feb 19 06:13 | 1° K 06'57 | 2°54'05 |
| min. Earth dist. | 5257 Mar 08 08:49 | 15° K 42'10 | 0.66693 AU | min. Earth dist. | 5258 Feb 19 23:52 | 0° K 06'38 | 0.67567 AU |
| morning rise | 5257 Mar 12 11:05 | 11° K 02'18 | | | 5258 Feb 20 01:49 | 30° R \approx | |
| direct | 5257 Mar 18 14:47 | 8° K 17'59 | | morning rise | 5258 Feb 24 12:16 | 24° \approx 44'54 | |
| desc. node | 5257 Mar 30 11:21 | 15° K 10'05 | | direct | 5258 Mar 02 02:34 | 22° \approx 15'16 | |
| morning max el | 5257 Mar 30 23:41 | 15° K 40'56 | 25°46'20 | morning max el | 5258 Mar 13 08:22 | 28° \approx 58'41 | 24°21'45 |
| | 5257 Apr 11 18:52 | 0° Y | | | 5258 Mar 14 08:05 | 0° K | |
| | 5257 May 01 02:08 | 0° B | | desc. node | 5258 Mar 17 08:23 | 3° K 21'47 | |
| morning set | 5257 May 06 04:15 | 9° B 04'08 | | | 5258 Apr 05 13:44 | 0° Y | |
| max. Earth dist. | 5257 May 09 23:27 | 16° B 10'58 | 1.35739 AU | morning set | 5258 Apr 18 04:47 | 20° Y 44'53 | |
| | | | | max. Earth dist. | 5258 Apr 21 20:35 | 27° Y 14'25 | 1.37757 AU |
| | | | | | 5258 Apr 23 09:00 | 0° B | |
| superior conj | 5257 May 15 13:37 | 27° B 09'38 | -0°54'51 | | | | |
| minimum elong | 5257 May 15 16:40 | 27° B 24'59 | 0°54'18 | superior conj | 5258 Apr 28 19:43 | 10° B 14'06 | -1°23'47 |
| | 5257 May 16 23:19 | 0° II | | minimum elong | 5258 Apr 29 00:16 | 10° B 35'59 | 1°23'08 |
| asc. node | 5257 May 21 03:39 | 8° II 34'20 | | evening rise | 5258 May 07 13:22 | 27° B 25'57 | |
| evening rise | 5257 May 23 12:46 | 13° II 27'28 | | asc. node | 5258 May 08 00:42 | 28° B 22'01 | |
| | 5257 Jun 01 04:13 | 0° E | | | 5258 May 08 20:35 | 0° II | |
| evening max el | 5257 Jun 10 10:18 | 12° E 38'24 | 20°08'28 | evening max el | 5258 May 24 04:28 | 24° II 25'32 | 19°08'23 |
| retrograde | 5257 Jun 21 00:02 | 17° E 48'55 | | retrograde | 5258 Jun 02 01:48 | 28° II 46'21 | |
| evening set | 5257 Jun 22 22:16 | 17° E 39'20 | | evening set | 5258 Jun 04 01:44 | 28° II 34'06 | |
| desc. node | 5257 Jun 26 10:36 | 16° E 37'14 | | inferior conj | 5258 Jun 12 10:13 | 24° II 22'37 | 0°15'47 |
| inferior conj | 5257 Jul 02 00:09 | 13° E 40'20 | -1°39'42 | minimum elong | 5258 Jun 12 10:52 | 24° II 21'31 | 0°15'31 |
| minimum elong | 5257 Jul 01 19:29 | 13° E 47'16 | 1°37'59 | transit middle | 5258 Jun 12 10:52 | 24° II 21'31 | 0°15'31 |
| min. Earth dist. | 5257 Jul 03 17:18 | 12° E 39'06 | 0.55100 AU | transit begin | 5258 Jun 12 09:55 | 24° II 23'09 | |
| morning rise | 5257 Jul 10 15:12 | 9° E 23'54 | | transit end | 5258 Jun 12 11:49 | 24° II 19'53 | |
| direct | 5257 Jul 14 18:20 | 8° E 46'47 | | desc. node | 5258 Jun 13 07:37 | 23° II 46'06 | |
| morning max el | 5257 Jul 28 09:42 | 15° E 27'33 | 23°56'11 | min. Earth dist. | 5258 Jun 15 08:18 | 22° II 24'11 | 0.56316 AU |
| | 5257 Aug 08 21:52 | 0° O | | morning rise | 5258 Jun 20 16:49 | 19° II 31'02 | |
| asc. node | 5257 Aug 17 02:53 | 14° O 33'40 | | direct | 5258 Jun 25 18:08 | 18° II 31'27 | |
| morning set | 5257 Aug 21 18:41 | 24° O 05'31 | | morning max el | 5258 Jul 09 23:32 | 25° II 49'00 | 25°35'41 |
| | 5257 Aug 24 12:50 | 0° P | | | 5258 Jul 13 22:12 | 0° E | |
| superior conj | 5257 Aug 28 17:54 | 9° P 08'37 | 1°35'09 | | 5258 Aug 01 21:41 | 0° O | |
| minimum elong | 5257 Aug 28 16:10 | 8° P 59'16 | 1°35'01 | asc. node | 5258 Aug 03 23:57 | 4° O 13'27 | |
| max. Earth dist. | 5257 Aug 30 22:34 | 13° P 52'00 | 1.33148 AU | morning set | 5258 Aug 06 06:09 | 8° O 56'25 | |
| evening rise | 5257 Sep 05 04:32 | 24° P 46'56 | | | | | |
| | 5257 Sep 07 19:50 | 0° A | | superior conj | 5258 Aug 13 04:24 | 24° O 01'33 | 1°22'47 |
| desc. node | 5257 Sep 22 09:52 | 25° A 11'31 | | minimum elong | 5258 Aug 13 02:11 | 23° O 49'18 | 1°22'29 |
| | 5257 Sep 25 16:26 | 0° M | | max. Earth dist. | 5258 Aug 14 05:23 | 26° O 18'38 | 1.32339 AU |
| evening max el | 5257 Oct 08 22:07 | 15° M 54'56 | 27°25'37 | | 5258 Aug 15 21:58 | 0° P | |
| retrograde | 5257 Oct 22 12:46 | 23° M 12'59 | | evening rise | 5258 Aug 20 05:37 | 9° P 10'48 | |
| evening set | 5257 Oct 29 14:59 | 20° M 35'39 | | | 5258 Aug 31 04:14 | 0° A | |
| min. Earth dist. | 5257 Nov 02 08:16 | 17° M 17'43 | 0.63896 AU | desc. node | 5258 Sep 09 06:53 | 14° A 19'56 | |
| inferior conj | 5257 Nov 04 20:56 | 14° M 41'14 | -2°40'46 | evening max el | 5258 Sep 21 06:41 | 28° A 40'51 | 27°19'51 |
| minimum elong | 5257 Nov 05 01:37 | 14° M 29'08 | 2°39'01 | | 5258 Sep 22 17:31 | 0° M | |
| morning rise | 5257 Nov 11 13:44 | 9° M 20'34 | | retrograde | 5258 Oct 05 02:22 | 5° M 54'47 | |
| asc. node | 5257 Nov 13 02:07 | 8° M 54'52 | | evening set | 5258 Oct 12 06:03 | 3° M 31'16 | |
| direct | 5257 Nov 14 01:03 | 8° M 50'17 | | min. Earth dist. | 5258 Oct 15 21:08 | 0° M 40'16 | 0.62052 AU |
| morning max el | 5257 Nov 20 13:55 | 12° M 15'09 | 17°51'37 | | 5258 Oct 16 15:04 | 30° R Δ | |
| | 5257 Dec 02 18:04 | 0° X | | inferior conj | 5258 Oct 18 20:24 | 27° Δ 56'44 | -3°42'59 |
| morning set | 5257 Dec 07 07:18 | 7° X 47'12 | | minimum elong | 5258 Oct 19 02:31 | 27° Δ 42'40 | 3°41'07 |
| desc. node | 5257 Dec 19 09:07 | 28° X 05'24 | | morning rise | 5258 Oct 26 00:49 | 22° Δ 54'34 | |
| | | | | direct | 5258 Oct 28 08:43 | 22° Δ 30'54 | |
| superior conj | 5257 Dec 20 00:54 | 29° X 09'51 | -0°04'38 | asc. node | 5258 Oct 30 23:10 | 23° Δ 01'26 | |
| minimum elong | 5257 Dec 20 00:23 | 29° X 07'44 | 0°04'32 | morning max el | 5258 Nov 04 05:53 | 26° Δ 00'25 | 17°51'46 |
| behind sun begin | 5257 Dec 19 14:50 | 28° X 28'48 | | | 5258 Nov 07 15:26 | 0° M | |
| behind sun end | 5257 Dec 20 09:55 | 29° X 46'36 | | morning set | 5258 Nov 20 02:35 | 20° M 47'42 | |
| | 5257 Dec 20 13:13 | 0° Z | | | 5258 Nov 25 05:54 | 0° X | |
| max. Earth dist. | 5257 Dec 25 15:26 | 8° Z 11'15 | 1.44511 AU | | | | |
| evening rise | 5258 Jan 04 20:59 | 24° Z 09'48 | | superior conj | 5258 Dec 01 00:28 | 10° X 04'04 | 0°36'38 |
| | 5258 Jan 08 16:34 | 0° \approx | | minimum elong | 5258 Dec 01 03:36 | 10° X 17'28 | 0°36'12 |
| | 5258 Jan 29 14:32 | 0° K | | desc. node | 5258 Dec 06 06:07 | 18° X 52'05 | |
| evening max el | 5258 Feb 02 00:02 | 3° K 50'33 | 20°31'23 | max. Earth dist. | 5258 Dec 08 06:11 | 22° X 09'14 | 1.43145 AU |

| | | | | | | | |
|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| | 5258 Dec 13 03:29 | 0°♄ | | evening rise | 5259 Nov 25 15:57 | 13°♄47'59 | |
| evening rise | 5258 Dec 15 10:17 | 3°♄35'23 | | | 5259 Dec 06 01:13 | 0°♄ | |
| | 5259 Jan 02 03:11 | 0°♄ | | | 5259 Dec 28 12:24 | 0°♄ | |
| evening max el | 5259 Jan 15 20:51 | 17°♄25'39 | 21°43'12 | evening max el | 5259 Dec 29 13:09 | 1°♄03'47 | 23°01'44 |
| retrograde | 5259 Jan 24 23:19 | 22°♄49'57 | | retrograde | 5260 Jan 08 18:20 | 7°♄07'04 | |
| asc. node | 5259 Jan 26 22:26 | 22°♄29'24 | | evening set | 5260 Jan 13 14:41 | 5°♄07'27 | |
| evening set | 5259 Jan 29 07:44 | 21°♄06'08 | | asc. node | 5260 Jan 13 19:26 | 4°♄57'18 | |
| inferior conj | 5259 Feb 03 15:50 | 14°♄48'24 | 2°21'24 | | 5260 Jan 18 01:37 | 30°♄ | |
| minimum elong | 5259 Feb 03 13:26 | 14°♄56'43 | 2°20'42 | inferior conj | 5260 Jan 18 23:54 | 28°♄43'21 | 1°40'17 |
| min. Earth dist. | 5259 Feb 03 18:50 | 14°♄37'57 | 0.68034 AU | minimum elong | 5260 Jan 18 21:53 | 28°♄50'21 | 1°39'34 |
| morning rise | 5259 Feb 08 18:57 | 8°♄36'40 | | min. Earth dist. | 5260 Jan 18 15:29 | 29°♄12'23 | 0.68117 AU |
| direct | 5259 Feb 13 18:48 | 6°♄27'34 | | morning rise | 5260 Jan 24 04:59 | 22°♄35'39 | |
| morning max el | 5259 Feb 23 17:53 | 12°♄21'32 | 22°52'20 | direct | 5260 Jan 28 14:24 | 20°♄49'28 | |
| desc. node | 5259 Mar 04 05:22 | 22°♄21'46 | | morning max el | 5260 Feb 06 08:04 | 25°♄53'58 | 21°27'06 |
| | 5259 Mar 09 20:01 | 0°♄ | | | 5260 Feb 10 01:09 | 0°♄ | |
| | 5259 Mar 29 10:48 | 0°♄ | | desc. node | 5260 Feb 19 02:23 | 11°♄57'07 | |
| morning set | 5259 Mar 30 03:40 | 1°♄09'40 | | | 5260 Mar 02 08:04 | 0°♄ | |
| max. Earth dist. | 5259 Apr 03 15:58 | 8°♄46'04 | 1.39959 AU | morning set | 5260 Mar 08 22:01 | 10°♄14'15 | |
| | | | | max. Earth dist. | 5260 Mar 15 16:51 | 21°♄11'46 | 1.42061 AU |
| superior conj | 5259 Apr 11 10:13 | 22°♄31'01 | -1°48'44 | | 5260 Mar 20 22:52 | 0°♄ | |
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| | 5259 Apr 15 11:06 | 0°♄ | | superior conj | 5260 Mar 23 04:14 | 3°♄49'15 | -2°05'21 |
| evening rise | 5259 Apr 21 04:44 | 10°♄53'13 | | minimum elong | 5260 Mar 23 07:22 | 4°♄02'48 | 2°05'14 |
| asc. node | 5259 Apr 24 21:43 | 17°♄53'25 | | evening rise | 5260 Apr 03 07:09 | 23°♄40'46 | |
| | 5259 May 01 22:33 | 0°♄ | | | 5260 Apr 06 18:43 | 0°♄ | |
| evening max el | 5259 May 07 08:17 | 6°♄50'00 | 18°28'42 | asc. node | 5260 Apr 10 18:44 | 7°♄02'55 | |
| retrograde | 5259 May 14 22:16 | 10°♄35'08 | | evening max el | 5260 Apr 19 18:09 | 19°♄42'37 | 18°09'00 |
| evening set | 5259 May 17 04:50 | 10°♄15'56 | | retrograde | 5260 Apr 26 12:52 | 23°♄08'50 | |
| inferior conj | 5259 May 24 17:18 | 5°♄44'50 | 1°47'26 | evening set | 5260 Apr 29 02:18 | 22°♄39'53 | |
| minimum elong | 5259 May 24 20:35 | 5°♄38'19 | 1°46'25 | inferior conj | 5260 May 05 21:12 | 17°♄47'57 | 2°48'04 |
| min. Earth dist. | 5259 May 28 03:12 | 3°♄03'12 | 0.58188 AU | minimum elong | 5260 May 06 00:23 | 17°♄40'34 | 2°47'22 |
| desc. node | 5259 May 31 04:38 | 0°♄58'32 | | min. Earth dist. | 5260 May 09 04:29 | 14°♄45'40 | 0.60363 AU |
| morning rise | 5259 Jun 01 09:07 | 0°♄19'38 | | morning rise | 5260 May 12 20:07 | 11°♄58'03 | |
| | 5259 Jun 02 01:37 | 30°♄ | | desc. node | 5260 May 17 01:39 | 10°♄08'45 | |
| direct | 5259 Jun 07 08:01 | 28°♄48'18 | | direct | 5260 May 19 09:57 | 9°♄52'58 | |
| | 5259 Jun 12 17:26 | 0°♄ | | morning max el | 5260 Jun 02 17:28 | 17°♄47'26 | 27°42'29 |
| morning max el | 5259 Jun 21 17:13 | 6°♄29'03 | 26°55'14 | | 5260 Jun 12 21:41 | 0°♄ | |
| | 5259 Jul 09 04:47 | 0°♄ | | | 5260 Jun 30 20:28 | 0°♄ | |
| morning set | 5259 Jul 21 15:51 | 23°♄40'10 | | morning set | 5260 Jul 04 22:00 | 8°♄11'19 | |
| asc. node | 5259 Jul 21 20:59 | 24°♄07'14 | | asc. node | 5260 Jul 07 18:00 | 14°♄09'54 | |
| | 5259 Jul 24 14:46 | 0°♄ | | max. Earth dist. | 5260 Jul 11 03:07 | 21°♄30'37 | 1.31985 AU |
| superior conj | 5259 Jul 28 16:11 | 8°♄55'29 | 1°05'42 | superior conj | 5260 Jul 12 03:28 | 23°♄44'31 | 0°44'28 |
| minimum elong | 5259 Jul 28 13:55 | 8°♄42'59 | 1°05'18 | minimum elong | 5260 Jul 12 01:39 | 23°♄34'30 | 0°44'05 |
| max. Earth dist. | 5259 Jul 28 16:09 | 8°♄55'17 | 1.31953 AU | | 5260 Jul 14 23:37 | 0°♄ | |
| evening rise | 5259 Aug 04 12:25 | 23°♄49'35 | | evening rise | 5260 Jul 18 22:41 | 8°♄35'55 | |
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| | 5259 Aug 25 03:58 | 0°♄ | | desc. node | 5260 Aug 13 00:56 | 19°♄45'34 | |
| desc. node | 5259 Aug 27 03:54 | 2°♄38'12 | | evening max el | 5260 Aug 15 04:31 | 21°♄56'04 | 25°29'59 |
| evening max el | 5259 Sep 03 09:30 | 10°♄43'30 | 26°40'33 | retrograde | 5260 Aug 29 03:08 | 29°♄00'40 | |
| retrograde | 5259 Sep 17 07:41 | 17°♄52'27 | | evening set | 5260 Sep 04 01:57 | 27°♄38'22 | |
| evening set | 5259 Sep 24 03:20 | 15°♄54'51 | | min. Earth dist. | 5260 Sep 08 16:20 | 24°♄59'55 | 0.57969 AU |
| min. Earth dist. | 5259 Sep 27 23:22 | 13°♄18'51 | 0.60012 AU | inferior conj | 5260 Sep 11 18:55 | 22°♄50'13 | -5°12'32 |
| inferior conj | 5259 Oct 01 04:54 | 10°♄43'19 | -4°37'12 | minimum elong | 5260 Sep 11 21:56 | 22°♄44'56 | 5°12'19 |
| minimum elong | 5259 Oct 01 10:55 | 10°♄31'11 | 4°35'57 | morning rise | 5260 Sep 19 20:13 | 18°♄33'02 | |
| morning rise | 5259 Oct 08 20:34 | 6°♄02'48 | | direct | 5260 Sep 22 07:45 | 18°♄14'07 | |
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| morning max el | 5259 Oct 18 17:41 | 9°♄25'10 | 18°11'17 | | 5260 Oct 07 00:59 | 0°♄ | |
| | 5259 Nov 01 03:08 | 0°♄ | | morning set | 5260 Oct 17 09:50 | 18°♄44'02 | |
| morning set | 5259 Nov 03 13:00 | 4°♄31'26 | | | 5260 Oct 23 03:44 | 0°♄ | |
| superior conj | 5259 Nov 13 01:04 | 22°♄11'19 | 1°07'56 | superior conj | 5260 Oct 25 21:30 | 5°♄16'06 | 1°28'45 |
| minimum elong | 5259 Nov 13 04:59 | 22°♄28'56 | 1°07'27 | minimum elong | 5260 Oct 26 00:29 | 5°♄30'18 | 1°28'30 |
| | 5259 Nov 17 10:49 | 0°♄ | | max. Earth dist. | 5260 Nov 01 22:17 | 18°♄12'50 | 1.39214 AU |
| max. Earth dist. | 5259 Nov 20 16:24 | 5°♄32'44 | 1.41305 AU | evening rise | 5260 Nov 05 20:02 | 25°♄01'04 | |
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
























































































































| | | | | | | | |
|------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| desc. node | 5260 Nov 09 00:11 | 0°♊20'49 | | evening rise | 5261 Oct 18 22:06 | 7°♎14'15 | |
| | 5260 Nov 28 18:37 | 0°♊ | | desc. node | 5261 Oct 26 21:13 | 20°♎54'28 | |
| evening max el | 5260 Dec 11 02:35 | 14°♊44'58 | 24°21'14 | | 5261 Nov 01 15:09 | 0°♊ | |
| retrograde | 5260 Dec 22 09:51 | 21°♊22'12 | | evening max el | 5261 Nov 23 15:04 | 28°♊28'25 | 25°34'54 |
| evening set | 5260 Dec 27 19:15 | 19°♊07'17 | | | 5261 Nov 25 06:05 | 0°♊ | |
| asc. node | 5260 Dec 30 16:27 | 16°♊05'04 | | retrograde | 5261 Dec 05 20:57 | 5°♊30'14 | |
| min. Earth dist. | 5261 Jan 01 11:31 | 13°♊45'57 | 0.67825 AU | evening set | 5261 Dec 11 19:49 | 3°♊02'07 | |
| inferior conj | 5261 Jan 02 06:57 | 12°♊40'47 | 0°52'12 | | 5261 Dec 14 18:41 | 30°♊♊ | |
| minimum elong | 5261 Jan 02 05:44 | 12°♊44'51 | 0°51'43 | min. Earth dist. | 5261 Dec 16 04:43 | 28°♊15'15 | 0.67172 AU |
| morning rise | 5261 Jan 07 16:18 | 6°♊38'56 | | inferior conj | 5261 Dec 17 11:09 | 26°♊37'56 | -0°02'00 |
| direct | 5261 Jan 11 12:17 | 5°♊15'06 | | minimum elong | 5261 Dec 17 11:12 | 26°♊37'47 | 0°01'58 |
| morning max el | 5261 Jan 19 05:46 | 9°♊38'30 | 20°12'26 | transit middle | 5261 Dec 17 11:12 | 26°♊37'47 | 0°01'58 |
| | 5261 Feb 03 15:38 | 0°♊ | | transit begin | 5261 Dec 17 08:24 | 26°♊46'42 | |
| desc. node | 5261 Feb 04 23:25 | 1°♊57'49 | | transit end | 5261 Dec 17 13:59 | 26°♊28'51 | |
| morning set | 5261 Feb 15 20:16 | 18°♊28'12 | | asc. node | 5261 Dec 17 13:30 | 26°♊30'24 | |
| | 5261 Feb 23 05:15 | 0°♊ | | morning rise | 5261 Dec 23 02:57 | 20°♊43'53 | |
| max. Earth dist. | 5261 Feb 26 01:18 | 4°♊30'59 | 1.43779 AU | direct | 5261 Dec 26 11:02 | 19°♊39'49 | |
| | | | | morning max el | 5262 Jan 02 11:20 | 23°♊33'33 | 19°11'56 |
| superior conj | 5261 Mar 03 21:30 | 13°♊59'57 | -2°08'09 | | 5262 Jan 07 20:59 | 0°♊ | |
| minimum elong | 5261 Mar 03 19:29 | 13°♊51'38 | 2°08'06 | greatest brilliancy | 5262 Jan 16 02:48 | 11°♊56'40 | -0.7m |
| | 5261 Mar 13 09:39 | 0°♊ | | desc. node | 5262 Jan 22 20:27 | 22°♊16'53 | |
| evening rise | 5261 Mar 16 16:18 | 5°♊39'34 | | morning set | 5262 Jan 25 21:30 | 26°♊59'51 | |
| asc. node | 5261 Mar 28 15:45 | 25°♊43'25 | | | 5262 Jan 27 19:54 | 0°♊ | |
| | 5261 Mar 31 17:24 | 0°♊ | | max. Earth dist. | 5262 Feb 08 15:52 | 18°♊29'25 | 1.44912 AU |
| evening max el | 5261 Apr 03 06:46 | 2°♊54'45 | 18°08'40 | | | | |
| retrograde | 5261 Apr 09 17:17 | 6°♊17'10 | | superior conj | 5262 Feb 11 14:25 | 23°♊08'12 | -1°52'06 |
| evening set | 5261 Apr 12 13:02 | 5°♊36'54 | | minimum elong | 5262 Feb 11 06:22 | 22°♊36'19 | 1°51'31 |
| inferior conj | 5261 Apr 18 18:24 | 0°♊25'19 | 3°21'06 | | 5262 Feb 15 21:43 | 0°♊ | |
| minimum elong | 5261 Apr 18 20:11 | 0°♊20'36 | 3°20'53 | evening rise | 5262 Feb 26 03:57 | 16°♊42'10 | |
| | 5261 Apr 19 03:57 | 30°♊♊ | | | 5262 Mar 06 05:51 | 0°♊ | |
| min. Earth dist. | 5261 Apr 21 14:26 | 27°♊26'37 | 0.62523 AU | asc. node | 5262 Mar 15 12:47 | 13°♊45'45 | |
| morning rise | 5261 Apr 25 01:53 | 24°♊20'42 | | evening max el | 5262 Mar 17 19:13 | 16°♊18'57 | 18°27'00 |
| direct | 5261 May 01 22:01 | 21°♊48'15 | | retrograde | 5262 Mar 24 06:57 | 19°♊50'44 | |
| desc. node | 5261 May 03 22:40 | 22°♊00'34 | | evening set | 5262 Mar 27 08:59 | 18°♊58'02 | |
| morning max el | 5261 May 15 23:39 | 29°♊48'57 | 27°52'01 | inferior conj | 5262 Apr 02 04:42 | 13°♊28'20 | 3°32'28 |
| | 5261 May 16 04:03 | 0°♊ | | minimum elong | 5262 Apr 02 04:52 | 13°♊27'50 | 3°32'27 |
| | 5261 Jun 06 21:31 | 0°♊ | | min. Earth dist. | 5262 Apr 04 09:48 | 10°♊53'07 | 0.64448 AU |
| morning set | 5261 Jun 18 22:37 | 22°♊23'32 | | morning rise | 5262 Apr 07 23:59 | 7°♊16'32 | |
| | 5261 Jun 22 14:48 | 0°♊ | | direct | 5262 Apr 14 18:24 | 4°♊28'54 | |
| max. Earth dist. | 5261 Jun 24 10:17 | 3°♊51'33 | 1.32441 AU | desc. node | 5262 Apr 20 19:42 | 6°♊19'16 | |
| asc. node | 5261 Jun 24 15:02 | 4°♊17'04 | | morning max el | 5262 Apr 28 09:02 | 12°♊25'32 | 27°25'16 |
| | | | | | 5262 May 12 10:01 | 0°♊ | |
| superior conj | 5261 Jun 26 12:32 | 8°♊23'08 | 0°19'39 | | 5262 May 30 10:22 | 0°♊ | |
| minimum elong | 5261 Jun 26 11:38 | 8°♊18'11 | 0°19'26 | morning set | 5262 Jun 02 14:56 | 6°♊07'41 | |
| evening rise | 5261 Jul 03 10:25 | 23°♊23'24 | | max. Earth dist. | 5262 Jun 07 09:27 | 15°♊44'54 | 1.33353 AU |
| | 5261 Jul 06 14:25 | 0°♊ | | | | | |
| | 5261 Jul 25 08:05 | 0°♊ | | superior conj | 5262 Jun 10 17:24 | 22°♊44'23 | -0°08'05 |
| evening max el | 5261 Jul 27 17:34 | 2°♊28'58 | 23°58'16 | minimum elong | 5262 Jun 10 17:48 | 22°♊46'35 | 0°08'00 |
| desc. node | 5261 Jul 30 21:57 | 5°♊14'29 | | behind sun begin | 5262 Jun 10 13:02 | 22°♊21'15 | |
| retrograde | 5261 Aug 10 11:17 | 9°♊23'36 | | behind sun end | 5262 Jun 10 22:34 | 23°♊11'56 | |
| evening set | 5261 Aug 15 00:33 | 8°♊37'47 | | asc. node | 5262 Jun 11 12:04 | 24°♊23'48 | |
| min. Earth dist. | 5261 Aug 21 03:56 | 5°♊38'21 | 0.56208 AU | | 5262 Jun 14 02:51 | 0°♊ | |
| inferior conj | 5261 Aug 23 12:44 | 4°♊11'27 | -5°13'20 | evening rise | 5262 Jun 17 21:44 | 8°♊04'55 | |
| minimum elong | 5261 Aug 23 09:40 | 4°♊16'10 | 5°13'08 | | 5262 Jun 29 10:46 | 0°♊ | |
| morning rise | 5261 Aug 31 21:17 | 0°♊14'00 | | evening max el | 5262 Jul 09 07:29 | 12°♊49'56 | 22°20'48 |
| | 5261 Sep 02 04:35 | 30°♊♊ | | desc. node | 5262 Jul 17 18:59 | 18°♊30'02 | |
| direct | 5261 Sep 03 15:27 | 29°♊54'29 | | retrograde | 5262 Jul 22 07:06 | 19°♊17'03 | |
| | 5261 Sep 05 01:47 | 0°♊ | | evening set | 5262 Jul 25 08:28 | 18°♊56'25 | |
| morning max el | 5261 Sep 13 15:40 | 4°♊34'15 | 19°53'43 | min. Earth dist. | 5262 Aug 02 14:05 | 15°♊22'09 | 0.55064 AU |
| asc. node | 5261 Sep 20 14:16 | 13°♊09'42 | | inferior conj | 5262 Aug 03 13:06 | 14°♊49'38 | -4°24'41 |
| | 5261 Sep 29 22:42 | 0°♊ | | minimum elong | 5262 Aug 03 04:44 | 15°♊01'27 | 4°22'49 |
| morning set | 5261 Oct 01 13:44 | 3°♊16'22 | | morning rise | 5262 Aug 12 02:51 | 10°♊59'46 | |
| | | | | direct | 5262 Aug 15 06:22 | 10°♊37'25 | |
| superior conj | 5261 Oct 09 08:34 | 19°♊03'46 | 1°40'07 | morning max el | 5262 Aug 26 21:10 | 16°♊02'45 | 21°16'55 |
| minimum elong | 5261 Oct 09 10:02 | 19°♊11'04 | 1°40'04 | | 5262 Sep 06 11:50 | 0°♊ | |
| | 5261 Oct 14 23:48 | 0°♊ | | asc. node | 5262 Sep 07 11:20 | 1°♊40'14 | |
| max. Earth dist. | 5261 Oct 15 03:24 | 0°♊16'56 | 1.37137 AU | morning set | 5262 Sep 15 22:10 | 18°♊01'05 | |

| | | | | | | | |
|---------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| | 5262 Sep 21 15:20 | 0°♄ | | morning set | 5263 Aug 31 09:08 | 2°♎52'21 | |
| superior conj | 5262 Sep 23 05:59 | 3°♄21'18 | 1°43'25 | superior conj | 5263 Sep 07 10:24 | 17°♎58'42 | 1°39'53 |
| minimum elong | 5262 Sep 23 05:56 | 3°♄21'05 | 1°43'26 | minimum elong | 5263 Sep 07 09:10 | 17°♎52'07 | 1°39'49 |
| max. Earth dist. | 5262 Sep 27 13:36 | 12°♄08'31 | 1.35291 AU | max. Earth dist. | 5263 Sep 10 08:33 | 24°♎09'47 | 1.33812 AU |
| evening rise | 5262 Oct 01 18:26 | 20°♄18'03 | | | 5263 Sep 13 04:35 | 0°♄ | |
| | 5262 Oct 07 01:55 | 0°♄ | | evening rise | 5263 Sep 15 04:46 | 4°♄00'58 | |
| desc. node | 5262 Oct 13 18:16 | 11°♄14'32 | | | 5263 Sep 29 20:19 | 0°♄ | |
| | 5262 Oct 26 14:23 | 0°♄ | | desc. node | 5263 Sep 30 15:17 | 1°♄14'17 | |
| evening max el | 5262 Nov 06 03:52 | 12°♄10'14 | 26°35'19 | evening max el | 5263 Oct 19 16:35 | 25°♄40'42 | 27°14'59 |
| retrograde | 5262 Nov 19 02:52 | 19°♄24'59 | | | 5263 Oct 24 22:58 | 0°♄ | |
| evening set | 5262 Nov 25 14:29 | 16°♄47'53 | | retrograde | 5263 Nov 02 02:44 | 2°♄58'38 | |
| min. Earth dist. | 5262 Nov 29 16:44 | 12°♄36'10 | 0.66169 AU | evening set | 5263 Nov 09 00:53 | 0°♄19'01 | |
| inferior conj | 5262 Dec 01 10:33 | 10°♄31'13 | -1°01'16 | | 5263 Nov 09 10:29 | 30°♄♄ | |
| minimum elong | 5262 Dec 01 12:15 | 10°♄26'07 | 1°00'32 | min. Earth dist. | 5263 Nov 12 21:09 | 26°♄42'12 | 0.64823 AU |
| asc. node | 5262 Dec 04 10:34 | 7°♄09'15 | | inferior conj | 5263 Nov 15 02:52 | 24°♄15'16 | -2°04'02 |
| morning rise | 5262 Dec 07 10:47 | 4°♄47'33 | | minimum elong | 5263 Nov 15 06:28 | 24°♄05'23 | 2°02'35 |
| direct | 5262 Dec 10 09:01 | 3°♄59'33 | | asc. node | 5263 Nov 21 07:37 | 18°♄51'37 | |
| morning max el | 5262 Dec 16 23:17 | 7°♄34'35 | 18°27'24 | morning rise | 5263 Nov 21 13:13 | 18°♄45'03 | |
| | 5263 Jan 01 16:43 | 0°♄ | | direct | 5263 Nov 24 03:53 | 18°♄09'16 | |
| morning set | 5263 Jan 05 23:03 | 6°♄48'34 | | morning max el | 5263 Nov 30 15:08 | 21°♄35'11 | 17°59'40 |
| desc. node | 5263 Jan 09 17:29 | 12°♄49'04 | | | 5263 Dec 07 03:32 | 0°♄ | |
| | 5263 Jan 20 14:41 | 0°♄ | | morning set | 5263 Dec 18 06:09 | 18°♄05'19 | |
| | | | | | 5263 Dec 25 11:00 | 0°♄ | |
| superior conj | 5263 Jan 21 17:54 | 1°♄46'44 | -1°17'10 | desc. node | 5263 Dec 27 14:30 | 3°♄29'44 | |
| minimum elong | 5263 Jan 21 09:02 | 1°♄11'58 | 1°16'09 | | | | |
| max. Earth dist. | 5263 Jan 22 10:19 | 2°♄51'05 | 1.45339 AU | superior conj | 5264 Jan 01 03:43 | 10°♄49'08 | -0°31'21 |
| evening rise | 5263 Feb 06 16:19 | 26°♄48'49 | | minimum elong | 5263 Dec 31 23:55 | 10°♄33'55 | 0°30'47 |
| | 5263 Feb 08 16:42 | 0°♄ | | max. Earth dist. | 5264 Jan 05 05:57 | 17°♄18'43 | 1.45024 AU |
| greatest brilliancy | 5263 Feb 16 10:32 | 12°♄11'43 | -0.8m | | 5264 Jan 13 08:52 | 0°♄ | |
| evening max el | 5263 Mar 01 05:07 | 29°♄50'09 | 19°03'00 | evening rise | 5264 Jan 17 09:30 | 6°♄13'21 | |
| | 5263 Mar 01 09:01 | 0°♄ | | greatest brilliancy | 5264 Jan 31 13:27 | 27°♄44'18 | -0.6m |
| asc. node | 5263 Mar 02 09:51 | 0°♄58'48 | | | 5264 Feb 02 02:29 | 0°♄ | |
| retrograde | 5263 Mar 08 02:09 | 3°♄42'49 | | evening max el | 5264 Feb 12 10:31 | 13°♄23'34 | 19°55'05 |
| evening set | 5263 Mar 11 11:07 | 2°♄36'46 | | asc. node | 5264 Feb 17 06:53 | 17°♄07'59 | |
| | 5263 Mar 14 09:34 | 30°♄♄ | | retrograde | 5264 Feb 19 23:57 | 17°♄46'57 | |
| inferior conj | 5263 Mar 17 00:28 | 26°♄50'34 | 3°27'22 | evening set | 5264 Feb 23 16:56 | 16°♄26'42 | |
| minimum elong | 5263 Mar 16 23:19 | 26°♄54'13 | 3°27'16 | inferior conj | 5264 Feb 29 02:35 | 10°♄25'58 | 3°09'33 |
| min. Earth dist. | 5263 Mar 18 14:02 | 24°♄51'32 | 0.66001 AU | minimum elong | 5264 Feb 29 00:34 | 10°♄32'42 | 3°09'13 |
| morning rise | 5263 Mar 22 11:08 | 20°♄36'06 | | min. Earth dist. | 5264 Mar 01 01:34 | 9°♄09'02 | 0.67125 AU |
| direct | 5263 Mar 28 21:34 | 17°♄47'00 | | morning rise | 5264 Mar 05 08:00 | 4°♄11'21 | |
| desc. node | 5263 Apr 07 16:43 | 22°♄32'01 | | direct | 5264 Mar 11 06:19 | 1°♄32'22 | |
| morning max el | 5263 Apr 10 18:58 | 25°♄26'00 | 26°28'43 | morning max el | 5264 Mar 23 04:02 | 8°♄39'14 | 25°11'29 |
| | 5263 Apr 14 23:04 | 0°♄ | | desc. node | 5264 Mar 24 13:44 | 10°♄07'05 | |
| | 5263 May 05 22:05 | 0°♄ | | | 5264 Apr 08 22:25 | 0°♄ | |
| morning set | 5263 May 16 19:34 | 19°♄14'19 | | | 5264 Apr 27 11:43 | 0°♄ | |
| max. Earth dist. | 5263 May 20 21:49 | 27°♄07'39 | 1.34744 AU | morning set | 5264 Apr 28 07:55 | 1°♄30'16 | |
| | 5263 May 22 08:32 | 0°♄ | | max. Earth dist. | 5264 May 01 23:33 | 8°♄11'19 | 1.36568 AU |
| | | | | | | | |
| superior conj | 5263 May 25 15:47 | 6°♄42'16 | -0°37'36 | superior conj | 5264 May 08 04:49 | 20°♄08'43 | -1°07'24 |
| minimum elong | 5263 May 25 17:50 | 6°♄52'50 | 0°37'12 | minimum elong | 5264 May 08 08:34 | 20°♄27'15 | 1°06'46 |
| asc. node | 5263 May 29 09:07 | 14°♄26'32 | | | 5264 May 13 02:42 | 0°♄ | |
| evening rise | 5263 Jun 02 06:43 | 22°♄35'09 | | asc. node | 5264 May 15 06:10 | 4°♄21'04 | |
| | 5263 Jun 05 22:19 | 0°♄ | | evening rise | 5264 May 16 11:06 | 6°♄47'22 | |
| evening max el | 5263 Jun 21 06:16 | 23°♄32'13 | 20°51'57 | | 5264 May 29 13:09 | 0°♄ | |
| retrograde | 5263 Jul 02 19:23 | 29°♄12'34 | | evening max el | 5264 Jun 02 17:27 | 4°♄54'25 | 19°40'21 |
| evening set | 5263 Jul 04 22:32 | 29°♄01'45 | | retrograde | 5264 Jun 12 13:02 | 9°♄42'25 | |
| desc. node | 5263 Jul 04 16:00 | 29°♄04'18 | | evening set | 5264 Jun 14 11:07 | 9°♄32'13 | |
| inferior conj | 5263 Jul 14 06:03 | 25°♄04'42 | -2°47'39 | desc. node | 5264 Jun 20 12:59 | 7°♄07'38 | |
| minimum elong | 5263 Jul 13 22:30 | 25°♄15'25 | 2°45'07 | inferior conj | 5264 Jun 23 06:21 | 5°♄28'57 | -0°48'55 |
| min. Earth dist. | 5263 Jul 15 00:53 | 24°♄38'00 | 0.54812 AU | minimum elong | 5264 Jun 23 04:07 | 5°♄32'26 | 0°48'05 |
| morning rise | 5263 Jul 22 22:20 | 21°♄03'44 | | min. Earth dist. | 5264 Jun 25 13:40 | 4°♄02'41 | 0.55520 AU |
| direct | 5263 Jul 26 15:30 | 20°♄34'04 | | morning rise | 5264 Jul 01 18:50 | 0°♄58'42 | |
| morning max el | 5263 Aug 08 16:01 | 26°♄48'26 | 22°56'07 | direct | 5264 Jul 06 07:11 | 0°♄13'28 | |
| | 5263 Aug 11 18:15 | 0°♄ | | morning max el | 5264 Jul 20 05:45 | 7°♄10'41 | 24°40'07 |
| asc. node | 5263 Aug 25 08:23 | 20°♄44'20 | | | 5264 Aug 05 19:52 | 0°♄ | |
| | 5263 Aug 30 00:08 | 0°♄ | | asc. node | 5264 Aug 11 05:25 | 10°♄13'31 | |

| | | | | | | | |
|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| morning set | 5264 Aug 14 20:54 | 17°♌45'24 | | asc. node | 5265 Jul 29 02:26 | 0°♌00'04 | |
| | 5264 Aug 20 12:31 | 0°♍ | | | 5265 Jul 29 02:26 | 0°♌ | |
| | | | | morning set | 5265 Jul 30 07:48 | 2°♌34'10 | |
| superior conj | 5264 Aug 21 19:19 | 2°♍48'16 | 1°30'32 | | | | |
| minimum elong | 5264 Aug 21 17:19 | 2°♍37'22 | 1°30'18 | superior conj | 5265 Aug 06 06:33 | 17°♌42'23 | 1°16'05 |
| max. Earth dist. | 5264 Aug 23 11:54 | 6°♍28'53 | 1.32751 AU | minimum elong | 5265 Aug 06 04:15 | 17°♌29'42 | 1°15'43 |
| evening rise | 5264 Aug 29 01:23 | 18°♍12'48 | | max. Earth dist. | 5265 Aug 06 20:51 | 19°♌01'14 | 1.32118 AU |
| | 5264 Sep 04 02:09 | 0°♎ | | | 5265 Aug 11 22:07 | 0°♍ | |
| desc. node | 5264 Sep 16 12:18 | 20°♎45'11 | | evening rise | 5265 Aug 13 05:09 | 2°♍43'44 | |
| | 5264 Sep 23 05:54 | 0°♏ | | | 5265 Aug 27 22:25 | 0°♎ | |
| evening max el | 5264 Oct 01 03:19 | 8°♏46'53 | 27°27'12 | desc. node | 5265 Sep 03 09:19 | 9°♎34'28 | |
| retrograde | 5264 Oct 14 20:06 | 16°♏02'44 | | evening max el | 5265 Sep 13 09:29 | 21°♎14'42 | 27°07'11 |
| evening set | 5264 Oct 22 00:04 | 13°♏29'51 | | retrograde | 5265 Sep 27 06:19 | 28°♎26'54 | |
| min. Earth dist. | 5264 Oct 25 15:55 | 10°♏24'37 | 0.63147 AU | evening set | 5265 Oct 04 08:09 | 26°♎12'33 | |
| inferior conj | 5264 Oct 28 09:22 | 7°♏43'46 | -3°07'38 | min. Earth dist. | 5265 Oct 07 23:56 | 23°♎30'09 | 0.61199 AU |
| minimum elong | 5264 Oct 28 14:46 | 7°♏30'28 | 3°05'45 | inferior conj | 5265 Oct 11 02:50 | 20°♎47'41 | -4°07'28 |
| morning rise | 5264 Nov 04 07:04 | 2°♏30'33 | | minimum elong | 5265 Oct 11 09:11 | 20°♎33'52 | 4°05'47 |
| direct | 5264 Nov 06 16:42 | 2°♏03'21 | | morning rise | 5265 Oct 18 12:13 | 15°♎54'46 | |
| asc. node | 5264 Nov 07 04:38 | 2°♏04'33 | | direct | 5265 Oct 20 19:41 | 15°♎32'58 | |
| morning max el | 5264 Nov 13 07:59 | 5°♏28'50 | 17°49'28 | asc. node | 5265 Oct 25 01:39 | 16°♎49'48 | |
| | 5264 Nov 29 06:21 | 0°♐ | | morning max el | 5265 Oct 27 22:38 | 19°♎06'39 | 17°57'44 |
| morning set | 5264 Nov 29 14:10 | 0°♐34'16 | | | 5265 Nov 04 21:16 | 0°♏ | |
| | | | | morning set | 5265 Nov 12 16:31 | 13°♏54'44 | |
| | | | | | 5265 Nov 21 13:29 | 0°♐ | |
| superior conj | 5264 Dec 11 12:04 | 20°♐59'28 | 0°13'57 | | | | |
| minimum elong | 5264 Dec 11 13:29 | 21°♐05'21 | 0°13'45 | | | | |
| behind sun begin | 5264 Dec 11 08:34 | 20°♐44'56 | | superior conj | 5265 Nov 22 22:49 | 2°♐26'33 | 0°51'12 |
| behind sun end | 5264 Dec 11 18:23 | 21°♐25'44 | | minimum elong | 5265 Nov 23 02:34 | 2°♐42'57 | 0°50'41 |
| desc. node | 5264 Dec 13 11:33 | 24°♐15'40 | | desc. node | 5265 Nov 30 08:35 | 15°♐02'54 | |
| | 5264 Dec 17 00:10 | 0°♑ | | max. Earth dist. | 5265 Nov 30 12:15 | 15°♐18'04 | 1.42404 AU |
| max. Earth dist. | 5264 Dec 17 23:30 | 1°♑33'50 | 1.44007 AU | evening rise | 5265 Dec 06 14:33 | 25°♐09'47 | |
| evening rise | 5264 Dec 26 19:42 | 15°♑27'46 | | | 5265 Dec 09 16:33 | 0°♒ | |
| | 5265 Jan 05 09:54 | 0°♒ | | | 5265 Dec 30 08:28 | 0°♑ | |
| evening max el | 5265 Jan 25 10:23 | 26°♒57'52 | 21°00'39 | evening max el | 5266 Jan 08 04:59 | 10°♒33'49 | 22°16'01 |
| | 5265 Jan 28 20:47 | 0°♓ | | retrograde | 5266 Jan 17 18:51 | 16°♒15'37 | |
| retrograde | 5265 Feb 02 22:08 | 1°♓59'08 | | asc. node | 5266 Jan 21 00:54 | 15°♒19'57 | |
| asc. node | 5265 Feb 03 03:54 | 1°♓58'49 | | evening set | 5266 Jan 22 08:08 | 14°♒25'02 | |
| evening set | 5265 Feb 07 00:30 | 0°♓23'57 | | inferior conj | 5266 Jan 27 16:31 | 8°♒03'51 | 2°04'54 |
| | 5265 Feb 07 12:06 | 30°♒ | | minimum elong | 5266 Jan 27 14:13 | 8°♒11'49 | 2°04'09 |
| inferior conj | 5265 Feb 12 08:37 | 24°♒11'18 | 2°41'31 | min. Earth dist. | 5266 Jan 27 14:32 | 8°♒10'45 | 0.68113 AU |
| minimum elong | 5265 Feb 12 06:14 | 24°♒19'33 | 2°40'55 | morning rise | 5266 Feb 01 20:10 | 1°♒53'30 | |
| min. Earth dist. | 5265 Feb 12 18:29 | 23°♒37'15 | 0.67822 AU | | 5266 Feb 05 12:08 | 30°♒ | |
| morning rise | 5265 Feb 17 11:48 | 17°♒58'06 | | direct | 5266 Feb 06 13:41 | 29°♒54'16 | |
| direct | 5265 Feb 22 19:57 | 15°♒37'00 | | | 5266 Feb 07 15:54 | 0°♒ | |
| morning max el | 5265 Mar 05 12:51 | 21°♒59'38 | 23°43'40 | morning max el | 5266 Feb 16 00:06 | 5°♒27'08 | 22°15'06 |
| desc. node | 5265 Mar 11 10:45 | 28°♒41'19 | | desc. node | 5266 Feb 26 07:48 | 17°♒58'14 | |
| | 5265 Mar 12 11:59 | 0°♓ | | | 5266 Mar 06 19:23 | 0°♓ | |
| | 5265 Apr 02 05:44 | 0°♔ | | morning set | 5266 Mar 21 09:03 | 22°♓31'28 | |
| morning set | 5265 Apr 09 22:13 | 12°♔40'18 | | | 5266 Mar 25 21:56 | 0°♔ | |
| max. Earth dist. | 5265 Apr 13 19:24 | 19°♔24'33 | 1.38692 AU | max. Earth dist. | 5266 Mar 26 16:25 | 1°♔17'38 | 1.40879 AU |
| | 5265 Apr 19 15:36 | 0°♕ | | | | | |
| | | | | superior conj | 5266 Apr 03 11:14 | 14°♔47'47 | -1°57'07 |
| superior conj | 5265 Apr 21 04:47 | 2°♕54'03 | -1°35'05 | minimum elong | 5266 Apr 03 15:49 | 15°♔08'15 | 1°56'47 |
| minimum elong | 5265 Apr 21 09:44 | 3°♕17'19 | 1°34'29 | | 5266 Apr 11 18:18 | 0°♕ | |
| evening rise | 5265 Apr 30 08:12 | 20°♕33'50 | | evening rise | 5266 Apr 13 18:38 | 3°♕46'03 | |
| asc. node | 5265 May 02 03:11 | 24°♕02'33 | | asc. node | 5266 Apr 19 00:12 | 13°♕25'55 | |
| | 5265 May 05 06:33 | 0°♖ | | evening max el | 5266 Apr 29 22:53 | 29°♕36'05 | 18°17'55 |
| evening max el | 5265 May 16 16:01 | 16°♖57'55 | 18°48'57 | | 5266 Apr 30 08:55 | 0°♖ | |
| retrograde | 5265 May 24 22:48 | 21°♖02'04 | | retrograde | 5266 May 07 03:25 | 3°♖11'23 | |
| evening set | 5265 May 27 01:13 | 20°♖47'21 | | evening set | 5266 May 09 12:49 | 2°♖48'27 | |
| inferior conj | 5265 Jun 04 01:03 | 16°♖27'36 | 0°58'24 | | 5266 May 14 11:04 | 30°♖ | |
| minimum elong | 5265 Jun 04 03:13 | 16°♖23'40 | 0°57'39 | inferior conj | 5266 May 16 17:25 | 28°♖08'43 | 2°16'51 |
| desc. node | 5265 Jun 07 09:59 | 14°♖01'43 | | minimum elong | 5266 May 16 20:54 | 28°♖01'17 | 2°15'54 |
| min. Earth dist. | 5265 Jun 07 06:02 | 14°♖08'33 | 0.57046 AU | min. Earth dist. | 5266 May 20 03:44 | 25°♖14'55 | 0.59091 AU |
| morning rise | 5265 Jun 12 01:52 | 11°♖20'43 | | morning rise | 5266 May 24 01:59 | 22°♖31'21 | |
| direct | 5265 Jun 17 12:32 | 10°♖08'45 | | desc. node | 5266 May 25 07:00 | 21°♖54'33 | |
| morning max el | 5265 Jul 01 20:53 | 17°♖37'39 | 26°13'02 | direct | 5266 May 30 08:10 | 20°♖45'12 | |
| | 5265 Jul 12 02:54 | 0°♗ | | morning max el | 5266 Jun 13 17:30 | 28°♖33'48 | 27°19'45 |

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| | 5266 Jun 15 03:27 | 0°♊ | | direct | 5267 May 12 15:03 | 2°♎11'58 | |
| | 5266 Jul 05 20:57 | 0°♋ | | morning max el | 5267 May 26 20:18 | 10°♎10'10 | 27°51'02 |
| morning set | 5266 Jul 14 16:14 | 17°♋13'35 | | | 5267 Jun 11 06:04 | 0°♊ | |
| asc. node | 5266 Jul 15 23:29 | 19°♋58'32 | | | 5267 Jun 28 01:16 | 0°♋ | |
| | 5266 Jul 20 14:13 | 0°♌ | | morning set | 5267 Jun 28 20:18 | 1°♋37'15 | |
| | | | | asc. node | 5267 Jul 02 20:32 | 10°♋03'34 | |
| superior conj | 5266 Jul 21 18:21 | 2°♌35'16 | 0°57'10 | max. Earth dist. | 5267 Jul 04 17:40 | 14°♋07'50 | 1.32126 AU |
| minimum elong | 5266 Jul 21 16:13 | 2°♌23'30 | 0°56'46 | | | | |
| max. Earth dist. | 5266 Jul 21 08:02 | 1°♌38'14 | 1.31911 AU | superior conj | 5267 Jul 06 04:56 | 17°♋20'38 | 0°34'20 |
| evening rise | 5266 Jul 28 13:40 | 17°♌26'31 | | minimum elong | 5267 Jul 06 03:27 | 17°♋12'28 | 0°34'01 |
| | 5266 Aug 03 18:26 | 0°♍ | | | 5267 Jul 11 23:48 | 0°♌ | |
| desc. node | 5266 Aug 21 06:19 | 27°♍25'26 | | evening rise | 5267 Jul 13 00:48 | 2°♌14'03 | |
| | 5266 Aug 23 12:15 | 0°♎ | | | 5267 Jul 27 23:51 | 0°♍ | |
| evening max el | 5266 Aug 26 08:54 | 2°♎55'23 | 26°13'54 | evening max el | 5267 Aug 08 01:05 | 13°♍49'27 | 24°52'47 |
| retrograde | 5266 Sep 09 08:02 | 10°♎03'25 | | desc. node | 5267 Aug 08 03:19 | 13°♍54'48 | |
| evening set | 5266 Sep 15 20:19 | 8°♎19'57 | | retrograde | 5267 Aug 21 22:54 | 20°♍50'43 | |
| min. Earth dist. | 5266 Sep 19 22:02 | 5°♎45'05 | 0.59124 AU | evening set | 5267 Aug 27 08:26 | 19°♍44'55 | |
| inferior conj | 5266 Sep 23 03:48 | 3°♎18'04 | -4°55'22 | min. Earth dist. | 5267 Sep 01 12:32 | 16°♍59'18 | 0.57163 AU |
| minimum elong | 5266 Sep 23 08:59 | 3°♎08'13 | 4°54'34 | inferior conj | 5267 Sep 04 09:19 | 15°♍06'19 | -5°18'12 |
| | 5266 Sep 28 00:56 | 30°♎ | | minimum elong | 5267 Sep 04 10:01 | 15°♍05'10 | 5°18'11 |
| morning rise | 5266 Sep 30 23:52 | 28°♎47'37 | | morning rise | 5267 Sep 12 13:55 | 10°♍57'58 | |
| direct | 5266 Oct 03 08:41 | 28°♎28'25 | | direct | 5267 Sep 15 03:54 | 10°♍38'59 | |
| | 5266 Oct 08 08:56 | 0°♏ | | morning max el | 5267 Sep 24 07:44 | 14°♍57'56 | 19°15'19 |
| morning max el | 5266 Oct 11 07:40 | 2°♏19'34 | 18°25'50 | asc. node | 5267 Sep 28 19:46 | 20°♍11'23 | |
| asc. node | 5266 Oct 11 22:42 | 2°♏57'00 | | | 5267 Oct 04 22:53 | 0°♏ | |
| morning set | 5266 Oct 27 07:46 | 27°♏51'24 | | morning set | 5267 Oct 11 08:00 | 12°♏13'36 | |
| | 5266 Oct 28 10:33 | 0°♐ | | | | | |
| | | | | superior conj | 5267 Oct 19 11:41 | 28°♏24'14 | 1°34'39 |
| superior conj | 5266 Nov 05 08:27 | 14°♐59'39 | 1°18'00 | minimum elong | 5267 Oct 19 14:04 | 28°♏35'44 | 1°34'29 |
| minimum elong | 5266 Nov 05 12:06 | 15°♐16'30 | 1°17'36 | | 5267 Oct 20 07:29 | 0°♐ | |
| max. Earth dist. | 5266 Nov 12 19:44 | 28°♐20'28 | 1.40425 AU | max. Earth dist. | 5267 Oct 26 00:43 | 10°♐43'31 | 1.38313 AU |
| | 5266 Nov 13 18:55 | 0°♑ | | evening rise | 5267 Oct 29 19:13 | 17°♐26'57 | |
| evening rise | 5266 Nov 17 05:23 | 5°♑46'57 | | desc. node | 5267 Nov 04 02:38 | 26°♐27'11 | |
| desc. node | 5266 Nov 17 05:37 | 5°♑47'55 | | | 5267 Nov 06 06:55 | 0°♑ | |
| | 5266 Dec 02 20:25 | 0°♒ | | | 5267 Nov 27 06:13 | 0°♓ | |
| evening max el | 5266 Dec 21 19:46 | 24°♓12'57 | 23°35'56 | evening max el | 5267 Dec 04 08:49 | 7°♓56'26 | 24°53'52 |
| | 5266 Dec 29 17:59 | 0°♑ | | retrograde | 5267 Dec 16 02:16 | 14°♓45'00 | |
| retrograde | 5267 Jan 01 12:37 | 0°♑32'11 | | evening set | 5267 Dec 21 17:21 | 12°♓24'25 | |
| | 5267 Jan 04 03:04 | 30°♒ | | asc. node | 5267 Dec 25 18:58 | 7°♓54'58 | |
| evening set | 5267 Jan 06 14:16 | 28°♓26'08 | | min. Earth dist. | 5267 Dec 26 06:29 | 7°♓17'31 | 0.67588 AU |
| asc. node | 5267 Jan 07 21:56 | 27°♓10'58 | | inferior conj | 5267 Dec 27 06:28 | 5°♓58'29 | 0°29'57 |
| min. Earth dist. | 5267 Jan 11 11:19 | 22°♓45'04 | 0.68029 AU | minimum elong | 5267 Dec 27 05:44 | 6°♓00'54 | 0°29'39 |
| inferior conj | 5267 Jan 12 00:23 | 22°♓00'22 | 1°20'44 | morning rise | 5268 Jan 01 18:17 | 29°♑59'30 | |
| minimum elong | 5267 Jan 11 22:39 | 22°♓06'18 | 1°20'05 | | 5268 Jan 01 18:00 | 30°♒ | |
| morning rise | 5267 Jan 17 06:59 | 15°♓54'40 | | direct | 5268 Jan 05 09:05 | 28°♑44'15 | |
| direct | 5267 Jan 21 10:30 | 14°♓18'07 | | | 5268 Jan 09 05:48 | 0°♓ | |
| morning max el | 5267 Jan 29 17:11 | 19°♓04'19 | 20°53'44 | morning max el | 5268 Jan 12 18:12 | 2°♓53'27 | 19°44'51 |
| | 5267 Feb 07 16:36 | 0°♑ | | greatest brilliancy | 5268 Jan 25 19:57 | 20°♓03'34 | -0.7m |
| desc. node | 5267 Feb 13 04:50 | 7°♑45'32 | | desc. node | 5268 Jan 31 01:54 | 27°♓55'08 | |
| | 5267 Feb 27 23:21 | 0°♒ | | | 5268 Feb 01 10:48 | 0°♑ | |
| morning set | 5267 Feb 28 16:50 | 1°♒08'13 | | morning set | 5268 Feb 07 13:08 | 9°♑20'29 | |
| max. Earth dist. | 5267 Mar 08 19:59 | 14°♒05'21 | 1.42850 AU | max. Earth dist. | 5268 Feb 19 07:33 | 27°♑44'23 | 1.44347 AU |
| | | | | | 5268 Feb 20 17:36 | 0°♒ | |
| | | | | | | | |
| superior conj | 5267 Mar 15 19:10 | 25°♒38'25 | -2°08'35 | superior conj | 5268 Feb 24 01:39 | 5°♒21'21 | -2°03'49 |
| minimum elong | 5267 Mar 15 20:30 | 25°♒44'02 | 2°08'34 | minimum elong | 5268 Feb 23 20:50 | 5°♒01'56 | 2°03'37 |
| | 5267 Mar 18 08:33 | 0°♓ | | evening rise | 5268 Mar 08 14:44 | 27°♒49'37 | |
| evening rise | 5267 Mar 27 14:16 | 16°♓13'58 | | | 5268 Mar 09 21:27 | 0°♓ | |
| | 5267 Apr 04 10:22 | 0°♔ | | asc. node | 5268 Mar 22 18:16 | 20°♓49'54 | |
| asc. node | 5267 Apr 05 21:14 | 2°♔24'15 | | evening max el | 5268 Mar 26 23:23 | 25°♓57'12 | 18°14'11 |
| evening max el | 5267 Apr 13 10:25 | 12°♔38'37 | 18°06'34 | retrograde | 5268 Apr 02 09:07 | 29°♓21'41 | |
| retrograde | 5267 Apr 20 00:18 | 16°♔01'08 | | evening set | 5268 Apr 05 07:38 | 28°♓36'04 | |
| evening set | 5267 Apr 22 16:30 | 15°♔27'32 | | inferior conj | 5268 Apr 11 08:27 | 23°♓16'29 | 3°28'10 |
| inferior conj | 5267 Apr 29 05:11 | 10°♔27'21 | 3°05'04 | minimum elong | 5268 Apr 11 09:32 | 23°♓13'29 | 3°28'05 |
| minimum elong | 5267 Apr 29 07:51 | 10°♔20'48 | 3°04'35 | min. Earth dist. | 5268 Apr 13 22:19 | 20°♓26'02 | 0.63393 AU |
| min. Earth dist. | 5267 May 02 08:34 | 7°♔23'38 | 0.61306 AU | morning rise | 5268 Apr 17 10:22 | 17°♓08'22 | |
| morning rise | 5267 May 05 21:14 | 4°♔30'16 | | direct | 5268 Apr 24 06:46 | 14°♓27'57 | |
| desc. node | 5267 May 12 04:03 | 2°♔12'36 | | | | | |

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|------------------|-------------------|--------------------------|------------|---------------------|-------------------|--------------------------|------------|
| desc. node | 5268 Apr 28 01:06 | 15° Υ 10'34 | | morning rise | 5269 Mar 31 14:23 | 0° Υ 15'09 | |
| morning max el | 5268 May 08 04:02 | 22° Υ 27'14 | 27°44'41 | | 5269 Mar 31 21:36 | 30° \Re \Re | |
| | 5268 May 14 19:28 | 0° \mathcal{B} | | direct | 5269 Apr 07 05:55 | 27° \Re 25'41 | |
| | 5268 Jun 03 11:10 | 0° Π | | | 5269 Apr 14 09:12 | 0° Υ | |
| morning set | 5268 Jun 11 17:44 | 15° Π 38'18 | | desc. node | 5269 Apr 14 22:08 | 0° Υ 22'03 | |
| max. Earth dist. | 5268 Jun 16 21:58 | 26° Π 18'30 | 1.32780 AU | morning max el | 5269 Apr 20 14:08 | 5° Υ 16'15 | 27°04'29 |
| asc. node | 5268 Jun 18 17:34 | 0° \mathcal{E} 10'53 | | | 5269 May 09 10:37 | 0° \mathcal{B} | |
| | 5268 Jun 18 15:32 | 0° \mathcal{E} | | morning set | 5269 May 26 05:39 | 29° \mathcal{B} 08'31 | |
| | | | | | 5269 May 26 16:18 | 0° Π | |
| superior conj | 5268 Jun 19 12:29 | 1° \mathcal{E} 52'37 | 0°08'12 | max. Earth dist. | 5269 May 30 17:12 | 8° Π 00'55 | 1.33891 AU |
| minimum elong | 5268 Jun 19 12:05 | 1° \mathcal{E} 50'28 | 0°08'06 | | | | |
| behind sun begin | 5268 Jun 19 07:30 | 1° \mathcal{E} 25'42 | | superior conj | 5269 Jun 03 14:57 | 16° Π 05'16 | -0°20'25 |
| behind sun end | 5268 Jun 19 16:41 | 2° \mathcal{E} 15'16 | | minimum elong | 5269 Jun 03 16:02 | 16° Π 10'56 | 0°20'13 |
| evening rise | 5268 Jun 26 12:38 | 16° \mathcal{E} 59'56 | | asc. node | 5269 Jun 05 14:36 | 20° Π 16'41 | |
| | 5268 Jul 02 22:42 | 0° Ω | | | 5269 Jun 10 04:34 | 0° \mathcal{E} | |
| evening max el | 5268 Jul 19 13:34 | 24° Ω 13'12 | 23°16'28 | evening rise | 5269 Jun 10 23:16 | 1° \mathcal{E} 38'14 | |
| desc. node | 5268 Jul 25 00:21 | 28° Ω 31'23 | | | 5269 Jun 27 03:11 | 0° Ω | |
| | 5268 Jul 28 00:10 | 0° \mathfrak{M} | | evening max el | 5269 Jul 01 06:23 | 4° Ω 39'51 | 21°41'11 |
| retrograde | 5268 Aug 02 01:08 | 0° \mathfrak{M} 57'59 | | desc. node | 5269 Jul 11 21:22 | 10° Ω 41'37 | |
| evening set | 5268 Aug 05 22:42 | 0° \mathfrak{M} 24'46 | | retrograde | 5269 Jul 13 16:58 | 10° Ω 49'24 | |
| | 5268 Aug 07 05:48 | 30° \Re Ω | | evening set | 5269 Jul 16 06:43 | 10° Ω 34'25 | |
| min. Earth dist. | 5268 Aug 12 22:50 | 27° Ω 12'19 | 0.55630 AU | inferior conj | 5269 Jul 25 14:34 | 6° Ω 33'06 | -3°48'22 |
| inferior conj | 5268 Aug 14 18:57 | 26° Ω 07'45 | -4°59'15 | minimum elong | 5269 Jul 25 05:42 | 6° Ω 45'31 | 3°45'55 |
| minimum elong | 5268 Aug 14 13:08 | 26° Ω 16'17 | 4°58'27 | min. Earth dist. | 5269 Jul 25 08:51 | 6° Ω 41'07 | 0.54840 AU |
| morning rise | 5268 Aug 23 05:55 | 22° Ω 15'35 | | morning rise | 5269 Aug 03 05:59 | 2° Ω 41'28 | |
| direct | 5268 Aug 26 04:01 | 21° Ω 55'01 | | direct | 5269 Aug 06 14:32 | 2° Ω 16'54 | |
| morning max el | 5268 Sep 05 20:10 | 26° Ω 52'46 | 20°26'46 | morning max el | 5269 Aug 18 20:50 | 8° Ω 02'37 | 21°57'42 |
| | 5268 Sep 08 19:10 | 0° \mathfrak{M} | | asc. node | 5269 Sep 01 13:53 | 27° Ω 04'04 | |
| asc. node | 5268 Sep 14 16:50 | 8° \mathfrak{M} 17'48 | | | 5269 Sep 03 03:56 | 0° \mathfrak{M} | |
| morning set | 5268 Sep 24 14:08 | 26° \mathfrak{M} 52'09 | | morning set | 5269 Sep 08 23:53 | 11° \mathfrak{M} 40'49 | |
| | 5268 Sep 26 02:39 | 0° \mathcal{L} | | | | | |
| superior conj | 5268 Oct 02 03:36 | 12° \mathcal{L} 25'48 | 1°42'26 | superior conj | 5269 Sep 16 04:24 | 26° \mathfrak{M} 53'23 | 1°42'42 |
| minimum elong | 5268 Oct 02 04:24 | 12° \mathcal{L} 29'51 | 1°42'25 | minimum elong | 5269 Sep 16 03:48 | 26° \mathfrak{M} 50'15 | 1°42'41 |
| max. Earth dist. | 5268 Oct 07 07:50 | 22° \mathcal{L} 41'09 | 1.36312 AU | | 5269 Sep 17 16:06 | 0° \mathcal{L} | |
| evening rise | 5268 Oct 11 05:34 | 0° \mathfrak{M} 02'44 | | max. Earth dist. | 5269 Sep 19 21:36 | 4° \mathcal{L} 35'15 | 1.34611 AU |
| | 5268 Oct 11 04:58 | 0° \mathfrak{M} | | evening rise | 5269 Sep 24 08:22 | 13° \mathcal{L} 24'34 | |
| desc. node | 5268 Oct 20 23:39 | 16° \mathfrak{M} 55'39 | | | 5269 Oct 03 12:20 | 0° \mathfrak{M} | |
| | 5268 Oct 29 11:30 | 0° \mathcal{L} | | desc. node | 5269 Oct 07 20:39 | 7° \mathfrak{M} 07'54 | |
| evening max el | 5268 Nov 15 21:28 | 21° \mathcal{L} 40'08 | 26°02'42 | | 5269 Oct 24 10:13 | 0° \mathcal{L} | |
| retrograde | 5268 Nov 28 11:01 | 28° \mathcal{L} 48'03 | | evening max el | 5269 Oct 29 10:08 | 5° \mathcal{L} 17'27 | 26°55'01 |
| evening set | 5268 Dec 04 15:37 | 26° \mathcal{L} 15'25 | | retrograde | 5269 Nov 11 14:24 | 12° \mathcal{L} 34'48 | |
| min. Earth dist. | 5268 Dec 08 21:38 | 21° \mathcal{L} 43'40 | 0.66792 AU | evening set | 5269 Nov 18 07:03 | 9° \mathcal{L} 55'18 | |
| inferior conj | 5268 Dec 10 08:51 | 19° \mathcal{L} 54'05 | -0°26'36 | min. Earth dist. | 5269 Nov 22 06:32 | 5° \mathcal{L} 58'54 | 0.65642 AU |
| minimum elong | 5268 Dec 10 09:34 | 19° \mathcal{L} 51'53 | 0°26'16 | inferior conj | 5269 Nov 24 05:30 | 3° \mathcal{L} 43'30 | -1°27'38 |
| asc. node | 5268 Dec 11 16:02 | 18° \mathcal{L} 18'29 | | minimum elong | 5269 Nov 24 07:59 | 3° \mathcal{L} 36'18 | 1°26'33 |
| morning rise | 5268 Dec 16 04:01 | 14° \mathcal{L} 04'16 | | | 5269 Nov 27 17:43 | 30° \Re \mathfrak{M} | |
| direct | 5268 Dec 19 07:45 | 13° \mathcal{L} 07'23 | | asc. node | 5269 Nov 28 13:06 | 29° \mathfrak{M} 18'43 | |
| morning max el | 5268 Dec 26 02:44 | 16° \mathcal{L} 51'28 | 18°51'03 | morning rise | 5269 Nov 30 09:53 | 28° \mathfrak{M} 05'30 | |
| | 5269 Jan 05 02:49 | 0° \mathcal{B} | | direct | 5269 Dec 03 04:35 | 27° \mathfrak{M} 23'15 | |
| morning set | 5269 Jan 16 22:59 | 18° \mathcal{B} 20'23 | | | 5269 Dec 08 18:08 | 0° \mathcal{L} | |
| desc. node | 5269 Jan 16 22:55 | 18° \mathcal{B} 20'08 | | morning max el | 5269 Dec 09 16:44 | 0° \mathcal{L} 53'08 | 18°13'32 |
| | 5269 Jan 24 09:41 | 0° \approx | | morning set | 5269 Dec 28 13:09 | 28° \mathcal{L} 46'38 | |
| max. Earth dist. | 5269 Feb 01 00:38 | 11° \approx 56'33 | 1.45186 AU | | 5269 Dec 29 07:12 | 0° \mathcal{B} | |
| | | | | desc. node | 5270 Jan 03 19:55 | 8° \mathcal{B} 56'02 | |
| superior conj | 5269 Feb 02 10:40 | 14° \approx 10'17 | -1°39'18 | superior conj | 5270 Jan 12 14:12 | 22° \mathcal{B} 51'24 | -0°58'22 |
| minimum elong | 5269 Feb 02 01:22 | 13° \approx 33'40 | 1°38'26 | minimum elong | 5270 Jan 12 07:04 | 22° \mathcal{B} 23'21 | 0°57'25 |
| | 5269 Feb 12 10:14 | 0° \Re | | max. Earth dist. | 5270 Jan 14 19:47 | 26° \mathcal{B} 21'56 | 1.45290 AU |
| evening rise | 5269 Feb 17 16:26 | 8° \Re 27'46 | | | 5270 Jan 17 03:27 | 0° \approx | |
| | 5269 Mar 03 05:04 | 0° Υ | | evening rise | 5270 Jan 28 19:35 | 18° \approx 13'05 | |
| asc. node | 5269 Mar 09 15:18 | 8° Υ 32'46 | | | 5270 Feb 05 09:18 | 0° \Re | |
| evening max el | 5269 Mar 10 10:59 | 9° Υ 24'44 | 18°40'10 | greatest brilliancy | 5270 Feb 09 15:54 | 6° \Re 33'49 | -0.7m |
| retrograde | 5269 Mar 17 01:41 | 13° Υ 04'09 | | evening max el | 5270 Feb 21 19:00 | 22° \Re 56'16 | 19°23'20 |
| evening set | 5269 Mar 20 06:35 | 12° Υ 05'45 | | asc. node | 5270 Feb 24 12:20 | 25° \Re 20'04 | |
| inferior conj | 5269 Mar 25 23:12 | 6° Υ 28'30 | 3°32'03 | retrograde | 5270 Feb 28 22:23 | 27° \Re 01'27 | |
| minimum elong | 5269 Mar 25 22:45 | 6° Υ 29'51 | 3°32'02 | evening set | 5270 Mar 04 10:31 | 25° \Re 49'32 | |
| min. Earth dist. | 5269 Mar 27 21:31 | 4° Υ 07'53 | 0.65157 AU | inferior conj | 5270 Mar 09 21:58 | 19° \Re 56'43 | 3°21'13 |

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|------------------|-------------------|--|------------|------------------|-------------------|---|------------|
| minimum elong | 5270 Mar 09 20:24 | 20°  01'51 | 3°21'01 | minimum elong | 5271 Feb 21 23:48 | 3°  44'21 | 2°58'22 |
| min. Earth dist. | 5270 Mar 11 05:10 | 18°  15'08 | 0.66521 AU | min. Earth dist. | 5271 Feb 22 19:21 | 2°  37'50 | 0.67465 AU |
| morning rise | 5270 Mar 15 05:59 | 13°  41'41 | | | 5271 Feb 24 19:42 | 30°  | |
| direct | 5270 Mar 21 11:30 | 10°  55'44 | | morning rise | 5271 Feb 27 06:07 | 27°  22'22 | |
| desc. node | 5270 Apr 01 19:10 | 17°  12'48 | | direct | 5271 Mar 04 22:36 | 24°  49'59 | |
| morning max el | 5270 Apr 02 23:58 | 18°  23'42 | 25°57'56 | | 5271 Mar 14 15:21 | 0°  | |
| | 5270 Apr 12 18:51 | 0°  | | morning max el | 5271 Mar 16 08:36 | 1°  39'53 | 24°34'50 |
| | 5270 May 02 11:01 | 0°  | | desc. node | 5271 Mar 19 16:10 | 5°  15'15 | |
| morning set | 5270 May 09 04:01 | 11°  55'36 | | | 5271 Apr 06 19:46 | 0°  | |
| max. Earth dist. | 5270 May 13 00:50 | 19°  13'21 | 1.35465 AU | morning set | 5271 Apr 21 07:43 | 23°  45'27 | |
| | | | | | 5271 Apr 24 19:32 | 0°  | |
| superior conj | 5270 May 18 09:43 | 29°  50'34 | -0°50'18 | max. Earth dist. | 5271 Apr 24 22:44 | 0°  14'35 | 1.37440 AU |
| minimum elong | 5270 May 18 12:30 | 0°  04'42 | 0°49'48 | | | | |
| | 5270 May 18 11:35 | 0°  | | superior conj | 5271 May 01 17:41 | 13°  00'37 | -1°19'34 |
| asc. node | 5270 May 23 11:37 | 10°  16'13 | | minimum elong | 5271 May 01 22:02 | 13°  21'45 | 1°18'56 |
| evening rise | 5270 May 26 06:35 | 16°  01'33 | | evening rise | 5271 May 10 08:11 | 0°  | |
| | 5270 Jun 02 10:19 | 0°  | | asc. node | 5271 May 10 08:38 | 0°  05'31 | |
| evening max el | 5270 Jun 13 10:15 | 15°  37'54 | 20°19'08 | | 5271 May 10 07:32 | 0°  | |
| retrograde | 5270 Jun 24 06:15 | 20°  56'10 | | evening max el | 5271 May 27 02:41 | 27°  18'29 | 19°16'03 |
| evening set | 5270 Jun 26 05:10 | 20°  46'32 | | | 5271 May 30 11:27 | 0°  | |
| desc. node | 5270 Jun 28 18:24 | 20°  07'08 | | retrograde | 5271 Jun 05 05:27 | 1°  45'46 | |
| inferior conj | 5270 Jul 05 08:58 | 16°  48'35 | -1°57'53 | evening set | 5271 Jun 07 04:45 | 1°  34'10 | |
| minimum elong | 5270 Jul 05 03:27 | 16°  56'40 | 1°55'54 | | 5271 Jun 11 10:43 | 30°  | |
| min. Earth dist. | 5270 Jul 06 20:41 | 15°  56'14 | 0.54997 AU | inferior conj | 5271 Jun 15 16:10 | 27°  12'50'9 | -0°00'35 |
| morning rise | 5270 Jul 14 00:33 | 12°  36'32 | | minimum elong | 5271 Jun 15 16:09 | 27°  12'51'2 | 0°00'35 |
| direct | 5270 Jul 18 00:53 | 12°  01'39 | | transit middle | 5271 Jun 15 16:09 | 27°  12'51'2 | 0°00'35 |
| morning max el | 5270 Jul 31 12:54 | 18°  36'05 | 23°40'32 | transit begin | 5271 Jun 15 12:18 | 27°  13'1'34 | |
| | 5270 Aug 09 22:48 | 0°  | | transit end | 5271 Jun 15 19:59 | 27°  18'48 | |
| asc. node | 5270 Aug 19 10:55 | 16°  19'27 | | desc. node | 5271 Jun 15 15:24 | 27°  12'6'26 | |
| morning set | 5270 Aug 24 11:23 | 26°  33'14 | | min. Earth dist. | 5271 Jun 18 11:00 | 25°  13'4'43 | 0.56088 AU |
| | 5270 Aug 26 02:11 | 0°  | | morning rise | 5271 Jun 24 00:31 | 22°  13'9'12 | |
| | | | | direct | 5271 Jun 28 22:34 | 21°  12'43'35 | |
| superior conj | 5270 Aug 31 11:02 | 11°  36'57 | 1°36'35 | morning max el | 5271 Jul 13 02:23 | 28°  12'56'12 | 25°21'46 |
| minimum elong | 5270 Aug 31 09:25 | 11°  28'15 | 1°36'27 | | 5271 Jul 14 04:18 | 0°  | |
| max. Earth dist. | 5270 Sep 02 20:01 | 16°  42'17 | 1.33308 AU | | 5271 Aug 03 08:12 | 0°  | |
| evening rise | 5270 Sep 07 23:29 | 27°  49'20'49 | | asc. node | 5271 Aug 06 07:55 | 5°  12'56'19 | |
| | 5270 Sep 09 07:32 | 0°  | | morning set | 5271 Aug 08 22:57 | 11°  12'24'36 | |
| desc. node | 5270 Sep 24 17:41 | 26°  12'56'23 | | | | | |
| | 5270 Sep 26 18:40 | 0°  | | superior conj | 5271 Aug 15 21:10 | 26°  12'29'01 | 1°24'59 |
| evening max el | 5270 Oct 11 22:06 | 18°  38'30 | 27°23'48 | minimum elong | 5271 Aug 15 18:59 | 26°  12'17'02 | 1°24'42 |
| retrograde | 5270 Oct 25 11:52 | 25°  38'56'52 | | max. Earth dist. | 5271 Aug 17 02:02 | 29°  12'07'07 | 1.32435 AU |
| evening set | 5270 Nov 01 13:07 | 23°  38'18'40 | | | 5271 Aug 17 11:44 | 0°  | |
| min. Earth dist. | 5270 Nov 05 07:06 | 19°  38'55'56 | 0.64144 AU | evening rise | 5271 Aug 22 23:30 | 11°  12'41'49 | |
| inferior conj | 5270 Nov 07 17:59 | 17°  38'21'34 | -2°31'10 | | 5271 Sep 01 12:22 | 0°  | |
| minimum elong | 5270 Nov 07 22:23 | 17°  38'09'59 | 2°29'28 | desc. node | 5271 Sep 11 14:42 | 16°  12'11'00 | |
| morning rise | 5270 Nov 14 09:05 | 11°  38'58'17 | | | 5271 Sep 22 18:33 | 0°  | |
| asc. node | 5270 Nov 15 10:08 | 11°  38'37'33 | | evening max el | 5271 Sep 24 07:24 | 1°  12'30'20 | 27°22'50 |
| direct | 5270 Nov 16 21:08 | 11°  38'26'44 | | retrograde | 5271 Oct 08 02:24 | 8°  12'44'35 | |
| morning max el | 5270 Nov 23 09:25 | 14°  38'51'45 | 17°53'06 | evening set | 5271 Oct 15 06:25 | 6°  12'18'25 | |
| | 5270 Dec 04 01:17 | 0°  | | min. Earth dist. | 5271 Oct 18 21:36 | 3°  12'23'57 | 0.62342 AU |
| morning set | 5270 Dec 10 07:38 | 10°  38'36'13 | | inferior conj | 5271 Oct 21 19:23 | 0°  12'40'49 | -3°33'53 |
| desc. node | 5270 Dec 21 16:56 | 29°  38'39'11 | | minimum elong | 5271 Oct 22 01:21 | 0°  12'26'49 | 3°32'00 |
| | 5270 Dec 21 22:02 | 0°  | | | 5271 Oct 22 12:54 | 30°  | |
| | | | | morning rise | 5271 Oct 28 22:03 | 25°  12'35'33 | |
| superior conj | 5270 Dec 23 08:23 | 2°  38'19'38 | -0°11'30 | direct | 5271 Oct 31 06:18 | 25°  12'11'03 | |
| minimum elong | 5270 Dec 23 07:04 | 2°  38'14'16 | 0°11'18 | asc. node | 5271 Nov 02 07:10 | 25°  12'30'06 | |
| behind sun begin | 5270 Dec 22 23:49 | 1°  38'44'51 | | morning max el | 5271 Nov 07 01:42 | 28°  12'39'18 | 17°50'34 |
| behind sun end | 5270 Dec 23 14:19 | 2°  38'43'39 | | | 5271 Nov 08 08:06 | 0°  | |
| max. Earth dist. | 5270 Dec 28 14:18 | 10°  38'44'10 | 1.44665 AU | morning set | 5271 Nov 23 00:15 | 23°  12'29'21 | |
| evening rise | 5271 Jan 08 07:50 | 27°  38'28'01 | | | 5271 Nov 26 15:55 | 0°  | |
| | 5271 Jan 09 23:28 | 0°  | | | | | |
| | 5271 Jan 30 10:41 | 0°  | | superior conj | 5271 Dec 04 04:03 | 13°  12'30'23'2 | 0°30'58 |
| evening max el | 5271 Feb 04 22:04 | 6°  38'29'57 | 20°21'37 | minimum elong | 5271 Dec 04 06:50 | 13°  12'30'14'21 | 0°30'35 |
| asc. node | 5271 Feb 11 09:22 | 10°  38'57'34 | | desc. node | 5271 Dec 08 13:58 | 20°  12'30'25'43 | |
| retrograde | 5271 Feb 12 20:35 | 11° 38'09'05 | | max. Earth dist. | 5271 Dec 11 05:58 | 24° 12'30'47'31 | 1.43387 AU |
| evening set | 5271 Feb 16 17:16 | 9° 38'42'47 | | | 5271 Dec 14 11:44 | 0° | |
| inferior conj | 5271 Feb 22 02:02 | 3° 38'36'46 | 2°58'50 | evening rise | 5271 Dec 18 19:55 | 6° 38'23'49'50 | |

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| | 5272 Jan 03 06:50 | 0°♊ | | retrograde | 5273 Jan 10 13:42 | 9°♊40'06 | |
| evening max el | 5272 Jan 18 19:42 | 20°♊04'57 | 21°31'54 | evening set | 5273 Jan 15 08:14 | 7°♊42'43 | |
| retrograde | 5272 Jan 27 18:11 | 25°♊23'00 | | asc. node | 5273 Jan 15 03:26 | 7°♊52'30 | |
| asc. node | 5272 Jan 29 06:24 | 25°♊10'50 | | inferior conj | 5273 Jan 20 17:12 | 1°♊19'12 | 1°47'01 |
| evening set | 5272 Feb 01 01:02 | 23°♊41'25 | | minimum elong | 5273 Jan 20 15:05 | 1°♊26'30 | 1°46'16 |
| inferior conj | 5272 Feb 06 09:05 | 17°♊24'59 | 2°26'58 | min. Earth dist. | 5273 Jan 20 10:23 | 1°♊42'43 | 0.68133 AU |
| minimum elong | 5272 Feb 06 06:41 | 17°♊33'20 | 2°26'17 | | 5273 Jan 21 16:14 | 30°♋♊ | |
| min. Earth dist. | 5272 Feb 06 13:51 | 17°♊08'28 | 0.67996 AU | morning rise | 5273 Jan 25 21:50 | 25°♋10'52 | |
| morning rise | 5272 Feb 11 12:09 | 11°♊12'53 | | direct | 5273 Jan 30 09:20 | 23°♋21'22 | |
| direct | 5272 Feb 16 14:11 | 9°♊00'33 | | morning max el | 5273 Feb 08 07:10 | 28°♋32'50 | 21°39'12 |
| morning max el | 5272 Feb 26 17:46 | 15°♊01'43 | 23°05'32 | | 5273 Feb 09 16:35 | 0°♋ | |
| desc. node | 5272 Mar 05 13:12 | 24°♋08'50 | | desc. node | 5273 Feb 20 10:15 | 13°♋39'31 | |
| | 5272 Mar 09 22:22 | 0°♋ | | | 5273 Mar 03 14:36 | 0°♋ | |
| | 5272 Mar 29 19:16 | 0°♋ | | morning set | 5273 Mar 12 09:15 | 13°♋37'50 | |
| morning set | 5272 Apr 01 10:44 | 4°♋21'52 | | max. Earth dist. | 5273 Mar 18 17:59 | 23°♋57'57 | 1.41766 AU |
| max. Earth dist. | 5272 Apr 05 18:00 | 11°♋40'16 | 1.39632 AU | | 5273 Mar 22 08:20 | 0°♋ | |
| | | | | | | | |
| superior conj | 5272 Apr 13 10:46 | 25°♋25'02 | -1°45'24 | superior conj | 5273 Mar 26 08:10 | 6°♋52'27 | -2°03'37 |
| minimum elong | 5272 Apr 13 15:50 | 25°♋48'19 | 1°44'52 | minimum elong | 5273 Mar 26 11:48 | 7°♋08'15 | 2°03'26 |
| | 5272 Apr 15 21:57 | 0°♌ | | evening rise | 5273 Apr 06 05:48 | 26°♋29'37 | |
| evening rise | 5272 Apr 23 01:08 | 13°♌35'32 | | | 5273 Apr 08 03:44 | 0°♌ | |
| asc. node | 5272 Apr 26 05:40 | 19°♌39'37 | | asc. node | 5273 Apr 13 02:42 | 8°♌52'45 | |
| | 5272 May 02 00:55 | 0°♌ | | evening max el | 5273 Apr 22 14:26 | 22°♌26'12 | 18°10'42 |
| evening max el | 5272 May 09 05:15 | 9°♌37'34 | 18°33'22 | retrograde | 5273 Apr 29 11:22 | 25°♌54'26 | |
| retrograde | 5272 May 16 23:10 | 13°♌27'08 | | evening set | 5273 May 01 23:45 | 25°♌27'08 | |
| evening set | 5272 May 19 04:41 | 13°♌09'09 | | inferior conj | 5273 May 08 21:01 | 20°♌38'15 | 2°40'48 |
| inferior conj | 5272 May 26 20:01 | 8°♌40'58 | 1°35'33 | minimum elong | 5273 May 09 00:20 | 20°♌30'44 | 2°40'01 |
| minimum elong | 5272 May 26 23:05 | 8°♌34'58 | 1°34'33 | min. Earth dist. | 5273 May 12 05:22 | 17°♌37'21 | 0.60026 AU |
| min. Earth dist. | 5272 May 30 05:05 | 6°♌04'37 | 0.57875 AU | morning rise | 5273 May 15 22:23 | 14°♌51'10 | |
| desc. node | 5272 Jun 01 12:24 | 4°♌29'47 | | desc. node | 5273 May 19 09:27 | 13°♌17'09 | |
| morning rise | 5272 Jun 03 14:16 | 3°♌20'22 | | direct | 5273 May 22 10:24 | 12°♌50'56 | |
| direct | 5272 Jun 09 10:10 | 1°♌54'17 | | morning max el | 5273 Jun 05 18:42 | 20°♌44'18 | 27°37'56 |
| morning max el | 5272 Jun 23 19:18 | 9°♌32'02 | 26°45'22 | | 5273 Jun 13 18:32 | 0°♌ | |
| | 5272 Jul 09 09:41 | 0°♍ | | | 5273 Jul 02 07:12 | 0°♍ | |
| morning set | 5272 Jul 23 09:04 | 26°♍10'13 | | morning set | 5273 Jul 07 15:53 | 10°♍43'32 | |
| asc. node | 5272 Jul 23 04:57 | 25°♍48'34 | | asc. node | 5273 Jul 10 01:59 | 15°♍50'03 | |
| | 5272 Jul 25 04:10 | 0°♎ | | max. Earth dist. | 5273 Jul 13 23:47 | 24°♍20'01 | 1.31947 AU |
| | | | | | | | |
| superior conj | 5272 Jul 30 08:54 | 11°♎23'30 | 1°08'35 | superior conj | 5273 Jul 14 20:22 | 26°♍13'23 | 0°47'56 |
| minimum elong | 5272 Jul 30 06:37 | 11°♎10'51 | 1°08'12 | minimum elong | 5273 Jul 14 18:27 | 26°♍02'49 | 0°47'33 |
| max. Earth dist. | 5272 Jul 30 12:36 | 11°♎43'56 | 1.31983 AU | | 5273 Jul 16 13:26 | 0°♎ | |
| evening rise | 5272 Aug 06 05:38 | 26°♎19'12 | | evening rise | 5273 Jul 21 15:29 | 11°♎04'29 | |
| | 5272 Aug 08 00:02 | 0°♏ | | | 5273 Jul 31 06:09 | 0°♏ | |
| | 5272 Aug 25 02:32 | 0°♏ | | desc. node | 5273 Aug 15 08:44 | 21°♏57'50 | |
| desc. node | 5272 Aug 28 11:42 | 4°♏38'14 | | evening max el | 5273 Aug 18 07:20 | 24°♏59'45 | 25°42'12 |
| evening max el | 5272 Sep 05 11:15 | 13°♏40'16 | 26°48'29 | | 5273 Aug 24 21:26 | 0°♏ | |
| retrograde | 5272 Sep 19 08:59 | 20°♏49'45 | | retrograde | 5273 Sep 01 06:11 | 2°♏05'31 | |
| evening set | 5272 Sep 26 06:42 | 18°♏47'26 | | evening set | 5273 Sep 07 09:01 | 0°♏37'25 | |
| min. Earth dist. | 5272 Sep 30 01:16 | 16°♏10'20 | 0.60326 AU | | 5273 Sep 08 14:37 | 30°♏♏ | |
| inferior conj | 5272 Oct 03 06:22 | 13°♏32'30 | -4°29'52 | min. Earth dist. | 5273 Sep 11 19:24 | 28°♏00'37 | 0.58264 AU |
| minimum elong | 5272 Oct 03 12:34 | 13°♏19'46 | 4°28'30 | inferior conj | 5273 Sep 14 23:21 | 25°♏45'43 | -5°09'03 |
| morning rise | 5272 Oct 10 20:28 | 8°♏48'41 | | minimum elong | 5273 Sep 15 03:04 | 25°♏39'05 | 5°08'41 |
| direct | 5272 Oct 13 04:12 | 8°♏28'10 | | morning rise | 5273 Sep 22 23:24 | 21°♏25'14 | |
| asc. node | 5272 Oct 19 04:12 | 10°♏52'20 | | direct | 5273 Sep 25 10:05 | 21°♏06'21 | |
| morning max el | 5272 Oct 20 14:23 | 12°♏07'56 | 18°07'07 | morning max el | 5273 Oct 03 20:02 | 25°♏07'24 | 18°44'12 |
| | 5272 Nov 01 12:35 | 0°♐ | | asc. node | 5273 Oct 06 01:16 | 27°♏29'50 | |
| morning set | 5272 Nov 05 08:46 | 7°♐07'42 | | | 5273 Oct 08 00:13 | 0°♐ | |
| | | | | morning set | 5273 Oct 20 04:17 | 21°♐16'20 | |
| | | | | | 5273 Oct 24 15:33 | 0°♐ | |
| superior conj | 5272 Nov 15 01:15 | 24°♐59'59 | 1°03'51 | | | | |
| minimum elong | 5272 Nov 15 05:11 | 25°♐17'33 | 1°03'22 | | | | |
| | 5272 Nov 17 21:02 | 0°♑ | | superior conj | 5273 Oct 28 19:05 | 7°♐57'03 | 1°26'13 |
| max. Earth dist. | 5272 Nov 22 17:02 | 8°♑17'25 | 1.41604 AU | minimum elong | 5273 Oct 28 22:16 | 8°♐12'04 | 1°25'55 |
| desc. node | 5272 Nov 24 11:01 | 11°♑12'32 | | max. Earth dist. | 5273 Nov 04 23:12 | 21°♐02'52 | 1.39532 AU |
| evening rise | 5272 Nov 27 22:34 | 16°♑53'58 | | evening rise | 5273 Nov 08 23:11 | 27°♐57'29 | |
| | 5272 Dec 06 07:40 | 0°♒ | | | 5273 Nov 10 04:18 | 0°♑ | |
| | 5272 Dec 28 02:44 | 0°♒ | | desc. node | 5273 Nov 11 08:02 | 1°♑55'22 | |
| evening max el | 5272 Dec 31 12:34 | 3°♒42'21 | 22°49'43 | | 5273 Nov 29 20:33 | 0°♒ | |

| | | | | | | | |
|------------------|-------------------|----------------------|------------|---------------------|-------------------|----------------------|------------|
| evening max el | 5273 Dec 14 02:15 | 17° ♁ 22'46 | 24°09'35 | evening max el | 5274 Nov 26 14:49 | 1° ♁ 06'09 | 25°24'39 |
| retrograde | 5273 Dec 25 05:56 | 23° ♁ 55'53 | | retrograde | 5274 Dec 08 17:47 | 8° ♁ 05'05 | |
| evening set | 5273 Dec 30 13:19 | 21° ♁ 43'09 | | evening set | 5274 Dec 14 14:35 | 5° ♁ 38'53 | |
| asc. node | 5274 Jan 02 00:29 | 19° ♁ 10'48 | | min. Earth dist. | 5274 Dec 19 00:34 | 0° ♁ 46'42 | 0.67290 AU |
| min. Earth dist. | 5274 Jan 04 06:44 | 16° ♁ 16'42 | 0.67889 AU | asc. node | 5274 Dec 19 21:33 | 29° ♁ 39'02 | |
| inferior conj | 5274 Jan 05 00:32 | 15° ♁ 16'37 | 0°59'57 | | 5274 Dec 19 15:04 | 30° ♁ 18'1 | |
| minimum elong | 5274 Jan 04 23:11 | 15° ♁ 21'13 | 0°59'24 | inferior conj | 5274 Dec 20 05:18 | 29° ♁ 13'59 | 0°06'35 |
| morning rise | 5274 Jan 10 09:07 | 9° ♁ 13'41 | | minimum elong | 5274 Dec 20 05:08 | 29° ♁ 14'32 | 0°06'32 |
| direct | 5274 Jan 14 06:57 | 7° ♁ 46'43 | | transit middle | 5274 Dec 20 05:08 | 29° ♁ 14'32 | 0°06'32 |
| morning max el | 5274 Jan 22 03:43 | 12° ♁ 15'49 | 20°22'41 | transit begin | 5274 Dec 20 02:34 | 29° ♁ 22'48 | |
| | 5274 Feb 04 20:06 | 0° ♁ | | transit end | 5274 Dec 20 07:41 | 29° ♁ 06'17 | |
| desc. node | 5274 Feb 07 07:19 | 3° ♁ 37'04 | | morning rise | 5274 Dec 25 19:59 | 23° ♁ 18'31 | |
| morning set | 5274 Feb 19 09:24 | 21° ♁ 56'09 | | direct | 5274 Dec 29 05:44 | 22° ♁ 11'39 | |
| | 5274 Feb 24 13:16 | 0° ♁ | | morning max el | 5275 Jan 05 08:06 | 26° ♁ 09'09 | 19°19'55 |
| max. Earth dist. | 5274 Mar 01 01:11 | 7° ♁ 09'30 | 1.43555 AU | | 5275 Jan 08 17:56 | 0° ♁ | |
| | | | | greatest brilliancy | 5275 Jan 18 15:08 | 13° ♁ 54'27 | -0.7m |
| superior conj | 5274 Mar 07 05:22 | 17° ♁ 13'53 | -2°08'50 | desc. node | 5275 Jan 25 04:20 | 23° ♁ 53'32 | |
| minimum elong | 5274 Mar 07 04:18 | 17° ♁ 09'29 | 2°08'51 | morning set | 5275 Jan 29 08:28 | 0° ♁ 20'04 | |
| | 5274 Mar 14 18:48 | 0° ♁ | | | 5275 Jan 29 03:17 | 0° ♁ | |
| evening rise | 5274 Mar 19 17:53 | 8° ♁ 36'40 | | max. Earth dist. | 5275 Feb 11 14:49 | 21° ♁ 02'25 | 1.44787 AU |
| asc. node | 5274 Mar 30 23:45 | 27° ♁ 38'26 | | | | | |
| | 5274 Apr 01 13:51 | 0° ♁ | | superior conj | 5275 Feb 15 01:33 | 26° ♁ 30'17 | -1°55'50 |
| evening max el | 5274 Apr 06 02:53 | 5° ♁ 36'13 | 18°07'30 | minimum elong | 5275 Feb 14 18:13 | 26° ♁ 01'06 | 1°55'22 |
| retrograde | 5274 Apr 12 14:01 | 8° ♁ 58'17 | | | 5275 Feb 17 06:04 | 0° ♁ | |
| evening set | 5274 Apr 15 08:48 | 8° ♁ 19'51 | | evening rise | 5275 Mar 01 08:56 | 19° ♁ 47'40 | |
| inferior conj | 5274 Apr 21 15:57 | 3° ♁ 11'14 | 3°17'33 | | 5275 Mar 07 12:22 | 0° ♁ | |
| minimum elong | 5274 Apr 21 17:59 | 3° ♁ 05'58 | 3°17'17 | asc. node | 5275 Mar 17 20:48 | 15° ♁ 47'18 | |
| min. Earth dist. | 5274 Apr 24 14:04 | 0° ♁ 10'25 | 0.62214 AU | evening max el | 5275 Mar 20 15:35 | 18° ♁ 59'12 | 18°23'05 |
| | 5274 Apr 24 18:17 | 30° ♁ | | retrograde | 5275 Mar 27 02:30 | 22° ♁ 28'37 | |
| morning rise | 5274 Apr 28 01:33 | 27° ♁ 08'11 | | evening set | 5275 Mar 30 03:37 | 21° ♁ 37'47 | |
| direct | 5274 May 04 21:21 | 24° ♁ 38'57 | | inferior conj | 5275 Apr 05 00:33 | 16° ♁ 10'45 | 3°31'48 |
| desc. node | 5274 May 06 06:30 | 24° ♁ 44'39 | | minimum elong | 5275 Apr 05 00:57 | 16° ♁ 09'35 | 3°31'48 |
| | 5274 May 16 03:30 | 0° ♁ | | min. Earth dist. | 5275 Apr 07 08:00 | 13° ♁ 31'03 | 0.64190 AU |
| morning max el | 5274 May 19 00:08 | 2° ♁ 39'36 | 27°52'57 | morning rise | 5275 Apr 10 21:27 | 9° ♁ 59'47 | |
| | 5274 Jun 08 04:22 | 0° ♁ | | direct | 5275 Apr 17 16:39 | 7° ♁ 13'28 | |
| morning set | 5274 Jun 21 17:27 | 24° ♁ 58'32 | | desc. node | 5275 Apr 23 03:32 | 8° ♁ 43'09 | |
| | 5274 Jun 24 03:53 | 0° ♁ | | morning max el | 5275 May 01 09:05 | 15° ♁ 11'09 | 27°31'14 |
| asc. node | 5274 Jun 26 23:02 | 5° ♁ 56'29 | | | 5275 May 13 11:31 | 0° ♁ | |
| max. Earth dist. | 5274 Jun 27 07:36 | 6° ♁ 42'34 | 1.32341 AU | | 5275 May 31 20:59 | 0° ♁ | |
| | | | | morning set | 5275 Jun 05 11:11 | 8° ♁ 47'05 | |
| superior conj | 5274 Jun 29 05:53 | 10° ♁ 53'31 | 0°23'37 | max. Earth dist. | 5275 Jun 10 08:06 | 18° ♁ 39'56 | 1.33191 AU |
| minimum elong | 5274 Jun 29 04:48 | 10° ♁ 47'38 | 0°23'23 | | | | |
| evening rise | 5274 Jul 06 03:07 | 25° ♁ 51'33 | | superior conj | 5275 Jun 13 11:30 | 25° ♁ 17'33 | -0°03'43 |
| | 5274 Jul 08 02:17 | 0° ♁ | | minimum elong | 5275 Jun 13 11:41 | 25° ♁ 18'34 | 0°03'42 |
| | 5274 Jul 25 19:32 | 0° ♁ | | behind sun begin | 5275 Jun 13 06:24 | 24° ♁ 50'21 | |
| evening max el | 5274 Jul 30 20:56 | 5° ♁ 36'32 | 24°12'45 | behind sun end | 5275 Jun 13 16:59 | 25° ♁ 46'49 | |
| desc. node | 5274 Aug 02 05:44 | 7° ♁ 43'08 | | asc. node | 5275 Jun 13 20:05 | 26° ♁ 03'24 | |
| retrograde | 5274 Aug 13 16:13 | 12° ♁ 33'35 | | | 5275 Jun 15 16:13 | 0° ♁ | |
| evening set | 5274 Aug 18 10:54 | 11° ♁ 42'53 | | evening rise | 5275 Jun 20 14:37 | 10° ♁ 34'08 | |
| min. Earth dist. | 5274 Aug 24 07:41 | 8° ♁ 47'27 | 0.56435 AU | | 5275 Jun 30 15:01 | 0° ♁ | |
| inferior conj | 5274 Aug 26 20:07 | 7° ♁ 13'20 | -5°16'15 | evening max el | 5275 Jul 12 10:14 | 15° ♁ 56'54 | 22°35'02 |
| minimum elong | 5274 Aug 26 18:03 | 7° ♁ 16'34 | 5°16'08 | desc. node | 5275 Jul 20 02:44 | 21° ♁ 20'44 | |
| morning rise | 5274 Sep 04 03:42 | 3° ♁ 13'21 | | retrograde | 5275 Jul 25 13:30 | 22° ♁ 29'04 | |
| direct | 5274 Sep 06 20:37 | 2° ♁ 54'05 | | evening set | 5275 Jul 28 19:43 | 22° ♁ 05'46 | |
| morning max el | 5274 Sep 16 15:28 | 7° ♁ 28'14 | 19°43'05 | min. Earth dist. | 5275 Aug 05 17:48 | 18° ♁ 37'37 | 0.55180 AU |
| asc. node | 5274 Sep 22 22:19 | 15° ♁ 07'39 | | inferior conj | 5275 Aug 06 22:33 | 17° ♁ 56'43 | -4°35'29 |
| | 5274 Oct 01 09:48 | 0° ♁ | | minimum elong | 5275 Aug 06 14:40 | 18° ♁ 07'57 | 4°33'55 |
| morning set | 5274 Oct 04 07:17 | 5° ♁ 45'51 | | morning rise | 5275 Aug 15 11:36 | 14° ♁ 06'46 | |
| | | | | direct | 5275 Aug 18 13:41 | 13° ♁ 44'55 | |
| superior conj | 5274 Oct 12 04:14 | 21° ♁ 38'47 | 1°38'57 | morning max el | 5275 Aug 29 22:40 | 19° ♁ 03'08 | 21°03'24 |
| minimum elong | 5274 Oct 12 05:56 | 21° ♁ 47'13 | 1°38'51 | | 5275 Sep 07 15:37 | 0° ♁ | |
| | 5274 Oct 16 11:29 | 0° ♁ | | asc. node | 5275 Sep 09 19:21 | 3° ♁ 32'03 | |
| max. Earth dist. | 5274 Oct 18 03:55 | 3° ♁ 10'16 | 1.37435 AU | morning set | 5275 Sep 18 15:12 | 20° ♁ 29'07 | |
| evening rise | 5274 Oct 21 22:10 | 10° ♁ 02'05 | | | 5275 Sep 23 04:31 | 0° ♁ | |
| desc. node | 5274 Oct 29 05:03 | 22° ♁ 30'19 | | | | | |
| | 5274 Nov 02 21:43 | 0° ♁ | | superior conj | 5275 Sep 26 00:19 | 5° ♁ 52'26 | 1°43'23 |
| | 5274 Nov 25 12:25 | 0° ♁ | | minimum elong | 5275 Sep 26 00:29 | 5° ♁ 53'20 | 1°43'23 |

| | | | | | | | |
|---------------------|-------------------|---------------------------------|------------|---------------------|-------------------|-------------------------|------------|
| max. Earth dist. | 5275 Sep 30 13:14 | 15° Ω 02'58 | 1.35542 AU | superior conj | 5276 Sep 09 03:51 | 20° Π 27'11 | 1°40'49 |
| evening rise | 5275 Oct 04 16:03 | 22° Ω 59'08 | | minimum elong | 5276 Sep 09 02:46 | 20° Π 21'27 | 1°40'46 |
| | 5275 Oct 08 11:57 | 0° Π | | max. Earth dist. | 5276 Sep 12 06:54 | 27° Π 02'09 | 1.34002 AU |
| desc. node | 5275 Oct 16 02:02 | 12° Π 52'45 | | | 5276 Sep 13 17:24 | 0° Ω | |
| | 5275 Oct 27 14:35 | 0° \mathcal{A} | | evening rise | 5276 Sep 17 00:31 | 6° Ω 36'33 | |
| evening max el | 5275 Nov 09 03:41 | 14° \mathcal{A} 49'14 | 26°27'30 | | 5276 Sep 30 02:46 | 0° Π | |
| retrograde | 5275 Nov 22 00:24 | 22° \mathcal{A} 02'20 | | desc. node | 5276 Oct 01 23:02 | 2° Π 55'53 | |
| evening set | 5275 Nov 28 10:14 | 19° \mathcal{A} 26'20 | | evening max el | 5276 Oct 21 16:25 | 28° Π 21'45 | 27°10'40 |
| min. Earth dist. | 5275 Dec 02 13:29 | 15° \mathcal{A} 09'21 | 0.66343 AU | | 5276 Oct 23 11:28 | 0° \mathcal{A} | |
| inferior conj | 5275 Dec 04 05:33 | 13° \mathcal{A} 08'18 | -0°52'00 | retrograde | 5276 Nov 04 01:05 | 5° \mathcal{A} 39'32 | |
| minimum elong | 5275 Dec 04 06:58 | 13° \mathcal{A} 03'58 | 0°51'21 | evening set | 5276 Nov 10 21:59 | 2° \mathcal{A} 59'41 | |
| asc. node | 5275 Dec 06 18:36 | 10° \mathcal{A} 12'20 | | | 5276 Nov 14 03:20 | 30° \mathcal{R} Π | |
| morning rise | 5275 Dec 10 04:23 | 7° \mathcal{A} 22'50 | | min. Earth dist. | 5276 Nov 14 19:04 | 29° Π 17'55 | 0.65047 AU |
| direct | 5275 Dec 13 04:01 | 6° \mathcal{A} 32'36 | | inferior conj | 5276 Nov 16 23:01 | 26° Π 53'48 | -1°54'22 |
| morning max el | 5275 Dec 19 19:13 | 10° \mathcal{A} 09'36 | 18°32'58 | minimum elong | 5276 Nov 17 02:20 | 26° Π 44'35 | 1°53'01 |
| | 5276 Jan 02 23:27 | 0° \mathcal{B} | | asc. node | 5276 Nov 22 15:37 | 21° Π 42'27 | |
| morning set | 5276 Jan 09 05:42 | 9° \mathcal{B} 55'36 | | morning rise | 5276 Nov 23 07:47 | 21° Π 21'28 | |
| desc. node | 5276 Jan 12 01:20 | 14° \mathcal{B} 23'55 | | direct | 5276 Nov 25 23:28 | 20° Π 44'05 | |
| | 5276 Jan 21 22:52 | 0° \approx | | morning max el | 5276 Dec 02 10:40 | 24° Π 10'36 | 18°02'44 |
| | | | | | 5276 Dec 07 04:50 | 0° \mathcal{A} | |
| superior conj | 5276 Jan 25 05:50 | 5° \approx 09'39 | -1°23'26 | morning set | 5276 Dec 20 08:34 | 20° \mathcal{A} 59'53 | |
| minimum elong | 5276 Jan 24 20:37 | 4° \approx 33'31 | 1°22'24 | | 5276 Dec 25 19:43 | 0° \mathcal{B} | |
| max. Earth dist. | 5276 Jan 25 09:07 | 5° \approx 22'32 | 1.45329 AU | desc. node | 5276 Dec 28 22:20 | 5° \mathcal{B} 03'23 | |
| evening rise | 5276 Feb 10 00:39 | 0° \mathcal{H} 01'53 | | | | | |
| | 5276 Feb 10 00:11 | 0° \mathcal{H} | | superior conj | 5277 Jan 03 13:26 | 14° \mathcal{B} 04'55 | -0°38'30 |
| greatest brilliancy | 5276 Feb 18 23:16 | 14° \mathcal{H} 13'05 | -0.8m | minimum elong | 5277 Jan 03 08:42 | 13° \mathcal{B} 46'08 | 0°37'50 |
| | 5276 Feb 29 20:37 | 0° \mathcal{Y} | | max. Earth dist. | 5277 Jan 07 04:54 | 19° \mathcal{B} 50'49 | 1.45121 AU |
| evening max el | 5276 Mar 03 01:59 | 2° \mathcal{Y} 29'24 | 18°56'31 | | 5277 Jan 13 16:41 | 0° \approx | |
| asc. node | 5276 Mar 03 17:50 | 3° \mathcal{Y} 08'22 | | evening rise | 5277 Jan 19 20:07 | 9° \approx 31'06 | |
| retrograde | 5276 Mar 09 21:03 | 6° \mathcal{Y} 18'06 | | | 5277 Feb 02 06:12 | 0° \mathcal{H} | |
| evening set | 5276 Mar 13 04:59 | 5° \mathcal{Y} 14'00 | | greatest brilliancy | 5277 Feb 02 11:10 | 0° \mathcal{H} 18'30 | -0.7m |
| | 5276 Mar 18 09:31 | 30° \mathcal{R} \mathcal{H} | | evening max el | 5277 Feb 14 08:04 | 16° \mathcal{H} 02'20 | 19°46'22 |
| inferior conj | 5276 Mar 18 19:05 | 29° \mathcal{H} 30'04 | 3°28'59 | asc. node | 5277 Feb 18 14:52 | 19° \mathcal{H} 28'04 | |
| minimum elong | 5276 Mar 18 18:06 | 29° \mathcal{H} 33'08 | 3°28'54 | retrograde | 5277 Feb 21 18:41 | 20° \mathcal{H} 20'45 | |
| min. Earth dist. | 5276 Mar 20 10:53 | 27° \mathcal{H} 25'18 | 0.65801 AU | evening set | 5277 Feb 25 10:23 | 19° \mathcal{H} 02'36 | |
| morning rise | 5276 Mar 24 06:50 | 23° \mathcal{H} 15'52 | | inferior conj | 5277 Mar 02 20:25 | 13° \mathcal{H} 03'45 | 3°12'59 |
| direct | 5276 Mar 30 18:46 | 20° \mathcal{H} 26'22 | | minimum elong | 5277 Mar 02 18:30 | 13° \mathcal{H} 10'07 | 3°12'39 |
| desc. node | 5276 Apr 09 00:35 | 24° \mathcal{H} 40'35 | | min. Earth dist. | 5277 Mar 03 21:27 | 11° \mathcal{H} 40'28 | 0.66983 AU |
| morning max el | 5276 Apr 12 19:04 | 28° \mathcal{H} 08'30 | 26°38'39 | morning rise | 5277 Mar 08 02:25 | 6° \mathcal{H} 49'00 | |
| | 5276 Apr 14 13:36 | 0° \mathcal{Y} | | direct | 5277 Mar 14 02:39 | 4° \mathcal{H} 08'03 | |
| | 5276 May 06 05:31 | 0° \mathcal{B} | | morning max el | 5277 Mar 26 04:24 | 11° \mathcal{H} 20'43 | 25°23'57 |
| morning set | 5276 May 18 17:48 | 21° \mathcal{B} 59'46 | | desc. node | 5277 Mar 26 21:36 | 12° \mathcal{H} 04'56 | |
| | 5276 May 22 20:47 | 0° Π | | | 5277 Apr 10 01:57 | 0° \mathcal{Y} | |
| max. Earth dist. | 5276 May 22 22:17 | 0° Π 07'27 | 1.34511 AU | | 5277 Apr 28 21:39 | 0° \mathcal{B} | |
| | | | | morning set | 5277 May 01 08:56 | 4° \mathcal{B} 24'34 | |
| superior conj | 5276 May 27 11:00 | 9° Π 19'17 | -0°33'03 | max. Earth dist. | 5277 May 05 01:38 | 11° \mathcal{B} 13'41 | 1.36271 AU |
| minimum elong | 5276 May 27 12:48 | 9° Π 28'34 | 0°32'43 | | | | |
| asc. node | 5276 May 30 17:05 | 16° Π 06'44 | | superior conj | 5277 May 11 01:38 | 22° \mathcal{B} 51'06 | -1°02'57 |
| evening rise | 5276 Jun 04 00:04 | 25° Π 06'29 | | minimum elong | 5277 May 11 05:09 | 23° \mathcal{B} 08'33 | 1°02'21 |
| | 5276 Jun 06 09:14 | 0° \mathcal{B} | | | 5277 May 14 14:53 | 0° Π | |
| evening max el | 5276 Jun 23 07:17 | 26° \mathcal{B} 34'10 | 21°04'08 | asc. node | 5277 May 17 14:07 | 6° Π 02'53 | |
| | 5276 Jun 27 13:13 | 0° Ω | | evening rise | 5277 May 19 05:19 | 9° Π 22'13 | |
| retrograde | 5276 Jul 05 02:11 | 2° Ω 22'17 | | | 5277 May 30 11:06 | 0° \mathcal{B} | |
| desc. node | 5276 Jul 05 23:46 | 2° Ω 20'21 | | evening max el | 5277 Jun 05 16:35 | 7° \mathcal{B} 50'09 | 19°49'45 |
| evening set | 5276 Jul 07 07:32 | 2° Ω 10'41 | | retrograde | 5277 Jun 15 18:28 | 12° \mathcal{B} 46'02 | |
| | 5276 Jul 13 08:59 | 30° \mathcal{R} \mathcal{B} | | evening set | 5277 Jun 17 16:23 | 12° \mathcal{B} 36'09 | |
| inferior conj | 5276 Jul 16 15:41 | 28° \mathcal{B} 13'03 | -3°04'35 | desc. node | 5277 Jun 22 20:48 | 10° \mathcal{B} 43'50 | |
| minimum elong | 5276 Jul 16 07:35 | 28° \mathcal{B} 24'27 | 3°01'58 | inferior conj | 5277 Jun 26 14:07 | 8° \mathcal{B} 34'31 | -1°06'53 |
| min. Earth dist. | 5276 Jul 17 04:12 | 27° \mathcal{B} 55'25 | 0.54787 AU | minimum elong | 5277 Jun 26 11:02 | 8° \mathcal{B} 39'15 | 1°05'44 |
| morning rise | 5276 Jul 25 07:54 | 24° \mathcal{B} 15'18 | | min. Earth dist. | 5277 Jun 28 16:43 | 7° \mathcal{B} 16'59 | 0.55356 AU |
| direct | 5276 Jul 28 22:44 | 23° \mathcal{B} 47'09 | | morning rise | 5277 Jul 05 03:39 | 4° \mathcal{B} 09'19 | |
| | 5276 Aug 10 21:20 | 0° Ω | | direct | 5277 Jul 09 12:39 | 3° \mathcal{B} 27'13 | |
| morning max el | 5276 Aug 10 18:47 | 29° \mathcal{B} 54'00 | 22°40'49 | morning max el | 5277 Jul 23 09:00 | 10° \mathcal{B} 18'46 | 24°24'54 |
| asc. node | 5276 Aug 26 16:22 | 22° Ω 31'29 | | | 5277 Aug 07 02:31 | 0° Ω | |
| | 5276 Aug 30 12:06 | 0° Π | | asc. node | 5277 Aug 13 13:23 | 11° Ω 57'11 | |
| morning set | 5276 Sep 02 01:53 | 5° Π 19'41 | | morning set | 5277 Aug 17 13:37 | 20° Ω 12'41 | |
| | | | | | 5277 Aug 22 02:26 | 0° Π | |

























































































































| | | | | | | | |
|------------------|-------------------|------------|------------|------------------|-------------------|------------|------------|
| superior conj | 5277 Aug 24 12:14 | 5°♎15'20 | 1°32'17 | superior conj | 5278 Aug 08 23:17 | 20°♏09'08 | 1°18'34 |
| minimum elong | 5277 Aug 24 10:20 | 5°♎04'56 | 1°32'06 | minimum elong | 5278 Aug 08 21:00 | 19°♏56'33 | 1°18'15 |
| max. Earth dist. | 5277 Aug 26 09:01 | 9°♎17'55 | 1.32881 AU | max. Earth dist. | 5278 Aug 09 17:16 | 21°♏48'12 | 1.32187 AU |
| evening rise | 5277 Aug 31 19:48 | 20°♎44'24 | | | 5278 Aug 13 11:36 | 0°♎ | |
| | 5277 Sep 05 12:53 | 0°♏ | | evening rise | 5278 Aug 15 22:43 | 5°♎12'53 | |
| desc. node | 5277 Sep 18 20:04 | 22°♏31'31 | | | 5278 Aug 29 04:04 | 0°♏ | |
| | 5277 Sep 24 03:02 | 0°♎ | | desc. node | 5278 Sep 05 17:06 | 11°♏27'56 | |
| evening max el | 5277 Oct 04 03:28 | 11°♎31'29 | 27°27'16 | evening max el | 5278 Sep 16 10:29 | 24°♏05'36 | 27°12'18 |
| retrograde | 5277 Oct 17 19:30 | 18°♎48'11 | | | 5278 Sep 24 16:54 | 0°♎ | |
| evening set | 5277 Oct 24 23:02 | 16°♎13'26 | | retrograde | 5278 Sep 30 07:02 | 1°♎18'38 | |
| min. Earth dist. | 5277 Oct 28 15:17 | 13°♎04'00 | 0.63414 AU | | 5278 Oct 05 15:37 | 30°♎♏ | |
| inferior conj | 5277 Oct 31 07:08 | 10°♎24'23 | -2°58'07 | evening set | 5278 Oct 07 09:41 | 29°♏00'47 | |
| minimum elong | 5277 Oct 31 12:18 | 10°♎11'27 | 2°56'16 | min. Earth dist. | 5278 Oct 11 01:03 | 26°♏15'38 | 0.61497 AU |
| morning rise | 5277 Nov 07 03:07 | 5°♎08'35 | | inferior conj | 5278 Oct 14 02:47 | 23°♏32'26 | -3°58'59 |
| direct | 5277 Nov 09 13:18 | 4°♎40'22 | | minimum elong | 5278 Oct 14 09:06 | 23°♏18'26 | 3°57'14 |
| asc. node | 5277 Nov 09 12:38 | 4°♎40'22 | | morning rise | 5278 Oct 21 10:27 | 18°♏36'17 | |
| morning max el | 5277 Nov 16 03:34 | 8°♎05'24 | 17°49'52 | direct | 5278 Oct 23 17:58 | 18°♏13'56 | |
| | 5277 Nov 30 15:31 | 0°♎♏ | | asc. node | 5278 Oct 27 09:40 | 19°♏11'58 | |
| morning set | 5277 Dec 02 13:14 | 3°♎♏18'44 | | morning max el | 5278 Oct 30 18:47 | 21°♏46'04 | 17°55'17 |
| | | | | | 5278 Nov 06 01:58 | 0°♎ | |
| superior conj | 5277 Dec 14 17:52 | 24°♎♏03'34 | 0°07'29 | morning set | 5278 Nov 15 13:15 | 16°♎32'36 | |
| minimum elong | 5277 Dec 14 18:39 | 24°♎♏06'50 | 0°07'24 | | 5278 Nov 22 24:00 | 0°♎♏ | |
| behind sun begin | 5277 Dec 14 10:06 | 23°♎♏31'31 | | | | | |
| behind sun end | 5277 Dec 15 03:12 | 24°♎♏42'04 | | superior conj | 5278 Nov 26 00:50 | 5°♎♏19'35 | 0°46'11 |
| desc. node | 5277 Dec 15 19:20 | 25°♎♏48'22 | | minimum elong | 5278 Nov 26 04:25 | 5°♎♏35'08 | 0°45'43 |
| | 5277 Dec 18 09:06 | 0°♏ | | desc. node | 5278 Dec 02 16:23 | 16°♎♏35'33 | |
| max. Earth dist. | 5277 Dec 20 22:44 | 4°♏07'56 | 1.44195 AU | max. Earth dist. | 5278 Dec 03 12:07 | 17°♎♏56'56 | 1.42668 AU |
| evening rise | 5277 Dec 30 06:16 | 18°♏44'02 | | evening rise | 5278 Dec 09 22:59 | 28°♎♏19'55 | |
| | 5278 Jan 06 16:01 | 0°♏♏ | | | 5278 Dec 11 00:28 | 0°♏ | |
| evening max el | 5278 Jan 28 08:44 | 29°♏♏36'17 | 20°50'12 | | 5278 Dec 31 09:16 | 0°♏♏ | |
| | 5278 Jan 28 18:08 | 0°♎♏ | | evening max el | 5279 Jan 11 04:06 | 13°♏♏12'09 | 22°04'24 |
| asc. node | 5278 Feb 05 11:54 | 4°♎♏31'37 | | retrograde | 5279 Jan 20 14:01 | 18°♏♏48'00 | |
| retrograde | 5278 Feb 05 16:58 | 4°♎♏31'52 | | asc. node | 5279 Jan 23 08:56 | 18°♏♏06'51 | |
| evening set | 5278 Feb 09 17:48 | 2°♎♏59'00 | | evening set | 5279 Jan 25 01:32 | 16°♏♏59'49 | |
| | 5278 Feb 12 16:01 | 30°♎♏♏ | | inferior conj | 5279 Jan 30 09:47 | 10°♏♏39'45 | 2°11'00 |
| inferior conj | 5278 Feb 15 02:01 | 26°♏♏47'54 | 2°46'24 | minimum elong | 5279 Jan 30 07:27 | 10°♏♏47'52 | 2°10'15 |
| minimum elong | 5278 Feb 14 23:40 | 26°♏♏56'01 | 2°45'49 | min. Earth dist. | 5279 Jan 30 09:32 | 10°♏♏40'35 | 0.68093 AU |
| min. Earth dist. | 5278 Feb 15 13:46 | 26°♏♏07'27 | 0.67740 AU | morning rise | 5279 Feb 04 13:11 | 4°♏♏28'49 | |
| morning rise | 5278 Feb 20 05:21 | 20°♏♏34'14 | | direct | 5279 Feb 09 08:55 | 2°♏♏26'02 | |
| direct | 5278 Feb 25 15:37 | 18°♏♏10'08 | | morning max el | 5279 Feb 18 23:45 | 8°♏♏06'23 | 22°27'59 |
| morning max el | 5278 Mar 08 13:09 | 24°♏♏40'18 | 23°57'01 | desc. node | 5279 Feb 28 15:40 | 19°♏♏42'46 | |
| | 5278 Mar 13 08:12 | 0°♎♏ | | | 5279 Mar 08 00:13 | 0°♎♏ | |
| desc. node | 5278 Mar 13 18:38 | 0°♎♏31'26 | | morning set | 5279 Mar 24 18:05 | 25°♎♏48'40 | |
| | 5278 Apr 03 13:11 | 0°♎♏ | | | 5279 Mar 27 07:04 | 0°♎♏ | |
| morning set | 5278 Apr 13 02:55 | 15°♎♏45'25 | | max. Earth dist. | 5279 Mar 29 17:58 | 4°♎♏07'17 | 1.40563 AU |
| max. Earth dist. | 5278 Apr 16 21:46 | 22°♎♏22'35 | 1.38362 AU | | | | |
| | 5278 Apr 21 02:36 | 0°♏ | | superior conj | 5279 Apr 06 13:13 | 17°♎♏45'12 | -1°54'20 |
| | | | | minimum elong | 5279 Apr 06 18:01 | 18°♎♏06'47 | 1°53'57 |
| superior conj | 5278 Apr 24 03:49 | 5°♏♏43'00 | -1°31'10 | | 5279 Apr 13 04:56 | 0°♏ | |
| minimum elong | 5278 Apr 24 08:39 | 6°♏♏05'55 | 1°30'32 | evening rise | 5279 Apr 16 15:58 | 6°♏♏30'30 | |
| evening rise | 5278 May 03 03:41 | 23°♏♏12'48 | | asc. node | 5279 Apr 21 08:12 | 15°♏♏12'57 | |
| asc. node | 5278 May 04 11:09 | 25°♏♏46'33 | | | 5279 Apr 30 16:13 | 0°♎♏ | |
| | 5278 May 06 15:43 | 0°♎♏ | | evening max el | 5279 May 02 19:34 | 2°♎♏21'21 | 18°21'17 |
| evening max el | 5278 May 19 13:40 | 19°♎♏47'50 | 18°55'21 | retrograde | 5279 May 10 03:09 | 5°♎♏59'41 | |
| retrograde | 5278 May 28 01:24 | 23°♎♏57'35 | | evening set | 5279 May 12 11:33 | 5°♎♏38'07 | |
| evening set | 5278 May 30 02:49 | 23°♎♏43'51 | | inferior conj | 5279 May 19 18:51 | 1°♎♏01'29 | 2°06'59 |
| inferior conj | 5278 Jun 07 05:43 | 19°♎♏27'08 | 0°43'47 | minimum elong | 5279 May 19 22:18 | 0°♎♏54'17 | 2°05'58 |
| minimum elong | 5278 Jun 07 07:24 | 19°♎♏24'08 | 0°43'10 | | 5279 May 21 00:14 | 30°♎♏♏ | |
| desc. node | 5278 Jun 09 17:51 | 17°♎♏40'21 | | min. Earth dist. | 5279 May 23 05:20 | 28°♏♏11'23 | 0.58772 AU |
| min. Earth dist. | 5278 Jun 10 08:37 | 17°♎♏14'56 | 0.56778 AU | morning rise | 5279 May 27 05:59 | 25°♏♏28'09 | |
| morning rise | 5278 Jun 15 08:38 | 14°♎♏25'25 | | desc. node | 5279 May 27 14:53 | 25°♏♏16'30 | |
| direct | 5278 Jun 20 16:04 | 13°♎♏17'58 | | direct | 5279 Jun 02 09:48 | 23°♏♏47'05 | |
| morning max el | 5278 Jul 04 23:38 | 20°♎♏43'20 | 26°00'26 | | 5279 Jun 15 03:27 | 0°♎♏ | |
| | 5278 Jul 12 23:58 | 0°♏♏ | | morning max el | 5279 Jun 16 19:09 | 1°♎♏33'13 | 27°11'53 |
| | 5278 Jul 30 14:44 | 0°♏ | | | 5279 Jun 07 05:17 | 0°♏♏ | |
| asc. node | 5278 Jul 31 10:25 | 1°♏♏41'16 | | morning set | 5279 Jul 17 09:41 | 19°♏♏43'11 | |
| morning set | 5278 Aug 02 00:46 | 5°♏♏02'12 | | asc. node | 5279 Jul 18 07:28 | 21°♏♏38'04 | |

| | | | | | | | |
|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| | 5279 Jul 22 04:16 | 0°♎ | | max. Earth dist. | 5280 Jul 06 14:36 | 16°♊57'24 | 1.32065 AU |
| superior conj | 5279 Jul 24 11:08 | 5°♎02'31 | 1°00'19 | superior conj | 5280 Jul 07 22:02 | 19°♊49'39 | 0°38'03 |
| minimum elong | 5279 Jul 24 08:57 | 4°♎50'26 | 0°59'54 | minimum elong | 5280 Jul 07 20:25 | 19°♊40'46 | 0°37'42 |
| max. Earth dist. | 5279 Jul 24 04:20 | 4°♎24'58 | 1.31916 AU | | 5280 Jul 12 13:15 | 0°♎ | |
| evening rise | 5279 Jul 31 06:41 | 19°♎54'26 | | evening rise | 5280 Jul 14 17:34 | 4°♎42'06 | |
| | 5279 Aug 05 05:10 | 0°♎ | | | 5280 Jul 28 02:27 | 0°♎ | |
| desc. node | 5279 Aug 23 14:08 | 29°♎29'09 | | desc. node | 5280 Aug 09 11:09 | 16°♎13'07 | |
| | 5279 Aug 24 00:15 | 0°♎ | | evening max el | 5280 Aug 10 04:24 | 16°♎55'13 | 25°06'14 |
| evening max el | 5279 Aug 29 11:10 | 5°♎54'11 | 26°23'52 | retrograde | 5280 Aug 24 02:36 | 23°♎57'36 | |
| retrograde | 5279 Sep 12 10:05 | 13°♎02'33 | | evening set | 5280 Aug 29 17:03 | 22°♎46'05 | |
| evening set | 5279 Sep 19 01:11 | 11°♎14'02 | | min. Earth dist. | 5280 Sep 03 15:56 | 20°♎03'24 | 0.57439 AU |
| min. Earth dist. | 5279 Sep 23 00:38 | 8°♎39'04 | 0.59432 AU | inferior conj | 5280 Sep 06 15:05 | 18°♎04'15 | -5°17'05 |
| inferior conj | 5279 Sep 26 06:29 | 6°♎08'45 | -4°49'27 | minimum elong | 5280 Sep 06 16:40 | 18°♎01'35 | 5°17'01 |
| minimum elong | 5279 Sep 26 12:02 | 5°♎57'58 | 4°48'29 | morning rise | 5280 Sep 14 18:34 | 13°♎52'51 | |
| morning rise | 5279 Oct 04 01:03 | 1°♎34'42 | | direct | 5280 Sep 17 07:39 | 13°♎33'54 | |
| direct | 5279 Oct 06 09:27 | 1°♎15'16 | | morning max el | 5280 Sep 26 06:29 | 17°♎47'48 | 19°06'30 |
| morning max el | 5279 Oct 14 04:52 | 5°♎03'17 | 18°20'19 | asc. node | 5280 Sep 30 03:47 | 22°♎13'14 | |
| asc. node | 5279 Oct 14 06:44 | 5°♎07'47 | | | 5280 Oct 05 05:55 | 0°♎ | |
| | 5279 Oct 29 21:42 | 0°♎ | | morning set | 5280 Oct 13 02:03 | 14°♎44'17 | |
| morning set | 5279 Oct 30 02:56 | 0°♎24'56 | | | 5280 Oct 20 19:34 | 0°♎ | |
| superior conj | 5279 Nov 08 07:24 | 17°♎43'42 | 1°14'36 | superior conj | 5280 Oct 21 08:22 | 1°♎01'51 | 1°32'43 |
| minimum elong | 5279 Nov 08 11:10 | 18°♎00'57 | 1°14'11 | minimum elong | 5280 Oct 21 10:58 | 1°♎14'22 | 1°32'31 |
| | 5279 Nov 15 05:00 | 0°♎ | | max. Earth dist. | 5280 Oct 28 01:49 | 13°♎35'56 | 1.38631 AU |
| max. Earth dist. | 5279 Nov 15 20:27 | 1°♎06'23 | 1.40735 AU | evening rise | 5280 Oct 31 21:00 | 20°♎19'02 | |
| desc. node | 5279 Nov 19 13:24 | 7°♎21'02 | | desc. node | 5280 Nov 05 10:25 | 28°♎01'29 | |
| evening rise | 5279 Nov 20 10:30 | 8°♎48'10 | | | 5280 Nov 06 15:20 | 0°♎ | |
| | 5279 Dec 04 01:43 | 0°♎ | | | 5280 Nov 27 04:14 | 0°♎ | |
| evening max el | 5279 Dec 24 19:26 | 26°♎51'00 | 23°24'00 | evening max el | 5280 Dec 06 08:36 | 10°♎33'42 | 24°42'36 |
| | 5279 Dec 28 07:29 | 0°♎ | | retrograde | 5280 Dec 17 22:30 | 17°♎18'19 | |
| retrograde | 5280 Jan 04 08:14 | 3°♎04'42 | | evening set | 5280 Dec 23 11:38 | 14°♎59'38 | |
| evening set | 5280 Jan 09 08:00 | 1°♎00'59 | | asc. node | 5280 Dec 27 03:01 | 11°♎01'54 | |
| asc. node | 5280 Jan 10 05:59 | 0°♎10'35 | | min. Earth dist. | 5280 Dec 28 01:50 | 9°♎47'45 | 0.67681 AU |
| | 5280 Jan 10 10:13 | 30°♎ | | inferior conj | 5280 Dec 29 00:14 | 8°♎33'30 | 0°38'01 |
| inferior conj | 5280 Jan 14 17:47 | 24°♎35'45 | 1°27'53 | minimum elong | 5280 Dec 28 23:19 | 8°♎36'31 | 0°37'40 |
| minimum elong | 5280 Jan 14 15:56 | 24°♎42'06 | 1°27'12 | morning rise | 5281 Jan 03 11:08 | 2°♎33'31 | |
| min. Earth dist. | 5280 Jan 14 06:21 | 25°♎14'59 | 0.68067 AU | direct | 5281 Jan 07 03:44 | 1°♎15'16 | |
| morning rise | 5280 Jan 19 23:47 | 18°♎29'17 | | morning max el | 5281 Jan 14 15:34 | 5°♎29'04 | 19°54'09 |
| direct | 5280 Jan 24 05:23 | 16°♎49'20 | | desc. node | 5281 Feb 01 09:42 | 29°♎32'17 | |
| morning max el | 5280 Feb 01 15:44 | 21°♎41'40 | 21°05'10 | | 5281 Feb 01 17:03 | 0°♎ | |
| | 5280 Feb 08 16:39 | 0°♎ | | morning set | 5281 Feb 10 01:43 | 12°♎45'29 | |
| desc. node | 5280 Feb 15 12:41 | 9°♎25'56 | | | 5281 Feb 21 02:06 | 0°♎ | |
| | 5280 Feb 29 06:52 | 0°♎ | | max. Earth dist. | 5281 Feb 21 07:13 | 0°♎20'24 | 1.44162 AU |
| morning set | 5280 Mar 03 05:20 | 4°♎34'29 | | superior conj | 5281 Feb 26 10:59 | 8°♎38'13 | -2°05'47 |
| max. Earth dist. | 5280 Mar 10 20:35 | 16°♎47'29 | 1.42586 AU | minimum elong | 5281 Feb 26 07:09 | 8°♎22'40 | 2°05'39 |
| superior conj | 5280 Mar 18 00:49 | 28°♎45'56 | -2°07'45 | | 5281 Mar 11 06:04 | 0°♎ | |
| minimum elong | 5280 Mar 18 02:51 | 28°♎54'39 | 2°07'43 | evening rise | 5281 Mar 11 17:38 | 0°♎49'26 | |
| | 5280 Mar 18 18:09 | 0°♎ | | asc. node | 5281 Mar 25 02:17 | 22°♎46'52 | |
| evening rise | 5280 Mar 29 14:06 | 19°♎05'35 | | evening max el | 5281 Mar 29 19:30 | 28°♎37'20 | 18°11'52 |
| | 5280 Apr 04 17:06 | 0°♎ | | | 5281 Mar 31 08:16 | 0°♎ | |
| asc. node | 5280 Apr 07 05:15 | 4°♎15'36 | | retrograde | 5281 Apr 05 05:18 | 2°♎00'51 | |
| evening max el | 5280 Apr 15 06:37 | 15°♎20'50 | 18°07'00 | evening set | 5281 Apr 08 02:51 | 1°♎17'05 | |
| retrograde | 5280 Apr 21 21:54 | 18°♎44'14 | | | 5281 Apr 10 02:42 | 30°♎ | |
| evening set | 5280 Apr 24 13:11 | 18°♎12'16 | | inferior conj | 5281 Apr 14 05:11 | 26°♎00'11 | 3°25'59 |
| inferior conj | 5280 May 01 03:58 | 13°♎14'56 | 2°59'28 | minimum elong | 5281 Apr 14 06:30 | 25°♎56'33 | 3°25'52 |
| minimum elong | 5280 May 01 06:50 | 13°♎08'01 | 2°58'55 | min. Earth dist. | 5281 Apr 16 21:13 | 23°♎06'33 | 0.63093 AU |
| min. Earth dist. | 5280 May 04 08:52 | 10°♎11'13 | 0.60979 AU | morning rise | 5281 Apr 20 08:58 | 19°♎53'08 | |
| morning rise | 5280 May 07 22:23 | 7°♎20'14 | | direct | 5281 Apr 27 05:24 | 17°♎15'21 | |
| desc. node | 5280 May 13 11:55 | 5°♎10'07 | | desc. node | 5281 Apr 30 08:57 | 17°♎45'08 | |
| direct | 5280 May 14 15:02 | 5°♎06'24 | | morning max el | 5281 May 11 04:19 | 25°♎15'14 | 27°48'02 |
| morning max el | 5280 May 28 21:04 | 13°♎03'17 | 27°48'53 | | 5281 May 15 12:34 | 0°♎ | |
| | 5280 Jun 11 08:41 | 0°♎ | | | 5281 Jun 04 19:58 | 0°♎ | |
| | 5280 Jun 28 13:25 | 0°♎ | | morning set | 5281 Jun 14 13:08 | 18°♎14'56 | |
| morning set | 5280 Jun 30 14:34 | 4°♎09'54 | | max. Earth dist. | 5281 Jun 19 20:00 | 29°♎11'58 | 1.32652 AU |
| asc. node | 5280 Jul 04 04:31 | 11°♎42'38 | | | 5281 Jun 20 05:00 | 0°♎ | |

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|------------------|-------------------|----------------------|--|---------------------|-------------------|-----------|------------|
| asc. node | 5281 Jun 21 01:32 | 1°♄49'56 | | | 5282 May 28 03:44 | 0°♊ | |
| | | | | morning set | 5282 May 29 02:38 | 1°♊50'23 | |
| superior conj | 5281 Jun 22 06:07 | 4°♄23'57 0°12'22 | | max. Earth dist. | 5282 Jun 02 16:40 | 10°♊58'34 | 1.33695 AU |
| minimum elong | 5281 Jun 22 05:32 | 4°♄20'45 0°12'13 | | | | | |
| behind sun begin | 5281 Jun 22 02:07 | 4°♄02'20 | | superior conj | 5282 Jun 06 09:26 | 18°♊39'45 | -0°15'58 |
| behind sun end | 5281 Jun 22 08:56 | 4°♄39'11 | | minimum elong | 5282 Jun 06 10:16 | 18°♊44'10 | 0°15'48 |
| evening rise | 5281 Jun 29 05:23 | 19°♄28'36 | | behind sun begin | 5282 Jun 06 09:24 | 18°♊39'34 | |
| | 5281 Jul 04 08:30 | 0°♊ | | behind sun end | 5282 Jun 06 11:09 | 18°♊48'45 | |
| evening max el | 5281 Jul 22 16:51 | 27°♊21'11 23°31'08 | | asc. node | 5282 Jun 07 22:34 | 21°♊56'17 | |
| | 5281 Jul 25 17:44 | 0°♊ | | | 5282 Jun 11 17:22 | 0°♄ | |
| desc. node | 5281 Jul 27 08:11 | 1°♊09'03 | | evening rise | 5282 Jun 13 16:17 | 4°♄08'13 | |
| retrograde | 5281 Aug 05 06:48 | 4°♊09'52 | | | 5282 Jun 27 21:51 | 0°♊ | |
| evening set | 5281 Aug 09 09:56 | 3°♊32'27 | | evening max el | 5282 Jul 04 08:23 | 7°♊44'47 | 21°54'44 |
| min. Earth dist. | 5281 Aug 16 02:31 | 0°♊24'54 0.55818 AU | | desc. node | 5282 Jul 14 05:11 | 13°♊42'53 | |
| | 5281 Aug 16 19:25 | 30°♊♊ | | retrograde | 5282 Jul 16 23:53 | 14°♊00'59 | |
| inferior conj | 5281 Aug 18 03:26 | 29°♊12'17 -5°05'25 | | evening set | 5282 Jul 19 17:21 | 13°♊44'19 | |
| minimum elong | 5281 Aug 17 22:33 | 29°♊19'34 5°04'52 | | min. Earth dist. | 5282 Jul 28 12:30 | 9°♊57'56 | 0.54899 AU |
| morning rise | 5281 Aug 26 13:36 | 25°♊18'39 | | inferior conj | 5282 Jul 29 00:23 | 9°♊41'16 | -4°02'16 |
| direct | 5281 Aug 29 10:17 | 24°♊58'30 | | minimum elong | 5282 Jul 28 15:32 | 9°♊53'40 | 3°59'59 |
| morning max el | 5281 Sep 08 20:46 | 29°♊49'37 20°14'45 | | morning rise | 5282 Aug 06 15:16 | 5°♊50'40 | |
| | 5281 Sep 09 01:11 | 0°♊ | | direct | 5282 Aug 09 21:56 | 5°♊27'01 | |
| asc. node | 5281 Sep 17 00:48 | 10°♊12'31 | | morning max el | 5282 Aug 21 23:02 | 11°♊05'37 | 21°43'11 |
| morning set | 5281 Sep 27 07:26 | 29°♊20'52 | | asc. node | 5282 Sep 03 21:50 | 28°♊53'06 | |
| | 5281 Sep 27 15:06 | 0°♊ | | | 5282 Sep 04 12:42 | 0°♊ | |
| | | | | morning set | 5282 Sep 11 16:44 | 14°♊08'02 | |
| superior conj | 5281 Oct 04 22:40 | 14°♊58'51 1°41'45 | | superior conj | 5282 Sep 18 22:18 | 29°♊23'02 | 1°43'04 |
| minimum elong | 5281 Oct 04 23:42 | 15°♊04'04 1°41'43 | | minimum elong | 5282 Sep 18 21:54 | 29°♊20'56 | 1°43'05 |
| max. Earth dist. | 5281 Oct 10 08:09 | 25°♊35'33 1.36597 AU | | | 5282 Sep 19 05:23 | 0°♊ | |
| | 5281 Oct 12 16:14 | 0°♊ | | max. Earth dist. | 5282 Sep 22 20:29 | 7°♊27'43 | 1.34839 AU |
| evening rise | 5281 Oct 14 04:31 | 2°♊47'06 | | evening rise | 5282 Sep 27 05:06 | 16°♊02'40 | |
| desc. node | 5281 Oct 23 07:26 | 18°♊31'56 | | | 5282 Oct 04 21:18 | 0°♊ | |
| | 5281 Oct 30 16:12 | 0°♊ | | desc. node | 5282 Oct 10 04:27 | 8°♊47'04 | |
| evening max el | 5281 Nov 18 21:07 | 24°♊17'18 25°53'16 | | | 5282 Oct 25 04:22 | 0°♊ | |
| | 5281 Nov 26 07:17 | 0°♊ | | evening max el | 5282 Nov 01 09:47 | 7°♊56'16 | 26°48'35 |
| retrograde | 5281 Dec 01 08:05 | 1°♊23'21 | | retrograde | 5282 Nov 14 12:23 | 15°♊13'07 | |
| | 5281 Dec 05 21:40 | 30°♊♊ | | evening set | 5282 Nov 21 03:19 | 12°♊34'16 | |
| evening set | 5281 Dec 07 10:44 | 28°♊52'08 | | min. Earth dist. | 5282 Nov 25 03:43 | 8°♊32'34 | 0.65832 AU |
| min. Earth dist. | 5281 Dec 11 17:43 | 24°♊15'09 0.66934 AU | | inferior conj | 5282 Nov 27 00:54 | 6°♊20'35 | -1°18'08 |
| inferior conj | 5281 Dec 13 03:17 | 22°♊29'41 -0°17'42 | | minimum elong | 5282 Nov 27 03:07 | 6°♊14'08 | 1°17'12 |
| minimum elong | 5281 Dec 13 03:44 | 22°♊28'13 0°17'29 | | asc. node | 5282 Nov 30 21:05 | 2°♊16'30 | |
| asc. node | 5281 Dec 14 00:03 | 21°♊24'53 | | morning rise | 5282 Dec 03 03:48 | 0°♊40'34 | |
| morning rise | 5281 Dec 18 21:13 | 16°♊38'26 | | | 5282 Dec 05 04:25 | 30°♊♊ | |
| direct | 5281 Dec 22 02:26 | 15°♊39'09 | | direct | 5282 Dec 05 23:40 | 29°♊56'26 | |
| morning max el | 5281 Dec 28 23:07 | 19°♊26'18 18°58'00 | | | 5282 Dec 06 19:01 | 0°♊ | |
| | 5282 Jan 06 06:14 | 0°♊ | | morning max el | 5282 Dec 12 12:27 | 3°♊28'00 | 18°18'01 |
| desc. node | 5282 Jan 19 06:42 | 19°♊55'19 | | | 5282 Dec 30 15:13 | 0°♊ | |
| morning set | 5282 Jan 20 08:09 | 21°♊34'34 | | morning set | 5282 Dec 31 17:51 | 1°♊47'34 | |
| | 5282 Jan 25 17:37 | 0°♊ | | desc. node | 5283 Jan 06 03:42 | 10°♊29'54 | |
| max. Earth dist. | 5282 Feb 03 23:28 | 14°♊28'12 1.45102 AU | | | | | |
| superior conj | 5282 Feb 05 22:27 | 17°♊33'07 -1°44'15 | | superior conj | 5283 Jan 16 01:30 | 26°♊12'04 | -1°05'13 |
| minimum elong | 5282 Feb 05 13:27 | 16°♊57'37 1°43'28 | | minimum elong | 5283 Jan 15 17:39 | 25°♊41'13 | 1°04'14 |
| | 5282 Feb 13 18:30 | 0°♊ | | max. Earth dist. | 5283 Jan 17 18:17 | 28°♊52'07 | 1.45321 AU |
| evening rise | 5282 Feb 20 22:51 | 11°♊36'19 | | | 5283 Jan 18 11:36 | 0°♊ | |
| | 5282 Mar 04 08:25 | 0°♊ | | evening rise | 5283 Feb 01 05:03 | 21°♊28'23 | |
| asc. node | 5282 Mar 11 23:19 | 10°♊37'09 | | | 5283 Feb 06 15:47 | 0°♊ | |
| evening max el | 5282 Mar 13 07:25 | 12°♊03'57 18°35'11 | | greatest brilliancy | 5283 Feb 12 08:47 | 8°♊51'09 | -0.8m |
| retrograde | 5282 Mar 19 20:57 | 15°♊40'35 | | evening max el | 5283 Feb 24 16:06 | 25°♊35'10 | 19°15'54 |
| evening set | 5282 Mar 23 00:49 | 14°♊44'13 | | asc. node | 5283 Feb 26 20:22 | 27°♊33'45 | |
| inferior conj | 5282 Mar 28 18:27 | 9°♊09'32 3°32'28 | | retrograde | 5283 Mar 03 17:10 | 29°♊35'50 | |
| minimum elong | 5282 Mar 28 18:13 | 9°♊10'13 3°32'27 | | evening set | 5283 Mar 07 04:08 | 28°♊26'02 | |
| min. Earth dist. | 5282 Mar 30 19:08 | 6°♊43'33 0.64915 AU | | inferior conj | 5283 Mar 12 16:12 | 22°♊35'33 | 3°23'39 |
| morning rise | 5282 Apr 03 10:59 | 2°♊56'33 | | minimum elong | 5283 Mar 12 14:46 | 22°♊40'11 | 3°23'29 |
| direct | 5282 Apr 10 03:35 | 0°♊07'29 | | min. Earth dist. | 5283 Mar 14 01:38 | 20°♊47'40 | 0.66347 AU |
| desc. node | 5282 Apr 17 05:57 | 2°♊38'44 | | morning rise | 5283 Mar 18 01:04 | 16°♊20'37 | |
| morning max el | 5282 Apr 23 14:16 | 8°♊00'37 27°12'21 | | direct | 5283 Mar 24 08:22 | 13°♊33'17 | |
| | 5282 May 10 15:20 | 0°♊ | | desc. node | 5283 Apr 04 02:58 | 19°♊16'18 | |

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|---------------------|-------------------|------------------------|------------|------------------|-------------------|------------------------|------------|
| morning max el | 5283 Apr 06 00:09 | 21° ✕ 05'40 | 26°09'04 | morning max el | 5284 Mar 18 08:52 | 4° ✕ 20'42 | 24°47'46 |
| | 5283 Apr 13 17:14 | 0° Υ | | desc. node | 5284 Mar 21 00:01 | 7° ✕ 09'26 | |
| | 5283 May 03 19:44 | 0° ♄ | | | 5284 Apr 07 01:22 | 0° Υ | |
| morning set | 5283 May 12 03:17 | 14° ♄ 44'35 | | morning set | 5284 Apr 23 10:07 | 26° Υ 43'41 | |
| max. Earth dist. | 5283 May 16 01:51 | 22° ♄ 13'52 | 1.35203 AU | | 5284 Apr 25 06:04 | 0° ♄ | |
| | 5283 May 19 24:00 | 0° ♁ | | max. Earth dist. | 5284 Apr 27 00:52 | 3° ♄ 14'44 | 1.37129 AU |
| superior conj | 5283 May 21 05:31 | 2° ♁ 29'37 | -0°45'47 | superior conj | 5284 May 03 15:20 | 15° ♄ 45'33 | -1°15'18 |
| minimum elong | 5283 May 21 08:03 | 2° ♁ 42'29 | 0°45'18 | minimum elong | 5284 May 03 19:29 | 16° ♄ 05'50 | 1°14'39 |
| asc. node | 5283 May 25 19:36 | 11° ♁ 57'09 | | | 5284 May 10 19:02 | 0° ♁ | |
| evening rise | 5283 May 29 00:12 | 18° ♁ 33'57 | | asc. node | 5284 May 11 16:39 | 1° ♁ 48'24 | |
| | 5283 Jun 03 18:22 | 0° ♄ | | evening rise | 5284 May 12 02:51 | 2° ♁ 39'27 | |
| evening max el | 5283 Jun 16 10:27 | 18° ♄ 37'18 | 20°30'14 | | 5284 May 28 20:25 | 0° ♄ | |
| retrograde | 5283 Jun 27 12:34 | 24° ♄ 03'16 | | evening max el | 5284 May 29 01:08 | 0° ♄ 11'41 | 19°24'11 |
| evening set | 5283 Jun 29 12:34 | 23° ♄ 53'24 | | retrograde | 5284 Jun 07 09:36 | 4° ♄ 45'54 | |
| desc. node | 5283 Jul 01 02:12 | 23° ♄ 32'38 | | evening set | 5284 Jun 09 08:21 | 4° ♄ 34'52 | |
| inferior conj | 5283 Jul 08 17:59 | 19° ♄ 56'10 | -2°15'56 | desc. node | 5284 Jun 16 23:15 | 1° ♄ 05'42 | |
| minimum elong | 5283 Jul 08 11:40 | 20° ♄ 05'18 | 2°13'41 | inferior conj | 5284 Jun 17 22:36 | 0° ♄ 28'04 | -0°17'24 |
| min. Earth dist. | 5283 Jul 09 24:00 | 19° ♄ 12'43 | 0.54912 AU | minimum elong | 5284 Jun 17 21:51 | 0° ♄ 29'19 | 0°17'08 |
| morning rise | 5283 Jul 17 09:55 | 15° ♄ 48'17 | | | 5284 Jun 18 15:50 | 30° ♁ ♁ | |
| direct | 5283 Jul 21 07:41 | 15° ♄ 15'21 | | min. Earth dist. | 5284 Jun 20 13:46 | 28° ♁ 45'57 | 0.55873 AU |
| morning max el | 5283 Aug 03 15:57 | 21° ♄ 43'06 | 23°25'00 | morning rise | 5284 Jun 26 08:33 | 25° ♁ 47'47 | |
| | 5283 Aug 10 20:31 | 0° ♁ | | direct | 5284 Jul 01 03:14 | 24° ♁ 56'00 | |
| asc. node | 5283 Aug 21 18:52 | 18° ♁ 04'46 | | | 5284 Jul 12 21:48 | 0° ♄ | |
| morning set | 5283 Aug 27 04:05 | 29° ♁ 00'22 | | morning max el | 5284 Jul 15 05:21 | 2° ♄ 03'21 | 25°07'31 |
| | 5283 Aug 27 15:21 | 0° ♁ | | | 5284 Aug 03 17:54 | 0° ♁ | |
| superior conj | 5283 Sep 03 04:14 | 14° ♁ 04'52 | 1°37'52 | asc. node | 5284 Aug 07 15:53 | 7° ♁ 39'12 | |
| minimum elong | 5283 Sep 03 02:45 | 13° ♁ 56'52 | 1°37'47 | morning set | 5284 Aug 10 15:46 | 13° ♁ 52'29 | |
| max. Earth dist. | 5283 Sep 05 17:41 | 19° ♁ 32'46 | 1.33473 AU | superior conj | 5284 Aug 17 13:59 | 28° ♁ 56'16 | 1°27'04 |
| evening rise | 5283 Sep 10 18:38 | 29° ♁ 54'51 | | minimum elong | 5284 Aug 17 11:51 | 28° ♁ 44'36 | 1°26'49 |
| | 5283 Sep 10 19:40 | 0° ♄ | | | 5284 Aug 18 01:38 | 0° ♁ | |
| desc. node | 5283 Sep 27 01:28 | 28° ♄ 39'59 | | max. Earth dist. | 5284 Aug 18 22:52 | 1° ♁ 55'58 | 1.32537 AU |
| | 5283 Sep 27 22:25 | 0° ♁ | | evening rise | 5284 Aug 24 17:32 | 14° ♁ 12'56 | |
| evening max el | 5283 Oct 14 22:06 | 21° ♁ 21'23 | 27°21'21 | | 5284 Sep 01 21:20 | 0° ♄ | |
| retrograde | 5283 Oct 28 10:47 | 28° ♁ 39'47 | | desc. node | 5284 Sep 12 22:31 | 18° ♄ 00'48 | |
| evening set | 5283 Nov 04 10:59 | 26° ♁ 00'59 | | | 5284 Sep 22 04:23 | 0° ♁ | |
| min. Earth dist. | 5283 Nov 08 05:45 | 22° ♁ 33'19 | 0.64386 AU | evening max el | 5284 Sep 26 08:02 | 4° ♁ 18'44 | 27°25'04 |
| inferior conj | 5283 Nov 10 14:48 | 20° ♁ 01'23 | -2°21'27 | retrograde | 5284 Oct 10 02:16 | 11° ♁ 33'22 | |
| minimum elong | 5283 Nov 10 18:56 | 19° ♁ 50'22 | 2°19'51 | evening set | 5284 Oct 17 06:26 | 9° ♁ 04'42 | |
| morning rise | 5283 Nov 17 04:13 | 14° ♁ 35'33 | | min. Earth dist. | 5284 Oct 20 21:47 | 6° ♁ 06'37 | 0.62628 AU |
| asc. node | 5283 Nov 17 18:07 | 14° ♁ 22'20 | | inferior conj | 5284 Oct 23 18:05 | 3° ♁ 24'06 | -3°24'39 |
| direct | 5283 Nov 19 17:07 | 14° ♁ 02'37 | | minimum elong | 5284 Oct 23 23:53 | 3° ♁ 10'17 | 3°22'45 |
| morning max el | 5283 Nov 26 04:56 | 17° ♁ 27'51 | 17°55'02 | | 5284 Oct 27 15:51 | 30° ♁ ♄ | |
| | 5283 Dec 05 07:31 | 0° ♄ | | morning rise | 5284 Oct 30 19:01 | 28° ♄ 15'54 | |
| morning set | 5283 Dec 13 08:34 | 13° ♄ 26'40 | | direct | 5284 Nov 02 03:42 | 27° ♄ 50'30 | |
| | 5283 Dec 23 06:58 | 0° ♄ | | asc. node | 5284 Nov 03 15:09 | 28° ♄ 00'43 | |
| desc. node | 5283 Dec 24 00:44 | 1° ♄ 12'29 | | | 5284 Nov 07 10:46 | 0° ♁ | |
| superior conj | 5283 Dec 26 16:34 | 5° ♄ 31'06 | -0°18'31 | morning max el | 5284 Nov 08 21:28 | 1° ♁ 17'36 | 17°49'48 |
| minimum elong | 5283 Dec 26 14:23 | 5° ♄ 22'19 | 0°18'11 | morning set | 5284 Nov 24 22:19 | 26° ♁ 11'51 | |
| max. Earth dist. | 5283 Dec 31 13:15 | 13° ♄ 16'49 | 1.44808 AU | | 5284 Nov 27 01:48 | 0° ♄ | |
| | 5284 Jan 11 06:44 | 0° ♁ | | superior conj | 5284 Dec 06 08:14 | 16° ♄ 02'34 | 0°25'04 |
| evening rise | 5284 Jan 11 18:47 | 0° ♁ 46'23 | | minimum elong | 5284 Dec 06 10:36 | 16° ♄ 12'30 | 0°24'45 |
| greatest brilliancy | 5284 Jan 26 11:55 | 22° ♁ 59'07 | -0.6m | desc. node | 5284 Dec 09 21:46 | 21° ♄ 58'53 | |
| | 5284 Jan 31 09:58 | 0° ✕ | | max. Earth dist. | 5284 Dec 13 05:45 | 27° ♄ 25'11 | 1.43618 AU |
| evening max el | 5284 Feb 07 20:02 | 9° ✕ 09'02 | 20°12'04 | | 5284 Dec 14 20:15 | 0° ♄ | |
| asc. node | 5284 Feb 13 17:23 | 13° ✕ 22'56 | | evening rise | 5284 Dec 21 05:55 | 10° ♄ 05'06 | |
| retrograde | 5284 Feb 15 15:15 | 13° ✕ 42'24 | | | 5285 Jan 03 11:20 | 0° ♁ | |
| evening set | 5284 Feb 19 10:37 | 12° ✕ 18'15 | | evening max el | 5285 Jan 20 18:30 | 22° ♁ 44'10 | 21°20'46 |
| inferior conj | 5284 Feb 24 19:39 | 6° ✕ 14'05 | 3°02'52 | retrograde | 5285 Jan 29 13:05 | 27° ♁ 56'10 | |
| minimum elong | 5284 Feb 24 17:29 | 6° ✕ 21'25 | 3°02'26 | asc. node | 5285 Jan 30 14:26 | 27° ♁ 50'11 | |
| min. Earth dist. | 5284 Feb 25 14:57 | 5° ✕ 08'48 | 0.67359 AU | evening set | 5285 Feb 02 18:22 | 26° ♁ 16'46 | |
| | 5284 Feb 29 23:59 | 30° ♁ ♁ | | inferior conj | 5285 Feb 08 02:25 | 20° ♁ 01'38 | 2°32'21 |
| morning rise | 5284 Mar 01 00:09 | 29° ♁ 59'37 | | minimum elong | 5285 Feb 08 00:01 | 20° ♁ 09'59 | 2°31'41 |
| direct | 5284 Mar 06 18:45 | 27° ♁ 24'43 | | min. Earth dist. | 5285 Feb 08 08:56 | 19° ♁ 39'04 | 0.67947 AU |
| | 5284 Mar 13 09:31 | 0° ✕ | | morning rise | 5285 Feb 13 05:29 | 13° ♁ 49'10 | |

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| direct | 5285 Feb 18 09:40 | 11° \approx 33'44 | | 5286 Feb 10 00:29 | 0° \approx | |
| morning max el | 5285 Feb 28 17:52 | 17° \approx 42'16 | 23°18'49 | morning max el | 5286 Feb 11 06:29 | 1° \approx 12'11 21°51'35 |
| desc. node | 5285 Mar 07 21:03 | 25° \approx 56'38 | | desc. node | 5286 Feb 22 18:04 | 15° \approx 22'30 |
| | 5285 Mar 10 23:34 | 0° H | | | 5286 Mar 04 20:41 | 0° H |
| | 5285 Mar 31 03:30 | 0° Y | | morning set | 5286 Mar 15 20:02 | 17° H 00'38 |
| morning set | 5285 Apr 04 17:15 | 7° Y 32'29 | | max. Earth dist. | 5286 Mar 21 19:19 | 26° H 45'43 1.41462 AU |
| max. Earth dist. | 5285 Apr 08 20:22 | 14° Y 36'26 | 1.39304 AU | | 5286 Mar 23 17:39 | 0° Y |
| superior conj | 5285 Apr 16 10:59 | 28° Y 17'55 | -1°41'51 | superior conj | 5286 Mar 29 11:39 | 9° Y 54'44 -2°01'33 |
| minimum elong | 5285 Apr 16 16:03 | 28° Y 41'24 | 1°41'18 | minimum elong | 5286 Mar 29 15:41 | 10° Y 12'30 2°01'20 |
| | 5285 Apr 17 08:54 | 0° B | | evening rise | 5286 Apr 09 04:10 | 29° Y 18'02 |
| evening rise | 5285 Apr 25 21:22 | 16° B 17'16 | | | 5286 Apr 09 13:15 | 0° B |
| asc. node | 5285 Apr 28 13:42 | 21° B 25'32 | | asc. node | 5286 Apr 15 10:45 | 10° B 42'33 |
| | 5285 May 03 06:03 | 0° II | | evening max el | 5286 Apr 25 10:49 | 25° B 10'38 18°12'46 |
| evening max el | 5285 May 12 02:24 | 12° II 25'43 | 18°38'24 | retrograde | 5286 May 02 10:13 | 28° B 41'05 |
| retrograde | 5285 May 20 00:34 | 16° II 20'08 | | evening set | 5286 May 04 21:31 | 28° B 15'25 |
| evening set | 5285 May 22 04:59 | 16° II 03'21 | | inferior conj | 5286 May 11 21:16 | 23° B 29'42 2°32'49 |
| inferior conj | 5285 May 29 23:16 | 11° II 38'06 | 1°22'55 | minimum elong | 5286 May 12 00:41 | 23° B 22'08 2°31'58 |
| minimum elong | 5285 May 30 02:05 | 11° II 32'45 | 1°21'58 | min. Earth dist. | 5286 May 15 06:30 | 20° B 30'44 0.59696 AU |
| min. Earth dist. | 5285 Jun 02 07:11 | 9° II 07'28 | 0.57574 AU | morning rise | 5286 May 19 01:08 | 17° B 45'43 |
| desc. node | 5285 Jun 03 20:18 | 8° II 03'25 | | desc. node | 5286 May 21 17:20 | 16° B 29'40 |
| morning rise | 5285 Jun 06 19:53 | 6° II 22'11 | | direct | 5286 May 25 11:15 | 15° B 50'20 |
| direct | 5285 Jun 12 12:37 | 5° II 01'15 | | morning max el | 5286 Jun 08 20:06 | 23° B 42'24 27°32'23 |
| morning max el | 5285 Jun 26 21:38 | 12° II 35'58 | 26°34'41 | | 5286 Jun 14 12:00 | 0° II |
| | 5285 Jul 10 13:04 | 0° E | | | 5286 Jul 03 17:22 | 0° E |
| asc. node | 5285 Jul 25 12:57 | 27° E 29'48 | | morning set | 5286 Jul 10 09:39 | 13° E 15'08 |
| morning set | 5285 Jul 26 02:13 | 28° E 39'37 | | asc. node | 5286 Jul 12 10:00 | 17° E 30'16 |
| | 5285 Jul 26 17:23 | 0° O | | max. Earth dist. | 5286 Jul 16 20:16 | 27° E 08'23 1.31923 AU |
| superior conj | 5285 Aug 02 01:36 | 13° O 50'54 | 1°11'22 | superior conj | 5286 Jul 17 13:13 | 28° E 41'51 0°51'20 |
| minimum elong | 5285 Aug 01 23:18 | 13° O 38'11 | 1°10'59 | minimum elong | 5286 Jul 17 11:13 | 28° E 30'49 0°50'56 |
| max. Earth dist. | 5285 Aug 02 09:03 | 14° O 32'03 | 1.32023 AU | | 5286 Jul 18 03:22 | 0° O |
| evening rise | 5285 Aug 08 22:55 | 28° O 48'25 | | evening rise | 5286 Jul 24 08:20 | 13° O 32'46 |
| | 5285 Aug 09 12:35 | 0° np | | | 5286 Aug 01 14:24 | 0° np |
| | 5285 Aug 26 03:40 | 0° u | | desc. node | 5286 Aug 17 16:34 | 24° np 07'42 |
| desc. node | 5285 Aug 30 19:33 | 6° u 36'22 | | evening max el | 5286 Aug 21 09:55 | 28° np 01'43 25°53'49 |
| evening max el | 5285 Sep 08 12:45 | 16° u 35'06 | 26°55'39 | | 5286 Aug 23 15:05 | 0° u |
| retrograde | 5285 Sep 22 10:04 | 23° u 45'21 | | retrograde | 5286 Sep 04 08:58 | 5° u 08'32 |
| evening set | 5285 Sep 29 09:33 | 21° u 38'31 | | evening set | 5286 Sep 10 15:25 | 3° u 34'52 |
| min. Earth dist. | 5285 Oct 03 02:54 | 18° u 59'57 | 0.60638 AU | min. Earth dist. | 5286 Sep 14 22:20 | 0° u 59'10 0.58560 AU |
| inferior conj | 5285 Oct 06 07:25 | 16° u 20'09 | -4°22'15 | | 5286 Sep 16 07:23 | 30° Rnp |
| minimum elong | 5285 Oct 06 13:43 | 16° u 06'56 | 4°20'44 | inferior conj | 5286 Sep 18 03:14 | 28° np 39'35 -5°04'52 |
| morning rise | 5285 Oct 13 19:54 | 11° u 33'06 | | minimum elong | 5286 Sep 18 07:32 | 28° np 31'43 5°04'21 |
| direct | 5285 Oct 16 03:30 | 11° u 12'11 | | morning rise | 5286 Sep 26 01:58 | 24° np 15'44 |
| asc. node | 5285 Oct 21 12:12 | 13° u 09'54 | | direct | 5286 Sep 28 11:52 | 23° np 56'49 |
| morning max el | 5285 Oct 23 10:54 | 14° u 49'30 | 18°03'23 | morning max el | 5286 Oct 06 17:50 | 27° np 54'10 18°37'20 |
| | 5285 Nov 02 21:15 | 0° ll | | asc. node | 5286 Oct 08 09:14 | 29° np 37'04 |
| morning set | 5285 Nov 08 04:44 | 9° ll 43'55 | | | 5286 Oct 08 17:13 | 0° u |
| | | | | morning set | 5286 Oct 22 22:50 | 23° u 48'48 |
| superior conj | 5285 Nov 18 01:51 | 27° ll 49'20 | 0°59'33 | | 5286 Oct 26 03:15 | 0° ll |
| minimum elong | 5285 Nov 18 05:45 | 28° ll 06'40 | 0°59'03 | superior conj | 5286 Oct 31 16:56 | 10° ll 38'42 1°23'28 |
| | 5285 Nov 19 07:24 | 0° x | | minimum elong | 5286 Oct 31 20:18 | 10° ll 54'28 1°23'08 |
| max. Earth dist. | 5285 Nov 25 17:27 | 11° x 00'16 | 1.41891 AU | max. Earth dist. | 5286 Nov 07 23:55 | 23° ll 51'28 1.39845 AU |
| desc. node | 5285 Nov 26 18:48 | 12° x 45'41 | | | 5286 Nov 11 13:41 | 0° x |
| evening rise | 5285 Dec 01 05:35 | 20° x 00'34 | | evening rise | 5286 Nov 12 02:46 | 0° x 55'07 |
| | 5285 Dec 07 14:38 | 0° Z | | desc. node | 5286 Nov 13 15:49 | 3° x 29'34 |
| | 5285 Dec 28 21:26 | 0° \approx | | | 5286 Nov 30 23:32 | 0° Z |
| evening max el | 5286 Jan 03 11:54 | 6° \approx 20'48 | 22°37'53 | evening max el | 5286 Dec 17 01:52 | 20° Z 00'47 23°57'54 |
| retrograde | 5286 Jan 13 09:06 | 12° \approx 13'07 | | retrograde | 5286 Dec 28 01:53 | 26° Z 29'27 |
| asc. node | 5286 Jan 17 11:28 | 10° \approx 45'49 | | evening set | 5287 Jan 02 07:14 | 24° Z 19'02 |
| evening set | 5286 Jan 18 01:46 | 10° \approx 18'02 | | asc. node | 5287 Jan 04 08:30 | 22° Z 15'26 |
| inferior conj | 5286 Jan 23 10:29 | 3° \approx 55'11 | 1°53'33 | min. Earth dist. | 5287 Jan 07 01:54 | 18° Z 47'25 0.67944 AU |
| minimum elong | 5286 Jan 23 08:18 | 4° \approx 02'46 | 1°52'48 | inferior conj | 5287 Jan 07 18:03 | 17° Z 52'35 1°07'30 |
| min. Earth dist. | 5286 Jan 23 05:19 | 4° \approx 13'05 | 0.68133 AU | minimum elong | 5287 Jan 07 16:33 | 17° Z 57'42 1°06'56 |
| | 5286 Jan 26 10:03 | 30° RZ | | morning rise | 5287 Jan 13 01:52 | 11° Z 48'36 |
| morning rise | 5286 Jan 28 14:44 | 27° Z 46'11 | | direct | 5287 Jan 17 01:38 | 10° Z 18'21 |
| direct | 5286 Feb 02 04:18 | 25° Z 53'20 | | | | |

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|------------------|-------------------|---|------------|---------------------|-------------------|--|------------|
| morning max el | 5287 Jan 25 01:47 | 14°  53'20 | 20°33'16 | transit end | 5287 Dec 22 23:59 | 1°  48'04 | |
| | 5287 Feb 05 23:35 | 0°  | | | 5287 Dec 24 09:48 | 30°  | |
| desc. node | 5287 Feb 09 15:05 | 5°  16'31 | | morning rise | 5287 Dec 28 12:55 | 25°  53'31 | |
| morning set | 5287 Feb 22 22:27 | 25°  24'23 | | direct | 5288 Jan 01 00:25 | 24°  43'45 | |
| | 5287 Feb 25 21:05 | 0°  | | morning max el | 5288 Jan 08 04:58 | 28°  45'08 | 19°28'15 |
| max. Earth dist. | 5287 Mar 04 01:06 | 9°  48'45 | 1.43318 AU | | 5288 Jan 09 09:35 | 0°  | |
| | | | | greatest brilliancy | 5288 Jan 21 07:36 | 16°  308'21 | -0.7m |
| superior conj | 5287 Mar 10 12:39 | 20°  26'35 | -2°09'08 | desc. node | 5288 Jan 27 12:04 | 25°  330'29 | |
| minimum elong | 5287 Mar 10 12:30 | 20°  25'56 | 2°09'08 | | 5288 Jan 30 10:17 | 0°  | |
| | 5287 Mar 16 04:02 | 0°  | | morning set | 5288 Feb 01 19:55 | 3°  42'13 | |
| evening rise | 5287 Mar 22 18:59 | 11°  32'42 | | max. Earth dist. | 5288 Feb 14 13:56 | 23°  36'40 | 1.44648 AU |
| asc. node | 5287 Apr 02 07:47 | 29°  33'09 | | | | | |
| | 5287 Apr 02 14:41 | 0°  | | superior conj | 5288 Feb 18 12:13 | 29°  51'34 | -1°59'07 |
| evening max el | 5287 Apr 08 23:00 | 8°  18'20 | 18°06'45 | minimum elong | 5288 Feb 18 05:43 | 29°  52'34 | 1°58'44 |
| retrograde | 5287 Apr 15 10:54 | 11°  40'16 | | | 5288 Feb 18 14:20 | 0°  | |
| evening set | 5287 Apr 18 04:46 | 11°  303'34 | | evening rise | 5288 Mar 03 13:17 | 22°  51'56 | |
| inferior conj | 5287 Apr 24 13:47 | 5°  57'57 | 3°13'31 | | 5288 Mar 07 19:30 | 0°  | |
| minimum elong | 5287 Apr 24 16:03 | 5°  52'11 | 3°13'10 | asc. node | 5288 Mar 19 04:49 | 17°  48'09 | |
| min. Earth dist. | 5287 Apr 27 13:53 | 2°  55'33 | 0.61902 AU | evening max el | 5288 Mar 22 11:50 | 21°  39'56 | 18°19'38 |
| | 5287 Apr 30 23:46 | 30°  44'09 | | retrograde | 5288 Mar 28 22:08 | 25°  407'16 | |
| morning rise | 5287 May 01 01:35 | 29°  56'45 | | evening set | 5288 Mar 31 22:21 | 24°  418'15 | |
| direct | 5287 May 07 20:51 | 27°  31'02 | | inferior conj | 5288 Apr 06 20:35 | 18°  453'51 | 3°30'50 |
| desc. node | 5287 May 08 14:21 | 27°  32'36 | | minimum elong | 5288 Apr 06 21:13 | 18°  452'01 | 3°30'48 |
| | 5287 May 15 07:41 | 0°  | | min. Earth dist. | 5288 Apr 09 06:19 | 16°  410'03 | 0.63918 AU |
| morning max el | 5287 May 22 00:38 | 5°  31'10 | 27°53'02 | morning rise | 5288 Apr 12 19:10 | 12°  43'49 | |
| | 5287 Jun 09 10:11 | 0°  | | direct | 5288 Apr 19 14:59 | 9°  459'16 | |
| morning set | 5287 Jun 24 12:07 | 27°  33'11 | | desc. node | 5288 Apr 24 11:20 | 11°  410'09 | |
| | 5287 Jun 25 16:40 | 0°  | | morning max el | 5288 May 03 09:08 | 17°  457'41 | 27°36'37 |
| asc. node | 5287 Jun 29 07:02 | 7°  36'15 | | | 5288 May 13 11:10 | 0°  | |
| max. Earth dist. | 5287 Jun 30 04:43 | 9°  33'11 | 1.32255 AU | | 5288 Jun 01 07:01 | 0°  | |
| | | | | morning set | 5288 Jun 07 07:11 | 11°  426'28 | |
| superior conj | 5287 Jul 01 23:08 | 13°  323'52 | 0°27'32 | max. Earth dist. | 5288 Jun 12 06:36 | 21°  435'31 | 1.33035 AU |
| minimum elong | 5287 Jul 01 21:54 | 13°  317'07 | 0°27'15 | | | | |
| evening rise | 5287 Jul 08 19:48 | 28°  319'57 | | superior conj | 5288 Jun 15 05:28 | 27°  451'08 | 0°00'37 |
| | 5287 Jul 09 14:38 | 0°  | | minimum elong | 5288 Jun 15 05:26 | 27°  450'58 | 0°00'36 |
| | 5287 Jul 26 13:06 | 0°  | | behind sun begin | 5288 Jun 15 00:05 | 27°  4522'15 | |
| evening max el | 5287 Aug 03 00:16 | 8°  43'58 | 24°27'00 | behind sun end | 5288 Jun 15 10:48 | 28°  4519'42 | |
| desc. node | 5287 Aug 04 13:36 | 10°  409'21 | | asc. node | 5288 Jun 15 04:05 | 27°  443'39 | |
| retrograde | 5287 Aug 16 20:47 | 15°  42'52 | | | 5288 Jun 16 05:29 | 0°  | |
| evening set | 5287 Aug 21 20:45 | 14°  47'06 | | evening rise | 5288 Jun 22 07:27 | 13°  4504'07 | |
| min. Earth dist. | 5287 Aug 27 11:21 | 11°  455'23 | 0.56675 AU | | 5288 Jun 30 21:05 | 0°  | |
| inferior conj | 5287 Aug 30 03:00 | 10°  414'25 | -5°17'58 | evening max el | 5288 Jul 14 13:13 | 19°  4505'28 | 22°49'29 |
| minimum elong | 5287 Aug 30 01:57 | 10°  416'05 | 5°17'57 | desc. node | 5288 Jul 21 10:36 | 24°  4509'07 | |
| morning rise | 5287 Sep 07 09:36 | 6°  411'39 | | retrograde | 5288 Jul 27 19:42 | 25°  4542'19 | |
| direct | 5287 Sep 10 01:22 | 5°  452'33 | | evening set | 5288 Jul 31 07:07 | 25°  4515'54 | |
| morning max el | 5287 Sep 19 14:55 | 10°  421'20 | 19°32'55 | min. Earth dist. | 5288 Aug 07 21:31 | 21°  453'33 | 0.55320 AU |
| asc. node | 5287 Sep 25 06:16 | 17°  406'47 | | inferior conj | 5288 Aug 09 07:52 | 21°  4504'18 | -4°45'08 |
| | 5287 Oct 02 20:02 | 0°  | | minimum elong | 5288 Aug 09 00:37 | 21°  4514'44 | 4°43'51 |
| morning set | 5287 Oct 07 00:55 | 8°  415'56 | | morning rise | 5288 Aug 17 20:12 | 17°  4513'54 | |
| | | | | direct | 5288 Aug 20 20:53 | 16°  4552'31 | |
| superior conj | 5287 Oct 15 00:05 | 24°  414'44 | 1°37'34 | morning max el | 5288 Aug 31 23:56 | 22°  4503'27 | 20°50'10 |
| minimum elong | 5287 Oct 15 02:02 | 24°  4124'17 | 1°37'27 | | 5288 Sep 07 16:02 | 0°  | |
| | 5287 Oct 17 23:13 | 0°  | | asc. node | 5288 Sep 11 03:18 | 5°  4525'12 | |
| max. Earth dist. | 5287 Oct 21 04:33 | 6°  4503'50 | 1.37738 AU | morning set | 5288 Sep 20 08:16 | 22°  4558'01 | |
| evening rise | 5287 Oct 24 22:37 | 12°  4551'24 | | | 5288 Sep 23 17:28 | 0°  | |
| desc. node | 5287 Oct 31 12:49 | 24°  4506'17 | | | | | |
| | 5287 Nov 04 04:43 | 0°  | | superior conj | 5288 Sep 27 18:48 | 8°  4524'37 | 1°43'10 |
| | 5287 Nov 26 01:17 | 0°  | | minimum elong | 5288 Sep 27 19:12 | 8°  4526'38 | 1°43'11 |
| evening max el | 5287 Nov 29 14:35 | 3°  4544'24 | 25°14'08 | max. Earth dist. | 5288 Oct 02 13:06 | 17°  4558'24 | 1.35807 AU |
| retrograde | 5287 Dec 11 14:23 | 10°  4539'58 | | evening rise | 5288 Oct 06 14:00 | 25°  4541'38 | |
| evening set | 5287 Dec 17 09:09 | 8°  4515'44 | | | 5288 Oct 08 22:15 | 0°  | |
| min. Earth dist. | 5287 Dec 21 20:14 | 3°  4518'19 | 0.67402 AU | desc. node | 5288 Oct 17 09:52 | 14°  4531'19 | |
| asc. node | 5287 Dec 22 05:32 | 2°  4548'12 | | | 5288 Oct 27 16:12 | 0°  | |
| inferior conj | 5287 Dec 22 23:17 | 1° 4550'20 | 0°15'03 | evening max el | 5288 Nov 11 03:25 | 17° 4528'11 | 26°19'09 |
| minimum elong | 5287 Dec 22 22:54 | 1° 4551'34 | 0°14'55 | retrograde | 5288 Nov 23 21:42 | 24° 4527'27 | |
| transit middle | 5287 Dec 22 22:54 | 1° 4551'34 | 0°14'55 | evening set | 5288 Nov 30 05:44 | 22° 4527'04'35 | |
| transit begin | 5287 Dec 22 21:50 | 1° 4555'04 | | min. Earth dist. | 5288 Dec 04 09:59 | 17° 4527'42'24 | 0.66512 AU |

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|---------------------|-------------------|----------------------|------------|---------------------|-------------------|----------------------|------------|
| inferior conj | 5288 Dec 06 00:19 | 15° ♊ 45'20 | -0°42'47 | retrograde | 5289 Nov 06 23:20 | 8° ♊ 20'14 | |
| minimum elong | 5288 Dec 06 01:29 | 15° ♊ 41'46 | 0°42'17 | evening set | 5289 Nov 13 18:51 | 5° ♊ 40'20 | |
| asc. node | 5288 Dec 08 02:32 | 13° ♊ 17'03 | | min. Earth dist. | 5289 Nov 17 16:45 | 1° ♊ 53'32 | 0.65264 AU |
| morning rise | 5288 Dec 11 21:50 | 9° ♊ 58'14 | | | 5289 Nov 19 09:11 | 30° ♋ | |
| direct | 5288 Dec 14 22:53 | 9° ♊ 05'43 | | inferior conj | 5289 Nov 19 18:59 | 29° ♋ 32'18 | -1°44'44 |
| morning max el | 5288 Dec 21 15:13 | 12° ♊ 44'50 | 18°38'53 | minimum elong | 5289 Nov 19 22:00 | 29° ♋ 23'48 | 1°43'29 |
| | 5289 Jan 03 05:25 | 0° ♋ | | asc. node | 5289 Nov 24 23:33 | 24° ♋ 35'48 | |
| morning set | 5289 Jan 11 12:57 | 13° ♋ 04'49 | | morning rise | 5289 Nov 26 02:11 | 23° ♋ 58'00 | |
| desc. node | 5289 Jan 13 09:05 | 15° ♋ 59'07 | | direct | 5289 Nov 28 18:54 | 23° ♋ 18'58 | |
| | 5289 Jan 22 06:53 | 0° ♌ | | morning max el | 5289 Dec 05 06:15 | 26° ♋ 46'22 | 18°06'11 |
| | | | | | 5289 Dec 08 02:09 | 0° ♌ | |
| superior conj | 5289 Jan 27 17:45 | 8° ♌ 33'03 | -1°29'22 | morning set | 5289 Dec 23 11:32 | 23° ♌ 56'30 | |
| minimum elong | 5289 Jan 27 08:20 | 7° ♌ 56'08 | 1°28'24 | | 5289 Dec 27 04:11 | 0° ♌ | |
| max. Earth dist. | 5289 Jan 27 07:56 | 7° ♌ 54'33 | 1.45299 AU | desc. node | 5289 Dec 31 06:09 | 6° ♌ 37'42 | |
| | 5289 Feb 10 07:45 | 0° ♍ | | | | | |
| evening rise | 5289 Feb 12 08:25 | 3° ♍ 14'11 | | superior conj | 5290 Jan 06 23:37 | 17° ♌ 22'47 | -0°45'38 |
| greatest brilliancy | 5289 Feb 20 09:40 | 16° ♍ 05'46 | -0.8m | minimum elong | 5290 Jan 06 18:00 | 17° ♌ 00'31 | 0°44'52 |
| | 5289 Mar 01 15:42 | 0° ♎ | | max. Earth dist. | 5290 Jan 10 03:45 | 22° ♌ 23'03 | 1.45196 AU |
| evening max el | 5289 Mar 05 22:41 | 5° ♎ 09'09 | 18°50'30 | | 5290 Jan 15 00:30 | 0° ♌ | |
| asc. node | 5289 Mar 06 01:50 | 5° ♎ 17'06 | | evening rise | 5290 Jan 23 06:30 | 12° ♌ 49'07 | |
| retrograde | 5289 Mar 12 16:02 | 8° ♎ 54'19 | | | 5290 Feb 03 10:41 | 0° ♍ | |
| evening set | 5289 Mar 15 22:55 | 7° ♎ 52'10 | | greatest brilliancy | 5290 Feb 05 07:24 | 2° ♍ 48'19 | -0.7m |
| inferior conj | 5289 Mar 21 13:50 | 2° ♎ 10'29 | 3°30'20 | evening max el | 5290 Feb 17 05:30 | 18° ♍ 41'55 | 19°37'58 |
| minimum elong | 5289 Mar 21 13:02 | 2° ♎ 12'57 | 3°30'16 | asc. node | 5290 Feb 20 22:51 | 21° ♍ 47'12 | |
| | 5289 Mar 23 07:54 | 30° ♋ | | retrograde | 5290 Feb 24 13:27 | 22° ♍ 55'33 | |
| min. Earth dist. | 5289 Mar 23 07:52 | 0° ♎ 00'06 | 0.65584 AU | evening set | 5290 Feb 28 03:53 | 21° ♍ 39'35 | |
| morning rise | 5289 Mar 27 02:43 | 25° ♍ 56'35 | | inferior conj | 5290 Mar 05 14:21 | 15° ♍ 42'43 | 3°16'08 |
| direct | 5289 Apr 02 16:00 | 23° ♍ 06'54 | | minimum elong | 5290 Mar 05 12:34 | 15° ♍ 48'40 | 3°15'51 |
| desc. node | 5289 Apr 11 08:21 | 26° ♍ 51'43 | | min. Earth dist. | 5290 Mar 06 17:30 | 14° ♍ 13'01 | 0.66831 AU |
| | 5289 Apr 14 22:07 | 0° ♏ | | morning rise | 5290 Mar 10 21:00 | 9° ♍ 27'46 | |
| morning max el | 5289 Apr 15 19:10 | 0° ♏ 52'06 | 26°48'13 | direct | 5290 Mar 16 23:06 | 6° ♍ 44'59 | |
| | 5289 May 07 12:05 | 0° ♐ | | morning max el | 5290 Mar 29 04:47 | 14° ♍ 03'19 | 25°36'08 |
| morning set | 5289 May 21 15:42 | 24° ♐ 45'17 | | desc. node | 5290 Mar 29 05:23 | 14° ♍ 04'51 | |
| | 5289 May 24 08:40 | 0° ♑ | | | 5290 Apr 11 04:13 | 0° ♏ | |
| max. Earth dist. | 5289 May 25 22:36 | 3° ♑ 08'18 | 1.34284 AU | | 5290 Apr 30 07:08 | 0° ♐ | |
| | | | | morning set | 5290 May 04 09:30 | 7° ♐ 18'12 | |
| superior conj | 5289 May 30 06:03 | 11° ♑ 56'40 | -0°28'32 | max. Earth dist. | 5290 May 08 03:31 | 14° ♐ 16'39 | 1.35982 AU |
| minimum elong | 5289 May 30 07:35 | 12° ♑ 04'39 | 0°28'13 | | | | |
| asc. node | 5289 Jun 02 01:06 | 17° ♑ 48'02 | | superior conj | 5290 May 13 22:12 | 25° ♐ 33'16 | -0°58'28 |
| evening rise | 5289 Jun 06 17:21 | 27° ♑ 38'39 | | minimum elong | 5290 May 14 01:28 | 25° ♐ 49'36 | 0°57'53 |
| | 5289 Jun 07 20:37 | 0° ♒ | | | 5290 May 16 03:05 | 0° ♑ | |
| evening max el | 5289 Jun 26 08:38 | 29° ♒ 38'17 | 21°16'48 | asc. node | 5290 May 19 22:10 | 7° ♑ 45'30 | |
| | 5289 Jun 26 17:38 | 0° ♓ | | evening rise | 5290 May 21 23:24 | 11° ♑ 57'08 | |
| retrograde | 5289 Jul 08 09:12 | 5° ♓ 34'11 | | | 5290 May 31 13:04 | 0° ♒ | |
| desc. node | 5289 Jul 08 07:38 | 5° ♓ 34'10 | | evening max el | 5290 Jun 08 16:00 | 10° ♒ 47'29 | 19°59'37 |
| evening set | 5289 Jul 10 17:11 | 5° ♓ 21'35 | | retrograde | 5290 Jun 19 00:14 | 15° ♒ 51'16 | |
| inferior conj | 5289 Jul 20 01:33 | 1° ♓ 22'57 | -3°20'56 | evening set | 5290 Jun 20 22:13 | 15° ♒ 41'36 | |
| minimum elong | 5289 Jul 19 17:02 | 1° ♓ 34'53 | 3°18'18 | desc. node | 5290 Jun 25 04:39 | 14° ♒ 18'29 | |
| min. Earth dist. | 5289 Jul 20 07:39 | 1° ♓ 14'24 | 0.54786 AU | inferior conj | 5290 Jun 29 22:17 | 11° ♒ 41'27 | -1°25'00 |
| | 5289 Jul 22 13:43 | 30° ♋ | | minimum elong | 5290 Jun 29 18:19 | 11° ♒ 47'26 | 1°23'32 |
| morning rise | 5289 Jul 28 17:34 | 27° ♒ 27'52 | | min. Earth dist. | 5290 Jul 01 19:53 | 10° ♒ 32'42 | 0.55211 AU |
| direct | 5289 Aug 01 06:08 | 27° ♒ 01'07 | | morning rise | 5290 Jul 08 12:40 | 7° ♒ 21'04 | |
| | 5289 Aug 10 03:19 | 0° ♓ | | direct | 5290 Jul 12 18:30 | 6° ♒ 41'46 | |
| morning max el | 5289 Aug 13 21:31 | 3° ♓ 00'26 | 22°25'32 | morning max el | 5290 Jul 26 12:18 | 13° ♒ 27'34 | 24°09'32 |
| asc. node | 5289 Aug 29 00:20 | 24° ♓ 19'59 | | | 5290 Aug 08 07:20 | 0° ♓ | |
| | 5289 Aug 31 23:12 | 0° ♑ | | asc. node | 5290 Aug 15 21:24 | 13° ♓ 42'06 | |
| morning set | 5289 Sep 04 18:41 | 7° ♑ 47'59 | | morning set | 5290 Aug 20 06:22 | 22° ♓ 40'39 | |
| | | | | | 5290 Aug 23 16:07 | 0° ♑ | |
| superior conj | 5289 Sep 11 21:27 | 22° ♑ 56'56 | 1°41'37 | superior conj | 5290 Aug 27 05:16 | 7° ♑ 43'23 | 1°33'56 |
| minimum elong | 5289 Sep 11 20:32 | 22° ♑ 52'06 | 1°41'35 | minimum elong | 5290 Aug 27 03:28 | 7° ♑ 33'33 | 1°33'46 |
| max. Earth dist. | 5289 Sep 15 05:26 | 29° ♑ 55'34 | 1.34208 AU | max. Earth dist. | 5290 Aug 29 06:17 | 12° ♑ 07'53 | 1.33020 AU |
| | 5289 Sep 15 06:18 | 0° ♒ | | evening rise | 5290 Sep 03 14:27 | 23° ♑ 17'16 | |
| evening rise | 5289 Sep 19 20:34 | 9° ♒ 13'40 | | | 5290 Sep 06 23:59 | 0° ♒ | |
| | 5289 Oct 01 09:52 | 0° ♓ | | desc. node | 5290 Sep 21 03:57 | 24° ♒ 18'09 | |
| desc. node | 5289 Oct 04 06:55 | 4° ♓ 37'55 | | | 5290 Sep 25 02:21 | 0° ♓ | |
| | 5289 Oct 23 14:37 | 0° ♊ | | evening max el | 5290 Oct 07 03:33 | 14° ♓ 16'10 | 27°26'41 |
| evening max el | 5289 Oct 24 16:11 | 1° ♊ 02'35 | 27°05'39 | | | | |

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|------------------|-------------------|-------------------------------|------------|------------------|-------------------|-------------------------------|------------|
| retrograde | 5290 Oct 20 18:52 | 21° \mathbb{M} 33'42 | | evening max el | 5291 Sep 19 11:27 | 26° \mathbb{A} 57'00 | 27°16'46 |
| evening set | 5290 Oct 27 21:45 | 18° \mathbb{M} 57'25 | | | 5291 Sep 23 01:16 | 0° \mathbb{M} | |
| min. Earth dist. | 5290 Oct 31 14:31 | 15° \mathbb{M} 43'31 | 0.63674 AU | retrograde | 5291 Oct 03 07:37 | 4° \mathbb{M} 10'40 | |
| inferior conj | 5290 Nov 03 04:41 | 13° \mathbb{M} 05'28 | -2°48'34 | evening set | 5291 Oct 10 10:54 | 1° \mathbb{M} 49'40 | |
| minimum elong | 5290 Nov 03 09:36 | 12° \mathbb{M} 52'58 | 2°46'45 | | 5291 Oct 12 22:21 | 30° \mathbb{R} \mathbb{A} | |
| morning rise | 5290 Nov 09 22:58 | 7° \mathbb{M} 47'03 | | min. Earth dist. | 5291 Oct 14 02:02 | 29° \mathbb{A} 01'28 | 0.61794 AU |
| asc. node | 5290 Nov 11 20:37 | 7° \mathbb{M} 19'16 | | inferior conj | 5291 Oct 17 02:29 | 26° \mathbb{A} 17'55 | -3°50'17 |
| direct | 5290 Nov 12 09:42 | 7° \mathbb{M} 17'47 | | minimum elong | 5291 Oct 17 08:42 | 26° \mathbb{A} 03'50 | 3°48'27 |
| morning max el | 5290 Nov 18 23:11 | 10° \mathbb{M} 42'39 | 17°50'40 | morning rise | 5291 Oct 24 08:25 | 21° \mathbb{A} 18'31 | |
| | 5290 Dec 02 00:00 | 0° \mathbb{A} | | direct | 5291 Oct 26 16:04 | 20° \mathbb{A} 55'31 | |
| morning set | 5290 Dec 05 12:47 | 6° \mathbb{A} 05'23 | | asc. node | 5291 Oct 29 17:41 | 21° \mathbb{A} 37'14 | |
| | | | | morning max el | 5291 Nov 02 14:52 | 24° \mathbb{A} 26'13 | 17°53'13 |
| superior conj | 5290 Dec 18 00:21 | 27° \mathbb{A} 10'28 | 0°00'50 | | 5291 Nov 07 03:29 | 0° \mathbb{M} | |
| minimum elong | 5290 Dec 18 00:26 | 27° \mathbb{A} 10'50 | 0°00'51 | morning set | 5291 Nov 18 10:21 | 19° \mathbb{M} 12'30 | |
| behind sun begin | 5290 Dec 17 14:44 | 26° \mathbb{A} 31'01 | | | 5291 Nov 24 10:16 | 0° \mathbb{A} | |
| behind sun end | 5290 Dec 18 10:08 | 27° \mathbb{A} 50'34 | | | | | |
| desc. node | 5290 Dec 18 03:13 | 27° \mathbb{A} 22'15 | | superior conj | 5291 Nov 29 03:24 | 8° \mathbb{A} 15'08 | 0°40'58 |
| | 5290 Dec 19 17:54 | 0° \mathbb{B} | | minimum elong | 5291 Nov 29 06:45 | 8° \mathbb{A} 29'34 | 0°40'29 |
| max. Earth dist. | 5290 Dec 23 21:51 | 6° \mathbb{B} 42'08 | 1.44370 AU | desc. node | 5291 Dec 05 00:13 | 18° \mathbb{A} 09'11 | |
| evening rise | 5291 Jan 02 17:04 | 22° \mathbb{B} 01'52 | | max. Earth dist. | 5291 Dec 06 11:55 | 20° \mathbb{A} 35'59 | 1.42930 AU |
| | 5291 Jan 07 22:23 | 0° \mathbb{A} | | | 5291 Dec 12 08:25 | 0° \mathbb{B} | |
| | 5291 Jan 29 05:17 | 0° \mathbb{H} | | evening rise | 5291 Dec 13 07:54 | 1° \mathbb{B} 32'18 | |
| evening max el | 5291 Jan 31 07:01 | 2° \mathbb{H} 15'42 | 20°39'56 | | 5292 Jan 01 11:15 | 0° \mathbb{A} | |
| asc. node | 5291 Feb 07 19:53 | 7° \mathbb{H} 03'12 | | evening max el | 5292 Jan 14 03:11 | 15° \mathbb{A} 51'23 | 21°52'52 |
| retrograde | 5291 Feb 08 11:48 | 7° \mathbb{H} 05'34 | | retrograde | 5292 Jan 23 09:05 | 21° \mathbb{A} 21'01 | |
| evening set | 5291 Feb 12 11:08 | 5° \mathbb{H} 35'03 | | asc. node | 5292 Jan 25 16:55 | 20° \mathbb{A} 52'15 | |
| | 5291 Feb 17 09:27 | 30° \mathbb{R} \mathbb{A} | | evening set | 5292 Jan 27 18:55 | 19° \mathbb{A} 35'12 | |
| inferior conj | 5291 Feb 17 19:30 | 29° \mathbb{A} 25'37 | 2°51'01 | inferior conj | 5292 Feb 02 03:04 | 13° \mathbb{A} 16'22 | 2°16'52 |
| minimum elong | 5291 Feb 17 17:10 | 29° \mathbb{A} 33'36 | 2°50'29 | minimum elong | 5292 Feb 02 00:42 | 13° \mathbb{A} 24'36 | 2°16'09 |
| min. Earth dist. | 5291 Feb 18 09:10 | 28° \mathbb{A} 38'42 | 0.67653 AU | min. Earth dist. | 5292 Feb 02 04:35 | 13° \mathbb{A} 11'06 | 0.68071 AU |
| morning rise | 5291 Feb 22 23:01 | 23° \mathbb{A} 11'36 | | morning rise | 5292 Feb 07 06:18 | 7° \mathbb{A} 04'57 | |
| direct | 5291 Feb 28 11:29 | 20° \mathbb{A} 44'28 | | direct | 5292 Feb 12 04:15 | 4° \mathbb{A} 58'42 | |
| morning max el | 5291 Mar 11 13:31 | 27° \mathbb{A} 21'55 | 24°10'18 | morning max el | 5292 Feb 21 23:29 | 10° \mathbb{A} 46'20 | 22°40'57 |
| | 5291 Mar 14 00:49 | 0° \mathbb{H} | | desc. node | 5292 Mar 01 23:27 | 21° \mathbb{A} 28'25 | |
| desc. node | 5291 Mar 16 02:25 | 2° \mathbb{H} 23'09 | | | 5292 Mar 08 04:05 | 0° \mathbb{H} | |
| | 5291 Apr 04 20:02 | 0° \mathbb{Y} | | morning set | 5292 Mar 27 02:25 | 29° \mathbb{H} 04'30 | |
| morning set | 5291 Apr 16 07:03 | 18° \mathbb{Y} 49'33 | | | 5292 Mar 27 15:53 | 0° \mathbb{Y} | |
| max. Earth dist. | 5291 Apr 20 00:01 | 25° \mathbb{Y} 21'34 | 1.38037 AU | max. Earth dist. | 5292 Mar 31 19:38 | 6° \mathbb{Y} 58'43 | 1.40243 AU |
| | 5291 Apr 22 13:22 | 0° \mathbb{B} | | | | | |
| superior conj | 5291 Apr 27 02:30 | 8° \mathbb{B} 31'34 | -1°27'08 | superior conj | 5292 Apr 08 14:42 | 20° \mathbb{Y} 41'49 | -1°51'20 |
| minimum elong | 5291 Apr 27 07:11 | 8° \mathbb{B} 54'00 | 1°26'29 | minimum elong | 5292 Apr 08 19:38 | 21° \mathbb{Y} 04'14 | 1°50'55 |
| evening rise | 5291 May 05 22:58 | 25° \mathbb{B} 51'38 | | | 5292 Apr 13 15:37 | 0° \mathbb{B} | |
| asc. node | 5291 May 06 19:12 | 27° \mathbb{B} 31'06 | | evening rise | 5292 Apr 18 12:58 | 9° \mathbb{B} 14'29 | |
| | 5291 May 08 01:40 | 0° \mathbb{H} | | asc. node | 5292 Apr 22 16:13 | 17° \mathbb{B} 00'09 | |
| evening max el | 5291 May 22 11:31 | 22° \mathbb{H} 39'10 | 19°02'10 | | 5292 Apr 30 10:34 | 0° \mathbb{H} | |
| retrograde | 5291 May 31 04:21 | 26° \mathbb{H} 54'45 | | evening max el | 5292 May 04 16:20 | 5° \mathbb{H} 07'47 | 18°25'04 |
| evening set | 5291 Jun 02 04:54 | 26° \mathbb{H} 41'53 | | retrograde | 5292 May 12 03:13 | 8° \mathbb{H} 49'35 | |
| inferior conj | 5291 Jun 10 10:50 | 22° \mathbb{H} 28'03 | 0°28'30 | evening set | 5292 May 14 10:38 | 8° \mathbb{H} 29'19 | |
| minimum elong | 5291 Jun 10 11:58 | 22° \mathbb{H} 26'04 | 0°28'04 | inferior conj | 5292 May 21 20:42 | 3° \mathbb{H} 55'41 | 1°56'23 |
| desc. node | 5291 Jun 12 01:40 | 21° \mathbb{H} 20'23 | | minimum elong | 5292 May 22 00:05 | 3° \mathbb{H} 48'49 | 1°55'22 |
| min. Earth dist. | 5291 Jun 13 11:18 | 20° \mathbb{H} 23'05 | 0.56522 AU | min. Earth dist. | 5292 May 25 07:03 | 1° \mathbb{H} 09'52 | 0.58454 AU |
| morning rise | 5291 Jun 18 15:45 | 17° \mathbb{H} 31'44 | | | 5292 May 26 21:10 | 30° \mathbb{R} \mathbb{B} | |
| direct | 5291 Jun 23 19:57 | 16° \mathbb{H} 28'33 | | desc. node | 5292 May 28 22:42 | 28° \mathbb{B} 42'20 | |
| morning max el | 5291 Jul 08 02:27 | 23° \mathbb{H} 49'56 | 25°47'25 | morning rise | 5292 May 29 10:22 | 28° \mathbb{B} 26'40 | |
| | 5291 Jul 13 16:50 | 0° \mathbb{B} | | direct | 5292 Jun 04 11:38 | 26° \mathbb{B} 50'47 | |
| | 5291 Aug 01 02:22 | 0° \mathbb{Q} | | | 5292 Jun 13 09:01 | 0° \mathbb{H} | |
| asc. node | 5291 Aug 02 18:28 | 3° \mathbb{Q} 23'52 | | morning max el | 5292 Jun 18 20:55 | 4° \mathbb{H} 34'07 | 27°03'20 |
| morning set | 5291 Aug 04 17:43 | 7° \mathbb{Q} 30'57 | | | 5292 Jul 07 12:22 | 0° \mathbb{B} | |
| | | | | morning set | 5292 Jul 19 03:04 | 22° \mathbb{B} 13'21 | |
| superior conj | 5291 Aug 11 16:04 | 22° \mathbb{Q} 36'50 | 1°20'58 | asc. node | 5292 Jul 19 15:30 | 23° \mathbb{B} 18'57 | |
| minimum elong | 5291 Aug 11 13:48 | 22° \mathbb{Q} 24'25 | 1°20'39 | | 5292 Jul 22 18:01 | 0° \mathbb{Q} | |
| max. Earth dist. | 5291 Aug 12 13:46 | 24° \mathbb{Q} 36'11 | 1.32260 AU | superior conj | 5292 Jul 26 03:52 | 7° \mathbb{Q} 30'29 | 1°03'22 |
| | 5291 Aug 15 01:08 | 0° \mathbb{H} | | minimum elong | 5292 Jul 26 01:38 | 7° \mathbb{Q} 18'09 | 1°02'58 |
| evening rise | 5291 Aug 18 16:24 | 7° \mathbb{H} 43'23 | | max. Earth dist. | 5292 Jul 26 00:42 | 7° \mathbb{Q} 12'55 | 1.31927 AU |
| | 5291 Aug 30 10:39 | 0° \mathbb{A} | | evening rise | 5292 Aug 01 23:45 | 22° \mathbb{Q} 23'26 | |
| desc. node | 5291 Sep 08 00:58 | 13° \mathbb{A} 21'27 | | | 5292 Aug 05 16:21 | 0° \mathbb{H} | |

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|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| | 5292 Aug 23 17:15 | 0°♄ | | desc. node | 5293 Aug 11 18:59 | 18°♎29'14 | |
| desc. node | 5292 Aug 24 21:59 | 1°♄32'13 | | evening max el | 5293 Aug 13 07:29 | 20°♎00'11 | 25°19'14 |
| evening max el | 5292 Aug 31 13:19 | 8°♄53'12 | 26°33'13 | retrograde | 5293 Aug 27 05:53 | 27°♎03'40 | |
| retrograde | 5292 Sep 14 11:54 | 16°♄01'48 | | evening set | 5293 Sep 02 01:02 | 25°♎46'18 | |
| evening set | 5292 Sep 21 05:33 | 14°♄08'20 | | min. Earth dist. | 5293 Sep 06 19:09 | 23°♎06'05 | 0.57723 AU |
| min. Earth dist. | 5292 Sep 25 03:01 | 11°♄32'59 | 0.59743 AU | inferior conj | 5293 Sep 09 20:17 | 21°♎01'09 | -5°15'02 |
| inferior conj | 5292 Sep 28 08:47 | 8°♄59'41 | -4°42'57 | minimum elong | 5293 Sep 09 22:42 | 20°♎57'00 | 5°14'53 |
| minimum elong | 5292 Sep 28 14:38 | 8°♄48'06 | 4°41'50 | morning rise | 5293 Sep 17 22:38 | 16°♎46'38 | |
| morning rise | 5292 Oct 06 01:50 | 4°♄22'05 | | direct | 5293 Sep 20 10:52 | 16°♎27'43 | |
| direct | 5292 Oct 08 09:53 | 4°♄02'19 | | morning max el | 5293 Sep 29 04:56 | 20°♎36'46 | 18°58'15 |
| asc. node | 5292 Oct 15 14:44 | 7°♄21'05 | | asc. node | 5293 Oct 02 11:46 | 24°♎16'32 | |
| morning max el | 5292 Oct 16 01:54 | 7°♄47'19 | 18°15'13 | | 5293 Oct 06 10:45 | 0°♄ | |
| | 5292 Oct 30 08:11 | 0°♍ | | morning set | 5293 Oct 15 20:11 | 17°♄15'30 | |
| morning set | 5292 Oct 31 22:17 | 2°♍59'58 | | | 5293 Oct 22 07:34 | 0°♍ | |
| | | | | | | | |
| superior conj | 5292 Nov 10 06:45 | 20°♍29'49 | 1°10'58 | superior conj | 5293 Oct 24 05:18 | 3°♍40'34 | 1°30'34 |
| minimum elong | 5292 Nov 10 10:37 | 20°♍47'20 | 1°10'31 | minimum elong | 5293 Oct 24 08:07 | 3°♍54'02 | 1°30'21 |
| | 5292 Nov 15 15:05 | 0°♁ | | max. Earth dist. | 5293 Oct 31 02:52 | 16°♍27'40 | 1.38947 AU |
| max. Earth dist. | 5292 Nov 17 21:15 | 3°♁52'45 | 1.41046 AU | evening rise | 5293 Nov 03 23:12 | 23°♍12'31 | |
| desc. node | 5292 Nov 20 21:14 | 8°♁54'59 | | desc. node | 5293 Nov 07 18:15 | 29°♍36'03 | |
| evening rise | 5292 Nov 22 16:10 | 11°♁51'35 | | | 5293 Nov 08 00:03 | 0°♁ | |
| | 5292 Dec 04 07:25 | 0°♂ | | | 5293 Nov 28 04:01 | 0°♂ | |
| evening max el | 5292 Dec 26 19:03 | 29°♂29'36 | 23°12'00 | evening max el | 5293 Dec 09 08:17 | 13°♂11'03 | 24°31'12 |
| | 5292 Dec 27 07:20 | 0°♁ | | retrograde | 5293 Dec 20 18:38 | 19°♂51'47 | |
| retrograde | 5293 Jan 06 03:44 | 5°♁37'40 | | evening set | 5293 Dec 26 05:47 | 17°♂35'04 | |
| evening set | 5293 Jan 11 01:39 | 3°♁36'10 | | asc. node | 5293 Dec 29 11:00 | 14°♂08'36 | |
| asc. node | 5293 Jan 11 13:58 | 3°♁09'02 | | min. Earth dist. | 5293 Dec 30 21:05 | 12°♂18'08 | 0.67762 AU |
| | 5293 Jan 14 09:11 | 30°♁♂ | | inferior conj | 5293 Dec 31 17:53 | 11°♂08'42 | 0°46'00 |
| inferior conj | 5293 Jan 16 11:07 | 27°♂11'31 | 1°34'53 | minimum elong | 5293 Dec 31 16:48 | 11°♂12'19 | 0°45'34 |
| minimum elong | 5293 Jan 16 09:10 | 27°♂18'15 | 1°34'10 | morning rise | 5294 Jan 06 03:56 | 5°♂07'44 | |
| min. Earth dist. | 5293 Jan 16 01:19 | 27°♂45'18 | 0.68101 AU | direct | 5294 Jan 09 22:20 | 3°♂46'30 | |
| morning rise | 5293 Jan 21 16:36 | 21°♂04'24 | | morning max el | 5294 Jan 17 13:07 | 8°♂05'18 | 20°03'50 |
| direct | 5293 Jan 26 00:16 | 19°♂21'03 | | | 5294 Feb 02 22:42 | 0°♁ | |
| morning max el | 5293 Feb 03 14:28 | 24°♂19'47 | 21°16'50 | desc. node | 5294 Feb 03 17:28 | 1°♁10'04 | |
| | 5293 Feb 08 14:17 | 0°♁ | | morning set | 5294 Feb 13 14:34 | 16°♁11'53 | |
| desc. node | 5293 Feb 16 20:28 | 11°♁07'07 | | | 5294 Feb 22 10:24 | 0°♁ | |
| | 5293 Mar 01 13:57 | 0°♁ | | max. Earth dist. | 5294 Feb 24 06:56 | 2°♁57'19 | 1.43960 AU |
| morning set | 5293 Mar 06 17:27 | 8°♁00'20 | | | | | |
| max. Earth dist. | 5293 Mar 13 21:26 | 19°♁31'43 | 1.42308 AU | superior conj | 5294 Mar 01 19:47 | 11°♁54'13 | -2°07'18 |
| | 5293 Mar 20 03:36 | 0°♂ | | minimum elong | 5294 Mar 01 16:58 | 11°♁42'39 | 2°07'13 |
| | | | | | 5294 Mar 12 14:52 | 0°♂ | |
| superior conj | 5293 Mar 21 05:51 | 1°♂52'24 | -2°06'36 | evening rise | 5294 Mar 14 20:04 | 3°♂48'30 | |
| minimum elong | 5293 Mar 21 08:32 | 2°♂03'55 | 2°06'31 | asc. node | 5294 Mar 27 10:16 | 24°♂43'13 | |
| evening rise | 5293 Apr 01 13:29 | 21°♂56'44 | | | 5294 Mar 31 10:20 | 0°♂ | |
| | 5293 Apr 06 00:49 | 0°♂ | | evening max el | 5294 Apr 01 15:35 | 1°♂18'06 | 18°09'56 |
| asc. node | 5293 Apr 09 13:14 | 6°♂06'51 | | retrograde | 5294 Apr 08 01:42 | 4°♂40'55 | |
| evening max el | 5293 Apr 18 02:49 | 18°♂04'04 | 18°07'52 | evening set | 5294 Apr 10 22:15 | 3°♂59'04 | |
| retrograde | 5293 Apr 24 19:49 | 21°♂28'47 | | | 5294 Apr 15 21:44 | 30°♁♂ | |
| evening set | 5293 Apr 27 10:06 | 20°♂58'27 | | inferior conj | 5294 Apr 17 02:10 | 28°♂44'57 | 3°23'23 |
| inferior conj | 5293 May 04 03:04 | 16°♂04'00 | 2°53'19 | minimum elong | 5294 Apr 17 03:45 | 28°♂40'42 | 3°23'12 |
| minimum elong | 5293 May 04 06:07 | 15°♂56'48 | 2°52'40 | min. Earth dist. | 5294 Apr 19 20:22 | 25°♂48'27 | 0.62789 AU |
| min. Earth dist. | 5293 May 07 09:19 | 13°♂00'51 | 0.60647 AU | morning rise | 5294 Apr 23 07:56 | 22°♂39'07 | |
| morning rise | 5293 May 10 23:54 | 10°♂11'48 | | direct | 5294 Apr 30 04:15 | 20°♂04'08 | |
| desc. node | 5293 May 15 19:42 | 8°♂12'07 | | desc. node | 5294 May 02 16:43 | 20°♂23'12 | |
| direct | 5293 May 17 15:07 | 8°♂02'40 | | morning max el | 5294 May 14 04:41 | 28°♂04'31 | 27°50'31 |
| morning max el | 5293 May 31 21:59 | 15°♂58'14 | 27°45'51 | | 5294 May 16 01:03 | 0°♂ | |
| | 5293 Jun 12 09:20 | 0°♂ | | | 5294 Jun 06 04:01 | 0°♂ | |
| | 5293 Jun 30 00:59 | 0°♂ | | morning set | 5294 Jun 17 08:19 | 20°♂51'09 | |
| morning set | 5293 Jul 03 08:39 | 6°♂42'34 | | | 5294 Jun 21 18:19 | 0°♂ | |
| asc. node | 5293 Jul 06 12:31 | 13°♂22'29 | | max. Earth dist. | 5294 Jun 22 17:46 | 2°♂04'51 | 1.32536 AU |
| max. Earth dist. | 5293 Jul 09 11:24 | 19°♂47'10 | 1.32017 AU | asc. node | 5294 Jun 23 09:32 | 3°♂29'23 | |
| | | | | | | | |
| superior conj | 5293 Jul 10 15:00 | 22°♂18'45 | 0°41'40 | superior conj | 5294 Jun 24 23:37 | 6°♂54'59 | 0°16'28 |
| minimum elong | 5293 Jul 10 13:16 | 22°♂09'13 | 0°41'19 | minimum elong | 5294 Jun 24 22:50 | 6°♂50'47 | 0°16'16 |
| | 5293 Jul 14 02:49 | 0°♂ | | evening rise | 5294 Jul 01 22:06 | 21°♂57'10 | |
| evening rise | 5293 Jul 17 10:19 | 7°♂10'29 | | | 5294 Jul 05 19:11 | 0°♂ | |
| | 5293 Jul 29 06:57 | 0°♎ | | | 5294 Jul 25 08:21 | 0°♎ | |

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| evening max el | 5294 Jul 25 20:05 | 0° \cap 28'46 | 23°45'42 | behind sun begin | 5295 Jun 09 00:30 | 20° \cap 56'17 | |
| desc. node | 5294 Jul 29 16:00 | 3° \cap 43'10 | | behind sun end | 5295 Jun 09 08:16 | 21° \cap 37'25 | |
| retrograde | 5294 Aug 08 12:10 | 7° \cap 20'51 | | asc. node | 5295 Jun 10 06:34 | 23° \cap 35'52 | |
| evening set | 5294 Aug 12 20:49 | 6° \cap 39'00 | | | 5295 Jun 13 06:27 | 0° \ominus | |
| min. Earth dist. | 5294 Aug 19 06:09 | 3° \cap 35'56 | 0.56021 AU | evening rise | 5295 Jun 16 09:15 | 6° \ominus 37'43 | |
| inferior conj | 5294 Aug 21 11:27 | 2° \cap 15'34 | -5°10'24 | | 5295 Jun 28 21:12 | 0° \cap | |
| minimum elong | 5294 Aug 21 07:33 | 2° \cap 21'29 | 5°10'03 | evening max el | 5295 Jul 07 10:41 | 10° \cap 50'36 | 22°08'36 |
| | 5294 Aug 25 11:01 | 30° \cap 8'0 | | desc. node | 5295 Jul 16 13:01 | 16° \cap 40'18 | |
| morning rise | 5294 Aug 29 20:47 | 28° \cap 20'03 | | retrograde | 5295 Jul 20 06:45 | 17° \cap 12'51 | |
| direct | 5294 Sep 01 16:06 | 28° \cap 00'16 | | evening set | 5295 Jul 23 04:17 | 16° \cap 54'12 | |
| | 5294 Sep 08 07:22 | 0° \cap | | min. Earth dist. | 5295 Jul 31 16:13 | 13° \cap 14'27 | 0.54979 AU |
| morning max el | 5294 Sep 11 21:02 | 2° \cap 45'10 | 20°03'18 | inferior conj | 5295 Aug 01 10:09 | 12° \cap 49'14 | -4°15'09 |
| asc. node | 5294 Sep 19 08:48 | 12° \cap 08'10 | | minimum elong | 5295 Aug 01 01:30 | 13° \cap 01'24 | 4°13'05 |
| | 5294 Sep 29 03:08 | 0° \ominus | | morning rise | 5295 Aug 10 00:25 | 8° \cap 59'12 | |
| morning set | 5294 Sep 30 00:47 | 1° \ominus 49'40 | | direct | 5295 Aug 13 05:22 | 8° \cap 36'16 | |
| | | | | morning max el | 5295 Aug 25 01:02 | 14° \cap 07'48 | 21°28'57 |
| superior conj | 5294 Oct 07 17:54 | 17° \ominus 32'31 | 1°40'54 | | 5295 Sep 05 19:57 | 0° \cap | |
| minimum elong | 5294 Oct 07 19:10 | 17° \ominus 38'53 | 1°40'51 | asc. node | 5295 Sep 06 05:50 | 0° \cap 43'07 | |
| max. Earth dist. | 5294 Oct 13 08:27 | 28° \ominus 29'14 | 1.36882 AU | morning set | 5295 Sep 14 09:38 | 16° \cap 35'25 | |
| | 5294 Oct 14 03:42 | 0° \cap | | | 5295 Sep 20 18:42 | 0° \ominus | |
| evening rise | 5294 Oct 17 03:48 | 5° \cap 32'31 | | | | | |
| desc. node | 5294 Oct 25 15:17 | 20° \cap 08'16 | | superior conj | 5295 Sep 21 16:22 | 1° \ominus 53'07 | 1°43'19 |
| | 5294 Oct 31 21:41 | 0° \cap | | minimum elong | 5295 Sep 21 16:10 | 1° \ominus 52'04 | 1°43'19 |
| evening max el | 5294 Nov 21 20:46 | 26° \cap 54'40 | 25°43'33 | max. Earth dist. | 5295 Sep 25 19:36 | 10° \ominus 20'44 | 1.35075 AU |
| | 5294 Nov 25 08:02 | 0° \ominus | | evening rise | 5295 Sep 30 02:09 | 18° \ominus 41'48 | |
| retrograde | 5294 Dec 04 05:04 | 3° \ominus 58'38 | | | 5295 Oct 06 06:46 | 0° \cap | |
| evening set | 5294 Dec 10 05:42 | 1° \ominus 29'02 | | desc. node | 5295 Oct 12 12:19 | 10° \cap 26'06 | |
| | 5294 Dec 11 19:25 | 30° \cap 8'8 | | | 5295 Oct 26 01:20 | 0° \cap | |
| min. Earth dist. | 5294 Dec 14 13:41 | 26° \cap 46'46 | 0.67064 AU | evening max el | 5295 Nov 04 09:30 | 10° \cap 35'11 | 26°41'41 |
| inferior conj | 5294 Dec 15 21:35 | 25° \cap 05'33 | -0°08'54 | retrograde | 5295 Nov 17 10:16 | 17° \cap 51'07 | |
| minimum elong | 5294 Dec 15 21:48 | 25° \cap 04'49 | 0°08'47 | evening set | 5295 Nov 23 23:25 | 15° \cap 13'09 | |
| transit middle | 5294 Dec 15 21:48 | 25° \cap 04'49 | 0°08'47 | min. Earth dist. | 5295 Nov 28 00:48 | 11° \cap 06'03 | 0.66016 AU |
| transit begin | 5294 Dec 15 19:27 | 25° \cap 12'20 | | inferior conj | 5295 Nov 29 20:11 | 8° \cap 57'45 | -1°08'43 |
| transit end | 5294 Dec 16 00:10 | 24° \cap 57'18 | | minimum elong | 5295 Nov 29 22:07 | 8° \cap 52'03 | 1°07'53 |
| asc. node | 5294 Dec 16 08:02 | 24° \cap 32'28 | | asc. node | 5295 Dec 03 05:04 | 5° \cap 16'26 | |
| morning rise | 5294 Dec 21 14:21 | 19° \cap 12'49 | | morning rise | 5295 Dec 05 21:38 | 3° \cap 15'44 | |
| direct | 5294 Dec 24 21:06 | 18° \cap 11'00 | | direct | 5295 Dec 08 18:44 | 2° \cap 29'34 | |
| morning max el | 5294 Dec 31 19:39 | 22° \cap 01'34 | 19°05'20 | morning max el | 5295 Dec 15 08:17 | 6° \cap 02'57 | 18°22'54 |
| | 5295 Jan 07 07:49 | 0° \ominus | | | 5295 Dec 31 22:52 | 0° \ominus | |
| desc. node | 5295 Jan 21 14:30 | 21° \ominus 30'53 | | morning set | 5296 Jan 03 23:17 | 4° \ominus 50'43 | |
| morning set | 5295 Jan 23 18:00 | 24° \ominus 51'01 | | desc. node | 5296 Jan 08 11:33 | 12° \ominus 04'04 | |
| | 5295 Jan 27 01:23 | 0° \approx | | | | | |
| max. Earth dist. | 5295 Feb 06 22:17 | 17° \approx 00'07 | 1.45006 AU | superior conj | 5296 Jan 19 13:08 | 29° \ominus 33'46 | -1°11'55 |
| | | | | minimum elong | 5296 Jan 19 04:40 | 29° \ominus 00'35 | 1°10'53 |
| superior conj | 5295 Feb 09 10:04 | 20° \approx 55'48 | -1°48'46 | | 5296 Jan 19 19:49 | 0° \approx | |
| minimum elong | 5295 Feb 09 01:31 | 20° \approx 22'02 | 1°48'06 | max. Earth dist. | 5296 Jan 20 16:53 | 1° \approx 22'36 | 1.45341 AU |
| | 5295 Feb 15 02:50 | 0° \cap | | evening rise | 5296 Feb 04 14:10 | 24° \approx 42'56 | |
| evening rise | 5295 Feb 24 04:44 | 14° \cap 43'38 | | | 5296 Feb 07 22:45 | 0° \cap | |
| | 5295 Mar 05 13:16 | 0° \cap | | greatest brilliancy | 5296 Feb 15 00:15 | 11° \cap 02'54 | -0.8m |
| asc. node | 5295 Mar 14 07:18 | 12° \cap 40'12 | | evening max el | 5296 Feb 27 13:09 | 28° \cap 14'06 | 19°08'49 |
| evening max el | 5295 Mar 16 03:49 | 14° \cap 43'18 | 18°30'37 | asc. node | 5296 Feb 29 04:21 | 29° \cap 45'40 | |
| retrograde | 5295 Mar 22 16:19 | 18° \cap 17'14 | | | 5296 Feb 29 11:18 | 0° \cap | |
| evening set | 5295 Mar 25 19:11 | 17° \cap 22'52 | | retrograde | 5296 Mar 05 11:59 | 2° \cap 10'20 | |
| inferior conj | 5295 Mar 31 13:54 | 11° \cap 50'52 | 3°32'31 | evening set | 5296 Mar 08 21:52 | 1° \cap 02'34 | |
| minimum elong | 5295 Mar 31 13:54 | 11° \cap 50'53 | 3°32'31 | | 5296 Mar 10 06:04 | 30° \cap 8'8 | |
| min. Earth dist. | 5295 Apr 02 16:59 | 9° \cap 19'45 | 0.64667 AU | inferior conj | 5296 Mar 14 10:36 | 25° \cap 14'23 | 3°25'45 |
| morning rise | 5295 Apr 06 07:54 | 5° \cap 38'23 | | minimum elong | 5296 Mar 14 09:19 | 25° \cap 18'29 | 3°25'38 |
| direct | 5295 Apr 13 01:29 | 2° \cap 50'00 | | min. Earth dist. | 5296 Mar 15 22:16 | 23° \cap 20'25 | 0.66167 AU |
| desc. node | 5295 Apr 19 13:44 | 4° \cap 57'32 | | morning rise | 5296 Mar 19 20:25 | 18° \cap 59'40 | |
| morning max el | 5295 Apr 26 14:24 | 10° \cap 45'15 | 27°19'33 | direct | 5296 Mar 26 05:27 | 16° \cap 11'15 | |
| | 5295 May 11 19:03 | 0° \cap | | desc. node | 5296 Apr 05 10:46 | 21° \cap 21'05 | |
| | 5295 May 29 14:55 | 0° \cap | | morning max el | 5296 Apr 08 00:19 | 23° \cap 47'26 | 26°19'48 |
| morning set | 5295 May 31 23:22 | 4° \cap 31'15 | | | 5296 Apr 13 13:26 | 0° \cap | |
| max. Earth dist. | 5295 Jun 05 15:50 | 13° \cap 55'05 | 1.33508 AU | | 5296 May 04 04:05 | 0° \cap | |
| | | | | morning set | 5296 May 14 02:13 | 17° \cap 32'08 | |
| superior conj | 5295 Jun 09 03:47 | 21° \cap 13'40 | -0°11'33 | max. Earth dist. | 5296 May 18 02:38 | 25° \cap 13'44 | 1.34947 AU |
| minimum elong | 5295 Jun 09 04:23 | 21° \cap 16'50 | 0°11'26 | | 5296 May 20 12:25 | 0° \cap | |

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|---------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| superior conj | 5296 May 23 01:09 | 5°♊07'52 | -0°41'13 | max. Earth dist. | 5297 Apr 30 03:04 | 6°♈15'38 | 1.36822 AU |
| minimum elong | 5296 May 23 03:25 | 5°♊19'29 | 0°40'47 | | | | |
| asc. node | 5296 May 27 03:38 | 13°♊37'49 | | superior conj | 5297 May 06 12:44 | 18°♈29'21 | -1°10'56 |
| evening rise | 5296 May 30 17:46 | 21°♊05'56 | | minimum elong | 5297 May 06 16:40 | 18°♈48'43 | 1°10'19 |
| | 5296 Jun 04 03:48 | 0°♋ | | | 5297 May 12 06:56 | 0°♊ | |
| evening max el | 5296 Jun 18 11:03 | 21°♋38'01 | 20°41'50 | asc. node | 5297 May 14 00:40 | 3°♊30'41 | |
| retrograde | 5296 Jun 29 19:11 | 27°♋11'47 | | evening rise | 5297 May 14 21:23 | 5°♊14'53 | |
| evening set | 5296 Jul 01 20:42 | 27°♋01'30 | | | 5297 May 29 05:10 | 0°♋ | |
| desc. node | 5296 Jul 02 10:01 | 26°♋55'21 | | evening max el | 5297 May 31 23:51 | 3°♋05'27 | 19°32'44 |
| inferior conj | 5296 Jul 11 03:23 | 23°♋04'34 | -2°33'42 | retrograde | 5297 Jun 10 14:14 | 7°♋47'04 | |
| minimum elong | 5296 Jul 10 20:21 | 23°♋14'37 | 2°31'17 | evening set | 5297 Jun 12 12:33 | 7°♋36'31 | |
| min. Earth dist. | 5296 Jul 12 03:26 | 22°♋30'10 | 0.54847 AU | desc. node | 5297 Jun 19 07:03 | 4°♋44'08 | |
| morning rise | 5296 Jul 19 19:31 | 19°♋00'36 | | inferior conj | 5297 Jun 21 05:33 | 3°♋31'43 | -0°34'45 |
| direct | 5296 Jul 23 14:47 | 18°♋29'28 | | minimum elong | 5297 Jun 21 03:59 | 3°♋34'12 | 0°34'10 |
| morning max el | 5296 Aug 05 18:59 | 24°♋50'05 | 23°09'24 | min. Earth dist. | 5297 Jun 23 16:37 | 1°♋58'06 | 0.55672 AU |
| | 5296 Aug 10 13:28 | 0°♌ | | | 5297 Jun 27 04:27 | 30°♌♊ | |
| asc. node | 5296 Aug 23 02:53 | 19°♌51'02 | | morning rise | 5297 Jun 29 16:54 | 28°♊56'58 | |
| | 5296 Aug 28 04:09 | 0°♍ | | direct | 5297 Jul 04 08:11 | 28°♊08'49 | |
| morning set | 5296 Aug 28 20:50 | 1°♍27'39 | | | 5297 Jul 11 08:49 | 0°♋ | |
| | | | | morning max el | 5297 Jul 18 08:28 | 5°♋10'46 | 24°52'55 |
| superior conj | 5296 Sep 04 21:33 | 16°♍33'02 | 1°39'03 | | 5297 Aug 05 02:40 | 0°♌ | |
| minimum elong | 5296 Sep 04 20:12 | 16°♍25'49 | 1°38'58 | asc. node | 5297 Aug 09 23:56 | 9°♌22'28 | |
| max. Earth dist. | 5296 Sep 07 15:40 | 22°♍24'10 | 1.33653 AU | morning set | 5297 Aug 13 08:35 | 16°♌20'07 | |
| | 5296 Sep 11 08:09 | 0°♎ | | | 5297 Aug 19 15:39 | 0°♍ | |
| evening rise | 5296 Sep 12 14:03 | 2°♎29'33 | | | | | |
| desc. node | 5296 Sep 28 09:21 | 0°♏23'00 | | superior conj | 5297 Aug 20 06:52 | 1°♍23'18 | 1°29'03 |
| | 5296 Sep 28 03:26 | 0°♏ | | minimum elong | 5297 Aug 20 04:49 | 1°♍12'02 | 1°28'49 |
| evening max el | 5296 Oct 16 22:06 | 24°♏03'26 | 27°18'09 | max. Earth dist. | 5297 Aug 21 19:54 | 4°♍45'08 | 1.32650 AU |
| | 5296 Oct 25 00:01 | 0°♐ | | evening rise | 5297 Aug 27 11:44 | 16°♍44'06 | |
| retrograde | 5296 Oct 30 09:28 | 1°♐21'35 | | | 5297 Sep 03 07:07 | 0°♎ | |
| | 5296 Nov 04 09:32 | 30°♏♌ | | desc. node | 5297 Sep 15 06:22 | 19°♎49'13 | |
| evening set | 5296 Nov 06 08:35 | 28°♏42'21 | | | 5297 Sep 22 19:54 | 0°♏ | |
| min. Earth dist. | 5296 Nov 10 04:11 | 25°♏09'43 | 0.64626 AU | evening max el | 5297 Sep 29 08:31 | 7°♏05'30 | 27°26'28 |
| inferior conj | 5296 Nov 12 11:25 | 22°♏40'25 | -2°11'46 | retrograde | 5297 Oct 13 01:56 | 14°♏20'37 | |
| minimum elong | 5296 Nov 12 15:15 | 22°♏30'01 | 2°10'15 | evening set | 5297 Oct 20 06:04 | 11°♏49'35 | |
| morning rise | 5296 Nov 18 23:10 | 17°♏12'09 | | min. Earth dist. | 5297 Oct 23 21:40 | 8°♏47'42 | 0.62914 AU |
| asc. node | 5296 Nov 19 02:06 | 17°♏09'00 | | inferior conj | 5297 Oct 26 16:28 | 6°♏06'01 | -3°15'17 |
| direct | 5296 Nov 21 13:00 | 16°♏37'43 | | minimum elong | 5297 Oct 26 22:03 | 5°♏52'27 | 3°13'23 |
| morning max el | 5296 Nov 28 00:26 | 20°♏03'13 | 17°57'21 | morning rise | 5297 Nov 02 15:39 | 0°♏55'03 | |
| | 5296 Dec 05 12:28 | 0°♐ | | direct | 5297 Nov 05 00:50 | 0°♏28'42 | |
| morning set | 5296 Dec 15 09:59 | 16°♐18'03 | | asc. node | 5297 Nov 05 23:09 | 0°♏32'49 | |
| | 5296 Dec 23 15:59 | 0°♑ | | morning max el | 5297 Nov 11 17:10 | 3°♏54'49 | 17°49'24 |
| desc. node | 5296 Dec 25 08:37 | 2°♑45'44 | | morning set | 5297 Nov 27 20:40 | 28°♏54'21 | |
| | | | | | 5297 Nov 28 11:34 | 0°♐ | |
| superior conj | 5296 Dec 29 01:18 | 8°♑43'38 | -0°25'36 | | | | |
| minimum elong | 5296 Dec 28 22:13 | 8°♑31'18 | 0°25'09 | superior conj | 5297 Dec 09 12:57 | 19°♐03'22 | 0°18'59 |
| max. Earth dist. | 5297 Jan 02 12:12 | 15°♑48'51 | 1.44935 AU | minimum elong | 5297 Dec 09 14:49 | 19°♐11'10 | 0°18'43 |
| | 5297 Jan 11 14:19 | 0°♒ | | desc. node | 5297 Dec 12 05:39 | 23°♐31'44 | |
| evening rise | 5297 Jan 14 05:41 | 4°♒04'17 | | max. Earth dist. | 5297 Dec 16 05:22 | 0°♑01'09 | 1.43832 AU |
| greatest brilliancy | 5297 Jan 28 18:24 | 26°♒04'10 | -0.6m | | 5297 Dec 16 05:05 | 0°♑ | |
| | 5297 Jan 31 11:28 | 0°♓ | | evening rise | 5297 Dec 24 16:08 | 13°♑20'12 | |
| evening max el | 5297 Feb 09 17:53 | 11°♓47'45 | 20°02'47 | | 5298 Jan 04 16:38 | 0°♒ | |
| asc. node | 5297 Feb 15 01:23 | 15°♓46'06 | | evening max el | 5298 Jan 23 17:08 | 25°♒22'41 | 21°09'52 |
| retrograde | 5297 Feb 17 09:55 | 16°♓15'36 | | | 5298 Jan 29 22:15 | 0°♓ | |
| evening set | 5297 Feb 21 04:00 | 14°♓53'31 | | retrograde | 5298 Feb 01 07:59 | 0°♓28'51 | |
| inferior conj | 5297 Feb 26 13:21 | 8°♓51'13 | 3°06'38 | asc. node | 5298 Feb 01 22:23 | 0°♓26'55 | |
| minimum elong | 5297 Feb 26 11:16 | 8°♓58'13 | 3°06'15 | | 5298 Feb 03 14:48 | 30°♒♒ | |
| min. Earth dist. | 5297 Feb 27 10:38 | 7°♓39'36 | 0.67240 AU | evening set | 5298 Feb 05 11:42 | 28°♒51'41 | |
| morning rise | 5297 Mar 03 18:19 | 2°♓36'39 | | inferior conj | 5298 Feb 10 19:45 | 22°♒37'51 | 2°37'33 |
| | 5297 Mar 09 06:23 | 30°♒♒ | | minimum elong | 5298 Feb 10 17:21 | 22°♒46'09 | 2°36'54 |
| direct | 5297 Mar 09 14:57 | 29°♒59'28 | | min. Earth dist. | 5298 Feb 11 04:03 | 22°♒09'10 | 0.67883 AU |
| | 5297 Mar 09 23:36 | 0°♓ | | morning rise | 5298 Feb 15 22:51 | 16°♒25'01 | |
| morning max el | 5297 Mar 21 09:10 | 7°♓01'19 | 25°00'35 | direct | 5298 Feb 21 05:11 | 14°♒06'30 | |
| desc. node | 5297 Mar 23 07:49 | 9°♓04'19 | | morning max el | 5298 Mar 03 18:04 | 20°♒22'38 | 23°32'13 |
| | 5297 Apr 08 06:20 | 0°♔ | | desc. node | 5298 Mar 10 04:53 | 27°♒44'45 | |
| morning set | 5297 Apr 26 12:04 | 29°♔40'13 | | | 5298 Mar 11 23:23 | 0°♓ | |
| | 5297 Apr 26 16:30 | 0°♕ | | | 5298 Apr 01 11:32 | 0°♔ | |

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|------------------|-------------------|----------------------|------------|------------------|-------------------|----------------------|------------|
| morning set | 5298 Apr 07 23:08 | 10° Υ 40'49 | | max. Earth dist. | 5299 Mar 24 20:38 | 29° Υ 33'24 | 1.41153 AU |
| max. Earth dist. | 5298 Apr 11 22:50 | 17° Υ 33'14 | 1.38976 AU | | 5299 Mar 25 02:58 | 0° Υ | |
| | 5298 Apr 18 20:00 | 0° Υ | | | | | |
| superior conj | 5298 Apr 19 10:47 | 1° Υ 08'58 | -1°38'10 | superior conj | 5299 Apr 01 14:33 | 12° Υ 54'43 | -1°59'14 |
| minimum elong | 5298 Apr 19 15:47 | 1° Υ 32'25 | 1°37'35 | minimum elong | 5299 Apr 01 18:55 | 13° Υ 14'07 | 1°58'57 |
| evening rise | 5298 Apr 28 17:20 | 18° Υ 57'36 | | evening rise | 5299 Apr 10 23:20 | 0° Υ | |
| asc. node | 5298 Apr 30 21:42 | 23° Υ 10'17 | | asc. node | 5299 Apr 12 02:07 | 2° Υ 04'29 | |
| | 5298 May 04 13:14 | 0° Υ | | evening max el | 5299 Apr 17 18:43 | 12° Υ 30'47 | |
| evening max el | 5298 May 14 23:40 | 15° Υ 13'38 | 18°43'50 | | 5299 Apr 28 07:14 | 27° Υ 54'47 | 18°15'19 |
| retrograde | 5298 May 23 02:21 | 19° Υ 13'11 | | retrograde | 5299 Apr 30 20:44 | 0° Υ | |
| evening set | 5298 May 25 05:40 | 18° Υ 57'33 | | evening set | 5299 May 05 09:20 | 1° Υ 27'42 | |
| inferior conj | 5298 Jun 02 02:56 | 14° Υ 35'15 | 1°09'34 | | 5299 May 07 19:34 | 1° Υ 03'33 | |
| minimum elong | 5298 Jun 02 05:25 | 14° Υ 30'38 | 1°08'43 | inferior conj | 5299 May 10 02:46 | 30° Υ | |
| min. Earth dist. | 5298 Jun 05 09:24 | 12° Υ 10'42 | 0.57286 AU | minimum elong | 5299 May 14 21:54 | 26° Υ 21'02 | 2°24'11 |
| desc. node | 5298 Jun 06 04:03 | 11° Υ 38'22 | | min. Earth dist. | 5299 May 15 01:22 | 26° Υ 13'30 | 2°23'16 |
| morning rise | 5298 Jun 10 01:50 | 9° Υ 24'07 | | morning rise | 5299 May 18 07:50 | 23° Υ 24'33 | 0.59371 AU |
| direct | 5298 Jun 15 15:21 | 8° Υ 08'06 | | desc. node | 5299 May 22 04:17 | 20° Υ 40'27 | |
| morning max el | 5298 Jun 30 00:06 | 15° Υ 39'45 | 26°23'22 | direct | 5299 May 24 01:05 | 19° Υ 45'09 | |
| | 5298 Jul 11 14:42 | 0° Υ | | morning max el | 5299 May 28 12:22 | 18° Υ 49'57 | |
| asc. node | 5298 Jul 27 20:59 | 29° Υ 10'42 | | | 5299 Jun 11 21:32 | 26° Υ 40'19 | 27°26'00 |
| | 5298 Jul 28 06:24 | 0° Υ | | | 5299 Jun 15 01:08 | 0° Υ | |
| morning set | 5298 Jul 28 19:17 | 1° Υ 07'51 | | morning set | 5299 Jul 05 03:01 | 0° Υ | |
| | | | | asc. node | 5299 Jul 13 03:15 | 15° Υ 45'19 | |
| superior conj | 5298 Aug 04 18:17 | 16° Υ 17'20 | 1°14'02 | max. Earth dist. | 5299 Jul 14 18:01 | 19° Υ 09'54 | |
| minimum elong | 5298 Aug 04 15:59 | 16° Υ 04'36 | 1°13'41 | | 5299 Jul 19 16:36 | 29° Υ 55'14 | 1.31907 AU |
| max. Earth dist. | 5298 Aug 05 05:26 | 17° Υ 18'51 | 1.32068 AU | | 5299 Jul 19 17:28 | 0° Υ | |
| | 5298 Aug 11 01:39 | 0° Υ | | superior conj | 5299 Jul 20 06:00 | 1° Υ 09'15 | 0°54'37 |
| evening rise | 5298 Aug 11 16:15 | 1° Υ 16'48 | | minimum elong | 5299 Jul 20 03:56 | 0° Υ 57'46 | 0°54'14 |
| | 5298 Aug 27 06:53 | 0° Υ | | evening rise | 5299 Jul 27 01:10 | 16° Υ 00'11 | |
| desc. node | 5298 Sep 02 03:21 | 8° Υ 32'15 | | | 5299 Aug 02 23:50 | 0° Υ | |
| evening max el | 5298 Sep 11 14:00 | 19° Υ 27'53 | 27°02'11 | desc. node | 5299 Aug 20 00:21 | 26° Υ 14'48 | |
| retrograde | 5298 Sep 25 11:00 | 26° Υ 39'11 | | | 5299 Aug 23 10:55 | 0° Υ | |
| evening set | 5298 Oct 02 11:55 | 24° Υ 28'10 | | evening max el | 5299 Aug 24 12:23 | 1° Υ 02'15 | 26°04'59 |
| min. Earth dist. | 5298 Oct 06 04:19 | 21° Υ 47'43 | 0.60941 AU | retrograde | 5299 Sep 07 11:35 | 8° Υ 09'54 | |
| inferior conj | 5298 Oct 09 08:03 | 19° Υ 06'19 | -4°14'15 | evening set | 5299 Sep 13 21:17 | 6° Υ 30'53 | |
| minimum elong | 5298 Oct 09 14:24 | 18° Υ 52'43 | 4°12'39 | min. Earth dist. | 5299 Sep 18 01:11 | 3° Υ 55'52 | 0.58857 AU |
| morning rise | 5298 Oct 16 18:54 | 14° Υ 16'08 | | inferior conj | 5299 Sep 21 06:41 | 1° Υ 32'04 | -5°00'00 |
| direct | 5298 Oct 19 02:22 | 13° Υ 54'47 | | minimum elong | 5299 Sep 21 11:31 | 1° Υ 23'03 | 4°59'20 |
| asc. node | 5298 Oct 23 20:13 | 15° Υ 28'50 | | | 5299 Sep 23 09:30 | 30° Υ | |
| morning max el | 5298 Oct 26 07:17 | 17° Υ 29'59 | 18°00'07 | morning rise | 5299 Sep 29 04:02 | 27° Υ 04'44 | |
| | 5298 Nov 04 04:50 | 0° Υ | | direct | 5299 Oct 01 13:16 | 26° Υ 45'43 | |
| morning set | 5298 Nov 11 00:55 | 12° Υ 20'16 | | | 5299 Oct 08 22:08 | 0° Υ | |
| | 5298 Nov 20 17:54 | 0° Υ | | morning max el | 5299 Oct 09 15:26 | 0° Υ 39'42 | 18°30'56 |
| | | | | asc. node | 5299 Oct 10 17:16 | 1° Υ 45'28 | |
| superior conj | 5298 Nov 21 02:53 | 0° Υ 39'37 | 0°55'00 | morning set | 5299 Oct 25 17:36 | 26° Υ 21'26 | |
| minimum elong | 5298 Nov 21 06:43 | 0° Υ 56'30 | 0°54'30 | | 5299 Oct 27 14:51 | 0° Υ | |
| max. Earth dist. | 5298 Nov 28 17:38 | 13° Υ 41'17 | 1.42171 AU | superior conj | 5299 Nov 03 15:09 | 13° Υ 21'00 | 1°20'28 |
| desc. node | 5298 Nov 29 02:39 | 14° Υ 18'38 | | minimum elong | 5299 Nov 03 18:41 | 13° Υ 37'25 | 1°20'07 |
| evening rise | 5298 Dec 04 13:05 | 23° Υ 08'02 | | max. Earth dist. | 5299 Nov 11 00:39 | 26° Υ 38'59 | 1.40159 AU |
| | 5298 Dec 08 22:05 | 0° Υ | | | 5299 Nov 12 23:24 | 0° Υ | |
| | 5298 Dec 29 19:09 | 0° Υ | | evening rise | 5299 Nov 15 06:55 | 3° Υ 53'54 | |
| evening max el | 5299 Jan 06 11:06 | 8° Υ 58'38 | 22°26'06 | desc. node | 5299 Nov 15 23:39 | 5° Υ 03'26 | |
| retrograde | 5299 Jan 16 04:22 | 14° Υ 45'26 | | | 5299 Dec 02 03:36 | 0° Υ | |
| asc. node | 5299 Jan 19 19:26 | 13° Υ 36'34 | | evening max el | 5299 Dec 20 01:31 | 22° Υ 38'28 | 23°46'02 |
| evening set | 5299 Jan 20 19:13 | 12° Υ 52'44 | | retrograde | 5299 Dec 30 21:43 | 29° Υ 02'10 | |
| inferior conj | 5299 Jan 26 03:44 | 6° Υ 30'43 | 1°59'58 | evening set | 5300 Jan 05 01:04 | 26° Υ 54'06 | |
| minimum elong | 5299 Jan 26 01:29 | 6° Υ 38'31 | 1°59'12 | asc. node | 5300 Jan 06 16:28 | 25° Υ 18'07 | |
| min. Earth dist. | 5299 Jan 26 00:16 | 6° Υ 42'46 | 0.68126 AU | inferior conj | 5300 Jan 10 11:29 | 20° Υ 27'56 | 1°14'58 |
| morning rise | 5299 Jan 31 07:37 | 0° Υ 20'58 | | minimum elong | 5300 Jan 10 09:51 | 20° Υ 33'31 | 1°14'20 |
| | 5299 Jan 31 18:03 | 30° Υ | | min. Earth dist. | 5300 Jan 09 20:59 | 21° Υ 17'22 | 0.67998 AU |
| direct | 5299 Feb 04 23:17 | 28° Υ 24'42 | | morning rise | 5300 Jan 15 18:37 | 14° Υ 22'58 | |
| | 5299 Feb 09 15:16 | 0° Υ | | direct | 5300 Jan 19 20:24 | 12° Υ 49'20 | |
| morning max el | 5299 Feb 14 05:54 | 3° Υ 51'06 | 22°04'09 | morning max el | 5300 Jan 27 23:59 | 17° Υ 30'15 | 20°44'04 |
| desc. node | 5299 Feb 25 01:53 | 17° Υ 05'34 | | | 5300 Feb 07 02:09 | 0° Υ | |
| | 5299 Mar 06 02:27 | 0° Υ | | desc. node | 5300 Feb 11 22:54 | 6° Υ 55'59 | |
| morning set | 5299 Mar 19 06:12 | 20° Υ 21'07 | | | | | |

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|---------------------|-------------------|----------------------|------------|-------------------|-------------------|----------------------------------|
| morning set | 5300 Feb 26 11:17 | 28° \approx 51'10 | | 5301 Jan 31 17:09 | 0° \approx | |
| | 5300 Feb 27 04:56 | 0° H | | morning set | 5301 Feb 05 07:52 | 7° \approx 05'16 |
| max. Earth dist. | 5300 Mar 07 01:06 | 12° H 27'51 | 1.43074 AU | max. Earth dist. | 5301 Feb 17 13:15 | 26° \approx 11'05 1.44494 AU |
| | | | | | 5301 Feb 19 22:47 | 0° H |
| superior conj | 5300 Mar 13 19:15 | 23° H 36'34 | -2°09'01 | superior conj | 5301 Feb 21 22:29 | 3° H 11'07 -2°01'55 |
| minimum elong | 5300 Mar 13 19:57 | 23° H 39'29 | 2°09'01 | minimum elong | 5301 Feb 21 16:53 | 2° H 48'36 2°01'39 |
| | 5300 Mar 17 13:32 | 0° Y | | evening rise | 5301 Mar 07 17:09 | 25° H 54'19 |
| evening rise | 5300 Mar 25 19:31 | 14° Y 26'11 | | | 5301 Mar 10 03:23 | 0° Y |
| | 5300 Apr 03 18:33 | 0° B | | asc. node | 5301 Mar 22 12:45 | 19° Y 46'58 |
| asc. node | 5300 Apr 04 15:44 | 1° B 25'43 | | evening max el | 5301 Mar 26 08:03 | 24° Y 20'10 18°16'34 |
| evening max el | 5300 Apr 11 19:06 | 10° B 59'49 | 18°06'28 | retrograde | 5301 Apr 01 17:58 | 27° Y 45'48 |
| retrograde | 5300 Apr 18 07:58 | 14° B 21'54 | | evening set | 5301 Apr 04 17:16 | 26° Y 58'37 |
| evening set | 5300 Apr 21 00:56 | 13° B 46'53 | | inferior conj | 5301 Apr 10 16:51 | 21° Y 36'49 3°29'26 |
| inferior conj | 5300 Apr 27 11:54 | 8° B 44'13 | 3°08'58 | minimum elong | 5301 Apr 10 17:44 | 21° Y 34'20 3°29'23 |
| minimum elong | 5300 Apr 27 14:23 | 8° B 37'59 | 3°08'32 | min. Earth dist. | 5301 Apr 13 04:49 | 18° Y 49'18 0.63635 AU |
| min. Earth dist. | 5300 Apr 30 13:50 | 5° B 40'49 | 0.61583 AU | morning rise | 5301 Apr 16 17:12 | 15° Y 27'48 |
| morning rise | 5300 May 04 01:57 | 2° B 45'07 | | direct | 5301 Apr 23 13:24 | 12° Y 45'23 |
| direct | 5300 May 10 20:32 | 0° B 23'15 | | desc. node | 5301 Apr 27 19:09 | 13° Y 39'34 |
| desc. node | 5300 May 10 22:07 | 0° B 23'15 | | morning max el | 5301 May 07 09:15 | 20° Y 44'22 27°41'20 |
| morning max el | 5300 May 25 01:08 | 8° B 22'30 | 27°52'20 | | 5301 May 15 08:55 | 0° B |
| | 5300 Jun 10 15:02 | 0° II | | | 5301 Jun 03 16:41 | 0° II |
| morning set | 5300 Jun 27 06:35 | 0° B 06'31 | | morning set | 5301 Jun 11 02:58 | 14° II 04'30 |
| | 5300 Jun 27 05:19 | 0° B | | max. Earth dist. | 5301 Jun 16 04:58 | 24° II 30'14 1.32893 AU |
| asc. node | 5300 Jul 01 15:02 | 9° B 15'23 | | | | |
| max. Earth dist. | 5300 Jul 03 01:43 | 12° B 22'46 | 1.32178 AU | superior conj | 5301 Jun 18 23:20 | 0° B 23'35 0°04'54 |
| | | | | minimum elong | 5301 Jun 18 23:06 | 0° B 22'18 0°04'50 |
| superior conj | 5300 Jul 04 16:18 | 15° B 53'13 | 0°31'22 | behind sun begin | 5301 Jun 18 17:59 | 29° II 54'51 |
| minimum elong | 5300 Jul 04 14:55 | 15° B 45'39 | 0°31'04 | behind sun end | 5301 Jun 19 04:12 | 0° B 49'47 |
| | 5300 Jul 11 03:33 | 0° B | | asc. node | 5301 Jun 18 12:03 | 29° II 23'06 |
| evening rise | 5300 Jul 11 12:29 | 0° B 47'42 | | | 5301 Jun 18 18:56 | 0° B |
| | 5300 Jul 27 11:05 | 0° B | | evening rise | 5301 Jun 26 00:16 | 15° B 33'22 |
| evening max el | 5300 Aug 06 03:41 | 11° B 50'41 | 24°41'04 | | 5301 Jul 03 04:56 | 0° B |
| desc. node | 5300 Aug 06 21:22 | 12° B 32'10 | | evening max el | 5301 Jul 18 16:19 | 22° B 13'23 23°03'59 |
| retrograde | 5300 Aug 20 01:02 | 18° B 50'57 | | desc. node | 5301 Jul 24 18:24 | 26° B 53'01 |
| evening set | 5300 Aug 25 06:13 | 17° B 49'51 | | retrograde | 5301 Aug 01 01:36 | 28° B 54'36 |
| min. Earth dist. | 5300 Aug 30 14:58 | 15° B 01'35 | 0.56930 AU | evening set | 5301 Aug 04 18:31 | 28° B 24'37 |
| inferior conj | 5300 Sep 02 09:31 | 13° B 14'03 | -5°18'41 | min. Earth dist. | 5301 Aug 12 01:12 | 25° B 07'44 0.55481 AU |
| minimum elong | 5300 Sep 02 09:27 | 13° B 14'09 | 5°18'41 | inferior conj | 5301 Aug 13 16:54 | 24° B 10'14 -4°53'32 |
| morning rise | 5300 Sep 10 15:03 | 9° B 08'19 | | minimum elong | 5301 Aug 13 10:23 | 24° B 19'41 4°52'31 |
| direct | 5300 Sep 13 05:48 | 8° B 49'19 | | morning rise | 5301 Aug 22 04:30 | 20° B 19'00 |
| morning max el | 5300 Sep 22 14:07 | 13° B 12'49 | 19°23'16 | direct | 5301 Aug 25 03:49 | 19° B 58'03 |
| asc. node | 5300 Sep 27 14:18 | 19° B 06'39 | | morning max el | 5301 Sep 05 00:57 | 25° B 01'46 20°37'23 |
| | 5300 Oct 04 05:21 | 0° B | | | 5301 Sep 09 12:14 | 0° B |
| morning set | 5300 Oct 09 18:43 | 10° B 45'57 | | asc. node | 5301 Sep 14 11:21 | 7° B 18'31 |
| | | | | morning set | 5301 Sep 24 01:26 | 25° B 26'12 |
| superior conj | 5300 Oct 17 20:15 | 26° B 50'56 | 1°35'59 | | 5301 Sep 26 06:25 | 0° B |
| minimum elong | 5300 Oct 17 22:26 | 27° B 01'35 | 1°35'51 | superior conj | 5301 Oct 01 13:30 | 10° B 56'23 1°42'49 |
| | 5300 Oct 19 11:13 | 0° B | | minimum elong | 5301 Oct 01 14:07 | 10° B 59'32 1°42'48 |
| max. Earth dist. | 5300 Oct 24 05:26 | 8° B 56'57 | 1.38048 AU | max. Earth dist. | 5301 Oct 06 13:09 | 20° B 52'47 1.36078 AU |
| evening rise | 5300 Oct 27 23:34 | 15° B 41'31 | | evening rise | 5301 Oct 10 12:17 | 28° B 24'02 |
| desc. node | 5300 Nov 02 20:40 | 25° B 41'33 | | | 5301 Oct 11 09:08 | 0° B |
| | 5300 Nov 05 12:24 | 0° B | | desc. node | 5301 Oct 20 17:42 | 16° B 08'28 |
| | 5300 Nov 26 18:44 | 0° B | | | 5301 Oct 29 19:21 | 0° B |
| evening max el | 5300 Dec 02 14:24 | 6° B 22'05 | 25°03'17 | evening max el | 5301 Nov 15 03:10 | 20° B 05'59 26°10'27 |
| retrograde | 5300 Dec 14 10:50 | 13° B 13'55 | | retrograde | 5301 Nov 27 18:55 | 27° B 15'28 |
| evening set | 5300 Dec 20 03:37 | 10° B 51'40 | | evening set | 5301 Dec 04 01:08 | 24° B 41'48 |
| min. Earth dist. | 5300 Dec 24 15:48 | 5° B 49'07 | 0.67511 AU | min. Earth dist. | 5301 Dec 08 06:20 | 20° B 14'29 0.66667 AU |
| asc. node | 5300 Dec 24 13:30 | 5° B 56'36 | | inferior conj | 5301 Dec 09 19:00 | 18° B 21'23 -0°33'44 |
| inferior conj | 5300 Dec 25 17:12 | 4° B 25'55 | 0°23'25 | minimum elong | 5301 Dec 09 19:54 | 18° B 18'35 0°33'19 |
| minimum elong | 5300 Dec 25 16:37 | 4° B 27'49 | 0°23'12 | asc. node | 5301 Dec 11 10:34 | 16° B 22'00 |
| | 5300 Dec 29 10:09 | 30° B | | morning rise | 5301 Dec 15 15:13 | 12° B 32'49 |
| morning rise | 5300 Dec 31 05:50 | 28° B 27'53 | | direct | 5301 Dec 18 17:43 | 11° B 37'58 |
| direct | 5301 Jan 03 19:06 | 27° B 15'10 | | morning max el | 5301 Dec 25 11:22 | 15° B 19'34 18°45'15 |
| | 5301 Jan 09 15:21 | 0° B | | | 5302 Jan 05 10:45 | 0° B |
| morning max el | 5301 Jan 11 02:01 | 1° B 20'36 | 19°36'57 | morning set | 5302 Jan 15 20:58 | 16° B 15'46 |
| greatest brilliancy | 5301 Jan 24 02:58 | 18° B 32'10 | -0.7m | | | |
| desc. node | 5301 Jan 29 19:56 | 27° B 07'34 | | | | |

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| desc. node | 5302 Jan 16 16:58 | 17° ♄ 34'24 | | | 5302 Dec 09 16:47 | 0° ♄ |
| | 5302 Jan 24 14:59 | 0° ♄ | morning set | | 5302 Dec 27 15:07 | 26° ♄ 54'28 |
| max. Earth dist. | 5302 Jan 31 06:54 | 10° ♄ 26'42 | 1.45246 AU | | 5302 Dec 29 12:34 | 0° ♄ |
| | | | | desc. node | 5303 Jan 03 14:00 | 8° ♄ 11'53 |
| superior conj | 5302 Feb 01 05:46 | 11° ♄ 56'26 | -1°35'01 | | | |
| minimum elong | 5302 Jan 31 20:20 | 11° ♄ 19'24 | 1°34'05 | superior conj | 5303 Jan 11 10:17 | 20° ♄ 41'44 -0°52'43 |
| | 5302 Feb 12 15:40 | 0° ♄ | | minimum elong | 5303 Jan 11 03:48 | 20° ♄ 16'10 0°51'51 |
| evening rise | 5302 Feb 16 15:50 | 6° ♄ 25'19 | | max. Earth dist. | 5303 Jan 14 02:33 | 24° ♄ 54'38 1.45254 AU |
| greatest brilliancy | 5302 Feb 23 15:47 | 17° ♄ 40'38 | -0.9m | | 5303 Jan 17 08:31 | 0° ♄ |
| | 5302 Mar 03 15:08 | 0° ♄ | | evening rise | 5303 Jan 27 16:39 | 16° ♄ 06'17 |
| asc. node | 5302 Mar 09 09:48 | 7° ♄ 23'55 | | | 5303 Feb 05 16:04 | 0° ♄ |
| evening max el | 5302 Mar 09 19:20 | 7° ♄ 48'36 | 18°44'47 | greatest brilliancy | 5303 Feb 09 02:25 | 5° ♄ 13'33 -0.7m |
| retrograde | 5302 Mar 16 11:10 | 11° ♄ 30'35 | | evening max el | 5303 Feb 21 02:51 | 21° ♄ 21'08 19°29'53 |
| evening set | 5302 Mar 19 17:00 | 10° ♄ 30'25 | | asc. node | 5303 Feb 24 06:51 | 24° ♄ 04'09 |
| inferior conj | 5302 Mar 25 08:48 | 4° ♄ 51'05 | 3°31'20 | retrograde | 5303 Feb 28 08:16 | 25° ♄ 30'07 |
| minimum elong | 5302 Mar 25 08:12 | 4° ♄ 52'56 | 3°31'19 | evening set | 5303 Mar 03 21:27 | 24° ♄ 16'20 |
| min. Earth dist. | 5302 Mar 27 05:08 | 2° ♄ 35'07 | 0.65358 AU | inferior conj | 5303 Mar 09 08:26 | 18° ♄ 21'35 3°19'00 |
| | 5302 Mar 29 12:08 | 30° ♄ | | minimum elong | 5303 Mar 09 06:45 | 18° ♄ 27'06 3°18'47 |
| morning rise | 5302 Mar 30 22:54 | 28° ♄ 37'27 | | min. Earth dist. | 5303 Mar 10 13:44 | 16° ♄ 45'28 0.66673 AU |
| direct | 5302 Apr 06 13:24 | 25° ♄ 47'49 | | morning rise | 5303 Mar 14 15:47 | 12° ♄ 06'31 |
| desc. node | 5302 Apr 14 16:12 | 29° ♄ 04'49 | | direct | 5303 Mar 20 19:44 | 9° ♄ 21'59 |
| | 5302 Apr 15 20:49 | 0° ♄ | | desc. node | 5303 Apr 01 13:15 | 16° ♄ 06'02 |
| morning max el | 5302 Apr 19 19:21 | 3° ♄ 35'59 | 26°57'13 | morning max el | 5303 Apr 02 05:10 | 16° ♄ 45'42 25°47'56 |
| | 5302 May 09 18:05 | 0° ♄ | | | 5303 Apr 13 05:18 | 0° ♄ |
| morning set | 5302 May 25 13:19 | 27° ♄ 29'19 | | | 5303 May 02 16:22 | 0° ♄ |
| | 5302 May 26 20:29 | 0° ♄ | | morning set | 5303 May 08 09:37 | 10° ♄ 09'54 |
| max. Earth dist. | 5302 May 29 22:45 | 6° ♄ 08'11 | 1.34069 AU | max. Earth dist. | 5303 May 12 05:03 | 17° ♄ 18'17 1.35703 AU |
| | | | | | | |
| superior conj | 5302 Jun 03 00:54 | 14° ♄ 32'45 | -0°23'59 | superior conj | 5303 May 17 18:29 | 28° ♄ 13'59 -0°53'57 |
| minimum elong | 5302 Jun 03 02:11 | 14° ♄ 39'27 | 0°23'45 | minimum elong | 5303 May 17 21:29 | 28° ♄ 29'07 0°53'25 |
| asc. node | 5302 Jun 05 09:05 | 19° ♄ 28'10 | | | 5303 May 18 15:28 | 0° ♄ |
| evening rise | 5302 Jun 10 10:34 | 0° ♄ | | asc. node | 5303 May 23 06:07 | 9° ♄ 26'49 |
| | 5302 Jun 10 08:41 | 0° ♄ | | evening rise | 5303 May 25 17:18 | 14° ♄ 30'50 |
| | 5302 Jun 27 21:45 | 0° ♄ | | | 5303 Jun 02 18:00 | 0° ♄ |
| evening max el | 5302 Jun 30 10:13 | 2° ♄ 42'16 | 21°29'46 | evening max el | 5303 Jun 12 15:40 | 13° ♄ 45'13 20°09'55 |
| desc. node | 5302 Jul 11 15:26 | 8° ♄ 43'09 | | retrograde | 5303 Jun 23 06:17 | 18° ♄ 56'51 |
| retrograde | 5302 Jul 12 16:16 | 8° ♄ 45'41 | | evening set | 5303 Jun 25 04:35 | 18° ♄ 47'16 |
| evening set | 5302 Jul 15 03:13 | 8° ♄ 31'53 | | desc. node | 5303 Jun 28 12:27 | 17° ♄ 49'52 |
| inferior conj | 5302 Jul 24 11:27 | 4° ♄ 31'54 | -3°36'27 | inferior conj | 5303 Jul 04 06:46 | 14° ♄ 48'25 -1°43'12 |
| minimum elong | 5302 Jul 24 02:41 | 4° ♄ 44'11 | 3°33'54 | minimum elong | 5303 Jul 04 01:56 | 14° ♄ 55'36 1°41'26 |
| min. Earth dist. | 5302 Jul 24 11:10 | 4° ♄ 32'19 | 0.54807 AU | min. Earth dist. | 5303 Jul 05 23:09 | 13° ♄ 48'28 0.55085 AU |
| morning rise | 5302 Aug 02 03:10 | 0° ♄ 38'56 | | morning rise | 5303 Jul 12 21:50 | 10° ♄ 32'39 |
| direct | 5302 Aug 05 13:35 | 0° ♄ 13'23 | | direct | 5303 Jul 17 00:40 | 9° ♄ 55'48 |
| morning max el | 5302 Aug 18 00:08 | 6° ♄ 05'20 | 22°10'30 | morning max el | 5303 Jul 30 15:32 | 16° ♄ 35'39 23°54'03 |
| asc. node | 5302 Sep 01 08:23 | 26° ♄ 08'31 | | | 5303 Aug 10 10:03 | 0° ♄ |
| | 5302 Sep 03 09:41 | 0° ♄ | | asc. node | 5303 Aug 19 05:25 | 15° ♄ 27'02 |
| morning set | 5302 Sep 08 11:30 | 10° ♄ 15'24 | | morning set | 5303 Aug 23 23:05 | 25° ♄ 08'06 |
| | | | | | 5303 Aug 26 05:40 | 0° ♄ |
| superior conj | 5302 Sep 15 15:09 | 25° ♄ 26'06 | 1°42'16 | | | |
| minimum elong | 5302 Sep 15 14:25 | 25° ♄ 22'14 | 1°42'14 | superior conj | 5303 Aug 30 22:21 | 10° ♄ 11'14 1°35'27 |
| | 5302 Sep 17 19:28 | 0° ♄ | | minimum elong | 5303 Aug 30 20:39 | 10° ♄ 02'01 1°35'19 |
| max. Earth dist. | 5302 Sep 19 04:05 | 2° ♄ 48'05 | 1.34419 AU | max. Earth dist. | 5303 Sep 02 03:37 | 14° ♄ 57'41 1.33167 AU |
| evening rise | 5302 Sep 23 16:50 | 11° ♄ 50'29 | | evening rise | 5303 Sep 07 09:14 | 25° ♄ 50'21 |
| | 5302 Oct 03 17:53 | 0° ♄ | | | 5303 Sep 09 11:33 | 0° ♄ |
| desc. node | 5302 Oct 07 14:44 | 6° ♄ 18'22 | | desc. node | 5303 Sep 24 11:45 | 26° ♄ 03'24 |
| | 5302 Oct 25 01:44 | 0° ♄ | | | 5303 Sep 27 03:39 | 0° ♄ |
| evening max el | 5302 Oct 28 15:54 | 3° ♄ 42'19 | 27°00'13 | evening max el | 5303 Oct 11 03:34 | 17° ♄ 00'01 27°25'29 |
| retrograde | 5302 Nov 10 21:32 | 10° ♄ 59'56 | | retrograde | 5303 Oct 24 18:08 | 24° ♄ 18'13 |
| evening set | 5302 Nov 17 15:33 | 8° ♄ 20'09 | | evening set | 5303 Oct 31 20:11 | 21° ♄ 40'48 |
| min. Earth dist. | 5302 Nov 21 14:16 | 4° ♄ 28'17 | 0.65467 AU | min. Earth dist. | 5303 Nov 04 13:34 | 18° ♄ 22'12 0.63926 AU |
| inferior conj | 5302 Nov 23 14:46 | 2° ♄ 10'04 | -1°35'12 | inferior conj | 5303 Nov 07 01:59 | 15° ♄ 46'00 -2°38'56 |
| minimum elong | 5302 Nov 23 17:30 | 2° ♄ 02'17 | 1°34'03 | minimum elong | 5303 Nov 07 06:38 | 15° ♄ 33'58 2°37'12 |
| | 5302 Nov 25 13:47 | 30° ♄ | | morning rise | 5303 Nov 13 18:33 | 10° ♄ 24'58 |
| asc. node | 5302 Nov 28 07:37 | 27° ♄ 30'29 | | asc. node | 5303 Nov 15 04:40 | 10° ♄ 00'07 |
| morning rise | 5302 Nov 29 20:26 | 26° ♄ 33'48 | | direct | 5303 Nov 16 05:57 | 9° ♄ 54'32 |
| direct | 5302 Dec 02 14:12 | 25° ♄ 53'05 | | morning max el | 5303 Nov 22 18:44 | 13° ♄ 19'25 17°51'49 |
| morning max el | 5302 Dec 09 01:55 | 29° ♄ 21'43 | 18°10'00 | | 5303 Dec 04 07:50 | 0° ♄ |

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|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| morning set | 5303 Dec 09 12:46 | 8°♄53'06 | | minimum elong | 5304 Oct 20 07:52 | 28°♄48'27 | 3°39'26 |
| desc. node | 5303 Dec 21 11:01 | 28°♄55'38 | | morning rise | 5304 Oct 27 05:57 | 23°♄59'54 | |
| | | | | direct | 5304 Oct 29 13:53 | 23°♄36'08 | |
| superior conj | 5303 Dec 22 07:24 | 0°♄18'47 | -0°05'58 | asc. node | 5304 Nov 01 01:42 | 24°♄04'14 | |
| minimum elong | 5303 Dec 22 06:44 | 0°♄16'03 | 0°05'52 | morning max el | 5304 Nov 05 10:46 | 27°♄05'29 | 17°51'34 |
| behind sun begin | 5303 Dec 21 21:26 | 29°♄38'08 | | | 5304 Nov 08 00:25 | 0°♄ | |
| behind sun end | 5303 Dec 22 16:01 | 0°♄53'54 | | morning set | 5304 Nov 21 07:42 | 21°♄52'57 | |
| | 5303 Dec 22 02:47 | 0°♄ | | | 5304 Nov 25 20:27 | 0°♄ | |
| max. Earth dist. | 5303 Dec 27 20:47 | 9°♄15'12 | 1.44535 AU | | | | |
| evening rise | 5304 Jan 07 03:57 | 25°♄19'51 | | superior conj | 5304 Dec 02 06:27 | 11°♄11'46 | 0°35'29 |
| | 5304 Jan 10 05:09 | 0°♄ | | minimum elong | 5304 Dec 02 09:31 | 11°♄24'51 | 0°35'04 |
| | 5304 Jan 30 22:59 | 0°♄ | | desc. node | 5304 Dec 07 08:02 | 19°♄42'31 | |
| evening max el | 5304 Feb 04 05:11 | 4°♄54'58 | 20°29'55 | max. Earth dist. | 5304 Dec 09 11:38 | 23°♄14'04 | 1.43183 AU |
| asc. node | 5304 Feb 11 03:54 | 9°♄32'26 | | | 5304 Dec 13 16:38 | 0°♄ | |
| retrograde | 5304 Feb 12 06:34 | 9°♄39'02 | | evening rise | 5304 Dec 16 17:08 | 4°♄45'19 | |
| evening set | 5304 Feb 16 04:27 | 8°♄10'48 | | | 5305 Jan 02 14:25 | 0°♄ | |
| inferior conj | 5304 Feb 21 13:01 | 2°♄03'12 | 2°55'26 | evening max el | 5305 Jan 17 02:09 | 18°♄30'23 | 21°41'31 |
| minimum elong | 5304 Feb 21 10:44 | 2°♄10'58 | 2°54'56 | retrograde | 5305 Jan 26 04:02 | 23°♄53'43 | |
| min. Earth dist. | 5304 Feb 22 04:39 | 1°♄09'46 | 0.67561 AU | asc. node | 5305 Jan 28 00:56 | 23°♄35'03 | |
| | 5304 Feb 23 01:20 | 30°♄ | | evening set | 5305 Jan 30 12:14 | 22°♄10'12 | |
| morning rise | 5304 Feb 26 16:49 | 25°♄48'54 | | inferior conj | 5305 Feb 04 20:19 | 15°♄52'39 | 2°22'35 |
| direct | 5304 Mar 03 07:26 | 23°♄18'51 | | minimum elong | 5305 Feb 04 17:55 | 16°♄00'58 | 2°21'52 |
| morning max el | 5304 Mar 14 13:48 | 0°♄03'09 | 24°23'29 | min. Earth dist. | 5305 Feb 04 23:35 | 15°♄41'19 | 0.68036 AU |
| | 5304 Mar 14 12:33 | 0°♄ | | morning rise | 5305 Feb 09 23:25 | 9°♄40'51 | |
| desc. node | 5304 Mar 18 10:16 | 4°♄15'51 | | direct | 5305 Feb 14 23:35 | 7°♄31'16 | |
| | 5304 Apr 06 02:27 | 0°♄ | | morning max el | 5305 Feb 24 23:17 | 13°♄26'09 | 22°54'06 |
| morning set | 5304 Apr 19 10:33 | 21°♄51'42 | | desc. node | 5305 Mar 05 07:17 | 23°♄14'50 | |
| max. Earth dist. | 5304 Apr 23 02:10 | 28°♄20'45 | 1.37715 AU | | 5305 Mar 10 07:05 | 0°♄ | |
| | 5304 Apr 24 00:01 | 0°♄ | | | 5305 Mar 30 00:28 | 0°♄ | |
| | | | | morning set | 5305 Mar 31 10:06 | 2°♄18'37 | |
| superior conj | 5304 Apr 30 00:49 | 11°♄18'59 | -1°23'00 | max. Earth dist. | 5305 Apr 04 21:37 | 9°♄52'10 | 1.39916 AU |
| minimum elong | 5304 Apr 30 05:20 | 11°♄40'46 | 1°22'20 | | | | |
| evening rise | 5304 May 08 18:02 | 28°♄29'35 | | superior conj | 5305 Apr 12 15:43 | 23°♄37'21 | -1°48'09 |
| asc. node | 5304 May 09 03:10 | 29°♄14'47 | | minimum elong | 5305 Apr 12 20:45 | 24°♄00'22 | 1°47'39 |
| | 5304 May 09 12:19 | 0°♄ | | | 5305 Apr 16 02:22 | 0°♄ | |
| evening max el | 5304 May 25 09:34 | 25°♄31'19 | 19°09'27 | evening rise | 5305 Apr 22 09:40 | 11°♄57'54 | |
| retrograde | 5304 Jun 03 07:41 | 29°♄53'06 | | asc. node | 5305 Apr 26 00:11 | 18°♄46'57 | |
| evening set | 5304 Jun 05 07:28 | 29°♄40'59 | | | 5305 May 02 10:35 | 0°♄ | |
| inferior conj | 5304 Jun 13 16:23 | 25°♄29'52 | 0°12'36 | evening max el | 5305 May 08 13:13 | 7°♄55'11 | 18°29'18 |
| minimum elong | 5304 Jun 13 16:55 | 25°♄28'59 | 0°12'24 | retrograde | 5305 May 16 03:45 | 11°♄40'57 | |
| transit middle | 5304 Jun 13 16:55 | 25°♄28'59 | 0°12'24 | evening set | 5305 May 18 10:08 | 11°♄21'56 | |
| transit begin | 5304 Jun 13 14:30 | 25°♄33'05 | | inferior conj | 5305 May 25 23:01 | 6°♄51'16 | 1°45'06 |
| transit end | 5304 Jun 13 19:20 | 25°♄24'53 | | minimum elong | 5305 May 26 02:15 | 6°♄44'50 | 1°44'04 |
| desc. node | 5304 Jun 14 09:27 | 25°♄00'52 | | min. Earth dist. | 5305 May 29 08:49 | 4°♄10'20 | 0.58140 AU |
| min. Earth dist. | 5304 Jun 16 14:02 | 23°♄32'34 | 0.56278 AU | desc. node | 5305 Jun 01 06:29 | 2°♄11'37 | |
| morning rise | 5304 Jun 21 23:11 | 20°♄39'10 | | morning rise | 5305 Jun 02 15:10 | 1°♄26'43 | |
| direct | 5304 Jun 27 00:05 | 19°♄40'07 | | | 5305 Jun 07 08:17 | 30°♄ | |
| morning max el | 5304 Jul 11 05:16 | 26°♄57'01 | 25°33'53 | direct | 5305 Jun 08 13:39 | 29°♄56'08 | |
| | 5304 Jul 14 03:58 | 0°♄ | | | 5305 Jun 09 19:12 | 0°♄ | |
| | 5304 Aug 02 13:18 | 0°♄ | | morning max el | 5305 Jun 22 22:52 | 7°♄36'31 | 26°54'01 |
| asc. node | 5304 Aug 05 02:26 | 5°♄06'34 | | | 5305 Jul 09 18:07 | 0°♄ | |
| morning set | 5304 Aug 07 10:35 | 9°♄59'34 | | morning set | 5305 Jul 22 20:20 | 24°♄43'34 | |
| | | | | asc. node | 5305 Jul 22 23:27 | 24°♄59'59 | |
| superior conj | 5304 Aug 14 08:49 | 25°♄04'36 | 1°23'15 | | 5305 Jul 25 07:33 | 0°♄ | |
| minimum elong | 5304 Aug 14 06:36 | 24°♄52'24 | 1°22'58 | superior conj | 5305 Jul 29 20:35 | 9°♄58'34 | 1°06'19 |
| max. Earth dist. | 5304 Aug 15 10:21 | 27°♄24'43 | 1.32346 AU | minimum elong | 5305 Jul 29 18:19 | 9°♄46'02 | 1°05'56 |
| | 5304 Aug 16 14:47 | 0°♄ | | max. Earth dist. | 5305 Jul 29 21:05 | 10°♄01'24 | 1.31952 AU |
| evening rise | 5304 Aug 21 10:11 | 10°♄14'22 | | evening rise | 5305 Aug 05 16:52 | 24°♄52'52 | |
| | 5304 Aug 31 18:14 | 0°♄ | | | 5305 Aug 08 04:02 | 0°♄ | |
| desc. node | 5304 Sep 10 08:45 | 15°♄13'29 | | | 5305 Aug 25 13:59 | 0°♄ | |
| evening max el | 5304 Sep 22 12:16 | 29°♄47'24 | 27°20'23 | desc. node | 5305 Aug 28 05:45 | 3°♄33'24 | |
| | 5304 Sep 22 17:38 | 0°♄ | | evening max el | 5305 Sep 04 15:13 | 11°♄50'55 | 26°41'45 |
| retrograde | 5304 Oct 06 07:53 | 7°♄01'23 | | retrograde | 5305 Sep 18 13:19 | 18°♄59'50 | |
| evening set | 5304 Oct 13 11:37 | 4°♄37'31 | | evening set | 5305 Sep 25 09:18 | 17°♄01'31 | |
| min. Earth dist. | 5304 Oct 17 02:43 | 1°♄46'00 | 0.62092 AU | min. Earth dist. | 5305 Sep 29 05:06 | 14°♄25'23 | 0.60059 AU |
| | 5304 Oct 19 01:02 | 30°♄ | | inferior conj | 5305 Oct 02 10:35 | 11°♄49'33 | -4°35'58 |
| inferior conj | 5304 Oct 20 01:46 | 29°♄02'32 | -3°41'17 | | | | |

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|------------------|-------------------|----------------------|------------|------------------|-------------------|----------------------|------------|
| minimum elong | 5305 Oct 02 16:39 | 11° Ω 37'16 | 4°34'43 | inferior conj | 5306 Sep 14 01:00 | 23° Π 57'12 | -5°12'12 |
| morning rise | 5305 Oct 10 02:04 | 7° Ω 08'31 | | minimum elong | 5306 Sep 14 04:10 | 23° Π 51'39 | 5°11'56 |
| direct | 5305 Oct 12 09:54 | 6° Ω 48'23 | | morning rise | 5306 Sep 22 02:10 | 19° Π 39'33 | |
| asc. node | 5305 Oct 18 22:43 | 9° Ω 35'57 | | direct | 5306 Sep 24 13:32 | 19° Π 20'40 | |
| morning max el | 5305 Oct 19 22:41 | 10° Ω 30'28 | 18°10'37 | morning max el | 5306 Oct 03 03:09 | 23° Π 25'18 | 18°50'30 |
| | 5305 Nov 01 18:04 | 0° Π | | asc. node | 5306 Oct 05 19:45 | 26° Π 21'29 | |
| morning set | 5305 Nov 04 17:48 | 5° Π 35'30 | | | 5306 Oct 08 12:28 | 0° Ω | |
| | | | | morning set | 5306 Oct 19 14:27 | 19° Ω 47'33 | |
| superior conj | 5305 Nov 14 06:30 | 23° Π 17'05 | 1°07'05 | | 5306 Oct 24 19:24 | 0° Π | |
| minimum elong | 5305 Nov 14 10:24 | 23° Π 34'41 | 1°06'37 | | | | |
| | 5305 Nov 18 01:16 | 0° Σ | | superior conj | 5306 Oct 28 02:33 | 6° Π 20'46 | 1°28'13 |
| max. Earth dist. | 5305 Nov 21 21:54 | 6° Σ 37'59 | 1.41351 AU | minimum elong | 5306 Oct 28 05:35 | 6° Π 35'07 | 1°27'57 |
| desc. node | 5305 Nov 24 05:03 | 10° Σ 28'45 | | max. Earth dist. | 5306 Nov 04 03:49 | 19° Π 18'49 | 1.39261 AU |
| evening rise | 5305 Nov 26 22:16 | 14° Σ 56'08 | | evening rise | 5306 Nov 08 01:53 | 26° Π 07'53 | |
| | 5305 Dec 06 13:35 | 0° Σ | | | 5306 Nov 10 08:58 | 0° Σ | |
| | 5305 Dec 28 17:52 | 0° \approx | | desc. node | 5306 Nov 11 02:03 | 1° Σ 10'52 | |
| evening max el | 5305 Dec 30 18:31 | 2° \approx 08'12 | 23°00'04 | | 5306 Nov 30 05:05 | 0° Σ | |
| retrograde | 5306 Jan 09 23:08 | 8° \approx 10'45 | | evening max el | 5306 Dec 13 07:57 | 15° Σ 49'06 | 24°19'39 |
| evening set | 5306 Jan 14 19:14 | 6° \approx 11'25 | | retrograde | 5306 Dec 24 14:45 | 22° Σ 25'51 | |
| asc. node | 5306 Jan 14 21:58 | 6° \approx 05'38 | | evening set | 5306 Dec 29 23:53 | 20° Σ 11'14 | |
| inferior conj | 5306 Jan 20 04:25 | 29° Σ 47'23 | 1°41'44 | asc. node | 5307 Jan 01 19:01 | 17° Σ 15'13 | |
| minimum elong | 5306 Jan 20 02:22 | 29° Σ 54'27 | 1°41'00 | min. Earth dist. | 5307 Jan 03 16:18 | 14° Σ 49'12 | 0.67834 AU |
| min. Earth dist. | 5306 Jan 19 20:13 | 0° \approx 15'42 | 0.68120 AU | inferior conj | 5307 Jan 04 11:30 | 13° Σ 44'42 | 0°53'49 |
| | 5306 Jan 20 00:46 | 30° Σ | | minimum elong | 5307 Jan 04 10:16 | 13° Σ 48'52 | 0°53'20 |
| morning rise | 5306 Jan 25 09:24 | 23° Σ 39'39 | | morning rise | 5307 Jan 09 20:44 | 7° Σ 42'42 | |
| direct | 5306 Jan 29 19:08 | 21° Σ 52'58 | | direct | 5307 Jan 13 16:58 | 6° Σ 18'25 | |
| morning max el | 5306 Feb 07 13:23 | 26° Σ 58'28 | 21°28'48 | morning max el | 5307 Jan 21 10:54 | 10° Σ 42'35 | 20°13'49 |
| | 5306 Feb 10 08:30 | 0° \approx | | | 5307 Feb 05 03:35 | 0° \approx | |
| desc. node | 5306 Feb 20 04:19 | 12° \approx 49'17 | | desc. node | 5307 Feb 07 01:20 | 2° \approx 49'05 | |
| | 5306 Mar 03 20:37 | 0° Σ | | morning set | 5307 Feb 18 03:33 | 19° \approx 39'31 | |
| morning set | 5306 Mar 11 05:07 | 11° Σ 25'26 | | | 5307 Feb 24 18:26 | 0° Σ | |
| max. Earth dist. | 5306 Mar 17 22:31 | 22° Σ 17'37 | 1.42018 AU | max. Earth dist. | 5307 Feb 28 06:43 | 5° Σ 35'22 | 1.43747 AU |
| | 5306 Mar 22 12:58 | 0° Υ | | | | | |
| superior conj | 5306 Mar 25 10:18 | 4° Υ 57'29 | -2°05'06 | superior conj | 5307 Mar 06 04:03 | 15° Σ 09'18 | -2°08'21 |
| minimum elong | 5306 Mar 25 13:32 | 5° Υ 11'31 | 2°04'58 | minimum elong | 5307 Mar 06 02:13 | 15° Σ 01'42 | 2°08'19 |
| evening rise | 5306 Apr 05 12:29 | 24° Υ 47'03 | | | 5307 Mar 14 23:48 | 0° Υ | |
| | 5306 Apr 08 09:17 | 0° Σ | | evening rise | 5307 Mar 18 22:00 | 6° Υ 46'44 | |
| asc. node | 5306 Apr 12 21:14 | 7° Σ 57'42 | | asc. node | 5307 Mar 30 18:17 | 26° Υ 39'14 | |
| evening max el | 5306 Apr 21 23:05 | 20° Σ 47'54 | 18°09'11 | | 5307 Apr 02 02:28 | 0° Σ | |
| retrograde | 5306 Apr 28 18:05 | 24° Σ 14'21 | | evening max el | 5307 Apr 05 11:41 | 3° Σ 59'33 | 18°08'28 |
| evening set | 5306 May 01 07:20 | 23° Σ 45'41 | | retrograde | 5307 Apr 11 22:17 | 7° Σ 21'54 | |
| inferior conj | 5306 May 08 02:36 | 18° Σ 54'10 | 2°46'31 | evening set | 5307 Apr 14 17:52 | 6° Σ 41'54 | |
| minimum elong | 5306 May 08 05:48 | 18° Σ 46'45 | 2°45'47 | inferior conj | 5307 Apr 20 23:29 | 1° Σ 30'43 | 3°20'13 |
| min. Earth dist. | 5306 May 11 10:01 | 15° Σ 52'04 | 0.60314 AU | minimum elong | 5307 Apr 21 01:19 | 1° Σ 25'53 | 3°20'00 |
| morning rise | 5306 May 15 01:52 | 13° Σ 04'37 | | | 5307 Apr 22 09:43 | 30° Σ | |
| desc. node | 5306 May 19 03:31 | 11° Σ 18'06 | | min. Earth dist. | 5307 Apr 23 19:49 | 28° Υ 31'41 | 0.62481 AU |
| direct | 5306 May 21 15:26 | 11° Σ 00'16 | | morning rise | 5307 Apr 27 07:17 | 25° Υ 26'15 | |
| morning max el | 5306 Jun 04 23:05 | 18° Σ 54'35 | 27°41'55 | direct | 5307 May 04 03:21 | 22° Υ 54'17 | |
| | 5306 Jun 14 07:45 | 0° Π | | desc. node | 5307 May 06 00:34 | 23° Υ 04'55 | |
| | 5306 Jul 02 12:00 | 0° Σ | | | 5307 May 17 06:40 | 0° Σ | |
| morning set | 5306 Jul 07 02:36 | 9° Σ 15'02 | | morning max el | 5307 May 18 05:09 | 0° Σ 54'57 | 27°52'10 |
| asc. node | 5306 Jul 09 20:29 | 15° Σ 02'29 | | | 5307 Jun 08 11:15 | 0° Π | |
| max. Earth dist. | 5306 Jul 13 08:06 | 22° Σ 36'41 | 1.31978 AU | morning set | 5307 Jun 21 03:19 | 23° Π 27'12 | |
| | | | | | 5307 Jun 24 07:24 | 0° Σ | |
| superior conj | 5306 Jul 14 07:55 | 24° Σ 47'45 | 0°45'13 | max. Earth dist. | 5307 Jun 26 15:19 | 4° Σ 57'17 | 1.32427 AU |
| minimum elong | 5306 Jul 14 06:05 | 24° Σ 37'37 | 0°44'50 | asc. node | 5307 Jun 26 17:32 | 5° Σ 09'12 | |
| | 5306 Jul 16 16:33 | 0° Ω | | | | | |
| evening rise | 5306 Jul 21 03:05 | 9° Ω 39'01 | | superior conj | 5307 Jun 28 17:03 | 9° Σ 26'11 | 0°20'30 |
| | 5306 Jul 31 13:03 | 0° Π | | minimum elong | 5307 Jun 28 16:06 | 9° Σ 21'01 | 0°20'16 |
| desc. node | 5306 Aug 15 02:46 | 20° Π 43'01 | | evening rise | 5307 Jul 05 14:49 | 24° Σ 26'03 | |
| evening max el | 5306 Aug 17 10:22 | 23° Π 04'15 | 25°31'45 | | 5307 Jul 08 06:34 | 0° Ω | |
| | 5306 Aug 29 10:20 | 0° Ω | | | 5307 Jul 26 13:54 | 0° Π | |
| retrograde | 5306 Aug 31 08:59 | 0° Ω 08'58 | | evening max el | 5307 Jul 29 23:27 | 3° Π 37'13 | 24°00'18 |
| | 5306 Sep 02 07:34 | 30° Σ | | desc. node | 5307 Aug 01 23:48 | 6° Π 14'54 | |
| evening set | 5306 Sep 06 08:27 | 28° Π 45'47 | | retrograde | 5307 Aug 12 17:26 | 10° Π 32'12 | |
| min. Earth dist. | 5306 Sep 10 22:14 | 26° Π 07'37 | 0.58011 AU | evening set | 5307 Aug 17 07:31 | 9° Π 45'41 | |
| | | | | min. Earth dist. | 5307 Aug 23 09:54 | 6° Π 46'51 | 0.56235 AU |

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|---------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| inferior conj | 5307 Aug 25 19:12 | 5°♎18'58 | -5°14'14 | evening max el | 5308 Jul 10 13:19 | 13°♊58'15 | 22°22'48 |
| minimum elong | 5307 Aug 25 16:18 | 5°♎23'26 | 5°14'02 | desc. node | 5308 Jul 18 20:50 | 19°♊35'04 | |
| morning rise | 5307 Sep 03 03:36 | 1°♎21'13 | | retrograde | 5308 Jul 23 13:28 | 20°♊26'04 | |
| direct | 5307 Sep 05 21:35 | 1°♎01'44 | | evening set | 5308 Jul 26 15:33 | 20°♊05'03 | |
| morning max el | 5307 Sep 15 21:06 | 5°♎40'50 | 19°52'16 | min. Earth dist. | 5308 Aug 03 20:03 | 16°♊31'41 | 0.55077 AU |
| asc. node | 5307 Sep 22 16:48 | 14°♎05'47 | | inferior conj | 5308 Aug 04 19:52 | 15°♊57'59 | -4°26'57 |
| | 5307 Oct 01 14:30 | 0°♎ | | minimum elong | 5308 Aug 04 11:35 | 16°♊09'44 | 4°25'09 |
| morning set | 5307 Oct 03 18:17 | 4°♎19'42 | | morning rise | 5308 Aug 13 09:29 | 12°♊08'09 | |
| | | | | direct | 5308 Aug 16 12:50 | 11°♊45'50 | |
| superior conj | 5307 Oct 11 13:24 | 20°♎07'52 | 1°39'52 | morning max el | 5308 Aug 28 02:50 | 17°♊10'12 | 21°15'02 |
| minimum elong | 5307 Oct 11 14:55 | 20°♎15'24 | 1°39'47 | | 5308 Sep 07 01:00 | 0°♎ | |
| | 5307 Oct 16 15:11 | 0°♎ | | asc. node | 5308 Sep 08 13:50 | 2°♎35'01 | |
| max. Earth dist. | 5307 Oct 17 08:58 | 1°♎23'53 | 1.37175 AU | morning set | 5308 Sep 17 02:39 | 19°♎04'09 | |
| evening rise | 5307 Oct 21 03:34 | 8°♎20'15 | | | 5308 Sep 22 07:50 | 0°♎ | |
| desc. node | 5307 Oct 28 23:05 | 21°♎44'57 | | | | | |
| | 5307 Nov 03 03:42 | 0°♎ | | superior conj | 5308 Sep 24 10:37 | 4°♎24'45 | 1°43'24 |
| evening max el | 5307 Nov 25 20:30 | 29°♎33'03 | 25°33'27 | minimum elong | 5308 Sep 24 10:38 | 4°♎24'47 | 1°43'24 |
| | 5307 Nov 26 07:39 | 0°♎ | | max. Earth dist. | 5308 Sep 28 19:03 | 13°♎15'32 | 1.35324 AU |
| retrograde | 5307 Dec 08 01:59 | 6°♎34'30 | | evening rise | 5308 Oct 02 23:33 | 21°♎23'00 | |
| evening set | 5307 Dec 14 00:33 | 4°♎06'41 | | | 5308 Oct 07 16:28 | 0°♎ | |
| | 5307 Dec 17 20:35 | 30°♎ | | desc. node | 5308 Oct 14 20:06 | 12°♎05'15 | |
| min. Earth dist. | 5307 Dec 18 09:35 | 29°♎19'05 | 0.67192 AU | | 5308 Oct 27 00:15 | 0°♎ | |
| inferior conj | 5307 Dec 19 15:48 | 27°♎42'20 | -0°00'12 | evening max el | 5308 Nov 07 09:17 | 13°♎14'50 | 26°34'12 |
| minimum elong | 5307 Dec 19 15:48 | 27°♎42'19 | 0°00'11 | retrograde | 5308 Nov 20 07:59 | 20°♎29'22 | |
| transit middle | 5307 Dec 19 15:48 | 27°♎42'19 | 0°00'11 | evening set | 5308 Nov 26 19:20 | 17°♎52'29 | |
| transit begin | 5307 Dec 19 13:00 | 27°♎51'19 | | min. Earth dist. | 5308 Nov 30 21:44 | 13°♎40'01 | 0.66197 AU |
| transit end | 5307 Dec 19 18:37 | 27°♎33'20 | | inferior conj | 5308 Dec 02 15:19 | 11°♎35'33 | -0°59'21 |
| asc. node | 5307 Dec 19 16:03 | 27°♎41'34 | | minimum elong | 5308 Dec 02 16:58 | 11°♎30'37 | 0°58'38 |
| morning rise | 5307 Dec 25 07:26 | 21°♎48'06 | | asc. node | 5308 Dec 05 13:05 | 8°♎18'53 | |
| direct | 5307 Dec 28 15:47 | 20°♎43'36 | | morning rise | 5308 Dec 08 15:20 | 5°♎51'38 | |
| morning max el | 5308 Jan 04 16:20 | 24°♎37'48 | 19°13'00 | direct | 5308 Dec 11 13:47 | 5°♎03'20 | |
| | 5308 Jan 09 06:38 | 0°♎ | | morning max el | 5308 Dec 18 04:09 | 8°♎38'33 | 18°28'07 |
| greatest brilliancy | 5308 Jan 18 06:23 | 12°♎54'32 | -0.7m | | 5309 Jan 02 05:50 | 0°♎ | |
| desc. node | 5308 Jan 24 22:23 | 23°♎07'45 | | morning set | 5309 Jan 07 05:22 | 7°♎56'37 | |
| morning set | 5308 Jan 28 04:28 | 28°♎10'03 | | desc. node | 5309 Jan 10 19:24 | 13°♎39'19 | |
| | 5308 Jan 29 08:48 | 0°♎ | | | 5309 Jan 21 03:52 | 0°♎ | |
| max. Earth dist. | 5308 Feb 10 21:09 | 19°♎32'57 | 1.44899 AU | | | | |
| | | | | superior conj | 5309 Jan 23 00:59 | 2°♎56'58 | -1°18'23 |
| superior conj | 5308 Feb 13 21:26 | 24°♎18'38 | -1°52'52 | minimum elong | 5309 Jan 22 16:03 | 2°♎21'55 | 1°17'21 |
| minimum elong | 5308 Feb 13 13:29 | 23°♎47'10 | 1°52'18 | max. Earth dist. | 5309 Jan 23 15:32 | 3°♎53'59 | 1.45345 AU |
| | 5308 Feb 17 11:06 | 0°♎ | | evening rise | 5309 Feb 07 22:54 | 27°♎57'31 | |
| evening rise | 5308 Feb 28 10:07 | 17°♎50'16 | | | 5309 Feb 09 05:53 | 0°♎ | |
| | 5308 Mar 06 19:07 | 0°♎ | | greatest brilliancy | 5309 Feb 17 14:26 | 13°♎10'36 | -0.8m |
| asc. node | 5308 Mar 16 15:19 | 14°♎42'43 | | | 5309 Mar 01 13:43 | 0°♎ | |
| evening max el | 5308 Mar 19 00:10 | 17°♎23'21 | 18°26'24 | evening max el | 5309 Mar 02 10:06 | 0°♎54'00 | 19°02'04 |
| retrograde | 5308 Mar 25 11:45 | 20°♎54'44 | | asc. node | 5309 Mar 03 12:21 | 1°♎57'04 | |
| evening set | 5308 Mar 28 13:40 | 20°♎02'17 | | retrograde | 5309 Mar 09 06:50 | 4°♎46'02 | |
| inferior conj | 5308 Apr 03 09:33 | 14°♎32'58 | 3°32'11 | evening set | 5309 Mar 12 15:40 | 3°♎40'14 | |
| minimum elong | 5308 Apr 03 09:46 | 14°♎32'20 | 3°32'11 | | 5309 Mar 16 12:27 | 30°♎ | |
| min. Earth dist. | 5308 Apr 05 15:00 | 11°♎57'03 | 0.64414 AU | inferior conj | 5309 Mar 18 05:06 | 27°♎54'22 | 3°27'38 |
| morning rise | 5308 Apr 09 05:05 | 8°♎21'12 | | minimum elong | 5309 Mar 18 04:00 | 27°♎57'53 | 3°27'31 |
| direct | 5308 Apr 15 23:35 | 5°♎33'47 | | min. Earth dist. | 5309 Mar 19 19:01 | 25°♎54'27 | 0.65974 AU |
| desc. node | 5308 Apr 21 21:37 | 7°♎19'23 | | morning rise | 5309 Mar 23 15:56 | 21°♎39'55 | |
| morning max el | 5308 Apr 29 14:29 | 13°♎30'39 | 27°26'08 | direct | 5309 Mar 30 02:35 | 18°♎50'46 | |
| | 5308 May 12 21:23 | 0°♎ | | desc. node | 5309 Apr 08 18:40 | 23°♎28'52 | |
| | 5308 May 31 01:39 | 0°♎ | | morning max el | 5309 Apr 12 00:25 | 26°♎30'19 | 26°30'11 |
| morning set | 5308 Jun 03 19:52 | 7°♎11'58 | | | 5309 Apr 15 06:14 | 0°♎ | |
| max. Earth dist. | 5308 Jun 08 14:41 | 16°♎51'13 | 1.33328 AU | | 5309 May 06 11:42 | 0°♎ | |
| | | | | morning set | 5309 May 18 00:48 | 20°♎19'28 | |
| superior conj | 5308 Jun 11 22:02 | 23°♎47'52 | -0°07'09 | max. Earth dist. | 5309 May 22 03:18 | 28°♎14'37 | 1.34704 AU |
| minimum elong | 5308 Jun 11 22:24 | 23°♎49'50 | 0°07'06 | | 5309 May 23 00:34 | 0°♎ | |
| behind sun begin | 5308 Jun 11 17:28 | 23°♎23'39 | | | | | |
| behind sun end | 5308 Jun 12 03:20 | 24°♎16'02 | | superior conj | 5309 May 26 20:35 | 7°♎46'21 | -0°36'40 |
| asc. node | 5308 Jun 12 14:34 | 25°♎15'57 | | minimum elong | 5309 May 26 22:36 | 7°♎56'40 | 0°36'17 |
| | 5308 Jun 14 19:37 | 0°♎ | | asc. node | 5309 May 30 11:37 | 15°♎18'53 | |
| evening rise | 5308 Jun 19 02:11 | 9°♎07'46 | | evening rise | 5309 Jun 03 11:14 | 23°♎38'23 | |
| | 5308 Jun 29 23:40 | 0°♎ | | | 5309 Jun 06 14:04 | 0°♎ | |

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|---------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| evening max el | 5309 Jun 22 11:53 | 24°☿40'09 | 20°53'45 | asc. node | 5310 May 17 08:38 | 5°♊13'16 | |
| | 5309 Jul 01 03:06 | 0°♊ | | evening rise | 5310 May 18 15:43 | 7°♊50'35 | |
| retrograde | 5309 Jul 04 01:52 | 0°♊21'43 | | | 5310 May 30 23:24 | 0°☿ | |
| desc. node | 5309 Jul 05 17:52 | 0°♊15'04 | | evening max el | 5310 Jun 04 22:44 | 6°☿00'35 | 19°41'40 |
| evening set | 5309 Jul 06 05:20 | 0°♊10'47 | | retrograde | 5310 Jun 14 19:14 | 10°☿49'48 | |
| | 5309 Jul 07 02:53 | 30°♋☿ | | evening set | 5310 Jun 16 17:15 | 10°☿39'39 | |
| inferior conj | 5309 Jul 15 12:57 | 26°☿13'41 | -2°51'06 | desc. node | 5310 Jun 22 14:54 | 8°☿21'32 | |
| minimum elong | 5309 Jul 15 05:16 | 26°☿24'34 | 2°48'31 | inferior conj | 5310 Jun 25 12:52 | 6°☿36'38 | -0°52'24 |
| min. Earth dist. | 5309 Jul 16 06:50 | 25°☿48'21 | 0.54804 AU | minimum elong | 5310 Jun 25 10:28 | 6°☿40'22 | 0°51'30 |
| morning rise | 5309 Jul 24 05:09 | 22°☿13'17 | | min. Earth dist. | 5310 Jun 27 19:30 | 5°☿11'39 | 0.55494 AU |
| direct | 5309 Jul 27 22:01 | 21°☿43'48 | | morning rise | 5310 Jul 04 01:27 | 2°☿07'10 | |
| morning max el | 5309 Aug 09 21:54 | 27°☿57'00 | 22°53'54 | direct | 5310 Jul 08 13:23 | 1°☿22'22 | |
| | 5309 Aug 11 23:07 | 0°♊ | | morning max el | 5310 Jul 22 11:38 | 8°☿18'45 | 24°38'01 |
| asc. node | 5309 Aug 26 10:53 | 21°♊38'21 | | | 5310 Aug 07 10:06 | 0°♊ | |
| | 5309 Aug 30 16:21 | 0°♋ | | asc. node | 5310 Aug 13 07:55 | 11°♊06'13 | |
| morning set | 5309 Sep 01 13:35 | 3°♋55'29 | | morning set | 5310 Aug 17 01:20 | 18°♊47'50 | |
| | | | | | 5310 Aug 22 05:33 | 0°♋ | |
| superior conj | 5309 Sep 08 14:56 | 19°♋01'53 | 1°40'04 | superior conj | 5310 Aug 23 23:44 | 3°♋50'34 | 1°30'53 |
| minimum elong | 5309 Sep 08 13:44 | 18°♋55'29 | 1°40'01 | minimum elong | 5310 Aug 23 21:46 | 3°♋39'46 | 1°30'41 |
| max. Earth dist. | 5309 Sep 11 13:49 | 25°♋16'35 | 1.33841 AU | max. Earth dist. | 5310 Aug 25 16:57 | 7°♋34'27 | 1.32768 AU |
| | 5309 Sep 13 20:46 | 0°♌ | | evening rise | 5310 Aug 31 06:01 | 19°♋15'44 | |
| evening rise | 5309 Sep 16 09:38 | 5°♌05'11 | | | 5310 Sep 05 17:25 | 0°♌ | |
| | 5309 Sep 30 09:16 | 0°♌ | | desc. node | 5310 Sep 18 14:08 | 21°♌36'54 | |
| desc. node | 5309 Oct 01 17:06 | 2°♌05'28 | | | 5310 Sep 24 15:02 | 0°♌ | |
| evening max el | 5309 Oct 20 22:01 | 26°♌45'23 | 27°14'20 | evening max el | 5310 Oct 03 08:47 | 9°♌51'40 | 27°27'15 |
| | 5309 Oct 24 16:22 | 0°♍ | | retrograde | 5310 Oct 17 01:27 | 17°♌07'37 | |
| retrograde | 5309 Nov 03 07:57 | 4°♍03'13 | | evening set | 5310 Oct 24 05:22 | 14°♌34'28 | |
| evening set | 5309 Nov 10 05:54 | 1°♍23'38 | | min. Earth dist. | 5310 Oct 27 21:17 | 11°♌28'37 | 0.63185 AU |
| | 5309 Nov 11 21:08 | 30°♋♌ | | inferior conj | 5310 Oct 30 14:31 | 8°♌47'57 | -3°05'50 |
| min. Earth dist. | 5309 Nov 14 02:18 | 27°♌46'04 | 0.64858 AU | minimum elong | 5310 Oct 30 19:53 | 8°♌34'42 | 3°03'57 |
| inferior conj | 5309 Nov 16 07:47 | 25°♌19'30 | -2°02'06 | morning rise | 5310 Nov 06 11:59 | 3°♌34'21 | |
| minimum elong | 5309 Nov 16 11:20 | 25°♌09'45 | 2°00'40 | direct | 5310 Nov 08 21:40 | 3°♌07'03 | |
| asc. node | 5309 Nov 22 10:08 | 19°♌58'19 | | asc. node | 5310 Nov 09 07:10 | 3°♌07'48 | |
| morning rise | 5309 Nov 22 17:55 | 19°♌48'59 | | morning max el | 5310 Nov 15 12:48 | 6°♌32'26 | 17°49'27 |
| direct | 5309 Nov 25 08:43 | 19°♌12'59 | | | 5310 Nov 30 20:50 | 0°♍ | |
| morning max el | 5309 Dec 01 19:55 | 22°♌38'55 | 18°00'01 | morning set | 5310 Dec 01 19:24 | 1°♍38'40 | |
| | 5309 Dec 07 15:17 | 0°♍ | | | | | |
| morning set | 5309 Dec 19 11:51 | 19°♍11'23 | | superior conj | 5310 Dec 13 18:15 | 22°♍06'43 | 0°12'40 |
| | 5309 Dec 26 00:43 | 0°♎ | | minimum elong | 5310 Dec 13 19:33 | 22°♍12'06 | 0°12'31 |
| desc. node | 5309 Dec 28 16:24 | 4°♎19'28 | | behind sun begin | 5310 Dec 13 13:35 | 21°♍47'21 | |
| | | | | behind sun end | 5310 Dec 14 01:31 | 22°♍36'50 | |
| superior conj | 5310 Jan 02 10:29 | 11°♎58'14 | -0°32'43 | desc. node | 5310 Dec 15 13:23 | 25°♍04'52 | |
| minimum elong | 5310 Jan 02 06:30 | 11°♎42'20 | 0°32'09 | | 5310 Dec 18 13:49 | 0°♎ | |
| max. Earth dist. | 5310 Jan 06 11:11 | 18°♎21'37 | 1.45042 AU | max. Earth dist. | 5310 Dec 20 04:50 | 2°♎37'04 | 1.44033 AU |
| | 5310 Jan 13 21:54 | 0°♏ | | evening rise | 5310 Dec 29 02:33 | 16°♎36'43 | |
| evening rise | 5310 Jan 18 16:24 | 7°♏22'38 | | | 5311 Jan 06 22:16 | 0°♏ | |
| greatest brilliancy | 5310 Feb 01 18:41 | 28°♏47'58 | -0.6m | evening max el | 5311 Jan 27 15:35 | 28°♏01'42 | 20°59'09 |
| | 5310 Feb 02 14:15 | 0°♐ | | | 5311 Jan 29 17:46 | 0°♐ | |
| evening max el | 5310 Feb 13 15:35 | 14°♐27'18 | 19°53'49 | retrograde | 5311 Feb 05 02:50 | 3°♐02'10 | |
| asc. node | 5310 Feb 18 09:23 | 18°♐08'23 | | asc. node | 5311 Feb 05 06:25 | 3°♐02'02 | |
| retrograde | 5310 Feb 21 04:36 | 18°♐49'55 | | evening set | 5311 Feb 09 04:59 | 1°♐27'16 | |
| evening set | 5310 Feb 24 21:25 | 17°♐29'55 | | | 5311 Feb 10 18:54 | 30°♋♏ | |
| inferior conj | 5310 Mar 02 07:06 | 11°♐29'28 | 3°10'15 | inferior conj | 5311 Feb 14 13:06 | 25°♏14'51 | 2°42'33 |
| minimum elong | 5310 Mar 02 05:07 | 11°♐36'07 | 3°09'53 | minimum elong | 5311 Feb 14 10:43 | 25°♏23'03 | 2°41'56 |
| min. Earth dist. | 5310 Mar 03 06:23 | 10°♐11'35 | 0.67108 AU | min. Earth dist. | 5311 Feb 14 23:14 | 24°♏39'54 | 0.67813 AU |
| morning rise | 5310 Mar 07 12:36 | 5°♐14'47 | | morning rise | 5311 Feb 19 16:18 | 19°♏01'34 | |
| direct | 5310 Mar 13 11:11 | 2°♐35'32 | | direct | 5311 Feb 25 00:45 | 16°♏40'01 | |
| morning max el | 5310 Mar 25 09:29 | 9°♐43'14 | 25°13'15 | morning max el | 5311 Mar 07 18:19 | 23°♏03'46 | 23°45'32 |
| desc. node | 5310 Mar 26 15:41 | 11°♐01'44 | | desc. node | 5311 Mar 13 12:41 | 29°♏34'29 | |
| | 5310 Apr 10 10:14 | 0°♑ | | | 5311 Mar 13 20:57 | 0°♐ | |
| | 5310 Apr 29 02:28 | 0°♒ | | | 5311 Apr 03 19:02 | 0°♑ | |
| morning set | 5310 Apr 30 13:29 | 2°♒36'09 | | morning set | 5311 Apr 12 04:18 | 13°♑47'44 | |
| max. Earth dist. | 5310 May 04 05:16 | 9°♒18'18 | 1.36525 AU | max. Earth dist. | 5311 Apr 16 01:10 | 20°♑30'57 | 1.38650 AU |
| | | | | | 5311 Apr 21 06:55 | 0°♒ | |
| superior conj | 5310 May 10 09:48 | 21°♒13'00 | -1°06'32 | superior conj | 5311 Apr 23 10:05 | 3°♒59'09 | -1°34'21 |
| minimum elong | 5310 May 10 13:30 | 21°♒31'20 | 1°05'55 | | | | |
| | 5310 May 14 18:54 | 0°♓ | | | | | |

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| minimum elong | 5311 Apr 23 15:01 | 4°♄22'24 | 1°33'44 | asc. node | 5312 Apr 20 02:43 | 14°♄18'54 | |
| evening rise | 5311 May 02 13:00 | 21°♄37'33 | | | 5312 Apr 30 12:05 | 0°♄ | |
| asc. node | 5311 May 04 05:40 | 24°♄55'07 | | evening max el | 5312 May 01 03:47 | 0°♄39'57 | 18°18'20 |
| | 5311 May 06 21:37 | 0°♄ | | retrograde | 5312 May 08 08:44 | 4°♄15'40 | |
| evening max el | 5311 May 18 21:04 | 18°♄02'50 | 18°49'46 | evening set | 5312 May 10 17:58 | 3°♄52'57 | |
| retrograde | 5311 May 27 04:32 | 22°♄07'45 | | | 5312 May 17 00:51 | 30°♄ | |
| evening set | 5311 May 29 06:46 | 21°♄53'12 | | inferior conj | 5312 May 17 22:57 | 29°♄13'39 | 2°14'51 |
| inferior conj | 5311 Jun 06 07:04 | 17°♄33'52 | 0°55'35 | minimum elong | 5312 May 18 02:25 | 29°♄06'16 | 2°13'53 |
| minimum elong | 5311 Jun 06 09:08 | 17°♄30'07 | 0°54'49 | min. Earth dist. | 5312 May 21 09:20 | 26°♄20'18 | 0.59044 AU |
| desc. node | 5311 Jun 09 11:55 | 15°♄15'31 | | morning rise | 5312 May 25 07:53 | 23°♄36'50 | |
| min. Earth dist. | 5311 Jun 09 11:46 | 15°♄15'47 | 0.57009 AU | desc. node | 5312 May 26 08:56 | 23°♄04'46 | |
| morning rise | 5311 Jun 14 08:09 | 12°♄27'43 | | direct | 5312 May 31 13:44 | 21°♄51'22 | |
| direct | 5311 Jun 19 18:25 | 11°♄16'20 | | morning max el | 5312 Jun 14 23:06 | 29°♄39'41 | 27°18'50 |
| morning max el | 5311 Jul 04 02:39 | 18°♄44'44 | 26°11'23 | | 5312 Jun 15 07:18 | 0°♄ | |
| | 5311 Jul 13 13:41 | 0°♄ | | | 5312 Jul 06 11:44 | 0°♄ | |
| | 5311 Jul 30 18:55 | 0°♄ | | morning set | 5312 Jul 15 20:47 | 18°♄15'57 | |
| asc. node | 5311 Jul 31 04:56 | 0°♄51'53 | | asc. node | 5312 Jul 17 01:58 | 20°♄49'57 | |
| morning set | 5311 Aug 01 12:16 | 3°♄36'18 | | | 5312 Jul 21 07:25 | 0°♄ | |
| superior conj | 5311 Aug 08 10:58 | 18°♄44'18 | 1°16'37 | superior conj | 5312 Jul 22 22:48 | 3°♄37'19 | 0°57'51 |
| minimum elong | 5311 Aug 08 08:40 | 18°♄31'38 | 1°16'16 | minimum elong | 5312 Jul 22 20:40 | 3°♄25'29 | 0°57'27 |
| max. Earth dist. | 5311 Aug 09 01:46 | 20°♄05'55 | 1.32123 AU | max. Earth dist. | 5312 Jul 22 12:57 | 2°♄42'53 | 1.31903 AU |
| | 5311 Aug 13 14:56 | 0°♄ | | evening rise | 5312 Jul 29 18:08 | 18°♄28'38 | |
| evening rise | 5311 Aug 15 09:40 | 3°♄45'56 | | | 5312 Aug 04 10:01 | 0°♄ | |
| | 5311 Aug 29 11:33 | 0°♄ | | desc. node | 5312 Aug 22 08:12 | 28°♄20'44 | |
| desc. node | 5311 Sep 05 11:10 | 10°♄27'26 | | | 5312 Aug 23 18:02 | 0°♄ | |
| evening max el | 5311 Sep 15 15:05 | 22°♄20'14 | 27°08'01 | evening max el | 5312 Aug 27 14:45 | 4°♄02'30 | 26°15'29 |
| retrograde | 5311 Sep 29 11:53 | 29°♄32'36 | | retrograde | 5312 Sep 10 13:53 | 11°♄10'36 | |
| evening set | 5311 Oct 06 13:51 | 27°♄17'45 | | evening set | 5312 Sep 17 02:36 | 9°♄26'23 | |
| min. Earth dist. | 5311 Oct 10 05:34 | 24°♄34'57 | 0.61238 AU | min. Earth dist. | 5312 Sep 21 03:55 | 6°♄51'34 | 0.59164 AU |
| inferior conj | 5311 Oct 13 08:19 | 21°♄52'23 | -4°06'01 | inferior conj | 5312 Sep 24 09:43 | 4°♄24'04 | -4°54'31 |
| minimum elong | 5311 Oct 13 14:40 | 21°♄38'30 | 4°04'18 | minimum elong | 5312 Sep 24 15:00 | 4°♄14'01 | 4°53'40 |
| morning rise | 5311 Oct 20 17:28 | 16°♄59'01 | | | 5312 Oct 01 19:58 | 30°♄ | |
| direct | 5311 Oct 23 00:55 | 16°♄37'11 | | morning rise | 5312 Oct 02 05:37 | 29°♄53'05 | |
| asc. node | 5311 Oct 27 04:12 | 17°♄50'14 | | direct | 5312 Oct 04 14:19 | 29°♄33'54 | |
| morning max el | 5311 Oct 30 03:33 | 20°♄10'39 | 17°57'20 | | 5312 Oct 07 06:42 | 0°♄ | |
| | 5311 Nov 06 10:39 | 0°♄ | | morning max el | 5312 Oct 12 12:49 | 3°♄24'40 | 18°25'01 |
| morning set | 5311 Nov 14 21:27 | 14°♄58'15 | | asc. node | 5312 Oct 13 01:14 | 3°♄55'25 | |
| | 5311 Nov 23 04:17 | 0°♄ | | morning set | 5312 Oct 28 12:35 | 28°♄54'53 | |
| superior conj | 5311 Nov 25 04:30 | 3°♄32'13 | 0°50'11 | | 5312 Oct 29 02:09 | 0°♄ | |
| minimum elong | 5311 Nov 25 08:12 | 3°♄48'26 | 0°49'42 | superior conj | 5312 Nov 06 13:47 | 16°♄04'35 | 1°17'17 |
| desc. node | 5311 Dec 02 10:24 | 15°♄51'48 | | minimum elong | 5312 Nov 06 17:28 | 16°♄21'30 | 1°16'52 |
| max. Earth dist. | 5311 Dec 02 17:40 | 16°♄21'50 | 1.42443 AU | max. Earth dist. | 5312 Nov 14 01:23 | 29°♄25'53 | 1.40473 AU |
| evening rise | 5311 Dec 08 21:08 | 26°♄17'47 | | | 5312 Nov 14 09:19 | 0°♄ | |
| | 5311 Dec 11 05:42 | 0°♄ | | evening rise | 5312 Nov 18 11:37 | 6°♄54'19 | |
| | 5311 Dec 31 18:45 | 0°♄ | | desc. node | 5312 Nov 18 07:27 | 6°♄37'04 | |
| evening max el | 5312 Jan 10 10:16 | 11°♄37'16 | 22°14'21 | | 5312 Dec 03 08:25 | 0°♄ | |
| retrograde | 5312 Jan 19 23:35 | 17°♄18'15 | | evening max el | 5312 Dec 23 01:11 | 25°♄16'33 | 23°34'10 |
| asc. node | 5312 Jan 23 03:28 | 16°♄25'37 | | | 5312 Dec 28 19:32 | 0°♄ | |
| evening set | 5312 Jan 24 12:38 | 15°♄27'59 | | retrograde | 5313 Jan 02 17:27 | 1°♄34'55 | |
| inferior conj | 5312 Jan 29 20:59 | 9°♄06'56 | 2°06'09 | | 5313 Jan 07 03:14 | 30°♄ | |
| minimum elong | 5312 Jan 29 18:41 | 9°♄14'56 | 2°05'25 | evening set | 5313 Jan 07 18:50 | 29°♄29'12 | |
| min. Earth dist. | 5312 Jan 29 19:15 | 9°♄13'00 | 0.68116 AU | asc. node | 5313 Jan 09 00:30 | 28°♄19'16 | |
| morning rise | 5312 Feb 04 00:36 | 2°♄56'30 | | min. Earth dist. | 5313 Jan 12 16:04 | 23°♄47'26 | 0.68043 AU |
| direct | 5312 Feb 08 18:25 | 0°♄56'44 | | inferior conj | 5313 Jan 13 04:55 | 23°♄03'27 | 1°22'13 |
| morning max el | 5312 Feb 18 05:26 | 6°♄30'37 | 22°16'49 | minimum elong | 5313 Jan 13 03:09 | 23°♄09'29 | 1°21'34 |
| desc. node | 5312 Feb 28 09:41 | 18°♄49'45 | | morning rise | 5313 Jan 18 11:25 | 16°♄57'39 | |
| | 5312 Mar 07 07:34 | 0°♄ | | direct | 5313 Jan 22 15:15 | 15°♄20'35 | |
| morning set | 5312 Mar 22 15:43 | 23°♄40'04 | | morning max el | 5313 Jan 30 22:24 | 20°♄07'32 | 20°55'13 |
| | 5312 Mar 26 12:04 | 0°♄ | | | 5313 Feb 08 03:15 | 0°♄ | |
| max. Earth dist. | 5312 Mar 27 21:58 | 2°♄22'07 | 1.40839 AU | desc. node | 5313 Feb 14 06:43 | 8°♄36'00 | |
| superior conj | 5312 Apr 04 16:54 | 15°♄53'33 | -1°56'39 | | 5313 Feb 28 12:34 | 0°♄ | |
| minimum elong | 5312 Apr 04 21:33 | 16°♄14'18 | 1°56'18 | morning set | 5313 Mar 01 23:58 | 2°♄17'55 | |
| | 5312 Apr 12 09:41 | 0°♄ | | max. Earth dist. | 5313 Mar 10 01:25 | 15°♄08'42 | 1.42817 AU |
| evening rise | 5312 Apr 14 23:41 | 4°♄50'05 | | superior conj | 5313 Mar 17 01:21 | 26°♄45'27 | -2°08'30 |

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|---------------------|-------------------|----------------------|------------|------------------|-------------------|-----------------------|------------|
| minimum elong | 5313 Mar 17 02:49 | 26° K 51'40 | 2°08'29 | superior conj | 5314 Feb 25 08:21 | 6° K 29'48 | -2°04'17 |
| | 5313 Mar 18 23:03 | 0° Y | | minimum elong | 5314 Feb 25 03:43 | 6° K 11'04 | 2°04'04 |
| evening rise | 5313 Mar 28 19:40 | 17° Y 18'53 | | evening rise | 5314 Mar 10 20:34 | 28° K 55'48 | |
| | 5313 Apr 05 00:18 | 0° B | | | 5314 Mar 11 11:41 | 0° Y | |
| asc. node | 5313 Apr 06 23:46 | 3° B 18'05 | | asc. node | 5314 Mar 24 20:49 | 21° Y 45'05 | |
| evening max el | 5313 Apr 14 15:17 | 13° B 42'06 | 18°06'36 | evening max el | 5314 Mar 29 04:16 | 27° Y 00'36 | 18°13'51 |
| retrograde | 5313 Apr 21 05:21 | 17° B 04'42 | | | 5314 Apr 02 09:52 | 0° B | |
| evening set | 5313 Apr 23 21:24 | 16° B 31'20 | | retrograde | 5314 Apr 04 14:00 | 0° B 24'56 | |
| inferior conj | 5313 Apr 30 10:23 | 11° B 31'34 | 3°03'49 | | 5314 Apr 06 18:00 | 30° K 39'35 | |
| minimum elong | 5313 Apr 30 13:05 | 11° B 24'56 | 3°03'20 | evening set | 5314 Apr 07 12:23 | 29° Y 39'35 | |
| min. Earth dist. | 5313 May 03 13:59 | 8° B 27'47 | 0.61257 AU | inferior conj | 5314 Apr 13 13:23 | 24° Y 20'23 | 3°27'36 |
| morning rise | 5313 May 07 02:46 | 5° B 34'46 | | minimum elong | 5314 Apr 13 14:32 | 24° Y 17'14 | 3°27'31 |
| desc. node | 5313 May 13 05:59 | 3° B 18'12 | | min. Earth dist. | 5314 Apr 16 03:34 | 21° Y 29'26 | 0.63348 AU |
| direct | 5313 May 13 20:25 | 3° B 17'08 | | morning rise | 5314 Apr 19 15:35 | 18° Y 12'22 | |
| morning max el | 5313 May 28 01:48 | 11° B 15'12 | 27°50'52 | direct | 5314 Apr 26 11:57 | 15° Y 32'23 | |
| | 5313 Jun 11 18:28 | 0° II | | desc. node | 5314 Apr 30 03:00 | 16° Y 11'59 | |
| | 5313 Jun 28 17:35 | 0° E | | morning max el | 5314 May 10 09:28 | 23° Y 31'48 | 27°45'14 |
| morning set | 5313 Jun 30 00:57 | 2° E 39'51 | | | 5314 May 16 04:06 | 0° B | |
| asc. node | 5313 Jul 03 23:00 | 10° E 54'46 | | | 5314 Jun 05 01:51 | 0° II | |
| max. Earth dist. | 5313 Jul 05 22:40 | 15° E 12'46 | 1.32113 AU | morning set | 5314 Jun 13 22:32 | 16° II 41'28 | |
| | | | | max. Earth dist. | 5314 Jun 19 03:08 | 27° II 24'04 | 1.32761 AU |
| superior conj | 5313 Jul 07 09:25 | 18° E 22'47 | 0°35'09 | | 5314 Jun 20 08:26 | 0° E | |
| minimum elong | 5313 Jul 07 07:54 | 18° E 14'28 | 0°34'48 | asc. node | 5314 Jun 20 20:04 | 1° E 02'15 | |
| | 5313 Jul 12 16:45 | 0° O | | | | | |
| evening rise | 5313 Jul 14 05:13 | 3° O 16'00 | | superior conj | 5314 Jun 21 17:03 | 2° E 55'06 | 0°09'06 |
| | 5313 Jul 28 12:06 | 0° M | | minimum elong | 5314 Jun 21 16:36 | 2° E 52'43 | 0°08'59 |
| desc. node | 5313 Aug 09 05:15 | 14° M 52'48 | | behind sun begin | 5314 Jun 21 12:12 | 2° E 28'58 | |
| evening max el | 5313 Aug 09 07:03 | 14° M 57'08 | 24°54'46 | behind sun end | 5314 Jun 21 21:01 | 3° E 16'30 | |
| retrograde | 5313 Aug 23 04:54 | 21° M 58'30 | | evening rise | 5314 Jun 28 17:02 | 18° E 01'59 | |
| evening set | 5313 Aug 28 15:13 | 20° M 51'50 | | | 5314 Jul 04 14:07 | 0° O | |
| min. Earth dist. | 5313 Sep 02 18:30 | 18° M 06'42 | 0.57200 AU | evening max el | 5314 Jul 21 19:28 | 25° O 20'50 | 23°18'32 |
| inferior conj | 5313 Sep 05 15:38 | 16° M 12'52 | -5°18'18 | desc. node | 5314 Jul 27 02:16 | 29° O 33'01 | |
| minimum elong | 5313 Sep 05 16:30 | 16° M 11'26 | 5°18'17 | | 5314 Jul 27 20:38 | 0° M | |
| morning rise | 5313 Sep 13 20:06 | 12° M 04'05 | | retrograde | 5314 Aug 04 07:20 | 2° M 06'09 | |
| direct | 5313 Sep 16 09:55 | 11° M 45'07 | | evening set | 5314 Aug 08 05:47 | 1° M 32'17 | |
| morning max el | 5313 Sep 25 13:04 | 16° M 03'23 | 19°14'03 | | 5314 Aug 12 03:29 | 30° K 00 | |
| asc. node | 5313 Sep 29 22:16 | 21° M 07'27 | | min. Earth dist. | 5314 Aug 15 04:48 | 28° O 20'32 | 0.55657 AU |
| | 5313 Oct 05 13:22 | 0° A | | inferior conj | 5314 Aug 17 01:35 | 27° O 14'52 | -5°00'41 |
| morning set | 5313 Oct 12 12:38 | 13° A 16'15 | | minimum elong | 5314 Aug 16 19:56 | 27° O 23'11 | 4°59'56 |
| | | | | morning rise | 5314 Aug 25 12:26 | 23° O 22'30 | |
| superior conj | 5313 Oct 20 16:41 | 29° A 27'47 | 1°34'14 | direct | 5314 Aug 28 10:22 | 23° O 01'59 | |
| minimum elong | 5313 Oct 20 19:06 | 29° A 39'30 | 1°34'03 | morning max el | 5314 Sep 08 01:43 | 27° O 58'47 | 20°25'03 |
| | 5313 Oct 20 23:20 | 0° M | | | 5314 Sep 10 01:28 | 0° M | |
| max. Earth dist. | 5313 Oct 27 06:23 | 11° M 49'22 | 1.38361 AU | asc. node | 5314 Sep 16 19:18 | 9° M 12'05 | |
| evening rise | 5313 Oct 31 00:57 | 18° M 32'35 | | morning set | 5314 Sep 26 18:38 | 27° M 54'16 | |
| desc. node | 5313 Nov 05 04:30 | 27° M 16'18 | | | 5314 Sep 27 19:08 | 0° A | |
| | 5313 Nov 06 20:34 | 0° A | | | | | |
| | 5313 Nov 27 15:14 | 0° B | | superior conj | 5314 Oct 04 08:21 | 13° A 28'25 | 1°42'16 |
| evening max el | 5313 Dec 05 14:14 | 8° B 59'42 | 24°52'16 | minimum elong | 5314 Oct 04 09:12 | 13° A 32'44 | 1°42'15 |
| retrograde | 5313 Dec 17 07:11 | 15° B 47'44 | | max. Earth dist. | 5314 Oct 09 13:19 | 23° A 46'50 | 1.36352 AU |
| evening set | 5313 Dec 22 22:00 | 13° B 27'24 | | | 5314 Oct 12 20:20 | 0° M | |
| asc. node | 5313 Dec 26 21:32 | 9° B 04'36 | | evening rise | 5314 Oct 13 10:52 | 1° M 07'02 | |
| min. Earth dist. | 5313 Dec 27 11:17 | 8° B 19'50 | 0.67606 AU | desc. node | 5314 Oct 23 01:31 | 17° M 45'05 | |
| inferior conj | 5313 Dec 28 11:04 | 7° B 01'26 | 0°31'38 | | 5314 Oct 30 23:33 | 0° A | |
| minimum elong | 5313 Dec 28 10:18 | 7° B 03'58 | 0°31'20 | evening max el | 5314 Nov 18 02:52 | 22° A 43'25 | 26°01'24 |
| morning rise | 5314 Jan 02 22:44 | 1° B 02'19 | | retrograde | 5314 Nov 30 16:05 | 29° A 51'07 | |
| | 5314 Jan 05 00:57 | 30° K 27'18 | | evening set | 5314 Dec 06 20:23 | 27° A 18'43 | |
| direct | 5314 Jan 06 13:48 | 29° A 46'38 | | min. Earth dist. | 5314 Dec 11 02:32 | 22° A 46'16 | 0.66813 AU |
| | 5314 Jan 08 03:40 | 0° B | | inferior conj | 5314 Dec 12 13:33 | 20° A 57'10 | -0°24'44 |
| morning max el | 5314 Jan 13 23:16 | 3° B 56'21 | 19°46'04 | minimum elong | 5314 Dec 12 14:12 | 20° A 55'07 | 0°24'26 |
| greatest brilliancy | 5314 Jan 27 01:34 | 21° B 07'44 | -0.6m | asc. node | 5314 Dec 13 18:34 | 19° A 27'55 | |
| desc. node | 5314 Feb 01 03:45 | 28° B 44'50 | | morning rise | 5314 Dec 18 08:31 | 15° A 07'11 | |
| | 5314 Feb 01 23:36 | 0° A | | direct | 5314 Dec 21 12:29 | 14° A 09'57 | |
| morning set | 5314 Feb 08 20:17 | 10° A 30'05 | | morning max el | 5314 Dec 28 07:40 | 17° A 54'24 | 18°51'58 |
| max. Earth dist. | 5314 Feb 20 12:53 | 28° A 47'03 | 1.44323 AU | | 5315 Jan 06 15:01 | 0° B | |
| | 5314 Feb 21 07:13 | 0° K | | morning set | 5315 Jan 19 05:40 | 19° B 28'38 | |
| | | | | desc. node | 5315 Jan 19 00:46 | 19° B 09'28 | |

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| | 5315 Jan 25 23:00 | 0°♊ | | | 5315 Dec 30 20:51 | 0°♊ | |
| max. Earth dist. | 5315 Feb 03 05:56 | 12°♊58'59 | 1.45177 AU | desc. node | 5316 Jan 05 21:48 | 9°♊45'27 | |
| superior conj | 5315 Feb 04 17:45 | 15°♊19'45 | -1°40'17 | superior conj | 5316 Jan 14 21:18 | 24°♊01'18 | -0°59'41 |
| minimum elong | 5315 Feb 04 08:29 | 14°♊43'17 | 1°39'26 | minimum elong | 5316 Jan 14 14:02 | 23°♊32'40 | 0°58'46 |
| | 5315 Feb 13 23:49 | 0°♋ | | max. Earth dist. | 5316 Jan 17 01:06 | 27°♊24'45 | 1.45299 AU |
| evening rise | 5315 Feb 19 22:46 | 9°♋35'14 | | | 5316 Jan 18 16:43 | 0°♋ | |
| | 5315 Mar 04 17:17 | 0°♌ | | evening rise | 5316 Jan 31 02:26 | 19°♋22'05 | |
| asc. node | 5315 Mar 11 17:51 | 9°♌29'21 | | | 5316 Feb 06 22:14 | 0°♋ | |
| evening max el | 5315 Mar 12 15:54 | 10°♌27'51 | 18°39'24 | greatest brilliancy | 5316 Feb 11 20:22 | 7°♋34'26 | -0.7m |
| retrograde | 5315 Mar 19 06:24 | 14°♌06'48 | | evening max el | 5316 Feb 24 00:02 | 23°♋59'41 | 19°22'09 |
| evening set | 5315 Mar 22 11:10 | 13°♌08'41 | | asc. node | 5316 Feb 26 14:52 | 26°♋18'47 | |
| inferior conj | 5315 Mar 28 03:55 | 7°♌31'47 | 3°32'02 | retrograde | 5316 Mar 02 03:03 | 28°♋04'07 | |
| minimum elong | 5315 Mar 28 03:31 | 7°♌32'59 | 3°32'00 | evening set | 5316 Mar 05 15:02 | 26°♋52'30 | |
| min. Earth dist. | 5315 Mar 30 02:35 | 5°♌10'20 | 0.65127 AU | inferior conj | 5316 Mar 11 02:34 | 21°♋00'00 | 3°21'39 |
| morning rise | 5315 Apr 02 19:19 | 1°♌18'24 | | minimum elong | 5316 Mar 11 01:02 | 21°♋05'01 | 3°21'27 |
| | 5315 Apr 04 13:20 | 30°♌♋ | | min. Earth dist. | 5316 Mar 12 10:05 | 19°♋17'29 | 0.66505 AU |
| direct | 5315 Apr 09 10:58 | 28°♋29'02 | | morning rise | 5316 Mar 16 10:43 | 14°♋44'55 | |
| | 5315 Apr 14 20:01 | 0°♍ | | direct | 5316 Mar 22 16:29 | 11°♋58'46 | |
| desc. node | 5315 Apr 17 00:02 | 1°♍19'39 | | desc. node | 5316 Apr 02 21:04 | 18°♋08'01 | |
| morning max el | 5315 Apr 22 19:33 | 6°♍19'59 | 27°05'34 | morning max el | 5316 Apr 04 05:25 | 19°♋27'22 | 25°59'25 |
| | 5315 May 10 23:25 | 0°♎ | | | 5316 Apr 13 04:58 | 0°♍ | |
| morning set | 5315 May 28 10:36 | 0°♎11'43 | | | 5316 May 03 01:22 | 0°♎ | |
| | 5315 May 28 08:10 | 0°♎ | | morning set | 5316 May 10 09:17 | 12°♎59'51 | |
| max. Earth dist. | 5315 Jun 01 22:29 | 9°♎06'15 | 1.33864 AU | max. Earth dist. | 5316 May 14 06:17 | 20°♎18'48 | 1.35429 AU |
| | | | | | 5316 May 19 03:57 | 0°♎ | |
| superior conj | 5315 Jun 05 19:34 | 17°♎07'31 | -0°19'32 | superior conj | 5316 May 19 14:32 | 0°♎53'29 | -0°49'25 |
| minimum elong | 5315 Jun 05 20:36 | 17°♎12'56 | 0°19'19 | minimum elong | 5316 May 19 17:16 | 1°♎07'23 | 0°48'55 |
| asc. node | 5315 Jun 07 17:06 | 21°♎07'50 | | asc. node | 5316 May 24 14:08 | 11°♎07'43 | |
| | 5315 Jun 11 21:19 | 0°♏ | | evening rise | 5316 May 27 11:04 | 17°♎03'30 | |
| evening rise | 5315 Jun 13 03:40 | 2°♏39'49 | | | 5316 Jun 03 01:07 | 0°♏ | |
| | 5315 Jun 28 12:23 | 0°♐ | | evening max el | 5316 Jun 14 15:37 | 16°♏43'36 | 20°20'40 |
| evening max el | 5315 Jul 03 12:00 | 5°♐46'19 | 21°43'03 | retrograde | 5316 Jun 25 12:31 | 22°♏03'01 | |
| desc. node | 5315 Jul 13 23:16 | 11°♐47'25 | | evening set | 5316 Jun 27 11:31 | 21°♏53'22 | |
| retrograde | 5315 Jul 15 23:19 | 11°♐56'52 | | desc. node | 5316 Jun 29 20:17 | 21°♏17'50 | |
| evening set | 5315 Jul 18 13:35 | 11°♐41'39 | | inferior conj | 5316 Jul 06 15:34 | 17°♏55'34 | -2°01'22 |
| inferior conj | 5315 Jul 27 21:18 | 7°♐40'08 | -3°51'12 | minimum elong | 5316 Jul 06 09:54 | 18°♏03'52 | 1°59'19 |
| minimum elong | 5315 Jul 27 12:25 | 7°♐52'34 | 3°48'44 | min. Earth dist. | 5316 Jul 08 02:30 | 17°♏04'28 | 0.54979 AU |
| min. Earth dist. | 5315 Jul 27 14:43 | 7°♐49'21 | 0.54845 AU | morning rise | 5316 Jul 15 07:08 | 13°♏44'11 | |
| morning rise | 5315 Aug 05 12:34 | 3°♐48'43 | | direct | 5316 Jul 19 07:10 | 13°♏09'32 | |
| direct | 5315 Aug 08 20:56 | 3°♐24'14 | | morning max el | 5316 Aug 01 18:41 | 19°♏43'04 | 23°38'28 |
| morning max el | 5315 Aug 21 02:31 | 9°♐09'01 | 21°55'45 | | 5316 Aug 10 10:02 | 0°♑ | |
| asc. node | 5315 Sep 03 16:21 | 27°♑57'05 | | asc. node | 5316 Aug 20 13:23 | 17°♑11'57 | |
| | 5315 Sep 04 19:10 | 0°♒ | | morning set | 5316 Aug 25 15:47 | 27°♑35'08 | |
| morning set | 5315 Sep 11 04:19 | 12°♒42'35 | | | 5316 Aug 26 19:01 | 0°♒ | |
| superior conj | 5315 Sep 18 08:57 | 27°♒55'26 | 1°42'45 | superior conj | 5316 Sep 01 15:28 | 12°♒38'52 | 1°36'51 |
| minimum elong | 5315 Sep 18 08:24 | 27°♒52'32 | 1°42'46 | minimum elong | 5316 Sep 01 13:53 | 12°♒30'20 | 1°36'44 |
| | 5315 Sep 19 08:45 | 0°♓ | | max. Earth dist. | 5316 Sep 04 01:07 | 17°♒47'34 | 1.33325 AU |
| max. Earth dist. | 5315 Sep 22 02:53 | 5°♓40'43 | 1.34638 AU | evening rise | 5316 Sep 09 04:12 | 28°♒23'39 | |
| evening rise | 5315 Sep 26 13:19 | 14°♓27'53 | | | 5316 Sep 09 23:32 | 0°♓ | |
| | 5315 Oct 05 02:34 | 0°♔ | | desc. node | 5316 Sep 25 19:32 | 27°♓47'24 | |
| desc. node | 5315 Oct 09 22:32 | 7°♔58'00 | | | 5316 Sep 27 06:39 | 0°♔ | |
| | 5315 Oct 25 17:45 | 0°♕ | | evening max el | 5316 Oct 13 03:32 | 19°♔42'49 | 27°23'33 |
| evening max el | 5315 Oct 31 15:33 | 6°♕21'16 | 26°54'12 | retrograde | 5316 Oct 26 17:11 | 27°♔01'15 | |
| retrograde | 5315 Nov 13 19:36 | 13°♕38'40 | | evening set | 5316 Nov 02 18:16 | 24°♔23'01 | |
| evening set | 5315 Nov 20 12:00 | 10°♕59'18 | | min. Earth dist. | 5316 Nov 06 12:22 | 20°♔59'34 | 0.64178 AU |
| min. Earth dist. | 5315 Nov 24 11:36 | 7°♕02'10 | 0.65666 AU | inferior conj | 5316 Nov 08 23:00 | 18°♔25'32 | -2°29'16 |
| inferior conj | 5315 Nov 26 10:20 | 4°♕47'12 | -1°25'39 | minimum elong | 5316 Nov 09 03:21 | 18°♔14'02 | 2°27'35 |
| minimum elong | 5315 Nov 26 12:46 | 4°♕40'08 | 1°24'38 | morning rise | 5316 Nov 15 13:52 | 13°♔01'53 | |
| asc. node | 5315 Nov 30 15:35 | 0°♕26'42 | | asc. node | 5316 Nov 16 12:37 | 12°♔42'31 | |
| | 5315 Dec 01 05:26 | 30°♕♌ | | direct | 5316 Nov 18 02:02 | 12°♔30'09 | |
| morning rise | 5315 Dec 02 14:30 | 29°♌08'54 | | morning max el | 5316 Nov 24 14:14 | 15°♌55'11 | 17°53'20 |
| direct | 5315 Dec 05 09:21 | 28°♌26'25 | | | 5316 Dec 04 14:53 | 0°♌ | |
| | 5315 Dec 09 15:11 | 0°♍ | | morning set | 5316 Dec 11 13:10 | 11°♌41'26 | |
| morning max el | 5315 Dec 11 21:36 | 1°♍56'32 | 18°14'10 | | 5316 Dec 22 11:52 | 0°♍ | |
| morning set | 5315 Dec 30 19:16 | 29°♍53'36 | | | | | |

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| desc. node | 5316 Dec 22 18:47 | 0°♄28'16 | | | 5317 Oct 24 22:46 | 30°♈♂ | |
| | | | | morning rise | 5317 Oct 30 03:08 | 26°♄39'38 | |
| superior conj | 5316 Dec 24 14:59 | 3°♄27'56 -0°12'53 | | direct | 5317 Nov 01 11:24 | 26°♄15'02 | |
| minimum elong | 5316 Dec 24 13:30 | 3°♄21'54 0°12'38 | | asc. node | 5317 Nov 03 09:40 | 26°♄32'09 | |
| behind sun begin | 5316 Dec 24 07:10 | 2°♄56'14 | | morning max el | 5317 Nov 08 06:33 | 29°♄43'05 | 17°50'22 |
| behind sun end | 5316 Dec 24 19:50 | 3°♄47'33 | | | 5317 Nov 08 13:17 | 0°♄ | |
| max. Earth dist. | 5316 Dec 29 19:34 | 11°♄46'51 1.44689 AU | | morning set | 5317 Nov 24 05:21 | 24°♄33'19 | |
| evening rise | 5317 Jan 09 14:49 | 28°♄37'11 | | | 5317 Nov 27 06:40 | 0°♄ | |
| | 5317 Jan 10 12:23 | 0°♄ | | | | | |
| | 5317 Jan 30 20:42 | 0°♄ | | superior conj | 5317 Dec 05 10:01 | 14°♄08'58 | 0°29'48 |
| evening max el | 5317 Feb 06 03:14 | 7°♄33'34 20°20'13 | | minimum elong | 5317 Dec 05 12:42 | 14°♄20'24 | 0°29'26 |
| asc. node | 5317 Feb 12 11:54 | 11°♄58'53 | | desc. node | 5317 Dec 09 15:48 | 21°♄14'41 | |
| retrograde | 5317 Feb 14 01:16 | 12°♄11'50 | | max. Earth dist. | 5317 Dec 12 11:19 | 25°♄50'50 | 1.43423 AU |
| evening set | 5317 Feb 17 21:46 | 10°♄45'49 | | | 5317 Dec 15 01:15 | 0°♄ | |
| inferior conj | 5317 Feb 23 06:34 | 4°♄40'05 2°59'39 | | evening rise | 5317 Dec 20 02:41 | 7°♄58'19 | |
| minimum elong | 5317 Feb 23 04:21 | 4°♄47'37 2°59'11 | | | 5318 Jan 03 18:41 | 0°♄ | |
| min. Earth dist. | 5317 Feb 24 00:11 | 3°♄40'12 0.67455 AU | | evening max el | 5318 Jan 20 00:59 | 21°♄08'37 | 21°30'22 |
| | 5317 Feb 26 21:45 | 30°♄♄ | | retrograde | 5318 Jan 28 22:55 | 26°♄25'49 | |
| morning rise | 5317 Feb 28 10:42 | 28°♄25'40 | | asc. node | 5318 Jan 30 08:56 | 26°♄15'05 | |
| direct | 5317 Mar 06 03:30 | 25°♄52'53 | | evening set | 5318 Feb 02 05:33 | 24°♄44'30 | |
| | 5317 Mar 14 16:06 | 0°♄ | | inferior conj | 5318 Feb 07 13:35 | 18°♄28'16 | 2°28'04 |
| morning max el | 5317 Mar 17 14:05 | 2°♄43'40 24°36'38 | | minimum elong | 5318 Feb 07 11:11 | 18°♄36'36 | 2°27'24 |
| desc. node | 5317 Mar 20 18:04 | 6°♄08'50 | | min. Earth dist. | 5318 Feb 07 18:35 | 18°♄10'55 | 0.67991 AU |
| | 5317 Apr 07 08:27 | 0°♄ | | morning rise | 5318 Feb 12 16:38 | 12°♄16'08 | |
| morning set | 5317 Apr 22 13:31 | 24°♄51'44 | | direct | 5318 Feb 17 18:59 | 10°♄03'20 | |
| | 5317 Apr 25 10:38 | 0°♄ | | morning max el | 5318 Feb 27 23:14 | 16°♄05'35 | 23°07'23 |
| max. Earth dist. | 5317 Apr 26 04:26 | 1°♄20'51 1.37396 AU | | desc. node | 5318 Mar 07 15:05 | 25°♄01'07 | |
| | | | | | 5318 Mar 11 09:13 | 0°♄ | |
| superior conj | 5317 May 02 22:49 | 14°♄05'03 -1°18'45 | | | 5318 Mar 31 08:58 | 0°♄ | |
| minimum elong | 5317 May 03 03:09 | 14°♄26'04 1°18'06 | | morning set | 5318 Apr 03 17:08 | 5°♄30'13 | |
| | 5317 May 10 23:33 | 0°♄ | | max. Earth dist. | 5318 Apr 07 23:50 | 12°♄46'38 | 1.39587 AU |
| asc. node | 5317 May 11 11:10 | 0°♄57'53 | | | | | |
| evening rise | 5317 May 11 12:53 | 1°♄06'28 | | superior conj | 5318 Apr 15 16:17 | 26°♄30'53 | -1°44'44 |
| evening max el | 5317 May 28 07:52 | 28°♄23'57 19°17'10 | | minimum elong | 5318 Apr 15 21:22 | 26°♄54'16 | 1°44'13 |
| | 5317 May 30 03:21 | 0°♄ | | | 5318 Apr 17 13:20 | 0°♄ | |
| retrograde | 5317 Jun 06 11:27 | 2°♄52'17 | | evening rise | 5318 Apr 25 06:06 | 14°♄39'52 | |
| evening set | 5317 Jun 08 10:38 | 2°♄40'48 | | asc. node | 5318 Apr 28 08:13 | 20°♄32'49 | |
| | 5317 Jun 14 15:45 | 30°♄♄ | | | 5318 May 03 14:17 | 0°♄ | |
| inferior conj | 5317 Jun 16 22:29 | 28°♄32'08 -0°03'50 | | evening max el | 5318 May 11 10:17 | 10°♄42'32 | 18°34'00 |
| minimum elong | 5317 Jun 16 22:19 | 28°♄32'24 0°03'48 | | retrograde | 5318 May 19 04:47 | 14°♄32'46 | |
| transit middle | 5317 Jun 16 22:19 | 28°♄32'24 0°03'48 | | evening set | 5318 May 21 10:06 | 14°♄14'59 | |
| transit begin | 5317 Jun 16 18:35 | 28°♄38'35 | | inferior conj | 5318 May 29 01:52 | 9°♄47'11 | 1°33'01 |
| transit end | 5317 Jun 17 02:03 | 28°♄26'13 | | minimum elong | 5318 May 29 04:54 | 9°♄41'19 | 1°32'01 |
| desc. node | 5317 Jun 16 17:19 | 28°♄40'40 | | min. Earth dist. | 5318 Jun 01 10:46 | 7°♄11'40 | 0.57834 AU |
| min. Earth dist. | 5317 Jun 19 16:48 | 26°♄42'53 0.56053 AU | | desc. node | 5318 Jun 03 14:21 | 5°♄42'57 | |
| morning rise | 5317 Jun 25 07:01 | 23°♄47'03 | | morning rise | 5318 Jun 05 20:28 | 4°♄27'14 | |
| direct | 5317 Jun 30 04:37 | 22°♄51'59 | | direct | 5318 Jun 11 15:57 | 3°♄01'53 | |
| | 5317 Jul 14 06:36 | 0°♄ | | morning max el | 5318 Jun 26 01:02 | 10°♄39'09 | 26°43'55 |
| morning max el | 5317 Jul 14 08:13 | 0°♄03'51 25°19'51 | | | 5318 Jul 10 22:38 | 0°♄ | |
| | 5317 Aug 03 23:38 | 0°♄ | | asc. node | 5318 Jul 25 07:28 | 26°♄40'29 | |
| asc. node | 5317 Aug 07 10:25 | 6°♄48'46 | | morning set | 5318 Jul 25 13:33 | 27°♄12'32 | |
| morning set | 5317 Aug 10 03:24 | 12°♄27'03 | | | 5318 Jul 26 21:03 | 0°♄ | |
| | | | | | | | |
| superior conj | 5317 Aug 17 01:36 | 27°♄31'19 1°25'26 | | superior conj | 5318 Aug 01 13:18 | 12°♄25'29 | 1°09'11 |
| minimum elong | 5317 Aug 16 23:25 | 27°♄19'24 1°25'09 | | minimum elong | 5318 Aug 01 11:01 | 12°♄12'50 | 1°08'48 |
| | 5317 Aug 18 04:45 | 0°♄ | | max. Earth dist. | 5318 Aug 01 17:31 | 12°♄48'47 | 1.31988 AU |
| max. Earth dist. | 5317 Aug 18 07:04 | 0°♄12'39 1.32446 AU | | evening rise | 5318 Aug 08 10:06 | 27°♄21'24 | |
| evening rise | 5317 Aug 24 04:05 | 12°♄44'39 | | | 5318 Aug 09 16:28 | 0°♄ | |
| | 5317 Sep 02 02:54 | 0°♄ | | | 5318 Aug 26 13:54 | 0°♄ | |
| desc. node | 5317 Sep 12 16:34 | 17°♄03'27 | | desc. node | 5318 Aug 30 13:37 | 5°♄32'08 | |
| | 5317 Sep 22 22:58 | 0°♄ | | evening max el | 5318 Sep 07 16:54 | 14°♄46'12 | 26°49'33 |
| evening max el | 5317 Sep 25 12:57 | 2°♄35'42 27°23'12 | | retrograde | 5318 Sep 21 14:33 | 21°♄55'45 | |
| retrograde | 5317 Oct 09 07:51 | 9°♄49'55 | | evening set | 5318 Sep 28 12:33 | 19°♄52'48 | |
| evening set | 5317 Oct 16 11:53 | 7°♄23'24 | | min. Earth dist. | 5318 Oct 02 06:57 | 17°♄15'31 | 0.60368 AU |
| min. Earth dist. | 5317 Oct 20 03:06 | 4°♄28'24 0.62386 AU | | inferior conj | 5318 Oct 05 11:58 | 14°♄37'27 | -4°28'39 |
| inferior conj | 5317 Oct 23 00:41 | 1°♄45'21 -3°32'13 | | minimum elong | 5318 Oct 05 18:12 | 14°♄24'35 | 4°27'14 |
| minimum elong | 5317 Oct 23 06:37 | 1°♄31'22 3°30'18 | | morning rise | 5318 Oct 13 01:52 | 9°♄53'10 | |

| | | | | | | | |
|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| direct | 5318 Oct 15 09:33 | 9°♄32'38 | | morning rise | 5319 Sep 25 05:13 | 22°♄30'43 | |
| asc. node | 5318 Oct 21 06:42 | 11°♄51'35 | | direct | 5319 Sep 27 15:46 | 22°♄11'50 | |
| morning max el | 5318 Oct 22 19:20 | 13°♄12'04 | 18°06'33 | morning max el | 5319 Oct 06 01:11 | 26°♄12'28 | 18°43'15 |
| | 5318 Nov 03 03:25 | 0°♄ | | asc. node | 5319 Oct 08 03:45 | 28°♄27'09 | |
| morning set | 5318 Nov 07 13:36 | 8°♄10'55 | | | 5319 Oct 09 09:47 | 0°♄ | |
| | | | | morning set | 5319 Oct 22 08:56 | 22°♄19'26 | |
| superior conj | 5318 Nov 17 06:43 | 26°♄05'02 | 1°02'59 | | 5319 Oct 26 07:19 | 0°♄ | |
| minimum elong | 5318 Nov 17 10:38 | 26°♄22'33 | 1°02'29 | | | | |
| | 5318 Nov 19 11:44 | 0°♄ | | superior conj | 5319 Oct 31 00:12 | 9°♄01'25 | 1°25'38 |
| max. Earth dist. | 5318 Nov 24 22:31 | 9°♄21'41 | 1.41645 AU | minimum elong | 5319 Oct 31 03:25 | 9°♄16'36 | 1°25'20 |
| desc. node | 5318 Nov 26 12:51 | 12°♄01'36 | | max. Earth dist. | 5319 Nov 07 04:45 | 22°♄08'25 | 1.39574 AU |
| evening rise | 5318 Nov 30 04:55 | 18°♄01'24 | | evening rise | 5319 Nov 11 05:07 | 29°♄04'09 | |
| | 5318 Dec 07 20:25 | 0°♄ | | | 5319 Nov 11 18:21 | 0°♄ | |
| | 5318 Dec 29 10:23 | 0°♄ | | desc. node | 5319 Nov 13 09:53 | 2°♄44'56 | |
| evening max el | 5319 Jan 02 17:54 | 4°♄46'06 | 22°48'06 | | 5319 Dec 01 07:34 | 0°♄ | |
| retrograde | 5319 Jan 12 18:30 | 10°♄43'11 | | evening max el | 5319 Dec 16 07:36 | 18°♄26'37 | 24°07'56 |
| asc. node | 5319 Jan 17 05:58 | 8°♄59'51 | | retrograde | 5319 Dec 27 10:48 | 24°♄59'09 | |
| evening set | 5319 Jan 17 12:47 | 8°♄46'05 | | evening set | 5320 Jan 01 17:53 | 22°♄46'45 | |
| inferior conj | 5319 Jan 22 21:42 | 2°♄22'40 | 1°48'22 | asc. node | 5320 Jan 04 03:00 | 20°♄20'28 | |
| minimum elong | 5319 Jan 22 19:34 | 2°♄30'02 | 1°47'39 | min. Earth dist. | 5320 Jan 06 11:28 | 17°♄19'35 | 0.67901 AU |
| min. Earth dist. | 5319 Jan 22 15:07 | 2°♄45'26 | 0.68132 AU | inferior conj | 5320 Jan 07 05:04 | 16°♄20'10 | 1°01'31 |
| | 5319 Jan 24 15:45 | 30°♄ | | minimum elong | 5320 Jan 07 03:40 | 16°♄24'53 | 1°00'59 |
| morning rise | 5319 Jan 28 02:16 | 26°♄14'16 | | morning rise | 5320 Jan 12 13:31 | 10°♄17'07 | |
| direct | 5319 Feb 01 14:03 | 24°♄24'16 | | direct | 5320 Jan 16 11:39 | 8°♄49'40 | |
| morning max el | 5319 Feb 10 12:31 | 29°♄36'48 | 21°40'57 | morning max el | 5320 Jan 24 08:51 | 13°♄19'30 | 20°24'05 |
| | 5319 Feb 10 21:40 | 0°♄ | | | 5320 Feb 06 07:51 | 0°♄ | |
| desc. node | 5319 Feb 22 12:06 | 14°♄30'57 | | desc. node | 5320 Feb 09 09:07 | 4°♄27'36 | |
| | 5319 Mar 05 03:08 | 0°♄ | | morning set | 5320 Feb 21 16:37 | 23°♄06'45 | |
| morning set | 5319 Mar 14 16:18 | 14°♄48'21 | | | 5320 Feb 26 02:31 | 0°♄ | |
| max. Earth dist. | 5319 Mar 20 23:41 | 25°♄03'28 | 1.41723 AU | max. Earth dist. | 5320 Mar 02 06:33 | 8°♄13'08 | 1.43525 AU |
| | 5319 Mar 23 22:30 | 0°♄ | | | | | |
| superior conj | 5319 Mar 28 14:10 | 7°♄59'59 | -2°03'17 | superior conj | 5320 Mar 08 11:46 | 18°♄22'13 | -2°09'00 |
| minimum elong | 5319 Mar 28 17:53 | 8°♄16'14 | 2°03'06 | minimum elong | 5320 Mar 08 10:53 | 18°♄18'31 | 2°08'58 |
| evening rise | 5319 Apr 08 11:06 | 27°♄35'21 | | | 5320 Mar 15 09:07 | 0°♄ | |
| | 5319 Apr 09 18:38 | 0°♄ | | evening rise | 5320 Mar 20 23:28 | 9°♄42'48 | |
| asc. node | 5319 Apr 15 05:16 | 9°♄47'11 | | asc. node | 5320 Apr 01 02:18 | 28°♄33'36 | |
| evening max el | 5319 Apr 24 19:23 | 23°♄31'05 | 18°10'56 | | 5320 Apr 02 01:09 | 0°♄ | |
| retrograde | 5319 May 01 16:41 | 26°♄59'38 | | evening max el | 5320 Apr 07 07:46 | 6°♄40'23 | 18°07'24 |
| evening set | 5319 May 04 04:52 | 26°♄32'36 | | retrograde | 5320 Apr 13 18:59 | 10°♄02'24 | |
| inferior conj | 5319 May 11 02:30 | 21°♄44'08 | 2°39'04 | evening set | 5320 Apr 16 13:38 | 9°♄24'13 | |
| minimum elong | 5319 May 11 05:50 | 21°♄36'36 | 2°38'16 | inferior conj | 5320 Apr 22 21:03 | 4°♄16'04 | 3°16'38 |
| min. Earth dist. | 5319 May 14 10:58 | 18°♄43'31 | 0.59981 AU | minimum elong | 5320 Apr 22 23:07 | 4°♄10'42 | 3°16'21 |
| morning rise | 5319 May 18 04:14 | 15°♄57'27 | | min. Earth dist. | 5320 Apr 25 19:28 | 1°♄14'57 | 0.62167 AU |
| desc. node | 5319 May 21 11:22 | 14°♄26'47 | | | 5320 Apr 27 02:58 | 30°♄ | |
| direct | 5319 May 24 15:59 | 13°♄57'54 | | morning rise | 5320 Apr 29 06:58 | 28°♄13'14 | |
| morning max el | 5319 Jun 08 00:21 | 21°♄51'03 | 27°37'10 | direct | 5320 May 06 02:40 | 25°♄44'32 | |
| | 5319 Jun 15 03:39 | 0°♄ | | desc. node | 5320 May 07 08:23 | 25°♄49'07 | |
| | 5319 Jul 03 22:39 | 0°♄ | | | 5320 May 16 01:00 | 0°♄ | |
| morning set | 5319 Jul 09 20:29 | 11°♄46'26 | | morning max el | 5320 May 20 05:38 | 3°♄45'16 | 27°53'05 |
| asc. node | 5319 Jul 12 04:31 | 16°♄42'03 | | | 5320 Jun 08 17:47 | 0°♄ | |
| max. Earth dist. | 5319 Jul 16 04:44 | 25°♄25'04 | 1.31944 AU | morning set | 5320 Jun 22 22:11 | 26°♄02'15 | |
| | | | | | 5320 Jun 24 20:23 | 0°♄ | |
| superior conj | 5319 Jul 17 00:50 | 27°♄15'50 | 0°48'41 | asc. node | 5320 Jun 28 01:34 | 6°♄48'48 | |
| minimum elong | 5319 Jul 16 22:54 | 27°♄05'10 | 0°48'17 | max. Earth dist. | 5320 Jun 28 12:40 | 7°♄48'31 | 1.32324 AU |
| | 5319 Jul 18 06:35 | 0°♄ | | | | | |
| evening rise | 5319 Jul 23 19:56 | 12°♄06'50 | | superior conj | 5320 Jun 30 10:25 | 11°♄56'40 | 0°24'28 |
| | 5319 Aug 01 20:43 | 0°♄ | | minimum elong | 5320 Jun 30 09:18 | 11°♄50'36 | 0°24'13 |
| desc. node | 5319 Aug 17 10:39 | 22°♄54'12 | | evening rise | 5320 Jul 07 07:32 | 26°♄54'22 | |
| evening max el | 5319 Aug 20 13:09 | 26°♄06'47 | 25°43'51 | | 5320 Jul 08 18:40 | 0°♄ | |
| | 5319 Aug 25 07:29 | 0°♄ | | | 5320 Jul 26 03:52 | 0°♄ | |
| retrograde | 5319 Sep 03 12:01 | 3°♄12'40 | | evening max el | 5320 Aug 01 02:55 | 6°♄45'16 | 24°14'51 |
| evening set | 5319 Sep 09 15:23 | 1°♄43'46 | | desc. node | 5320 Aug 03 07:40 | 8°♄43'31 | |
| | 5319 Sep 12 17:27 | 30°♄ | | retrograde | 5320 Aug 14 22:24 | 13°♄42'34 | |
| min. Earth dist. | 5319 Sep 14 01:15 | 29°♄07'09 | 0.58302 AU | evening set | 5320 Aug 19 17:54 | 12°♄51'06 | |
| inferior conj | 5319 Sep 17 05:19 | 26°♄51'38 | -5°08'33 | min. Earth dist. | 5320 Aug 25 13:43 | 9°♄56'15 | 0.56467 AU |
| minimum elong | 5319 Sep 17 09:09 | 26°♄44'46 | 5°08'10 | inferior conj | 5320 Aug 28 02:36 | 8°♄21'10 | -5°16'52 |
| | | | | minimum elong | 5320 Aug 28 00:44 | 8°♄24'06 | 5°16'48 |

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|---------------------|-------------------|--------------------------------|------------|---------------------|-------------------|--------------------------------|------------|
| morning rise | 5320 Sep 05 10:03 | 4° \mathbb{M} 20'47 | | retrograde | 5321 Jul 26 19:54 | 23° Ω 38'54 | |
| direct | 5320 Sep 08 02:47 | 4° \mathbb{M} 01'33 | | evening set | 5321 Jul 30 02:55 | 23° Ω 15'07 | |
| morning max el | 5320 Sep 17 20:54 | 8° \mathbb{M} 35'00 | 19°41'36 | min. Earth dist. | 5321 Aug 06 23:50 | 19° Ω 47'53 | 0.55199 AU |
| asc. node | 5320 Sep 24 00:47 | 16° \mathbb{M} 03'54 | | inferior conj | 5321 Aug 08 05:25 | 19° Ω 05'46 | -4°37'38 |
| | 5320 Oct 02 01:18 | 0° $\underline{\Omega}$ | | minimum elong | 5321 Aug 07 21:38 | 19° Ω 16'52 | 4°36'05 |
| morning set | 5320 Oct 05 11:51 | 6° $\underline{\Omega}$ 49'16 | | morning rise | 5321 Aug 16 18:20 | 15° Ω 15'47 | |
| | | | | direct | 5321 Aug 19 20:14 | 14° Ω 53'59 | |
| superior conj | 5320 Oct 13 09:06 | 22° $\underline{\Omega}$ 43'01 | 1°38'37 | morning max el | 5321 Aug 31 04:21 | 20° Ω 11'06 | 21°01'25 |
| minimum elong | 5320 Oct 13 10:52 | 22° $\underline{\Omega}$ 51'41 | 1°38'32 | | 5321 Sep 08 03:33 | 0° \mathbb{M} | |
| | 5320 Oct 17 02:58 | 0° \mathbb{M} | | asc. node | 5321 Sep 10 21:50 | 4° \mathbb{M} 27'15 | |
| max. Earth dist. | 5320 Oct 19 09:31 | 4° \mathbb{M} 17'16 | 1.37479 AU | morning set | 5321 Sep 19 19:40 | 21° \mathbb{M} 32'25 | |
| evening rise | 5320 Oct 23 03:43 | 11° \mathbb{M} 08'17 | | | 5321 Sep 23 20:58 | 0° $\underline{\Omega}$ | |
| desc. node | 5320 Oct 30 06:56 | 23° \mathbb{M} 20'48 | | | | | |
| | 5320 Nov 03 10:34 | 0° \mathbb{M} | | superior conj | 5321 Sep 27 04:59 | 6° $\underline{\Omega}$ 56'05 | 1°43'19 |
| | 5320 Nov 25 17:12 | 0° \mathbb{M} | | minimum elong | 5321 Sep 27 05:12 | 6° $\underline{\Omega}$ 57'13 | 1°43'19 |
| evening max el | 5320 Nov 27 20:14 | 2° \mathbb{M} 10'32 | 25°23'07 | max. Earth dist. | 5321 Oct 01 18:41 | 16° $\underline{\Omega}$ 10'01 | 1.35584 AU |
| retrograde | 5320 Dec 09 22:45 | 9° \mathbb{M} 08'59 | | evening rise | 5321 Oct 05 21:13 | 24° $\underline{\Omega}$ 04'18 | |
| evening set | 5320 Dec 15 19:15 | 6° \mathbb{M} 43'05 | | | 5321 Oct 09 02:40 | 0° \mathbb{M} | |
| min. Earth dist. | 5320 Dec 20 05:23 | 1° \mathbb{M} 50'10 | 0.67312 AU | desc. node | 5321 Oct 17 03:58 | 13° \mathbb{M} 43'44 | |
| inferior conj | 5320 Dec 21 09:54 | 0° \mathbb{M} 18'04 | 0°08'24 | | 5321 Oct 28 01:09 | 0° \mathbb{M} | |
| minimum elong | 5320 Dec 21 09:41 | 0° \mathbb{M} 18'46 | 0°08'19 | evening max el | 5321 Nov 10 09:04 | 15° \mathbb{M} 53'32 | 26°26'17 |
| transit middle | 5320 Dec 21 09:41 | 0° \mathbb{M} 18'46 | 0°08'19 | retrograde | 5321 Nov 23 05:28 | 23° \mathbb{M} 06'20 | |
| transit begin | 5320 Dec 21 07:17 | 0° \mathbb{M} 26'31 | | evening set | 5321 Nov 29 15:01 | 20° \mathbb{M} 30'34 | |
| transit end | 5320 Dec 21 12:05 | 0° \mathbb{M} 11'01 | | min. Earth dist. | 5321 Dec 03 18:25 | 16° \mathbb{M} 12'50 | 0.66370 AU |
| asc. node | 5320 Dec 21 00:01 | 0° \mathbb{M} 50'06 | | inferior conj | 5321 Dec 05 10:15 | 14° \mathbb{M} 12'18 | -0°50'04 |
| | 5320 Dec 21 15:30 | 30° \mathbb{M} | | minimum elong | 5321 Dec 05 11:37 | 14° \mathbb{M} 08'08 | 0°49'29 |
| morning rise | 5320 Dec 27 00:26 | 24° \mathbb{M} 22'23 | | asc. node | 5321 Dec 07 21:02 | 11° \mathbb{M} 22'05 | |
| direct | 5320 Dec 30 10:26 | 23° \mathbb{M} 15'06 | | morning rise | 5321 Dec 11 08:53 | 8° \mathbb{M} 26'38 | |
| morning max el | 5321 Jan 06 13:05 | 27° \mathbb{M} 13'04 | 19°20'59 | direct | 5321 Dec 14 08:44 | 7° \mathbb{M} 36'05 | |
| | 5321 Jan 09 01:53 | 0° \mathbb{M} | | morning max el | 5321 Dec 21 00:03 | 11° \mathbb{M} 13'17 | 18°33'43 |
| greatest brilliancy | 5321 Jan 19 19:39 | 14° \mathbb{M} 55'44 | -0.7m | | 5322 Jan 03 12:20 | 0° \mathbb{M} | |
| desc. node | 5321 Jan 26 06:09 | 24° \mathbb{M} 43'54 | | morning set | 5322 Jan 10 12:04 | 11° \mathbb{M} 03'50 | |
| | 5321 Jan 29 16:10 | 0° \approx | | desc. node | 5322 Jan 13 03:11 | 15° \mathbb{M} 14'06 | |
| morning set | 5321 Jan 30 15:26 | 1° \approx 30'00 | | | 5322 Jan 22 11:59 | 0° \approx | |
| max. Earth dist. | 5321 Feb 12 20:02 | 22° \approx 05'29 | 1.44774 AU | | | | |
| | | | | superior conj | 5322 Jan 26 12:54 | 6° \approx 20'01 | -1°24'35 |
| superior conj | 5321 Feb 16 08:25 | 27° \approx 40'01 | -1°56'31 | minimum elong | 5322 Jan 26 03:37 | 5° \approx 43'40 | 1°23'35 |
| minimum elong | 5321 Feb 16 01:13 | 27° \approx 11'22 | 1°56'03 | max. Earth dist. | 5322 Jan 26 14:19 | 6° \approx 25'35 | 1.45326 AU |
| | 5321 Feb 17 19:30 | 0° \mathbb{M} | | | 5322 Feb 10 13:21 | 0° \mathbb{M} | |
| evening rise | 5321 Mar 02 14:56 | 20° \mathbb{M} 54'59 | | evening rise | 5322 Feb 11 07:09 | 1° \mathbb{M} 10'44 | |
| | 5321 Mar 08 01:58 | 0° \mathbb{Y} | | greatest brilliancy | 5322 Feb 20 03:02 | 15° \mathbb{M} 11'51 | -0.8m |
| asc. node | 5321 Mar 18 23:18 | 16° \mathbb{Y} 43'41 | | | 5322 Mar 02 04:54 | 0° \mathbb{Y} | |
| evening max el | 5321 Mar 21 20:27 | 20° \mathbb{Y} 03'08 | 18°22'36 | evening max el | 5322 Mar 05 06:55 | 3° \mathbb{Y} 33'40 | 18°55'38 |
| retrograde | 5321 Mar 28 07:16 | 23° \mathbb{Y} 32'12 | | asc. node | 5322 Mar 05 20:19 | 4° \mathbb{Y} 06'45 | |
| evening set | 5321 Mar 31 08:15 | 22° \mathbb{Y} 41'38 | | retrograde | 5322 Mar 12 01:43 | 7° \mathbb{Y} 21'49 | |
| inferior conj | 5321 Apr 06 05:22 | 17° \mathbb{Y} 14'58 | 3°31'32 | evening set | 5322 Mar 15 09:31 | 6° \mathbb{Y} 17'57 | |
| minimum elong | 5321 Apr 06 05:49 | 17° \mathbb{Y} 13'40 | 3°31'30 | inferior conj | 5322 Mar 20 23:43 | 0° \mathbb{Y} 34'22 | 3°29'11 |
| min. Earth dist. | 5321 Apr 08 13:09 | 14° \mathbb{Y} 34'38 | 0.64150 AU | minimum elong | 5322 Mar 20 22:47 | 0° \mathbb{Y} 37'18 | 3°29'06 |
| morning rise | 5321 Apr 12 02:30 | 11° \mathbb{Y} 04'06 | | | 5322 Mar 21 10:39 | 30° \mathbb{M} | |
| direct | 5321 Apr 18 21:47 | 8° \mathbb{Y} 18'03 | | min. Earth dist. | 5322 Mar 22 15:51 | 28° \mathbb{M} 28'43 | 0.65771 AU |
| desc. node | 5321 Apr 24 05:24 | 9° \mathbb{Y} 43'26 | | morning rise | 5322 Mar 26 11:38 | 24° \mathbb{M} 20'10 | |
| morning max el | 5321 May 02 14:29 | 16° \mathbb{Y} 15'59 | 27°32'07 | direct | 5322 Apr 01 23:44 | 21° \mathbb{M} 30'39 | |
| | 5321 May 13 22:17 | 0° \mathbb{B} | | desc. node | 5322 Apr 11 02:24 | 25° \mathbb{M} 38'05 | |
| | 5321 Jun 01 12:02 | 0° \mathbb{I} | | morning max el | 5322 Apr 15 00:28 | 29° \mathbb{M} 13'17 | 26°40'04 |
| morning set | 5321 Jun 06 16:04 | 9° \mathbb{I} 51'28 | | | 5322 Apr 15 18:40 | 0° \mathbb{Y} | |
| max. Earth dist. | 5321 Jun 11 13:19 | 19° \mathbb{I} 46'31 | 1.33161 AU | | 5322 May 07 18:46 | 0° \mathbb{B} | |
| | | | | morning set | 5322 May 20 22:56 | 23° \mathbb{B} 05'07 | |
| superior conj | 5321 Jun 14 16:07 | 26° \mathbb{I} 21'16 | -0°02'49 | | 5322 May 24 12:38 | 0° \mathbb{I} | |
| minimum elong | 5321 Jun 14 16:15 | 26° \mathbb{I} 22'00 | 0°02'48 | max. Earth dist. | 5322 May 25 03:46 | 1° \mathbb{I} 14'57 | 1.34476 AU |
| behind sun begin | 5321 Jun 14 10:54 | 25° \mathbb{I} 53'30 | | | | | |
| behind sun end | 5321 Jun 14 21:36 | 26° \mathbb{I} 50'33 | | superior conj | 5322 May 29 15:45 | 10° \mathbb{I} 23'35 | -0°32'08 |
| asc. node | 5321 Jun 14 22:35 | 26° \mathbb{I} 55'53 | | minimum elong | 5322 May 29 17:30 | 10° \mathbb{I} 32'36 | 0°31'47 |
| | 5321 Jun 16 08:56 | 0° \mathbb{B} | | asc. node | 5322 Jun 01 19:37 | 16° \mathbb{I} 59'42 | |
| evening rise | 5321 Jun 21 19:02 | 11° \mathbb{B} 37'17 | | evening rise | 5322 Jun 06 04:33 | 26° \mathbb{I} 10'01 | |
| | 5321 Jul 01 04:40 | 0° Ω | | | 5322 Jun 08 01:11 | 0° \mathbb{B} | |
| evening max el | 5321 Jul 13 16:09 | 17° Ω 06'01 | 22°37'11 | evening max el | 5322 Jun 25 12:55 | 27° \mathbb{B} 42'23 | 21°05'58 |
| desc. node | 5321 Jul 21 04:41 | 22° Ω 25'53 | | | 5322 Jun 28 03:49 | 0° Ω | |

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|---------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| retrograde | 5322 Jul 07 08:38 | 3°♎31'42 | | | 5323 May 31 23:06 | 0°♏ | |
| desc. node | 5322 Jul 08 01:40 | 3°♎30'30 | | evening max el | 5323 Jun 07 21:51 | 8°♏56'32 | 19°51'04 |
| evening set | 5322 Jul 09 14:23 | 3°♎19'58 | | retrograde | 5323 Jun 18 00:39 | 13°♏53'35 | |
| | 5322 Jul 17 19:35 | 30°♎ | | evening set | 5323 Jun 19 22:30 | 13°♏43'45 | |
| inferior conj | 5322 Jul 18 22:33 | 29°♏22'13 | -3°07'51 | desc. node | 5323 Jun 24 22:41 | 11°♏57'17 | |
| minimum elong | 5322 Jul 18 14:22 | 29°♏33'45 | 3°05'14 | inferior conj | 5323 Jun 28 20:35 | 9°♏42'21 | -1°10'20 |
| min. Earth dist. | 5322 Jul 19 10:08 | 29°♏05'56 | 0.54785 AU | minimum elong | 5323 Jun 28 17:20 | 9°♏47'20 | 1°09'07 |
| morning rise | 5322 Jul 27 14:41 | 25°♏24'56 | | min. Earth dist. | 5323 Jun 30 22:30 | 8°♏26'03 | 0.55332 AU |
| direct | 5322 Jul 31 05:16 | 24°♏56'57 | | morning rise | 5323 Jul 07 10:11 | 5°♏17'55 | |
| | 5322 Aug 11 20:32 | 0°♎ | | direct | 5323 Jul 11 18:49 | 4°♏36'10 | |
| morning max el | 5322 Aug 13 00:38 | 1°♎02'42 | 22°38'37 | morning max el | 5323 Jul 25 14:50 | 11°♏26'58 | 24°22'56 |
| asc. node | 5322 Aug 28 18:53 | 23°♎25'52 | | | 5323 Aug 08 16:02 | 0°♎ | |
| | 5322 Sep 01 04:00 | 0°♎ | | asc. node | 5323 Aug 15 15:56 | 12°♎50'46 | |
| morning set | 5322 Sep 04 06:20 | 6°♎22'57 | | morning set | 5323 Aug 19 18:05 | 21°♎15'49 | |
| | | | | | 5323 Aug 23 19:19 | 0°♎ | |
| superior conj | 5322 Sep 11 08:24 | 21°♎30'34 | 1°40'59 | superior conj | 5323 Aug 26 16:42 | 6°♎18'25 | 1°32'39 |
| minimum elong | 5322 Sep 11 07:21 | 21°♎25'02 | 1°40'56 | minimum elong | 5323 Aug 26 14:49 | 6°♎08'08 | 1°32'27 |
| max. Earth dist. | 5322 Sep 14 12:10 | 28°♎09'03 | 1.34033 AU | max. Earth dist. | 5323 Aug 28 14:06 | 10°♎24'14 | 1.32894 AU |
| | 5322 Sep 15 09:40 | 0°♎ | | evening rise | 5323 Sep 03 00:29 | 21°♎48'11 | |
| evening rise | 5322 Sep 19 05:25 | 7°♎41'00 | | | 5323 Sep 07 04:13 | 0°♎ | |
| | 5322 Oct 01 16:01 | 0°♎ | | desc. node | 5323 Sep 20 21:59 | 23°♎24'21 | |
| desc. node | 5322 Oct 04 00:58 | 3°♎47'36 | | | 5323 Sep 25 12:53 | 0°♎ | |
| evening max el | 5322 Oct 23 21:50 | 29°♎26'30 | 27°09'56 | evening max el | 5323 Oct 06 08:57 | 12°♎37'19 | 27°27'18 |
| | 5322 Oct 24 12:04 | 0°♎ | | retrograde | 5323 Oct 20 00:56 | 19°♎54'14 | |
| retrograde | 5322 Nov 06 06:17 | 6°♎44'12 | | evening set | 5323 Oct 27 04:22 | 17°♎19'17 | |
| evening set | 5322 Nov 13 02:58 | 4°♎04'23 | | min. Earth dist. | 5323 Oct 30 20:41 | 14°♎09'14 | 0.63450 AU |
| min. Earth dist. | 5322 Nov 17 00:11 | 0°♎21'54 | 0.65080 AU | inferior conj | 5323 Nov 02 12:19 | 11°♎16'56 | -2°56'18 |
| | 5322 Nov 17 08:12 | 30°♎ | | minimum elong | 5323 Nov 02 17:26 | 6°♎13'38 | 2°54'27 |
| inferior conj | 5322 Nov 19 03:55 | 27°♎58'08 | -1°52'27 | morning rise | 5323 Nov 09 08:05 | 5°♎45'19 | |
| minimum elong | 5322 Nov 19 07:10 | 27°♎49'04 | 1°51'07 | direct | 5323 Nov 11 18:18 | 5°♎45'24 | |
| asc. node | 5322 Nov 24 18:05 | 22°♎49'48 | | asc. node | 5323 Nov 11 15:09 | 9°♎10'17 | 17°49'55 |
| morning rise | 5322 Nov 25 12:27 | 22°♎25'32 | | morning max el | 5323 Dec 02 05:38 | 0°♎ | |
| direct | 5322 Nov 28 04:16 | 21°♎47'56 | | morning set | 5323 Dec 04 18:36 | 4°♎24'37 | |
| morning max el | 5322 Dec 04 15:28 | 25°♎14'31 | 18°03'09 | | | | |
| | 5322 Dec 08 15:12 | 0°♎ | | superior conj | 5323 Dec 17 00:15 | 25°♎12'22 | 0°06'11 |
| morning set | 5322 Dec 22 14:19 | 22°♎06'22 | | minimum elong | 5323 Dec 17 00:54 | 25°♎15'04 | 0°06'06 |
| | 5322 Dec 27 09:20 | 0°♎ | | behind sun begin | 5323 Dec 16 15:58 | 24°♎38'15 | |
| desc. node | 5322 Dec 31 00:12 | 5°♎53'27 | | behind sun end | 5323 Dec 17 09:49 | 25°♎51'49 | |
| | | | | desc. node | 5323 Dec 17 21:14 | 26°♎38'42 | |
| superior conj | 5323 Jan 05 20:13 | 15°♎14'29 | -0°39'52 | | 5323 Dec 19 22:34 | 0°♎ | |
| minimum elong | 5323 Jan 05 15:20 | 14°♎55'02 | 0°39'11 | max. Earth dist. | 5323 Dec 23 04:06 | 5°♎12'10 | 1.44224 AU |
| max. Earth dist. | 5323 Jan 09 10:10 | 20°♎54'11 | 1.45133 AU | evening rise | 5324 Jan 01 13:15 | 19°♎54'14 | |
| | 5323 Jan 15 05:40 | 0°♎ | | | 5324 Jan 08 04:21 | 0°♎ | |
| evening rise | 5323 Jan 22 02:57 | 10°♎40'43 | | | 5324 Jan 29 22:18 | 0°♎ | |
| | 5323 Feb 03 18:13 | 0°♎ | | evening max el | 5324 Jan 30 13:56 | 0°♎40'52 | 20°48'40 |
| greatest brilliancy | 5323 Feb 04 16:16 | 1°♎22'15 | -0.7m | retrograde | 5324 Feb 07 21:40 | 5°♎35'37 | |
| evening max el | 5323 Feb 16 13:07 | 17°♎06'39 | 19°45'08 | asc. node | 5324 Feb 07 14:24 | 5°♎35'07 | |
| asc. node | 5323 Feb 20 17:22 | 20°♎28'42 | | evening set | 5324 Feb 11 22:18 | 4°♎03'04 | |
| retrograde | 5323 Feb 23 23:20 | 21°♎24'21 | | | 5324 Feb 15 16:44 | 30°♎ | |
| evening set | 5323 Feb 27 14:52 | 20°♎06'29 | | inferior conj | 5324 Feb 17 06:32 | 27°♎52'11 | 2°47'19 |
| inferior conj | 5323 Mar 05 00:57 | 14°♎07'54 | 3°13'33 | minimum elong | 5324 Feb 17 04:11 | 28°♎00'16 | 2°46'45 |
| minimum elong | 5323 Mar 04 23:04 | 14°♎14'10 | 3°13'15 | min. Earth dist. | 5324 Feb 17 18:34 | 27°♎10'48 | 0.67735 AU |
| min. Earth dist. | 5323 Mar 06 02:17 | 12°♎43'42 | 0.66965 AU | morning rise | 5324 Feb 22 09:53 | 21°♎38'26 | |
| morning rise | 5323 Mar 10 07:02 | 7°♎53'05 | | direct | 5324 Feb 27 20:28 | 19°♎13'53 | |
| direct | 5323 Mar 16 07:32 | 5°♎11'53 | | morning max el | 5324 Mar 09 18:38 | 25°♎45'04 | 23°58'49 |
| morning max el | 5323 Mar 28 09:51 | 12°♎25'24 | 25°25'39 | | 5324 Mar 13 15:48 | 0°♎ | |
| desc. node | 5323 Mar 28 23:26 | 13°♎00'11 | | desc. node | 5324 Mar 14 20:28 | 1°♎25'11 | |
| | 5323 Apr 11 13:12 | 0°♎ | | | 5324 Apr 04 02:10 | 0°♎ | |
| | 5323 Apr 30 12:09 | 0°♎ | | morning set | 5324 Apr 14 08:54 | 16°♎53'05 | |
| morning set | 5323 May 03 14:24 | 5°♎30'35 | | max. Earth dist. | 5324 Apr 18 03:26 | 23°♎29'13 | 1.38320 AU |
| max. Earth dist. | 5323 May 07 07:16 | 12°♎20'53 | 1.36233 AU | | 5324 Apr 21 17:44 | 0°♎ | |
| | | | | superior conj | 5324 Apr 25 09:03 | 6°♎48'27 | -1°30'24 |
| superior conj | 5323 May 13 06:34 | 23°♎55'34 | -1°02'04 | minimum elong | 5324 Apr 25 13:52 | 7°♎11'20 | 1°29'47 |
| minimum elong | 5323 May 13 10:02 | 24°♎12'50 | 1°01'29 | evening rise | 5324 May 04 08:28 | 24°♎16'56 | |
| | 5323 May 16 07:02 | 0°♎ | | | | | |
| asc. node | 5323 May 19 16:39 | 6°♎55'49 | | | | | |
| evening rise | 5323 May 21 09:54 | 10°♎25'39 | | | | | |

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|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| asc. node | 5324 May 05 13:41 | 26°♄39'55 | | asc. node | 5325 Apr 22 10:44 | 16°♄06'58 | |
| | 5324 May 07 07:01 | 0°♄ | | | 5325 May 01 00:30 | 0°♄ | |
| evening max el | 5324 May 20 18:44 | 20°♄53'26 | 18°56'14 | evening max el | 5325 May 04 00:31 | 3°♄26'40 | 18°21'49 |
| retrograde | 5324 May 29 07:10 | 25°♄04'02 | | retrograde | 5325 May 11 08:33 | 7°♄05'30 | |
| evening set | 5324 May 31 08:25 | 24°♄50'27 | | evening set | 5325 May 13 16:48 | 6°♄44'08 | |
| inferior conj | 5324 Jun 08 11:46 | 20°♄34'07 | 0°40'48 | inferior conj | 5325 May 21 00:30 | 2°♄07'57 | 2°04'48 |
| minimum elong | 5324 Jun 08 13:21 | 20°♄31'19 | 0°40'13 | minimum elong | 5325 May 21 03:57 | 2°♄00'49 | 2°03'48 |
| desc. node | 5324 Jun 10 19:43 | 18°♄54'59 | | | 5325 May 23 14:10 | 30°♄ | |
| min. Earth dist. | 5324 Jun 11 14:22 | 18°♄22'54 | 0.56739 AU | min. Earth dist. | 5325 May 24 10:59 | 29°♄18'26 | 0.58722 AU |
| morning rise | 5324 Jun 16 14:56 | 15°♄33'11 | | morning rise | 5325 May 28 11:59 | 26°♄35'14 | |
| direct | 5324 Jun 21 21:56 | 14°♄26'17 | | desc. node | 5325 May 28 16:44 | 26°♄28'58 | |
| morning max el | 5324 Jul 06 05:23 | 21°♄51'08 | 25°58'49 | direct | 5325 Jun 03 15:27 | 24°♄54'55 | |
| | 5324 Jul 13 09:11 | 0°♄ | | | 5325 Jun 15 01:44 | 0°♄ | |
| | 5324 Jul 31 06:49 | 0°♄ | | morning max el | 5325 Jun 18 00:48 | 2°♄40'42 | 27°10'50 |
| asc. node | 5324 Aug 01 12:58 | 2°♄34'25 | | | 5325 Jul 07 19:22 | 0°♄ | |
| morning set | 5324 Aug 03 05:15 | 6°♄05'23 | | morning set | 5325 Jul 18 14:14 | 20°♄46'46 | |
| | | | | asc. node | 5325 Jul 19 10:00 | 22°♄31'06 | |
| superior conj | 5324 Aug 10 03:43 | 21°♄12'09 | 1°19'06 | | 5325 Jul 22 21:10 | 0°♄ | |
| minimum elong | 5324 Aug 10 01:26 | 20°♄59'36 | 1°18'46 | superior conj | 5325 Jul 25 15:34 | 6°♄05'48 | 1°00'59 |
| max. Earth dist. | 5324 Aug 10 22:13 | 22°♄54'02 | 1.32188 AU | minimum elong | 5325 Jul 25 13:22 | 5°♄53'39 | 1°00'35 |
| | 5324 Aug 14 04:20 | 0°♄ | | max. Earth dist. | 5325 Jul 25 09:18 | 5°♄31'07 | 1.31913 AU |
| evening rise | 5324 Aug 17 03:15 | 6°♄16'17 | | evening rise | 5325 Aug 01 11:09 | 20°♄57'49 | |
| | 5324 Aug 29 17:25 | 0°♄ | | | 5325 Aug 05 20:48 | 0°♄ | |
| desc. node | 5324 Sep 06 19:01 | 12°♄22'09 | | | 5325 Aug 24 07:56 | 0°♄ | |
| evening max el | 5324 Sep 17 16:08 | 25°♄12'31 | 27°13'05 | desc. node | 5325 Aug 24 16:02 | 0°♄25'13 | |
| | 5324 Sep 23 19:38 | 0°♄ | | evening max el | 5325 Aug 30 16:59 | 7°♄02'12 | 26°25'18 |
| retrograde | 5324 Oct 01 12:40 | 2°♄25'41 | | retrograde | 5325 Sep 13 15:51 | 14°♄10'31 | |
| evening set | 5324 Oct 08 15:24 | 0°♄07'23 | | evening set | 5325 Sep 20 07:21 | 12°♄21'16 | |
| | 5324 Oct 08 19:59 | 30°♄ | | min. Earth dist. | 5325 Sep 24 06:30 | 9°♄46'16 | 0.59476 AU |
| min. Earth dist. | 5324 Oct 12 06:42 | 27°♄21'51 | 0.61537 AU | inferior conj | 5325 Sep 27 12:19 | 7°♄15'33 | -4°48'25 |
| inferior conj | 5324 Oct 15 08:17 | 24°♄38'34 | -3°57'27 | minimum elong | 5325 Sep 27 17:57 | 7°♄04'35 | 4°47'26 |
| minimum elong | 5324 Oct 15 14:35 | 24°♄24'31 | 3°55'40 | morning rise | 5325 Oct 05 06:43 | 2°♄40'57 | |
| morning rise | 5324 Oct 22 15:44 | 19°♄41'57 | | direct | 5325 Oct 07 15:01 | 2°♄21'30 | |
| direct | 5324 Oct 24 23:13 | 19°♄19'32 | | asc. node | 5325 Oct 15 09:15 | 6°♄07'23 | |
| asc. node | 5324 Oct 28 12:12 | 20°♄14'11 | | morning max el | 5325 Oct 15 09:58 | 6°♄09'07 | 18°19'32 |
| morning max el | 5324 Oct 31 23:45 | 22°♄51'30 | 17°54'56 | | 5325 Oct 30 12:58 | 0°♄ | |
| | 5324 Nov 06 14:01 | 0°♄ | | morning set | 5325 Oct 31 07:44 | 1°♄29'15 | |
| morning set | 5324 Nov 16 18:18 | 17°♄37'39 | | | | | |
| | 5324 Nov 23 14:35 | 0°♄ | | superior conj | 5325 Nov 09 12:47 | 18°♄49'34 | 1°13'50 |
| superior conj | 5324 Nov 27 06:39 | 6°♄26'49 | 0°45'08 | minimum elong | 5325 Nov 09 16:33 | 19°♄06'52 | 1°13'24 |
| minimum elong | 5324 Nov 27 10:11 | 6°♄42'08 | 0°44'39 | | 5325 Nov 15 19:19 | 0°♄ | |
| desc. node | 5324 Dec 03 18:17 | 17°♄25'50 | | max. Earth dist. | 5325 Nov 17 02:05 | 2°♄12'24 | 1.40785 AU |
| max. Earth dist. | 5324 Dec 04 17:35 | 19°♄01'52 | 1.42712 AU | desc. node | 5325 Nov 20 15:19 | 8°♄11'24 | |
| evening rise | 5324 Dec 11 05:42 | 29°♄29'22 | | evening rise | 5325 Nov 21 16:48 | 9°♄56'29 | |
| | 5324 Dec 11 13:29 | 0°♄ | | | 5325 Dec 04 13:45 | 0°♄ | |
| | 5324 Dec 31 19:51 | 0°♄ | | evening max el | 5325 Dec 26 00:49 | 27°♄55'24 | 23°22'16 |
| evening max el | 5325 Jan 12 09:25 | 14°♄16'35 | 22°02'44 | | 5325 Dec 28 05:51 | 0°♄ | |
| retrograde | 5325 Jan 21 18:46 | 19°♄51'30 | | retrograde | 5326 Jan 05 13:03 | 4°♄08'17 | |
| asc. node | 5325 Jan 24 11:26 | 19°♄13'04 | | evening set | 5326 Jan 10 12:34 | 2°♄04'50 | |
| evening set | 5325 Jan 26 06:04 | 18°♄03'39 | | asc. node | 5326 Jan 11 08:29 | 1°♄19'33 | |
| inferior conj | 5325 Jan 31 14:17 | 11°♄43'44 | 2°12'12 | | 5326 Jan 12 14:16 | 30°♄ | |
| minimum elong | 5325 Jan 31 11:57 | 11°♄51'52 | 2°11'28 | inferior conj | 5326 Jan 15 22:18 | 25°♄39'40 | 1°29'23 |
| min. Earth dist. | 5325 Jan 31 14:18 | 11°♄43'43 | 0.68097 AU | minimum elong | 5326 Jan 15 20:26 | 25°♄46'06 | 1°28'41 |
| morning rise | 5325 Feb 05 17:40 | 5°♄32'43 | | min. Earth dist. | 5326 Jan 15 11:06 | 26°♄18'10 | 0.68079 AU |
| direct | 5325 Feb 10 13:43 | 3°♄29'25 | | morning rise | 5326 Jan 21 04:13 | 19°♄33'08 | |
| morning max el | 5325 Feb 20 05:08 | 9°♄10'45 | 22°29'41 | direct | 5326 Jan 25 10:08 | 17°♄52'39 | |
| desc. node | 5325 Mar 01 17:31 | 20°♄35'07 | | morning max el | 5326 Feb 02 20:59 | 22°♄45'48 | 21°06'41 |
| | 5325 Mar 08 11:53 | 0°♄ | | | 5326 Feb 09 02:14 | 0°♄ | |
| morning set | 5325 Mar 26 00:40 | 26°♄57'59 | | desc. node | 5326 Feb 16 14:33 | 10°♄17'24 | |
| | 5325 Mar 27 20:54 | 0°♄ | | | 5326 Mar 01 19:44 | 0°♄ | |
| max. Earth dist. | 5325 Mar 30 23:33 | 5°♄12'55 | 1.40518 AU | morning set | 5326 Mar 05 12:26 | 5°♄45'05 | |
| | | | | max. Earth dist. | 5326 Mar 13 02:03 | 17°♄52'06 | 1.42549 AU |
| superior conj | 5325 Apr 07 18:50 | 18°♄51'50 | -1°53'49 | superior conj | 5326 Mar 20 06:55 | 29°♄53'48 | -2°07'37 |
| minimum elong | 5325 Apr 07 23:41 | 19°♄13'38 | 1°53'26 | minimum elong | 5326 Mar 20 09:06 | 0°♄03'05 | 2°07'34 |
| | 5325 Apr 13 20:10 | 0°♄ | | | 5326 Mar 20 08:23 | 0°♄ | |
| evening rise | 5325 Apr 17 20:59 | 7°♄35'28 | | | | | |

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| evening rise | 5326 Mar 31 19:27 | 20° Υ 11'26 | | evening max el | 5327 Apr 01 00:23 | 29° Υ 41'39 | 18°11'31 |
| | 5326 Apr 06 07:16 | 0° \mathcal{B} | | | 5327 Apr 01 07:53 | 0° \mathcal{B} | |
| asc. node | 5326 Apr 09 07:45 | 5° \mathcal{B} 10'15 | | retrograde | 5327 Apr 07 10:12 | 3° \mathcal{B} 05'00 | |
| evening max el | 5326 Apr 17 11:30 | 16° \mathcal{B} 25'29 | 18°07'06 | evening set | 5327 Apr 10 07:36 | 2° \mathcal{B} 21'31 | |
| retrograde | 5326 Apr 24 03:01 | 19° \mathcal{B} 49'03 | | | 5327 Apr 13 13:45 | 30° $\mathcal{R}\Upsilon$ | |
| evening set | 5326 Apr 26 18:08 | 19° \mathcal{B} 17'20 | | inferior conj | 5327 Apr 16 10:09 | 27° Υ 05'00 | 3°25'21 |
| inferior conj | 5326 May 03 09:13 | 14° \mathcal{B} 20'23 | 2°58'09 | minimum elong | 5327 Apr 16 11:32 | 27° Υ 01'14 | 3°25'12 |
| minimum elong | 5326 May 03 12:07 | 14° \mathcal{B} 13'24 | 2°57'34 | min. Earth dist. | 5327 Apr 19 02:30 | 24° Υ 10'53 | 0.63054 AU |
| min. Earth dist. | 5326 May 06 14:18 | 11° \mathcal{B} 16'45 | 0.60930 AU | morning rise | 5327 Apr 22 14:14 | 20° Υ 58'02 | |
| morning rise | 5326 May 10 03:59 | 8° \mathcal{B} 26'00 | | direct | 5327 Apr 29 10:37 | 18° Υ 20'41 | |
| desc. node | 5326 May 15 13:46 | 6° \mathcal{B} 17'38 | | desc. node | 5327 May 02 10:47 | 18° Υ 47'53 | |
| direct | 5326 May 16 20:25 | 6° \mathcal{B} 12'52 | | morning max el | 5327 May 13 09:46 | 26° Υ 20'38 | 27°48'24 |
| morning max el | 5326 May 31 02:34 | 14° \mathcal{B} 09'34 | 27°48'33 | | 5327 May 16 19:28 | 0° \mathcal{B} | |
| | 5326 Jun 12 20:09 | 0° Π | | | 5327 Jun 06 10:14 | 0° Π | |
| | 5326 Jun 30 05:20 | 0° \mathcal{E} | | morning set | 5327 Jun 16 17:52 | 19° Π 18'26 | |
| morning set | 5326 Jul 02 19:09 | 5° \mathcal{E} 13'14 | | | 5327 Jun 21 21:44 | 0° \mathcal{E} | |
| asc. node | 5326 Jul 06 07:02 | 12° \mathcal{E} 35'01 | | max. Earth dist. | 5327 Jun 22 01:05 | 0° \mathcal{E} 17'45 | 1.32634 AU |
| max. Earth dist. | 5326 Jul 08 19:33 | 18° \mathcal{E} 03'03 | 1.32058 AU | asc. node | 5327 Jun 23 04:03 | 2° \mathcal{E} 42'00 | |
| | | | | | | | |
| superior conj | 5326 Jul 10 02:28 | 20° \mathcal{E} 52'31 | 0°38'49 | superior conj | 5327 Jun 24 10:37 | 5° \mathcal{E} 26'45 | 0°13'13 |
| minimum elong | 5326 Jul 10 00:49 | 20° \mathcal{E} 43'29 | 0°38'29 | minimum elong | 5327 Jun 24 09:59 | 5° \mathcal{E} 23'20 | 0°13'04 |
| | 5326 Jul 14 06:08 | 0° Ω | | behind sun begin | 5327 Jun 24 06:57 | 5° \mathcal{E} 06'56 | |
| evening rise | 5326 Jul 16 21:57 | 5° Ω 44'46 | | behind sun end | 5327 Jun 24 13:01 | 5° \mathcal{E} 39'45 | |
| | 5326 Jul 29 15:21 | 0° \mathcal{M} | | evening rise | 5327 Jul 01 09:45 | 20° \mathcal{E} 30'59 | |
| desc. node | 5326 Aug 11 13:03 | 17° \mathcal{M} 11'06 | | | 5327 Jul 06 00:11 | 0° Ω | |
| evening max el | 5326 Aug 12 10:15 | 18° \mathcal{M} 03'06 | 25°08'05 | evening max el | 5327 Jul 24 22:41 | 28° Ω 29'05 | 23°33'11 |
| retrograde | 5326 Aug 26 08:26 | 25° \mathcal{M} 05'33 | | | 5327 Jul 26 14:22 | 0° \mathcal{M} | |
| evening set | 5326 Aug 31 23:38 | 23° \mathcal{M} 53'10 | | desc. node | 5327 Jul 29 10:03 | 2° \mathcal{M} 10'20 | |
| min. Earth dist. | 5326 Sep 05 21:49 | 21° \mathcal{M} 10'50 | 0.57478 AU | retrograde | 5327 Aug 07 12:56 | 5° \mathcal{M} 18'14 | |
| inferior conj | 5326 Sep 08 21:13 | 19° \mathcal{M} 10'57 | -5°17'00 | evening set | 5327 Aug 11 16:55 | 4° \mathcal{M} 40'10 | |
| minimum elong | 5326 Sep 08 22:58 | 19° \mathcal{M} 08'00 | 5°16'56 | min. Earth dist. | 5327 Aug 18 08:24 | 1° \mathcal{M} 33'16 | 0.55844 AU |
| morning rise | 5326 Sep 17 00:34 | 14° \mathcal{M} 59'07 | | inferior conj | 5327 Aug 20 09:57 | 0° \mathcal{M} 19'34 | -5°06'41 |
| direct | 5326 Sep 19 13:32 | 14° \mathcal{M} 40'11 | | minimum elong | 5327 Aug 20 05:14 | 0° \mathcal{M} 26'37 | 5°06'10 |
| morning max el | 5326 Sep 28 11:42 | 18° \mathcal{M} 53'26 | 19°05'22 | | 5327 Aug 20 23:06 | 30° $\mathcal{R}\Omega$ | |
| asc. node | 5326 Oct 02 06:16 | 23° \mathcal{M} 10'10 | | morning rise | 5327 Aug 28 19:59 | 26° Ω 25'42 | |
| | 5326 Oct 06 19:27 | 0° \mathcal{L} | | direct | 5327 Aug 31 16:30 | 26° Ω 05'35 | |
| morning set | 5326 Oct 15 06:39 | 15° \mathcal{L} 47'34 | | | 5327 Sep 10 00:59 | 0° \mathcal{M} | |
| | 5326 Oct 22 11:16 | 0° \mathcal{M} | | morning max el | 5327 Sep 11 02:13 | 0° \mathcal{M} 55'52 | 20°13'10 |
| | | | | asc. node | 5327 Sep 19 03:19 | 11° \mathcal{M} 07'47 | |
| superior conj | 5326 Oct 23 13:21 | 2° \mathcal{M} 06'09 | 1°32'15 | morning set | 5327 Sep 29 11:54 | 0° \mathcal{L} 23'31 | |
| minimum elong | 5326 Oct 23 15:59 | 2° \mathcal{M} 18'51 | 1°32'03 | | 5327 Sep 29 07:17 | 0° \mathcal{L} | |
| max. Earth dist. | 5326 Oct 30 07:24 | 14° \mathcal{M} 42'13 | 1.38673 AU | | | | |
| evening rise | 5326 Nov 03 02:44 | 21° \mathcal{M} 25'30 | | superior conj | 5327 Oct 07 03:22 | 16° \mathcal{L} 02'08 | 1°41'33 |
| desc. node | 5326 Nov 07 12:21 | 28° \mathcal{M} 51'46 | | minimum elong | 5327 Oct 07 04:27 | 16° \mathcal{L} 07'35 | 1°41'32 |
| | 5326 Nov 08 04:56 | 0° \mathcal{J} | | max. Earth dist. | 5327 Oct 12 13:36 | 26° \mathcal{L} 41'52 | 1.36632 AU |
| | 5326 Nov 28 13:44 | 0° \mathcal{Z} | | | 5327 Oct 14 07:32 | 0° \mathcal{M} | |
| evening max el | 5326 Dec 08 14:00 | 11° \mathcal{Z} 38'01 | 24°41'01 | evening rise | 5327 Oct 16 09:48 | 3° \mathcal{M} 52'06 | |
| retrograde | 5326 Dec 20 03:25 | 18° \mathcal{Z} 22'10 | | desc. node | 5327 Oct 25 09:20 | 19° \mathcal{M} 22'19 | |
| evening set | 5326 Dec 25 16:16 | 16° \mathcal{Z} 03'47 | | | 5327 Nov 01 04:22 | 0° \mathcal{J} | |
| asc. node | 5326 Dec 29 05:30 | 12° \mathcal{Z} 12'45 | | evening max el | 5327 Nov 21 02:30 | 25° \mathcal{J} 21'26 | 25°51'57 |
| min. Earth dist. | 5326 Dec 30 06:37 | 10° \mathcal{Z} 51'13 | 0.67694 AU | | 5327 Nov 26 17:05 | 0° \mathcal{Z} | |
| inferior conj | 5326 Dec 31 04:48 | 9° \mathcal{Z} 37'34 | 0°39'45 | retrograde | 5327 Dec 03 13:06 | 2° \mathcal{Z} 27'17 | |
| minimum elong | 5326 Dec 31 03:51 | 9° \mathcal{Z} 40'43 | 0°39'22 | evening set | 5327 Dec 09 15:27 | 29° \mathcal{J} 56'19 | |
| morning rise | 5327 Jan 05 15:34 | 3° \mathcal{Z} 37'28 | | | 5327 Dec 09 13:41 | 30° $\mathcal{R}\mathcal{J}$ | |
| direct | 5327 Jan 09 08:26 | 2° \mathcal{Z} 18'48 | | min. Earth dist. | 5327 Dec 13 22:34 | 25° \mathcal{J} 18'38 | 0.66952 AU |
| morning max el | 5327 Jan 16 20:40 | 6° \mathcal{Z} 33'13 | 19°55'30 | inferior conj | 5327 Dec 15 07:55 | 23° \mathcal{J} 33'40 | -0°15'51 |
| desc. node | 5327 Feb 03 11:35 | 0° \approx 23'18 | | minimum elong | 5327 Dec 15 08:20 | 23° \mathcal{J} 32'22 | 0°15'40 |
| | 5327 Feb 03 05:23 | 0° \approx | | transit middle | 5327 Dec 15 08:20 | 23° \mathcal{J} 32'22 | 0°15'40 |
| morning set | 5327 Feb 12 09:00 | 13° \approx 56'42 | | transit begin | 5327 Dec 15 07:39 | 23° \mathcal{J} 34'31 | |
| | 5327 Feb 22 15:23 | 0° \mathcal{H} | | transit end | 5327 Dec 15 09:01 | 23° \mathcal{J} 30'13 | |
| max. Earth dist. | 5327 Feb 23 12:39 | 1° \mathcal{H} 24'34 | 1.44138 AU | asc. node | 5327 Dec 16 02:32 | 22° \mathcal{J} 35'28 | |
| | | | | morning rise | 5327 Dec 21 01:41 | 17° \mathcal{J} 42'14 | |
| superior conj | 5327 Feb 28 17:41 | 9° \mathcal{H} 47'51 | -2°06'09 | direct | 5327 Dec 24 07:08 | 16° \mathcal{J} 42'35 | |
| minimum elong | 5327 Feb 28 14:03 | 9° \mathcal{H} 33'02 | 2°06'02 | morning max el | 5327 Dec 31 04:03 | 20° \mathcal{J} 30'11 | 18°59'01 |
| | 5327 Mar 12 20:09 | 0° Υ | | | 5328 Jan 07 17:34 | 0° \mathcal{Z} | |
| evening rise | 5327 Mar 13 23:28 | 1° Υ 56'42 | | desc. node | 5328 Jan 21 08:35 | 20° \mathcal{Z} 45'42 | |
| asc. node | 5327 Mar 27 04:47 | 23° Υ 42'34 | | morning set | 5328 Jan 22 14:57 | 22° \mathcal{Z} 44'05 | |

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|------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| | 5328 Jan 27 06:41 | 0°♊ | | superior conj | 5329 Jan 17 08:35 | 27°♊22'15 | -1°06'32 |
| max. Earth dist. | 5328 Feb 06 04:47 | 15°♊31'37 | 1.45095 AU | minimum elong | 5329 Jan 17 00:37 | 26°♊50'56 | 1°05'31 |
| | | | | max. Earth dist. | 5329 Jan 18 23:30 | 29°♊54'55 | 1.45329 AU |
| superior conj | 5328 Feb 08 05:32 | 18°♊43'28 | -1°45'09 | | 5329 Jan 19 00:47 | 0°♊ | |
| minimum elong | 5328 Feb 07 20:35 | 18°♊08'13 | 1°44'24 | evening rise | 5329 Feb 02 11:47 | 22°♊37'28 | |
| | 5328 Feb 15 07:55 | 0°♊ | | | 5329 Feb 07 04:46 | 0°♊ | |
| evening rise | 5328 Feb 23 05:08 | 12°♊44'26 | | greatest brilliancy | 5329 Feb 13 13:08 | 9°♊51'42 | -0.8m |
| | 5328 Mar 04 21:04 | 0°♊ | | evening max el | 5329 Feb 25 21:07 | 26°♊39'02 | 19°14'51 |
| asc. node | 5328 Mar 13 01:48 | 11°♊33'57 | | asc. node | 5329 Feb 27 22:50 | 28°♊32'29 | |
| evening max el | 5328 Mar 14 12:20 | 13°♊07'44 | 18°34'28 | | 5329 Mar 02 05:36 | 0°♊ | |
| retrograde | 5328 Mar 21 01:41 | 16°♊43'52 | | retrograde | 5329 Mar 04 21:51 | 0°♊39'00 | |
| evening set | 5328 Mar 24 05:25 | 15°♊47'47 | | | 5329 Mar 07 11:52 | 30°♊ | |
| inferior conj | 5328 Mar 29 23:11 | 10°♊13'29 | 3°32'21 | evening set | 5329 Mar 08 08:41 | 29°♊29'27 | |
| minimum elong | 5328 Mar 29 23:00 | 10°♊14'02 | 3°32'21 | inferior conj | 5329 Mar 13 20:50 | 23°♊39'18 | 3°23'58 |
| min. Earth dist. | 5328 Apr 01 00:14 | 7°♊46'42 | 0.64885 AU | minimum elong | 5329 Mar 13 19:26 | 23°♊43'48 | 3°23'50 |
| morning rise | 5328 Apr 04 15:57 | 4°♊00'29 | | min. Earth dist. | 5329 Mar 15 06:36 | 21°♊50'30 | 0.66327 AU |
| direct | 5328 Apr 11 08:41 | 1°♊11'32 | | morning rise | 5329 Mar 19 05:50 | 17°♊24'21 | |
| desc. node | 5328 Apr 18 07:49 | 3°♊37'18 | | direct | 5329 Mar 25 13:23 | 14°♊36'50 | |
| morning max el | 5328 Apr 24 19:42 | 9°♊05'03 | 27°13'21 | desc. node | 5329 Apr 05 04:51 | 20°♊12'13 | |
| | 5328 May 11 03:36 | 0°♊ | | morning max el | 5329 Apr 07 05:36 | 22°♊09'46 | 26°10'33 |
| | 5328 May 28 19:21 | 0°♊ | | | 5329 Apr 14 02:23 | 0°♊ | |
| morning set | 5328 May 30 07:36 | 2°♊54'16 | | | 5329 May 04 09:47 | 0°♊ | |
| max. Earth dist. | 5328 Jun 03 21:54 | 12°♊04'21 | 1.33664 AU | morning set | 5329 May 13 08:34 | 15°♊49'27 | |
| | | | | max. Earth dist. | 5329 May 17 07:20 | 23°♊20'10 | 1.35166 AU |
| | | | | | 5329 May 20 16:13 | 0°♊ | |
| superior conj | 5328 Jun 07 14:04 | 19°♊42'45 | -0°15'04 | | | | |
| minimum elong | 5328 Jun 07 14:51 | 19°♊46'55 | 0°14'55 | superior conj | 5329 May 22 10:22 | 3°♊33'16 | -0°44'51 |
| behind sun begin | 5328 Jun 07 12:49 | 19°♊36'11 | | minimum elong | 5329 May 22 12:50 | 3°♊45'54 | 0°44'24 |
| behind sun end | 5328 Jun 07 16:53 | 19°♊57'38 | | asc. node | 5329 May 26 22:07 | 12°♊49'09 | |
| asc. node | 5328 Jun 09 01:05 | 22°♊48'12 | | evening rise | 5329 May 30 04:44 | 19°♊36'42 | |
| | 5328 Jun 12 10:05 | 0°♊ | | | 5329 Jun 04 09:36 | 0°♊ | |
| evening rise | 5328 Jun 14 20:41 | 5°♊10'31 | | evening max el | 5329 Jun 17 15:57 | 19°♊44'08 | 20°31'51 |
| | 5328 Jun 28 08:45 | 0°♊ | | retrograde | 5329 Jun 28 18:56 | 25°♊11'16 | |
| evening max el | 5328 Jul 05 14:07 | 8°♊52'35 | 21°56'46 | evening set | 5329 Jun 30 19:08 | 25°♊01'22 | |
| desc. node | 5328 Jul 15 07:03 | 14°♊49'06 | | desc. node | 5329 Jul 02 04:05 | 24°♊43'45 | |
| retrograde | 5328 Jul 18 06:21 | 15°♊09'46 | | inferior conj | 5329 Jul 10 00:44 | 21°♊04'14 | -2°19'22 |
| evening set | 5328 Jul 21 00:23 | 14°♊52'50 | | minimum elong | 5329 Jul 09 18:17 | 21°♊13'33 | 2°17'06 |
| inferior conj | 5328 Jul 30 07:13 | 10°♊49'34 | -4°04'57 | min. Earth dist. | 5329 Jul 11 05:55 | 20°♊22'04 | 0.54898 AU |
| minimum elong | 5328 Jul 29 22:23 | 11°♊01'57 | 4°02'41 | morning rise | 5329 Jul 18 16:38 | 16°♊56'59 | |
| min. Earth dist. | 5328 Jul 29 18:27 | 11°♊07'28 | 0.54904 AU | direct | 5329 Jul 22 14:06 | 16°♊24'17 | |
| morning rise | 5328 Aug 07 21:56 | 6°♊59'08 | | morning max el | 5329 Aug 04 21:49 | 22°♊51'02 | 23°22'51 |
| direct | 5328 Aug 11 04:23 | 6°♊35'34 | | | 5329 Aug 11 05:59 | 0°♊ | |
| morning max el | 5328 Aug 23 04:46 | 12°♊13'13 | 21°41'11 | asc. node | 5329 Aug 22 21:24 | 18°♊58'13 | |
| asc. node | 5328 Sep 05 00:21 | 29°♊47'33 | | morning set | 5329 Aug 28 08:31 | 0°♊02'54 | |
| | 5328 Sep 05 03:09 | 0°♊ | | | 5329 Aug 28 07:59 | 0°♊ | |
| morning set | 5328 Sep 12 21:11 | 15°♊10'52 | | | | | |
| | 5328 Sep 19 21:54 | 0°♊ | | superior conj | 5329 Sep 04 08:44 | 15°♊07'26 | 1°38'08 |
| superior conj | 5328 Sep 20 02:54 | 0°♊26'09 | 1°43'07 | minimum elong | 5329 Sep 04 07:16 | 14°♊59'37 | 1°38'01 |
| minimum elong | 5328 Sep 20 02:32 | 0°♊24'17 | 1°43'07 | max. Earth dist. | 5329 Sep 06 22:52 | 20°♊38'49 | 1.33497 AU |
| max. Earth dist. | 5328 Sep 24 01:50 | 8°♊34'25 | 1.34870 AU | | 5329 Sep 11 11:45 | 0°♊ | |
| evening rise | 5328 Sep 28 10:07 | 17°♊07'09 | | evening rise | 5329 Sep 11 23:26 | 0°♊58'21 | |
| | 5328 Oct 05 11:35 | 0°♊ | | desc. node | 5329 Sep 28 03:23 | 29°♊31'19 | |
| desc. node | 5328 Oct 11 06:22 | 9°♊38'03 | | | 5329 Sep 28 10:51 | 0°♊ | |
| | 5328 Oct 25 12:53 | 0°♊ | | evening max el | 5329 Oct 16 03:33 | 22°♊25'47 | 27°20'55 |
| evening max el | 5328 Nov 02 15:11 | 9°♊00'40 | 26°47'38 | retrograde | 5329 Oct 29 16:03 | 29°♊44'05 | |
| retrograde | 5328 Nov 15 17:34 | 16°♊17'27 | | evening set | 5329 Nov 05 16:05 | 27°♊05'15 | |
| evening set | 5328 Nov 22 08:13 | 13°♊38'46 | | min. Earth dist. | 5329 Nov 09 10:59 | 23°♊36'51 | 0.64422 AU |
| min. Earth dist. | 5328 Nov 26 08:46 | 9°♊36'16 | 0.65860 AU | inferior conj | 5329 Nov 11 19:48 | 21°♊05'16 | -2°19'35 |
| inferior conj | 5328 Nov 28 05:43 | 7°♊24'45 | -1°16'13 | minimum elong | 5329 Nov 11 23:52 | 20°♊54'22 | 2°17'59 |
| minimum elong | 5328 Nov 28 07:52 | 7°♊18'27 | 1°15'17 | morning rise | 5329 Nov 18 08:59 | 15°♊39'04 | |
| asc. node | 5328 Dec 01 23:34 | 3°♊25'20 | | asc. node | 5329 Nov 18 20:38 | 15°♊27'43 | |
| morning rise | 5328 Dec 04 08:24 | 1°♊44'27 | | direct | 5329 Nov 20 22:00 | 15°♊05'56 | |
| direct | 5328 Dec 07 04:26 | 1°♊00'03 | | morning max el | 5329 Nov 27 09:43 | 18°♊31'10 | 17°55'17 |
| morning max el | 5328 Dec 13 17:18 | 4°♊31'48 | 18°18'39 | | 5329 Dec 05 20:38 | 0°♊ | |
| | 5328 Dec 31 04:38 | 0°♊ | | morning set | 5329 Dec 14 14:07 | 14°♊31'52 | |
| morning set | 5329 Jan 02 00:00 | 2°♊55'02 | | | 5329 Dec 23 20:49 | 0°♊ | |
| desc. node | 5329 Jan 07 05:37 | 11°♊19'56 | | desc. node | 5329 Dec 25 02:40 | 2°♊01'55 | |

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|---------------------|-------------------|------------------------|------------------|-------------------|------------------------|--|
| superior conj | 5329 Dec 27 23:10 | 6°33'21" -0°19'53" | morning set | 5330 Nov 27 03:27 | 27°11'15"39 | |
| minimum elong | 5329 Dec 27 20:49 | 6°32'54" 0°19'32" | | 5330 Nov 28 16:33 | 0°0' | |
| max. Earth dist. | 5330 Jan 01 18:28 | 14°31'22" 1.44826 AU | | | | |
| | 5330 Jan 11 19:43 | 0°0' | superior conj | 5330 Dec 08 14:16 | 17°08'55" 0°23'53" | |
| evening rise | 5330 Jan 13 01:42 | 1°05'55"23 | minimum elong | 5330 Dec 08 16:31 | 17°18'26" 0°23'34" | |
| greatest brilliancy | 5330 Jan 27 19:35 | 24°01'12"4 -0.6m | desc. node | 5330 Dec 11 23:41 | 22°07'47"58 | |
| | 5330 Jan 31 20:50 | 0°0' | max. Earth dist. | 5330 Dec 15 11:05 | 28°07'28"08 1.43649 AU | |
| evening max el | 5330 Feb 09 01:11 | 10°08'12"53 20°10'46" | | 5330 Dec 16 09:54 | 0°0' | |
| asc. node | 5330 Feb 14 19:53 | 14°08'24"06 | evening rise | 5330 Dec 23 12:41 | 11°03'13"19 | |
| retrograde | 5330 Feb 16 19:56 | 14°08'45"27 | | 5331 Jan 04 23:29 | 0°0' | |
| evening set | 5330 Feb 20 15:08 | 13°08'21"33 | evening max el | 5331 Jan 22 23:43 | 23°00'47"33 21°19'16" | |
| inferior conj | 5330 Feb 26 00:12 | 7°08'17"42 3°03'36" | retrograde | 5331 Jan 31 17:47 | 28°00'58"46 | |
| minimum elong | 5330 Feb 25 22:03 | 7°08'24"56 3°03'11" | asc. node | 5331 Feb 01 16:56 | 28°00'53"47 | |
| min. Earth dist. | 5330 Feb 26 19:47 | 6°08'11"27 0.67342 AU | evening set | 5331 Feb 04 22:52 | 27°00'19"37 | |
| morning rise | 5330 Mar 03 04:45 | 1°08'03"11 | inferior conj | 5331 Feb 10 06:54 | 21°00'04"40 2°33'25" | |
| | 5330 Mar 04 12:05 | 30°08'00" | minimum elong | 5331 Feb 10 04:30 | 21°00'13"00 2°32'45" | |
| direct | 5330 Mar 08 23:39 | 28°00'27"57 | min. Earth dist. | 5331 Feb 10 13:40 | 20°00'41"16 0.67938 AU | |
| | 5330 Mar 13 23:16 | 0°0' | morning rise | 5331 Feb 15 09:57 | 14°00'52"10 | |
| morning max el | 5330 Mar 20 14:22 | 5°08'24"50 24°49'37" | direct | 5331 Feb 20 14:27 | 12°00'36"16 | |
| desc. node | 5330 Mar 23 01:53 | 8°08'03"27 | morning max el | 5331 Mar 02 23:19 | 18°00'45"55 23°20'42" | |
| | 5330 Apr 08 13:40 | 0°0' | desc. node | 5331 Mar 09 22:55 | 26°00'48"52 | |
| morning set | 5330 Apr 25 15:54 | 27°00'50"17 | | 5331 Mar 12 09:56 | 0°0' | |
| | 5330 Apr 26 20:59 | 0°0' | | 5331 Apr 01 17:07 | 0°0' | |
| max. Earth dist. | 5330 Apr 29 06:41 | 4°08'22"00 1.37087 AU | morning set | 5331 Apr 06 23:31 | 8°00'40"13 | |
| | | | max. Earth dist. | 5331 Apr 11 02:10 | 15°00'42"35 1.39259 AU | |
| superior conj | 5330 May 05 20:29 | 16°08'50"23 -1°14'26" | | | | |
| minimum elong | 5330 May 06 00:36 | 17°08'10"32 1°13'48" | superior conj | 5331 Apr 18 16:24 | 29°00'23"12 -1°41'11" | |
| | 5330 May 12 11:08 | 0°0' | minimum elong | 5331 Apr 18 21:28 | 29°00'46"43 1°40'37" | |
| asc. node | 5330 May 13 19:10 | 2°02'40"56 | | 5331 Apr 19 00:19 | 0°0' | |
| evening rise | 5330 May 14 07:35 | 3°02'43"05 | evening rise | 5331 Apr 28 02:16 | 17°08'21"06 | |
| | 5330 May 30 00:33 | 0°0' | asc. node | 5331 Apr 30 16:12 | 22°08'18"12 | |
| evening max el | 5330 May 31 06:24 | 1°00'17"36 19°25'17" | | 5331 May 04 20:18 | 0°0' | |
| retrograde | 5330 Jun 09 15:40 | 5°00'52"51 | evening max el | 5331 May 14 07:26 | 13°02'30"20 18°39'06" | |
| evening set | 5330 Jun 11 14:20 | 5°00'41"55 | retrograde | 5331 May 22 06:14 | 17°02'25"29 | |
| desc. node | 5330 Jun 19 01:06 | 2°00'20"07 | evening set | 5331 May 24 10:27 | 17°02'08"53 | |
| inferior conj | 5330 Jun 20 05:01 | 1°00'35"22 -0°20'49" | inferior conj | 5331 Jun 01 05:10 | 12°02'44"00 1°20'15" | |
| minimum elong | 5330 Jun 20 04:06 | 1°00'36"51 0°20'29" | minimum elong | 5331 Jun 01 07:55 | 12°02'38"47 1°19'19" | |
| | 5330 Jun 22 16:05 | 30°08'00" | min. Earth dist. | 5331 Jun 04 12:53 | 10°02'14"14 0.57535 AU | |
| min. Earth dist. | 5330 Jun 22 19:35 | 29°02'54"29 0.55846 AU | desc. node | 5331 Jun 05 22:08 | 9°02'16"42 | |
| morning rise | 5330 Jun 28 15:07 | 26°02'55"55 | morning rise | 5331 Jun 09 02:06 | 7°02'28"45 | |
| direct | 5330 Jul 03 09:24 | 26°02'04"36 | direct | 5331 Jun 14 18:24 | 6°02'08"29 | |
| | 5330 Jul 13 16:45 | 0°0' | morning max el | 5331 Jun 29 03:22 | 13°02'42"42 26°33'11" | |
| morning max el | 5330 Jul 17 11:14 | 3°00'11"06 25°05'31" | | 5331 Jul 12 01:25 | 0°0' | |
| | 5330 Aug 05 09:00 | 0°0' | asc. node | 5331 Jul 27 15:30 | 28°00'21"37 | |
| asc. node | 5330 Aug 09 18:28 | 8°00'31"49 | morning set | 5331 Jul 28 06:43 | 29°00'41"37 | |
| morning set | 5330 Aug 12 20:14 | 14°00'54"47 | | 5331 Jul 28 10:12 | 0°0' | |
| superior conj | 5330 Aug 19 18:27 | 29°00'58"22 1°27'29" | superior conj | 5331 Aug 04 06:01 | 14°00'52"37 1°11'56" | |
| minimum elong | 5330 Aug 19 16:20 | 29°00'46"49 1°27'14" | minimum elong | 5331 Aug 04 03:43 | 14°00'39"54 1°11'34" | |
| | 5330 Aug 19 18:44 | 0°0' | max. Earth dist. | 5331 Aug 04 13:58 | 15°00'36"27 1.32025 AU | |
| max. Earth dist. | 5330 Aug 21 03:55 | 3°00'01"15 1.32552 AU | evening rise | 5331 Aug 11 03:25 | 29°00'50"21 | |
| evening rise | 5330 Aug 26 22:10 | 15°00'15"37 | | 5331 Aug 11 05:15 | 0°0' | |
| | 5330 Sep 03 12:15 | 0°0' | | 5331 Aug 27 15:52 | 0°0' | |
| desc. node | 5330 Sep 15 00:24 | 18°00'52"46 | desc. node | 5331 Sep 01 21:25 | 7°00'29"40 | |
| | 5330 Sep 23 11:16 | 0°0' | evening max el | 5331 Sep 10 18:24 | 17°00'40"50 26°56'42" | |
| evening max el | 5330 Sep 28 13:33 | 5°00'23"35 27°25'19" | retrograde | 5331 Sep 24 15:41 | 24°00'51"17 | |
| retrograde | 5330 Oct 12 07:40 | 12°00'38"14 | evening set | 5331 Oct 01 15:23 | 22°00'43"52 | |
| evening set | 5330 Oct 19 11:50 | 10°00'09"14 | min. Earth dist. | 5331 Oct 05 08:35 | 20°00'05"05 0.60675 AU | |
| min. Earth dist. | 5330 Oct 23 03:14 | 7°00'10"36 0.62669 AU | inferior conj | 5331 Oct 08 13:00 | 17°00'25"04 -4°20'53" | |
| inferior conj | 5330 Oct 25 23:19 | 4°00'28"13 -3°22'56" | minimum elong | 5331 Oct 08 19:20 | 17°00'11"44 4°19'22" | |
| minimum elong | 5330 Oct 26 05:05 | 4°00'14"26 3°21'02" | morning rise | 5331 Oct 16 01:16 | 12°00'37"37 | |
| | 5330 Oct 31 12:30 | 30°08'00" | direct | 5331 Oct 18 08:49 | 12°00'16"40 | |
| morning rise | 5330 Nov 02 00:02 | 29°00'19"37 | asc. node | 5331 Oct 23 14:44 | 14°00'09"42 | |
| direct | 5330 Nov 04 08:46 | 28°00'54"06 | morning max el | 5331 Oct 25 15:53 | 15°00'53"43 18°02'55" | |
| asc. node | 5330 Nov 05 17:42 | 29°00'02"56 | | 5331 Nov 04 11:40 | 0°0' | |
| | 5330 Nov 08 02:52 | 0°0' | morning set | 5331 Nov 10 09:39 | 10°00'47"30 | |
| morning max el | 5330 Nov 11 02:18 | 2°00'21"01 17°49'41" | | | | |

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| superior conj | 5331 Nov 20 07:27 | 28°♄54'54 | 0°58'36 | | 5332 Oct 26 19:03 | 0°♄ | |
| minimum elong | 5331 Nov 20 11:20 | 29°♄12'09 | 0°58'06 | | | | |
| | 5331 Nov 20 22:09 | 0°♄ | | superior conj | 5332 Nov 01 22:07 | 11°♄42'56 | 1°22'50 |
| max. Earth dist. | 5331 Nov 27 23:00 | 12°♄04'46 | 1.41932 AU | minimum elong | 5332 Nov 02 01:31 | 11°♄58'50 | 1°22'30 |
| desc. node | 5331 Nov 28 20:43 | 13°♄35'03 | | max. Earth dist. | 5332 Nov 09 05:32 | 24°♄56'41 | 1.39892 AU |
| evening rise | 5331 Dec 03 12:06 | 21°♄08'32 | | | 5332 Nov 12 03:58 | 0°♄ | |
| | 5331 Dec 09 03:33 | 0°♄ | | evening rise | 5332 Nov 13 08:49 | 2°♄01'42 | |
| | 5331 Dec 30 06:23 | 0°♄ | | desc. node | 5332 Nov 14 17:43 | 4°♄18'53 | |
| evening max el | 5332 Jan 05 17:14 | 7°♄24'22 | 22°36'09 | | 5332 Dec 01 11:05 | 0°♄ | |
| retrograde | 5332 Jan 15 13:51 | 13°♄15'53 | | evening max el | 5332 Dec 18 07:14 | 21°♄04'04 | 23°56'10 |
| asc. node | 5332 Jan 19 13:57 | 11°♄52'32 | | retrograde | 5332 Dec 29 06:44 | 27°♄32'02 | |
| evening set | 5332 Jan 20 06:17 | 11°♄21'07 | | evening set | 5333 Jan 03 11:48 | 25°♄21'56 | |
| inferior conj | 5332 Jan 25 14:58 | 4°♄58'21 | 1°54'55 | asc. node | 5333 Jan 05 10:59 | 23°♄24'14 | |
| minimum elong | 5332 Jan 25 12:47 | 5°♄05'58 | 1°54'10 | inferior conj | 5333 Jan 08 22:33 | 18°♄55'29 | 1°09'06 |
| min. Earth dist. | 5332 Jan 25 10:03 | 5°♄15'26 | 0.68138 AU | minimum elong | 5333 Jan 08 21:01 | 19°♄00'42 | 1°08'30 |
| | 5332 Jan 29 13:08 | 30°♄3 | | min. Earth dist. | 5333 Jan 08 06:37 | 19°♄49'36 | 0.67959 AU |
| morning rise | 5332 Jan 30 19:10 | 28°♄49'13 | | morning rise | 5333 Jan 14 06:16 | 12°♄51'22 | |
| direct | 5332 Feb 04 09:02 | 26°♄55'52 | | direct | 5333 Jan 18 06:20 | 11°♄20'36 | |
| | 5332 Feb 11 00:46 | 0°♄ | | morning max el | 5333 Jan 26 06:56 | 15°♄56'21 | 20°34'40 |
| morning max el | 5332 Feb 13 11:49 | 2°♄15'43 | 21°53'16 | | 5333 Feb 06 11:08 | 0°♄ | |
| desc. node | 5332 Feb 24 19:58 | 16°♄13'44 | | desc. node | 5333 Feb 10 17:00 | 6°♄06'54 | |
| | 5332 Mar 05 09:12 | 0°♄ | | morning set | 5333 Feb 24 05:37 | 26°♄34'03 | |
| morning set | 5332 Mar 17 02:53 | 18°♄09'48 | | | 5333 Feb 26 10:27 | 0°♄ | |
| max. Earth dist. | 5332 Mar 23 00:52 | 27°♄50'03 | 1.41421 AU | max. Earth dist. | 5333 Mar 05 06:24 | 10°♄51'28 | 1.43287 AU |
| | 5332 Mar 24 07:54 | 0°♄ | | | | | |
| superior conj | 5332 Mar 30 17:27 | 11°♄00'53 | -2°01'11 | superior conj | 5333 Mar 11 18:57 | 21°♄33'50 | -2°09'11 |
| minimum elong | 5332 Mar 30 21:34 | 11°♄19'01 | 2°00'56 | minimum elong | 5333 Mar 11 18:57 | 21°♄33'52 | 2°09'12 |
| evening rise | 5332 Apr 10 09:18 | 0°♄22'23 | | | 5333 Mar 16 18:32 | 0°♄ | |
| | 5332 Apr 10 04:27 | 0°♄ | | evening rise | 5333 Mar 24 00:27 | 12°♄37'44 | |
| asc. node | 5332 Apr 16 13:13 | 11°♄35'40 | | asc. node | 5333 Apr 03 10:14 | 0°♄26'58 | |
| evening max el | 5332 Apr 26 15:42 | 26°♄14'32 | 18°13'08 | | 5333 Apr 03 03:24 | 0°♄ | |
| retrograde | 5332 May 03 15:30 | 29°♄45'21 | | evening max el | 5333 Apr 10 03:51 | 9°♄21'41 | 18°06'43 |
| evening set | 5332 May 06 02:37 | 29°♄19'55 | | retrograde | 5333 Apr 16 15:52 | 12°♄43'37 | |
| inferior conj | 5332 May 13 02:45 | 24°♄34'39 | 2°31'02 | evening set | 5333 Apr 19 09:36 | 12°♄07'11 | |
| minimum elong | 5332 May 13 06:10 | 24°♄27'05 | 2°30'09 | inferior conj | 5333 Apr 25 18:52 | 7°♄02'01 | 3°12'31 |
| min. Earth dist. | 5332 May 16 12:06 | 21°♄36'00 | 0.59647 AU | minimum elong | 5333 Apr 25 21:11 | 6°♄56'09 | 3°12'09 |
| morning rise | 5332 May 20 06:58 | 18°♄51'06 | | min. Earth dist. | 5333 Apr 28 19:15 | 3°♄59'25 | 0.61851 AU |
| desc. node | 5332 May 22 19:10 | 17°♄39'00 | | morning rise | 5333 May 02 07:00 | 1°♄01'05 | |
| direct | 5332 May 26 16:47 | 16°♄56'26 | | | 5333 May 03 21:54 | 30°♄9 | |
| morning max el | 5332 Jun 10 01:42 | 24°♄48'19 | 27°31'36 | direct | 5333 May 09 02:10 | 28°♄35'55 | |
| | 5332 Jun 14 19:50 | 0°♄ | | desc. node | 5333 May 09 16:12 | 28°♄36'56 | |
| | 5332 Jul 04 08:38 | 0°♄ | | | 5333 May 14 14:27 | 0°♄ | |
| morning set | 5332 Jul 11 14:12 | 14°♄17'26 | | morning max el | 5333 May 23 06:05 | 6°♄36'07 | 27°53'07 |
| asc. node | 5332 Jul 13 12:30 | 18°♄21'47 | | | 5333 Jun 09 23:19 | 0°♄ | |
| max. Earth dist. | 5332 Jul 18 01:12 | 28°♄13'02 | 1.31917 AU | morning set | 5333 Jun 25 16:47 | 28°♄36'11 | |
| | | | | | 5333 Jun 26 09:08 | 0°♄ | |
| superior conj | 5332 Jul 18 17:39 | 29°♄43'47 | 0°52'02 | asc. node | 5333 Jun 30 09:31 | 8°♄27'49 | |
| minimum elong | 5332 Jul 18 15:38 | 29°♄32'38 | 0°51'39 | max. Earth dist. | 5333 Jul 01 09:45 | 10°♄38'32 | 1.32238 AU |
| | 5332 Jul 18 20:35 | 0°♄ | | | | | |
| evening rise | 5332 Jul 25 12:45 | 14°♄34'38 | | superior conj | 5333 Jul 03 03:37 | 14°♄26'22 | 0°28'22 |
| | 5332 Aug 02 05:28 | 0°♄ | | minimum elong | 5333 Jul 03 02:21 | 14°♄19'26 | 0°28'05 |
| desc. node | 5332 Aug 18 18:26 | 25°♄03'17 | | evening rise | 5333 Jul 10 00:11 | 29°♄22'09 | |
| evening max el | 5332 Aug 22 15:46 | 29°♄08'38 | 25°55'30 | | 5333 Jul 10 07:18 | 0°♄ | |
| | 5332 Aug 23 13:58 | 0°♄ | | | 5333 Jul 26 23:21 | 0°♄ | |
| retrograde | 5332 Sep 05 14:51 | 6°♄15'32 | | evening max el | 5333 Aug 04 06:16 | 9°♄52'10 | 24°29'06 |
| evening set | 5332 Sep 11 21:47 | 4°♄41'03 | | desc. node | 5333 Aug 05 15:25 | 11°♄08'25 | |
| min. Earth dist. | 5332 Sep 16 04:14 | 2°♄05'30 | 0.58601 AU | retrograde | 5333 Aug 18 02:53 | 16°♄51'12 | |
| inferior conj | 5332 Sep 19 09:13 | 29°♄45'20 | -5°04'13 | evening set | 5333 Aug 23 03:43 | 15°♄54'35 | |
| minimum elong | 5332 Sep 19 13:38 | 29°♄37'14 | 5°03'40 | min. Earth dist. | 5333 Aug 28 17:23 | 13°♄03'26 | 0.56714 AU |
| | 5332 Sep 19 01:14 | 30°♄9 | | inferior conj | 5333 Aug 31 09:28 | 11°♄21'31 | -5°18'27 |
| morning rise | 5332 Sep 27 07:47 | 25°♄20'59 | | minimum elong | 5333 Aug 31 08:36 | 11°♄22'53 | 5°18'25 |
| direct | 5332 Sep 29 17:33 | 25°♄02'05 | | morning rise | 5333 Sep 08 15:55 | 7°♄18'17 | |
| morning max el | 5332 Oct 07 23:00 | 28°♄59'01 | 18°36'23 | direct | 5333 Sep 11 07:32 | 6°♄59'13 | |
| | 5332 Oct 08 23:07 | 0°♄ | | morning max el | 5333 Sep 20 20:19 | 11°♄27'13 | 19°31'27 |
| asc. node | 5332 Oct 09 11:46 | 0°♄34'36 | | asc. node | 5333 Sep 26 08:49 | 18°♄02'45 | |
| morning set | 5332 Oct 24 03:32 | 24°♄51'40 | | | 5333 Oct 03 11:20 | 0°♄ | |
| | | | | morning set | 5333 Oct 08 05:30 | 9°♄18'30 | |

| | | | | | | | |
|---------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| superior conj | 5333 Oct 16 05:00 | 25°♄18'05 | 1°37'13 | morning set | 5334 Sep 22 12:45 | 24°♄00'04 | |
| minimum elong | 5333 Oct 16 06:59 | 25°♄27'52 | 1°37'06 | | 5334 Sep 25 10:05 | 0°♄ | |
| | 5333 Oct 18 14:59 | 0°♄ | | | | | |
| max. Earth dist. | 5333 Oct 22 10:08 | 7°♄09'35 | 1.37788 AU | superior conj | 5334 Sep 29 23:29 | 9°♄27'05 | 1°43'05 |
| evening rise | 5333 Oct 26 04:13 | 13°♄56'48 | | minimum elong | 5334 Sep 29 23:55 | 9°♄29'21 | 1°43'05 |
| desc. node | 5333 Nov 01 14:43 | 24°♄55'40 | | max. Earth dist. | 5334 Oct 04 18:33 | 19°♄04'10 | 1.35846 AU |
| | 5333 Nov 04 18:04 | 0°♄ | | evening rise | 5334 Oct 08 19:11 | 26°♄45'40 | |
| | 5333 Nov 26 08:24 | 0°♄ | | | 5334 Oct 10 13:23 | 0°♄ | |
| evening max el | 5333 Nov 30 19:59 | 4°♄47'37 | 25°12'34 | desc. node | 5334 Oct 19 11:44 | 15°♄20'53 | |
| retrograde | 5333 Dec 12 19:19 | 11°♄42'39 | | | 5334 Oct 29 03:35 | 0°♄ | |
| evening set | 5333 Dec 18 13:48 | 9°♄18'44 | | evening max el | 5334 Nov 13 08:51 | 18°♄31'35 | 26°17'58 |
| min. Earth dist. | 5333 Dec 23 01:03 | 4°♄20'35 | 0.67422 AU | retrograde | 5334 Nov 26 02:47 | 25°♄42'36 | |
| asc. node | 5333 Dec 23 08:02 | 3°♄57'56 | | evening set | 5334 Dec 02 10:33 | 23°♄07'57 | |
| inferior conj | 5333 Dec 24 03:52 | 2°♄53'14 | 0°16'48 | min. Earth dist. | 5334 Dec 06 14:56 | 18°♄45'05 | 0.66534 AU |
| minimum elong | 5333 Dec 24 03:27 | 2°♄54'37 | 0°16'39 | inferior conj | 5334 Dec 08 05:03 | 16°♄48'30 | -0°40'57 |
| | 5333 Dec 26 11:11 | 30°♄♄ | | minimum elong | 5334 Dec 08 06:10 | 16°♄45'06 | 0°40'26 |
| morning rise | 5333 Dec 29 17:21 | 26°♄56'16 | | asc. node | 5334 Dec 10 05:05 | 14°♄26'04 | |
| direct | 5334 Jan 02 05:06 | 25°♄46'04 | | morning rise | 5334 Dec 14 02:22 | 11°♄01'14 | |
| morning max el | 5334 Jan 09 09:57 | 29°♄47'55 | 19°29'24 | direct | 5334 Dec 17 03:37 | 10°♄08'22 | |
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| greatest brilliancy | 5334 Jan 22 12:04 | 17°♄08'24 | -0.7m | | 5335 Jan 04 18:16 | 0°♄ | |
| desc. node | 5334 Jan 28 14:01 | 26°♄20'27 | | morning set | 5335 Jan 13 19:29 | 14°♄12'46 | |
| | 5334 Jan 30 23:18 | 0°♄ | | desc. node | 5335 Jan 15 11:01 | 16°♄48'47 | |
| morning set | 5334 Feb 03 02:59 | 4°♄51'33 | | | 5335 Jan 23 20:13 | 0°♄ | |
| max. Earth dist. | 5334 Feb 15 19:11 | 24°♄39'01 | 1.44629 AU | max. Earth dist. | 5335 Jan 29 13:16 | 8°♄57'19 | 1.45292 AU |
| | 5334 Feb 19 03:57 | 0°♄ | | | | | |
| | | | | superior conj | 5335 Jan 30 00:53 | 9°♄42'53 | -1°30'30 |
| superior conj | 5334 Feb 19 19:05 | 1°♄00'27 | -1°59'42 | minimum elong | 5335 Jan 29 15:27 | 9°♄05'53 | 1°29'30 |
| minimum elong | 5334 Feb 19 12:43 | 0°♄35'01 | 1°59'21 | | 5335 Feb 11 21:12 | 0°♄ | |
| evening rise | 5334 Mar 05 19:16 | 23°♄58'28 | | evening rise | 5335 Feb 14 14:57 | 4°♄22'22 | |
| | 5334 Mar 09 09:30 | 0°♄ | | greatest brilliancy | 5335 Feb 22 13:09 | 17°♄02'33 | -0.9m |
| asc. node | 5334 Mar 21 07:16 | 18°♄43'22 | | | 5335 Mar 03 02:09 | 0°♄ | |
| evening max el | 5334 Mar 24 16:43 | 22°♄43'12 | 18°19'10 | evening max el | 5335 Mar 08 03:40 | 6°♄12'44 | 18°49'37 |
| retrograde | 5334 Mar 31 02:55 | 26°♄10'14 | | asc. node | 5335 Mar 08 04:20 | 6°♄14'24 | |
| evening set | 5334 Apr 03 03:01 | 25°♄21'28 | | retrograde | 5335 Mar 14 20:46 | 9°♄57'22 | |
| inferior conj | 5334 Apr 09 01:25 | 19°♄57'26 | 3°30'26 | evening set | 5335 Mar 18 03:31 | 8°♄55'28 | |
| minimum elong | 5334 Apr 09 02:06 | 19°♄55'28 | 3°30'24 | inferior conj | 5335 Mar 23 18:32 | 3°♄14'08 | 3°30'25 |
| min. Earth dist. | 5334 Apr 11 11:29 | 17°♄13'03 | 0.63878 AU | minimum elong | 5335 Mar 23 17:47 | 3°♄16'28 | 3°30'23 |
| morning rise | 5334 Apr 15 00:16 | 13°♄47'31 | | min. Earth dist. | 5335 Mar 25 12:54 | 1°♄02'54 | 0.65556 AU |
| direct | 5334 Apr 21 20:07 | 11°♄03'16 | | | 5335 Mar 26 09:59 | 30°♄♄ | |
| desc. node | 5334 Apr 26 13:14 | 12°♄10'21 | | morning rise | 5335 Mar 29 07:37 | 27°♄00'12 | |
| morning max el | 5334 May 05 14:31 | 19°♄01'49 | 27°37'23 | direct | 5335 Apr 04 21:03 | 24°♄10'34 | |
| | 5334 May 14 21:26 | 0°♄ | | desc. node | 5335 Apr 13 10:16 | 27°♄49'00 | |
| | 5334 Jun 02 22:04 | 0°♄ | | | 5335 Apr 16 00:23 | 0°♄ | |
| morning set | 5334 Jun 09 12:01 | 12°♄29'40 | | morning max el | 5335 Apr 18 00:37 | 1°♄56'11 | 26°49'28 |
| max. Earth dist. | 5334 Jun 14 11:47 | 22°♄41'01 | 1.33012 AU | | 5335 May 09 01:20 | 0°♄ | |
| | | | | morning set | 5335 May 23 20:47 | 25°♄49'10 | |
| superior conj | 5334 Jun 17 10:02 | 28°♄53'35 | 0°01'32 | | 5335 May 26 00:41 | 0°♄ | |
| minimum elong | 5334 Jun 17 09:58 | 28°♄53'13 | 0°01'29 | max. Earth dist. | 5335 May 28 04:01 | 4°♄14'16 | 1.34255 AU |
| behind sun begin | 5334 Jun 17 04:37 | 28°♄24'34 | | | | | |
| behind sun end | 5334 Jun 17 15:19 | 29°♄21'53 | | superior conj | 5335 Jun 01 10:45 | 12°♄59'31 | -0°27'35 |
| asc. node | 5334 Jun 17 06:32 | 28°♄34'49 | | minimum elong | 5335 Jun 01 12:14 | 13°♄07'15 | 0°27'19 |
| | 5334 Jun 17 22:25 | 0°♄ | | asc. node | 5335 Jun 04 03:34 | 18°♄39'17 | |
| evening rise | 5334 Jun 24 11:50 | 14°♄06'04 | | evening rise | 5335 Jun 08 21:49 | 28°♄40'43 | |
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| evening max el | 5334 Jul 16 19:04 | 20°♄13'03 | 22°51'33 | | 5335 Jun 27 20:26 | 0°♄ | |
| desc. node | 5334 Jul 23 12:27 | 25°♄11'57 | | evening max el | 5335 Jun 28 14:14 | 0°♄44'52 | 21°18'34 |
| retrograde | 5334 Jul 30 01:57 | 26°♄50'32 | | desc. node | 5335 Jul 10 09:29 | 6°♄41'43 | |
| evening set | 5334 Aug 02 14:13 | 26°♄23'35 | | retrograde | 5335 Jul 10 15:35 | 6°♄41'52 | |
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| inferior conj | 5334 Aug 11 14:35 | 22°♄11'39 | -4°46'59 | inferior conj | 5335 Jul 22 08:19 | 2°♄30'19 | -3°23'59 |
| minimum elong | 5334 Aug 11 07:26 | 22°♄21'55 | 4°45'45 | minimum elong | 5335 Jul 21 23:44 | 2°♄42'20 | 3°21'22 |
| morning rise | 5334 Aug 20 02:47 | 18°♄21'10 | | min. Earth dist. | 5335 Jul 22 13:31 | 2°♄23'02 | 0.54785 AU |
| direct | 5334 Aug 23 03:20 | 17°♄59'49 | | | 5335 Jul 27 02:32 | 30°♄♄ | |
| morning max el | 5334 Sep 03 05:32 | 23°♄09'44 | 20°48'21 | morning rise | 5335 Jul 31 00:13 | 28°♄35'37 | |
| | 5334 Sep 09 02:47 | 0°♄ | | direct | 5335 Aug 03 12:33 | 28°♄09'00 | |
| asc. node | 5334 Sep 13 05:50 | 6°♄19'31 | | | 5335 Aug 10 12:14 | 0°♄ | |














































































































































































































































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| asc. node | 5335 Aug 31 02:52 | 25°01'16 | | | 5336 Aug 08 20:12 | 0°01 | |
| | 5335 Sep 02 15:04 | 0°00 | | asc. node | 5336 Aug 16 23:54 | 14°03'45 | |
| morning set | 5335 Sep 06 23:07 | 8°09'58 | | morning set | 5336 Aug 21 10:50 | 23°04'12 | |
| | | | | | 5336 Aug 24 09:03 | 0°00 | |
| superior conj | 5335 Sep 14 01:59 | 23°09'03 | 1°41'44 | superior conj | 5336 Aug 28 09:45 | 8°09'45 | 1°34'15 |
| minimum elong | 5335 Sep 14 01:07 | 23°09'54 | 1°41'42 | minimum elong | 5336 Aug 28 07:58 | 8°09'36 | 1°34'06 |
| | 5335 Sep 16 22:51 | 0°01 | | max. Earth dist. | 5336 Aug 30 11:24 | 13°09'13 | 1.33034 AU |
| max. Earth dist. | 5335 Sep 17 10:42 | 1°01'15 | 1.34233 AU | evening rise | 5336 Sep 04 19:10 | 24°09'20 | |
| evening rise | 5335 Sep 22 01:27 | 10°01'55 | | | 5336 Sep 07 15:39 | 0°01 | |
| | 5335 Oct 02 23:40 | 0°00 | | desc. node | 5336 Sep 22 05:48 | 25°09'54 | |
| desc. node | 5335 Oct 06 08:45 | 5°00'28 | | | 5336 Sep 25 13:11 | 0°00 | |
| | 5335 Oct 24 19:05 | 0°00 | | evening max el | 5336 Oct 08 09:02 | 15°00'21 | 27°26'35 |
| evening max el | 5335 Oct 26 21:36 | 2°00'06 | 27°04'58 | retrograde | 5336 Oct 22 00:18 | 22°00'38 | |
| retrograde | 5335 Nov 09 04:34 | 9°00'24 | | evening set | 5336 Oct 29 03:02 | 20°00'02 | |
| evening set | 5335 Nov 15 23:51 | 6°00'44 | | min. Earth dist. | 5336 Nov 01 19:53 | 16°00'48 | 0.63712 AU |
| min. Earth dist. | 5335 Nov 19 21:52 | 2°00'56 | 0.65293 AU | inferior conj | 5336 Nov 04 09:50 | 14°00'10 | -2°46'40 |
| inferior conj | 5335 Nov 21 23:53 | 0°00'35 | -1°42'51 | minimum elong | 5336 Nov 04 14:41 | 13°00'57 | 2°44'53 |
| minimum elong | 5335 Nov 22 02:51 | 0°00'27 | 1°41'36 | morning rise | 5336 Nov 11 03:53 | 8°00'51 | |
| | 5335 Nov 22 12:41 | 30°00'00 | | asc. node | 5336 Nov 12 23:10 | 8°00'24 | |
| asc. node | 5335 Nov 27 02:09 | 25°00'42 | | direct | 5336 Nov 13 14:41 | 8°00'21 | |
| morning rise | 5335 Nov 28 06:52 | 25°00'01 | | morning max el | 5336 Nov 20 04:03 | 11°00'46 | 17°50'45 |
| direct | 5335 Nov 30 23:43 | 24°00'22 | | | 5336 Dec 02 14:05 | 0°00 | |
| morning max el | 5335 Dec 07 11:06 | 27°00'49 | 18°06'39 | morning set | 5336 Dec 06 18:12 | 7°00'10 | |
| | 5335 Dec 09 10:29 | 0°00 | | | | | |
| morning set | 5335 Dec 25 17:24 | 25°00'02 | | superior conj | 5336 Dec 19 06:48 | 28°00'18 | -0°00'31 |
| | 5335 Dec 28 17:58 | 0°00 | | minimum elong | 5336 Dec 19 06:44 | 28°00'18 | 0°00'29 |
| desc. node | 5336 Jan 02 08:02 | 7°00'26 | | behind sun begin | 5336 Dec 18 21:01 | 27°00'18 | |
| | | | | behind sun end | 5336 Dec 19 16:28 | 28°00'18 | |
| superior conj | 5336 Jan 09 06:31 | 18°00'31 | -0°47'00 | desc. node | 5336 Dec 19 05:05 | 28°00'11 | |
| minimum elong | 5336 Jan 09 00:43 | 18°00'08 | 0°46'12 | | 5336 Dec 20 07:37 | 0°00 | |
| max. Earth dist. | 5336 Jan 12 09:02 | 23°00'25 | 1.45209 AU | max. Earth dist. | 5336 Dec 25 03:09 | 7°00'45 | 1.44402 AU |
| | 5336 Jan 16 13:45 | 0°00 | | evening rise | 5337 Jan 04 00:03 | 23°00'11 | |
| evening rise | 5336 Jan 25 13:20 | 13°00'55 | | | 5337 Jan 08 11:05 | 0°00 | |
| | 5336 Feb 04 23:16 | 0°00 | | | 5337 Jan 29 12:53 | 0°00 | |
| greatest brilliancy | 5336 Feb 07 12:15 | 3°00'50 | -0.7m | evening max el | 5337 Feb 01 12:12 | 3°00'19 | 20°38'27 |
| evening max el | 5336 Feb 19 10:34 | 19°00'45 | 19°36'47 | asc. node | 5337 Feb 08 22:27 | 8°00'05 | |
| asc. node | 5336 Feb 23 01:24 | 22°00'46 | | retrograde | 5337 Feb 09 16:29 | 8°00'08 | |
| retrograde | 5336 Feb 26 18:09 | 23°00'58 | | evening set | 5337 Feb 13 15:38 | 6°00'38 | |
| evening set | 5336 Mar 01 08:25 | 22°00'42 | | inferior conj | 5337 Feb 19 00:01 | 0°00'28 | 2°51'54 |
| inferior conj | 5336 Mar 06 18:57 | 16°00'45 | 3°16'38 | minimum elong | 5337 Feb 18 21:43 | 0°00'36 | 2°51'22 |
| minimum elong | 5336 Mar 06 17:11 | 16°00'51 | 3°16'23 | | 5337 Feb 19 08:26 | 30°00'00 | |
| min. Earth dist. | 5336 Mar 07 22:24 | 15°00'15 | 0.66814 AU | min. Earth dist. | 5337 Feb 19 13:59 | 29°00'40 | 0.67647 AU |
| morning rise | 5336 Mar 12 01:41 | 10°00'30 | | morning rise | 5337 Feb 24 03:35 | 24°00'14 | |
| direct | 5336 Mar 18 04:02 | 7°00'47 | | direct | 5337 Mar 01 16:20 | 21°00'47 | |
| desc. node | 5336 Mar 30 07:18 | 14°00'59 | | morning max el | 5337 Mar 12 18:58 | 28°00'25 | 24°12'03 |
| morning max el | 5336 Mar 30 10:15 | 15°00'07 | 25°37'44 | | 5337 Mar 14 07:04 | 0°00 | |
| | 5336 Apr 11 15:17 | 0°00 | | desc. node | 5337 Mar 17 04:20 | 3°00'16 | |
| | 5336 Apr 30 21:42 | 0°00 | | | 5337 Apr 05 09:03 | 0°00 | |
| morning set | 5336 May 05 14:56 | 8°00'23 | | morning set | 5337 Apr 17 12:57 | 19°00'56 | |
| max. Earth dist. | 5336 May 09 09:05 | 15°00'22 | 1.35942 AU | max. Earth dist. | 5337 Apr 21 05:41 | 26°00'27 | 1.37991 AU |
| | | | | | 5337 Apr 23 04:35 | 0°00 | |
| superior conj | 5336 May 15 03:07 | 26°00'36 | -0°57'35 | superior conj | 5337 Apr 28 07:41 | 9°00'36 | -1°26'22 |
| minimum elong | 5336 May 15 06:19 | 26°00'52 | 0°57'00 | minimum elong | 5337 Apr 28 12:21 | 9°00'58 | 1°25'42 |
| | 5336 May 16 19:26 | 0°00 | | evening rise | 5337 May 07 03:43 | 26°00'55 | |
| asc. node | 5336 May 21 00:38 | 8°00'37 | | asc. node | 5337 May 07 21:41 | 28°00'23 | |
| evening rise | 5336 May 23 03:58 | 12°00'59 | | | 5337 May 08 17:23 | 0°00 | |
| | 5336 Jun 01 02:30 | 0°00 | | evening max el | 5337 May 23 16:38 | 23°00'44 | 19°03'10 |
| evening max el | 5336 Jun 09 21:20 | 11°00'53 | 20°01'03 | retrograde | 5337 Jun 01 10:12 | 28°00'00 | |
| retrograde | 5336 Jun 20 06:31 | 16°00'58 | | evening set | 5337 Jun 03 10:37 | 27°00'48 | |
| evening set | 5336 Jun 22 04:28 | 16°00'48 | | inferior conj | 5337 Jun 11 16:59 | 23°00'34 | 0°25'25 |
| desc. node | 5336 Jun 26 06:31 | 15°00'30 | | minimum elong | 5337 Jun 11 18:00 | 23°00'33 | 0°25'01 |
| inferior conj | 5336 Jul 01 04:51 | 12°00'48 | -1°28'33 | desc. node | 5337 Jun 13 03:33 | 22°00'34 | |
| minimum elong | 5336 Jul 01 00:43 | 12°00'55 | 1°27'00 | min. Earth dist. | 5337 Jun 14 17:04 | 21°00'30 | 0.56483 AU |
| min. Earth dist. | 5336 Jul 03 01:45 | 11°00'41 | 0.55186 AU | morning rise | 5337 Jun 19 22:08 | 18°00'39 | |
| morning rise | 5336 Jul 09 19:16 | 8°00'29 | | | | | |
| direct | 5336 Jul 14 00:42 | 7°00'50 | | | | | |

| | | | | | | | |
|------------------|-------------------|---------------------------------|------------|------------------|-------------------|---------------------------------|------------|
| direct | 5337 Jun 25 01:54 | 17° Π 36'43 | | morning rise | 5338 May 31 16:26 | 29° \mathcal{B} 33'33 | |
| morning max el | 5337 Jul 09 08:13 | 24° Π 57'31 | 25°45'39 | direct | 5338 Jun 06 17:19 | 27° \mathcal{B} 58'26 | |
| | 5337 Jul 14 00:22 | 0° \mathcal{E} | | | 5338 Jun 13 18:41 | 0° Π | |
| | 5337 Aug 01 18:18 | 0° \mathcal{Q} | | morning max el | 5338 Jun 21 02:35 | 5° Π 41'19 | 27°02'07 |
| asc. node | 5337 Aug 03 20:56 | 4° \mathcal{Q} 16'11 | | | 5338 Jul 09 02:06 | 0° \mathcal{E} | |
| morning set | 5337 Aug 05 22:11 | 8° \mathcal{Q} 33'33 | | morning set | 5338 Jul 21 07:33 | 23° \mathcal{E} 16'11 | |
| | | | | asc. node | 5338 Jul 21 17:58 | 24° \mathcal{E} 11'06 | |
| | | | | | 5338 Jul 24 10:58 | 0° \mathcal{Q} | |
| superior conj | 5337 Aug 12 20:29 | 23° \mathcal{Q} 39'17 | 1°21'28 | | | | |
| minimum elong | 5337 Aug 12 18:14 | 23° \mathcal{Q} 26'54 | 1°21'10 | | | | |
| max. Earth dist. | 5337 Aug 13 18:44 | 25° \mathcal{Q} 41'38 | 1.32268 AU | superior conj | 5338 Jul 28 08:17 | 8° \mathcal{Q} 33'00 | 1°04'00 |
| | 5337 Aug 15 18:03 | 0° \mathcal{M} | | minimum elong | 5338 Jul 28 06:02 | 8° \mathcal{Q} 20'37 | 1°03'37 |
| evening rise | 5337 Aug 19 20:57 | 8° \mathcal{M} 46'16 | | max. Earth dist. | 5338 Jul 28 05:37 | 8° \mathcal{Q} 18'15 | 1.31930 AU |
| | 5337 Aug 31 00:36 | 0° \mathcal{A} | | evening rise | 5338 Aug 04 04:12 | 23° \mathcal{Q} 26'05 | |
| desc. node | 5337 Sep 09 02:49 | 14° \mathcal{A} 14'24 | | | 5338 Aug 07 08:21 | 0° \mathcal{M} | |
| evening max el | 5337 Sep 20 17:01 | 28° \mathcal{A} 02'46 | 27°17'20 | | 5338 Aug 25 02:45 | 0° \mathcal{A} | |
| | 5337 Sep 22 21:45 | 0° \mathcal{M} | | desc. node | 5338 Aug 26 23:49 | 2° \mathcal{A} 26'52 | |
| retrograde | 5337 Oct 04 13:07 | 5° \mathcal{M} 16'26 | | evening max el | 5338 Sep 02 19:02 | 9° \mathcal{A} 59'54 | 26°34'28 |
| evening set | 5337 Oct 11 16:27 | 2° \mathcal{M} 55'03 | | retrograde | 5338 Sep 16 17:30 | 17° \mathcal{A} 08'29 | |
| | 5337 Oct 15 10:30 | 30° \mathcal{R} \mathcal{A} | | evening set | 5338 Sep 23 11:32 | 15° \mathcal{A} 14'19 | |
| min. Earth dist. | 5337 Oct 15 07:36 | 0° \mathcal{M} 06'21 | 0.61836 AU | min. Earth dist. | 5338 Sep 27 08:46 | 12° \mathcal{A} 38'50 | 0.59787 AU |
| inferior conj | 5337 Oct 18 07:50 | 27° \mathcal{A} 22'50 | -3°48'38 | inferior conj | 5338 Sep 30 14:28 | 10° \mathcal{A} 05'15 | -4°41'52 |
| minimum elong | 5337 Oct 18 14:03 | 27° \mathcal{A} 08'44 | 3°46'48 | minimum elong | 5338 Sep 30 20:23 | 9° \mathcal{A} 53'30 | 4°40'42 |
| morning rise | 5337 Oct 25 13:33 | 22° \mathcal{A} 22'57 | | morning rise | 5338 Oct 08 07:19 | 5° \mathcal{A} 27'09 | |
| direct | 5337 Oct 27 21:12 | 21° \mathcal{A} 59'53 | | direct | 5338 Oct 10 15:19 | 5° \mathcal{A} 07'21 | |
| asc. node | 5337 Oct 30 20:11 | 22° \mathcal{A} 38'47 | | asc. node | 5338 Oct 17 17:13 | 8° \mathcal{A} 20'04 | |
| morning max el | 5337 Nov 03 19:44 | 25° \mathcal{A} 30'24 | 17°52'57 | morning max el | 5338 Oct 18 06:53 | 8° \mathcal{A} 51'58 | 18°14'33 |
| | 5337 Nov 07 14:10 | 0° \mathcal{M} | | | 5338 Oct 31 23:23 | 0° \mathcal{M} | |
| morning set | 5337 Nov 19 15:23 | 20° \mathcal{M} 16'37 | | morning set | 5338 Nov 03 03:03 | 4° \mathcal{M} 03'29 | |
| | 5337 Nov 25 01:02 | 0° \mathcal{X} | | | | | |
| | | | | superior conj | 5338 Nov 12 12:07 | 21° \mathcal{M} 34'58 | 1°10'10 |
| superior conj | 5337 Nov 30 09:15 | 9° \mathcal{X} 21'33 | 0°39'51 | minimum elong | 5338 Nov 12 15:58 | 21° \mathcal{M} 52'30 | 1°09'42 |
| minimum elong | 5337 Nov 30 12:33 | 9° \mathcal{X} 35'43 | 0°39'24 | | 5338 Nov 17 05:35 | 0° \mathcal{X} | |
| desc. node | 5337 Dec 06 02:06 | 18° \mathcal{X} 58'38 | | max. Earth dist. | 5338 Nov 20 02:45 | 4° \mathcal{X} 57'41 | 1.41089 AU |
| max. Earth dist. | 5337 Dec 07 17:19 | 21° \mathcal{X} 39'47 | 1.42970 AU | desc. node | 5338 Nov 22 23:06 | 9° \mathcal{X} 44'37 | |
| | 5337 Dec 12 21:44 | 0° \mathcal{Z} | | evening rise | 5338 Nov 24 22:25 | 12° \mathcal{X} 59'13 | |
| evening rise | 5337 Dec 14 14:36 | 2° \mathcal{Z} 40'55 | | | 5338 Dec 05 19:46 | 0° \mathcal{Z} | |
| | 5338 Jan 01 22:29 | 0° \mathcal{A} | | | 5338 Dec 28 11:09 | 0° \mathcal{A} | |
| evening max el | 5338 Jan 15 08:28 | 16° \mathcal{A} 55'09 | 21°51'16 | evening max el | 5338 Dec 29 00:22 | 0° \mathcal{A} 33'37 | 23°10'19 |
| retrograde | 5338 Jan 24 13:48 | 22° \mathcal{A} 23'54 | | retrograde | 5339 Jan 08 08:30 | 6° \mathcal{A} 40'57 | |
| asc. node | 5338 Jan 26 19:27 | 21° \mathcal{A} 57'21 | | evening set | 5339 Jan 13 06:10 | 4° \mathcal{A} 39'44 | |
| evening set | 5338 Jan 28 23:25 | 20° \mathcal{A} 38'23 | | asc. node | 5339 Jan 13 16:28 | 4° \mathcal{A} 17'12 | |
| inferior conj | 5338 Feb 03 07:33 | 14° \mathcal{A} 19'44 | 2°18'05 | | 5339 Jan 17 08:57 | 30° \mathcal{R} \mathcal{Z} | |
| minimum elong | 5338 Feb 03 05:11 | 14° \mathcal{A} 27'59 | 2°17'21 | inferior conj | 5339 Jan 18 15:36 | 28° \mathcal{Z} 15'10 | 1°36'20 |
| min. Earth dist. | 5338 Feb 03 09:19 | 14° \mathcal{A} 13'37 | 0.68070 AU | minimum elong | 5339 Jan 18 13:38 | 28° \mathcal{Z} 21'58 | 1°35'37 |
| morning rise | 5338 Feb 08 10:45 | 8° \mathcal{A} 08'16 | | min. Earth dist. | 5339 Jan 18 06:00 | 28° \mathcal{Z} 48'13 | 0.68106 AU |
| direct | 5338 Feb 13 09:02 | 6° \mathcal{A} 01'31 | | morning rise | 5339 Jan 23 21:00 | 22° \mathcal{Z} 07'58 | |
| morning max el | 5338 Feb 23 04:53 | 11° \mathcal{A} 50'10 | 22°42'45 | direct | 5339 Jan 28 04:58 | 20° \mathcal{Z} 24'08 | |
| desc. node | 5338 Mar 04 01:22 | 22° \mathcal{A} 20'39 | | morning max el | 5339 Feb 05 19:43 | 25° \mathcal{Z} 23'44 | 21°18'28 |
| | 5338 Mar 09 15:34 | 0° \mathcal{H} | | | 5339 Feb 09 22:44 | 0° \mathcal{A} | |
| morning set | 5338 Mar 29 08:56 | 0° \mathcal{Y} 13'15 | | desc. node | 5339 Feb 18 22:23 | 11° \mathcal{A} 58'43 | |
| | 5338 Mar 29 05:43 | 0° \mathcal{Y} | | | 5339 Mar 03 02:43 | 0° \mathcal{H} | |
| max. Earth dist. | 5338 Apr 03 01:19 | 8° \mathcal{Y} 04'23 | 1.40197 AU | morning set | 5339 Mar 09 00:30 | 9° \mathcal{H} 10'41 | |
| | | | | max. Earth dist. | 5339 Mar 16 02:59 | 20° \mathcal{H} 36'31 | 1.42272 AU |
| | | | | | 5339 Mar 21 17:50 | 0° \mathcal{Y} | |
| superior conj | 5338 Apr 10 20:17 | 21° \mathcal{Y} 47'58 | -1°50'47 | | | | |
| minimum elong | 5338 Apr 11 01:15 | 22° \mathcal{Y} 10'34 | 1°50'20 | | | | |
| | 5338 Apr 15 06:57 | 0° \mathcal{B} | | superior conj | 5339 Mar 23 11:52 | 2° \mathcal{Y} 59'47 | -2°06'23 |
| evening rise | 5338 Apr 20 17:58 | 10° \mathcal{B} 19'03 | | minimum elong | 5339 Mar 23 14:40 | 3° \mathcal{Y} 11'50 | 2°06'17 |
| asc. node | 5338 Apr 24 18:43 | 17° \mathcal{B} 53'34 | | evening rise | 5339 Apr 03 18:47 | 23° \mathcal{Y} 02'08 | |
| | 5338 May 01 21:38 | 0° \mathcal{H} | | | 5339 Apr 07 15:21 | 0° \mathcal{B} | |
| evening max el | 5338 May 06 21:19 | 6° \mathcal{H} 12'50 | 18°25'38 | asc. node | 5339 Apr 11 15:45 | 7° \mathcal{B} 01'02 | |
| retrograde | 5338 May 14 08:43 | 9° \mathcal{H} 55'11 | | evening max el | 5339 Apr 20 07:41 | 19° \mathcal{B} 08'17 | 18°08'00 |
| evening set | 5338 May 16 15:57 | 9° \mathcal{H} 35'07 | | retrograde | 5339 Apr 27 00:57 | 22° \mathcal{B} 33'14 | |
| inferior conj | 5338 May 24 02:26 | 5° \mathcal{H} 01'54 | 1°54'05 | evening set | 5339 Apr 29 15:04 | 22° \mathcal{B} 03'09 | |
| minimum elong | 5338 May 24 05:46 | 4° \mathcal{H} 55'08 | 1°53'04 | inferior conj | 5339 May 06 08:22 | 17° \mathcal{B} 09'05 | 2°51'50 |
| min. Earth dist. | 5338 May 27 12:41 | 2° \mathcal{H} 16'49 | 0.58407 AU | minimum elong | 5339 May 06 11:26 | 17° \mathcal{B} 01'50 | 2°51'12 |
| | 5338 May 30 21:05 | 30° \mathcal{R} \mathcal{B} | | min. Earth dist. | 5339 May 09 14:47 | 14° \mathcal{B} 06'03 | 0.60602 AU |
| desc. node | 5338 May 31 00:34 | 29° \mathcal{B} 55'01 | | morning rise | 5339 May 13 05:33 | 11° \mathcal{B} 17'12 | |

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|------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| desc. node | 5339 May 17 21:36 | 9°♄19'48 | | desc. node | 5340 May 03 18:39 | 21°♄26'27 | |
| direct | 5339 May 19 20:31 | 9°♄08'46 | | morning max el | 5340 May 15 10:09 | 29°♄09'54 | 27°50'47 |
| morning max el | 5339 Jun 03 03:30 | 17°♄04'10 | 27°45'22 | | 5340 May 16 05:49 | 0°♄ | |
| | 5339 Jun 13 20:11 | 0°♄ | | | 5340 Jun 06 18:00 | 0°♄ | |
| | 5339 Jul 01 16:47 | 0°♄ | | morning set | 5340 Jun 18 13:02 | 21°♄54'37 | |
| morning set | 5339 Jul 05 13:13 | 7°♄45'24 | | | 5340 Jun 22 10:58 | 0°♄ | |
| asc. node | 5339 Jul 08 15:00 | 14°♄14'21 | | max. Earth dist. | 5340 Jun 23 22:48 | 3°♄10'26 | 1.32516 AU |
| max. Earth dist. | 5339 Jul 11 16:19 | 20°♄52'17 | 1.32007 AU | asc. node | 5340 Jun 24 12:02 | 4°♄21'22 | |
| superior conj | 5339 Jul 12 19:25 | 23°♄21'08 | 0°42'26 | superior conj | 5340 Jun 26 04:07 | 7°♄57'52 | 0°17'19 |
| minimum elong | 5339 Jul 12 17:39 | 23°♄11'28 | 0°42'04 | minimum elong | 5340 Jun 26 03:18 | 7°♄53'27 | 0°17'07 |
| | 5339 Jul 15 19:51 | 0°♄ | | evening rise | 5340 Jul 03 02:29 | 22°♄59'39 | |
| evening rise | 5339 Jul 19 14:41 | 8°♄12'45 | | | 5340 Jul 06 11:10 | 0°♄ | |
| | 5339 Jul 30 20:35 | 0°♄ | | | 5340 Jul 25 11:40 | 0°♄ | |
| desc. node | 5339 Aug 13 20:50 | 19°♄26'30 | | evening max el | 5340 Jul 27 02:01 | 1°♄37'21 | 23°47'52 |
| evening max el | 5339 Aug 15 13:21 | 21°♄07'55 | 25°21'06 | desc. node | 5340 Jul 30 17:52 | 4°♄44'21 | |
| retrograde | 5339 Aug 29 11:47 | 28°♄11'35 | | retrograde | 5340 Aug 09 18:25 | 8°♄29'55 | |
| evening set | 5339 Sep 04 07:36 | 26°♄53'21 | | evening set | 5340 Aug 14 03:53 | 7°♄47'22 | |
| min. Earth dist. | 5339 Sep 09 01:01 | 24°♄13'31 | 0.57759 AU | min. Earth dist. | 5340 Aug 20 12:08 | 4°♄44'59 | 0.56046 AU |
| inferior conj | 5339 Sep 12 02:24 | 22°♄07'49 | -5°14'51 | inferior conj | 5340 Aug 22 18:02 | 3°♄23'33 | -5°11'28 |
| minimum elong | 5339 Sep 12 04:58 | 22°♄03'23 | 5°14'40 | minimum elong | 5340 Aug 22 14:18 | 3°♄29'12 | 5°11'09 |
| morning rise | 5339 Sep 20 04:36 | 17°♄52'53 | | | 5340 Aug 29 07:41 | 30°♄ | |
| direct | 5339 Sep 22 16:41 | 17°♄33'59 | | morning rise | 5340 Aug 31 03:12 | 29°♄27'45 | |
| morning max el | 5339 Oct 01 10:08 | 21°♄42'30 | 18°57'09 | direct | 5340 Sep 02 22:19 | 29°♄08'01 | |
| asc. node | 5339 Oct 04 14:15 | 25°♄13'48 | | | 5340 Sep 07 07:33 | 0°♄ | |
| | 5339 Oct 07 23:11 | 0°♄ | | morning max el | 5340 Sep 13 02:31 | 3°♄52'10 | 20°01'43 |
| morning set | 5339 Oct 18 00:48 | 18°♄19'00 | | asc. node | 5340 Sep 20 11:18 | 13°♄04'12 | |
| | 5339 Oct 23 23:15 | 0°♄ | | | 5340 Sep 29 19:03 | 0°♄ | |
| | | | | morning set | 5340 Oct 01 05:19 | 2°♄53'04 | |
| superior conj | 5339 Oct 26 10:20 | 4°♄45'13 | 1°30'04 | superior conj | 5340 Oct 08 22:41 | 18°♄36'36 | 1°40'40 |
| minimum elong | 5339 Oct 26 13:11 | 4°♄58'52 | 1°29'49 | minimum elong | 5340 Oct 09 00:01 | 18°♄43'14 | 1°40'37 |
| max. Earth dist. | 5339 Nov 02 08:30 | 17°♄34'17 | 1.38989 AU | max. Earth dist. | 5340 Oct 14 14:02 | 29°♄36'25 | 1.36923 AU |
| evening rise | 5339 Nov 06 05:01 | 24°♄19'26 | | | 5340 Oct 14 19:01 | 0°♄ | |
| desc. node | 5339 Nov 09 20:06 | 0°♄26'14 | | | 5340 Oct 18 09:13 | 6°♄38'27 | |
| | 5339 Nov 09 13:46 | 0°♄ | | evening rise | 5340 Oct 18 09:13 | 6°♄38'27 | |
| | 5339 Nov 29 14:05 | 0°♄ | | desc. node | 5340 Oct 26 17:07 | 20°♄58'44 | |
| evening max el | 5339 Dec 11 13:42 | 14°♄15'41 | 24°29'32 | | 5340 Nov 01 10:05 | 0°♄ | |
| retrograde | 5339 Dec 22 23:33 | 20°♄55'53 | | evening max el | 5340 Nov 23 02:10 | 27°♄59'09 | 25°42'06 |
| evening set | 5339 Dec 28 10:24 | 18°♄39'28 | | | 5340 Nov 25 06:29 | 0°♄ | |
| asc. node | 5339 Dec 31 13:30 | 15°♄19'29 | | retrograde | 5340 Dec 05 10:05 | 5°♄02'51 | |
| min. Earth dist. | 5340 Jan 02 01:50 | 13°♄21'52 | 0.67776 AU | evening set | 5340 Dec 11 10:25 | 2°♄33'31 | |
| inferior conj | 5340 Jan 02 22:26 | 12°♄13'02 | 0°47'40 | | 5340 Dec 13 23:42 | 30°♄ | |
| minimum elong | 5340 Jan 02 21:19 | 12°♄16'46 | 0°47'14 | min. Earth dist. | 5340 Dec 15 18:33 | 27°♄50'30 | 0.67086 AU |
| morning rise | 5340 Jan 08 08:21 | 6°♄11'57 | | inferior conj | 5340 Dec 17 02:13 | 26°♄09'51 | -0°07'05 |
| direct | 5340 Jan 12 03:02 | 4°♄50'15 | | minimum elong | 5340 Dec 17 02:24 | 26°♄09'17 | 0°06'59 |
| morning max el | 5340 Jan 19 18:15 | 9°♄09'45 | 20°05'12 | transit middle | 5340 Dec 17 02:24 | 26°♄09'17 | 0°06'59 |
| | 5340 Feb 04 10:46 | 0°♄ | | transit begin | 5340 Dec 16 23:52 | 26°♄17'22 | |
| desc. node | 5340 Feb 05 19:24 | 2°♄01'30 | | transit end | 5340 Dec 17 04:57 | 26°♄01'12 | |
| morning set | 5340 Feb 15 21:51 | 17°♄23'17 | | asc. node | 5340 Dec 17 10:33 | 25°♄43'26 | |
| | 5340 Feb 23 23:36 | 0°♄ | | morning rise | 5340 Dec 22 18:49 | 20°♄16'55 | |
| max. Earth dist. | 5340 Feb 26 12:23 | 4°♄01'45 | 1.43938 AU | direct | 5340 Dec 26 01:47 | 19°♄14'43 | |
| | | | | morning max el | 5341 Jan 02 00:36 | 23°♄05'44 | 19°06'21 |
| superior conj | 5340 Mar 03 02:24 | 13°♄03'38 | -2°07'34 | | 5341 Jan 07 18:11 | 0°♄ | |
| minimum elong | 5340 Mar 02 23:45 | 12°♄52'48 | 2°07'30 | greatest brilliancy | 5341 Jan 16 14:17 | 12°♄57'54 | -0.8m |
| | 5340 Mar 13 05:01 | 0°♄ | | desc. node | 5341 Jan 22 16:25 | 22°♄21'44 | |
| evening rise | 5340 Mar 16 01:49 | 4°♄55'32 | | morning set | 5341 Jan 25 00:53 | 26°♄01'02 | |
| asc. node | 5340 Mar 28 12:46 | 25°♄38'44 | | | 5341 Jan 27 14:18 | 0°♄ | |
| | 5340 Mar 31 17:28 | 0°♄ | | max. Earth dist. | 5341 Feb 08 03:32 | 18°♄03'33 | 1.44994 AU |
| evening max el | 5340 Apr 02 20:27 | 2°♄22'18 | 18°09'39 | superior conj | 5341 Feb 10 17:07 | 22°♄06'27 | -1°49'37 |
| retrograde | 5340 Apr 09 06:35 | 5°♄44'58 | | minimum elong | 5341 Feb 10 08:40 | 21°♄33'02 | 1°48'57 |
| evening set | 5340 Apr 12 03:00 | 5°♄03'23 | | | 5341 Feb 15 16:11 | 0°♄ | |
| inferior conj | 5340 Apr 18 07:10 | 29°♄49'40 | 3°22'36 | evening rise | 5341 Feb 25 10:58 | 15°♄52'02 | |
| minimum elong | 5340 Apr 18 08:48 | 29°♄45'18 | 3°22'25 | | 5341 Mar 06 02:14 | 0°♄ | |
| | 5340 Apr 18 03:18 | 30°♄ | | asc. node | 5341 Mar 15 09:49 | 13°♄37'27 | |
| min. Earth dist. | 5340 Apr 21 01:41 | 26°♄52'45 | 0.62750 AU | evening max el | 5341 Mar 17 08:44 | 15°♄47'45 | 18°29'58 |
| morning rise | 5340 Apr 24 13:14 | 23°♄43'56 | | retrograde | 5341 Mar 23 21:05 | 19°♄21'16 | |
| direct | 5340 May 01 09:30 | 21°♄09'25 | | | | | |

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| evening set | 5341 Mar 26 23:49 | 18° Υ 27'10 | | retrograde | 5342 Mar 07 16:41 | 3° Υ 14'21 | |
| inferior conj | 5341 Apr 01 18:41 | 12° Υ 55'33 | 3°32'21 | evening set | 5342 Mar 11 02:26 | 2° Υ 06'50 | |
| minimum elong | 5341 Apr 01 18:43 | 12° Υ 55'27 | 3°32'20 | | 5342 Mar 13 13:09 | 30° \Re \Re | |
| min. Earth dist. | 5341 Apr 03 22:07 | 10° Υ 23'41 | 0.64633 AU | inferior conj | 5342 Mar 16 15:15 | 26° \Re 19'01 | 3°26'05 |
| morning rise | 5341 Apr 07 12:54 | 6° Υ 43'08 | | minimum elong | 5342 Mar 16 14:00 | 26° \Re 22'59 | 3°25'57 |
| direct | 5341 Apr 14 06:37 | 3° Υ 54'53 | | min. Earth dist. | 5342 Mar 18 03:14 | 24° \Re 24'08 | 0.66139 AU |
| desc. node | 5341 Apr 20 15:41 | 5° Υ 57'28 | | morning rise | 5342 Mar 22 01:12 | 20° \Re 04'18 | |
| morning max el | 5341 Apr 27 19:50 | 11° Υ 50'28 | 27°20'33 | direct | 5342 Mar 28 10:27 | 17° \Re 15'47 | |
| | 5341 May 12 06:40 | 0° \Re | | desc. node | 5342 Apr 07 12:43 | 22° \Re 18'26 | |
| | 5341 May 30 06:13 | 0° Π | | morning max el | 5342 Apr 10 05:45 | 24° \Re 52'31 | 26°21'19 |
| morning set | 5341 Jun 02 04:21 | 5° Π 36'01 | | | 5342 Apr 14 21:11 | 0° Υ | |
| max. Earth dist. | 5341 Jun 06 21:06 | 15° Π 01'49 | 1.33479 AU | | 5342 May 05 17:41 | 0° \Re | |
| | | | | morning set | 5342 May 16 07:28 | 18° \Re 37'54 | |
| superior conj | 5341 Jun 10 08:28 | 22° Π 17'36 | -0°10'37 | max. Earth dist. | 5342 May 20 08:12 | 26° \Re 21'28 | 1.34915 AU |
| minimum elong | 5341 Jun 10 09:01 | 22° Π 20'31 | 0°10'32 | | 5342 May 22 04:23 | 0° Π | |
| behind sun begin | 5341 Jun 10 04:50 | 21° Π 58'24 | | | | | |
| behind sun end | 5341 Jun 10 13:11 | 22° Π 42'39 | | superior conj | 5342 May 25 05:59 | 6° Π 12'27 | -0°40'18 |
| asc. node | 5341 Jun 11 09:05 | 24° Π 28'21 | | minimum elong | 5342 May 25 08:12 | 6° Π 23'48 | 0°39'52 |
| | 5341 Jun 13 23:08 | 0° \Re | | asc. node | 5342 May 29 06:07 | 14° Π 30'31 | |
| evening rise | 5341 Jun 17 13:42 | 7° \Re 41'00 | | evening rise | 5342 Jun 01 22:18 | 22° Π 09'34 | |
| | 5341 Jun 29 09:19 | 0° Ω | | | 5342 Jun 05 19:17 | 0° \Re | |
| evening max el | 5341 Jul 08 16:31 | 11° Ω 59'23 | 22°10'38 | evening max el | 5342 Jun 20 16:34 | 22° \Re 45'35 | 20°43'25 |
| desc. node | 5341 Jul 17 14:54 | 17° Ω 46'35 | | retrograde | 5342 Jul 02 01:30 | 28° \Re 20'25 | |
| retrograde | 5341 Jul 21 13:12 | 18° Ω 22'31 | | evening set | 5342 Jul 04 03:17 | 28° \Re 10'02 | |
| evening set | 5341 Jul 24 11:24 | 18° Ω 03'31 | | desc. node | 5342 Jul 04 11:57 | 28° \Re 06'11 | |
| min. Earth dist. | 5341 Aug 01 22:15 | 14° Ω 24'46 | 0.54990 AU | inferior conj | 5342 Jul 13 10:08 | 24° \Re 13'06 | -2°37'05 |
| inferior conj | 5341 Aug 02 17:01 | 13° Ω 58'20 | -4°17'39 | minimum elong | 5342 Jul 13 02:57 | 24° \Re 23'20 | 2°34'37 |
| minimum elong | 5341 Aug 02 08:25 | 14° Ω 10'28 | 4°15'37 | min. Earth dist. | 5342 Jul 14 09:19 | 23° \Re 39'58 | 0.54843 AU |
| morning rise | 5341 Aug 11 07:09 | 10° Ω 08'24 | | morning rise | 5342 Jul 22 02:13 | 20° \Re 09'41 | |
| direct | 5341 Aug 14 11:54 | 9° Ω 45'33 | | direct | 5342 Jul 25 21:15 | 19° \Re 38'44 | |
| morning max el | 5341 Aug 26 06:47 | 15° Ω 16'05 | 21°26'57 | morning max el | 5342 Aug 08 00:49 | 25° \Re 58'16 | 23°07'16 |
| | 5341 Sep 06 09:34 | 0° \Re | | | 5342 Aug 11 20:33 | 0° Ω | |
| asc. node | 5341 Sep 07 08:22 | 1° \Re 38'17 | | asc. node | 5342 Aug 25 05:24 | 20° Ω 44'49 | |
| morning set | 5341 Sep 15 14:08 | 17° \Re 38'56 | | | 5342 Aug 29 20:32 | 0° \Re | |
| | 5341 Sep 21 11:09 | 0° Ω | | morning set | 5342 Aug 31 01:17 | 2° \Re 30'33 | |
| | | | | | | | |
| superior conj | 5341 Sep 22 21:01 | 2° Ω 56'57 | 1°43'18 | superior conj | 5342 Sep 07 02:03 | 17° \Re 35'59 | 1°39'15 |
| minimum elong | 5341 Sep 22 20:52 | 2° Ω 56'08 | 1°43'19 | minimum elong | 5342 Sep 07 00:45 | 17° \Re 28'57 | 1°39'11 |
| max. Earth dist. | 5341 Sep 27 01:00 | 11° Ω 27'59 | 1.35112 AU | max. Earth dist. | 5342 Sep 09 20:50 | 23° \Re 30'28 | 1.33677 AU |
| evening rise | 5341 Oct 01 07:15 | 19° Ω 47'01 | | | 5342 Sep 13 00:17 | 0° Ω | |
| | 5341 Oct 06 21:09 | 0° \Re | | evening rise | 5342 Sep 14 18:51 | 3° Ω 33'29 | |
| desc. node | 5341 Oct 13 14:09 | 11° \Re 17'02 | | | 5342 Sep 29 16:08 | 0° \Re | |
| | 5341 Oct 26 10:41 | 0° \Re | | desc. node | 5342 Sep 30 11:11 | 1° \Re 14'27 | |
| evening max el | 5341 Nov 05 14:56 | 11° \Re 39'53 | 26°40'37 | evening max el | 5342 Oct 19 03:33 | 25° \Re 08'27 | 27°17'42 |
| retrograde | 5341 Nov 18 15:25 | 18° \Re 55'35 | | | 5342 Oct 25 06:08 | 0° \Re | |
| evening set | 5341 Nov 25 04:17 | 16° \Re 17'50 | | retrograde | 5342 Nov 01 14:44 | 2° \Re 26'35 | |
| min. Earth dist. | 5341 Nov 29 05:50 | 12° \Re 09'58 | 0.66045 AU | | 5342 Nov 08 06:55 | 30° \Re \Re | |
| inferior conj | 5341 Dec 01 00:58 | 10° \Re 02'09 | -1°06'49 | evening set | 5342 Nov 08 13:40 | 29° \Re 47'20 | |
| minimum elong | 5341 Dec 01 02:50 | 9° \Re 56'36 | 1°06'00 | min. Earth dist. | 5342 Nov 12 09:23 | 26° \Re 14'01 | 0.64657 AU |
| asc. node | 5341 Dec 04 07:37 | 6° \Re 25'46 | | inferior conj | 5342 Nov 14 16:23 | 23° \Re 45'04 | -2°09'52 |
| morning rise | 5341 Dec 07 02:12 | 4° \Re 19'51 | | minimum elong | 5342 Nov 14 20:11 | 23° \Re 34'48 | 2°08'21 |
| direct | 5341 Dec 09 23:30 | 3° \Re 33'24 | | morning rise | 5342 Nov 21 03:55 | 18° \Re 16'30 | |
| morning max el | 5341 Dec 16 13:07 | 7° \Re 06'57 | 18°23'32 | asc. node | 5342 Nov 21 04:39 | 18° \Re 15'41 | |
| | 5342 Jan 01 12:03 | 0° \Re | | direct | 5342 Nov 23 17:52 | 17° \Re 41'52 | |
| morning set | 5342 Jan 05 05:29 | 5° \Re 58'38 | | morning max el | 5342 Nov 30 05:15 | 21° \Re 07'23 | 17°57'40 |
| desc. node | 5342 Jan 09 13:25 | 12° \Re 54'22 | | | 5342 Dec 07 00:41 | 0° \Re | |
| | 5342 Jan 20 08:54 | 0° \Re | | morning set | 5342 Dec 17 15:37 | 17° \Re 24'24 | |
| | | | | | 5342 Dec 25 05:36 | 0° \Re | |
| superior conj | 5342 Jan 20 20:11 | 0° \Re 44'16 | -1°13'09 | desc. node | 5342 Dec 27 10:26 | 3° \Re 35'40 | |
| minimum elong | 5342 Jan 20 11:38 | 0° \Re 10'41 | 1°12'08 | | | | |
| max. Earth dist. | 5342 Jan 21 22:04 | 2° \Re 25'42 | 1.45342 AU | superior conj | 5342 Dec 31 07:58 | 9° \Re 53'02 | -0°26'59 |
| evening rise | 5342 Feb 05 20:49 | 25° \Re 52'17 | | minimum elong | 5342 Dec 31 04:43 | 9° \Re 40'01 | 0°26'30 |
| | 5342 Feb 08 11:43 | 0° \Re | | max. Earth dist. | 5343 Jan 04 17:30 | 16° \Re 52'34 | 1.44951 AU |
| greatest brilliancy | 5342 Feb 16 04:38 | 12° \Re 04'16 | -0.8m | | 5343 Jan 13 03:09 | 0° \Re | |
| evening max el | 5342 Feb 28 18:10 | 29° \Re 18'45 | 19°07'51 | evening rise | 5343 Jan 16 12:34 | 5° \Re 14'12 | |
| | 5342 Mar 01 10:56 | 0° Υ | | greatest brilliancy | 5343 Jan 31 00:15 | 27° \Re 10'50 | -0.6m |
| asc. node | 5342 Mar 02 06:53 | 0° Υ 44'59 | | | 5343 Feb 01 22:43 | 0° \Re | |

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|------------------|-------------------|----------------------------|------------|------------------|-------------------|--------------------------|------------|
| evening max el | 5343 Feb 11 23:01 | 12° H 52'29 | 20°01'31 | | 5344 Jan 30 02:25 | 0° H | |
| asc. node | 5343 Feb 17 03:55 | 16° H 47'50 | | retrograde | 5344 Feb 03 12:39 | 1° H 32'17 | |
| retrograde | 5343 Feb 19 14:36 | 17° H 19'34 | | asc. node | 5344 Feb 04 00:57 | 1° H 30'53 | |
| evening set | 5343 Feb 23 08:32 | 15° H 57'44 | | evening set | 5344 Feb 07 16:10 | 29° \approx 55'24 | |
| inferior conj | 5343 Feb 28 17:54 | 9° H 55'43 | 3°07'21 | | 5344 Feb 07 13:48 | 30° R \approx | |
| minimum elong | 5343 Feb 28 15:51 | 10° H 02'38 | 3°06'58 | inferior conj | 5344 Feb 13 00:14 | 23° \approx 41'45 | 2°38'33 |
| min. Earth dist. | 5343 Mar 01 15:28 | 8° H 43'12 | 0.67223 AU | minimum elong | 5344 Feb 12 21:50 | 23° \approx 50'01 | 2°37'55 |
| morning rise | 5343 Mar 05 22:57 | 3° H 41'07 | | min. Earth dist. | 5344 Feb 13 08:47 | 23° \approx 12'10 | 0.67880 AU |
| direct | 5343 Mar 11 19:51 | 1° H 03'39 | | morning rise | 5344 Feb 18 03:20 | 17° \approx 28'49 | |
| morning max el | 5343 Mar 23 14:39 | 8° H 06'23 | 25°02'23 | direct | 5344 Feb 23 09:58 | 15° \approx 09'52 | |
| desc. node | 5343 Mar 25 09:43 | 9° H 59'34 | | morning max el | 5344 Mar 04 23:30 | 21° \approx 27'03 | 23°34'00 |
| | 5343 Apr 09 18:05 | 0° Y | | desc. node | 5344 Mar 11 06:44 | 28° \approx 37'56 | |
| | 5343 Apr 28 07:06 | 0° B | | | 5344 Mar 12 08:47 | 0° H | |
| morning set | 5343 Apr 28 17:42 | 0° B 47'16 | | | 5344 Apr 02 00:48 | 0° Y | |
| max. Earth dist. | 5343 May 02 08:50 | 7° B 23'41 | 1.36783 AU | morning set | 5344 Apr 09 05:14 | 11° Y 48'45 | |
| | | | | max. Earth dist. | 5344 Apr 13 04:29 | 18° Y 39'36 | 1.38929 AU |
| superior conj | 5343 May 08 17:47 | 19° B 34'42 | -1°10'05 | | 5344 Apr 19 11:12 | 0° B | |
| minimum elong | 5343 May 08 21:41 | 19° B 53'53 | 1°09'26 | | | | |
| | 5343 May 13 22:56 | 0° II | | superior conj | 5344 Apr 20 16:04 | 2° B 14'35 | -1°37'29 |
| asc. node | 5343 May 16 03:10 | 4° II 23'52 | | minimum elong | 5344 Apr 20 21:05 | 2° B 38'03 | 1°36'53 |
| evening rise | 5343 May 17 02:02 | 6° II 19'05 | | evening rise | 5344 Apr 29 22:08 | 20° B 01'52 | |
| | 5343 May 30 13:35 | 0° E | | asc. node | 5344 May 02 00:12 | 24° B 03'46 | |
| evening max el | 5343 Jun 03 05:05 | 4° E 12'08 | 19°33'54 | | 5344 May 05 03:51 | 0° II | |
| retrograde | 5343 Jun 12 20:19 | 8° E 54'48 | | evening max el | 5344 May 16 04:41 | 16° II 19'15 | 18°44'42 |
| evening set | 5343 Jun 14 18:34 | 8° E 44'19 | | retrograde | 5344 May 24 08:04 | 20° II 19'39 | |
| desc. node | 5343 Jun 21 08:59 | 5° E 58'39 | | evening set | 5344 May 26 11:11 | 20° II 04'12 | |
| inferior conj | 5343 Jun 23 11:58 | 4° E 39'42 | -0°38'08 | inferior conj | 5344 Jun 03 08:54 | 15° II 42'20 | 1°06'48 |
| minimum elong | 5343 Jun 23 10:15 | 4° E 42'26 | 0°37'31 | minimum elong | 5344 Jun 03 11:18 | 15° II 37'53 | 1°05'58 |
| min. Earth dist. | 5343 Jun 25 22:24 | 3° E 07'21 | 0.55650 AU | min. Earth dist. | 5344 Jun 06 15:07 | 13° II 18'42 | 0.57240 AU |
| morning rise | 5343 Jul 01 23:27 | 0° E 05'45 | | desc. node | 5344 Jun 07 05:58 | 12° II 52'55 | |
| | 5343 Jul 02 06:29 | 30° R II | | morning rise | 5344 Jun 11 08:05 | 10° II 31'56 | |
| direct | 5343 Jul 06 14:20 | 29° II 18'01 | | direct | 5344 Jun 16 21:07 | 9° II 16'35 | |
| | 5343 Jul 10 21:23 | 0° E | | morning max el | 5344 Jul 01 05:51 | 16° II 47'50 | 26°21'49 |
| morning max el | 5343 Jul 20 14:18 | 6° E 19'02 | 24°50'53 | | 5344 Jul 12 01:50 | 0° E | |
| | 5343 Aug 06 17:08 | 0° O | | asc. node | 5344 Jul 28 23:26 | 0° O 03'28 | |
| asc. node | 5343 Aug 12 02:25 | 10° O 15'27 | | | 5344 Jul 28 22:46 | 0° O | |
| morning set | 5343 Aug 15 13:00 | 17° O 22'53 | | morning set | 5344 Jul 29 23:46 | 2° O 11'13 | |
| | 5343 Aug 21 08:37 | 0° M | | | | | |
| superior conj | 5343 Aug 22 11:17 | 2° M 25'57 | 1°29'26 | superior conj | 5344 Aug 05 22:42 | 17° O 20'27 | 1°14'37 |
| minimum elong | 5343 Aug 22 09:15 | 2° M 14'48 | 1°29'13 | minimum elong | 5344 Aug 05 20:24 | 17° O 07'45 | 1°14'15 |
| max. Earth dist. | 5343 Aug 24 00:54 | 5° M 50'48 | 1.32664 AU | max. Earth dist. | 5344 Aug 06 10:23 | 18° O 24'57 | 1.32072 AU |
| evening rise | 5343 Aug 29 16:21 | 17° M 47'22 | | | 5344 Aug 11 18:12 | 0° M | |
| | 5343 Sep 04 22:09 | 0° E | | evening rise | 5344 Aug 12 20:45 | 2° M 20'13 | |
| desc. node | 5343 Sep 17 08:14 | 20° E 41'44 | | | 5344 Aug 27 19:23 | 0° E | |
| | 5343 Sep 24 04:06 | 0° M | | desc. node | 5344 Sep 03 05:15 | 9° E 26'45 | |
| evening max el | 5343 Oct 01 14:00 | 8° M 11'04 | 27°26'41 | evening max el | 5344 Sep 12 19:39 | 20° E 34'51 | 27°03'05 |
| retrograde | 5343 Oct 15 07:21 | 15° M 26'21 | | retrograde | 5344 Sep 26 16:38 | 27° E 46'16 | |
| evening set | 5343 Oct 22 11:26 | 12° M 55'04 | | evening set | 5344 Oct 03 17:42 | 25° E 34'40 | |
| min. Earth dist. | 5343 Oct 26 03:05 | 9° M 52'39 | 0.62948 AU | min. Earth dist. | 5344 Oct 07 10:00 | 22° E 53'53 | 0.60983 AU |
| inferior conj | 5343 Oct 28 21:40 | 7° M 11'05 | -3°13'32 | inferior conj | 5344 Oct 10 13:35 | 20° E 12'19 | -4°12'50 |
| minimum elong | 5343 Oct 29 03:13 | 6° M 57'34 | 3°11'38 | minimum elong | 5344 Oct 10 19:57 | 19° E 58'38 | 4°11'11 |
| morning rise | 5343 Nov 04 20:38 | 1° M 59'47 | | morning rise | 5344 Oct 18 00:13 | 15° E 21'40 | |
| direct | 5343 Nov 07 05:51 | 1° M 33'19 | | direct | 5344 Oct 20 07:39 | 15° E 00'17 | |
| asc. node | 5343 Nov 08 01:41 | 1° M 36'35 | | asc. node | 5344 Oct 24 22:41 | 16° E 30'01 | |
| morning max el | 5343 Nov 13 22:00 | 4° M 59'20 | 17°49'23 | morning max el | 5344 Oct 27 12:15 | 18° E 35'16 | 17°59'41 |
| morning set | 5343 Nov 30 01:54 | 29° M 59'38 | | | 5344 Nov 04 18:26 | 0° M | |
| | 5343 Nov 30 01:59 | 0° J | | morning set | 5344 Nov 12 05:53 | 13° M 24'57 | |
| superior conj | 5343 Dec 11 19:07 | 20° J 11'21 | 0°17'44 | | 5344 Nov 21 08:30 | 0° J | |
| minimum elong | 5343 Dec 11 20:52 | 20° J 18'40 | 0°17'30 | superior conj | 5344 Nov 22 08:35 | 1° J 46'24 | 0°54'01 |
| desc. node | 5343 Dec 14 07:27 | 24° J 21'30 | | minimum elong | 5344 Nov 22 12:23 | 2° J 03'09 | 0°53'30 |
| | 5343 Dec 17 18:31 | 0° Z | | max. Earth dist. | 5344 Nov 29 23:09 | 14° J 46'28 | 1.42215 AU |
| max. Earth dist. | 5343 Dec 18 10:46 | 1° Z 05'27 | 1.43864 AU | desc. node | 5344 Nov 30 04:29 | 15° J 08'36 | |
| evening rise | 5343 Dec 26 23:00 | 14° Z 29'54 | | evening rise | 5344 Dec 05 19:42 | 24° J 17'11 | |
| | 5344 Jan 06 04:42 | 0° \approx | | | 5344 Dec 09 10:56 | 0° Z | |
| evening max el | 5344 Jan 25 22:19 | 26° \approx 26'57 | 21°08'18 | | 5344 Dec 30 04:44 | 0° \approx | |
| | | | | evening max el | 5345 Jan 07 16:25 | 10° \approx 02'59 | 22°24'21 |

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| retrograde | 5345 Jan 17 09:07 | 15°  48'55 | | desc. node | 5345 Nov 17 01:31 | 5°  53'08 | |
| asc. node | 5345 Jan 20 21:57 | 14°  43'29 | | | 5345 Dec 02 15:19 | 0°  | |
| evening set | 5345 Jan 21 23:43 | 13°  56'33 | | evening max el | 5345 Dec 21 06:52 | 23°  42'26 | 23°44'23 |
| inferior conj | 5345 Jan 27 08:12 | 7°  34'37 | 2°01'14 | | 5345 Dec 30 23:36 | 0°  | |
| minimum elong | 5345 Jan 27 05:57 | 7°  42'28 | 2°00'29 | retrograde | 5346 Jan 01 02:33 | 0°  05'27 | |
| min. Earth dist. | 5345 Jan 27 04:58 | 7°  45'51 | 0.68133 AU | | 5346 Jan 02 04:48 | 30°  R  | |
| morning rise | 5345 Feb 01 12:03 | 1°  24'46 | | evening set | 5346 Jan 06 05:38 | 27°  S  | |
| | 5345 Feb 03 16:41 | 30°  R  | | asc. node | 5346 Jan 07 18:59 | 26°  S  | |
| direct | 5345 Feb 06 04:03 | 29°  S  | 27'59 | min. Earth dist. | 5346 Jan 11 01:44 | 22°  S  | 0.68006 AU |
| | 5345 Feb 08 19:05 | 0°  | | inferior conj | 5346 Jan 11 16:00 | 21°  S  | 1°16'29 |
| morning max el | 5345 Feb 15 11:15 | 4°  55'22 | 22°05'49 | minimum elong | 5346 Jan 11 14:20 | 21°  S  | 1°15'52 |
| desc. node | 5345 Feb 26 03:45 | 17°  57'37 | | morning rise | 5346 Jan 16 23:02 | 15°  S  | |
| | 5345 Mar 06 14:35 | 0°  H  | | direct | 5346 Jan 21 01:06 | 13°  S  | |
| morning set | 5345 Mar 20 12:56 | 21°  H  | 30'38 | morning max el | 5346 Jan 29 05:11 | 18°  S  | 20°45'36 |
| | 5345 Mar 25 16:59 | 0°  Y  | | | 5346 Feb 07 12:57 | 0°  | |
| max. Earth dist. | 5345 Mar 26 02:08 | 0°  Y  | 38'20 | desc. node | 5346 Feb 13 00:47 | 7°  54'09 | |
| | | | 1.41111 AU | morning set | 5346 Feb 27 18:32 | 0°  H  | |
| superior conj | 5345 Apr 02 20:16 | 14°  Y  | 01'20 | | 5346 Feb 27 17:59 | 0°  H  | |
| minimum elong | 5345 Apr 03 00:42 | 14°  Y  | 21'03 | max. Earth dist. | 5346 Mar 08 06:32 | 13°  H  | 1.43039 AU |
| | 5345 Apr 11 14:30 | 0°  B  | | | | | |
| evening rise | 5345 Apr 13 07:11 | 3°  B  | 09'20 | superior conj | 5346 Mar 15 01:34 | 24°  H  | -2°09'00 |
| asc. node | 5345 Apr 18 21:14 | 13°  B  | 24'45 | minimum elong | 5346 Mar 15 02:25 | 24°  H  | 2°08'59 |
| evening max el | 5345 Apr 29 12:08 | 28°  B  | 59'31 | | 5346 Mar 18 03:48 | 0°  Y  | |
| | 5345 Apr 30 14:44 | 0°  II  | | evening rise | 5346 Mar 27 01:01 | 15°  Y  | |
| retrograde | 5345 May 06 14:37 | 2°  II  | 32'50 | | 5346 Apr 04 07:52 | 0°  B  | |
| evening set | 5345 May 09 00:41 | 2°  II  | 08'56 | asc. node | 5346 Apr 05 18:16 | 2°  B  | |
| | 5345 May 12 23:52 | 30°  R  | B  | evening max el | 5346 Apr 12 23:59 | 12°  B  | 18°06'27 |
| inferior conj | 5345 May 16 03:24 | 27°  B  | 26'54 | retrograde | 5346 Apr 19 13:00 | 15°  B  | |
| minimum elong | 5345 May 16 06:51 | 27°  B  | 19'24 | evening set | 5346 Apr 22 05:50 | 14°  B  | |
| min. Earth dist. | 5345 May 19 13:25 | 24°  B  | 30'49 | inferior conj | 5346 Apr 28 17:04 | 9°  B  | 3°07'48 |
| morning rise | 5345 May 23 10:08 | 21°  B  | 46'50 | minimum elong | 5346 Apr 28 19:36 | 9°  B  | 3°07'23 |
| desc. node | 5345 May 25 03:00 | 20°  B  | 55'55 | min. Earth dist. | 5346 May 01 19:16 | 6°  B  | 0.61536 AU |
| direct | 5345 May 29 17:54 | 19°  B  | 57'05 | morning rise | 5346 May 05 07:29 | 3°  B  | |
| morning max el | 5345 Jun 13 03:08 | 27°  B  | 47'17 | direct | 5346 May 12 01:55 | 1°  B  | |
| | 5345 Jun 15 06:29 | 0°  II  | | desc. node | 5346 May 12 00:02 | 1°  B  | |
| | 5345 Jul 05 17:44 | 0°  S  | | morning max el | 5346 May 26 06:38 | 9°  B  | 27°52'15 |
| morning set | 5345 Jul 14 07:48 | 16°  S  | 48'47 | | 5346 Jun 11 03:30 | 0°  II  | |
| asc. node | 5345 Jul 15 20:28 | 20°  S  | 02'19 | | 5346 Jun 27 21:31 | 0°  S  | |
| | 5345 Jul 20 10:27 | 0°  Q  | | morning set | 5346 Jun 28 11:15 | 1°  S  | |
| | | | | asc. node | 5346 Jul 02 17:31 | 10°  S  | |
| superior conj | 5345 Jul 21 10:25 | 2°  Q  | 12'21 | max. Earth dist. | 5346 Jul 04 06:43 | 13°  S  | 1.32165 AU |
| minimum elong | 5345 Jul 21 08:20 | 2°  Q  | 00'47 | | | | |
| max. Earth dist. | 5345 Jul 20 21:33 | 1°  Q  | 01'12 | superior conj | 5346 Jul 05 20:46 | 16°  S  | 0°32'11 |
| evening rise | 5345 Jul 28 05:36 | 17°  Q  | 03'16 | minimum elong | 5346 Jul 05 19:22 | 16°  S  | 0°31'52 |
| | 5345 Aug 03 15:01 | 0°  R  | | | 5346 Jul 11 20:15 | 0°  Q  | |
| desc. node | 5345 Aug 21 02:16 | 27°  R  | 11'18 | evening rise | 5346 Jul 12 16:52 | 1°  Q  | |
| | 5345 Aug 23 14:27 | 0°  S  | | | 5346 Jul 27 22:29 | 0°  R  | |
| evening max el | 5345 Aug 25 18:11 | 2°  S  | 10'02 | evening max el | 5346 Aug 07 09:37 | 12°  R  | 24°43'04 |
| retrograde | 5345 Sep 08 17:21 | 9°  S  | 17'40 | desc. node | 5346 Aug 07 23:17 | 13°  R  | |
| evening set | 5345 Sep 15 03:33 | 7°  S  | 37'51 | retrograde | 5346 Aug 21 07:02 | 19°  R  | |
| min. Earth dist. | 5345 Sep 19 07:03 | 5°  S  | 02'51 | evening set | 5346 Aug 26 13:02 | 18°  R  | |
| inferior conj | 5345 Sep 22 12:35 | 2°  S  | 38'32 | min. Earth dist. | 5346 Aug 31 20:56 | 16°  R  | 0.56969 AU |
| minimum elong | 5345 Sep 22 17:31 | 2°  S  | 29'19 | inferior conj | 5346 Sep 03 15:51 | 14°  R  | -5°18'54 |
| | 5345 Sep 26 07:56 | 30°  R  | R  | minimum elong | 5346 Sep 03 15:58 | 14°  R  | 5°18'55 |
| morning rise | 5345 Sep 30 09:46 | 28°  R  | 10'38 | morning rise | 5346 Sep 11 21:16 | 10°  R  | |
| direct | 5345 Oct 02 18:54 | 27°  R  | 51'37 | direct | 5346 Sep 14 11:53 | 9°  R  | |
| | 5345 Oct 08 18:28 | 0°  S  | | morning max el | 5346 Sep 23 19:27 | 14°  R  | 19°21'53 |
| morning max el | 5345 Oct 10 20:32 | 1°  S  | 45'08 | asc. node | 5346 Sep 28 16:46 | 20°  R  | |
| asc. node | 5345 Oct 11 19:43 | 2°  S  | 43'51 | | 5346 Oct 04 20:04 | 0°  S  | |
| morning set | 5345 Oct 26 22:18 | 27°  S  | 24'54 | morning set | 5346 Oct 10 23:16 | 11°  S  | |
| | 5345 Oct 28 06:27 | 0°  M  | | | | | |
| superior conj | 5345 Nov 04 20:22 | 14°  M  | 25'52 | superior conj | 5346 Oct 19 01:09 | 27°  S  | 1°35'36 |
| minimum elong | 5345 Nov 04 23:56 | 14°  M  | 42'22 | minimum elong | 5346 Oct 19 03:23 | 28°  S  | 1°35'28 |
| max. Earth dist. | 5345 Nov 12 06:08 | 27°  M  | 44'10 | | 5346 Oct 20 02:56 | 0°  M  | |
| | 5345 Nov 13 13:40 | 0°  S  | | max. Earth dist. | 5346 Oct 25 10:58 | 10°  M  | 1.38095 AU |
| evening rise | 5345 Nov 16 12:59 | 5°  S  | 01'07 | evening rise | 534 | | |

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|---------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| | 5346 Nov 06 01:48 | 0°♊ | | minimum elong | 5347 Oct 02 18:52 | 12°♊03'02 | 1°42'40 |
| | 5346 Nov 27 02:57 | 0°♋ | | max. Earth dist. | 5347 Oct 07 18:42 | 21°♊59'38 | 1.36113 AU |
| evening max el | 5346 Dec 03 19:49 | 7°♋25'54 | 25°01'46 | evening rise | 5347 Oct 11 17:32 | 29°♊28'55 | |
| retrograde | 5346 Dec 15 15:47 | 14°♋17'13 | | | 5347 Oct 12 00:16 | 0°♌ | |
| evening set | 5346 Dec 21 08:16 | 11°♋55'16 | | desc. node | 5347 Oct 21 19:34 | 16°♌58'47 | |
| asc. node | 5346 Dec 25 16:02 | 7°♋06'55 | | | 5347 Oct 30 06:58 | 0°♊ | |
| min. Earth dist. | 5346 Dec 25 20:37 | 6°♋52'02 | 0.67525 AU | evening max el | 5347 Nov 16 08:35 | 21°♊10'08 | 26°09'11 |
| inferior conj | 5346 Dec 26 21:48 | 5°♋29'26 | 0°25'09 | retrograde | 5347 Nov 28 24:00 | 28°♊19'23 | |
| minimum elong | 5346 Dec 26 21:11 | 5°♋31'29 | 0°24'54 | evening set | 5347 Dec 05 05:56 | 25°♊45'54 | |
| | 5346 Dec 31 18:51 | 30°♋♊ | | min. Earth dist. | 5347 Dec 09 11:16 | 21°♊17'53 | 0.66691 AU |
| morning rise | 5347 Jan 01 10:17 | 29°♊31'17 | | inferior conj | 5347 Dec 10 23:43 | 19°♊25'17 | -0°31'50 |
| direct | 5347 Jan 04 23:48 | 28°♊18'08 | | minimum elong | 5347 Dec 11 00:34 | 19°♊22'38 | 0°31'27 |
| | 5347 Jan 09 12:01 | 0°♋ | | asc. node | 5347 Dec 12 13:04 | 17°♊32'12 | |
| morning max el | 5347 Jan 12 07:02 | 2°♋24'04 | 19°38'10 | morning rise | 5347 Dec 16 19:46 | 13°♊36'31 | |
| greatest brilliancy | 5347 Jan 25 07:28 | 19°♋33'00 | -0.7m | direct | 5347 Dec 19 22:28 | 12°♊41'20 | |
| desc. node | 5347 Jan 30 21:47 | 27°♋57'52 | | morning max el | 5347 Dec 26 16:18 | 16°♊23'14 | 18°46'07 |
| | 5347 Feb 01 05:51 | 0°♌ | | | 5348 Jan 05 23:05 | 0°♋ | |
| morning set | 5347 Feb 06 15:01 | 8°♌15'34 | | morning set | 5348 Jan 17 03:35 | 17°♋24'23 | |
| max. Earth dist. | 5347 Feb 18 18:40 | 27°♌14'46 | 1.44473 AU | desc. node | 5348 Jan 17 18:49 | 18°♋24'15 | |
| | 5347 Feb 20 12:14 | 0°♌ | | | 5348 Jan 25 04:11 | 0°♌ | |
| | | | | max. Earth dist. | 5348 Feb 01 12:14 | 11°♌29'47 | 1.45243 AU |
| superior conj | 5347 Feb 23 05:18 | 4°♌20'36 | -2°02'27 | | | | |
| minimum elong | 5347 Feb 22 23:52 | 3°♌58'45 | 2°02'10 | superior conj | 5348 Feb 02 12:53 | 13°♌06'31 | -1°36'02 |
| evening rise | 5347 Mar 08 23:06 | 27°♌01'30 | | minimum elong | 5348 Feb 02 03:28 | 12°♌29'31 | 1°35'08 |
| | 5347 Mar 10 17:23 | 0°♍ | | | 5348 Feb 13 05:07 | 0°♌ | |
| asc. node | 5347 Mar 23 15:20 | 20°♍42'57 | | evening rise | 5348 Feb 17 22:16 | 7°♌33'31 | |
| evening max el | 5347 Mar 27 12:58 | 25°♍24'08 | 18°16'07 | greatest brilliancy | 5348 Feb 24 18:04 | 18°♌32'46 | -0.9m |
| retrograde | 5347 Apr 02 22:48 | 28°♍49'31 | | | 5348 Mar 03 02:43 | 0°♍ | |
| evening set | 5347 Apr 05 21:59 | 28°♍02'34 | | asc. node | 5348 Mar 09 12:22 | 8°♍21'13 | |
| inferior conj | 5347 Apr 11 21:45 | 22°♍41'07 | 3°28'56 | evening max el | 5348 Mar 10 00:18 | 8°♍52'15 | 18°43'57 |
| minimum elong | 5347 Apr 11 22:41 | 22°♍38'29 | 3°28'52 | retrograde | 5348 Mar 16 15:55 | 12°♍33'44 | |
| min. Earth dist. | 5347 Apr 14 10:03 | 19°♍53'04 | 0.63600 AU | evening set | 5348 Mar 19 21:37 | 11°♍33'50 | |
| morning rise | 5347 Apr 17 22:23 | 16°♍32'09 | | inferior conj | 5348 Mar 25 13:31 | 5°♍54'50 | 3°31'23 |
| direct | 5347 Apr 24 18:35 | 13°♍50'07 | | minimum elong | 5348 Mar 25 12:58 | 5°♍56'32 | 3°31'20 |
| desc. node | 5347 Apr 28 21:03 | 14°♍40'53 | | min. Earth dist. | 5348 Mar 27 10:11 | 3°♍38'03 | 0.65331 AU |
| morning max el | 5347 May 08 14:41 | 21°♍49'09 | 27°41'53 | | 5348 Mar 30 19:18 | 30°♋♌ | |
| | 5347 May 15 18:10 | 0°♎ | | morning rise | 5348 Mar 31 03:49 | 29°♋41'09 | |
| | 5347 Jun 04 07:27 | 0°♏ | | direct | 5348 Apr 06 18:28 | 26°♋51'35 | |
| morning set | 5347 Jun 12 07:46 | 15°♏07'42 | | desc. node | 5348 Apr 14 18:05 | 0°♍02'29 | |
| max. Earth dist. | 5347 Jun 17 10:05 | 25°♏35'33 | 1.32872 AU | | 5348 Apr 14 16:42 | 0°♍ | |
| | 5347 Jun 19 11:50 | 0°♐ | | morning max el | 5348 Apr 20 00:48 | 4°♍40'10 | 26°58'22 |
| asc. node | 5347 Jun 19 14:35 | 0°♐14'48 | | | 5348 May 09 07:00 | 0°♎ | |
| | | | | morning set | 5348 May 25 18:21 | 28°♎33'09 | |
| superior conj | 5347 Jun 20 03:53 | 1°♐26'07 | 0°05'46 | | 5348 May 26 12:22 | 0°♏ | |
| minimum elong | 5347 Jun 20 03:35 | 1°♐24'35 | 0°05'41 | max. Earth dist. | 5348 May 30 04:04 | 7°♏13'54 | 1.34039 AU |
| behind sun begin | 5347 Jun 19 22:35 | 0°♐57'41 | | | | | |
| behind sun end | 5347 Jun 20 08:36 | 1°♐51'32 | | superior conj | 5348 Jun 03 05:36 | 15°♏35'37 | -0°23'06 |
| evening rise | 5347 Jun 27 04:39 | 16°♐35'24 | | minimum elong | 5348 Jun 03 06:50 | 15°♏42'04 | 0°22'51 |
| | 5347 Jul 03 20:02 | 0°♑ | | asc. node | 5348 Jun 05 11:38 | 20°♏19'55 | |
| evening max el | 5347 Jul 19 22:11 | 23°♑21'07 | 23°06'04 | | 5348 Jun 10 01:18 | 0°♐ | |
| desc. node | 5347 Jul 25 20:19 | 27°♑55'23 | | evening rise | 5348 Jun 10 15:01 | 1°♐11'57 | |
| | 5347 Aug 01 04:27 | 0°♒ | | | 5348 Jun 27 05:03 | 0°♑ | |
| retrograde | 5347 Aug 02 07:52 | 0°♒02'57 | | evening max el | 5348 Jun 30 15:51 | 3°♑49'11 | 21°31'36 |
| | 5347 Aug 03 11:27 | 30°♒♑ | | desc. node | 5348 Jul 11 17:21 | 9°♑50'09 | |
| evening set | 5347 Aug 06 01:35 | 29°♑32'25 | | retrograde | 5348 Jul 12 22:40 | 9°♑53'41 | |
| min. Earth dist. | 5347 Aug 13 07:07 | 26°♑16'21 | 0.55500 AU | evening set | 5348 Jul 15 10:04 | 9°♑39'42 | |
| inferior conj | 5347 Aug 14 23:32 | 25°♑17'42 | -4°55'12 | inferior conj | 5348 Jul 24 18:13 | 5°♑39'34 | -3°39'27 |
| minimum elong | 5347 Aug 14 17:10 | 25°♑26'58 | 4°54'14 | minimum elong | 5348 Jul 24 09:24 | 5°♑51'54 | 3°36'53 |
| morning rise | 5347 Aug 23 11:00 | 21°♑26'24 | | min. Earth dist. | 5348 Jul 24 17:03 | 5°♑41'11 | 0.54806 AU |
| direct | 5347 Aug 26 10:09 | 21°♑05'30 | | morning rise | 5348 Aug 02 09:47 | 1°♑46'53 | |
| morning max el | 5347 Sep 06 06:30 | 26°♑08'19 | 20°35'42 | direct | 5348 Aug 05 19:58 | 1°♑21'28 | |
| | 5347 Sep 09 20:32 | 0°♓ | | morning max el | 5348 Aug 18 05:53 | 7°♑12'29 | 22°08'32 |
| asc. node | 5347 Sep 15 13:49 | 8°♓13'17 | | asc. node | 5348 Sep 01 10:52 | 27°♑02'06 | |
| morning set | 5347 Sep 25 05:56 | 26°♓28'58 | | | 5348 Sep 03 01:04 | 0°♓ | |
| | 5347 Sep 26 22:50 | 0°♐ | | morning set | 5348 Sep 08 15:58 | 11°♓17'54 | |
| | | | | | | | |
| superior conj | 5347 Oct 02 18:12 | 11°♐59'38 | 1°42'40 | superior conj | 5348 Sep 15 19:43 | 26°♓28'49 | 1°42'21 |



























































































































































































































| | | | | | | | |
|---------------------|-------------------|-------------------------------|------------|------------------|-------------------|-------------------------------|------------|
| minimum elong | 5348 Sep 15 19:01 | 26° \mathbb{M} 25'09 | 1°42'20 | superior conj | 5349 Aug 31 02:50 | 11° \mathbb{M} 13'39 | 1°35'45 |
| | 5348 Sep 17 12:00 | 0° \mathbb{L} | | minimum elong | 5349 Aug 31 01:09 | 11° \mathbb{M} 04'35 | 1°35'37 |
| max. Earth dist. | 5348 Sep 19 09:24 | 3° \mathbb{L} 54'24 | 1.34444 AU | max. Earth dist. | 5349 Sep 02 08:44 | 16° \mathbb{M} 03'22 | 1.33187 AU |
| evening rise | 5348 Sep 23 21:46 | 12° \mathbb{L} 54'24 | | evening rise | 5349 Sep 07 13:58 | 26° \mathbb{M} 53'34 | |
| | 5348 Oct 03 07:52 | 0° \mathbb{M} | | | 5349 Sep 09 03:26 | 0° \mathbb{L} | |
| desc. node | 5348 Oct 07 16:36 | 7° \mathbb{M} 09'06 | | desc. node | 5349 Sep 24 13:38 | 26° \mathbb{L} 54'47 | |
| | 5348 Oct 24 08:12 | 0° \mathbb{J} | | | 5349 Sep 26 15:15 | 0° \mathbb{M} | |
| evening max el | 5348 Oct 28 21:17 | 4° \mathbb{J} 46'26 | 26°59'22 | evening max el | 5349 Oct 11 09:01 | 18° \mathbb{M} 04'31 | 27°25'13 |
| retrograde | 5348 Nov 11 02:44 | 12° \mathbb{J} 04'04 | | retrograde | 5349 Oct 24 23:28 | 25° \mathbb{M} 22'43 | |
| evening set | 5348 Nov 17 20:30 | 9° \mathbb{J} 24'23 | | evening set | 5349 Nov 01 01:21 | 22° \mathbb{M} 45'13 | |
| min. Earth dist. | 5348 Nov 21 19:21 | 5° \mathbb{J} 31'46 | 0.65499 AU | min. Earth dist. | 5349 Nov 04 18:51 | 19° \mathbb{M} 25'54 | 0.63964 AU |
| inferior conj | 5348 Nov 23 19:37 | 3° \mathbb{J} 13'55 | -1°33'14 | inferior conj | 5349 Nov 07 07:02 | 16° \mathbb{M} 49'58 | -2°37'04 |
| minimum elong | 5348 Nov 23 22:17 | 3° \mathbb{J} 06'16 | 1°32'07 | minimum elong | 5349 Nov 07 11:37 | 16° \mathbb{M} 38'03 | 2°35'19 |
| | 5348 Nov 26 19:57 | 30° \mathbb{R} \mathbb{M} | | morning rise | 5349 Nov 13 23:22 | 11° \mathbb{M} 28'33 | |
| asc. node | 5348 Nov 28 10:06 | 28° \mathbb{M} 38'15 | | asc. node | 5349 Nov 15 07:08 | 11° \mathbb{M} 04'41 | |
| morning rise | 5348 Nov 30 01:05 | 27° \mathbb{M} 37'22 | | direct | 5349 Nov 16 10:51 | 10° \mathbb{M} 57'58 | |
| direct | 5348 Dec 02 19:00 | 26° \mathbb{M} 56'25 | | morning max el | 5349 Nov 22 23:32 | 14° \mathbb{M} 22'51 | 17°51'57 |
| | 5348 Dec 08 20:22 | 0° \mathbb{J} | | | 5349 Dec 03 21:42 | 0° \mathbb{J} | |
| morning max el | 5348 Dec 09 06:45 | 0° \mathbb{J} 25'10 | 18°10'30 | morning set | 5349 Dec 09 18:11 | 9° \mathbb{J} 57'52 | |
| morning set | 5348 Dec 27 21:03 | 28° \mathbb{J} 00'49 | | desc. node | 5349 Dec 21 12:52 | 29° \mathbb{J} 44'34 | |
| | 5348 Dec 29 02:16 | 0° \mathbb{Z} | | | 5349 Dec 21 16:38 | 0° \mathbb{Z} | |
| desc. node | 5349 Jan 03 15:51 | 9° \mathbb{Z} 01'07 | | | | | |
| | | | | superior conj | 5349 Dec 22 13:51 | 1° \mathbb{Z} 26'29 | -0°07'19 |
| superior conj | 5349 Jan 11 17:13 | 21° \mathbb{Z} 50'55 | -0°54'04 | minimum elong | 5349 Dec 22 13:01 | 1° \mathbb{Z} 23'07 | 0°07'10 |
| minimum elong | 5349 Jan 11 10:35 | 21° \mathbb{Z} 24'46 | 0°53'11 | behind sun begin | 5349 Dec 22 04:03 | 0° \mathbb{Z} 46'35 | |
| max. Earth dist. | 5349 Jan 14 07:42 | 25° \mathbb{Z} 56'43 | 1.45266 AU | behind sun end | 5349 Dec 22 21:59 | 1° \mathbb{Z} 59'37 | |
| | 5349 Jan 16 21:48 | 0° \approx | | max. Earth dist. | 5349 Dec 28 01:59 | 10° \mathbb{Z} 17'34 | 1.44562 AU |
| evening rise | 5349 Jan 27 23:24 | 17° \approx 14'47 | | evening rise | 5350 Jan 07 10:50 | 26° \mathbb{Z} 28'28 | |
| | 5349 Feb 05 04:52 | 0° \mathbb{H} | | | 5350 Jan 09 18:03 | 0° \approx | |
| greatest brilliancy | 5349 Feb 09 07:08 | 6° \mathbb{H} 15'00 | -0.7m | | 5350 Jan 30 08:21 | 0° \mathbb{H} | |
| evening max el | 5349 Feb 21 07:52 | 22° \mathbb{H} 24'25 | 19°28'47 | evening max el | 5350 Feb 04 10:18 | 5° \mathbb{H} 58'08 | 20°28'33 |
| asc. node | 5349 Feb 24 09:23 | 25° \mathbb{H} 03'05 | | asc. node | 5350 Feb 11 06:23 | 10° \mathbb{H} 33'37 | |
| retrograde | 5349 Feb 28 12:57 | 26° \mathbb{H} 32'45 | | retrograde | 5350 Feb 12 11:13 | 10° \mathbb{H} 41'20 | |
| evening set | 5349 Mar 04 01:59 | 25° \mathbb{H} 19'14 | | evening set | 5350 Feb 16 08:55 | 9° \mathbb{H} 13'23 | |
| inferior conj | 5349 Mar 09 13:01 | 19° \mathbb{H} 24'50 | 3°19'30 | inferior conj | 5350 Feb 21 17:30 | 3° \mathbb{H} 06'02 | 2°56'16 |
| minimum elong | 5349 Mar 09 11:22 | 19° \mathbb{H} 30'13 | 3°19'16 | minimum elong | 5350 Feb 21 15:15 | 3° \mathbb{H} 13'45 | 2°55'46 |
| min. Earth dist. | 5349 Mar 10 18:39 | 17° \mathbb{H} 47'44 | 0.66650 AU | min. Earth dist. | 5350 Feb 22 09:25 | 2° \mathbb{H} 11'40 | 0.67549 AU |
| morning rise | 5349 Mar 14 20:29 | 13° \mathbb{H} 09'43 | | | 5350 Feb 24 01:10 | 30° \mathbb{R} \approx | |
| direct | 5349 Mar 21 00:40 | 10° \mathbb{H} 24'57 | | morning rise | 5350 Feb 26 21:21 | 26° \approx 51'43 | |
| desc. node | 5349 Apr 01 15:07 | 17° \mathbb{H} 01'00 | | direct | 5350 Mar 04 12:17 | 24° \approx 21'16 | |
| morning max el | 5349 Apr 02 10:37 | 17° \mathbb{H} 49'28 | 25°49'35 | | 5350 Mar 14 16:11 | 0° \mathbb{H} | |
| | 5349 Apr 12 15:47 | 0° \mathbb{Y} | | morning max el | 5350 Mar 15 19:15 | 1° \mathbb{H} 06'31 | 24°25'18 |
| | 5349 May 02 06:44 | 0° \mathbb{Z} | | desc. node | 5350 Mar 19 12:07 | 5° \mathbb{H} 08'48 | |
| morning set | 5349 May 08 15:01 | 11° \mathbb{Z} 15'07 | | | 5350 Apr 06 15:18 | 0° \mathbb{Y} | |
| max. Earth dist. | 5349 May 12 10:41 | 18° \mathbb{Z} 24'56 | 1.35660 AU | morning set | 5350 Apr 20 16:22 | 22° \mathbb{Y} 57'50 | |
| | | | | max. Earth dist. | 5350 Apr 24 07:52 | 29° \mathbb{Y} 26'51 | 1.37670 AU |
| | | | | | 5350 Apr 24 15:11 | 0° \mathbb{Z} | |
| superior conj | 5349 May 17 23:24 | 29° \mathbb{Z} 17'49 | -0°53'03 | | | | |
| minimum elong | 5349 May 18 02:21 | 29° \mathbb{Z} 32'43 | 0°52'30 | | | | |
| | 5349 May 18 07:46 | 0° \mathbb{I} | | superior conj | 5350 May 01 05:56 | 12° \mathbb{Z} 23'13 | -1°22'11 |
| asc. node | 5349 May 23 08:40 | 10° \mathbb{I} 19'00 | | minimum elong | 5350 May 01 10:26 | 12° \mathbb{Z} 44'53 | 1°21'32 |
| evening rise | 5349 May 25 21:53 | 15° \mathbb{I} 33'42 | | evening rise | 5350 May 09 22:44 | 29° \mathbb{Z} 32'34 | |
| | 5349 Jun 02 08:15 | 0° \mathbb{O} | | asc. node | 5350 May 10 05:41 | 0° \mathbb{I} 07'02 | |
| evening max el | 5349 Jun 12 21:05 | 14° \mathbb{O} 51'44 | 20°11'25 | | 5350 May 10 04:16 | 0° \mathbb{I} | |
| retrograde | 5349 Jun 23 12:37 | 20° \mathbb{O} 04'32 | | evening max el | 5350 May 26 14:43 | 26° \mathbb{I} 36'30 | 19°10'31 |
| evening set | 5349 Jun 25 10:59 | 19° \mathbb{O} 54'58 | | | 5350 May 31 07:01 | 0° \mathbb{O} | |
| desc. node | 5349 Jun 28 14:21 | 19° \mathbb{O} 02'08 | | retrograde | 5350 Jun 04 13:36 | 0° \mathbb{O} 59'13 | |
| inferior conj | 5349 Jul 04 13:27 | 15° \mathbb{O} 56'18 | -1°46'45 | evening set | 5350 Jun 06 13:17 | 0° \mathbb{O} 47'12 | |
| minimum elong | 5349 Jul 04 08:28 | 16° \mathbb{O} 03'42 | 1°44'56 | | 5350 Jun 09 01:58 | 30° \mathbb{R} \mathbb{I} | |
| min. Earth dist. | 5349 Jul 06 05:03 | 14° \mathbb{O} 57'38 | 0.55067 AU | inferior conj | 5350 Jun 14 22:38 | 26° \mathbb{I} 36'26 | 0°09'25 |
| morning rise | 5349 Jul 13 04:31 | 11° \mathbb{O} 41'13 | | minimum elong | 5350 Jun 14 23:02 | 26° \mathbb{I} 35'46 | 0°09'15 |
| direct | 5349 Jul 17 07:01 | 11° \mathbb{O} 04'38 | | transit middle | 5350 Jun 14 23:02 | 26° \mathbb{I} 35'46 | 0°09'15 |
| morning max el | 5349 Jul 30 21:26 | 17° \mathbb{O} 43'36 | 23°51'54 | transit begin | 5350 Jun 14 19:55 | 26° \mathbb{I} 41'02 | |
| | 5349 Aug 09 21:55 | 0° \mathbb{O} | | transit end | 5350 Jun 15 02:09 | 26° \mathbb{I} 30'30 | |
| asc. node | 5349 Aug 19 07:55 | 16° \mathbb{O} 19'58 | | desc. node | 5350 Jun 15 11:23 | 26° \mathbb{I} 14'51 | |
| morning set | 5349 Aug 24 03:32 | 26° \mathbb{O} 10'30 | | min. Earth dist. | 5350 Jun 17 19:48 | 24° \mathbb{I} 40'19 | 0.56246 AU |
| | 5349 Aug 25 22:31 | 0° \mathbb{M} | | morning rise | 5350 Jun 23 05:39 | 21° \mathbb{I} 46'34 | |
| | | | | direct | 5350 Jun 28 06:09 | 20° \mathbb{I} 48'02 | |

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|------------------|-------------------|-----------------------------------|------------|------------------|-------------------|-----------------------------------|------------|
| morning max el | 5350 Jul 12 11:04 | 28° Π 04'09 | 25°31'58 | morning max el | 5351 Jun 24 04:32 | 8° Π 42'48 | 26°52'41 |
| | 5350 Jul 14 09:01 | 0° \mathfrak{C} | | | 5351 Jul 10 07:33 | 0° \mathfrak{C} | |
| | 5350 Aug 03 05:04 | 0° Ω | | morning set | 5351 Jul 24 00:49 | 25° \mathfrak{C} 45'22 | |
| asc. node | 5350 Aug 06 04:57 | 5° Ω 58'27 | | asc. node | 5351 Jul 24 01:59 | 25° \mathfrak{C} 51'30 | |
| morning set | 5350 Aug 08 15:00 | 11° Ω 01'17 | | | 5351 Jul 26 00:34 | 0° Ω | |
| superior conj | 5350 Aug 15 13:13 | 26° Ω 06'09 | 1°23'44 | superior conj | 5351 Jul 31 00:59 | 11° Ω 00'05 | 1°06'57 |
| minimum elong | 5350 Aug 15 11:00 | 25° Ω 54'00 | 1°23'26 | minimum elong | 5351 Jul 30 22:43 | 10° Ω 47'31 | 1°06'33 |
| max. Earth dist. | 5350 Aug 16 15:17 | 28° Ω 29'10 | 1.32359 AU | max. Earth dist. | 5351 Jul 31 02:00 | 11° Ω 05'42 | 1.31954 AU |
| | 5350 Aug 17 07:54 | 0° \mathfrak{M} | | evening rise | 5351 Aug 06 21:20 | 25° Ω 54'34 | |
| evening rise | 5350 Aug 22 14:43 | 11° \mathfrak{M} 16'23 | | | 5351 Aug 08 20:27 | 0° \mathfrak{M} | |
| | 5350 Sep 01 08:45 | 0° \mathfrak{L} | | | 5351 Aug 26 00:55 | 0° \mathfrak{L} | |
| desc. node | 5350 Sep 11 10:39 | 16° \mathfrak{L} 05'35 | | desc. node | 5351 Aug 29 07:41 | 4° \mathfrak{L} 27'09 | |
| | 5350 Sep 22 20:13 | 0° \mathfrak{M} | | evening max el | 5351 Sep 05 20:55 | 12° \mathfrak{L} 56'38 | 26°42'56 |
| evening max el | 5350 Sep 23 17:48 | 0° \mathfrak{M} 52'07 | 27°20'52 | retrograde | 5351 Sep 19 18:57 | 20° \mathfrak{L} 05'36 | |
| retrograde | 5350 Oct 07 13:19 | 8° \mathfrak{M} 06'08 | | evening set | 5351 Sep 26 15:14 | 18° \mathfrak{L} 06'37 | |
| evening set | 5350 Oct 14 17:05 | 5° \mathfrak{M} 41'57 | | min. Earth dist. | 5351 Sep 30 10:49 | 15° \mathfrak{L} 30'21 | 0.60099 AU |
| min. Earth dist. | 5350 Oct 18 08:13 | 2° \mathfrak{M} 49'55 | 0.62130 AU | inferior conj | 5351 Oct 03 16:13 | 12° \mathfrak{L} 54'13 | -4°34'49 |
| inferior conj | 5350 Oct 21 07:03 | 0° \mathfrak{M} 06'32 | -3°39'42 | minimum elong | 5351 Oct 03 22:21 | 12° \mathfrak{L} 41'49 | 4°33'31 |
| minimum elong | 5350 Oct 21 13:08 | 29° \mathfrak{L} 52'28 | 3°37'48 | morning rise | 5351 Oct 11 07:31 | 8° \mathfrak{L} 12'44 | |
| | 5350 Oct 21 09:52 | 30° \mathfrak{R} \mathfrak{L} | | direct | 5351 Oct 13 15:18 | 7° \mathfrak{L} 52'34 | |
| morning rise | 5350 Oct 28 11:01 | 25° \mathfrak{L} 03'29 | | asc. node | 5351 Oct 20 01:13 | 10° \mathfrak{L} 34'33 | |
| direct | 5350 Oct 30 18:57 | 24° \mathfrak{L} 39'38 | | morning max el | 5351 Oct 21 03:40 | 11° \mathfrak{L} 34'20 | 18°10'02 |
| asc. node | 5350 Nov 02 04:09 | 25° \mathfrak{L} 05'24 | | | 5351 Nov 02 09:11 | 0° \mathfrak{M} | |
| morning max el | 5350 Nov 06 15:36 | 28° \mathfrak{L} 08'48 | 17°51'23 | morning set | 5351 Nov 05 22:38 | 6° \mathfrak{M} 38'29 | |
| | 5350 Nov 08 08:35 | 0° \mathfrak{M} | | superior conj | 5351 Nov 15 11:56 | 24° \mathfrak{M} 21'51 | 1°06'15 |
| morning set | 5350 Nov 22 12:45 | 22° \mathfrak{M} 56'37 | | minimum elong | 5351 Nov 15 15:51 | 24° \mathfrak{M} 39'26 | 1°05'46 |
| | 5350 Nov 26 11:18 | 0° \mathfrak{X} | | | 5351 Nov 18 16:01 | 0° \mathfrak{X} | |
| superior conj | 5350 Dec 03 12:21 | 12° \mathfrak{X} 17'53 | 0°34'21 | max. Earth dist. | 5351 Nov 23 03:29 | 7° \mathfrak{X} 42'28 | 1.41391 AU |
| minimum elong | 5350 Dec 03 15:21 | 12° \mathfrak{X} 30'38 | 0°33'56 | desc. node | 5351 Nov 25 06:55 | 11° \mathfrak{X} 17'42 | |
| desc. node | 5350 Dec 08 09:53 | 20° \mathfrak{X} 31'23 | | evening rise | 5351 Nov 28 04:38 | 16° \mathfrak{X} 03'25 | |
| max. Earth dist. | 5350 Dec 10 17:02 | 24° \mathfrak{X} 17'26 | 1.43217 AU | | 5351 Dec 07 02:18 | 0° \mathfrak{Z} | |
| | 5350 Dec 14 06:08 | 0° \mathfrak{Z} | | | 5351 Dec 29 00:34 | 0° \approx | |
| evening rise | 5350 Dec 17 23:53 | 5° \mathfrak{Z} 53'41 | | evening max el | 5351 Dec 31 23:52 | 3° \approx 11'39 | 22°58'20 |
| | 5351 Jan 03 02:06 | 0° \approx | | retrograde | 5352 Jan 11 03:54 | 9° \approx 13'25 | |
| evening max el | 5351 Jan 18 07:24 | 19° \approx 33'54 | 21°39'54 | evening set | 5352 Jan 15 23:45 | 7° \approx 14'23 | |
| retrograde | 5351 Jan 27 08:43 | 24° \approx 56'21 | | asc. node | 5352 Jan 16 00:27 | 7° \approx 12'56 | |
| asc. node | 5351 Jan 29 03:24 | 24° \approx 39'29 | | inferior conj | 5352 Jan 21 08:54 | 0° \approx 50'25 | 1°43'07 |
| evening set | 5351 Jan 31 16:43 | 23° \approx 13'07 | | minimum elong | 5352 Jan 21 06:50 | 0° \approx 57'33 | 1°42'24 |
| inferior conj | 5351 Feb 06 00:47 | 16° \approx 55'46 | 2°23'43 | min. Earth dist. | 5352 Jan 21 00:55 | 1° \approx 18'00 | 0.68127 AU |
| minimum elong | 5351 Feb 05 22:23 | 17° \approx 04'04 | 2°23'01 | | 5352 Jan 21 23:32 | 30° \mathfrak{R} \mathfrak{Z} | |
| min. Earth dist. | 5351 Feb 06 04:18 | 16° \approx 43'34 | 0.68034 AU | morning rise | 5352 Jan 26 13:49 | 24° \mathfrak{Z} 42'36 | |
| morning rise | 5351 Feb 11 03:53 | 10° \approx 43'54 | | direct | 5352 Jan 30 23:51 | 22° \mathfrak{Z} 55'25 | |
| direct | 5351 Feb 16 04:22 | 8° \approx 33'50 | | morning max el | 5352 Feb 08 18:41 | 28° \mathfrak{Z} 01'50 | 21°30'26 |
| morning max el | 5351 Feb 26 04:41 | 14° \approx 29'42 | 22°55'56 | | 5352 Feb 10 15:24 | 0° \approx | |
| desc. node | 5351 Mar 06 09:08 | 24° \approx 06'39 | | desc. node | 5352 Feb 21 06:09 | 13° \approx 40'00 | |
| | 5351 Mar 10 18:16 | 0° \mathfrak{H} | | | 5352 Mar 03 09:27 | 0° \mathfrak{H} | |
| | 5351 Mar 30 14:18 | 0° \mathfrak{Y} | | morning set | 5352 Mar 11 12:07 | 12° \mathfrak{H} 34'49 | |
| morning set | 5351 Apr 01 16:30 | 3° \mathfrak{Y} 26'31 | | max. Earth dist. | 5352 Mar 18 04:04 | 23° \mathfrak{H} 21'41 | 1.41983 AU |
| max. Earth dist. | 5351 Apr 06 03:18 | 10° \mathfrak{Y} 57'30 | 1.39874 AU | | 5352 Mar 22 03:21 | 0° \mathfrak{Y} | |
| superior conj | 5351 Apr 13 21:12 | 24° \mathfrak{Y} 42'38 | -1°47'31 | superior conj | 5352 Mar 25 16:14 | 6° \mathfrak{Y} 03'50 | -2°04'49 |
| minimum elong | 5351 Apr 14 02:15 | 25° \mathfrak{Y} 05'47 | 1°47'02 | minimum elong | 5352 Mar 25 19:35 | 6° \mathfrak{Y} 18'20 | 2°04'41 |
| | 5351 Apr 16 17:49 | 0° \mathfrak{B} | | evening rise | 5352 Apr 05 17:43 | 25° \mathfrak{Y} 51'28 | |
| evening rise | 5351 Apr 23 14:36 | 13° \mathfrak{B} 01'36 | | | 5352 Apr 08 00:16 | 0° \mathfrak{B} | |
| asc. node | 5351 Apr 27 02:42 | 19° \mathfrak{B} 39'39 | | asc. node | 5352 Apr 12 23:44 | 8° \mathfrak{B} 50'58 | |
| | 5351 May 02 23:24 | 0° \mathfrak{I} | | evening max el | 5352 Apr 22 03:56 | 21° \mathfrak{B} 51'16 | 18°09'22 |
| evening max el | 5351 May 09 18:12 | 8° \mathfrak{I} 59'25 | 18°29'55 | retrograde | 5352 Apr 28 23:14 | 25° \mathfrak{B} 18'01 | |
| retrograde | 5351 May 17 09:16 | 12° \mathfrak{I} 45'49 | | evening set | 5352 May 01 12:19 | 24° \mathfrak{B} 49'35 | |
| evening set | 5351 May 19 15:29 | 12° \mathfrak{I} 27'00 | | inferior conj | 5352 May 08 07:55 | 19° \mathfrak{B} 58'30 | 2°44'57 |
| inferior conj | 5351 May 27 04:48 | 7° \mathfrak{I} 56'41 | 1°42'39 | minimum elong | 5352 May 08 11:09 | 19° \mathfrak{B} 51'03 | 2°44'13 |
| minimum elong | 5351 May 27 07:59 | 7° \mathfrak{I} 50'22 | 1°41'38 | min. Earth dist. | 5352 May 11 15:31 | 16° \mathfrak{B} 56'32 | 0.60265 AU |
| min. Earth dist. | 5351 May 30 14:28 | 5° \mathfrak{I} 16'32 | 0.58097 AU | morning rise | 5352 May 15 07:33 | 14° \mathfrak{B} 09'18 | |
| desc. node | 5351 Jun 02 08:24 | 3° \mathfrak{I} 23'48 | | desc. node | 5352 May 19 05:24 | 12° \mathfrak{B} 25'38 | |
| morning rise | 5351 Jun 03 21:17 | 2° \mathfrak{I} 32'48 | | direct | 5352 May 21 20:50 | 12° \mathfrak{B} 05'39 | |
| direct | 5351 Jun 09 19:21 | 1° \mathfrak{I} 02'57 | | morning max el | 5352 Jun 05 04:38 | 19° \mathfrak{B} 59'56 | 27°41'26 |

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|------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| | 5352 Jun 13 17:53 | 0°♊ | | | 5353 May 16 08:12 | 0°♄ | |
| | 5352 Jul 02 03:43 | 0°♅ | | morning max el | 5353 May 18 10:37 | 1°♄59'43 | 27°52'25 |
| morning set | 5352 Jul 07 07:13 | 10°♅17'26 | | | 5353 Jun 08 01:04 | 0°♊ | |
| asc. node | 5352 Jul 09 23:02 | 15°♅54'01 | | morning set | 5353 Jun 21 08:03 | 24°♊30'08 | |
| max. Earth dist. | 5352 Jul 13 13:05 | 23°♅41'29 | 1.31965 AU | | 5353 Jun 24 00:05 | 0°♅ | |
| | | | | asc. node | 5353 Jun 26 20:04 | 6°♅00'45 | |
| superior conj | 5352 Jul 14 12:23 | 25°♅49'42 | 0°45'58 | max. Earth dist. | 5353 Jun 26 20:22 | 6°♅02'22 | 1.32407 AU |
| minimum elong | 5352 Jul 14 10:31 | 25°♅39'27 | 0°45'35 | | | | |
| | 5352 Jul 16 09:45 | 0°♎ | | superior conj | 5353 Jun 28 21:34 | 10°♅28'31 | 0°21'20 |
| evening rise | 5352 Jul 21 07:30 | 10°♎40'55 | | minimum elong | 5353 Jun 28 20:35 | 10°♅23'10 | 0°21'07 |
| | 5352 Jul 31 03:23 | 0°♐ | | evening rise | 5353 Jul 05 19:13 | 25°♅28'00 | |
| desc. node | 5352 Aug 15 04:42 | 21°♐39'41 | | | 5353 Jul 07 22:57 | 0°♎ | |
| evening max el | 5352 Aug 17 16:17 | 24°♐11'39 | 25°33'37 | | 5353 Jul 25 20:59 | 0°♐ | |
| | 5352 Aug 25 21:27 | 0°♑ | | evening max el | 5353 Jul 30 05:25 | 4°♐45'08 | 24°02'27 |
| retrograde | 5352 Aug 31 14:56 | 1°♑16'31 | | desc. node | 5353 Aug 02 01:44 | 7°♐14'57 | |
| | 5352 Sep 06 08:13 | 30°♐♐ | | retrograde | 5353 Aug 12 23:37 | 11°♐40'29 | |
| evening set | 5352 Sep 06 15:02 | 29°♐52'26 | | evening set | 5353 Aug 17 14:33 | 10°♐53'13 | |
| min. Earth dist. | 5352 Sep 11 04:10 | 27°♐14'35 | 0.58050 AU | min. Earth dist. | 5353 Aug 23 15:56 | 7°♐55'02 | 0.56267 AU |
| inferior conj | 5352 Sep 14 07:09 | 25°♐03'26 | -5°11'47 | inferior conj | 5353 Aug 26 01:45 | 6°♐26'07 | -5°15'03 |
| minimum elong | 5352 Sep 14 10:27 | 24°♐57'36 | 5°11'30 | minimum elong | 5353 Aug 25 23:02 | 6°♐30'18 | 5°14'54 |
| morning rise | 5352 Sep 22 08:09 | 20°♐45'19 | | morning rise | 5353 Sep 03 10:02 | 2°♐28'01 | |
| direct | 5352 Sep 24 19:22 | 20°♐26'27 | | direct | 5353 Sep 06 03:49 | 2°♐08'35 | |
| morning max el | 5352 Oct 03 08:23 | 24°♐30'32 | 18°49'25 | morning max el | 5353 Sep 16 02:35 | 6°♐46'55 | 19°50'41 |
| asc. node | 5352 Oct 05 22:16 | 27°♐18'30 | | asc. node | 5353 Sep 22 19:20 | 15°♐01'09 | |
| | 5352 Oct 07 23:29 | 0°♒ | | | 5353 Oct 01 06:23 | 0°♒ | |
| morning set | 5352 Oct 19 19:09 | 20°♒50'27 | | morning set | 5353 Oct 03 22:50 | 5°♒22'05 | |
| | 5352 Oct 24 11:16 | 0°♓ | | | | | |
| superior conj | 5352 Oct 28 07:41 | 7°♓24'52 | 1°27'39 | superior conj | 5353 Oct 11 18:14 | 21°♒10'56 | 1°39'34 |
| minimum elong | 5352 Oct 28 10:45 | 7°♓39'23 | 1°27'23 | minimum elong | 5353 Oct 11 19:48 | 21°♒18'42 | 1°39'30 |
| max. Earth dist. | 5352 Nov 04 09:29 | 20°♓24'28 | 1.39308 AU | max. Earth dist. | 5353 Oct 16 06:50 | 0°♓ | |
| evening rise | 5352 Nov 08 07:49 | 27°♓14'14 | | evening rise | 5353 Oct 17 14:29 | 2°♓29'33 | 1.37221 AU |
| | 5352 Nov 09 23:04 | 0°♈ | | desc. node | 5353 Oct 21 09:02 | 9°♓25'08 | |
| desc. node | 5352 Nov 11 03:58 | 2°♈00'14 | | | 5353 Oct 29 01:00 | 22°♓34'31 | |
| | 5352 Nov 29 15:59 | 0°♉ | | | 5353 Nov 02 16:42 | 0°♈ | |
| evening max el | 5352 Dec 13 13:21 | 16°♉52'32 | 24°17'57 | evening max el | 5353 Nov 25 11:15 | 0°♉ | |
| retrograde | 5352 Dec 24 19:39 | 23°♉28'44 | | retrograde | 5353 Nov 26 01:53 | 0°♉36'14 | 25°32'02 |
| evening set | 5352 Dec 30 04:29 | 21°♉14'26 | | evening set | 5353 Dec 08 07:00 | 7°♉37'19 | |
| asc. node | 5353 Jan 01 21:30 | 18°♉24'48 | | min. Earth dist. | 5353 Dec 14 05:15 | 5°♉09'49 | |
| min. Earth dist. | 5353 Jan 03 21:04 | 15°♉51'41 | 0.67849 AU | | 5353 Dec 18 14:27 | 0°♉21'29 | 0.67211 AU |
| inferior conj | 5353 Jan 04 16:03 | 14°♉47'50 | 0°55'28 | inferior conj | 5353 Dec 18 21:11 | 30°♉♈ | |
| minimum elong | 5353 Jan 04 14:47 | 14°♉52'08 | 0°54'58 | minimum elong | 5353 Dec 19 20:27 | 28°♈45'18 | 0°01'37 |
| morning rise | 5353 Jan 10 01:10 | 8°♉45'42 | | transit middle | 5353 Dec 19 20:24 | 28°♈45'27 | 0°01'36 |
| direct | 5353 Jan 13 21:40 | 7°♉20'57 | | transit begin | 5353 Dec 19 20:24 | 28°♈45'27 | 0°01'36 |
| morning max el | 5353 Jan 21 16:03 | 11°♉45'52 | 20°15'11 | transit end | 5353 Dec 19 17:36 | 28°♈54'25 | |
| | 5353 Feb 04 15:41 | 0°♊ | | transit end | 5353 Dec 19 23:11 | 28°♈36'30 | |
| desc. node | 5353 Feb 07 03:11 | 3°♊39'13 | | asc. node | 5353 Dec 19 18:33 | 28°♈51'23 | |
| morning set | 5353 Feb 18 10:50 | 20°♊49'46 | | morning rise | 5353 Dec 25 11:54 | 22°♈50'54 | |
| | 5353 Feb 24 07:51 | 0°♋ | | direct | 5353 Dec 28 20:29 | 21°♈46'01 | |
| max. Earth dist. | 5353 Feb 28 12:07 | 6°♋38'30 | 1.43719 AU | morning max el | 5354 Jan 04 21:17 | 25°♈40'41 | 19°14'02 |
| | | | | | 5354 Jan 08 16:04 | 0°♉ | |
| superior conj | 5353 Mar 06 10:35 | 16°♋17'27 | -2°08'34 | greatest brilliancy | 5354 Jan 18 09:26 | 13°♉49'24 | -0.7m |
| minimum elong | 5353 Mar 06 08:55 | 16°♋10'35 | 2°08'31 | desc. node | 5354 Jan 25 00:13 | 23°♉57'19 | |
| | 5353 Mar 14 14:14 | 0°♌ | | morning set | 5354 Jan 28 11:23 | 29°♉19'07 | |
| evening rise | 5353 Mar 19 03:41 | 7°♌52'36 | | | 5354 Jan 28 21:56 | 0°♌ | |
| asc. node | 5353 Mar 30 20:47 | 27°♌33'43 | | max. Earth dist. | 5354 Feb 11 02:22 | 20°♌35'22 | 1.44879 AU |
| | 5353 Apr 01 12:52 | 0°♍ | | | | | |
| evening max el | 5353 Apr 05 16:33 | 5°♍02'56 | 18°08'16 | superior conj | 5354 Feb 14 04:24 | 25°♌28'07 | -1°53'37 |
| retrograde | 5353 Apr 12 03:13 | 8°♍25'12 | | minimum elong | 5354 Feb 13 20:35 | 24°♌57'06 | 1°53'05 |
| evening set | 5353 Apr 14 22:39 | 7°♍45'29 | | | 5354 Feb 17 00:39 | 0°♋ | |
| inferior conj | 5353 Apr 21 04:31 | 2°♍34'43 | 3°19'25 | evening rise | 5354 Feb 28 16:16 | 18°♋57'35 | |
| minimum elong | 5353 Apr 21 06:23 | 2°♍29'47 | 3°19'10 | | 5354 Mar 07 08:38 | 0°♌ | |
| | 5353 Apr 23 15:26 | 30°♌♌ | | asc. node | 5354 Mar 17 17:50 | 15°♌39'02 | |
| min. Earth dist. | 5353 Apr 24 01:10 | 29°♌35'19 | 0.62436 AU | evening max el | 5354 Mar 20 05:06 | 18°♌27'12 | 18°25'51 |
| morning rise | 5353 Apr 27 12:38 | 26°♌30'25 | | retrograde | 5354 Mar 26 16:33 | 21°♌58'13 | |
| direct | 5353 May 04 08:38 | 23°♌58'56 | | evening set | 5354 Mar 29 18:21 | 21°♌06'01 | |
| desc. node | 5353 May 06 02:26 | 24°♌08'02 | | inferior conj | 5354 Apr 04 14:23 | 15°♌37'07 | 3°31'57 |
| | | | | minimum elong | 5354 Apr 04 14:39 | 15°♌36'20 | 3°31'56 |

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|---------------------|-------------------|---------------------------|------------|---------------------|-------------------|---------------------------|------------|
| min. Earth dist. | 5354 Apr 06 20:11 | 13° Υ 00'30 | 0.64375 AU | inferior conj | 5355 Mar 19 09:45 | 28° X 57'56 | 3°27'50 |
| morning rise | 5354 Apr 10 10:09 | 9° Υ 25'27 | | minimum elong | 5355 Mar 19 08:40 | 29° X 01'20 | 3°27'45 |
| direct | 5354 Apr 17 04:44 | 6° Υ 38'15 | | min. Earth dist. | 5355 Mar 20 23:58 | 26° X 57'12 | 0.65947 AU |
| desc. node | 5354 Apr 22 23:26 | 8° Υ 19'05 | | morning rise | 5355 Mar 24 20:44 | 22° X 43'29 | |
| morning max el | 5354 Apr 30 19:55 | 14° Υ 35'19 | 27°27'03 | direct | 5355 Mar 31 07:35 | 19° X 54'20 | |
| | 5354 May 13 08:37 | 0° Z | | desc. node | 5355 Apr 09 20:28 | 24° X 25'16 | |
| | 5354 May 31 16:55 | 0° Π | | morning max el | 5355 Apr 13 05:49 | 27° X 34'22 | 26°31'35 |
| morning set | 5354 Jun 05 00:47 | 8° Π 15'51 | | | 5355 Apr 15 12:49 | 0° Υ | |
| max. Earth dist. | 5354 Jun 09 19:57 | 17° Π 57'20 | 1.33305 AU | | 5355 May 07 01:18 | 0° Z | |
| | | | | morning set | 5355 May 19 05:56 | 21° Z 23'52 | |
| superior conj | 5354 Jun 13 02:40 | 24° Π 50'57 | -0°06'15 | max. Earth dist. | 5355 May 23 08:45 | 29° Z 20'59 | 1.34673 AU |
| minimum elong | 5354 Jun 13 02:59 | 24° Π 52'38 | 0°06'11 | | 5355 May 23 16:38 | 0° Π | |
| behind sun begin | 5354 Jun 12 21:55 | 24° Π 25'44 | | | | | |
| behind sun end | 5354 Jun 13 08:03 | 25° Π 19'34 | | superior conj | 5355 May 28 01:20 | 8° Π 49'40 | -0°35'45 |
| asc. node | 5354 Jun 13 17:06 | 26° Π 07'52 | | minimum elong | 5355 May 28 03:17 | 8° Π 59'44 | 0°35'22 |
| | 5354 Jun 15 12:28 | 0° Z | | asc. node | 5355 May 31 14:08 | 16° Π 10'53 | |
| evening rise | 5354 Jun 20 06:37 | 10° Z 10'11 | | evening rise | 5355 Jun 04 15:42 | 24° Π 40'52 | |
| | 5354 Jun 30 13:03 | 0° Ω | | | 5355 Jun 07 06:03 | 0° Z | |
| evening max el | 5354 Jul 11 19:09 | 15° Ω 05'58 | 22°24'47 | evening max el | 5355 Jun 23 17:24 | 25° Z 46'50 | 20°55'24 |
| desc. node | 5354 Jul 19 22:44 | 20° Ω 39'26 | | | 5355 Jun 29 09:17 | 0° Ω | |
| retrograde | 5354 Jul 24 19:49 | 21° Ω 34'27 | | retrograde | 5355 Jul 05 08:12 | 1° Ω 29'31 | |
| evening set | 5354 Jul 27 22:37 | 21° Ω 13'03 | | desc. node | 5355 Jul 06 19:42 | 1° Ω 24'16 | |
| min. Earth dist. | 5354 Aug 05 02:01 | 17° Ω 40'34 | 0.55096 AU | evening set | 5355 Jul 07 11:57 | 1° Ω 18'29 | |
| inferior conj | 5354 Aug 06 02:39 | 17° Ω 05'42 | -4°29'13 | | 5355 Jul 11 17:27 | 30° R Z | |
| minimum elong | 5354 Aug 05 18:26 | 17° Ω 17'21 | 4°27'27 | inferior conj | 5355 Jul 16 19:40 | 27° Z 21'18 | -2°54'21 |
| morning rise | 5354 Aug 14 16:07 | 13° Ω 15'52 | | minimum elong | 5355 Jul 16 11:52 | 27° Z 32'19 | 2°51'46 |
| direct | 5354 Aug 17 19:20 | 12° Ω 53'35 | | min. Earth dist. | 5355 Jul 17 12:40 | 26° Z 57'15 | 0.54800 AU |
| morning max el | 5354 Aug 29 08:30 | 18° Ω 16'57 | 21°13'06 | morning rise | 5355 Jul 25 11:47 | 23° Z 21'25 | |
| | 5354 Sep 07 13:58 | 0° P | | direct | 5355 Jul 29 04:25 | 22° Z 52'06 | |
| asc. node | 5354 Sep 09 16:21 | 3° P 29'08 | | morning max el | 5355 Aug 11 03:40 | 29° Z 04'13 | 22°51'51 |
| morning set | 5354 Sep 18 07:07 | 20° P 06'20 | | | 5355 Aug 12 02:47 | 0° Ω | |
| | 5354 Sep 23 00:29 | 0° Z | | asc. node | 5355 Aug 27 13:23 | 22° Ω 31'39 | |
| | | | | | 5355 Aug 31 08:36 | 0° P | |
| superior conj | 5354 Sep 25 15:15 | 5° Z 27'17 | 1°43'22 | morning set | 5355 Sep 02 18:01 | 4° P 57'46 | |
| minimum elong | 5354 Sep 25 15:18 | 5° Z 27'33 | 1°43'22 | | | | |
| max. Earth dist. | 5354 Sep 30 00:26 | 14° Z 21'25 | 1.35360 AU | superior conj | 5355 Sep 09 19:26 | 20° P 04'17 | 1°40'16 |
| evening rise | 5354 Oct 04 04:40 | 22° Z 26'59 | | minimum elong | 5355 Sep 09 18:17 | 19° P 58'04 | 1°40'12 |
| | 5354 Oct 08 07:18 | 0° P | | max. Earth dist. | 5355 Sep 12 19:02 | 26° P 22'27 | 1.33863 AU |
| desc. node | 5354 Oct 15 22:02 | 12° P 55'26 | | | 5355 Sep 14 13:07 | 0° Z | |
| | 5354 Oct 27 10:41 | 0° Z | | evening rise | 5355 Sep 17 14:28 | 6° Z 08'41 | |
| evening max el | 5354 Nov 08 14:42 | 14° Z 18'24 | 26°33'08 | | 5355 Sep 30 22:28 | 0° P | |
| retrograde | 5354 Nov 21 13:05 | 21° Z 32'43 | | desc. node | 5355 Oct 02 19:03 | 2° P 56'44 | |
| evening set | 5354 Nov 28 00:10 | 18° Z 56'01 | | evening max el | 5355 Oct 22 03:28 | 27° P 49'56 | 27°13'48 |
| min. Earth dist. | 5354 Dec 02 02:43 | 14° Z 42'49 | 0.66223 AU | | 5355 Oct 24 13:30 | 0° Z | |
| inferior conj | 5354 Dec 03 20:04 | 12° Z 38'51 | -0°57'27 | retrograde | 5355 Nov 04 13:12 | 5° Z 07'50 | |
| minimum elong | 5354 Dec 03 21:40 | 12° Z 34'04 | 0°56'46 | evening set | 5355 Nov 11 10:57 | 2° Z 28'16 | |
| asc. node | 5354 Dec 06 15:35 | 9° Z 27'35 | | | 5355 Nov 14 04:43 | 30° R P | |
| morning rise | 5354 Dec 09 19:53 | 6° Z 54'41 | | min. Earth dist. | 5355 Nov 15 07:29 | 28° P 50'02 | 0.64888 AU |
| direct | 5354 Dec 12 18:32 | 6° Z 06'04 | | inferior conj | 5355 Nov 17 12:43 | 26° P 23'49 | -2°00'10 |
| morning max el | 5354 Dec 19 09:00 | 9° Z 41'30 | 18°28'49 | minimum elong | 5355 Nov 17 16:13 | 26° P 14'11 | 1°58'45 |
| | 5355 Jan 02 19:05 | 0° Z | | morning rise | 5355 Nov 23 22:38 | 20° P 53'01 | |
| morning set | 5355 Jan 08 11:38 | 9° Z 03'46 | | asc. node | 5355 Nov 23 12:36 | 21° P 05'16 | |
| desc. node | 5355 Jan 11 21:15 | 14° Z 28'39 | | direct | 5355 Nov 26 13:34 | 20° P 16'48 | |
| | 5355 Jan 21 17:12 | 0° \approx | | morning max el | 5355 Dec 03 00:46 | 23° P 42'46 | 18°00'27 |
| | | | | | 5355 Dec 08 02:35 | 0° Z | |
| superior conj | 5355 Jan 24 08:01 | 4° \approx 06'25 | -1°19'35 | morning set | 5355 Dec 20 17:38 | 20° Z 17'46 | |
| minimum elong | 5355 Jan 23 23:00 | 3° \approx 31'04 | 1°18'33 | | 5355 Dec 26 14:27 | 0° Z | |
| max. Earth dist. | 5355 Jan 24 20:46 | 4° \approx 56'23 | 1.45343 AU | desc. node | 5355 Dec 29 18:18 | 5° Z 09'17 | |
| evening rise | 5355 Feb 09 05:27 | 29° \approx 05'40 | | | | | |
| | 5355 Feb 09 19:11 | 0° X | | superior conj | 5356 Jan 03 17:19 | 13° Z 07'39 | -0°34'07 |
| greatest brilliancy | 5355 Feb 18 18:31 | 14° X 09'50 | -0.8m | minimum elong | 5356 Jan 03 13:10 | 12° Z 51'04 | 0°33'31 |
| | 5355 Mar 01 20:21 | 0° Υ | | max. Earth dist. | 5356 Jan 07 16:32 | 19° Z 24'53 | 1.45061 AU |
| evening max el | 5355 Mar 03 15:05 | 1° Υ 57'36 | 19°01'08 | | 5356 Jan 14 10:58 | 0° \approx | |
| asc. node | 5355 Mar 04 14:52 | 2° Υ 55'02 | | evening rise | 5356 Jan 19 23:20 | 8° \approx 32'08 | |
| retrograde | 5355 Mar 10 11:32 | 5° Υ 49'01 | | greatest brilliancy | 5356 Feb 02 23:48 | 29° \approx 51'13 | -0.6m |
| evening set | 5355 Mar 13 20:13 | 4° Υ 43'29 | | | 5356 Feb 03 02:11 | 0° X | |
| | 5355 Mar 18 13:58 | 30° R X | | evening max el | 5356 Feb 14 20:40 | 15° X 31'01 | 19°52'30 |

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|------------------|-------------------|---------------------------------|------------------|-------------------|---------------------------------------|
| asc. node | 5356 Feb 19 11:51 | 19° H 08'40 | retrograde | 5357 Feb 05 07:31 | 4° H 05'10 |
| retrograde | 5356 Feb 22 09:15 | 19° H 52'53 | asc. node | 5357 Feb 05 08:52 | 4° H 05'09 |
| evening set | 5356 Feb 26 01:55 | 18° H 33'09 | evening set | 5357 Feb 09 09:28 | 2° H 30'36 |
| inferior conj | 5356 Mar 02 11:39 | 12° H 32'58 3°10'50 | | 5357 Feb 11 22:00 | 30° R \approx |
| minimum elong | 5356 Mar 02 09:41 | 12° H 39'32 3°10'30 | inferior conj | 5357 Feb 14 17:36 | 26° \approx 18'22 2°43'31 |
| min. Earth dist. | 5356 Mar 03 11:14 | 11° H 14'08 0.67094 AU | minimum elong | 5357 Feb 14 15:14 | 26° \approx 26'33 2°42'54 |
| morning rise | 5356 Mar 07 17:14 | 6° H 18'13 | min. Earth dist. | 5357 Feb 15 04:00 | 25° \approx 42'29 0.67807 AU |
| direct | 5356 Mar 13 16:05 | 3° H 38'42 | morning rise | 5357 Feb 19 20:49 | 20° \approx 05'00 |
| morning max el | 5356 Mar 25 14:57 | 10° H 47'13 25°14'56 | direct | 5357 Feb 25 05:34 | 17° \approx 43'01 |
| desc. node | 5356 Mar 26 17:31 | 11° H 56'02 | morning max el | 5357 Mar 07 23:48 | 24° \approx 07'51 23°47'21 |
| | 5356 Apr 09 21:55 | 0° Y | | 5357 Mar 13 05:32 | 0° H |
| | 5356 Apr 28 17:09 | 0° B | desc. node | 5357 Mar 13 14:34 | 0° H 27'30 |
| morning set | 5356 Apr 30 19:00 | 3° B 41'49 | | 5357 Apr 03 08:16 | 0° Y |
| max. Earth dist. | 5356 May 04 10:54 | 10° B 24'53 1.36482 AU | morning set | 5357 Apr 12 10:23 | 14° Y 55'14 |
| | | | max. Earth dist. | 5357 Apr 16 06:51 | 21° Y 37'12 1.38600 AU |
| | | | | 5357 Apr 20 22:08 | 0° B |
| superior conj | 5356 May 10 14:45 | 22° B 17'05 -1°05'39 | superior conj | 5357 Apr 23 15:22 | 5° B 04'26 -1°33'37 |
| minimum elong | 5356 May 10 18:25 | 22° B 35'14 1°05'03 | minimum elong | 5357 Apr 23 20:18 | 5° B 27'40 1°33'00 |
| | 5356 May 14 11:07 | 0° II | evening rise | 5357 May 02 17:48 | 22° B 41'31 |
| asc. node | 5356 May 17 11:09 | 6° II 05'42 | asc. node | 5357 May 04 08:10 | 25° B 48'10 |
| evening rise | 5356 May 18 20:18 | 8° II 53'38 | | 5357 May 06 12:44 | 0° II |
| | 5356 May 30 10:28 | 0° E | evening max el | 5357 May 19 02:09 | 19° II 08'30 18°50'43 |
| evening max el | 5356 Jun 05 03:59 | 7° E 06'37 19°43'00 | retrograde | 5357 May 27 10:22 | 23° II 14'19 |
| retrograde | 5356 Jun 15 01:24 | 11° E 57'03 | evening set | 5357 May 29 12:24 | 22° II 59'56 |
| evening set | 5356 Jun 16 23:21 | 11° E 46'59 | inferior conj | 5357 Jun 06 13:09 | 18° II 41'05 0°52'37 |
| desc. node | 5356 Jun 22 16:44 | 9° E 35'17 | minimum elong | 5357 Jun 06 15:08 | 18° II 37'31 0°51'54 |
| inferior conj | 5356 Jun 25 19:21 | 7° E 44'11 -0°55'54 | min. Earth dist. | 5357 Jun 09 17:33 | 16° II 24'01 0.56962 AU |
| minimum elong | 5356 Jun 25 16:47 | 7° E 48'10 0°54'56 | desc. node | 5357 Jun 09 13:45 | 16° II 30'35 |
| min. Earth dist. | 5356 Jun 28 01:18 | 6° E 20'28 0.55465 AU | morning rise | 5357 Jun 14 14:31 | 13° II 35'45 |
| morning rise | 5356 Jul 04 08:01 | 3° E 15'31 | direct | 5357 Jun 20 00:19 | 12° II 25'01 |
| direct | 5356 Jul 08 19:30 | 2° E 31'08 | morning max el | 5357 Jul 04 08:29 | 19° II 53'01 26°09'44 |
| morning max el | 5356 Jul 22 17:28 | 9° E 26'44 24°35'59 | | 5357 Jul 12 23:43 | 0° E |
| | 5356 Aug 07 00:04 | 0° O | | 5357 Jul 30 11:06 | 0° O |
| asc. node | 5356 Aug 13 10:25 | 11° O 59'20 | asc. node | 5357 Jul 31 07:28 | 1° O 45'06 |
| morning set | 5356 Aug 17 05:45 | 19° O 50'33 | morning set | 5357 Aug 01 16:45 | 4° O 39'39 |
| | 5356 Aug 21 22:31 | 0° P | | | |
| superior conj | 5356 Aug 24 04:10 | 4° P 53'11 1°31'17 | superior conj | 5357 Aug 08 15:24 | 19° O 47'25 1°17'09 |
| minimum elong | 5356 Aug 24 02:13 | 4° P 42'31 1°31'04 | minimum elong | 5357 Aug 08 13:06 | 19° O 34'46 1°16'49 |
| max. Earth dist. | 5356 Aug 25 22:00 | 8° P 40'21 1.32782 AU | max. Earth dist. | 5357 Aug 09 06:46 | 21° O 12'11 1.32129 AU |
| evening rise | 5356 Aug 31 10:39 | 20° P 19'02 | | 5357 Aug 13 07:36 | 0° P |
| | 5356 Sep 05 08:43 | 0° A | evening rise | 5357 Aug 15 14:12 | 4° P 49'23 |
| desc. node | 5356 Sep 18 16:02 | 22° A 29'19 | | 5357 Aug 29 00:39 | 0° A |
| | 5356 Sep 24 00:28 | 0° M | desc. node | 5357 Sep 05 13:03 | 11° A 21'28 |
| evening max el | 5356 Oct 03 14:17 | 10° M 56'58 27°27'18 | evening max el | 5357 Sep 15 20:43 | 23° A 26'50 27°08'46 |
| retrograde | 5356 Oct 17 06:51 | 18° M 13'03 | | 5357 Sep 25 19:22 | 0° M |
| evening set | 5356 Oct 24 10:40 | 15° M 39'40 | retrograde | 5357 Sep 29 17:27 | 0° M 39'15 |
| min. Earth dist. | 5356 Oct 28 02:39 | 12° M 33'14 0.63223 AU | | 5357 Oct 03 12:50 | 30° R $\underline{\text{A}}$ |
| inferior conj | 5356 Oct 30 19:40 | 9° M 52'42 -3°04'02 | evening set | 5357 Oct 06 19:33 | 28° A 23'52 |
| minimum elong | 5356 Oct 31 01:00 | 9° M 39'32 3°02'09 | min. Earth dist. | 5357 Oct 10 11:14 | 25° A 40'40 0.61285 AU |
| morning rise | 5356 Nov 06 16:55 | 4° M 38'46 | inferior conj | 5357 Oct 13 13:48 | 22° A 57'59 -4°04'29 |
| direct | 5356 Nov 09 02:39 | 4° M 11'19 | minimum elong | 5357 Oct 13 20:09 | 22° A 44'04 4°02'45 |
| asc. node | 5356 Nov 09 09:38 | 4° M 11'44 | morning rise | 5357 Oct 20 22:45 | 18° A 04'07 |
| morning max el | 5356 Nov 15 17:38 | 7° M 36'39 17°49'29 | direct | 5357 Oct 23 06:09 | 17° A 42'15 |
| | 5356 Nov 30 11:13 | 0° X | asc. node | 5357 Oct 27 06:42 | 18° A 51'32 |
| morning set | 5356 Dec 02 00:42 | 2° X 43'47 | morning max el | 5357 Oct 30 08:29 | 21° A 15'28 17°56'54 |
| | | | | 5357 Nov 05 23:30 | 0° M |
| superior conj | 5356 Dec 14 00:32 | 23° X 14'39 0°11'24 | morning set | 5357 Nov 15 02:23 | 16° M 02'24 |
| minimum elong | 5356 Dec 14 01:43 | 23° X 19'31 0°11'14 | | 5357 Nov 22 18:59 | 0° X |
| behind sun begin | 5356 Dec 13 18:55 | 22° X 51'18 | | | |
| behind sun end | 5356 Dec 14 08:31 | 23° X 47'41 | superior conj | 5357 Nov 25 10:12 | 4° X 38'33 0°49'10 |
| desc. node | 5356 Dec 15 15:20 | 25° X 54'46 | minimum elong | 5357 Nov 25 13:52 | 4° X 54'35 0°48'41 |
| | 5356 Dec 18 03:25 | 0° Z | desc. node | 5357 Dec 02 12:20 | 16° X 41'46 |
| max. Earth dist. | 5356 Dec 20 10:11 | 3° Z 40'41 1.44066 AU | max. Earth dist. | 5357 Dec 02 23:02 | 17° X 25'59 1.42487 AU |
| evening rise | 5356 Dec 29 09:29 | 17° Z 46'10 | evening rise | 5357 Dec 09 03:44 | 27° X 26'25 |
| | 5357 Jan 06 10:39 | 0° \approx | | 5357 Dec 10 18:47 | 0° Z |
| evening max el | 5357 Jan 27 20:46 | 29° \approx 05'33 20°57'37 | | 5357 Dec 31 05:06 | 0° \approx |
| | 5357 Jan 28 18:47 | 0° H | | | |

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|------------------|-------------------|---|------------|------------------|-------------------|---|------------|
| evening max el | 5358 Jan 10 15:34 | 12°  41'19 | 22°12'42 | | 5358 Dec 28 10:25 | 0°  | |
| retrograde | 5358 Jan 20 04:21 | 18°  21'31 | | retrograde | 5359 Jan 03 22:17 | 2°  38'35 | |
| asc. node | 5358 Jan 23 05:56 | 17°  31'58 | | evening set | 5359 Jan 08 23:25 | 0°  33'11 | |
| evening set | 5358 Jan 24 17:09 | 16°  31'33 | | | 5359 Jan 09 14:15 | 30°  R  | |
| inferior conj | 5358 Jan 30 01:29 | 10°  10'40 | 2°07'26 | asc. node | 5359 Jan 10 02:59 | 29°  Z  28'38 | |
| minimum elong | 5358 Jan 29 23:10 | 10°  18'41 | 2°06'41 | inferior conj | 5359 Jan 14 09:26 | 24°  Z  07'31 | 1°23'46 |
| min. Earth dist. | 5358 Jan 29 23:59 | 10°  15'52 | 0.68116 AU | minimum elong | 5359 Jan 14 07:39 | 24°  Z  13'38 | 1°23'05 |
| morning rise | 5358 Feb 04 05:02 | 4°  00'08 | | min. Earth dist. | 5359 Jan 13 20:48 | 24°  Z  50'45 | 0.68050 AU |
| direct | 5358 Feb 08 23:11 | 1°  59'50 | | morning rise | 5359 Jan 19 15:50 | 18°  Z  01'37 | |
| morning max el | 5358 Feb 18 10:49 | 7°  34'46 | 22°18'35 | direct | 5359 Jan 23 19:59 | 16°  Z  24'02 | |
| desc. node | 5358 Feb 28 11:36 | 19°  42'00 | | morning max el | 5359 Feb 01 03:37 | 21°  Z  11'49 | 20°56'48 |
| | 5358 Mar 07 19:27 | 0°  H | | | 5359 Feb 08 13:17 | 0°  H | |
| morning set | 5358 Mar 23 22:25 | 24°  H  49'37 | | desc. node | 5359 Feb 15 08:38 | 9°  H  27'46 | |
| | 5358 Mar 27 01:59 | 0°  Y | | | 5359 Mar 01 01:25 | 0°  H | |
| max. Earth dist. | 5358 Mar 29 03:35 | 3°  Y  27'37 | 1.40795 AU | morning set | 5359 Mar 03 07:13 | 3°  H  29'17 | |
| | | | | max. Earth dist. | 5359 Mar 11 06:59 | 16°  H  13'51 | 1.42783 AU |
| superior conj | 5358 Apr 05 22:37 | 17°  Y  00'16 | -1°56'10 | superior conj | 5359 Mar 18 07:37 | 27°  H  54'05 | -2°08'25 |
| minimum elong | 5358 Apr 06 03:19 | 17°  Y  21'17 | 1°55'49 | minimum elong | 5359 Mar 18 09:14 | 28°  H  00'56 | 2°08'23 |
| | 5358 Apr 13 00:55 | 0°  B | | | 5359 Mar 19 13:13 | 0°  Y | |
| evening rise | 5358 Apr 16 04:47 | 5°  B  55'05 | | evening rise | 5359 Mar 30 01:09 | 18°  Y  25'22 | |
| asc. node | 5358 Apr 21 05:13 | 15°  B  12'37 | | | 5359 Apr 05 14:09 | 0°  B | |
| | 5358 Apr 30 17:39 | 0°  II | | asc. node | 5359 Apr 08 02:16 | 4°  B  12'58 | |
| evening max el | 5358 May 02 08:44 | 1°  II  44'56 | 18°18'47 | evening max el | 5359 Apr 15 20:11 | 14°  B  46'53 | 18°06'35 |
| retrograde | 5358 May 09 14:06 | 5°  II  21'04 | | retrograde | 5359 Apr 22 10:25 | 18°  B  09'33 | |
| evening set | 5358 May 11 23:10 | 4°  II  58'35 | | evening set | 5359 Apr 25 02:20 | 17°  B  36'26 | |
| inferior conj | 5358 May 19 04:33 | 0°  II  19'43 | 2°12'49 | inferior conj | 5359 May 01 15:36 | 12°  B  37'02 | 3°02'36 |
| minimum elong | 5358 May 19 08:01 | 0°  II  12'22 | 2°11'50 | minimum elong | 5359 May 01 18:21 | 12°  B  30'19 | 3°02'04 |
| | 5358 May 19 13:50 | 30°  R  B  | | min. Earth dist. | 5359 May 04 19:26 | 9°  B  33'13 | 0.61215 AU |
| min. Earth dist. | 5358 May 22 14:57 | 27°  B  26'53 | 0.58998 AU | morning rise | 5359 May 08 08:21 | 6°  B  40'31 | |
| morning rise | 5358 May 26 13:50 | 24°  B  43'29 | | desc. node | 5359 May 14 07:50 | 4°  B  25'11 | |
| desc. node | 5358 May 27 10:48 | 24°  B  16'25 | | direct | 5359 May 15 01:49 | 4°  B  23'32 | |
| direct | 5358 Jun 01 19:22 | 22°  B  58'44 | | morning max el | 5359 May 29 07:18 | 12°  B  21'22 | 27°50'36 |
| | 5358 Jun 15 09:18 | 0°  II | | | 5359 Jun 12 06:23 | 0°  II | |
| morning max el | 5358 Jun 16 04:43 | 0°  II  46'43 | 27°17'49 | | 5359 Jun 29 09:39 | 0°  B | |
| | 5358 Jul 07 02:09 | 0°  B | | morning set | 5359 Jul 01 05:35 | 3°  B  43'11 | |
| morning set | 5358 Jul 17 01:19 | 19°  B  19'02 | | asc. node | 5359 Jul 05 01:33 | 11°  B  47'06 | |
| asc. node | 5358 Jul 18 04:31 | 21°  B  42'32 | | max. Earth dist. | 5359 Jul 07 03:38 | 16°  B  18'15 | 1.32102 AU |
| | 5358 Jul 22 00:25 | 0°  O | | | | | |
| max. Earth dist. | 5358 Jul 23 17:51 | 3°  O  48'18 | 1.31901 AU | superior conj | 5359 Jul 08 13:54 | 19°  B  25'38 | 0°35'55 |
| superior conj | 5358 Jul 24 03:13 | 4°  O  40'05 | 0°58'31 | minimum elong | 5359 Jul 08 12:21 | 19°  B  17'10 | 0°35'35 |
| minimum elong | 5358 Jul 24 01:04 | 4°  O  28'10 | 0°58'08 | | 5359 Jul 13 09:36 | 0°  O | |
| evening rise | 5358 Jul 30 22:33 | 19°  O  31'24 | | evening rise | 5359 Jul 15 09:37 | 4°  O  18'38 | |
| | 5358 Aug 05 01:34 | 0°  H | | | 5359 Jul 29 00:31 | 0°  H | |
| desc. node | 5358 Aug 23 10:04 | 29°  H  16'26 | | desc. node | 5359 Aug 10 07:06 | 15°  H  51'10 | |
| | 5358 Aug 24 00:37 | 0°  B | | evening max el | 5359 Aug 10 12:57 | 16°  H  05'19 | 24°56'43 |
| evening max el | 5358 Aug 28 20:32 | 5°  B  09'50 | 26°16'57 | retrograde | 5359 Aug 24 10:51 | 23°  H  06'48 | |
| retrograde | 5358 Sep 11 19:37 | 12°  B  17'56 | | evening set | 5359 Aug 29 21:55 | 21°  H  59'17 | |
| evening set | 5358 Sep 18 08:46 | 10°  B  33'00 | | min. Earth dist. | 5359 Sep 04 00:25 | 19°  H  14'38 | 0.57235 AU |
| min. Earth dist. | 5358 Sep 22 09:46 | 7°  B  58'11 | 0.59207 AU | inferior conj | 5359 Sep 06 21:51 | 17°  H  19'59 | -5°18'25 |
| inferior conj | 5358 Sep 25 15:33 | 5°  B  30'15 | -4°53'35 | minimum elong | 5359 Sep 06 22:54 | 17°  H  18'15 | 5°18'23 |
| minimum elong | 5358 Sep 25 20:55 | 5°  B  20'00 | 4°52'44 | morning rise | 5359 Sep 15 02:11 | 13°  H  10'47 | |
| morning rise | 5358 Oct 03 11:16 | 0°  B  58'45 | | direct | 5359 Sep 17 15:51 | 12°  H  51'51 | |
| direct | 5358 Oct 05 19:53 | 0°  B  39'33 | | morning max el | 5359 Sep 26 18:20 | 17°  H  09'29 | 19°12'49 |
| morning max el | 5358 Oct 13 17:53 | 4°  B  29'55 | 18°24'11 | asc. node | 5359 Oct 01 00:49 | 22°  H  04'38 | |
| asc. node | 5358 Oct 14 03:46 | 4°  B  54'17 | | | 5359 Oct 06 03:20 | 0°  B | |
| morning set | 5358 Oct 29 17:18 | 29°  B  58'31 | | morning set | 5359 Oct 13 17:14 | 14°  B  19'47 | |
| | 5358 Oct 29 17:37 | 0°  M | | | | | |
| superior conj | 5358 Nov 07 19:03 | 17°  M  09'41 | 1°16'33 | superior conj | 5359 Oct 21 21:38 | 0°  M  32'15 | 1°33'47 |
| minimum elong | 5358 Nov 07 22:44 | 17°  M  26'40 | 1°16'09 | minimum elong | 5359 Oct 22 00:05 | 0°  M  44'09 | 1°33'37 |
| | 5358 Nov 14 23:38 | 0°  A | | | 5359 Oct 21 14:59 | 0°  M | |
| max. Earth dist. | 5358 Nov 15 06:53 | 0°  A  31'15 | 1.40519 AU | max. Earth dist. | 5359 Oct 28 12:02 | 12°  M  56'19 | 1.38405 AU |
| desc. node | 5358 Nov 19 09:22 | 7°  A  27'11 | | evening rise | 5359 Nov 01 06:37 | 19°  M  39'10 | |
| evening rise | 5358 Nov 19 17:45 | 8°  A  01'53 | | desc. node | 5359 Nov 06 06:22 | 28°  M  06'43 | |
| | 5358 Dec 03 20:21 | 0°  B | | | 5359 Nov 07 10:00 | 0°  A | |
| evening max el | 5358 Dec 24 06:34 | 26°  B  20'57 | 23°32'30 | evening max el | 5359 Dec 06 19:38 | 10°  B  04'09 | 24°50'40 |

| | | | | | | | |
|---------------------|-------------------|---------------------------|------------|------------------|-------------------|---------------------------|------------|
| retrograde | 5359 Dec 18 12:05 | 16° S 51'38 | | evening rise | 5360 Oct 13 16:12 | 2° N 13'05 | |
| evening set | 5359 Dec 24 02:38 | 14° S 31'35 | | desc. node | 5360 Oct 23 03:24 | 18° N 36'09 | |
| asc. node | 5359 Dec 28 00:02 | 10° S 15'24 | | | 5360 Oct 30 11:20 | 0° S | |
| min. Earth dist. | 5359 Dec 28 16:03 | 9° S 23'21 | 0.67624 AU | evening max el | 5360 Nov 18 08:15 | 23° S 48'09 | 26°00'00 |
| inferior conj | 5359 Dec 29 15:38 | 8° S 05'32 | 0°33'21 | | 5360 Nov 26 19:04 | 0° S | |
| minimum elong | 5359 Dec 29 14:49 | 8° S 08'12 | 0°33'02 | retrograde | 5360 Nov 30 21:06 | 0° S 55'37 | |
| morning rise | 5360 Jan 04 03:10 | 2° S 06'18 | | | 5360 Dec 04 15:38 | 30° R S | |
| direct | 5360 Jan 07 18:29 | 0° S 50'10 | | evening set | 5360 Dec 07 01:08 | 28° S 23'26 | |
| morning max el | 5360 Jan 15 04:18 | 5° S 00'28 | 19°47'17 | min. Earth dist. | 5360 Dec 11 07:25 | 23° S 50'15 | 0.66840 AU |
| greatest brilliancy | 5360 Jan 28 07:22 | 22° S 13'49 | -0.6m | inferior conj | 5360 Dec 12 18:13 | 22° S 01'39 | -0°22'53 |
| desc. node | 5360 Feb 02 05:38 | 29° S 35'51 | | minimum elong | 5360 Dec 12 18:49 | 21° S 59'46 | 0°22'36 |
| | 5360 Feb 02 12:02 | 0° S | | asc. node | 5360 Dec 13 21:04 | 20° S 38'50 | |
| morning set | 5360 Feb 10 03:26 | 11° S 40'48 | | morning rise | 5360 Dec 18 13:01 | 16° S 11'29 | |
| | 5360 Feb 21 20:31 | 0° S | | direct | 5360 Dec 21 17:11 | 15° S 13'55 | |
| max. Earth dist. | 5360 Feb 21 18:15 | 29° S 50'59 | 1.44302 AU | morning max el | 5360 Dec 28 12:34 | 18° S 58'40 | 18°52'50 |
| | | | | | 5361 Jan 06 02:40 | 0° S | |
| superior conj | 5360 Feb 26 15:02 | 7° S 39'16 | -2°04'41 | desc. node | 5361 Jan 19 02:40 | 20° S 00'11 | |
| minimum elong | 5360 Feb 26 10:35 | 7° S 21'13 | 2°04'31 | morning set | 5361 Jan 19 12:17 | 20° S 37'51 | |
| evening rise | 5360 Mar 11 02:24 | 0° S 02'58 | | | 5361 Jan 25 12:00 | 0° S | |
| | 5360 Mar 11 01:42 | 0° S | | max. Earth dist. | 5361 Feb 03 11:06 | 14° S 02'05 | 1.45173 AU |
| asc. node | 5360 Mar 24 23:18 | 22° S 40'55 | | | | | |
| evening max el | 5360 Mar 29 09:08 | 28° S 04'50 | 18°13'29 | superior conj | 5361 Feb 05 00:45 | 16° S 30'03 | -1°41'15 |
| | 5360 Mar 31 15:13 | 0° S | | minimum elong | 5361 Feb 04 15:31 | 15° S 53'44 | 1°40'24 |
| retrograde | 5360 Apr 04 18:51 | 1° S 28'58 | | | 5361 Feb 13 13:08 | 0° S | |
| evening set | 5360 Apr 07 17:06 | 0° S 43'53 | | evening rise | 5361 Feb 20 05:02 | 10° S 43'29 | |
| | 5360 Apr 08 22:19 | 30° R S | | | 5361 Mar 04 05:28 | 0° S | |
| inferior conj | 5360 Apr 13 18:18 | 25° S 25'02 | 3°27'01 | asc. node | 5361 Mar 11 20:19 | 10° S 26'42 | |
| minimum elong | 5360 Apr 13 19:29 | 25° S 21'46 | 3°26'56 | evening max el | 5361 Mar 12 20:47 | 11° S 31'55 | 18°38'42 |
| min. Earth dist. | 5360 Apr 16 08:47 | 22° S 33'37 | 0.63307 AU | retrograde | 5361 Mar 19 11:07 | 15° S 10'27 | |
| morning rise | 5360 Apr 19 20:47 | 19° S 17'07 | | evening set | 5361 Mar 22 15:45 | 14° S 12'36 | |
| direct | 5360 Apr 26 17:08 | 16° S 37'32 | | inferior conj | 5361 Mar 28 08:37 | 8° S 36'05 | 3°31'58 |
| desc. node | 5360 Apr 30 04:52 | 17° S 14'12 | | minimum elong | 5361 Mar 28 08:16 | 8° S 37'08 | 3°31'58 |
| morning max el | 5360 May 10 14:55 | 24° S 37'08 | 27°45'47 | min. Earth dist. | 5361 Mar 30 07:38 | 6° S 13'48 | 0.65093 AU |
| | 5360 May 15 11:58 | 0° S | | morning rise | 5361 Apr 03 00:13 | 2° S 22'41 | |
| | 5360 Jun 04 16:13 | 0° S | | | 5361 Apr 06 23:28 | 30° R S | |
| morning set | 5360 Jun 14 03:20 | 17° S 45'28 | | direct | 5361 Apr 09 16:00 | 29° S 33'23 | |
| max. Earth dist. | 5360 Jun 19 08:15 | 28° S 30'11 | 1.32737 AU | | 5361 Apr 12 11:56 | 0° S | |
| | 5360 Jun 20 01:09 | 0° S | | desc. node | 5361 Apr 17 01:53 | 2° S 18'21 | |
| asc. node | 5360 Jun 20 22:35 | 1° S 54'38 | | morning max el | 5361 Apr 23 00:57 | 7° S 24'49 | 27°06'43 |
| | | | | | 5361 May 10 11:45 | 0° S | |
| superior conj | 5360 Jun 21 21:36 | 3° S 58'27 | 0°09'58 | | 5361 May 27 23:41 | 0° S | |
| minimum elong | 5360 Jun 21 21:07 | 3° S 55'51 | 0°09'51 | morning set | 5361 May 28 15:36 | 1° S 16'31 | |
| behind sun begin | 5360 Jun 21 16:55 | 3° S 33'14 | | max. Earth dist. | 5361 Jun 02 03:49 | 10° S 13'12 | 1.33831 AU |
| behind sun end | 5360 Jun 22 01:19 | 4° S 18'29 | | | | | |
| evening rise | 5360 Jun 28 21:27 | 19° S 04'53 | | superior conj | 5361 Jun 06 00:14 | 18° S 11'23 | -0°18'36 |
| | 5360 Jul 04 05:29 | 0° S | | minimum elong | 5361 Jun 06 01:13 | 18° S 16'32 | 0°18'25 |
| evening max el | 5360 Jul 22 01:24 | 26° S 29'43 | 23°20'41 | asc. node | 5361 Jun 07 19:35 | 22° S 00'18 | |
| | 5360 Jul 26 06:28 | 0° S | | | 5361 Jun 11 13:50 | 0° S | |
| desc. node | 5360 Jul 27 04:06 | 0° S 35'40 | | evening rise | 5361 Jun 13 08:06 | 3° S 43'02 | |
| retrograde | 5360 Aug 04 13:37 | 3° S 15'40 | | | 5361 Jun 27 21:56 | 0° S | |
| evening set | 5360 Aug 08 12:55 | 2° S 41'10 | | evening max el | 5361 Jul 03 17:43 | 6° S 54'43 | 21°45'00 |
| | 5360 Aug 14 13:58 | 30° R S | | desc. node | 5361 Jul 14 01:08 | 12° S 54'58 | |
| min. Earth dist. | 5360 Aug 15 10:47 | 29° S 30'13 | 0.55677 AU | retrograde | 5361 Jul 16 05:45 | 13° S 06'18 | |
| inferior conj | 5360 Aug 17 08:15 | 28° S 23'24 | -5°02'10 | evening set | 5361 Jul 18 20:35 | 12° S 50'50 | |
| minimum elong | 5360 Aug 17 02:46 | 28° S 31'30 | 5°01'28 | inferior conj | 5361 Jul 28 04:09 | 8° S 49'05 | -3°53'57 |
| morning rise | 5360 Aug 25 18:58 | 24° S 30'54 | | minimum elong | 5361 Jul 27 19:15 | 9° S 01'33 | 3°51'33 |
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| morning max el | 5360 Sep 08 07:17 | 29° S 06'23 | 20°23'23 | morning rise | 5361 Aug 05 19:17 | 4° S 57'52 | |
| | 5360 Sep 09 05:23 | 0° S | | direct | 5361 Aug 09 03:26 | 4° S 33'29 | |
| asc. node | 5360 Sep 16 21:51 | 10° S 08'14 | | morning max el | 5361 Aug 21 08:18 | 10° S 17'17 | 21°53'42 |
| morning set | 5360 Sep 26 23:10 | 28° S 58'04 | | asc. node | 5361 Sep 03 18:52 | 28° S 51'52 | |
| | 5360 Sep 27 11:15 | 0° S | | | 5361 Sep 04 09:53 | 0° S | |
| | | | | morning set | 5361 Sep 11 08:46 | 13° S 45'53 | |
| superior conj | 5360 Oct 04 13:06 | 14° S 32'47 | 1°42'06 | | | | |
| minimum elong | 5360 Oct 04 14:00 | 14° S 37'20 | 1°42'04 | superior conj | 5361 Sep 18 13:32 | 28° S 59'00 | 1°42'50 |
| max. Earth dist. | 5360 Oct 09 18:54 | 24° S 54'40 | 1.36391 AU | minimum elong | 5361 Sep 18 13:01 | 28° S 56'19 | 1°42'49 |
| | 5360 Oct 12 11:25 | 0° S | | | 5361 Sep 19 01:11 | 0° S | |





































































































































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|---------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| max. Earth dist. | 5361 Sep 22 08:11 | 6°♄47'38 | 1.34670 AU | max. Earth dist. | 5362 Sep 05 06:14 | 18°♄53'43 | 1.33349 AU |
| evening rise | 5361 Sep 26 18:19 | 15°♄32'41 | | evening rise | 5362 Sep 10 08:57 | 29°♄27'30 | |
| | 5361 Oct 04 16:38 | 0°♄ | | | 5362 Sep 10 15:28 | 0°♄ | |
| desc. node | 5361 Oct 10 00:25 | 8°♄49'22 | | desc. node | 5362 Sep 26 21:26 | 28°♄39'15 | |
| | 5361 Oct 25 01:27 | 0°♄ | | | 5362 Sep 27 18:39 | 0°♄ | |
| evening max el | 5361 Oct 31 20:56 | 7°♄25'58 | 26°53'17 | evening max el | 5362 Oct 14 08:59 | 20°♄47'51 | 27°23'14 |
| retrograde | 5361 Nov 14 00:47 | 14°♄43'19 | | retrograde | 5362 Oct 27 22:29 | 28°♄06'17 | |
| evening set | 5361 Nov 20 16:53 | 12°♄04'05 | | evening set | 5362 Nov 03 23:23 | 25°♄28'01 | |
| min. Earth dist. | 5361 Nov 24 16:38 | 8°♄06'12 | 0.65696 AU | min. Earth dist. | 5362 Nov 07 17:38 | 22°♄03'50 | 0.64210 AU |
| inferior conj | 5361 Nov 26 15:08 | 5°♄51'39 | -1°23'45 | inferior conj | 5362 Nov 10 04:00 | 19°♄30'08 | -2°27'24 |
| minimum elong | 5361 Nov 26 17:31 | 5°♄44'45 | 1°22'44 | minimum elong | 5362 Nov 10 08:18 | 19°♄18'45 | 2°25'44 |
| asc. node | 5361 Nov 30 18:05 | 1°♄35'25 | | morning rise | 5362 Nov 16 18:38 | 14°♄06'08 | |
| morning rise | 5361 Dec 02 19:05 | 0°♄13'05 | | asc. node | 5362 Nov 17 15:08 | 13°♄48'13 | |
| | 5361 Dec 03 06:21 | 30°♄ | | direct | 5362 Nov 19 06:54 | 13°♄34'14 | |
| direct | 5361 Dec 05 14:06 | 29°♄30'21 | | morning max el | 5362 Nov 25 19:01 | 16°♄59'16 | 17°53'35 |
| | 5361 Dec 07 22:33 | 0°♄ | | | 5362 Dec 05 04:09 | 0°♄ | |
| morning max el | 5361 Dec 12 02:25 | 3°♄00'38 | 18°14'43 | morning set | 5362 Dec 12 18:41 | 12°♄47'24 | |
| | 5361 Dec 30 10:15 | 0°♄ | | | 5362 Dec 23 01:31 | 0°♄ | |
| morning set | 5361 Dec 31 01:17 | 1°♄01'01 | | desc. node | 5362 Dec 23 20:43 | 1°♄18'31 | |
| desc. node | 5362 Jan 05 23:42 | 10°♄35'53 | | | | | |
| | | | | superior conj | 5362 Dec 25 21:33 | 4°♄36'56 | -0°14'14 |
| superior conj | 5362 Jan 15 04:16 | 25°♄11'30 | -1°01'01 | minimum elong | 5362 Dec 25 19:54 | 4°♄30'15 | 0°13'59 |
| minimum elong | 5362 Jan 14 20:52 | 24°♄42'22 | 1°00'04 | behind sun begin | 5362 Dec 25 14:48 | 4°♄09'37 | |
| max. Earth dist. | 5362 Jan 17 06:16 | 28°♄27'52 | 1.45307 AU | behind sun end | 5362 Dec 26 01:00 | 4°♄50'53 | |
| | 5362 Jan 18 05:46 | 0°♄ | | max. Earth dist. | 5362 Dec 31 00:51 | 12°♄50'27 | 1.44710 AU |
| evening rise | 5362 Jan 31 09:08 | 20°♄31'25 | | evening rise | 5363 Jan 10 21:45 | 29°♄47'04 | |
| | 5362 Feb 06 10:58 | 0°♄ | | | 5363 Jan 11 01:07 | 0°♄ | |
| greatest brilliancy | 5362 Feb 12 00:52 | 8°♄36'11 | -0.7m | | 5363 Jan 31 06:51 | 0°♄ | |
| evening max el | 5362 Feb 24 05:02 | 25°♄04'00 | 19°21'06 | evening max el | 5363 Feb 07 08:21 | 8°♄37'53 | 20°18'49 |
| asc. node | 5362 Feb 26 17:20 | 27°♄18'19 | | asc. node | 5363 Feb 13 14:23 | 13°♄00'49 | |
| retrograde | 5362 Mar 03 07:43 | 29°♄07'44 | | retrograde | 5363 Feb 15 05:54 | 13°♄15'18 | |
| evening set | 5362 Mar 06 19:33 | 27°♄56'24 | | evening set | 5363 Feb 19 02:15 | 11°♄49'32 | |
| inferior conj | 5362 Mar 12 07:09 | 22°♄04'15 | 3°22'02 | inferior conj | 5363 Feb 24 11:04 | 5°♄44'05 | 3°00'25 |
| minimum elong | 5362 Mar 12 05:38 | 22°♄09'10 | 3°21'52 | minimum elong | 5363 Feb 24 08:52 | 5°♄51'32 | 2°59'58 |
| min. Earth dist. | 5362 Mar 13 15:00 | 20°♄20'47 | 0.66482 AU | min. Earth dist. | 5363 Feb 25 04:58 | 4°♄43'16 | 0.67445 AU |
| morning rise | 5362 Mar 17 15:25 | 15°♄49'08 | | | 5363 Mar 01 02:28 | 30°♄ | |
| direct | 5362 Mar 23 21:26 | 13°♄02'48 | | morning rise | 5363 Mar 01 15:16 | 29°♄29'37 | |
| desc. node | 5362 Apr 03 22:55 | 19°♄04'17 | | direct | 5363 Mar 07 08:21 | 26°♄56'29 | |
| morning max el | 5362 Apr 05 10:51 | 20°♄32'07 | 26°01'00 | | 5363 Mar 14 13:38 | 0°♄ | |
| | 5362 Apr 13 14:24 | 0°♄ | | morning max el | 5363 Mar 18 19:30 | 3°♄48'05 | 24°38'23 |
| | 5362 May 03 15:19 | 0°♄ | | desc. node | 5363 Mar 21 19:57 | 7°♄03'07 | |
| morning set | 5362 May 11 14:36 | 14°♄05'40 | | | 5363 Apr 07 20:49 | 0°♄ | |
| max. Earth dist. | 5362 May 15 11:50 | 21°♄26'17 | 1.35392 AU | morning set | 5363 Apr 23 19:12 | 25°♄58'13 | |
| | 5362 May 19 20:00 | 0°♄ | | | 5363 Apr 26 01:31 | 0°♄ | |
| | | | | max. Earth dist. | 5363 Apr 27 10:03 | 2°♄27'26 | 1.37357 AU |
| superior conj | 5362 May 20 19:22 | 1°♄58'01 | -0°48'30 | | | | |
| minimum elong | 5362 May 20 22:04 | 2°♄11'41 | 0°48'00 | superior conj | 5363 May 04 03:51 | 15°♄09'43 | -1°17'56 |
| asc. node | 5362 May 25 16:36 | 12°♄00'28 | | minimum elong | 5363 May 04 08:09 | 15°♄30'36 | 1°17'17 |
| evening rise | 5362 May 28 15:36 | 18°♄07'05 | | | 5363 May 11 15:30 | 0°♄ | |
| | 5362 Jun 03 15:50 | 0°♄ | | evening rise | 5363 May 12 17:32 | 2°♄09'55 | |
| evening max el | 5362 Jun 15 21:04 | 17°♄51'03 | 20°22'13 | asc. node | 5363 May 12 13:38 | 1°♄50'31 | |
| retrograde | 5362 Jun 26 18:50 | 23°♄11'34 | | evening max el | 5363 May 29 13:00 | 29°♄29'38 | 19°18'15 |
| evening set | 5362 Jun 28 17:59 | 23°♄01'54 | | | 5363 May 30 01:46 | 0°♄ | |
| desc. node | 5362 Jun 30 22:08 | 22°♄30'12 | | retrograde | 5363 Jun 07 17:22 | 3°♄58'58 | |
| inferior conj | 5362 Jul 07 22:16 | 19°♄04'12 | -2°04'53 | evening set | 5363 Jun 09 16:26 | 3°♄47'34 | |
| minimum elong | 5362 Jul 07 16:27 | 19°♄12'42 | 2°02'47 | desc. node | 5363 Jun 17 19:09 | 29°♄54'56 | |
| min. Earth dist. | 5362 Jul 09 08:22 | 18°♄14'23 | 0.54968 AU | | 5363 Jun 17 16:04 | 30°♄ | |
| morning rise | 5362 Jul 16 13:49 | 14°♄53'26 | | inferior conj | 5363 Jun 18 04:43 | 29°♄39'12 | -0°07'07 |
| direct | 5362 Jul 20 13:35 | 14°♄18'59 | | minimum elong | 5363 Jun 18 04:24 | 29°♄39'42 | 0°07'00 |
| morning max el | 5362 Aug 03 00:32 | 20°♄51'31 | 23°36'19 | transit middle | 5363 Jun 18 04:24 | 29°♄39'42 | 0°07'00 |
| | 5362 Aug 10 20:25 | 0°♄ | | transit begin | 5363 Jun 18 00:57 | 29°♄45'25 | |
| asc. node | 5362 Aug 21 15:54 | 18°♄05'40 | | transit end | 5363 Jun 18 07:52 | 29°♄33'59 | |
| morning set | 5362 Aug 26 20:12 | 28°♄38'02 | | min. Earth dist. | 5363 Jun 20 22:32 | 27°♄51'07 | 0.56021 AU |
| | 5362 Aug 27 11:40 | 0°♄ | | morning rise | 5363 Jun 26 13:26 | 24°♄54'59 | |
| | | | | direct | 5363 Jul 01 10:37 | 24°♄00'23 | |
| superior conj | 5362 Sep 02 19:57 | 13°♄41'49 | 1°37'07 | | 5363 Jul 14 06:53 | 0°♄ | |
| minimum elong | 5362 Sep 02 18:24 | 13°♄33'26 | 1°37'00 | morning max el | 5363 Jul 15 13:58 | 1°♄11'29 | 25°18'01 |

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|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| | 5363 Aug 04 14:52 | 0°♎ | | asc. node | 5364 Jul 25 09:58 | 27°♊32'55 | |
| asc. node | 5363 Aug 08 12:57 | 7°♎41'40 | | morning set | 5364 Jul 25 18:02 | 28°♊15'21 | |
| morning set | 5363 Aug 11 07:51 | 13°♎29'45 | | | 5364 Jul 26 13:46 | 0°♎ | |
| superior conj | 5363 Aug 18 06:01 | 28°♎33'54 | 1°25'52 | superior conj | 5364 Aug 01 17:42 | 13°♎28'00 | 1°09'46 |
| minimum elong | 5363 Aug 18 03:52 | 28°♎22'04 | 1°25'37 | minimum elong | 5364 Aug 01 15:25 | 13°♎15'19 | 1°09'24 |
| | 5363 Aug 18 21:44 | 0°♎ | | max. Earth dist. | 5364 Aug 01 22:27 | 13°♎54'16 | 1.31985 AU |
| max. Earth dist. | 5363 Aug 19 12:02 | 1°♎18'13 | 1.32454 AU | evening rise | 5364 Aug 08 14:34 | 28°♎24'09 | |
| evening rise | 5363 Aug 25 08:40 | 13°♎47'48 | | | 5364 Aug 09 08:51 | 0°♎ | |
| | 5363 Sep 02 17:30 | 0°♎ | | | 5364 Aug 26 01:23 | 0°♎ | |
| desc. node | 5363 Sep 13 18:26 | 17°♎56'21 | | desc. node | 5364 Aug 30 15:28 | 6°♎26'34 | |
| | 5363 Sep 23 04:10 | 0°♎ | | evening max el | 5364 Sep 07 22:37 | 15°♎53'06 | 26°50'43 |
| evening max el | 5363 Sep 26 18:32 | 3°♎41'43 | 27°23'39 | retrograde | 5364 Sep 21 20:12 | 23°♎02'46 | |
| retrograde | 5363 Oct 10 13:20 | 10°♎56'02 | | evening set | 5364 Sep 28 18:29 | 20°♎59'07 | |
| evening set | 5363 Oct 17 17:22 | 8°♎29'12 | | min. Earth dist. | 5364 Oct 02 12:41 | 18°♎21'40 | 0.60410 AU |
| min. Earth dist. | 5363 Oct 21 08:37 | 5°♎33'42 | 0.62420 AU | inferior conj | 5364 Oct 05 17:37 | 15°♎43'19 | -4°27'20 |
| inferior conj | 5363 Oct 24 05:59 | 2°♎50'43 | -3°30'29 | minimum elong | 5364 Oct 05 23:54 | 15°♎30'21 | 4°25'54 |
| minimum elong | 5363 Oct 24 11:55 | 2°♎36'46 | 3°28'35 | morning rise | 5364 Oct 13 07:20 | 10°♎58'35 | |
| | 5363 Oct 27 11:22 | 30°♎ | | direct | 5364 Oct 15 14:56 | 10°♎38'01 | |
| morning rise | 5363 Oct 31 08:12 | 27°♎44'36 | | asc. node | 5364 Oct 21 09:16 | 12°♎51'52 | |
| direct | 5363 Nov 02 16:31 | 27°♎19'54 | | morning max el | 5364 Oct 23 00:21 | 14°♎17'06 | 18°05'59 |
| asc. node | 5363 Nov 04 12:12 | 27°♎35'12 | | | 5364 Nov 02 17:58 | 0°♎ | |
| | 5363 Nov 08 14:55 | 0°♎ | | morning set | 5364 Nov 07 18:28 | 9°♎14'59 | |
| morning max el | 5363 Nov 09 11:26 | 0°♎47'49 | 17°50'17 | | | | |
| morning set | 5363 Nov 25 10:33 | 25°♎38'38 | | superior conj | 5364 Nov 17 12:15 | 27°♎10'57 | 1°02'04 |
| | 5363 Nov 27 21:13 | 0°♎ | | minimum elong | 5364 Nov 17 16:10 | 27°♎28'24 | 1°01'35 |
| | | 0°♎ | | | 5364 Nov 19 02:20 | 0°♎ | |
| superior conj | 5363 Dec 06 16:06 | 15°♎16'53 | 0°28'37 | max. Earth dist. | 5364 Nov 25 04:05 | 10°♎26'55 | 1.41688 AU |
| minimum elong | 5363 Dec 06 18:43 | 15°♎27'56 | 0°28'15 | desc. node | 5364 Nov 26 14:45 | 12°♎51'28 | |
| desc. node | 5363 Dec 10 17:44 | 22°♎05'03 | | evening rise | 5364 Nov 30 11:22 | 19°♎09'42 | |
| max. Earth dist. | 5363 Dec 13 16:50 | 26°♎55'43 | 1.43457 AU | | 5364 Dec 07 09:06 | 0°♎ | |
| | 5363 Dec 15 14:34 | 0°♎ | | | 5364 Dec 28 18:27 | 0°♎ | |
| evening rise | 5363 Dec 21 09:36 | 9°♎08'22 | | evening max el | 5365 Jan 02 23:16 | 5°♎50'16 | 22°46'24 |
| | 5364 Jan 04 06:21 | 0°♎ | | retrograde | 5365 Jan 12 23:19 | 11°♎46'36 | |
| evening max el | 5364 Jan 21 06:17 | 22°♎13'22 | 21°28'41 | asc. node | 5365 Jan 17 08:30 | 10°♎07'29 | |
| retrograde | 5364 Jan 30 03:38 | 27°♎29'38 | | evening set | 5365 Jan 17 17:20 | 9°♎49'48 | |
| asc. node | 5364 Jan 31 11:26 | 27°♎20'15 | | inferior conj | 5365 Jan 23 02:13 | 3°♎26'26 | 1°49'47 |
| evening set | 5364 Feb 03 10:04 | 25°♎48'36 | | minimum elong | 5365 Jan 23 00:04 | 3°♎33'51 | 1°49'02 |
| inferior conj | 5364 Feb 08 18:05 | 19°♎32'32 | 2°29'13 | min. Earth dist. | 5365 Jan 22 19:51 | 3°♎48'27 | 0.68137 AU |
| minimum elong | 5364 Feb 08 15:41 | 19°♎40'52 | 2°28'31 | | 5365 Jan 25 16:21 | 30°♎ | |
| min. Earth dist. | 5364 Feb 08 23:20 | 19°♎14'20 | 0.67991 AU | morning rise | 5365 Jan 28 06:42 | 27°♎17'57 | |
| morning rise | 5364 Feb 13 21:08 | 13°♎20'19 | | direct | 5365 Feb 01 18:48 | 25°♎27'27 | |
| direct | 5364 Feb 18 23:48 | 11°♎07'05 | | | 5365 Feb 10 01:07 | 0°♎ | |
| morning max el | 5364 Feb 29 04:41 | 17°♎10'16 | 23°09'11 | morning max el | 5365 Feb 10 17:52 | 0°♎41'01 | 21°42'37 |
| desc. node | 5364 Mar 07 17:01 | 25°♎54'20 | | desc. node | 5365 Feb 22 14:02 | 15°♎22'55 | |
| | 5364 Mar 10 19:40 | 0°♎ | | | 5365 Mar 04 15:35 | 0°♎ | |
| | 5364 Mar 30 22:29 | 0°♎ | | morning set | 5365 Mar 14 23:15 | 15°♎58'36 | |
| morning set | 5364 Apr 03 23:27 | 6°♎38'39 | | max. Earth dist. | 5365 Mar 21 05:17 | 26°♎08'38 | 1.41682 AU |
| max. Earth dist. | 5364 Apr 08 05:33 | 13°♎52'57 | 1.39548 AU | | 5365 Mar 23 12:36 | 0°♎ | |
| superior conj | 5364 Apr 15 21:43 | 27°♎36'43 | -1°44'06 | superior conj | 5365 Mar 28 20:05 | 9°♎07'16 | -2°02'56 |
| minimum elong | 5364 Apr 16 02:48 | 28°♎00'11 | 1°43'34 | minimum elong | 5365 Mar 28 23:54 | 9°♎23'55 | 2°02'45 |
| | 5364 Apr 17 04:37 | 0°♎ | | evening rise | 5365 Apr 08 16:20 | 28°♎40'46 | |
| evening rise | 5364 Apr 25 11:00 | 15°♎44'08 | | | 5365 Apr 09 09:34 | 0°♎ | |
| asc. node | 5364 Apr 28 10:41 | 21°♎25'55 | | asc. node | 5365 Apr 15 07:44 | 10°♎41'07 | |
| | 5364 May 03 03:57 | 0°♎ | | evening max el | 5365 Apr 25 00:17 | 24°♎35'42 | 18°11'11 |
| evening max el | 5364 May 11 15:14 | 11°♎47'22 | 18°34'38 | retrograde | 5365 May 01 21:55 | 28°♎04'33 | |
| retrograde | 5364 May 19 10:19 | 15°♎38'18 | | evening set | 5365 May 04 09:55 | 27°♎37'47 | |
| evening set | 5364 May 21 15:27 | 15°♎20'42 | | inferior conj | 5365 May 11 07:55 | 22°♎49'46 | 2°37'23 |
| inferior conj | 5364 May 29 07:40 | 10°♎53'18 | 1°30'31 | minimum elong | 5365 May 11 11:15 | 22°♎42'13 | 2°36'34 |
| minimum elong | 5364 May 29 10:38 | 10°♎47'33 | 1°29'32 | min. Earth dist. | 5365 May 14 16:31 | 19°♎49'24 | 0.59932 AU |
| min. Earth dist. | 5364 Jun 01 16:25 | 8°♎18'32 | 0.57790 AU | morning rise | 5365 May 18 10:01 | 17°♎03'29 | |
| desc. node | 5364 Jun 03 16:13 | 6°♎56'06 | | desc. node | 5365 May 21 13:15 | 15°♎36'16 | |
| morning rise | 5364 Jun 06 02:34 | 5°♎34'00 | | direct | 5365 May 24 21:29 | 15°♎04'39 | |
| direct | 5364 Jun 11 21:37 | 4°♎09'22 | | morning max el | 5365 Jun 08 05:57 | 22°♎57'41 | 27°36'30 |
| morning max el | 5364 Jun 26 06:43 | 11°♎46'14 | 26°42'35 | | 5365 Jun 14 12:13 | 0°♎ | |
| | 5364 Jul 10 11:15 | 0°♎ | | | 5365 Jul 03 13:55 | 0°♎ | |

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|------------------|-------------------|-----------------------------------|------------|---------------------|-------------------|-----------------------------------|------------|
| morning set | 5365 Jul 10 01:03 | 12° \mathfrak{D} 49'38 | | | 5366 Jun 09 07:03 | 0° \mathbb{I} | |
| asc. node | 5365 Jul 12 07:01 | 17° \mathfrak{D} 34'15 | | morning set | 5366 Jun 24 02:51 | 27° \mathbb{I} 05'26 | |
| max. Earth dist. | 5365 Jul 16 09:40 | 26° \mathfrak{D} 30'37 | 1.31936 AU | | 5366 Jun 25 12:51 | 0° \mathfrak{D} | |
| | | | | asc. node | 5366 Jun 29 04:02 | 7° \mathfrak{D} 40'25 | |
| superior conj | 5365 Jul 17 05:16 | 28° \mathfrak{D} 18'36 | 0°49'24 | max. Earth dist. | 5366 Jun 29 17:40 | 8° \mathfrak{D} 53'51 | 1.32314 AU |
| minimum elong | 5365 Jul 17 03:19 | 28° \mathfrak{D} 07'50 | 0°49'01 | | | | |
| | 5365 Jul 17 23:38 | 0° \mathcal{Q} | | superior conj | 5366 Jul 01 14:53 | 12° \mathfrak{D} 59'16 | 0°25'18 |
| evening rise | 5365 Jul 24 00:20 | 13° \mathcal{Q} 09'30 | | minimum elong | 5366 Jul 01 13:45 | 12° \mathfrak{D} 53'00 | 0°25'02 |
| | 5365 Aug 01 11:21 | 0° \mathfrak{P} | | evening rise | 5366 Jul 08 11:55 | 27° \mathfrak{D} 56'35 | |
| desc. node | 5365 Aug 17 12:29 | 23° \mathfrak{P} 50'49 | | | 5366 Jul 09 11:12 | 0° \mathcal{Q} | |
| evening max el | 5365 Aug 20 19:00 | 27° \mathfrak{P} 14'35 | 25°45'35 | | 5366 Jul 26 13:09 | 0° \mathfrak{P} | |
| | 5365 Aug 23 23:44 | 0° \mathfrak{L} | | evening max el | 5366 Aug 02 08:47 | 7° \mathfrak{P} 52'50 | 24°16'48 |
| retrograde | 5365 Sep 03 17:53 | 4° \mathfrak{L} 20'35 | | desc. node | 5366 Aug 04 09:30 | 9° \mathfrak{P} 42'38 | |
| evening set | 5365 Sep 09 21:51 | 2° \mathfrak{L} 50'50 | | retrograde | 5366 Aug 16 04:25 | 14° \mathfrak{P} 50'18 | |
| min. Earth dist. | 5365 Sep 14 07:10 | 0° \mathfrak{L} 14'24 | 0.58345 AU | evening set | 5366 Aug 21 00:43 | 13° \mathfrak{P} 58'07 | |
| | 5365 Sep 14 15:28 | 30° \mathfrak{R} \mathfrak{P} | | min. Earth dist. | 5366 Aug 26 19:38 | 11° \mathfrak{P} 03'48 | 0.56501 AU |
| inferior conj | 5365 Sep 17 11:22 | 27° \mathfrak{P} 58'14 | -5°08'02 | inferior conj | 5366 Aug 29 08:57 | 9° \mathfrak{P} 27'48 | -5°17'30 |
| minimum elong | 5365 Sep 17 15:20 | 27° \mathfrak{P} 51'06 | 5°07'36 | minimum elong | 5366 Aug 29 07:15 | 9° \mathfrak{P} 30'28 | 5°17'26 |
| morning rise | 5365 Sep 25 11:07 | 23° \mathfrak{P} 36'49 | | morning rise | 5366 Sep 06 16:16 | 5° \mathfrak{P} 27'02 | |
| direct | 5365 Sep 27 21:31 | 23° \mathfrak{P} 17'57 | | direct | 5366 Sep 09 08:50 | 5° \mathfrak{P} 07'49 | |
| morning max el | 5365 Oct 06 06:22 | 27° \mathfrak{P} 18'04 | 18°42'12 | morning max el | 5366 Sep 19 02:15 | 9° \mathfrak{P} 40'37 | 19°40'11 |
| asc. node | 5365 Oct 08 06:18 | 29° \mathfrak{P} 25'07 | | asc. node | 5366 Sep 25 03:18 | 16° \mathfrak{P} 59'32 | |
| | 5365 Oct 08 18:02 | 0° \mathfrak{L} | | | 5366 Oct 02 16:50 | 0° \mathfrak{L} | |
| morning set | 5365 Oct 22 13:36 | 23° \mathfrak{L} 22'41 | | morning set | 5366 Oct 06 16:23 | 7° \mathfrak{L} 51'45 | |
| | 5365 Oct 25 23:03 | 0° \mathfrak{M} | | | | | |
| | | | | superior conj | 5366 Oct 14 13:56 | 23° \mathfrak{L} 46'15 | 1°38'19 |
| superior conj | 5365 Oct 31 05:19 | 10° \mathfrak{M} 05'55 | 1°25'02 | minimum elong | 5366 Oct 14 15:44 | 23° \mathfrak{L} 55'09 | 1°38'13 |
| minimum elong | 5365 Oct 31 08:34 | 10° \mathfrak{M} 21'13 | 1°24'44 | | 5366 Oct 17 18:39 | 0° \mathfrak{M} | |
| max. Earth dist. | 5365 Nov 07 10:17 | 23° \mathfrak{M} 13'50 | 1.39623 AU | max. Earth dist. | 5366 Oct 20 15:01 | 5° \mathfrak{M} 23'01 | 1.37520 AU |
| evening rise | 5365 Nov 11 11:03 | 0° \mathfrak{X} 10'51 | | evening rise | 5366 Oct 24 09:12 | 12° \mathfrak{M} 13'29 | |
| | 5365 Nov 11 08:29 | 0° \mathfrak{X} | | desc. node | 5366 Oct 31 08:46 | 24° \mathfrak{M} 10'18 | |
| desc. node | 5365 Nov 13 11:45 | 3° \mathfrak{X} 34'31 | | | 5366 Nov 03 23:42 | 0° \mathfrak{X} | |
| | 5365 Nov 30 18:47 | 0° \mathfrak{Z} | | | 5366 Nov 25 23:06 | 0° \mathfrak{Z} | |
| evening max el | 5365 Dec 16 12:59 | 19° \mathfrak{Z} 30'18 | 24°06'18 | evening max el | 5366 Nov 29 01:38 | 3° \mathfrak{Z} 14'13 | 25°21'41 |
| retrograde | 5365 Dec 27 15:41 | 26° \mathfrak{Z} 02'15 | | retrograde | 5366 Dec 11 03:44 | 10° \mathfrak{Z} 12'15 | |
| evening set | 5366 Jan 01 22:29 | 23° \mathfrak{Z} 50'10 | | evening set | 5366 Dec 16 23:56 | 7° \mathfrak{Z} 46'39 | |
| asc. node | 5366 Jan 04 05:33 | 21° \mathfrak{Z} 29'52 | | min. Earth dist. | 5366 Dec 21 10:13 | 2° \mathfrak{Z} 53'01 | 0.67328 AU |
| min. Earth dist. | 5366 Jan 06 16:14 | 18° \mathfrak{Z} 22'17 | 0.67911 AU | asc. node | 5366 Dec 22 02:34 | 2° \mathfrak{Z} 00'15 | |
| inferior conj | 5366 Jan 07 09:36 | 17° \mathfrak{Z} 23'33 | 1°03'07 | inferior conj | 5366 Dec 22 14:31 | 1° \mathfrak{Z} 21'31 | 0°10'08 |
| minimum elong | 5366 Jan 07 08:11 | 17° \mathfrak{Z} 28'23 | 1°02'34 | minimum elong | 5366 Dec 22 14:15 | 1° \mathfrak{Z} 22'21 | 0°10'04 |
| morning rise | 5366 Jan 12 17:56 | 11° \mathfrak{Z} 20'21 | | transit middle | 5366 Dec 22 14:15 | 1° \mathfrak{Z} 22'21 | 0°10'04 |
| direct | 5366 Jan 16 16:20 | 9° \mathfrak{Z} 52'25 | | transit begin | 5366 Dec 22 12:04 | 1° \mathfrak{Z} 29'26 | |
| morning max el | 5366 Jan 24 14:00 | 14° \mathfrak{Z} 23'03 | 20°25'31 | transit end | 5366 Dec 22 16:26 | 1° \mathfrak{Z} 15'17 | |
| | 5366 Feb 05 19:30 | 0° \mathfrak{A} | | | 5366 Dec 23 15:59 | 30° \mathfrak{R} \mathfrak{X} | |
| desc. node | 5366 Feb 09 11:03 | 5° \mathfrak{A} 18'32 | | morning rise | 5366 Dec 28 04:53 | 25° \mathfrak{X} 25'40 | |
| morning set | 5366 Feb 21 23:53 | 24° \mathfrak{A} 17'32 | | direct | 5366 Dec 31 15:09 | 24° \mathfrak{X} 17'57 | |
| | 5366 Feb 25 15:44 | 0° \mathfrak{H} | | morning max el | 5367 Jan 07 18:04 | 28° \mathfrak{X} 16'25 | 19°22'08 |
| max. Earth dist. | 5366 Mar 03 11:55 | 9° \mathfrak{H} 16'52 | 1.43489 AU | | 5367 Jan 09 09:01 | 0° \mathfrak{Z} | |
| | | | | greatest brilliancy | 5367 Jan 20 23:46 | 15° \mathfrak{Z} 54'58 | -0.7m |
| superior conj | 5366 Mar 09 18:14 | 19° \mathfrak{H} 30'51 | -2°09'06 | desc. node | 5367 Jan 27 08:04 | 25° \mathfrak{Z} 34'08 | |
| minimum elong | 5366 Mar 09 17:31 | 19° \mathfrak{H} 27'51 | 2°09'06 | | 5367 Jan 30 05:07 | 0° \mathfrak{A} | |
| | 5366 Mar 15 23:25 | 0° \mathfrak{Y} | | morning set | 5367 Jan 31 22:29 | 2° \mathfrak{A} 39'51 | |
| evening rise | 5366 Mar 22 05:06 | 10° \mathfrak{Y} 49'16 | | max. Earth dist. | 5367 Feb 14 01:22 | 23° \mathfrak{A} 08'39 | 1.44754 AU |
| asc. node | 5366 Apr 02 04:47 | 29° \mathfrak{Y} 28'36 | | | | | |
| | 5366 Apr 02 12:57 | 0° \mathfrak{B} | | superior conj | 5367 Feb 17 15:22 | 28° \mathfrak{A} 49'46 | -1°57'12 |
| evening max el | 5366 Apr 08 12:39 | 7° \mathfrak{B} 44'45 | 18°07'15 | minimum elong | 5367 Feb 17 08:19 | 28° \mathfrak{A} 21'39 | 1°56'45 |
| retrograde | 5366 Apr 14 23:58 | 11° \mathfrak{B} 06'44 | | | 5367 Feb 18 08:58 | 0° \mathfrak{H} | |
| evening set | 5366 Apr 17 18:29 | 10° \mathfrak{B} 28'48 | | evening rise | 5367 Mar 03 21:01 | 22° \mathfrak{H} 02'26 | |
| inferior conj | 5366 Apr 24 02:08 | 5° \mathfrak{B} 21'05 | 3°15'40 | | 5367 Mar 08 15:40 | 0° \mathfrak{Y} | |
| minimum elong | 5366 Apr 24 04:16 | 5° \mathfrak{B} 15'36 | 3°15'22 | asc. node | 5367 Mar 20 01:49 | 17° \mathfrak{Y} 39'55 | |
| min. Earth dist. | 5366 Apr 27 00:51 | 2° \mathfrak{B} 19'43 | 0.62122 AU | evening max el | 5367 Mar 23 01:23 | 21° \mathfrak{Y} 07'13 | 18°22'05 |
| | 5366 Apr 29 14:39 | 30° \mathfrak{R} \mathfrak{Y} | | retrograde | 5367 Mar 29 12:05 | 24° \mathfrak{Y} 35'55 | |
| morning rise | 5366 Apr 30 12:24 | 29° \mathfrak{Y} 18'27 | | evening set | 5367 Apr 01 12:57 | 23° \mathfrak{Y} 45'35 | |
| direct | 5366 May 07 07:59 | 26° \mathfrak{Y} 50'17 | | inferior conj | 5367 Apr 07 10:13 | 18° \mathfrak{Y} 19'20 | 3°31'10 |
| desc. node | 5366 May 08 10:17 | 26° \mathfrak{Y} 53'52 | | minimum elong | 5367 Apr 07 10:44 | 18° \mathfrak{Y} 17'53 | 3°31'09 |
| | 5366 May 15 18:53 | 0° \mathfrak{B} | | min. Earth dist. | 5367 Apr 09 18:21 | 15° \mathfrak{Y} 38'21 | 0.64112 AU |
| morning max el | 5366 May 21 11:06 | 4° \mathfrak{B} 50'56 | 27°53'08 | morning rise | 5367 Apr 13 07:38 | 12° \mathfrak{Y} 08'31 | |

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|---------------------|-------------------|---------------------------|------------|---------------------|-------------------|---------------------------|------------|
| direct | 5367 Apr 20 02:59 | 9° Υ 22'46 | | min. Earth dist. | 5368 Mar 22 20:51 | 29° X 31'06 | 0.65742 AU |
| desc. node | 5367 Apr 25 07:18 | 10° Υ 43'53 | | morning rise | 5368 Mar 26 16:28 | 25° X 23'24 | |
| morning max el | 5367 May 03 19:55 | 17° Υ 20'48 | 27°32'53 | direct | 5368 Apr 02 04:45 | 22° X 33'52 | |
| | 5367 May 14 08:51 | 0° B | | desc. node | 5368 Apr 11 04:20 | 26° X 34'45 | |
| | 5367 Jun 02 03:07 | 0° Π | | | 5368 Apr 14 23:08 | 0° Υ | |
| morning set | 5367 Jun 07 20:56 | 10° Π 55'05 | | morning max el | 5368 Apr 15 05:54 | 0° Υ 16'59 | 26°41'26 |
| max. Earth dist. | 5367 Jun 12 18:31 | 20° Π 52'20 | 1.33142 AU | | 5368 May 07 08:11 | 0° B | |
| | | | | morning set | 5368 May 21 04:04 | 24° B 09'18 | |
| superior conj | 5367 Jun 15 20:42 | 27° Π 24'05 | -0°01'54 | | 5368 May 24 04:40 | 0° Π | |
| minimum elong | 5367 Jun 15 20:47 | 27° Π 24'37 | 0°01'54 | max. Earth dist. | 5368 May 25 09:12 | 2° Π 21'07 | 1.34438 AU |
| behind sun begin | 5367 Jun 15 15:25 | 26° Π 55'55 | | | | | |
| behind sun end | 5367 Jun 16 02:10 | 27° Π 53'20 | | superior conj | 5368 May 29 20:30 | 11° Π 26'45 | -0°31'12 |
| asc. node | 5367 Jun 16 01:03 | 27° Π 47'22 | | minimum elong | 5368 May 29 22:11 | 11° Π 35'31 | 0°30'52 |
| | 5367 Jun 17 01:49 | 0° B | | asc. node | 5368 Jun 01 22:05 | 17° Π 51'14 | |
| evening rise | 5367 Jun 22 23:26 | 12° B 39'30 | | evening rise | 5368 Jun 06 09:01 | 27° Π 12'25 | |
| | 5367 Jul 01 18:51 | 0° Ω | | | 5368 Jun 07 17:26 | 0° B | |
| evening max el | 5367 Jul 14 21:57 | 18° Ω 13'29 | 22°39'08 | evening max el | 5368 Jun 25 18:32 | 28° B 49'37 | 21°07'49 |
| desc. node | 5367 Jul 22 06:31 | 23° Ω 29'08 | | | 5368 Jun 27 00:48 | 0° Ω | |
| retrograde | 5367 Jul 28 02:07 | 24° Ω 46'55 | | retrograde | 5368 Jul 07 15:06 | 4° Ω 40'11 | |
| evening set | 5367 Jul 31 09:55 | 24° Ω 22'41 | | desc. node | 5368 Jul 08 03:33 | 4° Ω 39'33 | |
| min. Earth dist. | 5367 Aug 08 05:44 | 20° Ω 56'14 | 0.55220 AU | evening set | 5368 Jul 09 21:14 | 4° Ω 28'18 | |
| inferior conj | 5367 Aug 09 12:04 | 20° Ω 13'00 | -4°39'36 | inferior conj | 5368 Jul 19 05:26 | 0° Ω 30'26 | -3°11'08 |
| minimum elong | 5367 Aug 09 04:23 | 20° Ω 23'59 | 4°38'08 | minimum elong | 5368 Jul 18 21:08 | 0° Ω 42'05 | 3°08'29 |
| morning rise | 5367 Aug 18 00:51 | 16° Ω 22'57 | | min. Earth dist. | 5368 Jul 19 16:03 | 0° Ω 15'30 | 0.54780 AU |
| direct | 5367 Aug 21 02:37 | 16° Ω 01'11 | | | 5368 Jul 20 03:06 | 30° R B | |
| morning max el | 5367 Sep 01 09:55 | 21° Ω 17'18 | 20°59'37 | morning rise | 5368 Jul 27 21:27 | 26° B 33'37 | |
| | 5367 Sep 08 15:17 | 0° B | | direct | 5368 Jul 31 11:46 | 26° B 05'48 | |
| asc. node | 5367 Sep 12 00:19 | 5° B 21'19 | | | 5368 Aug 10 16:41 | 0° Ω | |
| morning set | 5367 Sep 21 00:07 | 22° B 34'26 | | morning max el | 5368 Aug 13 06:29 | 2° Ω 10'27 | 22°36'28 |
| | 5367 Sep 24 13:35 | 0° B | | asc. node | 5368 Aug 28 21:21 | 24° Ω 19'17 | |
| | | | | | 5368 Aug 31 19:57 | 0° B | |
| superior conj | 5367 Sep 28 09:36 | 7° B 58'31 | 1°43'15 | morning set | 5368 Sep 04 10:46 | 7° B 25'27 | |
| minimum elong | 5367 Sep 28 09:52 | 7° B 59'54 | 1°43'15 | | | | |
| max. Earth dist. | 5367 Oct 03 00:05 | 17° B 15'52 | 1.35617 AU | superior conj | 5368 Sep 11 12:56 | 22° B 33'11 | 1°41'08 |
| evening rise | 5367 Oct 07 02:20 | 25° B 08'17 | | minimum elong | 5368 Sep 11 11:56 | 22° B 27'52 | 1°41'05 |
| | 5367 Oct 09 17:40 | 0° B | | max. Earth dist. | 5368 Sep 14 17:28 | 29° B 15'18 | 1.34062 AU |
| desc. node | 5367 Oct 18 05:47 | 14° B 33'29 | | | 5368 Sep 15 02:06 | 0° B | |
| | 5367 Oct 28 12:08 | 0° X | | evening rise | 5368 Sep 19 10:19 | 8° B 44'45 | |
| evening max el | 5367 Nov 11 14:27 | 16° X 57'13 | 26°25'10 | | 5368 Oct 01 05:34 | 0° B | |
| retrograde | 5367 Nov 24 10:31 | 24° X 09'50 | | desc. node | 5368 Oct 04 02:49 | 4° B 38'14 | |
| evening set | 5367 Nov 30 19:48 | 21° X 34'16 | | | 5368 Oct 23 14:35 | 0° X | |
| min. Earth dist. | 5367 Dec 04 23:21 | 17° X 15'50 | 0.66394 AU | evening max el | 5368 Oct 24 03:16 | 0° X 30'39 | 27°09'12 |
| inferior conj | 5367 Dec 06 14:58 | 15° X 15'48 | -0°48'13 | retrograde | 5368 Nov 06 11:30 | 7° X 48'20 | |
| minimum elong | 5367 Dec 06 16:17 | 15° X 11'47 | 0°47'37 | evening set | 5368 Nov 13 07:58 | 5° X 08'33 | |
| asc. node | 5367 Dec 08 23:35 | 12° X 31'10 | | min. Earth dist. | 5368 Nov 17 05:19 | 1° X 25'21 | 0.65114 AU |
| morning rise | 5367 Dec 12 13:25 | 9° X 29'55 | | | 5368 Nov 18 12:06 | 30° R B | |
| direct | 5367 Dec 15 13:27 | 8° X 39'02 | | inferior conj | 5368 Nov 19 08:48 | 29° B 01'57 | -1°50'30 |
| morning max el | 5367 Dec 22 04:55 | 12° X 16'28 | 18°34'32 | minimum elong | 5368 Nov 19 12:00 | 28° B 53'01 | 1°49'11 |
| | 5368 Jan 04 01:19 | 0° B | | asc. node | 5368 Nov 24 20:36 | 23° B 56'41 | |
| morning set | 5368 Jan 11 18:29 | 12° B 11'34 | | morning rise | 5368 Nov 25 17:08 | 23° B 29'05 | |
| desc. node | 5368 Jan 14 05:04 | 16° B 03'39 | | direct | 5368 Nov 28 09:06 | 22° B 51'15 | |
| | 5368 Jan 23 01:19 | 0° \approx | | morning max el | 5368 Dec 04 20:17 | 26° B 17'53 | 18°03'34 |
| | | | | | 5368 Dec 08 00:59 | 0° X | |
| superior conj | 5368 Jan 27 19:58 | 7° \approx 29'37 | -1°25'44 | morning set | 5368 Dec 22 20:08 | 23° X 12'22 | |
| minimum elong | 5368 Jan 27 10:39 | 6° \approx 53'06 | 1°24'43 | | 5368 Dec 26 23:09 | 0° B | |
| max. Earth dist. | 5368 Jan 27 19:34 | 7° \approx 28'04 | 1.45327 AU | desc. node | 5368 Dec 31 02:06 | 6° B 42'45 | |
| | 5368 Feb 11 02:45 | 0° X | | | | | |
| evening rise | 5368 Feb 12 13:38 | 2° X 18'37 | | superior conj | 5369 Jan 06 03:06 | 16° B 23'29 | -0°41'14 |
| greatest brilliancy | 5368 Feb 21 06:35 | 16° X 08'46 | -0.8m | minimum elong | 5369 Jan 05 22:02 | 16° B 03'23 | 0°40'32 |
| | 5368 Mar 01 14:23 | 0° Υ | | max. Earth dist. | 5369 Jan 09 15:26 | 21° B 56'41 | 1.45150 AU |
| evening max el | 5368 Mar 05 11:53 | 4° Υ 36'53 | 18°54'47 | | 5369 Jan 14 18:55 | 0° \approx | |
| asc. node | 5368 Mar 05 22:50 | 5° Υ 04'06 | | evening rise | 5369 Jan 22 09:50 | 11° \approx 49'31 | |
| retrograde | 5368 Mar 12 06:25 | 8° Υ 24'29 | | | 5369 Feb 03 06:37 | 0° X | |
| evening set | 5368 Mar 15 14:05 | 7° Υ 20'52 | | greatest brilliancy | 5369 Feb 04 21:09 | 2° X 24'09 | -0.7m |
| inferior conj | 5368 Mar 21 04:23 | 1° Υ 37'35 | 3°29'20 | evening max el | 5369 Feb 16 18:11 | 18° X 09'50 | 19°43'55 |
| minimum elong | 5368 Mar 21 03:29 | 1° Υ 40'24 | 3°29'16 | asc. node | 5369 Feb 20 19:53 | 21° X 28'07 | |
| | 5368 Mar 22 11:30 | 30° R X | | retrograde | 5369 Feb 24 04:00 | 22° X 26'47 | |

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| evening set | 5369 Feb 27 19:23 | 21° H 09'11 | | evening set | 5370 Feb 12 02:48 | 5° H 05'48 | |
| inferior conj | 5369 Mar 05 05:31 | 15° H 10'53 | 3°14'09 | | 5370 Feb 16 16:05 | 30° R \approx | |
| minimum elong | 5369 Mar 05 03:39 | 15° H 17'03 | 3°13'50 | inferior conj | 5370 Feb 17 11:02 | 28° \approx 55'10 | 2°48'16 |
| min. Earth dist. | 5369 Mar 06 07:09 | 13° H 45'42 | 0.66948 AU | minimum elong | 5370 Feb 17 08:42 | 29° \approx 03'13 | 2°47'41 |
| morning rise | 5369 Mar 10 11:42 | 8° H 55'59 | | min. Earth dist. | 5370 Feb 17 23:20 | 28° \approx 12'51 | 0.67724 AU |
| direct | 5369 Mar 16 12:26 | 6° H 14'32 | | morning rise | 5370 Feb 22 14:24 | 22° \approx 41'22 | |
| morning max el | 5369 Mar 28 15:19 | 13° H 28'53 | 25°27'19 | direct | 5370 Feb 28 01:18 | 20° \approx 16'21 | |
| desc. node | 5369 Mar 29 01:22 | 13° H 54'32 | | morning max el | 5370 Mar 11 00:07 | 26° \approx 48'39 | 24°00'41 |
| | 5369 Apr 11 00:37 | 0° Y | | | 5370 Mar 13 23:13 | 0° H | |
| | 5369 Apr 30 02:49 | 0° B | | desc. node | 5370 Mar 15 22:24 | 2° H 18'03 | |
| morning set | 5369 May 03 19:54 | 6° B 35'40 | | | 5370 Apr 04 15:21 | 0° Y | |
| max. Earth dist. | 5369 May 07 12:55 | 13° B 27'08 | 1.36188 AU | morning set | 5370 Apr 15 14:57 | 17° Y 59'58 | |
| | | | | max. Earth dist. | 5370 Apr 19 09:10 | 24° Y 35'12 | 1.38274 AU |
| | | | | | 5370 Apr 22 09:01 | 0° B | |
| superior conj | 5369 May 13 11:31 | 24° B 59'11 | -1°01'12 | | | | |
| minimum elong | 5369 May 13 14:56 | 25° B 16'14 | 1°00'36 | superior conj | 5370 Apr 26 14:20 | 7° B 53'10 | -1°29'39 |
| | 5369 May 15 23:23 | 0° II | | minimum elong | 5370 Apr 26 19:08 | 8° B 15'59 | 1°29'00 |
| asc. node | 5369 May 19 19:08 | 7° II 47'30 | | evening rise | 5370 May 05 13:16 | 25° B 20'19 | |
| evening rise | 5369 May 21 14:29 | 11° II 28'16 | | asc. node | 5370 May 06 16:12 | 27° B 32'12 | |
| | 5369 May 31 11:50 | 0° B | | | 5370 May 07 22:38 | 0° II | |
| evening max el | 5369 Jun 08 03:12 | 10° B 02'35 | 19°52'31 | evening max el | 5370 May 21 23:51 | 21° II 58'28 | 18°57'10 |
| retrograde | 5369 Jun 18 06:57 | 15° B 00'54 | | retrograde | 5370 May 30 13:02 | 26° II 09'54 | |
| evening set | 5369 Jun 20 04:47 | 14° B 51'07 | | evening set | 5370 Jun 01 14:06 | 25° II 56'29 | |
| desc. node | 5369 Jun 25 00:36 | 13° B 10'31 | | inferior conj | 5370 Jun 09 17:54 | 21° II 40'34 | 0°37'48 |
| inferior conj | 5369 Jun 29 03:13 | 10° B 49'58 | -1°13'54 | minimum elong | 5370 Jun 09 19:23 | 21° II 37'58 | 0°37'14 |
| minimum elong | 5369 Jun 28 23:48 | 10° B 55'12 | 1°12'38 | desc. node | 5370 Jun 11 21:38 | 20° II 09'08 | |
| min. Earth dist. | 5369 Jul 01 04:23 | 9° B 34'59 | 0.55304 AU | min. Earth dist. | 5370 Jun 12 20:09 | 19° II 30'24 | 0.56700 AU |
| morning rise | 5369 Jul 07 16:52 | 6° B 26'18 | | morning rise | 5370 Jun 17 21:20 | 16° II 40'27 | |
| direct | 5369 Jul 12 01:04 | 5° B 44'56 | | direct | 5370 Jun 23 03:55 | 15° II 34'07 | |
| morning max el | 5369 Jul 25 20:45 | 12° B 34'56 | 24°20'47 | morning max el | 5370 Jul 07 11:12 | 22° II 58'24 | 25°57'04 |
| | 5369 Aug 08 05:24 | 0° Q | | | 5370 Jul 13 18:03 | 0° B | |
| asc. node | 5369 Aug 15 18:24 | 13° Q 43'17 | | | 5370 Jul 31 23:00 | 0° Q | |
| morning set | 5369 Aug 19 22:31 | 22° Q 18'08 | | asc. node | 5370 Aug 02 15:28 | 3° Q 26'17 | |
| | 5369 Aug 23 12:20 | 0° P | | morning set | 5370 Aug 04 09:44 | 7° Q 07'35 | |
| | | | | | | | |
| superior conj | 5369 Aug 26 21:10 | 7° P 20'40 | 1°32'59 | superior conj | 5370 Aug 11 08:09 | 22° Q 14'08 | 1°19'36 |
| minimum elong | 5369 Aug 26 19:18 | 7° P 10'31 | 1°32'49 | minimum elong | 5370 Aug 11 05:53 | 22° Q 01'37 | 1°19'17 |
| max. Earth dist. | 5369 Aug 28 19:14 | 11° P 29'54 | 1.32914 AU | max. Earth dist. | 5370 Aug 12 03:11 | 23° Q 58'55 | 1.32196 AU |
| evening rise | 5369 Sep 03 05:11 | 22° P 51'08 | | | 5370 Aug 14 21:19 | 0° P | |
| | 5369 Sep 06 19:52 | 0° A | | evening rise | 5370 Aug 18 07:48 | 7° P 18'37 | |
| desc. node | 5369 Sep 20 23:51 | 24° A 15'41 | | | 5370 Aug 30 07:16 | 0° A | |
| | 5369 Sep 24 23:27 | 0° M | | desc. node | 5370 Sep 07 20:52 | 13° A 14'40 | |
| evening max el | 5369 Oct 06 14:25 | 13° M 41'38 | 27°27'10 | evening max el | 5370 Sep 18 21:43 | 26° A 17'43 | 27°13'44 |
| retrograde | 5369 Oct 20 06:16 | 20° M 58'36 | | | 5370 Sep 23 09:08 | 0° M | |
| evening set | 5369 Oct 27 09:36 | 18° M 23'28 | | retrograde | 5370 Oct 02 18:11 | 3° M 30'56 | |
| min. Earth dist. | 5369 Oct 31 02:01 | 15° M 12'43 | 0.63491 AU | evening set | 5370 Oct 09 21:01 | 1° M 12'12 | |
| inferior conj | 5369 Nov 02 17:25 | 12° M 33'30 | -2°54'26 | | 5370 Oct 11 14:10 | 30° R A | |
| minimum elong | 5369 Nov 02 22:30 | 12° M 20'43 | 2°52'36 | min. Earth dist. | 5370 Oct 13 12:18 | 28° A 26'12 | 0.61581 AU |
| morning rise | 5369 Nov 09 12:57 | 7° M 16'58 | | inferior conj | 5370 Oct 16 13:41 | 25° A 42'52 | -3°55'53 |
| direct | 5369 Nov 11 23:13 | 6° M 48'31 | | minimum elong | 5370 Oct 16 19:59 | 25° A 28'48 | 3°54'05 |
| asc. node | 5369 Nov 11 17:39 | 6° M 48'47 | | morning rise | 5370 Oct 23 20:56 | 20° A 45'47 | |
| morning max el | 5369 Nov 18 13:15 | 10° M 13'26 | 17°49'57 | direct | 5370 Oct 26 04:24 | 20° A 23'19 | |
| | 5369 Dec 01 20:02 | 0° J | | asc. node | 5370 Oct 29 14:43 | 21° A 14'44 | |
| morning set | 5369 Dec 04 23:54 | 5° J 28'42 | | morning max el | 5370 Nov 02 04:38 | 23° A 55'03 | 17°54'34 |
| | | | | | 5370 Nov 07 01:54 | 0° M | |
| superior conj | 5369 Dec 17 06:32 | 26° J 19'22 | 0°04'53 | morning set | 5370 Nov 17 23:15 | 18° M 40'49 | |
| minimum elong | 5369 Dec 17 07:03 | 26° J 21'31 | 0°04'50 | | 5370 Nov 24 05:31 | 0° J | |
| behind sun begin | 5369 Dec 16 21:51 | 25° J 43'33 | | | | | |
| behind sun end | 5369 Dec 17 16:16 | 26° J 59'24 | | superior conj | 5370 Nov 28 12:23 | 7° J 32'12 | 0°44'04 |
| desc. node | 5369 Dec 17 23:08 | 27° J 27'34 | | minimum elong | 5370 Nov 28 15:52 | 7° J 47'16 | 0°43'36 |
| | 5369 Dec 19 12:26 | 0° B | | desc. node | 5370 Dec 04 20:08 | 18° J 14'29 | |
| max. Earth dist. | 5369 Dec 23 09:21 | 6° B 14'30 | 1.44252 AU | max. Earth dist. | 5370 Dec 05 22:54 | 20° J 04'47 | 1.42751 AU |
| evening rise | 5370 Jan 01 20:08 | 21° B 02'40 | | | 5370 Dec 12 02:54 | 0° B | |
| | 5370 Jan 07 17:05 | 0° \approx | | evening rise | 5370 Dec 12 12:18 | 0° B 37'02 | |
| | 5370 Jan 29 04:25 | 0° H | | | 5371 Jan 01 06:59 | 0° \approx | |
| evening max el | 5370 Jan 30 19:07 | 1° H 44'05 | 20°47'13 | evening max el | 5371 Jan 13 14:41 | 15° \approx 19'43 | 22°01'07 |
| asc. node | 5370 Feb 07 16:56 | 6° H 37'13 | | retrograde | 5371 Jan 22 23:29 | 20° \approx 53'48 | |
| retrograde | 5370 Feb 08 02:22 | 6° H 38'03 | | | | | |

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| asc. node | 5371 Jan 25 13:59 | 20°  17'54 | | evening set | 5372 Jan 11 17:06 | 3°  07'55 | |
| evening set | 5371 Jan 27 10:33 | 19°  06'15 | | asc. node | 5372 Jan 12 11:00 | 2°  27'31 | |
| inferior conj | 5371 Feb 01 18:46 | 12°  46'31 | 2°13'25 | | 5372 Jan 14 15:44 | 30°  R  | |
| minimum elong | 5371 Feb 01 16:25 | 12°  54'41 | 2°12'41 | min. Earth dist. | 5372 Jan 16 15:48 | 27°  Z0'35 | 0.68092 AU |
| min. Earth dist. | 5371 Feb 01 19:01 | 12°  45'39 | 0.68097 AU | inferior conj | 5372 Jan 17 02:48 | 26°  Z42'48 | 1°30'50 |
| morning rise | 5371 Feb 06 22:06 | 6°  35'27 | | minimum elong | 5372 Jan 17 00:55 | 26°  Z49'19 | 1°30'09 |
| direct | 5371 Feb 11 18:28 | 4°  31'39 | | morning rise | 5372 Jan 22 08:38 | 20°  Z36'10 | |
| morning max el | 5371 Feb 21 10:29 | 10°  13'58 | 22°31'28 | direct | 5372 Jan 26 14:51 | 18°  Z55'12 | |
| desc. node | 5371 Mar 02 19:25 | 21°  26'39 | | morning max el | 5372 Feb 04 02:13 | 23°  Z49'09 | 21°08'13 |
| | 5371 Mar 08 23:42 | 0°  H | | | 5372 Feb 09 11:38 | 0°  ≈ | |
| morning set | 5371 Mar 27 07:14 | 28°  H06'14 | | desc. node | 5372 Feb 17 16:25 | 11°  ≈08'09 | |
| | 5371 Mar 28 10:56 | 0°  Y | | | 5372 Mar 01 08:44 | 0°  H | |
| max. Earth dist. | 5371 Apr 01 05:11 | 6°  Y17'41 | 1.40477 AU | morning set | 5372 Mar 05 19:31 | 6°  H54'47 | |
| | | | | max. Earth dist. | 5372 Mar 13 07:34 | 18°  H56'00 | 1.42516 AU |
| | | | | | 5372 Mar 19 22:46 | 0°  Y | |
| superior conj | 5371 Apr 09 00:28 | 19°  Y57'19 | -1°53'17 | | | | |
| minimum elong | 5371 Apr 09 05:20 | 20°  Y19'20 | 1°52'53 | | | | |
| | 5371 Apr 14 11:38 | 0°  B | | superior conj | 5372 Mar 20 13:00 | 1°  Y00'40 | -2°07'27 |
| evening rise | 5371 Apr 19 02:01 | 8°  B39'15 | | minimum elong | 5372 Mar 20 15:18 | 1°  Y10'30 | 2°07'24 |
| asc. node | 5371 Apr 23 13:15 | 16°  B59'39 | | evening rise | 5372 Apr 01 00:47 | 21°  Y16'14 | |
| | 5371 May 01 10:26 | 0°  II | | | 5372 Apr 05 21:46 | 0°  B | |
| evening max el | 5371 May 05 05:27 | 4°  II30'28 | 18°22'16 | asc. node | 5372 Apr 09 10:16 | 6°  B03'52 | |
| retrograde | 5371 May 12 13:55 | 8°  II09'45 | | evening max el | 5372 Apr 17 16:21 | 17°  B28'56 | 18°07'10 |
| evening set | 5371 May 14 22:00 | 7°  II48'36 | | retrograde | 5372 Apr 24 08:05 | 20°  B52'39 | |
| inferior conj | 5371 May 22 06:07 | 3°  II12'48 | 2°02'39 | evening set | 5372 Apr 26 23:02 | 20°  B21'10 | |
| minimum elong | 5371 May 22 09:32 | 3°  II05'44 | 2°01'38 | inferior conj | 5372 May 03 14:26 | 15°  B24'37 | 2°56'46 |
| min. Earth dist. | 5371 May 25 16:35 | 0°  II23'51 | 0.58678 AU | minimum elong | 5372 May 03 17:22 | 15°  B17'35 | 2°56'11 |
| | 5371 May 26 04:58 | 30°  R  | | min. Earth dist. | 5372 May 06 19:43 | 12°  B21'01 | 0.60885 AU |
| morning rise | 5371 May 29 17:56 | 27°  B40'40 | | morning rise | 5372 May 10 09:33 | 9°  B30'31 | |
| desc. node | 5371 May 29 18:39 | 27°  B39'43 | | desc. node | 5372 May 15 15:41 | 7°  B23'58 | |
| direct | 5371 Jun 04 21:04 | 26°  B01'03 | | direct | 5372 May 17 01:47 | 7°  B18'05 | |
| | 5371 Jun 14 21:50 | 0°  II | | morning max el | 5372 May 31 08:04 | 15°  B14'37 | 27°48'13 |
| morning max el | 5371 Jun 19 06:25 | 3°  II46'27 | 27°09'47 | | 5372 Jun 12 07:41 | 0°  II | |
| | 5371 Jul 08 09:39 | 0°  G | | | 5372 Jun 29 21:24 | 0°  G | |
| morning set | 5371 Jul 19 18:46 | 21°  G48'43 | | morning set | 5372 Jul 02 23:45 | 6°  G15'31 | |
| asc. node | 5371 Jul 20 12:31 | 23°  G22'21 | | asc. node | 5372 Jul 06 09:31 | 13°  G26'11 | |
| | 5371 Jul 23 14:20 | 0°  Q | | max. Earth dist. | 5372 Jul 09 00:29 | 19°  G07'33 | 1.32044 AU |
| | | | | | | | |
| superior conj | 5371 Jul 26 19:59 | 7°  Q07'26 | 1°01'38 | superior conj | 5372 Jul 10 06:54 | 21°  G54'23 | 0°39'36 |
| minimum elong | 5371 Jul 26 17:47 | 6°  Q55'14 | 1°01'14 | minimum elong | 5372 Jul 10 05:14 | 21°  G45'12 | 0°39'14 |
| max. Earth dist. | 5371 Jul 26 14:12 | 6°  Q35'22 | 1.31906 AU | | 5372 Jul 13 23:14 | 0°  Q | |
| evening rise | 5371 Aug 02 15:35 | 21°  Q59'33 | | evening rise | 5372 Jul 17 02:20 | 6°  Q46'30 | |
| | 5371 Aug 06 12:49 | 0°  np | | | 5372 Jul 29 04:43 | 0°  np | |
| | 5371 Aug 24 16:42 | 0°  u | | desc. node | 5372 Aug 11 14:55 | 18°  np08'25 | |
| desc. node | 5371 Aug 25 17:54 | 1°  u19'42 | | evening max el | 5372 Aug 12 16:11 | 19°  np10'39 | 25°10'05 |
| evening max el | 5371 Aug 31 22:47 | 8°  u08'47 | 26°26'47 | retrograde | 5372 Aug 26 14:23 | 26°  np13'19 | |
| retrograde | 5371 Sep 14 21:37 | 15°  u17'09 | | evening set | 5372 Sep 01 06:20 | 25°  np00'01 | |
| evening set | 5371 Sep 21 13:30 | 13°  u27'11 | | min. Earth dist. | 5372 Sep 06 03:46 | 22°  np18'09 | 0.57511 AU |
| min. Earth dist. | 5371 Sep 25 12:19 | 10°  u52'12 | 0.59514 AU | inferior conj | 5372 Sep 09 03:27 | 20°  np17'28 | -5°16'56 |
| inferior conj | 5371 Sep 28 18:09 | 8°  u21'04 | -4°47'26 | minimum elong | 5372 Sep 09 05:22 | 20°  np14'13 | 5°16'51 |
| minimum elong | 5371 Sep 28 23:51 | 8°  u09'56 | 4°46'24 | morning rise | 5372 Sep 17 06:40 | 16°  np05'13 | |
| morning rise | 5371 Oct 06 12:21 | 3°  u45'59 | | direct | 5372 Sep 19 19:28 | 15°  np46'18 | |
| direct | 5371 Oct 08 20:33 | 3°  u26'30 | | morning max el | 5372 Sep 28 16:59 | 19°  np58'56 | 19°04'11 |
| asc. node | 5371 Oct 16 11:45 | 7°  u05'55 | | asc. node | 5372 Oct 02 08:46 | 24°  np06'48 | |
| morning max el | 5371 Oct 16 15:02 | 7°  u13'46 | 18°18'47 | | 5372 Oct 06 08:42 | 0°  u | |
| | 5371 Oct 31 04:23 | 0°  m | | morning set | 5372 Oct 15 11:17 | 16°  u50'35 | |
| morning set | 5371 Nov 01 12:31 | 2°  m32'32 | | | 5372 Oct 22 03:06 | 0°  m | |
| | | | | | | | |
| superior conj | 5371 Nov 10 18:07 | 19°  m54'25 | 1°13'04 | superior conj | 5372 Oct 23 18:23 | 3°  m10'11 | 1°31'47 |
| minimum elong | 5371 Nov 10 21:55 | 20°  m11'45 | 1°12'37 | minimum elong | 5372 Oct 23 21:04 | 3°  m23'05 | 1°31'34 |
| | 5371 Nov 16 09:52 | 0°  x  | | max. Earth dist. | 5372 Oct 30 13:07 | 15°  m48'33 | 1.38720 AU |
| max. Earth dist. | 5371 Nov 18 07:42 | 3°  x17'37 | 1.40831 AU | evening rise | 5372 Nov 03 08:32 | 22°  m31'43 | |
| desc. node | 5371 Nov 21 17:09 | 9°  x00'29 | | desc. node | 5372 Nov 07 14:10 | 29°  m41'06 | |
| evening rise | 5371 Nov 22 23:03 | 11°  x03'49 | | | 5372 Nov 07 18:45 | 0°  x  | |
| | 5371 Dec 05 02:05 | 0°  Z | | | 5372 Nov 27 23:43 | 0°  Z | |
| evening max el | 5371 Dec 27 06:12 | 28°  Z59'01 | 23°20'30 | evening max el | 5372 Dec 08 19:23 | 12°  Z41'31 | 24°39'19 |
| | 5371 Dec 28 07:16 | 0°  ≈ | | retrograde | 5372 Dec 20 08:18 | 19°  Z25'06 | |
| retrograde | 5372 Jan 06 17:50 | 5°  ≈11'03 | | evening set | 5372 Dec 25 20:52 | 17°  Z06'59 | |

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| asc. node | 5372 Dec 29 08:01 | 13° ☿ 22'27 | | evening max el | 5373 Nov 21 07:54 | 26° ♊ 25'08 | 25°50'32 |
| min. Earth dist. | 5372 Dec 30 11:22 | 11° ☿ 53'43 | 0.67714 AU | | 5373 Nov 25 10:29 | 0° ☿ | |
| inferior conj | 5372 Dec 31 09:21 | 10° ☿ 40'41 | 0°41'24 | retrograde | 5373 Dec 03 18:08 | 3° ☿ 30'42 | |
| minimum elong | 5372 Dec 31 08:22 | 10° ☿ 43'58 | 0°41'01 | evening set | 5373 Dec 09 20:11 | 1° ☿ 00'00 | |
| morning rise | 5373 Jan 05 20:00 | 4° ☿ 40'28 | | | 5373 Dec 10 22:31 | 30° ♊ | |
| direct | 5373 Jan 09 13:07 | 3° ☿ 21'22 | | min. Earth dist. | 5373 Dec 14 03:26 | 26° ♊ 21'35 | 0.66975 AU |
| morning max el | 5373 Jan 17 01:44 | 7° ☿ 36'22 | 19°56'43 | inferior conj | 5373 Dec 15 12:35 | 24° ♊ 37'08 | -0°14'01 |
| | 5373 Feb 02 17:53 | 0° \approx | | minimum elong | 5373 Dec 15 12:57 | 24° ♊ 35'58 | 0°13'50 |
| desc. node | 5373 Feb 03 13:26 | 1° \approx 13'19 | | transit middle | 5373 Dec 15 12:57 | 24° ♊ 35'58 | 0°13'50 |
| morning set | 5373 Feb 12 16:08 | 15° \approx 06'28 | | transit begin | 5373 Dec 15 11:29 | 24° ♊ 40'34 | |
| | 5373 Feb 22 04:53 | 0° ☿ | | transit end | 5373 Dec 15 14:24 | 24° ♊ 31'23 | |
| max. Earth dist. | 5373 Feb 23 17:55 | 2° ☿ 27'16 | 1.44113 AU | asc. node | 5373 Dec 16 05:02 | 23° ♊ 45'30 | |
| | | | | morning rise | 5373 Dec 21 06:10 | 18° ♊ 45'30 | |
| superior conj | 5373 Mar 01 00:15 | 10° ☿ 56'03 | -2°06'30 | direct | 5373 Dec 24 11:50 | 17° ♊ 45'29 | |
| minimum elong | 5373 Feb 28 20:48 | 10° ☿ 41'56 | 2°06'23 | morning max el | 5373 Dec 31 09:00 | 21° ♊ 33'29 | 18°59'57 |
| | 5373 Mar 12 10:26 | 0° ☿ | | | 5374 Jan 07 04:47 | 0° ☿ | |
| evening rise | 5373 Mar 14 05:12 | 3° ☿ 02'41 | | desc. node | 5374 Jan 21 10:27 | 21° ☿ 35'28 | |
| asc. node | 5373 Mar 27 07:17 | 24° ☿ 37'30 | | morning set | 5374 Jan 22 21:43 | 23° ☿ 52'51 | |
| | 5373 Mar 31 11:54 | 0° ☿ | | | 5374 Jan 26 19:51 | 0° \approx | |
| evening max el | 5373 Apr 01 05:13 | 0° ☿ 45'02 | 18°11'15 | max. Earth dist. | 5374 Feb 06 10:00 | 16° \approx 34'03 | 1.45084 AU |
| retrograde | 5373 Apr 07 15:05 | 4° ☿ 08'19 | | | | | |
| evening set | 5373 Apr 10 12:20 | 3° ☿ 25'06 | | superior conj | 5374 Feb 08 12:33 | 19° \approx 53'04 | -1°46'03 |
| | 5373 Apr 14 21:00 | 30° ♊ | | minimum elong | 5374 Feb 08 03:41 | 19° \approx 18'05 | 1°45'18 |
| inferior conj | 5373 Apr 16 15:05 | 28° ☿ 08'59 | 3°24'40 | | 5374 Feb 14 21:26 | 0° ☿ | |
| minimum elong | 5373 Apr 16 16:31 | 28° ☿ 05'05 | 3°24'32 | evening rise | 5374 Feb 23 11:22 | 13° ☿ 51'54 | |
| min. Earth dist. | 5373 Apr 19 07:46 | 25° ☿ 14'25 | 0.63008 AU | | 5374 Mar 05 09:58 | 0° ☿ | |
| morning rise | 5373 Apr 22 19:28 | 22° ☿ 02'10 | | asc. node | 5374 Mar 14 04:19 | 12° ☿ 30'33 | |
| direct | 5373 Apr 29 15:48 | 19° ☿ 25'15 | | evening max el | 5374 Mar 15 17:14 | 14° ☿ 11'13 | 18°33'47 |
| desc. node | 5373 May 02 12:42 | 19° ☿ 50'03 | | retrograde | 5374 Mar 22 06:25 | 17° ☿ 46'57 | |
| morning max el | 5373 May 13 15:12 | 27° ☿ 25'23 | 27°48'51 | evening set | 5374 Mar 25 10:01 | 16° ☿ 51'08 | |
| | 5373 May 16 01:51 | 0° ☿ | | inferior conj | 5374 Mar 31 03:56 | 11° ☿ 17'15 | 3°32'16 |
| | 5373 Jun 06 00:28 | 0° ☿ | | minimum elong | 5374 Mar 31 03:47 | 11° ☿ 17'39 | 3°32'15 |
| morning set | 5373 Jun 16 22:37 | 20° ☿ 21'45 | | min. Earth dist. | 5374 Apr 02 05:19 | 8° ☿ 49'39 | 0.64851 AU |
| | 5373 Jun 21 14:30 | 0° ☿ | | morning rise | 5374 Apr 05 20:55 | 5° ☿ 04'15 | |
| max. Earth dist. | 5373 Jun 22 06:12 | 1° ☿ 23'23 | 1.32614 AU | direct | 5374 Apr 12 13:46 | 2° ☿ 15'27 | |
| asc. node | 5373 Jun 23 06:32 | 3° ☿ 33'37 | | desc. node | 5374 Apr 19 09:44 | 4° ☿ 35'58 | |
| | | | | morning max el | 5374 Apr 26 01:07 | 10° ☿ 09'21 | 27°14'24 |
| superior conj | 5373 Jun 24 15:09 | 6° ☿ 29'26 | 0°14'06 | | 5374 May 11 15:42 | 0° ☿ | |
| minimum elong | 5373 Jun 24 14:29 | 6° ☿ 25'48 | 0°13'56 | | 5374 May 29 10:52 | 0° ☿ | |
| behind sun begin | 5373 Jun 24 11:55 | 6° ☿ 11'53 | | morning set | 5374 May 31 12:32 | 3° ☿ 58'06 | |
| behind sun end | 5373 Jun 24 17:03 | 6° ☿ 39'43 | | max. Earth dist. | 5374 Jun 05 03:12 | 13° ☿ 10'26 | 1.33638 AU |
| evening rise | 5373 Jul 01 14:09 | 21° ☿ 33'17 | | | | | |
| | 5373 Jul 05 16:03 | 0° ☿ | | superior conj | 5374 Jun 08 18:41 | 20° ☿ 45'42 | -0°14'09 |
| evening max el | 5373 Jul 25 04:37 | 29° ☿ 37'14 | 23°35'18 | minimum elong | 5374 Jun 08 19:26 | 20° ☿ 49'36 | 0°14'00 |
| | 5373 Jul 25 14:09 | 0° ☿ | | behind sun begin | 5374 Jun 08 16:43 | 20° ☿ 35'19 | |
| desc. node | 5373 Jul 29 11:56 | 3° ☿ 11'37 | | behind sun end | 5374 Jun 08 22:08 | 21° ☿ 03'53 | |
| retrograde | 5373 Aug 07 19:10 | 6° ☿ 26'53 | | asc. node | 5374 Jun 10 03:34 | 23° ☿ 39'51 | |
| evening set | 5373 Aug 12 00:01 | 5° ☿ 48'08 | | | 5374 Jun 13 02:51 | 0° ☿ | |
| min. Earth dist. | 5373 Aug 18 14:24 | 2° ☿ 41'55 | 0.55871 AU | evening rise | 5374 Jun 16 01:06 | 6° ☿ 12'47 | |
| inferior conj | 5373 Aug 20 16:34 | 1° ☿ 27'08 | -5°07'54 | | 5374 Jun 28 20:19 | 0° ☿ | |
| minimum elong | 5373 Aug 20 12:01 | 1° ☿ 33'56 | 5°07'26 | evening max el | 5374 Jul 06 19:50 | 9° ☿ 59'55 | 21°58'40 |
| | 5373 Aug 23 04:29 | 30° ♊ | | desc. node | 5374 Jul 16 08:58 | 15° ☿ 54'37 | |
| morning rise | 5373 Aug 29 02:28 | 27° ☿ 33'01 | | retrograde | 5374 Jul 19 12:42 | 16° ☿ 17'56 | |
| direct | 5373 Aug 31 22:48 | 27° ☿ 12'57 | | evening set | 5374 Jul 22 07:19 | 16° ☿ 00'42 | |
| | 5373 Sep 08 20:12 | 0° ☿ | | min. Earth dist. | 5374 Jul 31 00:22 | 12° ☿ 16'16 | 0.54917 AU |
| morning max el | 5373 Sep 11 07:45 | 2° ☿ 02'24 | 20°11'33 | inferior conj | 5374 Jul 31 13:58 | 11° ☿ 57'11 | -4°07'33 |
| asc. node | 5373 Sep 19 05:48 | 12° ☿ 02'54 | | minimum elong | 5374 Jul 31 05:09 | 12° ☿ 09'33 | 4°05'19 |
| | 5373 Sep 28 23:28 | 0° ☿ | | morning rise | 5374 Aug 09 04:33 | 8° ☿ 06'50 | |
| morning set | 5373 Sep 29 16:27 | 1° ☿ 26'18 | | direct | 5374 Aug 12 10:50 | 7° ☿ 43'20 | |
| | | | | morning max el | 5374 Aug 24 10:27 | 13° ☿ 20'01 | 21°39'14 |
| superior conj | 5373 Oct 07 08:10 | 17° ☿ 05'33 | 1°41'21 | | 5374 Sep 05 17:29 | 0° ☿ | |
| minimum elong | 5373 Oct 07 09:18 | 17° ☿ 11'16 | 1°41'19 | asc. node | 5374 Sep 06 02:50 | 0° ☿ 41'11 | |
| max. Earth dist. | 5373 Oct 12 19:09 | 27° ☿ 48'14 | 1.36674 AU | morning set | 5374 Sep 14 01:38 | 16° ☿ 13'01 | |
| | 5373 Oct 13 22:59 | 0° ☿ | | | 5374 Sep 20 14:33 | 0° ☿ | |
| evening rise | 5373 Oct 16 15:12 | 4° ☿ 57'16 | | | | | |
| desc. node | 5373 Oct 25 11:11 | 20° ☿ 12'03 | | superior conj | 5374 Sep 21 07:29 | 1° ☿ 28'39 | 1°43'08 |
| | 5373 Oct 31 16:48 | 0° ☿ | | minimum elong | 5374 Sep 21 07:10 | 1° ☿ 27'00 | 1°43'09 |

| | | | | | | | |
|---------------------|-------------------|------------------------------|------------|---------------------|-------------------|--------------------------|------------|
| max. Earth dist. | 5374 Sep 25 07:08 | 9° Ω 40'08 | 1.34900 AU | max. Earth dist. | 5375 Sep 08 03:59 | 21° Π 44'20 | 1.33518 AU |
| evening rise | 5374 Sep 29 15:08 | 18° Ω 10'59 | | | 5375 Sep 12 03:55 | 0° Ω | |
| | 5374 Oct 06 02:05 | 0° Π | | evening rise | 5375 Sep 13 04:11 | 2° Ω 01'35 | |
| desc. node | 5374 Oct 12 08:13 | 10° Π 28'16 | | | 5375 Sep 28 23:26 | 0° Π | |
| | 5374 Oct 25 21:57 | 0° \mathcal{A} | | desc. node | 5375 Sep 29 05:16 | 0° Π 22'32 | |
| evening max el | 5374 Nov 03 20:36 | 10° \mathcal{A} 04'45 | 26°46'45 | evening max el | 5375 Oct 17 09:00 | 23° Π 30'27 | 27°20'35 |
| retrograde | 5374 Nov 16 22:45 | 17° \mathcal{A} 21'31 | | | 5375 Oct 26 17:59 | 0° \mathcal{A} | |
| evening set | 5374 Nov 23 13:08 | 14° \mathcal{A} 43'00 | | retrograde | 5375 Oct 30 21:22 | 0° \mathcal{A} 48'49 | |
| min. Earth dist. | 5374 Nov 27 13:49 | 10° \mathcal{A} 39'46 | 0.65882 AU | | 5375 Nov 03 19:08 | 30° $\mathcal{R}\Pi$ | |
| inferior conj | 5374 Nov 29 10:31 | 8° \mathcal{A} 28'43 | -1°14'16 | evening set | 5375 Nov 06 21:12 | 28° Π 10'00 | |
| minimum elong | 5374 Nov 29 12:37 | 8° \mathcal{A} 22'34 | 1°13'23 | min. Earth dist. | 5375 Nov 10 16:14 | 24° Π 40'55 | 0.64451 AU |
| asc. node | 5374 Dec 03 02:05 | 4° \mathcal{A} 34'01 | | inferior conj | 5375 Nov 13 00:48 | 22° Π 09'40 | -2°17'41 |
| morning rise | 5374 Dec 05 12:59 | 2° \mathcal{A} 48'09 | | minimum elong | 5375 Nov 13 04:49 | 21° Π 58'52 | 2°16'06 |
| direct | 5374 Dec 08 09:11 | 2° \mathcal{A} 03'28 | | morning rise | 5375 Nov 19 13:45 | 16° Π 43'09 | |
| morning max el | 5374 Dec 14 22:10 | 5° \mathcal{A} 35'28 | 18°19'21 | asc. node | 5375 Nov 19 23:09 | 16° Π 33'46 | |
| | 5374 Dec 31 18:03 | 0° \mathcal{B} | | direct | 5375 Nov 22 02:53 | 16° Π 09'49 | |
| morning set | 5375 Jan 03 06:14 | 4° \mathcal{B} 02'42 | | morning max el | 5375 Nov 28 14:33 | 19° Π 35'04 | 17°55'36 |
| desc. node | 5375 Jan 08 07:29 | 12° \mathcal{B} 09'44 | | | 5375 Dec 06 09:24 | 0° \mathcal{A} | |
| | | | | morning set | 5375 Dec 15 19:45 | 15° \mathcal{A} 37'58 | |
| superior conj | 5375 Jan 18 15:43 | 28° \mathcal{B} 32'39 | -1°07'49 | | 5375 Dec 24 10:32 | 0° \mathcal{B} | |
| minimum elong | 5375 Jan 18 07:37 | 28° \mathcal{B} 00'52 | 1°06'50 | desc. node | 5375 Dec 26 04:29 | 2° \mathcal{B} 51'32 | |
| | 5375 Jan 19 13:59 | 0° \approx | | | | | |
| max. Earth dist. | 5375 Jan 20 04:49 | 0° \approx 58'10 | 1.45333 AU | superior conj | 5375 Dec 29 05:52 | 7° \mathcal{B} 48'33 | -0°21'17 |
| evening rise | 5375 Feb 03 18:33 | 23° \approx 46'47 | | minimum elong | 5375 Dec 29 03:20 | 7° \mathcal{B} 38'25 | 0°20'53 |
| | 5375 Feb 07 17:46 | 0° \mathcal{H} | | max. Earth dist. | 5376 Jan 02 23:49 | 15° \mathcal{B} 22'58 | 1.44846 AU |
| greatest brilliancy | 5375 Feb 14 17:25 | 10° \mathcal{H} 52'12 | -0.8m | | 5376 Jan 12 08:35 | 0° \approx | |
| evening max el | 5375 Feb 27 02:09 | 27° \mathcal{H} 43'08 | 19°13'46 | evening rise | 5376 Jan 14 08:41 | 3° \approx 05'16 | |
| asc. node | 5375 Mar 01 01:22 | 29° \mathcal{H} 31'29 | | greatest brilliancy | 5376 Jan 29 02:21 | 25° \approx 20'50 | -0.6m |
| | 5375 Mar 01 16:14 | 0° \mathcal{Y} | | | 5376 Feb 01 07:49 | 0° \mathcal{H} | |
| retrograde | 5375 Mar 06 02:32 | 1° \mathcal{Y} 42'23 | | evening max el | 5376 Feb 10 06:20 | 11° \mathcal{H} 17'06 | 20°09'22 |
| evening set | 5375 Mar 09 13:14 | 0° \mathcal{Y} 33'07 | | asc. node | 5376 Feb 15 22:26 | 15° \mathcal{H} 25'34 | |
| | 5375 Mar 10 07:15 | 30° $\mathcal{R}\mathcal{H}$ | | retrograde | 5376 Feb 18 00:36 | 15° \mathcal{H} 48'49 | |
| inferior conj | 5375 Mar 15 01:28 | 24° \mathcal{H} 43'18 | 3°24'21 | evening set | 5376 Feb 21 19:39 | 14° \mathcal{H} 25'10 | |
| minimum elong | 5375 Mar 15 00:06 | 24° \mathcal{H} 47'41 | 3°24'12 | inferior conj | 5376 Feb 27 04:45 | 8° \mathcal{H} 21'35 | 3°04'20 |
| min. Earth dist. | 5375 Mar 16 11:33 | 22° \mathcal{H} 53'35 | 0.66306 AU | minimum elong | 5376 Feb 27 02:37 | 8° \mathcal{H} 28'45 | 3°03'55 |
| morning rise | 5375 Mar 20 10:37 | 18° \mathcal{H} 28'20 | | min. Earth dist. | 5376 Feb 28 00:37 | 7° \mathcal{H} 14'25 | 0.67333 AU |
| direct | 5375 Mar 26 18:24 | 15° \mathcal{H} 40'41 | | morning rise | 5376 Mar 03 09:22 | 2° \mathcal{H} 07'02 | |
| desc. node | 5375 Apr 06 06:46 | 21° \mathcal{H} 08'33 | | | 5376 Mar 06 15:43 | 30° $\mathcal{R}\approx$ | |
| morning max el | 5375 Apr 08 11:03 | 23° \mathcal{H} 14'09 | 26°12'01 | direct | 5376 Mar 09 04:33 | 29° \approx 31'28 | |
| | 5375 Apr 14 11:04 | 0° \mathcal{Y} | | | 5376 Mar 11 21:11 | 0° \mathcal{H} | |
| | 5375 May 04 23:41 | 0° \mathcal{B} | | morning max el | 5376 Mar 20 19:49 | 6° \mathcal{H} 29'07 | 24°51'20 |
| morning set | 5375 May 14 13:48 | 16° \mathcal{B} 54'17 | | desc. node | 5376 Mar 23 03:46 | 8° \mathcal{H} 57'47 | |
| max. Earth dist. | 5375 May 18 12:48 | 24° \mathcal{B} 26'33 | 1.35133 AU | | 5376 Apr 08 01:49 | 0° \mathcal{Y} | |
| | 5375 May 21 08:22 | 0° Π | | morning set | 5376 Apr 25 21:33 | 28° \mathcal{Y} 56'31 | |
| | | | | | 5376 Apr 26 11:50 | 0° \mathcal{B} | |
| superior conj | 5375 May 23 15:09 | 4° Π 36'51 | -0°43'57 | max. Earth dist. | 5376 Apr 29 12:20 | 5° \mathcal{B} 28'35 | 1.37046 AU |
| minimum elong | 5375 May 23 17:35 | 4° Π 49'15 | 0°43'29 | | | | |
| asc. node | 5375 May 28 00:37 | 13° Π 41'12 | | superior conj | 5376 May 06 01:31 | 17° \mathcal{B} 54'53 | -1°13'36 |
| evening rise | 5375 May 31 09:14 | 20° Π 39'21 | | minimum elong | 5376 May 06 05:36 | 18° \mathcal{B} 14'53 | 1°12'57 |
| | 5375 Jun 05 01:00 | 0° \mathcal{E} | | | 5376 May 12 03:13 | 0° Π | |
| evening max el | 5375 Jun 18 21:23 | 20° \mathcal{E} 50'41 | 20°33'26 | asc. node | 5376 May 13 21:41 | 3° Π 33'34 | |
| retrograde | 5375 Jun 30 01:14 | 26° \mathcal{E} 18'57 | | evening rise | 5376 May 14 12:13 | 4° Π 46'23 | |
| evening set | 5375 Jul 02 01:37 | 26° \mathcal{E} 08'59 | | | 5376 May 29 06:46 | 0° \mathcal{E} | |
| desc. node | 5375 Jul 03 06:01 | 25° \mathcal{E} 54'17 | | evening max el | 5376 May 31 11:34 | 2° \mathcal{E} 23'27 | 19°26'28 |
| inferior conj | 5375 Jul 11 07:25 | 22° \mathcal{E} 11'54 | -2°22'48 | retrograde | 5376 Jun 09 21:42 | 6° \mathcal{E} 59'51 | |
| minimum elong | 5375 Jul 11 00:49 | 22° \mathcal{E} 21'25 | 2°20'29 | evening set | 5376 Jun 11 20:15 | 6° \mathcal{E} 48'59 | |
| min. Earth dist. | 5375 Jul 12 11:46 | 21° \mathcal{E} 31'00 | 0.54889 AU | desc. node | 5376 Jun 19 03:02 | 3° \mathcal{E} 34'18 | |
| morning rise | 5375 Jul 19 23:16 | 18° \mathcal{E} 05'16 | | inferior conj | 5376 Jun 20 11:21 | 2° \mathcal{E} 42'46 | -0°24'08 |
| direct | 5375 Jul 23 20:28 | 17° \mathcal{E} 32'45 | | minimum elong | 5376 Jun 20 10:17 | 2° \mathcal{E} 44'29 | 0°23'45 |
| morning max el | 5375 Aug 06 03:36 | 23° \mathcal{E} 58'27 | 23°20'43 | min. Earth dist. | 5376 Jun 23 01:21 | 1° \mathcal{E} 03'05 | 0.55812 AU |
| | 5375 Aug 11 14:48 | 0° \mathcal{Q} | | | 5376 Jun 24 19:13 | 30° $\mathcal{R}\Pi$ | |
| asc. node | 5375 Aug 23 23:53 | 19° \mathcal{Q} 51'14 | | morning rise | 5376 Jun 28 21:36 | 28° Π 04'11 | |
| | 5375 Aug 29 00:34 | 0° $\mathcal{\Pi}$ | | direct | 5376 Jul 03 15:26 | 27° Π 13'22 | |
| morning set | 5375 Aug 29 12:56 | 1° $\mathcal{\Pi}$ 05'05 | | | 5376 Jul 12 06:26 | 0° \mathcal{E} | |
| | | | | morning max el | 5376 Jul 17 17:02 | 4° \mathcal{E} 19'09 | 25°03'36 |
| superior conj | 5375 Sep 05 13:11 | 16° $\mathcal{\Pi}$ 09'41 | 1°38'21 | | 5376 Aug 04 23:46 | 0° \mathcal{Q} | |
| minimum elong | 5375 Sep 05 11:46 | 16° $\mathcal{\Pi}$ 02'02 | 1°38'16 | asc. node | 5376 Aug 09 20:56 | 9° \mathcal{Q} 24'46 | |

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|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| morning set | 5376 Aug 13 00:41 | 15°♎57'45 | | asc. node | 5377 Jul 27 17:58 | 29°♊14'15 | |
| | 5376 Aug 19 11:42 | 0°♎ | | morning set | 5377 Jul 28 11:11 | 0°♎44'44 | |
| | | | | | 5377 Jul 28 02:41 | 0°♎ | |
| superior conj | 5376 Aug 19 22:52 | 1°♎01'13 | 1°27'55 | | | | |
| minimum elong | 5376 Aug 19 20:46 | 0°♎49'45 | 1°27'40 | superior conj | 5377 Aug 04 10:25 | 15°♎55'27 | 1°12'32 |
| max. Earth dist. | 5376 Aug 21 08:58 | 4°♎07'28 | 1.32562 AU | minimum elong | 5377 Aug 04 08:07 | 15°♎42'44 | 1°12'09 |
| evening rise | 5376 Aug 27 02:46 | 16°♎19'04 | | max. Earth dist. | 5377 Aug 04 18:54 | 16°♎42'16 | 1.32028 AU |
| | 5376 Sep 03 03:06 | 0°♎ | | | 5377 Aug 10 21:44 | 0°♎ | |
| desc. node | 5376 Sep 15 02:18 | 19°♎45'45 | | evening rise | 5377 Aug 11 07:53 | 0°♎53'26 | |
| | 5376 Sep 22 18:29 | 0°♎ | | | 5377 Aug 27 04:02 | 0°♎ | |
| evening max el | 5376 Sep 28 19:07 | 6°♎29'34 | 27°25'35 | desc. node | 5377 Sep 01 23:20 | 8°♎24'10 | |
| retrograde | 5376 Oct 12 13:07 | 13°♎44'15 | | evening max el | 5377 Sep 11 00:00 | 18°♎47'24 | 26°57'39 |
| evening set | 5376 Oct 19 17:16 | 11°♎14'56 | | retrograde | 5377 Sep 24 21:14 | 25°♎57'57 | |
| min. Earth dist. | 5376 Oct 23 08:42 | 8°♎15'46 | 0.62710 AU | evening set | 5377 Oct 01 21:09 | 23°♎49'56 | |
| inferior conj | 5376 Oct 26 04:35 | 5°♎33'29 | -3°21'10 | min. Earth dist. | 5377 Oct 05 14:14 | 21°♎10'51 | 0.60720 AU |
| minimum elong | 5376 Oct 26 10:19 | 5°♎19'44 | 3°19'16 | inferior conj | 5377 Oct 08 18:31 | 18°♎30'37 | -4°19'32 |
| morning rise | 5376 Nov 02 05:04 | 0°♎24'29 | | minimum elong | 5377 Oct 09 00:53 | 18°♎17'13 | 4°17'58 |
| | 5376 Nov 04 01:58 | 30°♎ | | morning rise | 5377 Oct 16 06:37 | 13°♎42'43 | |
| direct | 5376 Nov 04 13:50 | 29°♎58'52 | | direct | 5377 Oct 18 14:06 | 13°♎21'45 | |
| | 5376 Nov 05 01:40 | 0°♎ | | asc. node | 5377 Oct 23 17:12 | 15°♎10'05 | |
| asc. node | 5376 Nov 05 20:11 | 0°♎06'23 | | morning max el | 5377 Oct 25 20:49 | 16°♎58'30 | 18°02'24 |
| morning max el | 5376 Nov 11 07:10 | 3°♎25'37 | 17°49'34 | | 5377 Nov 04 01:44 | 0°♎ | |
| morning set | 5376 Nov 27 08:38 | 28°♎20'43 | | morning set | 5377 Nov 10 14:29 | 11°♎51'21 | |
| | 5376 Nov 28 07:04 | 0°♎ | | | | | |
| superior conj | 5376 Dec 08 20:23 | 18°♎16'38 | 0°22'39 | superior conj | 5377 Nov 20 12:58 | 0°♎00'43 | 0°57'41 |
| minimum elong | 5376 Dec 08 22:32 | 18°♎25'43 | 0°22'22 | minimum elong | 5377 Nov 20 16:50 | 0°♎17'50 | 0°57'11 |
| desc. node | 5376 Dec 12 01:32 | 23°♎37'43 | | | 5377 Nov 20 12:48 | 0°♎ | |
| max. Earth dist. | 5376 Dec 15 16:31 | 29°♎32'26 | 1.43684 AU | max. Earth dist. | 5377 Nov 28 04:22 | 13°♎09'07 | 1.41974 AU |
| | 5376 Dec 15 23:21 | 0°♎ | | desc. node | 5377 Nov 28 22:33 | 14°♎24'42 | |
| evening rise | 5376 Dec 23 19:34 | 12°♎22'58 | | evening rise | 5377 Dec 03 18:31 | 22°♎16'38 | |
| | 5377 Jan 04 11:27 | 0°♎ | | | 5377 Dec 08 16:24 | 0°♎ | |
| evening max el | 5377 Jan 23 04:59 | 24°♎51'57 | 21°17'41 | | 5377 Dec 29 15:31 | 0°♎ | |
| | 5377 Jan 31 06:31 | 0°♎ | | evening max el | 5378 Jan 05 22:31 | 8°♎28'28 | 22°34'33 |
| retrograde | 5377 Jan 31 22:31 | 0°♎02'18 | | retrograde | 5378 Jan 15 18:38 | 14°♎19'19 | |
| asc. node | 5377 Feb 01 19:28 | 29°♎58'13 | | asc. node | 5378 Jan 19 16:29 | 12°♎59'45 | |
| | 5377 Feb 01 14:17 | 30°♎ | | evening set | 5378 Jan 20 10:49 | 12°♎24'51 | |
| evening set | 5377 Feb 05 03:23 | 28°♎23'26 | | inferior conj | 5378 Jan 25 19:27 | 6°♎02'12 | 1°56'13 |
| inferior conj | 5377 Feb 10 11:24 | 22°♎08'40 | 2°34'27 | minimum elong | 5378 Jan 25 17:15 | 6°♎09'53 | 1°55'29 |
| minimum elong | 5377 Feb 10 09:00 | 22°♎16'58 | 2°33'49 | min. Earth dist. | 5378 Jan 25 14:46 | 6°♎18'29 | 0.68136 AU |
| min. Earth dist. | 5377 Feb 10 18:25 | 21°♎44'24 | 0.67935 AU | morning rise | 5378 Jan 30 23:34 | 29°♎53'00 | |
| morning rise | 5377 Feb 15 14:27 | 15°♎56'06 | | | 5378 Jan 30 20:16 | 30°♎ | |
| direct | 5377 Feb 20 19:15 | 13°♎39'45 | | direct | 5378 Feb 04 13:45 | 27°♎59'08 | |
| morning max el | 5377 Mar 03 04:47 | 19°♎50'29 | 23°22'32 | | 5378 Feb 09 20:32 | 0°♎ | |
| desc. node | 5377 Mar 10 00:47 | 27°♎41'55 | | morning max el | 5378 Feb 13 17:10 | 3°♎20'06 | 21°55'02 |
| | 5377 Mar 11 19:47 | 0°♎ | | desc. node | 5378 Feb 24 21:47 | 17°♎05'45 | |
| | 5377 Apr 01 06:29 | 0°♎ | | | 5378 Mar 05 21:22 | 0°♎ | |
| morning set | 5377 Apr 07 05:48 | 9°♎48'38 | | morning set | 5378 Mar 18 09:49 | 19°♎20'31 | |
| max. Earth dist. | 5377 Apr 11 07:56 | 16°♎49'14 | 1.39214 AU | max. Earth dist. | 5378 Mar 24 06:31 | 28°♎55'59 | 1.41375 AU |
| | | | | | 5378 Mar 24 21:49 | 0°♎ | |
| superior conj | 5377 Apr 18 21:50 | 0°♎29'12 | -1°40'30 | superior conj | 5378 Mar 31 23:21 | 12°♎08'40 | -2°00'47 |
| minimum elong | 5377 Apr 19 02:53 | 0°♎52'46 | 1°39'56 | minimum elong | 5378 Apr 01 03:33 | 12°♎27'10 | 2°00'32 |
| | 5377 Apr 18 15:32 | 0°♎ | | | 5378 Apr 10 19:25 | 0°♎ | |
| evening rise | 5377 Apr 28 07:10 | 18°♎25'39 | | evening rise | 5378 Apr 11 14:31 | 1°♎28'24 | |
| asc. node | 5377 Apr 30 18:44 | 23°♎11'46 | | asc. node | 5378 Apr 17 15:46 | 12°♎30'30 | |
| | 5377 May 04 10:37 | 0°♎ | | evening max el | 5378 Apr 27 20:39 | 27°♎20'02 | 18°13'27 |
| evening max el | 5377 May 14 12:26 | 14°♎35'45 | 18°39'49 | | 5378 May 01 10:32 | 0°♎ | |
| retrograde | 5377 May 22 11:52 | 18°♎31'38 | | retrograde | 5378 May 04 20:49 | 0°♎51'13 | |
| evening set | 5377 May 24 15:53 | 18°♎15'14 | | evening set | 5378 May 07 07:45 | 0°♎26'02 | |
| inferior conj | 5377 Jun 01 11:03 | 13°♎50'47 | 1°17'36 | | 5378 May 08 09:37 | 30°♎ | |
| minimum elong | 5377 Jun 01 13:44 | 13°♎45'43 | 1°16'40 | inferior conj | 5378 May 14 08:16 | 25°♎41'12 | 2°29'08 |
| min. Earth dist. | 5377 Jun 04 18:33 | 11°♎21'53 | 0.57491 AU | minimum elong | 5378 May 14 11:41 | 25°♎33'39 | 2°28'16 |
| desc. node | 5377 Jun 06 00:03 | 10°♎30'43 | | min. Earth dist. | 5378 May 17 17:43 | 22°♎42'55 | 0.59600 AU |
| morning rise | 5377 Jun 09 08:17 | 8°♎36'13 | | morning rise | 5378 May 21 12:51 | 19°♎58'07 | |
| direct | 5377 Jun 15 00:09 | 7°♎16'40 | | desc. node | 5378 May 23 21:03 | 18°♎50'04 | |
| morning max el | 5377 Jun 29 09:06 | 14°♎50'29 | 26°31'43 | direct | 5378 May 27 22:22 | 18°♎04'09 | |
| | 5377 Jul 11 13:10 | 0°♎ | | morning max el | 5378 Jun 11 07:19 | 25°♎55'46 | 27°30'44 |

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| | 5378 Jun 15 02:30 | 0°♂ | | 5379 May 12 18:59 | 0°♂ | |
| | 5378 Jul 04 23:31 | 0°♂ | morning max el | 5379 May 24 11:35 | 7°♂42'19 | 27°53'03 |
| morning set | 5378 Jul 12 18:45 | 15°♂20'55 | | 5379 Jun 10 12:02 | 0°♂ | |
| asc. node | 5378 Jul 14 15:00 | 19°♂14'26 | morning set | 5379 Jun 26 21:27 | 29°♂39'51 | |
| | | | | 5379 Jun 27 01:23 | 0°♂ | |
| superior conj | 5378 Jul 19 22:05 | 0°♂46'51 0°52'46 | asc. node | 5379 Jul 01 12:03 | 9°♂20'21 | |
| minimum elong | 5378 Jul 19 20:02 | 0°♂35'36 0°52'21 | max. Earth dist. | 5379 Jul 02 14:44 | 11°♂44'20 | 1.32225 AU |
| max. Earth dist. | 5378 Jul 19 06:06 | 29°♂18'44 1.31915 AU | | | | |
| | 5378 Jul 19 13:35 | 0°♂ | superior conj | 5379 Jul 04 08:06 | 15°♂29'31 0°29'11 | |
| evening rise | 5378 Jul 26 17:10 | 15°♂37'37 | minimum elong | 5379 Jul 04 06:48 | 15°♂22'24 0°28'53 | |
| | 5378 Aug 02 20:27 | 0°♂ | | 5379 Jul 10 23:54 | 0°♂ | |
| desc. node | 5378 Aug 19 20:20 | 25°♂59'51 | evening rise | 5379 Jul 11 04:35 | 0°♂25'00 | |
| | 5378 Aug 23 14:47 | 0°♂ | | 5379 Jul 27 09:58 | 0°♂ | |
| evening max el | 5378 Aug 23 21:31 | 0°♂16'09 25°57'03 | evening max el | 5379 Aug 05 12:12 | 11°♂00'42 24°31'07 | |
| retrograde | 5378 Sep 06 20:37 | 7°♂23'06 | desc. node | 5379 Aug 06 17:21 | 12°♂08'05 | |
| evening set | 5378 Sep 13 04:03 | 5°♂47'51 | retrograde | 5379 Aug 19 08:55 | 17°♂59'52 | |
| min. Earth dist. | 5378 Sep 17 10:03 | 3°♂12'23 0.58643 AU | evening set | 5379 Aug 24 10:32 | 17°♂02'28 | |
| inferior conj | 5378 Sep 20 15:06 | 0°♂51'41 -5°03'31 | min. Earth dist. | 5379 Aug 29 23:21 | 14°♂11'49 0.56747 AU | |
| minimum elong | 5378 Sep 20 19:38 | 0°♂43'21 5°02'57 | inferior conj | 5379 Sep 01 15:48 | 12°♂29'02 -5°18'50 | |
| | 5378 Sep 21 19:34 | 30°♂♂ | minimum elong | 5379 Sep 01 15:07 | 12°♂30'08 5°18'50 | |
| morning rise | 5378 Sep 28 13:30 | 26°♂26'49 | morning rise | 5379 Sep 09 22:07 | 8°♂25'24 | |
| direct | 5378 Sep 30 23:09 | 26°♂07'56 | direct | 5379 Sep 12 13:34 | 8°♂06'20 | |
| morning max el | 5378 Oct 09 04:05 | 0°♂04'28 18°35'27 | morning max el | 5379 Sep 22 01:39 | 12°♂33'42 19°30'06 | |
| | 5378 Oct 09 02:13 | 0°♂ | asc. node | 5379 Sep 27 11:16 | 18°♂59'20 | |
| asc. node | 5378 Oct 10 14:13 | 1°♂32'45 | | 5379 Oct 04 02:14 | 0°♂ | |
| morning set | 5378 Oct 25 08:11 | 25°♂55'10 | morning set | 5379 Oct 09 10:03 | 10°♂22'05 | |
| | 5378 Oct 27 10:40 | 0°♂ | | | | |
| | | | superior conj | 5379 Oct 17 09:53 | 26°♂22'32 1°36'51 | |
| superior conj | 5378 Nov 03 03:15 | 12°♂47'45 1°22'12 | minimum elong | 5379 Oct 17 11:55 | 26°♂32'32 1°36'44 | |
| minimum elong | 5378 Nov 03 06:41 | 13°♂03'45 1°21'51 | | 5379 Oct 19 06:32 | 0°♂ | |
| max. Earth dist. | 5378 Nov 10 11:00 | 26°♂02'11 1.39936 AU | max. Earth dist. | 5379 Oct 23 15:44 | 8°♂16'44 1.37829 AU | |
| | 5378 Nov 12 18:07 | 0°♂ | evening rise | 5379 Oct 27 09:48 | 15°♂03'20 | |
| evening rise | 5378 Nov 14 14:46 | 3°♂08'49 | desc. node | 5379 Nov 02 16:37 | 25°♂46'24 | |
| desc. node | 5378 Nov 15 19:34 | 5°♂08'50 | | 5379 Nov 05 07:09 | 0°♂ | |
| | 5378 Dec 01 22:31 | 0°♂ | | 5379 Nov 26 15:34 | 0°♂ | |
| evening max el | 5378 Dec 19 12:35 | 22°♂08'16 23°54'33 | evening max el | 5379 Dec 02 01:24 | 5°♂52'22 25°11'01 | |
| retrograde | 5378 Dec 30 11:34 | 28°♂35'34 | retrograde | 5379 Dec 14 00:16 | 12°♂46'55 | |
| evening set | 5379 Jan 04 16:21 | 26°♂25'49 | evening set | 5379 Dec 19 18:27 | 10°♂23'18 | |
| asc. node | 5379 Jan 06 13:29 | 24°♂33'55 | min. Earth dist. | 5379 Dec 24 05:51 | 5°♂24'27 0.67442 AU | |
| min. Earth dist. | 5379 Jan 09 11:20 | 20°♂52'48 0.67967 AU | asc. node | 5379 Dec 24 10:29 | 5°♂09'26 | |
| inferior conj | 5379 Jan 10 03:04 | 19°♂59'22 1°10'38 | inferior conj | 5379 Dec 25 08:28 | 3°♂57'43 0°18'36 | |
| minimum elong | 5379 Jan 10 01:30 | 20°♂04'41 1°10'03 | minimum elong | 5379 Dec 25 08:00 | 3°♂59'14 0°18'25 | |
| morning rise | 5379 Jan 15 10:40 | 13°♂55'08 | | 5379 Dec 28 14:56 | 30°♂♂ | |
| direct | 5379 Jan 19 11:01 | 12°♂23'53 | morning rise | 5379 Dec 30 21:48 | 28°♂00'34 | |
| morning max el | 5379 Jan 27 12:05 | 17°♂00'25 20°36'08 | direct | 5380 Jan 03 09:48 | 26°♂49'56 | |
| | 5379 Feb 06 22:12 | 0°♂ | | 5380 Jan 09 17:04 | 0°♂ | |
| desc. node | 5379 Feb 11 18:48 | 6°♂58'01 | morning max el | 5380 Jan 10 14:58 | 0°♂52'16 19°30'33 | |
| morning set | 5379 Feb 25 12:50 | 27°♂45'12 | greatest brilliancy | 5380 Jan 23 17:02 | 18°♂11'44 -0.7m | |
| | 5379 Feb 26 23:27 | 0°♂ | desc. node | 5380 Jan 29 15:51 | 27°♂11'20 | |
| max. Earth dist. | 5379 Mar 06 11:50 | 11°♂55'59 1.43253 AU | | 5380 Jan 31 11:55 | 0°♂ | |
| | | | morning set | 5380 Feb 04 10:03 | 6°♂02'14 | |
| superior conj | 5379 Mar 13 01:16 | 22°♂42'34 -2°09'15 | max. Earth dist. | 5380 Feb 17 00:30 | 25°♂42'49 1.44614 AU | |
| minimum elong | 5379 Mar 13 01:26 | 22°♂43'16 2°09'14 | | 5380 Feb 19 17:15 | 0°♂ | |
| | 5379 Mar 17 08:42 | 0°♂ | | | | |
| evening rise | 5379 Mar 25 05:58 | 13°♂44'19 | superior conj | 5380 Feb 21 01:54 | 2°♂10'28 -2°00'17 | |
| | 5379 Apr 03 16:09 | 0°♂ | minimum elong | 5380 Feb 20 19:42 | 1°♂45'39 1°59'57 | |
| asc. node | 5379 Apr 04 12:47 | 1°♂22'32 | evening rise | 5380 Mar 06 01:13 | 25°♂06'03 | |
| evening max el | 5379 Apr 11 08:44 | 10°♂26'31 18°06'41 | | 5380 Mar 08 23:16 | 0°♂ | |
| retrograde | 5379 Apr 17 20:52 | 13°♂48'26 | asc. node | 5380 Mar 21 09:48 | 19°♂39'53 | |
| evening set | 5379 Apr 20 14:28 | 13°♂12'14 | evening max el | 5380 Mar 24 21:36 | 23°♂47'32 18°18'43 | |
| inferior conj | 5379 Apr 27 00:01 | 8°♂07'30 3°11'26 | retrograde | 5380 Mar 31 07:44 | 27°♂14'17 | |
| minimum elong | 5379 Apr 27 02:23 | 8°♂01'32 3°11'04 | evening set | 5380 Apr 03 07:42 | 26°♂25'46 | |
| min. Earth dist. | 5379 Apr 30 00:40 | 5°♂04'44 0.61806 AU | inferior conj | 5380 Apr 09 06:17 | 21°♂02'06 3°30'02 | |
| morning rise | 5379 May 03 12:29 | 2°♂06'48 | minimum elong | 5380 Apr 09 07:02 | 20°♂59'59 3°29'59 | |
| | 5379 May 07 21:51 | 30°♂♂ | min. Earth dist. | 5380 Apr 11 16:41 | 18°♂17'08 0.63839 AU | |
| direct | 5379 May 10 07:32 | 29°♂42'14 | morning rise | 5380 Apr 15 05:24 | 14°♂52'15 | |
| desc. node | 5379 May 10 18:04 | 29°♂42'48 | direct | 5380 Apr 22 01:17 | 12°♂08'21 | |

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| desc. node | 5380 Apr 26 15:05 | 13°♿11'37 | | morning rise | 5381 Mar 29 12:28 | 28°♿04'32 | |
| morning max el | 5380 May 05 19:56 | 20°♿07'02 | 27°38'05 | direct | 5381 Apr 05 02:03 | 25°♿14'56 | |
| | 5380 May 14 07:05 | 0°♿ | | desc. node | 5381 Apr 13 12:08 | 28°♿47'03 | |
| | 5380 Jun 02 12:48 | 0°♿ | | | 5381 Apr 15 00:24 | 0°♿ | |
| morning set | 5380 Jun 09 16:52 | 13°♿33'55 | | morning max el | 5381 Apr 18 06:04 | 3°♿01'05 | 26°50'49 |
| max. Earth dist. | 5380 Jun 14 16:57 | 23°♿47'25 | 1.32986 AU | | 5381 May 08 14:11 | 0°♿ | |
| asc. node | 5380 Jun 17 09:05 | 29°♿27'33 | | morning set | 5381 May 24 01:55 | 26°♿54'31 | |
| | | | | | 5381 May 25 16:23 | 0°♿ | |
| superior conj | 5380 Jun 17 14:37 | 29°♿57'13 | 0°02'25 | max. Earth dist. | 5381 May 28 09:30 | 5°♿21'48 | 1.34218 AU |
| minimum elong | 5380 Jun 17 14:30 | 29°♿56'33 | 0°02'23 | | | | |
| behind sun begin | 5380 Jun 17 09:11 | 29°♿28'05 | | superior conj | 5381 Jun 01 15:31 | 14°♿03'51 | -0°26'40 |
| behind sun end | 5380 Jun 17 19:49 | 0°♿25'04 | | minimum elong | 5381 Jun 01 16:57 | 14°♿11'19 | 0°26'23 |
| | 5380 Jun 17 15:08 | 0°♿ | | asc. node | 5381 Jun 04 06:08 | 19°♿32'19 | |
| evening rise | 5380 Jun 24 16:15 | 15°♿09'10 | | evening rise | 5381 Jun 09 02:19 | 29°♿44'20 | |
| | 5380 Jul 02 02:17 | 0°♿ | | | 5381 Jun 09 05:19 | 0°♿ | |
| evening max el | 5380 Jul 17 00:59 | 21°♿22'02 | 22°53'41 | | 5381 Jun 27 00:39 | 0°♿ | |
| desc. node | 5380 Jul 23 14:22 | 26°♿16'04 | | evening max el | 5381 Jun 28 19:56 | 1°♿53'29 | 21°20'29 |
| retrograde | 5380 Jul 30 08:15 | 28°♿00'11 | | desc. node | 5381 Jul 10 11:23 | 7°♿51'14 | |
| evening set | 5380 Aug 02 21:24 | 27°♿32'41 | | retrograde | 5381 Jul 10 22:07 | 7°♿51'42 | |
| min. Earth dist. | 5380 Aug 10 09:27 | 24°♿12'01 | 0.55362 AU | evening set | 5381 Jul 13 06:57 | 7°♿38'47 | |
| inferior conj | 5380 Aug 11 21:21 | 23°♿20'25 | -4°48'53 | inferior conj | 5381 Jul 22 15:15 | 3°♿39'48 | -3°27'10 |
| minimum elong | 5380 Aug 11 14:20 | 23°♿30'32 | 4°47'40 | minimum elong | 5381 Jul 22 06:36 | 3°♿51'55 | 3°24'32 |
| morning rise | 5380 Aug 20 09:24 | 19°♿29'52 | | min. Earth dist. | 5381 Jul 22 19:29 | 3°♿33'52 | 0.54785 AU |
| direct | 5380 Aug 23 09:48 | 19°♿08'34 | | | 5381 Jul 30 09:54 | 30°♿ | |
| morning max el | 5380 Sep 03 11:09 | 24°♿17'27 | 20°46'31 | morning rise | 5381 Jul 31 07:03 | 29°♿45'30 | |
| | 5380 Sep 08 12:20 | 0°♿ | | direct | 5381 Aug 03 19:08 | 29°♿19'01 | |
| asc. node | 5380 Sep 13 08:19 | 7°♿15'01 | | | 5381 Aug 08 01:04 | 0°♿ | |
| morning set | 5380 Sep 22 17:15 | 25°♿03'35 | | morning max el | 5381 Aug 16 09:11 | 5°♿16'15 | 22°21'21 |
| | 5380 Sep 25 02:26 | 0°♿ | | asc. node | 5381 Aug 31 05:24 | 26°♿08'04 | |
| | | | | | 5381 Sep 02 06:28 | 0°♿ | |
| superior conj | 5380 Sep 30 04:11 | 10°♿31'02 | 1°42'58 | morning set | 5381 Sep 07 03:36 | 9°♿53'32 | |
| minimum elong | 5380 Sep 30 04:40 | 10°♿33'32 | 1°42'59 | | | | |
| max. Earth dist. | 5380 Oct 05 00:04 | 20°♿11'36 | 1.35885 AU | superior conj | 5381 Sep 14 06:34 | 25°♿02'46 | 1°41'51 |
| evening rise | 5380 Oct 09 00:25 | 27°♿51'13 | | minimum elong | 5381 Sep 14 05:44 | 24°♿58'22 | 1°41'50 |
| | 5380 Oct 10 04:18 | 0°♿ | | | 5381 Sep 16 15:12 | 0°♿ | |
| desc. node | 5380 Oct 19 13:39 | 16°♿12'02 | | max. Earth dist. | 5381 Sep 17 16:03 | 2°♿08'34 | 1.34266 AU |
| | 5380 Oct 28 14:48 | 0°♿ | | evening rise | 5381 Sep 22 06:25 | 11°♿21'45 | |
| evening max el | 5380 Nov 13 14:15 | 19°♿36'12 | 26°16'41 | | 5381 Oct 02 13:20 | 0°♿ | |
| retrograde | 5380 Nov 26 07:49 | 26°♿46'57 | | desc. node | 5381 Oct 06 10:40 | 6°♿19'50 | |
| evening set | 5380 Dec 02 15:19 | 24°♿12'31 | | | 5381 Oct 24 00:09 | 0°♿ | |
| min. Earth dist. | 5380 Dec 06 19:50 | 19°♿48'55 | 0.66561 AU | evening max el | 5381 Oct 27 03:01 | 3°♿11'15 | 27°04'07 |
| inferior conj | 5380 Dec 08 09:45 | 17°♿52'50 | -0°39'01 | retrograde | 5381 Nov 09 09:45 | 10°♿28'53 | |
| minimum elong | 5380 Dec 08 10:48 | 17°♿49'35 | 0°38'34 | evening set | 5381 Nov 16 04:49 | 7°♿49'05 | |
| asc. node | 5380 Dec 10 07:32 | 15°♿36'33 | | min. Earth dist. | 5381 Nov 20 02:58 | 4°♿00'51 | 0.65327 AU |
| morning rise | 5380 Dec 14 06:52 | 12°♿05'22 | | inferior conj | 5381 Nov 22 04:44 | 1°♿40'21 | -1°40'54 |
| direct | 5380 Dec 17 08:21 | 11°♿12'11 | | minimum elong | 5381 Nov 22 07:39 | 1°♿32'08 | 1°39'41 |
| morning max el | 5380 Dec 24 00:59 | 14°♿51'51 | 18°40'34 | | 5381 Nov 23 16:58 | 30°♿ | |
| | 5381 Jan 04 06:43 | 0°♿ | | asc. node | 5381 Nov 27 04:37 | 26°♿50'47 | |
| morning set | 5381 Jan 14 02:00 | 15°♿21'37 | | morning rise | 5381 Nov 28 11:31 | 26°♿05'30 | |
| desc. node | 5381 Jan 15 12:54 | 17°♿39'16 | | direct | 5381 Dec 01 04:30 | 25°♿26'02 | |
| | 5381 Jan 23 09:18 | 0°♿ | | morning max el | 5381 Dec 07 15:54 | 28°♿53'39 | 18°07'06 |
| | | | | | 5381 Dec 08 17:07 | 0°♿ | |
| superior conj | 5381 Jan 30 07:59 | 10°♿53'26 | -1°31'34 | morning set | 5381 Dec 25 23:15 | 26°♿09'18 | |
| minimum elong | 5381 Jan 29 22:32 | 10°♿16'22 | 1°30'37 | | 5381 Dec 28 07:33 | 0°♿ | |
| max. Earth dist. | 5381 Jan 29 18:30 | 10°♿00'36 | 1.45290 AU | desc. node | 5382 Jan 02 09:55 | 8°♿17'05 | |
| | 5381 Feb 11 10:26 | 0°♿ | | | | | |
| evening rise | 5381 Feb 14 21:23 | 5°♿31'09 | | superior conj | 5382 Jan 09 13:23 | 19°♿41'33 | -0°48'21 |
| greatest brilliancy | 5381 Feb 22 16:26 | 17°♿59'23 | -0.9m | minimum elong | 5382 Jan 09 07:26 | 19°♿18'02 | 0°47'32 |
| | 5381 Mar 02 12:53 | 0°♿ | | max. Earth dist. | 5382 Jan 12 14:14 | 24°♿28'41 | 1.45220 AU |
| asc. node | 5381 Mar 08 06:49 | 7°♿12'25 | | | 5382 Jan 16 02:49 | 0°♿ | |
| evening max el | 5381 Mar 08 08:37 | 7°♿16'58 | 18°48'47 | evening rise | 5382 Jan 25 20:08 | 15°♿07'13 | |
| retrograde | 5381 Mar 15 01:28 | 11°♿01'07 | | | 5382 Feb 04 11:41 | 0°♿ | |
| evening set | 5381 Mar 18 08:05 | 9°♿59'28 | | greatest brilliancy | 5382 Feb 07 17:07 | 4°♿53'03 | -0.7m |
| inferior conj | 5381 Mar 23 23:13 | 4°♿18'30 | 3°30'33 | evening max el | 5382 Feb 19 15:36 | 20°♿49'24 | 19°35'38 |
| minimum elong | 5381 Mar 23 22:30 | 4°♿20'41 | 3°30'30 | asc. node | 5382 Feb 23 03:52 | 23°♿46'31 | |
| min. Earth dist. | 5381 Mar 25 17:56 | 2°♿06'23 | 0.65524 AU | retrograde | 5382 Feb 26 22:49 | 25°♿01'41 | |
| | 5381 Mar 27 13:33 | 30°♿ | | evening set | 5382 Mar 02 12:55 | 23°♿46'16 | |

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| inferior conj | 5382 Mar 07 23:30 | 17° H 50'00 | 3°17'10 | inferior conj | 5383 Feb 20 04:31 | 1° H 32'53 | 2°52'46 |
| minimum elong | 5382 Mar 07 21:45 | 17° H 55'45 | 3°16'55 | minimum elong | 5383 Feb 20 02:13 | 1° H 40'46 | 2°52'14 |
| min. Earth dist. | 5382 Mar 09 03:16 | 16° H 18'25 | 0.66793 AU | min. Earth dist. | 5383 Feb 20 18:46 | 0° H 44'03 | 0.67637 AU |
| morning rise | 5382 Mar 13 06:21 | 11° H 34'57 | | | 5383 Feb 21 07:43 | 30° R \approx | |
| direct | 5382 Mar 19 08:57 | 8° H 51'40 | | morning rise | 5383 Feb 25 08:07 | 25° \approx 18'44 | |
| desc. node | 5382 Mar 31 09:10 | 15° H 55'12 | | direct | 5383 Mar 02 21:10 | 22° \approx 50'44 | |
| morning max el | 5382 Mar 31 15:43 | 16° H 11'41 | 25°39'25 | morning max el | 5383 Mar 14 00:25 | 29° \approx 30'08 | 24°13'53 |
| | 5382 Apr 12 01:53 | 0° Y | | | 5383 Mar 14 12:06 | 0° H | |
| | 5382 May 01 11:57 | 0° B | | desc. node | 5383 Mar 18 06:10 | 4° H 10'10 | |
| morning set | 5382 May 06 20:22 | 9° B 29'05 | | | 5383 Apr 05 21:47 | 0° Y | |
| max. Earth dist. | 5382 May 10 14:42 | 16° B 29'57 | 1.35903 AU | morning set | 5383 Apr 18 18:50 | 21° Y 03'27 | |
| | | | | max. Earth dist. | 5383 Apr 22 11:22 | 27° Y 34'18 | 1.37950 AU |
| | | | | | 5383 Apr 23 19:35 | 0° B | |
| superior conj | 5382 May 16 08:01 | 27° B 41'13 | -0°56'40 | | | | |
| minimum elong | 5382 May 16 11:11 | 27° B 57'06 | 0°56'07 | | | | |
| | 5382 May 17 11:35 | 0° II | | superior conj | 5383 Apr 29 12:52 | 10° B 41'24 | -1°25'33 |
| asc. node | 5382 May 22 03:10 | 9° II 29'55 | | minimum elong | 5383 Apr 29 17:31 | 11° B 03'39 | 1°24'55 |
| evening rise | 5382 May 24 08:32 | 14° II 03'07 | | evening rise | 5383 May 08 08:27 | 27° B 58'52 | |
| | 5382 Jun 01 16:06 | 0° E | | asc. node | 5383 May 09 00:11 | 29° B 16'25 | |
| evening max el | 5382 Jun 11 02:40 | 13° E 00'08 | 20°02'27 | | 5383 May 09 09:03 | 0° II | |
| retrograde | 5382 Jun 21 12:47 | 18° E 06'17 | | evening max el | 5383 May 24 21:43 | 24° II 50'02 | 19°04'07 |
| evening set | 5382 Jun 23 10:45 | 17° E 56'41 | | retrograde | 5383 Jun 02 16:02 | 29° II 07'25 | |
| desc. node | 5382 Jun 27 08:25 | 16° E 43'56 | | evening set | 5383 Jun 04 16:17 | 28° II 54'47 | |
| inferior conj | 5382 Jul 02 11:27 | 13° E 56'57 | -1°32'01 | inferior conj | 5383 Jun 12 23:07 | 24° II 41'44 | 0°22'19 |
| minimum elong | 5382 Jul 02 07:09 | 14° E 03'24 | 1°30'27 | minimum elong | 5383 Jun 13 00:01 | 24° II 40'10 | 0°21'58 |
| min. Earth dist. | 5382 Jul 04 07:36 | 12° E 50'41 | 0.55168 AU | desc. node | 5383 Jun 14 05:26 | 23° II 49'16 | |
| morning rise | 5382 Jul 11 01:54 | 9° E 37'59 | | min. Earth dist. | 5383 Jun 15 22:50 | 22° II 38'54 | 0.56449 AU |
| direct | 5382 Jul 15 06:59 | 8° E 59'18 | | morning rise | 5383 Jun 21 04:29 | 19° II 47'03 | |
| morning max el | 5382 Jul 29 00:01 | 15° E 43'29 | 24°05'24 | direct | 5383 Jun 26 07:51 | 18° II 44'57 | |
| | 5382 Aug 09 08:37 | 0° O | | morning max el | 5383 Jul 10 13:58 | 26° II 05'04 | 25°43'52 |
| asc. node | 5382 Aug 18 02:27 | 15° O 28'26 | | | 5383 Jul 14 07:02 | 0° E | |
| morning set | 5382 Aug 22 15:16 | 24° O 46'00 | | | 5383 Aug 02 10:06 | 0° O | |
| | 5382 Aug 25 01:53 | 0° P | | asc. node | 5383 Aug 04 23:28 | 5° O 08'51 | |
| | | | | morning set | 5383 Aug 07 02:37 | 9° O 36'05 | |
| superior conj | 5382 Aug 29 14:13 | 9° P 48'43 | 1°34'35 | | | | |
| minimum elong | 5382 Aug 29 12:27 | 9° P 39'09 | 1°34'25 | superior conj | 5383 Aug 14 00:53 | 24° O 41'40 | 1°21'58 |
| max. Earth dist. | 5382 Aug 31 16:28 | 14° P 19'39 | 1.33051 AU | minimum elong | 5383 Aug 13 22:39 | 24° O 29'21 | 1°21'39 |
| evening rise | 5382 Sep 05 23:51 | 25° P 24'06 | | max. Earth dist. | 5383 Aug 14 23:40 | 26° O 46'50 | 1.32275 AU |
| | 5382 Sep 08 07:21 | 0° A | | | 5383 Aug 16 10:59 | 0° P | |
| desc. node | 5382 Sep 23 07:42 | 26° A 02'01 | | evening rise | 5383 Aug 21 01:29 | 9° P 49'05 | |
| | 5382 Sep 26 00:16 | 0° M | | | 5383 Aug 31 14:42 | 0° A | |
| evening max el | 5382 Oct 09 14:29 | 16° M 26'22 | 27°26'29 | desc. node | 5383 Sep 10 04:44 | 15° A 07'38 | |
| retrograde | 5382 Oct 23 05:39 | 23° M 44'12 | | evening max el | 5383 Sep 21 22:37 | 29° A 08'45 | 27°17'59 |
| evening set | 5382 Oct 30 08:16 | 21° M 07'40 | | | 5383 Sep 22 20:51 | 0° M | |
| min. Earth dist. | 5382 Nov 03 01:13 | 17° M 52'26 | 0.63746 AU | retrograde | 5383 Oct 05 18:39 | 6° M 22'29 | |
| inferior conj | 5382 Nov 05 14:55 | 15° M 14'47 | -2°44'51 | evening set | 5383 Oct 12 22:02 | 4° M 00'43 | |
| minimum elong | 5382 Nov 05 19:44 | 15° M 02'27 | 2°43'03 | min. Earth dist. | 5383 Oct 16 13:10 | 1° M 11'35 | 0.61874 AU |
| morning rise | 5382 Nov 12 08:44 | 9° M 55'39 | | | 5383 Oct 17 21:07 | 30° R $\underline{\text{A}}$ | |
| asc. node | 5382 Nov 14 01:40 | 9° M 28'54 | | inferior conj | 5383 Oct 19 13:13 | 28° A 28'04 | -3°47'03 |
| direct | 5382 Nov 14 19:37 | 9° M 26'07 | | minimum elong | 5383 Oct 19 19:26 | 28° A 13'56 | 3°45'12 |
| morning max el | 5382 Nov 21 08:52 | 12° M 50'55 | 17°50'51 | morning rise | 5383 Oct 26 18:43 | 23° A 27'43 | |
| | 5382 Dec 03 03:59 | 0° X | | direct | 5383 Oct 29 02:22 | 23° A 04'34 | |
| morning set | 5382 Dec 07 23:34 | 8° X 15'58 | | asc. node | 5383 Oct 31 22:42 | 23° A 40'44 | |
| desc. node | 5382 Dec 20 06:55 | 29° X 01'18 | | morning max el | 5383 Nov 05 00:38 | 26° A 34'56 | 17°52'40 |
| | | | | | 5383 Nov 07 23:50 | 0° M | |
| superior conj | 5382 Dec 20 13:11 | 29° X 26'58 | -0°01'51 | morning set | 5383 Nov 20 20:25 | 21° M 21'04 | |
| minimum elong | 5382 Dec 20 12:58 | 29° X 26'06 | 0°01'48 | | 5383 Nov 25 15:44 | 0° X | |
| behind sun begin | 5382 Dec 20 03:15 | 28° X 46'16 | | | | | |
| behind sun end | 5382 Dec 20 22:42 | 0° Z 05'52 | | superior conj | 5383 Dec 01 15:06 | 10° X 28'18 | 0°38'45 |
| | 5382 Dec 20 21:16 | 0° Z | | minimum elong | 5383 Dec 01 18:20 | 10° X 42'10 | 0°38'18 |
| max. Earth dist. | 5382 Dec 26 08:23 | 8° Z 48'32 | 1.44426 AU | desc. node | 5383 Dec 07 03:57 | 19° X 48'15 | |
| evening rise | 5383 Jan 05 06:57 | 24° Z 20'44 | | max. Earth dist. | 5383 Dec 08 22:45 | 22° X 44'06 | 1.43009 AU |
| | 5383 Jan 08 23:40 | 0° \approx | | | 5383 Dec 13 11:00 | 0° Z | |
| | 5383 Jan 29 20:59 | 0° H | | evening rise | 5383 Dec 15 21:19 | 3° Z 49'53 | |
| evening max el | 5383 Feb 02 17:21 | 4° H 23'33 | 20°37'02 | | 5384 Jan 02 09:47 | 0° \approx | |
| asc. node | 5383 Feb 10 00:55 | 9° H 07'54 | | evening max el | 5384 Jan 16 13:44 | 17° \approx 59'07 | 21°49'36 |
| retrograde | 5383 Feb 10 21:10 | 9° H 11'43 | | retrograde | 5384 Jan 25 18:30 | 23° \approx 26'54 | |
| evening set | 5383 Feb 14 20:07 | 7° H 41'47 | | asc. node | 5384 Jan 27 21:57 | 23° \approx 02'29 | |

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|------------------|-------------------|---------------------|------------|------------------|-------------------|---------------------|------------|
| evening set | 5384 Jan 30 03:54 | 21° \approx 41'41 | | asc. node | 5385 Jan 13 18:57 | 5° \approx 25'05 | |
| inferior conj | 5384 Feb 04 12:01 | 15° \approx 23'12 | 2°19'12 | | 5385 Jan 18 08:03 | 30° \approx 18'29 | 1°37'46 |
| minimum elong | 5384 Feb 04 09:38 | 15° \approx 31'27 | 2°18'30 | inferior conj | 5385 Jan 18 20:06 | 29° \approx 25'22 | 1°37'03 |
| min. Earth dist. | 5384 Feb 04 14:01 | 15° \approx 16'15 | 0.68073 AU | minimum elong | 5385 Jan 18 18:06 | 29° \approx 50'48 | 0.68118 AU |
| morning rise | 5384 Feb 09 15:12 | 9° \approx 11'40 | | min. Earth dist. | 5385 Jan 18 10:43 | 23° \approx 11'12 | |
| direct | 5384 Feb 14 13:48 | 7° \approx 04'25 | | morning rise | 5385 Jan 24 01:25 | 21° \approx 26'52 | |
| morning max el | 5384 Feb 24 10:14 | 12° \approx 54'01 | 22°44'29 | direct | 5385 Jan 28 09:42 | 26° \approx 27'19 | 21°20'01 |
| desc. node | 5384 Mar 04 03:11 | 23° \approx 12'39 | | morning max el | 5385 Feb 06 00:58 | 0° \approx | |
| | 5384 Mar 09 02:52 | 0° \approx | | desc. node | 5385 Feb 09 06:43 | 12° \approx 49'38 | |
| | 5384 Mar 28 19:30 | 0° \approx | | | 5385 Mar 02 15:32 | 10° \approx 20'22 | |
| morning set | 5384 Mar 29 15:22 | 1° \approx 21'37 | | morning set | 5385 Mar 09 07:29 | 21° \approx 40'30 | 1.42234 AU |
| max. Earth dist. | 5384 Apr 03 06:55 | 9° \approx 09'44 | 1.40155 AU | max. Earth dist. | 5385 Mar 16 08:27 | 0° \approx | |
| | | | | | 5385 Mar 21 08:08 | | |
| superior conj | 5384 Apr 11 01:47 | 22° \approx 53'44 | -1°50'12 | superior conj | 5385 Mar 23 17:51 | 4° \approx 06'37 | -2°06'10 |
| minimum elong | 5384 Apr 11 06:47 | 23° \approx 16'29 | 1°49'45 | minimum elong | 5385 Mar 23 20:45 | 4° \approx 19'10 | 2°06'03 |
| | 5384 Apr 14 22:17 | 0° \approx | | evening rise | 5385 Apr 04 00:02 | 24° \approx 07'02 | |
| evening rise | 5384 Apr 20 22:54 | 11° \approx 23'12 | | | 5385 Apr 07 06:04 | 0° \approx | |
| asc. node | 5384 Apr 24 21:13 | 18° \approx 46'48 | | asc. node | 5385 Apr 11 18:14 | 7° \approx 54'51 | |
| | 5384 May 01 09:27 | 0° \approx | | evening max el | 5385 Apr 20 12:32 | 20° \approx 12'14 | 18°08'11 |
| evening max el | 5384 May 07 02:14 | 7° \approx 17'27 | 18°26'13 | retrograde | 5385 Apr 27 06:05 | 23° \approx 37'27 | |
| retrograde | 5384 May 14 14:08 | 11° \approx 00'22 | | evening set | 5385 Apr 29 20:02 | 23° \approx 07'37 | |
| evening set | 5384 May 16 21:12 | 10° \approx 40'30 | | inferior conj | 5385 May 06 13:39 | 18° \approx 13'58 | 2°50'24 |
| inferior conj | 5384 May 24 08:06 | 6° \approx 07'42 | 1°51'47 | minimum elong | 5385 May 06 16:45 | 18° \approx 06'40 | 2°49'43 |
| minimum elong | 5384 May 24 11:24 | 6° \approx 01'00 | 1°50'46 | min. Earth dist. | 5385 May 09 20:15 | 15° \approx 11'03 | 0.60550 AU |
| min. Earth dist. | 5384 May 27 18:16 | 3° \approx 23'17 | 0.58360 AU | morning rise | 5385 May 13 11:11 | 12° \approx 22'26 | |
| desc. node | 5384 May 31 02:25 | 1° \approx 07'15 | | desc. node | 5385 May 17 23:26 | 10° \approx 27'28 | |
| morning rise | 5384 May 31 22:26 | 0° \approx 39'58 | | direct | 5385 May 20 01:54 | 10° \approx 14'42 | |
| | 5384 Jun 02 09:33 | 30° \approx 05'36 | | morning max el | 5385 Jun 03 09:01 | 18° \approx 10'00 | 27°44'59 |
| direct | 5384 Jun 06 22:57 | 0° \approx | | | 5385 Jun 13 06:43 | 0° \approx | |
| | 5384 Jun 11 14:54 | 0° \approx | | | 5385 Jul 01 08:30 | 0° \approx | |
| morning max el | 5384 Jun 21 08:13 | 6° \approx 48'07 | 27°00'58 | morning set | 5385 Jul 05 17:48 | 8° \approx 48'21 | |
| | 5384 Jul 08 15:40 | 0° \approx | | asc. node | 5385 Jul 08 17:30 | 15° \approx 06'17 | |
| morning set | 5384 Jul 21 12:04 | 24° \approx 19'02 | | max. Earth dist. | 5385 Jul 11 21:18 | 21° \approx 57'39 | 1.31997 AU |
| asc. node | 5384 Jul 21 20:29 | 25° \approx 03'26 | | | | | |
| | 5384 Jul 24 03:52 | 0° \approx | | | | | |
| superior conj | 5384 Jul 28 12:42 | 9° \approx 35'34 | 1°04'39 | superior conj | 5385 Jul 12 23:51 | 24° \approx 23'37 | 0°43'11 |
| minimum elong | 5384 Jul 28 10:27 | 9° \approx 23'09 | 1°04'15 | minimum elong | 5385 Jul 12 22:04 | 24° \approx 13'49 | 0°42'49 |
| max. Earth dist. | 5384 Jul 28 10:33 | 9° \approx 23'42 | 1.31926 AU | | 5385 Jul 15 12:55 | 0° \approx | |
| evening rise | 5384 Aug 04 08:39 | 24° \approx 28'51 | | evening rise | 5385 Jul 19 19:05 | 9° \approx 15'08 | |
| | 5384 Aug 07 00:27 | 0° \approx | | | 5385 Jul 30 10:29 | 0° \approx | |
| | 5384 Aug 24 12:39 | 0° \approx | | desc. node | 5385 Aug 13 22:45 | 20° \approx 23'45 | |
| desc. node | 5384 Aug 27 01:44 | 3° \approx 22'02 | | evening max el | 5385 Aug 15 19:12 | 22° \approx 15'29 | 25°22'55 |
| evening max el | 5384 Sep 03 00:49 | 11° \approx 07'11 | 26°35'49 | retrograde | 5385 Aug 29 17:39 | 29° \approx 19'17 | |
| retrograde | 5384 Sep 16 23:12 | 18° \approx 15'47 | | evening set | 5385 Sep 04 14:09 | 28° \approx 00'09 | |
| evening set | 5384 Sep 23 17:36 | 16° \approx 20'53 | | min. Earth dist. | 5385 Sep 09 06:55 | 25° \approx 20'37 | 0.57800 AU |
| min. Earth dist. | 5384 Sep 27 14:35 | 13° \approx 45'20 | 0.59829 AU | inferior conj | 5385 Sep 12 08:31 | 23° \approx 14'11 | -5°14'32 |
| inferior conj | 5384 Sep 30 20:14 | 11° \approx 11'25 | -4°40'42 | minimum elong | 5385 Sep 12 11:14 | 23° \approx 09'29 | 5°14'21 |
| minimum elong | 5384 Oct 01 02:12 | 10° \approx 59'31 | 4°39'32 | morning rise | 5385 Sep 20 10:35 | 18° \approx 58'48 | |
| morning rise | 5384 Oct 08 12:54 | 6° \approx 32'48 | | direct | 5385 Sep 22 22:32 | 18° \approx 39'55 | |
| direct | 5384 Oct 10 20:49 | 6° \approx 12'59 | | morning max el | 5385 Oct 01 15:21 | 22° \approx 47'50 | 18°56'02 |
| asc. node | 5384 Oct 17 19:43 | 9° \approx 19'36 | | asc. node | 5385 Oct 04 16:45 | 26° \approx 10'42 | |
| morning max el | 5384 Oct 18 11:56 | 9° \approx 57'12 | 18°13'52 | | 5385 Oct 07 11:11 | 0° \approx | |
| | 5384 Oct 31 14:29 | 0° \approx | | morning set | 5385 Oct 18 05:27 | 19° \approx 21'56 | |
| morning set | 5384 Nov 03 07:53 | 5° \approx 07'30 | | | 5385 Oct 23 15:06 | 0° \approx | |
| superior conj | 5384 Nov 12 17:34 | 22° \approx 40'39 | 1°09'20 | superior conj | 5385 Oct 26 15:24 | 5° \approx 49'15 | 1°29'32 |
| minimum elong | 5384 Nov 12 21:26 | 22° \approx 58'10 | 1°08'53 | minimum elong | 5385 Oct 26 18:18 | 6° \approx 03'05 | 1°29'18 |
| | 5384 Nov 16 20:08 | 0° \approx | | max. Earth dist. | 5385 Nov 02 14:05 | 18° \approx 39'48 | 1.39036 AU |
| max. Earth dist. | 5384 Nov 20 08:23 | 6° \approx 03'15 | 1.41138 AU | evening rise | 5385 Nov 06 10:51 | 25° \approx 25'38 | |
| desc. node | 5384 Nov 23 01:00 | 10° \approx 34'24 | | | 5385 Nov 09 03:46 | 0° \approx | |
| evening rise | 5384 Nov 25 04:48 | 14° \approx 07'19 | | desc. node | 5385 Nov 09 22:03 | 1° \approx 15'53 | |
| | 5384 Dec 05 08:12 | 0° \approx | | | 5385 Nov 29 00:38 | 0° \approx | |
| | 5384 Dec 27 16:18 | 0° \approx | | evening max el | 5385 Dec 11 19:05 | 15° \approx 19'12 | 24°27'54 |
| evening max el | 5384 Dec 29 05:44 | 1° \approx 37'28 | 23°08'32 | retrograde | 5385 Dec 23 04:27 | 21° \approx 58'53 | |
| retrograde | 5385 Jan 08 13:16 | 7° \approx 43'57 | | evening set | 5385 Dec 28 15:01 | 19° \approx 42'46 | |
| evening set | 5385 Jan 13 10:42 | 5° \approx 43'00 | | asc. node | 5385 Dec 31 15:59 | 16° \approx 29'17 | |

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|------------------|-------------------|----------------------|------------|---------------------|-------------------|----------------------|------------|
| min. Earth dist. | 5386 Jan 02 06:36 | 14° ♁ 24'28 | 0.67789 AU | min. Earth dist. | 5386 Dec 16 23:25 | 28° ♁ 53'15 | 0.67103 AU |
| inferior conj | 5386 Jan 03 03:00 | 13° ♁ 16'16 | 0°49'21 | inferior conj | 5386 Dec 18 06:53 | 27° ♁ 13'08 | -0°05'14 |
| minimum elong | 5386 Jan 03 01:51 | 13° ♁ 20'07 | 0°48'53 | minimum elong | 5386 Dec 18 07:01 | 27° ♁ 12'43 | 0°05'10 |
| morning rise | 5386 Jan 08 12:47 | 7° ♁ 15'04 | | transit middle | 5386 Dec 18 07:01 | 27° ♁ 12'43 | 0°05'10 |
| direct | 5386 Jan 12 07:45 | 5° ♁ 52'56 | | transit begin | 5386 Dec 18 04:21 | 27° ♁ 21'13 | |
| morning max el | 5386 Jan 19 23:22 | 10° ♁ 13'06 | 20°06'33 | transit end | 5386 Dec 18 09:41 | 27° ♁ 04'14 | |
| | 5386 Feb 03 23:01 | 0° ♁ | | asc. node | 5386 Dec 18 13:02 | 26° ♁ 53'33 | |
| desc. node | 5386 Feb 05 21:16 | 2° ♁ 51'46 | | morning rise | 5386 Dec 23 23:18 | 21° ♁ 20'01 | |
| morning set | 5386 Feb 16 05:06 | 18° ♁ 33'38 | | direct | 5386 Dec 27 06:30 | 20° ♁ 17'26 | |
| | 5386 Feb 23 13:00 | 0° ♁ | | morning max el | 5387 Jan 03 05:35 | 24° ♁ 08'56 | 19°07'24 |
| max. Earth dist. | 5386 Feb 26 17:46 | 5° ♁ 05'00 | 1.43908 AU | | 5387 Jan 08 04:25 | 0° ♁ | |
| | | | | greatest brilliancy | 5387 Jan 17 04:36 | 13° ♁ 04'13 | -0.8m |
| superior conj | 5386 Mar 04 08:58 | 14° ♁ 12'06 | -2°07'50 | desc. node | 5387 Jan 23 18:19 | 23° ♁ 11'33 | |
| minimum elong | 5386 Mar 04 06:31 | 14° ♁ 02'01 | 2°07'47 | morning set | 5387 Jan 26 07:46 | 27° ♁ 10'08 | |
| | 5386 Mar 13 19:19 | 0° ♁ | | | 5387 Jan 28 03:28 | 0° ♁ | |
| evening rise | 5386 Mar 17 07:32 | 6° ♁ 01'46 | | max. Earth dist. | 5387 Feb 09 08:51 | 19° ♁ 06'18 | 1.44982 AU |
| asc. node | 5386 Mar 29 15:16 | 26° ♁ 33'39 | | | | | |
| | 5386 Apr 01 02:13 | 0° ♁ | | superior conj | 5387 Feb 12 00:08 | 23° ♁ 16'02 | -1°50'26 |
| evening max el | 5386 Apr 04 01:19 | 3° ♁ 26'04 | 18°09'26 | minimum elong | 5387 Feb 11 15:47 | 22° ♁ 43'00 | 1°49'48 |
| retrograde | 5386 Apr 10 11:31 | 6° ♁ 48'40 | | | 5387 Feb 16 05:45 | 0° ♁ | |
| evening set | 5386 Apr 13 07:48 | 6° ♁ 07'21 | | evening rise | 5387 Feb 26 17:10 | 16° ♁ 59'21 | |
| inferior conj | 5386 Apr 19 12:11 | 0° ♁ 54'04 | 3°21'51 | | 5387 Mar 06 15:36 | 0° ♁ | |
| minimum elong | 5386 Apr 19 13:52 | 0° ♁ 49'35 | 3°21'39 | asc. node | 5387 Mar 16 12:19 | 14° ♁ 33'29 | |
| | 5386 Apr 20 08:20 | 30° ♁ | | evening max el | 5387 Mar 18 13:39 | 16° ♁ 51'02 | 18°29'18 |
| min. Earth dist. | 5386 Apr 22 07:01 | 27° ♁ 56'42 | 0.62704 AU | retrograde | 5387 Mar 25 01:50 | 20° ♁ 24'07 | |
| morning rise | 5386 Apr 25 18:34 | 24° ♁ 48'28 | | evening set | 5387 Mar 28 04:27 | 19° ♁ 30'17 | |
| direct | 5386 May 02 14:45 | 22° ♁ 14'25 | | inferior conj | 5387 Apr 02 23:28 | 13° ♁ 59'03 | 3°32'08 |
| desc. node | 5386 May 04 20:28 | 22° ♁ 29'29 | | minimum elong | 5387 Apr 02 23:33 | 13° ♁ 58'48 | 3°32'08 |
| | 5386 May 16 09:36 | 0° ♁ | | min. Earth dist. | 5387 Apr 05 03:15 | 11° ♁ 26'27 | 0.64602 AU |
| morning max el | 5386 May 16 15:38 | 0° ♁ 15'01 | 27°51'06 | morning rise | 5387 Apr 08 17:56 | 7° ♁ 46'39 | |
| | 5386 Jun 07 07:55 | 0° ♁ | | direct | 5387 Apr 15 11:46 | 4° ♁ 58'34 | |
| morning set | 5386 Jun 19 17:46 | 22° ♁ 57'49 | | desc. node | 5387 Apr 21 17:31 | 6° ♁ 56'05 | |
| | 5386 Jun 23 03:39 | 0° ♁ | | morning max el | 5387 Apr 29 01:15 | 12° ♁ 54'23 | 27°21'26 |
| max. Earth dist. | 5386 Jun 25 03:54 | 4° ♁ 16'01 | 1.32499 AU | | 5387 May 12 18:25 | 0° ♁ | |
| asc. node | 5386 Jun 25 14:33 | 5° ♁ 13'09 | | | 5387 May 30 21:43 | 0° ♁ | |
| | | | | morning set | 5387 Jun 03 09:14 | 6° ♁ 39'05 | |
| superior conj | 5386 Jun 27 08:38 | 9° ♁ 00'24 | 0°18'10 | max. Earth dist. | 5387 Jun 08 02:16 | 16° ♁ 06'45 | 1.33452 AU |
| minimum elong | 5386 Jun 27 07:47 | 8° ♁ 55'47 | 0°17'58 | | | | |
| evening rise | 5386 Jul 04 06:52 | 24° ♁ 01'48 | | superior conj | 5387 Jun 11 13:03 | 23° ♁ 19'51 | -0°09'44 |
| | 5386 Jul 07 03:22 | 0° ♁ | | minimum elong | 5387 Jun 11 13:33 | 23° ♁ 22'30 | 0°09'38 |
| | 5386 Jul 25 16:45 | 0° ♁ | | behind sun begin | 5387 Jun 11 09:08 | 22° ♁ 59'05 | |
| evening max el | 5386 Jul 28 07:55 | 2° ♁ 45'07 | 23°49'55 | behind sun end | 5387 Jun 11 17:58 | 23° ♁ 45'57 | |
| desc. node | 5386 Jul 31 19:45 | 5° ♁ 44'41 | | asc. node | 5387 Jun 12 11:37 | 25° ♁ 19'42 | |
| retrograde | 5386 Aug 11 00:34 | 9° ♁ 38'01 | | | 5387 Jun 14 16:03 | 0° ♁ | |
| evening set | 5386 Aug 15 10:53 | 8° ♁ 54'46 | | evening rise | 5387 Jun 18 18:05 | 8° ♁ 42'35 | |
| min. Earth dist. | 5386 Aug 21 18:06 | 5° ♁ 52'59 | 0.56078 AU | | 5387 Jun 29 22:14 | 0° ♁ | |
| inferior conj | 5386 Aug 24 00:32 | 4° ♁ 30'30 | -5°12'28 | evening max el | 5387 Jul 09 22:17 | 13° ♁ 06'31 | 22°12'40 |
| minimum elong | 5386 Aug 23 21:00 | 4° ♁ 35'54 | 5°12'10 | desc. node | 5387 Jul 18 16:45 | 18° ♁ 51'03 | |
| morning rise | 5386 Sep 01 09:36 | 0° ♁ 34'23 | | retrograde | 5387 Jul 22 19:34 | 19° ♁ 30'28 | |
| direct | 5386 Sep 04 04:31 | 0° ♁ 14'41 | | evening set | 5387 Jul 25 18:26 | 19° ♁ 11'08 | |
| morning max el | 5386 Sep 14 07:59 | 4° ♁ 58'01 | 20°00'08 | min. Earth dist. | 5387 Aug 03 04:12 | 15° ♁ 33'19 | 0.54999 AU |
| asc. node | 5386 Sep 21 13:48 | 13° ♁ 59'15 | | inferior conj | 5387 Aug 03 23:47 | 15° ♁ 05'43 | -4°20'05 |
| | 5386 Sep 30 11:05 | 0° ♁ | | minimum elong | 5387 Aug 03 15:14 | 15° ♁ 17'48 | 4°18'06 |
| morning set | 5386 Oct 02 09:49 | 3° ♁ 55'15 | | morning rise | 5387 Aug 12 13:45 | 11° ♁ 15'51 | |
| | | | | direct | 5387 Aug 15 18:20 | 10° ♁ 53'04 | |
| superior conj | 5386 Oct 10 03:28 | 19° ♁ 39'30 | 1°40'25 | morning max el | 5387 Aug 27 12:27 | 16° ♁ 22'39 | 21°25'03 |
| minimum elong | 5386 Oct 10 04:50 | 19° ♁ 46'22 | 1°40'22 | | 5387 Sep 06 23:08 | 0° ♁ | |
| | 5386 Oct 15 10:38 | 0° ♁ | | asc. node | 5387 Sep 08 10:53 | 2° ♁ 32'12 | |
| max. Earth dist. | 5386 Oct 15 19:31 | 0° ♁ 42'04 | 1.36964 AU | morning set | 5387 Sep 16 18:36 | 18° ♁ 41'04 | |
| evening rise | 5386 Oct 19 14:36 | 7° ♁ 43'08 | | | 5387 Sep 22 03:50 | 0° ♁ | |
| desc. node | 5386 Oct 27 19:04 | 21° ♁ 48'30 | | | | | |
| | 5386 Nov 01 22:54 | 0° ♁ | | superior conj | 5387 Sep 24 01:37 | 3° ♁ 59'26 | 1°43'19 |
| evening max el | 5386 Nov 24 07:34 | 29° ♁ 02'37 | 25°40'44 | minimum elong | 5387 Sep 24 01:31 | 3° ♁ 58'51 | 1°43'19 |
| | 5386 Nov 25 07:40 | 0° ♁ | | max. Earth dist. | 5387 Sep 28 06:23 | 12° ♁ 34'00 | 1.35143 AU |
| retrograde | 5386 Dec 06 15:08 | 6° ♁ 06'02 | | evening rise | 5387 Oct 02 12:19 | 20° ♁ 50'58 | |
| evening set | 5386 Dec 12 15:08 | 3° ♁ 36'58 | | | 5387 Oct 07 11:53 | 0° ♁ | |
| | 5386 Dec 16 01:52 | 30° ♁ | | desc. node | 5387 Oct 14 16:05 | 12° ♁ 07'24 | |

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| | 5387 Oct 26 20:38 | 0°♊ | | desc. node | 5388 Sep 30 13:05 | 2°♍05'21 | |
| evening max el | 5387 Nov 06 20:22 | 12°♊43'50 | 26°39'36 | evening max el | 5388 Oct 19 08:59 | 26°♍12'38 | 27°17'11 |
| retrograde | 5387 Nov 19 20:36 | 19°♊59'26 | | | 5388 Oct 23 21:11 | 0°♊ | |
| evening set | 5387 Nov 26 09:11 | 17°♊21'54 | | retrograde | 5388 Nov 01 19:58 | 3°♊30'41 | |
| min. Earth dist. | 5387 Nov 30 10:52 | 13°♊13'16 | 0.66070 AU | evening set | 5388 Nov 08 18:43 | 0°♊51'26 | |
| inferior conj | 5387 Dec 02 05:46 | 11°♊05'56 | -1°04'52 | | 5388 Nov 09 19:52 | 30°♋♍ | |
| minimum elong | 5387 Dec 02 07:35 | 11°♊00'32 | 1°04'05 | min. Earth dist. | 5388 Nov 12 14:34 | 27°♍17'24 | 0.64693 AU |
| asc. node | 5387 Dec 05 10:05 | 7°♊34'47 | | inferior conj | 5388 Nov 14 21:20 | 24°♍48'48 | -2°07'58 |
| morning rise | 5387 Dec 08 06:48 | 5°♊23'23 | | minimum elong | 5388 Nov 15 01:04 | 24°♍38'39 | 2°06'27 |
| direct | 5387 Dec 11 04:17 | 4°♊36'37 | | morning rise | 5388 Nov 21 08:39 | 19°♍19'53 | |
| morning max el | 5387 Dec 17 18:00 | 8°♊10'23 | 18°24'15 | asc. node | 5388 Nov 21 07:09 | 19°♍21'34 | |
| | 5388 Jan 02 01:23 | 0°♊ | | direct | 5388 Nov 23 22:43 | 18°♍45'03 | |
| morning set | 5388 Jan 06 11:48 | 7°♊06'14 | | morning max el | 5388 Nov 30 10:03 | 22°♍10'34 | 17°57'58 |
| desc. node | 5388 Jan 10 15:21 | 13°♊44'10 | | | 5388 Dec 06 12:48 | 0°♊ | |
| | 5388 Jan 20 22:13 | 0°♋ | | morning set | 5388 Dec 17 21:16 | 18°♊29'45 | |
| | | | | | 5388 Dec 24 19:30 | 0°♊ | |
| superior conj | 5388 Jan 22 03:22 | 1°♋54'23 | -1°14'26 | desc. node | 5388 Dec 27 12:22 | 4°♊24'58 | |
| minimum elong | 5388 Jan 21 18:43 | 1°♋20'25 | 1°13'24 | | | | |
| max. Earth dist. | 5388 Jan 23 03:21 | 3°♋28'25 | 1.45348 AU | superior conj | 5388 Dec 31 14:41 | 11°♊01'26 | -0°28'21 |
| evening rise | 5388 Feb 07 03:33 | 27°♋01'04 | | minimum elong | 5388 Dec 31 11:16 | 10°♊47'45 | 0°27'51 |
| | 5388 Feb 09 00:58 | 0°♋ | | max. Earth dist. | 5389 Jan 04 22:47 | 17°♊55'03 | 1.44970 AU |
| greatest brilliancy | 5388 Feb 17 08:47 | 13°♋03'39 | -0.8m | | 5389 Jan 12 16:18 | 0°♋ | |
| | 5388 Feb 29 14:37 | 0°♋ | | evening rise | 5389 Jan 16 19:29 | 6°♋23'01 | |
| evening max el | 5388 Feb 29 23:11 | 0°♋22'12 | 19°06'47 | greatest brilliancy | 5389 Jan 31 05:59 | 28°♋15'47 | -0.6m |
| asc. node | 5388 Mar 02 09:21 | 1°♋42'55 | | | 5389 Feb 01 10:29 | 0°♋ | |
| retrograde | 5388 Mar 07 21:22 | 4°♋17'06 | | evening max el | 5389 Feb 12 04:08 | 13°♋55'54 | 20°00'13 |
| evening set | 5388 Mar 11 06:59 | 3°♋09'50 | | asc. node | 5389 Feb 17 06:23 | 17°♋48'04 | |
| | 5388 Mar 14 16:38 | 30°♋♋ | | retrograde | 5389 Feb 19 19:16 | 18°♋22'11 | |
| inferior conj | 5388 Mar 16 19:53 | 27°♋22'20 | 3°26'19 | evening set | 5389 Feb 23 13:02 | 17°♋00'37 | |
| minimum elong | 5388 Mar 16 18:41 | 27°♋26'11 | 3°26'13 | inferior conj | 5389 Feb 28 22:26 | 10°♋58'53 | 3°08'01 |
| min. Earth dist. | 5388 Mar 18 08:13 | 25°♋26'33 | 0.66120 AU | minimum elong | 5389 Feb 28 20:24 | 11°♋05'43 | 3°07'39 |
| morning rise | 5388 Mar 22 06:00 | 21°♋07'36 | | min. Earth dist. | 5389 Mar 01 20:18 | 9°♋45'26 | 0.67206 AU |
| direct | 5388 Mar 28 15:29 | 18°♋18'59 | | morning rise | 5389 Mar 06 03:33 | 4°♋44'14 | |
| desc. node | 5388 Apr 07 14:34 | 23°♋14'17 | | direct | 5389 Mar 12 00:44 | 2°♋06'29 | |
| morning max el | 5388 Apr 10 11:11 | 25°♋56'07 | 26°22'42 | morning max el | 5389 Mar 23 20:08 | 9°♋10'07 | 25°04'11 |
| | 5388 Apr 14 04:53 | 0°♋ | | desc. node | 5389 Mar 25 11:36 | 10°♋53'32 | |
| | 5388 May 05 07:34 | 0°♋ | | | 5389 Apr 09 06:04 | 0°♋ | |
| morning set | 5388 May 16 12:40 | 19°♋41'52 | | | 5389 Apr 27 21:56 | 0°♋ | |
| max. Earth dist. | 5388 May 20 13:37 | 27°♋26'56 | 1.34881 AU | morning set | 5389 Apr 28 23:22 | 1°♋53'04 | |
| | 5388 May 21 20:37 | 0°♌ | | max. Earth dist. | 5389 May 02 14:35 | 8°♋30'19 | 1.36740 AU |
| | | | | | | | |
| superior conj | 5388 May 25 10:46 | 7°♌15'16 | -0°39'22 | superior conj | 5389 May 08 22:50 | 20°♋38'51 | -1°09'12 |
| minimum elong | 5388 May 25 12:56 | 7°♌26'22 | 0°38'58 | minimum elong | 5389 May 09 02:42 | 20°♋57'51 | 1°08'35 |
| asc. node | 5388 May 29 08:39 | 15°♌21'57 | | | 5389 May 13 15:11 | 0°♌ | |
| evening rise | 5388 Jun 02 02:47 | 23°♌11'29 | | asc. node | 5389 May 16 05:40 | 5°♌15'53 | |
| | 5388 Jun 05 11:12 | 0°♌ | | evening rise | 5389 May 17 06:42 | 7°♌22'05 | |
| evening max el | 5388 Jun 20 22:03 | 23°♌51'43 | 20°45'04 | | 5389 May 29 23:26 | 0°♌ | |
| retrograde | 5388 Jul 02 07:49 | 29°♌27'46 | | evening max el | 5389 Jun 03 10:20 | 5°♌17'47 | 19°35'08 |
| evening set | 5388 Jul 04 09:52 | 29°♌17'18 | | retrograde | 5389 Jun 13 02:28 | 10°♌01'36 | |
| desc. node | 5388 Jul 04 13:47 | 29°♌15'38 | | evening set | 5389 Jun 15 00:37 | 9°♌51'12 | |
| inferior conj | 5388 Jul 13 16:51 | 25°♌20'25 | -2°40'27 | desc. node | 5389 Jun 21 10:48 | 7°♌12'25 | |
| minimum elong | 5388 Jul 13 09:33 | 25°♌30'49 | 2°37'58 | inferior conj | 5389 Jun 23 18:25 | 5°♌46'51 | -0°41'38 |
| min. Earth dist. | 5388 Jul 14 15:11 | 24°♌48'33 | 0.54829 AU | minimum elong | 5389 Jun 23 16:32 | 5°♌49'50 | 0°40'56 |
| morning rise | 5388 Jul 22 08:51 | 21°♌17'37 | | min. Earth dist. | 5389 Jun 26 04:12 | 4°♌15'46 | 0.55620 AU |
| direct | 5388 Jul 26 03:37 | 20°♌46'52 | | morning rise | 5389 Jul 02 06:01 | 1°♌13'44 | |
| morning max el | 5388 Aug 08 06:37 | 27°♌05'25 | 23°05'12 | direct | 5389 Jul 06 20:29 | 0°♌26'27 | |
| | 5388 Aug 11 02:48 | 0°♌ | | morning max el | 5389 Jul 20 20:10 | 7°♌26'41 | 24°48'52 |
| asc. node | 5388 Aug 25 07:55 | 21°♌37'59 | | | 5389 Aug 06 07:33 | 0°♌ | |
| | 5388 Aug 29 12:57 | 0°♍ | | asc. node | 5389 Aug 12 04:57 | 11°♌08'08 | |
| morning set | 5388 Aug 31 05:42 | 3°♍32'40 | | morning set | 5389 Aug 15 17:27 | 18°♌25'11 | |
| | | | | | 5389 Aug 21 01:42 | 0°♍ | |
| superior conj | 5388 Sep 07 06:33 | 18°♍38'11 | 1°39'28 | | | | |
| minimum elong | 5388 Sep 07 05:16 | 18°♍31'20 | 1°39'23 | superior conj | 5389 Aug 22 15:44 | 3°♍28'03 | 1°29'50 |
| max. Earth dist. | 5388 Sep 10 02:03 | 24°♍36'19 | 1.33698 AU | minimum elong | 5389 Aug 22 13:42 | 3°♍17'01 | 1°29'36 |
| | 5388 Sep 12 16:36 | 0°♎ | | max. Earth dist. | 5389 Aug 24 05:58 | 6°♍56'19 | 1.32677 AU |
| evening rise | 5388 Sep 14 23:39 | 4°♎36'41 | | evening rise | 5389 Aug 29 20:58 | 18°♍50'07 | |
| | 5388 Sep 29 05:12 | 0°♎ | | | 5389 Sep 04 13:25 | 0°♎ | |

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| desc. node | 5389 Sep 17 10:04 | 21°♄33'29 | | desc. node | 5390 Sep 04 07:06 | 10°♄19'34 | |
| | 5389 Sep 23 13:02 | 0°♍ | | evening max el | 5390 Sep 14 01:14 | 21°♄40'06 | 27°03'58 |
| evening max el | 5389 Oct 01 19:29 | 9°♍15'49 | 27°26'49 | retrograde | 5390 Sep 27 22:12 | 28°♄51'42 | |
| retrograde | 5389 Oct 15 12:42 | 16°♍31'11 | | evening set | 5390 Oct 04 23:25 | 26°♄39'35 | |
| evening set | 5389 Oct 22 16:46 | 13°♍59'36 | | min. Earth dist. | 5390 Oct 08 15:36 | 23°♄58'30 | 0.61021 AU |
| min. Earth dist. | 5389 Oct 26 08:28 | 10°♍56'36 | 0.62990 AU | inferior conj | 5390 Oct 11 19:03 | 21°♄16'46 | -4°11'23 |
| inferior conj | 5389 Oct 29 02:51 | 8°♍15'10 | -3°11'45 | minimum elong | 5390 Oct 12 01:27 | 21°♄03'02 | 4°09'44 |
| minimum elong | 5389 Oct 29 08:22 | 8°♍01'42 | 3°09'51 | morning rise | 5390 Oct 19 05:29 | 16°♄25'42 | |
| morning rise | 5389 Nov 05 01:36 | 3°♍03'28 | | direct | 5390 Oct 21 12:52 | 16°♄04'17 | |
| direct | 5389 Nov 07 10:52 | 2°♍36'54 | | asc. node | 5390 Oct 26 01:13 | 17°♄30'00 | |
| asc. node | 5389 Nov 08 04:11 | 2°♍39'24 | | morning max el | 5390 Oct 28 17:10 | 19°♄39'04 | 17°59'17 |
| morning max el | 5389 Nov 14 02:49 | 6°♍02'44 | 17°49'18 | | 5390 Nov 05 08:02 | 0°♍ | |
| | 5389 Nov 29 16:37 | 0°♎ | | morning set | 5390 Nov 13 10:47 | 14°♍28'16 | |
| morning set | 5389 Nov 30 07:04 | 1°♎03'32 | | | 5390 Nov 21 23:21 | 0°♎ | |
| superior conj | 5389 Dec 12 01:13 | 21°♎17'55 | 0°16'30 | superior conj | 5390 Nov 23 14:13 | 2°♎51'49 | 0°53'01 |
| minimum elong | 5389 Dec 12 02:52 | 21°♎24'46 | 0°16'16 | minimum elong | 5390 Nov 23 17:59 | 3°♎08'25 | 0°52'32 |
| desc. node | 5389 Dec 14 09:22 | 25°♎10'32 | | max. Earth dist. | 5390 Dec 01 04:34 | 15°♎50'14 | 1.42253 AU |
| | 5389 Dec 17 08:17 | 0°♏ | | desc. node | 5390 Dec 01 06:23 | 15°♎57'45 | |
| max. Earth dist. | 5389 Dec 18 16:02 | 2°♏08'04 | 1.43896 AU | evening rise | 5390 Dec 07 02:13 | 25°♎24'58 | |
| evening rise | 5389 Dec 27 05:48 | 15°♏38'08 | | | 5390 Dec 10 00:06 | 0°♏ | |
| | 5390 Jan 05 17:09 | 0°♐ | | | 5390 Dec 30 14:51 | 0°♐ | |
| evening max el | 5390 Jan 26 03:30 | 27°♐30'09 | 21°06'50 | evening max el | 5391 Jan 08 21:43 | 11°♐06'29 | 22°22'42 |
| | 5390 Jan 28 20:51 | 0°♑ | | retrograde | 5391 Jan 18 13:53 | 16°♐51'39 | |
| retrograde | 5390 Feb 03 17:21 | 2°♑34'44 | | asc. node | 5391 Jan 22 00:26 | 15°♐49'38 | |
| asc. node | 5390 Feb 04 03:25 | 2°♑33'47 | | evening set | 5391 Jan 23 04:14 | 14°♐59'36 | |
| evening set | 5390 Feb 07 20:40 | 0°♑58'07 | | inferior conj | 5391 Jan 28 12:41 | 8°♐37'48 | 2°02'33 |
| | 5390 Feb 08 22:57 | 30°♒ | | minimum elong | 5391 Jan 28 10:25 | 8°♐45'41 | 2°01'48 |
| inferior conj | 5390 Feb 13 04:43 | 24°♒44'41 | 2°39'34 | min. Earth dist. | 5391 Jan 28 09:42 | 8°♐48'12 | 0.68133 AU |
| minimum elong | 5390 Feb 13 02:19 | 24°♒52'56 | 2°38'57 | morning rise | 5391 Feb 02 16:29 | 2°♒27'51 | |
| min. Earth dist. | 5390 Feb 13 13:32 | 24°♒14'12 | 0.67870 AU | direct | 5391 Feb 07 08:47 | 0°♒30'32 | |
| morning rise | 5390 Feb 18 07:49 | 18°♒31'42 | | morning max el | 5391 Feb 16 16:36 | 5°♒58'59 | 22°07'34 |
| direct | 5390 Feb 23 14:44 | 16°♒12'18 | | desc. node | 5391 Feb 27 05:38 | 18°♒49'09 | |
| morning max el | 5390 Mar 06 04:58 | 22°♒30'39 | 23°35'53 | | 5391 Mar 07 02:46 | 0°♓ | |
| desc. node | 5390 Mar 12 08:37 | 29°♒30'23 | | morning set | 5391 Mar 21 19:43 | 22°♓39'55 | |
| | 5390 Mar 12 18:07 | 0°♓ | | | 5391 Mar 26 07:02 | 0°♓ | |
| | 5390 Apr 02 14:12 | 0°♓ | | max. Earth dist. | 5391 Mar 27 07:46 | 1°♓43'24 | 1.41068 AU |
| morning set | 5390 Apr 10 11:25 | 12°♓56'14 | | superior conj | 5391 Apr 04 02:01 | 15°♓07'42 | -1°58'21 |
| max. Earth dist. | 5390 Apr 14 10:17 | 19°♓45'52 | 1.38883 AU | minimum elong | 5391 Apr 04 06:32 | 15°♓27'43 | 1°58'03 |
| | 5390 Apr 20 02:31 | 0°♔ | | | 5391 Apr 12 05:46 | 0°♔ | |
| superior conj | 5390 Apr 21 21:26 | 3°♔19'43 | -1°36'45 | evening rise | 5391 Apr 14 12:18 | 4°♔13'57 | |
| minimum elong | 5390 Apr 22 02:26 | 3°♔43'11 | 1°36'09 | asc. node | 5391 Apr 19 23:42 | 14°♔17'58 | |
| evening rise | 5390 May 01 03:00 | 21°♔05'39 | | evening max el | 5391 Apr 30 17:05 | 0°♕03'56 | 18°16'09 |
| asc. node | 5390 May 03 02:41 | 24°♔56'14 | | | 5391 Apr 30 15:29 | 0°♕ | |
| | 5390 May 05 18:50 | 0°♖ | | retrograde | 5391 May 07 19:57 | 3°♕37'39 | |
| evening max el | 5390 May 17 09:44 | 17°♖24'07 | 18°45'29 | evening set | 5391 May 10 05:52 | 3°♕13'57 | |
| retrograde | 5390 May 25 13:49 | 21°♖25'17 | | | 5391 May 15 15:16 | 30°♗ | |
| evening set | 5390 May 27 16:43 | 21°♖10'01 | | inferior conj | 5391 May 17 08:59 | 28°♗32'22 | 2°20'18 |
| inferior conj | 5390 Jun 04 14:54 | 16°♖48'33 | 1°03'59 | minimum elong | 5391 May 17 12:26 | 28°♗24'54 | 2°19'21 |
| minimum elong | 5390 Jun 04 17:13 | 16°♖44'16 | 1°03'10 | min. Earth dist. | 5391 May 20 19:03 | 25°♗36'45 | 0.59273 AU |
| min. Earth dist. | 5390 Jun 07 20:51 | 14°♖25'52 | 0.57203 AU | morning rise | 5391 May 24 16:05 | 22°♗52'49 | |
| desc. node | 5390 Jun 08 07:50 | 14°♖06'48 | | desc. node | 5391 May 26 04:51 | 22°♗06'32 | |
| morning rise | 5390 Jun 12 14:23 | 11°♖38'51 | | direct | 5391 May 30 23:31 | 21°♗03'47 | |
| direct | 5390 Jun 18 02:59 | 10°♖24'08 | | morning max el | 5391 Jun 14 08:47 | 28°♗53'40 | 27°24'10 |
| morning max el | 5390 Jul 02 11:37 | 17°♖54'50 | 26°20'09 | | 5391 Jun 15 11:04 | 0°♘ | |
| | 5390 Jul 12 12:55 | 0°♙ | | | 5391 Jul 06 08:33 | 0°♙ | |
| | 5390 Jul 29 15:19 | 0°♚ | | morning set | 5391 Jul 15 12:20 | 17°♙51'04 | |
| asc. node | 5390 Jul 30 01:58 | 0°♚55'16 | | asc. node | 5391 Jul 16 22:59 | 20°♙53'56 | |
| morning set | 5390 Jul 31 04:13 | 3°♚13'04 | | | 5391 Jul 21 03:38 | 0°♚ | |
| | | | | max. Earth dist. | 5391 Jul 22 02:27 | 2°♚05'44 | 1.31901 AU |
| superior conj | 5390 Aug 07 03:06 | 18°♚22'03 | 1°15'09 | superior conj | 5391 Jul 22 14:52 | 3°♚14'17 | 0°56'01 |
| minimum elong | 5390 Aug 07 00:48 | 18°♚09'22 | 1°14'48 | minimum elong | 5391 Jul 22 12:45 | 3°♚02'39 | 0°55'37 |
| max. Earth dist. | 5390 Aug 07 15:16 | 19°♚29'13 | 1.32078 AU | evening rise | 5391 Jul 29 10:02 | 18°♚05'12 | |
| | 5390 Aug 12 11:04 | 0°♛ | | | 5391 Aug 04 06:36 | 0°♛ | |
| evening rise | 5390 Aug 14 01:14 | 3°♛22'04 | | desc. node | 5391 Aug 22 04:07 | 28°♛06'17 | |
| | 5390 Aug 28 08:30 | 0°♜ | | | | | |

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| | 5391 Aug 23 19:42 | 0°♄ | | | 5392 Jul 27 10:24 | 0°♊ | |
| evening max el | 5391 Aug 26 23:59 | 3°♄16'35 | 26°08'03 | evening max el | 5392 Aug 07 15:38 | 14°♊07'26 | 24°45'07 |
| retrograde | 5391 Sep 09 23:08 | 10°♄24'13 | | desc. node | 5392 Aug 08 01:09 | 14°♊29'59 | |
| evening set | 5391 Sep 16 09:46 | 8°♄43'39 | | retrograde | 5392 Aug 21 13:05 | 21°♊07'55 | |
| min. Earth dist. | 5391 Sep 20 12:55 | 6°♄08'42 | 0.58943 AU | evening set | 5392 Aug 26 19:55 | 20°♊05'06 | |
| inferior conj | 5391 Sep 23 18:27 | 3°♄43'56 | -4°58'25 | min. Earth dist. | 5392 Sep 01 02:58 | 17°♊17'51 | 0.57007 AU |
| minimum elong | 5391 Sep 23 23:29 | 3°♄34'30 | 4°57'40 | inferior conj | 5392 Sep 03 22:15 | 15°♊28'33 | -5°19'09 |
| | 5391 Sep 29 14:17 | 30°♋♊ | | minimum elong | 5392 Sep 03 22:33 | 15°♊28'04 | 5°19'09 |
| morning rise | 5391 Oct 01 15:27 | 29°♊15'31 | | morning rise | 5392 Sep 12 03:31 | 11°♊21'55 | |
| direct | 5391 Oct 04 00:27 | 28°♊56'30 | | direct | 5392 Sep 14 17:59 | 11°♊02'56 | |
| | 5391 Oct 08 05:27 | 0°♄ | | morning max el | 5392 Sep 24 00:49 | 15°♊24'59 | 19°20'31 |
| morning max el | 5391 Oct 12 01:37 | 2°♄49'41 | 18°29'12 | asc. node | 5392 Sep 28 19:19 | 20°♊59'41 | |
| asc. node | 5391 Oct 12 22:16 | 3°♄41'41 | | | 5392 Oct 04 10:33 | 0°♄ | |
| morning set | 5391 Oct 28 03:02 | 28°♄27'54 | | morning set | 5392 Oct 11 03:54 | 12°♄52'03 | |
| | 5391 Oct 28 22:08 | 0°♌ | | | | | |
| superior conj | 5391 Nov 06 01:37 | 15°♌30'21 | 1°19'07 | superior conj | 5392 Oct 19 06:07 | 28°♄58'44 | 1°35'12 |
| minimum elong | 5391 Nov 06 05:12 | 15°♌46'56 | 1°18'45 | minimum elong | 5392 Oct 19 08:24 | 29°♄09'49 | 1°35'03 |
| max. Earth dist. | 5391 Nov 13 11:45 | 28°♌49'25 | 1.40251 AU | | 5392 Oct 19 18:43 | 0°♌ | |
| | 5391 Nov 14 04:06 | 0°♌ | | max. Earth dist. | 5392 Oct 25 16:37 | 11°♌09'20 | 1.38142 AU |
| evening rise | 5391 Nov 17 19:06 | 6°♌08'02 | | evening rise | 5392 Oct 29 10:52 | 17°♌53'28 | |
| desc. node | 5391 Nov 18 03:24 | 6°♌42'31 | | desc. node | 5392 Nov 04 00:26 | 27°♌21'11 | |
| | 5391 Dec 03 03:15 | 0°♊ | | | 5392 Nov 05 15:19 | 0°♌ | |
| evening max el | 5391 Dec 22 12:15 | 24°♊46'07 | 23°42'40 | evening max el | 5392 Nov 26 11:35 | 0°♊ | |
| | 5391 Dec 29 03:56 | 0°♋ | | retrograde | 5392 Dec 04 01:14 | 8°♊29'46 | 25°00'08 |
| retrograde | 5392 Jan 02 07:23 | 1°♋08'22 | | evening set | 5392 Dec 15 20:42 | 15°♊20'31 | |
| | 5392 Jan 06 01:59 | 30°♋♊ | | asc. node | 5392 Dec 21 12:55 | 12°♊58'52 | |
| evening set | 5392 Jan 07 10:11 | 29°♊00'58 | | min. Earth dist. | 5392 Dec 25 18:33 | 8°♊17'14 | |
| asc. node | 5392 Jan 08 21:29 | 27°♊36'04 | | inferior conj | 5392 Dec 26 01:24 | 7°♊54'56 | 0.67545 AU |
| inferior conj | 5392 Jan 12 20:31 | 22°♊34'51 | 1°18'02 | minimum elong | 5392 Dec 27 02:23 | 6°♊32'58 | 0°26'53 |
| minimum elong | 5392 Jan 12 18:49 | 22°♊40'38 | 1°17'24 | morning rise | 5392 Dec 27 01:43 | 6°♊35'08 | 0°26'37 |
| min. Earth dist. | 5392 Jan 12 06:27 | 23°♊22'50 | 0.68019 AU | | 5393 Jan 01 14:43 | 0°♊34'40 | |
| morning rise | 5392 Jan 18 03:26 | 16°♊29'41 | | direct | 5393 Jan 02 14:01 | 30°♋♌ | |
| direct | 5392 Jan 22 05:49 | 14°♊55'00 | | | 5393 Jan 05 04:31 | 29°♌21'05 | |
| morning max el | 5392 Jan 30 10:22 | 19°♊37'30 | 20°47'04 | morning max el | 5393 Jan 07 21:52 | 0°♊ | |
| | 5392 Feb 07 23:41 | 0°♋ | | greatest brilliancy | 5393 Jan 12 12:04 | 3°♊27'30 | 19°39'22 |
| desc. node | 5392 Feb 14 02:41 | 8°♋37'54 | | desc. node | 5393 Jan 25 12:33 | 20°♊35'48 | -0.7m |
| | 5392 Feb 28 07:09 | 0°♋ | | | 5393 Jan 30 23:43 | 28°♊48'20 | |
| morning set | 5392 Feb 29 01:41 | 1°♋12'07 | | morning set | 5393 Jan 31 18:34 | 0°♋ | |
| max. Earth dist. | 5392 Mar 08 11:55 | 14°♋35'28 | 1.43008 AU | max. Earth dist. | 5393 Feb 06 22:09 | 9°♋25'36 | |
| | | | | | 5393 Feb 18 23:57 | 28°♋17'42 | 1.44454 AU |
| | | | | | 5393 Feb 20 01:42 | 0°♋ | |
| superior conj | 5392 Mar 15 07:47 | 25°♋52'17 | -2°08'58 | | | | |
| minimum elong | 5392 Mar 15 08:47 | 25°♋56'29 | 2°08'57 | superior conj | 5393 Feb 23 12:04 | 5°♋29'38 | -2°02'56 |
| | 5392 Mar 17 18:12 | 0°♎ | | minimum elong | 5393 Feb 23 06:48 | 5°♋08'26 | 2°02'41 |
| evening rise | 5392 Mar 27 06:27 | 16°♎37'33 | | evening rise | 5393 Mar 09 04:59 | 28°♋08'08 | |
| | 5392 Apr 03 21:35 | 0°♌ | | | 5393 Mar 10 07:28 | 0°♎ | |
| asc. node | 5392 Apr 05 20:44 | 3°♌14'39 | | asc. node | 5393 Mar 23 17:47 | 21°♎38'13 | |
| evening max el | 5392 Apr 13 04:51 | 13°♌07'59 | 18°06'28 | evening max el | 5393 Mar 27 17:49 | 26°♎27'40 | 18°15'43 |
| retrograde | 5392 Apr 19 18:01 | 16°♌30'09 | | retrograde | 5393 Apr 03 03:37 | 29°♎52'50 | |
| evening set | 5392 Apr 22 10:42 | 15°♌55'39 | | evening set | 5393 Apr 06 02:40 | 29°♎06'08 | |
| inferior conj | 5392 Apr 28 22:14 | 10°♌53'48 | 3°06'40 | inferior conj | 5393 Apr 12 02:37 | 23°♎45'04 | 3°28'26 |
| minimum elong | 5392 Apr 29 00:48 | 10°♌47'24 | 3°06'13 | minimum elong | 5393 Apr 12 03:37 | 23°♎42'18 | 3°28'22 |
| min. Earth dist. | 5392 May 02 00:40 | 7°♌50'13 | 0.61486 AU | min. Earth dist. | 5393 Apr 14 15:15 | 20°♎56'28 | 0.63557 AU |
| morning rise | 5392 May 05 12:59 | 4°♌55'18 | | morning rise | 5393 Apr 18 03:32 | 17°♎36'12 | |
| direct | 5392 May 12 07:16 | 2°♌34'42 | | direct | 5393 Apr 24 23:44 | 14°♎54'33 | |
| desc. node | 5392 May 12 01:54 | 2°♌34'50 | | desc. node | 5393 Apr 28 22:57 | 15°♎42'04 | |
| morning max el | 5392 May 26 12:07 | 10°♌33'45 | 27°52'11 | morning max el | 5393 May 08 20:06 | 22°♎53'45 | 27°42'34 |
| | 5392 Jun 10 15:56 | 0°♏ | | | 5393 May 15 03:00 | 0°♌ | |
| | 5392 Jun 27 13:46 | 0°♏ | | | 5393 Jun 03 22:05 | 0°♏ | |
| morning set | 5392 Jun 28 15:56 | 2°♏13'11 | | morning set | 5393 Jun 12 12:35 | 16°♏11'24 | |
| asc. node | 5392 Jul 02 20:02 | 10°♏59'23 | | max. Earth dist. | 5393 Jun 17 15:16 | 26°♏41'40 | 1.32847 AU |
| max. Earth dist. | 5392 Jul 04 11:44 | 14°♏34'01 | 1.32149 AU | | 5393 Jun 19 04:37 | 0°♏ | |
| | | | | asc. node | 5393 Jun 19 17:03 | 1°♏06'33 | |
| superior conj | 5392 Jul 06 01:17 | 17°♏58'56 | 0°33'00 | | | | |
| minimum elong | 5392 Jul 05 23:50 | 17°♏51'02 | 0°32'41 | superior conj | 5393 Jun 20 08:26 | 2°♏29'07 | 0°06'40 |
| | 5392 Jul 11 13:06 | 0°♏ | | minimum elong | 5393 Jun 20 08:07 | 2°♏27'23 | 0°06'34 |
| evening rise | 5392 Jul 12 21:18 | 2°♏52'56 | | behind sun begin | 5393 Jun 20 03:14 | 2°♏01'07 | |

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|---------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| behind sun end | 5393 Jun 20 13:00 | 2°☿53'40 | | superior conj | 5394 Jun 04 10:17 | 16°♊39'09 | -0°22'09 |
| evening rise | 5393 Jun 27 09:04 | 17°☿37'58 | | minimum elong | 5394 Jun 04 11:28 | 16°♊45'20 | 0°21'56 |
| | 5393 Jul 03 11:14 | 0°♊ | | asc. node | 5394 Jun 06 14:06 | 21°♊11'54 | |
| evening max el | 5393 Jul 20 04:06 | 24°♊29'38 | 23°08'13 | | 5394 Jun 10 17:49 | 0°☿ | |
| desc. node | 5393 Jul 25 22:11 | 28°♊58'15 | | evening rise | 5394 Jun 11 19:28 | 2°☿14'45 | |
| | 5393 Jul 27 23:18 | 0°♊ | | | 5394 Jun 27 13:15 | 0°♊ | |
| retrograde | 5393 Aug 02 14:10 | 1°♊12'07 | | evening max el | 5394 Jul 01 21:30 | 4°♊56'52 | 21°33'28 |
| evening set | 5393 Aug 06 08:46 | 0°♊40'59 | | desc. node | 5394 Jul 12 19:11 | 10°♊57'43 | |
| | 5393 Aug 08 10:05 | 30°♊♊ | | retrograde | 5394 Jul 14 05:07 | 11°♊02'27 | |
| min. Earth dist. | 5393 Aug 13 13:06 | 27°♊25'44 | 0.55525 AU | evening set | 5394 Jul 16 16:59 | 10°♊48'15 | |
| inferior conj | 5393 Aug 15 06:17 | 26°♊25'52 | -4°56'49 | inferior conj | 5394 Jul 26 01:02 | 6°♊47'54 | -3°42'20 |
| minimum elong | 5393 Aug 15 00:04 | 26°♊34'57 | 4°55'54 | minimum elong | 5394 Jul 25 16:11 | 7°♊00'17 | 3°39'49 |
| morning rise | 5393 Aug 23 17:38 | 22°♊34'27 | | min. Earth dist. | 5394 Jul 25 22:58 | 6°♊50'48 | 0.54811 AU |
| direct | 5393 Aug 26 16:37 | 22°♊13'36 | | morning rise | 5394 Aug 03 16:29 | 2°♊55'30 | |
| morning max el | 5393 Sep 06 12:08 | 27°♊15'26 | 20°33'52 | direct | 5394 Aug 07 02:25 | 2°♊30'12 | |
| | 5393 Sep 09 03:27 | 0°♊ | | morning max el | 5394 Aug 19 11:39 | 8°♊20'11 | 22°06'27 |
| asc. node | 5393 Sep 15 16:22 | 9°♊08'32 | | asc. node | 5394 Sep 02 13:23 | 27°♊56'11 | |
| morning set | 5393 Sep 25 10:26 | 27°♊31'45 | | | 5394 Sep 03 16:12 | 0°♊ | |
| | 5393 Sep 26 15:13 | 0°♊ | | morning set | 5394 Sep 09 20:23 | 12°♊20'33 | |
| superior conj | 5393 Oct 02 22:55 | 13°♊02'53 | 1°42'32 | superior conj | 5394 Sep 17 00:16 | 27°♊31'40 | 1°42'27 |
| minimum elong | 5393 Oct 02 23:38 | 13°♊06'32 | 1°42'31 | minimum elong | 5394 Sep 16 23:37 | 27°♊28'14 | 1°42'25 |
| max. Earth dist. | 5393 Oct 08 00:11 | 23°♊06'06 | 1.36156 AU | | 5394 Sep 18 04:32 | 0°♊ | |
| evening rise | 5393 Oct 11 22:47 | 0°♊33'45 | | max. Earth dist. | 5394 Sep 20 14:41 | 5°♊00'41 | 1.34476 AU |
| | 5393 Oct 11 15:30 | 0°♊ | | evening rise | 5394 Sep 25 02:43 | 13°♊58'26 | |
| desc. node | 5393 Oct 21 21:27 | 17°♊48'54 | | | 5394 Oct 03 21:56 | 0°♊ | |
| | 5393 Oct 29 18:49 | 0°♊ | | desc. node | 5394 Oct 08 18:28 | 7°♊59'51 | |
| evening max el | 5393 Nov 16 13:59 | 22°♊13'54 | 26°07'54 | | 5394 Oct 24 15:17 | 0°♊ | |
| retrograde | 5393 Nov 29 05:03 | 29°♊22'54 | | evening max el | 5394 Oct 30 02:40 | 5°♊50'33 | 26°58'33 |
| evening set | 5393 Dec 05 10:41 | 26°♊49'37 | | retrograde | 5394 Nov 12 07:54 | 13°♊08'12 | |
| min. Earth dist. | 5393 Dec 09 16:10 | 22°♊20'54 | 0.66715 AU | evening set | 5394 Nov 19 01:25 | 10°♊28'37 | |
| inferior conj | 5393 Dec 11 04:24 | 20°♊28'48 | -0°30'00 | min. Earth dist. | 5394 Nov 23 00:24 | 6°♊35'16 | 0.65528 AU |
| minimum elong | 5393 Dec 11 05:12 | 20°♊26'18 | 0°29'38 | inferior conj | 5394 Nov 25 00:27 | 4°♊17'49 | -1°31'21 |
| asc. node | 5393 Dec 12 15:36 | 18°♊41'52 | | minimum elong | 5394 Nov 25 03:04 | 4°♊10'19 | 1°30'15 |
| morning rise | 5393 Dec 17 00:15 | 14°♊39'52 | | | 5394 Nov 29 05:32 | 30°♊♊ | |
| direct | 5393 Dec 20 03:10 | 13°♊44'20 | | asc. node | 5394 Nov 29 12:39 | 29°♊46'01 | |
| morning max el | 5393 Dec 26 21:11 | 17°♊26'35 | 18°46'59 | morning rise | 5394 Dec 01 05:42 | 28°♊41'01 | |
| | 5394 Jan 05 11:17 | 0°♊ | | direct | 5394 Dec 03 23:45 | 27°♊59'50 | |
| morning set | 5394 Jan 17 10:10 | 18°♊32'53 | | | 5394 Dec 08 19:55 | 0°♊ | |
| desc. node | 5394 Jan 17 20:44 | 19°♊14'24 | | morning max el | 5394 Dec 10 11:33 | 1°♊28'44 | 18°11'00 |
| | 5394 Jan 24 17:22 | 0°♊ | | morning set | 5394 Dec 29 02:58 | 29°♊07'27 | |
| max. Earth dist. | 5394 Feb 01 17:31 | 12°♊32'47 | 1.45233 AU | | 5394 Dec 29 15:52 | 0°♊ | |
| | | | | desc. node | 5395 Jan 04 17:44 | 9°♊51'01 | |
| superior conj | 5394 Feb 02 19:57 | 14°♊16'35 | -1°37'05 | superior conj | 5395 Jan 13 00:07 | 23°♊00'30 | -0°55'23 |
| minimum elong | 5394 Feb 02 10:33 | 13°♊39'38 | 1°36'10 | minimum elong | 5395 Jan 12 17:20 | 22°♊33'45 | 0°54'30 |
| | 5394 Feb 12 18:29 | 0°♊ | | max. Earth dist. | 5395 Jan 15 12:53 | 26°♊59'29 | 1.45274 AU |
| evening rise | 5394 Feb 18 04:39 | 8°♊41'49 | | | 5395 Jan 17 10:57 | 0°♊ | |
| greatest brilliancy | 5394 Feb 24 20:10 | 19°♊24'25 | -0.9m | evening rise | 5395 Jan 29 06:08 | 18°♊23'49 | |
| | 5394 Mar 03 14:31 | 0°♊ | | | 5395 Feb 05 17:35 | 0°♊ | |
| asc. node | 5394 Mar 10 14:51 | 9°♊18'38 | | greatest brilliancy | 5395 Feb 10 11:54 | 7°♊17'18 | -0.7m |
| evening max el | 5394 Mar 11 05:14 | 9°♊56'15 | 18°43'10 | evening max el | 5395 Feb 22 12:52 | 23°♊28'17 | 19°27'40 |
| retrograde | 5394 Mar 17 20:39 | 13°♊37'15 | | asc. node | 5395 Feb 25 11:53 | 26°♊02'32 | |
| evening set | 5394 Mar 21 02:11 | 12°♊37'38 | | retrograde | 5395 Mar 01 17:36 | 27°♊35'57 | |
| inferior conj | 5394 Mar 26 18:13 | 6°♊59'00 | 3°31'23 | evening set | 5395 Mar 05 06:29 | 26°♊22'43 | |
| minimum elong | 5394 Mar 26 17:42 | 7°♊00'33 | 3°31'22 | inferior conj | 5395 Mar 10 17:34 | 20°♊28'38 | 3°19'55 |
| min. Earth dist. | 5394 Mar 28 15:13 | 4°♊41'22 | 0.65298 AU | minimum elong | 5395 Mar 10 15:57 | 20°♊33'55 | 3°19'43 |
| morning rise | 5394 Apr 01 08:43 | 0°♊45'17 | | min. Earth dist. | 5395 Mar 11 23:32 | 18°♊50'36 | 0.66631 AU |
| | 5394 Apr 02 07:15 | 30°♊♊ | | morning rise | 5395 Mar 16 01:09 | 14°♊13'28 | |
| direct | 5394 Apr 07 23:30 | 27°♊55'48 | | direct | 5395 Mar 22 05:34 | 11°♊28'29 | |
| | 5394 Apr 14 07:17 | 0°♊ | | desc. node | 5395 Apr 02 16:59 | 17°♊56'41 | |
| desc. node | 5394 Apr 15 19:58 | 1°♊00'46 | | morning max el | 5395 Apr 03 16:01 | 18°♊53'42 | 25°51'08 |
| morning max el | 5394 Apr 21 06:14 | 5°♊44'52 | 26°59'35 | | 5395 Apr 13 01:49 | 0°♊ | |
| | 5394 May 09 19:37 | 0°♊ | | | 5395 May 02 20:53 | 0°♊ | |
| morning set | 5394 May 26 23:23 | 29°♊37'40 | | morning set | 5395 May 09 20:19 | 12°♊20'16 | |
| | 5394 May 27 04:02 | 0°♊ | | max. Earth dist. | 5395 May 13 16:09 | 19°♊31'17 | 1.35625 AU |
| max. Earth dist. | 5394 May 31 09:27 | 8°♊20'38 | 1.34009 AU | | 5395 May 18 23:56 | 0°♊ | |

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|------------------|-------------------|---------------------------------|------------|------------------|-------------------|---------------------------------|------------|
| superior conj | 5395 May 19 04:13 | 0° Π 21'35 | -0°52'09 | superior conj | 5396 May 01 11:03 | 13° \mathcal{B} 28'10 | -1°21'23 |
| minimum elong | 5395 May 19 07:08 | 0° Π 36'16 | 0°51'37 | minimum elong | 5396 May 01 15:31 | 13° \mathcal{B} 49'43 | 1°20'43 |
| asc. node | 5395 May 24 11:08 | 11° Π 11'06 | | | 5396 May 09 20:06 | 0° Π | |
| evening rise | 5395 May 27 02:24 | 16° Π 36'30 | | evening rise | 5396 May 10 03:24 | 0° Π 36'14 | |
| | 5395 Jun 02 22:44 | 0° \mathcal{E} | | asc. node | 5396 May 10 08:09 | 0° Π 59'48 | |
| evening max el | 5395 Jun 14 02:24 | 15° \mathcal{E} 58'01 | 20°12'52 | evening max el | 5396 May 26 19:50 | 27° Π 42'15 | 19°11'33 |
| retrograde | 5395 Jun 24 18:49 | 21° \mathcal{E} 11'58 | | | 5396 May 29 14:11 | 0° \mathcal{E} | |
| evening set | 5395 Jun 26 17:15 | 21° \mathcal{E} 02'24 | | retrograde | 5396 Jun 04 19:27 | 2° \mathcal{E} 05'54 | |
| desc. node | 5395 Jun 29 16:11 | 20° \mathcal{E} 13'55 | | evening set | 5396 Jun 06 19:01 | 1° \mathcal{E} 54'00 | |
| inferior conj | 5395 Jul 05 19:59 | 17° \mathcal{E} 03'55 | -1°50'15 | | 5396 Jun 11 14:15 | 30° \mathcal{R} Π | |
| minimum elong | 5395 Jul 05 14:50 | 17° \mathcal{E} 11'32 | 1°48'21 | inferior conj | 5396 Jun 15 04:49 | 27° Π 43'35 | 0°06'13 |
| min. Earth dist. | 5395 Jul 07 10:52 | 16° \mathcal{E} 06'26 | 0.55048 AU | minimum elong | 5396 Jun 15 05:05 | 27° Π 43'09 | 0°06'07 |
| morning rise | 5395 Jul 14 11:03 | 12° \mathcal{E} 49'30 | | transit middle | 5396 Jun 15 05:05 | 27° Π 43'09 | 0°06'07 |
| direct | 5395 Jul 18 13:13 | 12° \mathcal{E} 13'11 | | transit begin | 5396 Jun 15 01:33 | 27° Π 49'05 | |
| morning max el | 5395 Aug 01 03:12 | 18° \mathcal{E} 51'20 | 23°49'53 | transit end | 5396 Jun 15 08:36 | 27° Π 37'11 | |
| | 5395 Aug 10 09:16 | 0° \mathcal{Q} | | desc. node | 5396 Jun 15 13:13 | 27° Π 29'24 | |
| asc. node | 5395 Aug 20 10:24 | 17° \mathcal{Q} 13'16 | | min. Earth dist. | 5396 Jun 18 01:31 | 25° Π 48'34 | 0.56210 AU |
| morning set | 5395 Aug 25 07:57 | 27° \mathcal{Q} 13'17 | | morning rise | 5396 Jun 23 12:01 | 22° Π 54'33 | |
| | 5395 Aug 26 15:15 | 0° \mathcal{M} | | direct | 5396 Jun 28 12:07 | 21° Π 56'32 | |
| | | | | morning max el | 5396 Jul 12 16:49 | 29° Π 11'59 | 25°30'12 |
| superior conj | 5395 Sep 01 07:17 | 12° \mathcal{M} 16'30 | 1°36'02 | | 5396 Jul 13 12:25 | 0° \mathcal{E} | |
| minimum elong | 5395 Sep 01 05:38 | 12° \mathcal{M} 07'35 | 1°35'55 | | 5396 Aug 02 20:27 | 0° \mathcal{Q} | |
| max. Earth dist. | 5395 Sep 03 13:49 | 17° \mathcal{M} 09'25 | 1.33202 AU | asc. node | 5396 Aug 06 07:25 | 6° \mathcal{Q} 51'21 | |
| evening rise | 5395 Sep 08 18:41 | 27° \mathcal{M} 57'16 | | morning set | 5396 Aug 08 19:27 | 12° \mathcal{Q} 04'18 | |
| | 5395 Sep 09 19:16 | 0° \mathcal{L} | | | | | |
| desc. node | 5395 Sep 25 15:28 | 27° \mathcal{L} 46'44 | | superior conj | 5396 Aug 15 17:38 | 27° \mathcal{Q} 09'02 | 1°24'11 |
| | 5395 Sep 27 02:53 | 0° \mathcal{M} | | minimum elong | 5396 Aug 15 15:26 | 26° \mathcal{Q} 56'58 | 1°23'54 |
| evening max el | 5395 Oct 12 14:29 | 19° \mathcal{M} 09'57 | 27°25'03 | max. Earth dist. | 5396 Aug 16 20:16 | 29° \mathcal{Q} 35'10 | 1.32365 AU |
| retrograde | 5395 Oct 26 04:51 | 26° \mathcal{M} 28'17 | | | 5396 Aug 17 00:48 | 0° \mathcal{M} | |
| evening set | 5395 Nov 02 06:33 | 23° \mathcal{M} 50'43 | | evening rise | 5396 Aug 22 19:17 | 12° \mathcal{M} 19'49 | |
| min. Earth dist. | 5395 Nov 06 00:09 | 20° \mathcal{M} 30'44 | 0.63998 AU | | 5396 Aug 31 23:04 | 0° \mathcal{L} | |
| inferior conj | 5395 Nov 08 12:06 | 17° \mathcal{M} 55'03 | -2°35'09 | desc. node | 5396 Sep 11 12:29 | 16° \mathcal{L} 58'51 | |
| minimum elong | 5395 Nov 08 16:39 | 17° \mathcal{M} 43'14 | 2°33'26 | | 5396 Sep 21 23:33 | 0° \mathcal{M} | |
| morning rise | 5395 Nov 15 04:13 | 12° \mathcal{M} 33'16 | | evening max el | 5396 Sep 23 23:22 | 1° \mathcal{M} 58'31 | 27°21'22 |
| asc. node | 5395 Nov 16 09:39 | 12° \mathcal{M} 10'27 | | retrograde | 5396 Oct 07 18:48 | 9° \mathcal{M} 12'35 | |
| direct | 5395 Nov 17 15:47 | 12° \mathcal{M} 02'31 | | evening set | 5396 Oct 14 22:36 | 6° \mathcal{M} 48'02 | |
| morning max el | 5395 Nov 24 04:23 | 15° \mathcal{M} 27'24 | 17°52'08 | min. Earth dist. | 5396 Oct 18 13:46 | 3° \mathcal{M} 55'31 | 0.62170 AU |
| | 5395 Dec 04 11:11 | 0° \mathcal{X} | | inferior conj | 5396 Oct 21 12:23 | 1° \mathcal{M} 12'12 | -3°37'58 |
| morning set | 5395 Dec 10 23:41 | 11° \mathcal{X} 03'57 | | minimum elong | 5396 Oct 21 18:27 | 0° \mathcal{M} 58'07 | 3°36'06 |
| | 5395 Dec 22 06:16 | 0° \mathcal{Z} | | | 5396 Oct 22 19:59 | 30° \mathcal{R} \mathcal{L} | |
| desc. node | 5395 Dec 22 14:46 | 0° \mathcal{Z} 34'47 | | morning rise | 5396 Oct 28 16:07 | 26° \mathcal{L} 08'41 | |
| | | | | direct | 5396 Oct 31 00:05 | 25° \mathcal{L} 44'45 | |
| superior conj | 5395 Dec 23 20:23 | 2° \mathcal{Z} 35'33 | -0°08'40 | asc. node | 5396 Nov 02 06:41 | 26° \mathcal{L} 08'17 | |
| minimum elong | 5395 Dec 23 19:24 | 2° \mathcal{Z} 31'33 | 0°08'31 | morning max el | 5396 Nov 06 20:29 | 29° \mathcal{L} 13'45 | 17°51'11 |
| behind sun begin | 5395 Dec 23 10:52 | 1° \mathcal{Z} 56'50 | | | 5396 Nov 07 14:27 | 0° \mathcal{M} | |
| behind sun end | 5395 Dec 24 03:56 | 3° \mathcal{Z} 06'14 | | morning set | 5396 Nov 22 17:52 | 24° \mathcal{M} 01'42 | |
| max. Earth dist. | 5395 Dec 29 07:17 | 11° \mathcal{Z} 21'18 | 1.44589 AU | | 5396 Nov 26 01:54 | 0° \mathcal{X} | |
| evening rise | 5396 Jan 08 17:49 | 27° \mathcal{Z} 38'31 | | | | | |
| | 5396 Jan 10 06:43 | 0° \mathcal{A} | | superior conj | 5396 Dec 03 18:20 | 13° \mathcal{X} 25'21 | 0°33'12 |
| | 5396 Jan 30 17:52 | 0° \mathcal{H} | | minimum elong | 5396 Dec 03 21:14 | 13° \mathcal{X} 37'45 | 0°32'48 |
| evening max el | 5396 Feb 05 15:28 | 7° \mathcal{H} 02'26 | 20°27'06 | desc. node | 5396 Dec 08 11:47 | 21° \mathcal{X} 21'28 | |
| asc. node | 5396 Feb 12 08:55 | 11° \mathcal{H} 35'51 | | max. Earth dist. | 5396 Dec 10 22:28 | 25° \mathcal{X} 22'00 | 1.43258 AU |
| retrograde | 5396 Feb 13 15:52 | 11° \mathcal{H} 44'45 | | | 5396 Dec 13 19:26 | 0° \mathcal{Z} | |
| evening set | 5396 Feb 17 13:24 | 10° \mathcal{H} 17'05 | | evening rise | 5396 Dec 18 06:41 | 7° \mathcal{Z} 03'11 | |
| inferior conj | 5396 Feb 22 22:01 | 4° \mathcal{H} 10'01 | 2°57'06 | | 5397 Jan 02 13:38 | 0° \mathcal{A} | |
| minimum elong | 5396 Feb 22 19:46 | 4° \mathcal{H} 17'40 | 2°56'36 | evening max el | 5397 Jan 18 12:40 | 20° \mathcal{A} 38'11 | 21°38'17 |
| min. Earth dist. | 5396 Feb 23 14:13 | 3° \mathcal{H} 14'41 | 0.67542 AU | retrograde | 5397 Jan 27 13:25 | 25° \mathcal{A} 59'44 | |
| | 5396 Feb 26 02:34 | 30° \mathcal{R} \mathcal{A} | | asc. node | 5397 Jan 29 05:56 | 25° \mathcal{A} 44'32 | |
| morning rise | 5396 Feb 28 01:54 | 27° \mathcal{A} 55'38 | | evening set | 5397 Jan 31 21:13 | 24° \mathcal{A} 16'46 | |
| direct | 5396 Mar 04 17:09 | 25° \mathcal{A} 24'47 | | inferior conj | 5397 Feb 06 05:17 | 17° \mathcal{A} 59'35 | 2°24'52 |
| | 5396 Mar 13 17:42 | 0° \mathcal{H} | | minimum elong | 5397 Feb 06 02:53 | 18° \mathcal{A} 07'54 | 2°24'09 |
| morning max el | 5396 Mar 16 00:41 | 2° \mathcal{H} 10'55 | 24°27'02 | min. Earth dist. | 5397 Feb 06 09:01 | 17° \mathcal{A} 46'34 | 0.68035 AU |
| desc. node | 5396 Mar 19 14:01 | 6° \mathcal{H} 02'56 | | morning rise | 5397 Feb 11 08:22 | 11° \mathcal{A} 47'41 | |
| | 5396 Apr 06 03:50 | 0° \mathcal{Y} | | direct | 5397 Feb 16 09:10 | 9° \mathcal{A} 37'09 | |
| morning set | 5396 Apr 20 22:09 | 24° \mathcal{Y} 04'40 | | morning max el | 5397 Feb 26 10:06 | 15° \mathcal{A} 34'01 | 22°57'42 |
| | 5396 Apr 24 06:06 | 0° \mathcal{B} | | desc. node | 5397 Mar 06 11:04 | 24° \mathcal{A} 59'32 | |
| max. Earth dist. | 5396 Apr 24 13:31 | 0° \mathcal{B} 33'29 | 1.37628 AU | | 5397 Mar 10 05:04 | 0° \mathcal{H} | |

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| | 5397 Mar 30 03:52 | 0°♿ | | morning set | 5398 Mar 12 19:06 | 13°♿45'22 | |
| morning set | 5397 Apr 01 22:53 | 4°♿35'15 | | max. Earth dist. | 5398 Mar 19 09:38 | 24°♿26'57 | 1.41943 AU |
| max. Earth dist. | 5397 Apr 06 08:58 | 12°♿03'38 | 1.39828 AU | | 5398 Mar 22 17:24 | 0°♿ | |
| superior conj | 5397 Apr 14 02:42 | 25°♿48'53 | -1°46'55 | superior conj | 5398 Mar 26 22:11 | 7°♿11'26 | -2°04'31 |
| minimum elong | 5397 Apr 14 07:46 | 26°♿12'09 | 1°46'25 | minimum elong | 5398 Mar 27 01:38 | 7°♿26'24 | 2°04'23 |
| | 5397 Apr 16 09:02 | 0°♿ | | evening rise | 5398 Apr 06 22:58 | 26°♿57'13 | |
| evening rise | 5397 Apr 23 19:31 | 14°♿06'20 | | | 5398 Apr 08 15:01 | 0°♿ | |
| asc. node | 5397 Apr 27 05:12 | 20°♿33'19 | | asc. node | 5398 Apr 14 02:15 | 9°♿45'27 | |
| | 5397 May 02 12:22 | 0°♿ | | evening max el | 5398 Apr 23 08:50 | 22°♿56'10 | 18°09'36 |
| evening max el | 5397 May 09 23:11 | 10°♿04'57 | 18°30'35 | retrograde | 5398 Apr 30 04:28 | 26°♿23'13 | |
| retrograde | 5397 May 17 14:50 | 13°♿52'02 | | evening set | 5398 May 02 17:22 | 25°♿55'03 | |
| evening set | 5397 May 19 20:51 | 13°♿33'25 | | inferior conj | 5398 May 09 13:19 | 21°♿04'23 | 2°43'21 |
| inferior conj | 5397 May 27 10:36 | 9°♿03'30 | 1°40'13 | minimum elong | 5398 May 09 16:33 | 20°♿56'55 | 2°42'36 |
| minimum elong | 5397 May 27 13:44 | 8°♿57'17 | 1°39'12 | min. Earth dist. | 5398 May 12 21:03 | 18°♿02'37 | 0.60218 AU |
| min. Earth dist. | 5397 May 30 20:08 | 6°♿24'09 | 0.58048 AU | morning rise | 5398 May 16 13:17 | 15°♿15'33 | |
| desc. node | 5397 Jun 02 10:16 | 4°♿37'32 | | desc. node | 5398 May 20 07:19 | 13°♿34'52 | |
| morning rise | 5397 Jun 04 03:25 | 3°♿40'19 | | direct | 5398 May 23 02:17 | 13°♿12'37 | |
| direct | 5397 Jun 10 01:04 | 2°♿11'12 | | morning max el | 5398 Jun 06 10:12 | 21°♿06'44 | 27°40'48 |
| morning max el | 5397 Jun 24 10:14 | 9°♿50'37 | 26°51'24 | | 5398 Jun 14 03:11 | 0°♿ | |
| | 5397 Jul 09 20:23 | 0°♿ | | | 5398 Jul 02 19:05 | 0°♿ | |
| morning set | 5397 Jul 24 05:19 | 26°♿48'50 | | morning set | 5398 Jul 08 11:46 | 11°♿20'45 | |
| asc. node | 5397 Jul 24 04:27 | 26°♿44'19 | | asc. node | 5398 Jul 11 01:30 | 16°♿46'18 | |
| | 5397 Jul 25 17:16 | 0°♿ | | max. Earth dist. | 5398 Jul 14 18:00 | 24°♿47'08 | 1.31960 AU |
| superior conj | 5397 Jul 31 05:24 | 12°♿03'14 | 1°07'33 | superior conj | 5398 Jul 15 16:47 | 26°♿52'33 | 0°46'42 |
| minimum elong | 5397 Jul 31 03:07 | 11°♿50'39 | 1°07'10 | minimum elong | 5398 Jul 15 14:55 | 26°♿42'11 | 0°46'19 |
| max. Earth dist. | 5397 Jul 31 06:57 | 12°♿11'48 | 1.31955 AU | | 5398 Jul 17 02:46 | 0°♿ | |
| evening rise | 5397 Aug 07 01:48 | 26°♿57'55 | | evening rise | 5398 Jul 22 11:54 | 11°♿43'39 | |
| | 5397 Aug 08 12:38 | 0°♿ | | | 5398 Jul 31 17:43 | 0°♿ | |
| | 5397 Aug 25 11:46 | 0°♿ | | desc. node | 5398 Aug 16 06:33 | 22°♿36'40 | |
| desc. node | 5397 Aug 29 09:30 | 5°♿22'08 | | evening max el | 5398 Aug 18 22:06 | 25°♿19'23 | 25°35'21 |
| evening max el | 5397 Sep 06 02:38 | 14°♿03'59 | 26°44'06 | | 5398 Aug 24 22:33 | 0°♿ | |
| retrograde | 5397 Sep 20 00:34 | 21°♿12'59 | | retrograde | 5398 Sep 01 20:47 | 2°♿24'22 | |
| evening set | 5397 Sep 26 21:11 | 19°♿13'19 | | evening set | 5398 Sep 07 21:28 | 0°♿59'26 | |
| min. Earth dist. | 5397 Sep 30 16:34 | 16°♿36'53 | 0.60143 AU | | 5398 Sep 09 19:36 | 30°♿ | |
| inferior conj | 5397 Oct 03 21:53 | 14°♿00'28 | -4°33'35 | min. Earth dist. | 5398 Sep 12 10:01 | 28°♿21'49 | 0.58089 AU |
| minimum elong | 5397 Oct 04 04:04 | 13°♿47'55 | 4°32'15 | inferior conj | 5398 Sep 15 13:09 | 26°♿09'59 | -5°11'25 |
| morning rise | 5397 Oct 11 12:59 | 9°♿18'30 | | minimum elong | 5398 Sep 15 16:36 | 26°♿03'55 | 5°11'05 |
| direct | 5397 Oct 13 20:43 | 8°♿58'18 | | morning rise | 5398 Sep 23 14:01 | 21°♿51'25 | |
| asc. node | 5397 Oct 20 03:43 | 11°♿34'45 | | direct | 5398 Sep 26 01:05 | 21°♿32'35 | |
| morning max el | 5397 Oct 21 08:39 | 12°♿39'42 | 18°09'26 | morning max el | 5398 Oct 04 13:33 | 25°♿36'11 | 18°48'25 |
| | 5397 Nov 01 23:53 | 0°♿ | | asc. node | 5398 Oct 07 00:46 | 28°♿16'14 | |
| morning set | 5397 Nov 06 03:28 | 7°♿42'48 | | | 5398 Oct 08 09:25 | 0°♿ | |
| superior conj | 5397 Nov 15 17:25 | 25°♿27'56 | 1°05'23 | morning set | 5398 Oct 20 23:47 | 21°♿54'02 | |
| minimum elong | 5397 Nov 15 21:19 | 25°♿45'29 | 1°04'54 | | 5398 Oct 25 02:57 | 0°♿ | |
| | 5397 Nov 18 06:32 | 0°♿ | | superior conj | 5398 Oct 29 12:46 | 8°♿29'43 | 1°27'06 |
| max. Earth dist. | 5397 Nov 23 09:01 | 8°♿47'55 | 1.41437 AU | minimum elong | 5398 Oct 29 15:51 | 8°♿44'23 | 1°26'49 |
| desc. node | 5397 Nov 25 08:48 | 12°♿07'49 | | max. Earth dist. | 5398 Nov 05 15:03 | 21°♿30'45 | 1.39349 AU |
| evening rise | 5397 Nov 28 11:01 | 17°♿11'54 | | evening rise | 5398 Nov 09 13:42 | 28°♿21'22 | |
| | 5397 Dec 06 14:49 | 0°♿ | | | 5398 Nov 10 13:00 | 0°♿ | |
| | 5397 Dec 28 07:38 | 0°♿ | | desc. node | 5398 Nov 12 05:49 | 2°♿50'25 | |
| evening max el | 5398 Jan 01 05:12 | 4°♿16'04 | 22°56'37 | | 5398 Nov 30 02:43 | 0°♿ | |
| retrograde | 5398 Jan 11 08:41 | 10°♿17'05 | | evening max el | 5398 Dec 14 18:45 | 17°♿57'16 | 24°16'19 |
| evening set | 5398 Jan 16 04:18 | 8°♿18'21 | | retrograde | 5398 Dec 26 00:34 | 24°♿32'58 | |
| asc. node | 5398 Jan 16 02:59 | 8°♿21'05 | | evening set | 5398 Dec 31 09:06 | 22°♿18'58 | |
| min. Earth dist. | 5398 Jan 21 05:38 | 2°♿21'16 | 0.68133 AU | asc. node | 5399 Jan 03 00:01 | 19°♿35'34 | |
| inferior conj | 5398 Jan 21 13:24 | 1°♿54'26 | 1°44'32 | min. Earth dist. | 5399 Jan 05 01:49 | 16°♿55'32 | 0.67859 AU |
| minimum elong | 5398 Jan 21 11:19 | 2°♿01'38 | 1°43'48 | inferior conj | 5399 Jan 05 20:37 | 15°♿52'19 | 0°57'06 |
| | 5398 Jan 22 22:58 | 30°♿ | | minimum elong | 5399 Jan 05 19:18 | 15°♿56'44 | 0°56'36 |
| morning rise | 5398 Jan 26 18:15 | 25°♿46'32 | | morning rise | 5399 Jan 11 05:35 | 9°♿50'04 | |
| direct | 5398 Jan 31 04:35 | 23°♿58'53 | | direct | 5399 Jan 15 02:23 | 8°♿24'51 | |
| morning max el | 5398 Feb 08 23:59 | 29°♿06'12 | 21°32'04 | morning max el | 5399 Jan 22 21:13 | 12°♿50'33 | 20°16'38 |
| | 5398 Feb 09 20:54 | 0°♿ | | | 5399 Feb 05 03:19 | 0°♿ | |
| desc. node | 5398 Feb 21 08:06 | 14°♿32'08 | | desc. node | 5399 Feb 08 05:07 | 4°♿30'58 | |
| | 5398 Mar 03 21:55 | 0°♿ | | morning set | 5399 Feb 19 18:11 | 22°♿01'38 | |

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| | 5399 Feb 24 20:54 | 0° H | | morning max el | 5400 Jan 06 02:15 | 26° H 44'54 | 19°15'09 |
| max. Earth dist. | 5399 Mar 01 17:36 | 7° H 43'24 | 1.43693 AU | | 5400 Jan 09 00:21 | 0° Z | |
| superior conj | 5399 Mar 07 17:09 | 17° H 27'05 | -2°08'44 | greatest brilliancy | 5400 Jan 19 13:05 | 14° Z 47'43 | -0.7m |
| minimum elong | 5399 Mar 07 15:40 | 17° H 20'57 | 2°08'43 | desc. node | 5400 Jan 26 02:07 | 24° Z 48'15 | |
| | 5399 Mar 15 04:21 | 0° Y | | | 5400 Jan 29 10:44 | 0° \approx | |
| evening rise | 5399 Mar 20 09:24 | 8° Y 59'53 | | morning set | 5400 Jan 29 18:23 | 0° \approx 29'35 | |
| asc. node | 5399 Mar 31 23:18 | 28° Y 29'21 | | max. Earth dist. | 5400 Feb 12 07:39 | 21° \approx 39'03 | 1.44867 AU |
| | 5399 Apr 01 23:39 | 0° Z | | superior conj | 5400 Feb 15 11:24 | 26° \approx 38'42 | -1°54'22 |
| evening max el | 5399 Apr 06 21:26 | 6° Z 07'36 | 18°08'01 | minimum elong | 5400 Feb 15 03:42 | 26° \approx 08'10 | 1°53'50 |
| retrograde | 5399 Apr 13 08:09 | 9° Z 29'44 | | | 5400 Feb 17 13:58 | 0° H | |
| evening set | 5399 Apr 16 03:26 | 8° Z 50'17 | | evening rise | 5400 Mar 01 22:24 | 20° H 05'45 | |
| inferior conj | 5399 Apr 22 09:34 | 3° Z 39'57 | 3°18'30 | | 5400 Mar 07 22:03 | 0° Y | |
| minimum elong | 5399 Apr 22 11:29 | 3° Z 34'54 | 3°18'15 | asc. node | 5400 Mar 18 20:20 | 16° Y 35'53 | |
| min. Earth dist. | 5399 Apr 25 06:31 | 0° Z 40'12 | 0.62397 AU | evening max el | 5400 Mar 21 10:00 | 19° Y 31'30 | 18°25'14 |
| | 5399 Apr 25 22:51 | 30° R Y | | retrograde | 5400 Mar 27 21:18 | 23° Y 02'07 | |
| morning rise | 5399 Apr 28 18:01 | 27° Y 35'48 | | evening set | 5400 Mar 30 22:58 | 22° Y 10'11 | |
| direct | 5399 May 05 13:57 | 25° Y 04'48 | | inferior conj | 5400 Apr 05 19:10 | 16° Y 41'39 | 3°31'40 |
| desc. node | 5399 May 07 04:22 | 25° Y 12'29 | | minimum elong | 5400 Apr 05 19:29 | 16° Y 40'44 | 3°31'40 |
| | 5399 May 16 07:13 | 0° Z | | min. Earth dist. | 5400 Apr 08 01:20 | 14° Y 04'20 | 0.64342 AU |
| morning max el | 5399 May 19 16:06 | 3° Z 05'36 | 27°52'31 | morning rise | 5400 Apr 11 15:12 | 10° Y 30'03 | |
| | 5399 Jun 08 14:30 | 0° II | | direct | 5400 Apr 18 09:53 | 7° Y 43'03 | |
| morning set | 5399 Jun 22 12:45 | 25° II 33'41 | | desc. node | 5400 Apr 24 01:23 | 9° Y 19'26 | |
| | 5399 Jun 24 16:34 | 0° E | | morning max el | 5400 May 02 01:19 | 15° Y 40'18 | 27°27'54 |
| asc. node | 5399 Jun 27 22:33 | 6° E 52'51 | | | 5400 May 13 19:30 | 0° Z | |
| max. Earth dist. | 5399 Jun 28 01:22 | 7° E 07'58 | 1.32392 AU | | 5400 Jun 01 08:00 | 0° II | |
| | | | | morning set | 5400 Jun 06 05:41 | 9° II 20'08 | |
| superior conj | 5399 Jun 30 02:03 | 11° E 31'29 | 0°22'11 | max. Earth dist. | 5400 Jun 11 01:08 | 19° II 03'30 | 1.33277 AU |
| minimum elong | 5399 Jun 30 01:02 | 11° E 25'56 | 0°21'56 | | | | |
| evening rise | 5399 Jul 06 23:35 | 26° E 30'33 | | superior conj | 5400 Jun 14 07:16 | 25° II 54'27 | -0°05'20 |
| | 5399 Jul 08 15:17 | 0° O | | minimum elong | 5400 Jun 14 07:33 | 25° II 55'54 | 0°05'18 |
| | 5399 Jul 26 04:48 | 0° P | | behind sun begin | 5400 Jun 14 02:22 | 25° II 28'24 | |
| evening max el | 5399 Jul 31 11:18 | 5° P 53'23 | 24°04'30 | behind sun end | 5400 Jun 14 12:43 | 26° II 23'25 | |
| desc. node | 5399 Aug 03 03:35 | 8° P 15'11 | | asc. node | 5400 Jun 14 19:35 | 27° II 00'05 | |
| retrograde | 5399 Aug 14 05:42 | 12° P 49'02 | | | 5400 Jun 16 05:13 | 0° E | |
| evening set | 5399 Aug 18 21:28 | 12° P 01'02 | | evening rise | 5400 Jun 21 11:01 | 11° E 13'04 | |
| min. Earth dist. | 5399 Aug 24 21:52 | 9° P 03'26 | 0.56296 AU | | 5400 Jul 01 02:35 | 0° O | |
| inferior conj | 5399 Aug 27 08:10 | 7° P 33'34 | -5°15'51 | evening max el | 5400 Jul 13 00:59 | 16° O 14'36 | 22°26'53 |
| minimum elong | 5399 Aug 27 05:38 | 7° P 37'29 | 5°15'43 | desc. node | 5400 Jul 21 00:37 | 21° O 44'36 | |
| morning rise | 5399 Sep 04 16:18 | 3° P 35'06 | | retrograde | 5400 Jul 26 02:11 | 22° O 43'53 | |
| direct | 5399 Sep 07 09:55 | 3° P 15'42 | | evening set | 5400 Jul 29 05:44 | 22° O 22'04 | |
| morning max el | 5399 Sep 17 07:58 | 7° P 53'19 | 19°49'13 | min. Earth dist. | 5400 Aug 06 08:00 | 18° O 50'34 | 0.55108 AU |
| asc. node | 5399 Sep 23 21:49 | 15° P 57'14 | | inferior conj | 5400 Aug 07 09:28 | 18° O 14'30 | -4°31'28 |
| | 5399 Oct 01 21:58 | 0° A | | minimum elong | 5400 Aug 07 01:19 | 18° O 26'03 | 4°29'45 |
| morning set | 5399 Oct 05 03:20 | 6° A 25'13 | | morning rise | 5400 Aug 15 22:47 | 14° O 24'43 | |
| | | | | direct | 5400 Aug 19 01:50 | 14° O 02'29 | |
| superior conj | 5399 Oct 12 23:01 | 22° A 14'49 | 1°39'18 | morning max el | 5400 Aug 30 14:11 | 19° O 24'53 | 21°11'10 |
| minimum elong | 5399 Oct 13 00:37 | 22° A 22'49 | 1°39'13 | | 5400 Sep 08 02:10 | 0° P | |
| | 5399 Oct 16 22:19 | 0° M | | asc. node | 5400 Sep 10 18:51 | 4° P 24'19 | |
| max. Earth dist. | 5399 Oct 18 19:59 | 3° M 36'14 | 1.37259 AU | morning set | 5400 Sep 19 11:35 | 21° P 09'42 | |
| evening rise | 5399 Oct 22 14:27 | 10° M 30'56 | | | 5400 Sep 23 16:55 | 0° A | |
| desc. node | 5399 Oct 30 02:49 | 23° M 24'46 | | | | | |
| | 5399 Nov 03 05:29 | 0° J | | superior conj | 5400 Sep 26 19:53 | 6° A 31'01 | 1°43'19 |
| | 5399 Nov 25 15:28 | 0° Z | | minimum elong | 5400 Sep 26 19:59 | 6° A 31'31 | 1°43'19 |
| evening max el | 5399 Nov 27 07:16 | 1° Z 40'44 | 25°30'37 | max. Earth dist. | 5400 Oct 01 05:52 | 15° A 28'44 | 1.35396 AU |
| retrograde | 5399 Dec 09 11:59 | 8° Z 41'31 | | evening rise | 5400 Oct 05 09:46 | 23° A 32'12 | |
| evening set | 5399 Dec 15 09:57 | 6° Z 14'18 | | | 5400 Oct 08 21:57 | 0° M | |
| min. Earth dist. | 5399 Dec 19 19:17 | 1° Z 25'14 | 0.67228 AU | desc. node | 5400 Oct 16 23:50 | 13° M 46'15 | |
| asc. node | 5399 Dec 20 21:05 | 0° Z 02'27 | | | 5400 Oct 27 21:03 | 0° J | |
| | 5399 Dec 20 21:50 | 30° R J | | evening max el | 5400 Nov 09 20:07 | 15° J 23'05 | 26°32'00 |
| inferior conj | 5399 Dec 21 01:03 | 29° J 49'40 | 0°03'23 | retrograde | 5400 Nov 22 18:11 | 22° J 37'07 | |
| minimum elong | 5399 Dec 21 00:58 | 29° J 49'57 | 0°03'22 | evening set | 5400 Nov 29 04:59 | 20° J 00'37 | |
| transit middle | 5399 Dec 21 00:58 | 29° J 49'57 | 0°03'22 | min. Earth dist. | 5400 Dec 03 07:41 | 15° J 46'40 | 0.66251 AU |
| transit begin | 5399 Dec 20 22:13 | 29° J 58'46 | | inferior conj | 5400 Dec 05 00:48 | 13° J 43'12 | -0°55'34 |
| transit end | 5399 Dec 21 03:42 | 29° J 41'08 | | minimum elong | 5400 Dec 05 02:20 | 13° J 38'34 | 0°54'53 |
| morning rise | 5399 Dec 26 16:20 | 23° J 55'02 | | asc. node | 5400 Dec 07 18:06 | 10° J 37'18 | |
| direct | 5399 Dec 30 01:09 | 22° J 49'45 | | morning rise | 5400 Dec 11 00:25 | 7° J 58'47 | |

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|---------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| direct | 5400 Dec 13 23:16 | 7°♄09'50 | | inferior conj | 5401 Nov 18 17:37 | 27°♍27'53 | -1°58'15 |
| morning max el | 5400 Dec 20 13:49 | 10°♄45'28 | 18°29'32 | minimum elong | 5401 Nov 18 21:03 | 27°♍18'24 | 1°56'51 |
| | 5401 Jan 03 08:01 | 0°♄ | | asc. node | 5401 Nov 24 15:07 | 22°♍11'58 | |
| morning set | 5401 Jan 09 17:57 | 10°♄12'01 | | morning rise | 5401 Nov 25 03:18 | 21°♍56'47 | |
| desc. node | 5401 Jan 12 23:06 | 15°♄18'53 | | direct | 5401 Nov 27 18:22 | 21°♍20'22 | |
| | 5401 Jan 22 06:18 | 0°♄ | | morning max el | 5401 Dec 04 05:32 | 24°♍46'21 | 18°00'48 |
| | | | | | 5401 Dec 08 13:20 | 0°♄ | |
| superior conj | 5401 Jan 25 15:05 | 5°♄16'55 | -1°20'47 | morning set | 5401 Dec 21 23:18 | 21°♄23'42 | |
| minimum elong | 5401 Jan 25 06:00 | 4°♄41'18 | 1°19'45 | | 5401 Dec 27 04:10 | 0°♄ | |
| max. Earth dist. | 5401 Jan 26 01:59 | 5°♄59'35 | 1.45344 AU | desc. node | 5401 Dec 30 20:07 | 5°♄58'49 | |
| | 5401 Feb 10 08:17 | 0°♄ | | | | | |
| evening rise | 5401 Feb 10 12:01 | 0°♄14'44 | | superior conj | 5402 Jan 05 00:01 | 14°♄16'36 | -0°35'29 |
| greatest brilliancy | 5401 Feb 19 22:31 | 15°♄09'36 | -0.8m | minimum elong | 5402 Jan 04 19:41 | 13°♄59'21 | 0°34'52 |
| | 5401 Mar 02 04:03 | 0°♄ | | max. Earth dist. | 5402 Jan 08 21:44 | 20°♄27'47 | 1.45073 AU |
| evening max el | 5401 Mar 04 20:04 | 3°♄01'57 | 19°00'13 | | 5402 Jan 14 23:59 | 0°♄ | |
| asc. node | 5401 Mar 05 17:22 | 3°♄53'42 | | evening rise | 5402 Jan 21 06:09 | 9°♄41'19 | |
| retrograde | 5401 Mar 11 16:12 | 6°♄52'46 | | | 5402 Feb 03 14:08 | 0°♄ | |
| evening set | 5401 Mar 15 00:46 | 5°♄47'27 | | greatest brilliancy | 5402 Feb 04 05:10 | 0°♄55'42 | -0.6m |
| inferior conj | 5401 Mar 20 14:23 | 0°♄02'16 | 3°28'04 | evening max el | 5402 Feb 16 01:44 | 16°♄35'14 | 19°51'20 |
| minimum elong | 5401 Mar 20 13:21 | 0°♄05'32 | 3°27'59 | asc. node | 5402 Feb 20 14:24 | 20°♄09'28 | |
| | 5401 Mar 20 15:06 | 30°♄ | | retrograde | 5402 Feb 23 13:56 | 20°♄56'24 | |
| min. Earth dist. | 5401 Mar 22 04:56 | 28°♄00'38 | 0.65919 AU | evening set | 5402 Feb 27 06:26 | 19°♄36'56 | |
| morning rise | 5401 Mar 26 01:32 | 23°♄47'48 | | inferior conj | 5402 Mar 04 16:11 | 13°♄37'01 | 3°11'29 |
| direct | 5401 Apr 01 12:34 | 20°♄58'36 | | minimum elong | 5402 Mar 04 14:15 | 13°♄43'30 | 3°11'09 |
| desc. node | 5401 Apr 10 22:24 | 25°♄22'44 | | min. Earth dist. | 5402 Mar 05 16:04 | 12°♄17'16 | 0.67071 AU |
| morning max el | 5401 Apr 14 11:15 | 28°♄39'07 | 26°33'00 | morning rise | 5402 Mar 09 21:51 | 7°♄22'15 | |
| | 5401 Apr 15 18:23 | 0°♄ | | direct | 5402 Mar 15 20:58 | 4°♄42'27 | |
| | 5401 May 07 14:37 | 0°♄ | | morning max el | 5402 Mar 27 20:26 | 11°♄51'55 | 25°16'46 |
| morning set | 5401 May 20 11:07 | 22°♄29'05 | | desc. node | 5402 Mar 28 19:23 | 12°♄51'13 | |
| | 5401 May 24 08:32 | 0°♄ | | | 5402 Apr 11 09:14 | 0°♄ | |
| max. Earth dist. | 5401 May 24 14:15 | 0°♄28'15 | 1.34640 AU | | 5402 Apr 30 07:37 | 0°♄ | |
| | | | | morning set | 5402 May 03 00:36 | 4°♄48'28 | |
| superior conj | 5401 May 29 06:07 | 9°♄53'49 | -0°34'49 | max. Earth dist. | 5402 May 06 16:41 | 11°♄32'51 | 1.36441 AU |
| minimum elong | 5401 May 29 08:01 | 10°♄03'38 | 0°34'27 | | | | |
| asc. node | 5401 Jun 01 16:36 | 17°♄03'16 | | superior conj | 5402 May 12 19:47 | 23°♄22'07 | -1°04'47 |
| evening rise | 5401 Jun 05 20:12 | 25°♄44'10 | | minimum elong | 5402 May 12 23:24 | 23°♄40'05 | 1°04'09 |
| | 5401 Jun 07 22:01 | 0°♄ | | | 5402 May 16 03:12 | 0°♄ | |
| evening max el | 5401 Jun 24 22:58 | 26°♄54'30 | 20°57'06 | asc. node | 5402 May 19 13:39 | 6°♄58'37 | |
| | 5401 Jun 28 16:42 | 0°♄ | | evening rise | 5402 May 21 00:58 | 9°♄57'36 | |
| retrograde | 5401 Jul 06 14:35 | 2°♄38'19 | | | 5402 May 31 22:05 | 0°♄ | |
| desc. node | 5401 Jul 07 21:39 | 2°♄34'19 | | evening max el | 5402 Jun 07 09:17 | 8°♄13'21 | 19°44'16 |
| evening set | 5401 Jul 08 18:41 | 2°♄27'11 | | retrograde | 5402 Jun 17 07:37 | 13°♄04'56 | |
| | 5401 Jul 15 09:04 | 30°♄ | | evening set | 5402 Jun 19 05:30 | 12°♄54'54 | |
| inferior conj | 5401 Jul 18 02:28 | 28°♄29'55 | -2°57'40 | desc. node | 5402 Jun 24 18:39 | 10°♄49'26 | |
| minimum elong | 5401 Jul 17 18:34 | 28°♄41'05 | 2°55'03 | inferior conj | 5402 Jun 28 01:53 | 8°♄52'18 | -0°59'23 |
| min. Earth dist. | 5401 Jul 18 18:32 | 28°♄07'11 | 0.54797 AU | minimum elong | 5402 Jun 27 23:09 | 8°♄56'31 | 0°58'23 |
| morning rise | 5401 Jul 26 18:31 | 24°♄30'34 | | min. Earth dist. | 5402 Jun 30 07:09 | 7°♄29'51 | 0.55446 AU |
| direct | 5401 Jul 30 10:54 | 24°♄01'25 | | morning rise | 5402 Jul 06 14:38 | 4°♄24'21 | |
| | 5401 Aug 12 04:07 | 0°♄ | | direct | 5402 Jul 11 01:43 | 3°♄40'21 | |
| morning max el | 5401 Aug 12 09:29 | 0°♄12'27 | 22°49'41 | morning max el | 5402 Jul 24 23:21 | 10°♄35'01 | 24°33'52 |
| asc. node | 5401 Aug 28 15:52 | 23°♄25'27 | | | 5402 Aug 08 13:47 | 0°♄ | |
| | 5401 Sep 01 00:38 | 0°♄ | | asc. node | 5402 Aug 15 12:54 | 12°♄52'07 | |
| morning set | 5401 Sep 03 22:27 | 6°♄00'39 | | morning set | 5402 Aug 19 10:12 | 20°♄53'09 | |
| | | | | | 5402 Aug 23 15:31 | 0°♄ | |
| superior conj | 5401 Sep 10 23:57 | 21°♄07'13 | 1°40'26 | superior conj | 5402 Aug 26 08:38 | 5°♄55'42 | 1°31'38 |
| minimum elong | 5401 Sep 10 22:49 | 21°♄01'12 | 1°40'23 | minimum elong | 5402 Aug 26 06:42 | 5°♄45'08 | 1°31'26 |
| max. Earth dist. | 5401 Sep 14 00:17 | 27°♄29'00 | 1.33891 AU | max. Earth dist. | 5402 Aug 28 03:02 | 9°♄45'53 | 1.32801 AU |
| | 5401 Sep 15 05:26 | 0°♄ | | evening rise | 5402 Sep 02 15:20 | 21°♄22'10 | |
| evening rise | 5401 Sep 18 19:18 | 7°♄12'39 | | | 5402 Sep 07 00:10 | 0°♄ | |
| | 5401 Oct 01 11:44 | 0°♄ | | desc. node | 5402 Sep 20 17:55 | 23°♄21'15 | |
| desc. node | 5401 Oct 03 20:53 | 3°♄47'54 | | | 5402 Sep 25 10:23 | 0°♄ | |
| evening max el | 5401 Oct 23 08:51 | 28°♄54'25 | 27°13'10 | evening max el | 5402 Oct 05 19:44 | 12°♄01'50 | 27°27'20 |
| | 5401 Oct 24 13:10 | 0°♄ | | retrograde | 5402 Oct 19 12:13 | 19°♄18'04 | |
| retrograde | 5401 Nov 05 18:23 | 6°♄12'15 | | evening set | 5402 Oct 26 15:57 | 16°♄44'28 | |
| evening set | 5401 Nov 12 15:57 | 3°♄32'41 | | min. Earth dist. | 5402 Oct 30 08:00 | 13°♄37'25 | 0.63259 AU |
| | 5401 Nov 16 10:17 | 30°♄ | | inferior conj | 5402 Nov 02 00:48 | 10°♄57'03 | -3°02'13 |
| min. Earth dist. | 5401 Nov 16 12:37 | 29°♄53'44 | 0.64922 AU | | | | |

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| minimum elong | 5402 Nov 02 06:06 | 10°♄43'56 | 3°00'21 | evening set | 5403 Oct 09 01:16 | 29°♂29'37 | |
| morning rise | 5402 Nov 08 21:50 | 5°♄42'46 | | min. Earth dist. | 5403 Oct 12 16:53 | 26°♂46'01 | 0.61324 AU |
| direct | 5402 Nov 11 07:37 | 5°♄15'13 | | inferior conj | 5403 Oct 15 19:17 | 24°♂03'16 | -4°02'58 |
| asc. node | 5402 Nov 11 12:09 | 5°♄15'23 | | minimum elong | 5403 Oct 16 01:39 | 23°♂49'17 | 4°01'13 |
| morning max el | 5402 Nov 17 22:27 | 8°♄40'27 | 17°49'31 | morning rise | 5403 Oct 23 04:01 | 19°♂08'56 | |
| | 5402 Dec 02 01:36 | 0°♂ | | direct | 5403 Oct 25 11:23 | 18°♂47'00 | |
| morning set | 5402 Dec 04 05:57 | 3°♂48'27 | | asc. node | 5403 Oct 29 09:11 | 19°♂52'37 | |
| | | | | morning max el | 5403 Nov 01 13:27 | 22°♂20'05 | 17°56'34 |
| superior conj | 5402 Dec 16 06:45 | 24°♂22'08 | 0°10'07 | | 5403 Nov 07 11:59 | 0°♄ | |
| minimum elong | 5402 Dec 16 07:48 | 24°♂26'28 | 0°10'00 | morning set | 5403 Nov 17 07:25 | 17°♄06'44 | |
| behind sun begin | 5402 Dec 16 00:20 | 23°♂55'31 | | | 5403 Nov 24 09:46 | 0°♂ | |
| behind sun end | 5402 Dec 16 15:16 | 24°♂57'22 | | | | | |
| desc. node | 5402 Dec 17 17:09 | 26°♂44'01 | | superior conj | 5403 Nov 27 16:00 | 5°♂45'06 | 0°48'08 |
| | 5402 Dec 19 17:06 | 0°♂ | | minimum elong | 5403 Nov 27 19:38 | 6°♂00'56 | 0°47'38 |
| max. Earth dist. | 5402 Dec 22 15:28 | 4°♂43'53 | 1.44093 AU | desc. node | 5403 Dec 04 14:12 | 17°♂31'17 | |
| evening rise | 5402 Dec 31 16:20 | 18°♂55'09 | | max. Earth dist. | 5403 Dec 05 04:34 | 18°♂30'38 | 1.42527 AU |
| | 5403 Jan 07 23:06 | 0°♄ | | evening rise | 5403 Dec 11 10:26 | 28°♂35'19 | |
| | 5403 Jan 29 22:19 | 0°♂ | | | 5403 Dec 12 07:56 | 0°♂ | |
| evening max el | 5403 Jan 30 01:56 | 0°♂09'17 | 20°56'09 | | 5404 Jan 01 15:42 | 0°♄ | |
| asc. node | 5403 Feb 07 11:26 | 5°♂08'06 | | evening max el | 5404 Jan 12 20:53 | 13°♄45'18 | 22°10'58 |
| retrograde | 5403 Feb 07 12:11 | 5°♂08'07 | | retrograde | 5404 Jan 22 09:06 | 19°♄24'34 | |
| evening set | 5403 Feb 11 13:57 | 3°♂33'49 | | asc. node | 5404 Jan 25 08:27 | 18°♄37'57 | |
| | 5403 Feb 14 23:00 | 30°♄ | | evening set | 5404 Jan 26 21:40 | 17°♄34'55 | |
| inferior conj | 5403 Feb 16 22:05 | 27°♄21'49 | 2°44'27 | inferior conj | 5404 Feb 01 05:58 | 11°♄14'10 | 2°08'41 |
| minimum elong | 5403 Feb 16 19:43 | 27°♄29'58 | 2°43'52 | minimum elong | 5404 Feb 01 03:39 | 11°♄22'13 | 2°07'56 |
| min. Earth dist. | 5403 Feb 17 08:45 | 26°♄45'00 | 0.67798 AU | min. Earth dist. | 5404 Feb 01 04:43 | 11°♄18'32 | 0.68122 AU |
| morning rise | 5403 Feb 22 01:18 | 21°♄08'21 | | morning rise | 5404 Feb 06 09:30 | 5°♄03'33 | |
| direct | 5403 Feb 27 10:21 | 18°♄45'56 | | direct | 5404 Feb 11 03:59 | 3°♄02'42 | |
| morning max el | 5403 Mar 10 05:14 | 25°♄11'50 | 23°49'12 | morning max el | 5404 Feb 20 16:12 | 8°♄38'37 | 22°20'17 |
| | 5403 Mar 14 13:39 | 0°♂ | | desc. node | 5404 Mar 01 13:28 | 20°♄33'45 | |
| desc. node | 5403 Mar 15 16:25 | 1°♂20'30 | | | 5404 Mar 08 07:22 | 0°♂ | |
| | 5403 Apr 04 21:23 | 0°♂ | | morning set | 5404 Mar 25 05:03 | 25°♂58'20 | |
| morning set | 5403 Apr 14 16:26 | 16°♂02'37 | | | 5404 Mar 27 15:58 | 0°♂ | |
| max. Earth dist. | 5403 Apr 18 12:34 | 22°♂43'34 | 1.38554 AU | max. Earth dist. | 5404 Mar 30 09:07 | 4°♂32'17 | 1.40754 AU |
| | 5403 Apr 22 13:19 | 0°♂ | | | | | |
| superior conj | 5403 Apr 25 20:38 | 6°♂09'34 | -1°32'53 | superior conj | 5404 Apr 07 04:16 | 18°♂06'09 | -1°55'40 |
| minimum elong | 5403 Apr 26 01:32 | 6°♂32'45 | 1°32'15 | minimum elong | 5404 Apr 07 09:00 | 18°♂27'24 | 1°55'19 |
| evening rise | 5403 May 04 22:35 | 23°♂45'18 | | | 5404 Apr 13 16:15 | 0°♂ | |
| asc. node | 5403 May 06 10:42 | 26°♂41'08 | | evening rise | 5404 Apr 17 09:48 | 6°♂59'14 | |
| | 5403 May 08 04:02 | 0°♄ | | asc. node | 5404 Apr 22 07:44 | 16°♂05'54 | |
| evening max el | 5403 May 21 07:13 | 20°♄13'45 | 18°51'36 | | 5404 May 01 01:23 | 0°♄ | |
| retrograde | 5403 May 29 16:08 | 24°♄20'25 | | evening max el | 5404 May 03 13:40 | 2°♄49'13 | 18°19'17 |
| evening set | 5403 May 31 18:00 | 24°♄06'12 | | retrograde | 5404 May 10 19:27 | 6°♄25'47 | |
| inferior conj | 5403 Jun 08 19:13 | 19°♄47'45 | 0°49'42 | evening set | 5404 May 13 04:21 | 6°♄03'30 | |
| minimum elong | 5403 Jun 08 21:05 | 19°♄44'22 | 0°49'01 | inferior conj | 5404 May 20 10:08 | 1°♄25'06 | 2°10'44 |
| desc. node | 5403 Jun 11 15:40 | 17°♄44'53 | | minimum elong | 5404 May 20 13:35 | 1°♄17'48 | 2°09'45 |
| min. Earth dist. | 5403 Jun 11 23:18 | 17°♄31'39 | 0.56922 AU | | 5404 May 22 02:16 | 30°♄ | |
| morning rise | 5403 Jun 16 20:49 | 14°♄43'10 | | min. Earth dist. | 5404 May 23 20:34 | 28°♂32'47 | 0.58946 AU |
| direct | 5403 Jun 22 06:12 | 13°♄33'02 | | morning rise | 5404 May 27 19:46 | 25°♂49'27 | |
| morning max el | 5403 Jul 06 14:16 | 21°♄00'32 | 26°08'04 | desc. node | 5404 May 28 12:43 | 25°♂27'24 | |
| | 5403 Jul 14 09:27 | 0°♄ | | direct | 5404 Jun 03 00:59 | 24°♂05'25 | |
| | 5403 Aug 01 03:20 | 0°♄ | | | 5404 Jun 15 09:44 | 0°♄ | |
| asc. node | 5403 Aug 02 09:57 | 2°♄37'17 | | morning max el | 5404 Jun 17 10:20 | 1°♄53'08 | 27°16'52 |
| morning set | 5403 Aug 03 21:15 | 5°♄42'15 | | | 5404 Jul 07 16:31 | 0°♄ | |
| | | | | morning set | 5404 Jul 18 05:51 | 20°♄21'48 | |
| superior conj | 5403 Aug 10 19:50 | 20°♄49'49 | 1°17'42 | asc. node | 5404 Jul 19 07:00 | 22°♄34'26 | |
| minimum elong | 5403 Aug 10 17:33 | 20°♄37'12 | 1°17'21 | | 5404 Jul 22 17:28 | 0°♄ | |
| max. Earth dist. | 5403 Aug 11 11:43 | 22°♄17'23 | 1.32134 AU | superior conj | 5404 Jul 25 07:39 | 5°♄42'31 | 0°59'13 |
| | 5403 Aug 15 00:28 | 0°♄ | | minimum elong | 5404 Jul 25 05:29 | 5°♄30'33 | 0°58'48 |
| evening rise | 5403 Aug 17 18:45 | 5°♄52'07 | | max. Earth dist. | 5404 Jul 24 22:48 | 4°♄53'34 | 1.31895 AU |
| | 5403 Aug 30 14:07 | 0°♄ | | evening rise | 5404 Aug 01 03:00 | 20°♄33'55 | |
| desc. node | 5403 Sep 07 14:56 | 12°♄14'54 | | | 5404 Aug 05 17:19 | 0°♄ | |
| evening max el | 5403 Sep 18 02:22 | 24°♄32'56 | 27°09'34 | desc. node | 5404 Aug 24 11:59 | 0°♄11'57 | |
| | 5403 Sep 25 10:30 | 0°♄ | | | 5404 Aug 24 08:04 | 0°♄ | |
| retrograde | 5403 Oct 01 23:05 | 1°♄45'28 | | evening max el | 5404 Aug 30 02:22 | 6°♄17'09 | 26°18'28 |
| | 5403 Oct 08 04:46 | 30°♄ | | retrograde | 5404 Sep 13 01:24 | 13°♄25'14 | |

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|------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| evening set | 5404 Sep 19 15:00 | 11°♄39'31 | | min. Earth dist. | 5405 Sep 05 06:23 | 20°♎22'29 | 0.57276 AU |
| min. Earth dist. | 5404 Sep 23 15:40 | 9°♄04'43 | 0.59252 AU | inferior conj | 5405 Sep 08 04:11 | 18°♎26'56 | -5°18'26 |
| inferior conj | 5404 Sep 26 21:27 | 6°♄36'20 | -4°52'40 | minimum elong | 5405 Sep 08 05:24 | 18°♎24'55 | 5°18'24 |
| minimum elong | 5404 Sep 27 02:54 | 6°♄25'54 | 4°51'45 | morning rise | 5405 Sep 16 08:23 | 14°♎17'17 | |
| morning rise | 5404 Oct 04 17:00 | 2°♄04'17 | | direct | 5405 Sep 18 21:55 | 13°♎58'20 | |
| direct | 5404 Oct 07 01:30 | 1°♄45'05 | | morning max el | 5405 Sep 27 23:39 | 18°♎15'15 | 19°11'29 |
| morning max el | 5404 Oct 14 22:59 | 5°♄35'00 | 18°23'20 | asc. node | 5405 Oct 02 03:18 | 23°♎01'05 | |
| asc. node | 5404 Oct 15 06:15 | 5°♄52'48 | | | 5405 Oct 06 17:09 | 0°♄ | |
| | 5404 Oct 30 09:07 | 0°♄ | | morning set | 5405 Oct 14 21:50 | 15°♄22'34 | |
| morning set | 5404 Oct 30 22:04 | 1°♄01'53 | | | 5405 Oct 22 06:51 | 0°♄ | |
| superior conj | 5404 Nov 09 00:22 | 18°♄14'32 | 1°15'49 | superior conj | 5405 Oct 23 02:36 | 1°♄35'57 | 1°33'21 |
| minimum elong | 5404 Nov 09 04:04 | 18°♄31'34 | 1°15'24 | minimum elong | 5405 Oct 23 05:06 | 1°♄48'04 | 1°33'10 |
| | 5404 Nov 15 14:09 | 0°♄ | | max. Earth dist. | 5405 Oct 29 17:38 | 14°♄02'06 | 1.38455 AU |
| max. Earth dist. | 5404 Nov 16 12:28 | 1°♄36'20 | 1.40568 AU | evening rise | 5405 Nov 02 12:21 | 20°♄44'57 | |
| desc. node | 5404 Nov 20 11:13 | 8°♄16'28 | | desc. node | 5405 Nov 07 08:14 | 28°♄56'01 | |
| evening rise | 5404 Nov 20 23:57 | 9°♄09'09 | | | 5405 Nov 07 23:48 | 0°♄ | |
| | 5404 Dec 04 08:33 | 0°♄ | | | 5405 Nov 28 09:52 | 0°♄ | |
| evening max el | 5404 Dec 25 11:57 | 27°♄24'32 | 23°30'46 | evening max el | 5405 Dec 08 01:03 | 11°♄07'29 | 24°49'02 |
| | 5404 Dec 28 07:27 | 0°♄ | | retrograde | 5405 Dec 19 17:00 | 17°♄54'23 | |
| retrograde | 5405 Jan 05 03:06 | 3°♄41'22 | | evening set | 5405 Dec 25 07:15 | 15°♄34'36 | |
| evening set | 5405 Jan 10 03:58 | 1°♄36'18 | | asc. node | 5405 Dec 29 02:33 | 11°♄25'03 | |
| asc. node | 5405 Jan 11 05:30 | 0°♄36'57 | | min. Earth dist. | 5405 Dec 29 20:50 | 10°♄25'41 | 0.67641 AU |
| | 5405 Jan 11 19:30 | 30°♄ | | inferior conj | 5405 Dec 30 20:12 | 9°♄08'28 | 0°35'02 |
| min. Earth dist. | 5405 Jan 15 01:33 | 25°♄53'11 | 0.68062 AU | minimum elong | 5405 Dec 30 19:21 | 9°♄11'16 | 0°34'42 |
| inferior conj | 5405 Jan 15 13:57 | 25°♄10'42 | 1°25'15 | morning rise | 5406 Jan 05 07:35 | 3°♄09'08 | |
| minimum elong | 5405 Jan 15 12:08 | 25°♄16'53 | 1°24'35 | direct | 5406 Jan 08 23:11 | 1°♄52'34 | |
| morning rise | 5405 Jan 20 20:15 | 19°♄04'42 | | morning max el | 5406 Jan 16 09:21 | 6°♄03'26 | 19°48'31 |
| direct | 5405 Jan 25 00:42 | 17°♄26'36 | | greatest brilliancy | 5406 Jan 29 12:29 | 23°♄16'17 | -0.6m |
| morning max el | 5405 Feb 02 08:50 | 22°♄15'10 | 20°58'18 | desc. node | 5406 Feb 03 07:30 | 0°♄25'45 | |
| | 5405 Feb 08 23:16 | 0°♄ | | | 5406 Feb 03 00:40 | 0°♄ | |
| desc. node | 5405 Feb 16 10:30 | 10°♄18'29 | | morning set | 5406 Feb 11 10:36 | 12°♄50'40 | |
| | 5405 Mar 01 14:29 | 0°♄ | | | 5406 Feb 22 10:02 | 0°♄ | |
| morning set | 5405 Mar 04 14:22 | 4°♄39'18 | | max. Earth dist. | 5406 Feb 22 23:38 | 0°♄54'02 | 1.44277 AU |
| max. Earth dist. | 5405 Mar 12 12:23 | 17°♄17'24 | 1.42747 AU | superior conj | 5406 Feb 27 21:45 | 8°♄47'57 | -2°05'07 |
| superior conj | 5405 Mar 19 13:47 | 29°♄01'22 | -2°08'18 | minimum elong | 5406 Feb 27 17:28 | 8°♄30'36 | 2°04'57 |
| minimum elong | 5405 Mar 19 15:32 | 29°♄08'48 | 2°08'17 | | 5406 Mar 12 15:56 | 0°♄ | |
| | 5405 Mar 20 03:35 | 0°♄ | | evening rise | 5406 Mar 13 08:15 | 1°♄09'23 | |
| evening rise | 5405 Mar 31 06:32 | 19°♄30'31 | | asc. node | 5406 Mar 27 01:49 | 23°♄36'02 | |
| | 5405 Apr 06 04:21 | 0°♄ | | evening max el | 5406 Mar 31 14:00 | 29°♄08'15 | 18°13'06 |
| asc. node | 5405 Apr 09 04:47 | 5°♄07'00 | | | 5406 Apr 01 11:59 | 0°♄ | |
| evening max el | 5405 Apr 17 01:03 | 15°♄50'41 | 18°06'39 | retrograde | 5406 Apr 06 23:42 | 2°♄32'13 | |
| retrograde | 5405 Apr 23 15:28 | 19°♄13'29 | | evening set | 5406 Apr 09 21:48 | 1°♄47'23 | |
| evening set | 5405 Apr 26 07:14 | 18°♄40'37 | | | 5406 Apr 12 11:40 | 30°♄ | |
| inferior conj | 5405 May 02 20:48 | 13°♄41'37 | 3°01'19 | inferior conj | 5406 Apr 15 23:13 | 26°♄28'56 | 3°26'27 |
| minimum elong | 5405 May 02 23:35 | 13°♄34'50 | 3°00'47 | minimum elong | 5406 Apr 16 00:27 | 26°♄25'31 | 3°26'19 |
| min. Earth dist. | 5405 May 06 00:52 | 10°♄37'47 | 0.61163 AU | min. Earth dist. | 5406 Apr 18 14:01 | 23°♄36'59 | 0.63266 AU |
| morning rise | 5405 May 09 13:54 | 7°♄45'25 | | morning rise | 5406 Apr 22 01:58 | 20°♄21'04 | |
| desc. node | 5405 May 15 09:45 | 5°♄31'27 | | direct | 5406 Apr 28 22:18 | 17°♄41'55 | |
| direct | 5405 May 16 07:10 | 5°♄29'06 | | desc. node | 5406 May 02 06:46 | 18°♄15'48 | |
| morning max el | 5405 May 30 12:47 | 13°♄26'49 | 27°50'27 | morning max el | 5406 May 12 20:20 | 25°♄41'37 | 27°46'16 |
| | 5405 Jun 12 18:11 | 0°♄ | | | 5406 May 16 19:32 | 0°♄ | |
| | 5405 Jun 30 01:42 | 0°♄ | | | 5406 Jun 06 06:41 | 0°♄ | |
| morning set | 5405 Jul 02 10:14 | 4°♄46'16 | | morning set | 5406 Jun 16 08:04 | 18°♄48'18 | |
| asc. node | 5405 Jul 06 04:02 | 12°♄38'54 | | max. Earth dist. | 5406 Jun 21 13:21 | 29°♄35'18 | 1.32718 AU |
| max. Earth dist. | 5405 Jul 08 08:39 | 17°♄23'47 | 1.32087 AU | asc. node | 5406 Jun 21 18:00 | 0°♄ | |
| | | | | | 5406 Jun 23 01:04 | 2°♄45'51 | |
| superior conj | 5405 Jul 09 18:22 | 20°♄28'15 | 0°36'44 | superior conj | 5406 Jun 24 02:06 | 5°♄00'36 | 0°10'50 |
| minimum elong | 5405 Jul 09 16:47 | 20°♄19'37 | 0°36'23 | minimum elong | 5406 Jun 24 01:35 | 4°♄57'47 | 0°10'42 |
| | 5405 Jul 14 02:32 | 0°♄ | | behind sun begin | 5406 Jun 23 21:38 | 4°♄36'28 | |
| evening rise | 5405 Jul 16 14:01 | 5°♄21'03 | | behind sun end | 5406 Jun 24 05:32 | 5°♄19'06 | |
| | 5405 Jul 29 13:18 | 0°♄ | | evening rise | 5406 Jul 01 01:48 | 20°♄06'35 | |
| desc. node | 5405 Aug 11 09:00 | 16°♄49'25 | | | 5406 Jul 05 21:14 | 0°♄ | |
| evening max el | 5405 Aug 11 18:56 | 17°♄13'29 | 24°58'44 | evening max el | 5406 Jul 24 07:14 | 27°♄37'03 | 23°22'45 |
| retrograde | 5405 Aug 25 16:51 | 24°♄15'05 | | | 5406 Jul 27 00:02 | 0°♄ | |
| evening set | 5405 Aug 31 04:43 | 23°♄06'39 | | | | | |

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|------------------|-------------------|---------------------------------|------------|---------------------|-------------------|---------------------------------|------------|
| desc. node | 5406 Jul 29 06:00 | 1° \mathbb{M} 36'48 | | evening max el | 5407 Jul 05 23:21 | 8° \mathcal{O} 01'16 | 21°46'52 |
| retrograde | 5406 Aug 06 19:49 | 4° \mathbb{M} 23'32 | | desc. node | 5407 Jul 16 03:02 | 14° \mathcal{O} 00'30 | |
| evening set | 5406 Aug 10 19:57 | 3° \mathbb{M} 48'24 | | retrograde | 5407 Jul 18 12:05 | 14° \mathcal{O} 13'48 | |
| min. Earth dist. | 5406 Aug 17 16:40 | 0° \mathbb{M} 38'10 | 0.55701 AU | evening set | 5407 Jul 21 03:26 | 13° \mathcal{O} 58'06 | |
| | 5406 Aug 18 18:42 | 30° \mathcal{R} \mathcal{O} | | inferior conj | 5407 Jul 30 10:52 | 9° \mathcal{O} 56'10 | -3°56'44 |
| inferior conj | 5406 Aug 19 14:49 | 29° \mathcal{O} 30'15 | -5°03'33 | minimum elong | 5407 Jul 30 01:57 | 10° \mathcal{O} 08'38 | 3°54'20 |
| minimum elong | 5406 Aug 19 09:29 | 29° \mathcal{O} 38'08 | 5°02'54 | min. Earth dist. | 5407 Jul 30 02:34 | 10° \mathcal{O} 07'47 | 0.54855 AU |
| morning rise | 5406 Aug 28 01:24 | 25° \mathcal{O} 37'34 | | morning rise | 5407 Aug 08 01:51 | 6° \mathcal{O} 05'07 | |
| direct | 5406 Aug 30 22:57 | 25° \mathcal{O} 17'10 | | direct | 5407 Aug 11 09:47 | 5° \mathcal{O} 40'50 | |
| | 5406 Sep 10 07:28 | 0° \mathbb{M} | | morning max el | 5407 Aug 23 13:59 | 11° \mathcal{O} 23'43 | 21°51'47 |
| morning max el | 5406 Sep 10 12:46 | 0° \mathbb{M} 12'14 | 20°21'44 | asc. node | 5407 Sep 05 21:20 | 29° \mathcal{O} 45'05 | |
| asc. node | 5406 Sep 19 00:19 | 11° \mathbb{M} 02'40 | | | 5407 Sep 06 00:40 | 0° \mathbb{M} | |
| morning set | 5406 Sep 29 03:39 | 0° \mathcal{O} 00'11 | | morning set | 5407 Sep 13 13:12 | 14° \mathbb{M} 47'45 | |
| | 5406 Sep 29 03:37 | 0° \mathcal{O} | | | | | |
| superior conj | 5406 Oct 06 17:49 | 15° \mathcal{O} 35'28 | 1°41'55 | superior conj | 5407 Sep 20 18:05 | 0° \mathcal{O} 01'09 | 1°42'52 |
| minimum elong | 5406 Oct 06 18:46 | 15° \mathcal{O} 40'16 | 1°41'54 | minimum elong | 5407 Sep 20 17:37 | 29° \mathbb{M} 58'42 | 1°42'53 |
| max. Earth dist. | 5406 Oct 12 00:24 | 26° \mathcal{O} 00'35 | 1.36429 AU | | 5407 Sep 20 17:52 | 0° \mathcal{O} | |
| | 5406 Oct 14 02:52 | 0° \mathbb{M} | | max. Earth dist. | 5407 Sep 24 13:28 | 7° \mathcal{O} 53'10 | 1.34696 AU |
| evening rise | 5406 Oct 15 21:28 | 3° \mathbb{M} 17'27 | | evening rise | 5407 Sep 28 23:16 | 16° \mathcal{O} 36'06 | |
| desc. node | 5406 Oct 25 05:15 | 19° \mathbb{M} 25'39 | | | 5407 Oct 06 07:04 | 0° \mathbb{M} | |
| | 5406 Oct 31 23:39 | 0° \mathcal{X} | | desc. node | 5407 Oct 12 02:16 | 9° \mathbb{M} 39'27 | |
| evening max el | 5406 Nov 20 13:38 | 24° \mathcal{X} 51'33 | 25°58'42 | | 5407 Oct 26 09:59 | 0° \mathcal{X} | |
| | 5406 Nov 26 23:25 | 0° \mathcal{Z} | | evening max el | 5407 Nov 03 02:18 | 8° \mathcal{X} 29'39 | 26°52'25 |
| retrograde | 5406 Dec 03 02:09 | 1° \mathcal{Z} 58'50 | | retrograde | 5407 Nov 16 05:58 | 15° \mathcal{X} 47'02 | |
| | 5406 Dec 08 13:06 | 30° \mathcal{R} \mathcal{X} | | evening set | 5407 Nov 22 21:48 | 13° \mathcal{X} 07'56 | |
| evening set | 5406 Dec 09 05:53 | 29° \mathcal{X} 26'53 | | min. Earth dist. | 5407 Nov 26 21:41 | 9° \mathcal{X} 09'20 | 0.65723 AU |
| min. Earth dist. | 5406 Dec 13 12:18 | 24° \mathcal{X} 52'59 | 0.66860 AU | inferior conj | 5407 Nov 28 19:57 | 6° \mathcal{X} 55'10 | -1°21'49 |
| inferior conj | 5406 Dec 14 22:53 | 23° \mathcal{X} 04'54 | -0°21'01 | minimum elong | 5407 Nov 28 22:17 | 6° \mathcal{X} 48'25 | 1°20'49 |
| minimum elong | 5406 Dec 14 23:27 | 23° \mathcal{X} 03'10 | 0°20'46 | asc. node | 5407 Dec 02 20:35 | 2° \mathcal{X} 43'20 | |
| asc. node | 5406 Dec 15 23:34 | 21° \mathcal{X} 48'34 | | morning rise | 5407 Dec 04 23:42 | 1° \mathcal{X} 16'21 | |
| morning rise | 5406 Dec 20 17:31 | 17° \mathcal{X} 14'32 | | direct | 5407 Dec 07 18:53 | 0° \mathcal{X} 33'20 | |
| direct | 5406 Dec 23 21:53 | 16° \mathcal{X} 16'38 | | morning max el | 5407 Dec 14 07:15 | 4° \mathcal{X} 03'48 | 18°15'18 |
| morning max el | 5406 Dec 30 17:30 | 20° \mathcal{X} 01'47 | 18°53'47 | | 5407 Dec 31 23:54 | 0° \mathcal{Z} | |
| | 5407 Jan 07 14:24 | 0° \mathcal{Z} | | morning set | 5408 Jan 02 07:21 | 2° \mathcal{Z} 07'32 | |
| desc. node | 5407 Jan 21 04:30 | 20° \mathcal{Z} 49'38 | | desc. node | 5408 Jan 08 01:30 | 11° \mathcal{Z} 24'49 | |
| morning set | 5407 Jan 21 19:01 | 21° \mathcal{Z} 46'26 | | superior conj | 5408 Jan 17 11:16 | 26° \mathcal{Z} 20'44 | -1°02'20 |
| | 5407 Jan 27 01:15 | 0° \approx | | minimum elong | 5408 Jan 17 03:43 | 25° \mathcal{Z} 51'04 | 1°01'22 |
| max. Earth dist. | 5407 Feb 05 16:24 | 15° \approx 04'46 | 1.45163 AU | max. Earth dist. | 5408 Jan 19 11:27 | 29° \mathcal{Z} 29'57 | 1.45317 AU |
| | | | | | 5408 Jan 19 19:07 | 0° \approx | |
| superior conj | 5407 Feb 07 07:51 | 17° \approx 39'51 | -1°42'12 | evening rise | 5408 Feb 02 15:51 | 21° \approx 39'41 | |
| minimum elong | 5407 Feb 06 22:40 | 17° \approx 03'42 | 1°41'23 | | 5408 Feb 08 00:04 | 0° \mathcal{H} | |
| | 5407 Feb 15 02:40 | 0° \mathcal{H} | | greatest brilliancy | 5408 Feb 14 05:21 | 9° \mathcal{H} 36'34 | -0.7m |
| evening rise | 5407 Feb 22 11:24 | 11° \mathcal{H} 51'17 | | evening max el | 5408 Feb 26 10:03 | 26° \mathcal{H} 07'05 | 19°20'02 |
| | 5407 Mar 05 18:05 | 0° \mathcal{Y} | | asc. node | 5408 Feb 28 19:52 | 28° \mathcal{H} 16'39 | |
| asc. node | 5407 Mar 13 22:51 | 11° \mathcal{Y} 23'23 | | | 5408 Mar 03 04:02 | 0° \mathcal{Y} | |
| evening max el | 5407 Mar 15 01:44 | 12° \mathcal{Y} 35'21 | 18°37'55 | retrograde | 5408 Mar 04 12:23 | 0° \mathcal{Y} 10'09 | |
| retrograde | 5407 Mar 21 15:52 | 16° \mathcal{Y} 13'26 | | | 5408 Mar 05 20:08 | 30° \mathcal{R} \mathcal{H} | |
| evening set | 5407 Mar 24 20:22 | 15° \mathcal{Y} 15'52 | | evening set | 5408 Mar 08 00:05 | 28° \mathcal{H} 59'03 | |
| inferior conj | 5407 Mar 30 13:21 | 9° \mathcal{Y} 39'42 | 3°31'56 | inferior conj | 5408 Mar 13 11:45 | 23° \mathcal{H} 07'17 | 3°22'26 |
| minimum elong | 5407 Mar 30 13:03 | 9° \mathcal{Y} 40'37 | 3°31'55 | minimum elong | 5408 Mar 13 10:17 | 23° \mathcal{H} 12'04 | 3°22'16 |
| min. Earth dist. | 5407 Apr 01 12:43 | 7° \mathcal{Y} 16'37 | 0.65064 AU | min. Earth dist. | 5408 Mar 14 19:57 | 21° \mathcal{H} 22'50 | 0.66461 AU |
| morning rise | 5407 Apr 05 05:10 | 3° \mathcal{Y} 26'18 | | morning rise | 5408 Mar 18 20:09 | 16° \mathcal{H} 52'08 | |
| direct | 5407 Apr 11 21:05 | 0° \mathcal{Y} 37'05 | | direct | 5408 Mar 25 02:24 | 14° \mathcal{H} 05'37 | |
| desc. node | 5407 Apr 19 03:46 | 3° \mathcal{Y} 16'26 | | desc. node | 5408 Apr 05 00:47 | 19° \mathcal{H} 59'22 | |
| morning max el | 5407 Apr 25 06:23 | 8° \mathcal{Y} 28'54 | 27°07'46 | morning max el | 5408 Apr 06 16:17 | 21° \mathcal{H} 35'34 | 26°02'30 |
| | 5407 May 12 00:12 | 0° \mathcal{B} | | | 5408 Apr 13 23:56 | 0° \mathcal{Y} | |
| | 5407 May 29 15:24 | 0° \mathbb{I} | | | 5408 May 04 05:29 | 0° \mathcal{B} | |
| morning set | 5407 May 30 20:34 | 2° \mathbb{I} 19'54 | | morning set | 5408 May 12 19:54 | 15° \mathcal{B} 10'08 | |
| max. Earth dist. | 5407 Jun 04 09:05 | 11° \mathbb{I} 18'31 | 1.33805 AU | max. Earth dist. | 5408 May 16 17:21 | 22° \mathcal{B} 32'12 | 1.35353 AU |
| | | | | | 5408 May 20 12:17 | 0° \mathbb{I} | |
| superior conj | 5407 Jun 08 04:52 | 19° \mathbb{I} 13'49 | -0°17'41 | superior conj | 5408 May 22 00:13 | 3° \mathbb{I} 01'13 | -0°47'36 |
| minimum elong | 5407 Jun 08 05:48 | 19° \mathbb{I} 18'43 | 0°17'30 | minimum elong | 5408 May 22 02:51 | 3° \mathbb{I} 14'38 | 0°47'06 |
| asc. node | 5407 Jun 09 22:06 | 22° \mathbb{I} 51'34 | | asc. node | 5408 May 26 19:09 | 12° \mathbb{I} 52'10 | |
| | 5407 Jun 13 06:39 | 0° \mathcal{G} | | evening rise | 5408 May 29 20:08 | 19° \mathbb{I} 09'20 | |
| evening rise | 5407 Jun 15 12:31 | 4° \mathcal{G} 44'45 | | | 5408 Jun 04 07:02 | 0° \mathcal{G} | |
| | 5407 Jun 29 08:39 | 0° \mathcal{O} | | | | | |

| | | | | | | | |
|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| evening max el | 5408 Jun 17 02:30 | 18°☿57'15 | 20°23'48 | asc. node | 5409 May 13 16:11 | 2°♄42'45 | |
| retrograde | 5408 Jun 28 01:09 | 24°☿18'57 | | | 5409 May 30 04:17 | 0°☿ | |
| evening set | 5408 Jun 30 00:27 | 24°☿09'15 | | evening max el | 5409 May 30 18:13 | 0°☿35'04 | 19°19'24 |
| desc. node | 5408 Jul 02 00:03 | 23°☿41'09 | | retrograde | 5409 Jun 08 23:24 | 5°☿05'27 | |
| inferior conj | 5408 Jul 09 04:58 | 20°☿11'41 | -2°08'22 | evening set | 5409 Jun 10 22:22 | 4°☿54'09 | |
| minimum elong | 5408 Jul 08 23:00 | 20°☿20'24 | 2°06'14 | desc. node | 5409 Jun 18 21:05 | 1°☿08'58 | |
| min. Earth dist. | 5408 Jul 10 14:16 | 19°☿23'09 | 0.54951 AU | inferior conj | 5409 Jun 19 11:04 | 0°☿46'04 | -0°10'24 |
| morning rise | 5408 Jul 17 20:29 | 16°☿01'36 | | minimum elong | 5409 Jun 19 10:36 | 0°☿46'48 | 0°10'16 |
| direct | 5408 Jul 21 19:58 | 15°☿27'23 | | transit middle | 5409 Jun 19 10:36 | 0°☿46'48 | 0°10'16 |
| morning max el | 5408 Aug 04 06:23 | 21°☿59'01 | 23°34'13 | transit begin | 5409 Jun 19 07:39 | 0°☿51'40 | |
| | 5408 Aug 11 06:27 | 0°♌ | | transit end | 5409 Jun 19 13:34 | 0°☿41'56 | |
| asc. node | 5408 Aug 22 18:23 | 18°♌58'26 | | | 5409 Jun 20 14:58 | 30°♌♄ | |
| morning set | 5408 Aug 28 00:39 | 29°♌40'18 | | min. Earth dist. | 5409 Jun 22 04:19 | 28°♄59'14 | 0.55989 AU |
| | 5408 Aug 28 04:22 | 0°♍ | | morning rise | 5409 Jun 27 19:57 | 26°♄02'44 | |
| | | | | direct | 5409 Jul 02 16:43 | 25°♄08'38 | |
| superior conj | 5408 Sep 04 00:27 | 14°♍44'10 | 1°37'23 | | 5409 Jul 14 04:45 | 0°☿ | |
| minimum elong | 5408 Sep 03 22:55 | 14°♍35'57 | 1°37'16 | morning max el | 5409 Jul 16 19:47 | 2°☿18'55 | 25°16'03 |
| max. Earth dist. | 5408 Sep 06 11:24 | 19°♍59'31 | 1.33368 AU | | 5409 Aug 05 06:03 | 0°♌ | |
| | 5408 Sep 11 07:35 | 0°♌ | | asc. node | 5409 Aug 09 15:26 | 8°♌33'48 | |
| evening rise | 5408 Sep 11 13:44 | 0°♌30'46 | | morning set | 5409 Aug 12 12:17 | 14°♌31'50 | |
| desc. node | 5408 Sep 27 23:20 | 29°♌30'31 | | | | | |
| | 5408 Sep 28 07:01 | 0°♍ | | superior conj | 5409 Aug 19 10:27 | 29°♌35'50 | 1°26'19 |
| evening max el | 5408 Oct 15 14:28 | 21°♍52'29 | 27°22'54 | minimum elong | 5409 Aug 19 08:18 | 29°♌24'05 | 1°26'03 |
| retrograde | 5408 Oct 29 03:49 | 29°♍10'54 | | | 5409 Aug 19 14:51 | 0°♍ | |
| evening set | 5408 Nov 05 04:32 | 26°♍32'36 | | max. Earth dist. | 5409 Aug 20 17:03 | 2°♍23'19 | 1.32468 AU |
| min. Earth dist. | 5408 Nov 08 22:55 | 23°♍07'41 | 0.64246 AU | evening rise | 5409 Aug 26 13:16 | 14°♍50'17 | |
| inferior conj | 5408 Nov 11 09:02 | 20°♍34'18 | -2°25'28 | | 5409 Sep 03 08:24 | 0°♌ | |
| minimum elong | 5408 Nov 11 13:18 | 20°♍23'02 | 2°23'49 | desc. node | 5409 Sep 14 20:22 | 18°♌48'32 | |
| morning rise | 5408 Nov 17 23:26 | 15°♍09'55 | | | 5409 Sep 23 10:38 | 0°♍ | |
| asc. node | 5408 Nov 18 17:36 | 14°♍53'37 | | evening max el | 5409 Sep 28 00:04 | 4°♍46'33 | 27°23'57 |
| direct | 5408 Nov 20 11:49 | 14°♍37'50 | | retrograde | 5409 Oct 11 18:44 | 12°♍00'52 | |
| morning max el | 5408 Nov 26 23:51 | 18°♍02'52 | 17°53'48 | evening set | 5409 Oct 18 22:47 | 9°♍33'44 | |
| | 5408 Dec 05 17:24 | 0°♎ | | min. Earth dist. | 5409 Oct 22 14:05 | 6°♍37'41 | 0.62461 AU |
| morning set | 5408 Dec 14 00:14 | 13°♎52'39 | | inferior conj | 5409 Oct 25 11:14 | 3°♍54'50 | -3°28'48 |
| | 5408 Dec 23 15:24 | 0°♏ | | minimum elong | 5409 Oct 25 17:08 | 3°♍40'54 | 3°26'53 |
| desc. node | 5408 Dec 24 22:33 | 2°♏07'29 | | | 5409 Oct 30 04:04 | 30°♎♌ | |
| | | | | morning rise | 5409 Nov 01 13:13 | 28°♌48'18 | |
| superior conj | 5408 Dec 27 04:09 | 5°♏45'09 | -0°15'37 | direct | 5409 Nov 03 21:35 | 28°♌23'29 | |
| minimum elong | 5408 Dec 27 02:20 | 5°♏37'49 | 0°15'19 | asc. node | 5409 Nov 05 14:39 | 28°♌37'03 | |
| behind sun begin | 5408 Dec 26 23:07 | 5°♏24'50 | | | 5409 Nov 08 11:30 | 0°♍ | |
| behind sun end | 5408 Dec 27 05:32 | 5°♏50'48 | | morning max el | 5409 Nov 10 16:16 | 1°♍51'14 | 17°50'09 |
| max. Earth dist. | 5409 Jan 01 06:08 | 13°♏53'08 | 1.44737 AU | morning set | 5409 Nov 26 15:40 | 26°♍42'31 | |
| | 5409 Jan 11 14:08 | 0°♐ | | | 5409 Nov 28 12:02 | 0°♎ | |
| evening rise | 5409 Jan 12 04:42 | 0°♐55'58 | | | | | |
| | 5409 Jan 31 17:38 | 0°♑ | | superior conj | 5409 Dec 07 22:07 | 16°♎23'18 | 0°27'26 |
| evening max el | 5409 Feb 08 13:30 | 9°♑41'08 | 20°17'27 | minimum elong | 5409 Dec 08 00:38 | 16°♎33'57 | 0°27'05 |
| asc. node | 5409 Feb 14 16:54 | 14°♑01'37 | | desc. node | 5409 Dec 11 19:37 | 22°♎54'00 | |
| retrograde | 5409 Feb 16 10:34 | 14°♑17'41 | | max. Earth dist. | 5409 Dec 14 22:12 | 27°♎58'52 | 1.43490 AU |
| evening set | 5409 Feb 20 06:45 | 12°♑52'11 | | | 5409 Dec 16 04:13 | 0°♏ | |
| inferior conj | 5409 Feb 25 15:36 | 6°♑46'59 | 3°01'10 | evening rise | 5409 Dec 22 16:24 | 10°♏16'49 | |
| minimum elong | 5409 Feb 25 13:25 | 6°♑54'23 | 3°00'43 | | 5410 Jan 04 18:24 | 0°♐ | |
| min. Earth dist. | 5409 Feb 26 09:47 | 5°♑45'15 | 0.67435 AU | evening max el | 5410 Jan 22 11:31 | 23°♐16'49 | 21°27'07 |
| morning rise | 5409 Mar 02 19:52 | 0°♑32'30 | | retrograde | 5410 Jan 31 08:19 | 28°♐32'16 | |
| | 5409 Mar 03 10:59 | 30°♒♐ | | asc. node | 5410 Feb 01 13:55 | 28°♐24'08 | |
| direct | 5409 Mar 08 13:15 | 27°♐59'01 | | evening set | 5410 Feb 04 14:33 | 26°♐51'29 | |
| | 5409 Mar 14 07:12 | 0°♑ | | inferior conj | 5410 Feb 09 22:34 | 20°♐35'38 | 2°30'17 |
| morning max el | 5409 Mar 20 00:58 | 4°♑51'28 | 24°40'08 | minimum elong | 5410 Feb 09 20:10 | 20°♐43'57 | 2°29'37 |
| desc. node | 5409 Mar 22 21:48 | 7°♑56'16 | | min. Earth dist. | 5410 Feb 10 04:04 | 20°♐16'33 | 0.67986 AU |
| | 5409 Apr 08 09:20 | 0°♒ | | morning rise | 5410 Feb 15 01:37 | 14°♐23'22 | |
| morning set | 5409 Apr 25 00:56 | 27°♒04'00 | | direct | 5410 Feb 20 04:35 | 12°♐09'40 | |
| | 5409 Apr 26 16:33 | 0°♓ | | morning max el | 5410 Mar 02 10:07 | 18°♐13'54 | 23°11'02 |
| max. Earth dist. | 5409 Apr 28 15:44 | 3°♓33'25 | 1.37312 AU | desc. node | 5410 Mar 09 18:51 | 26°♐46'21 | |
| | | | | | 5410 Mar 12 06:10 | 0°♑ | |
| superior conj | 5409 May 05 08:58 | 16°♓13'49 | -1°17'06 | | 5410 Apr 01 12:06 | 0°♒ | |
| minimum elong | 5409 May 05 13:14 | 16°♓34'33 | 1°16'27 | morning set | 5410 Apr 06 05:48 | 7°♒46'33 | |
| | 5409 May 12 07:39 | 0°♄ | | max. Earth dist. | 5410 Apr 10 11:19 | 14°♒58'49 | 1.39502 AU |
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


























































































































| | | | | | | | |
|------------------|-------------------|----------------------|------------|------------------|-------------------|----------------------|------------|
| superior conj | 5410 Apr 18 03:11 | 28° Υ 42'10 | -1°43'26 | superior conj | 5411 Mar 31 01:57 | 10° Υ 13'50 | -2°02'36 |
| minimum elong | 5410 Apr 18 08:17 | 29° Υ 05'42 | 1°42'54 | minimum elong | 5411 Mar 31 05:51 | 10° Υ 30'53 | 2°02'23 |
| | 5410 Apr 18 20:00 | 0° ♄ | | evening rise | 5411 Apr 10 21:30 | 29° Υ 45'27 | |
| evening rise | 5410 Apr 27 15:55 | 16° ♄ 48'05 | | | 5411 Apr 11 00:40 | 0° ♄ | |
| asc. node | 5410 Apr 30 13:15 | 22° ♄ 18'57 | | asc. node | 5411 Apr 17 10:16 | 11° ♄ 34'42 | |
| | 5410 May 04 18:01 | 0° ♄ | | evening max el | 5411 Apr 27 05:09 | 25° ♄ 39'32 | 18°11'26 |
| evening max el | 5410 May 13 20:15 | 12° ♄ 52'07 | 18°35'19 | retrograde | 5411 May 04 03:07 | 29° ♄ 08'41 | |
| retrograde | 5410 May 21 15:58 | 16° ♄ 43'48 | | evening set | 5411 May 06 14:56 | 28° ♄ 42'09 | |
| evening set | 5410 May 23 20:54 | 16° ♄ 26'24 | | inferior conj | 5411 May 13 13:19 | 23° ♄ 54'35 | 2°35'39 |
| inferior conj | 5410 May 31 13:33 | 11° ♄ 59'23 | 1°27'53 | minimum elong | 5411 May 13 16:40 | 23° ♄ 47'02 | 2°34'50 |
| minimum elong | 5410 May 31 16:28 | 11° ♄ 53'46 | 1°26'56 | min. Earth dist. | 5411 May 16 22:03 | 20° ♄ 54'27 | 0.59886 AU |
| min. Earth dist. | 5410 Jun 03 22:07 | 9° ♄ 25'29 | 0.57747 AU | morning rise | 5411 May 20 15:46 | 18° ♄ 08'42 | |
| desc. node | 5410 Jun 05 18:06 | 8° ♄ 09'25 | | desc. node | 5411 May 23 15:07 | 16° ♄ 45'03 | |
| morning rise | 5410 Jun 08 08:46 | 6° ♄ 40'47 | | direct | 5411 May 27 02:57 | 16° ♄ 10'34 | |
| direct | 5410 Jun 14 03:21 | 5° ♄ 16'53 | | morning max el | 5411 Jun 10 11:31 | 24° ♄ 03'29 | 27°35'49 |
| morning max el | 5410 Jun 28 12:27 | 12° ♄ 53'15 | 26°41'08 | | 5411 Jun 15 20:29 | 0° ♄ | |
| | 5410 Jul 11 23:42 | 0° ♄ | | | 5411 Jul 05 05:13 | 0° ♄ | |
| morning set | 5410 Jul 27 22:31 | 29° ♄ 17'35 | | morning set | 5411 Jul 12 05:36 | 13° ♄ 52'03 | |
| asc. node | 5410 Jul 27 12:30 | 28° ♄ 24'52 | | asc. node | 5411 Jul 14 09:33 | 18° ♄ 26'04 | |
| | 5410 Jul 28 06:32 | 0° ♄ | | max. Earth dist. | 5411 Jul 18 14:34 | 27° ♄ 35'18 | 1.31926 AU |
| superior conj | 5410 Aug 03 22:07 | 14° ♄ 29'56 | 1°10'23 | superior conj | 5411 Jul 19 09:41 | 29° ♄ 20'36 | 0°50'07 |
| minimum elong | 5410 Aug 03 19:49 | 14° ♄ 17'15 | 1°09'59 | minimum elong | 5411 Jul 19 07:42 | 29° ♄ 09'43 | 0°49'44 |
| max. Earth dist. | 5410 Aug 04 03:23 | 14° ♄ 59'04 | 1.31990 AU | | 5411 Jul 19 16:49 | 0° ♄ | |
| evening rise | 5410 Aug 10 19:03 | 29° ♄ 26'18 | | evening rise | 5411 Jul 26 04:43 | 14° ♄ 11'25 | |
| | 5410 Aug 11 01:27 | 0° ♄ | | | 5411 Aug 03 02:17 | 0° ♄ | |
| | 5410 Aug 27 13:25 | 0° ♄ | | desc. node | 5411 Aug 19 14:24 | 24° ♄ 47'05 | |
| desc. node | 5410 Sep 01 17:24 | 7° ♄ 20'16 | | evening max el | 5411 Aug 23 00:50 | 28° ♄ 21'46 | 25°47'21 |
| evening max el | 5410 Sep 10 04:15 | 16° ♄ 58'47 | 26°51'43 | | 5411 Aug 24 20:24 | 0° ♄ | |
| retrograde | 5410 Sep 24 01:46 | 24° ♄ 08'30 | | retrograde | 5411 Sep 05 23:45 | 5° ♄ 27'57 | |
| evening set | 5410 Oct 01 00:18 | 22° ♄ 04'14 | | evening set | 5411 Sep 12 04:16 | 3° ♄ 57'20 | |
| min. Earth dist. | 5410 Oct 04 18:19 | 19° ♄ 26'34 | 0.60452 AU | min. Earth dist. | 5411 Sep 16 13:03 | 1° ♄ 21'08 | 0.58383 AU |
| inferior conj | 5410 Oct 07 23:10 | 16° ♄ 47'59 | -4°26'04 | | 5411 Sep 18 10:40 | 30° ♄ | |
| minimum elong | 5410 Oct 08 05:29 | 16° ♄ 34'54 | 4°24'36 | inferior conj | 5411 Sep 19 17:22 | 29° ♄ 04'19 | -5°07'27 |
| morning rise | 5410 Oct 15 12:40 | 12° ♄ 02'47 | | minimum elong | 5411 Sep 19 21:28 | 28° ♄ 56'57 | 5°07'00 |
| direct | 5410 Oct 17 20:14 | 11° ♄ 42'11 | | morning rise | 5411 Sep 27 16:58 | 24° ♄ 42'26 | |
| asc. node | 5410 Oct 23 11:43 | 13° ♄ 51'00 | | direct | 5411 Sep 30 03:11 | 24° ♄ 23'37 | |
| morning max el | 5410 Oct 25 05:16 | 15° ♄ 21'00 | 18°05'28 | morning max el | 5411 Oct 08 11:32 | 28° ♄ 23'16 | 18°41'12 |
| | 5410 Nov 04 08:31 | 0° ♄ | | asc. node | 5411 Oct 10 08:46 | 0° ♄ 22'39 | |
| morning set | 5410 Nov 09 23:17 | 10° ♄ 18'07 | | | 5411 Oct 10 00:48 | 0° ♄ | |
| superior conj | 5410 Nov 19 17:44 | 28° ♄ 16'00 | 1°01'11 | morning set | 5411 Oct 24 18:16 | 24° ♄ 25'50 | |
| minimum elong | 5410 Nov 19 21:38 | 28° ♄ 33'22 | 1°00'41 | | 5411 Oct 27 14:48 | 0° ♄ | |
| | 5410 Nov 20 17:08 | 0° ♄ | | superior conj | 5411 Nov 02 10:26 | 11° ♄ 10'24 | 1°24'26 |
| max. Earth dist. | 5410 Nov 27 09:34 | 11° ♄ 31'07 | 1.41726 AU | minimum elong | 5411 Nov 02 13:43 | 11° ♄ 25'50 | 1°24'07 |
| desc. node | 5410 Nov 28 16:38 | 13° ♄ 40'40 | | max. Earth dist. | 5411 Nov 09 15:52 | 24° ♄ 19'34 | 1.39667 AU |
| evening rise | 5410 Dec 02 17:45 | 20° ♄ 17'11 | | | 5411 Nov 12 22:40 | 0° ♄ | |
| | 5410 Dec 08 22:01 | 0° ♄ | | evening rise | 5411 Nov 13 17:00 | 1° ♄ 17'41 | |
| | 5410 Dec 30 03:08 | 0° ♄ | | desc. node | 5411 Nov 15 13:40 | 4° ♄ 24'22 | |
| evening max el | 5411 Jan 05 04:34 | 6° ♄ 53'55 | 22°44'43 | | 5411 Dec 02 06:05 | 0° ♄ | |
| retrograde | 5411 Jan 15 04:05 | 12° ♄ 49'30 | | evening max el | 5411 Dec 18 18:21 | 20° ♄ 34'17 | 24°04'36 |
| asc. node | 5411 Jan 19 10:58 | 11° ♄ 14'35 | | retrograde | 5411 Dec 29 20:32 | 27° ♄ 05'40 | |
| evening set | 5411 Jan 19 21:50 | 10° ♄ 53'01 | | evening set | 5412 Jan 04 03:03 | 24° ♄ 53'55 | |
| inferior conj | 5411 Jan 25 06:41 | 4° ♄ 29'43 | 1°51'08 | asc. node | 5412 Jan 06 07:59 | 22° ♄ 39'48 | |
| minimum elong | 5411 Jan 25 04:31 | 4° ♄ 37'12 | 1°50'24 | min. Earth dist. | 5412 Jan 08 20:58 | 19° ♄ 25'18 | 0.67923 AU |
| min. Earth dist. | 5411 Jan 25 00:32 | 4° ♄ 50'59 | 0.68140 AU | inferior conj | 5412 Jan 09 14:07 | 18° ♄ 27'17 | 1°04'44 |
| | 5411 Jan 28 18:28 | 30° ♄ | | minimum elong | 5412 Jan 09 12:40 | 18° ♄ 32'13 | 1°04'10 |
| morning rise | 5411 Jan 30 11:07 | 28° ♄ 21'10 | | morning rise | 5412 Jan 14 22:20 | 12° ♄ 23'56 | |
| direct | 5411 Feb 03 23:31 | 26° ♄ 30'10 | | direct | 5412 Jan 18 21:00 | 10° ♄ 55'30 | |
| | 5411 Feb 11 02:35 | 0° ♄ | | morning max el | 5412 Jan 26 19:09 | 15° ♄ 26'55 | 20°26'57 |
| morning max el | 5411 Feb 12 23:11 | 1° ♄ 44'44 | 21°44'20 | | 5412 Feb 07 06:56 | 0° ♄ | |
| desc. node | 5411 Feb 24 15:52 | 16° ♄ 14'06 | | desc. node | 5412 Feb 11 12:53 | 6° ♄ 09'21 | |
| | 5411 Mar 06 04:05 | 0° ♄ | | morning set | 5412 Feb 24 07:09 | 25° ♄ 28'22 | |
| morning set | 5411 Mar 17 06:11 | 17° ♄ 08'15 | | | 5412 Feb 27 04:53 | 0° ♄ | |
| max. Earth dist. | 5411 Mar 23 10:54 | 27° ♄ 13'28 | 1.41644 AU | max. Earth dist. | 5412 Mar 04 17:18 | 10° ♄ 20'40 | 1.43462 AU |
| | 5411 Mar 25 02:47 | 0° ♄ | | superior conj | 5412 Mar 11 00:39 | 20° ♄ 39'16 | -2°09'13 |

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|---------------------|-------------------|---------------------------|------------|------------------|-------------------|-----------------------|------------|
| minimum elong | 5412 Mar 11 00:06 | 20° K 36'59 | 2°09'12 | | 5413 Jan 30 17:57 | 0° \approx | |
| | 5412 Mar 16 13:42 | 0° Y | | morning set | 5413 Feb 02 05:29 | 3° \approx 49'45 | |
| evening rise | 5412 Mar 23 10:40 | 11° Y 55'22 | | max. Earth dist. | 5413 Feb 15 06:36 | 24° \approx 11'44 | 1.44734 AU |
| asc. node | 5412 Apr 03 07:17 | 0° B 23'19 | | | | | |
| | 5412 Apr 03 01:18 | 0° B | | superior conj | 5413 Feb 18 22:16 | 29° \approx 59'36 | -1°57'50 |
| evening max el | 5412 Apr 09 17:29 | 8° B 48'33 | 18°07'06 | minimum elong | 5413 Feb 18 15:21 | 29° \approx 32'02 | 1°57'26 |
| retrograde | 5412 Apr 16 04:54 | 12° B 10'28 | | | 5413 Feb 18 22:22 | 0° K | |
| evening set | 5412 Apr 18 23:15 | 11° B 32'49 | | evening rise | 5413 Mar 05 03:03 | 23° K 09'59 | |
| inferior conj | 5412 Apr 25 07:11 | 6° B 25'29 | 3°14'43 | | 5413 Mar 09 05:21 | 0° Y | |
| minimum elong | 5412 Apr 25 09:21 | 6° B 19'55 | 3°14'23 | asc. node | 5413 Mar 21 04:17 | 18° Y 36'21 | |
| min. Earth dist. | 5412 Apr 28 06:12 | 3° B 23'51 | 0.62080 AU | evening max el | 5413 Mar 24 06:17 | 22° Y 11'31 | 18°21'35 |
| morning rise | 5412 May 01 17:47 | 0° B 23'04 | | retrograde | 5413 Mar 30 16:52 | 25° Y 39'54 | |
| | 5412 May 02 07:06 | 30° R Y | | evening set | 5413 Apr 02 17:37 | 24° Y 49'49 | |
| direct | 5412 May 08 13:17 | 27° Y 55'24 | | inferior conj | 5413 Apr 08 15:03 | 19° Y 23'57 | 3°30'51 |
| desc. node | 5412 May 09 12:07 | 27° Y 58'07 | | minimum elong | 5413 Apr 08 15:36 | 19° Y 22'21 | 3°30'48 |
| | 5412 May 15 07:25 | 0° B | | min. Earth dist. | 5413 Apr 10 23:32 | 16° Y 42'20 | 0.64071 AU |
| morning max el | 5412 May 22 16:32 | 5° B 56'02 | 27°53'12 | morning rise | 5413 Apr 14 12:43 | 13° Y 13'15 | |
| | 5412 Jun 09 20:15 | 0° II | | direct | 5413 Apr 21 08:07 | 10° Y 27'47 | |
| morning set | 5412 Jun 25 07:31 | 28° II 08'26 | | desc. node | 5413 Apr 26 09:08 | 11° Y 44'42 | |
| | 5412 Jun 26 05:18 | 0° B | | morning max el | 5413 May 05 01:20 | 18° Y 25'59 | 27°33'43 |
| asc. node | 5412 Jun 30 06:34 | 8° B 32'23 | | | 5413 May 14 19:00 | 0° B | |
| max. Earth dist. | 5412 Jun 30 22:37 | 9° B 58'53 | 1.32295 AU | | 5413 Jun 02 17:58 | 0° II | |
| | | | | morning set | 5413 Jun 09 01:49 | 11° II 59'29 | |
| superior conj | 5412 Jul 02 19:22 | 14° B 01'46 | 0°26'07 | max. Earth dist. | 5413 Jun 13 23:45 | 21° II 59'01 | 1.33118 AU |
| minimum elong | 5412 Jul 02 18:11 | 13° B 55'19 | 0°25'51 | | | | |
| evening rise | 5412 Jul 09 16:17 | 28° B 58'46 | | superior conj | 5413 Jun 17 01:19 | 28° II 27'47 | -0°00'59 |
| | 5412 Jul 10 03:48 | 0° B | | minimum elong | 5413 Jun 17 01:21 | 28° II 28'01 | 0°01'00 |
| | 5412 Jul 26 22:58 | 0° B | | behind sun begin | 5413 Jun 16 19:58 | 27° II 59'15 | |
| evening max el | 5412 Aug 03 14:43 | 9° B 01'09 | 24°18'57 | behind sun end | 5413 Jun 17 06:45 | 28° II 56'50 | |
| desc. node | 5412 Aug 05 11:25 | 10° B 42'25 | | asc. node | 5413 Jun 17 03:36 | 28° II 40'00 | |
| retrograde | 5412 Aug 17 10:33 | 15° B 58'55 | | | 5413 Jun 17 18:33 | 0° B | |
| evening set | 5412 Aug 22 07:41 | 15° B 05'57 | | evening rise | 5413 Jun 24 03:52 | 13° B 42'36 | |
| min. Earth dist. | 5412 Aug 28 01:38 | 12° B 12'15 | 0.56532 AU | | 5413 Jul 02 09:07 | 0° B | |
| inferior conj | 5412 Aug 30 15:25 | 10° B 35'18 | -5°18'06 | evening max el | 5413 Jul 16 03:51 | 19° B 22'13 | 22°41'12 |
| minimum elong | 5412 Aug 30 13:55 | 10° B 37'40 | 5°18'03 | desc. node | 5413 Jul 23 08:24 | 24° B 33'34 | |
| morning rise | 5412 Sep 07 22:36 | 6° B 34'10 | | retrograde | 5413 Jul 29 08:28 | 25° B 56'20 | |
| direct | 5412 Sep 10 15:00 | 6° B 14'59 | | evening set | 5413 Aug 01 17:04 | 25° B 31'37 | |
| morning max el | 5412 Sep 20 07:40 | 10° B 47'04 | 19°38'41 | min. Earth dist. | 5413 Aug 09 11:43 | 22° B 06'03 | 0.55240 AU |
| asc. node | 5412 Sep 26 05:48 | 17° B 55'46 | | inferior conj | 5413 Aug 10 18:52 | 21° B 21'37 | -4°41'40 |
| | 5412 Oct 03 08:06 | 0° B | | minimum elong | 5413 Aug 10 11:17 | 21° B 32'28 | 4°40'14 |
| morning set | 5412 Oct 07 20:56 | 8° B 54'49 | | morning rise | 5413 Aug 19 07:30 | 17° B 31'33 | |
| | | | | direct | 5413 Aug 22 09:08 | 17° B 09'49 | |
| superior conj | 5412 Oct 15 18:47 | 24° B 50'04 | 1°37'59 | morning max el | 5413 Sep 02 15:35 | 22° B 24'55 | 20°57'43 |
| minimum elong | 5412 Oct 15 20:37 | 24° B 59'12 | 1°37'53 | | 5413 Sep 09 02:07 | 0° B | |
| | 5412 Oct 18 10:17 | 0° B | | asc. node | 5413 Sep 13 02:51 | 6° B 16'35 | |
| max. Earth dist. | 5412 Oct 21 20:34 | 6° B 29'29 | 1.37567 AU | morning set | 5413 Sep 22 04:37 | 23° B 37'39 | |
| evening rise | 5412 Oct 25 14:43 | 13° B 19'16 | | | 5413 Sep 25 06:03 | 0° B | |
| desc. node | 5412 Nov 01 10:41 | 25° B 00'31 | | | | | |
| | 5412 Nov 04 12:50 | 0° B | | superior conj | 5413 Sep 29 14:17 | 9° B 02'07 | 1°43'10 |
| | 5412 Nov 26 05:38 | 0° B | | minimum elong | 5413 Sep 29 14:36 | 9° B 03'44 | 1°43'10 |
| evening max el | 5412 Nov 30 07:01 | 4° B 18'06 | 25°20'10 | max. Earth dist. | 5413 Oct 04 05:34 | 18° B 22'59 | 1.35658 AU |
| retrograde | 5412 Dec 12 08:41 | 11° B 15'39 | | evening rise | 5413 Oct 08 07:32 | 26° B 13'25 | |
| evening set | 5412 Dec 18 04:35 | 8° B 50'22 | | | 5413 Oct 10 08:35 | 0° B | |
| min. Earth dist. | 5412 Dec 22 15:01 | 3° B 56'00 | 0.67348 AU | desc. node | 5413 Oct 19 07:42 | 15° B 24'17 | |
| asc. node | 5412 Dec 23 05:01 | 3° B 10'48 | | | 5413 Oct 28 23:10 | 0° B | |
| inferior conj | 5412 Dec 23 19:06 | 2° B 25'07 | 0°11'56 | evening max el | 5413 Nov 12 19:52 | 18° B 01'28 | 26°23'57 |
| minimum elong | 5412 Dec 23 18:48 | 2° B 26'06 | 0°11'49 | retrograde | 5413 Nov 25 15:34 | 25° B 13'46 | |
| transit middle | 5412 Dec 23 18:48 | 2° B 26'06 | 0°11'49 | evening set | 5413 Dec 02 00:36 | 22° B 38'24 | |
| transit begin | 5412 Dec 23 16:53 | 2° B 32'16 | | min. Earth dist. | 5413 Dec 06 04:18 | 18° B 19'14 | 0.66422 AU |
| transit end | 5412 Dec 23 20:42 | 2° B 19'56 | | inferior conj | 5413 Dec 07 19:41 | 16° B 19'42 | -0°46'19 |
| | 5412 Dec 25 17:13 | 30° R B | | minimum elong | 5413 Dec 07 20:57 | 16° B 15'51 | 0°45'45 |
| morning rise | 5412 Dec 29 09:18 | 26° B 29'06 | | asc. node | 5413 Dec 10 02:03 | 13° B 40'55 | |
| direct | 5413 Jan 01 19:49 | 25° B 20'57 | | morning rise | 5413 Dec 13 17:57 | 10° B 33'36 | |
| morning max el | 5413 Jan 08 23:01 | 29° B 19'53 | 19°23'14 | direct | 5413 Dec 16 18:11 | 9° B 42'24 | |
| | 5413 Jan 09 14:41 | 0° B | | morning max el | 5413 Dec 23 09:46 | 13° B 20'03 | 18°35'17 |
| greatest brilliancy | 5413 Jan 22 03:43 | 16° B 53'51 | -0.7m | | 5414 Jan 04 14:05 | 0° B | |
| desc. node | 5413 Jan 28 09:55 | 26° B 24'28 | | morning set | 5414 Jan 13 00:51 | 13° B 19'37 | |

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|---------------------|-------------------|---------------------|---------------------|-------------------|----------------------|----------|
| desc. node | 5414 Jan 15 06:56 | 16°♄53'43 | direct | 5414 Nov 30 13:56 | 23°♎55'22 | |
| | 5414 Jan 23 14:30 | 0°♊ | morning max el | 5414 Dec 07 01:07 | 27°♎22'06 | 18°04'03 |
| | | | | 5414 Dec 09 09:34 | 0°♊ | |
| superior conj | 5414 Jan 29 03:01 | 8°♊39'42 -1°26'52 | morning set | 5414 Dec 25 02:00 | 24°♊19'22 | |
| minimum elong | 5414 Jan 28 17:39 | 8°♊03'00 1°25'52 | | 5414 Dec 28 12:45 | 0°♄ | |
| max. Earth dist. | 5414 Jan 29 00:48 | 8°♊31'01 1.45322 AU | desc. node | 5415 Jan 02 03:59 | 7°♄33'00 | |
| | 5414 Feb 11 15:59 | 0°♋ | | | | |
| evening rise | 5414 Feb 13 20:07 | 3°♋27'15 | superior conj | 5415 Jan 08 09:59 | 17°♄33'31 -0°42'38 | |
| greatest brilliancy | 5414 Feb 22 10:25 | 17°♋07'41 -0.8m | minimum elong | 5415 Jan 08 04:45 | 17°♄12'45 0°41'54 | |
| | 5414 Mar 03 00:16 | 0°♌ | max. Earth dist. | 5415 Jan 11 20:43 | 23°♄00'16 1.45162 AU | |
| evening max el | 5414 Mar 07 16:51 | 5°♌41'12 18°53'56 | | 5415 Jan 16 07:54 | 0°♊ | |
| asc. node | 5414 Mar 08 01:19 | 6°♌02'20 | evening rise | 5415 Jan 24 16:43 | 12°♊59'24 | |
| retrograde | 5414 Mar 14 11:08 | 9°♌28'17 | | 5415 Feb 04 18:49 | 0°♋ | |
| evening set | 5414 Mar 17 18:40 | 8°♌24'55 | greatest brilliancy | 5415 Feb 07 02:08 | 3°♋27'36 -0.7m | |
| inferior conj | 5414 Mar 23 09:03 | 2°♌41'59 3°29'29 | evening max el | 5415 Feb 18 23:16 | 19°♋14'18 19°42'42 | |
| minimum elong | 5414 Mar 23 08:12 | 2°♌44'39 3°29'26 | asc. node | 5415 Feb 22 22:22 | 22°♋28'42 | |
| min. Earth dist. | 5414 Mar 25 01:50 | 0°♌34'40 0.65710 AU | retrograde | 5415 Feb 26 08:42 | 23°♋30'34 | |
| | 5414 Mar 25 13:14 | 30°♋ | evening set | 5415 Mar 01 23:55 | 22°♋13'14 | |
| morning rise | 5414 Mar 28 21:19 | 26°♋27'48 | inferior conj | 5415 Mar 07 10:05 | 16°♋15'14 3°14'41 | |
| direct | 5414 Apr 04 09:46 | 23°♋38'18 | minimum elong | 5415 Mar 07 08:15 | 16°♋21'19 3°14'24 | |
| desc. node | 5414 Apr 13 06:10 | 27°♋32'31 | min. Earth dist. | 5415 Mar 08 12:03 | 14°♋49'06 0.66929 AU | |
| | 5414 Apr 16 01:51 | 0°♌ | morning rise | 5415 Mar 12 16:22 | 10°♋00'17 | |
| morning max el | 5414 Apr 17 11:20 | 1°♌21'56 26°42'49 | direct | 5415 Mar 18 17:21 | 7°♋18'34 | |
| | 5414 May 08 21:11 | 0°♍ | morning max el | 5415 Mar 30 20:49 | 14°♋33'46 25°29'01 | |
| morning set | 5414 May 23 09:12 | 25°♍14'29 | desc. node | 5415 Mar 31 03:13 | 14°♋50'03 | |
| | 5414 May 25 20:26 | 0°♎ | | 5415 Apr 12 11:28 | 0°♌ | |
| max. Earth dist. | 5414 May 27 14:41 | 3°♎28'32 1.34409 AU | | 5415 May 01 17:06 | 0°♍ | |
| | | | morning set | 5415 May 06 01:23 | 7°♍42'02 | |
| superior conj | 5414 Jun 01 01:14 | 12°♎30'52 -0°30'16 | max. Earth dist. | 5415 May 09 18:36 | 14°♍34'49 1.36147 AU | |
| minimum elong | 5414 Jun 01 02:53 | 12°♎39'23 0°29'57 | | | | |
| asc. node | 5414 Jun 04 00:36 | 18°♎43'54 | superior conj | 5415 May 15 16:28 | 26°♍04'00 -1°00'17 | |
| evening rise | 5414 Jun 08 13:31 | 28°♎15'44 | minimum elong | 5415 May 15 19:50 | 26°♍20'50 0°59'43 | |
| | 5414 Jun 09 09:37 | 0°♏ | | 5415 May 17 15:28 | 0°♎ | |
| evening max el | 5414 Jun 28 00:07 | 29°♏57'14 21°09'31 | asc. node | 5415 May 21 21:39 | 8°♎40'31 | |
| | 5414 Jun 28 01:15 | 0°♐ | evening rise | 5415 May 23 19:05 | 12°♎32'04 | |
| retrograde | 5414 Jul 09 21:28 | 5°♐48'51 | | 5415 Jun 02 00:45 | 0°♏ | |
| desc. node | 5414 Jul 10 05:25 | 5°♐48'35 | evening max el | 5415 Jun 10 08:31 | 11°♏09'29 19°53'54 | |
| evening set | 5414 Jul 12 03:58 | 5°♐36'49 | retrograde | 5415 Jun 20 13:10 | 16°♏08'59 | |
| inferior conj | 5414 Jul 21 12:11 | 1°♐38'47 -3°14'15 | evening set | 5415 Jun 22 11:00 | 15°♏59'15 | |
| minimum elong | 5414 Jul 21 03:49 | 1°♐50'32 3°11'37 | desc. node | 5415 Jun 27 02:27 | 14°♏24'21 | |
| min. Earth dist. | 5414 Jul 21 21:55 | 1°♐25'06 0.54783 AU | inferior conj | 5415 Jul 01 09:47 | 11°♏58'17 -1°17'25 | |
| | 5414 Jul 24 12:06 | 30°♐ | minimum elong | 5415 Jul 01 06:12 | 12°♏03'45 1°16'05 | |
| morning rise | 5414 Jul 30 04:07 | 27°♏42'21 | min. Earth dist. | 5415 Jul 03 10:14 | 10°♏44'33 0.55284 AU | |
| direct | 5414 Aug 02 18:12 | 27°♏14'41 | morning rise | 5415 Jul 09 23:29 | 7°♏35'19 | |
| | 5414 Aug 11 07:32 | 0°♑ | direct | 5415 Jul 14 07:18 | 6°♏54'18 | |
| morning max el | 5414 Aug 15 12:15 | 3°♑18'13 22°34'24 | morning max el | 5415 Jul 28 02:37 | 13°♏43'26 24°18'40 | |
| asc. node | 5414 Aug 30 23:53 | 25°♑13'19 | | 5415 Aug 09 18:17 | 0°♒ | |
| | 5414 Sep 02 11:43 | 0°♓ | asc. node | 5415 Aug 17 20:56 | 14°♒36'52 | |
| morning set | 5414 Sep 06 15:13 | 8°♓28'14 | morning set | 5415 Aug 22 02:57 | 23°♒21'06 | |
| | | | | 5415 Aug 25 05:11 | 0°♓ | |
| superior conj | 5414 Sep 13 17:28 | 23°♓36'06 1°41'17 | | | | |
| minimum elong | 5414 Sep 13 16:30 | 23°♓30'58 1°41'14 | superior conj | 5415 Aug 29 01:37 | 8°♓23'35 1°33'20 | |
| | 5414 Sep 16 18:32 | 0°♉ | minimum elong | 5415 Aug 28 23:47 | 8°♓13'35 1°33'09 | |
| max. Earth dist. | 5414 Sep 16 22:41 | 0°♉21'33 1.34087 AU | max. Earth dist. | 5415 Aug 31 00:16 | 12°♓35'54 1.32930 AU | |
| evening rise | 5414 Sep 21 15:12 | 9°♉48'45 | evening rise | 5415 Sep 05 09:52 | 23°♓54'46 | |
| | 5414 Oct 02 19:09 | 0°♊ | | 5415 Sep 08 11:25 | 0°♉ | |
| desc. node | 5414 Oct 06 04:44 | 5°♊29'40 | desc. node | 5415 Sep 23 01:46 | 25°♉08'12 | |
| | 5414 Oct 24 18:08 | 0°♊ | | 5415 Sep 26 10:02 | 0°♊ | |
| evening max el | 5414 Oct 26 08:41 | 1°♊35'25 27°08'35 | evening max el | 5415 Oct 08 19:54 | 14°♊47'11 27°27'10 | |
| retrograde | 5414 Nov 08 16:44 | 8°♊53'12 | retrograde | 5415 Oct 22 11:41 | 22°♊04'20 | |
| evening set | 5414 Nov 15 12:59 | 6°♊13'28 | evening set | 5415 Oct 29 14:53 | 19°♊29'02 | |
| min. Earth dist. | 5414 Nov 19 10:27 | 2°♊29'35 0.65142 AU | min. Earth dist. | 5415 Nov 02 07:23 | 16°♊17'41 0.63524 AU | |
| inferior conj | 5414 Nov 21 13:43 | 0°♊06'32 -1°48'36 | inferior conj | 5415 Nov 04 22:33 | 13°♊38'39 -2°52'38 | |
| minimum elong | 5414 Nov 21 16:52 | 29°♊57'44 1°47'17 | minimum elong | 5415 Nov 05 03:36 | 13°♊25'56 2°50'47 | |
| | 5414 Nov 21 16:03 | 30°♋ | morning rise | 5415 Nov 11 17:52 | 8°♋21'45 | |
| asc. node | 5414 Nov 26 23:07 | 25°♋04'29 | asc. node | 5415 Nov 13 20:10 | 7°♋53'44 | |
| morning rise | 5414 Nov 27 21:50 | 24°♋33'25 | direct | 5415 Nov 14 04:11 | 7°♋53'11 | |

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| morning max el | 5415 Nov 20 18:07 | 11° \mathbb{M} 18'06 | 17°50'04 | morning rise | 5416 Oct 25 02:09 | 21° \mathbb{A} 51'20 | |
| | 5415 Dec 03 10:03 | 0° \mathbb{A} | | direct | 5416 Oct 27 09:36 | 21° \mathbb{A} 28'48 | |
| morning set | 5415 Dec 07 05:17 | 6° \mathbb{A} 34'32 | | asc. node | 5416 Oct 30 17:13 | 22° \mathbb{A} 17'02 | |
| | | | | morning max el | 5416 Nov 03 09:33 | 25° \mathbb{A} 00'19 | 17°54'13 |
| superior conj | 5415 Dec 19 12:56 | 27° \mathbb{A} 28'10 | 0°03'34 | | 5416 Nov 07 12:41 | 0° \mathbb{M} | |
| minimum elong | 5415 Dec 19 13:19 | 27° \mathbb{A} 29'44 | 0°03'32 | morning set | 5416 Nov 19 04:16 | 19° \mathbb{M} 45'45 | |
| behind sun begin | 5415 Dec 19 03:53 | 26° \mathbb{A} 50'54 | | | 5416 Nov 24 20:09 | 0° \mathbb{A} | |
| behind sun end | 5415 Dec 19 22:44 | 28° \mathbb{A} 08'28 | | | | | |
| desc. node | 5415 Dec 20 01:01 | 28° \mathbb{A} 17'51 | | superior conj | 5416 Nov 29 18:13 | 8° \mathbb{A} 39'25 | 0°43'00 |
| | 5415 Dec 21 01:59 | 0° \mathbb{B} | | minimum elong | 5416 Nov 29 21:39 | 8° \mathbb{A} 54'15 | 0°42'32 |
| max. Earth dist. | 5415 Dec 25 14:44 | 7° \mathbb{B} 18'45 | 1.44280 AU | desc. node | 5416 Dec 05 22:03 | 19° \mathbb{A} 04'54 | |
| evening rise | 5416 Jan 04 03:06 | 22° \mathbb{B} 12'47 | | max. Earth dist. | 5416 Dec 07 04:19 | 21° \mathbb{A} 09'32 | 1.42794 AU |
| | 5416 Jan 09 05:31 | 0° \mathbb{A} | | | 5416 Dec 12 16:01 | 0° \mathbb{B} | |
| | 5416 Jan 30 11:13 | 0° \mathbb{H} | | evening rise | 5416 Dec 13 19:02 | 1° \mathbb{B} 46'32 | |
| evening max el | 5416 Feb 02 00:18 | 2° \mathbb{H} 48'30 | 20°45'42 | | 5417 Jan 01 17:54 | 0° \mathbb{A} | |
| asc. node | 5416 Feb 09 19:25 | 7° \mathbb{H} 40'18 | | evening max el | 5417 Jan 14 19:59 | 16° \mathbb{A} 24'14 | 21°59'25 |
| retrograde | 5416 Feb 10 07:03 | 7° \mathbb{H} 41'34 | | retrograde | 5417 Jan 24 04:12 | 21° \mathbb{A} 57'24 | |
| evening set | 5416 Feb 14 07:17 | 6° \mathbb{H} 09'38 | | asc. node | 5417 Jan 26 16:27 | 21° \mathbb{A} 24'02 | |
| inferior conj | 5416 Feb 19 15:32 | 29° \mathbb{A} 59'13 | 2°49'08 | evening set | 5417 Jan 28 15:03 | 20° \mathbb{A} 10'10 | |
| minimum elong | 5416 Feb 19 13:12 | 0° \mathbb{H} 07'14 | 2°48'35 | inferior conj | 5417 Feb 02 23:14 | 13° \mathbb{A} 50'36 | 2°14'37 |
| | 5416 Feb 19 15:19 | 30° \mathbb{R} \mathbb{A} | | minimum elong | 5417 Feb 02 20:53 | 13° \mathbb{A} 58'47 | 2°13'54 |
| min. Earth dist. | 5416 Feb 20 04:07 | 29° \mathbb{A} 15'58 | 0.67720 AU | min. Earth dist. | 5417 Feb 02 23:44 | 13° \mathbb{A} 48'51 | 0.68101 AU |
| morning rise | 5416 Feb 24 18:56 | 23° \mathbb{A} 45'20 | | morning rise | 5417 Feb 08 02:32 | 7° \mathbb{A} 39'27 | |
| direct | 5416 Mar 01 06:09 | 21° \mathbb{A} 19'53 | | direct | 5417 Feb 12 23:14 | 5° \mathbb{A} 35'07 | |
| morning max el | 5416 Mar 12 05:35 | 27° \mathbb{A} 53'12 | 24°02'26 | morning max el | 5417 Feb 22 15:52 | 11° \mathbb{A} 18'25 | 22°33'13 |
| | 5416 Mar 14 05:36 | 0° \mathbb{H} | | desc. node | 5417 Mar 03 21:17 | 22° \mathbb{A} 19'18 | |
| desc. node | 5416 Mar 17 00:15 | 3° \mathbb{H} 11'43 | | | 5417 Mar 09 11:06 | 0° \mathbb{H} | |
| | 5416 Apr 05 04:11 | 0° \mathbb{Y} | | morning set | 5417 Mar 28 13:48 | 29° \mathbb{H} 15'31 | |
| morning set | 5416 Apr 16 20:53 | 19° \mathbb{Y} 07'26 | | | 5417 Mar 29 00:38 | 0° \mathbb{Y} | |
| max. Earth dist. | 5416 Apr 20 14:48 | 25° \mathbb{Y} 41'43 | 1.38226 AU | max. Earth dist. | 5417 Apr 02 10:43 | 7° \mathbb{Y} 23'12 | 1.40434 AU |
| | 5416 Apr 23 00:02 | 0° \mathbb{B} | | | | | |
| superior conj | 5416 Apr 27 19:32 | 8° \mathbb{B} 58'33 | -1°28'53 | superior conj | 5417 Apr 10 06:04 | 21° \mathbb{Y} 03'55 | -1°52'45 |
| minimum elong | 5416 Apr 28 00:18 | 9° \mathbb{B} 21'18 | 1°28'14 | minimum elong | 5417 Apr 10 10:59 | 21° \mathbb{Y} 26'08 | 1°52'21 |
| evening rise | 5416 May 06 18:00 | 26° \mathbb{B} 24'25 | | | 5417 Apr 15 02:49 | 0° \mathbb{B} | |
| asc. node | 5416 May 07 18:42 | 28° \mathbb{B} 25'29 | | evening rise | 5417 Apr 20 07:00 | 9° \mathbb{B} 44'11 | |
| | 5416 May 08 14:05 | 0° \mathbb{II} | | asc. node | 5417 Apr 24 15:43 | 17° \mathbb{B} 53'27 | |
| evening max el | 5416 May 23 04:57 | 23° \mathbb{II} 04'33 | 18°58'11 | | 5417 May 01 20:56 | 0° \mathbb{II} | |
| retrograde | 5416 May 31 18:53 | 27° \mathbb{II} 16'55 | | evening max el | 5417 May 06 10:23 | 5° \mathbb{II} 35'42 | 18°22'47 |
| evening set | 5416 Jun 02 19:47 | 27° \mathbb{II} 03'38 | | retrograde | 5417 May 13 19:20 | 9° \mathbb{II} 15'31 | |
| inferior conj | 5416 Jun 11 00:03 | 22° \mathbb{II} 48'12 | 0°34'43 | evening set | 5417 May 16 03:13 | 8° \mathbb{II} 54'34 | |
| minimum elong | 5416 Jun 11 01:25 | 22° \mathbb{II} 45'47 | 0°34'13 | inferior conj | 5417 May 23 11:44 | 4° \mathbb{II} 19'12 | 2°00'28 |
| desc. node | 5416 Jun 12 23:28 | 21° \mathbb{II} 24'35 | | minimum elong | 5417 May 23 15:08 | 4° \mathbb{II} 12'12 | 1°59'27 |
| min. Earth dist. | 5416 Jun 14 01:56 | 20° \mathbb{II} 39'06 | 0.56655 AU | min. Earth dist. | 5417 May 26 22:12 | 1° \mathbb{II} 30'53 | 0.58628 AU |
| morning rise | 5416 Jun 19 03:42 | 17° \mathbb{II} 48'56 | | | 5417 May 29 00:02 | 30° \mathbb{R} \mathbb{B} | |
| direct | 5416 Jun 24 09:52 | 16° \mathbb{II} 43'11 | | morning rise | 5417 May 30 23:55 | 28° \mathbb{B} 47'45 | |
| morning max el | 5416 Jul 08 17:00 | 24° \mathbb{II} 06'58 | 25°55'21 | desc. node | 5417 May 30 20:30 | 28° \mathbb{B} 52'19 | |
| | 5416 Jul 14 01:49 | 0° \mathbb{B} | | direct | 5417 Jun 06 02:41 | 27° \mathbb{B} 08'52 | |
| | 5416 Aug 01 14:46 | 0° \mathbb{Q} | | | 5417 Jun 14 12:32 | 0° \mathbb{II} | |
| asc. node | 5416 Aug 03 17:59 | 4° \mathbb{Q} 19'49 | | morning max el | 5417 Jun 20 12:01 | 4° \mathbb{II} 53'54 | 27°08'43 |
| morning set | 5416 Aug 05 14:12 | 8° \mathbb{Q} 11'14 | | | 5417 Jul 08 23:20 | 0° \mathbb{B} | |
| | | | | morning set | 5417 Jul 20 23:16 | 22° \mathbb{B} 52'18 | |
| superior conj | 5416 Aug 12 12:35 | 23° \mathbb{Q} 17'37 | 1°20'08 | asc. node | 5417 Jul 21 15:00 | 24° \mathbb{B} 15'19 | |
| minimum elong | 5416 Aug 12 10:19 | 23° \mathbb{Q} 05'09 | 1°19'48 | | 5417 Jul 24 07:09 | 0° \mathbb{Q} | |
| max. Earth dist. | 5416 Aug 13 08:11 | 25° \mathbb{Q} 05'32 | 1.32203 AU | superior conj | 5417 Jul 28 00:23 | 8° \mathbb{Q} 10'42 | 1°02'17 |
| | 5416 Aug 15 14:02 | 0° \mathbb{P} | | minimum elong | 5417 Jul 27 22:11 | 7° \mathbb{Q} 58'27 | 1°01'53 |
| evening rise | 5416 Aug 19 12:21 | 8° \mathbb{P} 22'30 | | max. Earth dist. | 5417 Jul 27 19:07 | 7° \mathbb{Q} 41'33 | 1.31904 AU |
| | 5416 Aug 30 20:56 | 0° \mathbb{A} | | evening rise | 5417 Aug 03 20:01 | 23° \mathbb{Q} 02'56 | |
| desc. node | 5416 Sep 08 22:47 | 14° \mathbb{A} 08'55 | | | 5417 Aug 07 04:38 | 0° \mathbb{P} | |
| evening max el | 5416 Sep 20 03:20 | 27° \mathbb{A} 24'41 | 27°14'24 | | 5417 Aug 25 01:38 | 0° \mathbb{A} | |
| | 5416 Sep 23 02:52 | 0° \mathbb{M} | | desc. node | 5417 Aug 26 19:47 | 2° \mathbb{A} 15'33 | |
| retrograde | 5416 Oct 03 23:44 | 4° \mathbb{M} 37'56 | | evening max el | 5417 Sep 02 04:32 | 9° \mathbb{A} 16'28 | 26°28'08 |
| evening set | 5416 Oct 11 02:40 | 2° \mathbb{M} 18'46 | | retrograde | 5417 Sep 16 03:17 | 16° \mathbb{A} 24'46 | |
| | 5416 Oct 14 04:54 | 30° \mathbb{R} \mathbb{A} | | evening set | 5417 Sep 22 19:34 | 14° \mathbb{A} 34'03 | |
| min. Earth dist. | 5416 Oct 14 17:57 | 29° \mathbb{A} 32'16 | 0.61626 AU | min. Earth dist. | 5417 Sep 26 18:06 | 11° \mathbb{A} 59'01 | 0.59562 AU |
| inferior conj | 5416 Oct 17 19:08 | 26° \mathbb{A} 48'55 | -3°54'16 | inferior conj | 5417 Sep 29 23:54 | 9° \mathbb{A} 27'29 | -4°46'20 |
| minimum elong | 5416 Oct 18 01:26 | 26° \mathbb{A} 34'49 | 3°52'27 | minimum elong | 5417 Sep 30 05:40 | 9° \mathbb{A} 16'11 | 4°45'17 |

| | | | | | | | |
|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| morning rise | 5417 Oct 07 17:56 | 4°♄51'51 | | direct | 5418 Sep 22 01:20 | 16°♄52'58 | |
| direct | 5417 Oct 10 02:03 | 4°♄32'21 | | morning max el | 5418 Sep 30 22:12 | 21°♄04'57 | 19°02'59 |
| asc. node | 5417 Oct 17 14:15 | 8°♄05'23 | | asc. node | 5418 Oct 04 11:17 | 25°♄04'12 | |
| morning max el | 5417 Oct 17 20:03 | 8°♄19'11 | 18°18'00 | | 5418 Oct 07 21:20 | 0°♄ | |
| | 5417 Oct 31 19:34 | 0°♄ | | morning set | 5418 Oct 17 15:51 | 17°♄53'58 | |
| morning set | 5417 Nov 02 17:15 | 3°♄36'25 | | | 5418 Oct 23 18:49 | 0°♄ | |
| superior conj | 5417 Nov 11 23:26 | 20°♄59'50 | 1°12'17 | superior conj | 5418 Oct 25 23:20 | 4°♄14'36 | 1°31'17 |
| minimum elong | 5417 Nov 12 03:14 | 21°♄17'11 | 1°11'51 | minimum elong | 5418 Oct 26 02:03 | 4°♄27'40 | 1°31'05 |
| | 5417 Nov 17 00:19 | 0°♄ | | max. Earth dist. | 5418 Nov 01 18:41 | 16°♄54'57 | 1.38766 AU |
| max. Earth dist. | 5417 Nov 19 13:10 | 4°♄22'50 | 1.40878 AU | evening rise | 5418 Nov 05 14:15 | 23°♄38'13 | |
| desc. node | 5417 Nov 22 19:04 | 9°♄50'43 | | | 5418 Nov 09 08:29 | 0°♄ | |
| evening rise | 5417 Nov 24 05:15 | 12°♄11'37 | | desc. node | 5418 Nov 09 16:04 | 0°♄31'25 | |
| | 5417 Dec 05 14:19 | 0°♄ | | | 5418 Nov 29 09:43 | 0°♄ | |
| | 5417 Dec 28 10:13 | 0°♄ | | evening max el | 5418 Dec 11 00:45 | 13°♄45'42 | 24°37'44 |
| evening max el | 5417 Dec 28 11:33 | 0°♄03'20 | 23°18'50 | retrograde | 5418 Dec 22 13:10 | 20°♄28'47 | |
| retrograde | 5418 Jan 07 22:37 | 6°♄14'37 | | evening set | 5418 Dec 28 01:28 | 18°♄10'55 | |
| evening set | 5418 Jan 12 21:38 | 4°♄11'47 | | asc. node | 5418 Dec 31 10:31 | 14°♄32'53 | |
| asc. node | 5418 Jan 13 13:29 | 3°♄36'18 | | min. Earth dist. | 5419 Jan 01 16:07 | 12°♄57'00 | 0.67727 AU |
| | 5418 Jan 16 16:04 | 30°♄ | | inferior conj | 5419 Jan 02 13:53 | 11°♄44'34 | 0°43'05 |
| inferior conj | 5418 Jan 18 07:17 | 27°♄46'44 | 1°32'19 | minimum elong | 5419 Jan 02 12:52 | 11°♄47'58 | 0°42'40 |
| minimum elong | 5418 Jan 18 05:22 | 27°♄53'20 | 1°31'36 | morning rise | 5419 Jan 08 00:24 | 5°♄44'14 | |
| min. Earth dist. | 5418 Jan 17 20:30 | 28°♄23'47 | 0.68097 AU | direct | 5419 Jan 11 17:48 | 4°♄24'41 | |
| morning rise | 5418 Jan 23 13:02 | 21°♄40'03 | | morning max el | 5419 Jan 19 06:48 | 8°♄40'21 | 19°58'02 |
| direct | 5418 Jan 27 19:33 | 19°♄58'34 | | | 5419 Feb 04 06:04 | 0°♄ | |
| morning max el | 5418 Feb 05 07:27 | 24°♄53'24 | 21°09'51 | desc. node | 5419 Feb 05 15:19 | 2°♄04'20 | |
| | 5418 Feb 09 20:15 | 0°♄ | | morning set | 5419 Feb 14 23:20 | 16°♄17'21 | |
| desc. node | 5418 Feb 18 18:19 | 12°♄00'00 | | | 5419 Feb 23 18:06 | 0°♄ | |
| | 5418 Mar 02 21:24 | 0°♄ | | max. Earth dist. | 5419 Feb 25 23:20 | 3°♄31'25 | 1.44088 AU |
| morning set | 5418 Mar 08 02:41 | 8°♄06'02 | | superior conj | 5419 Mar 03 06:52 | 12°♄05'20 | -2°06'49 |
| max. Earth dist. | 5418 Mar 15 13:09 | 20°♄01'23 | 1.42477 AU | minimum elong | 5419 Mar 03 03:35 | 11°♄51'57 | 2°06'43 |
| | 5418 Mar 21 12:51 | 0°♄ | | | 5419 Mar 14 00:32 | 0°♄ | |
| superior conj | 5418 Mar 22 19:09 | 2°♄09'04 | -2°07'17 | evening rise | 5419 Mar 16 10:57 | 4°♄09'44 | |
| minimum elong | 5418 Mar 22 21:35 | 2°♄19'29 | 2°07'13 | asc. node | 5419 Mar 29 09:47 | 25°♄33'09 | |
| evening rise | 5418 Apr 03 06:10 | 22°♄22'36 | | | 5419 Apr 01 18:04 | 0°♄ | |
| | 5418 Apr 07 12:04 | 0°♄ | | evening max el | 5419 Apr 03 10:05 | 1°♄49'19 | 18°10'56 |
| asc. node | 5418 Apr 11 12:45 | 6°♄58'44 | | retrograde | 5419 Apr 09 19:58 | 5°♄12'26 | |
| evening max el | 5418 Apr 19 21:14 | 18°♄33'56 | 18°07'14 | evening set | 5419 Apr 12 17:05 | 4°♄29'30 | |
| retrograde | 5418 Apr 26 13:11 | 21°♄57'49 | | | 5419 Apr 18 02:50 | 30°♄ | |
| evening set | 5418 Apr 29 03:59 | 21°♄26'35 | | inferior conj | 5419 Apr 18 20:03 | 29°♄13'45 | 3°23'58 |
| inferior conj | 5418 May 05 19:42 | 16°♄30'25 | 2°55'24 | minimum elong | 5419 Apr 18 21:32 | 29°♄09'44 | 3°23'49 |
| minimum elong | 5418 May 05 22:40 | 16°♄23'20 | 2°54'47 | min. Earth dist. | 5419 Apr 21 13:02 | 26°♄18'46 | 0.62968 AU |
| min. Earth dist. | 5418 May 09 01:11 | 13°♄26'53 | 0.60838 AU | morning rise | 5419 Apr 25 00:44 | 23°♄07'01 | |
| morning rise | 5418 May 12 15:11 | 10°♄36'38 | | direct | 5419 May 01 21:02 | 20°♄30'32 | |
| desc. node | 5418 May 17 17:31 | 8°♄32'04 | | desc. node | 5419 May 04 14:32 | 20°♄52'59 | |
| direct | 5418 May 19 07:10 | 8°♄24'54 | | morning max el | 5419 May 15 20:39 | 28°♄30'47 | 27°49'12 |
| morning max el | 5418 Jun 02 13:36 | 16°♄21'16 | 27°47'51 | | 5419 May 17 07:12 | 0°♄ | |
| | 5418 Jun 13 18:32 | 0°♄ | | | 5419 Jun 07 14:28 | 0°♄ | |
| | 5418 Jul 01 13:06 | 0°♄ | | morning set | 5419 Jun 19 03:22 | 21°♄25'18 | |
| morning set | 5418 Jul 05 04:22 | 7°♄19'09 | | | 5419 Jun 23 07:09 | 0°♄ | |
| asc. node | 5418 Jul 08 12:01 | 14°♄18'46 | | max. Earth dist. | 5419 Jun 24 11:14 | 2°♄28'59 | 1.32593 AU |
| max. Earth dist. | 5418 Jul 11 05:28 | 20°♄13'33 | 1.32034 AU | asc. node | 5419 Jun 25 09:04 | 4°♄25'46 | |
| superior conj | 5418 Jul 12 11:21 | 22°♄57'30 | 0°40'22 | superior conj | 5419 Jun 26 19:40 | 7°♄32'21 | 0°14'57 |
| minimum elong | 5418 Jul 12 09:39 | 22°♄48'11 | 0°40'01 | minimum elong | 5419 Jun 26 18:57 | 7°♄28'30 | 0°14'47 |
| | 5418 Jul 15 16:08 | 0°♄ | | behind sun begin | 5419 Jun 26 16:59 | 7°♄17'48 | |
| evening rise | 5418 Jul 19 06:43 | 7°♄49'28 | | behind sun end | 5419 Jun 26 20:56 | 7°♄39'13 | |
| | 5418 Jul 30 18:06 | 0°♄ | | evening rise | 5419 Jul 03 18:32 | 22°♄35'47 | |
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| retrograde | 5418 Aug 28 20:16 | 27°♄21'41 | | evening max el | 5419 Jul 27 10:31 | 0°♄45'40 | 23°37'26 |
| evening set | 5418 Sep 03 12:56 | 26°♄07'30 | | desc. node | 5419 Jul 31 13:47 | 4°♄13'04 | |
| min. Earth dist. | 5418 Sep 08 09:38 | 23°♄26'02 | 0.57551 AU | retrograde | 5419 Aug 10 01:24 | 7°♄35'54 | |
| inferior conj | 5418 Sep 11 09:36 | 21°♄24'33 | -5°16'48 | evening set | 5419 Aug 14 07:05 | 6°♄56'28 | |
| minimum elong | 5418 Sep 11 11:41 | 21°♄21'01 | 5°16'41 | min. Earth dist. | 5419 Aug 20 20:22 | 3°♄50'58 | 0.55893 AU |
| morning rise | 5418 Sep 19 12:41 | 17°♄11'51 | | inferior conj | 5419 Aug 22 23:08 | 2°♄35'07 | -5°09'08 |































































































































| | | | | | | | |
|------------------|-------------------|---|------------|---------------------|-------------------|---|------------|
| minimum elong | 5419 Aug 22 18:46 | 2°  41'40 | 5°08'41 | evening max el | 5420 Jul 08 01:36 | 11°  07'59 | 22°00'39 |
| | 5419 Aug 27 15:48 | 30°   | | desc. node | 5420 Jul 17 10:49 | 17°  00'45 | |
| morning rise | 5419 Aug 31 08:54 | 28°  40'47 | | retrograde | 5420 Jul 20 19:08 | 17°  026'56 | |
| direct | 5419 Sep 03 05:01 | 28°  020'47 | | evening set | 5420 Jul 23 14:22 | 17°  009'25 | |
| | 5419 Sep 09 07:07 | 0°  | | inferior conj | 5420 Aug 01 20:47 | 13°  005'42 | -4°10'08 |
| morning max el | 5419 Sep 13 13:15 | 3°  09'27 | 20°09'58 | minimum elong | 5420 Aug 01 12:00 | 13°  018'03 | 4°07'57 |
| asc. node | 5419 Sep 21 08:19 | 12°  058'56 | | min. Earth dist. | 5420 Aug 01 06:20 | 13°  025'59 | 0.54922 AU |
| | 5419 Sep 30 15:25 | 0°  | | morning rise | 5420 Aug 10 11:13 | 9°  015'30 | |
| morning set | 5419 Oct 01 20:59 | 2°  029'50 | | direct | 5420 Aug 13 17:19 | 8°  052'04 | |
| | | | | morning max el | 5420 Aug 25 16:12 | 14°  027'51 | 21°37'18 |
| superior conj | 5419 Oct 09 12:57 | 18°  009'44 | 1°41'08 | | 5420 Sep 06 07:20 | 0°  | |
| minimum elong | 5419 Oct 09 14:08 | 18°  015'41 | 1°41'05 | asc. node | 5420 Sep 07 05:22 | 1°  035'57 | |
| max. Earth dist. | 5419 Oct 15 00:44 | 28°  055'40 | 1.36712 AU | morning set | 5420 Sep 15 06:07 | 17°  016'14 | |
| | 5419 Oct 15 14:17 | 0°  | | | 5420 Sep 21 07:04 | 0°  | |
| evening rise | 5419 Oct 18 20:35 | 6°  003'14 | | superior conj | 5420 Sep 22 12:07 | 2°  032'12 | 1°43'11 |
| desc. node | 5419 Oct 27 13:06 | 21°  002'58 | | minimum elong | 5420 Sep 22 11:51 | 2°  030'47 | 1°43'10 |
| | 5419 Nov 02 05:07 | 0°  | | max. Earth dist. | 5420 Sep 26 12:32 | 10°  0047'13 | 1.34931 AU |
| evening max el | 5419 Nov 23 13:18 | 27°  029'47 | 25°49'06 | evening rise | 5420 Sep 30 20:12 | 19°  015'54 | |
| | 5419 Nov 26 07:28 | 0°  | | | 5420 Oct 06 16:31 | 0°  | |
| retrograde | 5419 Dec 05 23:11 | 4°  033'56 | | desc. node | 5420 Oct 13 10:07 | 11°  019'23 | |
| evening set | 5419 Dec 12 00:55 | 2°  004'38 | | | 5420 Oct 26 07:10 | 0°  | |
| | 5419 Dec 14 04:07 | 30°  000'00 | | evening max el | 5420 Nov 05 02:02 | 11°  009'24 | 26°45'43 |
| min. Earth dist. | 5419 Dec 16 08:19 | 27°  025'28 | 0.66999 AU | retrograde | 5420 Nov 18 03:55 | 18°  026'00 | |
| inferior conj | 5419 Dec 17 17:15 | 25°  041'33 | -0°12'10 | evening set | 5420 Nov 24 18:01 | 15°  047'40 | |
| minimum elong | 5419 Dec 17 17:34 | 25°  040'33 | 0°12'00 | min. Earth dist. | 5420 Nov 28 18:52 | 11°  043'39 | 0.65914 AU |
| transit middle | 5419 Dec 17 17:34 | 25°  040'33 | 0°12'00 | inferior conj | 5420 Nov 30 15:20 | 9°  033'04 | -1°12'21 |
| transit begin | 5419 Dec 17 15:41 | 25°  046'31 | | minimum elong | 5420 Nov 30 17:22 | 9°  027'04 | 1°11'28 |
| transit end | 5419 Dec 17 19:27 | 25°  034'35 | | asc. node | 5420 Dec 04 04:35 | 5°  043'10 | |
| asc. node | 5419 Dec 18 07:32 | 24°  056'37 | | morning rise | 5420 Dec 06 17:35 | 3°  052'12 | |
| morning rise | 5419 Dec 23 10:40 | 19°  049'43 | | direct | 5420 Dec 09 13:58 | 3°  007'13 | |
| direct | 5419 Dec 26 16:33 | 18°  049'21 | | morning max el | 5420 Dec 16 03:01 | 6°  039'25 | 18°19'56 |
| morning max el | 5420 Jan 02 13:57 | 22°  037'43 | 19°00'54 | | 5421 Jan 01 07:23 | 0°  | |
| | 5420 Jan 08 15:23 | 0°  | | morning set | 5421 Jan 04 12:23 | 5°  010'09 | |
| desc. node | 5420 Jan 23 12:22 | 22°  026'09 | | desc. node | 5421 Jan 09 09:25 | 12°  035'55 | |
| morning set | 5420 Jan 25 04:30 | 25°  002'27 | | | | | |
| | 5420 Jan 28 08:50 | 0°  | | superior conj | 5421 Jan 19 22:45 | 29°  042'39 | -1°09'06 |
| max. Earth dist. | 5420 Feb 08 15:12 | 17°  0037'10 | 1.45077 AU | minimum elong | 5421 Jan 19 14:32 | 29°  010'26 | 1°08'05 |
| | | | | | 5421 Jan 20 03:10 | 0°  | |
| superior conj | 5420 Feb 10 19:34 | 21°  003'22 | -1°46'55 | max. Earth dist. | 5421 Jan 21 09:59 | 2°  000'52 | 1.45341 AU |
| minimum elong | 5420 Feb 10 10:46 | 20°  0028'40 | 1°46'12 | evening rise | 5421 Feb 05 01:12 | 24°  0055'35 | |
| | 5420 Feb 16 10:48 | 0°  | | | 5421 Feb 08 06:48 | 0°  | |
| evening rise | 5420 Feb 25 17:36 | 14°  0059'59 | | greatest brilliancy | 5421 Feb 15 21:43 | 11°  0052'39 | -0.8m |
| | 5420 Mar 05 22:53 | 0°  | | evening max el | 5421 Feb 28 07:09 | 28°  0046'59 | 19°12'46 |
| asc. node | 5420 Mar 15 06:48 | 13°  0027'29 | | | 5421 Mar 01 13:43 | 0°  | |
| evening max el | 5420 Mar 16 22:09 | 15°  0015'14 | 18°33'08 | asc. node | 5421 Mar 02 03:50 | 0°  | |
| retrograde | 5420 Mar 23 11:11 | 18°  0050'32 | | retrograde | 5421 Mar 07 07:12 | 2°  0045'33 | |
| evening set | 5420 Mar 26 14:39 | 17°  0054'59 | | evening set | 5421 Mar 10 17:46 | 1°  0036'33 | |
| inferior conj | 5420 Apr 01 08:42 | 12°  0021'28 | 3°32'06 | | 5421 Mar 12 16:07 | 30°  0000'00 | |
| minimum elong | 5420 Apr 01 08:36 | 12°  0021'44 | 3°32'06 | inferior conj | 5421 Mar 16 06:04 | 25°  0047'05 | 3°24'40 |
| min. Earth dist. | 5420 Apr 03 10:27 | 9°  0053'05 | 0.64819 AU | minimum elong | 5421 Mar 16 04:45 | 25°  0051'21 | 3°24'32 |
| morning rise | 5420 Apr 07 01:54 | 6°  0008'29 | | min. Earth dist. | 5421 Mar 17 16:30 | 23°  0056'26 | 0.66281 AU |
| direct | 5420 Apr 13 18:52 | 3°  0019'47 | | morning rise | 5421 Mar 21 15:22 | 19°  0032'06 | |
| desc. node | 5420 Apr 20 11:35 | 5°  0035'01 | | direct | 5421 Mar 27 23:24 | 16°  0044'20 | |
| morning max el | 5420 Apr 27 06:32 | 11°  0014'01 | 27°15'23 | desc. node | 5421 Apr 07 08:39 | 22°  0040'46 | |
| | 5420 May 12 03:32 | 0°  | | morning max el | 5421 Apr 09 16:30 | 24°  0018'26 | 26°13'33 |
| | 5420 May 30 02:16 | 0°  | | | 5421 Apr 14 19:20 | 0°  | |
| morning set | 5420 Jun 01 17:29 | 5°  0002'18 | | morning set | 5421 May 05 13:28 | 0°  | |
| max. Earth dist. | 5420 Jun 06 08:27 | 14°  0016'36 | 1.33608 AU | | 5421 May 15 19:06 | 17°  0059'36 | |
| | | | | max. Earth dist. | 5421 May 19 18:21 | 25°  0033'34 | 1.35094 AU |
| superior conj | 5420 Jun 09 23:20 | 21°  0049'02 | -0°13'14 | | 5421 May 22 00:25 | 0°  | |
| minimum elong | 5420 Jun 10 00:02 | 21°  0052'41 | 0°13'06 | superior conj | 5421 May 24 20:00 | 5°  0041'00 | -0°43'01 |
| behind sun begin | 5420 Jun 09 20:49 | 21°  0035'46 | | minimum elong | 5421 May 24 22:23 | 5°  0053'09 | 0°42'34 |
| behind sun end | 5420 Jun 10 03:14 | 22°  0009'38 | | asc. node | 5421 May 29 03:08 | 14°  0033'35 | |
| asc. node | 5420 Jun 11 06:06 | 24° 0031'59 | | evening rise | 5421 Jun 01 13:47 | 21° 0042'35 | |
| | 5420 Jun 13 19:35 | 0° | | | 5421 Jun 05 16:28 | 0° | |
| evening rise | 5420 Jun 17 05:33 | 7° 0015'29 | | | | | |
| | 5420 Jun 29 08:16 | 0° | | | | | |

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|---------------------|-------------------|-----------|------------|------------------|-------------------|------------|------------|
| evening max el | 5421 Jun 20 02:55 | 21°☿58'08 | 20°35'04 | | 5422 May 30 14:41 | 0°☿ | |
| retrograde | 5421 Jul 01 07:38 | 27°☿27'32 | | evening max el | 5422 Jun 02 16:46 | 3°☿29'06 | 19°27'39 |
| evening set | 5421 Jul 03 08:13 | 27°☿17'30 | | retrograde | 5422 Jun 12 03:45 | 8°☿06'35 | |
| desc. node | 5421 Jul 04 07:50 | 27°☿05'43 | | evening set | 5422 Jun 14 02:13 | 7°☿55'48 | |
| inferior conj | 5421 Jul 12 14:12 | 23°☿20'28 | -2°26'18 | desc. node | 5422 Jun 21 04:53 | 4°☿48'12 | |
| minimum elong | 5421 Jul 12 07:28 | 23°☿30'10 | 2°23'56 | inferior conj | 5422 Jun 22 17:43 | 3°☿49'48 | -0°27'32 |
| min. Earth dist. | 5421 Jul 13 17:41 | 22°☿40'54 | 0.54879 AU | minimum elong | 5422 Jun 22 16:30 | 3°☿51'46 | 0°27'04 |
| morning rise | 5421 Jul 21 06:01 | 19°☿14'27 | | min. Earth dist. | 5422 Jun 25 07:08 | 2°☿11'22 | 0.55785 AU |
| direct | 5421 Jul 25 02:57 | 18°☿42'07 | | | 5422 Jun 29 05:16 | 30°☿II | |
| morning max el | 5421 Aug 07 09:28 | 25°☿06'46 | 23°18'34 | morning rise | 5422 Jul 01 04:07 | 29°II12'03 | |
| | 5421 Aug 11 22:34 | 0°☿ | | direct | 5422 Jul 05 21:31 | 28°II21'42 | |
| asc. node | 5421 Aug 25 02:26 | 20°☿45'02 | | | 5422 Jul 12 11:38 | 0°☿ | |
| | 5421 Aug 29 17:00 | 0°☿ | | morning max el | 5422 Jul 19 22:51 | 5°☿26'36 | 25°01'37 |
| morning set | 5421 Aug 30 17:24 | 2°☿08'00 | | | 5422 Aug 06 14:29 | 0°☿ | |
| | | | | asc. node | 5422 Aug 11 23:28 | 10°☿17'18 | |
| superior conj | 5421 Sep 06 17:43 | 17°☿12'38 | 1°38'35 | morning set | 5422 Aug 15 05:06 | 16°☿59'50 | |
| minimum elong | 5421 Sep 06 16:19 | 17°☿05'10 | 1°38'30 | | 5422 Aug 21 04:48 | 0°☿ | |
| max. Earth dist. | 5421 Sep 09 09:12 | 22°☿50'45 | 1.33543 AU | | | | |
| | 5421 Sep 12 20:06 | 0°☿ | | superior conj | 5422 Aug 22 03:17 | 2°☿03'10 | 1°28'19 |
| evening rise | 5421 Sep 14 09:00 | 3°☿05'30 | | minimum elong | 5422 Aug 22 01:12 | 1°☿51'47 | 1°28'05 |
| | 5421 Sep 29 12:09 | 0°☿ | | max. Earth dist. | 5422 Aug 23 13:57 | 5°☿12'27 | 1.32575 AU |
| desc. node | 5421 Sep 30 07:07 | 1°☿13'57 | | evening rise | 5422 Aug 29 07:21 | 17°☿21'36 | |
| evening max el | 5421 Oct 18 14:28 | 24°☿35'15 | 27°20'08 | | 5422 Sep 04 18:14 | 0°☿ | |
| | 5421 Oct 25 15:58 | 0°☿ | | desc. node | 5422 Sep 17 04:08 | 20°☿37'37 | |
| retrograde | 5421 Nov 01 02:37 | 1°☿53'33 | | | 5422 Sep 24 02:35 | 0°☿ | |
| | 5421 Nov 07 00:34 | 30°☿II | | evening max el | 5422 Oct 01 00:38 | 7°☿34'35 | 27°25'53 |
| evening set | 5421 Nov 08 02:18 | 29°☿14'44 | | retrograde | 5422 Oct 14 18:32 | 14°☿49'24 | |
| min. Earth dist. | 5421 Nov 11 21:28 | 25°☿44'54 | 0.64487 AU | evening set | 5422 Oct 21 22:39 | 12°☿19'47 | |
| inferior conj | 5421 Nov 14 05:47 | 23°☿14'01 | -2°15'46 | min. Earth dist. | 5422 Oct 25 14:08 | 9°☿20'06 | 0.62745 AU |
| minimum elong | 5421 Nov 14 09:45 | 23°☿03'21 | 2°14'12 | inferior conj | 5422 Oct 28 09:49 | 6°☿37'55 | -3°19'25 |
| morning rise | 5421 Nov 20 18:30 | 17°☿47'09 | | minimum elong | 5422 Oct 28 15:31 | 6°☿24'13 | 3°17'31 |
| asc. node | 5421 Nov 21 01:39 | 17°☿39'51 | | morning rise | 5422 Nov 04 10:03 | 1°☿28'33 | |
| direct | 5421 Nov 23 07:46 | 17°☿13'37 | | direct | 5422 Nov 06 18:52 | 1°☿02'49 | |
| morning max el | 5421 Nov 29 19:21 | 20°☿38'51 | 17°55'53 | asc. node | 5422 Nov 07 22:43 | 1°☿09'10 | |
| | 5421 Dec 06 21:54 | 0°☿ | | morning max el | 5422 Nov 13 12:00 | 4°☿29'29 | 17°49'32 |
| morning set | 5421 Dec 17 01:20 | 16°☿43'45 | | morning set | 5422 Nov 29 13:50 | 29°☿25'20 | |
| | 5421 Dec 25 00:19 | 0°☿ | | | 5422 Nov 29 21:40 | 0°☿ | |
| desc. node | 5421 Dec 27 06:25 | 3°☿41'23 | | | | | |
| | | | | superior conj | 5422 Dec 11 02:30 | 19°☿23'59 | 0°21'26 |
| superior conj | 5421 Dec 30 12:31 | 8°☿57'20 | -0°22'38 | minimum elong | 5422 Dec 11 04:33 | 19°☿32'37 | 0°21'09 |
| minimum elong | 5421 Dec 30 09:49 | 8°☿46'31 | 0°22'14 | desc. node | 5422 Dec 14 03:26 | 24°☿27'21 | |
| max. Earth dist. | 5422 Jan 04 05:05 | 16°☿25'57 | 1.44868 AU | | 5422 Dec 17 12:56 | 0°☿ | |
| | 5422 Jan 12 21:33 | 0°☿ | | max. Earth dist. | 5422 Dec 17 21:57 | 0°☿36'24 | 1.43713 AU |
| evening rise | 5422 Jan 15 15:36 | 4°☿14'36 | | evening rise | 5422 Dec 26 02:28 | 13°☿32'18 | |
| greatest brilliancy | 5422 Jan 30 08:38 | 26°☿28'16 | -0.6m | | 5423 Jan 05 23:34 | 0°☿ | |
| | 5422 Feb 01 19:07 | 0°☿ | | evening max el | 5423 Jan 25 10:14 | 25°☿56'02 | 21°16'03 |
| evening max el | 5422 Feb 11 11:26 | 12°☿20'52 | 20°08'02 | | 5423 Jan 30 10:17 | 0°☿ | |
| asc. node | 5422 Feb 17 00:53 | 16°☿26'28 | | retrograde | 5423 Feb 03 03:12 | 1°☿05'31 | |
| retrograde | 5422 Feb 19 05:14 | 16°☿51'46 | | asc. node | 5423 Feb 03 21:56 | 1°☿02'15 | |
| evening set | 5422 Feb 23 00:08 | 15°☿28'22 | | | 5423 Feb 06 13:30 | 30°☿R | |
| inferior conj | 5422 Feb 28 09:15 | 9°☿25'03 | 3°05'03 | evening set | 5423 Feb 07 07:52 | 29°☿26'57 | |
| minimum elong | 5422 Feb 28 07:09 | 9°☿32'09 | 3°04'39 | inferior conj | 5423 Feb 12 15:53 | 23°☿12'20 | 2°35'33 |
| min. Earth dist. | 5422 Mar 01 05:25 | 8°☿16'58 | 0.67319 AU | minimum elong | 5423 Feb 12 13:29 | 23°☿20'38 | 2°34'53 |
| morning rise | 5422 Mar 05 13:57 | 3°☿10'28 | | min. Earth dist. | 5423 Feb 12 23:09 | 22°☿47'12 | 0.67932 AU |
| direct | 5422 Mar 11 09:25 | 0°☿34'35 | | morning rise | 5423 Feb 17 18:56 | 16°☿59'42 | |
| morning max el | 5422 Mar 23 01:16 | 7°☿33'03 | 24°53'07 | direct | 5423 Feb 23 00:03 | 14°☿42'55 | |
| desc. node | 5422 Mar 25 05:41 | 9°☿51'56 | | morning max el | 5423 Mar 05 10:14 | 20°☿54'40 | 23°24'21 |
| | 5422 Apr 09 13:53 | 0°☿ | | desc. node | 5423 Mar 12 02:42 | 28°☿34'51 | |
| morning set | 5422 Apr 28 03:12 | 0°☿02'31 | | | 5423 Mar 13 05:29 | 0°☿ | |
| | 5422 Apr 28 02:38 | 0°☿ | | | 5423 Apr 02 19:53 | 0°☿ | |
| max. Earth dist. | 5422 May 01 18:01 | 6°☿35'12 | 1.37004 AU | morning set | 5423 Apr 09 11:59 | 10°☿56'16 | |
| | | | | max. Earth dist. | 5423 Apr 13 13:41 | 17°☿55'21 | 1.39174 AU |
| superior conj | 5422 May 08 06:33 | 18°☿59'11 | -1°12'45 | | 5423 Apr 20 06:51 | 0°☿ | |
| minimum elong | 5422 May 08 10:36 | 19°☿19'01 | 1°12'07 | | | | |
| | 5422 May 13 19:21 | 0°☿ | | superior conj | 5423 Apr 21 03:10 | 1°☿34'20 | -1°39'49 |
| asc. node | 5422 May 16 00:09 | 4°☿25'44 | | minimum elong | 5423 Apr 21 08:14 | 1°☿57'56 | 1°39'14 |
| evening rise | 5422 May 16 16:51 | 5°☿49'32 | | evening rise | 5423 Apr 30 11:59 | 19°☿29'17 | |

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| asc. node | 5423 May 02 21:10 | 24°♄04'10 | | asc. node | 5424 Apr 18 18:13 | 13°♄23'30 | |
| | 5423 May 06 01:17 | 0°♄ | | evening max el | 5424 Apr 29 01:31 | 28°♄23'50 | 18°13'46 |
| evening max el | 5423 May 16 17:24 | 15°♄40'12 | 18°40'32 | | 5424 Apr 30 22:11 | 0°♄ | |
| retrograde | 5423 May 24 17:28 | 19°♄36'50 | | retrograde | 5424 May 06 02:03 | 1°♄55'21 | |
| evening set | 5423 May 26 21:18 | 19°♄20'37 | | evening set | 5424 May 08 12:47 | 1°♄30'25 | |
| inferior conj | 5423 Jun 03 16:55 | 14°♄56'33 | 1°14'56 | | 5424 May 11 12:12 | 30°♄ | |
| minimum elong | 5423 Jun 03 19:32 | 14°♄51'38 | 1°14'02 | inferior conj | 5424 May 15 13:41 | 26°♄46'03 | 2°27'21 |
| min. Earth dist. | 5423 Jun 07 00:13 | 12°♄28'30 | 0.57450 AU | minimum elong | 5424 May 15 17:07 | 26°♄38'30 | 2°26'27 |
| desc. node | 5423 Jun 08 01:55 | 11°♄43'50 | | min. Earth dist. | 5424 May 18 23:15 | 23°♄48'04 | 0.59553 AU |
| morning rise | 5423 Jun 11 14:27 | 9°♄42'39 | | morning rise | 5424 May 22 18:39 | 21°♄03'26 | |
| direct | 5423 Jun 17 05:53 | 8°♄23'46 | | desc. node | 5424 May 24 22:55 | 19°♄59'27 | |
| morning max el | 5423 Jul 01 14:49 | 15°♄57'10 | 26°30'14 | direct | 5424 May 29 03:52 | 19°♄10'09 | |
| | 5423 Jul 13 00:51 | 0°♄ | | morning max el | 5424 Jun 12 12:53 | 27°♄01'36 | 27°29'58 |
| asc. node | 5423 Jul 29 20:28 | 0°♄06'03 | | | 5424 Jun 15 08:50 | 0°♄ | |
| | 5423 Jul 29 19:19 | 0°♄ | | | 5424 Jul 05 14:31 | 0°♄ | |
| morning set | 5423 Jul 30 15:37 | 1°♄46'43 | | morning set | 5424 Jul 13 23:18 | 16°♄23'22 | |
| | | | | asc. node | 5424 Jul 15 17:29 | 20°♄05'56 | |
| superior conj | 5423 Aug 06 14:47 | 16°♄57'08 | 1°13'05 | | 5424 Jul 20 06:45 | 0°♄ | |
| minimum elong | 5423 Aug 06 12:29 | 16°♄44'25 | 1°12'43 | max. Earth dist. | 5424 Jul 20 11:00 | 0°♄23'28 | 1.31906 AU |
| max. Earth dist. | 5423 Aug 06 23:47 | 17°♄46'50 | 1.32030 AU | | | | |
| | 5423 Aug 12 14:29 | 0°♄ | | superior conj | 5424 Jul 21 02:30 | 1°♄48'56 | 0°53'28 |
| evening rise | 5423 Aug 13 12:20 | 1°♄55'23 | | minimum elong | 5424 Jul 21 00:27 | 1°♄37'36 | 0°53'04 |
| | 5423 Aug 28 16:43 | 0°♄ | | evening rise | 5424 Jul 27 21:34 | 16°♄39'40 | |
| desc. node | 5423 Sep 04 01:09 | 9°♄17'24 | | | 5424 Aug 03 11:46 | 0°♄ | |
| evening max el | 5423 Sep 13 05:39 | 19°♄53'12 | 26°58'41 | desc. node | 5424 Aug 20 22:10 | 26°♄55'34 | |
| retrograde | 5423 Sep 27 02:50 | 27°♄03'56 | | | 5424 Aug 23 17:35 | 0°♄ | |
| evening set | 5423 Oct 04 02:58 | 24°♄55'17 | | evening max el | 5424 Aug 25 03:22 | 1°♄23'22 | 25°58'46 |
| min. Earth dist. | 5423 Oct 07 19:54 | 22°♄15'58 | 0.60758 AU | retrograde | 5424 Sep 08 02:28 | 8°♄30'26 | |
| inferior conj | 5423 Oct 11 00:04 | 19°♄35'32 | -4°18'09 | evening set | 5424 Sep 14 10:25 | 6°♄54'22 | |
| minimum elong | 5423 Oct 11 06:27 | 19°♄22'01 | 4°16'34 | min. Earth dist. | 5424 Sep 18 15:58 | 4°♄19'02 | 0.58684 AU |
| morning rise | 5423 Oct 18 11:57 | 14°♄47'11 | | inferior conj | 5424 Sep 21 21:05 | 1°♄57'44 | -5°02'50 |
| direct | 5423 Oct 20 19:22 | 14°♄26'10 | | minimum elong | 5424 Sep 22 01:44 | 1°♄49'10 | 5°02'13 |
| asc. node | 5423 Oct 25 19:45 | 16°♄10'05 | | | 5424 Sep 24 15:54 | 30°♄ | |
| morning max el | 5423 Oct 28 01:45 | 18°♄02'40 | 18°01'56 | morning rise | 5424 Sep 29 19:20 | 27°♄32'22 | |
| | 5423 Nov 05 15:42 | 0°♄ | | direct | 5424 Oct 02 04:50 | 27°♄13'29 | |
| morning set | 5423 Nov 12 19:22 | 12°♄54'52 | | | 5424 Oct 09 01:46 | 0°♄ | |
| | 5423 Nov 22 03:37 | 0°♄ | | morning max el | 5424 Oct 10 09:15 | 1°♄09'34 | 18°34'30 |
| superior conj | 5423 Nov 22 18:33 | 1°♄06'18 | 0°56'43 | asc. node | 5424 Oct 11 16:46 | 2°♄30'41 | |
| minimum elong | 5423 Nov 22 22:24 | 1°♄23'18 | 0°56'14 | morning set | 5424 Oct 26 12:54 | 26°♄58'13 | |
| max. Earth dist. | 5423 Nov 30 09:54 | 14°♄13'38 | 1.42014 AU | | 5424 Oct 28 02:25 | 0°♄ | |
| desc. node | 5423 Dec 01 00:25 | 15°♄13'58 | | superior conj | 5424 Nov 04 08:28 | 13°♄52'10 | 1°21'32 |
| evening rise | 5423 Dec 06 01:01 | 23°♄24'40 | | minimum elong | 5424 Nov 04 11:55 | 14°♄08'16 | 1°21'11 |
| | 5423 Dec 10 05:26 | 0°♄ | | max. Earth dist. | 5424 Nov 11 16:33 | 27°♄07'15 | 1.39985 AU |
| | 5423 Dec 31 01:07 | 0°♄ | | | 5424 Nov 13 08:31 | 0°♄ | |
| evening max el | 5424 Jan 08 03:50 | 9°♄32'10 | 22°32'49 | evening rise | 5424 Nov 15 20:50 | 4°♄15'34 | |
| retrograde | 5424 Jan 17 23:23 | 15°♄22'15 | | desc. node | 5424 Nov 16 21:26 | 5°♄58'03 | |
| asc. node | 5424 Jan 21 18:59 | 14°♄06'23 | | | 5424 Dec 02 10:19 | 0°♄ | |
| evening set | 5424 Jan 22 15:19 | 13°♄28'06 | | evening max el | 5424 Dec 20 17:58 | 23°♄11'42 | 23°52'50 |
| inferior conj | 5424 Jan 27 23:56 | 7°♄05'33 | 1°57'34 | retrograde | 5424 Dec 31 16:25 | 29°♄38'19 | |
| minimum elong | 5424 Jan 27 21:42 | 7°♄13'15 | 1°56'49 | evening set | 5425 Jan 05 20:55 | 27°♄28'54 | |
| min. Earth dist. | 5424 Jan 27 19:28 | 7°♄21'02 | 0.68142 AU | asc. node | 5425 Jan 07 16:01 | 25°♄42'41 | |
| morning rise | 5424 Feb 02 03:59 | 0°♄56'13 | | min. Earth dist. | 5425 Jan 10 16:05 | 21°♄55'09 | 0.67979 AU |
| | 5424 Feb 03 11:14 | 30°♄ | | inferior conj | 5425 Jan 11 07:35 | 21°♄02'27 | 1°12'12 |
| direct | 5424 Feb 06 18:28 | 29°♄01'50 | | minimum elong | 5425 Jan 11 06:00 | 21°♄07'53 | 1°11'36 |
| | 5424 Feb 10 08:15 | 0°♄ | | morning rise | 5425 Jan 16 15:04 | 14°♄58'05 | |
| morning max el | 5424 Feb 15 22:30 | 4°♄23'50 | 21°56'43 | direct | 5425 Jan 20 15:44 | 13°♄26'20 | |
| desc. node | 5424 Feb 26 23:42 | 17°♄57'20 | | morning max el | 5425 Jan 28 17:15 | 18°♄03'38 | 20°37'36 |
| | 5424 Mar 06 09:41 | 0°♄ | | | 5425 Feb 07 09:20 | 0°♄ | |
| morning set | 5424 Mar 19 16:38 | 20°♄29'45 | | desc. node | 5425 Feb 12 20:43 | 7°♄48'39 | |
| | 5424 Mar 25 11:57 | 0°♄ | | morning set | 5425 Feb 26 20:05 | 28°♄55'27 | |
| max. Earth dist. | 5424 Mar 25 12:03 | 0°♄00'28 | 1.41336 AU | | 5425 Feb 27 12:40 | 0°♄ | |
| | | | | max. Earth dist. | 5425 Mar 07 17:12 | 12°♄59'16 | 1.43219 AU |
| superior conj | 5424 Apr 02 05:08 | 13°♄14'54 | -2°00'23 | superior conj | 5425 Mar 14 07:37 | 23°♄50'23 | -2°09'16 |
| minimum elong | 5424 Apr 02 09:24 | 13°♄33'44 | 2°00'07 | minimum elong | 5425 Mar 14 07:57 | 23°♄51'46 | 2°09'16 |
| | 5424 Apr 11 10:39 | 0°♄ | | | 5425 Mar 17 23:05 | 0°♄ | |
| evening rise | 5424 Apr 12 19:38 | 2°♄32'48 | | | | | |

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| evening rise | 5425 Mar 26 11:30 | 14° Υ 49'55 | | evening rise | 5426 Mar 08 07:13 | 26° X 12'59 | |
| | 5425 Apr 04 05:27 | 0° B | | | 5426 Mar 10 13:16 | 0° Υ | |
| asc. node | 5425 Apr 05 15:15 | 2° B 16'40 | | asc. node | 5426 Mar 23 12:19 | 20° Υ 35'36 | |
| evening max el | 5425 Apr 12 13:36 | 11° B 30'15 | 18°06'36 | evening max el | 5426 Mar 27 02:32 | 24° Υ 51'26 | 18°18'17 |
| retrograde | 5425 Apr 19 01:52 | 14° B 52'11 | | retrograde | 5426 Apr 02 12:36 | 28° Υ 17'53 | |
| evening set | 5425 Apr 21 19:19 | 14° B 16'14 | | evening set | 5426 Apr 05 12:26 | 27° Υ 29'38 | |
| inferior conj | 5425 Apr 28 05:09 | 9° B 11'54 | 3°10'21 | inferior conj | 5426 Apr 11 11:12 | 22° Υ 06'21 | 3°29'33 |
| minimum elong | 5425 Apr 28 07:32 | 9° B 05'51 | 3°09'58 | minimum elong | 5426 Apr 11 12:00 | 22° Υ 04'06 | 3°29'31 |
| min. Earth dist. | 5425 May 01 06:04 | 6° B 08'58 | 0.61760 AU | min. Earth dist. | 5426 Apr 13 21:55 | 19° Υ 20'51 | 0.63797 AU |
| morning rise | 5425 May 04 17:57 | 3° B 11'29 | | morning rise | 5426 Apr 17 10:35 | 15° Υ 56'35 | |
| direct | 5425 May 11 12:53 | 0° B 47'30 | | direct | 5426 Apr 24 06:30 | 13° Υ 13'05 | |
| desc. node | 5425 May 11 19:58 | 0° B 47'45 | | desc. node | 5426 Apr 28 16:59 | 14° Υ 12'38 | |
| morning max el | 5425 May 25 17:02 | 8° B 47'27 | 27°53'01 | morning max el | 5426 May 08 01:25 | 21° Υ 11'52 | 27°38'46 |
| | 5425 Jun 11 00:48 | 0° II | | | 5426 May 15 16:32 | 0° B | |
| | 5425 Jun 27 17:45 | 0° B | | | 5426 Jun 04 03:35 | 0° II | |
| morning set | 5425 Jun 28 02:06 | 0° B 42'37 | | morning set | 5426 Jun 11 21:42 | 14° II 37'21 | |
| asc. node | 5425 Jul 02 14:30 | 10° B 11'32 | | max. Earth dist. | 5426 Jun 16 22:10 | 24° II 53'14 | 1.32969 AU |
| max. Earth dist. | 5425 Jul 03 19:44 | 12° B 49'20 | 1.32213 AU | asc. node | 5426 Jun 19 11:33 | 0° B 18'51 | |
| | | | | | 5426 Jun 19 08:01 | 0° B | |
| superior conj | 5425 Jul 05 12:35 | 16° B 31'45 | 0°30'01 | superior conj | 5426 Jun 19 19:12 | 0° B 59'54 | 0°03'20 |
| minimum elong | 5425 Jul 05 11:15 | 16° B 24'28 | 0°29'42 | minimum elong | 5426 Jun 19 19:03 | 0° B 59'02 | 0°03'16 |
| | 5425 Jul 11 16:43 | 0° Ω | | behind sun begin | 5426 Jun 19 13:47 | 0° B 30'49 | |
| evening rise | 5425 Jul 12 08:58 | 1° Ω 26'56 | | behind sun end | 5426 Jun 20 00:18 | 1° B 27'16 | |
| | 5425 Jul 27 21:21 | 0° B | | evening rise | 5426 Jun 26 20:41 | 16° B 11'20 | |
| evening max el | 5425 Aug 06 18:07 | 12° B 08'13 | 24°33'06 | | 5426 Jul 03 17:20 | 0° Ω | |
| desc. node | 5425 Aug 07 19:12 | 13° B 06'30 | | evening max el | 5426 Jul 19 06:50 | 22° Ω 29'29 | 22°55'39 |
| retrograde | 5425 Aug 20 14:57 | 19° B 07'29 | | desc. node | 5426 Jul 25 16:14 | 27° Ω 18'25 | |
| evening set | 5425 Aug 25 17:21 | 18° B 09'17 | | retrograde | 5426 Aug 01 14:28 | 29° Ω 08'08 | |
| min. Earth dist. | 5425 Aug 31 05:18 | 15° B 19'10 | 0.56784 AU | evening set | 5426 Aug 05 04:26 | 28° Ω 40'05 | |
| inferior conj | 5425 Sep 02 22:09 | 13° B 35'29 | -5°19'13 | min. Earth dist. | 5426 Aug 12 15:23 | 25° Ω 20'10 | 0.55388 AU |
| minimum elong | 5425 Sep 02 21:39 | 13° B 36'17 | 5°19'13 | inferior conj | 5426 Aug 14 04:00 | 24° Ω 27'27 | -4°50'35 |
| morning rise | 5425 Sep 11 04:20 | 9° B 31'24 | | minimum elong | 5426 Aug 13 21:07 | 24° Ω 37'24 | 4°49'27 |
| direct | 5425 Sep 13 19:38 | 9° B 12'22 | | morning rise | 5426 Aug 22 15:56 | 20° Ω 36'47 | |
| morning max el | 5425 Sep 23 07:01 | 13° B 39'03 | 19°28'44 | direct | 5426 Aug 25 16:11 | 20° Ω 15'31 | |
| asc. node | 5425 Sep 28 13:47 | 19° B 54'59 | | morning max el | 5426 Sep 05 16:43 | 25° Ω 23'22 | 20°44'44 |
| | 5425 Oct 04 17:13 | 0° B | | | 5426 Sep 09 21:28 | 0° B | |
| morning set | 5425 Oct 10 14:38 | 11° B 24'21 | | asc. node | 5426 Sep 15 10:49 | 8° B 09'01 | |
| | | | | morning set | 5426 Sep 24 21:43 | 26° B 05'24 | |
| superior conj | 5425 Oct 18 14:46 | 27° B 25'36 | 1°36'30 | | 5426 Sep 26 19:02 | 0° B | |
| minimum elong | 5425 Oct 18 16:51 | 27° B 35'50 | 1°36'21 | superior conj | 5426 Oct 02 08:51 | 11° B 33'16 | 1°42'52 |
| | 5425 Oct 19 22:26 | 0° B | | minimum elong | 5426 Oct 02 09:23 | 11° B 36'01 | 1°42'51 |
| max. Earth dist. | 5425 Oct 24 21:18 | 9° B 22'11 | 1.37874 AU | max. Earth dist. | 5426 Oct 07 05:30 | 21° B 17'06 | 1.35922 AU |
| evening rise | 5425 Oct 28 15:23 | 16° B 08'23 | | evening rise | 5426 Oct 11 05:36 | 28° B 55'02 | |
| desc. node | 5425 Nov 03 18:28 | 26° B 35'30 | | | 5426 Oct 11 19:38 | 0° B | |
| | 5425 Nov 05 20:43 | 0° B | | desc. node | 5426 Oct 21 15:31 | 17° B 01'26 | |
| | 5425 Nov 26 23:45 | 0° B | | | 5426 Oct 30 02:35 | 0° B | |
| evening max el | 5425 Dec 03 06:49 | 6° B 55'35 | 25°09'32 | evening max el | 5426 Nov 15 19:38 | 20° B 39'26 | 26°15'31 |
| retrograde | 5425 Dec 15 05:13 | 13° B 49'37 | | retrograde | 5426 Nov 28 12:53 | 27° B 50'02 | |
| evening set | 5425 Dec 20 23:07 | 11° B 26'17 | | evening set | 5426 Dec 04 20:06 | 25° B 15'47 | |
| min. Earth dist. | 5425 Dec 25 10:40 | 6° B 26'45 | 0.67457 AU | min. Earth dist. | 5426 Dec 09 00:46 | 20° B 51'30 | 0.66582 AU |
| asc. node | 5425 Dec 25 13:03 | 6° B 19'03 | | inferior conj | 5426 Dec 10 14:27 | 18° B 55'54 | -0°37'11 |
| inferior conj | 5425 Dec 26 13:04 | 5° B 00'38 | 0°20'19 | minimum elong | 5426 Dec 10 15:28 | 18° B 52'49 | 0°36'43 |
| minimum elong | 5425 Dec 26 12:34 | 5° B 02'17 | 0°20'08 | asc. node | 5426 Dec 12 10:06 | 16° B 45'32 | |
| | 5425 Dec 30 21:19 | 30° B 47'30 | | morning rise | 5426 Dec 16 11:24 | 13° B 08'15 | |
| morning rise | 5426 Jan 01 02:15 | 29° B 03'20 | | direct | 5426 Dec 19 13:05 | 12° B 14'44 | |
| direct | 5426 Jan 04 14:31 | 27° B 52'16 | | morning max el | 5426 Dec 26 05:52 | 15° B 54'41 | 18°41'25 |
| | 5426 Jan 09 16:23 | 0° B | | | 5427 Jan 05 19:21 | 0° B | |
| morning max el | 5426 Jan 11 19:59 | 1° B 55'07 | 19°31'44 | morning set | 5427 Jan 16 08:30 | 16° B 29'18 | |
| greatest brilliancy | 5426 Jan 24 21:29 | 19° B 11'41 | -0.7m | desc. node | 5427 Jan 17 14:47 | 18° B 28'35 | |
| desc. node | 5426 Jan 30 17:45 | 28° B 01'11 | | | 5427 Jan 24 22:40 | 0° B | |
| | 5426 Feb 01 00:50 | 0° B | | max. Earth dist. | 5427 Jan 31 23:48 | 11° B 02'58 | 1.45285 AU |
| morning set | 5426 Feb 05 17:10 | 7° B 11'52 | | | | | |
| max. Earth dist. | 5426 Feb 18 05:52 | 26° B 45'45 | 1.44590 AU | superior conj | 5427 Feb 01 15:02 | 12° B 02'46 | -1°32'39 |
| | 5426 Feb 20 06:48 | 0° B | | minimum elong | 5427 Feb 01 05:35 | 11° B 25'39 | 1°31'41 |
| superior conj | 5426 Feb 22 08:46 | 3° B 19'38 | -2°00'52 | | 5427 Feb 12 23:57 | 0° B | |
| minimum elong | 5426 Feb 22 02:44 | 2° B 55'26 | 2°00'32 | | | | |

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|---------------------|-------------------|-----------------------|------------|---------------------|-------------------|-----------------------|------------|
| evening rise | 5427 Feb 17 03:49 | 6° H 38'44 | | max. Earth dist. | 5428 Jan 14 19:33 | 25° Z 31'25 | 1.45233 AU |
| greatest brilliancy | 5427 Feb 24 19:39 | 18° H 54'48 | -0.9m | | 5428 Jan 17 16:05 | 0° \approx | |
| | 5427 Mar 04 00:21 | 0° Y | | evening rise | 5428 Jan 28 03:01 | 16° \approx 16'13 | |
| asc. node | 5427 Mar 10 09:22 | 8° Y 09'23 | | | 5428 Feb 06 00:24 | 0° H | |
| evening max el | 5427 Mar 10 13:34 | 8° Y 20'08 | 18°47'58 | greatest brilliancy | 5428 Feb 09 21:53 | 5° H 54'41 | -0.7m |
| retrograde | 5427 Mar 17 06:12 | 12° Y 03'48 | | evening max el | 5428 Feb 21 20:39 | 21° H 52'44 | 19°34'25 |
| evening set | 5427 Mar 20 12:41 | 11° Y 02'25 | | asc. node | 5428 Feb 25 06:24 | 24° H 45'38 | |
| inferior conj | 5427 Mar 26 03:55 | 5° Y 21'45 | 3°30'35 | retrograde | 5428 Feb 29 03:29 | 26° H 04'15 | |
| minimum elong | 5427 Mar 26 03:15 | 5° Y 23'49 | 3°30'34 | evening set | 5428 Mar 03 17:26 | 24° H 49'07 | |
| min. Earth dist. | 5427 Mar 27 22:58 | 3° Y 08'49 | 0.65495 AU | inferior conj | 5428 Mar 09 04:04 | 18° H 53'10 | 3°17'40 |
| | 5427 Mar 30 18:49 | 30° H | | minimum elong | 5428 Mar 09 02:21 | 18° H 58'48 | 3°17'25 |
| morning rise | 5427 Mar 31 17:21 | 29° H 07'47 | | min. Earth dist. | 5428 Mar 10 08:10 | 17° H 20'35 | 0.66776 AU |
| direct | 5427 Apr 07 07:05 | 26° H 18'13 | | morning rise | 5428 Mar 14 11:02 | 12° H 38'01 | |
| desc. node | 5427 Apr 15 14:02 | 29° H 44'09 | | direct | 5428 Mar 20 13:53 | 9° H 54'31 | |
| | 5427 Apr 15 22:22 | 0° Y | | desc. node | 5428 Apr 01 11:05 | 16° H 49'58 | |
| morning max el | 5427 Apr 20 11:29 | 4° Y 04'50 | 26°52'03 | morning max el | 5428 Apr 01 21:11 | 17° H 15'18 | 25°41'01 |
| | 5427 May 10 03:12 | 0° Z | | | 5428 Apr 12 12:33 | 0° Y | |
| morning set | 5427 May 26 06:58 | 27° Z 58'14 | | | 5428 May 02 02:22 | 0° Z | |
| | 5427 May 27 08:17 | 0° II | | morning set | 5428 May 08 01:46 | 10° Z 33'55 | |
| max. Earth dist. | 5427 May 30 14:53 | 6° II 27'37 | 1.34186 AU | max. Earth dist. | 5428 May 11 20:16 | 17° Z 35'58 | 1.35861 AU |
| superior conj | 5427 Jun 03 20:12 | 15° II 06'35 | -0°25'45 | superior conj | 5428 May 17 12:55 | 28° Z 44'39 | -0°55'47 |
| minimum elong | 5427 Jun 03 21:35 | 15° II 13'47 | 0°25'28 | minimum elong | 5428 May 17 16:02 | 29° Z 00'19 | 0°55'14 |
| asc. node | 5427 Jun 06 08:37 | 20° II 23'36 | | | 5428 May 18 03:54 | 0° II | |
| | 5427 Jun 10 21:53 | 0° Z | | asc. node | 5428 May 23 05:39 | 10° II 21'34 | |
| evening rise | 5427 Jun 11 06:45 | 0° Z 46'21 | | evening rise | 5428 May 25 13:05 | 15° II 05'33 | |
| | 5427 Jun 28 07:05 | 0° Ω | | | 5428 Jun 02 06:14 | 0° Z | |
| evening max el | 5427 Jul 01 01:33 | 3° Ω 00'16 | 21°22'19 | evening max el | 5428 Jun 12 08:01 | 14° Z 06'11 | 20°03'57 |
| desc. node | 5427 Jul 12 13:15 | 8° Ω 58'40 | | retrograde | 5428 Jun 22 19:05 | 19° Z 13'33 | |
| retrograde | 5427 Jul 13 04:32 | 8° Ω 59'38 | | evening set | 5428 Jun 24 17:03 | 19° Z 03'59 | |
| evening set | 5427 Jul 15 13:47 | 8° Ω 46'31 | | desc. node | 5428 Jun 28 10:17 | 17° Z 56'17 | |
| inferior conj | 5427 Jul 24 22:03 | 4° Ω 47'23 | -3°30'13 | inferior conj | 5428 Jul 03 18:04 | 15° Z 04'29 | -1°35'37 |
| minimum elong | 5427 Jul 24 13:20 | 4° Ω 59'34 | 3°27'36 | minimum elong | 5428 Jul 03 13:36 | 15° Z 11'11 | 1°33'57 |
| min. Earth dist. | 5427 Jul 25 01:23 | 4° Ω 42'43 | 0.54785 AU | min. Earth dist. | 5428 Jul 05 13:27 | 13° Z 59'32 | 0.55143 AU |
| morning rise | 5427 Aug 02 13:44 | 0° Ω 53'25 | | morning rise | 5428 Jul 12 08:32 | 10° Z 46'17 | |
| direct | 5427 Aug 06 01:34 | 0° Ω 27'05 | | direct | 5428 Jul 16 13:15 | 10° Z 07'54 | |
| morning max el | 5427 Aug 18 14:57 | 6° Ω 23'17 | 22°19'17 | morning max el | 5428 Jul 30 05:53 | 16° Z 51'19 | 24°03'17 |
| asc. node | 5427 Sep 02 07:52 | 27° Ω 01'14 | | | 5428 Aug 09 20:44 | 0° Ω | |
| | 5427 Sep 03 21:59 | 0° H | | asc. node | 5428 Aug 19 04:54 | 16° Ω 21'10 | |
| morning set | 5427 Sep 09 08:02 | 10° H 55'37 | | morning set | 5428 Aug 23 19:41 | 25° Ω 48'23 | |
| | | | | | 5428 Aug 25 18:45 | 0° H | |
| superior conj | 5427 Sep 16 11:06 | 26° H 05'03 | 1°41'58 | superior conj | 5428 Aug 30 18:40 | 10° H 51'05 | 1°34'53 |
| minimum elong | 5427 Sep 16 10:19 | 26° H 00'52 | 1°41'57 | minimum elong | 5428 Aug 30 16:56 | 10° H 41'41 | 1°34'44 |
| | 5427 Sep 18 07:49 | 0° Z | | max. Earth dist. | 5428 Sep 01 21:35 | 15° H 25'28 | 1.33071 AU |
| max. Earth dist. | 5427 Sep 19 21:19 | 3° Z 14'18 | 1.34292 AU | evening rise | 5428 Sep 07 04:33 | 26° H 27'16 | |
| evening rise | 5427 Sep 24 11:20 | 12° Z 25'12 | | | 5428 Sep 08 23:12 | 0° Z | |
| | 5427 Oct 04 03:22 | 0° H | | desc. node | 5428 Sep 24 09:32 | 26° Z 53'22 | |
| desc. node | 5427 Oct 08 12:32 | 7° H 10'12 | | | 5428 Sep 26 11:45 | 0° H | |
| | 5427 Oct 25 06:21 | 0° Z | | evening max el | 5428 Oct 10 19:55 | 17° H 30'54 | 27°26'17 |
| evening max el | 5427 Oct 29 08:26 | 4° Z 15'14 | 27°03'22 | retrograde | 5428 Oct 24 10:59 | 24° H 48'47 | |
| retrograde | 5427 Nov 11 14:59 | 11° Z 32'56 | | evening set | 5428 Oct 31 13:27 | 22° H 12'08 | |
| evening set | 5427 Nov 18 09:47 | 8° Z 53'12 | | min. Earth dist. | 5428 Nov 04 06:31 | 18° H 56'10 | 0.63786 AU |
| min. Earth dist. | 5427 Nov 22 08:03 | 5° Z 04'16 | 0.65355 AU | inferior conj | 5428 Nov 06 19:58 | 16° H 18'48 | -2°42'56 |
| inferior conj | 5427 Nov 24 09:36 | 2° Z 44'08 | -1°38'57 | minimum elong | 5428 Nov 07 00:45 | 16° H 06'34 | 2°41'10 |
| minimum elong | 5427 Nov 24 12:27 | 2° Z 36'03 | 1°37'46 | morning rise | 5428 Nov 13 13:34 | 10° H 59'16 | |
| | 5427 Nov 26 22:24 | 30° H | | asc. node | 5428 Nov 15 04:09 | 10° H 33'10 | |
| asc. node | 5427 Nov 29 07:07 | 27° H 58'11 | | direct | 5428 Nov 16 00:30 | 10° H 29'35 | |
| morning rise | 5427 Nov 30 16:10 | 27° H 09'02 | | morning max el | 5428 Nov 22 13:39 | 13° H 54'22 | 17°50'57 |
| direct | 5427 Dec 03 09:18 | 26° H 29'19 | | | 5428 Dec 03 17:57 | 0° Z | |
| | 5427 Dec 09 21:55 | 0° Z | | morning set | 5428 Dec 09 04:57 | 9° Z 20'37 | |
| morning max el | 5427 Dec 09 20:45 | 29° H 57'05 | 18°07'38 | desc. node | 5428 Dec 21 08:49 | 29° Z 50'34 | |
| morning set | 5427 Dec 28 05:13 | 27° Z 15'48 | | | 5428 Dec 21 11:08 | 0° Z | |
| | 5427 Dec 29 21:18 | 0° Z | | superior conj | 5428 Dec 21 19:35 | 0° Z 34'34 | -0°03'10 |
| desc. node | 5428 Jan 04 11:49 | 9° Z 06'34 | | minimum elong | 5428 Dec 21 19:14 | 0° Z 33'08 | 0°03'06 |
| superior conj | 5428 Jan 11 20:22 | 20° Z 51'02 | -0°49'43 | behind sun begin | 5428 Dec 21 09:35 | 29° Z 53'39 | |
| minimum elong | 5428 Jan 11 14:16 | 20° Z 26'53 | 0°48'54 | | | | |

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|------------------|-------------------|--|------------|------------------|-------------------|--|------------|
| behind sun end | 5428 Dec 22 04:53 | 1°  12'34 | | superior conj | 5429 Dec 02 20:54 | 11°  34'17 | 0°37'39 |
| max. Earth dist. | 5428 Dec 27 13:36 | 9°  51'00 | 1.44453 AU | minimum elong | 5429 Dec 03 00:04 | 11°  47'52 | 0°37'13 |
| evening rise | 5429 Jan 06 13:51 | 25°  29'31 | | desc. node | 5429 Dec 08 05:48 | 20°  37'19 | |
| | 5429 Jan 09 12:31 | 0°  | | max. Earth dist. | 5429 Dec 10 04:01 | 23°  47'13 | 1.43048 AU |
| | 5429 Jan 30 05:59 | 0°  | | | 5429 Dec 14 00:28 | 0°  | |
| evening max el | 5429 Feb 03 22:30 | 5°  26'54 | 20°35'36 | evening rise | 5429 Dec 17 03:58 | 4°  58'02 | |
| asc. node | 5429 Feb 11 03:25 | 10°  09'35 | | | 5430 Jan 02 21:20 | 0°  | |
| retrograde | 5429 Feb 12 01:49 | 10°  14'15 | | evening max el | 5430 Jan 17 18:58 | 19°  02'37 | 21°48'02 |
| evening set | 5429 Feb 16 00:35 | 8°  44'36 | | retrograde | 5430 Jan 26 23:11 | 24°  29'31 | |
| inferior conj | 5429 Feb 21 09:00 | 2°  35'59 | 2°53'40 | asc. node | 5430 Jan 29 00:27 | 24°  07'08 | |
| minimum elong | 5429 Feb 21 06:43 | 2°  43'48 | 2°53'08 | evening set | 5430 Jan 31 08:22 | 22°  44'37 | |
| min. Earth dist. | 5429 Feb 21 23:32 | 1°  46'12 | 0.67627 AU | inferior conj | 5430 Feb 05 16:28 | 16°  26'19 | 2°20'24 |
| | 5429 Feb 23 07:12 | 30°  | | minimum elong | 5430 Feb 05 14:05 | 16°  34'35 | 2°19'41 |
| morning rise | 5429 Feb 26 12:38 | 26°  21'47 | | min. Earth dist. | 5430 Feb 05 18:43 | 16°  18'30 | 0.68069 AU |
| direct | 5429 Mar 04 02:01 | 23°  53'21 | | morning rise | 5430 Feb 10 19:37 | 10°  14'44 | |
| | 5429 Mar 14 16:20 | 0°  | | direct | 5430 Feb 15 18:32 | 8°  07'01 | |
| morning max el | 5429 Mar 15 05:53 | 0°  33'46 | 24°15'44 | morning max el | 5430 Feb 25 15:36 | 13°  57'36 | 22°46'19 |
| desc. node | 5429 Mar 19 08:07 | 5°  03'27 | | desc. node | 5430 Mar 06 05:07 | 24°  04'53 | |
| | 5429 Apr 06 10:37 | 0°  | | | 5430 Mar 10 14:05 | 0°  | |
| morning set | 5429 Apr 20 00:45 | 22°  09'06 | | | 5430 Mar 30 09:15 | 0°  | |
| max. Earth dist. | 5429 Apr 23 17:02 | 28°  09'16 | 1.37902 AU | morning set | 5430 Mar 31 21:51 | 2°  30'09 | |
| | 5429 Apr 24 10:41 | 0°  | | max. Earth dist. | 5430 Apr 05 12:37 | 10°  09'15'25 | 1.40110 AU |
| superior conj | 5429 Apr 30 18:04 | 11°  46'03 | -1°24'46 | superior conj | 5430 Apr 13 07:21 | 23°  09'59'38 | -1°49'37 |
| minimum elong | 5429 Apr 30 22:41 | 12°  08'12 | 1°24'07 | minimum elong | 5430 Apr 13 12:23 | 24°  09'22'33 | 1°49'10 |
| evening rise | 5429 May 09 13:11 | 29°  02'13 | | | 5430 Apr 16 13:36 | 0°  | |
| asc. node | 5429 May 10 02:41 | 0°  | | evening rise | 5430 Apr 23 03:52 | 12°  08'27'28 | |
| | 5429 May 10 00:54 | 0°  | | asc. node | 5430 Apr 26 23:43 | 19°  08'39'52 | |
| evening max el | 5429 May 26 02:51 | 25°  15'52'29 | 19°05'10 | | 5430 May 02 21:52 | 0°  | |
| | 5429 Jun 01 20:32 | 0°  | | evening max el | 5430 May 09 07:12 | 8°  22'05 | 18°26'46 |
| retrograde | 5429 Jun 03 21:57 | 0°  | | retrograde | 5430 May 16 19:37 | 12°  15'05'35 | |
| evening set | 5429 Jun 05 22:03 | 0°  | | evening set | 5430 May 19 02:30 | 11°  14'45'55 | |
| | 5429 Jun 06 00:35 | 30°  | | inferior conj | 5430 May 26 13:48 | 7°  13'29 | 1°49'28 |
| inferior conj | 5429 Jun 14 05:19 | 25°  14'48'41 | 0°19'10 | minimum elong | 5430 May 26 17:05 | 7°  16'06'53 | 1°48'27 |
| minimum elong | 5429 Jun 14 06:06 | 25°  14'47'20 | 0°18'51 | min. Earth dist. | 5430 May 29 23:55 | 4°  12'29'46 | 0.58316 AU |
| desc. node | 5429 Jun 15 07:19 | 25°  14'03'52 | | desc. node | 5430 Jun 02 04:21 | 2°  11'19'31 | |
| min. Earth dist. | 5429 Jun 17 04:37 | 23°  14'47'00 | 0.56409 AU | morning rise | 5430 Jun 03 04:30 | 1°  11'46'24 | |
| morning rise | 5429 Jun 22 10:55 | 20°  14'54'54 | | direct | 5430 Jun 09 04:37 | 0°  | |
| direct | 5429 Jun 27 13:51 | 19°  14'53'22 | | morning max el | 5430 Jun 23 13:52 | 7°  14'54'48 | 26°59'44 |
| morning max el | 5429 Jul 11 19:47 | 27°  14'12'50 | 25°42'03 | | 5430 Jul 10 05:06 | 0°  | |
| | 5429 Jul 14 12:42 | 0°  | | morning set | 5430 Jul 23 16:33 | 25°  14'21'27 | |
| | 5429 Aug 03 01:45 | 0°  | | asc. node | 5430 Jul 23 22:58 | 25°  14'55'14 | |
| asc. node | 5429 Aug 06 01:57 | 6°  01'20 | | | 5430 Jul 25 20:48 | 0°  | |
| morning set | 5429 Aug 08 07:04 | 10°  01'28'45 | | superior conj | 5430 Jul 30 17:06 | 10°  01'28'40 | 1°05'17 |
| superior conj | 5429 Aug 15 05:18 | 25°  01'44'09 | 1°22'26 | minimum elong | 5430 Jul 30 14:50 | 10°  01'25'12 | 1°04'53 |
| minimum elong | 5429 Aug 15 03:04 | 25°  01'31'53 | 1°22'09 | max. Earth dist. | 5430 Jul 30 15:27 | 10°  01'28'34 | 1.31926 AU |
| max. Earth dist. | 5429 Aug 16 04:39 | 27°  01'52'25 | 1.32285 AU | evening rise | 5430 Aug 06 13:05 | 25°  01'31'05 | |
| | 5429 Aug 17 03:57 | 0°  | | | 5430 Aug 08 16:42 | 0°  | |
| evening rise | 5429 Aug 22 06:02 | 10°  01'52'01 | | | 5430 Aug 25 23:09 | 0°  | |
| | 5429 Sep 01 04:59 | 0°  | | desc. node | 5430 Aug 29 03:34 | 4°  16'23 | |
| desc. node | 5429 Sep 11 06:32 | 16°  01'00'18 | | evening max el | 5430 Sep 05 06:33 | 12°  01'13'47 | 26°37'06 |
| | 5429 Sep 22 22:08 | 0°  | | retrograde | 5430 Sep 19 04:52 | 19°  01'22'24 | |
| evening max el | 5429 Sep 23 04:10 | 0°  14'14'21 | 27°18'29 | evening set | 5430 Sep 25 23:36 | 17°  01'26'48 | |
| retrograde | 5429 Oct 07 00:07 | 7°  14'28'04 | | min. Earth dist. | 5430 Sep 29 20:19 | 14°  01'51'12 | 0.59871 AU |
| evening set | 5429 Oct 14 03:34 | 5°  14'05'56 | | inferior conj | 5430 Oct 03 01:56 | 12°  01'16'56 | -4°39'36 |
| min. Earth dist. | 5429 Oct 17 18:43 | 2°  14'16'17 | 0.61921 AU | minimum elong | 5430 Oct 03 07:58 | 12°  01'04'53 | 4°38'22 |
| | 5429 Oct 20 06:42 | 30°  | | morning rise | 5430 Oct 10 18:25 | 7°  01'37'50 | |
| inferior conj | 5429 Oct 20 18:34 | 29°  01'32'47 | -3°45'23 | direct | 5430 Oct 13 02:15 | 7°  01'18'00 | |
| minimum elong | 5429 Oct 21 00:45 | 29°  01'18'39 | 3°43'31 | asc. node | 5430 Oct 19 22:13 | 10°  01'18'45 | |
| morning rise | 5429 Oct 27 23:50 | 24°  01'31'58 | | morning max el | 5430 Oct 20 16:56 | 11°  01'01'53 | 18°13'12 |
| direct | 5429 Oct 30 07:30 | 24°  01'08'43 | | | 5430 Nov 02 05:31 | 0°  | |
| asc. node | 5429 Nov 02 01:12 | 24°  01'42'14 | | morning set | 5430 Nov 05 12:40 | 6°  14'11'00 | |
| morning max el | 5429 Nov 06 05:29 | 27°  01'38'51 | 17°52'21 | superior conj | 5430 Nov 14 22:57 | 23°  14'45'51 | 1°08'31 |
| | 5429 Nov 08 08:29 | 0°  | | minimum elong | 5430 Nov 15 02:49 | 24°  14'03'22 | 1°08'03 |
| morning set | 5429 Nov 22 01:24 | 22° 14'24'46 | | | 5430 Nov 18 10:46 | 0° | |
| | 5429 Nov 26 06:34 | 0° | | | | | |

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| max. Earth dist. | 5430 Nov 22 13:57 | 7° ♁ 08'25 | 1.41182 AU | minimum elong | 5431 Oct 28 23:24 | 7° ♁ 07'50 | 1°28'46 |
| desc. node | 5430 Nov 25 02:49 | 11° ♁ 23'45 | | max. Earth dist. | 5431 Nov 04 19:44 | 19° ♁ 46'17 | 1.39080 AU |
| evening rise | 5430 Nov 27 11:05 | 15° ♁ 14'59 | | evening rise | 5431 Nov 08 16:42 | 26° ♁ 32'27 | |
| | 5430 Dec 06 20:44 | 0° ♁ | | | 5431 Nov 10 17:42 | 0° ♁ | |
| | 5430 Dec 28 22:20 | 0° ♁ | | desc. node | 5431 Nov 11 23:51 | 2° ♁ 05'36 | |
| evening max el | 5430 Dec 31 11:05 | 2° ♁ 41'31 | 23°06'50 | | 5431 Nov 30 11:13 | 0° ♁ | |
| retrograde | 5431 Jan 10 18:03 | 8° ♁ 47'14 | | evening max el | 5431 Dec 14 00:27 | 16° ♁ 23'17 | 24°26'13 |
| evening set | 5431 Jan 15 15:14 | 6° ♁ 46'34 | | retrograde | 5431 Dec 25 09:20 | 23° ♁ 02'27 | |
| asc. node | 5431 Jan 15 21:29 | 6° ♁ 33'08 | | evening set | 5431 Dec 30 19:37 | 20° ♁ 46'38 | |
| min. Earth dist. | 5431 Jan 20 15:25 | 0° ♁ 53'43 | 0.68125 AU | asc. node | 5432 Jan 02 18:31 | 17° ♁ 39'24 | |
| inferior conj | 5431 Jan 21 00:35 | 0° ♁ 22'08 | 1°39'11 | min. Earth dist. | 5432 Jan 04 11:22 | 15° ♁ 27'37 | 0.67807 AU |
| minimum elong | 5431 Jan 20 22:35 | 0° ♁ 29'04 | 1°38'28 | inferior conj | 5432 Jan 05 07:33 | 14° ♁ 20'03 | 0°50'57 |
| | 5431 Jan 21 07:01 | 30° ♁ | | minimum elong | 5432 Jan 05 06:22 | 14° ♁ 24'02 | 0°50'30 |
| morning rise | 5431 Jan 26 05:50 | 24° ♁ 14'47 | | morning rise | 5432 Jan 10 17:13 | 8° ♁ 18'43 | |
| direct | 5431 Jan 30 14:25 | 22° ♁ 29'57 | | direct | 5432 Jan 14 12:26 | 6° ♁ 56'08 | |
| morning max el | 5431 Feb 08 06:15 | 27° ♁ 31'19 | 21°21'39 | morning max el | 5432 Jan 22 04:29 | 11° ♁ 16'59 | 20°07'50 |
| | 5431 Feb 10 13:50 | 0° ♁ | | | 5432 Feb 05 11:02 | 0° ♁ | |
| desc. node | 5431 Feb 21 02:07 | 13° ♁ 41'13 | | desc. node | 5432 Feb 07 23:08 | 3° ♁ 42'30 | |
| | 5431 Mar 04 04:11 | 0° ♁ | | morning set | 5432 Feb 18 12:18 | 19° ♁ 44'10 | |
| morning set | 5431 Mar 11 14:34 | 11° ♁ 30'51 | | | 5432 Feb 25 02:15 | 0° ♁ | |
| max. Earth dist. | 5431 Mar 18 14:05 | 22° ♁ 45'39 | 1.42198 AU | max. Earth dist. | 5432 Feb 28 23:04 | 6° ♁ 08'25 | 1.43883 AU |
| | 5431 Mar 22 22:17 | 0° ♁ | | | | | |
| superior conj | 5431 Mar 25 23:53 | 5° ♁ 14'09 | -2°05'54 | superior conj | 5432 Mar 05 15:29 | 15° ♁ 20'43 | -2°08'05 |
| minimum elong | 5431 Mar 26 02:55 | 5° ♁ 27'13 | 2°05'49 | minimum elong | 5432 Mar 05 13:12 | 15° ♁ 11'21 | 2°08'02 |
| evening rise | 5431 Apr 06 05:21 | 25° ♁ 12'37 | | | 5432 Mar 14 09:32 | 0° ♁ | |
| | 5431 Apr 08 20:46 | 0° ♁ | | evening rise | 5432 Mar 18 13:12 | 7° ♁ 08'10 | |
| asc. node | 5431 Apr 13 20:45 | 8° ♁ 49'02 | | asc. node | 5432 Mar 30 17:48 | 27° ♁ 28'57 | |
| evening max el | 5431 Apr 22 17:26 | 21° ♁ 16'36 | 18°08'19 | | 5432 Apr 01 11:57 | 0° ♁ | |
| retrograde | 5431 Apr 29 11:15 | 24° ♁ 42'01 | | evening max el | 5432 Apr 05 06:10 | 4° ♁ 30'02 | 18°09'13 |
| evening set | 5431 May 02 01:02 | 24° ♁ 12'27 | | retrograde | 5432 Apr 11 16:27 | 7° ♁ 52'34 | |
| inferior conj | 5431 May 08 18:59 | 19° ♁ 19'10 | 2°48'52 | evening set | 5432 Apr 14 12:34 | 7° ♁ 11'32 | |
| minimum elong | 5431 May 08 22:06 | 19° ♁ 11'51 | 2°48'11 | inferior conj | 5432 Apr 20 17:11 | 1° ♁ 58'40 | 3°21'03 |
| min. Earth dist. | 5431 May 12 01:44 | 16° ♁ 16'24 | 0.60506 AU | minimum elong | 5432 Apr 20 18:55 | 1° ♁ 54'03 | 3°20'51 |
| morning rise | 5431 May 15 16:52 | 13° ♁ 27'57 | | | 5432 Apr 22 13:37 | 30° ♁ | |
| desc. node | 5431 May 20 01:23 | 11° ♁ 35'30 | | min. Earth dist. | 5432 Apr 23 12:21 | 29° ♁ 00'54 | 0.62658 AU |
| direct | 5431 May 22 07:21 | 11° ♁ 20'55 | | morning rise | 5432 Apr 26 23:52 | 25° ♁ 53'13 | |
| morning max el | 5431 Jun 05 14:35 | 19° ♁ 16'03 | 27°44'28 | direct | 5432 May 03 19:59 | 23° ♁ 19'37 | |
| | 5431 Jun 14 16:54 | 0° ♁ | | desc. node | 5432 May 05 22:24 | 23° ♁ 32'54 | |
| | 5431 Jul 03 00:09 | 0° ♁ | | | 5432 May 16 11:53 | 0° ♁ | |
| morning set | 5431 Jul 07 22:24 | 9° ♁ 51'06 | | morning max el | 5432 May 17 21:05 | 1° ♁ 20'23 | 27°51'25 |
| asc. node | 5431 Jul 10 20:00 | 15° ♁ 57'58 | | | 5432 Jun 07 21:37 | 0° ♁ | |
| max. Earth dist. | 5431 Jul 14 02:14 | 23° ♁ 02'35 | 1.31988 AU | morning set | 5432 Jun 20 22:32 | 24° ♁ 01'37 | |
| | | | | | 5432 Jun 23 20:12 | 0° ♁ | |
| superior conj | 5431 Jul 15 04:18 | 25° ♁ 25'56 | 0°43'57 | max. Earth dist. | 5432 Jun 26 08:59 | 5° ♁ 21'57 | 1.32477 AU |
| minimum elong | 5431 Jul 15 02:30 | 25° ♁ 16'00 | 0°43'34 | asc. node | 5432 Jun 26 17:03 | 6° ♁ 05'14 | |
| | 5431 Jul 17 06:02 | 0° ♁ | | | | | |
| evening rise | 5431 Jul 21 23:30 | 10° ♁ 17'20 | | superior conj | 5432 Jun 28 13:11 | 10° ♁ 03'36 | 0°19'02 |
| | 5431 Aug 01 00:38 | 0° ♁ | | minimum elong | 5432 Jun 28 12:17 | 9° ♁ 58'46 | 0°18'49 |
| desc. node | 5431 Aug 16 00:37 | 21° ♁ 20'46 | | evening rise | 5432 Jul 05 11:17 | 25° ♁ 04'37 | |
| evening max el | 5431 Aug 18 01:05 | 23° ♁ 23'04 | 25°24'46 | | 5432 Jul 07 19:33 | 0° ♁ | |
| | 5431 Aug 28 14:05 | 0° ♁ | | | 5432 Jul 25 22:48 | 0° ♁ | |
| retrograde | 5431 Aug 31 23:32 | 0° ♁ 27'04 | | evening max el | 5432 Jul 29 13:53 | 3° ♁ 53'55 | 23°52'04 |
| | 5431 Sep 04 08:55 | 30° ♁ | | desc. node | 5432 Aug 01 21:39 | 6° ♁ 45'53 | |
| evening set | 5431 Sep 06 20:43 | 29° ♁ 07'04 | | retrograde | 5432 Aug 12 06:49 | 10° ♁ 47'17 | |
| min. Earth dist. | 5431 Sep 11 12:49 | 26° ♁ 27'54 | 0.57835 AU | evening set | 5432 Aug 16 17:59 | 10° ♁ 03'19 | |
| inferior conj | 5431 Sep 14 14:37 | 24° ♁ 20'43 | -5°14'18 | min. Earth dist. | 5432 Aug 23 00:07 | 7° ♁ 02'12 | 0.56104 AU |
| minimum elong | 5431 Sep 14 17:29 | 24° ♁ 15'45 | 5°14'05 | inferior conj | 5432 Aug 25 07:08 | 5° ♁ 38'40 | -5°13'26 |
| morning rise | 5431 Sep 22 16:33 | 20° ♁ 04'57 | | minimum elong | 5432 Aug 25 03:46 | 5° ♁ 43'48 | 5°13'11 |
| direct | 5431 Sep 25 04:20 | 19° ♁ 46'06 | | morning rise | 5432 Sep 02 16:02 | 1° ♁ 42'16 | |
| morning max el | 5431 Oct 03 20:35 | 23° ♁ 53'28 | 18°54'59 | direct | 5432 Sep 05 10:47 | 1° ♁ 22'36 | |
| asc. node | 5431 Oct 06 19:16 | 27° ♁ 08'02 | | morning max el | 5432 Sep 15 13:30 | 6° ♁ 05'14 | 19°58'35 |
| | 5431 Oct 08 22:26 | 0° ♁ | | asc. node | 5432 Sep 22 16:18 | 14° ♁ 55'24 | |
| morning set | 5431 Oct 20 10:06 | 20° ♁ 25'22 | | | 5432 Oct 01 02:49 | 0° ♁ | |
| | 5431 Oct 25 06:52 | 0° ♁ | | morning set | 5432 Oct 03 14:24 | 4° ♁ 58'55 | |
| superior conj | 5431 Oct 28 20:28 | 6° ♁ 53'51 | 1°29'01 | | | | |
| | | | | superior conj | 5432 Oct 11 08:19 | 20° ♁ 43'53 | 1°40'09 |
| | | | | minimum elong | 5432 Oct 11 09:45 | 20° ♁ 50'59 | 1°40'06 |

| | | | | | | | |
|---------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| | 5432 Oct 16 02:04 | 0°♍ | | asc. node | 5433 Sep 09 13:21 | 3°♎26'50 | |
| max. Earth dist. | 5432 Oct 17 01:07 | 1°♍49'22 | 1.37006 AU | morning set | 5433 Sep 17 23:03 | 19°♎44'04 | |
| evening rise | 5432 Oct 20 20:05 | 8°♍49'21 | | | 5433 Sep 22 20:21 | 0°♎ | |
| desc. node | 5432 Oct 28 20:54 | 22°♍38'54 | | | | | |
| | 5432 Nov 02 11:33 | 0°♎ | | superior conj | 5433 Sep 25 06:15 | 5°♎02'47 | 1°43'18 |
| | 5432 Nov 25 10:04 | 0°♎ | | minimum elong | 5433 Sep 25 06:11 | 5°♎02'26 | 1°43'18 |
| evening max el | 5432 Nov 25 12:59 | 0°♎07'06 | 25°39'14 | max. Earth dist. | 5433 Sep 29 11:45 | 13°♎40'42 | 1.35178 AU |
| retrograde | 5432 Dec 07 20:09 | 7°♎10'09 | | evening rise | 5433 Oct 03 17:24 | 21°♎55'44 | |
| evening set | 5432 Dec 13 19:51 | 4°♎41'23 | | | 5433 Oct 08 02:31 | 0°♎ | |
| min. Earth dist. | 5432 Dec 18 04:16 | 29°♎56'55 | 0.67128 AU | desc. node | 5433 Oct 15 17:56 | 12°♎58'11 | |
| | 5432 Dec 18 03:18 | 30°♎♎ | | | 5433 Oct 27 06:41 | 0°♎ | |
| inferior conj | 5432 Dec 19 11:31 | 28°♎17'22 | -0°03'26 | evening max el | 5433 Nov 08 01:46 | 13°♎48'20 | 26°38'35 |
| minimum elong | 5432 Dec 19 11:36 | 28°♎17'05 | 0°03'22 | retrograde | 5433 Nov 21 01:43 | 21°♎03'47 | |
| transit middle | 5432 Dec 19 11:36 | 28°♎17'05 | 0°03'22 | evening set | 5433 Nov 27 14:01 | 18°♎26'26 | |
| transit begin | 5432 Dec 19 08:51 | 28°♎25'52 | | min. Earth dist. | 5433 Dec 01 15:52 | 14°♎17'03 | 0.66095 AU |
| transit end | 5432 Dec 19 14:22 | 28°♎08'19 | | inferior conj | 5433 Dec 03 10:32 | 12°♎10'13 | -1°02'57 |
| asc. node | 5432 Dec 19 15:34 | 28°♎04'29 | | minimum elong | 5433 Dec 03 12:17 | 12°♎04'59 | 1°02'11 |
| morning rise | 5432 Dec 25 03:47 | 22°♎24'02 | | asc. node | 5433 Dec 06 12:35 | 8°♎44'14 | |
| direct | 5432 Dec 28 11:13 | 21°♎21'03 | | morning rise | 5433 Dec 09 11:21 | 6°♎27'25 | |
| morning max el | 5433 Jan 04 10:32 | 25°♎12'58 | 19°08'22 | direct | 5433 Dec 12 09:01 | 5°♎40'22 | |
| | 5433 Jan 08 13:50 | 0°♎ | | morning max el | 5433 Dec 18 22:50 | 9°♎14'21 | 18°24'57 |
| greatest brilliancy | 5433 Jan 18 07:16 | 13°♎58'28 | -0.8m | | 5434 Jan 02 14:28 | 0°♎ | |
| desc. node | 5433 Jan 24 20:09 | 24°♎01'56 | | morning set | 5434 Jan 07 18:03 | 8°♎14'19 | |
| morning set | 5433 Jan 27 14:37 | 28°♎19'45 | | desc. node | 5434 Jan 11 17:11 | 14°♎34'20 | |
| | 5433 Jan 28 16:25 | 0°♎ | | | 5434 Jan 21 11:18 | 0°♎ | |
| max. Earth dist. | 5433 Feb 10 14:02 | 20°♎09'17 | 1.44972 AU | | | | |
| | | | | superior conj | 5434 Jan 23 10:26 | 3°♎04'56 | -1°15'39 |
| superior conj | 5433 Feb 13 07:05 | 24°♎26'03 | -1°51'14 | minimum elong | 5434 Jan 23 01:41 | 2°♎30'36 | 1°14'38 |
| minimum elong | 5433 Feb 12 22:50 | 23°♎53'25 | 1°50'36 | max. Earth dist. | 5434 Jan 24 08:35 | 4°♎31'44 | 1.45350 AU |
| | 5433 Feb 16 19:07 | 0°♎ | | evening rise | 5434 Feb 08 10:10 | 28°♎10'21 | |
| evening rise | 5433 Feb 27 23:18 | 18°♎07'04 | | | 5434 Feb 09 13:59 | 0°♎ | |
| | 5433 Mar 07 04:53 | 0°♎ | | greatest brilliancy | 5434 Feb 18 12:50 | 14°♎03'45 | -0.8m |
| asc. node | 5433 Mar 17 14:50 | 15°♎30'20 | | | 5434 Mar 01 20:06 | 0°♎ | |
| evening max el | 5433 Mar 19 18:32 | 17°♎55'04 | 18°28'43 | evening max el | 5434 Mar 03 04:10 | 1°♎26'39 | 19°05'49 |
| retrograde | 5433 Mar 26 06:35 | 21°♎27'44 | | asc. node | 5434 Mar 04 11:53 | 2°♎41'57 | |
| evening set | 5433 Mar 29 09:04 | 20°♎34'10 | | retrograde | 5434 Mar 10 02:02 | 5°♎20'54 | |
| inferior conj | 5433 Apr 04 04:14 | 15°♎03'21 | 3°31'57 | evening set | 5434 Mar 13 11:31 | 4°♎13'53 | |
| minimum elong | 5433 Apr 04 04:22 | 15°♎02'57 | 3°31'56 | | 5434 Mar 17 18:47 | 30°♎♎ | |
| min. Earth dist. | 5433 Apr 06 08:23 | 12°♎29'59 | 0.64564 AU | inferior conj | 5434 Mar 19 00:29 | 28°♎26'44 | 3°26'37 |
| morning rise | 5433 Apr 09 22:56 | 8°♎51'00 | | minimum elong | 5434 Mar 18 23:20 | 28°♎30'27 | 3°26'30 |
| direct | 5433 Apr 16 16:52 | 6°♎03'06 | | min. Earth dist. | 5434 Mar 20 13:09 | 26°♎30'05 | 0.66094 AU |
| desc. node | 5433 Apr 22 19:26 | 7°♎55'50 | | morning rise | 5434 Mar 24 10:46 | 22°♎12'00 | |
| morning max el | 5433 Apr 30 06:40 | 13°♎59'16 | 27°22'25 | direct | 5434 Mar 30 20:28 | 19°♎23'19 | |
| | 5433 May 13 05:39 | 0°♎ | | desc. node | 5434 Apr 09 16:27 | 24°♎11'28 | |
| | 5433 May 31 12:51 | 0°♎ | | morning max el | 5434 Apr 12 16:35 | 27°♎00'58 | 26°24'09 |
| morning set | 5433 Jun 04 14:10 | 7°♎43'35 | | | 5434 Apr 15 11:33 | 0°♎ | |
| max. Earth dist. | 5433 Jun 09 07:32 | 17°♎13'28 | 1.33424 AU | | 5434 May 06 20:58 | 0°♎ | |
| | | | | morning set | 5434 May 18 17:51 | 20°♎47'16 | |
| superior conj | 5433 Jun 12 17:40 | 24°♎23'33 | -0°08'49 | max. Earth dist. | 5434 May 22 19:05 | 28°♎34'12 | 1.34847 AU |
| minimum elong | 5433 Jun 12 18:08 | 24°♎25'57 | 0°08'44 | | 5434 May 23 12:29 | 0°♎ | |
| behind sun begin | 5433 Jun 12 13:30 | 24°♎01'23 | | | | | |
| behind sun end | 5433 Jun 12 22:46 | 24°♎50'33 | | superior conj | 5434 May 27 15:31 | 8°♎19'32 | -0°38'28 |
| asc. node | 5433 Jun 13 14:05 | 26°♎12'02 | | minimum elong | 5434 May 27 17:38 | 8°♎30'23 | 0°38'03 |
| | 5433 Jun 15 08:45 | 0°♎ | | asc. node | 5434 May 31 11:08 | 16°♎14'39 | |
| evening rise | 5433 Jun 19 22:31 | 9°♎45'38 | | evening rise | 5434 Jun 04 07:16 | 24°♎14'53 | |
| | 5433 Jun 30 11:13 | 0°♎ | | | 5434 Jun 07 02:56 | 0°♎ | |
| evening max el | 5433 Jul 11 04:06 | 14°♎15'04 | 22°14'41 | evening max el | 5434 Jun 23 03:33 | 24°♎59'21 | 20°46'45 |
| desc. node | 5433 Jul 19 18:42 | 19°♎56'46 | | | 5434 Jun 30 19:04 | 0°♎ | |
| retrograde | 5433 Jul 24 01:58 | 20°♎39'47 | | retrograde | 5434 Jul 04 14:10 | 0°♎36'31 | |
| evening set | 5433 Jul 27 01:31 | 20°♎20'06 | | evening set | 5434 Jul 06 16:30 | 0°♎25'58 | |
| min. Earth dist. | 5433 Aug 04 10:10 | 16°♎43'12 | 0.55014 AU | desc. node | 5434 Jul 06 15:42 | 0°♎26'17 | |
| inferior conj | 5433 Aug 05 06:36 | 16°♎14'24 | -4°22'28 | | 5434 Jul 08 13:10 | 30°♎♎ | |
| minimum elong | 5433 Aug 04 22:06 | 16°♎26'24 | 4°20'32 | inferior conj | 5434 Jul 15 23:36 | 26°♎29'01 | -2°43'50 |
| morning rise | 5433 Aug 13 20:26 | 12°♎24'34 | | minimum elong | 5434 Jul 15 16:10 | 26°♎39'36 | 2°41'18 |
| direct | 5433 Aug 17 00:50 | 12°♎01'49 | | min. Earth dist. | 5434 Jul 16 21:03 | 25°♎58'29 | 0.54825 AU |
| morning max el | 5433 Aug 28 18:09 | 17°♎30'24 | 21°23'04 | morning rise | 5434 Jul 24 15:33 | 22°♎26'46 | |
| | 5433 Sep 07 12:05 | 0°♎ | | direct | 5434 Jul 28 10:03 | 21°♎56'12 | |

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|---------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| morning max el | 5434 Aug 10 12:24 | 28°☿13'35 | 23°03'02 | direct | 5435 Jul 09 02:31 | 1°☿35'17 | |
| | 5434 Aug 12 07:21 | 0°♊ | | morning max el | 5435 Jul 23 01:57 | 8°☿34'47 | 24°46'56 |
| asc. node | 5434 Aug 27 10:23 | 22°♊31'40 | | | 5435 Aug 07 21:33 | 0°♊ | |
| | 5434 Aug 31 05:07 | 0°♎ | | asc. node | 5435 Aug 14 07:25 | 12°♊01'20 | |
| morning set | 5434 Sep 02 10:06 | 4°♎35'28 | | morning set | 5435 Aug 17 21:52 | 19°♊28'14 | |
| | | | | | 5435 Aug 22 18:37 | 0°♎ | |
| superior conj | 5434 Sep 09 11:01 | 19°♎41'03 | 1°39'39 | | | | |
| minimum elong | 5434 Sep 09 09:46 | 19°♎34'23 | 1°39'36 | superior conj | 5435 Aug 24 20:08 | 4°♎31'01 | 1°30'13 |
| max. Earth dist. | 5434 Sep 12 07:12 | 25°♎42'30 | 1.33724 AU | minimum elong | 5435 Aug 24 18:08 | 4°♎20'05 | 1°30'00 |
| | 5434 Sep 14 08:51 | 0°♌ | | max. Earth dist. | 5435 Aug 26 11:00 | 8°♎02'33 | 1.32688 AU |
| evening rise | 5434 Sep 17 04:27 | 5°♌40'35 | | evening rise | 5435 Sep 01 01:35 | 19°♎53'43 | |
| | 5434 Sep 30 18:15 | 0°♍ | | | 5435 Sep 06 04:35 | 0°♌ | |
| desc. node | 5434 Oct 02 14:58 | 2°♍56'55 | | desc. node | 5435 Sep 19 11:58 | 22°♌26'30 | |
| evening max el | 5434 Oct 21 14:25 | 27°♍17'30 | 27°16'43 | | 5435 Sep 24 22:04 | 0°♍ | |
| | 5434 Oct 24 16:25 | 0°♎ | | evening max el | 5435 Oct 04 01:00 | 10°♍21'51 | 27°27'01 |
| retrograde | 5434 Nov 04 01:13 | 4°♎35'33 | | retrograde | 5435 Oct 17 18:07 | 17°♍37'22 | |
| evening set | 5434 Nov 10 23:46 | 1°♎56'19 | | evening set | 5435 Oct 24 22:08 | 15°♍05'29 | |
| | 5434 Nov 13 05:06 | 30°♋♍ | | min. Earth dist. | 5435 Oct 28 13:53 | 12°♍01'56 | 0.63026 AU |
| min. Earth dist. | 5434 Nov 14 19:44 | 28°♍21'36 | 0.64722 AU | inferior conj | 5435 Oct 31 08:03 | 9°♍20'38 | -3°09'57 |
| inferior conj | 5434 Nov 17 02:16 | 25°♍53'21 | -2°06'02 | minimum elong | 5435 Oct 31 13:32 | 9°♍07'13 | 3°08'03 |
| minimum elong | 5434 Nov 17 05:57 | 25°♍43'19 | 2°04'34 | morning rise | 5435 Nov 07 06:34 | 4°♍08'33 | |
| asc. node | 5434 Nov 23 09:38 | 20°♍28'24 | | direct | 5435 Nov 09 15:53 | 3°♍41'52 | |
| morning rise | 5434 Nov 23 13:21 | 20°♍24'09 | | asc. node | 5435 Nov 10 06:39 | 3°♍43'41 | |
| direct | 5434 Nov 26 03:33 | 19°♍49'05 | | morning max el | 5435 Nov 16 07:40 | 7°♍07'37 | 17°49'19 |
| morning max el | 5434 Dec 02 14:50 | 23°♍14'39 | 17°58'21 | | 5435 Dec 01 06:55 | 0°♎ | |
| | 5434 Dec 08 00:14 | 0°♎ | | morning set | 5435 Dec 02 12:20 | 2°♎09'15 | |
| morning set | 5434 Dec 20 02:56 | 19°♎36'18 | | | | | |
| | 5434 Dec 26 09:07 | 0°♏ | | superior conj | 5435 Dec 14 07:28 | 22°♎26'29 | 0°15'14 |
| desc. node | 5434 Dec 29 14:11 | 5°♏15'00 | | minimum elong | 5435 Dec 14 08:59 | 22°♎32'50 | 0°15'02 |
| | | | | behind sun begin | 5435 Dec 14 05:39 | 22°♎18'55 | |
| superior conj | 5435 Jan 02 21:25 | 12°♏11'06 | -0°29'45 | behind sun end | 5435 Dec 14 12:20 | 22°♎46'44 | |
| minimum elong | 5435 Jan 02 17:49 | 11°♏56'44 | 0°29'13 | desc. node | 5435 Dec 16 11:13 | 26°♎00'46 | |
| max. Earth dist. | 5435 Jan 07 04:06 | 18°♏58'54 | 1.44986 AU | | 5435 Dec 18 21:44 | 0°♏ | |
| | 5435 Jan 14 05:10 | 0°♐ | | max. Earth dist. | 5435 Dec 20 21:29 | 3°♏12'50 | 1.43926 AU |
| evening rise | 5435 Jan 19 02:25 | 7°♐33'08 | | evening rise | 5435 Dec 29 12:45 | 16°♏48'27 | |
| greatest brilliancy | 5435 Feb 02 11:33 | 29°♐21'23 | -0.6m | | 5436 Jan 07 05:16 | 0°♐ | |
| | 5435 Feb 02 22:04 | 0°♑ | | evening max el | 5436 Jan 28 08:44 | 28°♐34'57 | 21°05'14 |
| evening max el | 5435 Feb 14 09:13 | 15°♑00'24 | 19°58'52 | | 5436 Jan 29 19:52 | 0°♑ | |
| asc. node | 5435 Feb 19 08:55 | 18°♑49'24 | | retrograde | 5436 Feb 05 22:03 | 3°♑38'41 | |
| retrograde | 5435 Feb 21 23:54 | 19°♑25'53 | | asc. node | 5436 Feb 06 05:56 | 3°♑38'06 | |
| evening set | 5435 Feb 25 17:31 | 18°♑04'35 | | evening set | 5436 Feb 10 01:09 | 2°♑02'22 | |
| inferior conj | 5435 Mar 03 02:57 | 12°♑03'06 | 3°08'41 | | 5436 Feb 12 03:44 | 30°♋♐ | |
| minimum elong | 5435 Mar 03 00:56 | 12°♑09'51 | 3°08'19 | inferior conj | 5436 Feb 15 09:12 | 25°♐49'06 | 2°40'33 |
| min. Earth dist. | 5435 Mar 04 01:06 | 10°♑48'44 | 0.67194 AU | minimum elong | 5436 Feb 15 06:49 | 25°♐57'20 | 2°39'57 |
| morning rise | 5435 Mar 08 08:09 | 5°♑48'24 | | min. Earth dist. | 5436 Feb 15 18:17 | 25°♐17'44 | 0.67867 AU |
| direct | 5435 Mar 14 05:35 | 3°♑10'22 | | morning rise | 5436 Feb 20 12:19 | 19°♐36'02 | |
| morning max el | 5435 Mar 26 01:34 | 10°♑14'46 | 25°05'52 | direct | 5436 Feb 25 19:34 | 17°♐16'12 | |
| desc. node | 5435 Mar 27 13:27 | 11°♑48'31 | | morning max el | 5436 Mar 07 10:26 | 23°♐35'36 | 23°37'42 |
| | 5435 Apr 10 17:36 | 0°♒ | | desc. node | 5436 Mar 13 10:28 | 0°♑24'01 | |
| | 5435 Apr 29 12:29 | 0°♓ | | | 5436 Mar 13 02:40 | 0°♑ | |
| morning set | 5435 May 01 04:54 | 2°♓59'14 | | | 5436 Apr 03 03:15 | 0°♒ | |
| max. Earth dist. | 5435 May 04 20:12 | 9°♓37'20 | 1.36702 AU | morning set | 5436 Apr 11 17:33 | 14°♒04'25 | |
| | | | | max. Earth dist. | 5436 Apr 15 15:59 | 20°♒52'36 | 1.38841 AU |
| superior conj | 5435 May 11 03:47 | 21°♓43'23 | -1°08'21 | | 5436 Apr 20 17:37 | 0°♓ | |
| minimum elong | 5435 May 11 07:36 | 22°♓02'12 | 1°07'43 | | | | |
| | 5435 May 15 07:15 | 0°♈ | | superior conj | 5436 Apr 23 02:45 | 4°♓25'32 | -1°36'02 |
| asc. node | 5435 May 18 08:10 | 6°♈08'46 | | minimum elong | 5436 Apr 23 07:44 | 4°♓49'00 | 1°35'26 |
| evening rise | 5435 May 19 11:16 | 8°♈25'30 | | evening rise | 5436 May 02 07:49 | 22°♓10'03 | |
| | 5435 May 31 09:57 | 0°♉ | | asc. node | 5436 May 04 05:12 | 25°♓49'48 | |
| evening max el | 5435 Jun 05 15:30 | 6°♉23'51 | 19°36'21 | | 5436 May 06 09:47 | 0°♈ | |
| retrograde | 5435 Jun 15 08:31 | 11°♉08'50 | | evening max el | 5436 May 18 14:44 | 18°♈29'34 | 18°46'15 |
| evening set | 5435 Jun 17 06:35 | 10°♉58'31 | | retrograde | 5436 May 26 19:29 | 22°♈31'31 | |
| desc. node | 5435 Jun 23 12:42 | 8°♉26'16 | | evening set | 5436 May 28 22:11 | 22°♈16'26 | |
| inferior conj | 5435 Jun 26 00:46 | 6°♉54'26 | -0°45'00 | inferior conj | 5436 Jun 05 20:49 | 17°♈55'23 | 1°01'12 |
| minimum elong | 5435 Jun 25 22:44 | 6°♉57'39 | 0°44'15 | minimum elong | 5436 Jun 05 23:03 | 17°♈51'17 | 1°00'24 |
| min. Earth dist. | 5435 Jun 28 09:57 | 5°♉24'33 | 0.55591 AU | min. Earth dist. | 5436 Jun 09 02:32 | 15°♈33'36 | 0.57160 AU |
| morning rise | 5435 Jul 04 12:29 | 2°♉22'07 | | desc. node | 5436 Jun 09 09:44 | 15°♈21'06 | |

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|------------------|-------------------|-----------------------------------|------------|------------------|-------------------|-----------------------------------|------------|
| morning rise | 5436 Jun 13 20:35 | 12° Π 46'26 | | direct | 5437 Jun 01 05:09 | 22° \mathcal{B} 11'43 | |
| direct | 5436 Jun 19 08:46 | 11° Π 32'20 | | morning max el | 5437 Jun 15 14:25 | 0° Π 01'16 | 27°23'13 |
| morning max el | 5436 Jul 03 17:20 | 19° Π 02'40 | 26°18'38 | | 5437 Jun 15 13:54 | 0° Π | |
| | 5436 Jul 12 23:17 | 0° \mathfrak{E} | | | 5437 Jul 06 22:55 | 0° \mathfrak{E} | |
| | 5436 Jul 30 07:32 | 0° Ω | | morning set | 5437 Jul 16 16:53 | 18° \mathfrak{E} 54'45 | |
| asc. node | 5436 Jul 31 04:27 | 1° Ω 48'11 | | asc. node | 5437 Jul 18 01:30 | 21° \mathfrak{E} 46'48 | |
| morning set | 5436 Aug 01 08:41 | 4° Ω 16'22 | | | 5437 Jul 21 20:34 | 0° Ω | |
| superior conj | 5436 Aug 08 07:30 | 19° Ω 25'06 | 1°15'43 | superior conj | 5437 Jul 23 19:18 | 4° Ω 17'35 | 0°56'44 |
| minimum elong | 5436 Aug 08 05:12 | 19° Ω 12'25 | 1°15'21 | minimum elong | 5437 Jul 23 17:11 | 4° Ω 05'52 | 0°56'19 |
| max. Earth dist. | 5436 Aug 08 20:12 | 20° Ω 35'13 | 1.32079 AU | max. Earth dist. | 5437 Jul 23 07:23 | 3° Ω 11'46 | 1.31898 AU |
| | 5436 Aug 13 03:42 | 0° \mathfrak{M} | | evening rise | 5437 Jul 30 14:29 | 19° Ω 08'30 | |
| evening rise | 5436 Aug 15 05:43 | 4° \mathfrak{M} 25'24 | | | 5437 Aug 04 22:02 | 0° \mathfrak{M} | |
| | 5436 Aug 28 21:26 | 0° \mathfrak{L} | | desc. node | 5437 Aug 23 06:02 | 29° \mathfrak{M} 02'43 | |
| desc. node | 5436 Sep 05 09:00 | 11° \mathfrak{L} 14'07 | | | 5437 Aug 24 01:31 | 0° \mathfrak{L} | |
| evening max el | 5436 Sep 15 06:51 | 22° \mathfrak{L} 47'01 | 27°04'53 | evening max el | 5437 Aug 28 05:48 | 4° \mathfrak{L} 24'31 | 26°09'35 |
| retrograde | 5436 Sep 29 03:48 | 29° \mathfrak{L} 58'47 | | retrograde | 5437 Sep 11 04:56 | 11° \mathfrak{L} 32'08 | |
| evening set | 5436 Oct 06 05:10 | 27° \mathfrak{L} 46'08 | | evening set | 5437 Sep 17 16:01 | 9° \mathfrak{L} 50'49 | |
| min. Earth dist. | 5436 Oct 09 21:16 | 25° \mathfrak{L} 04'41 | 0.61064 AU | min. Earth dist. | 5437 Sep 21 18:47 | 7° \mathfrak{L} 15'54 | 0.58988 AU |
| inferior conj | 5436 Oct 13 00:34 | 22° \mathfrak{L} 22'48 | -4°09'57 | inferior conj | 5437 Sep 25 00:21 | 4° \mathfrak{L} 50'39 | -4°57'34 |
| minimum elong | 5436 Oct 13 06:59 | 22° \mathfrak{L} 08'59 | 4°08'15 | minimum elong | 5437 Sep 25 05:29 | 4° \mathfrak{L} 41'00 | 4°56'47 |
| morning rise | 5436 Oct 20 10:48 | 17° \mathfrak{L} 31'15 | | morning rise | 5437 Oct 02 21:11 | 0° \mathfrak{L} 21'41 | |
| direct | 5436 Oct 22 18:09 | 17° \mathfrak{L} 09'48 | | direct | 5437 Oct 05 06:04 | 0° \mathfrak{L} 02'40 | |
| asc. node | 5436 Oct 27 03:41 | 18° \mathfrak{L} 31'22 | | morning max el | 5437 Oct 13 06:44 | 3° \mathfrak{L} 55'26 | 18°28'18 |
| morning max el | 5436 Oct 29 22:07 | 20° \mathfrak{L} 44'19 | 17°58'50 | asc. node | 5437 Oct 14 00:44 | 4° \mathfrak{L} 40'32 | |
| | 5436 Nov 05 20:59 | 0° \mathfrak{M} | | morning set | 5437 Oct 29 07:45 | 29° \mathfrak{L} 31'45 | |
| morning set | 5436 Nov 14 15:43 | 15° \mathfrak{M} 32'46 | | | 5437 Oct 29 13:37 | 0° \mathfrak{M} | |
| | 5436 Nov 22 14:01 | 0° \mathfrak{X} | | superior conj | 5437 Nov 07 06:51 | 16° \mathfrak{M} 35'35 | 1°18'26 |
| superior conj | 5436 Nov 24 19:52 | 3° \mathfrak{X} 58'23 | 0°52'02 | minimum elong | 5437 Nov 07 10:27 | 16° \mathfrak{M} 52'15 | 1°18'02 |
| minimum elong | 5436 Nov 24 23:37 | 4° \mathfrak{X} 14'49 | 0°51'32 | max. Earth dist. | 5437 Nov 14 17:16 | 29° \mathfrak{M} 55'01 | 1.40299 AU |
| desc. node | 5436 Dec 02 08:14 | 16° \mathfrak{X} 47'43 | | | 5437 Nov 14 18:25 | 0° \mathfrak{X} | |
| max. Earth dist. | 5436 Dec 02 09:57 | 16° \mathfrak{X} 54'51 | 1.42296 AU | evening rise | 5437 Nov 19 01:12 | 7° \mathfrak{X} 15'37 | |
| evening rise | 5436 Dec 08 08:46 | 26° \mathfrak{X} 33'48 | | desc. node | 5437 Nov 19 05:16 | 7° \mathfrak{X} 32'31 | |
| | 5436 Dec 10 13:05 | 0° \mathfrak{Z} | | | 5437 Dec 03 15:07 | 0° \mathfrak{Z} | |
| | 5436 Dec 31 00:56 | 0° \approx | | evening max el | 5437 Dec 23 17:38 | 25° \mathfrak{Z} 50'21 | 23°41'01 |
| evening max el | 5437 Jan 10 03:01 | 12° \approx 10'54 | 22°21'04 | | 5437 Dec 28 14:40 | 0° \approx | |
| retrograde | 5437 Jan 19 18:39 | 17° \approx 55'18 | | retrograde | 5438 Jan 03 12:14 | 2° \approx 11'51 | |
| asc. node | 5437 Jan 23 02:57 | 16° \approx 56'36 | | evening set | 5438 Jan 08 14:45 | 0° \approx 04'46 | |
| evening set | 5437 Jan 24 08:46 | 16° \approx 03'33 | | | 5438 Jan 08 16:59 | 30° \mathfrak{R} \mathfrak{Z} | |
| inferior conj | 5437 Jan 29 17:12 | 9° \approx 41'54 | 2°03'50 | asc. node | 5438 Jan 09 24:00 | 28° \mathfrak{Z} 45'23 | |
| minimum elong | 5437 Jan 29 14:55 | 9° \approx 49'49 | 2°03'05 | min. Earth dist. | 5438 Jan 13 11:12 | 24° \mathfrak{Z} 25'57 | 0.68027 AU |
| min. Earth dist. | 5437 Jan 29 14:27 | 9° \approx 51'27 | 0.68133 AU | inferior conj | 5438 Jan 14 01:03 | 23° \mathfrak{Z} 38'42 | 1°19'33 |
| morning rise | 5437 Feb 03 20:56 | 3° \approx 31'51 | | minimum elong | 5438 Jan 13 23:20 | 23° \mathfrak{Z} 44'34 | 1°18'55 |
| direct | 5437 Feb 08 13:32 | 1° \approx 34'02 | | morning rise | 5438 Jan 19 07:52 | 17° \mathfrak{Z} 33'25 | |
| morning max el | 5437 Feb 17 21:59 | 7° \approx 03'33 | 22°09'20 | direct | 5438 Jan 23 10:34 | 15° \mathfrak{Z} 58'14 | |
| desc. node | 5437 Feb 28 07:30 | 19° \approx 41'32 | | morning max el | 5438 Jan 31 15:35 | 20° \mathfrak{Z} 41'32 | 20°48'35 |
| | 5437 Mar 07 14:36 | 0° \mathfrak{H} | | | 5438 Feb 08 09:58 | 0° \approx | |
| morning set | 5437 Mar 23 02:32 | 23° \mathfrak{H} 50'18 | | desc. node | 5438 Feb 15 04:31 | 9° \approx 29'10 | |
| | 5437 Mar 26 20:49 | 0° \mathfrak{Y} | | | 5438 Feb 28 20:03 | 0° \mathfrak{H} | |
| max. Earth dist. | 5437 Mar 28 13:23 | 2° \mathfrak{Y} 49'17 | 1.41021 AU | morning set | 5438 Mar 02 08:55 | 2° \mathfrak{H} 23'15 | |
| | | | | max. Earth dist. | 5438 Mar 10 17:26 | 15° \mathfrak{H} 40'16 | 1.42970 AU |
| superior conj | 5437 Apr 05 07:49 | 16° \mathfrak{Y} 15'12 | -1°57'53 | superior conj | 5438 Mar 17 14:04 | 27° \mathfrak{H} 00'55 | -2°08'55 |
| minimum elong | 5437 Apr 05 12:23 | 16° \mathfrak{Y} 35'32 | 1°57'35 | minimum elong | 5438 Mar 17 15:13 | 27° \mathfrak{H} 05'45 | 2°08'54 |
| | 5437 Apr 12 20:49 | 0° \mathfrak{B} | | | 5438 Mar 19 08:21 | 0° \mathfrak{Y} | |
| evening rise | 5437 Apr 15 17:27 | 5° \mathfrak{B} 19'43 | | evening rise | 5438 Mar 29 11:56 | 17° \mathfrak{Y} 44'04 | |
| asc. node | 5437 Apr 21 02:15 | 15° \mathfrak{B} 12'34 | | | 5438 Apr 05 11:16 | 0° \mathfrak{B} | |
| | 5437 Apr 30 19:27 | 0° Π | | asc. node | 5438 Apr 07 23:18 | 4° \mathfrak{B} 09'59 | |
| evening max el | 5437 May 01 22:02 | 1° Π 09'30 | 18°16'33 | evening max el | 5438 Apr 15 09:47 | 14° \mathfrak{B} 13'00 | 18°06'29 |
| retrograde | 5437 May 09 01:19 | 4° Π 43'38 | | retrograde | 5438 Apr 21 23:06 | 17° \mathfrak{B} 35'14 | |
| evening set | 5437 May 11 11:03 | 4° Π 20'10 | | evening set | 5438 Apr 24 15:39 | 17° \mathfrak{B} 00'58 | |
| | 5437 May 18 04:46 | 30° \mathfrak{R} \mathfrak{B} | | inferior conj | 5438 May 01 03:27 | 11° \mathfrak{B} 59'32 | 3°05'27 |
| inferior conj | 5437 May 18 14:33 | 29° \mathfrak{B} 39'02 | 2°18'16 | minimum elong | 5438 May 01 06:04 | 11° \mathfrak{B} 53'03 | 3°05'00 |
| minimum elong | 5437 May 18 18:01 | 29° \mathfrak{B} 31'35 | 2°17'20 | min. Earth dist. | 5438 May 04 06:07 | 8° \mathfrak{B} 55'54 | 0.61440 AU |
| min. Earth dist. | 5437 May 22 00:42 | 26° \mathfrak{B} 43'52 | 0.59225 AU | morning rise | 5438 May 07 18:33 | 6° \mathfrak{B} 01'18 | |
| morning rise | 5437 May 25 22:02 | 24° \mathfrak{B} 00'02 | | desc. node | 5438 May 14 03:47 | 3° \mathfrak{B} 41'46 | |
| desc. node | 5437 May 27 06:45 | 23° \mathfrak{B} 18'27 | | | | | |

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|---------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| direct | 5438 May 14 12:41 | 3°♄41'21 | | desc. node | 5439 May 01 00:49 | 16°♑44'04 | |
| morning max el | 5438 May 28 17:38 | 11°♄40'12 | 27°51'58 | morning max el | 5439 May 11 01:32 | 23°♑59'04 | 27°43'08 |
| | 5438 Jun 12 03:53 | 0°♂ | | | 5439 May 16 11:11 | 0°♄ | |
| | 5438 Jun 29 05:48 | 0°♄ | | | 5439 Jun 05 12:30 | 0°♂ | |
| morning set | 5438 Jun 30 20:34 | 3°♄16'42 | | morning set | 5439 Jun 14 17:23 | 17°♂15'15 | |
| asc. node | 5438 Jul 04 22:33 | 11°♄51'46 | | max. Earth dist. | 5439 Jun 19 20:25 | 27°♂47'45 | 1.32826 AU |
| max. Earth dist. | 5438 Jul 06 16:44 | 15°♄39'46 | 1.32142 AU | | 5439 Jun 20 21:21 | 0°♄ | |
| | | | | asc. node | 5439 Jun 21 19:35 | 1°♄58'50 | |
| superior conj | 5438 Jul 08 05:45 | 19°♄01'57 | 0°33'48 | | | | |
| minimum elong | 5438 Jul 08 04:17 | 18°♄53'53 | 0°33'28 | superior conj | 5439 Jun 22 13:00 | 3°♄32'17 | 0°07'32 |
| | 5438 Jul 13 05:55 | 0°♂ | | minimum elong | 5439 Jun 22 12:37 | 3°♄30'18 | 0°07'27 |
| evening rise | 5438 Jul 15 01:42 | 3°♂55'40 | | behind sun begin | 5439 Jun 22 07:53 | 3°♄04'49 | |
| | 5438 Jul 28 22:38 | 0°♑ | | behind sun end | 5439 Jun 22 17:22 | 3°♄55'48 | |
| evening max el | 5438 Aug 09 21:32 | 15°♑15'30 | 24°47'01 | evening rise | 5439 Jun 29 13:28 | 18°♄40'38 | |
| desc. node | 5438 Aug 10 03:03 | 15°♑28'40 | | | 5439 Jul 05 02:35 | 0°♂ | |
| retrograde | 5438 Aug 23 19:01 | 22°♑16'01 | | evening max el | 5439 Jul 22 09:58 | 25°♂37'51 | 23°10'16 |
| evening set | 5438 Aug 29 02:37 | 21°♑12'22 | | | 5439 Jul 27 23:33 | 0°♑ | |
| min. Earth dist. | 5438 Sep 03 08:54 | 18°♑25'34 | 0.57043 AU | desc. node | 5439 Jul 28 00:05 | 0°♑00'46 | |
| inferior conj | 5438 Sep 06 04:29 | 16°♑35'29 | -5°19'19 | retrograde | 5439 Aug 04 20:22 | 2°♑20'53 | |
| minimum elong | 5438 Sep 06 04:58 | 16°♑34'43 | 5°19'19 | evening set | 5439 Aug 08 15:50 | 1°♑49'09 | |
| morning rise | 5438 Sep 14 09:38 | 12°♑28'25 | | | 5439 Aug 13 04:41 | 30°♑♂ | |
| direct | 5438 Sep 16 23:56 | 12°♑09'27 | | min. Earth dist. | 5439 Aug 15 19:01 | 28°♂34'38 | 0.55548 AU |
| morning max el | 5438 Sep 26 06:05 | 16°♑30'51 | 19°19'16 | inferior conj | 5439 Aug 17 12:55 | 27°♂33'39 | -4°58'24 |
| asc. node | 5438 Sep 30 21:47 | 21°♑56'10 | | minimum elong | 5439 Aug 17 06:50 | 27°♂42'31 | 4°57'32 |
| | 5438 Oct 06 00:43 | 0°♂ | | morning rise | 5439 Aug 26 00:07 | 23°♂42'06 | |
| morning set | 5438 Oct 13 08:28 | 13°♂55'17 | | direct | 5439 Aug 28 22:57 | 23°♂21'17 | |
| | | | | morning max el | 5439 Sep 08 17:39 | 28°♂22'10 | 20°32'09 |
| superior conj | 5438 Oct 21 11:03 | 0°♂02'53 | 1°34'47 | | 5439 Sep 10 08:50 | 0°♑ | |
| minimum elong | 5438 Oct 21 13:22 | 0°♂14'11 | 1°34'38 | asc. node | 5439 Sep 17 18:50 | 10°♑03'34 | |
| | 5438 Oct 21 10:27 | 0°♂ | | morning set | 5439 Sep 27 14:54 | 28°♑34'36 | |
| max. Earth dist. | 5438 Oct 27 22:14 | 12°♂15'58 | 1.38184 AU | | 5439 Sep 28 07:31 | 0°♂ | |
| evening rise | 5438 Oct 31 16:31 | 18°♂59'45 | | | | | |
| desc. node | 5438 Nov 06 02:19 | 28°♂11'25 | | superior conj | 5439 Oct 05 03:36 | 14°♂06'14 | 1°42'23 |
| | 5438 Nov 07 04:48 | 0°♄ | | minimum elong | 5439 Oct 05 04:22 | 14°♂10'07 | 1°42'23 |
| | 5438 Nov 27 20:25 | 0°♄ | | max. Earth dist. | 5439 Oct 10 05:39 | 24°♂12'43 | 1.36193 AU |
| evening max el | 5438 Dec 06 06:39 | 9°♄34'13 | 24°58'35 | | 5439 Oct 13 06:44 | 0°♂ | |
| retrograde | 5438 Dec 18 01:38 | 16°♄24'28 | | evening rise | 5439 Oct 14 04:01 | 1°♂38'45 | |
| evening set | 5438 Dec 23 17:34 | 14°♄03'06 | | desc. node | 5439 Oct 23 23:20 | 18°♂39'21 | |
| asc. node | 5438 Dec 27 21:01 | 9°♄28'20 | | | 5439 Oct 31 06:43 | 0°♄ | |
| min. Earth dist. | 5438 Dec 28 06:13 | 8°♄58'29 | 0.67561 AU | evening max el | 5439 Nov 18 19:22 | 23°♄18'03 | 26°06'36 |
| inferior conj | 5438 Dec 29 06:58 | 7°♄37'08 | 0°28'38 | | 5439 Nov 28 14:35 | 0°♄ | |
| minimum elong | 5438 Dec 29 06:16 | 7°♄39'26 | 0°28'21 | retrograde | 5439 Dec 01 10:04 | 0°♄26'52 | |
| morning rise | 5439 Jan 03 19:10 | 1°♄38'42 | | | 5439 Dec 04 01:55 | 30°♑♄ | |
| direct | 5439 Jan 07 09:14 | 0°♄24'40 | | evening set | 5439 Dec 07 15:26 | 27°♄53'49 | |
| morning max el | 5439 Jan 14 17:07 | 4°♄31'38 | 19°40'37 | min. Earth dist. | 5439 Dec 11 21:02 | 23°♄24'24 | 0.66738 AU |
| greatest brilliancy | 5439 Jan 27 17:52 | 21°♄40'02 | -0.7m | inferior conj | 5439 Dec 13 09:04 | 21°♄32'46 | -0°28'06 |
| desc. node | 5439 Feb 02 01:34 | 29°♄39'05 | | minimum elong | 5439 Dec 13 09:49 | 21°♄30'26 | 0°27'46 |
| | 5439 Feb 02 07:04 | 0°♂ | | asc. node | 5439 Dec 14 18:03 | 19°♄52'13 | |
| morning set | 5439 Feb 09 05:21 | 10°♂36'31 | | morning rise | 5439 Dec 19 04:44 | 15°♄43'41 | |
| max. Earth dist. | 5439 Feb 21 05:21 | 29°♂21'40 | 1.44433 AU | direct | 5439 Dec 22 07:52 | 14°♄47'48 | |
| | 5439 Feb 21 15:00 | 0°♄ | | morning max el | 5439 Dec 29 02:05 | 18°♄30'22 | 18°47'54 |
| | | | | | 5440 Jan 06 23:12 | 0°♄ | |
| superior conj | 5439 Feb 25 18:53 | 6°♄39'31 | -2°03'25 | morning set | 5440 Jan 19 16:48 | 19°♄41'48 | |
| minimum elong | 5439 Feb 25 13:48 | 6°♄19'00 | 2°03'11 | desc. node | 5440 Jan 19 22:34 | 20°♄04'27 | |
| evening rise | 5439 Mar 11 10:55 | 29°♄15'38 | | | 5440 Jan 26 06:29 | 0°♂ | |
| | 5439 Mar 11 21:25 | 0°♑ | | max. Earth dist. | 5440 Feb 03 22:46 | 13°♂35'47 | 1.45229 AU |
| asc. node | 5439 Mar 25 20:19 | 22°♑34'24 | | | | | |
| evening max el | 5439 Mar 29 22:44 | 27°♑32'03 | 18°15'18 | superior conj | 5440 Feb 05 03:02 | 15°♂26'46 | -1°38'05 |
| | 5439 Apr 02 01:25 | 0°♄ | | minimum elong | 5440 Feb 04 17:39 | 14°♂49'54 | 1°37'12 |
| retrograde | 5439 Apr 05 08:29 | 0°♄56'59 | | | 5440 Feb 14 07:52 | 0°♄ | |
| evening set | 5439 Apr 08 07:24 | 0°♄10'33 | | evening rise | 5440 Feb 20 11:01 | 9°♄49'58 | |
| | 5439 Apr 08 15:11 | 30°♑♑ | | greatest brilliancy | 5440 Feb 26 20:51 | 20°♄10'20 | -0.9m |
| inferior conj | 5439 Apr 14 07:33 | 24°♑49'50 | 3°27'56 | | 5440 Mar 04 02:38 | 0°♑ | |
| minimum elong | 5439 Apr 14 08:35 | 24°♑46'56 | 3°27'50 | asc. node | 5440 Mar 11 17:20 | 10°♑15'47 | |
| min. Earth dist. | 5439 Apr 16 20:30 | 22°♑00'43 | 0.63517 AU | evening max el | 5440 Mar 12 10:09 | 10°♑59'54 | 18°42'23 |
| morning rise | 5439 Apr 20 08:44 | 18°♑41'03 | | retrograde | 5440 Mar 19 01:21 | 14°♑40'26 | |
| direct | 5439 Apr 27 04:56 | 15°♑59'47 | | evening set | 5440 Mar 22 06:46 | 13°♑41'05 | |

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| inferior conj | 5440 Mar 27 22:54 | 8°♂02'48 | 3°31'25 | retrograde | 5441 Mar 02 22:15 | 28°♂38'49 | |
| minimum elong | 5440 Mar 27 22:26 | 8°♂04'14 | 3°31'23 | evening set | 5441 Mar 06 10:58 | 27°♂25'52 | |
| min. Earth dist. | 5440 Mar 29 20:16 | 5°♂44'18 | 0.65266 AU | inferior conj | 5441 Mar 11 22:08 | 21°♂32'07 | 3°20'22 |
| morning rise | 5440 Apr 02 13:36 | 1°♂49'04 | | minimum elong | 5441 Mar 11 20:33 | 21°♂37'17 | 3°20'10 |
| | 5440 Apr 05 04:41 | 30°♂ | | min. Earth dist. | 5441 Mar 13 04:25 | 19°♂53'07 | 0.66610 AU |
| direct | 5440 Apr 09 04:31 | 28°♂59'38 | | morning rise | 5441 Mar 17 05:50 | 15°♂16'54 | |
| | 5440 Apr 13 12:04 | 0°♂ | | direct | 5441 Mar 23 10:31 | 12°♂31'41 | |
| desc. node | 5440 Apr 16 21:50 | 1°♂58'43 | | desc. node | 5441 Apr 03 18:50 | 18°♂52'00 | |
| morning max el | 5440 Apr 22 11:40 | 6°♂49'13 | 27°00'48 | morning max el | 5441 Apr 04 21:28 | 19°♂57'40 | 25°52'44 |
| | 5440 May 10 08:09 | 0°♂ | | | 5441 Apr 13 11:41 | 0°♂ | |
| | 5440 May 27 19:40 | 0°♂ | | | 5441 May 03 11:02 | 0°♂ | |
| morning set | 5440 May 28 04:26 | 0°♂42'08 | | morning set | 5441 May 11 01:41 | 13°♂25'26 | |
| max. Earth dist. | 5440 Jun 01 14:50 | 9°♂27'13 | 1.33972 AU | max. Earth dist. | 5441 May 14 21:41 | 20°♂37'45 | 1.35583 AU |
| | | | | | 5441 May 19 16:08 | 0°♂ | |
| superior conj | 5440 Jun 05 14:58 | 17°♂42'39 | -0°21'14 | | | | |
| minimum elong | 5440 Jun 05 16:06 | 17°♂48'34 | 0°21'01 | superior conj | 5441 May 20 09:05 | 1°♂25'24 | -0°51'14 |
| asc. node | 5440 Jun 07 16:37 | 22°♂04'10 | | minimum elong | 5441 May 20 11:57 | 1°♂39'50 | 0°50'43 |
| | 5440 Jun 11 10:22 | 0°♂ | | asc. node | 5441 May 25 13:38 | 12°♂03'14 | |
| evening rise | 5440 Jun 12 23:54 | 3°♂17'33 | | evening rise | 5441 May 28 06:56 | 17°♂39'21 | |
| | 5440 Jun 27 22:21 | 0°♂ | | | 5441 Jun 03 13:28 | 0°♂ | |
| evening max el | 5440 Jul 03 03:13 | 6°♂04'58 | 21°35'27 | evening max el | 5441 Jun 15 07:49 | 17°♂04'43 | 20°14'26 |
| desc. node | 5440 Jul 13 21:05 | 12°♂05'36 | | retrograde | 5441 Jun 26 01:11 | 22°♂19'50 | |
| retrograde | 5440 Jul 15 11:37 | 12°♂11'42 | | evening set | 5441 Jun 27 23:40 | 22°♂10'17 | |
| evening set | 5440 Jul 18 00:00 | 11°♂57'18 | | desc. node | 5441 Jun 30 18:07 | 21°♂26'03 | |
| inferior conj | 5440 Jul 27 07:57 | 7°♂56'45 | -3°45'20 | inferior conj | 5441 Jul 07 02:41 | 18°♂11'57 | -1°53'44 |
| minimum elong | 5440 Jul 26 23:03 | 8°♂09'11 | 3°42'49 | minimum elong | 5441 Jul 06 21:23 | 18°♂19'48 | 1°51'49 |
| min. Earth dist. | 5440 Jul 27 04:55 | 8°♂00'59 | 0.54811 AU | min. Earth dist. | 5441 Jul 08 16:46 | 17°♂15'48 | 0.55030 AU |
| morning rise | 5440 Aug 04 23:16 | 4°♂04'39 | | morning rise | 5441 Jul 15 17:45 | 13°♂58'14 | |
| direct | 5440 Aug 08 08:58 | 3°♂39'29 | | direct | 5441 Jul 19 19:36 | 13°♂22'11 | |
| morning max el | 5440 Aug 20 17:29 | 9°♂28'27 | 22°04'20 | morning max el | 5441 Aug 02 09:05 | 19°♂59'24 | 23°47'42 |
| asc. node | 5440 Sep 03 15:52 | 28°♂50'33 | | | 5441 Aug 10 20:08 | 0°♂ | |
| | 5440 Sep 04 07:03 | 0°♂ | | asc. node | 5441 Aug 21 12:54 | 18°♂06'23 | |
| morning set | 5440 Sep 11 00:50 | 13°♂23'35 | | morning set | 5441 Aug 26 12:22 | 28°♂15'44 | |
| | | | | | 5441 Aug 27 08:00 | 0°♂ | |
| superior conj | 5440 Sep 18 04:50 | 28°♂34'57 | 1°42'31 | | | | |
| minimum elong | 5440 Sep 18 04:13 | 28°♂31'43 | 1°42'31 | superior conj | 5441 Sep 02 11:45 | 13°♂18'56 | 1°36'20 |
| | 5440 Sep 18 21:01 | 0°♂ | | minimum elong | 5441 Sep 02 10:08 | 13°♂10'11 | 1°36'11 |
| max. Earth dist. | 5440 Sep 21 20:02 | 6°♂07'37 | 1.34508 AU | max. Earth dist. | 5441 Sep 04 18:56 | 18°♂15'11 | 1.33225 AU |
| evening rise | 5440 Sep 26 07:41 | 15°♂02'55 | | evening rise | 5441 Sep 09 23:24 | 29°♂00'31 | |
| | 5440 Oct 04 12:03 | 0°♂ | | | 5441 Sep 10 11:17 | 0°♂ | |
| desc. node | 5440 Oct 09 20:21 | 8°♂50'55 | | desc. node | 5441 Sep 26 17:23 | 28°♂38'14 | |
| | 5440 Oct 24 22:52 | 0°♂ | | | 5441 Sep 27 14:58 | 0°♂ | |
| evening max el | 5440 Oct 31 08:03 | 6°♂54'54 | 26°57'38 | evening max el | 5441 Oct 13 19:54 | 20°♂14'16 | 27°24'45 |
| retrograde | 5440 Nov 13 13:04 | 14°♂12'29 | | retrograde | 5441 Oct 27 10:08 | 27°♂32'36 | |
| evening set | 5440 Nov 20 06:20 | 11°♂33'00 | | evening set | 5441 Nov 03 11:41 | 24°♂54'59 | |
| min. Earth dist. | 5440 Nov 24 05:28 | 7°♂38'52 | 0.65561 AU | min. Earth dist. | 5441 Nov 07 05:25 | 21°♂34'16 | 0.64036 AU |
| inferior conj | 5440 Nov 26 05:16 | 5°♂21'50 | -1°29'24 | inferior conj | 5441 Nov 09 17:07 | 18°♂58'52 | -2°33'18 |
| minimum elong | 5440 Nov 26 07:49 | 5°♂14'30 | 1°28'19 | minimum elong | 5441 Nov 09 21:37 | 18°♂47'09 | 2°31'34 |
| asc. node | 5440 Nov 30 15:05 | 0°♂54'08 | | morning rise | 5441 Nov 16 09:00 | 13°♂36'43 | |
| | 5440 Dec 01 22:54 | 30°♂ | | asc. node | 5441 Nov 17 12:07 | 13°♂15'05 | |
| morning rise | 5440 Dec 02 10:18 | 29°♂44'44 | | direct | 5441 Nov 18 20:39 | 13°♂05'48 | |
| direct | 5440 Dec 05 04:30 | 29°♂03'19 | | morning max el | 5441 Nov 25 09:09 | 16°♂30'40 | 17°52'16 |
| | 5440 Dec 08 11:11 | 0°♂ | | | 5441 Dec 05 00:46 | 0°♂ | |
| morning max el | 5440 Dec 11 16:22 | 2°♂32'22 | 18°11'31 | morning set | 5441 Dec 12 05:04 | 12°♂08'39 | |
| morning set | 5440 Dec 30 08:56 | 0°♂14'08 | | | 5441 Dec 22 20:08 | 0°♂ | |
| | 5440 Dec 30 05:27 | 0°♂ | | desc. node | 5441 Dec 23 16:37 | 1°♂23'54 | |
| desc. node | 5441 Jan 05 19:35 | 10°♂40'37 | | | | | |
| | | | | superior conj | 5441 Dec 25 02:49 | 3°♂43'15 | -0°10'01 |
| superior conj | 5441 Jan 14 07:04 | 24°♂10'06 | -0°56'44 | minimum elong | 5441 Dec 25 01:40 | 3°♂38'37 | 0°09'49 |
| minimum elong | 5441 Jan 14 00:08 | 23°♂42'47 | 0°55'49 | behind sun begin | 5441 Dec 24 17:41 | 3°♂06'07 | |
| max. Earth dist. | 5441 Jan 16 18:04 | 28°♂02'04 | 1.45285 AU | behind sun end | 5441 Dec 25 09:40 | 4°♂11'05 | |
| | 5441 Jan 18 00:09 | 0°♂ | | max. Earth dist. | 5441 Dec 30 12:26 | 12°♂23'33 | 1.44612 AU |
| evening rise | 5441 Jan 30 12:53 | 19°♂32'42 | | evening rise | 5442 Jan 10 00:41 | 28°♂47'16 | |
| | 5441 Feb 06 06:24 | 0°♂ | | | 5442 Jan 10 19:38 | 0°♂ | |
| greatest brilliancy | 5441 Feb 11 16:27 | 8°♂18'30 | -0.7m | | 5442 Jan 31 04:00 | 0°♂ | |
| evening max el | 5441 Feb 23 17:52 | 24°♂31'52 | 19°26'33 | evening max el | 5442 Feb 06 20:35 | 8°♂06'00 | 20°25'44 |
| asc. node | 5441 Feb 26 14:21 | 27°♂01'31 | | asc. node | 5442 Feb 13 11:23 | 12°♂37'20 | |

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| retrograde | 5442 Feb 14 20:31 | 12° H 47'30 | | max. Earth dist. | 5442 Dec 13 03:52 | 26° X 25'22 | 1.43293 AU |
| evening set | 5442 Feb 18 17:53 | 11° H 20'07 | | | 5442 Dec 15 09:02 | 0° Z | |
| inferior conj | 5442 Feb 24 02:30 | 5° H 13'21 | 2°57'53 | evening rise | 5442 Dec 20 13:25 | 8° Z 11'27 | |
| minimum elong | 5442 Feb 24 00:17 | 5° H 20'56 | 2°57'25 | | 5443 Jan 04 01:32 | 0° \approx | |
| min. Earth dist. | 5442 Feb 24 19:00 | 4° H 17'04 | 0.67528 AU | evening max el | 5443 Jan 20 17:55 | 21° \approx 41'35 | 21°36'41 |
| | 5442 Feb 28 05:39 | 30° $\text{R}\approx$ | | retrograde | 5443 Jan 29 18:06 | 27° \approx 02'14 | |
| morning rise | 5442 Mar 01 06:27 | 28° \approx 58'56 | | asc. node | 5443 Jan 31 08:26 | 26° \approx 48'39 | |
| direct | 5442 Mar 06 21:59 | 26° \approx 27'41 | | evening set | 5443 Feb 03 01:42 | 25° \approx 19'33 | |
| | 5442 Mar 14 17:05 | 0° H | | inferior conj | 5443 Feb 08 09:44 | 19° \approx 02'33 | 2°25'57 |
| morning max el | 5442 Mar 18 06:07 | 3° H 14'44 | 24°28'54 | minimum elong | 5443 Feb 08 07:21 | 19° \approx 10'51 | 2°25'16 |
| desc. node | 5442 Mar 21 15:51 | 6° H 56'21 | | min. Earth dist. | 5443 Feb 08 13:44 | 18° \approx 48'42 | 0.68033 AU |
| | 5442 Apr 07 16:22 | 0° Y | | morning rise | 5443 Feb 13 12:49 | 12° \approx 50'36 | |
| morning set | 5442 Apr 23 03:58 | 25° Y 11'15 | | direct | 5443 Feb 18 13:56 | 10° \approx 39'36 | |
| | 5442 Apr 25 21:05 | 0° B | | morning max el | 5443 Feb 28 15:30 | 16° \approx 37'29 | 22°59'30 |
| max. Earth dist. | 5442 Apr 26 19:14 | 1° B 40'03 | 1.37585 AU | desc. node | 5443 Mar 08 12:53 | 25° \approx 51'16 | |
| | | | | | 5443 Mar 11 15:54 | 0° H | |
| superior conj | 5442 May 03 16:12 | 14° B 32'50 | -1°20'33 | | 5443 Mar 31 17:35 | 0° Y | |
| minimum elong | 5442 May 03 20:38 | 14° B 54'16 | 1°19'54 | morning set | 5443 Apr 04 05:15 | 5° Y 42'58 | |
| | 5442 May 11 12:06 | 0° II | | max. Earth dist. | 5443 Apr 08 14:42 | 13° Y 09'08 | 1.39786 AU |
| evening rise | 5442 May 12 08:08 | 1° II 39'38 | | | | | |
| asc. node | 5442 May 12 10:41 | 1° II 52'17 | | superior conj | 5443 Apr 16 08:10 | 26° Y 54'04 | -1°46'18 |
| evening max el | 5442 May 29 01:00 | 28° II 47'42 | 19°12'35 | minimum elong | 5443 Apr 16 13:15 | 27° Y 17'26 | 1°45'47 |
| | 5442 May 30 08:51 | 0° E | | | 5443 Apr 18 00:26 | 0° B | |
| retrograde | 5442 Jun 07 01:23 | 3° E 12'19 | | evening rise | 5443 Apr 26 00:26 | 15° B 09'57 | |
| evening set | 5442 Jun 09 00:50 | 3° E 00'30 | | asc. node | 5443 Apr 29 07:43 | 21° B 25'59 | |
| | 5442 Jun 15 16:42 | 30° RII | | | 5443 May 04 02:01 | 0° II | |
| inferior conj | 5442 Jun 17 11:04 | 28° II 50'24 | 0°03'00 | evening max el | 5443 May 12 04:09 | 11° II 09'04 | 18°31'11 |
| minimum elong | 5442 Jun 17 11:12 | 28° II 50'11 | 0°02'56 | retrograde | 5443 May 19 20:20 | 14° II 56'46 | |
| transit middle | 5442 Jun 17 11:12 | 28° II 50'11 | 0°02'56 | evening set | 5443 May 22 02:10 | 14° II 38'21 | |
| transit begin | 5442 Jun 17 07:26 | 28° II 56'30 | | inferior conj | 5443 May 29 16:20 | 10° II 08'49 | 1°37'45 |
| transit end | 5442 Jun 17 14:58 | 28° II 43'52 | | minimum elong | 5443 May 29 19:26 | 10° II 02'43 | 1°36'45 |
| desc. node | 5442 Jun 17 15:07 | 28° II 43'37 | | min. Earth dist. | 5443 Jun 02 01:45 | 7° II 30'12 | 0.58005 AU |
| min. Earth dist. | 5442 Jun 20 07:19 | 26° II 56'33 | 0.56178 AU | desc. node | 5443 Jun 04 12:07 | 5° II 49'41 | |
| morning rise | 5442 Jun 25 18:28 | 24° II 02'12 | | morning rise | 5443 Jun 06 09:29 | 4° II 46'15 | |
| direct | 5442 Jun 30 18:09 | 23° II 04'42 | | direct | 5443 Jun 12 06:44 | 3° II 17'53 | |
| | 5442 Jul 14 14:27 | 0° E | | morning max el | 5443 Jun 26 15:54 | 10° II 56'53 | 26°50'08 |
| morning max el | 5442 Jul 14 22:37 | 0° E 19'21 | 25°28'18 | | 5443 Jul 11 09:21 | 0° E | |
| | 5442 Aug 04 11:53 | 0° O | | morning set | 5443 Jul 26 09:50 | 27° E 50'56 | |
| asc. node | 5442 Aug 08 09:57 | 7° O 43'37 | | asc. node | 5443 Jul 26 07:01 | 27° E 36'05 | |
| morning set | 5442 Aug 10 23:54 | 13° O 06'26 | | | 5443 Jul 27 10:10 | 0° O | |
| | | | | | | | |
| superior conj | 5442 Aug 17 22:04 | 28° O 11'01 | 1°24'39 | superior conj | 5443 Aug 02 09:50 | 13° O 05'03 | 1°08'10 |
| minimum elong | 5442 Aug 17 19:53 | 27° O 59'01 | 1°24'22 | minimum elong | 5443 Aug 02 07:33 | 12° O 52'26 | 1°07'47 |
| | 5442 Aug 18 17:55 | 0° M | | max. Earth dist. | 5443 Aug 02 11:53 | 13° O 16'25 | 1.31952 AU |
| max. Earth dist. | 5442 Aug 19 01:15 | 0° M 40'07 | 1.32376 AU | evening rise | 5443 Aug 09 06:17 | 27° O 59'58 | |
| evening rise | 5442 Aug 24 23:52 | 13° M 22'17 | | | 5443 Aug 10 05:11 | 0° M | |
| | 5442 Sep 02 13:48 | 0° E | | | 5443 Aug 26 23:17 | 0° E | |
| desc. node | 5442 Sep 13 14:25 | 17° E 51'15 | | desc. node | 5443 Aug 31 11:26 | 6° E 16'15 | |
| | 5442 Sep 23 04:32 | 0° M | | evening max el | 5443 Sep 08 08:22 | 15° E 10'21 | 26°45'21 |
| evening max el | 5442 Sep 26 04:56 | 3° M 03'37 | 27°21'49 | retrograde | 5443 Sep 22 06:14 | 22° E 19'29 | |
| retrograde | 5442 Oct 10 00:15 | 10° M 17'39 | | evening set | 5443 Sep 29 03:10 | 20° E 19'08 | |
| evening set | 5442 Oct 17 04:05 | 7° M 52'45 | | min. Earth dist. | 5443 Oct 02 22:20 | 17° E 42'35 | 0.60182 AU |
| min. Earth dist. | 5442 Oct 20 19:16 | 4° M 59'45 | 0.62210 AU | inferior conj | 5443 Oct 06 03:35 | 15° E 05'52 | -4°32'20 |
| inferior conj | 5442 Oct 23 17:41 | 2° M 16'29 | -3°36'20 | minimum elong | 5443 Oct 06 09:49 | 14° E 53'12 | 4°30'59 |
| minimum elong | 5442 Oct 23 23:44 | 2° M 02'25 | 3°34'25 | morning rise | 5443 Oct 13 18:30 | 10° E 23'27 | |
| | 5442 Oct 26 07:02 | 30° RE | | direct | 5443 Oct 16 02:10 | 10° E 03'14 | |
| morning rise | 5442 Oct 30 21:12 | 27° E 12'31 | | asc. node | 5443 Oct 22 06:14 | 12° E 34'09 | |
| direct | 5442 Nov 02 05:11 | 26° E 48'29 | | morning max el | 5443 Oct 23 13:42 | 13° E 44'17 | 18°08'51 |
| asc. node | 5442 Nov 04 09:11 | 27° E 09'53 | | | 5443 Nov 03 14:40 | 0° M | |
| | 5442 Nov 08 18:10 | 0° M | | morning set | 5443 Nov 08 08:21 | 8° M 46'25 | |
| morning max el | 5442 Nov 09 01:20 | 0° M 17'19 | 17°50'59 | | | | |
| morning set | 5442 Nov 24 22:56 | 25° M 05'26 | | superior conj | 5443 Nov 17 22:56 | 26° M 33'22 | 1°04'30 |
| | 5442 Nov 27 16:45 | 0° X | | minimum elong | 5443 Nov 18 02:50 | 26° M 50'51 | 1°04'01 |
| | | | | | 5443 Nov 19 21:18 | 0° X | |
| superior conj | 5442 Dec 06 00:14 | 14° X 31'30 | 0°32'04 | max. Earth dist. | 5443 Nov 25 14:39 | 9° X 52'58 | 1.41482 AU |
| minimum elong | 5442 Dec 06 03:04 | 14° X 43'33 | 0°31'40 | desc. node | 5443 Nov 27 10:43 | 12° X 57'12 | |
| desc. node | 5442 Dec 10 13:39 | 22° X 10'27 | | evening rise | 5443 Nov 30 17:28 | 18° X 19'43 | |

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|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| | 5443 Dec 08 03:38 | 0°♄ | | | 5444 Nov 11 03:15 | 0°♄ | |
| | 5443 Dec 29 15:37 | 0°♄ | | desc. node | 5444 Nov 13 07:45 | 3°♄39'51 | |
| evening max el | 5444 Jan 03 10:33 | 5°♄19'34 | 22°54'51 | | 5444 Nov 30 13:58 | 0°♄ | |
| retrograde | 5444 Jan 13 13:28 | 11°♄19'47 | | evening max el | 5444 Dec 16 00:07 | 19°♄00'31 | 24°14'36 |
| evening set | 5444 Jan 18 08:49 | 9°♄21'19 | | retrograde | 5444 Dec 27 05:26 | 25°♄35'37 | |
| asc. node | 5444 Jan 18 05:27 | 9°♄28'15 | | evening set | 5445 Jan 01 13:41 | 23°♄21'56 | |
| inferior conj | 5444 Jan 23 17:54 | 2°♄57'28 | 1°45'56 | asc. node | 5445 Jan 04 02:29 | 20°♄44'52 | |
| minimum elong | 5444 Jan 23 15:48 | 3°♄04'43 | 1°45'11 | min. Earth dist. | 5445 Jan 06 06:34 | 17°♄57'47 | 0.67874 AU |
| min. Earth dist. | 5444 Jan 23 10:21 | 3°♄23'33 | 0.68144 AU | inferior conj | 5445 Jan 07 01:09 | 16°♄55'15 | 0°58'45 |
| | 5444 Jan 25 22:51 | 30°♄♄ | | minimum elong | 5445 Jan 06 23:48 | 16°♄59'46 | 0°58'13 |
| morning rise | 5444 Jan 28 22:41 | 26°♄49'27 | | morning rise | 5445 Jan 12 10:00 | 10°♄52'51 | |
| direct | 5444 Feb 02 09:19 | 25°♄01'19 | | direct | 5445 Jan 16 07:05 | 9°♄27'09 | |
| morning max el | 5444 Feb 11 05:17 | 0°♄09'33 | 21°33'39 | morning max el | 5445 Jan 24 02:20 | 13°♄53'34 | 20°17'58 |
| | 5444 Feb 11 01:27 | 0°♄ | | | 5445 Feb 05 15:14 | 0°♄ | |
| desc. node | 5444 Feb 23 09:56 | 15°♄22'51 | | desc. node | 5445 Feb 09 06:59 | 5°♄21'01 | |
| | 5444 Mar 04 10:37 | 0°♄ | | morning set | 5445 Feb 21 01:23 | 23°♄11'26 | |
| morning set | 5444 Mar 14 02:01 | 14°♄54'30 | | | 5445 Feb 25 10:17 | 0°♄ | |
| max. Earth dist. | 5444 Mar 20 15:08 | 25°♄30'47 | 1.41906 AU | max. Earth dist. | 5445 Mar 02 22:54 | 8°♄46'05 | 1.43662 AU |
| | 5444 Mar 23 07:42 | 0°♄ | | | | | |
| superior conj | 5444 Mar 28 04:05 | 8°♄17'37 | -2°04'14 | superior conj | 5445 Mar 08 23:35 | 18°♄34'47 | -2°08'54 |
| minimum elong | 5444 Mar 28 07:38 | 8°♄33'01 | 2°04'04 | minimum elong | 5445 Mar 08 22:16 | 18°♄29'23 | 2°08'53 |
| evening rise | 5444 Apr 08 04:10 | 28°♄01'33 | | | 5445 Mar 15 18:45 | 0°♄ | |
| | 5444 Apr 09 06:06 | 0°♄ | | evening rise | 5445 Mar 21 14:59 | 10°♄05'23 | |
| asc. node | 5444 Apr 15 04:45 | 10°♄38'41 | | asc. node | 5445 Apr 02 01:46 | 29°♄23'41 | |
| evening max el | 5444 Apr 24 13:41 | 23°♄59'38 | 18°09'50 | | 5445 Apr 02 11:22 | 0°♄ | |
| retrograde | 5444 May 01 09:39 | 27°♄27'00 | | evening max el | 5445 Apr 08 02:16 | 7°♄11'02 | 18°07'53 |
| evening set | 5444 May 03 22:22 | 26°♄59'05 | | retrograde | 5445 Apr 14 13:05 | 10°♄33'07 | |
| inferior conj | 5444 May 10 18:39 | 22°♄08'50 | 2°41'44 | evening set | 5445 Apr 17 08:14 | 9°♄53'56 | |
| minimum elong | 5444 May 10 21:55 | 22°♄01'20 | 2°40'58 | inferior conj | 5445 Apr 23 14:36 | 4°♄44'04 | 3°17'39 |
| min. Earth dist. | 5444 May 14 02:33 | 19°♄07'15 | 0.60168 AU | minimum elong | 5445 Apr 23 16:35 | 4°♄38'54 | 3°17'23 |
| morning rise | 5444 May 17 18:59 | 16°♄20'23 | | min. Earth dist. | 5445 Apr 26 11:53 | 1°♄43'58 | 0.62348 AU |
| desc. node | 5444 May 21 09:09 | 14°♄42'48 | | | 5445 Apr 28 07:52 | 30°♄♄ | |
| direct | 5444 May 24 07:43 | 14°♄18'07 | | morning rise | 5445 Apr 29 23:22 | 28°♄40'06 | |
| morning max el | 5444 Jun 07 15:45 | 22°♄12'08 | 27°40'16 | direct | 5445 May 06 19:12 | 26°♄09'37 | |
| | 5444 Jun 14 12:24 | 0°♄ | | desc. node | 5445 May 08 06:11 | 26°♄16'00 | |
| | 5444 Jul 03 10:34 | 0°♄ | | | 5445 May 16 03:53 | 0°♄ | |
| morning set | 5444 Jul 09 16:21 | 12°♄23'06 | | morning max el | 5445 May 20 21:34 | 4°♄10'33 | 27°52'45 |
| asc. node | 5444 Jul 12 04:02 | 17°♄37'52 | | | 5445 Jun 09 03:57 | 0°♄ | |
| max. Earth dist. | 5444 Jul 15 22:57 | 25°♄51'47 | 1.31948 AU | morning set | 5445 Jun 23 17:27 | 26°♄36'46 | |
| | | | | | 5445 Jun 25 09:05 | 0°♄ | |
| superior conj | 5444 Jul 16 21:14 | 27°♄54'29 | 0°47'26 | asc. node | 5445 Jun 29 01:04 | 7°♄44'36 | |
| minimum elong | 5444 Jul 16 19:20 | 27°♄43'59 | 0°47'03 | max. Earth dist. | 5445 Jun 29 06:26 | 8°♄13'25 | 1.32374 AU |
| | 5444 Jul 17 19:59 | 0°♄ | | | | | |
| evening rise | 5444 Jul 23 16:18 | 12°♄45'30 | | superior conj | 5445 Jul 01 06:33 | 12°♄33'59 | 0°23'01 |
| | 5444 Aug 01 08:26 | 0°♄ | | minimum elong | 5445 Jul 01 05:29 | 12°♄28'13 | 0°22'47 |
| desc. node | 5444 Aug 17 08:27 | 23°♄33'05 | | evening rise | 5445 Jul 08 03:59 | 27°♄32'41 | |
| evening max el | 5444 Aug 20 03:59 | 26°♄26'37 | 25°37'11 | | 5445 Jul 09 07:48 | 0°♄ | |
| | 5444 Aug 24 10:47 | 0°♄ | | | 5445 Jul 26 13:35 | 0°♄ | |
| retrograde | 5444 Sep 03 02:42 | 3°♄31'49 | | evening max el | 5445 Aug 01 17:15 | 7°♄01'24 | 24°06'36 |
| evening set | 5444 Sep 09 04:00 | 2°♄06'01 | | desc. node | 5445 Aug 04 05:27 | 9°♄14'55 | |
| | 5444 Sep 12 21:08 | 30°♄♄ | | retrograde | 5445 Aug 15 11:52 | 13°♄57'17 | |
| min. Earth dist. | 5444 Sep 13 15:56 | 29°♄28'40 | 0.58127 AU | evening set | 5445 Aug 20 04:28 | 13°♄08'32 | |
| inferior conj | 5444 Sep 16 19:15 | 27°♄16'07 | -5°10'56 | min. Earth dist. | 5445 Aug 26 03:53 | 10°♄11'31 | 0.56330 AU |
| minimum elong | 5444 Sep 16 22:50 | 27°♄09'47 | 5°10'36 | inferior conj | 5445 Aug 28 14:40 | 8°♄40'38 | -5°16'37 |
| morning rise | 5444 Sep 24 19:58 | 22°♄57'06 | | minimum elong | 5445 Aug 28 12:20 | 8°♄44'16 | 5°16'29 |
| direct | 5444 Sep 27 06:53 | 22°♄38'17 | | morning rise | 5445 Sep 05 22:41 | 4°♄41'46 | |
| morning max el | 5444 Oct 05 18:46 | 26°♄41'23 | 18°47'22 | direct | 5445 Sep 08 16:06 | 4°♄22'24 | |
| asc. node | 5444 Oct 08 03:17 | 29°♄13'24 | | morning max el | 5445 Sep 18 13:24 | 8°♄59'15 | 19°47'41 |
| | 5444 Oct 08 18:28 | 0°♄ | | asc. node | 5445 Sep 25 00:20 | 16°♄52'40 | |
| morning set | 5444 Oct 22 04:28 | 22°♄56'57 | | | 5445 Oct 02 13:35 | 0°♄ | |
| | 5444 Oct 25 18:50 | 0°♄ | | morning set | 5445 Oct 06 07:52 | 7°♄27'38 | |
| | | | | | | | |
| superior conj | 5444 Oct 30 17:54 | 9°♄33'51 | 1°26'31 | superior conj | 5445 Oct 14 03:51 | 23°♄17'59 | 1°39'00 |
| minimum elong | 5444 Oct 30 21:02 | 9°♄48'40 | 1°26'14 | minimum elong | 5445 Oct 14 05:31 | 23°♄26'13 | 1°38'55 |
| max. Earth dist. | 5444 Nov 06 20:40 | 22°♄36'11 | 1.39397 AU | | 5445 Oct 17 14:04 | 0°♄ | |
| evening rise | 5444 Nov 10 19:38 | 29°♄27'43 | | max. Earth dist. | 5445 Oct 20 01:32 | 4°♄42'03 | 1.37305 AU |
| | | | | evening rise | 5445 Oct 23 19:56 | 11°♄36'02 | |

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| desc. node | 5445 Oct 31 04:45 | 24°♄14'27 | | superior conj | 5446 Sep 28 00:29 | 7°♄33'16 | 1°43'17 |
| | 5445 Nov 03 18:41 | 0°♊ | | minimum elong | 5446 Sep 28 00:38 | 7°♄34'01 | 1°43'17 |
| | 5445 Nov 25 21:04 | 0°♊ | | max. Earth dist. | 5446 Oct 02 11:13 | 16°♄34'20 | 1.35430 AU |
| evening max el | 5445 Nov 28 12:40 | 2°♊44'07 | 25°29'08 | evening rise | 5446 Oct 06 14:51 | 24°♄35'59 | |
| retrograde | 5445 Dec 10 16:59 | 9°♊44'29 | | | 5446 Oct 09 12:59 | 0°♄ | |
| evening set | 5445 Dec 16 14:38 | 7°♊17'33 | | desc. node | 5446 Oct 18 01:45 | 14°♄36'16 | |
| min. Earth dist. | 5445 Dec 21 00:07 | 2°♊27'45 | 0.67248 AU | | 5446 Oct 28 07:59 | 0°♊ | |
| asc. node | 5445 Dec 21 23:32 | 1°♊12'33 | | evening max el | 5446 Nov 11 01:32 | 16°♊26'49 | 26°30'57 |
| inferior conj | 5445 Dec 22 05:40 | 0°♊52'46 | 0°05'13 | retrograde | 5446 Nov 23 23:18 | 23°♊40'43 | |
| minimum elong | 5445 Dec 22 05:32 | 0°♊53'13 | 0°05'10 | evening set | 5446 Nov 30 09:49 | 21°♊04'27 | |
| transit middle | 5445 Dec 22 05:32 | 0°♊53'13 | 0°05'10 | min. Earth dist. | 5446 Dec 04 12:39 | 16°♊49'46 | 0.66272 AU |
| transit begin | 5445 Dec 22 02:53 | 1°♊01'45 | | inferior conj | 5446 Dec 06 05:33 | 14°♊46'48 | -0°53'39 |
| transit end | 5445 Dec 22 08:11 | 0°♊44'40 | | minimum elong | 5446 Dec 06 07:02 | 14°♊42'20 | 0°52'59 |
| | 5445 Dec 22 22:10 | 30°♋♊ | | asc. node | 5446 Dec 08 20:35 | 11°♊46'31 | |
| morning rise | 5445 Dec 27 20:47 | 24°♊57'58 | | morning rise | 5446 Dec 12 04:57 | 9°♊02'10 | |
| direct | 5445 Dec 31 05:51 | 23°♊52'15 | | direct | 5446 Dec 15 04:00 | 8°♊12'54 | |
| morning max el | 5446 Jan 07 07:13 | 27°♊47'53 | 19°16'13 | morning max el | 5446 Dec 21 18:42 | 11°♊48'46 | 18°30'21 |
| | 5446 Jan 09 08:07 | 0°♊ | | | 5447 Jan 03 21:03 | 0°♊ | |
| greatest brilliancy | 5446 Jan 20 16:56 | 15°♊45'37 | -0.7m | morning set | 5447 Jan 11 00:23 | 11°♊20'04 | |
| desc. node | 5446 Jan 27 04:01 | 25°♊38'03 | | desc. node | 5447 Jan 14 01:02 | 16°♊08'48 | |
| | 5446 Jan 29 23:50 | 0°♋ | | | 5447 Jan 22 19:35 | 0°♋ | |
| morning set | 5446 Jan 31 01:20 | 1°♋38'42 | | | | | |
| max. Earth dist. | 5446 Feb 13 12:55 | 22°♋41'32 | 1.44852 AU | superior conj | 5447 Jan 26 22:17 | 6°♋27'16 | -1°21'59 |
| | | | | minimum elong | 5447 Jan 26 13:08 | 5°♋51'22 | 1°20'58 |
| superior conj | 5446 Feb 16 18:21 | 27°♋47'57 | -1°55'05 | max. Earth dist. | 5447 Jan 27 07:18 | 7°♋02'36 | 1.45344 AU |
| minimum elong | 5446 Feb 16 10:47 | 27°♋17'54 | 1°54'35 | | 5447 Feb 10 21:35 | 0°♋ | |
| | 5446 Feb 18 03:31 | 0°♋ | | evening rise | 5447 Feb 11 18:41 | 1°♋23'33 | |
| evening rise | 5446 Mar 03 04:30 | 21°♋12'42 | | greatest brilliancy | 5447 Feb 21 02:23 | 16°♋08'06 | -0.8m |
| | 5446 Mar 08 11:47 | 0°♋ | | | 5447 Mar 02 12:58 | 0°♋ | |
| asc. node | 5446 Mar 19 22:48 | 17°♋31'32 | | evening max el | 5447 Mar 06 01:04 | 4°♋05'40 | 18°59'12 |
| evening max el | 5446 Mar 22 14:52 | 20°♋34'47 | 18°24'39 | asc. node | 5447 Mar 06 19:49 | 4°♋51'28 | |
| retrograde | 5446 Mar 29 02:03 | 24°♋04'59 | | retrograde | 5447 Mar 12 20:53 | 7°♋55'50 | |
| evening set | 5446 Apr 01 03:35 | 23°♋13'19 | | evening set | 5447 Mar 16 05:19 | 6°♋50'47 | |
| inferior conj | 5446 Apr 06 23:57 | 17°♋45'11 | 3°31'23 | inferior conj | 5447 Mar 21 19:02 | 1°♋05'54 | 3°28'15 |
| minimum elong | 5446 Apr 07 00:19 | 17°♋44'07 | 3°31'22 | minimum elong | 5447 Mar 21 18:02 | 1°♋09'03 | 3°28'11 |
| min. Earth dist. | 5446 Apr 09 06:27 | 15°♋07'12 | 0.64307 AU | | 5447 Mar 22 15:52 | 30°♋♋ | |
| morning rise | 5446 Apr 12 20:14 | 11°♋33'38 | | min. Earth dist. | 5447 Mar 23 09:55 | 29°♋03'25 | 0.65897 AU |
| direct | 5446 Apr 19 15:00 | 8°♋46'53 | | morning rise | 5447 Mar 27 06:22 | 24°♋51'25 | |
| desc. node | 5446 Apr 25 03:13 | 10°♋18'45 | | direct | 5447 Apr 02 17:35 | 22°♋02'12 | |
| morning max el | 5446 May 03 06:42 | 16°♋44'18 | 27°28'44 | desc. node | 5447 Apr 12 00:15 | 26°♋19'22 | |
| | 5446 May 14 06:22 | 0°♋ | | morning max el | 5447 Apr 15 16:40 | 29°♋43'05 | 26°34'20 |
| | 5446 Jun 01 23:10 | 0°♋ | | | 5447 Apr 15 23:19 | 0°♋ | |
| morning set | 5446 Jun 07 10:31 | 10°♋23'13 | | | 5447 May 08 04:03 | 0°♋ | |
| max. Earth dist. | 5446 Jun 12 06:16 | 20°♋08'40 | 1.33254 AU | morning set | 5447 May 21 16:14 | 23°♋33'06 | |
| | | | | | 5447 May 25 00:34 | 0°♋ | |
| superior conj | 5446 Jun 15 11:49 | 26°♋56'45 | -0°04'27 | max. Earth dist. | 5447 May 25 19:39 | 1°♋34'06 | 1.34609 AU |
| minimum elong | 5446 Jun 15 12:03 | 26°♋57'58 | 0°04'25 | | | | |
| behind sun begin | 5446 Jun 15 06:47 | 26°♋29'59 | | superior conj | 5447 May 30 10:50 | 10°♋56'43 | -0°33'53 |
| behind sun end | 5446 Jun 15 17:18 | 27°♋25'58 | | minimum elong | 5447 May 30 12:41 | 11°♋06'16 | 0°33'33 |
| asc. node | 5446 Jun 15 22:06 | 27°♋51'31 | | asc. node | 5447 Jun 02 19:06 | 17°♋54'46 | |
| | 5446 Jun 16 22:07 | 0°♋ | | evening rise | 5447 Jun 07 00:39 | 26°♋46'13 | |
| evening rise | 5446 Jun 22 15:23 | 12°♋14'46 | | | 5447 Jun 08 14:15 | 0°♋ | |
| | 5446 Jul 01 16:41 | 0°♋ | | evening max el | 5447 Jun 26 04:28 | 28°♋00'51 | 20°58'48 |
| evening max el | 5446 Jul 14 06:44 | 17°♋21'43 | 22°28'52 | | 5447 Jun 28 10:02 | 0°♋ | |
| desc. node | 5446 Jul 22 02:26 | 22°♋48'04 | | retrograde | 5447 Jul 07 20:54 | 3°♋45'50 | |
| retrograde | 5446 Jul 27 08:25 | 23°♋51'41 | | desc. node | 5447 Jul 08 23:28 | 3°♋42'55 | |
| evening set | 5446 Jul 30 12:44 | 23°♋29'27 | | evening set | 5447 Jul 10 01:19 | 3°♋34'35 | |
| min. Earth dist. | 5446 Aug 07 13:55 | 19°♋58'48 | 0.55125 AU | | 5447 Jul 18 17:03 | 30°♋♋ | |
| inferior conj | 5446 Aug 08 16:09 | 19°♋21'36 | -4°33'39 | inferior conj | 5447 Jul 19 09:10 | 29°♋37'16 | -3°00'53 |
| minimum elong | 5446 Aug 08 08:05 | 19°♋33'04 | 4°31'58 | minimum elong | 5447 Jul 19 01:10 | 29°♋48'34 | 2°58'17 |
| morning rise | 5446 Aug 17 05:20 | 15°♋31'49 | | min. Earth dist. | 5447 Jul 20 00:22 | 29°♋15'49 | 0.54791 AU |
| direct | 5446 Aug 20 08:14 | 15°♋09'38 | | morning rise | 5447 Jul 28 01:08 | 25°♋38'25 | |
| morning max el | 5446 Aug 31 19:46 | 20°♋31'01 | 21°09'19 | direct | 5447 Jul 31 17:16 | 25°♋09'28 | |
| | 5446 Sep 08 14:14 | 0°♋ | | | 5447 Aug 12 03:15 | 0°♋ | |
| asc. node | 5446 Sep 11 21:22 | 5°♋18'16 | | morning max el | 5447 Aug 13 15:15 | 1°♋19'28 | 22°47'37 |
| morning set | 5446 Sep 20 16:01 | 22°♋11'35 | | asc. node | 5447 Aug 29 18:23 | 24°♋18'47 | |
| | 5446 Sep 24 09:37 | 0°♋ | | | 5447 Sep 01 16:41 | 0°♋ | |

| | | | | | | | |
|---------------------|-------------------|------------------------|------------|------------------|-------------------|------------------------|------------|
| morning set | 5447 Sep 05 02:51 | 7° \mathbb{M} 02'40 | | morning set | 5448 Aug 19 14:39 | 21° Ω 55'53 | |
| | | | | | 5448 Aug 23 08:28 | 0° \mathbb{M} | |
| superior conj | 5447 Sep 12 04:25 | 22° \mathbb{M} 09'21 | 1°40'36 | superior conj | 5448 Aug 26 13:05 | 6° \mathbb{M} 58'20 | 1°32'00 |
| minimum elong | 5447 Sep 12 03:20 | 22° \mathbb{M} 03'32 | 1°40'33 | minimum elong | 5448 Aug 26 11:10 | 6° \mathbb{M} 47'54 | 1°31'48 |
| max. Earth dist. | 5447 Sep 15 05:28 | 28° \mathbb{M} 34'42 | 1.33913 AU | max. Earth dist. | 5448 Aug 28 08:09 | 10° \mathbb{M} 51'57 | 1.32814 AU |
| | 5447 Sep 15 21:55 | 0° Ω | | evening rise | 5448 Sep 02 19:59 | 22° \mathbb{M} 25'30 | |
| evening rise | 5447 Sep 20 00:07 | 8° Ω 15'51 | | | 5448 Sep 06 15:41 | 0° Ω | |
| | 5447 Oct 02 01:16 | 0° \mathbb{M} | | desc. node | 5448 Sep 20 19:47 | 24° Ω 13'25 | |
| desc. node | 5447 Oct 04 22:45 | 4° \mathbb{M} 38'41 | | | 5448 Sep 24 20:35 | 0° \mathbb{M} | |
| evening max el | 5447 Oct 24 14:17 | 29° \mathbb{M} 58'39 | 27°12'37 | evening max el | 5448 Oct 06 01:13 | 13° \mathbb{M} 07'03 | 27°27'21 |
| | 5447 Oct 24 14:51 | 0° \mathbb{M} | | retrograde | 5448 Oct 19 17:36 | 20° \mathbb{M} 23'26 | |
| retrograde | 5447 Nov 06 23:37 | 7° \mathbb{M} 16'30 | | evening set | 5448 Oct 26 21:16 | 17° \mathbb{M} 49'37 | |
| evening set | 5447 Nov 13 20:59 | 4° \mathbb{M} 36'56 | | min. Earth dist. | 5448 Oct 30 13:24 | 14° \mathbb{M} 41'56 | 0.63301 AU |
| min. Earth dist. | 5447 Nov 17 17:45 | 0° \mathbb{M} 57'19 | 0.64952 AU | inferior conj | 5448 Nov 02 05:59 | 12° \mathbb{M} 01'43 | -3°00'23 |
| | 5447 Nov 18 14:44 | 30° \mathbb{M} | | minimum elong | 5448 Nov 02 11:14 | 11° \mathbb{M} 48'40 | 2°58'31 |
| inferior conj | 5447 Nov 19 22:32 | 28° \mathbb{M} 31'48 | -1°56'21 | morning rise | 5448 Nov 09 02:47 | 6° \mathbb{M} 47'03 | |
| minimum elong | 5447 Nov 20 01:55 | 28° \mathbb{M} 22'27 | 1°54'57 | direct | 5448 Nov 11 12:37 | 6° \mathbb{M} 19'24 | |
| asc. node | 5447 Nov 25 17:38 | 23° \mathbb{M} 18'40 | | asc. node | 5448 Nov 11 14:41 | 6° \mathbb{M} 19'26 | |
| morning rise | 5447 Nov 26 08:00 | 23° \mathbb{M} 00'26 | | morning max el | 5448 Nov 18 03:18 | 9° \mathbb{M} 44'31 | 17°49'30 |
| direct | 5447 Nov 28 23:12 | 22° \mathbb{M} 23'48 | | | 5448 Dec 01 15:55 | 0° \mathbb{M} | |
| morning max el | 5447 Dec 05 10:21 | 25° \mathbb{M} 49'51 | 18°01'13 | morning set | 5448 Dec 04 11:14 | 4° \mathbb{M} 53'13 | |
| | 5447 Dec 08 23:29 | 0° \mathbb{M} | | | | | |
| morning set | 5447 Dec 23 05:05 | 22° \mathbb{M} 29'49 | | superior conj | 5448 Dec 16 13:01 | 25° \mathbb{M} 29'44 | 0°08'51 |
| | 5447 Dec 27 17:58 | 0° \mathbb{M} | | minimum elong | 5448 Dec 16 13:56 | 25° \mathbb{M} 33'32 | 0°08'44 |
| desc. node | 5447 Dec 31 22:02 | 6° \mathbb{M} 48'27 | | behind sun begin | 5448 Dec 16 05:55 | 25° \mathbb{M} 00'19 | |
| | | | | behind sun end | 5448 Dec 16 21:57 | 26° \mathbb{M} 06'41 | |
| superior conj | 5448 Jan 06 06:51 | 15° \mathbb{M} 25'48 | -0°36'52 | desc. node | 5448 Dec 17 19:03 | 27° \mathbb{M} 33'35 | |
| minimum elong | 5448 Jan 06 02:21 | 15° \mathbb{M} 07'52 | 0°36'13 | | 5448 Dec 19 06:50 | 0° \mathbb{M} | |
| max. Earth dist. | 5448 Jan 10 03:05 | 21° \mathbb{M} 30'55 | 1.45089 AU | max. Earth dist. | 5448 Dec 22 20:45 | 5° \mathbb{M} 47'00 | 1.44125 AU |
| | 5448 Jan 15 13:08 | 0° \mathbb{M} | | evening rise | 5448 Dec 31 23:14 | 20° \mathbb{M} 04'13 | |
| evening rise | 5448 Jan 22 13:04 | 10° \mathbb{M} 50'38 | | | 5449 Jan 07 11:39 | 0° \mathbb{M} | |
| | 5448 Feb 04 02:20 | 0° \mathbb{M} | | | 5449 Jan 29 03:34 | 0° \mathbb{M} | |
| greatest brilliancy | 5448 Feb 05 10:19 | 1° \mathbb{M} 58'57 | -0.7m | evening max el | 5449 Jan 30 07:09 | 1° \mathbb{M} 13'05 | 20°54'41 |
| evening max el | 5448 Feb 17 06:51 | 17° \mathbb{M} 39'00 | 19°50'03 | retrograde | 5449 Feb 07 16:55 | 6° \mathbb{M} 11'08 | |
| asc. node | 5448 Feb 21 16:52 | 21° \mathbb{M} 09'36 | | asc. node | 5449 Feb 07 13:56 | 6° \mathbb{M} 11'03 | |
| retrograde | 5448 Feb 24 18:38 | 21° \mathbb{M} 59'25 | | evening set | 5449 Feb 11 18:29 | 4° \mathbb{M} 37'08 | |
| evening set | 5448 Feb 28 10:57 | 20° \mathbb{M} 40'12 | | | 5449 Feb 15 22:52 | 30° \mathbb{M} | |
| inferior conj | 5448 Mar 04 20:45 | 14° \mathbb{M} 40'34 | 3°12'05 | inferior conj | 5449 Feb 17 02:36 | 28° \mathbb{M} 25'21 | 2°45'25 |
| minimum elong | 5448 Mar 04 18:51 | 14° \mathbb{M} 46'57 | 3°11'46 | minimum elong | 5449 Feb 17 00:15 | 28° \mathbb{M} 33'28 | 2°44'50 |
| min. Earth dist. | 5448 Mar 05 20:56 | 13° \mathbb{M} 19'53 | 0.67056 AU | min. Earth dist. | 5449 Feb 17 13:33 | 27° \mathbb{M} 47'37 | 0.67789 AU |
| morning rise | 5448 Mar 10 02:31 | 8° \mathbb{M} 25'44 | | morning rise | 5449 Feb 22 05:50 | 22° \mathbb{M} 11'49 | |
| direct | 5448 Mar 16 01:53 | 5° \mathbb{M} 45'41 | | direct | 5449 Feb 27 15:11 | 19° \mathbb{M} 48'57 | |
| morning max el | 5448 Mar 28 01:56 | 12° \mathbb{M} 56'00 | 25°18'28 | morning max el | 5449 Mar 10 10:43 | 26° \mathbb{M} 15'58 | 23°51'03 |
| desc. node | 5448 Mar 28 21:17 | 13° \mathbb{M} 45'48 | | | 5449 Mar 13 21:13 | 0° \mathbb{M} | |
| | 5448 Apr 10 20:36 | 0° \mathbb{M} | | desc. node | 5449 Mar 15 18:18 | 2° \mathbb{M} 13'40 | |
| | 5448 Apr 29 22:11 | 0° \mathbb{M} | | | 5449 Apr 04 10:26 | 0° \mathbb{M} | |
| morning set | 5448 May 03 06:09 | 5° \mathbb{M} 54'06 | | morning set | 5449 Apr 14 22:32 | 17° \mathbb{M} 10'17 | |
| max. Earth dist. | 5448 May 06 22:21 | 12° \mathbb{M} 39'30 | 1.36400 AU | max. Earth dist. | 5449 Apr 18 18:19 | 23° \mathbb{M} 50'06 | 1.38507 AU |
| | | | | | 5449 Apr 22 04:27 | 0° \mathbb{M} | |
| superior conj | 5448 May 13 00:46 | 24° \mathbb{M} 26'11 | -1°03'53 | superior conj | 5449 Apr 26 01:58 | 7° \mathbb{M} 15'02 | -1°32'08 |
| minimum elong | 5448 May 13 04:21 | 24° \mathbb{M} 43'57 | 1°03'17 | minimum elong | 5449 Apr 26 06:51 | 7° \mathbb{M} 38'11 | 1°31'30 |
| | 5448 May 15 19:26 | 0° \mathbb{M} | | evening rise | 5449 May 05 03:26 | 24° \mathbb{M} 49'27 | |
| asc. node | 5448 May 19 16:08 | 7° \mathbb{M} 50'40 | | asc. node | 5449 May 06 13:11 | 27° \mathbb{M} 34'00 | |
| evening rise | 5448 May 21 05:35 | 11° \mathbb{M} 00'36 | | | 5449 May 07 19:25 | 0° \mathbb{M} | |
| | 5448 May 31 10:28 | 0° \mathbb{M} | | evening max el | 5449 May 21 12:19 | 21° \mathbb{M} 19'22 | 18°52'29 |
| evening max el | 5448 Jun 07 14:34 | 9° \mathbb{M} 19'20 | 19°45'35 | retrograde | 5449 May 29 21:58 | 25° \mathbb{M} 26'52 | |
| retrograde | 5448 Jun 17 13:49 | 14° \mathbb{M} 12'07 | | evening set | 5449 May 31 23:38 | 25° \mathbb{M} 12'49 | |
| evening set | 5448 Jun 19 11:39 | 14° \mathbb{M} 02'10 | | inferior conj | 5449 Jun 09 01:18 | 20° \mathbb{M} 54'47 | 0°46'44 |
| desc. node | 5448 Jun 24 20:30 | 12° \mathbb{M} 02'56 | | minimum elong | 5449 Jun 09 03:05 | 20° \mathbb{M} 51'35 | 0°46'05 |
| inferior conj | 5448 Jun 28 08:23 | 9° \mathbb{M} 59'49 | -1°02'54 | desc. node | 5449 Jun 11 17:32 | 18° \mathbb{M} 59'43 | |
| minimum elong | 5448 Jun 28 05:30 | 10° \mathbb{M} 04'18 | 1°01'49 | min. Earth dist. | 5449 Jun 12 05:06 | 18° \mathbb{M} 39'41 | 0.56883 AU |
| min. Earth dist. | 5448 Jun 30 12:58 | 8° \mathbb{M} 38'38 | 0.55417 AU | morning rise | 5449 Jun 17 03:11 | 15° \mathbb{M} 50'58 | |
| morning rise | 5448 Jul 06 21:14 | 5° \mathbb{M} 32'41 | | direct | 5449 Jun 22 12:08 | 14° \mathbb{M} 41'26 | |
| direct | 5448 Jul 11 07:54 | 4° \mathbb{M} 49'05 | | morning max el | 5449 Jul 06 20:03 | 22° \mathbb{M} 08'22 | 26°06'20 |
| morning max el | 5448 Jul 25 05:13 | 11° \mathbb{M} 43'01 | 24°31'50 | | 5449 Jul 13 18:33 | 0° \mathbb{M} | |
| | 5448 Aug 08 03:14 | 0° \mathbb{M} | | | | | |
| asc. node | 5448 Aug 15 15:26 | 13° \mathbb{M} 45'15 | | | | | |

| | | | | | | | |
|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| | 5449 Jul 31 19:26 | 0°♎ | | morning max el | 5450 Jun 18 16:01 | 3°♐00'33 | 27°15'45 |
| asc. node | 5449 Aug 02 12:28 | 3°♎29'48 | | | 5450 Jul 08 06:35 | 0°♐ | |
| morning set | 5449 Aug 04 01:43 | 6°♎44'58 | | morning set | 5450 Jul 19 10:24 | 21°♐24'53 | |
| | | | | asc. node | 5450 Jul 20 09:30 | 23°♐26'49 | |
| superior conj | 5449 Aug 11 00:15 | 21°♎52'18 | 1°18'13 | | 5450 Jul 23 10:27 | 0°♎ | |
| minimum elong | 5449 Aug 10 21:59 | 21°♎39'44 | 1°17'53 | max. Earth dist. | 5450 Jul 26 03:43 | 5°♎59'01 | 1.31897 AU |
| max. Earth dist. | 5449 Aug 11 16:40 | 23°♎22'42 | 1.32143 AU | | | | |
| | 5449 Aug 14 17:20 | 0°♐ | | superior conj | 5450 Jul 26 12:05 | 6°♎45'15 | 0°59'53 |
| evening rise | 5449 Aug 17 23:16 | 6°♐54'55 | | minimum elong | 5450 Jul 26 09:54 | 6°♎33'13 | 0°59'29 |
| | 5449 Aug 30 03:46 | 0°♐ | | evening rise | 5450 Aug 02 07:27 | 21°♎36'41 | |
| desc. node | 5449 Sep 07 16:49 | 13°♐08'15 | | | 5450 Aug 06 09:09 | 0°♐ | |
| evening max el | 5449 Sep 18 07:56 | 25°♐38'46 | 27°10'17 | | 5450 Aug 24 16:16 | 0°♐ | |
| | 5449 Sep 23 18:40 | 0°♐ | | desc. node | 5450 Aug 25 13:50 | 1°♐07'09 | |
| retrograde | 5449 Oct 02 04:38 | 2°♐51'23 | | evening max el | 5450 Aug 31 08:07 | 7°♐24'08 | 26°19'50 |
| evening set | 5449 Oct 09 06:54 | 0°♐35'05 | | retrograde | 5450 Sep 14 07:05 | 14°♐32'07 | |
| | 5449 Oct 10 04:07 | 30°♐♐ | | evening set | 5450 Sep 20 21:05 | 12°♐45'41 | |
| min. Earth dist. | 5449 Oct 12 22:28 | 27°♐51'05 | 0.61366 AU | min. Earth dist. | 5450 Sep 24 21:28 | 10°♐10'50 | 0.59294 AU |
| inferior conj | 5449 Oct 16 00:42 | 25°♐08'15 | -4°01'25 | inferior conj | 5450 Sep 28 03:13 | 7°♐42'05 | -4°51'41 |
| minimum elong | 5449 Oct 16 07:05 | 24°♐54'14 | 3°59'40 | minimum elong | 5450 Sep 28 08:44 | 7°♐31'28 | 4°50'46 |
| morning rise | 5449 Oct 23 09:14 | 20°♐13'28 | | morning rise | 5450 Oct 05 22:35 | 3°♐09'31 | |
| direct | 5449 Oct 25 16:34 | 19°♐51'29 | | direct | 5450 Oct 08 06:59 | 2°♐50'18 | |
| asc. node | 5449 Oct 29 11:43 | 20°♐53'36 | | morning max el | 5450 Oct 16 04:00 | 6°♐39'51 | 18°22'34 |
| morning max el | 5449 Nov 01 18:21 | 23°♐24'23 | 17°56'10 | asc. node | 5450 Oct 16 08:46 | 6°♐51'26 | |
| | 5449 Nov 06 23:58 | 0°♐ | | | 5450 Oct 31 00:31 | 0°♐ | |
| morning set | 5449 Nov 17 12:21 | 18°♐10'34 | | morning set | 5450 Nov 01 02:47 | 2°♐05'20 | |
| | 5449 Nov 24 00:35 | 0°♐ | | | | | |
| superior conj | 5449 Nov 27 21:41 | 6°♐51'05 | 0°47'05 | superior conj | 5450 Nov 10 05:37 | 19°♐19'30 | 1°15'05 |
| minimum elong | 5449 Nov 28 01:17 | 7°♐06'43 | 0°46'37 | minimum elong | 5450 Nov 10 09:20 | 19°♐36'36 | 1°14'40 |
| desc. node | 5449 Dec 04 16:06 | 18°♐20'52 | | | 5450 Nov 16 04:38 | 0°♐ | |
| max. Earth dist. | 5449 Dec 05 09:54 | 19°♐34'23 | 1.42567 AU | max. Earth dist. | 5450 Nov 17 18:00 | 2°♐41'41 | 1.40612 AU |
| evening rise | 5449 Dec 11 17:01 | 29°♐43'35 | | desc. node | 5450 Nov 21 13:07 | 9°♐06'20 | |
| | 5449 Dec 11 21:10 | 0°♐ | | evening rise | 5450 Nov 22 06:06 | 10°♐16'34 | |
| | 5450 Jan 01 02:30 | 0°♐ | | | 5450 Dec 04 20:42 | 0°♐ | |
| evening max el | 5450 Jan 13 02:11 | 14°♐49'12 | 22°09'23 | evening max el | 5450 Dec 26 17:17 | 28°♐28'37 | 23°29'05 |
| retrograde | 5450 Jan 22 13:50 | 20°♐27'38 | | | 5450 Dec 28 07:28 | 0°♐ | |
| asc. node | 5450 Jan 25 10:57 | 19°♐43'55 | | retrograde | 5451 Jan 06 07:52 | 4°♐44'42 | |
| evening set | 5450 Jan 27 02:11 | 18°♐38'19 | | evening set | 5451 Jan 11 08:29 | 2°♐39'56 | |
| inferior conj | 5450 Feb 01 10:27 | 12°♐17'44 | 2°09'56 | asc. node | 5451 Jan 12 08:00 | 1°♐45'42 | |
| minimum elong | 5450 Feb 01 08:08 | 12°♐25'49 | 2°09'12 | | 5451 Jan 13 22:02 | 30°♐♐ | |
| min. Earth dist. | 5450 Feb 01 09:27 | 12°♐21'14 | 0.68119 AU | inferior conj | 5451 Jan 16 18:26 | 26°♐14'22 | 1°26'45 |
| morning rise | 5450 Feb 06 13:56 | 6°♐07'03 | | minimum elong | 5451 Jan 16 16:36 | 26°♐20'40 | 1°26'04 |
| direct | 5450 Feb 11 08:44 | 4°♐05'42 | | min. Earth dist. | 5451 Jan 16 06:14 | 26°♐56'09 | 0.68072 AU |
| morning max el | 5450 Feb 20 21:35 | 9°♐42'41 | 22°22'06 | morning rise | 5451 Jan 22 00:39 | 20°♐08'18 | |
| desc. node | 5450 Mar 02 15:21 | 21°♐25'55 | | direct | 5451 Jan 26 05:24 | 18°♐29'42 | |
| | 5450 Mar 08 19:02 | 0°♐ | | morning max el | 5451 Feb 03 14:02 | 23°♐19'04 | 20°59'51 |
| morning set | 5450 Mar 26 11:47 | 27°♐08'07 | | | 5451 Feb 09 08:42 | 0°♐ | |
| | 5450 Mar 28 05:45 | 0°♐ | | desc. node | 5451 Feb 17 12:23 | 11°♐09'53 | |
| max. Earth dist. | 5450 Mar 31 14:49 | 5°♐38'15 | 1.40706 AU | | 5451 Mar 02 03:20 | 0°♐ | |
| | | | | morning set | 5451 Mar 05 21:28 | 5°♐49'50 | |
| superior conj | 5450 Apr 08 10:00 | 19°♐13'10 | -1°55'10 | max. Earth dist. | 5451 Mar 13 17:52 | 18°♐21'51 | 1.42713 AU |
| minimum elong | 5450 Apr 08 14:48 | 19°♐34'40 | 1°54'47 | | | | |
| | 5450 Apr 14 07:26 | 0°♐ | | superior conj | 5451 Mar 20 19:55 | 0°♐09'08 | -2°08'11 |
| evening rise | 5450 Apr 18 14:54 | 8°♐04'33 | | minimum elong | 5451 Mar 20 21:48 | 0°♐17'10 | 2°08'09 |
| asc. node | 5450 Apr 23 10:14 | 16°♐59'48 | | | 5451 Mar 20 17:45 | 0°♐ | |
| | 5450 May 01 10:16 | 0°♐ | | evening rise | 5451 Apr 01 11:53 | 20°♐36'12 | |
| evening max el | 5450 May 04 18:40 | 3°♐54'38 | 18°19'45 | | 5451 Apr 06 18:32 | 0°♐ | |
| retrograde | 5450 May 12 00:53 | 7°♐31'39 | | asc. node | 5451 Apr 10 07:15 | 6°♐01'26 | |
| evening set | 5450 May 14 09:37 | 7°♐09'35 | | evening max el | 5451 Apr 18 05:54 | 16°♐55'03 | 18°06'44 |
| inferior conj | 5450 May 21 15:48 | 2°♐31'37 | 2°08'36 | retrograde | 5451 Apr 24 20:32 | 20°♐17'59 | |
| minimum elong | 5450 May 21 19:15 | 2°♐24'22 | 2°07'36 | evening set | 5451 Apr 27 12:09 | 19°♐45'22 | |
| | 5450 May 24 16:12 | 30°♐♐ | | inferior conj | 5451 May 04 02:01 | 14°♐46'45 | 3°00'02 |
| min. Earth dist. | 5450 May 25 02:14 | 29°♐39'53 | 0.58901 AU | minimum elong | 5451 May 04 04:50 | 14°♐39'54 | 2°59'29 |
| morning rise | 5450 May 29 01:49 | 26°♐56'32 | | min. Earth dist. | 5451 May 07 06:17 | 11°♐42'56 | 0.61115 AU |
| desc. node | 5450 May 29 14:33 | 26°♐39'48 | | morning rise | 5451 May 10 19:28 | 8°♐50'53 | |
| direct | 5450 Jun 04 06:40 | 25°♐13'16 | | desc. node | 5451 May 16 11:35 | 6°♐38'25 | |
| | 5450 Jun 15 07:22 | 0°♐ | | direct | 5451 May 17 12:33 | 6°♐35'14 | |
| | | | | morning max el | 5451 May 31 18:17 | 14°♐32'49 | 27°50'13 |

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|---------------------|-------------------|-----------|------------|-------------------|-------------------|----------------------|
| | 5451 Jun 13 05:35 | 0°♂ | | 5452 May 16 02:10 | 0°♂ | |
| | 5451 Jun 30 17:34 | 0°♂ | | 5452 Jun 05 20:48 | 0°♂ | |
| morning set | 5451 Jul 03 14:51 | 5°♂49'42 | | 5452 Jun 16 12:50 | 19°♂52'18 | |
| asc. node | 5451 Jul 07 06:33 | 13°♂31'13 | | 5452 Jun 21 10:37 | 0°♂ | |
| max. Earth dist. | 5451 Jul 09 13:38 | 18°♂29'30 | 1.32073 AU | 5452 Jun 21 18:28 | 0°♂41'37 | 1.32692 AU |
| | | | | 5452 Jun 23 03:33 | 3°♂38'11 | |
| superior conj | 5451 Jul 10 22:49 | 21°♂31'14 | 0°37'30 | | | |
| minimum elong | 5451 Jul 10 21:13 | 21°♂22'27 | 0°37'10 | superior conj | 5452 Jun 24 06:38 | 6°♂03'58 0°11'43 |
| | 5451 Jul 14 19:26 | 0°♂ | | minimum elong | 5452 Jun 24 06:04 | 6°♂00'55 0°11'34 |
| evening rise | 5451 Jul 17 18:24 | 6°♂23'52 | | behind sun begin | 5452 Jun 24 02:24 | 5°♂41'08 |
| | 5451 Jul 30 02:18 | 0°♂ | | behind sun end | 5452 Jun 24 09:44 | 6°♂20'43 |
| desc. node | 5451 Aug 12 10:50 | 17°♂47'51 | | evening rise | 5452 Jul 01 06:11 | 21°♂09'34 |
| evening max el | 5451 Aug 13 00:52 | 18°♂22'02 | 25°00'43 | | 5452 Jul 05 12:53 | 0°♂ |
| retrograde | 5451 Aug 26 22:49 | 25°♂23'46 | | evening max el | 5452 Jul 24 13:12 | 28°♂46'14 23°24'59 |
| evening set | 5451 Sep 01 11:27 | 24°♂14'28 | | | 5452 Jul 25 21:01 | 0°♂ |
| min. Earth dist. | 5451 Sep 06 12:21 | 21°♂30'45 | 0.57312 AU | desc. node | 5452 Jul 29 07:51 | 2°♂39'27 |
| inferior conj | 5451 Sep 09 10:27 | 19°♂34'23 | -5°18'28 | retrograde | 5452 Aug 07 02:08 | 5°♂33'21 |
| minimum elong | 5451 Sep 09 11:50 | 19°♂32'04 | 5°18'24 | evening set | 5452 Aug 11 03:09 | 4°♂57'34 |
| morning rise | 5451 Sep 17 14:30 | 15°♂24'18 | | min. Earth dist. | 5452 Aug 17 22:40 | 1°♂48'07 0.55725 AU |
| direct | 5451 Sep 20 03:54 | 15°♂05'23 | | inferior conj | 5452 Aug 19 21:32 | 0°♂39'00 -5°04'57 |
| morning max el | 5451 Sep 29 04:56 | 19°♂21'38 | 19°10'14 | minimum elong | 5452 Aug 19 16:22 | 0°♂46'39 5°04'20 |
| asc. node | 5451 Oct 03 05:48 | 23°♂58'26 | | | 5452 Aug 21 00:05 | 30°♂♂ |
| | 5451 Oct 07 06:23 | 0°♂ | | morning rise | 5452 Aug 28 07:58 | 26°♂46'09 |
| morning set | 5451 Oct 16 02:26 | 16°♂26'18 | | direct | 5452 Aug 31 05:20 | 26°♂25'47 |
| | 5451 Oct 22 22:32 | 0°♂ | | | 5452 Sep 09 05:22 | 0°♂ |
| | | | | morning max el | 5452 Sep 10 18:21 | 1°♂19'57 20°20'00 |
| superior conj | 5451 Oct 24 07:34 | 2°♂40'40 | 1°32'54 | asc. node | 5452 Sep 19 02:50 | 11°♂58'50 |
| minimum elong | 5451 Oct 24 10:07 | 2°♂52'58 | 1°32'42 | | 5452 Sep 28 19:39 | 0°♂ |
| max. Earth dist. | 5451 Oct 30 23:17 | 15°♂09'07 | 1.38500 AU | morning set | 5452 Sep 29 08:10 | 1°♂03'50 |
| evening rise | 5451 Nov 03 18:05 | 21°♂51'51 | | | | |
| desc. node | 5451 Nov 08 10:08 | 29°♂46'34 | | superior conj | 5452 Oct 06 22:34 | 16°♂39'41 1°41'44 |
| | 5451 Nov 08 13:23 | 0°♂ | | minimum elong | 5452 Oct 06 23:34 | 16°♂44'44 1°41'42 |
| | 5451 Nov 28 19:24 | 0°♂ | | max. Earth dist. | 5452 Oct 12 05:58 | 27°♂08'05 1.36473 AU |
| evening max el | 5451 Dec 09 06:26 | 12°♂12'04 | 24°47'23 | | 5452 Oct 13 18:07 | 0°♂ |
| retrograde | 5451 Dec 20 21:53 | 18°♂58'26 | | evening rise | 5452 Oct 16 02:48 | 4°♂23'21 |
| evening set | 5451 Dec 26 11:52 | 16°♂38'57 | | desc. node | 5452 Oct 25 07:08 | 20°♂16'30 |
| asc. node | 5451 Dec 30 05:01 | 12°♂36'05 | | | 5452 Oct 31 11:48 | 0°♂ |
| min. Earth dist. | 5451 Dec 31 01:35 | 11°♂29'21 | 0.67660 AU | evening max el | 5452 Nov 20 19:02 | 25°♂56'01 25°57'17 |
| inferior conj | 5452 Jan 01 00:44 | 10°♂12'45 | 0°36'46 | | 5452 Nov 25 13:37 | 0°♂ |
| minimum elong | 5451 Dec 31 23:51 | 10°♂15'40 | 0°36'25 | retrograde | 5452 Dec 03 07:10 | 3°♂03'00 |
| morning rise | 5452 Jan 06 12:00 | 4°♂13'17 | | evening set | 5452 Dec 09 10:36 | 0°♂31'16 |
| direct | 5452 Jan 10 03:52 | 2°♂56'17 | | | 5452 Dec 10 00:53 | 30°♂♂ |
| morning max el | 5452 Jan 17 14:23 | 7°♂07'42 | 19°49'46 | min. Earth dist. | 5452 Dec 13 17:09 | 25°♂56'38 0.66885 AU |
| greatest brilliancy | 5452 Jan 30 19:04 | 24°♂25'23 | -0.6m | inferior conj | 5452 Dec 15 03:32 | 24°♂09'04 -0°19'11 |
| | 5452 Feb 03 12:57 | 0°♂ | | minimum elong | 5452 Dec 15 04:02 | 24°♂07'29 0°18'56 |
| desc. node | 5452 Feb 04 09:24 | 1°♂17'00 | | asc. node | 5452 Dec 16 02:03 | 22°♂59'12 |
| morning set | 5452 Feb 12 17:47 | 14°♂01'35 | | morning rise | 5452 Dec 20 21:58 | 18°♂18'32 |
| | 5452 Feb 22 23:16 | 0°♂ | | direct | 5452 Dec 24 02:34 | 17°♂20'16 |
| max. Earth dist. | 5452 Feb 24 04:57 | 1°♂57'50 | 1.44258 AU | morning max el | 5452 Dec 30 22:24 | 21°♂05'48 18°54'42 |
| | | | | | 5453 Jan 07 01:34 | 0°♂ |
| superior conj | 5452 Feb 29 04:25 | 9°♂57'22 | -2°05'30 | desc. node | 5453 Jan 21 06:26 | 21°♂40'29 |
| minimum elong | 5452 Feb 29 00:18 | 9°♂40'44 | 2°05'21 | morning set | 5453 Jan 22 01:42 | 22°♂55'47 |
| | 5452 Mar 12 05:57 | 0°♂ | | | 5453 Jan 26 14:14 | 0°♂ |
| evening rise | 5452 Mar 13 14:02 | 2°♂16'25 | | max. Earth dist. | 5453 Feb 05 21:38 | 16°♂08'06 1.45154 AU |
| asc. node | 5452 Mar 27 04:16 | 24°♂31'38 | | | | |
| | 5452 Mar 31 13:57 | 0°♂ | | superior conj | 5453 Feb 07 14:53 | 18°♂50'20 -1°43'09 |
| evening max el | 5452 Mar 31 18:49 | 0°♂12'18 | 18°12'45 | minimum elong | 5453 Feb 07 05:45 | 18°♂14'23 1°42'20 |
| retrograde | 5452 Apr 07 04:32 | 3°♂36'07 | | | 5453 Feb 14 15:57 | 0°♂ |
| evening set | 5452 Apr 10 02:29 | 2°♂51'33 | | evening rise | 5453 Feb 22 17:41 | 12°♂59'46 |
| | 5452 Apr 13 20:21 | 30°♂♂ | | | 5453 Mar 05 06:37 | 0°♂ |
| inferior conj | 5452 Apr 16 04:07 | 27°♂33'28 | 3°25'49 | asc. node | 5453 Mar 14 01:18 | 12°♂20'49 |
| minimum elong | 5452 Apr 16 05:24 | 27°♂29'56 | 3°25'42 | evening max el | 5453 Mar 15 06:37 | 13°♂39'41 18°37'12 |
| min. Earth dist. | 5452 Apr 18 19:15 | 24°♂41'01 | 0.63224 AU | retrograde | 5453 Mar 21 20:35 | 17°♂17'19 |
| morning rise | 5452 Apr 22 07:10 | 21°♂25'42 | | evening set | 5453 Mar 25 00:56 | 16°♂20'02 |
| direct | 5452 Apr 29 03:27 | 18°♂46'57 | | inferior conj | 5453 Mar 30 18:04 | 10°♂44'16 3°31'51 |
| desc. node | 5452 May 02 08:37 | 19°♂18'10 | | minimum elong | 5453 Mar 30 17:48 | 10°♂45'02 3°31'51 |
| morning max el | 5452 May 13 01:45 | 26°♂46'50 | 27°46'48 | min. Earth dist. | 5453 Apr 01 17:47 | 8°♂20'21 0.65029 AU |

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|---------------------|-------------------|----------------------|------------|------------------|-------------------|----------------------|------------|
| morning rise | 5453 Apr 05 10:05 | 4° Υ 30'51 | | morning rise | 5454 Mar 20 00:52 | 17° Υ 56'30 | |
| direct | 5453 Apr 12 02:08 | 1° Υ 41'44 | | direct | 5454 Mar 26 07:21 | 15° Υ 09'48 | |
| desc. node | 5453 Apr 19 05:39 | 4° Υ 15'36 | | desc. node | 5454 Apr 06 02:42 | 20° Υ 56'02 | |
| morning max el | 5453 Apr 25 11:49 | 9° Υ 34'03 | 27°08'55 | morning max el | 5454 Apr 07 21:42 | 22° Υ 40'23 | 26°04'03 |
| | 5453 May 11 12:09 | 0° Υ | | | 5454 Apr 14 08:38 | 0° Υ | |
| | 5453 May 29 06:44 | 0° Π | | | 5454 May 04 19:15 | 0° Υ | |
| morning set | 5453 May 31 01:34 | 3° Π 24'56 | | morning set | 5454 May 14 01:11 | 16° Υ 15'48 | |
| max. Earth dist. | 5453 Jun 04 14:25 | 12° Π 25'39 | 1.33773 AU | max. Earth dist. | 5454 May 17 22:52 | 23° Υ 39'22 | 1.35318 AU |
| | | | | | 5454 May 21 04:17 | 0° Π | |
| superior conj | 5453 Jun 08 09:32 | 20° Π 17'55 | -0°16'45 | | | | |
| minimum elong | 5453 Jun 08 10:25 | 20° Π 22'34 | 0°16'36 | superior conj | 5454 May 23 05:02 | 4° Π 05'35 | -0°46'40 |
| asc. node | 5453 Jun 10 00:34 | 23° Π 44'10 | | minimum elong | 5454 May 23 07:38 | 4° Π 18'45 | 0°46'12 |
| | 5453 Jun 12 23:12 | 0° Θ | | asc. node | 5454 May 27 21:36 | 13° Π 44'40 | |
| evening rise | 5453 Jun 15 16:58 | 5° Θ 48'11 | | evening rise | 5454 May 31 00:39 | 20° Π 12'44 | |
| | 5453 Jun 28 19:32 | 0° Ω | | | 5454 Jun 04 22:12 | 0° Θ | |
| evening max el | 5453 Jul 06 05:07 | 9° Ω 10'05 | 21°48'52 | evening max el | 5454 Jun 18 07:55 | 20° Θ 04'20 | 20°25'18 |
| desc. node | 5453 Jul 16 04:51 | 15° Ω 08'03 | | retrograde | 5454 Jun 29 07:24 | 25° Θ 27'07 | |
| retrograde | 5453 Jul 18 18:36 | 15° Ω 23'38 | | evening set | 5454 Jul 01 06:52 | 25° Θ 17'23 | |
| evening set | 5453 Jul 21 10:31 | 15° Ω 07'40 | | desc. node | 5454 Jul 03 01:54 | 24° Θ 52'44 | |
| inferior conj | 5453 Jul 30 17:46 | 11° Ω 05'31 | -3°59'29 | inferior conj | 5454 Jul 10 11:37 | 21° Θ 19'57 | -2°11'50 |
| minimum elong | 5453 Jul 30 08:51 | 11° Ω 18'00 | 3°57'08 | minimum elong | 5454 Jul 10 05:29 | 21° Θ 28'52 | 2°09'38 |
| min. Earth dist. | 5453 Jul 30 08:33 | 11° Ω 18'24 | 0.54862 AU | min. Earth dist. | 5454 Jul 11 20:08 | 20° Θ 32'37 | 0.54939 AU |
| morning rise | 5453 Aug 08 08:37 | 7° Ω 14'38 | | morning rise | 5454 Jul 19 03:05 | 17° Θ 10'29 | |
| direct | 5453 Aug 11 16:19 | 6° Ω 50'28 | | direct | 5454 Jul 23 02:18 | 16° Θ 36'29 | |
| morning max el | 5453 Aug 23 19:47 | 12° Ω 32'20 | 21°49'42 | morning max el | 5454 Aug 05 12:12 | 23° Θ 07'09 | 23°32'08 |
| asc. node | 5453 Sep 05 23:52 | 0° \P 40'11 | | | 5454 Aug 11 15:35 | 0° Ω | |
| | 5453 Sep 05 14:50 | 0° \P | | asc. node | 5454 Aug 23 20:55 | 19° Ω 52'13 | |
| morning set | 5453 Sep 13 17:41 | 15° \P 51'20 | | | 5454 Aug 28 20:53 | 0° \P | |
| | 5453 Sep 20 10:19 | 0° Ξ | | morning set | 5454 Aug 29 05:06 | 0° \P 43'20 | |
| superior conj | 5453 Sep 20 22:42 | 1° Ξ 05'00 | 1°42'56 | superior conj | 5454 Sep 05 04:56 | 15° \P 47'15 | 1°37'38 |
| minimum elong | 5453 Sep 20 22:17 | 1° Ξ 02'47 | 1°42'55 | minimum elong | 5454 Sep 05 03:27 | 15° \P 39'12 | 1°37'32 |
| max. Earth dist. | 5453 Sep 24 18:50 | 9° Ξ 00'30 | 1.34731 AU | max. Earth dist. | 5454 Sep 07 16:31 | 21° \P 05'48 | 1.33386 AU |
| evening rise | 5453 Sep 29 04:18 | 17° Ξ 41'15 | | | 5454 Sep 11 23:38 | 0° Ξ | |
| | 5453 Oct 05 21:19 | 0° \P | | evening rise | 5454 Sep 12 18:30 | 1° Ξ 34'46 | |
| desc. node | 5453 Oct 12 04:08 | 10° \P 30'44 | | | 5454 Sep 28 19:22 | 0° \P | |
| | 5453 Oct 25 18:35 | 0° Υ | | desc. node | 5454 Sep 29 01:10 | 0° \P 22'22 | |
| evening max el | 5453 Nov 03 07:42 | 9° Υ 34'25 | 26°51'27 | evening max el | 5454 Oct 16 19:57 | 22° \P 57'59 | 27°22'38 |
| retrograde | 5453 Nov 16 11:07 | 16° Υ 51'42 | | | 5454 Oct 28 00:09 | 0° Υ | |
| evening set | 5453 Nov 23 02:42 | 14° Υ 12'45 | | retrograde | 5454 Oct 30 09:11 | 0° Υ 16'27 | |
| min. Earth dist. | 5453 Nov 27 02:44 | 10° Υ 13'21 | 0.65754 AU | | 5454 Nov 01 16:19 | 30° \P | |
| inferior conj | 5453 Nov 29 00:46 | 7° Υ 59'39 | -1°19'55 | evening set | 5454 Nov 06 09:43 | 27° \P 38'07 | |
| minimum elong | 5453 Nov 29 03:02 | 7° Υ 53'02 | 1°18'56 | min. Earth dist. | 5454 Nov 10 04:12 | 24° \P 12'32 | 0.64278 AU |
| asc. node | 5453 Dec 02 23:07 | 3° Υ 52'12 | | inferior conj | 5454 Nov 12 14:05 | 21° \P 39'26 | -2°23'34 |
| morning rise | 5453 Dec 05 04:18 | 2° Υ 20'31 | | minimum elong | 5454 Nov 12 18:18 | 21° \P 28'17 | 2°21'55 |
| direct | 5453 Dec 07 23:38 | 1° Υ 37'16 | | morning rise | 5454 Nov 19 04:15 | 16° \P 14'42 | |
| morning max el | 5453 Dec 14 12:05 | 5° Υ 07'53 | 18°15'51 | asc. node | 5454 Nov 19 20:10 | 16° \P 00'03 | |
| | 5453 Dec 31 13:15 | 0° Ξ | | direct | 5454 Nov 21 16:44 | 15° \P 42'26 | |
| morning set | 5454 Jan 02 13:23 | 3° Ξ 14'58 | | morning max el | 5454 Nov 28 04:42 | 19° \P 07'29 | 17°54'03 |
| desc. node | 5454 Jan 08 03:26 | 12° Ξ 15'20 | | | 5454 Dec 06 06:10 | 0° Υ | |
| superior conj | 5454 Jan 17 18:15 | 27° Ξ 30'59 | -1°03'37 | morning set | 5454 Dec 15 05:49 | 14° Υ 59'08 | |
| minimum elong | 5454 Jan 17 10:34 | 27° Ξ 00'48 | 1°02'39 | | 5454 Dec 24 05:02 | 0° Ξ | |
| | 5454 Jan 19 08:12 | 0° \approx | | desc. node | 5454 Dec 26 00:27 | 2° Ξ 57'55 | |
| max. Earth dist. | 5454 Jan 19 16:35 | 0° \approx 32'55 | 1.45322 AU | superior conj | 5454 Dec 28 10:46 | 6° Ξ 54'40 | -0°16'59 |
| evening rise | 5454 Feb 02 22:33 | 22° \approx 49'06 | | minimum elong | 5454 Dec 28 08:47 | 6° Ξ 46'40 | 0°16'41 |
| | 5454 Feb 07 12:53 | 0° Υ | | max. Earth dist. | 5455 Jan 02 11:28 | 14° Ξ 57'11 | 1.44758 AU |
| greatest brilliancy | 5454 Feb 14 09:56 | 10° Υ 38'38 | -0.7m | | 5455 Jan 12 02:51 | 0° \approx | |
| evening max el | 5454 Feb 26 15:03 | 27° Υ 11'31 | 19°18'59 | evening rise | 5455 Jan 13 11:41 | 2° \approx 06'18 | |
| asc. node | 5454 Feb 28 22:21 | 29° Υ 16'09 | | | 5455 Feb 01 04:17 | 0° Υ | |
| | 5454 Mar 01 23:24 | 0° Υ | | evening max el | 5455 Feb 09 18:39 | 10° Υ 45'55 | 20°16'04 |
| retrograde | 5454 Mar 05 17:03 | 1° Υ 13'54 | | asc. node | 5455 Feb 15 19:25 | 15° Υ 03'48 | |
| evening set | 5454 Mar 09 04:36 | 0° Υ 03'05 | | retrograde | 5455 Feb 17 15:14 | 15° Υ 21'33 | |
| | 5454 Mar 09 06:24 | 30° \P | | evening set | 5455 Feb 21 11:16 | 13° Υ 56'20 | |
| inferior conj | 5454 Mar 14 16:20 | 24° Υ 11'40 | 3°22'49 | inferior conj | 5455 Feb 26 20:08 | 7° Υ 51'25 | 3°01'57 |
| minimum elong | 5454 Mar 14 14:54 | 24° Υ 16'20 | 3°22'39 | minimum elong | 5455 Feb 26 17:58 | 7° Υ 58'44 | 3°01'30 |
| min. Earth dist. | 5454 Mar 16 00:51 | 22° Υ 26'18 | 0.66438 AU | min. Earth dist. | 5455 Feb 27 14:36 | 6° Υ 48'45 | 0.67424 AU |

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| morning rise | 5455 Mar 04 00:27 | 1° H 36'53 | | retrograde | 5456 Feb 01 13:01 | 29° \approx 35'49 | |
| | 5455 Mar 06 05:23 | 30° R \approx | | asc. node | 5456 Feb 02 16:28 | 29° \approx 28'50 | |
| direct | 5455 Mar 09 18:09 | 29° \approx 03'03 | | evening set | 5456 Feb 05 19:03 | 27° \approx 55'19 | |
| | 5455 Mar 13 14:25 | 0° H | | inferior conj | 5456 Feb 11 03:04 | 21° \approx 39'36 | 2°31'22 |
| morning max el | 5455 Mar 21 06:26 | 5° H 56'20 | 24°41'54 | minimum elong | 5456 Feb 11 00:40 | 21° \approx 47'55 | 2°30'41 |
| desc. node | 5455 Mar 23 23:44 | 8° H 51'09 | | min. Earth dist. | 5456 Feb 11 08:48 | 21° \approx 19'41 | 0.67987 AU |
| | 5455 Apr 08 21:22 | 0° Y | | morning rise | 5456 Feb 16 06:06 | 15° \approx 27'17 | |
| morning set | 5455 Apr 26 06:39 | 28° Y 10'59 | | direct | 5456 Feb 21 09:23 | 13° \approx 13'07 | |
| | 5455 Apr 27 07:15 | 0° Z | | morning max el | 5456 Mar 02 15:33 | 19° \approx 18'21 | 23°12'47 |
| max. Earth dist. | 5455 Apr 29 21:27 | 4° Z 40'48 | 1.37273 AU | desc. node | 5456 Mar 09 20:45 | 27° \approx 39'27 | |
| | | | | | 5456 Mar 11 16:10 | 0° H | |
| superior conj | 5455 May 06 14:03 | 17° Z 18'58 | -1°16'16 | | 5456 Apr 01 01:28 | 0° Y | |
| minimum elong | 5455 May 06 18:17 | 17° Z 39'34 | 1°15'37 | morning set | 5456 Apr 06 12:02 | 8° Y 54'49 | |
| | 5455 May 12 23:35 | 0° II | | max. Earth dist. | 5456 Apr 10 16:57 | 16° Y 04'59 | 1.39457 AU |
| asc. node | 5455 May 14 18:39 | 3° II 35'35 | | | | | |
| evening rise | 5455 May 15 02:54 | 4° II 16'45 | | superior conj | 5456 Apr 18 08:34 | 29° Y 48'01 | -1°42'48 |
| | 5455 May 30 09:09 | 0° E | | minimum elong | 5456 Apr 18 13:40 | 0° Z 11'37 | 1°42'14 |
| evening max el | 5455 May 31 23:22 | 1° E 41'08 | 19°20'28 | | 5456 Apr 18 11:10 | 0° Z | |
| retrograde | 5455 Jun 10 05:20 | 6° E 12'29 | | evening rise | 5456 Apr 27 20:47 | 17° Z 52'31 | |
| evening set | 5455 Jun 12 04:12 | 6° E 01'16 | | asc. node | 5456 Apr 30 15:42 | 23° Z 12'16 | |
| desc. node | 5455 Jun 19 22:57 | 2° E 23'26 | | | 5456 May 04 08:10 | 0° II | |
| inferior conj | 5455 Jun 20 17:19 | 1° E 53'28 | -0°13'42 | evening max el | 5456 May 14 01:14 | 13° II 57'28 | 18°36'03 |
| minimum elong | 5455 Jun 20 16:44 | 1° E 54'27 | 0°13'30 | retrograde | 5456 May 21 21:34 | 17° II 49'54 | |
| transit middle | 5455 Jun 20 16:44 | 1° E 54'27 | 0°13'30 | evening set | 5456 May 24 02:18 | 17° II 32'42 | |
| transit begin | 5455 Jun 20 14:39 | 1° E 57'52 | | inferior conj | 5456 May 31 19:23 | 13° II 06'05 | 1°25'20 |
| transit end | 5455 Jun 20 18:48 | 1° E 51'02 | | minimum elong | 5456 May 31 22:14 | 13° II 00'36 | 1°24'22 |
| min. Earth dist. | 5455 Jun 23 10:03 | 0° E 07'49 | 0.55960 AU | min. Earth dist. | 5456 Jun 04 03:46 | 10° II 33'01 | 0.57700 AU |
| | 5455 Jun 23 15:00 | 30° R II | | desc. node | 5456 Jun 05 19:58 | 9° II 23'18 | |
| morning rise | 5455 Jun 29 02:22 | 27° II 10'57 | | morning rise | 5456 Jun 08 14:54 | 7° II 48'11 | |
| direct | 5455 Jul 03 22:45 | 26° II 17'21 | | direct | 5456 Jun 14 09:04 | 6° II 24'59 | |
| | 5455 Jul 13 22:44 | 0° E | | morning max el | 5456 Jun 28 18:09 | 14° II 00'57 | 26°39'45 |
| morning max el | 5455 Jul 18 01:34 | 3° E 26'51 | 25°14'11 | | 5456 Jul 11 11:36 | 0° E | |
| | 5455 Aug 05 20:54 | 0° O | | asc. node | 5456 Jul 27 14:57 | 29° E 17'33 | |
| asc. node | 5455 Aug 10 17:56 | 9° O 26'49 | | | 5456 Jul 27 23:02 | 0° O | |
| morning set | 5455 Aug 13 16:44 | 15° O 34'44 | | morning set | 5456 Jul 28 03:00 | 0° O 20'54 | |
| | 5455 Aug 20 07:50 | 0° M | | | | | |
| superior conj | 5455 Aug 20 14:52 | 0° M 38'36 | 1°26'44 | superior conj | 5456 Aug 04 02:31 | 15° O 32'58 | 1°10'58 |
| minimum elong | 5455 Aug 20 12:44 | 0° M 26'56 | 1°26'29 | minimum elong | 5456 Aug 04 00:13 | 15° O 20'16 | 1°10'35 |
| max. Earth dist. | 5455 Aug 21 22:03 | 3° M 29'12 | 1.32476 AU | max. Earth dist. | 5456 Aug 04 08:19 | 16° O 05'03 | 1.31990 AU |
| evening rise | 5455 Aug 27 17:51 | 15° M 53'39 | | evening rise | 5456 Aug 10 23:31 | 0° M 29'35 | |
| | 5455 Sep 03 23:12 | 0° A | | | 5456 Aug 10 17:55 | 0° M | |
| desc. node | 5455 Sep 15 22:12 | 19° A 41'29 | | desc. node | 5456 Aug 27 01:24 | 0° A | |
| | 5455 Sep 23 17:24 | 0° M | | evening max el | 5456 Sep 01 19:14 | 8° A 14'56 | |
| evening max el | 5455 Sep 29 05:38 | 5° M 52'51 | 27°24'24 | retrograde | 5456 Sep 10 09:56 | 18° A 06'01 | 26°52'49 |
| retrograde | 5455 Oct 13 00:13 | 13° M 07'17 | | evening set | 5456 Sep 24 07:24 | 25° A 15'53 | |
| evening set | 5455 Oct 20 04:16 | 10° M 39'48 | | min. Earth dist. | 5456 Oct 01 06:11 | 23° A 10'57 | |
| min. Earth dist. | 5455 Oct 23 19:36 | 7° M 43'16 | 0.62497 AU | inferior conj | 5456 Oct 05 00:03 | 20° A 33'04 | 0.60495 AU |
| inferior conj | 5455 Oct 26 16:33 | 5° M 00'30 | -3°27'03 | minimum elong | 5456 Oct 08 04:47 | 17° A 54'13 | -4°24'42 |
| minimum elong | 5455 Oct 26 22:25 | 4° M 46'35 | 3°25'08 | morning rise | 5456 Oct 08 11:08 | 17° A 41'02 | 4°23'13 |
| | 5455 Nov 02 11:18 | 30° R A | | direct | 5456 Oct 15 18:06 | 13° A 08'35 | |
| morning rise | 5455 Nov 02 18:19 | 29° A 53'33 | | asc. node | 5456 Oct 18 01:37 | 12° A 47'57 | |
| direct | 5455 Nov 05 02:42 | 29° A 28'39 | | morning max el | 5456 Oct 23 14:14 | 14° A 51'47 | |
| asc. node | 5455 Nov 06 17:13 | 29° A 40'36 | | | 5456 Oct 25 10:16 | 16° A 26'26 | 18°04'56 |
| | 5455 Nov 07 17:04 | 0° M | | morning set | 5456 Nov 03 22:37 | 0° M | |
| morning max el | 5455 Nov 11 21:09 | 2° M 56'14 | 17°50'02 | | 5456 Nov 10 04:11 | 11° M 22'40 | |
| morning set | 5455 Nov 27 20:51 | 27° M 47'56 | | superior conj | 5456 Nov 19 23:19 | 29° M 22'29 | 1°00'15 |
| | 5455 Nov 29 02:32 | 0° Z | | minimum elong | 5456 Nov 20 03:12 | 29° M 39'46 | 0°59'46 |
| | | | | | 5456 Nov 20 07:45 | 0° Z | |
| superior conj | 5455 Dec 09 04:11 | 17° Z 31'14 | 0°26'13 | max. Earth dist. | 5456 Nov 27 15:06 | 12° Z 36'31 | 1.41773 AU |
| minimum elong | 5455 Dec 09 06:37 | 17° Z 41'30 | 0°25'54 | desc. node | 5456 Nov 28 18:30 | 14° Z 30'41 | |
| desc. node | 5455 Dec 12 21:28 | 23° Z 44'07 | | evening rise | 5456 Dec 03 00:15 | 21° Z 26'02 | |
| max. Earth dist. | 5455 Dec 16 03:41 | 29° Z 03'47 | 1.43527 AU | | 5456 Dec 08 10:46 | 0° Z | |
| | 5455 Dec 16 17:36 | 0° Z | | | 5456 Dec 29 11:59 | 0° \approx | |
| evening rise | 5455 Dec 23 23:16 | 11° Z 26'43 | | evening max el | 5457 Jan 05 09:54 | 7° \approx 58'14 | 22°42'58 |
| | 5456 Jan 05 06:15 | 0° \approx | | retrograde | 5457 Jan 15 08:50 | 13° \approx 53'00 | |
| evening max el | 5456 Jan 23 16:46 | 24° \approx 21'17 | 21°25'29 | asc. node | 5457 Jan 19 13:30 | 12° \approx 22'04 | |

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|------------------|-------------------|-----------------------|------------|------------------|-------------------|---------------------|------------|
| evening set | 5457 Jan 20 02:21 | 11° \approx 56'49 | | evening max el | 5457 Dec 18 23:43 | 21° \approx 38'26 | 24°02'58 |
| inferior conj | 5457 Jan 25 11:10 | 5° \approx 33'36 | 1°52'29 | retrograde | 5457 Dec 30 01:25 | 28° \approx 09'13 | |
| minimum elong | 5457 Jan 25 09:00 | 5° \approx 41'07 | 1°51'45 | evening set | 5458 Jan 04 07:38 | 25° \approx 57'48 | |
| min. Earth dist. | 5457 Jan 25 05:15 | 5° \approx 54'04 | 0.68148 AU | asc. node | 5458 Jan 06 10:30 | 23° \approx 49'36 | |
| | 5457 Jan 29 23:44 | 30° \approx 3 | | min. Earth dist. | 5458 Jan 09 01:43 | 20° \approx 28'29 | 0.67932 AU |
| morning rise | 5457 Jan 30 15:32 | 29° \approx 32'54 | | inferior conj | 5458 Jan 09 18:39 | 19° \approx 31'09 | 1°06'19 |
| direct | 5457 Feb 04 04:14 | 27° \approx 33'25 | | minimum elong | 5458 Jan 09 17:09 | 19° \approx 36'11 | 1°05'45 |
| | 5457 Feb 10 00:30 | 0° \approx | | morning rise | 5458 Jan 15 02:44 | 13° \approx 27'41 | |
| morning max el | 5457 Feb 13 04:30 | 2° \approx 48'57 | 21°45'58 | direct | 5458 Jan 19 01:43 | 11° \approx 58'45 | |
| desc. node | 5457 Feb 24 17:46 | 17° \approx 06'05 | | morning max el | 5458 Jan 27 00:19 | 16° \approx 31'00 | 20°28'26 |
| | 5457 Mar 05 16:22 | 0° \approx | | | 5458 Feb 06 18:10 | 0° \approx | |
| morning set | 5457 Mar 17 13:02 | 18° \approx 18'10 | | desc. node | 5458 Feb 11 14:47 | 7° \approx 00'38 | |
| max. Earth dist. | 5457 Mar 23 16:23 | 28° \approx 18'15 | 1.41603 AU | morning set | 5458 Feb 24 14:27 | 26° \approx 39'40 | |
| | 5457 Mar 24 16:47 | 0° \approx | | | 5458 Feb 26 17:57 | 0° \approx | |
| | | | | max. Earth dist. | 5458 Mar 05 22:45 | 11° \approx 25'00 | 1.43430 AU |
| superior conj | 5457 Mar 31 07:47 | 11° \approx 20'48 | -2°02'14 | superior conj | 5458 Mar 12 07:06 | 21° \approx 48'09 | -2°09'17 |
| minimum elong | 5457 Mar 31 11:46 | 11° \approx 38'16 | 2°02'02 | minimum elong | 5458 Mar 12 06:43 | 21° \approx 46'35 | 2°09'18 |
| | 5457 Apr 10 15:40 | 0° \approx | | | 5458 Mar 17 03:53 | 0° \approx | |
| evening rise | 5457 Apr 11 02:40 | 0° \approx 50'38 | | evening rise | 5458 Mar 24 16:16 | 13° \approx 01'58 | |
| asc. node | 5457 Apr 17 12:44 | 12° \approx 28'42 | | | 5458 Apr 03 13:54 | 0° \approx | |
| evening max el | 5457 Apr 27 10:01 | 26° \approx 44'10 | 18°11'45 | asc. node | 5458 Apr 04 09:46 | 1° \approx 18'27 | |
| | 5457 May 02 14:07 | 0° \approx | | evening max el | 5458 Apr 10 22:21 | 9° \approx 53'00 | 18°06'58 |
| retrograde | 5457 May 04 08:21 | 0° \approx 13'41 | | retrograde | 5458 Apr 17 09:51 | 13° \approx 14'50 | |
| | 5457 May 06 03:10 | 30° \approx 8 | | evening set | 5458 Apr 20 04:04 | 12° \approx 37'26 | |
| evening set | 5457 May 06 19:59 | 29° \approx 8'47'24 | | inferior conj | 5458 Apr 26 12:17 | 7° \approx 30'33 | 3°13'41 |
| inferior conj | 5457 May 13 18:43 | 25° \approx 00'18 | 2°33'56 | minimum elong | 5458 Apr 26 14:29 | 7° \approx 24'52 | 3°13'22 |
| minimum elong | 5457 May 13 22:05 | 24° \approx 52'44 | 2°33'05 | min. Earth dist. | 5458 Apr 29 11:34 | 4° \approx 28'40 | 0.62036 AU |
| min. Earth dist. | 5457 May 17 03:35 | 22° \approx 00'25 | 0.59835 AU | morning rise | 5458 May 02 23:12 | 1° \approx 28'21 | |
| morning rise | 5457 May 20 21:31 | 19° \approx 14'50 | | | 5458 May 05 11:02 | 30° \approx 8 | |
| desc. node | 5457 May 23 17:01 | 17° \approx 54'49 | | direct | 5458 May 09 18:38 | 29° \approx 01'14 | |
| direct | 5457 May 27 08:24 | 17° \approx 17'25 | | desc. node | 5458 May 10 14:02 | 29° \approx 03'11 | |
| morning max el | 5457 Jun 10 17:04 | 25° \approx 10'12 | 27°35'07 | | 5458 May 14 08:03 | 0° \approx | |
| | 5457 Jun 15 03:47 | 0° \approx | | morning max el | 5458 May 23 22:01 | 7° \approx 01'47 | 27°53'13 |
| | 5457 Jul 04 20:11 | 0° \approx | | | 5458 Jun 10 09:08 | 0° \approx | |
| morning set | 5457 Jul 12 10:08 | 14° \approx 55'16 | | morning set | 5458 Jun 26 12:10 | 29° \approx 11'43 | |
| asc. node | 5457 Jul 14 11:58 | 19° \approx 18'09 | | | 5458 Jun 26 21:37 | 0° \approx | |
| max. Earth dist. | 5457 Jul 18 19:29 | 28° \approx 40'56 | 1.31921 AU | asc. node | 5458 Jul 01 09:00 | 9° \approx 24'10 | |
| | 5457 Jul 19 09:50 | 0° \approx | | max. Earth dist. | 5458 Jul 02 03:36 | 11° \approx 04'19 | 1.32282 AU |
| superior conj | 5457 Jul 19 14:04 | 0° \approx 23'23 | 0°50'51 | superior conj | 5458 Jul 03 23:49 | 15° \approx 04'28 | 0°26'57 |
| minimum elong | 5457 Jul 19 12:05 | 0° \approx 12'24 | 0°50'27 | minimum elong | 5458 Jul 03 22:36 | 14° \approx 57'50 | 0°26'40 |
| evening rise | 5457 Jul 26 09:06 | 15° \approx 14'08 | | evening rise | 5458 Jul 10 20:38 | 0° \approx 01'06 | |
| | 5457 Aug 02 17:14 | 0° \approx | | | 5458 Jul 10 20:25 | 0° \approx | |
| desc. node | 5457 Aug 19 16:14 | 25° \approx 43'30 | | | 5458 Jul 27 09:24 | 0° \approx | |
| evening max el | 5457 Aug 23 06:36 | 29° \approx 29'14 | 25°48'59 | evening max el | 5458 Aug 04 20:36 | 10° \approx 09'01 | 24°20'58 |
| | 5457 Aug 23 19:44 | 0° \approx | | desc. node | 5458 Aug 06 13:16 | 11° \approx 41'39 | |
| retrograde | 5457 Sep 06 05:33 | 6° \approx 35'27 | | retrograde | 5458 Aug 18 16:32 | 17° \approx 06'55 | |
| evening set | 5457 Sep 12 10:35 | 5° \approx 04'01 | | evening set | 5458 Aug 23 14:30 | 16° \approx 13'09 | |
| min. Earth dist. | 5457 Sep 16 18:53 | 2° \approx 27'57 | 0.58426 AU | min. Earth dist. | 5458 Aug 29 07:34 | 13° \approx 19'58 | 0.56567 AU |
| inferior conj | 5457 Sep 19 23:18 | 0° \approx 10'33 | -5°06'53 | inferior conj | 5458 Aug 31 21:45 | 11° \approx 42'07 | -5°18'38 |
| minimum elong | 5457 Sep 20 03:31 | 0° \approx 02'55 | 5°06'23 | minimum elong | 5458 Aug 31 20:26 | 11° \approx 44'12 | 5°18'36 |
| | 5457 Sep 20 05:08 | 30° \approx 8 | | morning rise | 5458 Sep 09 04:48 | 7° \approx 40'32 | |
| morning rise | 5457 Sep 27 22:44 | 25° \approx 48'08 | | direct | 5458 Sep 11 21:02 | 7° \approx 21'23 | |
| direct | 5457 Sep 30 08:49 | 25° \approx 29'20 | | morning max el | 5458 Sep 21 12:59 | 11° \approx 52'44 | 19°37'16 |
| morning max el | 5457 Oct 08 16:38 | 29° \approx 28'32 | 18°40'15 | asc. node | 5458 Sep 27 08:16 | 18° \approx 51'30 | |
| | 5457 Oct 09 05:25 | 0° \approx | | | 5458 Oct 03 23:16 | 0° \approx | |
| asc. node | 5457 Oct 10 11:15 | 1° \approx 20'26 | | morning set | 5458 Oct 09 01:25 | 9° \approx 57'17 | |
| morning set | 5457 Oct 24 22:54 | 25° \approx 29'06 | | | | | |
| | 5457 Oct 27 06:31 | 0° \approx | | superior conj | 5458 Oct 16 23:34 | 25° \approx 53'20 | 1°37'40 |
| superior conj | 5457 Nov 02 15:34 | 12° \approx 15'00 | 1°23'50 | minimum elong | 5458 Oct 17 01:28 | 26° \approx 02'41 | 1°37'33 |
| minimum elong | 5457 Nov 02 18:53 | 12° \approx 30'34 | 1°23'30 | | 5458 Oct 19 02:02 | 0° \approx | |
| max. Earth dist. | 5457 Nov 09 21:23 | 25° \approx 25'05 | 1.39711 AU | max. Earth dist. | 5458 Oct 23 02:02 | 7° \approx 35'13 | 1.37608 AU |
| | 5457 Nov 12 12:53 | 0° \approx | | evening rise | 5458 Oct 26 20:10 | 14° \approx 24'31 | |
| evening rise | 5457 Nov 13 22:57 | 2° \approx 24'36 | | desc. node | 5458 Nov 02 12:30 | 25° \approx 50'08 | |
| desc. node | 5457 Nov 15 15:30 | 5° \approx 14'05 | | | 5458 Nov 05 02:08 | 0° \approx | |
| | 5457 Dec 01 17:30 | 0° \approx | | | 5458 Nov 26 12:47 | 0° \approx | |

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|---------------------|-------------------|----------------------|------------|---------------------|-------------------|----------------------|------------|
| evening max el | 5458 Dec 01 12:23 | 5° ♁ 21'56 | 25°18'44 | max. Earth dist. | 5459 Oct 05 11:02 | 19° ♁ 29'37 | 1.35693 AU |
| retrograde | 5458 Dec 13 13:38 | 12° ♁ 19'06 | | evening rise | 5459 Oct 09 12:41 | 27° ♁ 18'02 | |
| evening set | 5458 Dec 19 09:14 | 9° ♁ 54'08 | | | 5459 Oct 10 23:39 | 0° ♁ | |
| min. Earth dist. | 5458 Dec 23 19:50 | 4° ♁ 59'04 | 0.67362 AU | desc. node | 5459 Oct 20 09:32 | 16° ♁ 14'31 | |
| asc. node | 5458 Dec 24 07:33 | 4° ♁ 21'13 | | | 5459 Oct 29 10:28 | 0° ♁ | |
| inferior conj | 5458 Dec 24 23:41 | 3° ♁ 28'48 | 0°13'40 | evening max el | 5459 Nov 14 01:18 | 19° ♁ 05'40 | 26°22'47 |
| minimum elong | 5458 Dec 24 23:20 | 3° ♁ 29'55 | 0°13'34 | retrograde | 5459 Nov 26 20:40 | 26° ♁ 17'44 | |
| transit middle | 5458 Dec 24 23:20 | 3° ♁ 29'55 | 0°13'34 | evening set | 5459 Dec 03 05:25 | 23° ♁ 42'32 | |
| transit begin | 5458 Dec 24 21:49 | 3° ♁ 34'51 | | min. Earth dist. | 5459 Dec 07 09:15 | 19° ♁ 22'40 | 0.66447 AU |
| transit end | 5458 Dec 25 00:51 | 3° ♁ 24'59 | | inferior conj | 5459 Dec 09 00:25 | 17° ♁ 23'38 | -0°44'25 |
| | 5458 Dec 27 19:52 | 30° ♁ | | minimum elong | 5459 Dec 09 01:38 | 17° ♁ 19'56 | 0°43'52 |
| morning rise | 5458 Dec 30 13:43 | 27° ♁ 32'36 | | asc. node | 5459 Dec 11 04:35 | 14° ♁ 50'40 | |
| direct | 5459 Jan 03 00:30 | 26° ♁ 24'02 | | morning rise | 5459 Dec 14 22:28 | 11° ♁ 37'19 | |
| | 5459 Jan 09 18:24 | 0° ♁ | | direct | 5459 Dec 17 22:56 | 10° ♁ 45'46 | |
| morning max el | 5459 Jan 10 04:00 | 0° ♁ 23'27 | 19°24'24 | morning max el | 5459 Dec 24 14:39 | 14° ♁ 23'40 | 18°36'05 |
| greatest brilliancy | 5459 Jan 23 07:58 | 17° ♁ 53'53 | -0.7m | | 5460 Jan 05 02:46 | 0° ♁ | |
| desc. node | 5459 Jan 29 11:47 | 27° ♁ 14'54 | | morning set | 5460 Jan 14 07:21 | 14° ♁ 27'59 | |
| | 5459 Jan 31 06:46 | 0° ♁ | | desc. node | 5460 Jan 16 08:49 | 17° ♁ 43'42 | |
| morning set | 5459 Feb 03 12:33 | 4° ♁ 59'57 | | | 5460 Jan 24 03:43 | 0° ♁ | |
| max. Earth dist. | 5459 Feb 16 11:56 | 25° ♁ 15'10 | 1.44718 AU | | | | |
| | 5459 Feb 19 11:45 | 0° ♁ | | superior conj | 5460 Jan 30 10:10 | 9° ♁ 50'02 | -1°28'00 |
| | | | | minimum elong | 5460 Jan 30 00:46 | 9° ♁ 13'12 | 1°27'01 |
| superior conj | 5459 Feb 20 05:11 | 1° ♁ 09'28 | -1°58'30 | max. Earth dist. | 5460 Jan 30 06:08 | 9° ♁ 34'14 | 1.45321 AU |
| minimum elong | 5459 Feb 19 22:25 | 0° ♁ 42'29 | 1°58'05 | | 5460 Feb 12 05:17 | 0° ♁ | |
| evening rise | 5459 Mar 06 09:06 | 24° ♁ 17'27 | | evening rise | 5460 Feb 15 02:40 | 4° ♁ 35'56 | |
| | 5459 Mar 09 19:09 | 0° ♁ | | greatest brilliancy | 5460 Feb 23 14:06 | 18° ♁ 05'37 | -0.8m |
| asc. node | 5459 Mar 22 06:49 | 19° ♁ 32'28 | | | 5460 Mar 02 10:50 | 0° ♁ | |
| evening max el | 5459 Mar 25 11:10 | 23° ♁ 15'19 | 18°21'02 | evening max el | 5460 Mar 07 21:51 | 6° ♁ 45'06 | 18°53'01 |
| retrograde | 5459 Mar 31 21:38 | 26° ♁ 43'20 | | asc. node | 5460 Mar 08 03:52 | 7° ♁ 00'11 | |
| evening set | 5459 Apr 03 22:16 | 25° ♁ 53'30 | | retrograde | 5460 Mar 14 15:51 | 10° ♁ 31'36 | |
| inferior conj | 5459 Apr 09 19:53 | 20° ♁ 27'59 | 3°30'26 | evening set | 5460 Mar 17 23:15 | 9° ♁ 28'30 | |
| minimum elong | 5459 Apr 09 20:30 | 20° ♁ 26'15 | 3°30'25 | inferior conj | 5460 Mar 23 13:45 | 3° ♁ 45'53 | 3°29'38 |
| min. Earth dist. | 5459 Apr 12 04:42 | 17° ♁ 45'46 | 0.64039 AU | minimum elong | 5460 Mar 23 12:56 | 3° ♁ 48'25 | 3°29'34 |
| morning rise | 5459 Apr 15 17:49 | 14° ♁ 17'21 | | min. Earth dist. | 5460 Mar 25 06:52 | 1° ♁ 37'42 | 0.65684 AU |
| direct | 5459 Apr 22 13:17 | 11° ♁ 32'11 | | | 5460 Mar 26 15:47 | 30° ♁ | |
| desc. node | 5459 Apr 27 11:04 | 12° ♁ 45'07 | | morning rise | 5460 Mar 29 02:11 | 27° ♁ 31'39 | |
| morning max el | 5459 May 06 06:44 | 19° ♁ 30'24 | 27°34'25 | direct | 5460 Apr 04 14:48 | 24° ♁ 42'10 | |
| | 5459 May 15 05:02 | 0° ♁ | | desc. node | 5460 Apr 13 08:06 | 28° ♁ 29'53 | |
| | 5459 Jun 03 08:54 | 0° ♁ | | | 5460 Apr 15 03:15 | 0° ♁ | |
| morning set | 5459 Jun 10 06:38 | 13° ♁ 02'45 | | morning max el | 5460 Apr 17 16:47 | 2° ♁ 26'14 | 26°44'07 |
| max. Earth dist. | 5459 Jun 15 04:52 | 23° ♁ 04'17 | 1.33093 AU | | 5460 May 08 10:17 | 0° ♁ | |
| | | | | morning set | 5460 May 23 14:19 | 26° ♁ 18'46 | |
| superior conj | 5459 Jun 18 05:52 | 29° ♁ 30'19 | -0°00'05 | | 5460 May 25 12:20 | 0° ♁ | |
| minimum elong | 5459 Jun 18 05:52 | 29° ♁ 30'21 | 0°00'07 | max. Earth dist. | 5460 May 27 20:06 | 4° ♁ 34'46 | 1.34377 AU |
| behind sun begin | 5459 Jun 18 00:31 | 29° ♁ 01'46 | | | | | |
| behind sun end | 5459 Jun 18 11:13 | 29° ♁ 58'57 | | superior conj | 5460 Jun 01 06:00 | 13° ♁ 34'09 | -0°29'20 |
| asc. node | 5459 Jun 18 06:04 | 29° ♁ 31'24 | | minimum elong | 5460 Jun 01 07:35 | 13° ♁ 42'23 | 0°29'02 |
| | 5459 Jun 18 11:24 | 0° ♁ | | asc. node | 5460 Jun 04 03:07 | 19° ♁ 35'35 | |
| evening rise | 5459 Jun 25 08:14 | 14° ♁ 44'36 | | evening rise | 5460 Jun 08 18:00 | 29° ♁ 18'13 | |
| | 5459 Jul 02 23:48 | 0° ♁ | | | 5460 Jun 09 02:02 | 0° ♁ | |
| evening max el | 5459 Jul 17 09:40 | 20° ♁ 29'59 | 22°43'18 | | 5460 Jun 27 04:33 | 0° ♁ | |
| desc. node | 5459 Jul 24 10:17 | 25° ♁ 36'59 | | evening max el | 5460 Jun 28 05:44 | 1° ♁ 04'19 | 21°11'17 |
| retrograde | 5459 Jul 30 14:44 | 27° ♁ 04'49 | | retrograde | 5460 Jul 10 03:55 | 6° ♁ 57'07 | |
| evening set | 5459 Aug 03 00:10 | 26° ♁ 39'38 | | desc. node | 5460 Jul 10 07:20 | 6° ♁ 57'04 | |
| min. Earth dist. | 5459 Aug 10 17:40 | 23° ♁ 14'58 | 0.55254 AU | evening set | 5460 Jul 12 10:47 | 6° ♁ 44'56 | |
| inferior conj | 5459 Aug 12 01:35 | 22° ♁ 29'22 | -4°43'38 | inferior conj | 5460 Jul 21 19:00 | 2° ♁ 46'47 | -3°17'27 |
| minimum elong | 5459 Aug 11 18:07 | 22° ♁ 40'04 | 4°42'15 | minimum elong | 5460 Jul 21 10:33 | 2° ♁ 58'39 | 3°14'48 |
| morning rise | 5459 Aug 20 14:05 | 18° ♁ 39'18 | | min. Earth dist. | 5460 Jul 22 03:49 | 2° ♁ 34'24 | 0.54778 AU |
| direct | 5459 Aug 23 15:34 | 18° ♁ 17'36 | | | 5460 Jul 27 03:23 | 30° ♁ | |
| morning max el | 5459 Sep 03 21:11 | 23° ♁ 31'45 | 20°55'54 | morning rise | 5460 Jul 30 10:50 | 28° ♁ 50'49 | |
| | 5459 Sep 09 12:23 | 0° ♁ | | direct | 5460 Aug 03 00:39 | 28° ♁ 23'18 | |
| asc. node | 5459 Sep 14 05:19 | 7° ♁ 11'08 | | | 5460 Aug 09 13:27 | 0° ♁ | |
| morning set | 5459 Sep 23 09:05 | 24° ♁ 40'18 | | morning max el | 5460 Aug 15 18:04 | 4° ♁ 25'50 | 22°32'20 |
| | 5459 Sep 25 22:33 | 0° ♁ | | asc. node | 5460 Aug 31 02:22 | 26° ♁ 06'49 | |
| | | | | | 5460 Sep 02 03:23 | 0° ♁ | |
| superior conj | 5459 Sep 30 18:55 | 10° ♁ 05'10 | 1°43'05 | morning set | 5460 Sep 06 19:41 | 9° ♁ 30'48 | |
| minimum elong | 5459 Sep 30 19:17 | 10° ♁ 07'01 | 1°43'06 | | | | |

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|---------------------|-------------------|-------------------------------|------------|------------------|-------------------|-------------------------------|------------|
| superior conj | 5460 Sep 13 22:01 | 24° \mathbb{M} 38'46 | 1°41'24 | superior conj | 5461 Aug 29 06:06 | 9° \mathbb{M} 25'54 | 1°33'39 |
| minimum elong | 5460 Sep 13 21:05 | 24° \mathbb{M} 33'51 | 1°41'23 | minimum elong | 5461 Aug 29 04:17 | 9° \mathbb{M} 16'01 | 1°33'29 |
| | 5460 Sep 16 11:03 | 0° \mathbb{L} | | max. Earth dist. | 5461 Aug 31 05:21 | 13° \mathbb{M} 41'20 | 1.32949 AU |
| max. Earth dist. | 5460 Sep 17 04:01 | 1° \mathbb{L} 28'01 | 1.34114 AU | evening rise | 5461 Sep 05 14:33 | 24° \mathbb{M} 57'44 | |
| evening rise | 5460 Sep 21 20:06 | 10° \mathbb{L} 52'32 | | | 5461 Sep 08 03:14 | 0° \mathbb{L} | |
| | 5460 Oct 02 08:58 | 0° \mathbb{M} | | desc. node | 5461 Sep 23 03:36 | 25° \mathbb{L} 59'32 | |
| desc. node | 5460 Oct 06 06:34 | 6° \mathbb{M} 20'22 | | | 5461 Sep 25 21:10 | 0° \mathbb{M} | |
| | 5460 Oct 23 23:00 | 0° \mathbb{J} | | evening max el | 5461 Oct 09 01:20 | 15° \mathbb{M} 51'37 | 27°27'04 |
| evening max el | 5460 Oct 26 14:05 | 2° \mathbb{J} 39'30 | 27°07'50 | retrograde | 5461 Oct 22 17:02 | 23° \mathbb{M} 08'53 | |
| retrograde | 5460 Nov 08 21:55 | 9° \mathbb{J} 57'14 | | evening set | 5461 Oct 29 20:07 | 20° \mathbb{M} 33'25 | |
| evening set | 5460 Nov 15 17:58 | 7° \mathbb{J} 17'31 | | min. Earth dist. | 5461 Nov 02 12:42 | 17° \mathbb{M} 21'24 | 0.63563 AU |
| min. Earth dist. | 5460 Nov 19 15:33 | 3° \mathbb{J} 32'54 | 0.65177 AU | inferior conj | 5461 Nov 05 03:39 | 14° \mathbb{M} 42'33 | -2°50'45 |
| inferior conj | 5460 Nov 21 18:36 | 1° \mathbb{J} 10'13 | -1°46'38 | minimum elong | 5461 Nov 05 08:38 | 14° \mathbb{M} 29'55 | 2°48'56 |
| minimum elong | 5460 Nov 21 21:41 | 1° \mathbb{J} 01'34 | 1°45'22 | morning rise | 5461 Nov 11 22:44 | 9° \mathbb{M} 25'17 | |
| | 5460 Nov 22 19:59 | 30° \mathbb{R} \mathbb{M} | | asc. node | 5461 Nov 13 22:40 | 8° \mathbb{M} 57'31 | |
| asc. node | 5460 Nov 27 01:37 | 26° \mathbb{M} 11'24 | | direct | 5461 Nov 14 09:07 | 8° \mathbb{M} 56'35 | |
| morning rise | 5460 Nov 28 02:30 | 25° \mathbb{M} 36'49 | | morning max el | 5461 Nov 20 22:55 | 12° \mathbb{M} 21'26 | 17°50'06 |
| direct | 5460 Nov 30 18:44 | 24° \mathbb{M} 58'34 | | | 5461 Dec 03 00:15 | 0° \mathbb{J} | |
| morning max el | 5460 Dec 07 05:56 | 28° \mathbb{M} 25'20 | 18°04'27 | morning set | 5461 Dec 07 10:35 | 7° \mathbb{J} 38'49 | |
| | 5460 Dec 08 17:10 | 0° \mathbb{J} | | | | | |
| morning set | 5460 Dec 25 07:47 | 25° \mathbb{J} 25'09 | | superior conj | 5461 Dec 19 19:13 | 28° \mathbb{J} 35'16 | 0°02'16 |
| | 5460 Dec 28 02:34 | 0° \mathbb{Z} | | minimum elong | 5461 Dec 19 19:27 | 28° \mathbb{J} 36'17 | 0°02'15 |
| desc. node | 5461 Jan 02 05:51 | 8° \mathbb{Z} 22'13 | | behind sun begin | 5461 Dec 19 09:53 | 27° \mathbb{J} 56'54 | |
| | | | | behind sun end | 5461 Dec 20 05:01 | 29° \mathbb{J} 15'33 | |
| superior conj | 5461 Jan 08 16:48 | 18° \mathbb{Z} 42'19 | -0°43'59 | desc. node | 5461 Dec 20 02:51 | 29° \mathbb{J} 06'40 | |
| minimum elong | 5461 Jan 08 11:24 | 18° \mathbb{Z} 20'54 | 0°43'14 | | 5461 Dec 20 15:52 | 0° \mathbb{Z} | |
| max. Earth dist. | 5461 Jan 12 01:55 | 24° \mathbb{Z} 02'32 | 1.45174 AU | max. Earth dist. | 5461 Dec 25 19:54 | 8° \mathbb{Z} 20'57 | 1.44307 AU |
| | 5461 Jan 15 21:09 | 0° \mathbb{A} | | evening rise | 5462 Jan 04 09:56 | 23° \mathbb{Z} 21'10 | |
| evening rise | 5461 Jan 24 23:32 | 14° \mathbb{A} 08'06 | | | 5462 Jan 08 18:19 | 0° \mathbb{A} | |
| | 5461 Feb 04 07:21 | 0° \mathbb{H} | | | 5462 Jan 29 19:14 | 0° \mathbb{H} | |
| greatest brilliancy | 5461 Feb 07 07:14 | 4° \mathbb{H} 30'31 | -0.7m | evening max el | 5462 Feb 02 05:26 | 3° \mathbb{H} 51'43 | 20°44'18 |
| evening max el | 5461 Feb 19 04:20 | 20° \mathbb{H} 17'53 | 19°41'32 | asc. node | 5462 Feb 09 21:56 | 8° \mathbb{H} 42'14 | |
| asc. node | 5461 Feb 23 00:54 | 23° \mathbb{H} 28'26 | | retrograde | 5462 Feb 10 11:43 | 8° \mathbb{H} 44'00 | |
| retrograde | 5461 Feb 26 13:24 | 24° \mathbb{H} 33'30 | | evening set | 5462 Feb 14 11:46 | 7° \mathbb{H} 12'21 | |
| evening set | 5461 Mar 02 04:27 | 23° \mathbb{H} 16'27 | | inferior conj | 5462 Feb 19 20:01 | 1° \mathbb{H} 02'13 | 2°50'04 |
| inferior conj | 5461 Mar 07 14:40 | 17° \mathbb{H} 18'45 | 3°15'17 | minimum elong | 5462 Feb 19 17:42 | 1° \mathbb{H} 10'11 | 2°49'31 |
| minimum elong | 5461 Mar 07 12:51 | 17° \mathbb{H} 24'44 | 3°14'59 | min. Earth dist. | 5462 Feb 20 08:53 | 0° \mathbb{H} 18'00 | 0.67706 AU |
| min. Earth dist. | 5461 Mar 08 16:56 | 15° \mathbb{H} 51'40 | 0.66906 AU | | 5462 Feb 20 14:08 | 30° \mathbb{R} \mathbb{A} | |
| morning rise | 5461 Mar 12 21:02 | 11° \mathbb{H} 03'45 | | morning rise | 5462 Feb 24 23:26 | 24° \mathbb{A} 48'16 | |
| direct | 5461 Mar 18 22:17 | 8° \mathbb{H} 21'47 | | direct | 5462 Mar 02 10:57 | 22° \mathbb{A} 22'23 | |
| morning max el | 5461 Mar 31 02:19 | 15° \mathbb{H} 37'55 | 25°30'47 | morning max el | 5462 Mar 13 11:02 | 28° \mathbb{A} 56'46 | 24°04'20 |
| desc. node | 5461 Mar 31 05:08 | 15° \mathbb{H} 45'02 | | | 5462 Mar 14 11:28 | 0° \mathbb{H} | |
| | 5461 Apr 11 22:20 | 0° \mathbb{Y} | | desc. node | 5462 Mar 18 02:08 | 4° \mathbb{H} 04'40 | |
| | 5461 May 01 07:30 | 0° \mathbb{B} | | | 5462 Apr 05 17:08 | 0° \mathbb{Y} | |
| morning set | 5461 May 06 06:57 | 8° \mathbb{B} 47'57 | | morning set | 5462 Apr 18 02:52 | 20° \mathbb{Y} 14'24 | |
| max. Earth dist. | 5461 May 10 00:20 | 15° \mathbb{B} 41'59 | 1.36105 AU | max. Earth dist. | 5462 Apr 21 20:34 | 26° \mathbb{Y} 48'11 | 1.38180 AU |
| | | | | | 5462 Apr 23 15:09 | 0° \mathbb{B} | |
| superior conj | 5461 May 15 21:28 | 27° \mathbb{B} 08'22 | -0°59'23 | | | | |
| minimum elong | 5461 May 16 00:48 | 27° \mathbb{B} 25'00 | 0°58'48 | superior conj | 5462 Apr 29 00:46 | 10° \mathbb{B} 03'23 | -1°28'06 |
| | 5461 May 17 07:41 | 0° \mathbb{I} | | minimum elong | 5462 Apr 29 05:31 | 10° \mathbb{B} 26'04 | 1°27'27 |
| asc. node | 5461 May 22 00:10 | 9° \mathbb{I} 32'48 | | evening rise | 5462 May 07 22:46 | 27° \mathbb{B} 27'55 | |
| evening rise | 5461 May 23 23:44 | 13° \mathbb{I} 35'25 | | asc. node | 5462 May 08 21:12 | 29° \mathbb{B} 17'57 | |
| | 5461 Jun 01 14:16 | 0° \mathbb{E} | | | 5462 May 09 05:48 | 0° \mathbb{I} | |
| evening max el | 5461 Jun 10 13:53 | 12° \mathbb{E} 15'56 | 19°55'15 | evening max el | 5462 May 24 10:04 | 24° \mathbb{I} 09'46 | 18°59'08 |
| retrograde | 5461 Jun 20 19:28 | 17° \mathbb{E} 16'35 | | retrograde | 5462 Jun 02 00:43 | 28° \mathbb{I} 23'00 | |
| evening set | 5461 Jun 22 17:16 | 17° \mathbb{E} 06'53 | | evening set | 5462 Jun 04 01:29 | 28° \mathbb{I} 09'51 | |
| desc. node | 5461 Jun 27 04:21 | 15° \mathbb{E} 37'33 | | inferior conj | 5462 Jun 12 06:12 | 23° \mathbb{I} 54'48 | 0°31'40 |
| inferior conj | 5461 Jul 01 16:24 | 13° \mathbb{E} 06'07 | -1°20'59 | minimum elong | 5462 Jun 12 07:27 | 23° \mathbb{I} 52'36 | 0°31'11 |
| minimum elong | 5461 Jul 01 12:38 | 13° \mathbb{E} 11'50 | 1°19'35 | desc. node | 5462 Jun 14 01:23 | 22° \mathbb{I} 38'51 | |
| min. Earth dist. | 5461 Jul 03 16:08 | 11° \mathbb{E} 53'39 | 0.55264 AU | min. Earth dist. | 5462 Jun 15 07:43 | 21° \mathbb{I} 46'46 | 0.56622 AU |
| morning rise | 5461 Jul 10 06:09 | 8° \mathbb{E} 43'52 | | morning rise | 5462 Jun 20 10:07 | 18° \mathbb{I} 56'19 | |
| direct | 5461 Jul 14 13:35 | 8° \mathbb{E} 03'11 | | direct | 5462 Jun 25 15:52 | 17° \mathbb{I} 51'08 | |
| morning max el | 5461 Jul 28 08:32 | 14° \mathbb{E} 51'26 | 24°16'32 | morning max el | 5462 Jul 09 22:49 | 25° \mathbb{I} 14'15 | 25°53'30 |
| | 5461 Aug 09 07:02 | 0° \mathbb{O} | | | 5462 Jul 14 09:16 | 0° \mathbb{E} | |
| asc. node | 5461 Aug 17 23:25 | 15° \mathbb{O} 29'31 | | | 5462 Aug 02 06:45 | 0° \mathbb{O} | |
| morning set | 5461 Aug 22 07:25 | 24° \mathbb{O} 23'29 | | asc. node | 5462 Aug 04 20:27 | 5° \mathbb{O} 11'33 | |
| | 5461 Aug 24 22:09 | 0° \mathbb{M} | | morning set | 5462 Aug 06 18:39 | 9° \mathbb{O} 13'09 | |

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| superior conj | 5462 Aug 13 16:59 | 24°♎19'21 | 1°20'37 | | 5463 Jul 25 00:11 | 0°♎ | |
| minimum elong | 5462 Aug 13 14:44 | 24°♎06'55 | 1°20'19 | | | | |
| max. Earth dist. | 5462 Aug 14 13:06 | 26°♎10'01 | 1.32213 AU | superior conj | 5463 Jul 29 04:48 | 9°♎12'31 | 1°02'57 |
| | 5462 Aug 16 07:07 | 0°♎ | | minimum elong | 5463 Jul 29 02:34 | 9°♎00'13 | 1°02'32 |
| evening rise | 5462 Aug 20 16:53 | 9°♎24'37 | | max. Earth dist. | 5463 Jul 29 00:01 | 8°♎46'07 | 1.31904 AU |
| | 5462 Aug 31 11:09 | 0°♎ | | evening rise | 5463 Aug 05 00:27 | 24°♎04'52 | |
| desc. node | 5462 Sep 10 00:38 | 15°♎01'17 | | | 5463 Aug 07 20:51 | 0°♎ | |
| evening max el | 5462 Sep 21 08:55 | 28°♎29'51 | 27°15'05 | | 5463 Aug 25 11:31 | 0°♎ | |
| | 5462 Sep 23 00:51 | 0°♎ | | desc. node | 5463 Aug 27 21:39 | 3°♎09'54 | |
| retrograde | 5462 Oct 05 05:16 | 5°♎43'11 | | evening max el | 5463 Sep 03 10:18 | 10°♎22'51 | 26°29'30 |
| evening set | 5462 Oct 12 08:15 | 3°♎23'37 | | retrograde | 5463 Sep 17 08:58 | 17°♎31'08 | |
| min. Earth dist. | 5462 Oct 15 23:32 | 0°♎36'40 | 0.61663 AU | evening set | 5463 Sep 24 01:38 | 15°♎39'43 | |
| | 5462 Oct 16 16:17 | 30°♎ | | min. Earth dist. | 5463 Sep 27 23:55 | 13°♎04'36 | 0.59604 AU |
| inferior conj | 5462 Oct 19 00:30 | 27°♎53'20 | -3°52'43 | inferior conj | 5463 Oct 01 05:40 | 10°♎32'44 | -4°45'19 |
| minimum elong | 5462 Oct 19 06:48 | 27°♎39'11 | 3°50'52 | minimum elong | 5463 Oct 01 11:30 | 10°♎21'16 | 4°44'12 |
| morning rise | 5462 Oct 26 07:18 | 22°♎55'16 | | morning rise | 5463 Oct 08 23:30 | 5°♎56'35 | |
| direct | 5462 Oct 28 14:44 | 22°♎32'41 | | direct | 5463 Oct 11 07:33 | 5°♎37'04 | |
| asc. node | 5462 Oct 31 19:42 | 23°♎17'53 | | asc. node | 5463 Oct 18 16:44 | 9°♎03'46 | |
| morning max el | 5462 Nov 04 14:26 | 26°♎04'04 | 17°53'57 | morning max el | 5463 Oct 19 01:05 | 9°♎23'31 | 18°17'17 |
| | 5462 Nov 07 23:02 | 0°♎ | | | 5463 Nov 01 10:52 | 0°♎ | |
| morning set | 5462 Nov 20 09:17 | 20°♎49'29 | | morning set | 5463 Nov 03 22:01 | 4°♎39'29 | |
| | 5462 Nov 25 11:02 | 0°♎ | | | | | |
| superior conj | 5462 Dec 01 00:01 | 9°♎45'28 | 0°41'55 | superior conj | 5463 Nov 13 04:47 | 22°♎04'30 | 1°11'30 |
| minimum elong | 5462 Dec 01 03:24 | 10°♎00'02 | 0°41'27 | minimum elong | 5463 Nov 13 08:35 | 22°♎21'53 | 1°11'04 |
| desc. node | 5462 Dec 06 23:52 | 19°♎53'48 | | | 5463 Nov 17 15:02 | 0°♎ | |
| max. Earth dist. | 5462 Dec 08 09:46 | 22°♎13'25 | 1.42830 AU | max. Earth dist. | 5463 Nov 20 18:44 | 5°♎27'37 | 1.40923 AU |
| | 5462 Dec 13 05:26 | 0°♎ | | desc. node | 5463 Nov 23 20:53 | 10°♎39'35 | |
| evening rise | 5462 Dec 15 01:43 | 2°♎54'55 | | evening rise | 5463 Nov 25 11:30 | 13°♎18'48 | |
| | 5463 Jan 02 05:12 | 0°♎ | | | 5463 Dec 06 02:52 | 0°♎ | |
| evening max el | 5463 Jan 16 01:16 | 17°♎27'51 | 21°57'45 | evening max el | 5463 Dec 28 14:56 | 0°♎ | |
| retrograde | 5463 Jan 25 08:55 | 23°♎00'05 | | retrograde | 5463 Dec 29 16:54 | 1°♎06'45 | 23°17'05 |
| asc. node | 5463 Jan 27 18:57 | 22°♎29'08 | | evening set | 5464 Jan 09 03:22 | 7°♎17'14 | |
| evening set | 5463 Jan 29 19:32 | 21°♎13'09 | | evening set | 5464 Jan 14 02:08 | 5°♎14'42 | |
| inferior conj | 5463 Feb 04 03:42 | 14°♎53'46 | 2°15'50 | asc. node | 5464 Jan 14 15:58 | 4°♎43'59 | |
| minimum elong | 5463 Feb 04 01:20 | 15°♎01'58 | 2°15'06 | | 5464 Jan 18 15:17 | 30°♎ | |
| min. Earth dist. | 5463 Feb 04 04:27 | 14°♎51'10 | 0.68102 AU | inferior conj | 5464 Jan 19 11:46 | 28°♎49'44 | 1°33'45 |
| morning rise | 5463 Feb 09 06:59 | 8°♎42'32 | | minimum elong | 5464 Jan 19 09:49 | 28°♎56'23 | 1°33'03 |
| direct | 5463 Feb 14 04:00 | 6°♎37'41 | | min. Earth dist. | 5464 Jan 19 01:12 | 29°♎26'02 | 0.68108 AU |
| morning max el | 5463 Feb 23 21:14 | 12°♎21'59 | 22°34'59 | morning rise | 5464 Jan 24 17:25 | 22°♎42'56 | |
| desc. node | 5463 Mar 04 23:09 | 23°♎11'00 | | direct | 5464 Jan 29 00:15 | 21°♎00'58 | |
| | 5463 Mar 09 22:36 | 0°♎ | | morning max el | 5464 Feb 06 12:40 | 25°♎56'35 | 21°11'25 |
| morning set | 5463 Mar 29 20:20 | 0°♎ | | | 5464 Feb 10 04:41 | 0°♎ | |
| | 5463 Mar 29 14:30 | 0°♎ | | desc. node | 5464 Feb 19 20:10 | 12°♎50'36 | |
| max. Earth dist. | 5463 Apr 03 16:21 | 8°♎28'14 | 1.40391 AU | | 5464 Mar 02 10:20 | 0°♎ | |
| | | | | morning set | 5464 Mar 08 09:44 | 9°♎15'33 | |
| superior conj | 5463 Apr 11 11:38 | 22°♎09'32 | -1°52'12 | max. Earth dist. | 5464 Mar 15 18:35 | 21°♎04'51 | 1.42442 AU |
| minimum elong | 5463 Apr 11 16:35 | 22°♎31'57 | 1°51'47 | | 5464 Mar 21 03:12 | 0°♎ | |
| | 5463 Apr 15 18:11 | 0°♎ | | superior conj | 5464 Mar 23 01:11 | 3°♎15'43 | -2°07'06 |
| evening rise | 5463 Apr 21 11:59 | 10°♎48'06 | | minimum elong | 5464 Mar 23 03:44 | 3°♎26'39 | 2°07'02 |
| asc. node | 5463 Apr 25 18:13 | 18°♎46'19 | | evening rise | 5464 Apr 03 11:27 | 23°♎27'13 | |
| | 5463 May 02 08:29 | 0°♎ | | | 5464 Apr 07 02:46 | 0°♎ | |
| evening max el | 5463 May 07 15:19 | 6°♎39'57 | 18°23'20 | asc. node | 5464 Apr 11 15:15 | 7°♎52'15 | |
| retrograde | 5463 May 15 00:45 | 10°♎20'17 | | evening max el | 5464 Apr 20 02:04 | 19°♎37'24 | 18°07'23 |
| evening set | 5463 May 17 08:29 | 9°♎59'32 | | retrograde | 5464 Apr 26 18:16 | 23°♎01'31 | |
| inferior conj | 5463 May 24 17:24 | 5°♎24'34 | 1°58'13 | evening set | 5464 Apr 29 08:55 | 22°♎30'32 | |
| minimum elong | 5463 May 24 20:46 | 5°♎17'39 | 1°57'12 | inferior conj | 5464 May 06 00:56 | 17°♎34'47 | 2°54'00 |
| min. Earth dist. | 5463 May 28 03:48 | 2°♎36'55 | 0.58582 AU | minimum elong | 5464 May 06 03:56 | 17°♎27'39 | 2°53'23 |
| desc. node | 5463 May 31 22:24 | 0°♎03'54 | | min. Earth dist. | 5464 May 09 06:37 | 14°♎31'18 | 0.60785 AU |
| morning rise | 5463 Jun 01 05:56 | 29°♎53'45 | | morning rise | 5464 May 12 20:46 | 11°♎41'21 | |
| | 5463 Jun 01 01:16 | 30°♎ | | desc. node | 5464 May 17 19:25 | 9°♎38'51 | |
| direct | 5463 Jun 07 08:21 | 28°♎15'37 | | direct | 5464 May 19 12:31 | 9°♎30'19 | |
| | 5463 Jun 13 20:21 | 0°♎ | | morning max el | 5464 Jun 02 19:06 | 17°♎26'37 | 27°47'35 |
| morning max el | 5463 Jun 21 17:40 | 6°♎00'12 | 27°07'33 | | 5464 Jun 13 05:22 | 0°♎ | |
| | 5463 Jul 09 13:09 | 0°♎ | | | 5464 Jul 01 04:54 | 0°♎ | |
| morning set | 5463 Jul 22 03:45 | 23°♎54'24 | | morning set | 5464 Jul 05 08:59 | 8°♎22'00 | |
| asc. node | 5463 Jul 22 17:28 | 25°♎06'46 | | asc. node | 5464 Jul 08 14:30 | 15°♎10'20 | |

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| max. Earth dist. | 5464 Jul 11 10:28 | 21°☿18'55 | 1.32020 AU | asc. node | 5465 Jun 25 11:32 | 5°☿17'11 | |
| superior conj | 5464 Jul 12 15:48 | 23°☿59'54 | 0°41'10 | superior conj | 5465 Jun 27 00:11 | 8°☿34'52 | 0°15'50 |
| minimum elong | 5464 Jul 12 14:05 | 23°☿50'27 | 0°40'47 | minimum elong | 5465 Jun 26 23:26 | 8°☿30'49 | 0°15'38 |
| | 5464 Jul 15 09:13 | 0°♌ | | behind sun begin | 5465 Jun 26 22:25 | 8°☿25'18 | |
| evening rise | 5464 Jul 19 11:08 | 8°♌51'45 | | behind sun end | 5465 Jun 27 00:27 | 8°☿36'20 | |
| | 5464 Jul 30 07:53 | 0°♍ | | evening rise | 5465 Jul 03 22:55 | 23°☿37'53 | |
| desc. node | 5464 Aug 13 18:41 | 20°♍04'05 | | | 5465 Jul 07 00:07 | 0°♌ | |
| evening max el | 5464 Aug 15 04:01 | 21°♍26'56 | 25°13'54 | | 5465 Jul 25 20:04 | 0°♍ | |
| retrograde | 5464 Aug 29 02:15 | 28°♍29'50 | | evening max el | 5465 Jul 27 16:26 | 1°♍53'38 | 23°39'34 |
| evening set | 5464 Sep 03 19:39 | 27°♍14'44 | | desc. node | 5465 Jul 31 15:43 | 5°♍14'01 | |
| min. Earth dist. | 5464 Sep 08 15:36 | 24°♍33'41 | 0.57593 AU | retrograde | 5465 Aug 10 07:38 | 8°♍44'19 | |
| inferior conj | 5464 Sep 11 15:51 | 22°♍31'21 | -5°16'37 | evening set | 5465 Aug 14 14:10 | 8°♍04'12 | |
| minimum elong | 5464 Sep 11 18:06 | 22°♍27'32 | 5°16'29 | min. Earth dist. | 5465 Aug 21 02:21 | 4°♍59'23 | 0.55923 AU |
| morning rise | 5464 Sep 19 18:48 | 18°♍18'12 | | inferior conj | 5465 Aug 23 05:44 | 3°♍42'26 | -5°10'14 |
| direct | 5464 Sep 22 07:19 | 17°♍59'20 | | minimum elong | 5465 Aug 23 01:32 | 3°♍48'44 | 5°09'50 |
| morning max el | 5464 Oct 01 03:30 | 22°♍10'39 | 19°01'45 | | 5465 Aug 30 20:34 | 30°♌♌ | |
| asc. node | 5464 Oct 04 13:46 | 26°♍01'00 | | morning rise | 5465 Aug 31 15:23 | 29°♌47'50 | |
| | 5464 Oct 07 09:36 | 0°♎ | | direct | 5465 Sep 03 11:18 | 29°♌27'53 | |
| morning set | 5464 Oct 17 20:30 | 18°♎56'57 | | | 5465 Sep 06 22:47 | 0°♍ | |
| | 5464 Oct 23 10:43 | 0°♏ | | morning max el | 5465 Sep 13 18:46 | 4°♍15'42 | 20°08'18 |
| | | | | asc. node | 5465 Sep 21 10:48 | 13°♍53'52 | |
| superior conj | 5464 Oct 26 04:23 | 5°♏18'37 | 1°30'47 | | 5465 Sep 30 07:30 | 0°♎ | |
| minimum elong | 5464 Oct 26 07:09 | 5°♏31'53 | 1°30'34 | morning set | 5465 Oct 02 01:30 | 3°♎32'11 | |
| max. Earth dist. | 5464 Nov 02 00:20 | 18°♏00'47 | 1.38817 AU | | | | |
| evening rise | 5464 Nov 05 20:05 | 24°♏44'23 | | superior conj | 5465 Oct 09 17:44 | 19°♎12'44 | 1°40'54 |
| | 5464 Nov 08 22:30 | 0°♐ | | minimum elong | 5465 Oct 09 18:58 | 19°♎18'55 | 1°40'52 |
| desc. node | 5464 Nov 09 17:54 | 1°♐20'35 | | | 5465 Oct 15 05:55 | 0°♏ | |
| | 5464 Nov 28 20:13 | 0°♑ | | max. Earth dist. | 5465 Oct 15 06:15 | 0°♏01'33 | 1.36756 AU |
| evening max el | 5464 Dec 11 06:09 | 14°♑49'05 | 24°36'03 | evening rise | 5465 Oct 19 01:57 | 7°♏07'57 | |
| retrograde | 5464 Dec 22 18:04 | 21°♑31'34 | | desc. node | 5465 Oct 27 14:57 | 21°♏52'25 | |
| evening set | 5464 Dec 28 06:04 | 19°♑14'00 | | | 5465 Nov 01 17:54 | 0°♐ | |
| asc. node | 5464 Dec 31 13:01 | 15°♑42'26 | | evening max el | 5465 Nov 23 18:40 | 28°♐33'03 | 25°47'45 |
| min. Earth dist. | 5465 Jan 01 20:52 | 13°♑59'22 | 0.67744 AU | | 5465 Nov 25 07:44 | 0°♑ | |
| inferior conj | 5465 Jan 02 18:26 | 12°♑47'33 | 0°44'44 | retrograde | 5465 Dec 06 04:13 | 5°♑38'08 | |
| minimum elong | 5465 Jan 02 17:23 | 12°♑51'05 | 0°44'19 | evening set | 5465 Dec 12 05:39 | 3°♑07'57 | |
| morning rise | 5465 Jan 08 04:49 | 6°♑47'07 | | | 5465 Dec 15 07:02 | 30°♌♐ | |
| direct | 5465 Jan 11 22:29 | 5°♑27'07 | | min. Earth dist. | 5465 Dec 16 13:12 | 28°♐28'03 | 0.67019 AU |
| morning max el | 5465 Jan 19 11:52 | 9°♑43'26 | 19°59'19 | inferior conj | 5465 Dec 17 21:55 | 26°♐44'40 | -0°10'20 |
| | 5465 Feb 03 18:26 | 0°♒ | | minimum elong | 5465 Dec 17 22:11 | 26°♐43'50 | 0°10'12 |
| desc. node | 5465 Feb 05 17:10 | 2°♒54'18 | | transit middle | 5465 Dec 17 22:11 | 26°♐43'50 | 0°10'12 |
| morning set | 5465 Feb 15 06:33 | 17°♒27'20 | | transit begin | 5465 Dec 17 19:59 | 26°♐50'45 | |
| | 5465 Feb 23 07:33 | 0°♓ | | transit end | 5465 Dec 18 00:22 | 26°♐36'54 | |
| max. Earth dist. | 5465 Feb 26 04:42 | 4°♓34'24 | 1.44062 AU | asc. node | 5465 Dec 18 10:04 | 26°♐06'23 | |
| | | | | morning rise | 5465 Dec 23 15:09 | 20°♐52'39 | |
| superior conj | 5465 Mar 03 13:29 | 13°♓13'41 | -2°07'08 | direct | 5465 Dec 26 21:15 | 19°♐51'55 | |
| minimum elong | 5465 Mar 03 10:23 | 13°♓01'02 | 2°07'03 | morning max el | 5466 Jan 02 18:54 | 23°♐40'44 | 19°01'53 |
| | 5465 Mar 13 14:50 | 0°♈ | | | 5466 Jan 08 01:54 | 0°♑ | |
| evening rise | 5465 Mar 16 16:43 | 5°♈15'48 | | desc. node | 5466 Jan 23 14:11 | 23°♑15'39 | |
| asc. node | 5465 Mar 29 12:17 | 26°♈27'57 | | morning set | 5466 Jan 25 11:18 | 26°♑11'12 | |
| | 5465 Apr 01 02:13 | 0°♉ | | | 5466 Jan 27 22:01 | 0°♒ | |
| evening max el | 5465 Apr 03 14:56 | 2°♉52'41 | 18°10'39 | max. Earth dist. | 5466 Feb 08 20:27 | 18°♒39'42 | 1.45062 AU |
| retrograde | 5465 Apr 10 00:51 | 6°♉15'41 | | | | | |
| evening set | 5465 Apr 12 21:48 | 5°♉33'02 | | superior conj | 5466 Feb 11 02:36 | 22°♒13'02 | -1°47'48 |
| inferior conj | 5465 Apr 19 01:00 | 0°♉17'42 | 3°23'17 | minimum elong | 5466 Feb 10 17:54 | 21°♒38'39 | 1°47'05 |
| minimum elong | 5465 Apr 19 02:32 | 0°♉13'33 | 3°23'07 | | 5466 Feb 16 00:19 | 0°♓ | |
| | 5465 Apr 19 07:32 | 30°♌♈ | | evening rise | 5466 Feb 25 23:51 | 16°♓07'36 | |
| min. Earth dist. | 5465 Apr 21 18:19 | 27°♈22'14 | 0.62922 AU | | 5466 Mar 06 12:04 | 0°♈ | |
| morning rise | 5465 Apr 25 05:59 | 24°♈11'04 | | asc. node | 5466 Mar 16 09:21 | 14°♈24'09 | |
| direct | 5465 May 02 02:14 | 21°♈35'02 | | evening max el | 5466 Mar 18 03:05 | 16°♈18'57 | 18°32'28 |
| desc. node | 5465 May 04 16:27 | 21°♈55'19 | | retrograde | 5466 Mar 24 15:57 | 19°♈53'51 | |
| morning max el | 5465 May 16 02:07 | 29°♈35'29 | 27°49'39 | evening set | 5466 Mar 27 19:17 | 18°♈58'34 | |
| | 5465 May 16 11:49 | 0°♉ | | inferior conj | 5466 Apr 02 13:28 | 13°♈25'27 | 3°31'59 |
| | 5465 Jun 07 04:29 | 0°♊ | | minimum elong | 5466 Apr 02 13:26 | 13°♈25'34 | 3°31'58 |
| morning set | 5465 Jun 19 08:07 | 22°♊28'29 | | min. Earth dist. | 5466 Apr 04 15:34 | 10°♈56'18 | 0.64784 AU |
| | 5465 Jun 22 23:51 | 0°♋ | | morning rise | 5466 Apr 08 06:54 | 7°♈12'30 | |
| max. Earth dist. | 5465 Jun 24 16:21 | 3°♋34'30 | 1.32572 AU | direct | 5466 Apr 14 23:59 | 4°♈23'55 | |

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|---------------------|-------------------|----------------------|------------|---------------------|-------------------|----------------------|------------|
| desc. node | 5466 Apr 21 13:28 | 6° Υ 33'59 | | morning rise | 5467 Mar 22 20:08 | 20° Υ 35'32 | |
| morning max el | 5466 Apr 28 11:58 | 12° Υ 18'30 | 27°16'25 | direct | 5467 Mar 29 04:23 | 17° Υ 47'38 | |
| | 5466 May 12 15:14 | 0° Υ | | desc. node | 5467 Apr 08 10:29 | 23° Υ 00'36 | |
| | 5466 May 30 17:39 | 0° Π | | morning max el | 5467 Apr 10 21:54 | 25° Υ 22'15 | 26°14'59 |
| morning set | 5466 Jun 02 22:27 | 6° Π 06'11 | | | 5467 Apr 15 03:13 | 0° Υ | |
| max. Earth dist. | 5466 Jun 07 13:44 | 15° Π 22'30 | 1.33582 AU | | 5467 May 06 03:14 | 0° Υ | |
| | | | | morning set | 5467 May 17 00:18 | 19° Υ 04'04 | |
| superior conj | 5466 Jun 11 03:59 | 22° Π 52'01 | -0°12'19 | max. Earth dist. | 5467 May 20 23:47 | 26° Υ 39'37 | 1.35059 AU |
| minimum elong | 5466 Jun 11 04:38 | 22° Π 55'24 | 0°12'12 | | 5467 May 22 16:32 | 0° Π | |
| behind sun begin | 5466 Jun 11 01:01 | 22° Π 36'19 | | | | | |
| behind sun end | 5466 Jun 11 08:14 | 23° Π 14'30 | | superior conj | 5467 May 26 00:47 | 6° Π 44'18 | -0°42'07 |
| asc. node | 5466 Jun 12 08:36 | 25° Π 23'40 | | minimum elong | 5467 May 26 03:07 | 6° Π 56'11 | 0°41'40 |
| | 5466 Jun 14 12:24 | 0° Υ | | asc. node | 5467 May 30 05:40 | 15° Π 25'33 | |
| evening rise | 5466 Jun 18 09:59 | 8° Υ 17'46 | | evening rise | 5467 Jun 02 18:16 | 22° Π 44'57 | |
| | 5466 Jun 29 20:50 | 0° Ω | | | 5467 Jun 06 08:13 | 0° Υ | |
| evening max el | 5466 Jul 09 07:20 | 12° Ω 15'25 | 22°02'36 | evening max el | 5467 Jun 21 08:22 | 23° Υ 04'36 | 20°36'41 |
| desc. node | 5466 Jul 18 12:45 | 18° Ω 06'04 | | retrograde | 5467 Jul 02 13:55 | 28° Υ 35'09 | |
| retrograde | 5466 Jul 22 01:30 | 18° Ω 35'13 | | evening set | 5467 Jul 04 14:44 | 28° Υ 25'03 | |
| evening set | 5466 Jul 24 21:22 | 18° Ω 17'23 | | desc. node | 5467 Jul 05 09:45 | 28° Υ 15'54 | |
| min. Earth dist. | 5466 Aug 02 12:18 | 14° Ω 34'54 | 0.54933 AU | inferior conj | 5467 Jul 13 20:53 | 24° Υ 28'06 | -2°29'42 |
| inferior conj | 5466 Aug 03 03:34 | 14° Ω 13'26 | -4°12'41 | minimum elong | 5467 Jul 13 14:00 | 24° Υ 37'59 | 2°27'18 |
| minimum elong | 5466 Aug 02 18:49 | 14° Ω 25'45 | 4°10'32 | min. Earth dist. | 5467 Jul 14 23:32 | 23° Υ 49'48 | 0.54865 AU |
| morning rise | 5466 Aug 11 17:52 | 10° Ω 23'19 | | morning rise | 5467 Jul 22 12:38 | 20° Υ 22'43 | |
| direct | 5466 Aug 14 23:47 | 9° Ω 59'57 | | direct | 5467 Jul 26 09:19 | 19° Υ 50'35 | |
| morning max el | 5466 Aug 26 21:54 | 15° Ω 34'46 | 21°35'19 | morning max el | 5467 Aug 08 15:16 | 26° Υ 14'18 | 23°16'31 |
| | 5466 Sep 06 21:04 | 0° Π | | | 5467 Aug 12 05:31 | 0° Ω | |
| asc. node | 5466 Sep 08 07:50 | 2° Π 29'41 | | asc. node | 5467 Aug 26 04:53 | 21° Ω 38'10 | |
| morning set | 5466 Sep 16 10:34 | 18° Π 18'26 | | | 5467 Aug 30 09:24 | 0° Π | |
| | 5466 Sep 21 23:46 | 0° Ω | | morning set | 5467 Aug 31 21:50 | 3° Π 10'35 | |
| | | | | | | | |
| superior conj | 5466 Sep 23 16:43 | 3° Ω 34'43 | 1°43'11 | superior conj | 5467 Sep 07 22:13 | 18° Π 15'19 | 1°38'49 |
| minimum elong | 5466 Sep 23 16:29 | 3° Ω 33'32 | 1°43'11 | minimum elong | 5467 Sep 07 20:51 | 18° Π 08'01 | 1°38'44 |
| max. Earth dist. | 5466 Sep 27 17:51 | 11° Ω 53'01 | 1.34964 AU | max. Earth dist. | 5467 Sep 10 14:24 | 23° Π 56'59 | 1.33562 AU |
| evening rise | 5466 Oct 02 01:14 | 20° Ω 19'46 | | | 5467 Sep 13 12:21 | 0° Ω | |
| | 5466 Oct 07 07:14 | 0° Π | | evening rise | 5467 Sep 15 13:48 | 4° Ω 09'13 | |
| desc. node | 5466 Oct 14 12:00 | 12° Π 09'37 | | | 5467 Sep 30 01:01 | 0° Π | |
| | 5466 Oct 26 16:59 | 0° Υ | | desc. node | 5467 Oct 01 09:02 | 2° Π 05'35 | |
| evening max el | 5466 Nov 06 07:26 | 12° Υ 13'13 | 26°44'46 | evening max el | 5467 Oct 19 19:57 | 25° Π 40'19 | 27°19'43 |
| retrograde | 5466 Nov 19 09:06 | 19° Υ 29'43 | | | 5467 Oct 25 02:54 | 0° Υ | |
| evening set | 5466 Nov 25 22:55 | 16° Υ 51'35 | | retrograde | 5467 Nov 02 07:56 | 2° Υ 58'37 | |
| min. Earth dist. | 5466 Nov 29 23:54 | 12° Υ 46'50 | 0.65940 AU | evening set | 5467 Nov 09 07:25 | 0° Υ 19'47 | |
| inferior conj | 5466 Dec 01 20:08 | 10° Υ 36'41 | -1°10'25 | | 5467 Nov 09 17:33 | 30° Π | |
| minimum elong | 5466 Dec 01 22:07 | 10° Υ 30'51 | 1°09'34 | min. Earth dist. | 5467 Nov 13 02:43 | 26° Π 49'15 | 0.64522 AU |
| asc. node | 5466 Dec 05 07:07 | 6° Υ 51'41 | | inferior conj | 5467 Nov 15 10:47 | 24° Π 18'42 | -2°13'48 |
| morning rise | 5466 Dec 07 22:12 | 4° Υ 55'34 | | minimum elong | 5467 Nov 15 14:42 | 24° Π 08'09 | 2°12'15 |
| direct | 5466 Dec 10 18:45 | 4° Υ 10'19 | | morning rise | 5467 Nov 21 23:17 | 18° Π 51'30 | |
| morning max el | 5466 Dec 17 07:52 | 7° Υ 42'41 | 18°20'33 | asc. node | 5467 Nov 22 04:07 | 18° Π 46'26 | |
| | 5467 Jan 01 20:48 | 0° Υ | | direct | 5467 Nov 24 12:40 | 18° Π 17'46 | |
| morning set | 5467 Jan 05 18:32 | 6° Υ 17'07 | | morning max el | 5467 Dec 01 00:11 | 21° Π 43'00 | 17°56'11 |
| desc. node | 5467 Jan 10 11:13 | 13° Υ 49'09 | | | 5467 Dec 07 10:01 | 0° Υ | |
| | 5467 Jan 20 16:28 | 0° \approx | | morning set | 5467 Dec 18 07:00 | 17° Υ 49'54 | |
| | | | | | 5467 Dec 25 14:05 | 0° Υ | |
| superior conj | 5467 Jan 21 05:46 | 0° \approx 52'12 | -1°10'22 | desc. node | 5467 Dec 28 08:16 | 4° Υ 31'01 | |
| minimum elong | 5467 Jan 20 21:27 | 0° \approx 19'32 | 1°09'21 | | | | |
| max. Earth dist. | 5467 Jan 22 15:11 | 3° \approx 03'17 | 1.45346 AU | superior conj | 5467 Dec 31 19:14 | 10° Υ 06'29 | -0°24'02 |
| evening rise | 5467 Feb 06 07:52 | 26° \approx 04'03 | | minimum elong | 5467 Dec 31 16:22 | 9° Υ 54'59 | 0°23'36 |
| | 5467 Feb 08 19:58 | 0° Υ | | max. Earth dist. | 5468 Jan 05 10:26 | 17° Υ 29'24 | 1.44893 AU |
| greatest brilliancy | 5467 Feb 17 02:06 | 12° Υ 53'05 | -0.8m | | 5468 Jan 13 10:31 | 0° \approx | |
| evening max el | 5467 Mar 01 12:10 | 29° Υ 50'30 | 19°11'45 | evening rise | 5468 Jan 16 22:35 | 5° \approx 24'12 | |
| | 5467 Mar 01 15:55 | 0° Υ | | greatest brilliancy | 5468 Jan 31 14:37 | 27° \approx 34'35 | -0.6m |
| asc. node | 5467 Mar 03 06:24 | 1° Υ 28'32 | | | 5468 Feb 02 06:36 | 0° Υ | |
| retrograde | 5467 Mar 08 11:53 | 3° Υ 48'24 | | evening max el | 5468 Feb 12 16:33 | 13° Υ 24'40 | 20°06'40 |
| evening set | 5467 Mar 11 22:18 | 2° Υ 39'39 | | asc. node | 5468 Feb 18 03:25 | 17° Υ 27'21 | |
| | 5467 Mar 14 20:41 | 30° Π | | retrograde | 5468 Feb 20 09:54 | 17° Π 54'41 | |
| inferior conj | 5467 Mar 17 10:41 | 26° Υ 50'32 | 3°24'58 | evening set | 5468 Feb 24 04:37 | 16° Υ 31'34 | |
| minimum elong | 5467 Mar 17 09:24 | 26° Υ 54'40 | 3°24'50 | inferior conj | 5468 Feb 29 13:46 | 10° Υ 28'30 | 3°05'43 |
| min. Earth dist. | 5467 Mar 18 21:26 | 24° Υ 58'59 | 0.66260 AU | minimum elong | 5468 Feb 29 11:42 | 10° Υ 35'30 | 3°05'20 |

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| min. Earth dist. | 5468 Mar 01 10:13 | 9° H 19'30 | 0.67309 AU | minimum elong | 5469 Feb 12 17:58 | 24° \approx 24'11 | 2°35'55 |
| morning rise | 5468 Mar 05 18:33 | 4° H 13'52 | | min. Earth dist. | 5469 Feb 13 03:53 | 23° \approx 49'52 | 0.67927 AU |
| direct | 5468 Mar 11 14:18 | 1° H 37'41 | | morning rise | 5469 Feb 17 23:25 | 18° \approx 03'12 | |
| morning max el | 5468 Mar 23 06:43 | 8° H 36'59 | 24°54'49 | direct | 5469 Feb 23 04:50 | 15° \approx 45'58 | |
| desc. node | 5468 Mar 25 07:30 | 10° H 45'51 | | morning max el | 5469 Mar 05 15:41 | 21° \approx 58'47 | 23°26'11 |
| | 5468 Apr 09 01:49 | 0° Y | | desc. node | 5469 Mar 12 04:32 | 29° \approx 27'35 | |
| | 5468 Apr 27 17:23 | 0° B | | | 5469 Mar 12 14:50 | 0° H | |
| morning set | 5468 Apr 28 08:49 | 1° B 08'24 | | | 5469 Apr 02 09:09 | 0° Y | |
| max. Earth dist. | 5468 May 01 23:38 | 7° B 41'31 | 1.36961 AU | morning set | 5469 Apr 09 18:12 | 12° Y 04'18 | |
| | | | | max. Earth dist. | 5469 Apr 13 19:22 | 19° Y 01'36 | 1.39126 AU |
| superior conj | 5468 May 08 11:34 | 20° B 03'27 | -1°11'55 | | 5469 Apr 19 22:01 | 0° B | |
| minimum elong | 5468 May 08 15:35 | 20° B 23'07 | 1°11'16 | | | | |
| | 5468 May 13 11:29 | 0° II | | superior conj | 5469 Apr 21 08:32 | 2° B 40'01 | -1°39'07 |
| asc. node | 5468 May 16 02:42 | 5° II 18'20 | | minimum elong | 5469 Apr 21 13:36 | 3° B 03'38 | 1°38'32 |
| evening rise | 5468 May 16 21:29 | 6° II 52'40 | | evening rise | 5469 Apr 30 16:50 | 20° B 33'35 | |
| | 5468 May 29 23:48 | 0° E | | asc. node | 5469 May 02 23:43 | 24° B 57'40 | |
| evening max el | 5468 Jun 02 21:58 | 4° E 34'53 | 19°28'51 | | 5469 May 05 16:01 | 0° II | |
| retrograde | 5468 Jun 12 09:48 | 9° E 13'29 | | evening max el | 5469 May 16 22:26 | 16° II 45'41 | 18°41'20 |
| evening set | 5468 Jun 14 08:09 | 9° E 02'47 | | retrograde | 5469 May 24 23:11 | 20° II 43'10 | |
| desc. node | 5468 Jun 21 06:45 | 6° E 02'11 | | evening set | 5469 May 27 02:48 | 20° II 27'08 | |
| inferior conj | 5468 Jun 23 00:03 | 4° E 57'04 | -0°30'53 | inferior conj | 5469 Jun 03 22:52 | 16° II 03'30 | 1°12'09 |
| minimum elong | 5468 Jun 22 22:41 | 4° E 59'16 | 0°30'23 | minimum elong | 5469 Jun 04 01:25 | 15° II 58'45 | 1°11'17 |
| min. Earth dist. | 5468 Jun 25 12:52 | 3° E 19'52 | 0.55752 AU | min. Earth dist. | 5469 Jun 07 05:57 | 13° II 36'22 | 0.57404 AU |
| morning rise | 5468 Jul 01 10:35 | 0° E 20'10 | | desc. node | 5469 Jun 08 03:46 | 12° II 58'22 | |
| | 5468 Jul 02 12:45 | 30° K II | | morning rise | 5469 Jun 11 20:42 | 10° II 50'21 | |
| direct | 5468 Jul 06 03:34 | 29° II 30'16 | | direct | 5469 Jun 17 11:39 | 9° II 32'09 | |
| | 5468 Jul 09 17:59 | 0° E | | morning max el | 5469 Jul 01 20:34 | 17° II 05'07 | 26°28'41 |
| morning max el | 5468 Jul 20 04:38 | 6° E 34'24 | 24°59'42 | | 5469 Jul 12 11:54 | 0° E | |
| | 5468 Aug 06 04:52 | 0° O | | | 5469 Jul 29 11:39 | 0° O | |
| asc. node | 5468 Aug 12 01:55 | 11° O 10'08 | | asc. node | 5469 Jul 29 22:58 | 0° O 58'55 | |
| morning set | 5468 Aug 15 09:32 | 18° O 02'38 | | morning set | 5469 Jul 30 20:05 | 2° O 49'51 | |
| | 5468 Aug 20 21:47 | 0° P | | | | | |
| superior conj | 5468 Aug 22 07:42 | 3° P 05'50 | 1°28'44 | superior conj | 5469 Aug 06 19:11 | 17° O 59'58 | 1°13'39 |
| minimum elong | 5468 Aug 22 05:38 | 2° P 54'33 | 1°28'30 | minimum elong | 5469 Aug 06 16:53 | 17° O 47'16 | 1°13'17 |
| max. Earth dist. | 5468 Aug 23 18:59 | 6° P 18'26 | 1.32585 AU | max. Earth dist. | 5469 Aug 07 04:44 | 18° O 52'40 | 1.32034 AU |
| evening rise | 5468 Aug 29 11:57 | 18° P 24'54 | | | 5469 Aug 12 07:07 | 0° P | |
| | 5468 Sep 04 09:21 | 0° A | | evening rise | 5469 Aug 13 16:48 | 2° P 58'29 | |
| desc. node | 5468 Sep 17 06:03 | 21° A 30'27 | | | 5469 Aug 28 05:26 | 0° A | |
| | 5468 Sep 23 11:01 | 0° M | | desc. node | 5469 Sep 04 03:03 | 10° A 11'42 | |
| evening max el | 5468 Oct 01 06:08 | 8° M 40'14 | 27°26'06 | evening max el | 5469 Sep 13 11:16 | 20° A 59'45 | 26°59'37 |
| retrograde | 5468 Oct 14 23:55 | 15° M 55'09 | | retrograde | 5469 Sep 27 08:24 | 28° A 10'34 | |
| evening set | 5468 Oct 22 04:02 | 13° M 25'15 | | evening set | 5469 Oct 04 08:43 | 26° A 01'20 | |
| min. Earth dist. | 5468 Oct 25 19:33 | 10° M 25'00 | 0.62785 AU | min. Earth dist. | 5469 Oct 08 01:31 | 23° A 21'43 | 0.60802 AU |
| inferior conj | 5468 Oct 28 15:01 | 7° M 42'56 | -3°17'39 | inferior conj | 5469 Oct 11 05:35 | 20° A 41'05 | -4°16'46 |
| minimum elong | 5468 Oct 28 20:42 | 7° M 29'16 | 3°15'44 | minimum elong | 5469 Oct 11 11:59 | 20° A 27'30 | 4°15'09 |
| morning rise | 5468 Nov 04 15:03 | 2° M 33'11 | | morning rise | 5469 Oct 18 17:16 | 15° A 52'16 | |
| direct | 5468 Nov 06 23:55 | 2° M 07'20 | | direct | 5469 Oct 21 00:38 | 15° A 31'14 | |
| asc. node | 5468 Nov 08 01:08 | 2° M 12'33 | | asc. node | 5469 Oct 25 22:11 | 17° A 10'37 | |
| morning max el | 5468 Nov 13 16:50 | 5° M 33'50 | 17°49'27 | morning max el | 5469 Oct 28 06:41 | 19° A 07'28 | 18°01'27 |
| morning set | 5468 Nov 29 19:01 | 0° X 30'15 | | | 5469 Nov 05 05:14 | 0° M | |
| | 5468 Nov 29 12:11 | 0° X | | morning set | 5469 Nov 13 00:14 | 13° M 58'57 | |
| superior conj | 5468 Dec 11 08:38 | 20° X 31'32 | 0°20'12 | | 5469 Nov 21 18:19 | 0° X | |
| minimum elong | 5468 Dec 11 10:35 | 20° X 39'43 | 0°19'56 | superior conj | 5469 Nov 23 00:08 | 2° X 12'25 | 0°55'47 |
| desc. node | 5468 Dec 14 05:18 | 25° X 17'03 | | minimum elong | 5469 Nov 23 03:57 | 2° X 29'18 | 0°55'16 |
| | 5468 Dec 17 02:31 | 0° Z | | max. Earth dist. | 5469 Nov 30 15:20 | 15° X 18'18 | 1.42055 AU |
| max. Earth dist. | 5468 Dec 18 03:18 | 1° Z 40'10 | 1.43749 AU | desc. node | 5469 Dec 01 02:18 | 16° X 03'53 | |
| evening rise | 5468 Dec 26 09:20 | 14° Z 41'38 | | evening rise | 5469 Dec 06 07:30 | 24° X 33'09 | |
| | 5469 Jan 05 11:45 | 0° \approx | | | 5469 Dec 09 18:23 | 0° Z | |
| evening max el | 5469 Jan 25 15:25 | 26° \approx 59'56 | 21°14'29 | | 5469 Dec 30 10:50 | 0° \approx | |
| | 5469 Jan 29 00:19 | 0° H | | evening max el | 5470 Jan 08 09:07 | 10° \approx 36'23 | 22°31'09 |
| retrograde | 5469 Feb 03 07:52 | 2° H 08'36 | | retrograde | 5470 Jan 18 04:09 | 16° \approx 25'41 | |
| asc. node | 5469 Feb 04 00:24 | 2° H 06'04 | | asc. node | 5470 Jan 21 21:25 | 15° \approx 13'34 | |
| evening set | 5469 Feb 07 12:21 | 0° H 30'19 | | evening set | 5470 Jan 22 19:49 | 14° \approx 31'52 | |
| | 5469 Feb 08 02:42 | 30° K \approx | | inferior conj | 5470 Jan 28 04:24 | 8° \approx 09'25 | 1°58'53 |
| inferior conj | 5469 Feb 12 20:21 | 24° \approx 15'54 | 2°36'33 | minimum elong | 5470 Jan 28 02:10 | 8° \approx 17'10 | 1°58'09 |
| | | | | min. Earth dist. | 5470 Jan 28 00:10 | 8° \approx 24'07 | 0.68144 AU |

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| morning rise | 5470 Feb 02 08:24 | 2° \approx 00'01 | | min. Earth dist. | 5471 Jan 11 20:51 | 22° \approx 58'57 | 0.67988 AU |
| direct | 5470 Feb 06 23:12 | 0° \approx 05'07 | | inferior conj | 5471 Jan 12 12:07 | 22° \approx 07'00 | 1°13'48 |
| morning max el | 5470 Feb 16 03:51 | 5° \approx 28'10 | 21°58'27 | minimum elong | 5471 Jan 12 10:30 | 22° \approx 12'30 | 1°13'11 |
| desc. node | 5470 Feb 27 01:33 | 18° \approx 49'21 | | morning rise | 5471 Jan 17 19:29 | 16° \approx 02'30 | |
| | 5470 Mar 06 21:44 | 0° \approx | | direct | 5471 Jan 21 20:26 | 14° \approx 30'13 | |
| morning set | 5470 Mar 20 23:27 | 21° \approx 39'47 | | morning max el | 5471 Jan 29 22:28 | 19° \approx 08'21 | 20°39'08 |
| | 5470 Mar 26 01:50 | 0° \approx | | | 5471 Feb 07 19:51 | 0° \approx | |
| max. Earth dist. | 5470 Mar 26 17:41 | 1° \approx 06'04 | 1.41296 AU | desc. node | 5471 Feb 13 22:35 | 8° \approx 40'24 | |
| | | | | morning set | 5471 Feb 28 03:24 | 0° \approx 07'16 | |
| superior conj | 5470 Apr 03 10:55 | 14° \approx 21'56 | -1°59'58 | | 5471 Feb 28 01:32 | 0° \approx | |
| minimum elong | 5470 Apr 03 15:16 | 14° \approx 41'07 | 1°59'42 | max. Earth dist. | 5471 Mar 08 22:42 | 14° \approx 04'17 | 1.43191 AU |
| | 5470 Apr 12 01:43 | 0° \approx | | | | | |
| evening rise | 5470 Apr 14 00:46 | 3° \approx 38'02 | | superior conj | 5471 Mar 15 14:01 | 24° \approx 59'31 | -2°09'16 |
| asc. node | 5470 Apr 19 20:44 | 14° \approx 17'38 | | minimum elong | 5471 Mar 15 14:30 | 25° \approx 01'36 | 2°09'16 |
| evening max el | 5470 Apr 30 06:25 | 29° \approx 28'38 | 18°14'06 | | 5471 Mar 18 13:10 | 0° \approx | |
| | 5470 Apr 30 19:41 | 0° \approx | | evening rise | 5471 Mar 27 17:04 | 15° \approx 56'46 | |
| retrograde | 5470 May 07 07:19 | 3° \approx 00'29 | | | 5471 Apr 04 18:45 | 0° \approx | |
| evening set | 5470 May 09 17:54 | 2° \approx 35'47 | | asc. node | 5471 Apr 06 17:46 | 3° \approx 11'55 | |
| | 5470 May 14 05:55 | 30° \approx 00'00 | | evening max el | 5471 Apr 13 18:29 | 12° \approx 34'57 | 18°06'29 |
| inferior conj | 5470 May 16 19:11 | 27° \approx 51'53 | 2°25'27 | retrograde | 5471 Apr 20 06:51 | 15° \approx 56'50 | |
| minimum elong | 5470 May 16 22:37 | 27° \approx 44'21 | 2°24'33 | evening set | 5471 Apr 23 00:10 | 15° \approx 21'09 | |
| min. Earth dist. | 5470 May 20 04:50 | 24° \approx 54'16 | 0.59507 AU | inferior conj | 5471 Apr 29 10:17 | 10° \approx 17'11 | 3°09'16 |
| morning rise | 5470 May 24 00:30 | 22° \approx 09'44 | | minimum elong | 5471 Apr 29 12:43 | 10° \approx 11'03 | 3°08'51 |
| desc. node | 5470 May 26 00:48 | 21° \approx 10'02 | | min. Earth dist. | 5471 May 02 11:28 | 7° \approx 14'07 | 0.61720 AU |
| direct | 5470 May 30 09:26 | 20° \approx 17'10 | | morning rise | 5471 May 05 23:27 | 4° \approx 17'02 | |
| morning max el | 5470 Jun 13 18:30 | 28° \approx 08'24 | 27°29'06 | direct | 5471 May 12 18:15 | 1° \approx 53'37 | |
| | 5470 Jun 15 13:58 | 0° \approx | | desc. node | 5471 May 12 21:50 | 1° \approx 53'41 | |
| | 5470 Jun 06 05:13 | 0° \approx | | morning max el | 5471 May 26 22:31 | 9° \approx 53'22 | 27°52'53 |
| morning set | 5470 Jul 15 03:48 | 17° \approx 26'19 | | | 5471 Jun 11 13:11 | 0° \approx | |
| asc. node | 5470 Jul 16 20:00 | 20° \approx 58'24 | | | 5471 Jun 28 09:55 | 0° \approx | |
| | 5470 Jul 20 23:47 | 0° \approx | | morning set | 5471 Jun 29 06:45 | 1° \approx 45'59 | |
| max. Earth dist. | 5470 Jul 21 15:53 | 1° \approx 28'40 | 1.31901 AU | asc. node | 5471 Jul 03 17:03 | 11° \approx 04'00 | |
| | | | | max. Earth dist. | 5471 Jul 05 00:40 | 13° \approx 54'41 | 1.32199 AU |
| superior conj | 5470 Jul 22 06:53 | 2° \approx 51'30 | 0°54'10 | | | | |
| minimum elong | 5470 Jul 22 04:49 | 2° \approx 40'05 | 0°53'46 | superior conj | 5471 Jul 06 17:03 | 17° \approx 34'38 | 0°30'48 |
| evening rise | 5470 Jul 29 01:57 | 17° \approx 42'10 | | minimum elong | 5471 Jul 06 15:41 | 17° \approx 27'11 | 0°30'30 |
| | 5470 Aug 04 03:07 | 0° \approx | | | 5471 Jul 12 09:29 | 0° \approx | |
| desc. node | 5470 Aug 22 00:04 | 27° \approx 51'47 | | evening rise | 5471 Jul 13 13:21 | 2° \approx 29'32 | |
| | 5470 Aug 23 21:42 | 0° \approx | | | 5471 Jul 28 08:56 | 0° \approx | |
| evening max el | 5470 Aug 26 09:08 | 2° \approx 30'48 | 26°00'24 | evening max el | 5471 Aug 08 00:03 | 13° \approx 16'39 | 24°35'10 |
| retrograde | 5470 Sep 09 08:16 | 9° \approx 37'57 | | desc. node | 5471 Aug 08 21:06 | 14° \approx 05'50 | |
| evening set | 5470 Sep 15 16:42 | 8° \approx 01'06 | | retrograde | 5471 Aug 21 20:59 | 20° \approx 16'06 | |
| min. Earth dist. | 5470 Sep 19 21:49 | 5° \approx 25'51 | 0.58722 AU | evening set | 5471 Aug 27 00:12 | 19° \approx 17'06 | |
| inferior conj | 5470 Sep 23 02:59 | 3° \approx 04'02 | -5°02'07 | min. Earth dist. | 5471 Sep 01 11:16 | 16° \approx 27'32 | 0.56815 AU |
| minimum elong | 5470 Sep 23 07:44 | 2° \approx 55'14 | 5°01'28 | inferior conj | 5471 Sep 04 04:30 | 14° \approx 42'59 | -5°19'35 |
| | 5470 Sep 27 17:24 | 30° \approx 00'00 | | minimum elong | 5471 Sep 04 04:11 | 14° \approx 43'29 | 5°19'36 |
| morning rise | 5470 Oct 01 01:03 | 28° \approx 38'09 | | morning rise | 5471 Sep 12 10:32 | 10° \approx 38'31 | |
| direct | 5470 Oct 03 10:25 | 28° \approx 19'17 | | direct | 5471 Sep 15 01:41 | 10° \approx 19'29 | |
| | 5470 Oct 08 18:36 | 0° \approx | | morning max el | 5471 Sep 24 12:21 | 14° \approx 45'31 | 19°27'23 |
| morning max el | 5470 Oct 11 14:20 | 2° \approx 14'59 | 18°33'38 | asc. node | 5471 Sep 29 16:18 | 20° \approx 51'50 | |
| asc. node | 5470 Oct 12 19:14 | 3° \approx 29'00 | | | 5471 Oct 05 07:42 | 0° \approx | |
| morning set | 5470 Oct 27 17:35 | 28° \approx 01'55 | | morning set | 5471 Oct 11 19:11 | 12° \approx 27'53 | |
| | 5470 Oct 28 17:59 | 0° \approx | | | | | |
| superior conj | 5470 Nov 05 13:38 | 14° \approx 57'18 | 1°20'53 | superior conj | 5471 Oct 19 19:39 | 28° \approx 29'58 | 1°36'06 |
| minimum elong | 5470 Nov 05 17:07 | 15° \approx 13'31 | 1°20'32 | minimum elong | 5471 Oct 19 21:47 | 28° \approx 40'25 | 1°35'59 |
| max. Earth dist. | 5470 Nov 12 22:06 | 28° \approx 13'16 | 1.40027 AU | | 5471 Oct 20 14:05 | 0° \approx | |
| | 5470 Nov 13 22:45 | 0° \approx | | max. Earth dist. | 5471 Oct 26 02:53 | 10° \approx 12'09 | 1.37917 AU |
| evening rise | 5470 Nov 17 02:52 | 5° \approx 23'10 | | evening rise | 5471 Oct 29 20:57 | 17° \approx 14'49 | |
| desc. node | 5470 Nov 17 23:20 | 6° \approx 48'23 | | desc. node | 5471 Nov 04 20:22 | 27° \approx 12'06 | |
| | 5470 Dec 02 21:56 | 0° \approx | | | 5471 Nov 06 10:02 | 0° \approx | |
| evening max el | 5470 Dec 21 23:22 | 24° \approx 16'29 | 23°51'10 | evening max el | 5471 Nov 27 07:55 | 0° \approx | |
| | 5470 Dec 29 15:30 | 0° \approx | | retrograde | 5471 Dec 04 12:14 | 8° \approx 00'16 | 25°07'59 |
| retrograde | 5471 Jan 01 21:17 | 0° \approx 42'29 | | evening set | 5471 Dec 16 10:11 | 14° \approx 53'47 | |
| | 5471 Jan 04 21:30 | 30° \approx 00'00 | | min. Earth dist. | 5471 Dec 22 03:47 | 12° \approx 30'46 | |
| evening set | 5471 Jan 07 01:30 | 28° \approx 33'24 | | asc. node | 5471 Dec 26 15:29 | 7° \approx 30'32 | 0.67475 AU |
| asc. node | 5471 Jan 08 18:28 | 26° \approx 53'06 | | inferior conj | 5471 Dec 26 15:32 | 7° \approx 30'23 | |
| | | | | | 5471 Dec 27 17:40 | 6° \approx 05'00 | 0°22'05 |

































































































































| | | | | | | | |
|---------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| minimum elong | 5471 Dec 27 17:07 | 6°♄06'48 | 0°21'52 | evening set | 5472 Dec 05 00:53 | 26°♄20'25 | |
| morning rise | 5472 Jan 02 06:41 | 0°♄07'35 | | min. Earth dist. | 5472 Dec 09 05:41 | 21°♄55'25 | 0.66610 AU |
| | 5472 Jan 02 11:17 | 30°♄♄ | | inferior conj | 5472 Dec 10 19:10 | 20°♄00'19 | -0°35'17 |
| direct | 5472 Jan 05 19:14 | 28°♄56'04 | | minimum elong | 5472 Dec 10 20:07 | 19°♄57'24 | 0°34'52 |
| | 5472 Jan 09 07:40 | 0°♄ | | asc. node | 5472 Dec 12 12:35 | 17°♄56'08 | |
| morning max el | 5472 Jan 13 00:59 | 2°♄59'24 | 19°32'56 | morning rise | 5472 Dec 16 15:55 | 14°♄12'28 | |
| greatest brilliancy | 5472 Jan 26 01:53 | 20°♄12'56 | -0.7m | direct | 5472 Dec 19 17:48 | 13°♄18'37 | |
| desc. node | 5472 Jan 31 19:36 | 28°♄52'14 | | morning max el | 5472 Dec 26 10:45 | 16°♄58'50 | 18°42'14 |
| | 5472 Feb 01 13:22 | 0°♄ | | | 5473 Jan 05 07:29 | 0°♄ | |
| morning set | 5472 Feb 07 00:18 | 8°♄22'51 | | morning set | 5473 Jan 16 15:00 | 17°♄38'13 | |
| max. Earth dist. | 5472 Feb 19 11:12 | 27°♄49'49 | 1.44571 AU | desc. node | 5473 Jan 17 16:38 | 19°♄19'07 | |
| | 5472 Feb 20 20:01 | 0°♄ | | | 5473 Jan 24 11:42 | 0°♄ | |
| | | | | max. Earth dist. | 5473 Feb 01 05:02 | 12°♄06'26 | 1.45279 AU |
| superior conj | 5472 Feb 23 15:39 | 4°♄29'59 | -2°01'25 | superior conj | 5473 Feb 01 22:06 | 13°♄13'23 | -1°33'43 |
| minimum elong | 5472 Feb 23 09:46 | 4°♄06'25 | 2°01'07 | minimum elong | 5473 Feb 01 12:38 | 12°♄36'14 | 1°32'46 |
| evening rise | 5472 Mar 08 13:13 | 27°♄20'57 | | | 5473 Feb 12 13:08 | 0°♄ | |
| | 5472 Mar 10 03:03 | 0°♄ | | evening rise | 5473 Feb 17 10:14 | 7°♄47'39 | |
| asc. node | 5472 Mar 23 14:48 | 21°♄32'08 | | greatest brilliancy | 5473 Feb 24 22:54 | 19°♄51'43 | -0.9m |
| evening max el | 5472 Mar 27 07:26 | 25°♄56'05 | 18°17'48 | | 5473 Mar 03 11:47 | 0°♄ | |
| retrograde | 5472 Apr 02 17:25 | 29°♄22'16 | | asc. node | 5473 Mar 10 11:50 | 9°♄07'35 | |
| evening set | 5472 Apr 05 17:08 | 28°♄34'16 | | evening max el | 5473 Mar 10 18:31 | 9°♄24'45 | 18°47'11 |
| inferior conj | 5472 Apr 11 16:05 | 23°♄11'22 | 3°29'08 | retrograde | 5473 Mar 17 10:56 | 13°♄07'57 | |
| minimum elong | 5472 Apr 11 16:55 | 23°♄08'58 | 3°29'04 | evening set | 5473 Mar 20 17:16 | 12°♄06'50 | |
| min. Earth dist. | 5472 Apr 14 03:08 | 20°♄25'16 | 0.63759 AU | inferior conj | 5473 Mar 26 08:36 | 6°♄26'31 | 3°30'41 |
| morning rise | 5472 Apr 17 15:45 | 17°♄01'41 | | minimum elong | 5473 Mar 26 07:59 | 6°♄28'26 | 3°30'39 |
| direct | 5472 Apr 24 11:40 | 14°♄18'32 | | min. Earth dist. | 5473 Mar 28 04:00 | 4°♄12'45 | 0.65460 AU |
| desc. node | 5472 Apr 28 18:51 | 15°♄14'29 | | morning rise | 5473 Mar 31 22:14 | 0°♄12'33 | |
| morning max el | 5472 May 08 06:51 | 22°♄17'27 | 27°39'27 | | 5473 Apr 01 04:07 | 30°♄♄ | |
| | 5472 May 15 01:21 | 0°♄ | | direct | 5473 Apr 07 12:07 | 27°♄23'02 | |
| | 5472 Jun 03 18:05 | 0°♄ | | | 5473 Apr 14 15:40 | 0°♄ | |
| morning set | 5472 Jun 12 02:34 | 15°♄41'51 | | desc. node | 5473 Apr 15 15:53 | 0°♄42'45 | |
| max. Earth dist. | 5472 Jun 17 03:22 | 25°♄59'57 | 1.32946 AU | morning max el | 5473 Apr 20 16:56 | 5°♄10'11 | 26°53'22 |
| | 5472 Jun 19 00:41 | 0°♄ | | | 5473 May 09 15:41 | 0°♄ | |
| superior conj | 5472 Jun 19 23:49 | 2°♄03'42 | 0°04'13 | morning set | 5473 May 26 12:04 | 29°♄03'41 | |
| minimum elong | 5472 Jun 19 23:36 | 2°♄02'36 | 0°04'09 | | 5473 May 26 23:48 | 0°♄ | |
| behind sun begin | 5472 Jun 19 18:25 | 1°♄34'46 | | max. Earth dist. | 5473 May 30 20:20 | 7°♄35'21 | 1.34156 AU |
| behind sun end | 5472 Jun 20 04:48 | 2°♄30'28 | | superior conj | 5473 Jun 04 00:56 | 16°♄11'00 | -0°24'48 |
| asc. node | 5472 Jun 19 14:06 | 1°♄11'37 | | minimum elong | 5473 Jun 04 02:16 | 16°♄17'57 | 0°24'33 |
| evening rise | 5472 Jun 27 01:07 | 17°♄14'37 | | asc. node | 5473 Jun 06 11:07 | 21°♄16'28 | |
| | 5472 Jul 03 08:19 | 0°♄ | | | 5473 Jun 10 14:14 | 0°♄ | |
| evening max el | 5472 Jul 19 12:46 | 23°♄38'35 | 22°57'45 | evening rise | 5473 Jun 11 11:15 | 1°♄50'01 | |
| desc. node | 5472 Jul 25 18:08 | 28°♄22'20 | | | 5473 Jun 27 14:21 | 0°♄ | |
| | 5472 Jul 30 01:35 | 0°♄ | | evening max el | 5473 Jul 01 07:12 | 4°♄08'31 | 21°24'06 |
| retrograde | 5472 Aug 01 20:49 | 0°♄17'54 | | desc. node | 5473 Jul 12 15:09 | 10°♄07'20 | |
| | 5472 Aug 04 17:12 | 30°♄♄ | | retrograde | 5473 Jul 13 10:57 | 10°♄08'57 | |
| evening set | 5472 Aug 05 11:37 | 29°♄49'19 | | evening set | 5473 Jul 15 20:40 | 9°♄55'40 | |
| min. Earth dist. | 5472 Aug 12 21:22 | 26°♄30'16 | 0.55407 AU | inferior conj | 5473 Jul 25 04:52 | 5°♄56'19 | -3°33'12 |
| inferior conj | 5472 Aug 14 10:46 | 25°♄36'21 | -4°52'25 | minimum elong | 5473 Jul 24 20:07 | 6°♄08'35 | 3°30'36 |
| minimum elong | 5472 Aug 14 04:01 | 25°♄46'07 | 4°51'19 | min. Earth dist. | 5473 Jul 25 07:18 | 5°♄52'55 | 0.54791 AU |
| morning rise | 5472 Aug 22 22:34 | 21°♄45'38 | | morning rise | 5473 Aug 02 20:27 | 2°♄02'39 | |
| direct | 5472 Aug 25 22:38 | 21°♄24'25 | | direct | 5473 Aug 06 08:02 | 1°♄36'27 | |
| morning max el | 5472 Sep 05 22:21 | 26°♄31'20 | 20°42'56 | morning max el | 5473 Aug 18 20:45 | 7°♄31'34 | 22°17'10 |
| | 5472 Sep 09 04:55 | 0°♄ | | asc. node | 5473 Sep 02 10:23 | 27°♄55'42 | |
| asc. node | 5472 Sep 15 13:21 | 9°♄04'58 | | | 5473 Sep 03 13:07 | 0°♄ | |
| morning set | 5472 Sep 25 02:14 | 27°♄09'11 | | morning set | 5473 Sep 09 12:28 | 11°♄58'41 | |
| | 5472 Sep 26 11:18 | 0°♄ | | | | | |
| superior conj | 5472 Oct 02 13:34 | 12°♄37'29 | 1°42'44 | superior conj | 5473 Sep 16 15:39 | 27°♄08'17 | 1°42'05 |
| minimum elong | 5472 Oct 02 14:09 | 12°♄40'29 | 1°42'44 | minimum elong | 5473 Sep 16 14:54 | 27°♄04'18 | 1°42'03 |
| max. Earth dist. | 5472 Oct 07 11:04 | 22°♄24'56 | 1.35961 AU | | 5473 Sep 18 00:17 | 0°♄ | |
| evening rise | 5472 Oct 11 10:51 | 0°♄00'49 | | max. Earth dist. | 5473 Sep 20 02:33 | 4°♄20'50 | 1.34323 AU |
| | 5472 Oct 11 10:40 | 0°♄ | | evening rise | 5473 Sep 24 16:14 | 13°♄29'33 | |
| desc. node | 5472 Oct 21 17:24 | 17°♄52'36 | | | 5473 Oct 03 17:19 | 0°♄ | |
| | 5472 Oct 29 14:06 | 0°♄ | | desc. node | 5473 Oct 08 14:27 | 8°♄01'41 | |
| evening max el | 5472 Nov 16 01:03 | 21°♄44'11 | 26°14'14 | | 5473 Oct 24 12:58 | 0°♄ | |
| retrograde | 5472 Nov 28 17:55 | 28°♄54'29 | | evening max el | 5473 Oct 29 13:48 | 5°♄19'48 | 27°02'36 |

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|---------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| retrograde | 5473 Nov 11 20:09 | 12°♊37'33 | | retrograde | 5474 Oct 25 16:19 | 25°♍53'55 | |
| evening set | 5473 Nov 18 14:44 | 9°♊57'54 | | evening set | 5474 Nov 01 18:37 | 23°♍17'10 | |
| min. Earth dist. | 5473 Nov 22 13:07 | 6°♊08'14 | 0.65385 AU | min. Earth dist. | 5474 Nov 05 11:47 | 20°♍00'33 | 0.63818 AU |
| inferior conj | 5473 Nov 24 14:27 | 3°♊48'28 | -1°37'03 | inferior conj | 5474 Nov 08 01:01 | 17°♍23'26 | -2°41'08 |
| minimum elong | 5473 Nov 24 17:14 | 3°♊40'32 | 1°35'52 | minimum elong | 5474 Nov 08 05:44 | 17°♍11'17 | 2°39'21 |
| | 5473 Nov 28 06:37 | 30°♋♍ | | morning rise | 5474 Nov 14 18:22 | 12°♍03'32 | |
| asc. node | 5473 Nov 29 09:36 | 29°♍06'15 | | asc. node | 5474 Nov 16 06:38 | 11°♍38'12 | |
| morning rise | 5473 Nov 30 20:48 | 28°♍13'08 | | direct | 5474 Nov 17 05:23 | 11°♍33'42 | |
| direct | 5473 Dec 03 14:04 | 27°♍33'12 | | morning max el | 5474 Nov 23 18:27 | 14°♍58'31 | 17°51'07 |
| | 5473 Dec 08 23:15 | 0°♊ | | | 5474 Dec 04 07:36 | 0°♊ | |
| morning max el | 5473 Dec 10 01:32 | 1°♊01'04 | 18°08'06 | morning set | 5474 Dec 10 10:20 | 10°♊26'14 | |
| morning set | 5473 Dec 28 11:04 | 28°♊22'40 | | desc. node | 5474 Dec 22 10:42 | 0°♋40'37 | |
| | 5473 Dec 29 10:50 | 0°♋ | | | 5474 Dec 22 00:47 | 0°♋ | |
| desc. node | 5474 Jan 04 13:40 | 9°♋56'42 | | | | | |
| | | | | superior conj | 5474 Dec 23 02:00 | 1°♋43'12 | -0°04'30 |
| superior conj | 5474 Jan 12 03:13 | 22°♋00'52 | -0°51'04 | minimum elong | 5474 Dec 23 01:30 | 1°♋41'08 | 0°04'25 |
| minimum elong | 5474 Jan 11 20:57 | 21°♋36'07 | 0°50'13 | behind sun begin | 5474 Dec 22 15:59 | 1°♋02'16 | |
| max. Earth dist. | 5474 Jan 15 00:41 | 26°♋34'26 | 1.45241 AU | behind sun end | 5474 Dec 23 11:00 | 2°♋19'55 | |
| | 5474 Jan 17 05:07 | 0°♌ | | max. Earth dist. | 5474 Dec 28 18:53 | 10°♋54'42 | 1.44477 AU |
| evening rise | 5474 Jan 28 09:45 | 17°♌25'40 | | evening rise | 5475 Jan 07 20:46 | 26°♋39'17 | |
| | 5474 Feb 05 12:54 | 0°♋ | | | 5475 Jan 10 01:09 | 0°♌ | |
| greatest brilliancy | 5474 Feb 10 02:45 | 6°♋57'53 | -0.7m | | 5475 Jan 30 15:12 | 0°♋ | |
| evening max el | 5474 Feb 22 01:40 | 22°♋57'12 | 19°33'19 | evening max el | 5475 Feb 05 03:37 | 6°♋31'09 | 20°34'09 |
| asc. node | 5474 Feb 25 08:52 | 25°♋45'50 | | asc. node | 5475 Feb 12 05:53 | 11°♋12'00 | |
| retrograde | 5474 Mar 01 08:09 | 27°♋08'05 | | retrograde | 5475 Feb 13 06:28 | 11°♋17'36 | |
| evening set | 5474 Mar 04 21:57 | 25°♋53'14 | | evening set | 5475 Feb 17 05:03 | 9°♋48'15 | |
| inferior conj | 5474 Mar 10 08:38 | 19°♋57'36 | 3°18'09 | inferior conj | 5475 Feb 22 13:28 | 3°♋39'53 | 2°54'28 |
| minimum elong | 5474 Mar 10 06:57 | 20°♋03'09 | 3°17'55 | minimum elong | 5475 Feb 22 11:12 | 3°♋47'39 | 2°53'58 |
| min. Earth dist. | 5474 Mar 11 13:03 | 18°♋24'03 | 0.66751 AU | min. Earth dist. | 5475 Feb 23 04:17 | 2°♋49'10 | 0.67618 AU |
| morning rise | 5474 Mar 15 15:41 | 13°♋42'25 | | | 5475 Feb 25 07:51 | 30°♋♌ | |
| direct | 5474 Mar 21 18:47 | 10°♋58'40 | | morning rise | 5475 Feb 27 17:09 | 27°♌25'37 | |
| desc. node | 5474 Apr 02 12:53 | 17°♋45'56 | | direct | 5475 Mar 05 06:50 | 24°♌56'46 | |
| morning max el | 5474 Apr 03 02:38 | 18°♋20'18 | 25°42'44 | | 5475 Mar 14 18:44 | 0°♋ | |
| | 5474 Apr 12 22:31 | 0°♎ | | morning max el | 5475 Mar 16 11:18 | 1°♋38'09 | 24°17'31 |
| | 5474 May 02 16:21 | 0°♋ | | desc. node | 5475 Mar 20 09:55 | 5°♋57'12 | |
| morning set | 5474 May 09 07:11 | 11°♋40'26 | | | 5475 Apr 06 23:09 | 0°♎ | |
| max. Earth dist. | 5474 May 13 01:56 | 18°♋44'05 | 1.35820 AU | morning set | 5475 Apr 21 06:34 | 23°♎17'09 | |
| | | | | max. Earth dist. | 5475 Apr 24 22:38 | 29°♎46'51 | 1.37857 AU |
| | | | | | 5475 Apr 25 01:34 | 0°♋ | |
| superior conj | 5474 May 18 17:49 | 29°♋49'40 | -0°54'52 | | | | |
| minimum elong | 5474 May 18 20:53 | 0°♐05'07 | 0°54'19 | superior conj | 5475 May 01 23:11 | 12°♋51'08 | -1°23'58 |
| | 5474 May 18 19:52 | 0°♐ | | minimum elong | 5475 May 02 03:46 | 13°♋13'11 | 1°23'19 |
| asc. node | 5474 May 24 08:08 | 11°♐14'44 | | evening rise | 5475 May 10 17:51 | 0°♐06'01 | |
| evening rise | 5474 May 26 17:39 | 16°♐09'35 | | | 5475 May 10 16:38 | 0°♐ | |
| | 5474 Jun 02 20:21 | 0°♑ | | asc. node | 5475 May 11 05:10 | 1°♐01'52 | |
| evening max el | 5474 Jun 13 13:23 | 15°♑13'35 | 20°05'23 | evening max el | 5475 May 27 07:58 | 27°♐01'27 | 19°06'13 |
| retrograde | 5474 Jun 24 01:21 | 20°♑22'05 | | | 5475 May 31 05:11 | 0°♑ | |
| evening set | 5474 Jun 25 23:23 | 20°♑12'31 | | retrograde | 5475 Jun 05 03:48 | 1°♑20'42 | |
| desc. node | 5474 Jun 29 12:08 | 19°♑09'42 | | evening set | 5475 Jun 07 03:47 | 1°♑08'21 | |
| inferior conj | 5474 Jul 05 00:42 | 16°♑13'10 | -1°39'07 | | 5475 Jun 10 10:21 | 30°♋♐ | |
| minimum elong | 5474 Jul 04 20:05 | 16°♑20'06 | 1°37'26 | inferior conj | 5475 Jun 15 11:30 | 26°♐56'05 | 0°15'58 |
| min. Earth dist. | 5474 Jul 06 19:19 | 15°♑09'29 | 0.55130 AU | minimum elong | 5475 Jun 15 12:09 | 26°♐54'58 | 0°15'43 |
| morning rise | 5474 Jul 13 15:12 | 11°♑55'37 | | transit middle | 5475 Jun 15 12:09 | 26°♐54'58 | 0°15'43 |
| direct | 5474 Jul 17 19:35 | 11°♑17'31 | | transit begin | 5475 Jun 15 11:24 | 26°♐56'15 | |
| morning max el | 5474 Jul 31 11:45 | 17°♑59'58 | 24°01'04 | transit end | 5475 Jun 15 12:54 | 26°♐53'41 | |
| | 5474 Aug 10 08:14 | 0°♏ | | desc. node | 5475 Jun 16 09:08 | 26°♐18'56 | |
| asc. node | 5474 Aug 20 07:25 | 17°♏14'44 | | min. Earth dist. | 5475 Jun 18 10:21 | 24°♐55'33 | 0.56370 AU |
| morning set | 5474 Aug 25 00:05 | 26°♏51'13 | | morning rise | 5475 Jun 23 17:19 | 22°♐03'11 | |
| | 5474 Aug 26 11:29 | 0°♐ | | direct | 5475 Jun 28 19:50 | 21°♐02'11 | |
| superior conj | 5474 Aug 31 23:07 | 11°♐53'56 | 1°35'12 | morning max el | 5475 Jul 13 01:33 | 28°♐21'00 | 25°40'15 |
| minimum elong | 5474 Aug 31 21:24 | 11°♐44'40 | 1°35'02 | | 5475 Jul 14 17:02 | 0°♑ | |
| max. Earth dist. | 5474 Sep 03 02:36 | 16°♐31'18 | 1.33093 AU | | 5475 Aug 03 17:10 | 0°♏ | |
| evening rise | 5474 Sep 08 09:15 | 27°♐30'52 | | asc. node | 5475 Aug 07 04:27 | 6°♏54'30 | |
| | 5474 Sep 09 15:03 | 0°♑ | | morning set | 5475 Aug 09 11:31 | 11°♏41'55 | |
| desc. node | 5474 Sep 25 11:28 | 27°♑45'31 | | | | | |
| | 5474 Sep 26 23:21 | 0°♍ | | superior conj | 5475 Aug 16 09:43 | 26°♏47'11 | 1°22'55 |
| evening max el | 5474 Oct 12 01:21 | 18°♍35'57 | 27°26'07 | minimum elong | 5475 Aug 16 07:30 | 26°♏34'59 | 1°22'38 |

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|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| max. Earth dist. | 5475 Aug 17 09:38 | 28°♎58'32 | 1.32293 AU | max. Earth dist. | 5476 Jul 30 20:24 | 11°♎34'33 | 1.31921 AU |
| | 5475 Aug 17 20:51 | 0°♎ | | evening rise | 5476 Aug 06 17:32 | 26°♎34'14 | |
| evening rise | 5475 Aug 23 10:35 | 11°♎55'33 | | | 5476 Aug 08 08:54 | 0°♎ | |
| | 5475 Sep 01 19:16 | 0°♎ | | | 5476 Aug 25 09:49 | 0°♎ | |
| desc. node | 5475 Sep 12 08:27 | 16°♎53'57 | | desc. node | 5476 Aug 29 05:28 | 5°♎11'41 | |
| | 5475 Sep 23 00:42 | 0°♎ | | evening max el | 5476 Sep 05 12:18 | 13°♎21'14 | 26°38'23 |
| evening max el | 5475 Sep 24 09:46 | 1°♎20'47 | 27°19'02 | retrograde | 5476 Sep 19 10:32 | 20°♎29'51 | |
| retrograde | 5475 Oct 08 05:37 | 8°♎34'31 | | evening set | 5476 Sep 26 05:38 | 18°♎33'32 | |
| evening set | 5475 Oct 15 09:07 | 6°♎12'01 | | min. Earth dist. | 5476 Sep 30 02:06 | 15°♎57'49 | 0.59918 AU |
| min. Earth dist. | 5475 Oct 19 00:18 | 3°♎21'51 | 0.61962 AU | inferior conj | 5476 Oct 03 07:41 | 13°♎23'11 | -4°38'22 |
| inferior conj | 5475 Oct 21 23:56 | 0°♎38'24 | -3°43'44 | minimum elong | 5476 Oct 03 13:46 | 13°♎11'00 | 4°37'08 |
| minimum elong | 5475 Oct 22 06:06 | 0°♎24'16 | 3°41'51 | morning rise | 5476 Oct 10 23:58 | 8°♎43'35 | |
| | 5475 Oct 22 16:48 | 30°♎♎ | | direct | 5476 Oct 13 07:46 | 8°♎23'43 | |
| morning rise | 5475 Oct 29 04:59 | 25°♎37'07 | | asc. node | 5476 Oct 20 00:44 | 11°♎18'33 | |
| direct | 5475 Oct 31 12:40 | 25°♎13'47 | | morning max el | 5476 Oct 20 21:58 | 12°♎07'10 | 18°12'29 |
| asc. node | 5475 Nov 03 03:41 | 25°♎44'42 | | | 5476 Nov 01 20:23 | 0°♎ | |
| morning max el | 5475 Nov 07 10:22 | 28°♎43'44 | 17°52'07 | morning set | 5476 Nov 05 17:28 | 7°♎14'54 | |
| | 5475 Nov 08 15:17 | 0°♎ | | | | | |
| morning set | 5475 Nov 23 06:29 | 23°♎29'44 | | superior conj | 5476 Nov 15 04:22 | 24°♎51'23 | 1°07'41 |
| | 5475 Nov 26 21:14 | 0°♎♎ | | minimum elong | 5476 Nov 15 08:14 | 25°♎08'53 | 1°07'13 |
| | | | | | 5476 Nov 18 01:24 | 0°♎♎ | |
| superior conj | 5475 Dec 04 02:50 | 12°♎41'38 | 0°36'31 | max. Earth dist. | 5476 Nov 22 19:29 | 8°♎13'27 | 1.41231 AU |
| minimum elong | 5475 Dec 04 05:56 | 12°♎54'55 | 0°36'05 | desc. node | 5476 Nov 25 04:45 | 12°♎13'42 | |
| desc. node | 5475 Dec 09 07:44 | 21°♎27'35 | | evening rise | 5476 Nov 27 17:24 | 16°♎22'51 | |
| max. Earth dist. | 5475 Dec 11 09:28 | 24°♎51'51 | 1.43088 AU | | 5476 Dec 06 09:20 | 0°♎♎ | |
| | 5475 Dec 14 13:47 | 0°♎♎ | | | 5476 Dec 28 05:12 | 0°♎♎ | |
| evening rise | 5475 Dec 18 10:47 | 6°♎07'38 | | evening max el | 5476 Dec 31 16:27 | 3°♎45'27 | 23°05'08 |
| | 5476 Jan 03 08:47 | 0°♎♎ | | retrograde | 5477 Jan 10 22:50 | 9°♎50'23 | |
| evening max el | 5476 Jan 19 00:15 | 20°♎06'58 | 21°46'19 | evening set | 5477 Jan 15 19:46 | 7°♎50'01 | |
| retrograde | 5476 Jan 28 03:52 | 25°♎32'56 | | asc. node | 5477 Jan 15 23:57 | 7°♎41'06 | |
| asc. node | 5476 Jan 30 02:54 | 25°♎12'31 | | inferior conj | 5477 Jan 21 05:05 | 1°♎25'38 | 1°40'38 |
| evening set | 5476 Feb 01 12:51 | 23°♎48'18 | | minimum elong | 5477 Jan 21 03:03 | 1°♎32'38 | 1°39'54 |
| inferior conj | 5476 Feb 06 20:56 | 17°♎30'11 | 2°21'33 | min. Earth dist. | 5477 Jan 20 20:08 | 1°♎56'30 | 0.68131 AU |
| minimum elong | 5476 Feb 06 18:33 | 17°♎38'27 | 2°20'50 | | 5477 Jan 22 06:07 | 30°♎♎ | |
| min. Earth dist. | 5476 Feb 06 23:26 | 17°♎21'30 | 0.68073 AU | morning rise | 5477 Jan 26 10:15 | 25°♎18'13 | |
| morning rise | 5476 Feb 12 00:04 | 11°♎18'32 | | direct | 5477 Jan 30 19:08 | 23°♎32'55 | |
| direct | 5476 Feb 16 23:19 | 9°♎10'19 | | morning max el | 5477 Feb 08 11:32 | 28°♎35'12 | 21°23'16 |
| morning max el | 5476 Feb 26 20:59 | 15°♎01'50 | 22°48'04 | | 5477 Feb 09 20:03 | 0°♎♎ | |
| desc. node | 5476 Mar 06 06:58 | 24°♎57'22 | | desc. node | 5477 Feb 21 04:01 | 14°♎32'43 | |
| | 5476 Mar 10 01:00 | 0°♎♎ | | | 5477 Mar 03 16:48 | 0°♎♎ | |
| | 5476 Mar 29 22:52 | 0°♎♎ | | morning set | 5477 Mar 11 21:38 | 12°♎41'16 | |
| morning set | 5476 Apr 01 04:16 | 3°♎38'40 | | max. Earth dist. | 5477 Mar 18 19:39 | 23°♎50'29 | 1.42157 AU |
| max. Earth dist. | 5476 Apr 05 18:11 | 11°♎20'47 | 1.40068 AU | | 5477 Mar 22 12:25 | 0°♎♎ | |
| | | | | | | | |
| superior conj | 5476 Apr 13 12:50 | 25°♎05'32 | -1°49'02 | superior conj | 5477 Mar 26 05:55 | 6°♎21'39 | -2°05'40 |
| minimum elong | 5476 Apr 13 17:54 | 25°♎28'36 | 1°48'34 | minimum elong | 5477 Mar 26 09:04 | 6°♎35'13 | 2°05'33 |
| | 5476 Apr 16 04:51 | 0°♎♎ | | evening rise | 5477 Apr 06 10:39 | 26°♎18'10 | |
| evening rise | 5476 Apr 23 08:47 | 13°♎31'44 | | | 5477 Apr 08 11:31 | 0°♎♎ | |
| asc. node | 5476 Apr 27 02:11 | 20°♎33'09 | | asc. node | 5477 Apr 13 23:14 | 9°♎43'11 | |
| | 5476 May 02 10:42 | 0°♎♎ | | evening max el | 5477 Apr 22 22:19 | 22°♎21'09 | 18°08'30 |
| evening max el | 5476 May 09 12:08 | 9°♎26'53 | 18°27'22 | retrograde | 5477 Apr 29 16:25 | 25°♎46'50 | |
| retrograde | 5476 May 17 01:04 | 13°♎11'01 | | evening set | 5477 May 02 06:02 | 25°♎17'31 | |
| evening set | 5476 May 19 07:46 | 12°♎51'33 | | inferior conj | 5477 May 09 00:19 | 20°♎24'41 | 2°47'22 |
| inferior conj | 5476 May 26 19:30 | 8°♎19'32 | 1°47'08 | minimum elong | 5477 May 09 03:28 | 20°♎17'19 | 2°46'39 |
| minimum elong | 5476 May 26 22:44 | 8°♎13'01 | 1°46'07 | min. Earth dist. | 5477 May 12 07:15 | 17°♎22'01 | 0.60454 AU |
| min. Earth dist. | 5476 May 30 05:31 | 5°♎36'30 | 0.58265 AU | morning rise | 5477 May 15 22:34 | 14°♎33'48 | |
| desc. node | 5476 Jun 02 06:10 | 3°♎32'14 | | desc. node | 5477 May 20 03:12 | 12°♎44'03 | |
| morning rise | 5476 Jun 03 10:31 | 2°♎53'07 | | direct | 5477 May 22 12:46 | 12°♎27'29 | |
| direct | 5476 Jun 09 10:14 | 1°♎20'14 | | morning max el | 5477 Jun 05 20:09 | 20°♎22'32 | 27°44'02 |
| morning max el | 5476 Jun 23 19:29 | 9°♎01'53 | 26°58'37 | | 5477 Jun 14 02:34 | 0°♎♎ | |
| | 5476 Jul 09 18:09 | 0°♎♎ | | | 5477 Jul 02 15:34 | 0°♎♎ | |
| morning set | 5476 Jul 23 21:04 | 26°♎24'42 | | morning set | 5477 Jul 08 03:01 | 10°♎54'36 | |
| asc. node | 5476 Jul 24 01:29 | 26°♎47'58 | | asc. node | 5477 Jul 10 22:32 | 16°♎50'25 | |
| | 5476 Jul 25 13:32 | 0°♎♎ | | max. Earth dist. | 5477 Jul 14 07:14 | 24°♎08'35 | 1.31977 AU |
| | | | | | | | |
| superior conj | 5476 Jul 30 21:30 | 11°♎40'37 | 1°05'54 | superior conj | 5477 Jul 15 08:46 | 26°♎28'55 | 0°44'42 |
| minimum elong | 5476 Jul 30 19:14 | 11°♎28'07 | 1°05'31 | minimum elong | 5477 Jul 15 06:56 | 26°♎18'52 | 0°44'20 |

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|------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| | 5477 Jul 16 23:03 | 0°♎ | | superior conj | 5478 Jun 29 17:40 | 11°♊05'58 | 0°19'52 |
| evening rise | 5477 Jul 22 03:54 | 11°♎20'12 | | minimum elong | 5478 Jun 29 16:44 | 11°♊00'57 | 0°19'39 |
| | 5477 Jul 31 14:51 | 0°♎ | | evening rise | 5478 Jul 06 15:39 | 26°♊06'34 | |
| desc. node | 5477 Aug 16 02:28 | 22°♎18'15 | | | 5478 Jul 08 11:58 | 0°♎ | |
| evening max el | 5477 Aug 18 07:00 | 24°♎31'20 | 25°26'38 | | 5478 Jul 26 06:10 | 0°♎ | |
| | 5477 Aug 25 19:21 | 0°♎ | | evening max el | 5478 Jul 30 19:46 | 5°♎01'36 | 23°54'09 |
| retrograde | 5477 Sep 01 05:28 | 1°♎35'26 | | desc. node | 5478 Aug 02 23:29 | 7°♎45'51 | |
| evening set | 5477 Sep 07 03:19 | 0°♎14'31 | | retrograde | 5478 Aug 13 12:57 | 11°♎55'23 | |
| | 5477 Sep 07 15:56 | 30°♎ | | evening set | 5478 Aug 18 00:57 | 11°♎10'43 | |
| min. Earth dist. | 5477 Sep 11 18:45 | 27°♎35'40 | 0.57878 AU | min. Earth dist. | 5478 Aug 24 06:05 | 8°♎10'13 | 0.56130 AU |
| inferior conj | 5477 Sep 14 20:48 | 25°♎27'43 | -5°13'56 | inferior conj | 5478 Aug 26 13:36 | 6°♎45'42 | -5°14'24 |
| minimum elong | 5477 Sep 14 23:49 | 25°♎22'28 | 5°13'42 | minimum elong | 5478 Aug 26 10:25 | 6°♎50'34 | 5°14'10 |
| morning rise | 5477 Sep 22 22:35 | 21°♎11'27 | | morning rise | 5478 Sep 03 22:23 | 2°♎48'59 | |
| direct | 5477 Sep 25 10:12 | 20°♎52'38 | | direct | 5478 Sep 06 16:56 | 2°♎29'23 | |
| morning max el | 5477 Oct 04 01:49 | 24°♎59'22 | 18°53'48 | morning max el | 5478 Sep 16 18:56 | 7°♎11'17 | 19°57'05 |
| asc. node | 5477 Oct 06 21:48 | 28°♎05'38 | | asc. node | 5478 Sep 23 18:50 | 15°♎50'57 | |
| | 5477 Oct 08 08:51 | 0°♎ | | | 5478 Oct 01 18:35 | 0°♎ | |
| morning set | 5477 Oct 20 14:44 | 21°♎28'38 | | morning set | 5478 Oct 04 18:56 | 6°♎01'38 | |
| | 5477 Oct 24 22:40 | 0°♎ | | | | | |
| superior conj | 5477 Oct 29 01:31 | 7°♎58'14 | 1°28'28 | superior conj | 5478 Oct 12 13:07 | 21°♎47'18 | 1°39'54 |
| minimum elong | 5477 Oct 29 04:30 | 8°♎12'23 | 1°28'13 | minimum elong | 5478 Oct 12 14:35 | 21°♎54'38 | 1°39'50 |
| max. Earth dist. | 5477 Nov 05 01:21 | 20°♎52'13 | 1.39130 AU | max. Earth dist. | 5478 Oct 16 17:42 | 0°♎ | |
| evening rise | 5477 Nov 08 22:34 | 27°♎38'58 | | evening rise | 5478 Oct 18 06:39 | 2°♎55'40 | 1.37045 AU |
| | 5477 Nov 10 07:47 | 0°♎ | | desc. node | 5478 Oct 22 01:30 | 9°♎54'38 | |
| desc. node | 5477 Nov 12 01:47 | 2°♎55'30 | | | 5478 Oct 29 22:47 | 23°♎28'56 | |
| | 5477 Nov 29 22:06 | 0°♎ | | | 5478 Nov 03 00:28 | 0°♎ | |
| evening max el | 5477 Dec 14 05:50 | 17°♎26'58 | 24°24'34 | evening max el | 5478 Nov 25 18:23 | 1°♎11'04 | 25°37'50 |
| retrograde | 5477 Dec 25 14:14 | 24°♎05'37 | | retrograde | 5478 Dec 09 01:11 | 8°♎13'48 | |
| evening set | 5477 Dec 31 00:14 | 21°♎50'04 | | evening set | 5478 Dec 15 00:35 | 5°♎45'20 | |
| asc. node | 5478 Jan 02 21:01 | 18°♎49'15 | | min. Earth dist. | 5478 Dec 19 09:09 | 1°♎00'07 | 0.67148 AU |
| min. Earth dist. | 5478 Jan 04 16:08 | 16°♎30'21 | 0.67820 AU | | 5478 Dec 20 04:01 | 30°♎ | |
| inferior conj | 5478 Jan 05 12:06 | 15°♎23'27 | 0°52'37 | inferior conj | 5478 Dec 20 16:11 | 29°♎21'07 | -0°01'36 |
| minimum elong | 5478 Jan 05 10:53 | 15°♎27'32 | 0°52'08 | minimum elong | 5478 Dec 20 16:13 | 29°♎21'00 | 0°01'34 |
| morning rise | 5478 Jan 10 21:39 | 9°♎21'58 | | transit middle | 5478 Dec 20 16:13 | 29°♎21'00 | 0°01'34 |
| direct | 5478 Jan 14 17:07 | 7°♎58'56 | | transit begin | 5478 Dec 20 13:25 | 29°♎29'57 | |
| morning max el | 5478 Jan 22 09:36 | 12°♎20'30 | 20°09'10 | transit end | 5478 Dec 20 19:01 | 29°♎12'04 | |
| | 5478 Feb 04 23:01 | 0°♎ | | asc. node | 5478 Dec 20 18:04 | 29°♎15'06 | |
| desc. node | 5478 Feb 08 01:02 | 4°♎33'11 | | morning rise | 5478 Dec 26 08:15 | 23°♎27'36 | |
| morning set | 5478 Feb 18 19:32 | 20°♎54'43 | | direct | 5478 Dec 29 15:56 | 22°♎24'14 | |
| | 5478 Feb 24 15:31 | 0°♎ | | morning max el | 5479 Jan 05 15:31 | 26°♎16'35 | 19°09'24 |
| max. Earth dist. | 5478 Mar 01 04:29 | 7°♎12'06 | 1.43854 AU | | 5479 Jan 08 22:44 | 0°♎ | |
| | | | | greatest brilliancy | 5479 Jan 19 09:53 | 14°♎52'05 | -0.7m |
| superior conj | 5478 Mar 06 22:02 | 16°♎29'26 | -2°08'18 | desc. node | 5479 Jan 25 22:04 | 24°♎52'14 | |
| minimum elong | 5478 Mar 06 19:56 | 16°♎20'48 | 2°08'16 | morning set | 5479 Jan 28 21:32 | 29°♎29'17 | |
| | 5478 Mar 14 23:47 | 0°♎ | | | 5479 Jan 29 05:27 | 0°♎ | |
| evening rise | 5478 Mar 19 18:55 | 8°♎14'41 | | max. Earth dist. | 5479 Feb 11 19:17 | 21°♎12'10 | 1.44960 AU |
| asc. node | 5478 Mar 31 20:17 | 28°♎23'56 | | | | | |
| | 5478 Apr 01 22:33 | 0°♎ | | superior conj | 5479 Feb 14 14:07 | 25°♎35'58 | -1°52'01 |
| evening max el | 5478 Apr 06 11:03 | 5°♎33'59 | 18°08'58 | minimum elong | 5479 Feb 14 05:59 | 25°♎03'45 | 1°51'25 |
| retrograde | 5478 Apr 12 21:22 | 8°♎56'24 | | | 5479 Feb 17 08:35 | 0°♎ | |
| evening set | 5478 Apr 15 17:20 | 8°♎15'39 | | evening rise | 5479 Mar 01 05:30 | 19°♎14'43 | |
| inferior conj | 5478 Apr 21 22:12 | 3°♎03'12 | 3°20'15 | | 5479 Mar 07 18:21 | 0°♎ | |
| minimum elong | 5478 Apr 21 23:59 | 2°♎58'28 | 3°20'01 | asc. node | 5479 Mar 18 17:19 | 16°♎26'33 | |
| min. Earth dist. | 5478 Apr 24 17:40 | 0°♎05'03 | 0.62617 AU | evening max el | 5479 Mar 20 23:28 | 18°♎58'45 | 18°28'04 |
| | 5478 Apr 24 19:39 | 30°♎ | | retrograde | 5479 Mar 27 11:21 | 22°♎31'00 | |
| morning rise | 5478 Apr 28 05:12 | 26°♎57'52 | | evening set | 5479 Mar 30 13:42 | 21°♎37'41 | |
| direct | 5478 May 05 01:16 | 24°♎24'44 | | inferior conj | 5479 Apr 05 09:02 | 16°♎07'15 | 3°31'42 |
| desc. node | 5478 May 07 00:15 | 24°♎36'16 | | minimum elong | 5479 Apr 05 09:13 | 16°♎06'43 | 3°31'41 |
| | 5478 May 16 12:32 | 0°♎ | | min. Earth dist. | 5479 Apr 07 13:31 | 13°♎33'10 | 0.64533 AU |
| morning max el | 5478 May 19 02:33 | 2°♎25'33 | 27°51'38 | morning rise | 5479 Apr 11 03:58 | 9°♎54'57 | |
| | 5478 Jun 08 11:15 | 0°♎ | | direct | 5479 Apr 17 22:00 | 7°♎07'13 | |
| morning set | 5478 Jun 22 03:14 | 25°♎04'37 | | desc. node | 5479 Apr 23 21:18 | 8°♎55'07 | |
| | 5478 Jun 24 12:47 | 0°♎ | | morning max el | 5479 May 01 12:04 | 15°♎03'33 | 27°23'17 |
| max. Earth dist. | 5478 Jun 27 13:59 | 6°♎26'59 | 1.32461 AU | | 5479 May 13 16:51 | 0°♎ | |
| asc. node | 5478 Jun 27 19:34 | 6°♎56'53 | | | 5479 Jun 01 04:07 | 0°♎ | |
| | | | | morning set | 5479 Jun 05 19:04 | 8°♎47'01 | |

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|---------------------|-------------------|---------------------------------|------------|---------------------|-------------------|---------------------------------|------------|
| max. Earth dist. | 5479 Jun 10 12:43 | 18° Π 18'49 | 1.33399 AU | | 5480 May 06 10:33 | 0° \mathcal{B} | |
| | | | | morning set | 5480 May 18 23:02 | 21° \mathcal{B} 51'37 | |
| superior conj | 5479 Jun 13 22:17 | 25° Π 26'07 | -0°07'54 | max. Earth dist. | 5480 May 23 00:32 | 29° \mathcal{B} 40'20 | 1.34809 AU |
| minimum elong | 5479 Jun 13 22:41 | 25° Π 28'18 | 0°07'50 | | 5480 May 23 04:32 | 0° Π | |
| behind sun begin | 5479 Jun 13 17:52 | 25° Π 02'45 | | | | | |
| behind sun end | 5479 Jun 14 03:30 | 25° Π 53'51 | | superior conj | 5480 May 27 20:18 | 9° Π 22'49 | -0°37'31 |
| asc. node | 5479 Jun 14 16:35 | 27° Π 03'28 | | minimum elong | 5480 May 27 22:22 | 9° Π 33'25 | 0°37'08 |
| | 5479 Jun 16 01:38 | 0° \mathcal{E} | | asc. node | 5480 May 31 13:36 | 17° Π 06'16 | |
| evening rise | 5479 Jun 21 02:55 | 10° \mathcal{E} 47'34 | | evening rise | 5480 Jun 04 11:45 | 25° Π 17'18 | |
| | 5479 Jul 01 00:49 | 0° \mathcal{O} | | | 5480 Jun 06 18:59 | 0° \mathcal{E} | |
| evening max el | 5479 Jul 12 09:50 | 15° \mathcal{O} 22'17 | 22°16'39 | evening max el | 5480 Jun 23 09:06 | 26° \mathcal{E} 06'14 | 20°48'28 |
| desc. node | 5479 Jul 20 20:30 | 21° \mathcal{O} 00'58 | | | 5480 Jun 28 11:00 | 0° \mathcal{O} | |
| retrograde | 5479 Jul 25 08:16 | 21° \mathcal{O} 47'46 | | retrograde | 5480 Jul 04 20:34 | 1° \mathcal{O} 44'35 | |
| evening set | 5479 Jul 28 08:30 | 21° \mathcal{O} 27'44 | | evening set | 5480 Jul 06 23:10 | 1° \mathcal{O} 33'56 | |
| min. Earth dist. | 5479 Aug 05 16:05 | 17° \mathcal{O} 51'45 | 0.55024 AU | desc. node | 5480 Jul 06 17:32 | 1° \mathcal{O} 36'09 | |
| inferior conj | 5479 Aug 06 13:18 | 17° \mathcal{O} 21'48 | -4°24'48 | | 5480 Jul 11 18:36 | 30° \mathcal{R} \mathcal{E} | |
| minimum elong | 5479 Aug 06 04:51 | 17° \mathcal{O} 33'44 | 4°22'55 | inferior conj | 5480 Jul 16 06:23 | 27° \mathcal{E} 36'58 | -2°47'12 |
| morning rise | 5479 Aug 15 02:59 | 13° \mathcal{O} 32'03 | | minimum elong | 5480 Jul 15 22:50 | 27° \mathcal{E} 47'42 | 2°44'39 |
| direct | 5479 Aug 18 07:16 | 13° \mathcal{O} 09'20 | | min. Earth dist. | 5480 Jul 17 02:55 | 27° \mathcal{E} 07'45 | 0.54816 AU |
| morning max el | 5479 Aug 29 23:47 | 18° \mathcal{O} 37'01 | 21°21'14 | morning rise | 5480 Jul 24 22:16 | 23° \mathcal{E} 35'18 | |
| | 5479 Sep 08 00:49 | 0° \mathcal{M} | | direct | 5480 Jul 28 16:30 | 23° \mathcal{E} 04'55 | |
| asc. node | 5479 Sep 10 15:52 | 4° \mathcal{M} 21'02 | | morning max el | 5480 Aug 10 18:14 | 29° \mathcal{E} 21'14 | 23°00'54 |
| morning set | 5479 Sep 19 03:31 | 20° \mathcal{M} 46'27 | | | 5480 Aug 11 10:27 | 0° \mathcal{O} | |
| | 5479 Sep 23 13:00 | 0° \mathcal{A} | | asc. node | 5480 Aug 27 12:53 | 23° \mathcal{O} 25'05 | |
| | | | | | 5480 Aug 30 21:18 | 0° \mathcal{M} | |
| superior conj | 5479 Sep 26 10:51 | 6° \mathcal{A} 05'32 | 1°43'17 | morning set | 5480 Sep 02 14:32 | 5° \mathcal{M} 37'55 | |
| minimum elong | 5479 Sep 26 10:50 | 6° \mathcal{A} 05'26 | 1°43'17 | | | | |
| max. Earth dist. | 5479 Sep 30 17:09 | 14° \mathcal{A} 47'02 | 1.35207 AU | superior conj | 5480 Sep 09 15:31 | 20° \mathcal{M} 43'34 | 1°39'51 |
| evening rise | 5479 Oct 04 22:27 | 22° \mathcal{A} 59'57 | | minimum elong | 5480 Sep 09 14:19 | 20° \mathcal{M} 37'06 | 1°39'47 |
| | 5479 Oct 08 17:22 | 0° \mathcal{M} | | max. Earth dist. | 5480 Sep 12 12:26 | 26° \mathcal{M} 48'41 | 1.33748 AU |
| desc. node | 5479 Oct 16 19:47 | 13° \mathcal{M} 48'29 | | | 5480 Sep 14 01:16 | 0° \mathcal{A} | |
| | 5479 Oct 27 17:07 | 0° \mathcal{J} | | evening rise | 5480 Sep 17 09:17 | 6° \mathcal{A} 44'09 | |
| evening max el | 5479 Nov 09 07:11 | 14° \mathcal{J} 52'26 | 26°37'32 | | 5480 Sep 30 07:34 | 0° \mathcal{M} | |
| retrograde | 5479 Nov 22 06:50 | 22° \mathcal{J} 07'41 | | desc. node | 5480 Oct 02 16:48 | 3° \mathcal{M} 47'47 | |
| evening set | 5479 Nov 28 18:52 | 19° \mathcal{J} 30'31 | | evening max el | 5480 Oct 21 19:51 | 28° \mathcal{M} 21'53 | 27°16'09 |
| min. Earth dist. | 5479 Dec 02 20:51 | 15° \mathcal{J} 20'24 | 0.66124 AU | | 5480 Oct 23 14:57 | 0° \mathcal{J} | |
| inferior conj | 5479 Dec 04 15:18 | 13° \mathcal{J} 14'02 | -1°01'03 | retrograde | 5480 Nov 04 06:26 | 5° \mathcal{J} 39'54 | |
| minimum elong | 5479 Dec 04 17:00 | 13° \mathcal{J} 08'58 | 1°00'17 | evening set | 5480 Nov 11 04:48 | 3° \mathcal{J} 00'40 | |
| asc. node | 5479 Dec 07 15:06 | 9° \mathcal{J} 53'18 | | | 5480 Nov 14 11:41 | 30° \mathcal{R} \mathcal{M} | |
| morning rise | 5479 Dec 10 15:54 | 7° \mathcal{J} 30'58 | | min. Earth dist. | 5480 Nov 15 00:55 | 29° \mathcal{M} 25'14 | 0.64757 AU |
| direct | 5479 Dec 13 13:47 | 6° \mathcal{J} 43'35 | | inferior conj | 5480 Nov 17 07:12 | 26° \mathcal{M} 57'19 | -2°04'07 |
| morning max el | 5479 Dec 20 03:41 | 10° \mathcal{J} 17'46 | 18°25'38 | minimum elong | 5480 Nov 17 10:50 | 26° \mathcal{M} 47'26 | 2°02'38 |
| | 5480 Jan 03 03:40 | 0° \mathcal{Z} | | morning rise | 5480 Nov 23 18:03 | 21° \mathcal{M} 27'49 | |
| morning set | 5480 Jan 09 00:18 | 9° \mathcal{Z} 21'42 | | asc. node | 5480 Nov 23 12:07 | 21° \mathcal{M} 34'45 | |
| desc. node | 5480 Jan 12 19:05 | 15° \mathcal{Z} 24'00 | | direct | 5480 Nov 26 08:24 | 20° \mathcal{M} 52'33 | |
| | 5480 Jan 22 00:38 | 0° \approx | | morning max el | 5480 Dec 02 19:37 | 24° \mathcal{M} 18'05 | 17°58'42 |
| | | | | | 5480 Dec 07 11:22 | 0° \mathcal{J} | |
| superior conj | 5480 Jan 24 17:30 | 4° \approx 14'34 | -1°16'54 | morning set | 5480 Dec 20 08:37 | 20° \mathcal{J} 41'57 | |
| minimum elong | 5480 Jan 24 08:39 | 3° \approx 39'55 | 1°15'51 | | 5480 Dec 25 23:00 | 0° \mathcal{Z} | |
| max. Earth dist. | 5480 Jan 25 13:48 | 5° \approx 34'10 | 1.45357 AU | desc. node | 5480 Dec 29 16:05 | 6° \mathcal{Z} 04'23 | |
| evening rise | 5480 Feb 09 16:45 | 29° \approx 18'31 | | | | | |
| | 5480 Feb 10 03:16 | 0° \mathcal{H} | | superior conj | 5481 Jan 03 04:09 | 13° \mathcal{Z} 19'43 | -0°31'07 |
| greatest brilliancy | 5480 Feb 19 16:50 | 15° \mathcal{H} 02'28 | -0.8m | minimum elong | 5481 Jan 03 00:23 | 13° \mathcal{Z} 04'41 | 0°30'34 |
| | 5480 Mar 01 03:31 | 0° \mathcal{Y} | | max. Earth dist. | 5481 Jan 07 09:20 | 20° \mathcal{Z} 01'25 | 1.45007 AU |
| evening max el | 5480 Mar 03 09:08 | 2° \mathcal{Y} 29'54 | 19°04'51 | | 5481 Jan 13 18:20 | 0° \approx | |
| asc. node | 5480 Mar 04 14:20 | 3° \mathcal{Y} 39'37 | | evening rise | 5481 Jan 19 09:19 | 8° \approx 41'58 | |
| retrograde | 5480 Mar 10 06:42 | 6° \mathcal{Y} 23'30 | | | 5481 Feb 02 10:07 | 0° \mathcal{H} | |
| evening set | 5480 Mar 13 16:03 | 5° \mathcal{Y} 16'44 | | greatest brilliancy | 5481 Feb 02 16:46 | 0° \mathcal{H} 24'29 | -0.6m |
| | 5480 Mar 18 19:38 | 30° \mathcal{R} \mathcal{H} | | evening max el | 5481 Feb 14 14:17 | 16° \mathcal{H} 03'35 | 19°57'35 |
| inferior conj | 5480 Mar 19 05:07 | 29° \mathcal{H} 29'55 | 3°26'50 | asc. node | 5481 Feb 19 11:22 | 19° \mathcal{H} 49'18 | |
| minimum elong | 5480 Mar 19 03:59 | 29° \mathcal{H} 33'30 | 3°26'45 | retrograde | 5481 Feb 22 04:32 | 20° \mathcal{H} 28'18 | |
| min. Earth dist. | 5480 Mar 20 18:06 | 27° \mathcal{H} 32'23 | 0.66070 AU | evening set | 5481 Feb 25 22:00 | 19° \mathcal{H} 07'15 | |
| morning rise | 5480 Mar 24 15:33 | 23° \mathcal{H} 15'11 | | inferior conj | 5481 Mar 03 07:28 | 13° \mathcal{H} 06'02 | 3°09'20 |
| direct | 5480 Mar 31 01:27 | 20° \mathcal{H} 26'27 | | minimum elong | 5481 Mar 03 05:29 | 13° \mathcal{H} 12'42 | 3°08'59 |
| desc. node | 5480 Apr 09 18:19 | 25° \mathcal{H} 07'31 | | min. Earth dist. | 5481 Mar 04 05:55 | 11° \mathcal{H} 50'44 | 0.67179 AU |
| morning max el | 5480 Apr 12 22:00 | 28° \mathcal{H} 04'38 | 26°25'36 | morning rise | 5481 Mar 08 12:45 | 6° \mathcal{H} 51'17 | |
| | 5480 Apr 14 17:56 | 0° \mathcal{Y} | | direct | 5481 Mar 14 10:28 | 4° \mathcal{H} 12'58 | |

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| morning max el | 5481 Mar 26 07:00 | 11°  18'11 | 25°07'37 | direct | 5482 Feb 26 00:21 | 18°  18'52 | |
| desc. node | 5481 Mar 27 15:21 | 12°  42'26 | | morning max el | 5482 Mar 08 15:54 | 24°  39'22 | 23°39'34 |
| | 5481 Apr 10 05:19 | 0°  0° | | | 5482 Mar 13 11:10 | 0°  0° | |
| | 5481 Apr 29 03:11 | 0°  0° | | desc. node | 5482 Mar 14 12:23 | 1°  16'43 | |
| morning set | 5481 May 01 10:28 | 4°  04'38 | | | 5482 Apr 03 16:30 | 0°  0° | |
| max. Earth dist. | 5481 May 05 01:53 | 10°  43'40 | 1.36658 AU | morning set | 5482 Apr 12 23:41 | 15°  11'40 | |
| | | | | max. Earth dist. | 5482 Apr 16 21:46 | 21°  58'45 | 1.38797 AU |
| | | | | | 5482 Apr 21 08:52 | 0°  0° | |
| superior conj | 5481 May 11 08:46 | 22°  47'11 | -1°07'29 | | | | |
| minimum elong | 5481 May 11 12:33 | 23°  05'50 | 1°06'51 | | | | |
| | 5481 May 14 23:30 | 0°  0° | | superior conj | 5482 Apr 24 08:04 | 5°  30'26 | -1°35'19 |
| asc. node | 5481 May 18 10:37 | 7°  00'29 | | minimum elong | 5482 Apr 24 13:03 | 5°  53'54 | 1°34'41 |
| evening rise | 5481 May 19 15:53 | 9°  02'16 | | evening rise | 5482 May 03 12:38 | 23°  13'33 | |
| | 5481 May 30 21:26 | 0°  0° | | asc. node | 5482 May 05 07:40 | 26°  42'03 | |
| evening max el | 5481 Jun 05 20:46 | 7°  02'31 | 19°37'39 | | 5482 May 07 01:04 | 0°  0° | |
| retrograde | 5481 Jun 15 14:41 | 12°  05'43 | | evening max el | 5482 May 19 19:47 | 19°  13'41 | 18°47'05 |
| evening set | 5481 Jun 17 12:41 | 12°  05'27 | | retrograde | 5482 May 28 01:13 | 23°  13'03 | |
| desc. node | 5481 Jun 23 14:34 | 9°  03'52 | | evening set | 5482 May 30 03:45 | 23°  12'08 | |
| inferior conj | 5481 Jun 26 07:15 | 8°  01'37 | -0°48'30 | inferior conj | 5482 Jun 07 02:50 | 19°  11'31 | 0°58'21 |
| minimum elong | 5481 Jun 26 05:03 | 8°  05'05 | 0°47'40 | minimum elong | 5482 Jun 07 04:59 | 18°  17'34 | 0°57'34 |
| min. Earth dist. | 5481 Jun 28 15:46 | 6°  03'01 | 0.55565 AU | desc. node | 5482 Jun 10 11:35 | 16°  14'55 | |
| morning rise | 5481 Jul 04 19:05 | 3°  03'05 | | min. Earth dist. | 5482 Jun 10 08:17 | 16°  14'01 | 0.57121 AU |
| direct | 5481 Jul 09 08:39 | 2°  04'42 | | morning rise | 5482 Jun 15 02:52 | 13°  15'17 | |
| morning max el | 5481 Jul 23 07:48 | 9°  04'20 | 24°44'50 | direct | 5482 Jun 20 14:38 | 12°  13'49 | |
| | 5481 Aug 07 11:31 | 0°  0° | | morning max el | 5482 Jul 04 23:07 | 20°  10'39 | 26°16'59 |
| asc. node | 5481 Aug 14 09:55 | 12°  05'33 | | | 5482 Jul 13 09:31 | 0°  0° | |
| morning set | 5481 Aug 18 02:17 | 20°  03'10 | | | 5482 Jul 30 23:54 | 0°  0° | |
| | 5481 Aug 22 11:43 | 0°  0° | | asc. node | 5482 Aug 01 06:57 | 2°  03'54 | |
| | | | | morning set | 5482 Aug 02 13:08 | 5°  18'17 | |
| superior conj | 5481 Aug 25 00:33 | 5°  03'24 | 1°30'36 | | | | |
| minimum elong | 5481 Aug 24 22:34 | 5°  02'00 | 1°30'23 | superior conj | 5482 Aug 09 11:54 | 20°  02'46 | 1°16'14 |
| max. Earth dist. | 5481 Aug 26 16:01 | 9°  07'30 | 1.32705 AU | minimum elong | 5482 Aug 09 09:36 | 20°  01'40 | 1°15'54 |
| evening rise | 5481 Sep 01 06:12 | 20°  05'09 | | max. Earth dist. | 5482 Aug 10 01:08 | 21°  03'45 | 1.32086 AU |
| | 5481 Sep 05 20:09 | 0°  0° | | | 5482 Aug 13 20:40 | 0°  0° | |
| desc. node | 5481 Sep 19 13:50 | 23°  01'53 | | evening rise | 5482 Aug 16 10:14 | 5°  02'22 | |
| | 5481 Sep 24 07:58 | 0°  0° | | | 5482 Aug 29 11:00 | 0°  0° | |
| evening max el | 5481 Oct 04 06:28 | 11°  02'13 | 27°27'06 | desc. node | 5482 Sep 06 10:51 | 12°  06'46 | |
| retrograde | 5481 Oct 17 23:29 | 18°  04'15 | | evening max el | 5482 Sep 16 12:27 | 23°  02'13 | 27°05'43 |
| evening set | 5481 Oct 25 03:26 | 16°  09'44 | | | 5482 Sep 25 08:02 | 0°  0° | |
| min. Earth dist. | 5481 Oct 28 19:15 | 13°  05'35 | 0.63063 AU | retrograde | 5482 Sep 30 09:21 | 1°  04'05 | |
| inferior conj | 5481 Oct 31 13:11 | 10°  04'25 | -3°08'09 | | 5482 Oct 05 06:33 | 30°  05'05 | |
| minimum elong | 5481 Oct 31 18:38 | 10°  04'11 | 3°06'15 | evening set | 5482 Oct 07 10:51 | 28°  05'54 | |
| morning rise | 5481 Nov 07 11:29 | 5°  04'12 | | min. Earth dist. | 5482 Oct 11 02:53 | 26°  09'05 | 0.61104 AU |
| direct | 5481 Nov 09 20:50 | 4°  04'51 | | inferior conj | 5482 Oct 14 06:02 | 23°  02'05 | -4°08'28 |
| asc. node | 5481 Nov 10 09:10 | 4°  04'28 | | minimum elong | 5482 Oct 14 12:27 | 23°  01'12 | 4°06'46 |
| morning max el | 5481 Nov 16 12:28 | 8°  04'52 | 17°49'19 | morning rise | 5482 Oct 21 16:03 | 18°  03'50 | |
| | 5481 Nov 30 21:28 | 0°  0° | | direct | 5482 Oct 23 23:20 | 18°  03'35 | |
| morning set | 5481 Dec 02 17:34 | 3°  04'13 | | asc. node | 5482 Oct 28 06:14 | 19°  03'12 | |
| | | | | morning max el | 5482 Oct 31 03:01 | 21°  04'55 | 17°58'26 |
| superior conj | 5481 Dec 14 13:39 | 23°  04'33 | 0°13'58 | | 5482 Nov 06 09:53 | 0°  0° | |
| minimum elong | 5481 Dec 14 15:04 | 23°  04'39 | 0°13'47 | morning set | 5482 Nov 15 20:38 | 16°  03'57 | |
| behind sun begin | 5481 Dec 14 10:13 | 23°  04'19 | | | 5482 Nov 23 04:58 | 0°  0° | |
| behind sun end | 5481 Dec 14 19:54 | 23°  04'59 | | | | | |
| desc. node | 5481 Dec 16 13:07 | 26°  04'49 | | superior conj | 5482 Nov 26 01:31 | 5°  03'45 | 0°51'01 |
| | 5481 Dec 18 11:33 | 0°  0° | | minimum elong | 5482 Nov 26 05:14 | 5°  02'01 | 0°50'33 |
| max. Earth dist. | 5481 Dec 21 02:50 | 4°  03'15 | 1.43954 AU | desc. node | 5482 Dec 03 10:07 | 17°  03'44 | |
| evening rise | 5481 Dec 29 19:38 | 17°  03'57 | | max. Earth dist. | 5482 Dec 03 15:24 | 17°  03'58 | 1.42332 AU |
| | 5482 Jan 06 17:47 | 0°  0° | | evening rise | 5482 Dec 09 15:19 | 27°  04'13 | |
| evening max el | 5482 Jan 28 13:56 | 29°  03'8 | 21°03'42 | | 5482 Dec 11 02:23 | 0°  0° | |
| | 5482 Jan 28 22:29 | 0°  0° | | | 5482 Dec 31 11:32 | 0°  0° | |
| retrograde | 5482 Feb 06 02:44 | 4°  04'12 | | evening max el | 5483 Jan 11 08:19 | 13°  04'23 | 22°19'23 |
| asc. node | 5482 Feb 06 08:24 | 4°  04'10 | | retrograde | 5483 Jan 20 23:24 | 18°  05'58 | |
| evening set | 5482 Feb 10 05:38 | 3°  05'21 | | asc. node | 5483 Jan 24 05:28 | 18°  05'02 | |
| | 5482 Feb 13 05:23 | 30°  04'00 | | evening set | 5483 Jan 25 13:16 | 17°  06'35 | |
| inferior conj | 5482 Feb 15 13:41 | 26°  05'21 | 2°41'35 | inferior conj | 5483 Jan 30 21:40 | 10°  04'50 | 2°05'08 |
| minimum elong | 5482 Feb 15 11:19 | 27°  05'00 | 2°40'58 | minimum elong | 5483 Jan 30 19:23 | 10°  05'30 | 2°04'23 |
| min. Earth dist. | 5482 Feb 15 23:01 | 26°  05'20 | 0.67858 AU | min. Earth dist. | 5483 Jan 30 19:10 | 10°  05'34 | 0.68135 AU |
| morning rise | 5482 Feb 20 16:49 | 20°  05'39 | | morning rise | 5483 Feb 05 01:21 | 4°  05'34 | |

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|------------------|-------------------|---------------------|------------|------------------|-------------------|------------------------|------------|
| direct | 5483 Feb 09 18:17 | 2° \approx 36'33 | | morning rise | 5484 Jan 20 12:17 | 18° \approx 36'39 | |
| morning max el | 5483 Feb 19 03:21 | 8° \approx 07'07 | 22°11'06 | direct | 5484 Jan 24 15:17 | 17° \approx 00'57 | |
| desc. node | 5483 Mar 01 09:24 | 20° \approx 33'07 | | morning max el | 5484 Feb 01 20:47 | 21° \approx 34'50 | 20°50'06 |
| | 5483 Mar 08 02:38 | 0° \approx | | | 5484 Feb 08 20:06 | 0° \approx | |
| morning set | 5483 Mar 24 09:16 | 24° \approx 59'09 | | desc. node | 5484 Feb 16 06:26 | 10° \approx 20'05 | |
| | 5483 Mar 27 10:51 | 0° \approx | | | 5484 Feb 29 09:06 | 0° \approx | |
| max. Earth dist. | 5483 Mar 29 18:58 | 3° \approx 53'52 | 1.40983 AU | morning set | 5484 Mar 02 16:08 | 3° \approx 33'36 | |
| | | | | max. Earth dist. | 5484 Mar 10 22:53 | 16° \approx 44'02 | 1.42938 AU |
| superior conj | 5483 Apr 06 13:33 | 17° \approx 21'05 | -1°57'26 | | | | |
| minimum elong | 5483 Apr 06 18:10 | 17° \approx 41'41 | 1°57'06 | superior conj | 5484 Mar 17 20:20 | 28° \approx 08'34 | -2°08'51 |
| | 5483 Apr 13 12:10 | 0° \approx | | minimum elong | 5484 Mar 17 21:38 | 28° \approx 14'02 | 2°08'50 |
| evening rise | 5483 Apr 16 22:32 | 6° \approx 23'47 | | | 5484 Mar 18 22:40 | 0° \approx | |
| asc. node | 5483 Apr 22 04:43 | 16° \approx 05'19 | | evening rise | 5484 Mar 29 17:23 | 18° \approx 49'31 | |
| | 5483 May 01 02:22 | 0° \approx | | | 5484 Apr 05 01:20 | 0° \approx | |
| evening max el | 5483 May 03 02:56 | 2° \approx 13'13 | 18°16'55 | asc. node | 5484 Apr 08 01:46 | 5° \approx 03'55 | |
| retrograde | 5483 May 10 06:37 | 5° \approx 47'42 | | evening max el | 5484 Apr 15 14:38 | 15° \approx 16'43 | 18°06'27 |
| evening set | 5483 May 12 16:10 | 5° \approx 24'28 | | retrograde | 5484 Apr 22 04:06 | 18° \approx 39'00 | |
| inferior conj | 5483 May 19 20:04 | 0° \approx 43'47 | 2°16'19 | evening set | 5484 Apr 24 20:31 | 18° \approx 04'58 | |
| minimum elong | 5483 May 19 23:31 | 0° \approx 36'22 | 2°15'21 | inferior conj | 5484 May 01 08:37 | 13° \approx 03'55 | 3°04'15 |
| | 5483 May 20 16:22 | 30° \approx 08'00 | | minimum elong | 5484 May 01 11:16 | 12° \approx 57'21 | 3°03'47 |
| min. Earth dist. | 5483 May 23 06:16 | 27° \approx 49'02 | 0.59179 AU | min. Earth dist. | 5484 May 04 11:32 | 10° \approx 00'12 | 0.61394 AU |
| morning rise | 5483 May 27 03:54 | 25° \approx 05'18 | | morning rise | 5484 May 08 00:04 | 7° \approx 05'59 | |
| desc. node | 5483 May 28 08:37 | 24° \approx 28'28 | | desc. node | 5484 May 14 05:40 | 4° \approx 47'26 | |
| direct | 5483 Jun 02 10:43 | 23° \approx 17'41 | | direct | 5484 May 14 18:02 | 4° \approx 46'39 | |
| | 5483 Jun 15 15:56 | 0° \approx | | morning max el | 5484 May 28 23:06 | 12° \approx 45'20 | 27°51'50 |
| morning max el | 5483 Jun 16 20:01 | 1° \approx 06'59 | 27°22'20 | | 5484 Jun 11 15:54 | 0° \approx | |
| | 5483 Jul 07 13:29 | 0° \approx | | | 5484 Jun 28 21:56 | 0° \approx | |
| morning set | 5483 Jul 17 21:26 | 19° \approx 56'57 | | morning set | 5484 Jul 01 01:12 | 4° \approx 19'26 | |
| asc. node | 5483 Jul 19 04:00 | 22° \approx 38'12 | | asc. node | 5484 Jul 05 01:01 | 12° \approx 43'07 | |
| | 5483 Jul 22 13:44 | 0° \approx | | max. Earth dist. | 5484 Jul 06 21:43 | 16° \approx 44'45 | 1.32127 AU |
| superior conj | 5483 Jul 24 23:44 | 5° \approx 19'28 | 0°57'24 | superior conj | 5484 Jul 08 10:13 | 20° \approx 04'12 | 0°34'36 |
| minimum elong | 5483 Jul 24 21:36 | 5° \approx 07'40 | 0°57'00 | minimum elong | 5484 Jul 08 08:43 | 19° \approx 55'59 | 0°34'16 |
| max. Earth dist. | 5483 Jul 24 12:17 | 4° \approx 16'11 | 1.31889 AU | | 5484 Jul 12 22:54 | 0° \approx | |
| evening rise | 5483 Jul 31 18:54 | 20° \approx 10'23 | | evening rise | 5484 Jul 15 06:05 | 4° \approx 57'43 | |
| | 5483 Aug 05 13:51 | 0° \approx | | | 5484 Jul 28 11:19 | 0° \approx | |
| desc. node | 5483 Aug 24 07:52 | 29° \approx 57'51 | | evening max el | 5484 Aug 10 03:30 | 16° \approx 23'28 | 24°49'04 |
| | 5483 Aug 24 08:35 | 0° \approx | | desc. node | 5484 Aug 10 04:55 | 16° \approx 26'52 | |
| evening max el | 5483 Aug 29 11:37 | 5° \approx 31'28 | 26°11'12 | retrograde | 5484 Aug 24 01:04 | 23° \approx 19'24'09 | |
| retrograde | 5483 Sep 12 10:46 | 12° \approx 39'11 | | evening set | 5484 Aug 29 09:27 | 22° \approx 19'39 | |
| evening set | 5483 Sep 18 22:19 | 10° \approx 57'06 | | min. Earth dist. | 5484 Sep 03 14:52 | 19° \approx 33'24 | 0.57079 AU |
| min. Earth dist. | 5483 Sep 23 00:40 | 8° \approx 22'16 | 0.59027 AU | inferior conj | 5484 Sep 06 10:51 | 17° \approx 42'25 | -5°19'30 |
| inferior conj | 5483 Sep 26 06:17 | 5° \approx 56'30 | -4°56'43 | minimum elong | 5484 Sep 06 11:29 | 17° \approx 41'21 | 5°19'29 |
| minimum elong | 5483 Sep 26 11:30 | 5° \approx 46'38 | 4°55'54 | morning rise | 5484 Sep 14 15:51 | 13° \approx 34'56 | |
| morning rise | 5483 Oct 04 02:57 | 1° \approx 27'02 | | direct | 5484 Sep 17 06:00 | 13° \approx 15'59 | |
| direct | 5483 Oct 06 11:43 | 1° \approx 08'01 | | morning max el | 5484 Sep 26 11:26 | 17° \approx 36'43 | 19°17'55 |
| morning max el | 5483 Oct 14 11:52 | 5° \approx 00'23 | 18°27'26 | asc. node | 5484 Oct 01 00:19 | 22° \approx 52'39 | |
| asc. node | 5483 Oct 15 03:17 | 5° \approx 38'49 | | | 5484 Oct 05 14:41 | 0° \approx | |
| | 5483 Oct 30 05:13 | 0° \approx | | morning set | 5484 Oct 13 13:04 | 14° \approx 58'09 | |
| morning set | 5483 Oct 30 12:29 | 0° \approx 34'58 | | | 5484 Oct 21 02:19 | 0° \approx | |
| superior conj | 5483 Nov 08 12:07 | 17° \approx 40'14 | 1°17'43 | superior conj | 5484 Oct 21 15:59 | 1° \approx 06'38 | 1°34'23 |
| minimum elong | 5483 Nov 08 15:44 | 17° \approx 56'58 | 1°17'20 | minimum elong | 5484 Oct 21 18:21 | 1° \approx 18'08 | 1°34'12 |
| | 5483 Nov 15 08:57 | 0° \approx | | max. Earth dist. | 5484 Oct 28 03:53 | 13° \approx 22'11 | 1.38233 AU |
| max. Earth dist. | 5483 Nov 15 22:50 | 1° \approx 00'11 | 1.40346 AU | evening rise | 5484 Oct 31 22:11 | 20° \approx 05'32 | |
| evening rise | 5483 Nov 20 07:21 | 8° \approx 22'43 | | desc. node | 5484 Nov 06 04:10 | 29° \approx 00'54 | |
| desc. node | 5483 Nov 20 07:09 | 8° \approx 21'53 | | | 5484 Nov 06 18:32 | 0° \approx | |
| | 5483 Dec 04 03:16 | 0° \approx | | | 5484 Nov 27 05:51 | 0° \approx | |
| evening max el | 5483 Dec 24 23:02 | 26° \approx 54'05 | 23°39'17 | evening max el | 5484 Dec 06 12:03 | 10° \approx 37'42 | 24°56'59 |
| | 5483 Dec 28 09:32 | 0° \approx | | retrograde | 5484 Dec 18 06:33 | 17° \approx 27'23 | |
| retrograde | 5484 Jan 04 17:04 | 3° \approx 14'49 | | evening set | 5484 Dec 23 22:12 | 15° \approx 06'16 | |
| evening set | 5484 Jan 09 19:19 | 1° \approx 08'04 | | asc. node | 5484 Dec 27 23:33 | 10° \approx 38'07 | |
| asc. node | 5484 Jan 11 02:31 | 29° \approx 54'05 | | min. Earth dist. | 5484 Dec 28 11:00 | 10° \approx 00'59 | 0.67580 AU |
| | 5484 Jan 11 00:14 | 30° \approx 08'00 | | inferior conj | 5484 Dec 29 11:33 | 8° \approx 40'15 | 0°30'20 |
| min. Earth dist. | 5484 Jan 14 15:57 | 25° \approx 28'33 | 0.68039 AU | minimum elong | 5484 Dec 29 10:48 | 8° \approx 42'41 | 0°30'02 |
| inferior conj | 5484 Jan 15 05:34 | 24° \approx 42'02 | 1°21'05 | morning rise | 5485 Jan 03 23:35 | 2° \approx 41'41 | |
| minimum elong | 5484 Jan 15 03:49 | 24° \approx 48'00 | 1°20'26 | direct | 5485 Jan 07 13:55 | 1° \approx 27'13 | |

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|---------------------|-------------------|----------------------|------------|------------------|-------------------|----------------------|------------|
| morning max el | 5485 Jan 14 22:08 | 5° ♁ 34'44 | 19°41'48 | min. Earth dist. | 5485 Dec 12 01:55 | 24° ♁ 27'20 | 0.66762 AU |
| greatest brilliancy | 5485 Jan 27 22:37 | 22° ♁ 41'25 | -0.7m | inferior conj | 5485 Dec 13 13:44 | 22° ♁ 36'12 | -0°26'16 |
| | 5485 Feb 01 19:43 | 0° ♁ | | minimum elong | 5485 Dec 13 14:26 | 22° ♁ 34'02 | 0°25'56 |
| desc. node | 5485 Feb 02 03:27 | 0° ♁ 29'18 | | asc. node | 5485 Dec 14 20:35 | 21° ♁ 01'54 | |
| morning set | 5485 Feb 09 12:28 | 11° ♁ 46'24 | | morning rise | 5485 Dec 19 09:14 | 16° ♁ 46'56 | |
| | 5485 Feb 21 04:26 | 0° ♁ | | direct | 5485 Dec 22 12:34 | 15° ♁ 50'44 | |
| max. Earth dist. | 5485 Feb 21 10:41 | 0° ♁ 24'46 | 1.44407 AU | morning max el | 5485 Dec 29 06:58 | 19° ♁ 33'36 | 18°48'46 |
| | | | | | 5486 Jan 06 11:02 | 0° ♁ | |
| superior conj | 5485 Feb 26 01:38 | 7° ♁ 48'31 | -2°03'53 | morning set | 5486 Jan 19 23:23 | 20° ♁ 50'06 | |
| minimum elong | 5485 Feb 25 20:42 | 7° ♁ 28'40 | 2°03'40 | desc. node | 5486 Jan 20 00:28 | 20° ♁ 54'21 | |
| | 5485 Mar 11 11:30 | 0° ♁ | | | 5486 Jan 25 19:42 | 0° ♁ | |
| evening rise | 5485 Mar 11 16:48 | 0° ♁ 22'26 | | max. Earth dist. | 5486 Feb 04 03:58 | 14° ♁ 38'17 | 1.45220 AU |
| asc. node | 5485 Mar 25 22:48 | 23° ♁ 29'56 | | | | | |
| evening max el | 5485 Mar 30 03:37 | 28° ♁ 36'02 | 18°14'57 | superior conj | 5486 Feb 05 10:04 | 16° ♁ 36'29 | -1°39'05 |
| | 5485 Mar 31 16:53 | 0° ♁ | | minimum elong | 5486 Feb 05 00:42 | 15° ♁ 59'43 | 1°38'12 |
| retrograde | 5485 Apr 05 13:21 | 2° ♁ 00'47 | | | 5486 Feb 13 21:17 | 0° ♁ | |
| evening set | 5485 Apr 08 12:07 | 1° ♁ 14'37 | | evening rise | 5486 Feb 20 17:21 | 10° ♁ 57'50 | |
| | 5485 Apr 10 09:26 | 30° ♁ | | | 5486 Mar 04 14:59 | 0° ♁ | |
| inferior conj | 5485 Apr 14 12:28 | 25° ♁ 54'18 | 3°27'21 | asc. node | 5486 Mar 12 19:50 | 11° ♁ 12'52 | |
| minimum elong | 5485 Apr 14 13:33 | 25° ♁ 51'15 | 3°27'17 | evening max el | 5486 Mar 13 15:03 | 12° ♁ 03'36 | 18°41'38 |
| min. Earth dist. | 5485 Apr 17 01:43 | 23° ♁ 04'40 | 0.63471 AU | retrograde | 5486 Mar 20 06:05 | 15° ♁ 43'43 | |
| morning rise | 5485 Apr 20 13:56 | 19° ♁ 45'36 | | evening set | 5486 Mar 23 11:20 | 14° ♁ 44'38 | |
| direct | 5485 Apr 27 10:07 | 17° ♁ 04'46 | | inferior conj | 5486 Mar 29 03:36 | 9° ♁ 06'43 | 3°31'23 |
| desc. node | 5485 May 01 02:41 | 17° ♁ 45'56 | | minimum elong | 5486 Mar 29 03:11 | 9° ♁ 08'00 | 3°31'23 |
| morning max el | 5485 May 11 07:00 | 25° ♁ 04'13 | 27°43'46 | min. Earth dist. | 5486 Mar 31 01:19 | 6° ♁ 47'24 | 0.65232 AU |
| | 5485 May 15 18:53 | 0° ♁ | | morning rise | 5486 Apr 03 18:29 | 2° ♁ 52'59 | |
| | 5485 Jun 05 02:50 | 0° ♁ | | direct | 5486 Apr 10 09:32 | 0° ♁ 03'37 | |
| morning set | 5485 Jun 14 22:12 | 18° ♁ 19'02 | | desc. node | 5486 Apr 17 23:43 | 2° ♁ 56'59 | |
| max. Earth dist. | 5485 Jun 20 01:36 | 28° ♁ 53'57 | 1.32807 AU | morning max el | 5486 Apr 23 17:04 | 7° ♁ 53'41 | 27°02'00 |
| | 5485 Jun 20 14:04 | 0° ♁ | | | 5486 May 10 20:29 | 0° ♁ | |
| asc. node | 5485 Jun 21 22:03 | 2° ♁ 50'35 | | | 5486 May 28 11:12 | 0° ♁ | |
| | | | | morning set | 5486 May 29 09:26 | 1° ♁ 46'24 | |
| superior conj | 5485 Jun 22 17:33 | 4° ♁ 35'24 | 0°08'27 | max. Earth dist. | 5486 Jun 02 20:11 | 10° ♁ 33'44 | 1.33944 AU |
| minimum elong | 5485 Jun 22 17:09 | 4° ♁ 33'11 | 0°08'20 | | | | |
| behind sun begin | 5485 Jun 22 12:35 | 4° ♁ 08'37 | | superior conj | 5486 Jun 06 19:37 | 18° ♁ 45'55 | -0°20'18 |
| behind sun end | 5485 Jun 22 21:42 | 4° ♁ 57'46 | | minimum elong | 5486 Jun 06 20:42 | 18° ♁ 51'34 | 0°20'06 |
| evening rise | 5485 Jun 29 17:53 | 19° ♁ 43'16 | | asc. node | 5486 Jun 08 19:04 | 22° ♁ 55'56 | |
| | 5485 Jul 04 18:08 | 0° ♁ | | | 5486 Jun 12 02:59 | 0° ♁ | |
| evening max el | 5485 Jul 22 15:53 | 26° ♁ 46'06 | 23°12'20 | evening rise | 5486 Jun 14 04:20 | 4° ♁ 20'07 | |
| | 5485 Jul 26 11:42 | 0° ♁ | | | 5486 Jun 28 08:25 | 0° ♁ | |
| desc. node | 5485 Jul 28 01:55 | 1° ♁ 03'01 | | evening max el | 5486 Jul 04 08:51 | 7° ♁ 12'17 | 21°37'18 |
| retrograde | 5485 Aug 05 02:36 | 3° ♁ 29'41 | | desc. node | 5486 Jul 14 22:55 | 13° ♁ 12'24 | |
| evening set | 5485 Aug 08 22:57 | 2° ♁ 57'19 | | retrograde | 5486 Jul 16 17:58 | 13° ♁ 20'01 | |
| | 5485 Aug 15 13:30 | 30° ♁ | | evening set | 5486 Jul 19 06:52 | 13° ♁ 05'24 | |
| min. Earth dist. | 5485 Aug 16 01:00 | 29° ♁ 43'32 | 0.55575 AU | inferior conj | 5486 Jul 28 14:42 | 9° ♁ 04'38 | -3°48'11 |
| inferior conj | 5485 Aug 17 19:35 | 28° ♁ 41'25 | -4°59'54 | minimum elong | 5486 Jul 28 05:47 | 9° ♁ 17'06 | 3°45'41 |
| minimum elong | 5485 Aug 17 13:40 | 28° ♁ 50'06 | 4°59'06 | min. Earth dist. | 5486 Jul 28 10:49 | 9° ♁ 10'04 | 0.54818 AU |
| morning rise | 5485 Aug 26 06:40 | 24° ♁ 49'42 | | morning rise | 5486 Aug 06 05:54 | 5° ♁ 12'45 | |
| direct | 5485 Aug 29 05:18 | 24° ♁ 28'56 | | direct | 5486 Aug 09 15:23 | 4° ♁ 47'41 | |
| morning max el | 5485 Sep 08 23:13 | 29° ♁ 28'50 | 20°30'24 | morning max el | 5486 Aug 21 23:12 | 10° ♁ 35'39 | 22°02'19 |
| | 5485 Sep 09 12:17 | 0° ♁ | | asc. node | 5486 Sep 04 18:21 | 29° ♁ 44'15 | |
| asc. node | 5485 Sep 17 21:20 | 10° ♁ 58'31 | | | 5486 Sep 04 21:49 | 0° ♁ | |
| morning set | 5485 Sep 27 19:24 | 29° ♁ 37'15 | | morning set | 5486 Sep 12 05:15 | 14° ♁ 25'57 | |
| | 5485 Sep 27 23:50 | 0° ♁ | | | | | |
| | | | | superior conj | 5486 Sep 19 09:23 | 29° ♁ 37'36 | 1°42'36 |
| superior conj | 5485 Oct 05 08:20 | 15° ♁ 09'23 | 1°42'14 | minimum elong | 5486 Sep 19 08:49 | 29° ♁ 34'35 | 1°42'35 |
| minimum elong | 5485 Oct 05 09:09 | 15° ♁ 13'32 | 1°42'13 | | 5486 Sep 19 13:39 | 0° ♁ | |
| max. Earth dist. | 5485 Oct 10 11:10 | 25° ♁ 19'08 | 1.36234 AU | max. Earth dist. | 5486 Sep 23 01:16 | 7° ♁ 13'27 | 1.34536 AU |
| | 5485 Oct 12 22:08 | 0° ♁ | | evening rise | 5486 Sep 27 12:37 | 16° ♁ 06'47 | |
| evening rise | 5485 Oct 14 09:18 | 2° ♁ 43'33 | | | 5486 Oct 05 02:23 | 0° ♁ | |
| desc. node | 5485 Oct 24 01:11 | 19° ♁ 29'15 | | desc. node | 5486 Oct 10 22:11 | 9° ♁ 41'27 | |
| | 5485 Oct 30 18:54 | 0° ♁ | | | 5486 Oct 25 07:00 | 0° ♁ | |
| evening max el | 5485 Nov 19 00:44 | 24° ♁ 21'43 | 26°05'17 | evening max el | 5486 Nov 01 13:27 | 7° ♁ 59'14 | 26°56'50 |
| | 5485 Nov 26 07:48 | 0° ♁ | | retrograde | 5486 Nov 14 18:17 | 15° ♁ 16'54 | |
| retrograde | 5485 Dec 01 15:06 | 1° ♁ 30'19 | | evening set | 5486 Nov 21 11:16 | 12° ♁ 37'33 | |
| | 5485 Dec 06 10:20 | 30° ♁ | | min. Earth dist. | 5486 Nov 25 10:31 | 8° ♁ 42'42 | 0.65586 AU |
| evening set | 5485 Dec 07 20:11 | 28° ♁ 57'29 | | inferior conj | 5486 Nov 27 10:06 | 6° ♁ 26'04 | -1°27'28 |

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| minimum elong | 5486 Nov 27 12:36 | 6°♊18'52 | 1°26'24 | asc. node | 5487 Nov 18 14:39 | 14°♌20'43 | |
| asc. node | 5486 Dec 01 17:36 | 2°♊02'30 | | direct | 5487 Nov 20 01:33 | 14°♌10'01 | |
| morning rise | 5486 Dec 03 14:55 | 0°♊48'43 | | morning max el | 5487 Nov 26 13:58 | 17°♌34'54 | 17°52'30 |
| direct | 5486 Dec 06 09:16 | 0°♊07'02 | | | 5487 Dec 05 13:59 | 0°♊ | |
| morning max el | 5486 Dec 12 21:13 | 3°♊36'19 | 18°12'08 | morning set | 5487 Dec 13 10:36 | 13°♊14'35 | |
| | 5486 Dec 30 18:58 | 0°♊ | | | 5487 Dec 23 09:52 | 0°♊ | |
| morning set | 5486 Dec 31 15:00 | 1°♊21'34 | | desc. node | 5487 Dec 24 18:29 | 2°♊13'48 | |
| desc. node | 5487 Jan 06 21:29 | 11°♊30'45 | | | | | |
| | | | | superior conj | 5487 Dec 26 09:23 | 4°♊52'14 | -0°11'22 |
| superior conj | 5487 Jan 15 14:08 | 25°♊20'27 | -0°58'04 | minimum elong | 5487 Dec 26 08:05 | 4°♊46'57 | 0°11'10 |
| minimum elong | 5487 Jan 15 07:03 | 24°♊52'34 | 0°57'09 | behind sun begin | 5487 Dec 26 00:47 | 4°♊17'20 | |
| max. Earth dist. | 5487 Jan 17 23:22 | 29°♊05'26 | 1.45295 AU | behind sun end | 5487 Dec 26 15:23 | 5°♊16'33 | |
| | 5487 Jan 18 13:17 | 0°♊ | | max. Earth dist. | 5487 Dec 31 17:46 | 13°♊27'14 | 1.44637 AU |
| evening rise | 5487 Jan 31 19:44 | 20°♊42'16 | | evening rise | 5488 Jan 11 07:40 | 29°♊57'11 | |
| | 5487 Feb 06 19:11 | 0°♊ | | | 5488 Jan 11 08:24 | 0°♊ | |
| greatest brilliancy | 5487 Feb 12 21:00 | 9°♊20'05 | -0.7m | | 5488 Jan 31 14:18 | 0°♊ | |
| evening max el | 5487 Feb 24 22:54 | 25°♊35'55 | 19°25'23 | evening max el | 5488 Feb 08 01:45 | 9°♊10'13 | 20°24'18 |
| asc. node | 5487 Feb 27 16:51 | 28°♊00'54 | | asc. node | 5488 Feb 14 13:54 | 13°♊39'18 | |
| retrograde | 5487 Mar 04 02:55 | 29°♊42'08 | | retrograde | 5488 Feb 16 01:11 | 13°♊50'50 | |
| evening set | 5487 Mar 07 15:29 | 28°♊29'28 | | evening set | 5488 Feb 19 22:23 | 12°♊23'43 | |
| inferior conj | 5487 Mar 13 02:43 | 22°♊36'04 | 3°20'49 | inferior conj | 5488 Feb 25 07:01 | 6°♊17'12 | 2°58'43 |
| minimum elong | 5487 Mar 13 01:10 | 22°♊41'08 | 3°20'37 | minimum elong | 5488 Feb 25 04:49 | 6°♊24'44 | 2°58'14 |
| min. Earth dist. | 5487 Mar 14 09:20 | 20°♊56'05 | 0.66592 AU | min. Earth dist. | 5488 Feb 25 23:49 | 5°♊20'00 | 0.67520 AU |
| morning rise | 5487 Mar 18 10:33 | 16°♊20'47 | | morning rise | 5488 Mar 01 11:01 | 0°♊02'46 | |
| direct | 5487 Mar 24 15:29 | 13°♊35'22 | | | 5488 Mar 01 12:15 | 30°♊ | |
| desc. node | 5487 Apr 04 20:46 | 19°♊47'55 | | direct | 5488 Mar 07 02:53 | 27°♊31'08 | |
| morning max el | 5487 Apr 06 02:56 | 21°♊02'03 | 25°54'17 | | 5488 Mar 13 12:37 | 0°♊ | |
| | 5487 Apr 13 21:07 | 0°♊ | | morning max el | 5488 Mar 18 11:35 | 4°♊19'04 | 24°30'39 |
| | 5487 May 04 01:01 | 0°♊ | | desc. node | 5488 Mar 21 17:48 | 7°♊50'33 | |
| morning set | 5487 May 12 07:00 | 14°♊30'42 | | | 5488 Apr 07 04:42 | 0°♊ | |
| max. Earth dist. | 5487 May 16 03:12 | 21°♊44'25 | 1.35545 AU | morning set | 5488 Apr 23 09:46 | 26°♊18'02 | |
| | 5487 May 20 08:14 | 0°♊ | | | 5488 Apr 25 11:54 | 0°♊ | |
| | | | | max. Earth dist. | 5488 Apr 27 00:51 | 2°♊46'29 | 1.37540 AU |
| superior conj | 5487 May 21 13:55 | 2°♊29'18 | -0°50'20 | | | | |
| minimum elong | 5487 May 21 16:44 | 2°♊43'30 | 0°49'49 | superior conj | 5488 May 03 21:20 | 15°♊37'47 | -1°19'45 |
| asc. node | 5487 May 26 16:06 | 12°♊55'22 | | minimum elong | 5488 May 04 01:44 | 15°♊59'05 | 1°19'05 |
| evening rise | 5487 May 29 11:26 | 18°♊42'15 | | | 5488 May 11 04:01 | 0°♊ | |
| | 5487 Jun 04 04:24 | 0°♊ | | evening rise | 5488 May 12 12:49 | 2°♊43'19 | |
| evening max el | 5487 Jun 16 13:12 | 18°♊11'23 | 20°15'57 | asc. node | 5488 May 12 13:09 | 2°♊45'01 | |
| retrograde | 5487 Jun 27 07:28 | 23°♊27'40 | | | 5488 May 29 08:43 | 0°♊ | |
| evening set | 5487 Jun 29 06:03 | 23°♊18'06 | | evening max el | 5488 May 29 06:09 | 29°♊53'47 | 19°13'43 |
| desc. node | 5487 Jul 01 19:58 | 22°♊38'00 | | retrograde | 5488 Jun 07 07:23 | 4°♊19'27 | |
| inferior conj | 5487 Jul 08 09:20 | 19°♊19'56 | -1°57'18 | evening set | 5488 Jun 09 06:41 | 4°♊07'45 | |
| minimum elong | 5487 Jul 08 03:51 | 19°♊28'00 | 1°55'18 | inferior conj | 5488 Jun 17 17:22 | 29°♊58'01 | -0°00'16 |
| min. Earth dist. | 5487 Jul 09 22:37 | 18°♊25'04 | 0.55013 AU | minimum elong | 5488 Jun 17 17:21 | 29°♊58'03 | 0°00'17 |
| morning rise | 5487 Jul 17 00:23 | 15°♊06'54 | | transit middle | 5488 Jun 17 17:21 | 29°♊58'03 | 0°00'17 |
| direct | 5487 Jul 21 01:56 | 14°♊31'05 | | transit begin | 5488 Jun 17 13:31 | 0°♊04'27 | |
| morning max el | 5487 Aug 03 14:54 | 21°♊07'25 | 23°45'35 | transit end | 5488 Jun 17 21:11 | 29°♊51'38 | |
| | 5487 Aug 11 06:25 | 0°♊ | | desc. node | 5488 Jun 17 17:01 | 29°♊58'37 | |
| asc. node | 5487 Aug 22 15:22 | 18°♊59'38 | | | 5488 Jun 17 16:11 | 30°♊ | |
| morning set | 5487 Aug 27 16:47 | 29°♊18'25 | | min. Earth dist. | 5488 Jun 20 13:06 | 28°♊05'23 | 0.56140 AU |
| | 5487 Aug 28 00:38 | 0°♊ | | morning rise | 5488 Jun 26 00:57 | 25°♊10'45 | |
| | | | | direct | 5488 Jul 01 00:11 | 24°♊13'48 | |
| superior conj | 5487 Sep 03 16:12 | 14°♊21'39 | 1°36'35 | | 5488 Jul 13 13:59 | 0°♊ | |
| minimum elong | 5487 Sep 03 14:36 | 14°♊13'03 | 1°36'29 | morning max el | 5488 Jul 15 04:26 | 1°♊27'45 | 25°26'26 |
| max. Earth dist. | 5487 Sep 06 00:02 | 19°♊21'15 | 1.33244 AU | | 5488 Aug 04 02:54 | 0°♊ | |
| evening rise | 5487 Sep 11 04:07 | 0°♊04'07 | | asc. node | 5488 Aug 08 12:25 | 8°♊36'45 | |
| | 5487 Sep 11 03:18 | 0°♊ | | morning set | 5488 Aug 11 04:22 | 14°♊09'47 | |
| desc. node | 5487 Sep 27 19:12 | 29°♊29'49 | | | | | |
| | 5487 Sep 28 03:06 | 0°♊ | | superior conj | 5488 Aug 18 02:29 | 29°♊14'13 | 1°25'06 |
| evening max el | 5487 Oct 15 01:21 | 21°♊19'25 | 27°24'32 | minimum elong | 5488 Aug 18 00:19 | 29°♊02'17 | 1°24'50 |
| retrograde | 5487 Oct 28 15:29 | 28°♊37'49 | | | 5488 Aug 18 10:50 | 0°♊ | |
| evening set | 5487 Nov 04 16:52 | 26°♊00'08 | | max. Earth dist. | 5488 Aug 19 06:17 | 1°♊46'35 | 1.32386 AU |
| min. Earth dist. | 5487 Nov 08 10:43 | 22°♊38'42 | 0.64069 AU | evening rise | 5488 Aug 25 04:27 | 14°♊26'02 | |
| inferior conj | 5487 Nov 10 22:10 | 20°♊03'37 | -2°31'23 | | 5488 Sep 02 04:24 | 0°♊ | |
| minimum elong | 5487 Nov 11 02:36 | 19°♊52'00 | 2°29'41 | desc. node | 5488 Sep 13 16:15 | 18°♊44'27 | |
| morning rise | 5487 Nov 17 13:48 | 14°♊41'06 | | | 5488 Sep 22 10:01 | 0°♊ | |

| | | | | | | | |
|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| evening max el | 5488 Sep 26 10:32 | 4°♍10'01 | 27°22'13 | retrograde | 5489 Sep 22 11:50 | 23°♌26'28 | |
| retrograde | 5488 Oct 10 05:44 | 11°♍24'03 | | evening set | 5489 Sep 29 09:03 | 21°♌25'26 | |
| evening set | 5488 Oct 17 09:35 | 8°♍58'48 | | min. Earth dist. | 5489 Oct 03 04:02 | 18°♌48'43 | 0.60227 AU |
| min. Earth dist. | 5488 Oct 21 00:49 | 6°♍05'16 | 0.62255 AU | inferior conj | 5489 Oct 06 09:13 | 16°♌11'44 | -4°31'05 |
| inferior conj | 5488 Oct 23 23:01 | 3°♍22'03 | -3°34'35 | minimum elong | 5489 Oct 06 15:29 | 15°♌58'56 | 4°29'41 |
| minimum elong | 5488 Oct 24 05:03 | 3°♍08'00 | 3°32'41 | morning rise | 5489 Oct 13 23:56 | 11°♌28'50 | |
| | 5488 Oct 27 22:07 | 30°♋♌ | | direct | 5489 Oct 16 07:32 | 11°♌08'35 | |
| morning rise | 5488 Oct 31 02:19 | 28°♌17'38 | | asc. node | 5489 Oct 22 08:44 | 13°♌34'10 | |
| direct | 5488 Nov 02 10:20 | 27°♌53'29 | | morning max el | 5489 Oct 23 18:39 | 14°♌49'17 | 18°08'14 |
| asc. node | 5488 Nov 04 11:42 | 28°♌12'49 | | | 5489 Nov 03 05:07 | 0°♍ | |
| | 5488 Nov 07 17:10 | 0°♍ | | morning set | 5489 Nov 08 13:08 | 9°♍50'20 | |
| morning max el | 5488 Nov 09 06:13 | 1°♍22'06 | 17°50'45 | | | | |
| morning set | 5488 Nov 25 04:02 | 26°♍10'17 | | superior conj | 5489 Nov 18 04:22 | 27°♍39'05 | 1°03'38 |
| | 5488 Nov 27 07:23 | 0°♊ | | minimum elong | 5489 Nov 18 08:16 | 27°♍56'31 | 1°03'09 |
| | | | | | 5489 Nov 19 11:57 | 0°♊ | |
| superior conj | 5488 Dec 06 06:12 | 15°♊38'46 | 0°30'53 | max. Earth dist. | 5489 Nov 25 20:09 | 10°♊58'05 | 1.41525 AU |
| minimum elong | 5488 Dec 06 08:57 | 15°♊50'28 | 0°30'31 | desc. node | 5489 Nov 27 12:32 | 13°♊46'55 | |
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| max. Earth dist. | 5488 Dec 13 09:13 | 27°♊29'29 | 1.43332 AU | | 5489 Dec 07 16:19 | 0°♊ | |
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| | 5489 Jan 03 13:18 | 0°♋ | | retrograde | 5490 Jan 13 18:15 | 12°♋23'27 | |
| evening max el | 5489 Jan 20 23:11 | 22°♋45'54 | 21°35'05 | asc. node | 5490 Jan 18 08:00 | 10°♋36'12 | |
| retrograde | 5489 Jan 29 22:49 | 28°♋05'40 | | evening set | 5490 Jan 18 13:22 | 10°♋25'17 | |
| asc. node | 5489 Jan 31 10:58 | 27°♋53'35 | | inferior conj | 5490 Jan 23 22:23 | 4°♋01'30 | 1°47'18 |
| evening set | 5489 Feb 03 06:13 | 26°♋23'16 | | minimum elong | 5490 Jan 23 20:16 | 4°♋08'48 | 1°46'34 |
| inferior conj | 5489 Feb 08 14:14 | 20°♋06'27 | 2°27'05 | min. Earth dist. | 5490 Jan 23 15:03 | 4°♋26'51 | 0.68145 AU |
| minimum elong | 5489 Feb 08 11:50 | 20°♋14'45 | 2°26'23 | | 5490 Jan 27 00:25 | 30°♋♊ | |
| min. Earth dist. | 5489 Feb 08 18:28 | 19°♋51'44 | 0.68031 AU | morning rise | 5490 Jan 29 03:06 | 27°♊53'26 | |
| morning rise | 5489 Feb 13 17:17 | 13°♋54'27 | | direct | 5490 Feb 02 14:02 | 26°♊04'47 | |
| direct | 5489 Feb 18 18:43 | 11°♋42'59 | | | 5490 Feb 10 03:41 | 0°♋ | |
| morning max el | 5489 Feb 28 20:55 | 17°♋41'52 | 23°01'19 | morning max el | 5490 Feb 11 10:36 | 1°♋14'05 | 21°35'23 |
| desc. node | 5489 Mar 08 14:49 | 26°♋44'18 | | desc. node | 5490 Feb 23 11:49 | 16°♋15'02 | |
| | 5489 Mar 11 02:17 | 0°♋ | | | 5490 Mar 04 22:54 | 0°♋ | |
| | 5489 Mar 31 07:00 | 0°♋ | | morning set | 5490 Mar 15 09:04 | 16°♋05'35 | |
| morning set | 5489 Apr 04 11:39 | 6°♋51'48 | | max. Earth dist. | 5490 Mar 21 20:49 | 26°♋36'46 | 1.41865 AU |
| max. Earth dist. | 5489 Apr 08 20:25 | 14°♋15'33 | 1.39741 AU | | 5490 Mar 23 21:37 | 0°♋ | |
| | | | | | | | |
| superior conj | 5489 Apr 16 13:40 | 28°♋00'24 | -1°45'40 | superior conj | 5490 Mar 29 10:05 | 9°♋25'43 | -2°03'55 |
| minimum elong | 5489 Apr 16 18:47 | 28°♋23'52 | 1°45'09 | minimum elong | 5490 Mar 29 13:44 | 9°♋41'34 | 2°03'45 |
| | 5489 Apr 17 15:37 | 0°♋ | | evening rise | 5490 Apr 09 09:28 | 29°♋07'46 | |
| evening rise | 5489 Apr 26 05:24 | 16°♋14'44 | | | 5490 Apr 09 20:53 | 0°♋ | |
| asc. node | 5489 Apr 29 10:13 | 22°♋19'32 | | asc. node | 5490 Apr 16 07:16 | 11°♋33'26 | |
| | 5489 May 03 15:43 | 0°♋ | | evening max el | 5490 Apr 25 18:36 | 25°♋04'50 | 18°10'01 |
| evening max el | 5489 May 12 09:08 | 12°♋14'27 | 18°31'48 | retrograde | 5490 May 02 14:53 | 28°♋32'27 | |
| retrograde | 5489 May 20 01:54 | 16°♋02'52 | | evening set | 5490 May 05 03:24 | 28°♋04'49 | |
| evening set | 5489 May 22 07:32 | 15°♋44'38 | | inferior conj | 5490 May 12 00:03 | 23°♋14'59 | 2°40'03 |
| inferior conj | 5489 May 29 22:08 | 11°♋15'31 | 1°35'18 | minimum elong | 5490 May 12 03:20 | 23°♋07'28 | 2°39'17 |
| minimum elong | 5489 May 30 01:11 | 11°♋09'32 | 1°34'17 | min. Earth dist. | 5490 May 15 08:05 | 20°♋13'38 | 0.60124 AU |
| min. Earth dist. | 5489 Jun 02 07:25 | 8°♋37'40 | 0.57959 AU | morning rise | 5490 May 19 00:45 | 17°♋26'53 | |
| desc. node | 5489 Jun 04 14:04 | 7°♋03'16 | | desc. node | 5490 May 22 11:05 | 15°♋52'32 | |
| morning rise | 5489 Jun 06 15:36 | 5°♋53'37 | | direct | 5490 May 25 13:13 | 15°♋25'20 | |
| direct | 5489 Jun 12 12:25 | 4°♋25'59 | | morning max el | 5490 Jun 08 21:21 | 23°♋19'10 | 27°39'36 |
| morning max el | 5489 Jun 26 21:36 | 12°♋04'35 | 26°48'48 | | 5490 Jun 14 20:41 | 0°♋ | |
| | 5489 Jul 10 21:43 | 0°♋ | | | 5490 Jul 04 01:42 | 0°♋ | |
| asc. node | 5489 Jul 26 09:28 | 28°♋28'35 | | morning set | 5490 Jul 10 20:55 | 13°♋26'30 | |
| morning set | 5489 Jul 26 14:19 | 28°♋54'10 | | asc. node | 5490 Jul 13 06:30 | 18°♋30'07 | |
| | 5489 Jul 27 02:46 | 0°♋ | | max. Earth dist. | 5490 Jul 17 03:52 | 26°♋57'21 | 1.31943 AU |
| | | | | | | | |
| superior conj | 5489 Aug 02 14:14 | 14°♋07'57 | 1°08'47 | superior conj | 5490 Jul 18 01:39 | 28°♋57'24 | 0°48'11 |
| minimum elong | 5489 Aug 02 11:57 | 13°♋55'19 | 1°08'23 | minimum elong | 5490 Jul 17 23:44 | 28°♋46'48 | 0°47'47 |
| max. Earth dist. | 5489 Aug 02 16:50 | 14°♋22'20 | 1.31955 AU | | 5490 Jul 18 13:00 | 0°♋ | |
| evening rise | 5489 Aug 09 10:44 | 29°♋03'04 | | evening rise | 5490 Jul 24 20:42 | 13°♋48'17 | |
| | 5489 Aug 09 21:34 | 0°♋ | | | 5490 Aug 01 23:08 | 0°♋ | |
| | 5489 Aug 26 10:53 | 0°♋ | | desc. node | 5490 Aug 18 10:19 | 24°♋30'01 | |
| desc. node | 5489 Aug 31 13:17 | 7°♋10'57 | | evening max el | 5490 Aug 21 09:46 | 27°♋34'18 | 25°38'53 |
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


































































































































| | | | | | | | |
|------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| retrograde | 5490 Sep 04 08:30 | 4°♄39'37 | | desc. node | 5491 Aug 05 07:20 | 10°♄15'25 | |
| evening set | 5490 Sep 10 10:23 | 3°♄12'59 | | retrograde | 5491 Aug 16 18:01 | 15°♄06'20 | |
| min. Earth dist. | 5490 Sep 14 21:46 | 0°♄35'52 | 0.58166 AU | evening set | 5491 Aug 21 11:26 | 14°♄16'51 | |
| | 5490 Sep 15 18:30 | 30°♄ | | min. Earth dist. | 5491 Aug 27 09:51 | 11°♄20'28 | 0.56357 AU |
| inferior conj | 5490 Sep 18 01:14 | 28°♄22'41 | -5°10'29 | inferior conj | 5491 Aug 29 21:07 | 9°♄48'37 | -5°17'19 |
| minimum elong | 5490 Sep 18 04:57 | 28°♄16'05 | 5°10'07 | minimum elong | 5491 Aug 29 18:58 | 9°♄51'58 | 5°17'14 |
| morning rise | 5490 Sep 26 01:48 | 24°♄03'12 | | morning rise | 5491 Sep 07 05:00 | 5°♄49'25 | |
| direct | 5490 Sep 28 12:34 | 23°♄44'25 | | direct | 5491 Sep 09 22:14 | 5°♄30'05 | |
| morning max el | 5490 Oct 06 23:54 | 27°♄47'01 | 18°46'21 | morning max el | 5491 Sep 19 18:50 | 10°♄06'18 | 19°46'13 |
| asc. node | 5490 Oct 09 05:45 | 0°♄11'14 | | asc. node | 5491 Sep 26 02:47 | 17°♄49'10 | |
| | 5490 Oct 09 01:57 | 0°♄ | | | 5491 Oct 03 04:48 | 0°♄ | |
| morning set | 5490 Oct 23 09:05 | 24°♄00'26 | | morning set | 5491 Oct 07 12:25 | 8°♄31'24 | |
| | 5490 Oct 26 10:31 | 0°♄ | | | | | |
| superior conj | 5490 Oct 31 22:57 | 10°♄38'34 | 1°25'57 | superior conj | 5491 Oct 15 08:41 | 24°♄22'32 | 1°38'42 |
| minimum elong | 5490 Nov 01 02:06 | 10°♄53'31 | 1°25'39 | minimum elong | 5491 Oct 15 10:23 | 24°♄31'00 | 1°38'36 |
| max. Earth dist. | 5490 Nov 08 02:11 | 23°♄42'10 | 1.39441 AU | | 5491 Oct 18 05:35 | 0°♄ | |
| | 5490 Nov 11 17:19 | 0°♄ | | max. Earth dist. | 5491 Oct 21 07:06 | 5°♄49'28 | 1.37346 AU |
| evening rise | 5490 Nov 12 01:29 | 0°♄34'39 | | evening rise | 5491 Oct 25 01:26 | 12°♄42'32 | |
| desc. node | 5490 Nov 14 09:33 | 4°♄29'46 | | desc. node | 5491 Nov 01 06:35 | 25°♄05'07 | |
| | 5490 Dec 01 01:04 | 0°♄ | | | 5491 Nov 04 07:36 | 0°♄ | |
| evening max el | 5490 Dec 17 05:27 | 20°♄04'45 | 24°12'59 | evening max el | 5491 Nov 29 18:04 | 3°♄48'55 | 25°27'37 |
| retrograde | 5490 Dec 28 10:17 | 26°♄39'20 | | retrograde | 5491 Dec 11 21:57 | 10°♄48'49 | |
| evening set | 5491 Jan 02 18:15 | 24°♄25'58 | | evening set | 5491 Dec 17 19:17 | 8°♄22'11 | |
| asc. node | 5491 Jan 05 05:02 | 21°♄54'52 | | min. Earth dist. | 5491 Dec 22 04:57 | 3°♄31'39 | 0.67270 AU |
| min. Earth dist. | 5491 Jan 07 11:18 | 19°♄01'06 | 0.67886 AU | inferior conj | 5491 Dec 23 10:16 | 1°♄57'16 | 0°07'00 |
| inferior conj | 5491 Jan 08 05:39 | 17°♄59'13 | 1°00'18 | minimum elong | 5491 Dec 23 10:05 | 1°♄57'51 | 0°06'56 |
| minimum elong | 5491 Jan 08 04:17 | 18°♄03'51 | 0°59'47 | transit middle | 5491 Dec 23 10:05 | 1°♄57'51 | 0°06'56 |
| morning rise | 5491 Jan 13 14:23 | 11°♄56'41 | | transit begin | 5491 Dec 23 07:34 | 2°♄06'00 | |
| direct | 5491 Jan 17 11:44 | 10°♄30'32 | | transit end | 5491 Dec 23 12:37 | 1°♄49'42 | |
| morning max el | 5491 Jan 25 07:26 | 14°♄57'41 | 20°19'21 | asc. node | 5491 Dec 23 02:01 | 2°♄23'52 | |
| | 5491 Feb 06 02:41 | 0°♄ | | | 5491 Dec 24 23:26 | 30°♄ | |
| desc. node | 5491 Feb 10 08:49 | 6°♄12'09 | | morning rise | 5491 Dec 29 01:14 | 26°♄02'15 | |
| morning set | 5491 Feb 22 08:34 | 24°♄22'27 | | direct | 5492 Jan 01 10:33 | 24°♄56'07 | |
| | 5491 Feb 25 23:19 | 0°♄ | | morning max el | 5492 Jan 08 12:11 | 28°♄52'11 | 19°17'15 |
| max. Earth dist. | 5491 Mar 04 04:14 | 9°♄50'07 | 1.43634 AU | | 5492 Jan 09 14:11 | 0°♄ | |
| superior conj | 5491 Mar 10 06:00 | 19°♄43'38 | -2°09'03 | greatest brilliancy | 5492 Jan 21 21:05 | 16°♄45'54 | -0.7m |
| minimum elong | 5491 Mar 10 04:51 | 19°♄38'56 | 2°09'02 | desc. node | 5492 Jan 28 05:50 | 26°♄28'47 | |
| | 5491 Mar 16 08:52 | 0°♄ | | | 5492 Jan 30 12:35 | 0°♄ | |
| evening rise | 5491 Mar 22 20:35 | 11°♄12'01 | | morning set | 5492 Feb 01 08:14 | 2°♄48'54 | |
| | 5491 Apr 02 23:18 | 0°♄ | | max. Earth dist. | 5492 Feb 14 18:08 | 23°♄44'58 | 1.44840 AU |
| asc. node | 5491 Apr 03 04:18 | 0°♄19'12 | | superior conj | 5492 Feb 18 01:13 | 28°♄58'05 | -1°55'48 |
| evening max el | 5491 Apr 09 07:07 | 8°♄15'24 | 18°07'43 | minimum elong | 5492 Feb 17 17:47 | 28°♄28'33 | 1°55'18 |
| retrograde | 5491 Apr 15 18:00 | 11°♄37'26 | | | 5492 Feb 18 16:47 | 0°♄ | |
| evening set | 5491 Apr 18 13:01 | 10°♄58'31 | | evening rise | 5492 Mar 03 10:31 | 22°♄20'27 | |
| inferior conj | 5491 Apr 24 19:38 | 5°♄49'03 | 3°16'42 | | 5492 Mar 08 01:18 | 0°♄ | |
| minimum elong | 5491 Apr 24 21:39 | 5°♄43'47 | 3°16'26 | asc. node | 5492 Mar 20 01:19 | 18°♄28'21 | |
| min. Earth dist. | 5491 Apr 27 17:13 | 2°♄48'39 | 0.62305 AU | evening max el | 5492 Mar 22 19:45 | 21°♄39'03 | 18°24'09 |
| | 5491 Apr 30 20:50 | 30°♄ | | retrograde | 5492 Mar 29 06:48 | 25°♄08'53 | |
| morning rise | 5491 May 01 04:43 | 29°♄45'17 | | evening set | 5492 Apr 01 08:13 | 24°♄17'27 | |
| direct | 5491 May 08 00:29 | 27°♄15'17 | | inferior conj | 5492 Apr 07 04:45 | 18°♄49'42 | 3°31'05 |
| desc. node | 5491 May 09 08:05 | 27°♄20'29 | | minimum elong | 5492 Apr 07 05:10 | 18°♄48'30 | 3°31'04 |
| | 5491 May 15 19:59 | 0°♄ | | min. Earth dist. | 5492 Apr 09 11:35 | 16°♄11'03 | 0.64269 AU |
| morning max el | 5491 May 22 03:00 | 5°♄16'13 | 27°52'53 | morning rise | 5492 Apr 13 01:16 | 12°♄38'14 | |
| | 5491 Jun 09 17:03 | 0°♄ | | direct | 5492 Apr 19 20:08 | 9°♄51'44 | |
| morning set | 5491 Jun 24 22:08 | 27°♄40'27 | | desc. node | 5492 Apr 25 05:06 | 11°♄19'16 | |
| | 5491 Jun 26 01:25 | 0°♄ | | morning max el | 5492 May 03 12:05 | 17°♄49'21 | 27°29'36 |
| asc. node | 5491 Jun 30 03:33 | 8°♄36'48 | | | 5492 May 13 16:39 | 0°♄ | |
| max. Earth dist. | 5491 Jun 30 11:25 | 9°♄19'08 | 1.32356 AU | | 5492 Jun 01 14:01 | 0°♄ | |
| superior conj | 5491 Jul 02 11:02 | 13°♄37'05 | 0°23'52 | morning set | 5492 Jun 07 15:23 | 11°♄27'38 | |
| minimum elong | 5491 Jul 02 09:56 | 13°♄31'09 | 0°23'36 | max. Earth dist. | 5492 Jun 12 11:28 | 21°♄15'14 | 1.33227 AU |
| evening rise | 5491 Jul 09 08:21 | 28°♄35'27 | | superior conj | 5492 Jun 15 16:25 | 28°♄00'28 | -0°03'32 |
| | 5491 Jul 10 00:16 | 0°♄ | | minimum elong | 5492 Jun 15 16:36 | 28°♄01'25 | 0°03'31 |
| | 5491 Jul 26 22:50 | 0°♄ | | behind sun begin | 5492 Jun 15 11:16 | 27°♄33'04 | |
| evening max el | 5491 Aug 02 23:10 | 8°♄10'06 | 24°08'43 | behind sun end | 5492 Jun 15 21:55 | 28°♄29'48 | |

| | | | | | | | |
|---------------------|-------------------|-----------------------------------|------------|---------------------|-------------------|-----------------------------------|------------|
| asc. node | 5492 Jun 16 00:34 | 28° Π 43'55 | | minimum elong | 5493 May 30 17:23 | 12° Π 10'21 | 0°32'37 |
| | 5492 Jun 16 14:48 | 0° \mathfrak{G} | | asc. node | 5493 Jun 02 21:36 | 18° Π 47'38 | |
| evening rise | 5492 Jun 22 19:48 | 13° \mathfrak{G} 17'53 | | evening rise | 5493 Jun 07 05:08 | 27° Π 49'47 | |
| | 5492 Jul 01 06:46 | 0° Ω | | | 5493 Jun 08 06:20 | 0° \mathfrak{G} | |
| evening max el | 5492 Jul 14 12:36 | 18° Ω 30'39 | 22°30'58 | evening max el | 5493 Jun 26 10:04 | 29° \mathfrak{G} 09'00 | 21°00'35 |
| desc. node | 5492 Jul 22 04:22 | 23° Ω 53'11 | | | 5493 Jun 27 07:40 | 0° Ω | |
| retrograde | 5492 Jul 27 14:47 | 25° Ω 01'20 | | retrograde | 5493 Jul 08 03:20 | 4° Ω 55'10 | |
| evening set | 5492 Jul 30 19:52 | 24° Ω 38'39 | | desc. node | 5493 Jul 09 01:22 | 4° Ω 53'09 | |
| min. Earth dist. | 5492 Aug 07 19:53 | 21° Ω 08'55 | 0.55140 AU | evening set | 5493 Jul 10 08:07 | 4° Ω 43'46 | |
| inferior conj | 5492 Aug 08 22:57 | 20° Ω 30'31 | -4°35'48 | inferior conj | 5493 Jul 19 16:01 | 0° Ω 46'20 | -3°04'13 |
| minimum elong | 5492 Aug 08 14:58 | 20° Ω 41'52 | 4°34'11 | minimum elong | 5493 Jul 19 07:55 | 0° Ω 57'46 | 3°01'34 |
| morning rise | 5492 Aug 17 11:59 | 16° Ω 40'44 | | min. Earth dist. | 5493 Jul 20 06:17 | 0° Ω 26'12 | 0.54788 AU |
| direct | 5492 Aug 20 14:43 | 16° Ω 18'36 | | | 5493 Jul 21 00:58 | 30° \mathfrak{R} \mathfrak{G} | |
| morning max el | 5492 Sep 01 01:26 | 21° Ω 38'58 | 21°07'24 | morning rise | 5493 Jul 28 07:54 | 26° \mathfrak{G} 47'57 | |
| | 5492 Sep 08 01:20 | 0° \mathfrak{M} | | direct | 5493 Jul 31 23:46 | 26° \mathfrak{G} 19'10 | |
| asc. node | 5492 Sep 11 23:48 | 6° \mathfrak{M} 13'26 | | | 5493 Aug 10 22:02 | 0° Ω | |
| morning set | 5492 Sep 20 20:29 | 23° \mathfrak{M} 15'05 | | morning max el | 5493 Aug 13 21:05 | 2° Ω 28'01 | 22°45'27 |
| | 5492 Sep 24 02:02 | 0° \mathfrak{L} | | asc. node | 5493 Aug 29 20:52 | 25° Ω 12'53 | |
| | | | | | 5493 Sep 01 08:26 | 0° \mathfrak{M} | |
| superior conj | 5492 Sep 28 05:08 | 8° \mathfrak{L} 37'08 | 1°43'13 | morning set | 5493 Sep 05 07:18 | 8° \mathfrak{M} 05'52 | |
| minimum elong | 5492 Sep 28 05:20 | 8° \mathfrak{L} 38'08 | 1°43'13 | | | | |
| max. Earth dist. | 5492 Oct 02 16:41 | 17° \mathfrak{L} 41'50 | 1.35467 AU | superior conj | 5493 Sep 12 08:57 | 23° \mathfrak{M} 12'38 | 1°40'45 |
| evening rise | 5492 Oct 06 20:00 | 25° \mathfrak{L} 41'24 | | minimum elong | 5493 Sep 12 07:54 | 23° \mathfrak{M} 07'01 | 1°40'43 |
| | 5492 Oct 09 03:49 | 0° \mathfrak{M} | | max. Earth dist. | 5493 Sep 15 10:43 | 29° \mathfrak{M} 41'26 | 1.33942 AU |
| desc. node | 5492 Oct 18 03:36 | 15° \mathfrak{M} 27'18 | | | 5493 Sep 15 14:18 | 0° \mathfrak{L} | |
| | 5492 Oct 27 18:48 | 0° \mathfrak{J} | | evening rise | 5493 Sep 20 05:00 | 9° \mathfrak{L} 20'12 | |
| evening max el | 5492 Nov 11 06:56 | 17° \mathfrak{J} 31'32 | 26°29'46 | | 5493 Oct 01 14:47 | 0° \mathfrak{M} | |
| retrograde | 5492 Nov 24 04:21 | 24° \mathfrak{J} 45'10 | | desc. node | 5493 Oct 05 00:38 | 5° \mathfrak{M} 30'09 | |
| evening set | 5492 Nov 30 14:37 | 22° \mathfrak{J} 09'06 | | | 5493 Oct 23 17:45 | 0° \mathfrak{J} | |
| min. Earth dist. | 5492 Dec 04 17:37 | 17° \mathfrak{J} 53'40 | 0.66301 AU | evening max el | 5493 Oct 24 19:43 | 1° \mathfrak{J} 03'28 | 27°11'57 |
| inferior conj | 5492 Dec 06 10:16 | 15° \mathfrak{J} 51'13 | -0°51'43 | retrograde | 5493 Nov 07 04:50 | 8° \mathfrak{J} 21'18 | |
| minimum elong | 5492 Dec 06 11:42 | 15° \mathfrak{J} 46'55 | 0°51'06 | evening set | 5493 Nov 14 01:59 | 5° \mathfrak{J} 41'46 | |
| asc. node | 5492 Dec 08 23:03 | 12° \mathfrak{J} 56'34 | | min. Earth dist. | 5493 Nov 17 22:53 | 2° \mathfrak{J} 01'26 | 0.64984 AU |
| morning rise | 5492 Dec 12 09:29 | 10° \mathfrak{J} 06'21 | | | 5493 Nov 19 18:53 | 30° \mathfrak{R} \mathfrak{M} | |
| direct | 5492 Dec 15 08:44 | 9° \mathfrak{J} 16'45 | | inferior conj | 5493 Nov 20 03:26 | 29° \mathfrak{M} 36'16 | -1°54'24 |
| morning max el | 5492 Dec 21 23:32 | 12° \mathfrak{J} 52'49 | 18°31'05 | minimum elong | 5493 Nov 20 06:46 | 29° \mathfrak{M} 27'03 | 1°53'02 |
| | 5493 Jan 03 09:48 | 0° \mathfrak{Z} | | asc. node | 5493 Nov 25 20:06 | 24° \mathfrak{M} 26'03 | |
| morning set | 5493 Jan 11 06:43 | 12° \mathfrak{Z} 28'25 | | morning rise | 5493 Nov 26 12:41 | 24° \mathfrak{M} 04'39 | |
| desc. node | 5493 Jan 14 02:52 | 16° \mathfrak{Z} 59'07 | | direct | 5493 Nov 29 04:01 | 23° \mathfrak{M} 27'47 | |
| | 5493 Jan 22 08:41 | 0° \mathfrak{A} | | morning max el | 5493 Dec 05 15:09 | 26° \mathfrak{M} 53'53 | 18°01'38 |
| | | | | | 5493 Dec 08 08:34 | 0° \mathfrak{J} | |
| superior conj | 5493 Jan 27 05:20 | 7° \mathfrak{A} 37'43 | -1°23'09 | morning set | 5493 Dec 23 10:50 | 23° \mathfrak{J} 36'26 | |
| minimum elong | 5493 Jan 26 20:07 | 7° \mathfrak{A} 01'36 | 1°22'08 | | 5493 Dec 27 07:37 | 0° \mathfrak{Z} | |
| max. Earth dist. | 5493 Jan 27 12:30 | 8° \mathfrak{A} 05'47 | 1.45345 AU | desc. node | 5493 Dec 31 23:53 | 7° \mathfrak{Z} 38'28 | |
| | 5493 Feb 10 10:41 | 0° \mathfrak{H} | | | | | |
| evening rise | 5493 Feb 12 01:11 | 2° \mathfrak{H} 32'31 | | superior conj | 5494 Jan 06 13:40 | 16° \mathfrak{Z} 35'30 | -0°38'15 |
| greatest brilliancy | 5493 Feb 21 06:11 | 17° \mathfrak{H} 07'04 | -0.8m | minimum elong | 5494 Jan 06 09:00 | 16° \mathfrak{Z} 16'55 | 0°37'35 |
| | 5493 Mar 01 22:26 | 0° \mathfrak{Y} | | max. Earth dist. | 5494 Jan 10 08:21 | 22° \mathfrak{Z} 34'19 | 1.45103 AU |
| evening max el | 5493 Mar 06 06:00 | 5° \mathfrak{Y} 09'57 | 18°58'18 | | 5494 Jan 15 02:08 | 0° \mathfrak{A} | |
| asc. node | 5493 Mar 06 22:20 | 5° \mathfrak{Y} 50'01 | | evening rise | 5494 Jan 22 19:58 | 12° \mathfrak{A} 00'26 | |
| retrograde | 5493 Mar 13 01:33 | 8° \mathfrak{Y} 59'33 | | | 5494 Feb 03 14:27 | 0° \mathfrak{H} | |
| evening set | 5493 Mar 16 09:51 | 7° \mathfrak{Y} 54'44 | | greatest brilliancy | 5494 Feb 05 15:28 | 3° \mathfrak{H} 02'55 | -0.7m |
| inferior conj | 5493 Mar 21 23:39 | 2° \mathfrak{Y} 10'12 | 3°28'28 | evening max el | 5494 Feb 17 11:54 | 18° \mathfrak{H} 43'18 | 19°48'47 |
| minimum elong | 5493 Mar 21 22:42 | 2° \mathfrak{Y} 13'12 | 3°28'23 | asc. node | 5494 Feb 21 19:23 | 22° \mathfrak{H} 10'18 | |
| min. Earth dist. | 5493 Mar 23 14:53 | 0° \mathfrak{Y} 06'50 | 0.65867 AU | retrograde | 5494 Feb 24 23:17 | 23° \mathfrak{H} 02'59 | |
| | 5493 Mar 23 17:05 | 30° \mathfrak{R} \mathfrak{H} | | evening set | 5494 Feb 28 15:27 | 21° \mathfrak{H} 44'03 | |
| morning rise | 5493 Mar 27 11:10 | 25° \mathfrak{H} 55'43 | | inferior conj | 5494 Mar 06 01:17 | 15° \mathfrak{H} 44'41 | 3°12'42 |
| direct | 5493 Apr 02 22:34 | 23° \mathfrak{H} 06'28 | | minimum elong | 5494 Mar 05 23:24 | 15° \mathfrak{H} 50'59 | 3°12'23 |
| desc. node | 5493 Apr 12 02:08 | 27° \mathfrak{H} 16'55 | | min. Earth dist. | 5494 Mar 07 01:46 | 14° \mathfrak{H} 23'03 | 0.67039 AU |
| | 5493 Apr 15 02:48 | 0° \mathfrak{Y} | | morning rise | 5494 Mar 11 07:08 | 9° \mathfrak{H} 29'47 | |
| morning max el | 5493 Apr 15 22:04 | 0° \mathfrak{Y} 47'52 | 26°35'46 | direct | 5494 Mar 17 06:46 | 6° \mathfrak{H} 49'28 | |
| | 5493 May 07 17:05 | 0° \mathfrak{B} | | morning max el | 5494 Mar 29 07:24 | 14° \mathfrak{H} 00'37 | 25°20'10 |
| morning set | 5493 May 21 21:23 | 24° \mathfrak{B} 38'29 | | desc. node | 5494 Mar 29 23:10 | 14° \mathfrak{H} 41'05 | |
| | 5493 May 24 16:17 | 0° Π | | | 5494 Apr 11 07:36 | 0° \mathfrak{Y} | |
| max. Earth dist. | 5493 May 26 01:08 | 2° Π 41'32 | 1.34573 AU | | 5494 Apr 30 12:32 | 0° \mathfrak{B} | |
| | | | | morning set | 5494 May 04 11:39 | 7° \mathfrak{B} 00'10 | |
| superior conj | 5493 May 30 15:35 | 12° Π 01'04 | -0°32'58 | max. Earth dist. | 5494 May 08 04:02 | 13° \mathfrak{B} 46'48 | 1.36361 AU |

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|------------------|-------------------|----------------------|------------|------------------|-------------------|----------------------|------------|
| superior conj | 5494 May 14 05:42 | 25° ♄ 30'40 | -1°03'01 | | 5495 Apr 22 19:29 | 0° ♄ | |
| minimum elong | 5494 May 14 09:14 | 25° ♄ 48'13 | 1°02'24 | | | | |
| | 5494 May 16 11:33 | 0° ♄ | | superior conj | 5495 Apr 27 07:13 | 8° ♄ 20'25 | -1°31'22 |
| asc. node | 5494 May 20 18:39 | 8° ♄ 43'25 | | minimum elong | 5495 Apr 27 12:06 | 8° ♄ 43'31 | 1°30'44 |
| evening rise | 5494 May 22 10:09 | 12° ♄ 04'00 | | evening rise | 5495 May 06 08:13 | 25° ♄ 53'25 | |
| | 5494 May 31 23:14 | 0° ♄ | | asc. node | 5495 May 07 15:42 | 28° ♄ 27'03 | |
| evening max el | 5494 Jun 08 19:49 | 10° ♄ 25'37 | 19°46'53 | | 5495 May 08 10:52 | 0° ♄ | |
| retrograde | 5494 Jun 18 19:58 | 15° ♄ 19'34 | | evening max el | 5495 May 22 17:21 | 22° ♄ 24'36 | 18°53'20 |
| evening set | 5494 Jun 20 17:45 | 15° ♄ 09'39 | | retrograde | 5495 May 31 03:41 | 26° ♄ 32'53 | |
| desc. node | 5494 Jun 25 22:25 | 13° ♄ 16'22 | | evening set | 5495 Jun 02 05:11 | 26° ♄ 18'59 | |
| inferior conj | 5494 Jun 29 14:52 | 11° ♄ 07'32 | -1°06'21 | inferior conj | 5495 Jun 10 07:19 | 22° ♄ 01'22 | 0°43'49 |
| minimum elong | 5494 Jun 29 11:49 | 11° ♄ 12'15 | 1°05'13 | minimum elong | 5495 Jun 10 09:00 | 21° ♄ 58'22 | 0°43'11 |
| min. Earth dist. | 5494 Jul 01 18:46 | 9° ♄ 47'35 | 0.55394 AU | desc. node | 5495 Jun 12 19:27 | 20° ♄ 13'50 | |
| morning rise | 5494 Jul 08 03:46 | 6° ♄ 41'08 | | min. Earth dist. | 5495 Jun 13 10:49 | 19° ♄ 47'13 | 0.56846 AU |
| direct | 5494 Jul 12 14:03 | 5° ♄ 57'55 | | morning rise | 5495 Jun 18 09:27 | 16° ♄ 58'19 | |
| morning max el | 5494 Jul 26 11:04 | 12° ♄ 51'04 | 24°29'48 | direct | 5495 Jun 23 18:01 | 15° ♄ 49'20 | |
| | 5494 Aug 08 16:23 | 0° ♄ | | morning max el | 5495 Jul 08 01:48 | 23° ♄ 15'45 | 26°04'42 |
| asc. node | 5494 Aug 16 17:56 | 14° ♄ 38'19 | | | 5495 Jul 14 03:07 | 0° ♄ | |
| morning set | 5494 Aug 20 19:05 | 22° ♄ 58'35 | | | 5495 Aug 01 11:25 | 0° ♄ | |
| | 5494 Aug 24 01:23 | 0° ♄ | | asc. node | 5495 Aug 03 14:57 | 4° ♄ 22'14 | |
| | | | | morning set | 5495 Aug 05 06:09 | 7° ♄ 47'33 | |
| superior conj | 5494 Aug 27 17:31 | 8° ♄ 00'57 | 1°32'21 | superior conj | 5495 Aug 12 04:39 | 22° ♄ 54'42 | 1°18'45 |
| minimum elong | 5494 Aug 27 15:38 | 7° ♄ 50'39 | 1°32'10 | minimum elong | 5495 Aug 12 02:22 | 22° ♄ 42'09 | 1°18'24 |
| max. Earth dist. | 5494 Aug 29 13:11 | 11° ♄ 57'44 | 1.32828 AU | max. Earth dist. | 5495 Aug 12 21:34 | 24° ♄ 27'53 | 1.32145 AU |
| evening rise | 5494 Sep 04 00:38 | 23° ♄ 28'47 | | | 5495 Aug 15 10:14 | 0° ♄ | |
| | 5494 Sep 07 07:17 | 0° ♄ | | evening rise | 5495 Aug 19 03:46 | 7° ♄ 57'39 | |
| desc. node | 5494 Sep 21 21:40 | 25° ♄ 05'39 | | | 5495 Aug 30 17:33 | 0° ♄ | |
| | 5494 Sep 25 07:05 | 0° ♄ | | desc. node | 5495 Sep 08 18:43 | 14° ♄ 01'51 | |
| evening max el | 5494 Oct 07 06:43 | 14° ♄ 12'27 | 27°27'27 | evening max el | 5495 Sep 19 13:33 | 26° ♄ 45'01 | 27°11'08 |
| retrograde | 5494 Oct 20 23:01 | 21° ♄ 29'02 | | | 5495 Sep 23 09:53 | 0° ♄ | |
| evening set | 5494 Oct 28 02:36 | 18° ♄ 54'59 | | retrograde | 5495 Oct 03 10:13 | 3° ♄ 57'48 | |
| min. Earth dist. | 5494 Oct 31 18:47 | 15° ♄ 46'42 | 0.63333 AU | evening set | 5495 Oct 10 12:37 | 1° ♄ 41'02 | |
| inferior conj | 5494 Nov 03 11:09 | 13° ♄ 06'40 | -2°58'34 | | 5495 Oct 12 21:13 | 30° ♄ | |
| minimum elong | 5494 Nov 03 16:21 | 12° ♄ 53'41 | 2°56'42 | min. Earth dist. | 5495 Oct 14 04:07 | 28° ♄ 56'38 | 0.61405 AU |
| morning rise | 5494 Nov 10 07:43 | 7° ♄ 51'39 | | inferior conj | 5495 Oct 17 06:11 | 26° ♄ 13'41 | -3°59'55 |
| direct | 5494 Nov 12 17:36 | 7° ♄ 23'52 | | minimum elong | 5495 Oct 17 12:34 | 25° ♄ 59'37 | 3°58'07 |
| asc. node | 5494 Nov 12 17:10 | 7° ♄ 23'52 | | morning rise | 5495 Oct 24 14:30 | 21° ♄ 18'27 | |
| morning max el | 5494 Nov 19 08:09 | 10° ♄ 48'58 | 17°49'34 | direct | 5495 Oct 26 21:48 | 20° ♄ 56'25 | |
| | 5494 Dec 02 06:04 | 0° ♄ | | asc. node | 5495 Oct 30 14:13 | 21° ♄ 55'02 | |
| morning set | 5494 Dec 05 16:34 | 5° ♄ 58'47 | | morning max el | 5495 Nov 02 23:16 | 24° ♄ 29'06 | 17°55'48 |
| | | | | | 5495 Nov 07 11:16 | 0° ♄ | |
| superior conj | 5494 Dec 17 19:21 | 26° ♄ 38'16 | 0°07'32 | morning set | 5495 Nov 18 17:20 | 19° ♄ 14'52 | |
| minimum elong | 5494 Dec 17 20:09 | 26° ♄ 41'32 | 0°07'27 | | 5495 Nov 24 15:22 | 0° ♄ | |
| behind sun begin | 5494 Dec 17 11:40 | 26° ♄ 06'26 | | superior conj | 5495 Nov 29 03:26 | 7° ♄ 57'34 | 0°46'03 |
| behind sun end | 5494 Dec 18 04:38 | 27° ♄ 16'33 | | minimum elong | 5495 Nov 29 06:59 | 8° ♄ 12'58 | 0°45'34 |
| desc. node | 5494 Dec 18 20:54 | 28° ♄ 23'32 | | desc. node | 5495 Dec 05 17:55 | 19° ♄ 10'24 | |
| | 5494 Dec 19 20:26 | 0° ♄ | | max. Earth dist. | 5495 Dec 06 15:19 | 20° ♄ 38'46 | 1.42607 AU |
| max. Earth dist. | 5494 Dec 24 02:10 | 6° ♄ 51'20 | 1.44151 AU | | 5495 Dec 12 10:24 | 0° ♄ | |
| evening rise | 5495 Jan 02 06:13 | 21° ♄ 14'22 | | evening rise | 5495 Dec 12 23:39 | 0° ♄ | |
| | 5495 Jan 08 00:03 | 0° ♄ | | | 5496 Jan 01 13:24 | 0° ♄ | |
| | 5495 Jan 29 09:47 | 0° ♄ | | evening max el | 5496 Jan 14 07:29 | 15° ♄ 53'21 | 22°07'42 |
| evening max el | 5495 Jan 31 12:22 | 2° ♄ 17'44 | 20°53'07 | retrograde | 5496 Jan 23 18:35 | 21° ♄ 30'55 | |
| retrograde | 5495 Feb 08 21:38 | 7° ♄ 14'56 | | asc. node | 5496 Jan 26 13:29 | 20° ♄ 49'58 | |
| asc. node | 5495 Feb 08 16:26 | 7° ♄ 14'41 | | evening set | 5496 Jan 28 06:41 | 19° ♄ 41'55 | |
| evening set | 5495 Feb 12 22:59 | 5° ♄ 41'14 | | inferior conj | 5496 Feb 02 14:57 | 13° ♄ 21'30 | 2°11'09 |
| | 5495 Feb 17 22:18 | 30° ♄ | | minimum elong | 5496 Feb 02 12:37 | 13° ♄ 29'36 | 2°10'25 |
| inferior conj | 5495 Feb 18 07:06 | 29° ♄ 29'41 | 2°46'22 | min. Earth dist. | 5496 Feb 02 14:11 | 13° ♄ 24'08 | 0.68122 AU |
| minimum elong | 5495 Feb 18 04:46 | 29° ♄ 37'46 | 2°45'47 | morning rise | 5496 Feb 07 18:23 | 7° ♄ 10'43 | |
| min. Earth dist. | 5495 Feb 18 18:19 | 28° ♄ 51'01 | 0.67784 AU | direct | 5496 Feb 12 13:30 | 5° ♄ 08'51 | |
| morning rise | 5495 Feb 23 10:22 | 23° ♄ 16'04 | | morning max el | 5496 Feb 22 02:57 | 10° ♄ 46'50 | 22°23'51 |
| direct | 5495 Feb 28 20:02 | 20° ♄ 52'45 | | desc. node | 5496 Mar 02 17:11 | 22° ♄ 18'03 | |
| morning max el | 5495 Mar 11 16:14 | 27° ♄ 20'49 | 23°52'52 | | 5496 Mar 08 06:35 | 0° ♄ | |
| | 5495 Mar 14 03:55 | 0° ♄ | | morning set | 5496 Mar 26 18:27 | 28° ♄ 17'28 | |
| desc. node | 5495 Mar 16 20:11 | 3° ♄ 07'27 | | | 5496 Mar 27 19:31 | 0° ♄ | |
| | 5495 Apr 04 23:17 | 0° ♄ | | max. Earth dist. | 5496 Mar 31 20:24 | 6° ♄ 43'35 | 1.40663 AU |
| morning set | 5495 Apr 16 04:34 | 18° ♄ 17'58 | | | | | |
| max. Earth dist. | 5495 Apr 20 00:02 | 24° ♄ 56'46 | 1.38467 AU | | | | |

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|------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| superior conj | 5496 Apr 08 15:41 | 20°♿19'43 | -1°54'38 | | 5497 Mar 20 07:58 | 0°♿ | |
| minimum elong | 5496 Apr 08 20:31 | 20°♿41'28 | 1°54'16 | | | | |
| | 5496 Apr 13 22:38 | 0°♿ | | superior conj | 5497 Mar 21 02:05 | 1°♿16'53 | -2°08'04 |
| evening rise | 5496 Apr 18 19:57 | 9°♿09'22 | | minimum elong | 5497 Mar 21 04:06 | 1°♿25'30 | 2°08'01 |
| asc. node | 5496 Apr 23 12:44 | 17°♿53'28 | | evening rise | 5497 Apr 01 17:17 | 21°♿41'55 | |
| | 5496 Apr 30 20:22 | 0°♿ | | | 5497 Apr 06 08:53 | 0°♿ | |
| evening max el | 5496 May 04 23:35 | 4°♿59'27 | 18°20'12 | asc. node | 5497 Apr 10 09:46 | 6°♿55'54 | |
| retrograde | 5496 May 12 06:15 | 8°♿36'57 | | evening max el | 5497 Apr 18 10:48 | 17°♿59'29 | 18°06'48 |
| evening set | 5496 May 14 14:48 | 8°♿15'06 | | retrograde | 5497 Apr 25 01:37 | 21°♿22'34 | |
| inferior conj | 5496 May 21 21:24 | 3°♿37'32 | 2°06'27 | evening set | 5497 Apr 27 17:05 | 20°♿50'11 | |
| minimum elong | 5496 May 22 00:49 | 3°♿30'22 | 2°05'27 | inferior conj | 5497 May 04 07:16 | 15°♿51'59 | 2°58'42 |
| min. Earth dist. | 5496 May 25 07:51 | 0°♿46'22 | 0.58853 AU | minimum elong | 5497 May 04 10:06 | 15°♿45'05 | 2°58'09 |
| | 5496 May 26 07:57 | 30°♿8 | | min. Earth dist. | 5497 May 07 11:43 | 12°♿48'13 | 0.61065 AU |
| morning rise | 5496 May 29 07:46 | 28°♿03'05 | | morning rise | 5497 May 11 01:03 | 9°♿56'25 | |
| desc. node | 5496 May 29 16:28 | 27°♿51'34 | | desc. node | 5497 May 16 13:28 | 7°♿45'38 | |
| direct | 5496 Jun 04 12:17 | 26°♿20'32 | | direct | 5497 May 17 17:56 | 7°♿41'30 | |
| | 5496 Jun 14 01:50 | 0°♿ | | morning max el | 5497 May 31 23:48 | 15°♿38'54 | 27°49'55 |
| morning max el | 5496 Jun 18 21:38 | 4°♿07'26 | 27°14'44 | | 5497 Jun 12 16:44 | 0°♿ | |
| | 5496 Jul 07 20:30 | 0°♿ | | | 5497 Jun 30 09:24 | 0°♿ | |
| morning set | 5496 Jul 19 14:55 | 22°♿27'54 | | morning set | 5497 Jul 03 19:27 | 6°♿52'47 | |
| asc. node | 5496 Jul 20 11:59 | 24°♿19'01 | | asc. node | 5497 Jul 07 09:00 | 14°♿22'59 | |
| | 5496 Jul 23 03:23 | 0°♿ | | max. Earth dist. | 5497 Jul 09 18:37 | 19°♿34'59 | 1.32067 AU |
| superior conj | 5496 Jul 26 16:30 | 7°♿47'57 | 1°00'34 | superior conj | 5497 Jul 11 03:16 | 22°♿33'49 | 0°38'19 |
| minimum elong | 5496 Jul 26 14:19 | 7°♿35'51 | 1°00'09 | minimum elong | 5497 Jul 11 01:38 | 22°♿24'53 | 0°37'57 |
| max. Earth dist. | 5496 Jul 26 08:38 | 7°♿04'29 | 1.31893 AU | | 5497 Jul 14 12:26 | 0°♿ | |
| evening rise | 5496 Aug 02 11:53 | 22°♿39'28 | | evening rise | 5497 Jul 17 22:48 | 7°♿26'15 | |
| | 5496 Aug 06 01:04 | 0°♿ | | | 5497 Jul 29 15:43 | 0°♿ | |
| | 5496 Aug 24 01:00 | 0°♿ | | desc. node | 5497 Aug 12 12:45 | 18°♿45'35 | |
| desc. node | 5496 Aug 25 15:44 | 2°♿02'48 | | evening max el | 5497 Aug 13 06:44 | 19°♿29'32 | 25°02'33 |
| evening max el | 5496 Aug 31 13:56 | 8°♿31'38 | 26°21'20 | retrograde | 5497 Aug 27 04:39 | 26°♿31'17 | |
| retrograde | 5496 Sep 14 12:52 | 15°♿39'36 | | evening set | 5497 Sep 01 18:03 | 25°♿21'07 | |
| evening set | 5496 Sep 21 03:16 | 13°♿52'26 | | min. Earth dist. | 5497 Sep 06 18:14 | 22°♿37'47 | 0.57354 AU |
| min. Earth dist. | 5496 Sep 25 03:18 | 11°♿17'35 | 0.59338 AU | inferior conj | 5497 Sep 09 16:36 | 20°♿40'39 | -5°18'23 |
| inferior conj | 5496 Sep 28 09:04 | 8°♿48'23 | -4°50'43 | minimum elong | 5497 Sep 09 18:09 | 20°♿38'03 | 5°18'20 |
| minimum elong | 5496 Sep 28 14:40 | 8°♿37'35 | 4°49'44 | morning rise | 5497 Sep 17 20:32 | 16°♿30'07 | |
| morning rise | 5496 Oct 06 04:15 | 4°♿15'16 | | direct | 5497 Sep 20 09:48 | 16°♿11'13 | |
| direct | 5496 Oct 08 12:33 | 3°♿56'01 | | morning max el | 5497 Sep 29 10:09 | 20°♿26'47 | 19°09'02 |
| asc. node | 5496 Oct 16 11:14 | 7°♿50'22 | | asc. node | 5497 Oct 03 08:14 | 24°♿54'36 | |
| morning max el | 5496 Oct 16 09:06 | 7°♿45'11 | 18°21'45 | | 5497 Oct 06 19:27 | 0°♿ | |
| | 5496 Oct 30 15:51 | 0°♿ | | morning set | 5497 Oct 16 07:00 | 17°♿28'54 | |
| morning set | 5496 Nov 01 07:33 | 3°♿08'59 | | | 5497 Oct 22 14:27 | 0°♿ | |
| superior conj | 5496 Nov 10 10:56 | 20°♿24'38 | 1°14'20 | superior conj | 5497 Oct 24 12:31 | 3°♿44'15 | 1°32'26 |
| minimum elong | 5496 Nov 10 14:40 | 20°♿41'46 | 1°13'54 | minimum elong | 5497 Oct 24 15:07 | 3°♿56'45 | 1°32'15 |
| | 5496 Nov 15 19:12 | 0°♿ | | max. Earth dist. | 5497 Oct 31 04:51 | 16°♿14'45 | 1.38545 AU |
| max. Earth dist. | 5496 Nov 17 23:34 | 3°♿47'00 | 1.40662 AU | evening rise | 5497 Nov 03 23:46 | 22°♿57'32 | |
| desc. node | 5496 Nov 21 14:57 | 9°♿55'49 | | desc. node | 5497 Nov 08 11:59 | 0°♿35'57 | |
| evening rise | 5496 Nov 22 12:18 | 11°♿24'05 | | | 5497 Nov 08 03:19 | 0°♿ | |
| | 5496 Dec 04 09:02 | 0°♿ | | | 5497 Nov 28 05:30 | 0°♿ | |
| evening max el | 5496 Dec 26 22:40 | 29°♿32'25 | 23°27'22 | evening max el | 5497 Dec 09 11:48 | 13°♿15'33 | 24°45'49 |
| | 5496 Dec 27 09:50 | 0°♿ | | retrograde | 5497 Dec 21 02:46 | 20°♿01'26 | |
| retrograde | 5497 Jan 06 12:40 | 5°♿47'40 | | evening set | 5497 Dec 26 16:28 | 17°♿42'13 | |
| evening set | 5497 Jan 11 13:02 | 3°♿43'11 | | asc. node | 5497 Dec 30 07:30 | 13°♿45'59 | |
| asc. node | 5497 Jan 12 10:30 | 2°♿54'02 | | min. Earth dist. | 5497 Dec 31 06:20 | 12°♿31'56 | 0.67672 AU |
| | 5497 Jan 14 22:45 | 30°♿8 | | inferior conj | 5498 Jan 01 05:18 | 11°♿15'56 | 0°38'27 |
| inferior conj | 5497 Jan 16 22:56 | 27°♿17'41 | 1°28'12 | minimum elong | 5498 Jan 01 04:22 | 11°♿19'00 | 0°38'05 |
| minimum elong | 5497 Jan 16 21:04 | 27°♿24'03 | 1°27'32 | morning rise | 5498 Jan 06 16:25 | 5°♿16'22 | |
| min. Earth dist. | 5497 Jan 16 10:58 | 27°♿58'44 | 0.68081 AU | direct | 5498 Jan 10 08:33 | 3°♿58'55 | |
| morning rise | 5497 Jan 22 05:03 | 21°♿11'31 | | morning max el | 5498 Jan 17 19:27 | 8°♿10'57 | 19°51'05 |
| direct | 5497 Jan 26 10:07 | 19°♿32'25 | | greatest brilliancy | 5498 Jan 31 02:10 | 25°♿35'21 | -0.6m |
| morning max el | 5497 Feb 03 19:14 | 24°♿22'36 | 21°01'24 | | 5498 Feb 03 01:24 | 0°♿ | |
| | 5497 Feb 08 17:50 | 0°♿ | | desc. node | 5498 Feb 04 11:13 | 2°♿07'00 | |
| desc. node | 5497 Feb 17 14:11 | 12°♿00'42 | | morning set | 5498 Feb 13 01:00 | 15°♿11'55 | |
| | 5497 Mar 01 16:12 | 0°♿ | | | 5498 Feb 22 12:39 | 0°♿ | |
| morning set | 5497 Mar 06 04:38 | 7°♿00'15 | | max. Earth dist. | 5498 Feb 24 10:20 | 3°♿01'12 | 1.44230 AU |
| max. Earth dist. | 5497 Mar 13 23:21 | 19°♿26'08 | 1.42674 AU | | | | |

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|------------------|-------------------|---------------------------|------------|------------------|-------------------|-----------------------|------------|
| superior conj | 5498 Mar 01 11:07 | 11° X 06'22 | -2°05'54 | desc. node | 5499 Jan 22 08:14 | 22° Z 29'55 | |
| minimum elong | 5498 Mar 01 07:12 | 10° X 50'27 | 2°05'45 | morning set | 5499 Jan 23 08:26 | 24° Z 04'24 | |
| | 5498 Mar 12 20:06 | 0° Y | | | 5499 Jan 27 03:28 | 0° \approx | |
| evening rise | 5498 Mar 14 19:52 | 3° Y 23'09 | | max. Earth dist. | 5499 Feb 07 02:54 | 17° \approx 10'39 | 1.45145 AU |
| asc. node | 5498 Mar 28 06:47 | 25° Y 27'08 | | | | | |
| | 5498 Mar 31 19:07 | 0° Z | | superior conj | 5499 Feb 08 21:56 | 19° \approx 59'54 | -1°44'04 |
| evening max el | 5498 Apr 01 23:43 | 1° Z 16'18 | 18°12'27 | minimum elong | 5499 Feb 08 12:52 | 19° \approx 24'10 | 1°43'17 |
| retrograde | 5498 Apr 08 09:27 | 4° Z 39'59 | | | 5499 Feb 15 05:28 | 0° X | |
| evening set | 5498 Apr 11 07:15 | 3° Z 55'42 | | evening rise | 5499 Feb 23 23:58 | 14° X 07'12 | |
| | 5498 Apr 16 02:37 | 30° R Y | | | 5499 Mar 05 19:36 | 0° Y | |
| inferior conj | 5498 Apr 17 09:05 | 28° Y 38'00 | 3°25'12 | asc. node | 5499 Mar 15 03:49 | 13° Y 17'15 | |
| minimum elong | 5498 Apr 17 10:25 | 28° Y 34'20 | 3°25'04 | evening max el | 5499 Mar 16 11:32 | 14° Y 42'53 | 18°36'30 |
| min. Earth dist. | 5498 Apr 20 00:32 | 25° Y 45'05 | 0.63180 AU | retrograde | 5499 Mar 23 01:19 | 18° Y 20'04 | |
| morning rise | 5498 Apr 23 12:25 | 22° Y 30'21 | | evening set | 5499 Mar 26 05:32 | 17° Y 23'03 | |
| direct | 5498 Apr 30 08:41 | 19° Y 52'02 | | inferior conj | 5499 Mar 31 22:48 | 11° Y 47'41 | 3°31'47 |
| desc. node | 5498 May 03 10:28 | 20° Y 20'36 | | minimum elong | 5499 Mar 31 22:36 | 11° Y 48'19 | 3°31'46 |
| morning max el | 5498 May 14 07:13 | 27° Y 52'02 | 27°47'16 | min. Earth dist. | 5499 Apr 02 22:53 | 9° Y 22'56 | 0.64997 AU |
| | 5498 May 16 08:07 | 0° Z | | morning rise | 5499 Apr 06 15:02 | 5° Y 34'15 | |
| | 5498 Jun 06 10:54 | 0° II | | direct | 5499 Apr 13 07:12 | 2° Y 45'14 | |
| morning set | 5498 Jun 17 17:36 | 20° II 55'46 | | desc. node | 5499 Apr 20 07:30 | 5° Y 13'35 | |
| | 5498 Jun 22 03:19 | 0° Z | | morning max el | 5499 Apr 26 17:15 | 10° Y 37'57 | 27°10'00 |
| max. Earth dist. | 5498 Jun 22 23:37 | 1° Z 47'27 | 1.32675 AU | | 5499 May 12 00:15 | 0° Z | |
| asc. node | 5498 Jun 24 06:02 | 4° Z 29'56 | | | 5499 May 29 22:16 | 0° II | |
| | | | | morning set | 5499 Jun 01 06:33 | 4° II 28'34 | |
| superior conj | 5498 Jun 25 11:09 | 7° Z 06'42 | 0°12'35 | max. Earth dist. | 5499 Jun 05 19:43 | 13° II 31'22 | 1.33740 AU |
| minimum elong | 5498 Jun 25 10:33 | 7° Z 03'26 | 0°12'26 | | | | |
| behind sun begin | 5498 Jun 25 07:14 | 6° Z 45'28 | | superior conj | 5499 Jun 09 14:11 | 21° II 20'39 | -0°15'51 |
| behind sun end | 5498 Jun 25 13:53 | 7° Z 21'25 | | minimum elong | 5499 Jun 09 15:01 | 21° II 25'02 | 0°15'41 |
| evening rise | 5498 Jul 02 10:35 | 22° Z 11'51 | | behind sun begin | 5499 Jun 09 13:53 | 21° II 19'03 | |
| | 5498 Jul 06 04:49 | 0° Z | | behind sun end | 5499 Jun 09 16:09 | 21° II 31'01 | |
| | 5498 Jul 25 21:34 | 0° II | | asc. node | 5499 Jun 11 03:06 | 24° II 35'50 | |
| evening max el | 5498 Jul 25 19:03 | 29° Z 53'55 | 23°26'59 | | 5499 Jun 13 16:00 | 0° Z | |
| desc. node | 5498 Jul 30 09:46 | 3° II 40'40 | | evening rise | 5499 Jun 16 21:23 | 6° Z 50'13 | |
| retrograde | 5498 Aug 08 08:17 | 6° II 41'29 | | | 5499 Jun 29 07:19 | 0° Z | |
| evening set | 5498 Aug 12 10:10 | 6° II 05'03 | | evening max el | 5499 Jul 07 10:52 | 10° Z 17'36 | 21°50'54 |
| min. Earth dist. | 5498 Aug 19 04:36 | 2° II 56'14 | 0.55755 AU | desc. node | 5499 Jul 17 06:46 | 16° Z 14'12 | |
| inferior conj | 5498 Aug 21 04:05 | 1° II 46'02 | -5°06'14 | retrograde | 5499 Jul 20 01:05 | 16° Z 32'09 | |
| minimum elong | 5498 Aug 20 23:05 | 1° II 53'27 | 5°05'40 | evening set | 5499 Jul 22 17:34 | 16° Z 15'56 | |
| | 5498 Aug 24 06:31 | 30° R Z | | min. Earth dist. | 5499 Jul 31 14:31 | 12° Z 27'45 | 0.54866 AU |
| morning rise | 5498 Aug 29 14:25 | 27° Z 52'57 | | inferior conj | 5499 Aug 01 00:38 | 12° Z 13'35 | -4°02'16 |
| direct | 5498 Sep 01 11:36 | 27° Z 32'38 | | minimum elong | 5499 Jul 31 15:43 | 12° Z 26'03 | 3°59'56 |
| | 5498 Sep 08 22:44 | 0° II | | morning rise | 5499 Aug 09 15:20 | 8° Z 22'54 | |
| morning max el | 5498 Sep 11 23:50 | 2° II 25'53 | 20°18'19 | direct | 5499 Aug 12 22:50 | 7° Z 58'48 | |
| asc. node | 5498 Sep 20 05:17 | 12° II 53'20 | | morning max el | 5499 Aug 25 01:33 | 13° Z 39'43 | 21°47'39 |
| | 5498 Sep 29 11:52 | 0° Z | | | 5499 Sep 06 04:58 | 0° II | |
| morning set | 5498 Sep 30 12:37 | 2° Z 05'53 | | asc. node | 5499 Sep 07 02:21 | 1° II 34'00 | |
| | | | | morning set | 5499 Sep 14 22:08 | 16° II 53'46 | |
| superior conj | 5498 Oct 08 03:16 | 17° Z 42'20 | 1°41'32 | | 5499 Sep 21 02:59 | 0° Z | |
| minimum elong | 5498 Oct 08 04:19 | 17° Z 47'37 | 1°41'31 | | | | |
| max. Earth dist. | 5498 Oct 13 11:23 | 28° Z 13'36 | 1.36511 AU | superior conj | 5499 Sep 22 03:17 | 2° Z 07'45 | 1°42'58 |
| | 5498 Oct 14 09:42 | 0° II | | minimum elong | 5499 Sep 22 02:55 | 2° Z 05'45 | 1°42'58 |
| evening rise | 5498 Oct 17 08:04 | 5° II 27'40 | | max. Earth dist. | 5499 Sep 26 00:12 | 10° Z 06'49 | 1.34763 AU |
| desc. node | 5498 Oct 26 09:01 | 21° II 06'08 | | evening rise | 5499 Sep 30 09:19 | 18° Z 45'19 | |
| | 5498 Nov 01 00:24 | 0° Z | | | 5499 Oct 06 11:54 | 0° II | |
| evening max el | 5498 Nov 22 00:23 | 26° Z 59'24 | 25°56'00 | desc. node | 5499 Oct 13 06:04 | 11° II 21'18 | |
| | 5498 Nov 25 09:30 | 0° Z | | | 5499 Oct 26 03:52 | 0° Z | |
| retrograde | 5498 Dec 04 12:11 | 4° Z 06'13 | | evening max el | 5499 Nov 04 13:08 | 10° Z 38'25 | 26°50'29 |
| evening set | 5498 Dec 10 15:19 | 1° Z 34'44 | | retrograde | 5499 Nov 17 16:19 | 17° Z 55'36 | |
| | 5498 Dec 12 07:31 | 30° R Z | | evening set | 5499 Nov 24 07:37 | 15° Z 16'49 | |
| min. Earth dist. | 5498 Dec 14 22:00 | 26° Z 59'24 | 0.66903 AU | min. Earth dist. | 5499 Nov 28 07:48 | 11° Z 16'37 | 0.65784 AU |
| inferior conj | 5498 Dec 16 08:11 | 25° Z 12'19 | -0°17'19 | inferior conj | 5499 Nov 30 05:35 | 9° Z 03'22 | -1°17'56 |
| minimum elong | 5498 Dec 16 08:38 | 25° Z 10'54 | 0°17'07 | minimum elong | 5499 Nov 30 07:47 | 8° Z 56'56 | 1°17'00 |
| asc. node | 5498 Dec 17 04:32 | 24° Z 09'01 | | asc. node | 5499 Dec 04 01:34 | 5° Z 00'36 | |
| morning rise | 5498 Dec 22 02:26 | 19° Z 21'37 | | morning rise | 5499 Dec 06 08:54 | 3° Z 23'58 | |
| direct | 5498 Dec 25 07:15 | 18° Z 23'00 | | direct | 5499 Dec 09 04:24 | 2° Z 40'25 | |
| morning max el | 5499 Jan 01 03:19 | 22° Z 08'55 | 18°55'41 | morning max el | 5499 Dec 15 16:55 | 6° Z 11'15 | 18°16'28 |
| | 5499 Jan 07 12:40 | 0° Z | | | 5500 Jan 01 02:48 | 0° Z | |

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|---------------------|-------------------|---|------------|---------------------|-------------------|---|------------|
| morning set | 5500 Jan 03 19:31 | 4°  21'51 | | morning max el | 5500 Nov 29 09:29 | 20°  10'38 | 17°54'15 |
| desc. node | 5500 Jan 09 05:18 | 13°  04'40 | | | 5500 Dec 06 19:00 | 0°  | |
| | | | | morning set | 5500 Dec 16 11:19 | 16°  03'58 | |
| superior conj | 5500 Jan 19 01:19 | 28°  40'37 | -1°04'56 | | 5500 Dec 24 19:01 | 0°  | |
| minimum elong | 5500 Jan 18 17:31 | 28°  09'56 | 1°03'57 | desc. node | 5500 Dec 27 02:20 | 3°  46'55 | |
| | 5500 Jan 19 21:32 | 0°  | | | | | |
| max. Earth dist. | 5500 Jan 20 21:50 | 1°  35'21 | 1.45332 AU | superior conj | 5500 Dec 29 17:20 | 8°  02'30 | -0°18'20 |
| evening rise | 5500 Feb 04 05:18 | 23°  57'43 | | minimum elong | 5500 Dec 29 15:11 | 7°  53'50 | 0°18'01 |
| | 5500 Feb 08 02:00 | 0°  | | max. Earth dist. | 5501 Jan 03 16:39 | 15°  59'14 | 1.44782 AU |
| greatest brilliancy | 5500 Feb 15 14:18 | 11°  38'46 | -0.7m | | 5501 Jan 12 15:58 | 0°  | |
| evening max el | 5500 Feb 27 20:04 | 28°  14'47 | 19°17'53 | evening rise | 5501 Jan 14 18:35 | 3°  14'54 | |
| | 5500 Mar 01 17:38 | 0°  | | greatest brilliancy | 5501 Jan 29 10:04 | 25°  20'37 | -0.6m |
| asc. node | 5500 Mar 02 00:51 | 0°  14'26 | | | 5501 Feb 01 15:35 | 0°  | |
| retrograde | 5500 Mar 06 21:44 | 2°  16'27 | | evening max el | 5501 Feb 10 23:47 | 11°  49'11 | 20°14'44 |
| evening set | 5500 Mar 10 09:07 | 1°  05'55 | | asc. node | 5501 Feb 16 21:53 | 16°  04'28 | |
| | 5500 Mar 11 18:13 | 30°  R  | | retrograde | 5501 Feb 18 19:53 | 16°  14'00 | |
| inferior conj | 5500 Mar 15 20:57 | 25°  14'48 | 3°23'10 | evening set | 5501 Feb 22 15:45 | 14°  15'02 | |
| minimum elong | 5500 Mar 15 19:32 | 25°  19'21 | 3°23'01 | inferior conj | 5501 Feb 28 00:38 | 8°  54'25 | 3°02'40 |
| min. Earth dist. | 5500 Mar 17 05:47 | 23°  28'30 | 0.66419 AU | minimum elong | 5501 Feb 27 22:30 | 9°  01'40 | 3°02'15 |
| morning rise | 5500 Mar 21 05:37 | 18°  59'36 | | min. Earth dist. | 5501 Feb 28 19:24 | 7°  50'48 | 0.67409 AU |
| direct | 5500 Mar 27 12:21 | 16°  12'43 | | morning rise | 5501 Mar 05 05:02 | 2°  39'51 | |
| desc. node | 5500 Apr 07 04:32 | 21°  51'15 | | direct | 5501 Mar 10 23:00 | 0°  | |
| morning max el | 5500 Apr 09 03:09 | 23°  43'55 | 26°05'34 | morning max el | 5501 Mar 22 11:53 | 6°  59'50 | 24°43'45 |
| | 5500 Apr 14 17:23 | 0°  | | desc. node | 5501 Mar 25 01:35 | 9°  14'33 | |
| | 5500 May 05 09:15 | 0°  | | | 5501 Apr 09 09:35 | 0°  | |
| morning set | 5500 May 15 06:29 | 17°  20'15 | | morning set | 5501 Apr 27 12:26 | 29°  17'07 | |
| max. Earth dist. | 5500 May 19 04:20 | 24°  45'03 | 1.35278 AU | | 5501 Apr 27 22:07 | 0°  | |
| | 5500 May 21 20:29 | 0°  | | max. Earth dist. | 5501 May 01 03:11 | 5°  47'12 | 1.37228 AU |
| | | | | | | | |
| superior conj | 5500 May 24 09:53 | 5°  11'08'48 | -0°45'46 | superior conj | 5501 May 07 19:10 | 18°  23'21 | -1°15'25 |
| minimum elong | 5500 May 24 12:25 | 5°  21'44 | 0°45'18 | minimum elong | 5501 May 07 23:22 | 18°  43'47 | 1°14'46 |
| asc. node | 5500 May 29 00:09 | 14°  11'36'26 | | | 5501 May 13 15:45 | 0°  | |
| evening rise | 5500 Jun 01 05:11 | 21°  15'01 | | asc. node | 5501 May 15 21:12 | 4°  11'27'56 | |
| | 5500 Jun 05 13:45 | 0°  | | evening rise | 5501 May 16 07:36 | 5°  11'55 | |
| evening max el | 5500 Jun 19 13:23 | 21°  10'50 | 20°26'57 | | 5501 May 30 16:09 | 0°  | |
| retrograde | 5500 Jun 30 13:48 | 26°  34'51 | | evening max el | 5501 Jun 02 04:35 | 2°  46'43 | 19°21'37 |
| evening set | 5500 Jul 02 13:24 | 26°  32'5'05 | | retrograde | 5501 Jun 11 11:24 | 7°  19'09 | |
| desc. node | 5500 Jul 04 03:48 | 26°  30'3'46 | | evening set | 5501 Jun 13 10:08 | 7°  18'08'02 | |
| inferior conj | 5500 Jul 11 18:22 | 22°  32'7'47 | -2°15'19 | desc. node | 5501 Jun 21 00:49 | 3°  37'39 | |
| minimum elong | 5500 Jul 11 12:05 | 22°  36'5'4 | 2°13'06 | inferior conj | 5501 Jun 21 23:41 | 3°  00'33 | -0°17'04 |
| min. Earth dist. | 5500 Jul 13 02:03 | 21°  34'1'47 | 0.54921 AU | minimum elong | 5501 Jun 21 22:57 | 3°  01'46 | 0°16'48 |
| morning rise | 5500 Jul 20 09:48 | 18°  32'19'01 | | min. Earth dist. | 5501 Jun 24 15:52 | 1°  16'06 | 0.55926 AU |
| direct | 5500 Jul 24 08:42 | 17°  45'1'5 | | | 5501 Jun 26 18:27 | 30°  R  | |
| morning max el | 5500 Aug 06 18:04 | 24°  34'14'58 | 23°29'59 | morning rise | 5501 Jun 30 08:54 | 28°  11'18'54 | |
| | 5500 Aug 12 00:07 | 0°  | | direct | 5501 Jul 05 04:50 | 27°  11'25'48 | |
| asc. node | 5500 Aug 24 23:24 | 20°  45'1'9 | | | 5501 Jul 13 11:25 | 0°  | |
| | 5500 Aug 29 13:26 | 0°  | | morning max el | 5501 Jul 19 07:25 | 4°  34'31 | 25°12'14 |
| morning set | 5500 Aug 30 09:33 | 1°  45'4'46 | | | 5501 Aug 06 11:42 | 0°  | |
| | | | | asc. node | 5501 Aug 11 20:28 | 10°  19'23 | |
| superior conj | 5500 Sep 06 09:26 | 16°  49'4'43 | 1°37'53 | morning set | 5501 Aug 14 21:12 | 16°  19'37'08 | |
| minimum elong | 5500 Sep 06 07:58 | 16°  41'5'0 | 1°37'47 | | 5501 Aug 21 00:56 | 0°  | |
| max. Earth dist. | 5500 Sep 08 21:43 | 22°  41'1'51 | 1.33410 AU | | | | |
| | 5500 Sep 12 15:53 | 0°  | | superior conj | 5501 Aug 21 19:18 | 1°  40'49 | 1°27'11 |
| evening rise | 5500 Sep 13 23:17 | 2°  38'1'11 | | minimum elong | 5501 Aug 21 17:12 | 1°  29'14 | 1°26'55 |
| | 5500 Sep 29 08:08 | 0°  | | max. Earth dist. | 5501 Aug 23 03:06 | 4°  40'34'42 | 1.32489 AU |
| desc. node | 5500 Sep 30 03:05 | 1°  11'13'39 | | evening rise | 5501 Aug 28 22:27 | 16°  56'25 | |
| evening max el | 5500 Oct 18 01:23 | 24°  11'02'16 | 27°22'11 | | 5501 Sep 04 14:19 | 0°  | |
| | 5500 Oct 26 04:53 | 0°  | | desc. node | 5501 Sep 17 00:06 | 20°  43'34'42 | |
| retrograde | 5500 Oct 31 14:27 | 1°  20'3'39 | | | 5501 Sep 24 01:12 | 0°  | |
| | 5500 Nov 05 14:59 | 30°  R  | | evening max el | 5501 Sep 30 11:11 | 6°  57'55 | 27°24'40 |
| evening set | 5500 Nov 07 14:49 | 28°  14'42'19 | | retrograde | 5501 Oct 14 05:37 | 14°  11'12'19 | |
| min. Earth dist. | 5500 Nov 11 09:27 | 25°  15'5'58 | 0.64318 AU | evening set | 5501 Oct 21 09:41 | 11°  11'44'30 | |
| inferior conj | 5500 Nov 13 19:05 | 22°  13'4'13 | -2°21'38 | min. Earth dist. | 5501 Oct 25 01:03 | 8°  47'26 | 0.62542 AU |
| minimum elong | 5500 Nov 13 23:14 | 22°  13'2'10 | 2°20'01 | inferior conj | 5501 Oct 27 21:48 | 6°  10'4'45 | -3°25'19 |
| morning rise | 5500 Nov 20 09:02 | 17°  11'18'06 | | minimum elong | 5501 Oct 28 03:39 | 5°  50'53 | 3°23'23 |
| asc. node | 5500 Nov 20 22:37 | 17°  11'05'17 | | morning rise | 5501 Nov 03 23:21 | 0°  | |
| direct | 5500 Nov 22 21:37 | 16°  11'45'39 | | direct | 5501 Nov 06 07:46 | 0°  | |

| | | | | | | | |
|------------------|-------------------|-------------------------------|------------|------------------|-------------------|-------------------------------|------------|
| asc. node | 5501 Nov 07 19:41 | 0° \mathbb{M} 42'48 | | morning max el | 5502 Oct 27 15:14 | 17° \mathbb{L} 30'47 | 18°04'25 |
| morning max el | 5501 Nov 13 01:59 | 3° \mathbb{M} 59'46 | 17°49'51 | | 5502 Nov 05 12:42 | 0° \mathbb{M} | |
| morning set | 5501 Nov 29 01:56 | 28° \mathbb{M} 51'41 | | morning set | 5502 Nov 12 09:03 | 12° \mathbb{M} 26'14 | |
| | 5501 Nov 29 17:18 | 0° \mathbb{X} | | | 5502 Nov 21 22:35 | 0° \mathbb{X} | |
| superior conj | 5501 Dec 10 10:10 | 18° \mathbb{X} 37'29 | 0°25'03 | superior conj | 5502 Nov 22 04:52 | 0° \mathbb{X} 28'00 | 0°59'20 |
| minimum elong | 5501 Dec 10 12:30 | 18° \mathbb{X} 47'21 | 0°24'43 | minimum elong | 5502 Nov 22 08:44 | 0° \mathbb{X} 45'12 | 0°58'50 |
| desc. node | 5501 Dec 13 23:21 | 24° \mathbb{X} 33'05 | | max. Earth dist. | 5502 Nov 29 20:38 | 13° \mathbb{X} 41'11 | 1.41815 AU |
| | 5501 Dec 17 07:21 | 0° \mathbb{Z} | | desc. node | 5502 Nov 30 20:22 | 15° \mathbb{X} 20'06 | |
| max. Earth dist. | 5501 Dec 17 09:01 | 0° \mathbb{Z} 06'45 | 1.43563 AU | evening rise | 5502 Dec 05 06:43 | 22° \mathbb{X} 33'59 | |
| evening rise | 5501 Dec 25 06:01 | 12° \mathbb{Z} 34'54 | | | 5502 Dec 09 23:47 | 0° \mathbb{Z} | |
| | 5502 Jan 05 18:30 | 0° \mathbb{A} | | | 5502 Dec 30 21:24 | 0° \mathbb{A} | |
| evening max el | 5502 Jan 24 21:59 | 25° \mathbb{A} 24'29 | 21°23'56 | evening max el | 5503 Jan 07 15:12 | 9° \mathbb{A} 01'53 | 22°41'13 |
| | 5502 Jan 30 22:22 | 0° \mathbb{H} | | retrograde | 5503 Jan 17 13:36 | 14° \mathbb{A} 55'55 | |
| retrograde | 5502 Feb 02 17:41 | 0° \mathbb{H} 38'12 | | asc. node | 5503 Jan 21 15:56 | 13° \mathbb{A} 29'02 | |
| asc. node | 5502 Feb 03 18:55 | 0° \mathbb{H} 32'18 | | evening set | 5503 Jan 22 06:52 | 13° \mathbb{A} 00'02 | |
| | 5502 Feb 05 09:02 | 30° \mathbb{R} \mathbb{A} | | inferior conj | 5503 Jan 27 15:38 | 6° \mathbb{A} 36'54 | 1°53'51 |
| evening set | 5502 Feb 06 23:31 | 28° \mathbb{A} 57'58 | | minimum elong | 5503 Jan 27 13:27 | 6° \mathbb{A} 44'28 | 1°53'06 |
| inferior conj | 5502 Feb 12 07:31 | 22° \mathbb{A} 42'26 | 2°32'25 | min. Earth dist. | 5503 Jan 27 09:57 | 6° \mathbb{A} 56'35 | 0.68155 AU |
| minimum elong | 5502 Feb 12 05:07 | 22° \mathbb{A} 50'44 | 2°31'45 | morning rise | 5503 Feb 01 19:57 | 0° \mathbb{A} 28'06 | |
| min. Earth dist. | 5502 Feb 12 13:30 | 22° \mathbb{A} 21'41 | 0.67981 AU | | 5503 Feb 02 10:25 | 30° \mathbb{R} \mathbb{Z} | |
| morning rise | 5502 Feb 17 10:33 | 16° \mathbb{A} 30'05 | | direct | 5503 Feb 06 08:57 | 28° \mathbb{Z} 36'07 | |
| direct | 5502 Feb 22 14:08 | 14° \mathbb{A} 15'28 | | | 5503 Feb 10 16:42 | 0° \mathbb{A} | |
| morning max el | 5502 Mar 04 20:58 | 20° \mathbb{A} 21'48 | 23°14'39 | morning max el | 5503 Feb 15 09:49 | 3° \mathbb{A} 52'39 | 21°47'37 |
| desc. node | 5502 Mar 11 22:35 | 28° \mathbb{A} 31'26 | | desc. node | 5503 Feb 26 19:37 | 17° \mathbb{A} 57'20 | |
| | 5502 Mar 13 02:11 | 0° \mathbb{H} | | | 5503 Mar 07 04:43 | 0° \mathbb{H} | |
| | 5502 Apr 02 14:58 | 0° \mathbb{Y} | | morning set | 5503 Mar 19 19:53 | 19° \mathbb{H} 27'32 | |
| morning set | 5502 Apr 08 18:19 | 10° \mathbb{Y} 02'23 | | max. Earth dist. | 5503 Mar 25 21:55 | 29° \mathbb{H} 22'44 | 1.41565 AU |
| max. Earth dist. | 5502 Apr 12 22:44 | 17° \mathbb{Y} 10'51 | 1.39413 AU | | 5503 Mar 26 06:52 | 0° \mathbb{Y} | |
| | 5502 Apr 20 02:29 | 0° \mathbb{B} | | superior conj | 5503 Apr 02 13:36 | 12° \mathbb{Y} 27'10 | -2°01'52 |
| superior conj | 5502 Apr 20 13:59 | 0° \mathbb{B} 53'08 | -1°42'07 | minimum elong | 5503 Apr 02 17:40 | 12° \mathbb{Y} 45'00 | 2°01'39 |
| minimum elong | 5502 Apr 20 19:06 | 1° \mathbb{B} 16'48 | 1°41'34 | | 5503 Apr 12 06:49 | 0° \mathbb{B} | |
| evening rise | 5502 Apr 30 01:40 | 18° \mathbb{B} 56'08 | | evening rise | 5503 Apr 13 07:49 | 1° \mathbb{B} 55'11 | |
| asc. node | 5502 May 02 18:13 | 24° \mathbb{B} 04'53 | | asc. node | 5503 Apr 19 15:13 | 13° \mathbb{B} 22'01 | |
| | 5502 May 05 22:45 | 0° \mathbb{I} | | evening max el | 5503 Apr 29 14:53 | 27° \mathbb{B} 48'01 | 18°12'02 |
| evening max el | 5502 May 16 06:13 | 15° \mathbb{I} 01'49 | 18°36'43 | | 5503 May 02 08:44 | 0° \mathbb{I} | |
| retrograde | 5502 May 24 03:09 | 18° \mathbb{I} 54'56 | | retrograde | 5503 May 06 13:34 | 1° \mathbb{I} 17'50 | |
| evening set | 5502 May 26 07:41 | 18° \mathbb{I} 37'56 | | evening set | 5503 May 09 01:01 | 0° \mathbb{I} 51'49 | |
| inferior conj | 5502 Jun 03 01:13 | 14° \mathbb{I} 11'42 | 1°22'42 | | 5503 May 10 22:10 | 30° \mathbb{R} \mathbb{B} | |
| minimum elong | 5502 Jun 03 04:00 | 14° \mathbb{I} 06'21 | 1°21'46 | inferior conj | 5503 May 16 00:08 | 26° \mathbb{B} 05'08 | 2°32'10 |
| min. Earth dist. | 5502 Jun 06 09:25 | 11° \mathbb{I} 39'28 | 0.57659 AU | minimum elong | 5503 May 16 03:30 | 25° \mathbb{B} 57'34 | 2°31'19 |
| desc. node | 5502 Jun 07 21:50 | 10° \mathbb{I} 36'08 | | min. Earth dist. | 5503 May 19 09:07 | 23° \mathbb{B} 05'32 | 0.59790 AU |
| morning rise | 5502 Jun 10 21:03 | 8° \mathbb{I} 54'26 | | morning rise | 5503 May 23 03:18 | 20° \mathbb{B} 20'05 | |
| direct | 5502 Jun 16 14:48 | 7° \mathbb{I} 31'56 | | desc. node | 5503 May 25 18:50 | 19° \mathbb{B} 03'53 | |
| morning max el | 5502 Jun 30 23:51 | 15° \mathbb{I} 07'28 | 26°38'20 | direct | 5503 May 29 13:54 | 18° \mathbb{B} 23'20 | |
| | 5502 Jul 12 23:32 | 0° \mathbb{E} | | morning max el | 5503 Jun 12 22:37 | 26° \mathbb{B} 15'54 | 27°34'22 |
| asc. node | 5502 Jul 29 17:30 | 0° \mathbb{Q} 09'23 | | | 5503 Jun 16 10:43 | 0° \mathbb{I} | |
| | 5502 Jul 29 15:42 | 0° \mathbb{Q} | | | 5503 Jul 06 11:15 | 0° \mathbb{E} | |
| morning set | 5502 Jul 30 07:29 | 1° \mathbb{Q} 22'53 | | morning set | 5503 Jul 14 14:40 | 15° \mathbb{E} 57'30 | |
| | | | | asc. node | 5503 Jul 16 14:30 | 20° \mathbb{E} 09'48 | |
| superior conj | 5502 Aug 06 06:55 | 16° \mathbb{Q} 34'37 | 1°11'33 | max. Earth dist. | 5503 Jul 21 00:22 | 29° \mathbb{E} 45'17 | 1.31912 AU |
| minimum elong | 5502 Aug 06 04:37 | 16° \mathbb{Q} 21'56 | 1°11'10 | | 5503 Jul 21 03:02 | 0° \mathbb{Q} | |
| max. Earth dist. | 5502 Aug 06 13:13 | 17° \mathbb{Q} 09'30 | 1.31990 AU | | | | |
| | 5502 Aug 12 10:40 | 0° \mathbb{N} | | superior conj | 5503 Jul 21 18:29 | 1° \mathbb{Q} 25'13 | 0°51'34 |
| evening rise | 5502 Aug 13 03:58 | 1° \mathbb{N} 31'28 | | minimum elong | 5503 Jul 21 16:28 | 1° \mathbb{Q} 14'08 | 0°51'10 |
| | 5502 Aug 28 13:59 | 0° \mathbb{L} | | evening rise | 5503 Jul 28 13:30 | 16° \mathbb{Q} 15'55 | |
| desc. node | 5502 Sep 03 21:07 | 9° \mathbb{L} 08'32 | | | 5503 Aug 04 08:32 | 0° \mathbb{N} | |
| evening max el | 5502 Sep 12 15:36 | 19° \mathbb{L} 11'57 | 26°53'56 | desc. node | 5503 Aug 21 18:08 | 26° \mathbb{N} 39'24 | |
| retrograde | 5502 Sep 26 13:01 | 26° \mathbb{L} 22'01 | | | 5503 Aug 24 21:26 | 0° \mathbb{L} | |
| evening set | 5502 Oct 03 12:03 | 24° \mathbb{L} 16'28 | | evening max el | 5503 Aug 25 12:26 | 0° \mathbb{L} 36'17 | 25°50'44 |
| min. Earth dist. | 5502 Oct 07 05:44 | 21° \mathbb{L} 38'24 | 0.60533 AU | retrograde | 5503 Sep 08 11:26 | 7° \mathbb{L} 42'42 | |
| inferior conj | 5502 Oct 10 10:23 | 18° \mathbb{L} 59'17 | -4°23'23 | evening set | 5503 Sep 14 16:59 | 6° \mathbb{L} 10'28 | |
| minimum elong | 5502 Oct 10 16:46 | 18° \mathbb{L} 46'00 | 4°21'51 | min. Earth dist. | 5503 Sep 19 00:46 | 3° \mathbb{L} 34'35 | 0.58461 AU |
| morning rise | 5502 Oct 17 23:30 | 14° \mathbb{L} 13'14 | | inferior conj | 5503 Sep 22 05:17 | 1° \mathbb{L} 16'34 | -5°06'15 |
| direct | 5502 Oct 20 06:57 | 13° \mathbb{L} 52'35 | | minimum elong | 5503 Sep 22 09:37 | 1° \mathbb{L} 08'42 | 5°05'45 |
| asc. node | 5502 Oct 25 16:43 | 15° \mathbb{L} 51'31 | | | 5503 Sep 24 00:27 | 30° \mathbb{R} \mathbb{N} | |

| | | | | | | | |
|------------------|-------------------|------------------------|------------|---------------------|-------------------|-------------------------------|------------|
| morning rise | 5503 Sep 30 04:34 | 26° \mathbb{M} 53'42 | | morning max el | 5504 Sep 22 18:23 | 12° \mathbb{M} 59'06 | 19°35'51 |
| direct | 5503 Oct 02 14:30 | 26° \mathbb{M} 34'55 | | asc. node | 5504 Sep 28 10:48 | 19° \mathbb{M} 47'49 | |
| | 5503 Oct 10 07:10 | 0° \mathbb{L} | | | 5504 Oct 04 14:11 | 0° \mathbb{L} | |
| morning max el | 5503 Oct 10 21:48 | 0° \mathbb{L} 33'44 | 18°39'19 | morning set | 5504 Oct 10 06:01 | 11° \mathbb{L} 00'31 | |
| asc. node | 5503 Oct 12 13:45 | 2° \mathbb{L} 18'09 | | | | | |
| morning set | 5503 Oct 27 03:36 | 26° \mathbb{L} 32'22 | | superior conj | 5504 Oct 18 04:29 | 26° \mathbb{L} 57'23 | 1°37'18 |
| | 5503 Oct 28 22:16 | 0° \mathbb{M} | | minimum elong | 5504 Oct 18 06:26 | 27° \mathbb{L} 06'58 | 1°37'12 |
| | | | | | 5504 Oct 19 17:47 | 0° \mathbb{M} | |
| superior conj | 5503 Nov 04 20:44 | 13° \mathbb{M} 19'37 | 1°23'11 | max. Earth dist. | 5504 Oct 24 07:41 | 8° \mathbb{M} 41'58 | 1.37654 AU |
| minimum elong | 5503 Nov 05 00:05 | 13° \mathbb{M} 35'19 | 1°22'52 | evening rise | 5504 Oct 28 01:47 | 15° \mathbb{M} 30'36 | |
| max. Earth dist. | 5503 Nov 12 03:00 | 26° \mathbb{M} 30'51 | 1.39757 AU | desc. node | 5504 Nov 03 14:25 | 26° \mathbb{M} 40'19 | |
| | 5503 Nov 14 03:13 | 0° \mathbb{X} | | | 5504 Nov 05 15:29 | 0° \mathbb{X} | |
| evening rise | 5503 Nov 16 04:58 | 3° \mathbb{X} 31'35 | | | 5504 Nov 26 20:27 | 0° \mathbb{Z} | |
| desc. node | 5503 Nov 17 17:24 | 6° \mathbb{X} 03'47 | | evening max el | 5504 Dec 02 17:49 | 6° \mathbb{Z} 26'01 | 25°17'10 |
| | 5503 Dec 03 05:08 | 0° \mathbb{Z} | | retrograde | 5504 Dec 14 18:36 | 13° \mathbb{Z} 22'40 | |
| evening max el | 5503 Dec 21 05:05 | 22° \mathbb{Z} 42'11 | 24°01'13 | evening set | 5504 Dec 20 13:54 | 10° \mathbb{Z} 58'00 | |
| retrograde | 5504 Jan 01 06:15 | 29° \mathbb{Z} 12'16 | | min. Earth dist. | 5504 Dec 25 00:40 | 6° \mathbb{Z} 02'11 | 0.67384 AU |
| evening set | 5504 Jan 06 12:11 | 27° \mathbb{Z} 01'11 | | asc. node | 5504 Dec 25 10:01 | 5° \mathbb{Z} 31'59 | |
| asc. node | 5504 Jan 08 12:57 | 24° \mathbb{Z} 59'01 | | inferior conj | 5504 Dec 26 04:18 | 4° \mathbb{Z} 32'33 | 0°15'29 |
| inferior conj | 5504 Jan 11 23:09 | 20° \mathbb{Z} 34'32 | 1°07'55 | minimum elong | 5504 Dec 26 03:54 | 4° \mathbb{Z} 33'49 | 0°15'20 |
| minimum elong | 5504 Jan 11 21:38 | 20° \mathbb{Z} 39'40 | 1°07'20 | transit middle | 5504 Dec 26 03:54 | 4° \mathbb{Z} 33'49 | 0°15'20 |
| min. Earth dist. | 5504 Jan 11 06:26 | 21° \mathbb{Z} 31'10 | 0.67948 AU | transit begin | 5504 Dec 26 03:01 | 4° \mathbb{Z} 36'41 | |
| morning rise | 5504 Jan 17 07:08 | 14° \mathbb{Z} 30'55 | | transit end | 5504 Dec 26 04:47 | 4° \mathbb{Z} 30'56 | |
| direct | 5504 Jan 21 06:24 | 13° \mathbb{Z} 01'29 | | | 5504 Dec 30 01:06 | 30° \mathbb{R} \mathbb{X} | |
| morning max el | 5504 Jan 29 05:27 | 17° \mathbb{Z} 34'27 | 20°29'48 | morning rise | 5504 Dec 31 18:10 | 28° \mathbb{X} 36'11 | |
| | 5504 Feb 08 05:22 | 0° \approx | | direct | 5505 Jan 04 05:13 | 27° \mathbb{X} 27'11 | |
| desc. node | 5504 Feb 13 16:38 | 7° \approx 51'09 | | | 5505 Jan 09 19:10 | 0° \mathbb{Z} | |
| morning set | 5504 Feb 26 21:37 | 27° \approx 49'44 | | morning max el | 5505 Jan 11 09:00 | 1° \mathbb{Z} 27'04 | 19°25'31 |
| | 5504 Feb 28 07:08 | 0° \mathbb{X} | | greatest brilliancy | 5505 Jan 24 12:34 | 18° \mathbb{Z} 55'09 | -0.7m |
| max. Earth dist. | 5504 Mar 07 04:03 | 12° \mathbb{X} 28'05 | 1.43402 AU | desc. node | 5505 Jan 30 13:40 | 28° \mathbb{Z} 05'15 | |
| | | | | | 5505 Jan 31 19:36 | 0° \approx | |
| superior conj | 5504 Mar 13 13:25 | 22° \mathbb{X} 55'52 | -2°09'22 | morning set | 5505 Feb 04 19:35 | 6° \approx 09'51 | |
| minimum elong | 5504 Mar 13 13:12 | 22° \mathbb{X} 54'59 | 2°09'22 | max. Earth dist. | 5505 Feb 17 17:12 | 26° \approx 18'09 | 1.44703 AU |
| | 5504 Mar 17 18:12 | 0° \mathbb{Y} | | | 5505 Feb 20 01:11 | 0° \mathbb{X} | |
| evening rise | 5504 Mar 25 21:46 | 14° \mathbb{Y} 07'28 | | | | | |
| | 5504 Apr 04 02:59 | 0° \mathbb{Z} | | superior conj | 5505 Feb 21 12:04 | 2° \mathbb{X} 18'59 | -1°59'06 |
| asc. node | 5504 Apr 05 12:14 | 2° \mathbb{Z} 12'45 | | minimum elong | 5505 Feb 21 05:27 | 1° \mathbb{X} 52'35 | 1°58'43 |
| evening max el | 5504 Apr 12 03:11 | 10° \mathbb{Z} 56'38 | 18°06'54 | evening rise | 5505 Mar 07 15:06 | 25° \mathbb{X} 24'35 | |
| retrograde | 5504 Apr 18 14:48 | 14° \mathbb{Z} 18'28 | | | 5505 Mar 10 09:01 | 0° \mathbb{Y} | |
| evening set | 5504 Apr 21 08:53 | 13° \mathbb{Z} 41'19 | | asc. node | 5505 Mar 23 09:16 | 20° \mathbb{Y} 28'16 | |
| inferior conj | 5504 Apr 27 17:21 | 8° \mathbb{Z} 34'53 | 3°12'43 | evening max el | 5505 Mar 26 16:02 | 24° \mathbb{Y} 19'05 | 18°20'33 |
| minimum elong | 5504 Apr 27 19:36 | 8° \mathbb{Z} 29'06 | 3°12'22 | retrograde | 5505 Apr 02 02:25 | 27° \mathbb{Y} 46'47 | |
| min. Earth dist. | 5504 Apr 30 16:56 | 5° \mathbb{Z} 32'46 | 0.61988 AU | evening set | 5505 Apr 05 02:55 | 26° \mathbb{Y} 57'12 | |
| morning rise | 5504 May 04 04:36 | 2° \mathbb{Z} 32'56 | | inferior conj | 5505 Apr 11 00:43 | 21° \mathbb{Y} 32'04 | 3°30'05 |
| direct | 5504 May 10 23:55 | 0° \mathbb{Z} 06'22 | | minimum elong | 5505 Apr 11 01:22 | 21° \mathbb{Y} 30'11 | 3°30'02 |
| desc. node | 5504 May 11 15:51 | 0° \mathbb{Z} 07'41 | | min. Earth dist. | 5505 Apr 13 09:51 | 18° \mathbb{Y} 49'14 | 0.63999 AU |
| morning max el | 5504 May 25 03:28 | 8° \mathbb{Z} 06'58 | 27°53'18 | morning rise | 5505 Apr 16 22:55 | 15° \mathbb{Y} 21'31 | |
| | 5504 Jun 10 21:55 | 0° \mathbb{I} | | direct | 5505 Apr 23 18:26 | 12° \mathbb{Y} 36'41 | |
| morning set | 5504 Jun 27 16:51 | 0° \mathbb{L} 14'57 | | desc. node | 5505 Apr 28 12:54 | 13° \mathbb{Y} 45'40 | |
| | 5504 Jun 27 13:55 | 0° \mathbb{L} | | morning max el | 5505 May 07 12:07 | 20° \mathbb{Y} 35'05 | 27°35'12 |
| asc. node | 5504 Jul 02 11:31 | 10° \mathbb{L} 16'08 | | | 5505 May 15 14:39 | 0° \mathbb{Z} | |
| max. Earth dist. | 5504 Jul 03 08:37 | 12° \mathbb{L} 09'48 | 1.32265 AU | | 5505 Jun 03 23:39 | 0° \mathbb{I} | |
| | | | | morning set | 5505 Jun 11 11:28 | 14° \mathbb{I} 06'31 | |
| superior conj | 5504 Jul 05 04:18 | 16° \mathbb{L} 07'12 | 0°27'46 | max. Earth dist. | 5505 Jun 16 10:03 | 24° \mathbb{I} 10'19 | 1.33070 AU |
| minimum elong | 5504 Jul 05 03:03 | 16° \mathbb{L} 00'23 | 0°27'30 | | | | |
| | 5504 Jul 11 13:09 | 0° \mathbb{O} | | superior conj | 5505 Jun 19 10:25 | 0° \mathbb{L} 33'21 | 0°00'49 |
| evening rise | 5504 Jul 12 01:02 | 1° \mathbb{O} 03'31 | | minimum elong | 5505 Jun 19 10:23 | 0° \mathbb{L} 33'09 | 0°00'47 |
| | 5504 Jul 27 20:18 | 0° \mathbb{M} | | behind sun begin | 5505 Jun 19 05:00 | 0° \mathbb{L} 04'24 | |
| evening max el | 5504 Aug 06 02:35 | 11° \mathbb{M} 17'28 | 24°23'04 | behind sun end | 5505 Jun 19 15:46 | 1° \mathbb{L} 01'56 | |
| desc. node | 5504 Aug 07 15:08 | 12° \mathbb{M} 41'10 | | asc. node | 5505 Jun 19 08:33 | 0° \mathbb{L} 23'18 | |
| retrograde | 5504 Aug 19 22:40 | 18° \mathbb{M} 15'32 | | | 5505 Jun 19 04:11 | 0° \mathbb{L} | |
| evening set | 5504 Aug 24 21:27 | 17° \mathbb{M} 20'58 | | evening rise | 5505 Jun 26 12:38 | 15° \mathbb{L} 47'06 | |
| min. Earth dist. | 5504 Aug 30 13:35 | 14° \mathbb{M} 28'22 | 0.56600 AU | | 5505 Jul 03 14:37 | 0° \mathbb{O} | |
| inferior conj | 5504 Sep 02 04:12 | 12° \mathbb{M} 49'35 | -5°19'10 | evening max el | 5505 Jul 18 15:30 | 21° \mathbb{O} 38'03 | 22°45'20 |
| minimum elong | 5504 Sep 02 03:04 | 12° \mathbb{M} 51'22 | 5°19'08 | desc. node | 5505 Jul 25 12:10 | 26° \mathbb{O} 40'29 | |
| morning rise | 5504 Sep 10 11:07 | 8° \mathbb{M} 47'34 | | retrograde | 5505 Jul 31 20:58 | 28° \mathbb{O} 13'30 | |
| direct | 5504 Sep 13 03:10 | 8° \mathbb{M} 28'26 | | evening set | 5505 Aug 04 07:15 | 27° \mathbb{O} 47'48 | |

| | | | | | | | |
|---------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| min. Earth dist. | 5505 Aug 11 23:36 | 24°♎23'57 | 0.55277 AU | evening set | 5506 Jul 14 17:33 | 7°♎53'12 | |
| inferior conj | 5505 Aug 13 08:18 | 23°♎37'12 | -4°45'34 | inferior conj | 5506 Jul 24 01:46 | 3°♎54'53 | -3°20'31 |
| minimum elong | 5505 Aug 13 00:56 | 23°♎47'45 | 4°44'14 | minimum elong | 5506 Jul 23 17:14 | 4°♎06'51 | 3°17'53 |
| morning rise | 5505 Aug 21 20:40 | 19°♎47'03 | | min. Earth dist. | 5506 Jul 24 09:40 | 3°♎43'47 | 0.54779 AU |
| direct | 5505 Aug 24 22:00 | 19°♎25'24 | | morning rise | 5506 Aug 01 17:30 | 29°♎59'19 | |
| morning max el | 5505 Sep 05 02:47 | 24°♎38'30 | 20°54'04 | | 5506 Aug 01 16:26 | 30°♎59'19 | |
| | 5505 Sep 09 21:51 | 0°♎ | | direct | 5506 Aug 05 07:05 | 29°♎31'58 | |
| asc. node | 5505 Sep 15 07:51 | 8°♎05'52 | | | 5506 Aug 08 19:36 | 0°♎ | |
| morning set | 5505 Sep 24 13:33 | 25°♎42'47 | | morning max el | 5506 Aug 17 23:50 | 5°♎33'25 | 22°30'13 |
| | 5505 Sep 26 15:05 | 0°♎ | | asc. node | 5506 Sep 02 04:54 | 27°♎00'43 | |
| | | | | | 5506 Sep 03 18:52 | 0°♎ | |
| superior conj | 5505 Oct 01 23:35 | 11°♎08'03 | 1°43'00 | morning set | 5506 Sep 09 00:04 | 10°♎33'13 | |
| minimum elong | 5505 Oct 01 23:59 | 11°♎10'09 | 1°43'00 | | | | |
| max. Earth dist. | 5505 Oct 06 16:26 | 20°♎35'43 | 1.35729 AU | superior conj | 5506 Sep 16 02:30 | 25°♎41'19 | 1°41'33 |
| evening rise | 5505 Oct 10 17:50 | 28°♎22'28 | | minimum elong | 5506 Sep 16 01:37 | 25°♎36'37 | 1°41'30 |
| | 5505 Oct 11 14:50 | 0°♎ | | | 5506 Sep 18 03:35 | 0°♎ | |
| desc. node | 5505 Oct 21 11:27 | 17°♎04'54 | | max. Earth dist. | 5506 Sep 19 09:12 | 2°♎33'57 | 1.34141 AU |
| | 5505 Oct 29 22:00 | 0°♎ | | evening rise | 5506 Sep 24 00:56 | 11°♎56'10 | |
| evening max el | 5505 Nov 15 06:42 | 20°♎09'41 | 26°21'40 | | 5506 Oct 03 22:52 | 0°♎ | |
| retrograde | 5505 Nov 28 01:45 | 27°♎21'36 | | desc. node | 5506 Oct 08 08:29 | 7°♎11'26 | |
| evening set | 5505 Dec 04 10:14 | 24°♎46'37 | | | 5506 Oct 25 04:39 | 0°♎ | |
| min. Earth dist. | 5505 Dec 08 14:12 | 20°♎26'03 | 0.66467 AU | evening max el | 5506 Oct 28 19:30 | 3°♎43'53 | 27°07'13 |
| inferior conj | 5505 Dec 10 05:08 | 18°♎27'30 | -0°42'32 | retrograde | 5506 Nov 11 03:09 | 11°♎01'42 | |
| minimum elong | 5505 Dec 10 06:18 | 18°♎23'58 | 0°42'01 | evening set | 5506 Nov 17 22:58 | 8°♎22'01 | |
| asc. node | 5505 Dec 12 07:04 | 16°♎00'28 | | min. Earth dist. | 5506 Nov 21 20:39 | 4°♎36'43 | 0.65202 AU |
| morning rise | 5505 Dec 16 03:00 | 12°♎41'01 | | inferior conj | 5506 Nov 23 23:29 | 2°♎14'24 | -1°44'46 |
| direct | 5505 Dec 19 03:40 | 11°♎49'08 | | minimum elong | 5506 Nov 24 02:31 | 2°♎05'53 | 1°43'29 |
| morning max el | 5505 Dec 25 19:32 | 15°♎27'19 | 18°36'57 | | 5506 Nov 26 01:03 | 30°♎18'53 | |
| | 5506 Jan 05 15:18 | 0°♎ | | asc. node | 5506 Nov 29 04:09 | 27°♎18'53 | |
| morning set | 5506 Jan 15 13:51 | 15°♎36'37 | | morning rise | 5506 Nov 30 07:09 | 26°♎40'45 | |
| desc. node | 5506 Jan 17 10:43 | 18°♎33'58 | | direct | 5506 Dec 02 23:31 | 26°♎02'16 | |
| | 5506 Jan 24 16:52 | 0°♎ | | morning max el | 5506 Dec 09 10:45 | 29°♎29'11 | 18°04'57 |
| | | | | | 5506 Dec 09 22:48 | 0°♎ | |
| superior conj | 5506 Jan 31 17:19 | 11°♎00'39 | -1°29'09 | morning set | 5506 Dec 27 13:38 | 26°♎31'57 | |
| minimum elong | 5506 Jan 31 07:53 | 10°♎23'41 | 1°28'09 | | 5506 Dec 29 16:12 | 0°♎ | |
| max. Earth dist. | 5506 Jan 31 11:27 | 10°♎37'39 | 1.45316 AU | desc. node | 5507 Jan 04 07:44 | 9°♎12'20 | |
| | 5506 Feb 12 18:31 | 0°♎ | | | | | |
| evening rise | 5506 Feb 16 09:13 | 5°♎44'56 | | superior conj | 5507 Jan 10 23:42 | 19°♎52'14 | -0°45'22 |
| greatest brilliancy | 5506 Feb 24 17:39 | 19°♎03'25 | -0.8m | minimum elong | 5507 Jan 10 18:08 | 19°♎30'10 | 0°44'35 |
| | 5506 Mar 03 21:46 | 0°♎ | | max. Earth dist. | 5507 Jan 14 07:16 | 25°♎06'13 | 1.45184 AU |
| evening max el | 5506 Mar 10 02:49 | 7°♎49'20 | 18°52'06 | | 5507 Jan 17 10:12 | 0°♎ | |
| asc. node | 5506 Mar 10 06:19 | 7°♎58'10 | | evening rise | 5507 Jan 27 06:25 | 15°♎17'54 | |
| retrograde | 5506 Mar 16 20:34 | 11°♎35'18 | | | 5507 Feb 05 19:44 | 0°♎ | |
| evening set | 5506 Mar 20 03:49 | 10°♎32'27 | | greatest brilliancy | 5507 Feb 09 12:13 | 5°♎33'52 | -0.7m |
| inferior conj | 5506 Mar 25 18:25 | 4°♎50'10 | 3°29'44 | evening max el | 5507 Feb 21 09:24 | 21°♎22'14 | 19°40'18 |
| minimum elong | 5506 Mar 25 17:39 | 4°♎52'34 | 3°29'41 | asc. node | 5507 Feb 25 03:23 | 24°♎28'44 | |
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| | 5506 Mar 29 20:06 | 30°♎ | | evening set | 5507 Mar 04 08:58 | 24°♎20'21 | |
| morning rise | 5506 Mar 31 07:03 | 28°♎35'55 | | inferior conj | 5507 Mar 09 19:13 | 18°♎22'56 | 3°15'46 |
| direct | 5506 Apr 06 19:49 | 25°♎46'28 | | minimum elong | 5507 Mar 09 17:27 | 18°♎28'49 | 3°15'31 |
| desc. node | 5506 Apr 15 09:56 | 29°♎27'40 | | min. Earth dist. | 5507 Mar 10 21:48 | 16°♎54'55 | 0.66891 AU |
| | 5506 Apr 16 02:14 | 0°♎ | | morning rise | 5507 Mar 15 01:42 | 12°♎07'52 | |
| morning max el | 5506 Apr 19 22:13 | 3°♎30'58 | 26°45'24 | direct | 5507 Mar 21 03:12 | 9°♎25'39 | |
| | 5506 May 09 23:07 | 0°♎ | | desc. node | 5507 Apr 02 06:58 | 16°♎40'31 | |
| morning set | 5506 May 25 19:24 | 27°♎23'26 | | morning max el | 5507 Apr 02 07:48 | 16°♎42'36 | 25°32'24 |
| | 5506 May 27 04:02 | 0°♎ | | | 5507 Apr 13 08:49 | 0°♎ | |
| max. Earth dist. | 5506 May 30 01:32 | 5°♎41'36 | 1.34347 AU | | 5507 May 02 21:42 | 0°♎ | |
| | | | | morning set | 5507 May 08 12:22 | 9°♎53'42 | |
| superior conj | 5506 Jun 03 10:41 | 14°♎37'44 | -0°28'24 | max. Earth dist. | 5507 May 12 05:54 | 16°♎48'50 | 1.36068 AU |
| minimum elong | 5506 Jun 03 12:14 | 14°♎45'43 | 0°28'07 | | | | |
| asc. node | 5506 Jun 06 05:36 | 20°♎27'47 | | superior conj | 5507 May 18 02:22 | 28°♎12'37 | -0°58'29 |
| evening rise | 5506 Jun 10 22:27 | 0°♎ | | minimum elong | 5507 May 18 05:39 | 28°♎29'02 | 0°57'55 |
| | 5506 Jun 10 18:25 | 0°♎ | | | 5507 May 18 23:48 | 0°♎ | |
| | 5506 Jun 28 09:40 | 0°♎ | | asc. node | 5507 May 24 02:39 | 10°♎25'16 | |
| evening max el | 5506 Jun 30 11:18 | 2°♎11'35 | 21°13'03 | evening rise | 5507 May 26 04:17 | 14°♎38'38 | |
| retrograde | 5506 Jul 12 10:16 | 8°♎05'31 | | | 5507 Jun 03 04:03 | 0°♎ | |
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
































































































































| | | | | | | | |
|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| retrograde | 5507 Jun 23 01:41 | 18°☿24'08 | | evening max el | 5508 May 25 15:08 | 25°♊15'40 | 19°00'04 |
| evening set | 5507 Jun 24 23:26 | 18°☿14'29 | | retrograde | 5508 Jun 03 06:31 | 29°♊29'46 | |
| desc. node | 5507 Jun 29 06:11 | 16°☿50'35 | | evening set | 5508 Jun 05 07:07 | 29°♊16'45 | |
| inferior conj | 5507 Jul 03 22:54 | 14°☿13'58 | -1°24'28 | inferior conj | 5508 Jun 13 12:17 | 25°♊02'07 | 0°28'35 |
| minimum elong | 5507 Jul 03 18:59 | 14°☿19'55 | 1°23'01 | minimum elong | 5508 Jun 13 13:26 | 25°♊00'07 | 0°28'09 |
| min. Earth dist. | 5507 Jul 05 21:56 | 13°☿02'45 | 0.55240 AU | desc. node | 5508 Jun 15 03:12 | 23°♊53'53 | |
| morning rise | 5507 Jul 12 12:42 | 9°☿52'28 | | min. Earth dist. | 5508 Jun 16 13:28 | 22°♊55'07 | 0.56583 AU |
| direct | 5507 Jul 16 19:45 | 9°☿12'07 | | morning rise | 5508 Jun 21 16:26 | 20°♊04'27 | |
| morning max el | 5507 Jul 30 14:21 | 15°☿59'39 | 24°14'30 | direct | 5508 Jun 26 21:45 | 18°♊59'50 | |
| | 5507 Aug 10 19:14 | 0°♊ | | morning max el | 5508 Jul 11 04:33 | 26°♊22'22 | 25°51'47 |
| asc. node | 5507 Aug 20 01:56 | 16°♊23'05 | | | 5508 Jul 14 15:29 | 0°☿ | |
| morning set | 5507 Aug 24 11:49 | 25°♊26'30 | | | 5508 Aug 02 22:19 | 0°♊ | |
| | 5507 Aug 26 14:54 | 0°♊ | | asc. node | 5508 Aug 05 22:57 | 6°♊04'41 | |
| | | | | morning set | 5508 Aug 07 23:05 | 10°♊16'23 | |
| superior conj | 5507 Aug 31 10:32 | 10°♊28'54 | 1°33'59 | superior conj | 5508 Aug 14 21:23 | 25°♊22'25 | 1°21'07 |
| minimum elong | 5507 Aug 31 08:44 | 10°♊19'10 | 1°33'49 | minimum elong | 5508 Aug 14 19:08 | 25°♊10'03 | 1°20'49 |
| max. Earth dist. | 5507 Sep 02 10:25 | 14°♊47'41 | 1.32963 AU | max. Earth dist. | 5508 Aug 15 18:02 | 27°♊16'02 | 1.32219 AU |
| evening rise | 5507 Sep 07 19:13 | 26°♊01'30 | | | 5508 Aug 16 23:57 | 0°♊ | |
| | 5507 Sep 09 18:57 | 0°♊ | | evening rise | 5508 Aug 21 21:24 | 10°♊28'06 | |
| desc. node | 5507 Sep 25 05:29 | 26°♊52'04 | | | 5508 Sep 01 01:12 | 0°♊ | |
| | 5507 Sep 27 08:18 | 0°♊ | | desc. node | 5508 Sep 11 02:30 | 15°♊55'05 | |
| evening max el | 5507 Oct 11 06:48 | 16°♊57'12 | 27°27'01 | evening max el | 5508 Sep 22 14:28 | 29°♊36'21 | 27°15'42 |
| retrograde | 5507 Oct 24 22:25 | 24°♊14'39 | | | 5508 Sep 23 00:36 | 0°♊ | |
| evening set | 5507 Nov 01 01:23 | 21°♊39'01 | | retrograde | 5508 Oct 06 10:47 | 6°♊49'42 | |
| min. Earth dist. | 5507 Nov 04 18:03 | 18°♊26'20 | 0.63600 AU | evening set | 5508 Oct 13 13:49 | 4°♊29'45 | |
| inferior conj | 5507 Nov 07 08:46 | 15°♊47'41 | -2°48'54 | min. Earth dist. | 5508 Oct 17 05:05 | 1°♊42'20 | 0.61707 AU |
| minimum elong | 5507 Nov 07 13:43 | 15°♊35'08 | 2°47'05 | | 5508 Oct 19 02:58 | 30°♊ | |
| morning rise | 5507 Nov 14 03:37 | 10°♊30'04 | | inferior conj | 5508 Oct 20 05:53 | 28°♊58'58 | -3°51'04 |
| asc. node | 5507 Nov 16 01:10 | 10°♊02'39 | | minimum elong | 5508 Oct 20 12:10 | 28°♊44'49 | 3°49'14 |
| direct | 5507 Nov 16 14:05 | 10°♊01'14 | | morning rise | 5508 Oct 27 12:28 | 24°♊00'26 | |
| morning max el | 5507 Nov 23 03:45 | 13°♊26'01 | 17°50'11 | direct | 5508 Oct 29 19:54 | 23°♊37'45 | |
| | 5507 Dec 04 14:05 | 0°♊ | | asc. node | 5508 Nov 01 22:11 | 24°♊20'00 | |
| morning set | 5507 Dec 09 15:56 | 8°♊44'30 | | morning max el | 5508 Nov 05 19:18 | 27°♊08'57 | 17°53'36 |
| | | | | | 5508 Nov 08 07:59 | 0°♊ | |
| superior conj | 5507 Dec 22 01:36 | 29°♊43'57 | 0°00'56 | morning set | 5508 Nov 21 14:16 | 21°♊54'02 | |
| minimum elong | 5507 Dec 22 01:42 | 29°♊44'20 | 0°00'56 | | 5508 Nov 26 01:45 | 0°♊ | |
| behind sun begin | 5507 Dec 21 16:03 | 29°♊04'41 | | superior conj | 5508 Dec 02 05:47 | 10°♊52'13 | 0°40'50 |
| behind sun end | 5507 Dec 22 11:20 | 0°♊23'53 | | minimum elong | 5508 Dec 02 09:07 | 11°♊06'32 | 0°40'23 |
| desc. node | 5507 Dec 22 04:48 | 29°♊57'05 | | desc. node | 5508 Dec 08 01:47 | 20°♊43'58 | |
| | 5507 Dec 22 05:30 | 0°♊ | | max. Earth dist. | 5508 Dec 09 15:04 | 23°♊17'31 | 1.42872 AU |
| max. Earth dist. | 5507 Dec 28 01:11 | 9°♊24'42 | 1.44336 AU | | 5508 Dec 13 18:42 | 0°♊ | |
| evening rise | 5508 Jan 06 16:53 | 24°♊31'08 | | evening rise | 5508 Dec 16 08:20 | 4°♊03'49 | |
| | 5508 Jan 10 06:52 | 0°♊ | | | 5509 Jan 02 16:26 | 0°♊ | |
| | 5508 Jan 31 03:34 | 0°♊ | | evening max el | 5509 Jan 17 06:32 | 18°♊32'08 | 21°56'11 |
| evening max el | 5508 Feb 04 10:37 | 4°♊56'11 | 20°42'49 | retrograde | 5509 Jan 26 13:37 | 24°♊03'30 | |
| asc. node | 5508 Feb 12 00:25 | 9°♊45'16 | | asc. node | 5509 Jan 28 21:25 | 23°♊34'53 | |
| retrograde | 5508 Feb 12 16:24 | 9°♊47'39 | | evening set | 5509 Jan 31 00:01 | 22°♊16'53 | |
| evening set | 5508 Feb 16 16:16 | 8°♊16'17 | | inferior conj | 5509 Feb 05 08:10 | 15°♊57'40 | 2°17'02 |
| inferior conj | 5508 Feb 22 00:31 | 2°♊06'25 | 2°50'56 | minimum elong | 5509 Feb 05 05:48 | 16°♊05'53 | 2°16'18 |
| minimum elong | 5508 Feb 21 22:13 | 2°♊14'19 | 2°50'24 | min. Earth dist. | 5509 Feb 05 09:10 | 15°♊54'13 | 0.68098 AU |
| min. Earth dist. | 5508 Feb 22 13:40 | 1°♊21'14 | 0.67699 AU | morning rise | 5509 Feb 10 11:24 | 9°♊46'24 | |
| | 5508 Feb 23 13:39 | 30°♊ | | direct | 5509 Feb 15 08:46 | 7°♊41'03 | |
| morning rise | 5508 Feb 27 03:58 | 25°♊52'23 | | morning max el | 5509 Feb 25 02:37 | 13°♊26'24 | 22°36'50 |
| direct | 5508 Mar 03 15:47 | 23°♊26'03 | | desc. node | 5509 Mar 06 01:02 | 24°♊03'45 | |
| morning max el | 5508 Mar 14 16:29 | 0°♊01'27 | 24°06'08 | | 5509 Mar 10 09:40 | 0°♊ | |
| | 5508 Mar 14 15:55 | 0°♊ | | | 5509 Mar 30 04:01 | 0°♊ | |
| desc. node | 5508 Mar 19 04:00 | 4°♊58'37 | | morning set | 5509 Mar 31 02:56 | 1°♊33'43 | |
| | 5508 Apr 06 05:45 | 0°♊ | | max. Earth dist. | 5509 Apr 04 22:03 | 9°♊34'48 | 1.40341 AU |
| morning set | 5508 Apr 19 08:50 | 21°♊22'04 | | | | | |
| max. Earth dist. | 5508 Apr 23 02:13 | 27°♊54'56 | 1.38135 AU | superior conj | 5509 Apr 12 17:17 | 23°♊16'44 | -1°51'39 |
| | 5508 Apr 24 06:02 | 0°♊ | | minimum elong | 5509 Apr 12 22:16 | 23°♊39'20 | 1°51'12 |
| superior conj | 5508 Apr 30 05:59 | 11°♊08'58 | -1°27'19 | | 5509 Apr 16 09:15 | 0°♊ | |
| minimum elong | 5508 Apr 30 10:43 | 11°♊31'33 | 1°26'40 | evening rise | 5509 Apr 22 17:00 | 11°♊53'39 | |
| evening rise | 5508 May 09 03:32 | 28°♊32'08 | | asc. node | 5509 Apr 26 20:42 | 19°♊40'33 | |
| asc. node | 5508 May 09 23:40 | 0°♊11'06 | | | 5509 May 02 20:17 | 0°♊ | |
| | 5508 May 09 21:25 | 0°♊ | | | | | |

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|------------------|-------------------|-------------------------|------------|------------------|-------------------|-------------------------|------------|
| evening max el | 5509 May 08 20:19 | 7° Π 45'57 | 18°23'54 | asc. node | 5510 Apr 13 17:43 | 8° \mathcal{B} 47'02 | |
| retrograde | 5509 May 16 06:14 | 11° Π 26'50 | | evening max el | 5510 Apr 22 06:58 | 20° \mathcal{B} 42'29 | 18°07'33 |
| evening set | 5509 May 18 13:47 | 11° Π 06'18 | | retrograde | 5510 Apr 28 23:26 | 24° \mathcal{B} 06'49 | |
| inferior conj | 5509 May 25 23:08 | 6° Π 31'46 | 1°55'56 | evening set | 5510 May 01 13:55 | 23° \mathcal{B} 36'06 | |
| minimum elong | 5509 May 26 02:29 | 6° Π 24'55 | 1°54'54 | inferior conj | 5510 May 08 06:15 | 18° \mathcal{B} 40'44 | 2°52'34 |
| min. Earth dist. | 5509 May 29 09:28 | 3° Π 44'48 | 0.58534 AU | minimum elong | 5510 May 08 09:17 | 18° \mathcal{B} 33'33 | 2°51'56 |
| desc. node | 5509 Jun 02 00:13 | 1° Π 17'36 | | min. Earth dist. | 5510 May 11 12:06 | 15° \mathcal{B} 37'23 | 0.60737 AU |
| morning rise | 5509 Jun 02 12:01 | 1° Π 01'34 | | morning rise | 5510 May 15 02:26 | 12° \mathcal{B} 47'38 | |
| | 5509 Jun 04 21:48 | 30° \mathcal{R} 8 | | desc. node | 5510 May 19 21:16 | 10° \mathcal{B} 47'23 | |
| direct | 5509 Jun 08 14:03 | 29° \mathcal{B} 24'13 | | direct | 5510 May 21 17:57 | 10° \mathcal{B} 37'18 | |
| | 5509 Jun 12 08:10 | 0° Π | | morning max el | 5510 Jun 05 00:38 | 18° \mathcal{B} 33'25 | 27°47'09 |
| morning max el | 5509 Jun 22 23:21 | 7° Π 08'21 | 27°06'20 | | 5510 Jun 14 15:32 | 0° Π | |
| | 5509 Jul 10 02:22 | 0° \mathcal{E} | | | 5510 Jul 02 20:23 | 0° \mathcal{E} | |
| morning set | 5509 Jul 23 08:16 | 24° \mathcal{E} 58'08 | | morning set | 5510 Jul 07 13:34 | 9° \mathcal{E} 25'37 | |
| asc. node | 5509 Jul 23 19:58 | 25° \mathcal{E} 59'50 | | asc. node | 5510 Jul 10 17:00 | 16° \mathcal{E} 02'55 | |
| | 5509 Jul 25 16:54 | 0° \mathcal{Q} | | max. Earth dist. | 5510 Jul 13 15:26 | 22° \mathcal{E} 24'51 | 1.32012 AU |
| superior conj | 5509 Jul 30 09:13 | 10° \mathcal{Q} 15'54 | 1°03'35 | superior conj | 5510 Jul 14 20:15 | 25° \mathcal{E} 03'02 | 0°41'55 |
| minimum elong | 5509 Jul 30 06:59 | 10° \mathcal{Q} 03'33 | 1°03'12 | minimum elong | 5510 Jul 14 18:30 | 24° \mathcal{E} 53'27 | 0°41'33 |
| max. Earth dist. | 5509 Jul 30 04:58 | 9° \mathcal{Q} 52'24 | 1.31907 AU | | 5510 Jul 17 02:10 | 0° \mathcal{Q} | |
| evening rise | 5509 Aug 06 04:54 | 25° \mathcal{Q} 08'23 | | evening rise | 5510 Jul 21 15:31 | 9° \mathcal{Q} 54'45 | |
| | 5509 Aug 08 12:53 | 0° \mathcal{P} | | | 5510 Jul 31 21:46 | 0° \mathcal{P} | |
| | 5509 Aug 25 21:29 | 0° \mathcal{A} | | desc. node | 5510 Aug 15 20:30 | 21° \mathcal{P} 01'53 | |
| desc. node | 5509 Aug 28 23:29 | 4° \mathcal{A} 05'23 | | evening max el | 5510 Aug 17 09:53 | 22° \mathcal{P} 35'11 | 25°15'45 |
| evening max el | 5509 Sep 04 16:02 | 11° \mathcal{A} 30'25 | 26°30'46 | retrograde | 5510 Aug 31 08:08 | 29° \mathcal{P} 38'12 | |
| retrograde | 5509 Sep 18 14:36 | 18° \mathcal{A} 38'37 | | evening set | 5510 Sep 06 02:15 | 28° \mathcal{P} 22'14 | |
| evening set | 5509 Sep 25 07:39 | 16° \mathcal{A} 46'29 | | min. Earth dist. | 5510 Sep 10 21:30 | 25° \mathcal{P} 41'33 | 0.57631 AU |
| min. Earth dist. | 5509 Sep 29 05:41 | 14° \mathcal{A} 11'16 | 0.59650 AU | inferior conj | 5510 Sep 13 21:59 | 23° \mathcal{P} 38'27 | -5°16'26 |
| inferior conj | 5509 Oct 02 11:23 | 11° \mathcal{A} 39'05 | -4°44'11 | minimum elong | 5510 Sep 14 00:23 | 23° \mathcal{P} 34'21 | 5°16'17 |
| minimum elong | 5509 Oct 02 17:17 | 11° \mathcal{A} 27'27 | 4°43'03 | morning rise | 5510 Sep 22 00:48 | 19° \mathcal{P} 24'53 | |
| morning rise | 5509 Oct 10 05:03 | 7° \mathcal{A} 02'25 | | direct | 5510 Sep 24 13:10 | 19° \mathcal{P} 06'02 | |
| direct | 5509 Oct 12 13:01 | 6° \mathcal{A} 42'52 | | morning max el | 5510 Oct 03 08:42 | 23° \mathcal{P} 16'46 | 19°00'37 |
| asc. node | 5509 Oct 19 19:13 | 10° \mathcal{A} 03'24 | | asc. node | 5510 Oct 06 16:16 | 26° \mathcal{P} 58'38 | |
| morning max el | 5509 Oct 20 06:04 | 10° \mathcal{A} 28'55 | 18°16'33 | | 5510 Oct 08 21:03 | 0° \mathcal{A} | |
| | 5509 Nov 02 01:51 | 0° \mathcal{M} | | morning set | 5510 Oct 20 01:07 | 20° \mathcal{A} 00'42 | |
| morning set | 5509 Nov 05 02:46 | 5° \mathcal{M} 43'31 | | | 5510 Oct 25 02:25 | 0° \mathcal{M} | |
| superior conj | 5509 Nov 14 10:06 | 23° \mathcal{M} 10'08 | 1°10'42 | superior conj | 5510 Oct 28 09:24 | 6° \mathcal{M} 23'29 | 1°30'17 |
| minimum elong | 5509 Nov 14 13:56 | 23° \mathcal{M} 27'31 | 1°10'16 | minimum elong | 5510 Oct 28 12:12 | 6° \mathcal{M} 36'55 | 1°30'04 |
| | 5509 Nov 18 05:33 | 0° \mathcal{J} | | max. Earth dist. | 5510 Nov 04 05:56 | 19° \mathcal{M} 07'32 | 1.38860 AU |
| max. Earth dist. | 5509 Nov 22 00:16 | 6° \mathcal{J} 33'13 | 1.40970 AU | evening rise | 5510 Nov 08 01:52 | 25° \mathcal{M} 51'28 | |
| desc. node | 5509 Nov 24 22:47 | 11° \mathcal{J} 29'54 | | | 5510 Nov 10 12:20 | 0° \mathcal{J} | |
| evening rise | 5509 Nov 26 17:43 | 14° \mathcal{J} 26'49 | | desc. node | 5510 Nov 11 19:48 | 2° \mathcal{J} 11'11 | |
| | 5509 Dec 06 15:13 | 0° \mathcal{Z} | | | 5510 Nov 30 06:32 | 0° \mathcal{Z} | |
| | 5509 Dec 28 20:21 | 0° \approx | | evening max el | 5510 Dec 13 11:32 | 15° \mathcal{Z} 53'52 | 24°34'24 |
| evening max el | 5509 Dec 30 22:14 | 2° \approx 11'07 | 23°15'25 | retrograde | 5510 Dec 24 22:58 | 22° \mathcal{Z} 35'52 | |
| retrograde | 5510 Jan 10 08:08 | 8° \approx 20'49 | | evening set | 5510 Dec 30 10:41 | 20° \mathcal{Z} 18'36 | |
| evening set | 5510 Jan 15 06:40 | 6° \approx 18'34 | | asc. node | 5511 Jan 02 15:30 | 16° \mathcal{Z} 53'36 | |
| asc. node | 5510 Jan 15 18:27 | 5° \approx 52'35 | | min. Earth dist. | 5511 Jan 04 01:37 | 15° \mathcal{Z} 03'17 | 0.67759 AU |
| min. Earth dist. | 5510 Jan 20 05:54 | 0° \approx 29'14 | 0.68114 AU | inferior conj | 5511 Jan 04 22:59 | 13° \mathcal{Z} 52'05 | 0°46'26 |
| inferior conj | 5510 Jan 20 16:15 | 29° \mathcal{Z} 53'40 | 1°35'13 | minimum elong | 5511 Jan 04 21:54 | 13° \mathcal{Z} 55'44 | 0°46'00 |
| minimum elong | 5510 Jan 20 14:17 | 0° \approx 00'24 | 1°34'30 | morning rise | 5511 Jan 10 09:14 | 7° \mathcal{Z} 51'31 | |
| | 5510 Jan 20 14:24 | 30° \mathcal{R} 3 | | direct | 5511 Jan 14 03:10 | 6° \mathcal{Z} 31'04 | |
| morning rise | 5510 Jan 25 21:49 | 23° \mathcal{Z} 46'48 | | morning max el | 5511 Jan 21 16:59 | 10° \mathcal{Z} 48'02 | 20°00'40 |
| direct | 5510 Jan 30 04:57 | 22° \mathcal{Z} 04'20 | | | 5511 Feb 05 06:21 | 0° \approx | |
| morning max el | 5510 Feb 07 17:54 | 27° \mathcal{Z} 00'50 | 21°13'02 | desc. node | 5511 Feb 07 19:06 | 3° \approx 45'57 | |
| | 5510 Feb 10 12:05 | 0° \approx | | morning set | 5511 Feb 17 13:49 | 18° \approx 38'50 | |
| desc. node | 5510 Feb 20 22:03 | 13° \approx 42'30 | | | 5511 Feb 24 20:39 | 0° \mathcal{H} | |
| | 5510 Mar 03 22:54 | 0° \mathcal{H} | | max. Earth dist. | 5511 Feb 28 10:06 | 5° \mathcal{H} 38'46 | 1.44039 AU |
| morning set | 5510 Mar 10 16:48 | 10° \mathcal{H} 26'27 | | superior conj | 5511 Mar 05 20:07 | 14° \mathcal{H} 23'20 | -2°07'25 |
| max. Earth dist. | 5510 Mar 18 00:07 | 22° \mathcal{H} 10'04 | 1.42402 AU | minimum elong | 5511 Mar 05 17:12 | 14° \mathcal{H} 11'25 | 2°07'21 |
| | 5510 Mar 22 17:11 | 0° \mathcal{Y} | | | 5511 Mar 15 04:51 | 0° \mathcal{Y} | |
| superior conj | 5510 Mar 25 07:15 | 4° \mathcal{Y} 23'48 | -2°06'54 | evening rise | 5511 Mar 18 22:29 | 6° \mathcal{Y} 23'07 | |
| minimum elong | 5510 Mar 25 09:55 | 4° \mathcal{Y} 35'17 | 2°06'49 | asc. node | 5511 Mar 31 14:45 | 27° \mathcal{Y} 23'39 | |
| evening rise | 5510 Apr 05 16:46 | 24° \mathcal{Y} 33'21 | | | 5511 Apr 02 11:15 | 0° \mathcal{B} | |
| | 5510 Apr 08 17:15 | 0° \mathcal{B} | | evening max el | 5511 Apr 05 19:48 | 3° \mathcal{B} 57'12 | 18°10'22 |

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|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| retrograde | 5511 Apr 12 05:45 | 7°♄20'04 | | evening rise | 5512 Feb 28 06:05 | 17°♄15'53 | |
| evening set | 5511 Apr 15 02:34 | 6°♄37'41 | | | 5512 Mar 07 01:11 | 0°♄ | |
| inferior conj | 5511 Apr 21 05:59 | 1°♄22'45 | 3°22'33 | asc. node | 5512 Mar 17 11:48 | 15°♄21'08 | |
| minimum elong | 5511 Apr 21 07:34 | 1°♄18'29 | 3°22'22 | evening max el | 5512 Mar 19 07:58 | 17°♄23'09 | 18°31'48 |
| | 5511 Apr 22 12:32 | 30°♄ | | retrograde | 5512 Mar 25 20:41 | 20°♄57'36 | |
| min. Earth dist. | 5511 Apr 23 23:38 | 28°♄26'48 | 0.62881 AU | evening set | 5512 Mar 28 23:52 | 20°♄02'37 | |
| morning rise | 5511 Apr 27 11:16 | 25°♄16'13 | | inferior conj | 5512 Apr 03 18:13 | 14°♄29'53 | 3°31'48 |
| direct | 5511 May 04 07:27 | 22°♄40'37 | | minimum elong | 5512 Apr 03 18:13 | 14°♄29'51 | 3°31'48 |
| desc. node | 5511 May 06 18:19 | 22°♄58'46 | | min. Earth dist. | 5512 Apr 05 20:41 | 11°♄59'57 | 0.64749 AU |
| | 5511 May 17 14:51 | 0°♄ | | morning rise | 5512 Apr 09 11:52 | 8°♄16'58 | |
| morning max el | 5511 May 18 07:34 | 0°♄41'11 | 27°50'00 | direct | 5512 Apr 16 05:05 | 5°♄28'31 | |
| | 5511 Jun 08 18:09 | 0°♄ | | desc. node | 5512 Apr 22 15:23 | 7°♄33'32 | |
| morning set | 5511 Jun 21 12:52 | 23°♄32'29 | | morning max el | 5512 Apr 29 17:24 | 13°♄23'29 | 27°17'28 |
| | 5511 Jun 24 16:20 | 0°♄ | | | 5512 May 13 02:34 | 0°♄ | |
| max. Earth dist. | 5511 Jun 26 21:26 | 4°♄40'43 | 1.32551 AU | | 5512 May 31 08:48 | 0°♄ | |
| asc. node | 5511 Jun 27 14:02 | 6°♄09'35 | | morning set | 5512 Jun 04 03:27 | 7°♄10'56 | |
| | | | | max. Earth dist. | 5512 Jun 08 19:00 | 16°♄29'12 | 1.33549 AU |
| superior conj | 5511 Jun 29 04:43 | 9°♄38'13 | 0°16'41 | superior conj | 5512 Jun 12 08:39 | 23°♄55'55 | -0°11'23 |
| minimum elong | 5511 Jun 29 03:55 | 9°♄33'57 | 0°16'30 | minimum elong | 5512 Jun 12 09:15 | 23°♄59'03 | 0°11'17 |
| evening rise | 5511 Jul 06 03:19 | 24°♄40'51 | | behind sun begin | 5512 Jun 12 05:18 | 23°♄38'10 | |
| | 5511 Jul 08 16:13 | 0°♄ | | behind sun end | 5512 Jun 12 13:12 | 24°♄19'57 | |
| | 5511 Jul 27 01:10 | 0°♄ | | asc. node | 5512 Jun 13 11:05 | 26°♄16'05 | |
| evening max el | 5511 Jul 29 22:22 | 3°♄02'33 | 23°41'43 | | 5512 Jun 15 05:04 | 0°♄ | |
| desc. node | 5511 Aug 02 17:32 | 6°♄15'35 | | evening rise | 5512 Jun 19 14:25 | 9°♄20'59 | |
| retrograde | 5511 Aug 12 13:53 | 9°♄53'44 | | | 5512 Jun 30 09:32 | 0°♄ | |
| evening set | 5511 Aug 16 21:16 | 9°♄12'56 | | evening max el | 5512 Jul 10 13:10 | 13°♄24'22 | 22°04'41 |
| min. Earth dist. | 5511 Aug 23 08:19 | 6°♄08'48 | 0.55948 AU | desc. node | 5512 Jul 19 14:35 | 19°♄12'39 | |
| inferior conj | 5511 Aug 25 12:20 | 4°♄50'45 | -5°11'23 | retrograde | 5512 Jul 23 08:00 | 19°♄45'05 | |
| minimum elong | 5511 Aug 25 08:19 | 4°♄56'48 | 5°11'01 | evening set | 5512 Jul 26 04:31 | 19°♄26'56 | |
| morning rise | 5511 Sep 02 21:50 | 0°♄55'53 | | inferior conj | 5512 Aug 04 10:29 | 15°♄22'46 | -4°15'15 |
| direct | 5511 Sep 05 17:34 | 0°♄36'00 | | minimum elong | 5512 Aug 04 01:45 | 15°♄35'03 | 4°13'09 |
| morning max el | 5511 Sep 16 00:16 | 5°♄23'01 | 20°06'41 | min. Earth dist. | 5512 Aug 03 18:20 | 15°♄45'29 | 0.54941 AU |
| asc. node | 5511 Sep 23 13:20 | 14°♄50'13 | | morning rise | 5512 Aug 13 00:38 | 11°♄32'46 | |
| | 5511 Oct 01 23:15 | 0°♄ | | direct | 5512 Aug 16 06:19 | 11°♄09'29 | |
| morning set | 5511 Oct 04 06:01 | 4°♄35'47 | | morning max el | 5512 Aug 28 03:41 | 16°♄43'18 | 21°33'17 |
| | | | | | 5512 Sep 07 10:06 | 0°♄ | |
| superior conj | 5511 Oct 11 22:30 | 20°♄17'00 | 1°40'40 | asc. node | 5512 Sep 09 10:23 | 3°♄25'03 | |
| minimum elong | 5511 Oct 11 23:47 | 20°♄23'26 | 1°40'37 | morning set | 5512 Sep 17 15:03 | 19°♄22'05 | |
| | 5511 Oct 16 21:20 | 0°♄ | | | 5512 Sep 22 16:14 | 0°♄ | |
| max. Earth dist. | 5511 Oct 17 11:48 | 1°♄08'56 | 1.36798 AU | superior conj | 5512 Sep 24 21:20 | 4°♄38'39 | 1°43'11 |
| evening rise | 5511 Oct 21 07:20 | 8°♄14'00 | | minimum elong | 5512 Sep 24 21:10 | 4°♄37'42 | 1°43'11 |
| desc. node | 5511 Oct 29 16:49 | 22°♄43'09 | | max. Earth dist. | 5512 Sep 28 23:17 | 13°♄00'35 | 1.35000 AU |
| | 5511 Nov 03 06:29 | 0°♄ | | evening rise | 5512 Oct 03 06:19 | 21°♄25'06 | |
| evening max el | 5511 Nov 26 00:04 | 29°♄37'41 | 25°46'18 | | 5512 Oct 07 21:47 | 0°♄ | |
| | 5511 Nov 26 09:19 | 0°♄ | | desc. node | 5512 Oct 15 13:50 | 13°♄00'42 | |
| retrograde | 5511 Dec 08 09:14 | 6°♄42'28 | | | 5512 Oct 27 02:48 | 0°♄ | |
| evening set | 5511 Dec 14 10:22 | 4°♄12'32 | | evening max el | 5512 Nov 07 12:50 | 13°♄17'57 | 26°43'41 |
| | 5511 Dec 18 09:01 | 30°♄ | | retrograde | 5512 Nov 20 14:14 | 20°♄34'14 | |
| min. Earth dist. | 5511 Dec 18 18:03 | 29°♄31'53 | 0.67042 AU | evening set | 5512 Nov 27 03:46 | 17°♄56'18 | |
| inferior conj | 5511 Dec 20 02:33 | 27°♄49'04 | -0°08'31 | min. Earth dist. | 5512 Dec 01 04:55 | 13°♄50'45 | 0.65973 AU |
| minimum elong | 5511 Dec 20 02:46 | 27°♄48'22 | 0°08'24 | inferior conj | 5512 Dec 03 00:54 | 11°♄41'06 | -1°08'31 |
| transit middle | 5511 Dec 20 02:46 | 27°♄48'22 | 0°08'24 | minimum elong | 5512 Dec 03 02:50 | 11°♄35'24 | 1°07'40 |
| transit begin | 5511 Dec 20 00:21 | 27°♄56'01 | | asc. node | 5512 Dec 06 09:38 | 8°♄00'57 | |
| transit end | 5511 Dec 20 05:11 | 27°♄40'44 | | morning rise | 5512 Dec 09 02:45 | 5°♄59'41 | |
| asc. node | 5511 Dec 20 12:34 | 27°♄17'26 | | direct | 5512 Dec 11 23:30 | 5°♄14'08 | |
| morning rise | 5511 Dec 25 19:37 | 21°♄56'50 | | morning max el | 5512 Dec 18 12:41 | 8°♄46'39 | 18°21'09 |
| direct | 5511 Dec 29 01:56 | 20°♄55'43 | | | 5513 Jan 02 09:59 | 0°♄ | |
| morning max el | 5512 Jan 04 23:50 | 24°♄44'59 | 19°02'52 | morning set | 5513 Jan 07 00:40 | 7°♄24'44 | |
| | 5512 Jan 09 11:34 | 0°♄ | | desc. node | 5513 Jan 11 13:07 | 14°♄39'29 | |
| desc. node | 5512 Jan 25 16:07 | 24°♄06'36 | | | 5513 Jan 21 05:37 | 0°♄ | |
| morning set | 5512 Jan 27 18:07 | 27°♄21'03 | | superior conj | 5513 Jan 22 12:47 | 2°♄02'22 | -1°11'37 |
| | 5512 Jan 29 10:56 | 0°♄ | | minimum elong | 5513 Jan 22 04:21 | 1°♄29'18 | 1°10'36 |
| max. Earth dist. | 5512 Feb 11 01:41 | 19°♄43'07 | 1.45053 AU | max. Earth dist. | 5513 Jan 23 20:18 | 4°♄06'00 | 1.45352 AU |
| | | | | evening rise | 5513 Feb 07 14:29 | 27°♄13'05 | |
| superior conj | 5512 Feb 13 09:39 | 23°♄23'34 | -1°48'39 | | | | |
| minimum elong | 5512 Feb 13 01:01 | 22°♄49'30 | 1°47'57 | | | | |
| | 5512 Feb 17 13:37 | 0°♄ | | | | | |

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|---------------------|-------------------|----------------------|--|---------------------|-------------------|----------------------|------------|
| | 5513 Feb 09 08:59 | 0°♄ | | max. Earth dist. | 5514 Jan 06 15:40 | 18°♄32'35 | 1.44911 AU |
| greatest brilliancy | 5513 Feb 18 06:25 | 13°♄53'53 -0.8m | | | 5514 Jan 13 23:28 | 0°♄ | |
| | 5513 Mar 01 20:32 | 0°♄ | | evening rise | 5514 Jan 18 05:27 | 6°♄33'40 | |
| evening max el | 5513 Mar 02 17:08 | 0°♄54'36 19°10'45 | | greatest brilliancy | 5514 Feb 01 20:53 | 28°♄42'19 -0.6m | |
| asc. node | 5513 Mar 04 08:51 | 2°♄27'18 | | | 5514 Feb 02 18:09 | 0°♄ | |
| retrograde | 5513 Mar 09 16:32 | 4°♄51'51 | | evening max el | 5514 Feb 13 21:39 | 14°♄28'51 20°05'22 | |
| evening set | 5513 Mar 13 02:49 | 3°♄43'21 | | asc. node | 5514 Feb 19 05:54 | 18°♄28'32 | |
| | 5513 Mar 16 23:14 | 30°♄ | | retrograde | 5514 Feb 21 14:32 | 18°♄58'04 | |
| inferior conj | 5513 Mar 18 15:17 | 27°♄54'35 3°25'16 | | evening set | 5514 Feb 25 09:06 | 17°♄35'12 | |
| minimum elong | 5513 Mar 18 14:02 | 27°♄58'36 3°25'09 | | inferior conj | 5514 Mar 02 18:17 | 11°♄32'24 3°06'26 | |
| min. Earth dist. | 5513 Mar 20 02:22 | 26°♄02'07 0.66235 AU | | minimum elong | 5514 Mar 02 16:13 | 11°♄39'20 3°06'03 | |
| morning rise | 5513 Mar 24 00:52 | 21°♄39'35 | | min. Earth dist. | 5514 Mar 03 15:01 | 10°♄22'29 0.67293 AU | |
| direct | 5513 Mar 30 09:20 | 18°♄51'34 | | morning rise | 5514 Mar 07 23:08 | 5°♄17'44 | |
| desc. node | 5513 Apr 09 12:24 | 23°♄57'22 | | direct | 5514 Mar 13 19:08 | 2°♄41'16 | |
| morning max el | 5513 Apr 12 03:17 | 26°♄26'43 26°16'31 | | morning max el | 5514 Mar 25 12:09 | 9°♄41'25 24°56'37 | |
| | 5513 Apr 15 10:20 | 0°♄ | | desc. node | 5514 Mar 27 09:24 | 11°♄40'35 | |
| | 5513 May 06 16:45 | 0°♄ | | | 5514 Apr 10 13:28 | 0°♄ | |
| morning set | 5513 May 18 05:33 | 20°♄09'24 | | | 5514 Apr 29 07:56 | 0°♄ | |
| max. Earth dist. | 5513 May 22 05:17 | 27°♄46'39 1.35022 AU | | morning set | 5514 Apr 30 14:27 | 2°♄14'52 | |
| | 5513 May 23 08:27 | 0°♄ | | max. Earth dist. | 5514 May 04 05:23 | 8°♄48'55 1.36922 AU | |
| | | | | | | | |
| superior conj | 5513 May 27 05:35 | 7°♄48'27 -0°41'10 | | superior conj | 5514 May 10 16:36 | 21°♄08'13 -1°11'03 | |
| minimum elong | 5513 May 27 07:52 | 8°♄00'06 0°40'45 | | minimum elong | 5514 May 10 20:34 | 21°♄27'42 1°10'24 | |
| asc. node | 5513 May 31 08:06 | 16°♄17'45 | | | 5514 May 15 03:32 | 0°♄ | |
| evening rise | 5513 Jun 03 22:46 | 23°♄48'11 | | asc. node | 5514 May 18 05:07 | 6°♄10'46 | |
| | 5513 Jun 06 23:56 | 0°♄ | | evening rise | 5514 May 19 02:07 | 7°♄56'15 | |
| evening max el | 5513 Jun 22 13:52 | 24°♄11'57 20°38'19 | | | 5514 May 31 09:51 | 0°♄ | |
| retrograde | 5513 Jul 03 20:14 | 29°♄43'39 | | evening max el | 5514 Jun 05 03:09 | 5°♄40'53 19°30'00 | |
| evening set | 5513 Jul 05 21:19 | 29°♄33'29 | | retrograde | 5514 Jun 14 15:50 | 10°♄20'32 | |
| desc. node | 5513 Jul 06 11:37 | 29°♄26'51 | | evening set | 5514 Jun 16 14:06 | 10°♄09'55 | |
| inferior conj | 5513 Jul 15 03:38 | 25°♄36'34 -2°33'07 | | desc. node | 5514 Jun 23 08:38 | 7°♄16'12 | |
| minimum elong | 5513 Jul 14 20:37 | 25°♄46'38 2°30'41 | | inferior conj | 5514 Jun 25 06:25 | 6°♄04'25 -0°34'17 | |
| min. Earth dist. | 5513 Jul 16 05:25 | 24°♄59'34 0.54856 AU | | minimum elong | 5514 Jun 25 04:53 | 6°♄06'53 0°33'43 | |
| morning rise | 5513 Jul 23 19:20 | 21°♄31'47 | | min. Earth dist. | 5514 Jun 27 18:37 | 4°♄28'27 0.55726 AU | |
| direct | 5513 Jul 27 15:45 | 20°♄59'52 | | morning rise | 5514 Jul 03 17:05 | 1°♄28'19 | |
| morning max el | 5513 Aug 09 21:06 | 27°♄22'31 23°14'22 | | direct | 5514 Jul 08 09:40 | 0°♄38'52 | |
| | 5513 Aug 12 11:06 | 0°♄ | | morning max el | 5514 Jul 22 10:26 | 7°♄42'10 24°57'43 | |
| asc. node | 5513 Aug 27 07:24 | 22°♄31'56 | | | 5514 Aug 07 19:07 | 0°♄ | |
| | 5513 Aug 31 01:39 | 0°♄ | | asc. node | 5514 Aug 14 04:24 | 12°♄02'44 | |
| morning set | 5513 Sep 02 02:16 | 4°♄13'24 | | morning set | 5514 Aug 17 13:57 | 19°♄05'03 | |
| | | | | | 5514 Aug 22 14:50 | 0°♄ | |
| superior conj | 5513 Sep 09 02:41 | 19°♄18'10 1°39'01 | | superior conj | 5514 Aug 24 12:06 | 4°♄08'06 1°29'07 | |
| minimum elong | 5513 Sep 09 01:22 | 19°♄11'04 1°38'57 | | minimum elong | 5514 Aug 24 10:04 | 3°♄56'55 1°28'54 | |
| max. Earth dist. | 5513 Sep 11 19:33 | 25°♄03'14 1.33586 AU | | max. Earth dist. | 5514 Aug 25 23:59 | 7°♄23'51 1.32598 AU | |
| | 5513 Sep 14 04:37 | 0°♄ | | evening rise | 5514 Aug 31 16:33 | 19°♄27'47 | |
| evening rise | 5513 Sep 16 18:35 | 5°♄13'01 | | | 5514 Sep 06 00:40 | 0°♄ | |
| | 5513 Sep 30 14:03 | 0°♄ | | desc. node | 5514 Sep 19 07:53 | 22°♄22'32 | |
| desc. node | 5513 Oct 02 10:52 | 2°♄56'53 | | | 5514 Sep 24 20:04 | 0°♄ | |
| evening max el | 5513 Oct 21 01:23 | 26°♄45'07 27°19'16 | | evening max el | 5514 Oct 03 11:38 | 9°♄45'28 27°26'22 | |
| | 5513 Oct 24 20:06 | 0°♄ | | retrograde | 5514 Oct 17 05:18 | 17°♄00'31 | |
| retrograde | 5513 Nov 03 13:11 | 4°♄03'21 | | evening set | 5514 Oct 24 09:24 | 14°♄30'19 | |
| evening set | 5513 Nov 10 12:29 | 1°♄24'30 | | min. Earth dist. | 5514 Oct 28 00:58 | 11°♄29'32 0.62821 AU | |
| | 5513 Nov 12 04:41 | 30°♄ | | inferior conj | 5514 Oct 30 20:14 | 8°♄47'34 -3°15'52 | |
| min. Earth dist. | 5513 Nov 14 07:55 | 27°♄53'17 0.64556 AU | | minimum elong | 5514 Oct 31 01:52 | 8°♄33'57 3°13'57 | |
| inferior conj | 5513 Nov 16 15:45 | 25°♄23'04 -2°11'54 | | morning rise | 5514 Nov 06 20:02 | 3°♄37'27 | |
| minimum elong | 5513 Nov 16 19:37 | 25°♄12'38 2°10'21 | | direct | 5514 Nov 09 04:56 | 3°♄11'30 | |
| morning rise | 5513 Nov 23 04:01 | 19°♄55'31 | | asc. node | 5514 Nov 10 03:41 | 3°♄15'45 | |
| asc. node | 5513 Nov 23 06:40 | 19°♄52'42 | | morning max el | 5514 Nov 15 21:40 | 6°♄37'51 17°49'24 | |
| direct | 5513 Nov 25 17:31 | 19°♄21'35 | | | 5514 Dec 01 02:42 | 0°♄ | |
| morning max el | 5513 Dec 02 04:58 | 22°♄46'49 17°56'27 | | morning set | 5514 Dec 02 00:12 | 1°♄34'55 | |
| | 5513 Dec 07 21:46 | 0°♄ | | | | | |
| morning set | 5513 Dec 19 12:33 | 18°♄55'44 | | superior conj | 5514 Dec 13 14:44 | 21°♄38'52 0°18'58 | |
| | 5513 Dec 26 03:51 | 0°♄ | | minimum elong | 5514 Dec 13 16:35 | 21°♄46'36 0°18'43 | |
| desc. node | 5513 Dec 29 10:08 | 5°♄20'49 | | desc. node | 5514 Dec 16 07:08 | 26°♄06'31 | |
| | | | | | | | |
| superior conj | 5514 Jan 02 01:50 | 11°♄15'20 -0°25'24 | | | 5514 Dec 18 16:10 | 0°♄ | |
| minimum elong | 5514 Jan 01 22:48 | 11°♄03'10 0°24'57 | | max. Earth dist. | 5514 Dec 20 08:43 | 2°♄44'04 1.43781 AU | |

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|------------------|-------------------|----------------------|------------|-------------------|-------------------|---------------------------------|
| evening rise | 5514 Dec 28 16:10 | 15° ♄ 50'46 | | 5515 Dec 11 07:28 | 0° ♄ | |
| | 5515 Jan 07 00:01 | 0° ♄ | | 5515 Dec 31 20:55 | 0° ♄ | |
| evening max el | 5515 Jan 27 20:37 | 28° ♄ 03'43 | 21°12'54 | evening max el | 5516 Jan 10 14:26 | 11° ♄ 40'15 22°29'22 |
| | 5515 Jan 29 21:47 | 0° ♄ | | retrograde | 5516 Jan 20 08:53 | 17° ♄ 28'42 |
| retrograde | 5515 Feb 05 12:32 | 3° ♄ 11'32 | | asc. node | 5516 Jan 23 23:57 | 16° ♄ 20'05 |
| asc. node | 5515 Feb 06 02:56 | 3° ♄ 09'37 | | evening set | 5516 Jan 25 00:19 | 15° ♄ 35'12 |
| evening set | 5515 Feb 09 16:49 | 1° ♄ 33'31 | | inferior conj | 5516 Jan 30 08:53 | 9° ♄ 12'50 2°00'12 |
| | 5515 Feb 11 08:45 | 30° ♄ | | minimum elong | 5516 Jan 30 06:38 | 9° ♄ 20'38 1°59'27 |
| inferior conj | 5515 Feb 15 00:49 | 25° ♄ 19'18 | 2°37'34 | min. Earth dist. | 5516 Jan 30 04:53 | 9° ♄ 26'42 0.68152 AU |
| minimum elong | 5515 Feb 14 22:26 | 25° ♄ 27'33 | 2°36'56 | morning rise | 5516 Feb 04 12:50 | 3° ♄ 03'17 |
| min. Earth dist. | 5515 Feb 15 08:35 | 24° ♄ 52'23 | 0.67925 AU | direct | 5516 Feb 09 03:57 | 1° ♄ 07'54 |
| morning rise | 5515 Feb 20 03:53 | 19° ♄ 06'30 | | morning max el | 5516 Feb 18 09:11 | 6° ♄ 31'54 22°00'06 |
| direct | 5515 Feb 25 09:36 | 16° ♄ 48'50 | | desc. node | 5516 Feb 29 03:27 | 19° ♄ 40'57 |
| morning max el | 5515 Mar 07 21:05 | 23° ♄ 02'41 | 23°27'57 | | 5516 Mar 07 09:53 | 0° ♄ |
| | 5515 Mar 13 23:53 | 0° ♄ | | morning set | 5516 Mar 22 06:12 | 22° ♄ 48'45 |
| desc. node | 5515 Mar 14 06:25 | 0° ♄ 20'20 | | | 5516 Mar 26 15:51 | 0° ♄ |
| | 5515 Apr 03 22:24 | 0° ♄ | | max. Earth dist. | 5516 Mar 27 23:10 | 2° ♄ 10'20 1.41256 AU |
| morning set | 5515 Apr 12 00:18 | 13° ♄ 11'38 | | | | |
| max. Earth dist. | 5515 Apr 16 01:00 | 20° ♄ 07'19 | 1.39084 AU | superior conj | 5516 Apr 04 16:39 | 15° ♄ 27'59 -1°59'33 |
| | 5515 Apr 21 13:13 | 0° ♄ | | minimum elong | 5516 Apr 04 21:04 | 15° ♄ 47'29 1°59'16 |
| | | | | | 5516 Apr 12 16:57 | 0° ♄ |
| superior conj | 5515 Apr 23 13:50 | 3° ♄ 44'59 | -1°38'26 | evening rise | 5516 Apr 15 05:51 | 4° ♄ 42'18 |
| minimum elong | 5515 Apr 23 18:54 | 4° ♄ 08'38 | 1°37'50 | asc. node | 5516 Apr 20 23:12 | 15° ♄ 10'49 |
| evening rise | 5515 May 02 21:38 | 21° ♄ 37'11 | | | 5516 Apr 30 22:24 | 0° ♄ |
| asc. node | 5515 May 05 02:10 | 25° ♄ 50'15 | | evening max el | 5516 May 01 11:17 | 0° ♄ 32'37 18°14'29 |
| | 5515 May 07 07:00 | 0° ♄ | | retrograde | 5516 May 08 12:34 | 4° ♄ 04'51 |
| evening max el | 5515 May 19 03:24 | 17° ♄ 50'19 | 18°42'06 | evening set | 5516 May 10 22:59 | 3° ♄ 40'23 |
| retrograde | 5515 May 27 04:49 | 21° ♄ 48'35 | | | 5516 May 16 19:20 | 30° ♄ |
| evening set | 5515 May 29 08:14 | 21° ♄ 32'45 | | inferior conj | 5516 May 18 00:39 | 28° ♄ 56'57 2°23'35 |
| inferior conj | 5515 Jun 06 04:45 | 17° ♄ 09'31 | 1°09'28 | minimum elong | 5516 May 18 04:04 | 28° ♄ 49'26 2°22'40 |
| minimum elong | 5515 Jun 06 07:12 | 17° ♄ 04'55 | 1°08'36 | min. Earth dist. | 5516 May 21 10:24 | 25° ♄ 59'41 0.59456 AU |
| min. Earth dist. | 5515 Jun 09 11:36 | 14° ♄ 43'15 | 0.57361 AU | morning rise | 5516 May 25 06:19 | 23° ♄ 15'18 |
| desc. node | 5515 Jun 10 05:38 | 14° ♄ 11'47 | | desc. node | 5516 May 27 02:41 | 22° ♄ 19'54 |
| morning rise | 5515 Jun 14 02:51 | 11° ♄ 57'04 | | direct | 5516 May 31 14:56 | 21° ♄ 23'26 |
| direct | 5515 Jun 19 17:23 | 10° ♄ 39'30 | | morning max el | 5516 Jun 15 00:04 | 29° ♄ 14'30 27°28'18 |
| morning max el | 5515 Jul 04 02:15 | 18° ♄ 12'04 | 26°27'14 | | 5516 Jun 15 18:13 | 0° ♄ |
| | 5515 Jul 13 22:45 | 0° ♄ | | | 5516 Jul 06 19:52 | 0° ♄ |
| | 5515 Jul 31 04:02 | 0° ♄ | | morning set | 5516 Jul 16 08:20 | 18° ♄ 28'59 |
| asc. node | 5515 Aug 01 01:26 | 1° ♄ 50'54 | | asc. node | 5516 Jul 17 22:27 | 21° ♄ 50'01 |
| morning set | 5515 Aug 02 00:33 | 3° ♄ 52'23 | | | 5516 Jul 21 16:53 | 0° ♄ |
| | | | | | | |
| superior conj | 5515 Aug 08 23:36 | 19° ♄ 02'16 | 1°14'13 | superior conj | 5516 Jul 23 11:18 | 3° ♄ 53'47 0°54'52 |
| minimum elong | 5515 Aug 08 21:18 | 18° ♄ 49'34 | 1°13'52 | minimum elong | 5516 Jul 23 09:13 | 3° ♄ 42'17 0°54'28 |
| max. Earth dist. | 5515 Aug 09 09:39 | 19° ♄ 57'46 | 1.32033 AU | max. Earth dist. | 5516 Jul 22 20:48 | 2° ♄ 33'45 1.31894 AU |
| | 5515 Aug 13 23:54 | 0° ♄ | | evening rise | 5516 Jul 30 06:21 | 18° ♄ 44'27 |
| evening rise | 5515 Aug 15 21:18 | 4° ♄ 01'03 | | | 5516 Aug 04 18:41 | 0° ♄ |
| | 5515 Aug 29 18:28 | 0° ♄ | | desc. node | 5516 Aug 23 01:56 | 28° ♄ 47'30 |
| desc. node | 5515 Sep 06 04:54 | 11° ♄ 05'29 | | | 5516 Aug 24 03:06 | 0° ♄ |
| evening max el | 5515 Sep 15 16:56 | 22° ♄ 06'13 | 27°00'38 | evening max el | 5516 Aug 27 14:58 | 3° ♄ 38'02 26°02'02 |
| retrograde | 5515 Sep 29 14:03 | 29° ♄ 17'14 | | retrograde | 5516 Sep 10 14:06 | 10° ♄ 45'13 |
| evening set | 5515 Oct 06 14:33 | 27° ♄ 07'25 | | evening set | 5516 Sep 16 23:01 | 9° ♄ 07'34 |
| min. Earth dist. | 5515 Oct 10 07:13 | 24° ♄ 27'32 | 0.60840 AU | min. Earth dist. | 5516 Sep 21 03:42 | 6° ♄ 32'25 0.58765 AU |
| inferior conj | 5515 Oct 13 11:09 | 21° ♄ 46'40 | -4°15'18 | inferior conj | 5516 Sep 24 08:55 | 4° ♄ 10'03 -5°01'22 |
| minimum elong | 5515 Oct 13 17:34 | 21° ♄ 33'00 | 4°13'41 | minimum elong | 5516 Sep 24 13:47 | 4° ♄ 01'02 5°00'41 |
| morning rise | 5515 Oct 20 22:37 | 16° ♄ 57'25 | | | 5516 Oct 01 09:15 | 30° ♄ |
| direct | 5515 Oct 23 05:57 | 16° ♄ 36'20 | | morning rise | 5516 Oct 02 06:50 | 29° ♄ 43'38 |
| asc. node | 5515 Oct 28 00:42 | 18° ♄ 11'20 | | direct | 5516 Oct 04 16:04 | 29° ♄ 24'47 |
| morning max el | 5515 Oct 30 11:40 | 20° ♄ 12'21 | 18°01'01 | | 5516 Oct 07 20:03 | 0° ♄ |
| | 5515 Nov 06 18:30 | 0° ♄ | | morning max el | 5516 Oct 12 19:28 | 3° ♄ 20'03 18°32'43 |
| morning set | 5515 Nov 15 05:12 | 15° ♄ 03'13 | | asc. node | 5516 Oct 13 21:44 | 4° ♄ 26'58 |
| | 5515 Nov 23 09:07 | 0° ♄ | | morning set | 5516 Oct 28 22:18 | 29° ♄ 05'06 |
| | | | | | 5516 Oct 29 09:40 | 0° ♄ |
| superior conj | 5515 Nov 25 05:49 | 3° ♄ 18'45 | 0°54'47 | | | |
| minimum elong | 5515 Nov 25 09:37 | 3° ♄ 35'30 | 0°54'18 | superior conj | 5516 Nov 06 18:52 | 16° ♄ 01'52 1°20'13 |
| max. Earth dist. | 5515 Dec 02 20:52 | 16° ♄ 23'09 | 1.42099 AU | minimum elong | 5516 Nov 06 22:22 | 16° ♄ 18'11 1°19'51 |
| desc. node | 5515 Dec 03 04:10 | 16° ♄ 53'30 | | max. Earth dist. | 5516 Nov 14 03:41 | 29° ♄ 18'28 1.40074 AU |
| evening rise | 5515 Dec 08 14:07 | 25° ♄ 41'50 | | | 5516 Nov 14 13:15 | 0° ♄ |

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|------------------|-------------------|---|------------|---------------------|-------------------|---|------------|
| evening rise | 5516 Nov 18 08:58 | 6°  30'05 | | desc. node | 5517 Nov 05 22:13 | 28°  15'23 | |
| desc. node | 5516 Nov 19 01:12 | 7°  37'42 | | | 5517 Nov 06 23:44 | 0°  1 | |
| | 5516 Dec 03 09:56 | 0°  3 | | | 5517 Nov 27 16:51 | 0°  3 | |
| evening max el | 5516 Dec 23 04:45 | 25°  20'07 | 23°49'28 | evening max el | 5517 Dec 05 17:39 | 9°  03'45 | 25°06'29 |
| | 5516 Dec 28 20:11 | 0°  ≈ | | retrograde | 5517 Dec 17 15:07 | 15°  35'47 | |
| retrograde | 5517 Jan 03 02:09 | 1°  ≈45'24 | | evening set | 5517 Dec 23 08:27 | 13°  33'40'3 | |
| | 5517 Jan 07 18:30 | 30°  R  3 | | asc. node | 5517 Dec 27 18:03 | 8°  34'0'23 | |
| evening set | 5517 Jan 08 06:05 | 29°  33'6'38 | | min. Earth dist. | 5517 Dec 27 20:18 | 8°  33'0'8 | 0.67490 AU |
| asc. node | 5517 Jan 09 20:59 | 28°  30'1'58 | | inferior conj | 5517 Dec 28 22:16 | 7°  30'8'13 | 0°23'49 |
| min. Earth dist. | 5517 Jan 13 01:36 | 24°  30'1'29 | 0.67999 AU | minimum elong | 5517 Dec 28 21:41 | 7°  31'0'0'9 | 0°23'36 |
| inferior conj | 5517 Jan 13 16:39 | 23°  310'15 | 1°15'21 | morning rise | 5518 Jan 03 11:07 | 1°  310'39 | |
| minimum elong | 5517 Jan 13 15:00 | 23°  315'51 | 1°14'43 | direct | 5518 Jan 06 23:56 | 29°  R  58'42 | |
| morning rise | 5517 Jan 18 23:55 | 17°  305'38 | | | 5518 Jan 06 12:23 | 30°  R  1 | |
| direct | 5517 Jan 23 01:11 | 15°  32'50 | | | 5518 Jan 07 11:34 | 0°  3 | |
| morning max el | 5517 Jan 31 03:39 | 20°  311'45 | 20°40'36 | morning max el | 5518 Jan 14 06:01 | 4°  302'33 | 19°34'08 |
| | 5517 Feb 08 06:30 | 0°  ≈ | | greatest brilliancy | 5518 Jan 27 06:19 | 21°  313'0'5 | -0.7m |
| desc. node | 5517 Feb 15 00:30 | 9°  ≈31'10 | | desc. node | 5518 Feb 01 21:30 | 29°  342'22 | |
| | 5517 Feb 28 14:39 | 0°  H | | | 5518 Feb 02 02:08 | 0°  ≈ | |
| morning set | 5517 Mar 01 10:38 | 1°  H17'34 | | morning set | 5518 Feb 08 07:27 | 9°  ≈32'49 | |
| max. Earth dist. | 5517 Mar 10 04:07 | 15°  H07'51 | 1.43157 AU | max. Earth dist. | 5518 Feb 20 16:35 | 28°  ≈52'55 | 1.44551 AU |
| | | | | | 5518 Feb 21 09:30 | 0°  H | |
| superior conj | 5517 Mar 16 20:19 | 26°  H07'18 | -2°09'16 | superior conj | 5518 Feb 24 22:31 | 5°  H39'13 | -2°01'58 |
| minimum elong | 5517 Mar 16 20:59 | 26°  H10'02 | 2°09'16 | minimum elong | 5518 Feb 24 16:48 | 5°  H16'18 | 2°01'40 |
| | 5517 Mar 19 03:29 | 0°  Y | | evening rise | 5518 Mar 10 19:12 | 28°  H27'49 | |
| evening rise | 5517 Mar 28 22:34 | 17°  Y02'19 | | | 5518 Mar 11 17:07 | 0°  Y | |
| | 5517 Apr 05 08:29 | 0°  8 | | asc. node | 5518 Mar 25 17:19 | 22°  Y27'32 | |
| asc. node | 5517 Apr 07 20:15 | 4°  806'11 | | evening max el | 5518 Mar 29 12:19 | 26°  Y59'32 | 18°17'18 |
| evening max el | 5517 Apr 14 23:21 | 13°  838'49 | 18°06'27 | | 5518 Apr 02 17:53 | 0°  8 | |
| retrograde | 5517 Apr 21 11:52 | 17°  800'42 | | retrograde | 5518 Apr 04 22:13 | 0°  825'25 | |
| evening set | 5517 Apr 24 05:02 | 16°  825'16 | | | 5518 Apr 07 02:17 | 30°  R  Y | |
| inferior conj | 5517 Apr 30 15:26 | 11°  821'44 | 3°08'07 | evening set | 5518 Apr 07 21:48 | 29°  Y37'40 | |
| minimum elong | 5517 Apr 30 17:55 | 11°  815'31 | 3°07'42 | inferior conj | 5518 Apr 13 20:56 | 24°  Y15'0'6 | 3°28'38 |
| min. Earth dist. | 5517 May 03 16:53 | 8°  818'32 | 0.61672 AU | minimum elong | 5518 Apr 13 21:50 | 24°  Y12'3'5 | 3°28'34 |
| morning rise | 5517 May 07 04:56 | 5°  821'52 | | min. Earth dist. | 5518 Apr 16 08:19 | 21°  Y28'2'8 | 0.63723 AU |
| direct | 5517 May 13 23:37 | 2°  859'04 | | morning rise | 5518 Apr 19 20:53 | 18°  Y05'3'0 | |
| desc. node | 5517 May 13 23:43 | 2°  859'04 | | direct | 5518 Apr 26 16:50 | 15°  Y22'4'3 | |
| morning max el | 5517 May 28 04:00 | 10°  858'44 | 27°52'51 | desc. node | 5518 Apr 30 20:46 | 16°  Y15'1'4 | |
| | 5517 Jun 12 01:28 | 0°  II | | morning max el | 5518 May 10 12:14 | 23°  Y21'3'8 | 27°40'03 |
| | 5517 Jun 29 02:05 | 0°  ☿ | | | 5518 May 16 10:06 | 0°  8 | |
| morning set | 5517 Jun 30 11:24 | 2°  ☿48'57 | | | 5518 Jun 05 08:45 | 0°  II | |
| asc. node | 5517 Jul 04 19:31 | 11°  ☿55'31 | | morning set | 5518 Jun 14 07:20 | 16°  II44'34 | |
| max. Earth dist. | 5517 Jul 06 05:41 | 14°  ☿59'58 | 1.32186 AU | max. Earth dist. | 5518 Jun 19 08:27 | 27°  II04'50 | 1.32925 AU |
| | | | | asc. node | 5518 Jun 20 17:34 | 0°  ☿ | |
| superior conj | 5517 Jul 07 21:31 | 18°  ☿37'06 | 0°31'38 | | 5518 Jun 21 16:33 | 2°  ☿02'39 | |
| minimum elong | 5517 Jul 07 20:07 | 18°  ☿29'28 | 0°31'19 | superior conj | 5518 Jun 22 04:20 | 3°  ☿05'44 | 0°05'06 |
| | 5517 Jul 13 02:22 | 0°  Ω | | minimum elong | 5518 Jun 22 04:04 | 3°  ☿04'23 | 0°05'01 |
| evening rise | 5517 Jul 14 17:44 | 3°  Ω31'42 | | behind sun begin | 5518 Jun 21 22:58 | 2°  ☿37'00 | |
| | 5517 Jul 28 21:03 | 0°  η | | behind sun end | 5518 Jun 22 09:11 | 3°  ☿31'48 | |
| evening max el | 5517 Aug 09 06:00 | 14°  η24'29 | 24°37'11 | evening rise | 5518 Jun 29 05:28 | 18°  ☿16'0'8 | |
| desc. node | 5517 Aug 09 22:57 | 15°  η04'18 | | | 5518 Jul 04 23:47 | 0°  Ω | |
| retrograde | 5517 Aug 23 02:59 | 21°  η24'01 | | evening max el | 5518 Jul 21 18:34 | 24°  Ω45'42 | 22°59'49 |
| evening set | 5517 Aug 28 07:02 | 20°  η24'10 | | desc. node | 5518 Jul 27 19:59 | 29°  Ω24'13 | |
| min. Earth dist. | 5517 Sep 02 17:15 | 17°  η35'06 | 0.56854 AU | | 5518 Jul 29 00:06 | 0°  η | |
| inferior conj | 5517 Sep 05 10:51 | 15°  η49'40 | -5°19'54 | retrograde | 5518 Aug 04 03:01 | 1°  η25'40 | |
| minimum elong | 5517 Sep 05 10:43 | 15°  η49'53 | 5°19'54 | evening set | 5518 Aug 07 18:39 | 0°  η56'33 | |
| morning rise | 5517 Sep 13 16:46 | 11°  η44'44 | | | 5518 Aug 10 12:26 | 30°  R  Ω | |
| direct | 5517 Sep 16 07:46 | 11°  η25'43 | | min. Earth dist. | 5518 Aug 15 03:15 | 27°  Ω38'18 | 0.55427 AU |
| morning max el | 5517 Sep 25 17:40 | 15°  η51'00 | 19°25'59 | inferior conj | 5518 Aug 16 17:23 | 26°  Ω43'15 | -4°54'06 |
| asc. node | 5517 Sep 30 18:47 | 21°  η47'39 | | minimum elong | 5518 Aug 16 10:46 | 26°  Ω52'50 | 4°53'04 |
| | 5517 Oct 05 22:10 | 0°  ♄ | | morning rise | 5518 Aug 25 05:04 | 22°  Ω52'28 | |
| morning set | 5517 Oct 12 23:44 | 13°  ♄30'17 | | direct | 5518 Aug 28 04:58 | 22°  Ω31'18 | |
| superior conj | 5517 Oct 21 00:32 | 29°  ♄33'12 | 1°35'44 | morning max el | 5518 Sep 08 03:53 | 27°  Ω37'17 | 20°41'11 |
| minimum elong | 5517 Oct 21 02:43 | 29°  ♄43'52 | 1°35'36 | | 5518 Sep 10 11:35 | 0°  η | |
| | 5517 Oct 21 06:01 | 0° ♄ | | asc. node | 5518 Sep 17 15:50 | 9° η59'08 | |
| max. Earth dist. | 5517 Oct 27 08:26 | 11° ♄34'43 | 1.37963 AU | morning set | 5518 Sep 27 06:41 | 28° η11'11 | |
| evening rise | 5517 Oct 31 02:33 | 18° ♄20'08 | | | | | |

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|---------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| | 5518 Sep 28 03:47 | 0°♊ | | morning set | 5519 Sep 11 16:53 | 13°♏00'41 | |
| superior conj | 5518 Oct 04 18:13 | 13°♊39'57 | 1°42'37 | superior conj | 5519 Sep 18 20:09 | 28°♏10'29 | 1°42'10 |
| minimum elong | 5518 Oct 04 18:51 | 13°♊43'12 | 1°42'37 | minimum elong | 5519 Sep 18 19:27 | 28°♏06'43 | 1°42'09 |
| max. Earth dist. | 5518 Oct 09 16:30 | 23°♊30'48 | 1.35996 AU | | 5519 Sep 19 16:57 | 0°♊ | |
| | 5518 Oct 13 02:05 | 0°♏ | | max. Earth dist. | 5519 Sep 22 07:49 | 5°♊26'41 | 1.34347 AU |
| evening rise | 5518 Oct 13 16:01 | 1°♏04'54 | | evening rise | 5519 Sep 26 21:07 | 14°♊32'55 | |
| desc. node | 5518 Oct 23 19:13 | 18°♏42'10 | | | 5519 Oct 05 07:35 | 0°♏ | |
| | 5518 Oct 31 02:09 | 0°♊ | | desc. node | 5519 Oct 10 16:14 | 8°♏51'49 | |
| evening max el | 5518 Nov 18 06:28 | 22°♊47'53 | 26°13'02 | | 5519 Oct 25 20:28 | 0°♊ | |
| retrograde | 5518 Nov 30 23:00 | 29°♊58'02 | | evening max el | 5519 Oct 31 19:10 | 6°♊23'35 | 27°01'51 |
| evening set | 5518 Dec 07 05:41 | 27°♊24'09 | | retrograde | 5519 Nov 14 01:19 | 13°♊41'25 | |
| min. Earth dist. | 5518 Dec 11 10:36 | 22°♊58'27 | 0.66630 AU | evening set | 5519 Nov 20 19:40 | 11°♊01'49 | |
| inferior conj | 5518 Dec 12 23:52 | 21°♊03'51 | -0°33'24 | min. Earth dist. | 5519 Nov 24 18:11 | 7°♊11'26 | 0.65415 AU |
| minimum elong | 5518 Dec 13 00:46 | 21°♊01'05 | 0°33'00 | inferior conj | 5519 Nov 26 19:17 | 4°♊52'02 | -1°35'06 |
| asc. node | 5518 Dec 14 15:05 | 19°♊05'50 | | minimum elong | 5519 Nov 26 22:01 | 4°♊44'15 | 1°33'57 |
| morning rise | 5518 Dec 18 20:25 | 15°♊15'50 | | asc. node | 5519 Dec 01 12:07 | 0°♊13'33 | |
| direct | 5518 Dec 21 22:31 | 14°♊21'38 | | | 5519 Dec 01 19:45 | 30°♏ | |
| morning max el | 5518 Dec 28 15:40 | 18°♊02'11 | 18°43'09 | morning rise | 5519 Dec 03 01:25 | 29°♏16'25 | |
| | 5519 Jan 06 19:40 | 0°♊ | | direct | 5519 Dec 05 18:50 | 28°♏36'16 | |
| morning set | 5519 Jan 18 21:39 | 18°♊46'51 | | | 5519 Dec 09 19:11 | 0°♊ | |
| desc. node | 5519 Jan 19 18:31 | 20°♊08'58 | | morning max el | 5519 Dec 12 06:21 | 2°♊04'16 | 18°08'36 |
| | 5519 Jan 26 00:57 | 0°♏ | | morning set | 5519 Dec 30 16:58 | 29°♊28'50 | |
| max. Earth dist. | 5519 Feb 03 10:26 | 13°♏09'39 | 1.45274 AU | | 5519 Dec 31 00:35 | 0°♊ | |
| | | | | desc. node | 5520 Jan 06 15:30 | 10°♊45'51 | |
| superior conj | 5519 Feb 04 05:18 | 14°♏23'42 | -1°34'47 | | | | |
| minimum elong | 5519 Feb 03 19:51 | 13°♏46'34 | 1°33'52 | superior conj | 5520 Jan 14 10:09 | 23°♊10'02 | -0°52'25 |
| | 5519 Feb 14 02:33 | 0°♏ | | minimum elong | 5520 Jan 14 03:44 | 22°♊44'40 | 0°51'33 |
| evening rise | 5519 Feb 19 16:46 | 8°♏56'09 | | max. Earth dist. | 5520 Jan 17 05:54 | 27°♊36'44 | 1.45252 AU |
| greatest brilliancy | 5519 Feb 27 01:58 | 20°♏46'57 | -0.9m | | 5520 Jan 18 18:25 | 0°♏ | |
| | 5519 Mar 04 23:46 | 0°♏ | | evening rise | 5520 Jan 30 16:33 | 18°♏34'22 | |
| asc. node | 5519 Mar 12 14:21 | 10°♏04'45 | | | 5520 Feb 07 01:44 | 0°♏ | |
| evening max el | 5519 Mar 12 23:29 | 10°♏28'23 | 18°46'16 | greatest brilliancy | 5520 Feb 12 07:33 | 7°♏59'43 | -0.7m |
| retrograde | 5519 Mar 19 15:40 | 14°♏11'02 | | evening max el | 5520 Feb 24 06:42 | 24°♏00'37 | 19°32'10 |
| evening set | 5519 Mar 22 21:51 | 13°♏10'11 | | asc. node | 5520 Feb 27 11:23 | 26°♏44'57 | |
| inferior conj | 5519 Mar 28 13:18 | 7°♏30'12 | 3°30'44 | retrograde | 5520 Mar 02 12:51 | 28°♏10'51 | |
| minimum elong | 5519 Mar 28 12:44 | 7°♏31'58 | 3°30'41 | evening set | 5520 Mar 06 02:28 | 26°♏56'16 | |
| min. Earth dist. | 5519 Mar 30 09:02 | 5°♏15'35 | 0.65435 AU | inferior conj | 5520 Mar 11 13:12 | 21°♏00'59 | 3°18'40 |
| morning rise | 5519 Apr 03 03:08 | 1°♏16'10 | | minimum elong | 5520 Mar 11 11:34 | 21°♏06'25 | 3°18'26 |
| | 5519 Apr 04 19:16 | 30°♏ | | min. Earth dist. | 5520 Mar 12 17:57 | 19°♏26'28 | 0.66730 AU |
| direct | 5519 Apr 09 17:10 | 28°♏26'42 | | morning rise | 5520 Mar 16 20:23 | 14°♏45'45 | |
| | 5519 Apr 15 02:55 | 0°♏ | | direct | 5520 Mar 22 23:43 | 12°♏01'45 | |
| desc. node | 5519 Apr 17 17:48 | 1°♏40'22 | | desc. node | 5520 Apr 03 14:49 | 18°♏41'07 | |
| morning max el | 5519 Apr 22 22:23 | 6°♏14'15 | 26°54'33 | morning max el | 5520 Apr 04 08:07 | 19°♏24'12 | 25°44'23 |
| | 5519 May 11 04:24 | 0°♏ | | | 5520 Apr 13 08:34 | 0°♏ | |
| morning set | 5519 May 28 17:06 | 0°♏07'16 | | | 5520 May 03 06:32 | 0°♏ | |
| | 5519 May 28 15:35 | 0°♏ | | morning set | 5520 May 10 12:38 | 12°♏45'40 | |
| max. Earth dist. | 5519 Jun 02 01:40 | 8°♏40'51 | 1.34127 AU | max. Earth dist. | 5520 May 14 07:32 | 19°♏50'32 | 1.35780 AU |
| | | | | | | | |
| superior conj | 5519 Jun 06 05:36 | 17°♏13'33 | -0°23'53 | superior conj | 5520 May 19 22:44 | 0°♏53'27 | -0°53'57 |
| minimum elong | 5519 Jun 06 06:53 | 17°♏20'14 | 0°23'38 | minimum elong | 5520 May 20 01:46 | 1°♏08'39 | 0°53'25 |
| asc. node | 5519 Jun 08 13:35 | 22°♏07'37 | | | 5520 May 19 12:05 | 0°♏ | |
| | 5519 Jun 12 06:56 | 0°♏ | | asc. node | 5520 May 25 10:37 | 12°♏06'29 | |
| evening rise | 5519 Jun 13 15:40 | 2°♏51'48 | | evening rise | 5520 May 27 22:14 | 17°♏12'21 | |
| | 5519 Jun 28 23:14 | 0°♏ | | | 5520 Jun 03 11:01 | 0°♏ | |
| evening max el | 5519 Jul 03 12:46 | 5°♏14'56 | 21°25'54 | evening max el | 5520 Jun 14 18:46 | 16°♏19'47 | 20°06'50 |
| desc. node | 5519 Jul 14 17:01 | 11°♏14'01 | | retrograde | 5520 Jun 25 07:38 | 21°♏29'27 | |
| retrograde | 5519 Jul 15 17:19 | 11°♏16'27 | | evening set | 5520 Jun 27 05:42 | 21°♏19'54 | |
| evening set | 5519 Jul 18 03:27 | 11°♏03'00 | | desc. node | 5520 Jun 30 14:03 | 20°♏21'47 | |
| inferior conj | 5519 Jul 27 11:36 | 7°♏03'30 | -3°36'12 | inferior conj | 5520 Jul 06 07:20 | 17°♏20'45 | -1°42'41 |
| minimum elong | 5519 Jul 27 02:47 | 7°♏15'50 | 3°33'37 | minimum elong | 5520 Jul 06 02:33 | 17°♏27'55 | 1°40'55 |
| min. Earth dist. | 5519 Jul 27 13:09 | 7°♏01'20 | 0.54789 AU | min. Earth dist. | 5520 Jul 08 01:13 | 16°♏18'20 | 0.55110 AU |
| morning rise | 5519 Aug 05 03:03 | 3°♏10'11 | | morning rise | 5520 Jul 14 21:51 | 13°♏03'54 | |
| direct | 5519 Aug 08 14:24 | 2°♏44'07 | | direct | 5520 Jul 19 01:52 | 12°♏26'06 | |
| morning max el | 5519 Aug 21 02:28 | 8°♏38'18 | 22°15'10 | morning max el | 5520 Aug 01 17:37 | 19°♏07'41 | 23°58'57 |
| asc. node | 5519 Sep 04 12:51 | 28°♏48'52 | | | 5520 Aug 10 19:31 | 0°♏ | |
| | 5519 Sep 05 04:17 | 0°♏ | | asc. node | 5520 Aug 21 09:52 | 18°♏07'23 | |

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|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| morning set | 5520 Aug 26 04:31 | 27°♎53'30 | | min. Earth dist. | 5521 Jun 19 16:09 | 26°♐03'44 | 0.56338 AU |
| | 5520 Aug 27 04:17 | 0°♎ | | morning rise | 5521 Jun 24 23:48 | 23°♐11'01 | |
| | | | | direct | 5521 Jun 30 01:54 | 22°♐10'34 | |
| superior conj | 5520 Sep 02 03:34 | 12°♎56'13 | 1°35'29 | morning max el | 5521 Jul 14 07:23 | 29°♐28'38 | 25°38'18 |
| minimum elong | 5520 Sep 02 01:53 | 12°♎47'06 | 1°35'21 | | 5521 Jul 14 20:16 | 0°♐ | |
| max. Earth dist. | 5520 Sep 04 07:41 | 17°♎36'50 | 1.33111 AU | | 5521 Aug 04 08:38 | 0°♎ | |
| evening rise | 5520 Sep 09 13:57 | 28°♎33'56 | | asc. node | 5521 Aug 08 06:54 | 7°♎46'22 | |
| | 5520 Sep 10 07:06 | 0°♎ | | morning set | 5521 Aug 10 15:57 | 12°♎43'59 | |
| desc. node | 5520 Sep 26 13:16 | 28°♎36'40 | | | | | |
| | 5520 Sep 27 11:20 | 0°♎ | | superior conj | 5521 Aug 17 14:07 | 27°♎49'03 | 1°23'24 |
| evening max el | 5520 Oct 13 06:47 | 19°♎40'26 | 27°25'55 | minimum elong | 5521 Aug 17 11:55 | 27°♎36'55 | 1°23'06 |
| retrograde | 5520 Oct 26 21:40 | 26°♎58'28 | | max. Earth dist. | 5521 Aug 18 14:34 | 0°♎03'19 | 1.32308 AU |
| evening set | 5520 Nov 02 23:48 | 24°♎21'37 | | | 5521 Aug 18 13:58 | 0°♎ | |
| min. Earth dist. | 5520 Nov 06 17:04 | 21°♎04'18 | 0.63857 AU | evening rise | 5521 Aug 24 15:09 | 12°♎57'52 | |
| inferior conj | 5520 Nov 09 06:04 | 18°♎27'25 | -2°39'13 | | 5521 Sep 02 09:59 | 0°♎ | |
| minimum elong | 5520 Nov 09 10:44 | 18°♎15'22 | 2°37'27 | desc. node | 5521 Sep 13 10:19 | 17°♎46'07 | |
| morning rise | 5520 Nov 15 23:12 | 13°♎07'09 | | | 5521 Sep 23 05:05 | 0°♎ | |
| asc. node | 5520 Nov 17 09:08 | 12°♎42'40 | | evening max el | 5521 Sep 25 15:18 | 2°♎25'44 | 27°19'31 |
| direct | 5520 Nov 18 10:18 | 12°♎37'10 | | retrograde | 5521 Oct 09 11:04 | 9°♎39'28 | |
| morning max el | 5520 Nov 24 23:15 | 16°♎01'56 | 17°51'13 | evening set | 5521 Oct 16 14:36 | 7°♎16'37 | |
| | 5520 Dec 04 21:18 | 0°♎ | | min. Earth dist. | 5521 Oct 20 05:49 | 4°♎25'57 | 0.62001 AU |
| morning set | 5520 Dec 11 15:42 | 11°♎30'49 | | inferior conj | 5521 Oct 23 05:13 | 1°♎42'35 | -3°42'06 |
| | 5520 Dec 22 14:43 | 0°♎ | | minimum elong | 5521 Oct 23 11:23 | 1°♎28'26 | 3°40'12 |
| desc. node | 5520 Dec 23 12:30 | 1°♎29'25 | | | 5521 Oct 25 03:11 | 30°♎♎ | |
| | | | | morning rise | 5521 Oct 30 10:03 | 26°♎40'51 | |
| superior conj | 5520 Dec 24 08:22 | 2°♎50'38 | -0°05'51 | direct | 5521 Nov 01 17:44 | 26°♎17'26 | |
| minimum elong | 5520 Dec 24 07:43 | 2°♎47'59 | 0°05'43 | asc. node | 5521 Nov 04 06:09 | 26°♎45'56 | |
| behind sun begin | 5520 Dec 23 22:27 | 2°♎10'05 | | morning max el | 5521 Nov 08 15:12 | 29°♎47'13 | 17°51'54 |
| behind sun end | 5520 Dec 24 17:00 | 3°♎25'49 | | | 5521 Nov 08 20:20 | 0°♎ | |
| max. Earth dist. | 5520 Dec 30 00:02 | 11°♎56'51 | 1.44505 AU | morning set | 5521 Nov 24 11:31 | 24°♎33'25 | |
| evening rise | 5521 Jan 09 03:37 | 27°♎47'48 | | | 5521 Nov 27 12:08 | 0°♎ | |
| | 5521 Jan 10 14:05 | 0°♎ | | | | | |
| | 5521 Jan 31 01:10 | 0°♎ | | superior conj | 5521 Dec 05 08:41 | 13°♎47'42 | 0°35'24 |
| evening max el | 5521 Feb 06 08:46 | 7°♎34'26 | 20°32'48 | minimum elong | 5521 Dec 05 11:43 | 14°♎00'40 | 0°34'59 |
| asc. node | 5521 Feb 13 08:24 | 12°♎13'26 | | desc. node | 5521 Dec 10 09:33 | 22°♎16'23 | |
| retrograde | 5521 Feb 14 11:07 | 12°♎20'03 | | max. Earth dist. | 5521 Dec 12 14:52 | 25°♎55'20 | 1.43123 AU |
| evening set | 5521 Feb 18 09:32 | 10°♎50'59 | | | 5521 Dec 15 03:21 | 0°♎ | |
| inferior conj | 5521 Feb 23 17:58 | 4°♎42'55 | 2°55'20 | evening rise | 5521 Dec 19 17:28 | 7°♎15'55 | |
| minimum elong | 5521 Feb 23 15:43 | 4°♎50'38 | 2°54'50 | | 5522 Jan 03 20:34 | 0°♎ | |
| min. Earth dist. | 5521 Feb 24 09:05 | 3°♎51'14 | 0.67604 AU | evening max el | 5522 Jan 20 05:31 | 21°♎10'36 | 21°44'45 |
| | 5521 Feb 27 09:47 | 30°♎♎ | | retrograde | 5522 Jan 29 08:34 | 26°♎35'41 | |
| morning rise | 5521 Feb 28 21:41 | 28°♎28'37 | | asc. node | 5522 Jan 31 05:26 | 26°♎17'07 | |
| direct | 5521 Mar 06 11:41 | 25°♎59'21 | | evening set | 5522 Feb 02 17:20 | 24°♎51'20 | |
| | 5521 Mar 14 19:31 | 0°♎ | | inferior conj | 5522 Feb 08 01:24 | 18°♎33'25 | 2°22'41 |
| morning max el | 5521 Mar 17 16:45 | 2°♎41'44 | 24°19'23 | minimum elong | 5522 Feb 07 23:01 | 18°♎41'41 | 2°21'59 |
| desc. node | 5521 Mar 21 11:49 | 6°♎50'27 | | min. Earth dist. | 5522 Feb 08 04:09 | 18°♎23'53 | 0.68069 AU |
| | 5521 Apr 07 11:46 | 0°♎ | | morning rise | 5522 Feb 13 04:31 | 12°♎21'44 | |
| morning set | 5521 Apr 22 12:28 | 24°♎23'56 | | direct | 5522 Feb 18 04:05 | 10°♎13'01 | |
| | 5521 Apr 25 16:31 | 0°♎ | | morning max el | 5522 Feb 28 02:24 | 16°♎05'36 | 22°49'56 |
| max. Earth dist. | 5521 Apr 26 04:25 | 0°♎53'29 | 1.37810 AU | desc. node | 5522 Mar 08 08:50 | 25°♎49'27 | |
| | | | | | 5522 Mar 11 11:52 | 0°♎ | |
| superior conj | 5521 May 03 04:22 | 13°♎55'58 | -1°23'10 | | 5522 Mar 31 12:29 | 0°♎ | |
| minimum elong | 5521 May 03 08:56 | 14°♎17'55 | 1°22'30 | morning set | 5522 Apr 03 10:46 | 4°♎47'18 | |
| | 5521 May 11 08:34 | 0°♎ | | max. Earth dist. | 5522 Apr 07 23:56 | 12°♎26'46 | 1.40022 AU |
| evening rise | 5521 May 11 22:36 | 1°♎09'34 | | | | | |
| asc. node | 5521 May 12 07:39 | 1°♎54'17 | | superior conj | 5522 Apr 15 18:24 | 26°♎11'35 | -1°48'25 |
| evening max el | 5521 May 28 13:08 | 28°♎07'04 | 19°07'15 | minimum elong | 5522 Apr 15 23:29 | 26°♎34'47 | 1°47'57 |
| | 5521 May 30 17:38 | 0°♎ | | | 5522 Apr 17 20:06 | 0°♎ | |
| retrograde | 5521 Jun 06 09:43 | 2°♎27'16 | | evening rise | 5522 Apr 25 13:46 | 14°♎36'12 | |
| evening set | 5521 Jun 08 09:35 | 2°♎15'00 | | asc. node | 5522 Apr 29 04:42 | 21°♎26'27 | |
| | 5521 Jun 13 17:45 | 30°♎♎ | | | 5522 May 03 23:59 | 0°♎ | |
| inferior conj | 5521 Jun 16 17:46 | 28°♎03'06 | 0°12'48 | evening max el | 5522 May 11 17:09 | 10°♎31'55 | 18°27'59 |
| minimum elong | 5521 Jun 16 18:17 | 28°♎02'12 | 0°12'34 | retrograde | 5522 May 19 06:37 | 14°♎16'40 | |
| transit middle | 5521 Jun 16 18:17 | 28°♎02'12 | 0°12'34 | evening set | 5522 May 21 13:09 | 13°♎57'24 | |
| transit begin | 5521 Jun 16 15:56 | 28°♎06'14 | | inferior conj | 5522 May 29 01:18 | 9°♎25'45 | 1°44'42 |
| transit end | 5521 Jun 16 20:39 | 27°♎58'11 | | minimum elong | 5522 May 29 04:30 | 9°♎19'21 | 1°43'41 |
| desc. node | 5521 Jun 17 11:05 | 27°♎33'28 | | min. Earth dist. | 5522 Jun 01 11:12 | 6°♎43'31 | 0.58221 AU |

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|------------------|-------------------|---------------------------------|------------|------------------|-------------------|---------------------------------|------------|
| desc. node | 5522 Jun 04 08:06 | 4° Π 45'12 | | desc. node | 5523 May 22 05:07 | 13° \mathcal{B} 51'57 | |
| morning rise | 5522 Jun 05 16:40 | 4° Π 00'00 | | direct | 5523 May 24 18:09 | 13° \mathcal{B} 33'21 | |
| direct | 5522 Jun 11 15:59 | 2° Π 27'52 | | morning max el | 5523 Jun 08 01:42 | 21° \mathcal{B} 28'21 | 27°43'36 |
| morning max el | 5522 Jun 26 01:12 | 10° Π 09'00 | 26°57'16 | | 5523 Jun 15 11:58 | 0° Π | |
| | 5522 Jul 11 07:06 | 0° \mathcal{E} | | | 5523 Jul 04 06:59 | 0° \mathcal{E} | |
| morning set | 5522 Jul 26 01:34 | 27° \mathcal{E} 27'08 | | morning set | 5523 Jul 10 07:38 | 11° \mathcal{E} 57'36 | |
| asc. node | 5522 Jul 26 03:57 | 27° \mathcal{E} 39'43 | | asc. node | 5523 Jul 13 01:01 | 17° \mathcal{E} 42'17 | |
| | 5522 Jul 27 06:23 | 0° \mathcal{Q} | | max. Earth dist. | 5523 Jul 16 12:13 | 25° \mathcal{E} 13'59 | 1.31963 AU |
| superior conj | 5522 Aug 02 01:55 | 12° \mathcal{Q} 42'44 | 1°06'32 | superior conj | 5523 Jul 17 13:13 | 27° \mathcal{E} 31'28 | 0°45'28 |
| minimum elong | 5522 Aug 01 23:40 | 12° \mathcal{Q} 30'13 | 1°06'08 | minimum elong | 5523 Jul 17 11:22 | 27° \mathcal{E} 21'18 | 0°45'05 |
| max. Earth dist. | 5522 Aug 02 01:20 | 12° \mathcal{Q} 39'27 | 1.31927 AU | | 5523 Jul 18 16:09 | 0° \mathcal{Q} | |
| evening rise | 5522 Aug 08 22:01 | 27° \mathcal{Q} 36'30 | | evening rise | 5523 Jul 24 08:19 | 12° \mathcal{Q} 22'40 | |
| | 5522 Aug 10 01:23 | 0° \mathcal{P} | | | 5523 Aug 02 05:22 | 0° \mathcal{P} | |
| | 5522 Aug 26 21:11 | 0° \mathcal{A} | | desc. node | 5523 Aug 18 04:23 | 23° \mathcal{P} 15'30 | |
| desc. node | 5522 Aug 31 07:21 | 6° \mathcal{A} 05'44 | | evening max el | 5523 Aug 20 12:55 | 25° \mathcal{P} 39'20 | 25°28'31 |
| evening max el | 5522 Sep 07 17:59 | 14° \mathcal{A} 27'17 | 26°39'32 | | 5523 Aug 26 00:16 | 0° \mathcal{A} | |
| retrograde | 5522 Sep 21 16:08 | 21° \mathcal{A} 35'53 | | retrograde | 5523 Sep 03 11:25 | 2° \mathcal{A} 43'36 | |
| evening set | 5522 Sep 28 11:33 | 19° \mathcal{A} 38'54 | | evening set | 5523 Sep 09 09:55 | 1° \mathcal{A} 21'47 | |
| min. Earth dist. | 5522 Oct 02 07:50 | 17° \mathcal{A} 03'02 | 0.59960 AU | | 5523 Sep 12 00:21 | 30° \mathcal{R} \mathcal{P} | |
| inferior conj | 5522 Oct 05 13:19 | 14° \mathcal{A} 28'08 | -4°37'14 | min. Earth dist. | 5523 Sep 14 00:40 | 28° \mathcal{P} 43'18 | 0.57917 AU |
| minimum elong | 5522 Oct 05 19:27 | 14° \mathcal{A} 15'48 | 4°35'56 | inferior conj | 5523 Sep 17 02:57 | 26° \mathcal{P} 34'33 | -5°13'35 |
| morning rise | 5522 Oct 13 05:26 | 9° \mathcal{A} 48'03 | | minimum elong | 5523 Sep 17 06:07 | 26° \mathcal{P} 29'02 | 5°13'19 |
| direct | 5522 Oct 15 13:09 | 9° \mathcal{A} 28'09 | | morning rise | 5523 Sep 25 04:36 | 22° \mathcal{P} 17'50 | |
| asc. node | 5522 Oct 22 03:12 | 12° \mathcal{A} 17'16 | | direct | 5523 Sep 27 16:03 | 21° \mathcal{P} 59'03 | |
| morning max el | 5522 Oct 23 02:56 | 13° \mathcal{A} 11'15 | 18°11'52 | morning max el | 5523 Oct 06 07:04 | 26° \mathcal{P} 05'13 | 18°52'40 |
| | 5522 Nov 03 11:16 | 0° \mathcal{M} | | asc. node | 5523 Oct 09 00:16 | 29° \mathcal{P} 03'03 | |
| morning set | 5522 Nov 07 22:15 | 8° \mathcal{M} 18'00 | | | 5523 Oct 09 18:18 | 0° \mathcal{A} | |
| superior conj | 5522 Nov 17 09:45 | 25° \mathcal{M} 56'14 | 1°06'51 | morning set | 5523 Oct 22 19:23 | 22° \mathcal{A} 32'01 | |
| minimum elong | 5522 Nov 17 13:37 | 26° \mathcal{M} 13'42 | 1°06'23 | | 5523 Oct 26 14:28 | 0° \mathcal{M} | |
| | 5522 Nov 19 16:13 | 0° \mathcal{J} | | superior conj | 5523 Oct 31 06:36 | 9° \mathcal{M} 02'47 | 1°27'56 |
| max. Earth dist. | 5522 Nov 25 01:00 | 9° \mathcal{J} 18'03 | 1.41271 AU | minimum elong | 5523 Oct 31 09:37 | 9° \mathcal{M} 17'06 | 1°27'39 |
| desc. node | 5522 Nov 27 06:35 | 13° \mathcal{J} 02'43 | | max. Earth dist. | 5523 Nov 07 06:58 | 21° \mathcal{M} 58'23 | 1.39177 AU |
| evening rise | 5522 Nov 29 23:42 | 17° \mathcal{J} 30'11 | | evening rise | 5523 Nov 11 04:26 | 28° \mathcal{M} 45'43 | |
| | 5522 Dec 07 22:07 | 0° \mathcal{Z} | | | 5523 Nov 11 21:54 | 0° \mathcal{J} | |
| | 5522 Dec 29 12:48 | 0° \approx | | desc. node | 5523 Nov 14 03:37 | 3° \mathcal{J} 45'11 | |
| evening max el | 5523 Jan 02 21:46 | 4° \approx 49'05 | 23°03'25 | | 5523 Dec 01 09:05 | 0° \mathcal{Z} | |
| retrograde | 5523 Jan 13 03:35 | 10° \approx 53'17 | | evening max el | 5523 Dec 16 11:13 | 18° \mathcal{Z} 30'54 | 24°22'52 |
| evening set | 5523 Jan 18 00:17 | 8° \approx 53'13 | | retrograde | 5523 Dec 27 19:06 | 25° \mathcal{Z} 08'58 | |
| asc. node | 5523 Jan 18 02:28 | 8° \approx 48'35 | | evening set | 5524 Jan 02 04:49 | 22° \mathcal{Z} 53'45 | |
| inferior conj | 5523 Jan 23 09:33 | 2° \approx 28'53 | 1°42'00 | asc. node | 5524 Jan 04 23:31 | 19° \mathcal{Z} 59'13 | |
| minimum elong | 5523 Jan 23 07:30 | 2° \approx 35'57 | 1°41'18 | min. Earth dist. | 5524 Jan 06 20:51 | 17° \mathcal{Z} 33'19 | 0.67836 AU |
| min. Earth dist. | 5523 Jan 23 00:49 | 2° \approx 59'01 | 0.68139 AU | inferior conj | 5524 Jan 07 16:38 | 16° \mathcal{Z} 27'02 | 0°54'14 |
| | 5523 Jan 25 05:41 | 30° \mathcal{R} \mathcal{Z} | | minimum elong | 5524 Jan 07 15:22 | 16° \mathcal{Z} 31'14 | 0°53'45 |
| morning rise | 5523 Jan 28 14:39 | 26° \mathcal{Z} 21'24 | | morning rise | 5524 Jan 13 02:02 | 10° \mathcal{Z} 25'26 | |
| direct | 5523 Feb 01 23:49 | 24° \mathcal{Z} 35'36 | | direct | 5524 Jan 16 21:48 | 9° \mathcal{Z} 01'57 | |
| morning max el | 5523 Feb 10 16:47 | 29° \mathcal{Z} 38'46 | 21°24'54 | morning max el | 5524 Jan 24 14:42 | 13° \mathcal{Z} 24'14 | 20°10'31 |
| | 5523 Feb 11 01:10 | 0° \approx | | | 5524 Feb 06 10:50 | 0° \approx | |
| desc. node | 5523 Feb 23 05:51 | 15° \approx 23'45 | | desc. node | 5524 Feb 10 02:52 | 5° \approx 23'47 | |
| | 5523 Mar 05 05:26 | 0° \mathcal{H} | | morning set | 5524 Feb 21 02:45 | 22° \approx 05'18 | |
| morning set | 5523 Mar 14 04:37 | 13° \mathcal{H} 50'59 | | | 5524 Feb 26 04:44 | 0° \mathcal{H} | |
| max. Earth dist. | 5523 Mar 21 01:09 | 24° \mathcal{H} 54'41 | 1.42121 AU | max. Earth dist. | 5524 Mar 02 09:50 | 8° \mathcal{H} 15'39 | 1.43828 AU |
| | 5523 Mar 24 02:35 | 0° \mathcal{Y} | | superior conj | 5524 Mar 08 04:33 | 17° \mathcal{H} 38'01 | -2°08'32 |
| superior conj | 5523 Mar 28 11:52 | 7° \mathcal{Y} 28'24 | -2°05'24 | minimum elong | 5524 Mar 08 02:37 | 17° \mathcal{H} 30'06 | 2°08'29 |
| minimum elong | 5523 Mar 28 15:07 | 7° \mathcal{Y} 42'26 | 2°05'17 | | 5524 Mar 15 13:59 | 0° \mathcal{Y} | |
| evening rise | 5523 Apr 08 15:53 | 27° \mathcal{Y} 22'59 | | evening rise | 5524 Mar 21 00:34 | 9° \mathcal{Y} 20'58 | |
| | 5523 Apr 10 02:26 | 0° \mathcal{B} | | asc. node | 5524 Apr 01 22:48 | 29° \mathcal{Y} 18'59 | |
| asc. node | 5523 Apr 16 01:45 | 10° \mathcal{B} 36'59 | | | 5524 Apr 02 09:48 | 0° \mathcal{B} | |
| evening max el | 5523 Apr 25 03:10 | 23° \mathcal{B} 24'58 | 18°08'41 | evening max el | 5524 Apr 07 15:53 | 6° \mathcal{B} 37'47 | 18°08'45 |
| retrograde | 5523 May 01 21:34 | 26° \mathcal{B} 50'57 | | retrograde | 5524 Apr 14 02:15 | 10° \mathcal{B} 00'05 | |
| evening set | 5523 May 04 11:00 | 26° \mathcal{B} 21'54 | | evening set | 5524 Apr 16 22:05 | 9° \mathcal{B} 19'36 | |
| inferior conj | 5523 May 11 05:38 | 21° \mathcal{B} 29'28 | 2°45'48 | inferior conj | 5524 Apr 23 03:11 | 4° \mathcal{B} 07'35 | 3°19'26 |
| minimum elong | 5523 May 11 08:48 | 21° \mathcal{B} 22'04 | 2°45'06 | minimum elong | 5524 Apr 23 05:01 | 4° \mathcal{B} 02'45 | 3°19'12 |
| min. Earth dist. | 5523 May 14 12:44 | 18° \mathcal{B} 26'56 | 0.60404 AU | min. Earth dist. | 5524 Apr 25 22:58 | 1° \mathcal{B} 09'02 | 0.62571 AU |
| morning rise | 5523 May 18 04:13 | 15° \mathcal{B} 38'58 | | | 5524 Apr 27 03:06 | 30° \mathcal{R} \mathcal{Y} | |

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|---------------------|-------------------|---------------------------------|------------|---------------------|-------------------|-------------------------|------------|
| morning rise | 5524 Apr 29 10:29 | 28° Υ 02'25 | | evening set | 5525 Mar 31 18:19 | 22° Υ 41'43 | |
| direct | 5524 May 06 06:30 | 25° Υ 29'44 | | inferior conj | 5525 Apr 06 13:47 | 17° Υ 11'42 | 3°31'29 |
| desc. node | 5524 May 08 02:09 | 25° Υ 39'42 | | minimum elong | 5525 Apr 06 14:01 | 17° Υ 11'00 | 3°31'28 |
| | 5524 May 16 10:55 | 0° \mathcal{B} | | min. Earth dist. | 5525 Apr 08 18:38 | 14° Υ 36'53 | 0.64495 AU |
| morning max el | 5524 May 20 08:00 | 3° \mathcal{B} 30'45 | 27°51'58 | morning rise | 5525 Apr 12 08:58 | 10° Υ 59'28 | |
| | 5524 Jun 09 00:40 | 0° Π | | direct | 5525 Apr 19 03:05 | 8° Υ 11'56 | |
| morning set | 5524 Jun 23 07:57 | 26° Π 08'15 | | desc. node | 5525 Apr 24 23:09 | 9° Υ 55'09 | |
| | 5524 Jun 25 05:14 | 0° \mathcal{E} | | morning max el | 5525 May 02 17:27 | 16° Υ 08'32 | 27°24'15 |
| asc. node | 5524 Jun 28 22:03 | 7° \mathcal{E} 48'56 | | | 5525 May 14 03:34 | 0° \mathcal{B} | |
| max. Earth dist. | 5524 Jun 28 19:03 | 7° \mathcal{E} 32'51 | 1.32438 AU | | 5525 Jun 01 19:04 | 0° Π | |
| | | | | morning set | 5525 Jun 06 23:58 | 9° Π 51'30 | |
| superior conj | 5524 Jun 30 22:10 | 12° \mathcal{E} 09'00 | 0°20'44 | max. Earth dist. | 5525 Jun 11 17:57 | 19° Π 25'24 | 1.33372 AU |
| minimum elong | 5524 Jun 30 21:13 | 12° \mathcal{E} 03'46 | 0°20'30 | | | | |
| evening rise | 5524 Jul 07 20:02 | 27° \mathcal{E} 09'14 | | superior conj | 5525 Jun 15 02:54 | 26° Π 29'49 | -0°07'00 |
| | 5524 Jul 09 04:20 | 0° Ω | | minimum elong | 5525 Jun 15 03:15 | 26° Π 31'43 | 0°06'56 |
| | 5524 Jul 26 14:11 | 0° \mathcal{M} | | behind sun begin | 5525 Jun 14 22:17 | 26° Π 05'20 | |
| evening max el | 5524 Aug 01 01:44 | 6° \mathcal{M} 10'29 | 23°56'22 | behind sun end | 5525 Jun 15 08:13 | 26° Π 58'07 | |
| desc. node | 5524 Aug 04 01:25 | 8° \mathcal{M} 46'54 | | asc. node | 5525 Jun 15 19:05 | 27° Π 55'55 | |
| retrograde | 5524 Aug 14 19:12 | 13° \mathcal{M} 04'40 | | | 5525 Jun 16 18:19 | 0° \mathcal{E} | |
| evening set | 5524 Aug 19 08:03 | 12° \mathcal{M} 19'15 | | evening rise | 5525 Jun 22 07:20 | 11° \mathcal{E} 50'37 | |
| min. Earth dist. | 5524 Aug 25 12:07 | 9° \mathcal{M} 19'27 | 0.56161 AU | | 5525 Jul 01 14:28 | 0° Ω | |
| inferior conj | 5524 Aug 27 20:12 | 7° \mathcal{M} 53'51 | -5°15'16 | evening max el | 5525 Jul 13 15:39 | 16° Ω 30'52 | 22°18'42 |
| minimum elong | 5524 Aug 27 17:13 | 7° \mathcal{M} 58'26 | 5°15'05 | desc. node | 5525 Jul 21 22:25 | 22° Ω 06'26 | |
| morning rise | 5524 Sep 05 04:51 | 3° \mathcal{M} 56'48 | | retrograde | 5525 Jul 26 14:37 | 22° Ω 57'08 | |
| direct | 5524 Sep 07 23:11 | 3° \mathcal{M} 37'16 | | evening set | 5525 Jul 29 15:36 | 22° Ω 36'42 | |
| morning max el | 5524 Sep 18 00:26 | 8° \mathcal{M} 18'22 | 19°55'27 | min. Earth dist. | 5525 Aug 06 22:04 | 19° Ω 01'40 | 0.55039 AU |
| asc. node | 5524 Sep 24 21:18 | 16° \mathcal{M} 46'59 | | inferior conj | 5525 Aug 07 20:08 | 18° Ω 30'32 | -4°27'10 |
| | 5524 Oct 02 10:07 | 0° \mathcal{A} | | minimum elong | 5525 Aug 07 11:44 | 18° Ω 42'23 | 4°25'18 |
| morning set | 5524 Oct 05 23:27 | 7° \mathcal{A} 04'50 | | morning rise | 5525 Aug 16 09:40 | 14° Ω 40'48 | |
| | | | | direct | 5525 Aug 19 13:46 | 14° Ω 18'09 | |
| superior conj | 5524 Oct 13 17:55 | 22° \mathcal{A} 51'12 | 1°39'37 | morning max el | 5525 Aug 31 05:29 | 19° Ω 44'49 | 21°19'15 |
| minimum elong | 5524 Oct 13 19:26 | 22° \mathcal{A} 58'47 | 1°39'33 | | 5525 Sep 08 12:52 | 0° \mathcal{M} | |
| | 5524 Oct 17 09:18 | 0° \mathcal{M} | | asc. node | 5525 Sep 11 18:20 | 5° \mathcal{M} 15'49 | |
| max. Earth dist. | 5524 Oct 19 12:11 | 4° \mathcal{M} 02'24 | 1.37093 AU | morning set | 5525 Sep 20 07:58 | 21° \mathcal{M} 49'33 | |
| evening rise | 5524 Oct 23 06:56 | 11° \mathcal{M} 00'21 | | | 5525 Sep 24 05:31 | 0° \mathcal{A} | |
| desc. node | 5524 Oct 31 00:39 | 24° \mathcal{M} 19'05 | | | | | |
| | 5524 Nov 03 13:27 | 0° \mathcal{X} | | superior conj | 5525 Sep 27 15:28 | 7° \mathcal{A} 08'58 | 1°43'14 |
| | 5524 Nov 25 18:56 | 0° \mathcal{Z} | | minimum elong | 5525 Sep 27 15:30 | 7° \mathcal{A} 09'06 | 1°43'15 |
| evening max el | 5524 Nov 27 23:44 | 2° \mathcal{Z} 14'55 | 25°36'21 | max. Earth dist. | 5525 Oct 01 22:32 | 15° \mathcal{A} 53'51 | 1.35246 AU |
| retrograde | 5524 Dec 10 06:09 | 9° \mathcal{Z} 17'18 | | evening rise | 5525 Oct 06 03:33 | 24° \mathcal{A} 04'50 | |
| evening set | 5524 Dec 16 05:15 | 6° \mathcal{Z} 49'06 | | | 5525 Oct 09 08:12 | 0° \mathcal{M} | |
| min. Earth dist. | 5524 Dec 20 13:59 | 2° \mathcal{Z} 03'07 | 0.67170 AU | desc. node | 5525 Oct 17 21:41 | 14° \mathcal{M} 39'19 | |
| inferior conj | 5524 Dec 21 20:47 | 0° \mathcal{Z} 24'44 | 0°00'12 | | 5525 Oct 28 03:44 | 0° \mathcal{X} | |
| minimum elong | 5524 Dec 21 20:46 | 0° \mathcal{Z} 24'46 | 0°00'13 | evening max el | 5525 Nov 10 12:35 | 15° \mathcal{X} 56'46 | 26°36'26 |
| transit middle | 5524 Dec 21 20:46 | 0° \mathcal{Z} 24'46 | 0°00'13 | retrograde | 5525 Nov 23 11:57 | 23° \mathcal{X} 11'46 | |
| transit begin | 5524 Dec 21 17:58 | 0° \mathcal{Z} 33'45 | | evening set | 5525 Nov 29 23:42 | 20° \mathcal{X} 34'49 | |
| transit end | 5524 Dec 21 23:35 | 0° \mathcal{Z} 15'47 | | min. Earth dist. | 5525 Dec 04 01:50 | 16° \mathcal{X} 23'57 | 0.66152 AU |
| asc. node | 5524 Dec 21 20:33 | 0° \mathcal{Z} 25'30 | | inferior conj | 5525 Dec 05 20:02 | 14° \mathcal{X} 18'04 | -0°59'06 |
| | 5524 Dec 22 04:32 | 30° \mathcal{R} \mathcal{X} | | minimum elong | 5525 Dec 05 21:41 | 14° \mathcal{X} 13'09 | 0°58'24 |
| morning rise | 5524 Dec 27 12:42 | 24° \mathcal{X} 31'00 | | asc. node | 5525 Dec 08 17:34 | 11° \mathcal{X} 02'41 | |
| direct | 5524 Dec 30 20:35 | 23° \mathcal{X} 27'15 | | morning rise | 5525 Dec 11 20:27 | 8° \mathcal{X} 34'45 | |
| morning max el | 5525 Jan 06 20:26 | 27° \mathcal{X} 20'03 | 19°10'24 | direct | 5525 Dec 14 18:31 | 7° \mathcal{X} 47'03 | |
| | 5525 Jan 09 06:46 | 0° \mathcal{Z} | | morning max el | 5525 Dec 21 08:30 | 11° \mathcal{X} 21'25 | 18°26'18 |
| greatest brilliancy | 5525 Jan 20 12:43 | 15° \mathcal{Z} 46'48 | -0.7m | | 5526 Jan 03 16:41 | 0° \mathcal{Z} | |
| desc. node | 5525 Jan 26 23:53 | 25° \mathcal{Z} 42'21 | | morning set | 5526 Jan 10 06:31 | 10° \mathcal{Z} 29'22 | |
| | 5525 Jan 29 18:24 | 0° \approx | | desc. node | 5526 Jan 13 20:54 | 16° \mathcal{Z} 13'55 | |
| morning set | 5525 Jan 30 04:22 | 0° \approx 38'39 | | | 5526 Jan 22 13:48 | 0° \approx | |
| max. Earth dist. | 5525 Feb 13 00:27 | 22° \approx 14'58 | 1.44944 AU | | | | |
| | | | | superior conj | 5526 Jan 26 00:30 | 5° \approx 24'37 | -1°18'05 |
| superior conj | 5525 Feb 15 21:03 | 26° \approx 45'52 | -1°52'47 | minimum elong | 5526 Jan 25 15:34 | 4° \approx 49'38 | 1°17'04 |
| minimum elong | 5525 Feb 15 13:01 | 26° \approx 14'04 | 1°52'13 | max. Earth dist. | 5526 Jan 26 18:59 | 6° \approx 37'03 | 1.45357 AU |
| | 5525 Feb 17 21:56 | 0° \mathcal{H} | | evening rise | 5526 Feb 10 23:18 | 0° \mathcal{H} 27'20 | |
| evening rise | 5525 Mar 02 11:37 | 20° \mathcal{H} 22'27 | | | 5526 Feb 10 16:23 | 0° \mathcal{H} | |
| | 5525 Mar 08 07:47 | 0° Υ | | greatest brilliancy | 5526 Feb 20 21:02 | 16° \mathcal{H} 02'52 | -0.8m |
| asc. node | 5525 Mar 19 19:49 | 17° Υ 23'23 | | | 5526 Mar 02 11:46 | 0° Υ | |
| evening max el | 5525 Mar 22 04:20 | 20° Υ 02'54 | 18°27'29 | evening max el | 5526 Mar 05 14:06 | 3° Υ 34'03 | 19°03'54 |
| retrograde | 5525 Mar 28 16:05 | 23° Υ 34'47 | | asc. node | 5526 Mar 06 16:51 | 4° Υ 38'16 | |

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|------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| retrograde | 5526 Mar 12 11:21 | 7°♿27'01 | | | 5527 Feb 03 21:59 | 0°♿ | |
| evening set | 5526 Mar 15 20:34 | 6°♿20'31 | | greatest brilliancy | 5527 Feb 04 22:02 | 1°♿28'58 | -0.6m |
| inferior conj | 5526 Mar 21 09:43 | 0°♿34'02 | 3°27'06 | evening max el | 5527 Feb 16 19:23 | 17°♿08'06 | 19°56'16 |
| minimum elong | 5526 Mar 21 08:38 | 0°♿37'30 | 3°27'00 | asc. node | 5527 Feb 21 13:52 | 20°♿50'27 | |
| | 5526 Mar 21 20:24 | 30°♿♿ | | retrograde | 5527 Feb 24 09:12 | 21°♿32'02 | |
| min. Earth dist. | 5526 Mar 22 23:01 | 28°♿35'37 | 0.66043 AU | evening set | 5527 Feb 28 02:30 | 20°♿11'14 | |
| morning rise | 5526 Mar 26 20:19 | 24°♿19'17 | | inferior conj | 5527 Mar 05 12:00 | 14°♿10'17 | 3°09'57 |
| direct | 5526 Apr 02 06:24 | 21°♿30'31 | | minimum elong | 5527 Mar 05 10:02 | 14°♿16'51 | 3°09'37 |
| desc. node | 5526 Apr 11 20:09 | 26°♿04'33 | | min. Earth dist. | 5527 Mar 06 10:45 | 12°♿54'04 | 0.67166 AU |
| morning max el | 5526 Apr 15 03:23 | 29°♿09'10 | 26°27'01 | morning rise | 5527 Mar 10 17:23 | 7°♿55'28 | |
| | 5526 Apr 15 23:07 | 0°♿ | | direct | 5527 Mar 16 15:21 | 5°♿16'53 | |
| | 5526 May 07 23:47 | 0°♿ | | morning max el | 5527 Mar 28 12:28 | 12°♿22'56 | 25°09'19 |
| morning set | 5526 May 21 04:11 | 22°♿56'37 | | desc. node | 5527 Mar 29 17:11 | 13°♿37'29 | |
| | 5526 May 24 20:22 | 0°♿ | | | 5527 Apr 11 16:32 | 0°♿ | |
| max. Earth dist. | 5526 May 25 05:59 | 0°♿47'16 | 1.34778 AU | | 5527 Apr 30 17:34 | 0°♿ | |
| | | | | morning set | 5527 May 03 16:00 | 5°♿10'56 | |
| superior conj | 5526 May 30 01:02 | 10°♿26'42 | -0°36'37 | max. Earth dist. | 5527 May 07 07:32 | 11°♿50'51 | 1.36618 AU |
| minimum elong | 5526 May 30 03:03 | 10°♿37'02 | 0°36'13 | | | | |
| asc. node | 5526 Jun 02 16:06 | 17°♿58'47 | | superior conj | 5527 May 13 13:44 | 23°♿51'52 | -1°06'37 |
| evening rise | 5526 Jun 06 16:13 | 26°♿20'19 | | minimum elong | 5527 May 13 17:29 | 24°♿10'20 | 1°05'59 |
| | 5526 Jun 08 10:59 | 0°♿ | | | 5527 May 16 15:33 | 0°♿ | |
| evening max el | 5526 Jun 25 14:34 | 27°♿13'20 | 20°50'05 | asc. node | 5527 May 20 13:08 | 7°♿53'29 | |
| | 5526 Jun 28 21:35 | 0°♿ | | evening rise | 5527 May 21 20:29 | 10°♿31'52 | |
| retrograde | 5526 Jul 07 02:51 | 2°♿52'48 | | | 5527 Jun 01 09:21 | 0°♿ | |
| desc. node | 5526 Jul 08 19:25 | 2°♿45'56 | | evening max el | 5527 Jun 08 01:59 | 8°♿35'50 | 19°38'54 |
| evening set | 5526 Jul 09 05:44 | 2°♿42'04 | | retrograde | 5527 Jun 17 20:47 | 13°♿23'09 | |
| | 5526 Jul 16 07:18 | 30°♿♿ | | evening set | 5527 Jun 19 18:42 | 13°♿12'58 | |
| inferior conj | 5526 Jul 18 13:03 | 28°♿45'04 | -2°50'30 | desc. node | 5527 Jun 25 16:27 | 10°♿53'45 | |
| minimum elong | 5526 Jul 18 05:23 | 28°♿55'57 | 2°47'56 | inferior conj | 5527 Jun 28 13:39 | 9°♿09'21 | -0°51'53 |
| min. Earth dist. | 5526 Jul 19 08:44 | 28°♿17'07 | 0.54809 AU | minimum elong | 5527 Jun 28 11:17 | 9°♿13'03 | 0°51'01 |
| morning rise | 5526 Jul 27 04:52 | 24°♿43'57 | | min. Earth dist. | 5527 Jun 30 21:31 | 7°♿41'58 | 0.55538 AU |
| direct | 5526 Jul 30 22:52 | 24°♿13'45 | | morning rise | 5527 Jul 07 01:34 | 4°♿38'36 | |
| | 5526 Aug 12 11:18 | 0°♿ | | direct | 5527 Jul 11 14:44 | 3°♿52'36 | |
| morning max el | 5526 Aug 12 23:59 | 0°♿29'04 | 22°58'52 | morning max el | 5527 Jul 25 13:36 | 10°♿50'27 | 24°42'53 |
| asc. node | 5526 Aug 29 15:21 | 24°♿18'51 | | | 5527 Aug 09 01:02 | 0°♿ | |
| | 5526 Sep 01 13:16 | 0°♿ | | asc. node | 5527 Aug 16 12:24 | 13°♿46'58 | |
| morning set | 5526 Sep 04 18:58 | 6°♿40'53 | | morning set | 5527 Aug 20 06:42 | 21°♿33'14 | |
| | | | | | 5527 Aug 24 04:36 | 0°♿ | |
| superior conj | 5526 Sep 11 20:01 | 21°♿46'38 | 1°40'02 | | | | |
| minimum elong | 5526 Sep 11 18:51 | 21°♿40'21 | 1°39'59 | superior conj | 5527 Aug 27 04:59 | 6°♿35'49 | 1°30'59 |
| max. Earth dist. | 5526 Sep 14 17:39 | 27°♿55'17 | 1.33769 AU | minimum elong | 5527 Aug 27 03:01 | 6°♿25'06 | 1°30'46 |
| | 5526 Sep 15 17:37 | 0°♿ | | max. Earth dist. | 5527 Aug 28 21:02 | 10°♿13'41 | 1.32715 AU |
| evening rise | 5526 Sep 19 14:06 | 7°♿48'17 | | evening rise | 5527 Sep 03 10:49 | 21°♿59'48 | |
| | 5526 Oct 01 20:52 | 0°♿ | | | 5527 Sep 07 11:33 | 0°♿ | |
| desc. node | 5526 Oct 04 18:42 | 4°♿39'36 | | desc. node | 5527 Sep 21 15:44 | 24°♿10'52 | |
| evening max el | 5526 Oct 24 01:18 | 29°♿27'12 | 27°15'39 | | 5527 Sep 25 17:49 | 0°♿ | |
| | 5526 Oct 24 15:16 | 0°♿ | | evening max el | 5527 Oct 06 11:58 | 12°♿32'13 | 27°27'16 |
| retrograde | 5526 Nov 06 11:41 | 6°♿45'14 | | retrograde | 5527 Oct 20 04:55 | 19°♿48'05 | |
| evening set | 5526 Nov 13 09:53 | 4°♿06'00 | | evening set | 5527 Oct 27 08:47 | 17°♿15'43 | |
| min. Earth dist. | 5526 Nov 17 06:06 | 0°♿29'54 | 0.64788 AU | min. Earth dist. | 5527 Oct 31 00:39 | 14°♿11'01 | 0.63099 AU |
| | 5526 Nov 17 17:14 | 30°♿♿ | | inferior conj | 5527 Nov 02 18:23 | 11°♿29'58 | -3°06'21 |
| inferior conj | 5526 Nov 19 12:10 | 28°♿02'21 | -2°02'09 | minimum elong | 5527 Nov 02 23:48 | 11°♿16'40 | 3°04'26 |
| minimum elong | 5526 Nov 19 15:44 | 27°♿52'35 | 2°00'42 | morning rise | 5527 Nov 09 16:27 | 6°♿17'12 | |
| morning rise | 5526 Nov 25 22:47 | 22°♿32'32 | | direct | 5527 Nov 12 01:52 | 5°♿50'18 | |
| asc. node | 5526 Nov 25 14:35 | 22°♿42'18 | | asc. node | 5527 Nov 12 11:38 | 5°♿51'05 | |
| direct | 5526 Nov 28 13:16 | 21°♿57'03 | | morning max el | 5527 Nov 18 17:20 | 9°♿15'52 | 17°49'20 |
| morning max el | 5526 Dec 05 00:28 | 25°♿22'38 | 17°59'05 | | 5527 Dec 02 11:41 | 0°♿ | |
| | 5526 Dec 08 21:35 | 0°♿ | | morning set | 5527 Dec 04 22:52 | 4°♿19'10 | |
| morning set | 5526 Dec 22 14:21 | 21°♿48'54 | | | | | |
| | 5526 Dec 27 12:37 | 0°♿ | | superior conj | 5527 Dec 16 19:55 | 24°♿42'00 | 0°12'41 |
| desc. node | 5526 Dec 31 17:56 | 6°♿54'38 | | minimum elong | 5527 Dec 16 21:12 | 24°♿47'21 | 0°12'31 |
| | | | | behind sun begin | 5527 Dec 16 15:17 | 24°♿22'44 | |
| superior conj | 5527 Jan 05 10:57 | 14°♿29'42 | -0°32'31 | behind sun end | 5527 Dec 17 03:07 | 25°♿11'55 | |
| minimum elong | 5527 Jan 05 07:01 | 14°♿13'59 | 0°31'56 | desc. node | 5527 Dec 18 14:58 | 27°♿40'05 | |
| max. Earth dist. | 5527 Jan 09 14:42 | 21°♿05'30 | 1.45026 AU | | 5527 Dec 20 01:05 | 0°♿ | |
| | 5527 Jan 15 07:13 | 0°♿ | | max. Earth dist. | 5527 Dec 23 08:13 | 5°♿20'14 | 1.43988 AU |
| evening rise | 5527 Jan 21 16:16 | 9°♿52'11 | | evening rise | 5528 Jan 01 02:34 | 19°♿07'15 | |

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| | 5528 Jan 08 06:03 | 0°♊ | | evening rise | 5528 Dec 10 21:57 | 28°♊50'56 | |
| | 5528 Jan 30 02:42 | 0°♋ | | | 5528 Dec 11 15:25 | 0°♌ | |
| evening max el | 5528 Jan 30 19:09 | 0°♋42'54 | 21°02'08 | | 5528 Dec 31 22:00 | 0°♍ | |
| retrograde | 5528 Feb 08 07:26 | 5°♋44'57 | | evening max el | 5529 Jan 12 13:38 | 14°♍19'00 | 22°17'41 |
| asc. node | 5528 Feb 08 10:54 | 5°♋44'50 | | retrograde | 5529 Jan 22 04:10 | 20°♍01'44 | |
| evening set | 5528 Feb 12 10:08 | 4°♋09'14 | | asc. node | 5529 Jan 25 07:57 | 19°♍09'24 | |
| | 5528 Feb 16 05:49 | 30°♋ | | evening set | 5529 Jan 26 17:47 | 18°♍10'38 | |
| inferior conj | 5528 Feb 17 18:11 | 27°♋56'22 | 2°42'31 | inferior conj | 5529 Feb 01 02:10 | 11°♍49'15 | 2°06'23 |
| minimum elong | 5528 Feb 17 15:49 | 28°♋04'32 | 2°41'56 | minimum elong | 5529 Jan 31 23:52 | 11°♍57'14 | 2°05'39 |
| min. Earth dist. | 5528 Feb 18 03:48 | 27°♋23'10 | 0.67855 AU | min. Earth dist. | 5529 Jan 31 23:54 | 11°♍57'08 | 0.68139 AU |
| morning rise | 5528 Feb 22 21:20 | 21°♋43'07 | | morning rise | 5529 Feb 06 05:48 | 5°♍39'01 | |
| direct | 5528 Feb 28 05:10 | 19°♋22'25 | | direct | 5529 Feb 10 23:04 | 3°♍40'07 | |
| morning max el | 5528 Mar 09 21:22 | 25°♋43'58 | 23°41'21 | morning max el | 5529 Feb 20 08:43 | 9°♍11'42 | 22°12'48 |
| | 5528 Mar 13 18:51 | 0°♋ | | desc. node | 5529 Mar 02 11:15 | 21°♍25'30 | |
| desc. node | 5528 Mar 15 14:13 | 2°♋10'08 | | | 5529 Mar 08 14:16 | 0°♌ | |
| | 5528 Apr 04 05:26 | 0°♍ | | morning set | 5529 Mar 25 15:59 | 26°♋09'01 | |
| morning set | 5528 Apr 14 05:46 | 16°♍19'39 | | | 5529 Mar 28 00:34 | 0°♍ | |
| max. Earth dist. | 5528 Apr 18 03:25 | 23°♍05'17 | 1.38749 AU | max. Earth dist. | 5529 Mar 31 00:32 | 4°♍59'30 | 1.40940 AU |
| | 5528 Apr 21 23:52 | 0°♎ | | | | | |
| superior conj | 5528 Apr 25 13:21 | 6°♎36'10 | -1°34'34 | superior conj | 5529 Apr 07 19:16 | 18°♍28'08 | -1°56'57 |
| minimum elong | 5528 Apr 25 18:20 | 6°♎59'37 | 1°33'58 | minimum elong | 5529 Apr 07 23:57 | 18°♍49'00 | 1°56'37 |
| evening rise | 5528 May 04 17:26 | 24°♎17'58 | | evening rise | 5529 Apr 14 03:15 | 0°♎ | |
| asc. node | 5528 May 06 10:11 | 27°♎35'41 | | asc. node | 5529 Apr 18 03:36 | 7°♎29'06 | |
| | 5528 May 07 16:15 | 0°♏ | | | 5529 Apr 23 07:14 | 16°♎59'34 | |
| evening max el | 5528 May 21 00:50 | 20°♏40'14 | 18°47'59 | evening max el | 5529 May 01 10:30 | 0°♏ | |
| retrograde | 5528 May 29 06:59 | 24°♏43'52 | | retrograde | 5529 May 04 07:52 | 3°♏18'29 | 18°17'21 |
| evening set | 5528 May 31 09:19 | 24°♏29'08 | | evening set | 5529 May 11 11:57 | 6°♏53'23 | |
| inferior conj | 5528 Jun 08 08:52 | 20°♏08'57 | 0°55'27 | inferior conj | 5529 May 13 21:20 | 6°♏30'22 | |
| minimum elong | 5528 Jun 08 10:56 | 20°♏05'12 | 0°54'43 | minimum elong | 5529 May 21 01:37 | 1°♏50'08 | 2°14'17 |
| min. Earth dist. | 5528 Jun 11 14:02 | 17°♏49'04 | 0.57075 AU | | 5529 May 21 05:04 | 1°♏42'46 | 2°13'19 |
| desc. node | 5528 Jun 11 13:28 | 17°♏50'03 | | min. Earth dist. | 5529 May 23 04:58 | 30°♎♎ | |
| morning rise | 5528 Jun 16 09:10 | 15°♏01'30 | | | 5529 May 24 11:52 | 28°♎55'53 | 0.59130 AU |
| direct | 5528 Jun 21 20:28 | 13°♏48'40 | | morning rise | 5529 May 28 09:49 | 26°♎12'13 | |
| morning max el | 5528 Jul 06 04:54 | 21°♏18'04 | 26°15'22 | desc. node | 5529 May 29 10:30 | 25°♎40'17 | |
| | 5528 Jul 13 18:48 | 0°♐ | | direct | 5529 Jun 03 16:19 | 24°♎25'19 | |
| | 5528 Jul 31 15:51 | 0°♑ | | | 5529 Jun 15 15:19 | 0°♏ | |
| asc. node | 5528 Aug 02 09:27 | 3°♑33'12 | | morning max el | 5529 Jun 18 01:37 | 2°♏14'20 | 27°21'22 |
| morning set | 5528 Aug 03 17:37 | 6°♑21'53 | | | 5529 Jul 08 03:33 | 0°♐ | |
| | | | | morning set | 5529 Jul 19 01:56 | 21°♐00'20 | |
| superior conj | 5528 Aug 10 16:19 | 21°♑30'09 | 1°16'48 | asc. node | 5529 Jul 20 06:30 | 23°♐30'58 | |
| minimum elong | 5528 Aug 10 14:02 | 21°♑17'31 | 1°16'27 | | 5529 Jul 23 06:37 | 0°♑ | |
| max. Earth dist. | 5528 Aug 11 06:06 | 22°♑46'08 | 1.32090 AU | max. Earth dist. | 5529 Jul 25 17:11 | 5°♑22'00 | 1.31888 AU |
| | 5528 Aug 14 13:22 | 0°♒ | | | | | |
| evening rise | 5528 Aug 17 14:45 | 6°♒31'03 | | superior conj | 5529 Jul 26 04:07 | 6°♑22'29 | 0°58'05 |
| | 5528 Aug 30 00:20 | 0°♓ | | minimum elong | 5529 Jul 26 01:59 | 6°♑10'38 | 0°57'41 |
| desc. node | 5528 Sep 07 12:46 | 13°♓01'21 | | evening rise | 5529 Aug 01 23:19 | 21°♑13'25 | |
| evening max el | 5528 Sep 17 18:06 | 24°♓59'20 | 27°06'33 | | 5529 Aug 06 05:32 | 0°♒ | |
| | 5528 Sep 24 07:01 | 0°♔ | | | 5529 Aug 24 16:11 | 0°♓ | |
| retrograde | 5528 Oct 01 14:58 | 2°♔11'18 | | desc. node | 5529 Aug 25 09:47 | 0°♓53'56 | |
| evening set | 5528 Oct 08 16:36 | 29°♓57'35 | | evening max el | 5529 Aug 30 17:22 | 6°♓38'57 | 26°12'41 |
| | 5528 Oct 08 15:01 | 30°♒♓ | | retrograde | 5529 Sep 13 16:28 | 13°♓46'37 | |
| min. Earth dist. | 5528 Oct 12 08:33 | 27°♓15'24 | 0.61148 AU | evening set | 5529 Sep 20 04:27 | 12°♓03'48 | |
| inferior conj | 5528 Oct 15 11:32 | 24°♓33'16 | -4°06'59 | min. Earth dist. | 5529 Sep 24 06:30 | 9°♓28'56 | 0.59071 AU |
| minimum elong | 5528 Oct 15 17:58 | 24°♓19'20 | 4°05'14 | inferior conj | 5529 Sep 27 12:05 | 7°♓02'45 | -4°55'49 |
| morning rise | 5528 Oct 22 21:21 | 19°♓40'47 | | minimum elong | 5529 Sep 27 17:24 | 6°♓52'42 | 4°54'59 |
| direct | 5528 Oct 25 04:36 | 19°♓19'15 | | morning rise | 5529 Oct 05 08:34 | 2°♓32'45 | |
| asc. node | 5528 Oct 29 08:41 | 20°♓33'03 | | direct | 5529 Oct 07 17:14 | 2°♓13'44 | |
| morning max el | 5528 Nov 01 07:58 | 22°♓53'22 | 17°58'01 | morning max el | 5529 Oct 15 16:54 | 6°♓05'41 | 18°26'36 |
| | 5528 Nov 06 21:54 | 0°♕ | | asc. node | 5529 Oct 16 05:44 | 6°♓37'31 | |
| morning set | 5528 Nov 17 01:35 | 17°♕40'48 | | | 5529 Oct 30 20:36 | 0°♔ | |
| | 5528 Nov 23 19:38 | 0°♖ | | morning set | 5529 Oct 31 17:11 | 1°♔38'41 | |
| | | | | | | | |
| superior conj | 5528 Nov 27 07:14 | 6°♖10'46 | 0°50'01 | superior conj | 5529 Nov 09 17:20 | 18°♔45'26 | 1°17'01 |
| minimum elong | 5528 Nov 27 10:55 | 6°♖26'51 | 0°49'31 | minimum elong | 5529 Nov 09 20:59 | 19°♔02'15 | 1°16'37 |
| desc. node | 5528 Dec 04 12:00 | 18°♖27'01 | | | 5529 Nov 15 23:22 | 0°♖ | |
| max. Earth dist. | 5528 Dec 04 20:52 | 19°♖03'42 | 1.42376 AU | max. Earth dist. | 5529 Nov 17 04:20 | 2°♖05'46 | 1.40389 AU |
| | | | | desc. node | 5529 Nov 21 09:02 | 9°♖12'06 | |

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|------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| evening rise | 5529 Nov 21 13:27 | 9°♄30'23 | | | 5530 Nov 08 08:11 | 0°♄ | |
| | 5529 Dec 04 15:17 | 0°♄ | | | 5530 Nov 28 15:17 | 0°♄ | |
| evening max el | 5529 Dec 26 04:25 | 27°♄58'44 | 23°37'37 | evening max el | 5530 Dec 08 17:26 | 11°♄42'05 | 24°55'28 |
| | 5529 Dec 28 07:58 | 0°♄ | | retrograde | 5530 Dec 20 11:27 | 18°♄31'18 | |
| retrograde | 5530 Jan 05 21:54 | 4°♄18'46 | | evening set | 5530 Dec 26 02:49 | 16°♄10'27 | |
| evening set | 5530 Jan 10 23:53 | 2°♄12'21 | | asc. node | 5530 Dec 30 02:01 | 11°♄49'02 | |
| asc. node | 5530 Jan 12 04:59 | 1°♄03'50 | | min. Earth dist. | 5530 Dec 30 15:44 | 11°♄04'31 | 0.67593 AU |
| | 5530 Jan 13 04:09 | 30°♄♂ | | inferior conj | 5530 Dec 31 16:05 | 9°♄44'21 | 0°32'03 |
| inferior conj | 5530 Jan 16 10:04 | 25°♄46'24 | 1°22'37 | minimum elong | 5530 Dec 31 15:19 | 9°♄46'55 | 0°31'45 |
| minimum elong | 5530 Jan 16 08:18 | 25°♄52'27 | 1°21'58 | morning rise | 5531 Jan 06 03:59 | 3°♄45'42 | |
| min. Earth dist. | 5530 Jan 15 20:41 | 26°♄32'09 | 0.68045 AU | direct | 5531 Jan 09 18:35 | 2°♄30'47 | |
| morning rise | 5530 Jan 21 16:41 | 19°♄40'55 | | morning max el | 5531 Jan 17 03:09 | 6°♄38'52 | 19°43'05 |
| direct | 5530 Jan 25 19:59 | 18°♄04'41 | | greatest brilliancy | 5531 Jan 30 03:23 | 23°♄43'52 | -0.7m |
| morning max el | 5530 Feb 03 02:00 | 22°♄49'36 | 20°51'41 | | 5531 Feb 03 08:03 | 0°♄ | |
| | 5530 Feb 09 05:35 | 0°♄ | | desc. node | 5531 Feb 04 05:16 | 1°♄20'13 | |
| desc. node | 5530 Feb 17 08:17 | 11°♄11'53 | | morning set | 5531 Feb 11 19:39 | 12°♄57'31 | |
| | 5530 Mar 01 21:49 | 0°♄ | | | 5531 Feb 22 17:38 | 0°♄ | |
| morning set | 5530 Mar 04 23:25 | 4°♄45'20 | | max. Earth dist. | 5531 Feb 23 16:06 | 1°♄29'05 | 1.44387 AU |
| max. Earth dist. | 5530 Mar 13 04:24 | 17°♄49'15 | 1.42904 AU | | | | |
| | | | | superior conj | 5531 Feb 28 08:24 | 8°♄58'30 | -2°04'21 |
| superior conj | 5530 Mar 20 02:38 | 29°♄17'32 | -2°08'47 | minimum elong | 5531 Feb 28 03:39 | 8°♄39'21 | 2°04'08 |
| minimum elong | 5530 Mar 20 04:05 | 29°♄23'39 | 2°08'45 | | 5531 Mar 13 01:25 | 0°♄ | |
| | 5530 Mar 20 12:40 | 0°♄ | | evening rise | 5531 Mar 13 22:42 | 1°♄30'02 | |
| evening rise | 5530 Mar 31 22:53 | 19°♄56'15 | | asc. node | 5531 Mar 28 01:17 | 24°♄26'01 | |
| | 5530 Apr 06 15:18 | 0°♄ | | evening max el | 5531 Apr 01 08:28 | 29°♄40'22 | 18°14'30 |
| asc. node | 5530 Apr 10 04:16 | 5°♄59'08 | | | 5531 Apr 01 16:30 | 0°♄ | |
| evening max el | 5530 Apr 17 19:31 | 16°♄21'38 | 18°06'24 | retrograde | 5531 Apr 07 18:10 | 3°♄04'53 | |
| retrograde | 5530 Apr 24 09:08 | 19°♄43'57 | | evening set | 5531 Apr 10 16:49 | 2°♄18'59 | |
| evening set | 5530 Apr 27 01:23 | 19°♄10'10 | | | 5531 Apr 13 19:58 | 30°♄♄ | |
| inferior conj | 5530 May 03 13:48 | 14°♄09'30 | 3°03'02 | inferior conj | 5531 Apr 16 17:21 | 26°♄59'01 | 3°26'49 |
| minimum elong | 5530 May 03 16:29 | 14°♄02'52 | 3°02'32 | minimum elong | 5531 Apr 16 18:30 | 26°♄55'51 | 3°26'43 |
| min. Earth dist. | 5530 May 06 16:57 | 11°♄05'44 | 0.61351 AU | min. Earth dist. | 5531 Apr 19 06:57 | 24°♄08'51 | 0.63434 AU |
| morning rise | 5530 May 10 05:36 | 8°♄11'51 | | morning rise | 5531 Apr 22 19:07 | 20°♄50'23 | |
| desc. node | 5530 May 16 07:32 | 5°♄54'28 | | direct | 5531 Apr 29 15:17 | 18°♄09'57 | |
| direct | 5530 May 16 23:25 | 5°♄53'10 | | desc. node | 5531 May 03 04:32 | 18°♄48'07 | |
| morning max el | 5530 May 31 04:35 | 13°♄51'36 | 27°51'37 | morning max el | 5531 May 13 12:25 | 26°♄09'30 | 27°44'18 |
| | 5530 Jun 13 03:23 | 0°♄ | | | 5531 May 17 01:55 | 0°♄ | |
| | 5530 Jun 30 13:47 | 0°♄ | | morning set | 5531 Jun 06 17:02 | 0°♄ | |
| morning set | 5530 Jul 03 05:49 | 5°♄22'53 | | | 5531 Jun 17 02:59 | 19°♄22'51 | |
| asc. node | 5530 Jul 07 03:32 | 13°♄35'36 | | | 5531 Jun 22 06:43 | 0°♄ | |
| max. Earth dist. | 5530 Jul 09 02:39 | 17°♄50'23 | 1.32116 AU | max. Earth dist. | 5531 Jun 22 06:42 | 29°♄59'53 | 1.32784 AU |
| | | | | asc. node | 5531 Jun 24 00:34 | 3°♄42'54 | |
| superior conj | 5530 Jul 10 14:39 | 21°♄07'09 | 0°35'23 | | | | |
| minimum elong | 5530 Jul 10 13:07 | 20°♄58'46 | 0°35'03 | superior conj | 5531 Jun 24 22:05 | 5°♄38'30 | 0°09'18 |
| | 5530 Jul 14 15:45 | 0°♄ | | minimum elong | 5531 Jun 24 21:38 | 5°♄36'04 | 0°09'12 |
| evening rise | 5530 Jul 17 10:26 | 6°♄00'24 | | behind sun begin | 5531 Jun 24 17:16 | 5°♄12'32 | |
| | 5530 Jul 30 00:10 | 0°♄ | | behind sun end | 5531 Jun 25 02:00 | 5°♄59'37 | |
| desc. node | 5530 Aug 12 06:48 | 17°♄25'28 | | evening rise | 5531 Jul 01 22:15 | 20°♄45'56 | |
| evening max el | 5530 Aug 12 09:21 | 17°♄31'37 | 24°51'01 | | 5531 Jul 06 09:46 | 0°♄ | |
| retrograde | 5530 Aug 26 06:58 | 24°♄32'23 | | evening max el | 5531 Jul 24 21:46 | 27°♄54'43 | 23°14'29 |
| evening set | 5530 Aug 31 16:08 | 23°♄27'02 | | | 5531 Jul 27 05:46 | 0°♄ | |
| min. Earth dist. | 5530 Sep 05 20:45 | 20°♄41'15 | 0.57115 AU | desc. node | 5531 Jul 30 03:48 | 2°♄05'38 | |
| inferior conj | 5530 Sep 08 17:03 | 18°♄49'25 | -5°19'36 | retrograde | 5531 Aug 07 08:53 | 4°♄38'56 | |
| minimum elong | 5530 Sep 08 17:53 | 18°♄48'04 | 5°19'36 | evening set | 5531 Aug 11 06:04 | 4°♄05'58 | |
| morning rise | 5530 Sep 16 21:56 | 14°♄41'31 | | min. Earth dist. | 5531 Aug 18 06:55 | 0°♄53'00 | 0.55594 AU |
| direct | 5530 Sep 19 11:57 | 14°♄22'35 | | | 5531 Aug 19 19:14 | 30°♄♄ | |
| morning max el | 5530 Sep 28 16:40 | 18°♄42'38 | 19°16'38 | inferior conj | 5531 Aug 20 02:15 | 29°♄49'44 | -5°01'27 |
| asc. node | 5530 Oct 03 02:47 | 23°♄49'25 | | minimum elong | 5531 Aug 19 20:29 | 29°♄58'11 | 5°00'41 |
| | 5530 Oct 07 04:10 | 0°♄ | | morning rise | 5531 Aug 28 13:12 | 25°♄57'53 | |
| morning set | 5530 Oct 15 17:36 | 16°♄01'19 | | direct | 5531 Aug 31 11:38 | 25°♄37'12 | |
| | 5530 Oct 22 18:05 | 0°♄ | | | 5531 Sep 10 12:44 | 0°♄ | |
| | | | | morning max el | 5531 Sep 11 04:46 | 0°♄36'12 | 20°28'41 |
| superior conj | 5530 Oct 23 20:51 | 2°♄10'41 | 1°33'57 | asc. node | 5531 Sep 19 23:49 | 11°♄54'13 | |
| minimum elong | 5530 Oct 23 23:16 | 2°♄22'23 | 1°33'47 | morning set | 5531 Sep 29 23:53 | 0°♄40'40 | |
| max. Earth dist. | 5530 Oct 30 09:24 | 14°♄28'31 | 1.38274 AU | | 5531 Sep 29 15:56 | 0°♄ | |
| evening rise | 5530 Nov 03 03:46 | 21°♄11'40 | | | | | |
| desc. node | 5530 Nov 08 06:03 | 29°♄51'11 | | superior conj | 5531 Oct 07 13:02 | 16°♄13'20 | 1°42'04 |

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|------------------|-------------------|---------------------------------|------------|---------------------|-------------------|---------------------------------|------------|
| minimum elong | 5531 Oct 07 13:53 | 16° Ω 17'43 | 1°42'03 | minimum elong | 5532 Sep 20 13:26 | 0° Ω 38'06 | 1°42'39 |
| max. Earth dist. | 5531 Oct 12 16:43 | 26° Ω 26'39 | 1.36272 AU | max. Earth dist. | 5532 Sep 24 06:35 | 8° Ω 20'13 | 1.34568 AU |
| | 5531 Oct 14 13:24 | 0° \mathbb{M} | | evening rise | 5532 Sep 28 17:36 | 17° Ω 11'18 | |
| evening rise | 5531 Oct 16 14:33 | 3° \mathbb{M} 49'09 | | | 5532 Oct 05 16:43 | 0° \mathbb{M} | |
| desc. node | 5531 Oct 26 03:05 | 20° \mathbb{M} 20'11 | | desc. node | 5532 Oct 12 00:07 | 10° \mathbb{M} 32'42 | |
| | 5531 Nov 01 07:00 | 0° \mathcal{A} | | | 5532 Oct 25 15:31 | 0° \mathcal{A} | |
| evening max el | 5531 Nov 21 06:07 | 25° \mathcal{A} 26'13 | 26°03'57 | evening max el | 5532 Nov 02 18:49 | 9° \mathcal{A} 03'34 | 26°55'55 |
| | 5531 Nov 26 18:09 | 0° \mathcal{B} | | retrograde | 5532 Nov 15 23:26 | 16° \mathcal{A} 21'10 | |
| retrograde | 5531 Dec 03 20:07 | 2° \mathcal{B} 34'35 | | evening set | 5532 Nov 22 16:10 | 13° \mathcal{A} 41'56 | |
| evening set | 5531 Dec 10 00:55 | 0° \mathcal{B} 01'56 | | min. Earth dist. | 5532 Nov 26 15:33 | 9° \mathcal{A} 46'19 | 0.65618 AU |
| | 5531 Dec 10 01:51 | 30° \mathcal{R} \mathcal{A} | | inferior conj | 5532 Nov 28 14:54 | 7° \mathcal{A} 30'06 | -1°25'32 |
| min. Earth dist. | 5531 Dec 14 06:47 | 25° \mathcal{A} 31'04 | 0.66787 AU | minimum elong | 5532 Nov 28 17:21 | 7° \mathcal{A} 23'03 | 1°24'30 |
| inferior conj | 5531 Dec 15 18:24 | 23° \mathcal{A} 40'26 | -0°24'23 | asc. node | 5532 Dec 02 20:03 | 3° \mathcal{A} 10'47 | |
| minimum elong | 5531 Dec 15 19:03 | 23° \mathcal{A} 38'25 | 0°24'05 | morning rise | 5532 Dec 04 19:31 | 1° \mathcal{A} 52'28 | |
| asc. node | 5531 Dec 16 23:02 | 22° \mathcal{A} 12'38 | | direct | 5532 Dec 07 14:01 | 1° \mathcal{A} 10'32 | |
| morning rise | 5531 Dec 21 13:42 | 17° \mathcal{A} 50'58 | | morning max el | 5532 Dec 14 02:01 | 4° \mathcal{A} 39'56 | 18°12'39 |
| direct | 5531 Dec 24 17:15 | 16° \mathcal{A} 54'25 | | | 5532 Dec 31 08:30 | 0° \mathcal{B} | |
| morning max el | 5531 Dec 31 11:52 | 20° \mathcal{A} 37'38 | 18°49'39 | morning set | 5533 Jan 01 20:57 | 2° \mathcal{B} 28'15 | |
| | 5532 Jan 07 22:24 | 0° \mathcal{B} | | desc. node | 5533 Jan 07 23:21 | 12° \mathcal{B} 20'32 | |
| morning set | 5532 Jan 22 06:00 | 21° \mathcal{B} 59'14 | | | | | |
| desc. node | 5532 Jan 22 02:18 | 21° \mathcal{B} 44'44 | | superior conj | 5533 Jan 16 21:02 | 26° \mathcal{B} 29'59 | -0°59'23 |
| | 5532 Jan 27 08:44 | 0° \approx | | minimum elong | 5533 Jan 16 13:49 | 26° \mathcal{B} 01'33 | 0°58'27 |
| max. Earth dist. | 5532 Feb 06 09:12 | 15° \approx 41'35 | 1.45214 AU | max. Earth dist. | 5533 Jan 19 04:27 | 0° \approx 07'44 | 1.45302 AU |
| | | | | | 5533 Jan 19 02:29 | 0° \approx | |
| superior conj | 5532 Feb 07 17:07 | 17° \approx 46'57 | -1°40'04 | evening rise | 5533 Feb 02 02:25 | 21° \approx 51'06 | |
| minimum elong | 5532 Feb 07 07:47 | 17° \approx 10'18 | 1°39'13 | | 5533 Feb 07 08:03 | 0° \mathcal{H} | |
| | 5532 Feb 15 10:33 | 0° \mathcal{H} | | greatest brilliancy | 5533 Feb 14 01:43 | 10° \mathcal{H} 22'13 | -0.7m |
| evening rise | 5532 Feb 22 23:42 | 12° \mathcal{H} 06'23 | | evening max el | 5533 Feb 26 03:55 | 26° \mathcal{H} 39'54 | 19°24'21 |
| | 5532 Mar 05 03:25 | 0° \mathcal{Y} | | asc. node | 5533 Feb 28 19:19 | 29° \mathcal{H} 00'11 | |
| asc. node | 5532 Mar 13 22:18 | 12° \mathcal{Y} 10'24 | | | 5533 Mar 02 09:52 | 0° \mathcal{Y} | |
| evening max el | 5532 Mar 14 19:59 | 13° \mathcal{Y} 07'50 | 18°40'53 | retrograde | 5533 Mar 05 07:35 | 0° \mathcal{Y} 45'28 | |
| retrograde | 5532 Mar 21 10:49 | 16° \mathcal{Y} 47'30 | | | 5533 Mar 08 02:30 | 30° \mathcal{R} \mathcal{H} | |
| evening set | 5532 Mar 24 15:56 | 15° \mathcal{Y} 48'42 | | evening set | 5533 Mar 08 20:00 | 29° \mathcal{H} 33'05 | |
| inferior conj | 5532 Mar 30 08:19 | 10° \mathcal{Y} 11'08 | 3°31'22 | inferior conj | 5533 Mar 14 07:18 | 23° \mathcal{H} 40'02 | 3°21'13 |
| minimum elong | 5532 Mar 30 07:57 | 10° \mathcal{Y} 12'17 | 3°31'21 | minimum elong | 5533 Mar 14 05:47 | 23° \mathcal{H} 45'00 | 3°21'03 |
| min. Earth dist. | 5532 Apr 01 06:22 | 7° \mathcal{Y} 51'00 | 0.65200 AU | min. Earth dist. | 5533 Mar 15 14:15 | 21° \mathcal{H} 59'05 | 0.66564 AU |
| morning rise | 5532 Apr 04 23:25 | 3° \mathcal{Y} 57'23 | | morning rise | 5533 Mar 19 15:15 | 17° \mathcal{H} 24'45 | |
| direct | 5532 Apr 11 14:36 | 1° \mathcal{Y} 08'05 | | direct | 5533 Mar 25 20:25 | 14° \mathcal{H} 39'07 | |
| desc. node | 5532 Apr 19 01:32 | 3° \mathcal{Y} 55'38 | | desc. node | 5533 Apr 05 22:34 | 20° \mathcal{H} 43'46 | |
| morning max el | 5532 Apr 24 22:31 | 8° \mathcal{Y} 58'37 | 27°03'10 | morning max el | 5533 Apr 07 08:23 | 22° \mathcal{H} 06'35 | 25°55'58 |
| | 5532 May 11 08:35 | 0° \mathcal{B} | | | 5533 Apr 14 06:08 | 0° \mathcal{Y} | |
| | 5532 May 29 02:37 | 0° \mathbb{I} | | | 5533 May 04 14:50 | 0° \mathcal{B} | |
| morning set | 5532 May 30 14:28 | 2° \mathbb{I} 51'07 | | morning set | 5533 May 13 12:24 | 15° \mathcal{B} 36'43 | |
| max. Earth dist. | 5532 Jun 04 01:32 | 11° \mathbb{I} 40'28 | 1.33913 AU | max. Earth dist. | 5533 May 17 08:52 | 22° \mathcal{B} 52'09 | 1.35505 AU |
| | | | | | 5533 May 21 00:13 | 0° \mathbb{I} | |
| superior conj | 5532 Jun 08 00:18 | 19° \mathbb{I} 49'40 | -0°19'23 | | | | |
| minimum elong | 5532 Jun 08 01:20 | 19° \mathbb{I} 55'04 | 0°19'11 | superior conj | 5533 May 22 18:50 | 3° \mathbb{I} 33'58 | -0°49'24 |
| asc. node | 5532 Jun 09 21:35 | 23° \mathbb{I} 48'21 | | minimum elong | 5533 May 22 21:36 | 3° \mathbb{I} 47'56 | 0°48'54 |
| | 5532 Jun 12 19:35 | 0° \mathcal{E} | | asc. node | 5533 May 27 18:37 | 13° \mathbb{I} 48'11 | |
| evening rise | 5532 Jun 15 08:47 | 5° \mathcal{E} 23'11 | | evening rise | 5533 May 30 16:02 | 19° \mathbb{I} 45'56 | |
| | 5532 Jun 28 19:02 | 0° \mathcal{Q} | | | 5533 Jun 04 19:27 | 0° \mathcal{E} | |
| evening max el | 5532 Jul 05 14:33 | 8° \mathcal{Q} 20'23 | 21°39'13 | evening max el | 5533 Jun 17 18:40 | 19° \mathcal{E} 18'49 | 20°17'29 |
| desc. node | 5532 Jul 16 00:49 | 14° \mathcal{Q} 19'51 | | retrograde | 5533 Jun 28 13:48 | 24° \mathcal{E} 36'13 | |
| retrograde | 5532 Jul 18 00:26 | 14° \mathcal{Q} 29'09 | | evening set | 5533 Jun 30 12:32 | 24° \mathcal{E} 26'37 | |
| evening set | 5532 Jul 20 13:51 | 14° \mathcal{Q} 14'18 | | desc. node | 5533 Jul 02 21:49 | 23° \mathcal{E} 50'33 | |
| inferior conj | 5532 Jul 29 21:33 | 10° \mathcal{Q} 13'21 | -3°51'02 | inferior conj | 5533 Jul 09 16:05 | 20° \mathcal{E} 28'35 | -2°00'50 |
| minimum elong | 5532 Jul 29 12:36 | 10° \mathcal{Q} 25'51 | 3°48'34 | minimum elong | 5533 Jul 09 10:27 | 20° \mathcal{E} 36'52 | 1°58'48 |
| min. Earth dist. | 5532 Jul 29 16:47 | 10° \mathcal{Q} 20'01 | 0.54823 AU | min. Earth dist. | 5533 Jul 11 04:33 | 19° \mathcal{E} 35'00 | 0.55001 AU |
| morning rise | 5532 Aug 07 12:37 | 6° \mathcal{Q} 21'41 | | morning rise | 5533 Jul 18 07:07 | 16° \mathcal{E} 16'11 | |
| direct | 5532 Aug 10 21:51 | 5° \mathcal{Q} 56'44 | | direct | 5533 Jul 22 08:23 | 15° \mathcal{E} 40'36 | |
| morning max el | 5532 Aug 23 04:59 | 11° \mathcal{Q} 43'43 | 22°00'15 | morning max el | 5533 Aug 04 20:49 | 22° \mathcal{E} 15'55 | 23°43'22 |
| asc. node | 5532 Sep 05 20:50 | 0° \mathcal{M} 38'40 | | | 5533 Aug 11 16:01 | 0° \mathcal{Q} | |
| | 5532 Sep 05 12:13 | 0° \mathcal{M} | | asc. node | 5533 Aug 23 17:54 | 19° \mathcal{Q} 53'07 | |
| morning set | 5532 Sep 13 09:43 | 15° \mathcal{M} 29'01 | | morning set | 5533 Aug 28 21:14 | 0° \mathcal{M} 21'09 | |
| | 5532 Sep 20 06:11 | 0° \mathcal{A} | | | 5533 Aug 28 17:14 | 0° \mathcal{M} | |
| superior conj | 5532 Sep 20 13:57 | 0° \mathcal{A} 40'53 | 1°42'40 | superior conj | 5533 Sep 04 20:42 | 15° \mathcal{M} 24'25 | 1°36'52 |

| | | | | | | | |
|------------------|-------------------|--------------------------------|------------|------------------|-------------------|-------------------------------|------------|
| minimum elong | 5533 Sep 04 19:08 | 15° \mathbb{M} 15'59 | 1°36'45 | morning max el | 5534 Jul 17 10:15 | 2° \mathbb{S} 35'23 | 25°24'32 |
| max. Earth dist. | 5533 Sep 07 05:09 | 20° \mathbb{M} 27'10 | 1.33269 AU | | 5534 Aug 05 17:56 | 0° \mathbb{Q} | |
| | 5533 Sep 11 19:27 | 0° \mathbb{L} | | asc. node | 5534 Aug 10 14:58 | 9° \mathbb{Q} 29'25 | |
| evening rise | 5533 Sep 12 08:54 | 1° \mathbb{L} 07'44 | | morning set | 5534 Aug 13 08:49 | 15° \mathbb{Q} 12'10 | |
| desc. node | 5533 Sep 28 21:08 | 0° \mathbb{M} 21'29 | | | | | |
| | 5533 Sep 28 15:33 | 0° \mathbb{M} | | superior conj | 5534 Aug 20 06:55 | 0° \mathbb{M} 16'27 | 1°25'33 |
| evening max el | 5533 Oct 16 06:49 | 22° \mathbb{M} 24'06 | 27°24'13 | minimum elong | 5534 Aug 20 04:46 | 0° \mathbb{M} 04'36 | 1°25'17 |
| retrograde | 5533 Oct 29 20:47 | 29° \mathbb{M} 42'28 | | | 5534 Aug 20 03:55 | 0° \mathbb{M} | |
| evening set | 5533 Nov 05 22:00 | 27° \mathbb{M} 04'44 | | max. Earth dist. | 5534 Aug 21 11:16 | 2° \mathbb{M} 51'52 | 1.32398 AU |
| min. Earth dist. | 5533 Nov 09 15:59 | 23° \mathbb{M} 42'35 | 0.64105 AU | evening rise | 5534 Aug 27 09:02 | 15° \mathbb{M} 28'48 | |
| inferior conj | 5533 Nov 12 03:10 | 21° \mathbb{M} 07'49 | -2°29'30 | | 5534 Sep 03 19:20 | 0° \mathbb{L} | |
| minimum elong | 5533 Nov 12 07:34 | 20° \mathbb{M} 56'18 | 2°27'48 | desc. node | 5534 Sep 15 18:09 | 19° \mathbb{L} 36'59 | |
| morning rise | 5533 Nov 18 18:35 | 15° \mathbb{M} 44'55 | | | 5534 Sep 23 16:39 | 0° \mathbb{M} | |
| asc. node | 5533 Nov 19 17:07 | 15° \mathbb{M} 25'55 | | evening max el | 5534 Sep 28 16:06 | 5° \mathbb{M} 15'31 | 27°22'40 |
| direct | 5533 Nov 21 06:26 | 15° \mathbb{M} 13'39 | | retrograde | 5534 Oct 12 11:12 | 12° \mathbb{M} 29'35 | |
| morning max el | 5533 Nov 27 18:46 | 18° \mathbb{M} 38'33 | 17°52'42 | evening set | 5534 Oct 19 15:05 | 10° \mathbb{M} 04'01 | |
| | 5533 Dec 06 03:07 | 0° \mathbb{X} | | min. Earth dist. | 5534 Oct 23 06:21 | 7° \mathbb{M} 09'58 | 0.62292 AU |
| morning set | 5533 Dec 14 16:04 | 14° \mathbb{X} 19'51 | | inferior conj | 5534 Oct 26 04:20 | 4° \mathbb{M} 26'51 | -3°32'54 |
| | 5533 Dec 23 23:44 | 0° \mathbb{Z} | | minimum elong | 5534 Oct 26 10:21 | 4° \mathbb{M} 12'49 | 3°30'58 |
| desc. node | 5533 Dec 25 20:24 | 3° \mathbb{Z} 03'24 | | | 5534 Oct 31 20:35 | 30° \mathbb{R} \mathbb{L} | |
| | | | | morning rise | 5534 Nov 02 07:24 | 29° \mathbb{L} 22'00 | |
| superior conj | 5533 Dec 27 15:53 | 6° \mathbb{Z} 00'28 | -0°12'43 | direct | 5534 Nov 04 15:27 | 28° \mathbb{L} 57'46 | |
| minimum elong | 5533 Dec 27 14:25 | 5° \mathbb{Z} 54'33 | 0°12'29 | asc. node | 5534 Nov 06 14:11 | 29° \mathbb{L} 15'09 | |
| behind sun begin | 5533 Dec 27 08:01 | 5° \mathbb{Z} 28'32 | | | 5534 Nov 08 07:58 | 0° \mathbb{M} | |
| behind sun end | 5533 Dec 27 20:50 | 6° \mathbb{Z} 20'32 | | morning max el | 5534 Nov 11 11:05 | 2° \mathbb{M} 26'12 | 17°50'37 |
| max. Earth dist. | 5534 Jan 01 23:01 | 14° \mathbb{Z} 30'08 | 1.44660 AU | morning set | 5534 Nov 27 09:10 | 27° \mathbb{M} 14'51 | |
| | 5534 Jan 11 21:19 | 0° \mathbb{X} | | | 5534 Nov 28 22:07 | 0° \mathbb{X} | |
| evening rise | 5534 Jan 12 14:34 | 1° \mathbb{X} 06'19 | | | | | |
| | 5534 Feb 01 01:01 | 0° \mathbb{X} | | superior conj | 5534 Dec 08 12:13 | 16° \mathbb{X} 45'51 | 0°29'43 |
| evening max el | 5534 Feb 09 06:52 | 10° \mathbb{X} 13'57 | 20°22'56 | minimum elong | 5534 Dec 08 14:53 | 16° \mathbb{X} 57'11 | 0°29'21 |
| asc. node | 5534 Feb 15 16:21 | 14° \mathbb{X} 40'42 | | desc. node | 5534 Dec 12 17:26 | 23° \mathbb{X} 49'59 | |
| retrograde | 5534 Feb 17 05:50 | 14° \mathbb{X} 53'42 | | max. Earth dist. | 5534 Dec 15 14:42 | 28° \mathbb{X} 33'41 | 1.43366 AU |
| evening set | 5534 Feb 21 02:51 | 13° \mathbb{X} 26'51 | | | 5534 Dec 16 12:01 | 0° \mathbb{Z} | |
| inferior conj | 5534 Feb 26 11:31 | 7° \mathbb{X} 20'38 | 2°59'28 | evening rise | 5534 Dec 23 03:04 | 10° \mathbb{Z} 30'04 | |
| minimum elong | 5534 Feb 26 09:19 | 7° \mathbb{X} 28'05 | 2°59'01 | | 5535 Jan 05 01:13 | 0° \mathbb{X} | |
| min. Earth dist. | 5534 Feb 27 04:35 | 6° \mathbb{X} 22'29 | 0.67507 AU | evening max el | 5535 Jan 23 04:27 | 23° \mathbb{X} 49'55 | 21°33'25 |
| morning rise | 5534 Mar 03 15:34 | 1° \mathbb{X} 06'08 | | retrograde | 5535 Feb 01 03:30 | 29° \mathbb{X} 08'46 | |
| | 5534 Mar 05 00:45 | 30° \mathbb{R} \mathbb{X} | | asc. node | 5535 Feb 02 13:24 | 28° \mathbb{X} 58'08 | |
| direct | 5534 Mar 09 07:44 | 28° \mathbb{X} 34'08 | | evening set | 5535 Feb 05 10:42 | 27° \mathbb{X} 26'37 | |
| | 5534 Mar 14 01:56 | 0° \mathbb{X} | | inferior conj | 5535 Feb 10 18:43 | 21° \mathbb{X} 09'59 | 2°28'11 |
| morning max el | 5534 Mar 20 17:02 | 5° \mathbb{X} 22'59 | 24°32'29 | minimum elong | 5535 Feb 10 16:19 | 21° \mathbb{X} 18'17 | 2°27'30 |
| desc. node | 5534 Mar 23 19:37 | 8° \mathbb{X} 44'09 | | min. Earth dist. | 5535 Feb 10 23:12 | 20° \mathbb{X} 54'25 | 0.68032 AU |
| | 5534 Apr 08 16:59 | 0° \mathbb{Y} | | morning rise | 5535 Feb 15 21:46 | 14° \mathbb{X} 57'55 | |
| morning set | 5534 Apr 25 15:32 | 27° \mathbb{Y} 24'32 | | direct | 5535 Feb 20 23:30 | 12° \mathbb{X} 45'59 | |
| | 5534 Apr 27 02:44 | 0° \mathbb{Z} | | morning max el | 5535 Mar 03 02:20 | 18° \mathbb{X} 45'48 | 23°03'07 |
| max. Earth dist. | 5534 Apr 29 06:34 | 3° \mathbb{Z} 53'08 | 1.37496 AU | desc. node | 5535 Mar 10 16:40 | 27° \mathbb{X} 36'38 | |
| | | | | | 5535 Mar 12 12:36 | 0° \mathbb{X} | |
| superior conj | 5534 May 06 02:26 | 16° \mathbb{Z} 42'26 | -1°18'54 | | 5535 Apr 01 20:32 | 0° \mathbb{Y} | |
| minimum elong | 5534 May 06 06:48 | 17° \mathbb{Z} 03'36 | 1°18'15 | morning set | 5535 Apr 06 17:58 | 7° \mathbb{Y} 59'39 | |
| | 5534 May 12 20:01 | 0° \mathbb{II} | | max. Earth dist. | 5535 Apr 11 02:04 | 15° \mathbb{Y} 20'57 | 1.39700 AU |
| evening rise | 5534 May 14 17:30 | 3° \mathbb{II} 46'44 | | | | | |
| asc. node | 5534 May 14 15:39 | 3° \mathbb{II} 37'36 | | superior conj | 5535 Apr 18 19:06 | 29° \mathbb{Y} 05'40 | -1°45'01 |
| | 5534 May 30 12:11 | 0° \mathbb{S} | | minimum elong | 5535 Apr 19 00:13 | 29° \mathbb{Y} 29'14 | 1°44'30 |
| evening max el | 5534 May 31 11:20 | 0° \mathbb{S} 59'29 | 19°14'49 | | 5535 Apr 19 06:54 | 0° \mathbb{Z} | |
| retrograde | 5534 Jun 09 13:20 | 5° \mathbb{S} 26'07 | | evening rise | 5535 Apr 28 10:16 | 17° \mathbb{Z} 18'26 | |
| evening set | 5534 Jun 11 12:32 | 5° \mathbb{S} 14'31 | | asc. node | 5535 May 01 12:41 | 23° \mathbb{Z} 12'11 | |
| inferior conj | 5534 Jun 19 23:39 | 1° \mathbb{S} 05'05 | -0°03'34 | | 5535 May 05 05:54 | 0° \mathbb{II} | |
| minimum elong | 5534 Jun 19 23:29 | 1° \mathbb{S} 05'21 | 0°03'31 | evening max el | 5535 May 14 14:05 | 13° \mathbb{II} 18'49 | 18°32'28 |
| transit middle | 5534 Jun 19 23:29 | 1° \mathbb{S} 05'21 | 0°03'31 | retrograde | 5535 May 22 07:26 | 17° \mathbb{II} 07'55 | |
| transit begin | 5534 Jun 19 19:45 | 1° \mathbb{S} 11'35 | | evening set | 5535 May 24 12:53 | 16° \mathbb{II} 49'53 | |
| transit end | 5534 Jun 20 03:14 | 0° \mathbb{S} 59'06 | | inferior conj | 5535 Jun 01 03:55 | 12° \mathbb{II} 21'09 | 1°32'47 |
| desc. node | 5534 Jun 19 18:51 | 1° \mathbb{S} 13'05 | | minimum elong | 5535 Jun 01 06:55 | 12° \mathbb{II} 15'17 | 1°31'48 |
| | 5534 Jun 21 14:35 | 30° \mathbb{R} \mathbb{II} | | min. Earth dist. | 5535 Jun 04 13:03 | 9° \mathbb{II} 44'05 | 0.57913 AU |
| min. Earth dist. | 5534 Jun 22 18:52 | 29° \mathbb{II} 13'39 | 0.56108 AU | desc. node | 5535 Jun 06 15:53 | 8° \mathbb{II} 16'00 | |
| morning rise | 5534 Jun 28 07:26 | 26° \mathbb{II} 18'41 | | morning rise | 5535 Jun 08 21:42 | 6° \mathbb{II} 59'56 | |
| direct | 5534 Jul 03 06:16 | 25° \mathbb{II} 22'14 | | direct | 5535 Jun 14 18:05 | 5° \mathbb{II} 33'01 | |
| | 5534 Jul 14 11:07 | 0° \mathbb{S} | | morning max el | 5535 Jun 29 03:16 | 13° \mathbb{II} 11'11 | 26°47'30 |

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|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| | 5535 Jul 12 10:03 | 0°☿ | | | 5536 Jul 04 16:51 | 0°☿ | |
| asc. node | 5535 Jul 28 11:59 | 29°☿20'43 | | morning set | 5536 Jul 12 01:29 | 14°☿29'19 | |
| morning set | 5535 Jul 28 18:48 | 29°☿56'33 | | asc. node | 5536 Jul 14 09:00 | 19°☿22'02 | |
| | 5535 Jul 28 19:27 | 0°♌ | | max. Earth dist. | 5536 Jul 18 08:49 | 28°☿02'39 | 1.31931 AU |
| superior conj | 5535 Aug 04 18:37 | 15°♌10'02 | 1°09'23 | superior conj | 5536 Jul 19 06:05 | 29°☿59'47 | 0°48'55 |
| minimum elong | 5535 Aug 04 16:20 | 14°♌57'23 | 1°09'00 | minimum elong | 5536 Jul 19 04:08 | 29°☿49'04 | 0°48'32 |
| max. Earth dist. | 5535 Aug 04 21:45 | 15°♌27'22 | 1.31952 AU | | 5536 Jul 19 06:07 | 0°♌ | |
| evening rise | 5535 Aug 11 15:11 | 0°♍05'23 | | evening rise | 5536 Jul 26 01:06 | 14°♌50'36 | |
| | 5535 Aug 11 14:10 | 0°♍ | | | 5536 Aug 02 14:07 | 0°♍ | |
| | 5535 Aug 27 22:57 | 0°♊ | | desc. node | 5536 Aug 19 12:10 | 25°♍26'32 | |
| desc. node | 5535 Sep 02 15:10 | 8°♊05'04 | | evening max el | 5536 Aug 22 15:39 | 28°♍42'00 | 25°40'42 |
| evening max el | 5535 Sep 10 19:47 | 17°♊23'50 | 26°47'40 | | 5536 Aug 24 01:49 | 0°♊ | |
| retrograde | 5535 Sep 24 17:30 | 24°♊33'06 | | retrograde | 5536 Sep 05 14:25 | 5°♊47'28 | |
| evening set | 5535 Oct 01 15:01 | 22°♊31'23 | | evening set | 5536 Sep 11 16:55 | 4°♊19'56 | |
| min. Earth dist. | 5535 Oct 05 09:46 | 19°♊54'32 | 0.60270 AU | min. Earth dist. | 5536 Sep 16 03:42 | 1°♊43'04 | 0.58209 AU |
| inferior conj | 5535 Oct 08 14:54 | 17°♊17'13 | -4°29'47 | | 5536 Sep 18 14:06 | 30°♋♍ | |
| minimum elong | 5535 Oct 08 21:12 | 17°♊04'18 | 4°28'22 | inferior conj | 5536 Sep 19 07:20 | 29°♍29'10 | -5°09'57 |
| morning rise | 5535 Oct 16 05:25 | 12°♊33'52 | | minimum elong | 5536 Sep 19 11:11 | 29°♍22'18 | 5°09'33 |
| direct | 5535 Oct 18 12:58 | 12°♊13'35 | | morning rise | 5536 Sep 27 07:46 | 25°♍09'10 | |
| asc. node | 5535 Oct 24 11:15 | 14°♊33'52 | | direct | 5536 Sep 29 18:21 | 24°♍50'26 | |
| morning max el | 5535 Oct 25 23:40 | 15°♊53'55 | 18°07'37 | morning max el | 5536 Oct 08 05:07 | 28°♍52'28 | 18°45'15 |
| | 5535 Nov 04 19:32 | 0°♌ | | | 5536 Oct 09 07:47 | 0°♊ | |
| morning set | 5535 Nov 10 17:59 | 10°♌53'52 | | asc. node | 5536 Oct 10 08:17 | 1°♊08'52 | |
| | | | | morning set | 5536 Oct 24 13:44 | 25°♊03'26 | |
| superior conj | 5535 Nov 20 09:52 | 28°♌44'26 | 1°02'44 | | 5536 Oct 27 02:22 | 0°♌ | |
| minimum elong | 5535 Nov 20 13:45 | 29°♌01'49 | 1°02'16 | | | | |
| | 5535 Nov 21 02:47 | 0°♌ | | superior conj | 5536 Nov 02 04:04 | 11°♌42'49 | 1°25'20 |
| max. Earth dist. | 5535 Nov 28 01:42 | 12°♌02'46 | 1.41570 AU | minimum elong | 5536 Nov 02 07:16 | 11°♌57'55 | 1°25'03 |
| desc. node | 5535 Nov 29 14:26 | 14°♌36'20 | | max. Earth dist. | 5536 Nov 09 07:47 | 24°♌47'37 | 1.39492 AU |
| evening rise | 5535 Dec 03 06:12 | 20°♌35'34 | | | 5536 Nov 12 07:41 | 0°♌ | |
| | 5535 Dec 09 05:16 | 0°♍ | | evening rise | 5536 Nov 13 07:26 | 1°♌41'08 | |
| | 5535 Dec 30 08:41 | 0°♋ | | desc. node | 5536 Nov 15 11:26 | 5°♌19'10 | |
| evening max el | 5536 Jan 05 21:13 | 7°♋27'28 | 22°51'27 | | 5536 Dec 01 12:37 | 0°♍ | |
| retrograde | 5536 Jan 15 23:01 | 13°♋26'10 | | evening max el | 5536 Dec 18 10:49 | 21°♍08'02 | 24°11'16 |
| asc. node | 5536 Jan 20 10:27 | 11°♋43'16 | | retrograde | 5536 Dec 29 15:08 | 27°♍41'59 | |
| evening set | 5536 Jan 20 17:52 | 11°♋28'18 | | evening set | 5537 Jan 03 22:49 | 25°♍28'56 | |
| inferior conj | 5536 Jan 26 02:51 | 5°♋04'34 | 1°48'42 | asc. node | 5537 Jan 06 07:30 | 23°♍03'59 | |
| minimum elong | 5536 Jan 26 00:44 | 5°♋11'56 | 1°47'57 | min. Earth dist. | 5537 Jan 08 16:02 | 20°♍03'21 | 0.67900 AU |
| min. Earth dist. | 5536 Jan 25 19:45 | 5°♋29'10 | 0.68153 AU | inferior conj | 5537 Jan 09 10:10 | 19°♍02'10 | 1°01'56 |
| | 5536 Jan 30 03:57 | 30°♋♍ | | minimum elong | 5537 Jan 09 08:46 | 19°♍06'54 | 1°01'23 |
| morning rise | 5536 Jan 31 07:30 | 28°♍56'25 | | morning rise | 5537 Jan 14 18:47 | 12°♍59'28 | |
| direct | 5536 Feb 04 18:45 | 27°♍07'17 | | direct | 5537 Jan 18 16:24 | 11°♍32'50 | |
| | 5536 Feb 11 03:37 | 0°♋ | | morning max el | 5537 Jan 26 12:33 | 16°♍00'45 | 20°20'43 |
| morning max el | 5536 Feb 13 15:53 | 2°♋17'32 | 21°37'00 | | 5537 Feb 06 14:16 | 0°♋ | |
| desc. node | 5536 Feb 25 13:42 | 17°♋06'09 | | desc. node | 5537 Feb 11 10:43 | 7°♋02'29 | |
| | 5536 Mar 05 11:25 | 0°♌ | | morning set | 5537 Feb 23 15:48 | 25°♋32'31 | |
| morning set | 5536 Mar 16 16:00 | 17°♌15'00 | | | 5537 Feb 26 12:36 | 0°♌ | |
| max. Earth dist. | 5536 Mar 23 02:20 | 27°♌40'58 | 1.41825 AU | max. Earth dist. | 5537 Mar 05 09:33 | 10°♌53'06 | 1.43603 AU |
| | 5536 Mar 24 11:46 | 0°♍ | | | | | |
| superior conj | 5536 Mar 30 15:59 | 10°♍32'09 | -2°03'36 | superior conj | 5537 Mar 11 12:27 | 20°♌51'35 | -2°09'11 |
| minimum elong | 5536 Mar 30 19:43 | 10°♍48'27 | 2°03'25 | minimum elong | 5537 Mar 11 11:29 | 20°♌47'37 | 2°09'11 |
| | 5536 Apr 10 11:58 | 0°♋ | | | 5537 Mar 16 23:12 | 0°♍ | |
| evening rise | 5536 Apr 10 14:39 | 0°♋12'20 | | evening rise | 5537 Mar 24 02:11 | 12°♍17'46 | |
| asc. node | 5536 Apr 17 09:43 | 12°♋26'39 | | asc. node | 5537 Apr 03 11:53 | 0°♋ | |
| evening max el | 5536 Apr 26 23:27 | 26°♋08'36 | 18°10'16 | evening max el | 5537 Apr 04 06:44 | 1°♋13'26 | |
| retrograde | 5536 May 03 20:03 | 29°♋36'32 | | retrograde | 5537 Apr 10 11:57 | 9°♋18'56 | 18°07'33 |
| evening set | 5536 May 06 08:24 | 29°♋09'09 | | evening set | 5537 Apr 16 22:55 | 12°♋40'53 | |
| inferior conj | 5536 May 13 05:24 | 24°♋19'46 | 2°38'26 | inferior conj | 5537 Apr 19 17:47 | 12°♋02'14 | |
| minimum elong | 5536 May 13 08:42 | 24°♋12'15 | 2°37'38 | minimum elong | 5537 Apr 26 00:39 | 6°♋53'12 | 3°15'49 |
| min. Earth dist. | 5536 May 16 13:35 | 21°♋18'36 | 0.60071 AU | min. Earth dist. | 5537 Apr 26 02:43 | 6°♋47'49 | 3°15'31 |
| morning rise | 5536 May 20 06:27 | 18°♋32'05 | | morning rise | 5537 Apr 28 22:32 | 3°♋52'30 | 0.62260 AU |
| desc. node | 5536 May 23 12:54 | 17°♋01'06 | | | 5537 May 02 10:04 | 0°♋49'38 | |
| direct | 5536 May 26 18:38 | 16°♋31'14 | | direct | 5537 May 03 15:52 | 30°♋♍ | |
| morning max el | 5536 Jun 10 02:54 | 24°♋25'01 | 27°39'03 | desc. node | 5537 May 09 05:45 | 28°♍20'07 | |
| | 5536 Jun 15 04:41 | 0°♌ | | | 5537 May 10 09:56 | 28°♍24'16 | |
| | | | | | 5537 May 15 05:33 | 0°♋ | |

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|---------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| morning max el | 5537 May 23 08:25 | 6°♄21'04 | 27°53'02 | morning rise | 5538 Apr 15 06:21 | 13°♄42'06 | |
| | 5537 Jun 10 06:12 | 0°♄ | | direct | 5538 Apr 22 01:17 | 10°♄55'52 | |
| morning set | 5537 Jun 26 02:48 | 28°♄43'11 | | desc. node | 5538 Apr 27 06:57 | 12°♄19'04 | |
| | 5537 Jun 26 17:52 | 0°♄ | | morning max el | 5538 May 05 17:28 | 18°♄53'35 | 27°30'24 |
| asc. node | 5537 Jul 01 06:00 | 9°♄28'06 | | | 5538 May 15 02:55 | 0°♄ | |
| max. Earth dist. | 5537 Jul 01 16:24 | 10°♄23'58 | 1.32340 AU | | 5538 Jun 03 05:00 | 0°♄ | |
| | | | | morning set | 5538 Jun 09 20:14 | 12°♄30'48 | |
| superior conj | 5537 Jul 03 15:30 | 14°♄39'14 | 0°24'42 | max. Earth dist. | 5538 Jun 14 16:39 | 22°♄20'32 | 1.33205 AU |
| minimum elong | 5537 Jul 03 14:22 | 14°♄33'06 | 0°24'26 | | | | |
| evening rise | 5537 Jul 10 12:42 | 29°♄37'12 | | superior conj | 5538 Jun 17 20:59 | 29°♄02'50 | -0°02'38 |
| | 5537 Jul 10 16:59 | 0°♄ | | minimum elong | 5538 Jun 17 21:07 | 29°♄03'33 | 0°02'38 |
| | 5537 Jul 27 09:02 | 0°♄ | | behind sun begin | 5538 Jun 17 15:45 | 28°♄34'57 | |
| evening max el | 5537 Aug 04 05:02 | 9°♄17'30 | 24°10'45 | behind sun end | 5538 Jun 18 02:29 | 29°♄32'11 | |
| desc. node | 5537 Aug 06 09:10 | 11°♄14'28 | | asc. node | 5538 Jun 18 03:02 | 29°♄35'06 | |
| retrograde | 5537 Aug 18 00:04 | 16°♄13'59 | | | 5538 Jun 18 07:42 | 0°♄ | |
| evening set | 5537 Aug 22 18:18 | 15°♄23'45 | | evening rise | 5538 Jun 25 00:11 | 14°♄19'39 | |
| min. Earth dist. | 5537 Aug 28 15:47 | 12°♄27'56 | 0.56390 AU | | 5538 Jul 02 21:25 | 0°♄ | |
| inferior conj | 5537 Aug 31 03:31 | 10°♄55'09 | -5°18'01 | evening max el | 5538 Jul 16 18:22 | 19°♄37'42 | 22°32'56 |
| minimum elong | 5537 Aug 31 01:33 | 10°♄58'13 | 5°17'56 | desc. node | 5538 Jul 24 06:12 | 24°♄56'17 | |
| morning rise | 5537 Sep 08 11:16 | 6°♄55'33 | | retrograde | 5538 Jul 29 21:01 | 26°♄09'01 | |
| direct | 5537 Sep 11 04:20 | 6°♄36'16 | | evening set | 5538 Aug 02 02:52 | 25°♄45'55 | |
| morning max el | 5537 Sep 21 00:12 | 11°♄11'45 | 19°44'45 | min. Earth dist. | 5538 Aug 10 01:47 | 22°♄17'02 | 0.55157 AU |
| asc. node | 5537 Sep 27 05:18 | 18°♄44'30 | | inferior conj | 5538 Aug 11 05:37 | 21°♄37'29 | -4°37'52 |
| | 5537 Oct 03 20:10 | 0°♄ | | minimum elong | 5538 Aug 10 21:43 | 21°♄48'43 | 4°36'19 |
| morning set | 5537 Oct 08 16:56 | 9°♄33'32 | | morning rise | 5538 Aug 19 18:31 | 17°♄47'42 | |
| | | | | direct | 5538 Aug 22 21:07 | 17°♄25'35 | |
| superior conj | 5537 Oct 16 13:29 | 25°♄25'24 | 1°38'23 | morning max el | 5538 Sep 03 07:00 | 22°♄45'01 | 21°05'35 |
| minimum elong | 5537 Oct 16 15:15 | 25°♄34'06 | 1°38'18 | | 5538 Sep 09 12:13 | 0°♄ | |
| | 5537 Oct 18 21:27 | 0°♄ | | asc. node | 5538 Sep 14 02:19 | 7°♄07'22 | |
| max. Earth dist. | 5537 Oct 22 12:35 | 6°♄54'50 | 1.37390 AU | morning set | 5538 Sep 23 00:56 | 24°♄16'56 | |
| evening rise | 5537 Oct 26 06:53 | 13°♄47'19 | | | 5538 Sep 25 18:42 | 0°♄ | |
| desc. node | 5537 Nov 02 08:28 | 25°♄54'29 | | | | | |
| | 5537 Nov 04 21:01 | 0°♄ | | superior conj | 5538 Sep 30 09:45 | 9°♄39'23 | 1°43'10 |
| | 5537 Nov 26 10:00 | 0°♄ | | minimum elong | 5538 Sep 30 09:59 | 9°♄40'36 | 1°43'09 |
| evening max el | 5537 Nov 30 23:26 | 4°♄52'08 | 25°26'11 | max. Earth dist. | 5538 Oct 04 22:04 | 18°♄47'30 | 1.35500 AU |
| retrograde | 5537 Dec 13 02:56 | 11°♄51'38 | | evening rise | 5538 Oct 09 01:05 | 26°♄45'08 | |
| evening set | 5537 Dec 18 23:58 | 9°♄25'19 | | | 5538 Oct 10 19:01 | 0°♄ | |
| min. Earth dist. | 5537 Dec 23 09:46 | 4°♄34'03 | 0.67288 AU | desc. node | 5538 Oct 20 05:29 | 16°♄17'06 | |
| asc. node | 5537 Dec 24 04:32 | 3°♄33'42 | | | 5538 Oct 29 06:11 | 0°♄ | |
| inferior conj | 5537 Dec 24 14:53 | 3°♄00'16 | 0°08'47 | evening max el | 5538 Nov 13 12:20 | 18°♄35'05 | 26°28'42 |
| minimum elong | 5537 Dec 24 14:39 | 3°♄01'00 | 0°08'42 | retrograde | 5538 Nov 26 09:26 | 25°♄48'31 | |
| transit middle | 5537 Dec 24 14:39 | 3°♄01'00 | 0°08'42 | evening set | 5538 Dec 02 19:26 | 23°♄12'38 | |
| transit begin | 5537 Dec 24 12:18 | 3°♄08'36 | | min. Earth dist. | 5538 Dec 06 22:34 | 18°♄56'31 | 0.66325 AU |
| transit end | 5537 Dec 24 17:00 | 2°♄53'24 | | inferior conj | 5538 Dec 08 15:01 | 16°♄54'33 | -0°49'51 |
| | 5537 Dec 27 01:18 | 30°♄ | | minimum elong | 5538 Dec 08 16:23 | 16°♄50'24 | 0°49'14 |
| morning rise | 5537 Dec 30 05:40 | 27°♄05'06 | | asc. node | 5538 Dec 11 01:34 | 14°♄05'30 | |
| direct | 5538 Jan 02 15:15 | 25°♄58'32 | | morning rise | 5538 Dec 14 14:01 | 11°♄09'28 | |
| morning max el | 5538 Jan 09 17:08 | 29°♄55'04 | 19°18'21 | direct | 5538 Dec 17 13:28 | 10°♄19'33 | |
| | 5538 Jan 09 19:07 | 0°♄ | | morning max el | 5538 Dec 24 04:24 | 13°♄55'50 | 18°31'51 |
| greatest brilliancy | 5538 Jan 23 00:56 | 17°♄43'47 | -0.7m | | 5539 Jan 04 22:44 | 0°♄ | |
| desc. node | 5538 Jan 29 07:44 | 27°♄18'37 | | morning set | 5539 Jan 13 13:05 | 13°♄35'49 | |
| | 5538 Jan 31 01:37 | 0°♄ | | desc. node | 5539 Jan 16 04:45 | 17°♄48'32 | |
| morning set | 5538 Feb 02 15:13 | 3°♄58'07 | | | 5539 Jan 23 22:03 | 0°♄ | |
| max. Earth dist. | 5538 Feb 15 23:23 | 24°♄47'29 | 1.44822 AU | | | | |
| | | | | superior conj | 5539 Jan 29 12:24 | 8°♄47'08 | -1°24'20 |
| superior conj | 5538 Feb 19 08:10 | 0°♄07'23 | -1°56'29 | minimum elong | 5539 Jan 29 03:08 | 8°♄10'49 | 1°23'18 |
| minimum elong | 5538 Feb 19 00:52 | 29°♄38'21 | 1°56'00 | max. Earth dist. | 5539 Jan 29 17:48 | 9°♄08'19 | 1.45347 AU |
| | 5538 Feb 19 06:18 | 0°♄ | | | 5539 Feb 12 00:05 | 0°♄ | |
| evening rise | 5538 Mar 05 16:37 | 23°♄27'29 | | evening rise | 5539 Feb 14 07:42 | 3°♄40'23 | |
| | 5538 Mar 09 15:08 | 0°♄ | | greatest brilliancy | 5539 Feb 23 09:55 | 18°♄04'42 | -0.8m |
| asc. node | 5538 Mar 22 03:46 | 19°♄24'03 | | | 5539 Mar 03 08:52 | 0°♄ | |
| evening max el | 5538 Mar 25 00:39 | 22°♄42'35 | 18°23'35 | evening max el | 5539 Mar 08 10:59 | 6°♄13'08 | 18°57'24 |
| retrograde | 5538 Mar 31 11:34 | 26°♄12'02 | | asc. node | 5539 Mar 09 00:49 | 6°♄47'17 | |
| evening set | 5538 Apr 03 12:52 | 25°♄20'52 | | retrograde | 5539 Mar 15 06:15 | 10°♄02'08 | |
| inferior conj | 5538 Apr 09 09:34 | 19°♄53'30 | 3°30'45 | evening set | 5539 Mar 18 14:25 | 8°♄57'35 | |
| minimum elong | 5538 Apr 09 10:02 | 19°♄52'09 | 3°30'44 | inferior conj | 5539 Mar 24 04:19 | 3°♄13'21 | 3°28'36 |
| min. Earth dist. | 5538 Apr 11 16:45 | 17°♄14'12 | 0.64233 AU | minimum elong | 5539 Mar 24 03:25 | 3°♄16'13 | 3°28'32 |

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|---------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| min. Earth dist. | 5539 Mar 25 19:52 | 1°Υ09'10 | 0.65842 AU | retrograde | 5540 Feb 27 03:57 | 24°✕05'30 | |
| | 5539 Mar 26 18:41 | 30°✕ | | evening set | 5540 Mar 01 19:57 | 22°✕46'50 | |
| morning rise | 5539 Mar 29 16:00 | 26°✕58'51 | | inferior conj | 5540 Mar 07 05:50 | 16°✕47'45 | 3°13'15 |
| direct | 5539 Apr 05 03:35 | 24°✕09'37 | | minimum elong | 5540 Mar 07 03:59 | 16°✕53'57 | 3°12'57 |
| desc. node | 5539 Apr 14 03:59 | 28°✕13'19 | | min. Earth dist. | 5540 Mar 08 06:38 | 15°✕25'10 | 0.67025 AU |
| | 5539 Apr 16 05:22 | 0°Υ | | morning rise | 5540 Mar 12 11:47 | 10°✕32'46 | |
| morning max el | 5539 Apr 18 03:29 | 1°Υ51'29 | 26°37'06 | direct | 5540 Mar 18 11:40 | 7°✕52'12 | |
| | 5539 May 09 06:19 | 0°♄ | | morning max el | 5540 Mar 30 12:51 | 15°✕04'10 | 25°21'49 |
| morning set | 5539 May 24 02:30 | 25°♄42'22 | | desc. node | 5540 Mar 31 01:02 | 15°✕35'20 | |
| | 5539 May 26 08:14 | 0°♂ | | | 5540 Apr 11 18:42 | 0°Υ | |
| max. Earth dist. | 5539 May 28 06:32 | 3°♂47'18 | 1.34539 AU | | 5540 May 01 03:01 | 0°♄ | |
| | | | | morning set | 5540 May 05 17:08 | 8°♄05'16 | |
| superior conj | 5539 Jun 01 20:19 | 13°♂03'56 | -0°32'02 | max. Earth dist. | 5540 May 09 09:38 | 14°♄52'51 | 1.36317 AU |
| minimum elong | 5539 Jun 01 22:04 | 13°♂12'58 | 0°31'42 | | | | |
| asc. node | 5539 Jun 05 00:05 | 19°♂38'59 | | superior conj | 5540 May 15 10:39 | 26°♄34'16 | -1°02'07 |
| evening rise | 5539 Jun 09 09:36 | 28°♂51'51 | | minimum elong | 5540 May 15 14:09 | 26°♄51'38 | 1°01'32 |
| | 5539 Jun 09 22:45 | 0°♄ | | | 5540 May 17 03:49 | 0°♂ | |
| | 5539 Jun 28 09:19 | 0°♂ | | asc. node | 5540 May 21 21:08 | 9°♂35'10 | |
| evening max el | 5539 Jun 28 15:38 | 0°♂15'39 | 21°02'21 | evening rise | 5540 May 23 14:45 | 13°♂06'38 | |
| retrograde | 5539 Jul 10 09:44 | 6°♂03'00 | | | 5540 Jun 01 12:36 | 0°♄ | |
| desc. node | 5539 Jul 11 03:13 | 6°♂01'44 | | evening max el | 5540 Jun 10 01:06 | 11°♄31'26 | 19°48'16 |
| evening set | 5539 Jul 12 14:51 | 5°♂51'29 | | retrograde | 5540 Jun 20 02:12 | 16°♄26'37 | |
| inferior conj | 5539 Jul 21 22:48 | 1°♂53'57 | -3°07'26 | evening set | 5540 Jun 21 23:56 | 16°♄16'46 | |
| minimum elong | 5539 Jul 21 14:35 | 2°♂05'30 | 3°04'47 | desc. node | 5540 Jun 27 00:15 | 14°♄29'29 | |
| min. Earth dist. | 5539 Jul 22 12:09 | 1°♂35'07 | 0.54781 AU | inferior conj | 5540 Jun 30 21:24 | 12°♄14'54 | -1°09'54 |
| | 5539 Jul 25 10:05 | 30°♄ | | minimum elong | 5540 Jun 30 18:10 | 12°♄19'52 | 1°08'41 |
| morning rise | 5539 Jul 30 14:35 | 27°♄56'04 | | min. Earth dist. | 5540 Jul 03 00:36 | 10°♄56'13 | 0.55366 AU |
| direct | 5539 Aug 03 06:11 | 27°♄27'27 | | morning rise | 5540 Jul 09 10:21 | 7°♄49'15 | |
| | 5539 Aug 11 11:46 | 0°♂ | | direct | 5540 Jul 13 20:13 | 7°♄06'26 | |
| morning max el | 5539 Aug 16 02:53 | 3°♂35'15 | 22°43'24 | morning max el | 5540 Jul 27 16:55 | 13°♄58'48 | 24°27'44 |
| asc. node | 5539 Aug 31 23:22 | 26°♂06'13 | | | 5540 Aug 09 05:18 | 0°♂ | |
| | 5539 Sep 03 00:12 | 0°♄ | | asc. node | 5540 Aug 17 20:25 | 15°♂31'01 | |
| morning set | 5539 Sep 07 11:44 | 9°♄08'14 | | morning set | 5540 Aug 21 23:30 | 24°♂00'55 | |
| | | | | | 5540 Aug 24 18:21 | 0°♄ | |
| superior conj | 5539 Sep 14 13:29 | 24°♄15'07 | 1°40'56 | superior conj | 5540 Aug 28 21:58 | 9°♄03'13 | 1°32'42 |
| minimum elong | 5539 Sep 14 12:28 | 24°♄09'42 | 1°40'53 | minimum elong | 5540 Aug 28 20:06 | 8°♄53'03 | 1°32'31 |
| | 5539 Sep 17 06:51 | 0°♄ | | max. Earth dist. | 5540 Aug 30 18:15 | 13°♄03'16 | 1.32844 AU |
| max. Earth dist. | 5539 Sep 17 16:00 | 0°♄47'37 | 1.33965 AU | evening rise | 5540 Sep 05 05:17 | 24°♄31'44 | |
| evening rise | 5539 Sep 22 09:52 | 10°♄23'48 | | | 5540 Sep 07 23:04 | 0°♄ | |
| | 5539 Oct 03 04:35 | 0°♄ | | desc. node | 5540 Sep 22 23:32 | 25°♄57'20 | |
| desc. node | 5539 Oct 07 02:31 | 6°♄21'04 | | | 5540 Sep 25 18:03 | 0°♄ | |
| | 5539 Oct 24 22:01 | 0°♄ | | evening max el | 5540 Oct 08 12:10 | 15°♄17'09 | 27°27'25 |
| evening max el | 5539 Oct 27 01:09 | 2°♄07'52 | 27°11'19 | retrograde | 5540 Oct 22 04:23 | 22°♄33'51 | |
| retrograde | 5539 Nov 09 10:04 | 9°♄25'44 | | evening set | 5540 Oct 29 07:51 | 19°♄59'36 | |
| evening set | 5539 Nov 16 07:01 | 6°♄46'13 | | min. Earth dist. | 5540 Nov 02 00:06 | 16°♄50'41 | 0.63372 AU |
| min. Earth dist. | 5539 Nov 20 04:02 | 3°♄05'11 | 0.65018 AU | inferior conj | 5540 Nov 04 16:15 | 14°♄10'49 | -2°56'42 |
| inferior conj | 5539 Nov 22 08:22 | 0°♄40'22 | -1°52'27 | minimum elong | 5540 Nov 04 21:25 | 13°♄57'54 | 2°54'51 |
| minimum elong | 5539 Nov 22 11:38 | 0°♄31'18 | 1°51'06 | morning rise | 5540 Nov 11 12:36 | 8°♄55'26 | |
| | 5539 Nov 22 23:00 | 30°♄ | | direct | 5540 Nov 13 22:32 | 8°♄27'32 | |
| asc. node | 5539 Nov 27 22:36 | 25°♄33'09 | | asc. node | 5540 Nov 13 19:39 | 8°♄27'36 | |
| morning rise | 5539 Nov 28 17:23 | 25°♄08'28 | | morning max el | 5540 Nov 20 12:58 | 11°♄52'34 | 17°49'37 |
| direct | 5539 Dec 01 08:53 | 24°♄31'23 | | | 5540 Dec 02 20:18 | 0°♄ | |
| morning max el | 5539 Dec 07 19:59 | 27°♄57'31 | 18°02'03 | morning set | 5540 Dec 06 21:52 | 7°♄03'22 | |
| | 5539 Dec 09 16:42 | 0°♄ | | | | | |
| morning set | 5539 Dec 25 16:39 | 24°♄42'34 | | superior conj | 5540 Dec 19 01:39 | 27°♄45'45 | 0°06'15 |
| | 5539 Dec 28 21:27 | 0°♄ | | minimum elong | 5540 Dec 19 02:18 | 27°♄48'27 | 0°06'10 |
| desc. node | 5540 Jan 03 01:48 | 8°♄28'03 | | behind sun begin | 5540 Dec 18 17:27 | 27°♄11'51 | |
| | | | | behind sun end | 5540 Dec 19 11:10 | 28°♄24'59 | |
| superior conj | 5540 Jan 08 20:32 | 17°♄44'37 | -0°39'37 | desc. node | 5540 Dec 19 22:50 | 29°♄13'00 | |
| minimum elong | 5540 Jan 08 15:41 | 17°♄25'22 | 0°38'57 | | 5540 Dec 20 10:17 | 0°♄ | |
| max. Earth dist. | 5540 Jan 12 13:38 | 23°♄37'04 | 1.45123 AU | max. Earth dist. | 5540 Dec 25 07:27 | 7°♄54'15 | 1.44180 AU |
| | 5540 Jan 16 15:21 | 0°♄ | | evening rise | 5541 Jan 03 13:07 | 22°♄23'18 | |
| evening rise | 5540 Jan 25 02:52 | 13°♄09'27 | | | 5541 Jan 08 12:44 | 0°♄ | |
| | 5540 Feb 05 02:55 | 0°✕ | | | 5541 Jan 29 17:17 | 0°✕ | |
| greatest brilliancy | 5540 Feb 07 20:25 | 4°✕05'09 | -0.7m | | | | |
| evening max el | 5540 Feb 19 16:58 | 19°✕46'34 | 19°47'31 | evening max el | 5541 Feb 01 17:32 | 3°✕21'16 | 20°51'38 |
| asc. node | 5540 Feb 23 21:52 | 23°✕09'50 | | asc. node | 5541 Feb 09 18:54 | 8°✕17'07 | |

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|------------------|-------------------|---------------------------|------------|------------------|-------------------|----------------------|------------|
| retrograde | 5541 Feb 10 02:18 | 8° X 17'37 | | retrograde | 5542 Jan 24 23:18 | 22° \approx 33'55 | |
| evening set | 5541 Feb 14 03:27 | 6° X 44'15 | | asc. node | 5542 Jan 27 15:56 | 21° \approx 55'39 | |
| inferior conj | 5541 Feb 19 11:35 | 0° X 32'56 | 2°47'19 | evening set | 5542 Jan 29 11:10 | 20° \approx 45'14 | |
| minimum elong | 5541 Feb 19 09:15 | 0° X 40'58 | 2°46'44 | inferior conj | 5542 Feb 03 19:24 | 14° \approx 24'59 | 2°12'25 |
| | 5541 Feb 19 21:09 | 30° \approx | | minimum elong | 5542 Feb 03 17:04 | 14° \approx 33'07 | 2°11'40 |
| min. Earth dist. | 5541 Feb 19 23:05 | 29° \approx 53'19 | 0.67775 AU | min. Earth dist. | 5542 Feb 03 18:53 | 14° \approx 26'46 | 0.68121 AU |
| morning rise | 5541 Feb 24 14:52 | 24° \approx 19'14 | | morning rise | 5542 Feb 08 22:47 | 8° \approx 14'09 | |
| direct | 5541 Mar 02 00:51 | 21° \approx 55'29 | | direct | 5542 Feb 13 18:14 | 6° \approx 11'44 | |
| morning max el | 5541 Mar 12 21:42 | 28° \approx 24'39 | 23°54'43 | morning max el | 5542 Feb 23 08:19 | 11° \approx 50'46 | 22°25'39 |
| | 5541 Mar 14 10:10 | 0° X | | desc. node | 5542 Mar 04 19:06 | 23° \approx 10'17 | |
| desc. node | 5541 Mar 17 22:06 | 4° X 00'31 | | | 5542 Mar 09 18:03 | 0° X | |
| | 5541 Apr 05 12:14 | 0° Y | | morning set | 5542 Mar 29 01:04 | 29° X 26'30 | |
| morning set | 5541 Apr 17 10:37 | 19° Y 25'10 | | | 5542 Mar 29 09:16 | 0° Y | |
| max. Earth dist. | 5541 Apr 21 05:45 | 26° Y 03'01 | 1.38420 AU | max. Earth dist. | 5542 Apr 03 02:01 | 7° Y 48'57 | 1.40623 AU |
| | 5541 Apr 23 10:34 | 0° Z | | | | | |
| superior conj | 5541 Apr 28 12:30 | 9° Z 25'26 | -1°30'37 | superior conj | 5542 Apr 10 21:19 | 21° Y 25'56 | -1°54'08 |
| minimum elong | 5541 Apr 28 17:21 | 9° Z 48'29 | 1°29'58 | minimum elong | 5542 Apr 11 02:12 | 21° Y 47'53 | 1°53'44 |
| evening rise | 5541 May 07 13:00 | 26° Z 57'06 | | | 5542 Apr 15 13:53 | 0° Z | |
| asc. node | 5541 May 08 18:10 | 29° Z 19'36 | | evening rise | 5542 Apr 21 00:58 | 10° Z 13'48 | |
| | 5541 May 09 02:29 | 0° II | | asc. node | 5542 Apr 25 15:12 | 18° Z 46'35 | |
| evening max el | 5541 May 23 22:27 | 23° II 29'56 | 18°54'15 | | 5542 May 02 07:26 | 0° II | |
| retrograde | 5541 Jun 01 09:30 | 27° II 39'05 | | evening max el | 5542 May 07 04:29 | 6° II 03'50 | 18°20'38 |
| evening set | 5541 Jun 03 10:49 | 27° II 25'21 | | retrograde | 5542 May 14 11:35 | 9° II 41'46 | |
| inferior conj | 5541 Jun 11 13:25 | 23° II 08'11 | 0°40'48 | evening set | 5542 May 16 19:58 | 9° II 20'07 | |
| minimum elong | 5541 Jun 11 15:00 | 23° II 05'22 | 0°40'13 | inferior conj | 5542 May 24 02:58 | 4° II 42'58 | 2°04'20 |
| desc. node | 5541 Jun 13 21:16 | 21° II 28'32 | | minimum elong | 5542 May 24 06:23 | 4° II 35'51 | 2°03'20 |
| min. Earth dist. | 5541 Jun 14 16:35 | 20° II 55'05 | 0.56805 AU | min. Earth dist. | 5542 May 27 13:25 | 1° II 52'21 | 0.58811 AU |
| morning rise | 5541 Jun 19 15:49 | 18° II 05'56 | | | 5542 May 30 03:29 | 30° R | |
| direct | 5541 Jun 24 23:57 | 16° II 57'34 | | morning rise | 5542 May 31 13:42 | 29° R 09'06 | |
| morning max el | 5541 Jul 09 07:36 | 24° II 23'27 | 26°02'57 | desc. node | 5542 May 31 18:19 | 29° Z 02'57 | |
| | 5541 Jul 14 10:58 | 0° Z | | direct | 5542 Jun 06 17:53 | 27° Z 27'16 | |
| | 5541 Aug 02 03:19 | 0° Q | | | 5542 Jun 14 15:32 | 0° II | |
| asc. node | 5541 Aug 04 17:28 | 5° Q 14'41 | | morning max el | 5542 Jun 21 03:13 | 5° II 13'45 | 27°13'39 |
| morning set | 5541 Aug 06 10:36 | 8° Q 50'06 | | | 5542 Jul 09 10:21 | 0° Z | |
| | | | | morning set | 5542 Jul 21 19:24 | 23° Z 30'16 | |
| superior conj | 5541 Aug 13 09:03 | 23° Q 57'01 | 1°19'15 | asc. node | 5542 Jul 22 14:29 | 25° Z 10'55 | |
| minimum elong | 5541 Aug 13 06:47 | 23° Q 44'31 | 1°18'56 | | 5542 Jul 24 20:22 | 0° Q | |
| max. Earth dist. | 5541 Aug 14 02:30 | 25° Q 33'10 | 1.32154 AU | superior conj | 5542 Jul 28 20:53 | 8° Q 50'00 | 1°01'12 |
| | 5541 Aug 16 03:11 | 0° P | | minimum elong | 5542 Jul 28 18:41 | 8° Q 37'51 | 1°00'48 |
| evening rise | 5541 Aug 20 08:17 | 9° P 00'18 | | max. Earth dist. | 5542 Jul 28 13:29 | 8° Q 09'07 | 1.31889 AU |
| | 5541 Aug 31 07:35 | 0° A | | evening rise | 5542 Aug 04 16:17 | 23° Q 41'35 | |
| desc. node | 5541 Sep 09 20:32 | 14° A 54'45 | | | 5542 Aug 07 17:10 | 0° P | |
| evening max el | 5541 Sep 20 19:06 | 27° A 50'37 | 27°11'49 | | 5542 Aug 25 10:25 | 0° A | |
| | 5541 Sep 23 05:45 | 0° M | | desc. node | 5542 Aug 27 17:32 | 2° A 57'37 | |
| retrograde | 5541 Oct 04 15:43 | 5° M 03'26 | | evening max el | 5542 Sep 02 19:41 | 9° A 38'30 | 26°22'49 |
| evening set | 5541 Oct 11 18:13 | 2° M 46'14 | | retrograde | 5542 Sep 16 18:34 | 16° A 46'31 | |
| | 5541 Oct 15 10:21 | 30° R A | | evening set | 5542 Sep 23 09:24 | 14° A 58'37 | |
| min. Earth dist. | 5541 Oct 15 09:42 | 0° M 01'21 | 0.61447 AU | min. Earth dist. | 5542 Sep 27 09:06 | 12° A 23'47 | 0.59377 AU |
| inferior conj | 5541 Oct 18 11:34 | 27° A 18'23 | -3°58'20 | inferior conj | 5542 Sep 30 14:51 | 9° A 54'10 | -4°49'44 |
| minimum elong | 5541 Oct 18 17:57 | 27° A 04'17 | 3°56'32 | minimum elong | 5542 Sep 30 20:32 | 9° A 43'11 | 4°48'43 |
| morning rise | 5541 Oct 25 19:40 | 22° A 22'39 | | morning rise | 5542 Oct 08 09:51 | 5° A 20'33 | |
| direct | 5541 Oct 28 02:57 | 22° A 00'34 | | direct | 5542 Oct 10 18:04 | 5° A 01'18 | |
| asc. node | 5541 Oct 31 16:43 | 22° A 55'54 | | morning max el | 5542 Oct 18 14:07 | 8° A 50'05 | 18°20'59 |
| morning max el | 5541 Nov 04 04:08 | 25° A 33'03 | 17°55'27 | asc. node | 5542 Oct 18 13:45 | 8° A 49'11 | |
| | 5541 Nov 07 21:57 | 0° M | | | 5542 Nov 01 07:05 | 0° M | |
| morning set | 5541 Nov 19 22:15 | 20° M 18'31 | | morning set | 5542 Nov 03 12:16 | 4° M 12'30 | |
| | 5541 Nov 25 06:15 | 0° X | | | | | |
| superior conj | 5541 Nov 30 09:08 | 9° X 03'28 | 0°45'00 | superior conj | 5542 Nov 12 16:12 | 21° M 29'41 | 1°13'34 |
| minimum elong | 5541 Nov 30 12:38 | 9° X 18'40 | 0°44'32 | minimum elong | 5542 Nov 12 19:57 | 21° M 46'52 | 1°13'09 |
| desc. node | 5541 Dec 06 19:49 | 19° X 59'52 | | | 5542 Nov 17 09:46 | 0° X | |
| max. Earth dist. | 5541 Dec 07 20:40 | 21° X 42'28 | 1.42644 AU | max. Earth dist. | 5542 Nov 20 05:06 | 4° X 52'25 | 1.40704 AU |
| | 5541 Dec 12 23:46 | 0° Z | | desc. node | 5542 Nov 23 16:49 | 10° X 45'38 | |
| evening rise | 5541 Dec 14 06:14 | 2° Z 00'38 | | evening rise | 5542 Nov 24 18:28 | 12° X 31'40 | |
| | 5542 Jan 02 00:32 | 0° \approx | | | 5542 Dec 05 21:21 | 0° Z | |
| evening max el | 5542 Jan 15 12:45 | 16° \approx 57'10 | 22°06'04 | | 5542 Dec 28 13:33 | 0° \approx | |
| | | | | evening max el | 5542 Dec 29 04:02 | 0° \approx 36'47 | 23°25'40 |

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|------------------|-------------------|---------------------|------------|------------------|-------------------|---------------------|------------|
| retrograde | 5543 Jan 08 17:28 | 6° \approx 51'16 | | evening set | 5543 Dec 28 21:05 | 18° \approx 46'08 | |
| evening set | 5543 Jan 13 17:34 | 4° \approx 47'07 | | asc. node | 5544 Jan 01 10:01 | 14° \approx 56'24 | |
| asc. node | 5543 Jan 14 12:58 | 4° \approx 03'02 | | min. Earth dist. | 5544 Jan 02 11:06 | 13° \approx 35'10 | 0.67690 AU |
| | 5543 Jan 17 22:37 | 30° \approx 03' | | inferior conj | 5544 Jan 03 09:50 | 12° \approx 19'48 | 0°40'07 |
| min. Earth dist. | 5543 Jan 18 15:40 | 29° \approx 02'00 | 0.68089 AU | minimum elong | 5544 Jan 03 08:53 | 12° \approx 22'59 | 0°39'45 |
| inferior conj | 5543 Jan 19 03:25 | 28° \approx 21'41 | 1°29'43 | morning rise | 5544 Jan 08 20:49 | 6° \approx 20'05 | |
| minimum elong | 5543 Jan 19 01:32 | 28° \approx 28'08 | 1°29'02 | direct | 5544 Jan 12 13:13 | 5° \approx 02'12 | |
| morning rise | 5543 Jan 24 09:26 | 22° \approx 15'26 | | morning max el | 5544 Jan 20 00:30 | 9° \approx 14'51 | 19°52'20 |
| direct | 5543 Jan 28 14:49 | 20° \approx 35'49 | | | 5544 Feb 04 13:36 | 0° \approx | |
| morning max el | 5543 Feb 06 00:28 | 25° \approx 26'49 | 21°03'00 | desc. node | 5544 Feb 06 13:07 | 2° \approx 58'02 | |
| | 5543 Feb 10 02:14 | 0° \approx | | morning set | 5544 Feb 15 08:11 | 16° \approx 22'43 | |
| desc. node | 5543 Feb 19 16:07 | 12° \approx 52'31 | | | 5544 Feb 24 01:51 | 0° \approx | |
| | 5543 Mar 03 04:54 | 0° \approx | | max. Earth dist. | 5544 Feb 26 15:41 | 4° \approx 05'05 | 1.44204 AU |
| morning set | 5543 Mar 08 11:48 | 8° \approx 11'16 | | | | | |
| max. Earth dist. | 5543 Mar 16 04:54 | 20° \approx 31'05 | 1.42642 AU | superior conj | 5544 Mar 02 17:47 | 12° \approx 15'49 | -2°06'15 |
| | 5543 Mar 21 22:02 | 0° \approx | | minimum elong | 5544 Mar 02 14:02 | 12° \approx 00'36 | 2°06'08 |
| | | | | | 5544 Mar 13 10:07 | 0° \approx | |
| superior conj | 5543 Mar 23 08:15 | 2° \approx 25'00 | -2°07'54 | evening rise | 5544 Mar 16 01:40 | 4° \approx 30'22 | |
| minimum elong | 5543 Mar 23 10:25 | 2° \approx 34'13 | 2°07'52 | asc. node | 5544 Mar 29 09:15 | 26° \approx 22'54 | |
| evening rise | 5543 Apr 03 22:41 | 22° \approx 47'52 | | | 5544 Apr 01 02:07 | 0° \approx | |
| | 5543 Apr 07 23:17 | 0° \approx | | evening max el | 5544 Apr 03 04:35 | 2° \approx 20'47 | 18°12'08 |
| asc. node | 5543 Apr 12 12:13 | 7° \approx 50'11 | | retrograde | 5544 Apr 09 14:19 | 5° \approx 44'19 | |
| evening max el | 5543 Apr 20 15:39 | 19° \approx 03'48 | 18°06'49 | evening set | 5544 Apr 12 11:59 | 5° \approx 00'19 | |
| retrograde | 5543 Apr 27 06:40 | 22° \approx 26'59 | | | 5544 Apr 18 07:48 | 30° \approx 03' | |
| evening set | 5543 Apr 29 21:58 | 21° \approx 54'52 | | inferior conj | 5544 Apr 18 14:02 | 29° \approx 43'01 | 3°24'32 |
| inferior conj | 5543 May 06 12:28 | 16° \approx 57'02 | 2°57'22 | minimum elong | 5544 Apr 18 15:25 | 29° \approx 39'13 | 3°24'24 |
| minimum elong | 5543 May 06 15:21 | 16° \approx 50'04 | 2°56'47 | min. Earth dist. | 5544 Apr 21 05:48 | 26° \approx 49'38 | 0.63135 AU |
| min. Earth dist. | 5543 May 09 17:08 | 13° \approx 53'16 | 0.61023 AU | morning rise | 5544 Apr 24 17:40 | 23° \approx 35'28 | |
| morning rise | 5543 May 13 06:37 | 11° \approx 01'44 | | direct | 5544 May 01 13:53 | 20° \approx 57'35 | |
| desc. node | 5543 May 18 15:21 | 8° \approx 52'42 | | desc. node | 5544 May 04 12:22 | 21° \approx 02'41 | |
| direct | 5543 May 19 23:18 | 8° \approx 47'30 | | morning max el | 5544 May 15 12:41 | 28° \approx 57'47 | 27°47'45 |
| morning max el | 5543 Jun 03 05:17 | 16° \approx 44'42 | 27°49'35 | | 5544 May 16 12:58 | 0° \approx | |
| | 5543 Jun 14 03:38 | 0° \approx | | | 5544 Jun 07 00:43 | 0° \approx | |
| | 5543 Jul 02 01:09 | 0° \approx | | morning set | 5544 Jun 18 22:24 | 22° \approx 00'01 | |
| morning set | 5543 Jul 06 00:03 | 7° \approx 55'41 | | | 5544 Jun 22 19:50 | 0° \approx | |
| asc. node | 5543 Jul 09 11:29 | 15° \approx 14'48 | | max. Earth dist. | 5544 Jun 24 04:45 | 2° \approx 54'00 | 1.32656 AU |
| max. Earth dist. | 5543 Jul 11 23:33 | 20° \approx 40'07 | 1.32055 AU | asc. node | 5544 Jun 25 08:30 | 5° \approx 22'12 | |
| | | | | | | | |
| superior conj | 5543 Jul 13 07:41 | 23° \approx 36'16 | 0°39'05 | superior conj | 5544 Jun 26 15:43 | 8° \approx 10'18 | 0°13'29 |
| minimum elong | 5543 Jul 13 06:02 | 23° \approx 27'11 | 0°38'43 | minimum elong | 5544 Jun 26 15:05 | 8° \approx 06'49 | 0°13'18 |
| | 5543 Jul 16 05:27 | 0° \approx | | behind sun begin | 5544 Jun 26 12:09 | 7° \approx 51'00 | |
| evening rise | 5543 Jul 20 03:10 | 8° \approx 28'33 | | behind sun end | 5544 Jun 26 18:00 | 8° \approx 22'38 | |
| | 5543 Jul 31 05:20 | 0° \approx | | evening rise | 5544 Jul 03 15:00 | 23° \approx 15'02 | |
| desc. node | 5543 Aug 14 14:34 | 19° \approx 43'24 | | | 5544 Jul 06 20:45 | 0° \approx | |
| evening max el | 5543 Aug 15 12:39 | 20° \approx 37'39 | 25°04'32 | | 5544 Jul 25 23:53 | 0° \approx | |
| retrograde | 5543 Aug 29 10:38 | 27° \approx 39'36 | | evening max el | 5544 Jul 27 01:00 | 1° \approx 02'53 | 23°29'06 |
| evening set | 5543 Sep 04 00:46 | 26° \approx 28'33 | | desc. node | 5544 Jul 31 11:36 | 4° \approx 42'46 | |
| min. Earth dist. | 5543 Sep 09 00:09 | 23° \approx 45'43 | 0.57387 AU | retrograde | 5544 Aug 09 14:32 | 7° \approx 50'59 | |
| inferior conj | 5543 Sep 11 22:50 | 21° \approx 47'45 | -5°18'23 | evening set | 5544 Aug 13 17:17 | 7° \approx 13'52 | |
| minimum elong | 5543 Sep 12 00:34 | 21° \approx 44'51 | 5°18'18 | min. Earth dist. | 5544 Aug 20 10:36 | 4° \approx 05'47 | 0.55782 AU |
| morning rise | 5543 Sep 20 02:38 | 17° \approx 36'49 | | inferior conj | 5544 Aug 22 10:44 | 2° \approx 54'29 | -5°07'31 |
| direct | 5543 Sep 22 15:43 | 17° \approx 17'56 | | minimum elong | 5544 Aug 22 05:54 | 3° \approx 01'40 | 5°06'59 |
| morning max el | 5543 Oct 01 15:26 | 21° \approx 32'54 | 19°07'49 | | 5544 Aug 27 21:52 | 30° \approx 03' | |
| asc. node | 5543 Oct 05 10:46 | 25° \approx 51'54 | | morning rise | 5544 Aug 30 20:56 | 29° \approx 01'10 | |
| | 5543 Oct 08 07:50 | 0° \approx | | direct | 5544 Sep 02 17:54 | 28° \approx 40'55 | |
| morning set | 5543 Oct 18 11:36 | 18° \approx 32'23 | | | 5544 Sep 08 05:20 | 0° \approx | |
| | 5543 Oct 24 06:14 | 0° \approx | | morning max el | 5544 Sep 13 05:23 | 3° \approx 33'19 | 20°16'39 |
| | | | | asc. node | 5544 Sep 21 07:48 | 13° \approx 49'23 | |
| superior conj | 5543 Oct 26 17:30 | 4° \approx 48'44 | 1°31'58 | | 5544 Sep 30 03:48 | 0° \approx | |
| minimum elong | 5543 Oct 26 20:08 | 5° \approx 01'25 | 1°31'46 | morning set | 5544 Oct 01 17:10 | 3° \approx 09'29 | |
| max. Earth dist. | 5543 Nov 02 10:32 | 17° \approx 21'37 | 1.38591 AU | | | | |
| evening rise | 5543 Nov 06 05:30 | 24° \approx 04'09 | | superior conj | 5544 Oct 09 08:03 | 18° \approx 46'31 | 1°41'20 |
| | 5543 Nov 09 17:08 | 0° \approx | | minimum elong | 5544 Oct 09 09:09 | 18° \approx 52'03 | 1°41'18 |
| desc. node | 5543 Nov 10 13:50 | 1° \approx 26'00 | | max. Earth dist. | 5544 Oct 14 16:57 | 29° \approx 20'55 | 1.36554 AU |
| | 5543 Nov 29 15:38 | 0° \approx | | | 5544 Oct 15 01:08 | 0° \approx | |
| evening max el | 5543 Dec 11 17:11 | 14° \approx 19'46 | 24°44'10 | evening rise | 5544 Oct 18 13:27 | 6° \approx 33'34 | |
| retrograde | 5543 Dec 23 07:39 | 21° \approx 05'06 | | desc. node | 5544 Oct 27 10:51 | 21° \approx 56'37 | |

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| | 5544 Nov 01 12:51 | 0°♊ | | minimum elong | 5545 Sep 23 07:33 | 3°♊09'14 | 1°43'00 |
| evening max el | 5544 Nov 23 05:46 | 28°♊03'45 | 25°54'35 | max. Earth dist. | 5545 Sep 27 05:28 | 11°♊13'10 | 1.34796 AU |
| | 5544 Nov 25 08:06 | 0°♋ | | evening rise | 5545 Oct 01 14:20 | 19°♊49'51 | |
| retrograde | 5544 Dec 05 17:12 | 5°♋10'18 | | | 5545 Oct 07 02:28 | 0°♌ | |
| evening set | 5544 Dec 11 20:03 | 2°♋39'04 | | desc. node | 5545 Oct 14 07:54 | 12°♌12'06 | |
| | 5544 Dec 14 11:46 | 30°♌♊ | | | 5545 Oct 26 13:17 | 0°♊ | |
| min. Earth dist. | 5544 Dec 16 02:53 | 28°♊02'58 | 0.66928 AU | evening max el | 5545 Nov 05 18:32 | 11°♊43'01 | 26°49'36 |
| inferior conj | 5544 Dec 17 12:50 | 26°♊16'26 | -0°15'30 | retrograde | 5545 Nov 18 21:30 | 19°♊00'10 | |
| minimum elong | 5544 Dec 17 13:14 | 26°♊15'09 | 0°15'18 | evening set | 5545 Nov 25 12:31 | 16°♊21'33 | |
| transit middle | 5544 Dec 17 13:14 | 26°♊15'09 | 0°15'18 | min. Earth dist. | 5545 Nov 29 12:50 | 12°♊20'38 | 0.65808 AU |
| transit begin | 5544 Dec 17 12:20 | 26°♊17'58 | | inferior conj | 5545 Dec 01 10:23 | 10°♊07'50 | -1°16'02 |
| transit end | 5544 Dec 17 14:08 | 26°♊12'19 | | minimum elong | 5545 Dec 01 12:33 | 10°♊01'32 | 1°15'06 |
| asc. node | 5544 Dec 18 07:03 | 25°♊19'34 | | asc. node | 5545 Dec 05 04:06 | 6°♊09'37 | |
| morning rise | 5544 Dec 23 06:55 | 20°♊25'31 | | morning rise | 5545 Dec 07 13:29 | 4°♊28'10 | |
| direct | 5544 Dec 26 11:57 | 19°♊26'33 | | direct | 5545 Dec 10 09:10 | 3°♊44'21 | |
| morning max el | 5545 Jan 02 08:14 | 23°♊12'50 | 18°56'35 | morning max el | 5545 Dec 16 21:46 | 7°♊15'24 | 18°17'05 |
| | 5545 Jan 07 23:11 | 0°♋ | | | 5546 Jan 01 16:04 | 0°♋ | |
| desc. node | 5545 Jan 23 10:09 | 23°♋20'29 | | morning set | 5546 Jan 05 01:38 | 5°♋29'40 | |
| morning set | 5545 Jan 24 15:07 | 25°♋13'35 | | desc. node | 5546 Jan 10 07:10 | 13°♋55'04 | |
| | 5545 Jan 27 16:29 | 0°♌ | | | | | |
| max. Earth dist. | 5545 Feb 08 08:02 | 18°♌13'30 | 1.45134 AU | superior conj | 5546 Jan 20 08:21 | 29°♋51'11 | -1°06'14 |
| | | | | minimum elong | 5546 Jan 20 00:25 | 29°♋20'01 | 1°05'15 |
| superior conj | 5545 Feb 10 04:56 | 21°♌10'07 | -1°44'59 | | 5546 Jan 20 10:36 | 0°♌ | |
| minimum elong | 5545 Feb 09 19:55 | 20°♌34'37 | 1°44'12 | max. Earth dist. | 5546 Jan 22 03:03 | 2°♌38'47 | 1.45336 AU |
| | 5545 Feb 15 18:47 | 0°♍ | | evening rise | 5546 Feb 05 12:01 | 25°♌07'18 | |
| evening rise | 5545 Feb 25 06:13 | 15°♍15'25 | | | 5546 Feb 08 14:51 | 0°♍ | |
| | 5545 Mar 06 08:28 | 0°♎ | | greatest brilliancy | 5546 Feb 16 18:44 | 12°♍40'23 | -0.8m |
| asc. node | 5545 Mar 16 06:18 | 14°♎14'37 | | evening max el | 5546 Mar 01 01:05 | 29°♍19'22 | 19°16'51 |
| evening max el | 5545 Mar 17 16:27 | 15°♎47'15 | 18°35'51 | | 5546 Mar 01 17:33 | 0°♎ | |
| retrograde | 5545 Mar 24 06:05 | 19°♎24'04 | | asc. node | 5546 Mar 03 03:21 | 1°♎13'59 | |
| evening set | 5545 Mar 27 10:09 | 18°♎27'19 | | retrograde | 5546 Mar 08 02:24 | 3°♎20'20 | |
| inferior conj | 5545 Apr 02 03:33 | 12°♎52'21 | 3°31'41 | evening set | 5546 Mar 11 13:39 | 2°♎10'04 | |
| minimum elong | 5545 Apr 02 03:23 | 12°♎52'50 | 3°31'41 | | 5546 Mar 14 00:39 | 30°♌♍ | |
| min. Earth dist. | 5545 Apr 04 03:59 | 10°♎26'47 | 0.64958 AU | inferior conj | 5546 Mar 17 01:33 | 26°♍19'19 | 3°23'32 |
| morning rise | 5545 Apr 07 19:59 | 6°♎38'56 | | minimum elong | 5546 Mar 17 00:11 | 26°♍23'45 | 3°23'23 |
| direct | 5545 Apr 14 12:16 | 3°♎50'01 | | min. Earth dist. | 5546 Mar 18 10:44 | 24°♍32'04 | 0.66394 AU |
| desc. node | 5545 Apr 21 09:25 | 6°♎13'07 | | morning rise | 5546 Mar 22 10:21 | 20°♍04'06 | |
| morning max el | 5545 Apr 27 22:40 | 11°♎43'12 | 27°11'09 | direct | 5546 Mar 28 17:20 | 17°♍17'04 | |
| | 5545 May 12 11:48 | 0°♏ | | desc. node | 5546 Apr 08 06:27 | 22°♍48'09 | |
| | 5545 May 30 13:25 | 0°♐ | | morning max el | 5546 Apr 10 08:36 | 24°♍48'55 | 26°07'08 |
| morning set | 5545 Jun 02 11:33 | 5°♐33'38 | | | 5546 Apr 15 01:12 | 0°♎ | |
| max. Earth dist. | 5545 Jun 07 01:05 | 14°♐38'46 | 1.33712 AU | | 5546 May 05 22:47 | 0°♏ | |
| | | | | morning set | 5546 May 16 11:46 | 18°♏26'08 | |
| superior conj | 5545 Jun 10 18:51 | 22°♐24'47 | -0°14'54 | max. Earth dist. | 5546 May 20 09:52 | 25°♏52'41 | 1.35241 AU |
| minimum elong | 5545 Jun 10 19:38 | 22°♐28'54 | 0°14'46 | | 5546 May 22 12:21 | 0°♐ | |
| behind sun begin | 5545 Jun 10 17:28 | 22°♐17'27 | | | | | |
| behind sun end | 5545 Jun 10 21:49 | 22°♐40'22 | | superior conj | 5546 May 25 14:42 | 6°♐13'25 | -0°44'50 |
| asc. node | 5545 Jun 12 05:32 | 25°♐28'13 | | minimum elong | 5546 May 25 17:12 | 6°♐26'06 | 0°44'22 |
| | 5545 Jun 14 08:35 | 0°♑ | | asc. node | 5546 May 30 02:35 | 15°♐29'07 | |
| evening rise | 5545 Jun 18 01:50 | 7°♑53'40 | | evening rise | 5546 Jun 02 09:41 | 22°♐18'40 | |
| | 5545 Jun 29 19:20 | 0°♒ | | | 5546 Jun 06 05:10 | 0°♑ | |
| evening max el | 5545 Jul 08 16:36 | 11°♒26'02 | 21°52'47 | evening max el | 5546 Jun 20 18:51 | 22°♑18'28 | 20°28'33 |
| desc. node | 5545 Jul 18 08:39 | 17°♒21'00 | | retrograde | 5546 Jul 01 20:08 | 27°♑43'35 | |
| retrograde | 5545 Jul 21 07:28 | 17°♒41'27 | | evening set | 5546 Jul 03 19:55 | 27°♑33'46 | |
| evening set | 5545 Jul 24 00:33 | 17°♒24'57 | | desc. node | 5546 Jul 05 05:41 | 27°♑15'38 | |
| inferior conj | 5545 Aug 02 07:27 | 13°♒22'20 | -4°04'53 | inferior conj | 5546 Jul 13 01:05 | 23°♑36'31 | -2°18'50 |
| minimum elong | 5545 Aug 01 22:33 | 13°♒34'48 | 4°02'36 | minimum elong | 5546 Jul 12 18:40 | 23°♑45'50 | 2°16'33 |
| min. Earth dist. | 5545 Aug 01 20:29 | 13°♒37'42 | 0.54880 AU | min. Earth dist. | 5546 Jul 14 07:55 | 22°♑51'51 | 0.54912 AU |
| morning rise | 5545 Aug 10 22:02 | 9°♒31'46 | | morning rise | 5546 Jul 21 16:30 | 19°♑28'23 | |
| direct | 5545 Aug 14 05:21 | 9°♒07'44 | | direct | 5546 Jul 25 15:08 | 18°♑54'49 | |
| morning max el | 5545 Aug 26 07:18 | 14°♒47'39 | 21°45'37 | morning max el | 5546 Aug 07 23:54 | 25°♑23'28 | 23°27'47 |
| | 5545 Sep 06 18:40 | 0°♓ | | | 5546 Aug 12 07:31 | 0°♒ | |
| asc. node | 5545 Sep 08 04:50 | 2°♓28'31 | | asc. node | 5546 Aug 26 01:52 | 21°♒39'02 | |
| morning set | 5545 Sep 16 02:35 | 17°♓56'42 | | | 5546 Aug 30 05:45 | 0°♓ | |
| | 5545 Sep 21 19:33 | 0°♉ | | morning set | 5546 Aug 31 13:56 | 2°♓48'42 | |
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| superior conj | 5545 Sep 23 07:53 | 3°♉11'00 | 1°43'00 | superior conj | 5546 Sep 07 13:53 | 17°♓52'41 | 1°38'07 |

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|---------------------|-------------------|------------------------------|------------|------------------|-------------------|------------------------------|------------|
| minimum elong | 5546 Sep 07 12:28 | 17° \cap 44'59 | 1°38'01 | | 5547 Aug 21 17:48 | 0° \cap | |
| max. Earth dist. | 5546 Sep 10 02:50 | 23° \cap 18'07 | 1.33435 AU | | | | |
| | 5546 Sep 13 08:04 | 0° $\underline{\cap}$ | | superior conj | 5547 Aug 22 23:43 | 2° \cap 44'09 | 1°27'35 |
| evening rise | 5546 Sep 15 04:02 | 3° $\underline{\cap}$ 42'06 | | minimum elong | 5547 Aug 22 21:37 | 2° \cap 32'40 | 1°27'21 |
| | 5546 Sep 29 20:53 | 0° \cap | | max. Earth dist. | 5547 Aug 24 08:07 | 5° \cap 41'21 | 1.32498 AU |
| desc. node | 5546 Oct 01 04:55 | 2° \cap 05'18 | | evening rise | 5547 Aug 30 03:03 | 18° \cap 00'22 | |
| evening max el | 5546 Oct 19 06:50 | 25° \cap 07'24 | 27°21'51 | | 5547 Sep 05 05:15 | 0° $\underline{\cap}$ | |
| | 5546 Oct 25 10:29 | 0° \times | | desc. node | 5547 Sep 18 01:56 | 21° $\underline{\cap}$ 26'59 | |
| retrograde | 5546 Nov 01 19:44 | 2° \times 25'48 | | | 5547 Sep 24 09:08 | 0° \cap | |
| evening set | 5546 Nov 08 19:56 | 29° \cap 47'28 | | evening max el | 5547 Oct 01 16:44 | 8° \cap 04'24 | 27°24'59 |
| | 5546 Nov 08 13:09 | 30° \cap | | retrograde | 5547 Oct 15 11:04 | 15° \cap 18'52 | |
| min. Earth dist. | 5546 Nov 12 14:42 | 26° \cap 20'25 | 0.64349 AU | evening set | 5547 Oct 22 15:08 | 12° \cap 50'44 | |
| inferior conj | 5546 Nov 15 00:04 | 23° \cap 48'01 | -2°19'44 | min. Earth dist. | 5547 Oct 26 06:31 | 9° \cap 53'07 | 0.62584 AU |
| minimum elong | 5546 Nov 15 04:11 | 23° \cap 37'05 | 2°18'07 | inferior conj | 5547 Oct 29 03:04 | 7° \cap 10'31 | -3°23'31 |
| morning rise | 5546 Nov 21 13:47 | 18° \cap 22'34 | | minimum elong | 5547 Oct 29 08:53 | 6° \cap 56'41 | 3°21'35 |
| asc. node | 5546 Nov 22 01:09 | 18° \cap 11'35 | | morning rise | 5547 Nov 05 04:23 | 2° \cap 02'44 | |
| direct | 5546 Nov 24 02:29 | 17° \cap 49'55 | | direct | 5547 Nov 07 12:52 | 1° \cap 37'37 | |
| morning max el | 5546 Nov 30 14:17 | 21° \cap 14'56 | 17°54'32 | asc. node | 5547 Nov 08 22:11 | 1° \cap 46'36 | |
| | 5546 Dec 07 07:13 | 0° \times | | morning max el | 5547 Nov 14 06:50 | 5° \cap 04'49 | 17°49'43 |
| morning set | 5546 Dec 17 16:53 | 17° \times 10'17 | | morning set | 5547 Nov 30 07:06 | 29° \cap 57'06 | |
| | 5546 Dec 25 08:41 | 0° $\underline{\cap}$ | | | 5547 Nov 30 07:45 | 0° \times | |
| desc. node | 5546 Dec 28 04:11 | 4° $\underline{\cap}$ 37'03 | | | | | |
| | | | | superior conj | 5547 Dec 11 16:14 | 19° \times 45'30 | 0°23'49 |
| superior conj | 5546 Dec 30 23:56 | 9° $\underline{\cap}$ 11'52 | -0°19'43 | minimum elong | 5547 Dec 11 18:29 | 19° \times 54'56 | 0°23'31 |
| minimum elong | 5546 Dec 30 21:38 | 9° $\underline{\cap}$ 02'33 | 0°19'21 | desc. node | 5547 Dec 15 01:12 | 25° \times 23'15 | |
| max. Earth dist. | 5547 Jan 04 21:58 | 17° $\underline{\cap}$ 03'13 | 1.44803 AU | | 5547 Dec 17 20:49 | 0° $\underline{\cap}$ | |
| | 5547 Jan 13 04:45 | 0° \approx | | max. Earth dist. | 5547 Dec 18 14:26 | 1° $\underline{\cap}$ 11'21 | 1.43600 AU |
| evening rise | 5547 Jan 16 01:32 | 4° \approx 25'04 | | evening rise | 5547 Dec 26 12:54 | 13° $\underline{\cap}$ 44'51 | |
| greatest brilliancy | 5547 Jan 30 18:28 | 26° \approx 36'27 | -0.6m | | 5548 Jan 06 06:28 | 0° \approx | |
| | 5547 Feb 02 02:43 | 0° \times | | evening max el | 5548 Jan 26 03:13 | 26° \approx 29'02 | 21°22'17 |
| evening max el | 5547 Feb 12 04:54 | 12° \times 53'39 | 20°13'19 | | 5548 Jan 30 05:24 | 0° \times | |
| asc. node | 5547 Feb 18 00:25 | 17° \times 06'16 | | retrograde | 5548 Feb 03 22:22 | 1° \times 41'50 | |
| retrograde | 5547 Feb 20 00:31 | 17° \times 27'36 | | asc. node | 5548 Feb 04 21:27 | 1° \times 36'54 | |
| evening set | 5547 Feb 23 20:13 | 16° \times 02'54 | | evening set | 5548 Feb 08 04:00 | 0° \times 01'53 | |
| inferior conj | 5547 Mar 01 05:08 | 9° \times 58'31 | 3°03'25 | | 5548 Feb 08 04:56 | 30° \cap | |
| minimum elong | 5547 Mar 01 03:01 | 10° \times 05'42 | 3°02'59 | inferior conj | 5548 Feb 13 11:59 | 23° \approx 46'32 | 2°33'28 |
| min. Earth dist. | 5547 Mar 02 00:11 | 8° \times 54'00 | 0.67401 AU | minimum elong | 5548 Feb 13 09:35 | 23° \approx 54'49 | 2°32'49 |
| morning rise | 5547 Mar 06 09:35 | 3° \times 43'55 | | min. Earth dist. | 5548 Feb 13 18:13 | 23° \approx 24'54 | 0.67981 AU |
| direct | 5547 Mar 12 03:51 | 1° \times 09'24 | | morning rise | 5548 Feb 18 15:01 | 17° \approx 34'05 | |
| morning max el | 5547 Mar 23 17:18 | 8° \times 04'21 | 24°45'28 | direct | 5548 Feb 23 18:54 | 15° \approx 19'03 | |
| desc. node | 5547 Mar 26 03:28 | 10° \times 39'12 | | morning max el | 5548 Mar 05 02:22 | 21° \approx 26'22 | 23°16'26 |
| | 5547 Apr 09 21:25 | 0° Υ | | desc. node | 5548 Mar 12 00:29 | 29° \approx 24'45 | |
| morning set | 5547 Apr 28 18:04 | 0° B 23'40 | | | 5548 Mar 12 11:35 | 0° \times | |
| | 5547 Apr 28 12:43 | 0° B | | | 5548 Apr 02 04:09 | 0° Υ | |
| max. Earth dist. | 5547 May 02 08:45 | 6° B 53'51 | 1.37184 AU | morning set | 5548 Apr 09 00:33 | 11° Υ 10'46 | |
| | | | | max. Earth dist. | 5548 Apr 13 04:23 | 18° Υ 17'09 | 1.39369 AU |
| | | | | | 5548 Apr 19 17:34 | 0° B | |
| superior conj | 5547 May 09 00:11 | 19° B 28'10 | -1°14'36 | | | | |
| minimum elong | 5547 May 09 04:21 | 19° B 48'28 | 1°13'56 | | | | |
| | 5547 May 14 07:42 | 0° II | | superior conj | 5548 Apr 20 19:22 | 1° B 59'03 | -1°41'27 |
| asc. node | 5547 May 16 23:39 | 5° II 20'46 | | minimum elong | 5548 Apr 21 00:29 | 2° B 22'46 | 1°40'53 |
| evening rise | 5547 May 17 12:12 | 6° II 23'33 | | evening rise | 5548 Apr 30 06:30 | 20° B 00'35 | |
| | 5547 May 31 00:21 | 0° B | | asc. node | 5548 May 02 20:41 | 24° B 58'19 | |
| evening max el | 5547 Jun 03 09:44 | 3° B 52'57 | 19°22'49 | | 5548 May 05 13:19 | 0° II | |
| retrograde | 5547 Jun 12 17:24 | 8° B 26'32 | | evening max el | 5548 May 16 11:10 | 16° II 07'07 | 18°37'26 |
| evening set | 5547 Jun 14 16:02 | 8° B 15'30 | | retrograde | 5548 May 24 08:43 | 20° II 01'00 | |
| desc. node | 5547 Jun 22 02:41 | 4° B 52'22 | | evening set | 5548 May 26 13:03 | 19° II 44'12 | |
| inferior conj | 5547 Jun 23 05:59 | 4° B 08'19 | -0°20'24 | inferior conj | 5548 Jun 03 07:02 | 15° II 18'25 | 1°20'08 |
| minimum elong | 5547 Jun 23 05:06 | 4° B 09'47 | 0°20'05 | minimum elong | 5548 Jun 03 09:45 | 15° II 13'12 | 1°19'11 |
| min. Earth dist. | 5547 Jun 25 21:37 | 2° B 25'07 | 0.55890 AU | min. Earth dist. | 5548 Jun 06 15:04 | 12° II 46'58 | 0.57610 AU |
| | 5547 Jun 30 06:57 | 30° \cap | | desc. node | 5548 Jun 07 23:43 | 11° II 50'03 | |
| morning rise | 5547 Jul 01 15:21 | 29° II 27'35 | | morning rise | 5548 Jun 11 03:09 | 10° II 01'51 | |
| direct | 5547 Jul 06 10:50 | 28° II 34'59 | | direct | 5548 Jun 16 20:28 | 8° II 40'03 | |
| | 5547 Jul 12 13:24 | 0° B | | morning max el | 5548 Jul 01 05:32 | 16° II 15'16 | 26°36'59 |
| morning max el | 5547 Jul 20 13:12 | 5° B 42'57 | 25°10'21 | | 5548 Jul 12 10:45 | 0° B | |
| | 5547 Aug 07 02:03 | 0° Ω | | | 5548 Jul 29 08:00 | 0° Ω | |
| asc. node | 5547 Aug 12 22:54 | 11° Ω 12'43 | | asc. node | 5548 Jul 29 19:55 | 1° Ω 02'10 | |
| morning set | 5547 Aug 16 01:37 | 17° Ω 40'35 | | morning set | 5548 Jul 30 11:56 | 2° Ω 26'23 | |

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|------------------|-------------------|---|------------|------------------|-------------------|---|------------|
| superior conj | 5548 Aug 06 11:18 | 17° Ω 37'48 | 1°12'08 | | 5549 Jul 20 19:59 | 0° Ω | |
| minimum elong | 5548 Aug 06 09:00 | 17° Ω 25'07 | 1°11'45 | max. Earth dist. | 5549 Jul 21 05:16 | 0° Ω 51'08 | 1.31906 AU |
| max. Earth dist. | 5548 Aug 06 18:10 | 18° Ω 15'50 | 1.31989 AU | | | | |
| | 5548 Aug 12 03:12 | 0° Π | | superior conj | 5549 Jul 21 22:54 | 2° Ω 28'21 | 0°52'17 |
| evening rise | 5548 Aug 13 08:26 | 2° Π 34'55 | | minimum elong | 5549 Jul 21 20:52 | 2° Ω 17'11 | 0°51'53 |
| | 5548 Aug 28 02:26 | 0° $\underline{\Omega}$ | | evening rise | 5549 Jul 28 17:53 | 17° Ω 18'57 | |
| desc. node | 5548 Sep 03 22:57 | 10° $\underline{\Omega}$ 03'19 | | | 5549 Aug 03 23:44 | 0° Π | |
| evening max el | 5548 Sep 12 21:14 | 20° $\underline{\Omega}$ 19'10 | 26°54'58 | desc. node | 5549 Aug 21 19:59 | 27° Π 36'08 | |
| retrograde | 5548 Sep 26 18:36 | 27° $\underline{\Omega}$ 29'19 | | | 5549 Aug 24 00:25 | 0° $\underline{\Omega}$ | |
| evening set | 5548 Oct 03 17:53 | 25° $\underline{\Omega}$ 23'06 | | evening max el | 5549 Aug 25 18:13 | 1° $\underline{\Omega}$ 44'12 | 25°52'25 |
| min. Earth dist. | 5548 Oct 07 11:24 | 22° $\underline{\Omega}$ 44'48 | 0.60579 AU | retrograde | 5549 Sep 08 17:14 | 8° $\underline{\Omega}$ 50'43 | |
| inferior conj | 5548 Oct 10 15:58 | 20° $\underline{\Omega}$ 05'26 | -4°22'00 | evening set | 5549 Sep 14 23:19 | 7° $\underline{\Omega}$ 17'40 | |
| minimum elong | 5548 Oct 10 22:22 | 19° $\underline{\Omega}$ 52'03 | 4°20'26 | min. Earth dist. | 5549 Sep 19 06:38 | 4° $\underline{\Omega}$ 41'54 | 0.58503 AU |
| morning rise | 5548 Oct 18 04:53 | 15° $\underline{\Omega}$ 18'53 | | inferior conj | 5549 Sep 22 11:15 | 2° $\underline{\Omega}$ 23'17 | -5°05'37 |
| direct | 5548 Oct 20 12:16 | 14° $\underline{\Omega}$ 58'13 | | minimum elong | 5549 Sep 22 15:42 | 2° $\underline{\Omega}$ 15'11 | 5°05'04 |
| asc. node | 5548 Oct 25 19:11 | 16° $\underline{\Omega}$ 52'19 | | | 5549 Sep 25 23:12 | 30° $\underline{\Omega}$ Π | |
| morning max el | 5548 Oct 27 20:11 | 18° $\underline{\Omega}$ 36'04 | 18°03'51 | morning rise | 5549 Sep 30 10:22 | 27° Π 59'54 | |
| | 5548 Nov 05 02:19 | 0° Π | | direct | 5549 Oct 02 20:10 | 27° Π 41'08 | |
| morning set | 5548 Nov 12 13:53 | 13° Π 30'27 | | | 5549 Oct 09 03:56 | 0° $\underline{\Omega}$ | |
| | 5548 Nov 21 13:17 | 0° \times | | morning max el | 5549 Oct 11 02:55 | 1° $\underline{\Omega}$ 39'29 | 18°38'20 |
| | | | | asc. node | 5549 Oct 12 16:13 | 3° $\underline{\Omega}$ 16'28 | |
| superior conj | 5548 Nov 22 10:23 | 1° \times 34'08 | 0°58'24 | morning set | 5549 Oct 27 08:15 | 27° $\underline{\Omega}$ 35'58 | |
| minimum elong | 5548 Nov 22 14:14 | 1° \times 51'14 | 0°57'55 | | 5549 Oct 28 13:53 | 0° Π | |
| max. Earth dist. | 5548 Nov 30 02:04 | 14° \times 46'05 | 1.41860 AU | | | | |
| desc. node | 5548 Nov 30 22:12 | 16° \times 09'58 | | superior conj | 5549 Nov 05 01:51 | 14° Π 24'30 | 1°22'34 |
| evening rise | 5548 Dec 05 13:08 | 23° \times 42'25 | | minimum elong | 5549 Nov 05 05:14 | 14° Π 40'18 | 1°22'13 |
| | 5548 Dec 09 12:41 | 0° $\underline{\Omega}$ | | max. Earth dist. | 5549 Nov 12 08:29 | 27° Π 36'29 | 1.39804 AU |
| | 5548 Dec 30 06:55 | 0° \approx | | | 5549 Nov 13 17:30 | 0° \times | |
| evening max el | 5549 Jan 07 20:29 | 10° \approx 06'05 | 22°39'34 | evening rise | 5549 Nov 16 10:55 | 4° \times 38'44 | |
| retrograde | 5549 Jan 17 18:21 | 15° \approx 59'23 | | desc. node | 5549 Nov 17 19:13 | 6° \times 53'39 | |
| asc. node | 5549 Jan 21 18:27 | 14° \approx 36'19 | | | 5549 Dec 02 16:47 | 0° $\underline{\Omega}$ | |
| evening set | 5549 Jan 22 11:22 | 14° \approx 03'49 | | evening max el | 5549 Dec 21 10:26 | 23° $\underline{\Omega}$ 46'19 | 23°59'35 |
| inferior conj | 5549 Jan 27 20:06 | 7° \approx 40'46 | 1°55'10 | | 5549 Dec 30 12:17 | 0° \approx | |
| minimum elong | 5549 Jan 27 17:54 | 7° \approx 48'23 | 1°54'26 | retrograde | 5550 Jan 01 11:06 | 0° \approx 15'47 | |
| min. Earth dist. | 5549 Jan 27 14:39 | 7° \approx 59'40 | 0.68157 AU | | 5550 Jan 03 07:50 | 30° $\underline{\Omega}$ $\underline{\Omega}$ | |
| morning rise | 5549 Feb 02 00:21 | 1° \approx 31'53 | | evening set | 5550 Jan 06 16:45 | 28° $\underline{\Omega}$ 05'02 | |
| | 5549 Feb 04 14:09 | 30° $\underline{\Omega}$ $\underline{\Omega}$ | | asc. node | 5550 Jan 08 15:29 | 26° $\underline{\Omega}$ 08'38 | |
| direct | 5549 Feb 06 13:39 | 29° $\underline{\Omega}$ 39'24 | | min. Earth dist. | 5550 Jan 11 11:11 | 22° $\underline{\Omega}$ 34'18 | 0.67958 AU |
| | 5549 Feb 08 15:27 | 0° \approx | | inferior conj | 5550 Jan 12 03:40 | 21° $\underline{\Omega}$ 38'22 | 1°09'28 |
| morning max el | 5549 Feb 15 15:08 | 4° \approx 57'01 | 21°49'20 | minimum elong | 5550 Jan 12 02:08 | 21° $\underline{\Omega}$ 43'36 | 1°08'53 |
| desc. node | 5549 Feb 26 21:30 | 18° \approx 49'33 | | morning rise | 5550 Jan 17 11:32 | 15° $\underline{\Omega}$ 34'37 | |
| | 5549 Mar 06 16:47 | 0° \times | | direct | 5550 Jan 21 11:06 | 14° $\underline{\Omega}$ 04'42 | |
| morning set | 5549 Mar 20 02:48 | 20° \times 38'02 | | morning max el | 5550 Jan 29 10:36 | 18° $\underline{\Omega}$ 38'26 | 20°31'14 |
| | 5549 Mar 25 20:42 | 0° Υ | | | 5550 Feb 07 16:12 | 0° \approx | |
| max. Earth dist. | 5549 Mar 26 03:31 | 0° Υ 28'22 | 1.41521 AU | desc. node | 5550 Feb 13 18:30 | 8° \approx 42'24 | |
| | | | | morning set | 5550 Feb 27 04:49 | 29° \approx 00'42 | |
| superior conj | 5549 Apr 02 19:29 | 13° Υ 34'44 | -2°01'29 | | 5550 Feb 27 20:06 | 0° \times | |
| minimum elong | 5549 Apr 02 23:38 | 13° Υ 52'57 | 2°01'15 | max. Earth dist. | 5550 Mar 08 09:26 | 13° \times 32'16 | 1.43370 AU |
| | 5549 Apr 11 21:46 | 0° \times | | | | | |
| evening rise | 5549 Apr 13 13:00 | 3° \times 00'57 | | superior conj | 5550 Mar 14 19:46 | 24° \times 04'29 | -2°09'25 |
| asc. node | 5549 Apr 19 17:43 | 14° \times 16'30 | | minimum elong | 5550 Mar 14 19:43 | 24° \times 04'17 | 2°09'26 |
| evening max el | 5549 Apr 29 19:47 | 28° \times 53'10 | 18°12'19 | | 5550 Mar 18 08:19 | 0° Υ | |
| | 5549 May 01 01:24 | 0° Π | | evening rise | 5550 Mar 27 03:19 | 15° Υ 13'55 | |
| retrograde | 5549 May 06 18:49 | 2° Π 23'19 | | | 5550 Apr 04 16:10 | 0° \times | |
| evening set | 5549 May 09 06:05 | 1° Π 57'33 | | asc. node | 5550 Apr 06 14:46 | 3° \times 07'58 | |
| | 5549 May 12 19:57 | 30° $\underline{\Omega}$ $\underline{\Omega}$ | | evening max el | 5550 Apr 13 08:03 | 12° $\underline{\Omega}$ 01'05 | 18°06'47 |
| inferior conj | 5549 May 16 05:34 | 27° $\underline{\Omega}$ 11'19 | 2°30'21 | retrograde | 5550 Apr 19 19:46 | 15° $\underline{\Omega}$ 22'52 | |
| minimum elong | 5549 May 16 08:57 | 27° $\underline{\Omega}$ 03'46 | 2°29'29 | evening set | 5550 Apr 22 13:43 | 14° $\underline{\Omega}$ 45'58 | |
| min. Earth dist. | 5549 May 19 14:41 | 24° $\underline{\Omega}$ 12'01 | 0.59741 AU | inferior conj | 5550 Apr 28 22:27 | 9° $\underline{\Omega}$ 39'56 | 3°11'38 |
| morning rise | 5549 May 23 09:06 | 21° $\underline{\Omega}$ 26'43 | | minimum elong | 5550 Apr 29 00:45 | 9° $\underline{\Omega}$ 34'03 | 3°11'17 |
| desc. node | 5549 May 25 20:45 | 20° $\underline{\Omega}$ 14'26 | | min. Earth dist. | 5550 May 01 22:19 | 6° $\underline{\Omega}$ 37'37 | 0.61947 AU |
| direct | 5549 May 29 19:26 | 19° $\underline{\Omega}$ 30'40 | | morning rise | 5550 May 05 10:03 | 3° $\underline{\Omega}$ 38'13 | |
| morning max el | 5549 Jun 13 04:13 | 27° $\underline{\Omega}$ 23'04 | 27°33'38 | direct | 5550 May 12 05:15 | 1° $\underline{\Omega}$ 12'12 | |
| | 5549 Jun 15 16:22 | 0° Π | | desc. node | 5550 May 12 17:46 | 1° $\underline{\Omega}$ 13'01 | |
| | 5549 Jul 06 01:54 | 0° $\underline{\Omega}$ | | morning max el | 5550 May 26 08:54 | 9° $\underline{\Omega}$ 12'37 | 27°53'16 |
| morning set | 5549 Jul 14 19:13 | 17° $\underline{\Omega}$ 01'04 | | | 5550 Jun 11 10:26 | 0° Π | |
| asc. node | 5549 Jul 16 16:58 | 21° $\underline{\Omega}$ 02'16 | | | 5550 Jun 28 06:06 | 0° $\underline{\Omega}$ | |

| | | | | | | | |
|---------------------|-------------------|-----------|------------|---------------------|-------------------|-----------|------------|
| morning set | 5550 Jun 28 21:29 | 1°♄18'08 | | morning set | 5551 Jun 12 16:18 | 15°♄10'09 | |
| asc. node | 5550 Jul 03 14:00 | 11°♄08'02 | | max. Earth dist. | 5551 Jun 17 15:11 | 25°♄16'00 | 1.33048 AU |
| max. Earth dist. | 5550 Jul 04 13:34 | 13°♄14'59 | 1.32251 AU | | 5551 Jun 19 20:58 | 0°♄ | |
| | | | | asc. node | 5551 Jun 20 11:03 | 1°♄15'13 | |
| superior conj | 5550 Jul 06 08:46 | 17°♄09'51 | 0°28'36 | superior conj | 5551 Jun 20 15:00 | 1°♄36'20 | 0°01'43 |
| minimum elong | 5550 Jul 06 07:29 | 17°♄02'52 | 0°28'18 | minimum elong | 5551 Jun 20 14:55 | 1°♄35'52 | 0°01'41 |
| | 5550 Jul 12 05:54 | 0°♄ | | behind sun begin | 5551 Jun 20 09:33 | 1°♄07'13 | |
| evening rise | 5550 Jul 13 05:23 | 2°♄05'51 | | behind sun end | 5551 Jun 20 20:16 | 2°♄04'34 | |
| | 5550 Jul 28 07:41 | 0°♄ | | evening rise | 5551 Jun 27 17:02 | 16°♄49'31 | |
| evening max el | 5550 Aug 07 08:29 | 12°♄25'34 | 24°25'07 | | 5551 Jul 04 05:41 | 0°♄ | |
| desc. node | 5550 Aug 08 17:01 | 13°♄40'28 | | evening max el | 5551 Jul 19 21:21 | 22°♄46'04 | 22°47'23 |
| retrograde | 5550 Aug 21 04:44 | 19°♄23'52 | | desc. node | 5551 Jul 26 14:03 | 27°♄43'47 | |
| evening set | 5550 Aug 26 04:18 | 18°♄28'32 | | retrograde | 5551 Aug 02 03:15 | 29°♄22'10 | |
| min. Earth dist. | 5550 Aug 31 19:32 | 15°♄36'30 | 0.56629 AU | evening set | 5551 Aug 05 14:19 | 28°♄55'57 | |
| inferior conj | 5550 Sep 03 10:33 | 13°♄56'49 | -5°19'38 | min. Earth dist. | 5551 Aug 13 05:32 | 25°♄32'57 | 0.55293 AU |
| minimum elong | 5550 Sep 03 09:36 | 13°♄58'19 | 5°19'38 | inferior conj | 5551 Aug 14 14:59 | 24°♄45'03 | -4°47'27 |
| morning rise | 5550 Sep 11 17:19 | 9°♄54'25 | | minimum elong | 5551 Aug 14 07:44 | 24°♄55'28 | 4°46'11 |
| direct | 5550 Sep 14 09:13 | 9°♄35'19 | | morning rise | 5551 Aug 23 03:13 | 20°♄54'53 | |
| morning max el | 5550 Sep 23 23:44 | 14°♄05'21 | 19°34'30 | direct | 5551 Aug 26 04:22 | 20°♄33'17 | |
| asc. node | 5550 Sep 29 13:15 | 20°♄44'07 | | morning max el | 5551 Sep 06 08:21 | 25°♄45'26 | 20°52'19 |
| | 5550 Oct 05 04:50 | 0°♄ | | | 5551 Sep 10 06:15 | 0°♄ | |
| morning set | 5550 Oct 11 10:34 | 12°♄03'52 | | asc. node | 5551 Sep 16 10:18 | 9°♄00'39 | |
| | | | | morning set | 5551 Sep 25 18:02 | 26°♄45'49 | |
| superior conj | 5550 Oct 19 09:21 | 28°♄01'34 | 1°36'58 | | 5551 Sep 27 07:30 | 0°♄ | |
| minimum elong | 5550 Oct 19 11:21 | 28°♄11'22 | 1°36'50 | | | | |
| | 5550 Oct 20 09:31 | 0°♄ | | superior conj | 5551 Oct 03 04:15 | 12°♄11'29 | 1°42'54 |
| max. Earth dist. | 5550 Oct 25 13:17 | 9°♄48'55 | 1.37694 AU | minimum elong | 5551 Oct 03 04:43 | 12°♄13'50 | 1°42'54 |
| evening rise | 5550 Oct 29 07:20 | 16°♄36'50 | | max. Earth dist. | 5551 Oct 07 21:57 | 21°♄42'51 | 1.35763 AU |
| desc. node | 5550 Nov 04 16:15 | 27°♄30'34 | | evening rise | 5551 Oct 11 23:01 | 29°♄27'31 | |
| | 5550 Nov 06 04:50 | 0°♄ | | | 5551 Oct 12 06:00 | 0°♄ | |
| | 5550 Nov 27 04:25 | 0°♄ | | desc. node | 5551 Oct 22 13:17 | 17°♄55'24 | |
| evening max el | 5550 Dec 03 23:15 | 7°♄30'38 | 25°15'39 | | 5551 Oct 30 09:35 | 0°♄ | |
| retrograde | 5550 Dec 15 23:35 | 14°♄26'47 | | evening max el | 5551 Nov 16 12:07 | 21°♄14'07 | 26°20'26 |
| evening set | 5550 Dec 21 18:35 | 12°♄02'24 | | retrograde | 5551 Nov 29 06:48 | 28°♄25'49 | |
| min. Earth dist. | 5550 Dec 26 05:30 | 7°♄05'54 | 0.67403 AU | evening set | 5551 Dec 05 15:01 | 25°♄51'01 | |
| asc. node | 5550 Dec 26 12:31 | 6°♄43'13 | | min. Earth dist. | 5551 Dec 09 19:08 | 21°♄29'44 | 0.66494 AU |
| inferior conj | 5550 Dec 27 08:55 | 5°♄36'51 | 0°17'15 | inferior conj | 5551 Dec 11 09:51 | 19°♄31'41 | -0°40'37 |
| minimum elong | 5550 Dec 27 08:29 | 5°♄38'15 | 0°17'06 | minimum elong | 5551 Dec 11 10:58 | 19°♄28'18 | 0°40'07 |
| | 5551 Jan 01 11:32 | 30°♄ | | asc. node | 5551 Dec 13 09:33 | 17°♄10'39 | |
| morning rise | 5551 Jan 01 22:38 | 29°♄40'19 | | morning rise | 5551 Dec 17 07:32 | 13°♄44'58 | |
| direct | 5551 Jan 05 09:57 | 28°♄30'52 | | direct | 5551 Dec 20 08:24 | 12°♄52'46 | |
| | 5551 Jan 09 14:19 | 0°♄ | | morning max el | 5551 Dec 27 00:25 | 16°♄31'10 | 18°37'45 |
| morning max el | 5551 Jan 12 14:01 | 2°♄31'13 | 19°26'40 | | 5552 Jan 06 03:40 | 0°♄ | |
| greatest brilliancy | 5551 Jan 25 17:03 | 19°♄56'26 | -0.7m | morning set | 5552 Jan 16 20:20 | 16°♄45'03 | |
| desc. node | 5551 Jan 31 15:32 | 28°♄56'00 | | desc. node | 5552 Jan 18 12:33 | 19°♄23'59 | |
| | 5551 Feb 01 08:15 | 0°♄ | | | 5552 Jan 25 06:03 | 0°♄ | |
| morning set | 5551 Feb 06 02:40 | 7°♄20'20 | | max. Earth dist. | 5552 Feb 01 16:42 | 11°♄40'36 | 1.45317 AU |
| max. Earth dist. | 5551 Feb 18 22:34 | 27°♄21'54 | 1.44688 AU | | | | |
| | 5551 Feb 20 14:28 | 0°♄ | | superior conj | 5552 Feb 02 00:24 | 12°♄10'50 | -1°30'14 |
| superior conj | 5551 Feb 22 18:57 | 3°♄28'59 | -1°59'43 | minimum elong | 5552 Feb 01 14:57 | 11°♄33'47 | 1°29'16 |
| minimum elong | 5551 Feb 22 12:29 | 3°♄03'11 | 1°59'21 | | 5552 Feb 13 07:49 | 0°♄ | |
| evening rise | 5551 Mar 08 21:07 | 26°♄32'11 | | evening rise | 5552 Feb 17 15:42 | 6°♄53'21 | |
| | 5551 Mar 10 22:49 | 0°♄ | | greatest brilliancy | 5552 Feb 25 21:02 | 20°♄00'14 | -0.8m |
| asc. node | 5551 Mar 24 11:48 | 21°♄24'35 | | | 5552 Mar 03 09:10 | 0°♄ | |
| evening max el | 5551 Mar 27 20:57 | 25°♄23'13 | 18°20'02 | asc. node | 5552 Mar 10 08:50 | 8°♄55'47 | |
| retrograde | 5551 Apr 03 07:13 | 28°♄50'33 | | evening max el | 5552 Mar 10 07:45 | 8°♄53'03 | 18°51'15 |
| evening set | 5551 Apr 06 07:36 | 28°♄01'14 | | retrograde | 5552 Mar 17 01:15 | 12°♄38'30 | |
| inferior conj | 5551 Apr 12 05:34 | 22°♄36'27 | 3°29'39 | evening set | 5552 Mar 20 08:23 | 11°♄35'54 | |
| minimum elong | 5551 Apr 12 06:17 | 22°♄34'26 | 3°29'36 | inferior conj | 5552 Mar 25 23:05 | 5°♄53'57 | 3°29'52 |
| min. Earth dist. | 5551 Apr 14 15:02 | 19°♄53'02 | 0.63965 AU | minimum elong | 5552 Mar 25 22:21 | 5°♄56'13 | 3°29'49 |
| morning rise | 5551 Apr 18 04:02 | 16°♄25'57 | | min. Earth dist. | 5552 Mar 27 16:53 | 3°♄44'04 | 0.65627 AU |
| direct | 5551 Apr 24 23:36 | 13°♄41'27 | | morning rise | 5552 Mar 31 11:54 | 29°♄39'41 | |
| desc. node | 5551 Apr 29 14:49 | 14°♄46'37 | | | 5552 Mar 31 02:50 | 30°♄ | |
| morning max el | 5551 May 08 17:32 | 21°♄39'56 | 27°35'52 | direct | 5552 Apr 07 00:49 | 26°♄50'15 | |
| | 5551 May 15 23:53 | 0°♄ | | | 5552 Apr 14 22:20 | 0°♄ | |
| | 5551 Jun 04 14:18 | 0°♄ | | desc. node | 5552 Apr 15 11:51 | 0°♄25'12 | |

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|---------------------|-------------------|----------------------|------------|------------------|-------------------|----------------------|------------|
| morning max el | 5552 Apr 20 03:39 | 4° Υ 35'15 | 26°46'44 | morning max el | 5553 Apr 02 13:14 | 17° Υ 46'32 | 25°34'05 |
| | 5552 May 09 11:53 | 0° Υ | | | 5553 Apr 12 19:14 | 0° Υ | |
| morning set | 5552 May 26 00:31 | 28° Υ 28'02 | | | 5553 May 02 11:55 | 0° Υ | |
| | 5552 May 26 19:44 | 0° Π | | morning set | 5553 May 08 17:48 | 10° Υ 59'04 | |
| max. Earth dist. | 5552 May 30 06:59 | 6° Π 48'17 | 1.34312 AU | max. Earth dist. | 5553 May 12 11:32 | 17° Υ 55'36 | 1.36027 AU |
| superior conj | 5552 Jun 03 15:26 | 15° Π 41'19 | -0°27'29 | superior conj | 5553 May 18 07:16 | 29° Υ 16'29 | -0°57'36 |
| minimum elong | 5552 Jun 03 16:55 | 15° Π 49'03 | 0°27'12 | minimum elong | 5553 May 18 10:30 | 29° Υ 32'40 | 0°57'02 |
| asc. node | 5552 Jun 06 08:06 | 21° Π 19'54 | | | 5553 May 18 15:57 | 0° Π | |
| | 5552 Jun 10 10:52 | 0° Θ | | asc. node | 5553 May 24 05:08 | 11° Π 17'20 | |
| evening rise | 5552 Jun 11 02:56 | 1° Θ 23'54 | | evening rise | 5553 May 26 08:50 | 15° Π 41'29 | |
| | 5552 Jun 27 16:16 | 0° Ω | | | 5553 Jun 02 18:15 | 0° Θ | |
| evening max el | 5552 Jun 30 16:55 | 3° Ω 19'11 | 21°14'52 | evening max el | 5553 Jun 13 00:28 | 14° Θ 28'26 | 19°58'02 |
| desc. node | 5552 Jul 12 11:05 | 9° Ω 14'10 | | retrograde | 5553 Jun 23 07:54 | 19° Θ 31'26 | |
| retrograde | 5552 Jul 12 16:43 | 9° Ω 14'18 | | evening set | 5553 Jun 25 05:40 | 19° Θ 21'49 | |
| evening set | 5552 Jul 15 00:25 | 9° Ω 01'49 | | desc. node | 5553 Jun 29 08:07 | 18° Θ 03'08 | |
| inferior conj | 5552 Jul 24 08:37 | 5° Ω 03'21 | -3°23'43 | inferior conj | 5553 Jul 04 05:29 | 15° Θ 21'29 | -1°27'58 |
| minimum elong | 5552 Jul 24 00:00 | 5° Ω 15'25 | 3°21'04 | minimum elong | 5553 Jul 04 01:23 | 15° Θ 27'41 | 1°26'28 |
| min. Earth dist. | 5552 Jul 24 15:35 | 4° Ω 53'34 | 0.54778 AU | min. Earth dist. | 5553 Jul 06 03:45 | 14° Θ 11'34 | 0.55221 AU |
| morning rise | 5552 Aug 02 00:15 | 1° Ω 08'11 | | morning rise | 5553 Jul 12 19:19 | 11° Θ 00'43 | |
| direct | 5552 Aug 05 13:33 | 0° Ω 41'00 | | direct | 5553 Jul 17 02:01 | 10° Θ 20'41 | |
| morning max el | 5552 Aug 18 05:40 | 6° Ω 41'22 | 22°28'06 | morning max el | 5553 Jul 30 20:12 | 17° Θ 07'21 | 24°12'20 |
| asc. node | 5552 Sep 02 07:22 | 27° Ω 54'31 | | | 5553 Aug 10 07:14 | 0° Ω | |
| | 5552 Sep 03 10:10 | 0° Π | | asc. node | 5553 Aug 20 04:24 | 17° Ω 15'35 | |
| morning set | 5552 Sep 09 04:31 | 11° Π 35'59 | | morning set | 5553 Aug 24 16:13 | 26° Ω 28'28 | |
| | | | | | 5553 Aug 26 07:48 | 0° Π | |
| superior conj | 5552 Sep 16 07:02 | 26° Π 44'13 | 1°41'39 | superior conj | 5553 Aug 31 14:56 | 11° Π 30'48 | 1°34'17 |
| minimum elong | 5552 Sep 16 06:11 | 26° Π 39'43 | 1°41'38 | minimum elong | 5553 Aug 31 13:10 | 11° Π 21'12 | 1°34'08 |
| | 5552 Sep 17 20:09 | 0° Ω | | max. Earth dist. | 5553 Sep 02 15:26 | 15° Π 52'42 | 1.32983 AU |
| max. Earth dist. | 5552 Sep 19 14:28 | 3° Ω 40'21 | 1.34169 AU | evening rise | 5553 Sep 07 23:51 | 27° Π 04'06 | |
| evening rise | 5552 Sep 24 05:50 | 13° Ω 00'10 | | | 5553 Sep 09 10:57 | 0° Ω | |
| | 5552 Oct 03 12:53 | 0° Π | | desc. node | 5553 Sep 25 07:21 | 27° Ω 43'17 | |
| desc. node | 5552 Oct 08 10:19 | 8° Π 02'15 | | | 5553 Sep 26 20:00 | 0° Π | |
| | 5552 Oct 24 11:03 | 0° Υ | | evening max el | 5553 Oct 11 12:12 | 18° Π 01'25 | 27°26'57 |
| evening max el | 5552 Oct 29 00:53 | 4° Υ 48'11 | 27°06'27 | retrograde | 5553 Oct 25 03:44 | 25° Π 19'00 | |
| retrograde | 5552 Nov 11 08:20 | 12° Υ 06'00 | | evening set | 5553 Nov 01 06:34 | 22° Π 43'13 | |
| evening set | 5552 Nov 18 03:55 | 9° Υ 26'22 | | min. Earth dist. | 5553 Nov 04 23:20 | 19° Π 29'52 | 0.63632 AU |
| min. Earth dist. | 5552 Nov 22 01:44 | 5° Υ 40'21 | 0.65234 AU | inferior conj | 5553 Nov 07 13:49 | 16° Π 51'28 | -2°47'04 |
| inferior conj | 5552 Nov 24 04:20 | 3° Υ 18'22 | -1°42'48 | minimum elong | 5553 Nov 07 18:43 | 16° Π 39'00 | 2°45'15 |
| minimum elong | 5552 Nov 24 07:19 | 3° Υ 10'00 | 1°41'34 | morning rise | 5553 Nov 14 08:26 | 11° Π 33'28 | |
| | 5552 Nov 27 07:59 | 30° Υ | | asc. node | 5553 Nov 16 03:38 | 11° Π 06'32 | |
| asc. node | 5552 Nov 29 06:36 | 28° Π 26'20 | | direct | 5553 Nov 16 18:56 | 11° Π 04'31 | |
| morning rise | 5552 Nov 30 11:47 | 27° Π 44'28 | | morning max el | 5553 Nov 23 08:31 | 14° Π 29'19 | 17°50'19 |
| direct | 5552 Dec 03 04:18 | 27° Π 05'45 | | | 5553 Dec 04 04:01 | 0° Υ | |
| | 5552 Dec 09 01:54 | 0° Υ | | morning set | 5553 Dec 09 21:16 | 9° Υ 49'08 | |
| morning max el | 5552 Dec 09 15:32 | 0° Υ 32'45 | 18°05'24 | | 5553 Dec 21 19:22 | 0° Υ | |
| morning set | 5552 Dec 27 19:27 | 27° Υ 38'16 | | superior conj | 5553 Dec 22 07:55 | 0° Υ 51'35 | -0°00'24 |
| | 5552 Dec 29 05:55 | 0° Υ | | minimum elong | 5553 Dec 22 07:53 | 0° Υ 51'25 | 0°00'22 |
| desc. node | 5553 Jan 04 09:33 | 10° Υ 01'48 | | behind sun begin | 5553 Dec 21 22:13 | 0° Υ 11'43 | |
| superior conj | 5553 Jan 11 06:33 | 21° Υ 01'32 | -0°46'43 | behind sun end | 5553 Dec 22 17:33 | 1° Υ 31'03 | |
| minimum elong | 5553 Jan 11 00:50 | 20° Υ 38'51 | 0°45'56 | desc. node | 5553 Dec 22 06:34 | 0° Υ 45'58 | |
| max. Earth dist. | 5553 Jan 14 12:28 | 26° Υ 08'51 | 1.45197 AU | max. Earth dist. | 5553 Dec 28 06:26 | 10° Υ 27'40 | 1.44357 AU |
| | 5553 Jan 16 23:24 | 0° \approx | | evening rise | 5554 Jan 06 23:47 | 25° Υ 40'13 | |
| evening rise | 5553 Jan 27 13:14 | 16° \approx 26'54 | | | 5554 Jan 09 19:37 | 0° \approx | |
| | 5553 Feb 05 08:20 | 0° Υ | | | 5554 Jan 30 12:39 | 0° Υ | |
| greatest brilliancy | 5553 Feb 09 17:03 | 6° Υ 36'06 | -0.7m | evening max el | 5554 Feb 04 15:47 | 6° Υ 00'04 | 20°41'22 |
| evening max el | 5553 Feb 21 14:25 | 22° Υ 25'47 | 19°39'06 | asc. node | 5554 Feb 12 02:54 | 10° Υ 47'38 | |
| asc. node | 5553 Feb 25 05:52 | 25° Υ 28'15 | | retrograde | 5554 Feb 12 21:05 | 10° Υ 50'42 | |
| retrograde | 5553 Feb 28 22:43 | 26° Υ 39'57 | | evening set | 5554 Feb 16 20:44 | 9° Υ 19'38 | |
| evening set | 5553 Mar 04 13:26 | 25° Υ 23'28 | | inferior conj | 5554 Feb 22 05:00 | 3° Υ 10'01 | 2°51'50 |
| inferior conj | 5553 Mar 09 23:45 | 19° Υ 26'22 | 3°16'20 | minimum elong | 5554 Feb 22 02:42 | 3° Υ 17'53 | 2°51'18 |
| minimum elong | 5553 Mar 09 22:00 | 19° Υ 32'09 | 3°16'04 | min. Earth dist. | 5554 Feb 22 18:26 | 2° Υ 23'54 | 0.67688 AU |
| min. Earth dist. | 5553 Mar 11 02:39 | 17° Υ 57'21 | 0.66870 AU | | 5554 Feb 24 13:40 | 30° Υ | |
| morning rise | 5553 Mar 15 06:20 | 13° Υ 11'12 | | morning rise | 5554 Feb 27 08:29 | 26° \approx 55'56 | |
| direct | 5553 Mar 21 08:05 | 10° Υ 28'45 | | direct | 5554 Mar 04 20:37 | 24° \approx 29'08 | |
| desc. node | 5553 Apr 02 08:52 | 17° Υ 35'31 | | | | | |

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|------------------|-------------------|----------------------------|------------|------------------|-------------------|---------------------------|------------|
| | 5554 Mar 14 19:15 | 0° H | | morning rise | 5555 Feb 11 15:50 | 10° \approx 49'27 | |
| morning max el | 5554 Mar 15 21:57 | 1° H 05'35 | 24°08'00 | direct | 5555 Feb 16 13:30 | 8° \approx 43'36 | |
| desc. node | 5554 Mar 20 05:51 | 5° H 52'01 | | morning max el | 5555 Feb 26 07:58 | 14° \approx 29'55 | 22°38'37 |
| | 5554 Apr 06 18:25 | 0° Y | | desc. node | 5555 Mar 07 02:51 | 24° \approx 55'27 | |
| morning set | 5554 Apr 20 14:46 | 22° Y 29'03 | | | 5555 Mar 10 20:51 | 0° H | |
| max. Earth dist. | 5554 Apr 24 07:56 | 29° Y 01'19 | 1.38094 AU | | 5555 Mar 30 17:46 | 0° Y | |
| | 5554 Apr 24 21:00 | 0° B | | morning set | 5555 Apr 01 09:27 | 2° Y 42'00 | |
| | | | | max. Earth dist. | 5555 Apr 06 03:40 | 10° Y 39'48 | 1.40300 AU |
| superior conj | 5554 May 01 11:11 | 12° B 13'46 | -1°26'31 | | | | |
| minimum elong | 5554 May 01 15:53 | 12° B 36'16 | 1°25'52 | superior conj | 5555 Apr 13 22:51 | 24° Y 22'19 | -1°51'04 |
| evening rise | 5554 May 10 08:16 | 29° B 35'35 | | minimum elong | 5555 Apr 14 03:52 | 24° Y 45'05 | 1°50'38 |
| | 5554 May 10 13:13 | 0° II | | | 5555 Apr 17 00:35 | 0° B | |
| asc. node | 5554 May 11 02:09 | 1° II 03'33 | | evening rise | 5555 Apr 23 21:58 | 12° B 57'31 | |
| evening max el | 5554 May 26 20:12 | 26° II 20'43 | 19°01'00 | asc. node | 5555 Apr 27 23:12 | 20° B 33'23 | |
| | 5554 Jun 01 05:56 | 0° B | | | 5555 May 03 09:01 | 0° II | |
| retrograde | 5554 Jun 04 12:19 | 0° B 35'39 | | evening max el | 5555 May 10 01:13 | 8° II 49'59 | 18°24'24 |
| evening set | 5554 Jun 06 12:46 | 0° B 22'46 | | retrograde | 5555 May 17 11:37 | 12° II 31'24 | |
| | 5554 Jun 07 21:54 | 30° R II | | evening set | 5555 May 19 19:00 | 12° II 11'04 | |
| inferior conj | 5554 Jun 14 18:24 | 26° II 08'30 | 0°25'33 | inferior conj | 5555 May 27 04:45 | 7° II 36'54 | 1°53'39 |
| minimum elong | 5554 Jun 14 19:26 | 26° II 06'43 | 0°25'08 | minimum elong | 5555 May 27 08:04 | 7° II 30'09 | 1°52'39 |
| desc. node | 5554 Jun 16 05:08 | 25° II 07'47 | | min. Earth dist. | 5555 May 30 15:04 | 4° II 50'34 | 0.58488 AU |
| min. Earth dist. | 5554 Jun 17 19:12 | 24° II 02'34 | 0.56550 AU | desc. node | 5555 Jun 03 02:07 | 2° II 29'02 | |
| morning rise | 5554 Jun 22 22:47 | 21° II 11'39 | | morning rise | 5555 Jun 03 17:59 | 2° II 07'21 | |
| direct | 5554 Jun 28 03:43 | 20° II 07'34 | | direct | 5555 Jun 09 19:39 | 0° II 30'43 | |
| morning max el | 5554 Jul 12 10:18 | 27° II 29'24 | 25°49'58 | morning max el | 5555 Jun 24 04:57 | 8° II 14'26 | 27°05'14 |
| | 5554 Jul 14 21:07 | 0° B | | | 5555 Jul 10 15:47 | 0° B | |
| | 5554 Aug 03 14:01 | 0° Q | | morning set | 5555 Jul 24 12:46 | 26° B 00'21 | |
| asc. node | 5554 Aug 07 01:25 | 6° Q 56'29 | | asc. node | 5555 Jul 24 22:27 | 26° B 51'21 | |
| morning set | 5554 Aug 09 03:30 | 11° Q 18'12 | | | 5555 Jul 26 09:50 | 0° Q | |
| superior conj | 5554 Aug 16 01:46 | 26° Q 24'04 | 1°21'37 | superior conj | 5555 Jul 31 13:37 | 11° Q 17'49 | 1°04'15 |
| minimum elong | 5554 Aug 15 23:31 | 26° Q 11'44 | 1°21'18 | minimum elong | 5555 Jul 31 11:23 | 11° Q 05'26 | 1°03'50 |
| max. Earth dist. | 5554 Aug 16 22:55 | 28° Q 20'27 | 1.32229 AU | max. Earth dist. | 5555 Jul 31 09:52 | 10° Q 57'06 | 1.31903 AU |
| | 5554 Aug 17 17:04 | 0° np | | evening rise | 5555 Aug 07 09:21 | 26° Q 10'27 | |
| evening rise | 5554 Aug 23 01:54 | 11° np 30'08 | | | 5555 Aug 09 05:15 | 0° np | |
| | 5554 Sep 01 15:44 | 0° B | | | 5555 Aug 26 08:11 | 0° B | |
| desc. node | 5554 Sep 12 04:23 | 16° B 47'29 | | desc. node | 5555 Aug 30 01:25 | 5° B 00'01 | |
| | 5554 Sep 23 02:49 | 0° ML | | evening max el | 5555 Sep 05 21:49 | 12° B 37'06 | 26°32'09 |
| evening max el | 5554 Sep 23 20:01 | 0° ML 41'20 | 27°16'20 | retrograde | 5555 Sep 19 20:19 | 19° B 45'19 | |
| retrograde | 5554 Oct 07 16:15 | 7° ML 54'44 | | evening set | 5555 Sep 26 13:44 | 17° B 52'28 | |
| evening set | 5554 Oct 14 19:22 | 5° ML 34'24 | | min. Earth dist. | 5555 Sep 30 11:29 | 15° B 17'14 | 0.59692 AU |
| min. Earth dist. | 5554 Oct 18 10:37 | 2° ML 46'32 | 0.61745 AU | inferior conj | 5555 Oct 03 17:10 | 12° B 44'39 | -4°43'05 |
| inferior conj | 5554 Oct 21 11:13 | 0° ML 03'09 | -3°49'31 | minimum elong | 5555 Oct 03 23:08 | 12° B 32'52 | 4°41'55 |
| minimum elong | 5554 Oct 21 17:30 | 29° B 48'59 | 3°47'38 | morning rise | 5555 Oct 11 10:38 | 8° B 07'28 | |
| | 5554 Oct 21 12:37 | 30° R B | | direct | 5555 Oct 13 18:32 | 7° B 47'55 | |
| morning rise | 5554 Oct 28 17:35 | 25° B 04'10 | | asc. node | 5555 Oct 20 21:42 | 11° B 02'11 | |
| direct | 5554 Oct 31 01:01 | 24° B 41'26 | | morning max el | 5555 Oct 21 11:08 | 11° B 33'34 | 18°15'50 |
| asc. node | 5554 Nov 03 00:40 | 25° B 20'50 | | | 5555 Nov 02 16:56 | 0° ML | |
| morning max el | 5554 Nov 07 00:09 | 28° B 12'26 | 17°53'19 | morning set | 5555 Nov 06 07:34 | 6° ML 46'49 | |
| | 5554 Nov 08 15:59 | 0° ML | | | | | |
| morning set | 5554 Nov 22 19:14 | 22° ML 57'29 | | superior conj | 5555 Nov 15 15:30 | 24° ML 15'02 | 1°09'54 |
| | 5554 Nov 26 16:41 | 0° x | | minimum elong | 5555 Nov 15 19:19 | 24° ML 32'25 | 1°09'27 |
| | | | | | 5555 Nov 18 20:21 | 0° x | |
| superior conj | 5554 Dec 03 11:33 | 11° x 57'57 | 0°39'45 | max. Earth dist. | 5555 Nov 23 05:52 | 7° x 38'07 | 1.41017 AU |
| minimum elong | 5554 Dec 03 14:49 | 12° x 12'00 | 0°39'19 | desc. node | 5555 Nov 26 00:38 | 12° x 18'54 | |
| desc. node | 5554 Dec 09 03:35 | 21° x 32'42 | | evening rise | 5555 Nov 28 00:01 | 15° x 34'06 | |
| max. Earth dist. | 5554 Dec 10 20:26 | 24° x 20'53 | 1.42907 AU | | 5555 Dec 07 03:57 | 0° B | |
| | 5554 Dec 14 08:14 | 0° B | | | 5555 Dec 29 03:00 | 0° \approx | |
| evening rise | 5554 Dec 17 14:59 | 5° B 11'53 | | evening max el | 5556 Jan 01 03:36 | 3° \approx 14'32 | 23°13'41 |
| | 5555 Jan 03 04:02 | 0° \approx | | retrograde | 5556 Jan 11 12:55 | 9° \approx 23'25 | |
| evening max el | 5555 Jan 18 11:47 | 19° \approx 35'40 | 21°54'33 | evening set | 5556 Jan 16 11:12 | 7° \approx 21'26 | |
| retrograde | 5555 Jan 27 18:19 | 25° \approx 06'09 | | asc. node | 5556 Jan 16 20:58 | 7° \approx 00'06 | |
| asc. node | 5555 Jan 29 23:56 | 24° \approx 39'43 | | inferior conj | 5556 Jan 21 20:44 | 0° \approx 56'35 | 1°36'38 |
| evening set | 5555 Feb 01 04:30 | 23° \approx 19'49 | | minimum elong | 5556 Jan 21 18:45 | 1° \approx 03'24 | 1°35'56 |
| inferior conj | 5555 Feb 06 12:37 | 17° \approx 00'48 | 2°18'11 | min. Earth dist. | 5556 Jan 21 10:36 | 1° \approx 31'27 | 0.68123 AU |
| minimum elong | 5555 Feb 06 10:15 | 17° \approx 09'01 | 2°17'29 | | 5556 Jan 22 13:14 | 30° R B | |
| min. Earth dist. | 5555 Feb 06 13:51 | 16° \approx 56'29 | 0.68098 AU | morning rise | 5556 Jan 27 02:14 | 24° B 49'40 | |

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| direct | 5556 Jan 31 09:40 | 23°30'41" | | direct | 5557 Jan 14 07:51 | 7°33'18" | |
| morning max el | 5556 Feb 08 23:09 | 28°30'4" 21°14'37" | | morning max el | 5557 Jan 21 22:04 | 11°35'56" | 20°01'57" |
| | 5556 Feb 10 19:01 | 0°33' | | | 5557 Feb 04 18:35 | 0°33' | |
| desc. node | 5556 Feb 21 23:52 | 14°33'03" | | desc. node | 5557 Feb 07 20:55 | 4°35'41" | |
| | 5556 Mar 03 11:41 | 0°33' | | morning set | 5557 Feb 17 21:01 | 19°48'43" | |
| morning set | 5556 Mar 10 23:53 | 11°36'16" | | | 5557 Feb 24 10:02 | 0°33' | |
| max. Earth dist. | 5556 Mar 18 05:39 | 23°14'09" | 1.42363 AU | max. Earth dist. | 5557 Feb 28 15:25 | 6°41'34" | 1.44007 AU |
| | 5556 Mar 22 07:26 | 0°33' | | | | | |
| superior conj | 5556 Mar 25 13:19 | 5°30'46" | -2°06'42" | superior conj | 5557 Mar 06 02:42 | 15°31'36" | -2°07'44" |
| minimum elong | 5556 Mar 25 16:07 | 5°42'47" | 2°06'36" | minimum elong | 5557 Mar 05 23:57 | 15°20'25" | 2°07'39" |
| evening rise | 5556 Apr 05 22:05 | 25°38'20" | | | 5557 Mar 14 19:08 | 0°33' | |
| | 5556 Apr 08 08:03 | 0°33' | | evening rise | 5557 Mar 19 04:12 | 7°29'14" | |
| asc. node | 5556 Apr 13 20:14 | 9°40'50" | | asc. node | 5557 Mar 31 17:17 | 28°18'41" | |
| evening max el | 5556 Apr 22 11:50 | 21°46'22" | 18°07'41" | | 5557 Apr 01 21:29 | 0°33' | |
| retrograde | 5556 Apr 29 04:34 | 25°10'55" | | evening max el | 5557 Apr 06 00:41 | 5°00'58" | 18°10'10" |
| evening set | 5556 May 01 18:53 | 24°40'27" | | retrograde | 5557 Apr 12 10:42 | 8°23'48" | |
| inferior conj | 5556 May 08 11:33 | 19°45'30" | 2°51'06" | evening set | 5557 Apr 15 07:22 | 7°41'41" | |
| minimum elong | 5556 May 08 14:36 | 19°38'15" | 2°50'27" | inferior conj | 5557 Apr 21 11:00 | 2°27'11" | 3°21'48" |
| min. Earth dist. | 5556 May 11 17:34 | 16°42'14" | 0.60686 AU | minimum elong | 5557 Apr 21 12:38 | 2°22'47" | 3°21'37" |
| morning rise | 5556 May 15 08:05 | 13°52'43" | | | 5557 Apr 23 17:46 | 30°33' | |
| desc. node | 5556 May 19 23:09 | 11°54'49" | | min. Earth dist. | 5557 Apr 24 04:58 | 29°30'50" | 0.62831 AU |
| direct | 5556 May 21 23:21 | 11°43'06" | | morning rise | 5557 Apr 27 16:35 | 26°20'49" | |
| morning max el | 5556 Jun 05 06:11 | 19°39'06" | 27°46'47" | direct | 5557 May 04 12:43 | 23°45'40" | |
| | 5556 Jun 14 01:38 | 0°33' | | desc. node | 5557 May 06 20:10 | 24°01'47" | |
| | 5556 Jul 02 11:59 | 0°33' | | | 5557 May 16 16:38 | 0°33' | |
| morning set | 5556 Jul 07 18:11 | 10°28'23" | | morning max el | 5557 May 18 13:04 | 1°46'24" | 27°50'24" |
| asc. node | 5556 Jul 10 19:29 | 16°54'26" | | | 5557 Jun 08 07:48 | 0°33' | |
| max. Earth dist. | 5556 Jul 13 20:25 | 23°30'02" | 1.32002 AU | morning set | 5557 Jun 21 17:38 | 24°35'57" | |
| | | | | | 5557 Jun 24 08:53 | 0°33' | |
| superior conj | 5556 Jul 15 00:42 | 26°05'20" | 0°42'42" | max. Earth dist. | 5557 Jun 27 02:35 | 5°46'37" | 1.32534 AU |
| minimum elong | 5556 Jul 14 22:56 | 25°55'36" | 0°42'19" | asc. node | 5557 Jun 27 16:33 | 7°01'24" | |
| | 5556 Jul 16 19:18 | 0°33' | | | | | |
| evening rise | 5556 Jul 21 19:56 | 10°56'54" | | superior conj | 5557 Jun 29 09:15 | 10°41'00" | 0°17'33" |
| | 5556 Jul 31 12:04 | 0°33' | | minimum elong | 5557 Jun 29 08:25 | 10°36'31" | 0°17'22" |
| desc. node | 5556 Aug 15 22:27 | 21°59'04" | | evening rise | 5557 Jul 06 07:44 | 25°43'14" | |
| evening max el | 5556 Aug 17 15:47 | 23°42'40" | 25°17'37" | | 5557 Jul 08 08:33 | 0°33' | |
| | 5556 Aug 27 03:36 | 0°33' | | | 5557 Jul 26 07:48 | 0°33' | |
| retrograde | 5556 Aug 31 14:02 | 0°45'48" | | evening max el | 5557 Jul 30 04:18 | 4°10'29" | 23°43'47" |
| | 5556 Sep 05 00:35 | 30°33' | | desc. node | 5557 Aug 02 19:28 | 7°16'13" | |
| evening set | 5556 Sep 06 08:51 | 29°28'56" | | retrograde | 5557 Aug 12 20:03 | 11°02'02" | |
| min. Earth dist. | 5556 Sep 11 03:25 | 26°48'36" | 0.57672 AU | evening set | 5557 Aug 17 04:18 | 10°20'32" | |
| inferior conj | 5556 Sep 14 04:10 | 24°44'45" | -5°16'09" | min. Earth dist. | 5557 Aug 23 14:19 | 7°17'00" | 0.55982 AU |
| minimum elong | 5556 Sep 14 06:43 | 24°40'22" | 5°16'00" | inferior conj | 5557 Aug 25 18:53 | 5°57'53" | -5°12'24" |
| morning rise | 5556 Sep 22 06:51 | 20°30'44" | | minimum elong | 5557 Aug 25 15:04 | 6°03'41" | 5°12'04" |
| direct | 5556 Sep 24 19:03 | 20°11'55" | | morning rise | 5557 Sep 03 04:17 | 2°02'43" | |
| morning max el | 5556 Oct 03 13:58 | 24°22'00" | 18°59'27" | direct | 5557 Sep 05 23:50 | 1°42'51" | |
| asc. node | 5556 Oct 06 18:44 | 27°55'10" | | morning max el | 5557 Sep 16 05:46 | 6°29'03" | 20°05'03" |
| | 5556 Oct 08 08:05 | 0°33' | | asc. node | 5557 Sep 23 15:47 | 15°45'00" | |
| morning set | 5556 Oct 20 05:45 | 21°03'23" | | | 5557 Oct 01 15:10 | 0°33' | |
| | 5556 Oct 24 18:24 | 0°33' | | morning set | 5557 Oct 04 10:31 | 5°37'57" | |
| superior conj | 5556 Oct 28 14:26 | 7°27'12" | 1°29'46" | | | | |
| minimum elong | 5556 Oct 28 17:17 | 7°40'49" | 1°29'32" | superior conj | 5557 Oct 12 03:17 | 21°01'50" | 1°40'25" |
| max. Earth dist. | 5556 Nov 04 11:33 | 20°12'59" | 1.38908 AU | minimum elong | 5557 Oct 12 04:36 | 21°02'31" | 1°40'23" |
| evening rise | 5556 Nov 08 07:40 | 26°57'18" | | | 5557 Oct 16 13:06 | 0°33' | |
| | 5556 Nov 10 02:33 | 0°33' | | max. Earth dist. | 5557 Oct 17 17:15 | 2°14'24" | 1.36841 AU |
| desc. node | 5556 Nov 11 21:41 | 3°00'21" | | evening rise | 5557 Oct 21 12:43 | 9°18'36" | |
| | 5556 Nov 29 17:29 | 0°33' | | desc. node | 5557 Oct 29 18:44 | 23°32'43" | |
| evening max el | 5556 Dec 13 16:54 | 16°56'57" | 24°32'46" | | 5557 Nov 02 19:32 | 0°33' | |
| retrograde | 5556 Dec 25 03:51 | 23°38'26" | | | 5557 Nov 25 12:54 | 0°33' | |
| evening set | 5556 Dec 30 15:17 | 21°21'27" | | evening max el | 5557 Nov 26 05:27 | 0°40'55" | 25°44'55" |
| asc. node | 5557 Jan 02 17:59 | 18°02'56" | | retrograde | 5557 Dec 08 14:15 | 7°45'26" | |
| min. Earth dist. | 5557 Jan 04 06:23 | 16°05'26" | 0.67774 AU | evening set | 5557 Dec 14 15:05 | 5°15'46" | |
| inferior conj | 5557 Jan 05 03:33 | 14°54'52" | 0°48'05" | min. Earth dist. | 5557 Dec 18 22:54 | 0°34'25" | 0.67062 AU |
| minimum elong | 5557 Jan 05 02:25 | 14°58'38" | 0°47'38" | | 5557 Dec 19 09:49 | 30°33' | |
| morning rise | 5557 Jan 10 13:40 | 8°54'10" | | inferior conj | 5557 Dec 20 07:11 | 28°52'07" | -0°06'40" |
| | | | | minimum elong | 5557 Dec 20 07:21 | 28°51'35" | 0°06'35" |
| | | | | transit middle | 5557 Dec 20 07:21 | 28°51'35" | 0°06'35" |

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|------------------|-------------------|----------------------|------------|---------------------|-------------------|---------------------------|------------|
| transit begin | 5557 Dec 20 04:47 | 28° ♊ 59'45 | | inferior conj | 5558 Dec 04 05:41 | 12° ♊ 44'52 | -1°06'33 |
| transit end | 5557 Dec 20 09:56 | 28° ♊ 43'25 | | minimum elong | 5558 Dec 04 07:33 | 12° ♊ 39'21 | 1°05'45 |
| asc. node | 5557 Dec 20 15:02 | 28° ♊ 27'18 | | asc. node | 5558 Dec 07 12:03 | 9° ♊ 09'55 | |
| morning rise | 5557 Dec 26 00:05 | 22° ♊ 59'42 | | morning rise | 5558 Dec 10 07:19 | 7° ♊ 03'12 | |
| direct | 5557 Dec 29 06:38 | 21° ♊ 58'13 | | direct | 5558 Dec 13 04:15 | 6° ♊ 17'21 | |
| morning max el | 5558 Jan 05 04:46 | 25° ♊ 47'54 | 19°03'51 | morning max el | 5558 Dec 19 17:32 | 9° ♊ 50'06 | 18°21'52 |
| | 5558 Jan 08 21:00 | 0° ♋ | | | 5559 Jan 02 23:15 | 0° ♋ | |
| desc. node | 5558 Jan 25 17:57 | 24° ♋ 56'02 | | morning set | 5559 Jan 08 06:55 | 8° ♋ 32'16 | |
| morning set | 5558 Jan 28 00:55 | 28° ♋ 29'40 | | desc. node | 5559 Jan 12 15:00 | 15° ♋ 29'09 | |
| | 5558 Jan 29 00:08 | 0° ♌ | | | 5559 Jan 21 18:54 | 0° ♌ | |
| max. Earth dist. | 5558 Feb 11 06:55 | 20° ♌ 45'27 | 1.45041 AU | | | | |
| | | | | superior conj | 5559 Jan 23 19:55 | 3° ♌ 12'30 | -1°12'53 |
| superior conj | 5558 Feb 13 16:37 | 24° ♌ 32'51 | -1°49'28 | minimum elong | 5559 Jan 23 11:23 | 2° ♌ 39'01 | 1°11'52 |
| minimum elong | 5558 Feb 13 08:05 | 23° ♌ 59'09 | 1°48'49 | max. Earth dist. | 5559 Jan 25 01:36 | 5° ♌ 08'54 | 1.45359 AU |
| | 5558 Feb 17 03:09 | 0° ♍ | | evening rise | 5559 Feb 08 21:13 | 28° ♌ 21'57 | |
| evening rise | 5558 Feb 28 12:16 | 18° ♍ 23'01 | | | 5559 Feb 09 22:10 | 0° ♍ | |
| | 5558 Mar 07 14:38 | 0° ♎ | | greatest brilliancy | 5559 Feb 19 10:33 | 14° ♍ 53'24 | -0.8m |
| asc. node | 5558 Mar 18 14:19 | 16° ♎ 17'17 | | | 5559 Mar 02 03:09 | 0° ♎ | |
| evening max el | 5558 Mar 20 12:52 | 18° ♎ 26'24 | 18°31'09 | evening max el | 5559 Mar 03 22:08 | 1° ♎ 58'09 | 19°09'40 |
| retrograde | 5558 Mar 27 01:25 | 22° ♎ 00'26 | | asc. node | 5559 Mar 05 11:20 | 3° ♎ 25'27 | |
| evening set | 5558 Mar 30 04:29 | 21° ♎ 05'42 | | retrograde | 5559 Mar 10 21:11 | 5° ♎ 54'40 | |
| inferior conj | 5558 Apr 04 22:58 | 15° ♎ 33'24 | 3°31'38 | evening set | 5559 Mar 14 07:20 | 4° ♎ 46'26 | |
| minimum elong | 5558 Apr 04 23:01 | 15° ♎ 33'13 | 3°31'37 | | 5559 Mar 19 00:22 | 30° ♎ ♏ | |
| min. Earth dist. | 5558 Apr 07 01:47 | 13° ♎ 02'40 | 0.64714 AU | inferior conj | 5559 Mar 19 19:53 | 28° ♎ 57'59 | 3°25'34 |
| morning rise | 5558 Apr 10 16:51 | 9° ♎ 20'29 | | minimum elong | 5559 Mar 19 18:40 | 29° ♎ 01'52 | 3°25'26 |
| direct | 5558 Apr 17 10:10 | 6° ♎ 32'12 | | min. Earth dist. | 5559 Mar 21 07:17 | 27° ♎ 04'37 | 0.66215 AU |
| desc. node | 5558 Apr 23 17:12 | 8° ♎ 32'10 | | morning rise | 5559 Mar 25 05:38 | 22° ♎ 42'58 | |
| morning max el | 5558 Apr 30 22:48 | 14° ♎ 27'30 | 27°18'27 | direct | 5559 Mar 31 14:20 | 19° ♎ 54'50 | |
| | 5558 May 13 13:55 | 0° ♏ | | desc. node | 5559 Apr 10 14:14 | 24° ♎ 53'17 | |
| | 5558 Jun 01 00:03 | 0° ♐ | | morning max el | 5559 Apr 13 08:42 | 27° ♎ 30'29 | 26°17'56 |
| morning set | 5558 Jun 05 08:21 | 8° ♐ 14'25 | | | 5559 Apr 15 17:03 | 0° ♐ | |
| max. Earth dist. | 5558 Jun 10 00:13 | 17° ♐ 34'47 | 1.33521 AU | | 5559 May 07 06:21 | 0° ♑ | |
| | | | | morning set | 5559 May 19 10:44 | 21° ♑ 13'42 | |
| superior conj | 5558 Jun 13 13:15 | 24° ♐ 58'33 | -0°10'29 | max. Earth dist. | 5559 May 23 10:41 | 28° ♑ 52'23 | 1.34986 AU |
| minimum elong | 5558 Jun 13 13:47 | 25° ♐ 01'25 | 0°10'23 | | 5559 May 24 00:28 | 0° ♐ | |
| behind sun begin | 5558 Jun 13 09:33 | 24° ♐ 39'01 | | | | | |
| behind sun end | 5558 Jun 13 18:01 | 25° ♐ 23'51 | | superior conj | 5559 May 28 10:21 | 8° ♐ 51'35 | -0°40'16 |
| asc. node | 5558 Jun 14 13:36 | 27° ♐ 07'44 | | minimum elong | 5559 May 28 12:35 | 9° ♐ 02'59 | 0°39'51 |
| | 5558 Jun 15 21:54 | 0° ♑ | | asc. node | 5559 Jun 01 10:37 | 17° ♐ 09'37 | |
| evening rise | 5558 Jun 20 18:48 | 10° ♑ 22'57 | | evening rise | 5559 Jun 05 03:14 | 24° ♐ 50'25 | |
| | 5558 Jun 30 22:54 | 0° ♒ | | | 5559 Jun 07 15:55 | 0° ♑ | |
| evening max el | 5558 Jul 11 18:54 | 14° ♒ 31'45 | 22°06'42 | evening max el | 5559 Jun 23 19:19 | 25° ♑ 18'27 | 20°39'59 |
| desc. node | 5558 Jul 20 16:27 | 20° ♒ 17'33 | | | 5559 Jun 30 15:18 | 0° ♒ | |
| retrograde | 5558 Jul 24 14:23 | 20° ♒ 53'18 | | retrograde | 5559 Jul 05 02:34 | 0° ♒ 51'22 | |
| evening set | 5558 Jul 27 11:32 | 20° ♒ 34'50 | | evening set | 5559 Jul 07 03:52 | 0° ♒ 41'08 | |
| min. Earth dist. | 5558 Aug 05 00:15 | 16° ♒ 54'21 | 0.54952 AU | desc. node | 5559 Jul 07 13:28 | 0° ♒ 36'50 | |
| inferior conj | 5558 Aug 05 17:15 | 16° ♒ 30'26 | -4°17'47 | | 5559 Jul 09 19:29 | 30° ♒ ♓ | |
| minimum elong | 5558 Aug 05 08:34 | 16° ♒ 42'40 | 4°15'42 | inferior conj | 5559 Jul 16 10:20 | 26° ♓ 44'16 | -2°36'31 |
| morning rise | 5558 Aug 14 07:16 | 12° ♒ 40'31 | | minimum elong | 5559 Jul 16 03:11 | 26° ♓ 54'31 | 2°34'03 |
| direct | 5558 Aug 17 12:46 | 12° ♒ 17'17 | | min. Earth dist. | 5559 Jul 17 11:16 | 26° ♓ 08'33 | 0.54842 AU |
| morning max el | 5558 Aug 29 09:22 | 17° ♒ 50'08 | 21°31'19 | morning rise | 5559 Jul 25 01:59 | 22° ♓ 40'07 | |
| | 5558 Sep 07 23:04 | 0° ♓ | | direct | 5559 Jul 28 22:06 | 22° ♓ 08'25 | |
| asc. node | 5558 Sep 10 12:50 | 4° ♓ 18'50 | | morning max el | 5559 Aug 11 02:53 | 28° ♓ 30'03 | 23°12'16 |
| morning set | 5558 Sep 18 19:29 | 20° ♓ 24'16 | | | 5559 Aug 12 15:29 | 0° ♓ | |
| | 5558 Sep 23 08:55 | 0° ♔ | | asc. node | 5559 Aug 28 09:53 | 23° ♓ 25'16 | |
| | | | | | 5559 Aug 31 17:50 | 0° ♔ | |
| superior conj | 5558 Sep 26 01:55 | 5° ♔ 41'11 | 1°43'11 | morning set | 5559 Sep 03 06:40 | 5° ♔ 15'51 | |
| minimum elong | 5558 Sep 26 01:47 | 5° ♔ 40'29 | 1°43'11 | | | | |
| max. Earth dist. | 5558 Sep 30 04:37 | 14° ♔ 06'35 | 1.35033 AU | superior conj | 5559 Sep 10 07:09 | 20° ♔ 20'41 | 1°39'14 |
| evening rise | 5558 Oct 04 11:21 | 22° ♔ 29'04 | | minimum elong | 5559 Sep 10 05:52 | 20° ♔ 13'45 | 1°39'10 |
| | 5558 Oct 08 12:40 | 0° ♕ | | max. Earth dist. | 5559 Sep 13 00:44 | 26° ♔ 09'22 | 1.33608 AU |
| desc. node | 5558 Oct 16 15:44 | 13° ♕ 51'04 | | | 5559 Sep 14 21:00 | 0° ♕ | |
| | 5558 Oct 27 13:11 | 0° ♖ | | evening rise | 5559 Sep 17 23:21 | 6° ♕ 16'33 | |
| evening max el | 5558 Nov 08 18:15 | 14° ♖ 21'55 | 26°42'42 | | 5559 Oct 01 03:17 | 0° ♕ | |
| retrograde | 5558 Nov 21 19:23 | 21° ♖ 38'06 | | desc. node | 5559 Oct 03 12:45 | 3° ♕ 48'11 | |
| evening set | 5558 Nov 28 08:38 | 19° ♖ 00'21 | | evening max el | 5559 Oct 22 06:48 | 27° ♕ 49'40 | 27°18'47 |
| min. Earth dist. | 5558 Dec 02 09:56 | 14° ♖ 54'02 | 0.65998 AU | | 5559 Oct 24 17:07 | 0° ♖ | |

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|---------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| retrograde | 5559 Nov 04 18:25 | 5°♂07'51 | | retrograde | 5560 Oct 17 10:42 | 18°♂06'07 | |
| evening set | 5559 Nov 11 17:33 | 2°♂29'01 | | evening set | 5560 Oct 24 14:45 | 15°♂35'37 | |
| | 5559 Nov 14 12:35 | 30°♂♂ | | min. Earth dist. | 5560 Oct 28 06:23 | 12°♂34'16 | 0.62866 AU |
| min. Earth dist. | 5559 Nov 15 13:06 | 28°♂57'05 | 0.64592 AU | inferior conj | 5560 Oct 31 01:27 | 9°♂52'25 | -3°14'05 |
| inferior conj | 5559 Nov 17 20:42 | 26°♂27'11 | -2°09'58 | minimum elong | 5560 Oct 31 07:03 | 9°♂38'51 | 3°12'09 |
| minimum elong | 5559 Nov 18 00:30 | 26°♂16'53 | 2°08'26 | morning rise | 5560 Nov 07 01:01 | 4°♂41'53 | |
| morning rise | 5559 Nov 24 08:44 | 20°♂59'19 | | direct | 5560 Nov 09 09:58 | 4°♂15'50 | |
| asc. node | 5559 Nov 24 09:06 | 20°♂58'56 | | asc. node | 5560 Nov 10 06:08 | 4°♂19'11 | |
| direct | 5559 Nov 26 22:22 | 20°♂25'11 | | morning max el | 5560 Nov 16 02:30 | 7°♂42'01 | 17°49'17 |
| morning max el | 5559 Dec 03 09:45 | 23°♂50'23 | 17°56'45 | | 5560 Nov 30 17:12 | 0°♂ | |
| | 5559 Dec 08 09:07 | 0°♂ | | morning set | 5560 Dec 02 05:21 | 2°♂39'25 | |
| morning set | 5559 Dec 20 18:10 | 20°♂01'22 | | | | | |
| | 5559 Dec 26 17:43 | 0°♂ | | superior conj | 5560 Dec 13 20:49 | 22°♂46'01 | 0°17'44 |
| desc. node | 5559 Dec 30 12:00 | 6°♂10'13 | | minimum elong | 5560 Dec 13 22:33 | 22°♂53'17 | 0°17'30 |
| | | | | desc. node | 5560 Dec 16 09:00 | 26°♂55'59 | |
| superior conj | 5560 Jan 03 08:30 | 12°♂24'00 | -0°26'47 | | 5560 Dec 18 05:53 | 0°♂ | |
| minimum elong | 5560 Jan 03 05:18 | 12°♂11'09 | 0°26'18 | max. Earth dist. | 5560 Dec 20 14:02 | 3°♂47'27 | 1.43816 AU |
| max. Earth dist. | 5560 Jan 07 20:54 | 19°♂35'17 | 1.44933 AU | evening rise | 5560 Dec 28 22:58 | 16°♂59'37 | |
| | 5560 Jan 14 12:33 | 0°♂ | | | 5561 Jan 06 12:23 | 0°♂ | |
| evening rise | 5560 Jan 19 12:21 | 7°♂42'47 | | evening max el | 5561 Jan 28 01:48 | 29°♂07'23 | 21°11'24 |
| greatest brilliancy | 5560 Feb 03 02:48 | 29°♂48'15 | -0.6m | | 5561 Jan 28 23:04 | 0°♂ | |
| | 5560 Feb 03 06:00 | 0°♂ | | retrograde | 5561 Feb 05 17:14 | 4°♂14'24 | |
| evening max el | 5560 Feb 15 02:44 | 15°♂32'25 | 20°04'02 | asc. node | 5561 Feb 06 05:23 | 4°♂13'02 | |
| asc. node | 5560 Feb 20 08:21 | 19°♂29'02 | | evening set | 5561 Feb 09 21:17 | 2°♂36'40 | |
| retrograde | 5560 Feb 22 19:10 | 20°♂00'50 | | | 5561 Feb 12 11:25 | 30°♂♂ | |
| evening set | 5560 Feb 26 13:35 | 18°♂38'13 | | inferior conj | 5561 Feb 15 05:17 | 26°♂22'37 | 2°38'34 |
| inferior conj | 5560 Mar 02 22:47 | 12°♂35'42 | 3°07'06 | minimum elong | 5561 Feb 15 02:54 | 26°♂30'51 | 2°37'57 |
| minimum elong | 5560 Mar 02 20:45 | 12°♂42'33 | 3°06'44 | min. Earth dist. | 5561 Feb 15 13:19 | 25°♂54'50 | 0.67917 AU |
| min. Earth dist. | 5560 Mar 03 19:49 | 11°♂24'52 | 0.67279 AU | morning rise | 5561 Feb 20 08:21 | 20°♂09'46 | |
| morning rise | 5560 Mar 08 03:42 | 6°♂21'00 | | direct | 5561 Feb 25 14:22 | 17°♂51'40 | |
| direct | 5560 Mar 13 23:59 | 3°♂44'13 | | morning max el | 5561 Mar 08 02:32 | 24°♂06'40 | 23°29'49 |
| morning max el | 5560 Mar 25 17:36 | 10°♂45'14 | 24°58'23 | | 5561 Mar 13 08:31 | 0°♂ | |
| desc. node | 5560 Mar 27 11:15 | 12°♂34'37 | | desc. node | 5561 Mar 14 08:16 | 1°♂13'03 | |
| | 5560 Apr 10 01:09 | 0°♂ | | | 5561 Apr 03 11:32 | 0°♂ | |
| | 5560 Apr 28 22:33 | 0°♂ | | morning set | 5561 Apr 12 06:30 | 14°♂19'30 | |
| morning set | 5560 Apr 30 20:06 | 3°♂20'51 | | max. Earth dist. | 5561 Apr 16 06:46 | 21°♂13'48 | 1.39037 AU |
| max. Earth dist. | 5560 May 04 11:03 | 9°♂55'29 | 1.36877 AU | | 5561 Apr 21 04:20 | 0°♂ | |
| | | | | | | | |
| superior conj | 5560 May 10 21:38 | 22°♂12'32 | -1°10'10 | superior conj | 5561 Apr 23 19:12 | 4°♂50'32 | -1°37'42 |
| minimum elong | 5560 May 11 01:34 | 22°♂31'52 | 1°09'33 | minimum elong | 5561 Apr 24 00:15 | 5°♂14'11 | 1°37'07 |
| | 5560 May 14 19:40 | 0°♂ | | evening rise | 5561 May 03 02:29 | 22°♂41'21 | |
| asc. node | 5560 May 18 07:38 | 7°♂03'13 | | asc. node | 5561 May 05 04:40 | 26°♂43'19 | |
| evening rise | 5560 May 19 06:45 | 8°♂59'27 | | | 5561 May 06 22:05 | 0°♂ | |
| | 5560 May 30 20:49 | 0°♂ | | evening max el | 5561 May 19 08:26 | 18°♂55'34 | 18°42'53 |
| evening max el | 5560 Jun 05 08:22 | 6°♂46'50 | 19°31'15 | retrograde | 5561 May 27 10:31 | 22°♂54'36 | |
| retrograde | 5560 Jun 14 21:57 | 11°♂27'42 | | evening set | 5561 May 29 13:44 | 22°♂38'57 | |
| evening set | 5560 Jun 16 20:07 | 11°♂17'10 | | inferior conj | 5561 Jun 06 10:42 | 18°♂16'09 | 1°06'41 |
| desc. node | 5560 Jun 23 10:29 | 8°♂30'25 | | minimum elong | 5561 Jun 06 13:05 | 18°♂11'42 | 1°05'51 |
| inferior conj | 5560 Jun 25 12:50 | 7°♂11'59 | -0°37'43 | min. Earth dist. | 5561 Jun 09 17:18 | 15°♂50'48 | 0.57320 AU |
| minimum elong | 5560 Jun 25 11:09 | 7°♂14'41 | 0°37'06 | desc. node | 5561 Jun 10 07:31 | 15°♂25'57 | |
| min. Earth dist. | 5560 Jun 28 00:25 | 5°♂37'16 | 0.55692 AU | morning rise | 5561 Jun 14 09:06 | 13°♂04'24 | |
| morning rise | 5560 Jul 03 23:37 | 2°♂36'45 | | direct | 5561 Jun 19 23:12 | 11°♂47'30 | |
| direct | 5560 Jul 08 15:45 | 1°♂47'48 | | morning max el | 5561 Jul 04 08:00 | 19°♂19'37 | 26°25'40 |
| morning max el | 5560 Jul 22 16:17 | 8°♂50'21 | 24°55'44 | | 5561 Jul 13 09:06 | 0°♂ | |
| | 5560 Aug 07 09:02 | 0°♂ | | | 5561 Jul 30 20:17 | 0°♂ | |
| asc. node | 5560 Aug 14 06:55 | 12°♂55'55 | | asc. node | 5561 Aug 01 03:57 | 2°♂43'23 | |
| morning set | 5560 Aug 17 18:23 | 20°♂07'59 | | morning set | 5561 Aug 02 05:01 | 4°♂55'03 | |
| | 5560 Aug 22 07:48 | 0°♂ | | | | | |
| | | | | superior conj | 5561 Aug 09 04:00 | 20°♂04'39 | 1°14'47 |
| superior conj | 5560 Aug 24 16:32 | 5°♂10'53 | 1°29'32 | minimum elong | 5561 Aug 09 01:42 | 19°♂51'58 | 1°14'25 |
| minimum elong | 5560 Aug 24 14:31 | 4°♂59'49 | 1°29'18 | max. Earth dist. | 5561 Aug 09 14:33 | 21°♂03'00 | 1.32039 AU |
| max. Earth dist. | 5560 Aug 26 05:04 | 8°♂30'05 | 1.32610 AU | | 5561 Aug 13 16:43 | 0°♂ | |
| evening rise | 5560 Aug 31 21:10 | 20°♂31'11 | | evening rise | 5561 Aug 16 01:47 | 5°♂03'42 | |
| | 5560 Sep 05 16:00 | 0°♂ | | | 5561 Aug 29 07:44 | 0°♂ | |
| desc. node | 5560 Sep 19 09:46 | 23°♂15'08 | | desc. node | 5561 Sep 06 06:48 | 11°♂59'19 | |
| | 5560 Sep 24 05:28 | 0°♂ | | evening max el | 5561 Sep 15 22:31 | 23°♂12'18 | 27°01'33 |
| evening max el | 5560 Oct 03 17:09 | 10°♂51'02 | 27°26'31 | | 5561 Sep 26 18:42 | 0°♂ | |

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|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| retrograde | 5561 Sep 29 19:37 | 0°♄23'30 | | evening max el | 5562 Aug 28 20:45 | 4°♄45'17 | 26°03'36 |
| | 5561 Oct 02 19:03 | 30°♄13'08 | | retrograde | 5562 Sep 11 19:54 | 11°♄52'31 | |
| evening set | 5561 Oct 06 20:17 | 28°♄13'08 | | evening set | 5562 Sep 18 05:15 | 10°♄14'08 | |
| min. Earth dist. | 5561 Oct 10 12:51 | 25°♄32'56 | 0.60882 AU | min. Earth dist. | 5562 Sep 22 09:32 | 7°♄39'04 | 0.58803 AU |
| inferior conj | 5561 Oct 13 16:39 | 22°♄51'54 | -4°13'53 | inferior conj | 5562 Sep 25 14:48 | 5°♄16'12 | -5°00'34 |
| minimum elong | 5561 Oct 13 23:05 | 22°♄38'10 | 4°12'14 | minimum elong | 5562 Sep 25 19:46 | 5°♄06'58 | 4°59'52 |
| morning rise | 5561 Oct 21 03:55 | 18°♄02'13 | | morning rise | 5562 Oct 03 12:32 | 0°♄49'17 | |
| direct | 5561 Oct 23 11:11 | 17°♄41'07 | | direct | 5562 Oct 05 21:39 | 0°♄30'26 | |
| asc. node | 5561 Oct 28 03:11 | 19°♄11'51 | | morning max el | 5562 Oct 14 00:34 | 4°♄25'21 | 18°31'52 |
| morning max el | 5561 Oct 30 16:35 | 21°♄16'52 | 18°00'33 | asc. node | 5562 Oct 15 00:14 | 5°♄25'22 | |
| | 5561 Nov 06 07:24 | 0°♄ | | morning set | 5562 Oct 30 03:00 | 0°♄08'43 | |
| morning set | 5561 Nov 15 10:04 | 16°♄07'03 | | | 5562 Oct 30 01:12 | 0°♄ | |
| | 5561 Nov 22 23:57 | 0°♄ | | | | | |
| superior conj | 5561 Nov 25 11:24 | 4°♄24'39 | 0°53'49 | superior conj | 5562 Nov 08 00:04 | 17°♄06'54 | 1°19'32 |
| minimum elong | 5561 Nov 25 15:11 | 4°♄41'15 | 0°53'19 | minimum elong | 5562 Nov 08 03:36 | 17°♄23'18 | 1°19'10 |
| max. Earth dist. | 5561 Dec 03 02:17 | 17°♄27'30 | 1.42140 AU | | 5562 Nov 15 03:40 | 0°♄ | |
| desc. node | 5561 Dec 03 06:03 | 17°♄43'11 | | max. Earth dist. | 5562 Nov 15 09:15 | 0°♄24'16 | 1.40118 AU |
| evening rise | 5561 Dec 08 20:36 | 26°♄50'05 | | evening rise | 5562 Nov 19 15:01 | 7°♄37'31 | |
| | 5561 Dec 10 20:36 | 0°♄ | | desc. node | 5562 Nov 20 03:05 | 8°♄27'47 | |
| | 5561 Dec 31 07:11 | 0°♄ | | | 5562 Dec 03 21:52 | 0°♄ | |
| evening max el | 5562 Jan 10 19:44 | 12°♄44'18 | 22°27'43 | evening max el | 5562 Dec 24 10:07 | 26°♄24'24 | 23°47'46 |
| retrograde | 5562 Jan 20 13:39 | 18°♄32'00 | | | 5562 Dec 28 12:01 | 0°♄ | |
| asc. node | 5562 Jan 24 02:25 | 17°♄26'54 | | retrograde | 5563 Jan 04 06:59 | 2°♄48'56 | |
| evening set | 5562 Jan 25 04:50 | 16°♄38'49 | | evening set | 5563 Jan 09 10:38 | 0°♄40'30 | |
| inferior conj | 5562 Jan 30 13:22 | 10°♄16'35 | 2°01'30 | | 5563 Jan 10 04:30 | 30°♄ | |
| minimum elong | 5562 Jan 30 11:06 | 10°♄24'25 | 2°00'46 | asc. node | 5563 Jan 10 23:28 | 29°♄11'29 | |
| min. Earth dist. | 5562 Jan 30 09:36 | 10°♄29'37 | 0.68153 AU | inferior conj | 5563 Jan 14 21:09 | 24°♄14'08 | 1°16'54 |
| morning rise | 5562 Feb 04 17:15 | 4°♄06'56 | | minimum elong | 5563 Jan 14 19:28 | 24°♄19'51 | 1°16'16 |
| direct | 5562 Feb 09 08:40 | 2°♄11'01 | | min. Earth dist. | 5563 Jan 14 06:19 | 25°♄04'40 | 0.68012 AU |
| morning max el | 5562 Feb 18 14:32 | 7°♄36'06 | 22°01'51 | morning rise | 5563 Jan 20 04:19 | 18°♄09'24 | |
| desc. node | 5562 Mar 01 05:17 | 20°♄32'55 | | direct | 5563 Jan 24 05:53 | 16°♄36'06 | |
| | 5562 Mar 07 21:46 | 0°♄ | | morning max el | 5563 Feb 01 08:49 | 21°♄15'46 | 20°42'03 |
| morning set | 5562 Mar 23 13:01 | 23°♄58'44 | | | 5563 Feb 08 16:40 | 0°♄ | |
| | 5562 Mar 27 05:39 | 0°♄ | | desc. node | 5563 Feb 16 02:20 | 10°♄22'20 | |
| max. Earth dist. | 5562 Mar 29 04:46 | 3°♄15'47 | 1.41214 AU | | 5563 Mar 01 03:33 | 0°♄ | |
| | | | | morning set | 5563 Mar 02 17:46 | 2°♄28'13 | |
| superior conj | 5562 Apr 05 22:27 | 16°♄35'03 | -1°59'07 | max. Earth dist. | 5563 Mar 11 09:30 | 16°♄11'55 | 1.43128 AU |
| minimum elong | 5562 Apr 06 02:56 | 16°♄54'52 | 1°58'49 | | | | |
| | 5562 Apr 13 08:03 | 0°♄ | | superior conj | 5563 Mar 18 02:34 | 27°♄15'22 | -2°09'15 |
| evening rise | 5562 Apr 16 11:00 | 5°♄47'37 | | minimum elong | 5563 Mar 18 03:22 | 27°♄18'46 | 2°09'14 |
| asc. node | 5562 Apr 22 01:42 | 16°♄04'48 | | | 5563 Mar 19 17:37 | 0°♄ | |
| | 5562 May 01 03:46 | 0°♄ | | evening rise | 5563 Mar 30 04:00 | 18°♄08'12 | |
| evening max el | 5562 May 02 16:13 | 1°♄37'30 | 18°14'50 | | 5563 Apr 05 22:17 | 0°♄ | |
| retrograde | 5562 May 09 17:53 | 5°♄10'06 | | asc. node | 5563 Apr 08 22:45 | 5°♄00'53 | |
| evening set | 5562 May 12 04:07 | 4°♄45'51 | | evening max el | 5563 Apr 16 04:12 | 14°♄43'01 | 18°06'26 |
| inferior conj | 5562 May 19 06:10 | 0°♄02'51 | 2°21'38 | retrograde | 5563 Apr 22 16:50 | 18°♄04'57 | |
| minimum elong | 5562 May 19 09:36 | 29°♄55'22 | 2°20'43 | evening set | 5563 Apr 25 09:52 | 17°♄29'45 | |
| | 5562 May 19 07:28 | 30°♄ | | inferior conj | 5563 May 01 20:33 | 12°♄26'38 | 3°07'01 |
| min. Earth dist. | 5562 May 22 16:00 | 27°♄05'59 | 0.59413 AU | minimum elong | 5563 May 01 23:04 | 12°♄20'19 | 3°06'34 |
| morning rise | 5562 May 26 12:12 | 24°♄21'41 | | min. Earth dist. | 5563 May 04 22:15 | 9°♄23'17 | 0.61625 AU |
| desc. node | 5562 May 28 04:32 | 23°♄30'48 | | morning rise | 5563 May 08 10:23 | 6°♄27'02 | |
| direct | 5562 Jun 01 20:31 | 22°♄30'30 | | direct | 5563 May 15 04:56 | 4°♄04'50 | |
| | 5562 Jun 15 20:57 | 0°♄ | | desc. node | 5563 May 15 01:33 | 4°♄04'54 | |
| morning max el | 5562 Jun 16 05:40 | 0°♄21'15 | 27°27'24 | morning max el | 5563 May 29 09:27 | 12°♄04'26 | 27°52'48 |
| | 5562 Jul 07 10:18 | 0°♄ | | | 5563 Jun 12 13:25 | 0°♄ | |
| morning set | 5562 Jul 17 12:53 | 19°♄31'52 | | morning set | 5563 Jun 29 18:04 | 0°♄ | |
| asc. node | 5562 Jul 19 00:59 | 22°♄42'18 | | | 5563 Jul 01 16:04 | 3°♄52'29 | |
| | 5562 Jul 22 09:55 | 0°♄ | | asc. node | 5563 Jul 05 22:03 | 12°♄47'56 | |
| max. Earth dist. | 5562 Jul 24 01:41 | 3°♄38'47 | 1.31890 AU | max. Earth dist. | 5563 Jul 07 10:40 | 16°♄05'42 | 1.32170 AU |
| | | | | | | | |
| superior conj | 5562 Jul 24 15:44 | 4°♄56'19 | 0°55'34 | superior conj | 5563 Jul 09 02:00 | 19°♄40'10 | 0°32'26 |
| minimum elong | 5562 Jul 24 13:38 | 4°♄44'44 | 0°55'09 | minimum elong | 5563 Jul 09 00:34 | 19°♄32'22 | 0°32'07 |
| evening rise | 5562 Jul 31 10:47 | 19°♄46'57 | | | 5563 Jul 13 19:11 | 0°♄ | |
| | 5562 Aug 05 10:20 | 0°♄ | | evening rise | 5563 Jul 15 22:07 | 4°♄34'31 | |
| desc. node | 5562 Aug 24 03:50 | 29°♄43'24 | | | 5563 Jul 29 09:22 | 0°♄ | |
| | 5562 Aug 24 09:28 | 0°♄ | | evening max el | 5563 Aug 10 11:58 | 15°♄33'17 | 24°39'15 |
| | | | | desc. node | 5563 Aug 11 00:50 | 16°♄03'40 | |

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|---------------------|-------------------|-------------------------------|------------|---------------------|-------------------|--------------------------------|------------|
| retrograde | 5563 Aug 24 09:02 | 22° \mathbb{M} 32'59 | | evening max el | 5564 Jul 22 00:28 | 25° \mathcal{Q} 54'41 | 23°01'58 |
| evening set | 5563 Aug 29 13:54 | 21° \mathbb{M} 32'18 | | | 5564 Jul 27 03:10 | 0° \mathbb{M} | |
| min. Earth dist. | 5563 Sep 03 23:14 | 18° \mathbb{M} 43'47 | 0.56886 AU | desc. node | 5564 Jul 27 21:51 | 0° \mathbb{M} 27'44 | |
| inferior conj | 5563 Sep 06 17:13 | 16° \mathbb{M} 57'29 | -5°20'11 | retrograde | 5564 Aug 04 09:17 | 2° \mathbb{M} 35'18 | |
| minimum elong | 5563 Sep 06 17:17 | 16° \mathbb{M} 57'24 | 5°20'11 | evening set | 5564 Aug 08 01:48 | 2° \mathbb{M} 05'35 | |
| morning rise | 5563 Sep 14 23:00 | 12° \mathbb{M} 52'08 | | | 5564 Aug 13 05:08 | 30° \mathbb{R} \mathcal{Q} | |
| direct | 5563 Sep 17 13:50 | 12° \mathbb{M} 33'09 | | min. Earth dist. | 5564 Aug 15 09:13 | 28° \mathcal{Q} 48'09 | 0.55449 AU |
| morning max el | 5563 Sep 26 23:02 | 16° \mathbb{M} 57'45 | 19°24'39 | inferior conj | 5564 Aug 17 00:07 | 27° \mathcal{Q} 51'55 | -4°55'49 |
| asc. node | 5563 Oct 01 21:17 | 22° \mathbb{M} 44'48 | | minimum elong | 5564 Aug 16 17:38 | 28° \mathcal{Q} 01'19 | 4°54'49 |
| | 5563 Oct 06 12:04 | 0° \mathcal{Q} | | morning rise | 5564 Aug 25 11:40 | 24° \mathcal{Q} 01'02 | |
| morning set | 5563 Oct 14 04:21 | 14° \mathcal{Q} 34'11 | | direct | 5564 Aug 28 11:24 | 23° \mathcal{Q} 39'55 | |
| | 5563 Oct 21 21:43 | 0° \mathbb{L} | | morning max el | 5564 Sep 08 09:29 | 28° \mathcal{Q} 44'53 | 20°39'23 |
| | | | | | 5564 Sep 09 16:03 | 0° \mathbb{M} | |
| superior conj | 5563 Oct 22 05:29 | 0° \mathbb{L} 37'59 | 1°35'20 | asc. node | 5564 Sep 17 18:20 | 10° \mathbb{M} 54'50 | |
| minimum elong | 5563 Oct 22 07:42 | 0° \mathbb{L} 48'52 | 1°35'11 | morning set | 5564 Sep 27 11:10 | 29° \mathbb{M} 14'35 | |
| max. Earth dist. | 5563 Oct 28 14:08 | 12° \mathbb{L} 42'16 | 1.38008 AU | | 5564 Sep 27 19:59 | 0° \mathcal{Q} | |
| evening rise | 5563 Nov 01 08:13 | 19° \mathbb{L} 27'01 | | | | | |
| desc. node | 5563 Nov 07 00:08 | 29° \mathbb{L} 06'11 | | superior conj | 5564 Oct 04 22:54 | 14° \mathcal{Q} 43'49 | 1°42'29 |
| | 5563 Nov 07 13:12 | 0° \mathcal{X} | | minimum elong | 5564 Oct 04 23:35 | 14° \mathcal{Q} 47'18 | 1°42'28 |
| | 5563 Nov 28 01:44 | 0° \mathcal{Z} | | max. Earth dist. | 5564 Oct 09 21:59 | 24° \mathcal{Q} 38'00 | 1.36036 AU |
| evening max el | 5563 Dec 06 23:03 | 10° \mathcal{Z} 08'27 | 25°04'51 | | 5564 Oct 12 17:19 | 0° \mathbb{L} | |
| retrograde | 5563 Dec 18 20:02 | 17° \mathcal{Z} 00'55 | | evening rise | 5564 Oct 13 21:15 | 2° \mathbb{L} 10'22 | |
| evening set | 5563 Dec 24 13:05 | 14° \mathcal{Z} 38'29 | | desc. node | 5564 Oct 23 21:09 | 19° \mathbb{L} 33'14 | |
| asc. node | 5563 Dec 28 20:30 | 9° \mathcal{Z} 51'43 | | | 5564 Oct 30 14:04 | 0° \mathcal{X} | |
| min. Earth dist. | 5563 Dec 29 01:05 | 9° \mathcal{Z} 36'51 | 0.67512 AU | evening max el | 5564 Nov 18 11:50 | 23° \mathcal{X} 52'24 | 26°11'45 |
| inferior conj | 5563 Dec 30 02:50 | 8° \mathcal{Z} 12'35 | 0°25'36 | | 5564 Nov 26 18:56 | 0° \mathcal{Z} | |
| minimum elong | 5563 Dec 30 02:12 | 8° \mathcal{Z} 14'39 | 0°25'21 | retrograde | 5564 Dec 01 04:02 | 1° \mathcal{Z} 02'19 | |
| morning rise | 5564 Jan 04 15:33 | 2° \mathcal{Z} 14'51 | | | 5564 Dec 05 04:47 | 30° \mathbb{R} \mathcal{X} | |
| direct | 5564 Jan 08 04:38 | 1° \mathcal{Z} 02'27 | | evening set | 5564 Dec 07 10:25 | 28° \mathcal{X} 28'40 | |
| morning max el | 5564 Jan 15 11:01 | 5° \mathcal{Z} 06'47 | 19°35'17 | min. Earth dist. | 5564 Dec 11 15:29 | 24° \mathcal{X} 02'16 | 0.66654 AU |
| greatest brilliancy | 5564 Jan 28 11:26 | 22° \mathcal{Z} 16'51 | -0.7m | inferior conj | 5564 Dec 13 04:32 | 22° \mathcal{X} 08'08 | -0°31'31 |
| desc. node | 5564 Feb 02 23:22 | 0° \approx 33'18 | | minimum elong | 5564 Dec 13 05:23 | 22° \mathcal{X} 05'31 | 0°31'08 |
| | 5564 Feb 02 14:36 | 0° \approx | | asc. node | 5564 Dec 14 17:32 | 20° \mathcal{X} 16'25 | |
| morning set | 5564 Feb 09 14:32 | 10° \approx 43'23 | | morning rise | 5564 Dec 19 00:54 | 16° \mathcal{X} 19'57 | |
| | 5564 Feb 21 22:44 | 0° \mathcal{H} | | direct | 5564 Dec 22 03:13 | 15° \mathcal{X} 25'25 | |
| max. Earth dist. | 5564 Feb 21 21:51 | 29° \approx 56'30 | 1.44535 AU | morning max el | 5564 Dec 28 20:31 | 19° \mathcal{X} 06'16 | 18°44'00 |
| | | | | | 5565 Jan 06 07:25 | 0° \mathcal{Z} | |
| superior conj | 5564 Feb 26 05:16 | 6° \mathcal{H} 48'53 | -2°02'28 | morning set | 5565 Jan 19 04:11 | 19° \mathcal{Z} 55'55 | |
| minimum elong | 5564 Feb 25 23:43 | 6° \mathcal{H} 26'38 | 2°02'12 | desc. node | 5565 Jan 19 20:24 | 20° \mathcal{Z} 59'41 | |
| evening rise | 5564 Mar 11 01:05 | 29° \mathcal{H} 35'05 | | | 5565 Jan 25 13:57 | 0° \approx | |
| | 5564 Mar 11 07:00 | 0° \mathbb{Y} | | max. Earth dist. | 5565 Feb 03 15:39 | 14° \approx 13'04 | 1.45268 AU |
| asc. node | 5564 Mar 25 19:46 | 23° \mathbb{Y} 23'30 | | | | | |
| evening max el | 5564 Mar 29 17:09 | 28° \mathbb{Y} 03'37 | 18°16'53 | superior conj | 5565 Feb 04 12:22 | 15° \approx 34'23 | -1°35'50 |
| | 5564 Mar 31 23:39 | 0° \mathcal{B} | | minimum elong | 5565 Feb 04 02:54 | 14° \approx 57'16 | 1°34'55 |
| retrograde | 5564 Apr 05 03:00 | 1° \mathcal{B} 29'16 | | | 5565 Feb 13 15:43 | 0° \mathcal{H} | |
| evening set | 5564 Apr 08 02:27 | 0° \mathcal{B} 41'47 | | evening rise | 5565 Feb 19 23:10 | 10° \mathcal{H} 05'01 | |
| | 5564 Apr 09 05:40 | 30° \mathbb{R} \mathbb{Y} | | greatest brilliancy | 5565 Feb 27 04:48 | 21° \mathcal{H} 42'13 | -0.9m |
| inferior conj | 5564 Apr 14 01:47 | 25° \mathbb{Y} 19'34 | 3°28'10 | | 5565 Mar 04 11:45 | 0° \mathbb{Y} | |
| minimum elong | 5564 Apr 14 02:44 | 25° \mathbb{Y} 16'54 | 3°28'05 | asc. node | 5565 Mar 12 16:47 | 11° \mathbb{Y} 02'37 | |
| min. Earth dist. | 5564 Apr 16 13:29 | 22° \mathbb{Y} 32'23 | 0.63682 AU | evening max el | 5565 Mar 13 04:23 | 11° \mathbb{Y} 32'46 | 18°45'27 |
| morning rise | 5564 Apr 20 02:00 | 19° \mathbb{Y} 10'03 | | retrograde | 5565 Mar 19 20:20 | 15° \mathbb{Y} 14'57 | |
| direct | 5564 Apr 26 21:57 | 16° \mathbb{Y} 27'38 | | evening set | 5565 Mar 23 02:23 | 14° \mathbb{Y} 14'23 | |
| desc. node | 5564 Apr 30 22:35 | 17° \mathbb{Y} 16'47 | | inferior conj | 5565 Mar 28 17:58 | 8° \mathbb{Y} 34'45 | 3°30'45 |
| morning max el | 5564 May 10 17:37 | 24° \mathbb{Y} 26'43 | 27°40'45 | minimum elong | 5565 Mar 28 17:26 | 8° \mathbb{Y} 36'23 | 3°30'43 |
| | 5564 May 15 18:03 | 0° \mathcal{B} | | min. Earth dist. | 5565 Mar 30 14:02 | 6° \mathbb{Y} 19'16 | 0.65403 AU |
| | 5564 Jun 04 23:01 | 0° \mathbb{I} | | morning rise | 5565 Apr 03 07:59 | 2° \mathbb{Y} 20'41 | |
| morning set | 5564 Jun 14 12:08 | 17° \mathbb{I} 48'44 | | | 5565 Apr 07 03:48 | 30° \mathbb{R} \mathcal{H} | |
| max. Earth dist. | 5564 Jun 19 13:36 | 28° \mathbb{I} 11'18 | 1.32899 AU | direct | 5565 Apr 09 22:09 | 29° \mathcal{H} 31'17 | |
| | 5564 Jun 20 10:11 | 0° \mathcal{G} | | | 5565 Apr 12 20:13 | 0° \mathbb{Y} | |
| asc. node | 5564 Jun 21 19:03 | 2° \mathcal{G} 55'11 | | desc. node | 5565 Apr 17 19:36 | 2° \mathbb{Y} 38'53 | |
| | | | | morning max el | 5565 Apr 23 03:47 | 7° \mathbb{Y} 19'20 | 26°55'48 |
| superior conj | 5564 Jun 22 08:52 | 4° \mathcal{G} 09'14 | 0°05'59 | | 5565 May 10 16:38 | 0° \mathcal{B} | |
| minimum elong | 5564 Jun 22 08:34 | 4° \mathcal{G} 07'40 | 0°05'54 | | 5565 May 28 06:58 | 0° \mathbb{I} | |
| behind sun begin | 5564 Jun 22 03:35 | 3° \mathcal{G} 40'51 | | morning set | 5565 May 28 22:07 | 1° \mathbb{I} 12'21 | |
| behind sun end | 5564 Jun 22 13:34 | 4° \mathcal{G} 34'30 | | max. Earth dist. | 5565 Jun 02 07:04 | 9° \mathbb{I} 48'14 | 1.34095 AU |
| evening rise | 5564 Jun 29 09:51 | 19° \mathcal{G} 19'11 | | | | | |
| | 5564 Jul 04 15:07 | 0° \mathcal{Q} | | superior conj | 5565 Jun 06 10:16 | 18° \mathbb{I} 17'37 | -0°22'57 |

| | | | | | | | |
|---------------------|-------------------|-----------------------------------|------------|------------------|-------------------|-----------------------------------|------------|
| minimum elong | 5565 Jun 06 11:29 | 18° Π 24'03 | 0°22'43 | superior conj | 5566 May 21 03:34 | 1° Π 57'44 | -0°53'03 |
| asc. node | 5565 Jun 08 16:05 | 23° Π 00'24 | | minimum elong | 5566 May 21 06:33 | 2° Π 12'43 | 0°52'32 |
| | 5565 Jun 11 23:22 | 0° \mathfrak{S} | | asc. node | 5566 May 26 13:06 | 12° Π 59'08 | |
| evening rise | 5565 Jun 13 20:05 | 3° \mathfrak{S} 55'10 | | evening rise | 5566 May 29 02:44 | 18° Π 15'37 | |
| | 5565 Jun 28 08:31 | 0° Ω | | | 5566 Jun 04 01:45 | 0° \mathfrak{S} | |
| evening max el | 5565 Jul 03 18:24 | 6° Ω 23'13 | 21°27'47 | evening max el | 5566 Jun 16 00:03 | 17° \mathfrak{S} 26'24 | 20°08'15 |
| desc. node | 5565 Jul 14 18:51 | 12° Ω 22'24 | | retrograde | 5566 Jun 26 13:50 | 22° \mathfrak{S} 37'11 | |
| retrograde | 5565 Jul 15 23:45 | 12° Ω 25'51 | | evening set | 5566 Jun 28 11:56 | 22° \mathfrak{S} 27'39 | |
| evening set | 5565 Jul 18 10:21 | 12° Ω 12'11 | | desc. node | 5566 Jul 01 15:51 | 21° \mathfrak{S} 34'05 | |
| inferior conj | 5565 Jul 27 18:26 | 8° Ω 12'29 | -3°39'10 | inferior conj | 5566 Jul 07 13:52 | 18° \mathfrak{S} 28'42 | -1°46'09 |
| minimum elong | 5565 Jul 27 09:34 | 8° Ω 24'53 | 3°36'36 | minimum elong | 5566 Jul 07 08:54 | 18° \mathfrak{S} 36'04 | 1°44'20 |
| min. Earth dist. | 5565 Jul 27 19:03 | 8° Ω 11'37 | 0.54793 AU | min. Earth dist. | 5566 Jul 09 07:00 | 17° \mathfrak{S} 27'29 | 0.55091 AU |
| morning rise | 5565 Aug 05 09:46 | 4° Ω 19'28 | | morning rise | 5566 Jul 16 04:23 | 14° \mathfrak{S} 12'32 | |
| direct | 5565 Aug 08 20:53 | 3° Ω 53'32 | | direct | 5566 Jul 20 08:05 | 13° \mathfrak{S} 34'59 | |
| morning max el | 5565 Aug 21 08:15 | 9° Ω 46'40 | 22°13'03 | morning max el | 5566 Aug 02 23:24 | 20° \mathfrak{S} 15'45 | 23°56'55 |
| asc. node | 5565 Sep 04 15:22 | 29° Ω 43'31 | | | 5566 Aug 11 06:05 | 0° Ω | |
| | 5565 Sep 04 18:58 | 0° \mathfrak{M} | | asc. node | 5566 Aug 22 12:24 | 19° Ω 01'08 | |
| morning set | 5565 Sep 11 21:17 | 14° \mathfrak{M} 03'48 | | morning set | 5566 Aug 27 08:55 | 28° Ω 56'29 | |
| | | | | | 5566 Aug 27 20:53 | 0° \mathfrak{M} | |
| superior conj | 5565 Sep 19 00:41 | 29° \mathfrak{M} 13'47 | 1°42'16 | superior conj | 5566 Sep 03 08:00 | 13° \mathfrak{M} 59'13 | 1°35'47 |
| minimum elong | 5565 Sep 19 00:01 | 29° \mathfrak{M} 10'14 | 1°42'15 | minimum elong | 5566 Sep 03 06:21 | 13° \mathfrak{M} 50'15 | 1°35'39 |
| | 5565 Sep 19 09:27 | 0° \mathfrak{L} | | max. Earth dist. | 5566 Sep 05 12:45 | 18° \mathfrak{M} 43'03 | 1.33127 AU |
| max. Earth dist. | 5565 Sep 22 13:04 | 6° \mathfrak{L} 33'23 | 1.34379 AU | evening rise | 5566 Sep 10 18:38 | 29° \mathfrak{M} 37'45 | |
| evening rise | 5565 Sep 27 02:02 | 15° \mathfrak{L} 37'23 | | | 5566 Sep 10 23:03 | 0° \mathfrak{L} | |
| | 5565 Oct 04 21:45 | 0° \mathfrak{M} | | desc. node | 5566 Sep 27 15:09 | 29° \mathfrak{L} 29'00 | |
| desc. node | 5565 Oct 10 18:09 | 9° \mathfrak{M} 43'16 | | | 5566 Sep 27 23:18 | 0° \mathfrak{M} | |
| | 5565 Oct 25 04:13 | 0° \mathfrak{J} | | evening max el | 5566 Oct 14 12:14 | 20° \mathfrak{M} 46'01 | 27°25'49 |
| evening max el | 5565 Nov 01 00:32 | 7° \mathfrak{J} 28'15 | 27°01'03 | retrograde | 5566 Oct 28 03:01 | 28° \mathfrak{M} 04'12 | |
| retrograde | 5565 Nov 14 06:30 | 14° \mathfrak{J} 46'06 | | evening set | 5566 Nov 04 05:01 | 25° \mathfrak{M} 27'17 | |
| evening set | 5565 Nov 21 00:36 | 12° \mathfrak{J} 06'35 | | min. Earth dist. | 5566 Nov 07 22:24 | 22° \mathfrak{M} 09'16 | 0.63889 AU |
| min. Earth dist. | 5565 Nov 24 23:14 | 8° \mathfrak{J} 15'28 | 0.65442 AU | inferior conj | 5566 Nov 10 11:08 | 19° \mathfrak{M} 32'39 | -2°37'21 |
| inferior conj | 5565 Nov 27 00:06 | 5° \mathfrak{J} 56'29 | -1°33'12 | minimum elong | 5566 Nov 10 15:46 | 19° \mathfrak{M} 20'41 | 2°35'35 |
| minimum elong | 5565 Nov 27 02:47 | 5° \mathfrak{J} 48'50 | 1°32'04 | morning rise | 5566 Nov 17 04:02 | 14° \mathfrak{M} 12'00 | |
| asc. node | 5565 Dec 01 14:35 | 1° \mathfrak{J} 21'51 | | asc. node | 5566 Nov 18 11:38 | 13° \mathfrak{M} 48'29 | |
| morning rise | 5565 Dec 03 06:01 | 0° \mathfrak{J} 20'35 | | direct | 5566 Nov 19 15:13 | 13° \mathfrak{M} 41'52 | |
| | 5565 Dec 04 01:46 | 30° \mathfrak{R} \mathfrak{M} | | morning max el | 5566 Nov 26 04:04 | 17° \mathfrak{M} 06'38 | 17°51'24 |
| direct | 5565 Dec 05 23:34 | 29° \mathfrak{M} 40'12 | | | 5566 Dec 05 10:33 | 0° \mathfrak{J} | |
| | 5565 Dec 07 21:44 | 0° \mathfrak{J} | | morning set | 5566 Dec 12 21:11 | 12° \mathfrak{J} 37'06 | |
| morning max el | 5565 Dec 12 11:09 | 3° \mathfrak{J} 08'22 | 18°09'08 | | 5566 Dec 23 04:21 | 0° \mathfrak{Z} | |
| morning set | 5565 Dec 30 22:53 | 0° \mathfrak{Z} 36'06 | | desc. node | 5566 Dec 24 14:26 | 2° \mathfrak{Z} 20'04 | |
| | 5565 Dec 30 14:04 | 0° \mathfrak{Z} | | | | | |
| desc. node | 5566 Jan 06 17:25 | 11° \mathfrak{Z} 36'25 | | superior conj | 5566 Dec 25 14:54 | 4° \mathfrak{Z} 00'01 | -0°07'11 |
| | | | | minimum elong | 5566 Dec 25 14:05 | 3° \mathfrak{Z} 56'43 | 0°07'03 |
| superior conj | 5566 Jan 14 17:05 | 24° \mathfrak{Z} 20'23 | -0°53'46 | behind sun begin | 5566 Dec 25 05:08 | 3° \mathfrak{Z} 20'10 | |
| minimum elong | 5566 Jan 14 10:31 | 23° \mathfrak{Z} 54'25 | 0°52'53 | behind sun end | 5566 Dec 25 23:02 | 4° \mathfrak{Z} 33'12 | |
| max. Earth dist. | 5566 Jan 17 11:09 | 28° \mathfrak{Z} 40'23 | 1.45259 AU | max. Earth dist. | 5566 Dec 31 05:21 | 13° \mathfrak{Z} 01'03 | 1.44528 AU |
| | 5566 Jan 18 07:26 | 0° \mathfrak{A} | | evening rise | 5567 Jan 10 10:37 | 28° \mathfrak{Z} 58'21 | |
| evening rise | 5566 Jan 30 23:22 | 19° \mathfrak{A} 44'17 | | | 5567 Jan 11 02:41 | 0° \mathfrak{A} | |
| | 5566 Feb 06 14:18 | 0° \mathfrak{H} | | | 5567 Jan 31 11:03 | 0° \mathfrak{H} | |
| greatest brilliancy | 5566 Feb 12 12:18 | 9° \mathfrak{H} 02'32 | -0.7m | evening max el | 5567 Feb 07 13:57 | 8° \mathfrak{H} 39'22 | 20°31'19 |
| evening max el | 5566 Feb 24 11:44 | 25° \mathfrak{H} 05'10 | 19°30'59 | asc. node | 5567 Feb 14 10:52 | 13° \mathfrak{H} 16'22 | |
| asc. node | 5566 Feb 27 13:49 | 27° \mathfrak{H} 45'00 | | retrograde | 5567 Feb 15 15:48 | 13° \mathfrak{H} 24'07 | |
| retrograde | 5566 Mar 03 17:29 | 29° \mathfrak{H} 14'40 | | evening set | 5567 Feb 19 14:02 | 11° \mathfrak{H} 55'20 | |
| evening set | 5566 Mar 07 06:57 | 28° \mathfrak{H} 00'24 | | inferior conj | 5567 Feb 24 22:29 | 5° \mathfrak{H} 47'33 | 2°56'09 |
| inferior conj | 5566 Mar 12 17:45 | 22° \mathfrak{H} 05'25 | 3°19'05 | minimum elong | 5567 Feb 24 20:15 | 5° \mathfrak{H} 55'11 | 2°55'40 |
| minimum elong | 5566 Mar 12 16:08 | 22° \mathfrak{H} 10'45 | 3°18'53 | min. Earth dist. | 5567 Feb 25 13:53 | 4° \mathfrak{H} 54'53 | 0.67597 AU |
| min. Earth dist. | 5566 Mar 13 22:49 | 20° \mathfrak{H} 29'57 | 0.66712 AU | | 5567 Mar 01 14:52 | 30° \mathfrak{R} \mathfrak{A} | |
| morning rise | 5566 Mar 18 01:02 | 15° \mathfrak{H} 50'08 | | morning rise | 5567 Mar 02 02:15 | 29° \mathfrak{A} 33'11 | |
| direct | 5566 Mar 24 04:38 | 13° \mathfrak{H} 05'54 | | direct | 5567 Mar 07 16:33 | 27° \mathfrak{A} 03'30 | |
| desc. node | 5566 Apr 04 16:38 | 19° \mathfrak{H} 37'14 | | | 5567 Mar 14 16:39 | 0° \mathfrak{H} | |
| morning max el | 5566 Apr 05 13:33 | 20° \mathfrak{H} 29'06 | 25°45'58 | morning max el | 5567 Mar 18 22:13 | 3° \mathfrak{H} 46'46 | 24°21'10 |
| | 5566 Apr 13 18:00 | 0° \mathfrak{Y} | | desc. node | 5567 Mar 22 13:41 | 7° \mathfrak{H} 45'01 | |
| | 5566 May 03 20:24 | 0° \mathfrak{B} | | | 5567 Apr 07 23:59 | 0° \mathfrak{Y} | |
| morning set | 5566 May 11 17:57 | 13° \mathfrak{B} 51'23 | | morning set | 5567 Apr 23 18:19 | 25° \mathfrak{Y} 31'21 | |
| max. Earth dist. | 5566 May 15 13:03 | 20° \mathfrak{B} 57'31 | 1.35745 AU | | 5567 Apr 26 07:14 | 0° \mathfrak{B} | |
| | 5566 May 20 04:05 | 0° \mathfrak{I} | | max. Earth dist. | 5567 Apr 27 10:04 | 2° \mathfrak{B} 00'29 | 1.37771 AU |

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|------------------|-------------------|-----------|------------|------------------|--|-------------------|-----------|------------|
| superior conj | 5567 May 04 09:31 | 15°♄01'22 | -1°22'20 | | | 5568 Mar 31 01:51 | 0°♄ | |
| minimum elong | 5567 May 04 14:04 | 15°♄23'12 | 1°21'42 | morning set | | 5568 Apr 03 17:14 | 5°♄56'35 | |
| | 5567 May 12 00:22 | 0°♄ | | max. Earth dist. | | 5568 Apr 08 05:40 | 13°♄33'23 | 1.39975 AU |
| evening rise | 5567 May 13 03:19 | 2°♄13'37 | | | | | | |
| asc. node | 5567 May 13 10:07 | 2°♄47'18 | | superior conj | | 5568 Apr 15 23:58 | 27°♄18'19 | -1°47'49 |
| evening max el | 5567 May 29 18:13 | 29°♄12'53 | 19°08'13 | minimum elong | | 5568 Apr 16 05:04 | 27°♄41'38 | 1°47'19 |
| | 5567 May 30 14:24 | 0°♄ | | | | 5568 Apr 17 11:11 | 0°♄ | |
| retrograde | 5567 Jun 07 15:33 | 3°♄33'58 | | evening rise | | 5568 Apr 25 18:45 | 15°♄41'20 | |
| evening set | 5567 Jun 09 15:16 | 3°♄21'50 | | asc. node | | 5568 Apr 29 07:10 | 22°♄20'12 | |
| | 5567 Jun 16 18:16 | 30°♄11 | | | | 5568 May 03 13:26 | 0°♄ | |
| inferior conj | 5567 Jun 17 23:54 | 29°♄10'16 | 0°09'38 | evening max el | | 5568 May 11 22:08 | 11°♄37'37 | 18°28'36 |
| minimum elong | 5567 Jun 18 00:18 | 29°♄09'36 | 0°09'28 | retrograde | | 5568 May 19 12:09 | 15°♄23'00 | |
| transit middle | 5567 Jun 18 00:18 | 29°♄09'36 | 0°09'28 | evening set | | 5568 May 21 18:30 | 15°♄03'56 | |
| transit begin | 5567 Jun 17 21:13 | 29°♄14'49 | | inferior conj | | 5568 May 29 07:05 | 10°♄32'42 | 1°42'17 |
| transit end | 5567 Jun 18 03:22 | 29°♄04'22 | | minimum elong | | 5568 May 29 10:14 | 10°♄26'24 | 1°41'16 |
| desc. node | 5567 Jun 18 12:54 | 28°♄48'06 | | min. Earth dist. | | 5568 Jun 01 16:51 | 7°♄51'14 | 0.58174 AU |
| min. Earth dist. | 5567 Jun 20 21:53 | 27°♄11'58 | 0.56305 AU | desc. node | | 5568 Jun 04 09:56 | 5°♄59'04 | |
| morning rise | 5567 Jun 26 06:08 | 24°♄19'01 | | morning rise | | 5568 Jun 05 22:47 | 5°♄07'36 | |
| direct | 5567 Jul 01 07:50 | 23°♄19'05 | | direct | | 5568 Jun 11 21:42 | 3°♄36'15 | |
| | 5567 Jul 14 21:38 | 0°♄ | | morning max el | | 5568 Jun 26 06:55 | 11°♄16'56 | 26°55'59 |
| morning max el | 5567 Jul 15 13:07 | 0°♄36'27 | 25°36'32 | | | 5568 Jul 10 19:34 | 0°♄ | |
| | 5567 Aug 04 23:47 | 0°♄ | | morning set | | 5568 Jul 26 06:04 | 28°♄30'38 | |
| asc. node | 5567 Aug 09 09:25 | 8°♄39'30 | | asc. node | | 5568 Jul 26 06:27 | 28°♄32'38 | |
| morning set | 5567 Aug 11 20:22 | 13°♄46'58 | | | | 5568 Jul 26 22:58 | 0°♄ | |
| superior conj | 5567 Aug 18 18:31 | 28°♄51'55 | 1°23'51 | superior conj | | 5568 Aug 02 06:21 | 13°♄45'54 | 1°07'09 |
| minimum elong | 5567 Aug 18 16:19 | 28°♄39'50 | 1°23'34 | minimum elong | | 5568 Aug 02 04:04 | 13°♄33'21 | 1°06'46 |
| | 5567 Aug 19 06:54 | 0°♄ | | max. Earth dist. | | 5568 Aug 02 06:17 | 13°♄45'36 | 1.31929 AU |
| max. Earth dist. | 5567 Aug 19 19:31 | 1°♄09'10 | 1.32312 AU | evening rise | | 5568 Aug 09 02:29 | 28°♄39'52 | |
| evening rise | 5567 Aug 25 19:40 | 14°♄01'13 | | | | 5568 Aug 09 17:43 | 0°♄ | |
| | 5567 Sep 03 00:33 | 0°♄ | | | | 5568 Aug 26 08:33 | 0°♄ | |
| desc. node | 5567 Sep 14 12:11 | 18°♄39'36 | | desc. node | | 5568 Aug 31 09:12 | 7°♄00'48 | |
| | 5567 Sep 23 09:59 | 0°♄ | | evening max el | | 5568 Sep 07 23:44 | 15°♄34'43 | 26°40'45 |
| evening max el | 5567 Sep 26 20:53 | 3°♄32'16 | 27°20'07 | retrograde | | 5568 Sep 21 21:46 | 22°♄43'20 | |
| retrograde | 5567 Oct 10 16:35 | 10°♄46'03 | | evening set | | 5568 Sep 28 17:32 | 20°♄45'39 | |
| evening set | 5567 Oct 17 20:09 | 8°♄22'49 | | min. Earth dist. | | 5568 Oct 02 13:36 | 18°♄09'38 | 0.60005 AU |
| min. Earth dist. | 5567 Oct 21 11:22 | 5°♄31'42 | 0.62041 AU | inferior conj | | 5568 Oct 05 19:01 | 15°♄34'26 | -4°35'58 |
| inferior conj | 5567 Oct 24 10:36 | 2°♄48'20 | -3°40'25 | minimum elong | | 5568 Oct 06 01:12 | 15°♄21'58 | 4°34'40 |
| minimum elong | 5567 Oct 24 16:45 | 2°♄34'12 | 3°38'30 | morning rise | | 5568 Oct 13 10:56 | 10°♄53'52 | |
| | 5567 Oct 27 16:46 | 30°♄11 | | direct | | 5568 Oct 15 18:36 | 10°♄33'57 | |
| morning rise | 5567 Oct 31 15:12 | 27°♄46'08 | | asc. node | | 5568 Oct 22 05:44 | 13°♄17'24 | |
| direct | 5567 Nov 02 22:54 | 27°♄22'38 | | morning max el | | 5568 Oct 23 07:56 | 14°♄16'39 | 18°11'13 |
| asc. node | 5567 Nov 05 08:42 | 27°♄48'47 | | | | 5568 Nov 03 01:48 | 0°♄ | |
| | 5567 Nov 08 21:30 | 0°♄ | | morning set | | 5568 Nov 08 03:05 | 9°♄22'12 | |
| morning max el | 5567 Nov 09 20:06 | 0°♄52'15 | 17°51'39 | | | | | |
| morning set | 5567 Nov 25 16:36 | 25°♄38'25 | | superior conj | | 5568 Nov 17 15:12 | 27°♄02'09 | 1°05'59 |
| | 5567 Nov 28 02:47 | 0°♄ | | minimum elong | | 5568 Nov 17 19:04 | 27°♄19'35 | 1°05'32 |
| superior conj | 5567 Dec 06 14:36 | 14°♄55'01 | 0°34'15 | | | 5568 Nov 19 06:53 | 0°♄ | |
| minimum elong | 5567 Dec 06 17:33 | 15°♄07'39 | 0°33'51 | max. Earth dist. | | 5568 Nov 25 06:34 | 10°♄23'33 | 1.41319 AU |
| desc. node | 5567 Dec 11 11:27 | 23°♄06'38 | | desc. node | | 5568 Nov 27 08:29 | 13°♄52'50 | |
| max. Earth dist. | 5567 Dec 13 20:16 | 26°♄59'55 | 1.43162 AU | evening rise | | 5568 Nov 30 06:03 | 18°♄38'26 | |
| | 5567 Dec 15 16:44 | 0°♄ | | | | 5568 Dec 07 10:47 | 0°♄ | |
| evening rise | 5567 Dec 21 00:13 | 8°♄25'19 | | | | 5568 Dec 28 20:45 | 0°♄ | |
| | 5568 Jan 04 08:12 | 0°♄ | | evening max el | | 5569 Jan 03 03:06 | 5°♄53'17 | 23°01'43 |
| evening max el | 5568 Jan 21 10:48 | 22°♄15'05 | 21°43'09 | retrograde | | 5569 Jan 13 08:22 | 11°♄56'42 | |
| retrograde | 5568 Jan 30 13:17 | 27°♄39'16 | | evening set | | 5569 Jan 18 04:49 | 9°♄56'54 | |
| asc. node | 5568 Feb 01 07:55 | 27°♄22'30 | | asc. node | | 5569 Jan 18 04:58 | 9°♄56'35 | |
| evening set | 5568 Feb 03 21:51 | 25°♄55'12 | | min. Earth dist. | | 5569 Jan 23 05:32 | 4°♄02'01 | 0.68145 AU |
| inferior conj | 5568 Feb 09 05:54 | 19°♄37'27 | 2°23'51 | inferior conj | | 5569 Jan 23 14:03 | 3°♄32'39 | 1°43'26 |
| minimum elong | 5568 Feb 09 03:31 | 19°♄45'44 | 2°23'08 | minimum elong | | 5569 Jan 23 11:59 | 3°♄39'46 | 1°42'42 |
| min. Earth dist. | 5568 Feb 09 08:53 | 19°♄27'05 | 0.68067 AU | | | 5569 Jan 26 06:31 | 30°♄11 | |
| morning rise | 5568 Feb 14 09:00 | 13°♄25'44 | | morning rise | | 5569 Jan 28 19:04 | 27°♄25'04 | |
| direct | 5568 Feb 19 08:53 | 11°♄16'32 | | direct | | 5569 Feb 02 04:33 | 25°♄38'46 | |
| morning max el | 5568 Feb 29 07:49 | 17°♄10'09 | 22°51'44 | | | 5569 Feb 10 04:30 | 0°♄ | |
| desc. node | 5568 Mar 08 10:43 | 26°♄42'24 | | morning max el | | 5569 Feb 10 22:04 | 0°♄42'53 | 21°26'31 |
| | 5568 Mar 10 22:20 | 0°♄ | | desc. node | | 5569 Feb 23 07:45 | 16°♄15'33 | |
| | | 0°♄ | | | | 5569 Mar 04 17:50 | 0°♄ | |

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|------------------|-------------------|---------------------------|------------|------------------|-------------------|---------------------------|------------|
| morning set | 5569 Mar 14 11:39 | 15° X 01'33 | | | 5570 Feb 25 17:51 | 0° X | |
| max. Earth dist. | 5569 Mar 21 06:42 | 25° X 59'47 | 1.42078 AU | max. Earth dist. | 5570 Mar 03 15:13 | 9° X 19'34 | 1.43799 AU |
| | 5569 Mar 23 16:33 | 0° Y | | | | | |
| superior conj | 5569 Mar 28 17:53 | 8° Y 36'07 | -2°05'08 | superior conj | 5570 Mar 09 11:05 | 18° X 47'01 | -2°08'44 |
| minimum elong | 5569 Mar 28 21:14 | 8° Y 50'38 | 2°05'00 | minimum elong | 5570 Mar 09 09:21 | 18° X 39'51 | 2°08'42 |
| evening rise | 5569 Apr 08 21:10 | 28° Y 28'51 | | evening rise | 5570 Mar 16 04:07 | 0° Y | |
| | 5569 Apr 09 17:12 | 0° Z | | | 5570 Mar 22 06:16 | 10° Y 27'42 | |
| asc. node | 5569 Apr 16 04:13 | 11° Z 31'22 | | asc. node | 5570 Apr 02 21:31 | 0° Z | |
| evening max el | 5569 Apr 25 08:05 | 24° Z 29'58 | 18°08'54 | evening max el | 5570 Apr 03 01:15 | 0° Z 14'08 | |
| retrograde | 5569 May 02 02:48 | 27° Z 56'16 | | retrograde | 5570 Apr 08 20:44 | 7° Z 42'03 | 18°08'32 |
| evening set | 5569 May 04 16:03 | 27° Z 27'28 | | evening set | 5570 Apr 15 07:11 | 11° Z 04'16 | |
| inferior conj | 5569 May 11 11:00 | 22° Z 35'28 | 2°44'15 | inferior conj | 5570 Apr 18 02:51 | 10° Z 24'04 | |
| minimum elong | 5569 May 11 14:12 | 22° Z 28'02 | 2°43'30 | minimum elong | 5570 Apr 24 08:13 | 5° Z 12'29 | 3°18'34 |
| min. Earth dist. | 5569 May 14 18:15 | 19° Z 33'08 | 0.60354 AU | min. Earth dist. | 5570 Apr 24 10:05 | 5° Z 07'31 | 3°18'20 |
| morning rise | 5569 May 18 09:57 | 16° Z 45'20 | | | 5570 Apr 27 04:19 | 2° Z 13'32 | 0.62527 AU |
| desc. node | 5569 May 22 06:58 | 15° Z 01'17 | | morning rise | 5570 Apr 29 13:22 | 30° R Y | |
| direct | 5569 May 24 23:37 | 14° Z 40'26 | | direct | 5570 Apr 30 15:49 | 29° Y 07'27 | |
| morning max el | 5569 Jun 08 07:16 | 22° Z 35'14 | 27°43'01 | desc. node | 5570 May 07 11:46 | 26° Y 35'15 | |
| | 5569 Jun 14 20:35 | 0° II | | | 5570 May 09 04:00 | 26° Y 43'44 | |
| | 5569 Jul 03 22:08 | 0° III | | morning max el | 5570 May 16 05:55 | 0° Z | |
| morning set | 5569 Jul 10 12:11 | 13° III 00'58 | | | 5570 May 21 13:28 | 4° Z 36'19 | 27°52'11 |
| asc. node | 5569 Jul 13 03:29 | 18° III 34'33 | | morning set | 5570 Jun 09 13:53 | 0° II | |
| max. Earth dist. | 5569 Jul 16 17:10 | 26° III 19'43 | 1.31961 AU | | 5570 Jun 24 12:39 | 27° II 11'43 | |
| | | | | max. Earth dist. | 5570 Jun 25 21:36 | 0° III | |
| superior conj | 5569 Jul 17 17:38 | 28° III 34'21 | 0°46'13 | | 5570 Jun 30 00:05 | 8° III 38'34 | 1.32422 AU |
| minimum elong | 5569 Jul 17 15:46 | 28° III 24'03 | 0°45'50 | asc. node | 5570 Jun 30 00:31 | 8° III 40'50 | |
| | 5569 Jul 18 09:10 | 0° IV | | superior conj | 5570 Jul 02 02:39 | 13° III 11'50 | 0°21'34 |
| evening rise | 5569 Jul 24 12:43 | 13° IV 25'25 | | minimum elong | 5570 Jul 02 01:39 | 13° III 06'24 | 0°21'20 |
| | 5569 Aug 01 20:01 | 0° V | | evening rise | 5570 Jul 09 00:24 | 28° III 11'38 | |
| desc. node | 5569 Aug 18 06:13 | 24° V 12'18 | | | 5570 Jul 09 20:50 | 0° IV | |
| evening max el | 5569 Aug 20 18:42 | 26° V 46'46 | 25°30'11 | | 5570 Jul 26 23:07 | 0° V | |
| | 5569 Aug 24 14:16 | 0° VI | | evening max el | 5570 Aug 02 07:37 | 7° V 18'29 | 23°58'24 |
| retrograde | 5569 Sep 03 17:12 | 3° VI 51'07 | | desc. node | 5570 Aug 05 03:14 | 9° V 46'55 | |
| evening set | 5569 Sep 09 16:20 | 2° VI 28'27 | | retrograde | 5570 Aug 16 01:18 | 14° V 12'56 | |
| | 5569 Sep 14 00:38 | 30° R V | | evening set | 5570 Aug 20 14:58 | 13° V 26'48 | |
| min. Earth dist. | 5569 Sep 14 06:31 | 29° V 50'10 | 0.57959 AU | min. Earth dist. | 5570 Aug 26 18:01 | 10° V 27'35 | 0.56193 AU |
| inferior conj | 5569 Sep 17 08:57 | 27° V 40'47 | -5°13'11 | inferior conj | 5570 Aug 29 02:38 | 9° V 00'59 | -5°16'07 |
| minimum elong | 5569 Sep 17 12:16 | 27° V 35'00 | 5°12'54 | minimum elong | 5570 Aug 28 23:49 | 9° V 05'18 | 5°15'56 |
| morning rise | 5569 Sep 25 10:28 | 23° V 23'36 | | morning rise | 5570 Sep 06 11:09 | 5° V 03'34 | |
| direct | 5569 Sep 27 21:47 | 23° V 04'50 | | direct | 5570 Sep 09 05:19 | 4° V 44'03 | |
| morning max el | 5569 Oct 06 12:13 | 27° V 10'29 | 18°51'37 | morning max el | 5570 Sep 19 05:49 | 9° V 24'24 | 19°53'55 |
| asc. node | 5569 Oct 09 02:46 | 0° VII 00'22 | | asc. node | 5570 Sep 25 23:48 | 17° V 42'37 | |
| | 5569 Oct 09 02:38 | 0° VIII | | | 5570 Oct 03 01:36 | 0° VI | |
| morning set | 5569 Oct 22 23:59 | 23° VII 35'03 | | morning set | 5570 Oct 07 03:55 | 8° VI 07'21 | |
| | 5569 Oct 26 06:18 | 0° IX | | | | | |
| superior conj | 5569 Oct 31 11:38 | 10° IX 07'01 | 1°27'22 | superior conj | 5570 Oct 14 22:40 | 23° VI 54'26 | 1°39'21 |
| minimum elong | 5569 Oct 31 14:40 | 10° IX 21'29 | 1°27'06 | minimum elong | 5570 Oct 15 00:14 | 24° VI 02'14 | 1°39'16 |
| max. Earth dist. | 5569 Nov 07 12:28 | 23° IX 03'56 | 1.39220 AU | | 5570 Oct 18 01:02 | 0° IX | |
| evening rise | 5569 Nov 11 10:15 | 29° IX 52'10 | | max. Earth dist. | 5570 Oct 20 17:38 | 5° IX 08'19 | 1.37133 AU |
| | 5569 Nov 11 12:05 | 0° X | | evening rise | 5570 Oct 24 12:18 | 12° IX 05'26 | |
| desc. node | 5569 Nov 14 05:30 | 4° X 35'03 | | desc. node | 5570 Nov 01 02:29 | 25° IX 08'54 | |
| | 5569 Nov 30 20:13 | 0° XI | | | 5570 Nov 04 02:36 | 0° X | |
| evening max el | 5569 Dec 16 16:34 | 19° XI 34'55 | 24°21'16 | evening max el | 5570 Nov 26 00:45 | 0° XI | |
| retrograde | 5569 Dec 27 23:59 | 26° XI 12'29 | | | 5570 Nov 29 05:05 | 3° XI 18'41 | 25°34'58 |
| evening set | 5570 Jan 02 09:24 | 23° XI 57'35 | | retrograde | 5570 Dec 11 11:07 | 10° XI 20'44 | |
| asc. node | 5570 Jan 05 02:00 | 21° XI 09'19 | | evening set | 5570 Dec 17 09:54 | 7° XI 52'50 | |
| min. Earth dist. | 5570 Jan 07 01:35 | 18° XI 36'27 | 0.67845 AU | min. Earth dist. | 5570 Dec 21 18:47 | 3° XI 06'08 | 0.67187 AU |
| inferior conj | 5570 Jan 07 21:09 | 17° XI 30'48 | 0°55'53 | asc. node | 5570 Dec 22 23:02 | 1° XI 35'47 | |
| minimum elong | 5570 Jan 07 19:52 | 17° XI 35'07 | 0°55'23 | inferior conj | 5570 Dec 23 01:22 | 1° XI 28'20 | 0°01'59 |
| morning rise | 5570 Jan 13 06:26 | 11° XI 29'04 | | minimum elong | 5570 Dec 23 01:18 | 1° XI 28'30 | 0°01'59 |
| direct | 5570 Jan 17 02:28 | 10° XI 05'07 | | transit middle | 5570 Dec 23 01:18 | 1° XI 28'30 | 0°01'59 |
| morning max el | 5570 Jan 24 19:48 | 14° XI 28'09 | 20°11'55 | transit begin | 5570 Dec 22 22:31 | 1° XI 37'26 | |
| | 5570 Feb 05 22:28 | 0° XII | | transit end | 5570 Dec 23 04:06 | 1° XI 19'35 | |
| desc. node | 5570 Feb 10 04:47 | 6° XII 14'54 | | | 5570 Dec 24 05:19 | 30° R X | |
| morning set | 5570 Feb 21 10:02 | 23° XII 16'22 | | morning rise | 5570 Dec 28 17:06 | 25° X 34'24 | |
| | | | | direct | 5571 Jan 01 01:14 | 24° X 30'14 | |

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|---------------------|-------------------|----------------------|------------|---------------------|-------------------|----------------------|------------|
| morning max el | 5571 Jan 08 01:21 | 28° ♄ 23'32 | 19°11'29 | direct | 5571 Dec 15 23:14 | 8° ♄ 50'18 | |
| | 5571 Jan 09 13:44 | 0° ♄ | | morning max el | 5571 Dec 22 13:19 | 12° ♄ 24'49 | 18°26'59 |
| greatest brilliancy | 5571 Jan 21 16:10 | 16° ♄ 43'43 | -0.7m | | 5572 Jan 04 05:42 | 0° ♄ | |
| desc. node | 5571 Jan 28 01:47 | 26° ♄ 32'40 | | morning set | 5572 Jan 11 12:46 | 11° ♄ 36'50 | |
| | 5571 Jan 30 07:21 | 0° ♄ | | desc. node | 5572 Jan 14 22:47 | 17° ♄ 03'45 | |
| morning set | 5571 Jan 31 11:16 | 1° ♄ 48'12 | | | 5572 Jan 23 03:05 | 0° ♄ | |
| max. Earth dist. | 5571 Feb 14 05:43 | 23° ♄ 17'59 | 1.44932 AU | | | | |
| | | | | superior conj | 5572 Jan 27 07:32 | 6° ♄ 34'23 | -1°19'18 |
| superior conj | 5571 Feb 17 04:00 | 27° ♄ 55'39 | -1°53'33 | minimum elong | 5572 Jan 26 22:32 | 5° ♄ 59'06 | 1°18'16 |
| minimum elong | 5571 Feb 16 20:06 | 27° ♄ 24'18 | 1°52'59 | max. Earth dist. | 5572 Jan 28 00:09 | 7° ♄ 39'28 | 1.45362 AU |
| | 5571 Feb 18 11:20 | 0° ♄ | | | 5572 Feb 11 05:38 | 0° ♄ | |
| evening rise | 5571 Mar 03 17:44 | 21° ♄ 29'53 | | evening rise | 5572 Feb 12 05:52 | 1° ♄ 35'41 | |
| | 5571 Mar 08 21:23 | 0° ♄ | | greatest brilliancy | 5572 Feb 22 01:01 | 17° ♄ 01'49 | -0.8m |
| asc. node | 5571 Mar 20 22:16 | 18° ♄ 19'29 | | | 5572 Mar 01 21:04 | 0° ♄ | |
| evening max el | 5571 Mar 23 09:12 | 21° ♄ 06'29 | 18°26'54 | evening max el | 5572 Mar 05 19:04 | 4° ♄ 37'31 | 19°02'57 |
| retrograde | 5571 Mar 29 20:49 | 24° ♄ 37'56 | | asc. node | 5572 Mar 06 19:19 | 5° ♄ 36'04 | |
| evening set | 5571 Apr 01 22:54 | 23° ♄ 45'08 | | retrograde | 5572 Mar 12 15:59 | 8° ♄ 29'51 | |
| inferior conj | 5571 Apr 07 18:33 | 18° ♄ 15'29 | 3°31'12 | evening set | 5572 Mar 16 01:05 | 7° ♄ 23'34 | |
| minimum elong | 5571 Apr 07 18:50 | 18° ♄ 14'39 | 3°31'12 | inferior conj | 5572 Mar 21 14:19 | 1° ♄ 37'26 | 3°27'18 |
| min. Earth dist. | 5571 Apr 09 23:45 | 15° ♄ 39'58 | 0.64460 AU | minimum elong | 5572 Mar 21 13:17 | 1° ♄ 40'45 | 3°27'13 |
| morning rise | 5571 Apr 13 13:58 | 12° ♄ 03'18 | | | 5572 Mar 22 21:00 | 30° ♄ | |
| direct | 5571 Apr 20 08:13 | 9° ♄ 15'57 | | min. Earth dist. | 5572 Mar 23 03:58 | 29° ♄ 38'08 | 0.66018 AU |
| desc. node | 5571 Apr 26 01:02 | 10° ♄ 54'36 | | morning rise | 5572 Mar 27 01:05 | 25° ♄ 22'40 | |
| morning max el | 5571 May 03 22:50 | 17° ♄ 12'49 | 27°25'11 | direct | 5572 Apr 02 11:22 | 22° ♄ 33'49 | |
| | 5571 May 14 14:14 | 0° ♄ | | desc. node | 5572 Apr 11 22:04 | 27° ♄ 01'00 | |
| | 5571 Jun 02 10:05 | 0° ♄ | | | 5572 Apr 15 03:38 | 0° ♄ | |
| morning set | 5571 Jun 08 04:52 | 10° ♄ 55'17 | | morning max el | 5572 Apr 15 08:46 | 0° ♄ 12'55 | 26°28'26 |
| max. Earth dist. | 5571 Jun 12 23:07 | 20° ♄ 31'06 | 1.33341 AU | | 5572 May 07 13:06 | 0° ♄ | |
| | | | | morning set | 5572 May 21 09:21 | 24° ♄ 01'01 | |
| superior conj | 5571 Jun 16 07:29 | 27° ♄ 32'48 | -0°06'05 | | 5572 May 24 12:17 | 0° ♄ | |
| minimum elong | 5571 Jun 16 07:48 | 27° ♄ 34'27 | 0°06'02 | max. Earth dist. | 5572 May 25 11:25 | 1° ♄ 53'25 | 1.34741 AU |
| behind sun begin | 5571 Jun 16 02:42 | 27° ♄ 07'23 | | | | | |
| behind sun end | 5571 Jun 16 12:54 | 28° ♄ 01'33 | | superior conj | 5572 May 30 05:48 | 11° ♄ 30'01 | -0°35'41 |
| asc. node | 5571 Jun 16 21:33 | 28° ♄ 47'37 | | minimum elong | 5572 May 30 07:46 | 11° ♄ 40'06 | 0°35'19 |
| | 5571 Jun 17 11:06 | 0° ♄ | | asc. node | 5572 Jun 02 18:34 | 18° ♄ 50'23 | |
| evening rise | 5571 Jun 23 11:43 | 12° ♄ 52'57 | | evening rise | 5572 Jun 06 20:42 | 27° ♄ 22'48 | |
| | 5571 Jul 02 04:33 | 0° ♄ | | | 5572 Jun 08 03:12 | 0° ♄ | |
| evening max el | 5571 Jul 14 21:28 | 17° ♄ 39'06 | 22°20'50 | evening max el | 5572 Jun 25 20:07 | 28° ♄ 20'23 | 20°51'51 |
| desc. node | 5571 Jul 23 00:14 | 23° ♄ 11'18 | | | 5572 Jun 27 16:08 | 0° ♄ | |
| retrograde | 5571 Jul 27 21:01 | 24° ♄ 06'11 | | retrograde | 5572 Jul 07 09:15 | 4° ♄ 01'05 | |
| evening set | 5571 Jul 30 22:44 | 23° ♄ 45'22 | | desc. node | 5572 Jul 08 21:17 | 3° ♄ 55'40 | |
| min. Earth dist. | 5571 Aug 08 04:04 | 20° ♄ 11'20 | 0.55050 AU | evening set | 5572 Jul 09 12:27 | 3° ♄ 50'14 | |
| inferior conj | 5571 Aug 09 02:58 | 19° ♄ 38'58 | -4°29'28 | inferior conj | 5572 Jul 18 19:52 | 29° ♄ 53'13 | -2°53'51 |
| minimum elong | 5571 Aug 08 18:39 | 19° ♄ 50'45 | 4°27'41 | minimum elong | 5572 Jul 18 12:05 | 0° ♄ 04'15 | 2°51'16 |
| morning rise | 5571 Aug 17 16:22 | 15° ♄ 49'18 | | | 5572 Jul 18 15:05 | 30° ♄ | |
| direct | 5571 Aug 20 20:16 | 15° ♄ 26'43 | | min. Earth dist. | 5572 Jul 19 14:38 | 29° ♄ 26'36 | 0.54799 AU |
| morning max el | 5571 Sep 01 11:10 | 20° ♄ 52'23 | 21°17'16 | morning rise | 5572 Jul 27 11:36 | 25° ♄ 52'41 | |
| | 5571 Sep 09 00:25 | 0° ♄ | | direct | 5572 Jul 31 05:20 | 25° ♄ 22'40 | |
| asc. node | 5571 Sep 12 20:49 | 6° ♄ 10'36 | | | 5572 Aug 11 09:26 | 0° ♄ | |
| morning set | 5571 Sep 21 12:25 | 22° ♄ 52'27 | | morning max el | 5572 Aug 13 05:50 | 1° ♄ 36'56 | 22°56'43 |
| | 5571 Sep 24 22:03 | 0° ♄ | | asc. node | 5572 Aug 29 17:51 | 25° ♄ 12'21 | |
| | | | | | 5572 Sep 01 05:11 | 0° ♄ | |
| superior conj | 5571 Sep 28 20:05 | 8° ♄ 12'12 | 1°43'13 | morning set | 5572 Sep 04 23:24 | 7° ♄ 43'26 | |
| minimum elong | 5571 Sep 28 20:09 | 8° ♄ 12'35 | 1°43'13 | | | | |
| max. Earth dist. | 5571 Oct 03 03:58 | 17° ♄ 00'45 | 1.35283 AU | superior conj | 5572 Sep 12 00:32 | 22° ♄ 49'15 | 1°40'13 |
| evening rise | 5571 Oct 07 08:39 | 25° ♄ 09'35 | | minimum elong | 5572 Sep 11 23:23 | 22° ♄ 43'10 | 1°40'10 |
| | 5571 Oct 09 23:08 | 0° ♄ | | max. Earth dist. | 5572 Sep 14 22:54 | 29° ♄ 01'36 | 1.33797 AU |
| desc. node | 5571 Oct 18 23:30 | 15° ♄ 29'46 | | | 5572 Sep 15 10:06 | 0° ♄ | |
| | 5571 Oct 28 14:37 | 0° ♄ | | evening rise | 5572 Sep 19 18:56 | 8° ♄ 51'56 | |
| evening max el | 5571 Nov 11 17:58 | 17° ♄ 00'54 | 26°35'18 | | 5572 Oct 01 10:29 | 0° ♄ | |
| retrograde | 5571 Nov 24 17:01 | 24° ♄ 15'39 | | desc. node | 5572 Oct 04 20:32 | 5° ♄ 30'25 | |
| evening set | 5571 Dec 01 04:30 | 21° ♄ 38'54 | | | 5572 Oct 23 17:44 | 0° ♄ | |
| min. Earth dist. | 5571 Dec 05 06:48 | 17° ♄ 27'16 | 0.66182 AU | evening max el | 5572 Oct 24 06:43 | 0° ♄ 31'21 | 27°15'00 |
| inferior conj | 5571 Dec 07 00:46 | 15° ♄ 21'53 | -0°57'13 | retrograde | 5572 Nov 06 16:54 | 7° ♄ 49'17 | |
| minimum elong | 5571 Dec 07 02:22 | 15° ♄ 17'07 | 0°56'30 | evening set | 5572 Nov 13 14:53 | 5° ♄ 10'02 | |
| asc. node | 5571 Dec 09 20:04 | 12° ♄ 11'49 | | min. Earth dist. | 5572 Nov 17 11:14 | 1° ♄ 33'13 | 0.64826 AU |
| morning rise | 5571 Dec 13 00:59 | 9° ♄ 38'19 | | | 5572 Nov 18 21:28 | 30° ♄ | |

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|---------------------|-------------------|------------------------|------------|------------------|-------------------|------------------------|------------|
| inferior conj | 5572 Nov 19 17:04 | 29° \mathbb{M} 06'01 | -2°00'13 | minimum elong | 5573 Nov 03 04:55 | 12° \mathbb{M} 20'46 | 3°02'37 |
| minimum elong | 5572 Nov 19 20:35 | 28° \mathbb{M} 56'23 | 1°58'47 | morning rise | 5573 Nov 09 21:24 | 7° \mathbb{M} 20'53 | |
| asc. node | 5572 Nov 25 17:06 | 23° \mathbb{M} 48'30 | | direct | 5573 Nov 12 06:51 | 6° \mathbb{M} 53'52 | |
| morning rise | 5572 Nov 26 03:29 | 23° \mathbb{M} 35'54 | | asc. node | 5573 Nov 12 14:09 | 6° \mathbb{M} 54'18 | |
| direct | 5572 Nov 28 18:05 | 23° \mathbb{M} 00'12 | | morning max el | 5573 Nov 18 22:10 | 10° \mathbb{M} 19'18 | 17°49'18 |
| morning max el | 5572 Dec 05 05:14 | 26° \mathbb{M} 25'47 | 17°59'23 | | 5573 Dec 02 02:08 | 0° \mathbb{M} | |
| | 5572 Dec 08 07:22 | 0° \mathbb{M} | | morning set | 5573 Dec 05 04:05 | 5° \mathbb{M} 23'17 | |
| morning set | 5572 Dec 22 19:59 | 22° \mathbb{M} 54'12 | | | | | |
| | 5572 Dec 27 02:33 | 0° \mathbb{M} | | superior conj | 5573 Dec 17 02:06 | 25° \mathbb{M} 48'52 | 0°11'26 |
| desc. node | 5572 Dec 31 19:49 | 7° \mathbb{M} 43'53 | | minimum elong | 5573 Dec 17 03:15 | 25° \mathbb{M} 53'43 | 0°11'17 |
| | | | | behind sun begin | 5573 Dec 16 20:31 | 25° \mathbb{M} 25'43 | |
| superior conj | 5573 Jan 05 17:37 | 15° \mathbb{M} 38'00 | -0°33'52 | behind sun end | 5573 Dec 17 10:00 | 26° \mathbb{M} 21'40 | |
| minimum elong | 5573 Jan 05 13:31 | 15° \mathbb{M} 21'37 | 0°33'17 | desc. node | 5573 Dec 18 16:51 | 28° \mathbb{M} 29'07 | |
| max. Earth dist. | 5573 Jan 09 19:54 | 22° \mathbb{M} 07'46 | 1.45043 AU | | 5573 Dec 19 14:59 | 0° \mathbb{M} | |
| | 5573 Jan 14 20:27 | 0° \mathbb{M} | | max. Earth dist. | 5573 Dec 23 13:30 | 6° \mathbb{M} 22'59 | 1.44019 AU |
| evening rise | 5573 Jan 21 23:05 | 11° \mathbb{M} 00'45 | | evening rise | 5574 Jan 01 09:24 | 20° \mathbb{M} 15'42 | |
| | 5573 Feb 03 10:15 | 0° \mathbb{M} | | | 5574 Jan 07 18:42 | 0° \mathbb{M} | |
| greatest brilliancy | 5573 Feb 05 03:32 | 2° \mathbb{M} 33'13 | -0.6m | | 5574 Jan 29 08:47 | 0° \mathbb{M} | |
| evening max el | 5573 Feb 17 00:27 | 18° \mathbb{M} 11'28 | 19°55'02 | evening max el | 5574 Jan 31 00:18 | 1° \mathbb{M} 46'05 | 21°00'38 |
| asc. node | 5573 Feb 21 16:21 | 21° \mathbb{M} 50'26 | | retrograde | 5574 Feb 08 12:06 | 6° \mathbb{M} 47'21 | |
| retrograde | 5573 Feb 24 13:51 | 22° \mathbb{M} 34'40 | | asc. node | 5574 Feb 08 13:24 | 6° \mathbb{M} 47'21 | |
| evening set | 5573 Feb 28 06:59 | 21° \mathbb{M} 14'08 | | evening set | 5574 Feb 12 14:36 | 5° \mathbb{M} 11'56 | |
| inferior conj | 5573 Mar 05 16:31 | 15° \mathbb{M} 13'26 | 3°10'36 | | 5574 Feb 17 04:59 | 30° \mathbb{R} | |
| minimum elong | 5573 Mar 05 14:35 | 15° \mathbb{M} 19'56 | 3°10'16 | inferior conj | 5574 Feb 17 22:39 | 28° \mathbb{M} 59'17 | 2°43'30 |
| min. Earth dist. | 5573 Mar 06 15:33 | 13° \mathbb{M} 56'18 | 0.67146 AU | minimum elong | 5574 Feb 17 20:18 | 29° \mathbb{M} 07'25 | 2°42'54 |
| morning rise | 5573 Mar 10 21:58 | 8° \mathbb{M} 58'36 | | min. Earth dist. | 5574 Feb 18 08:32 | 28° \mathbb{M} 25'11 | 0.67848 AU |
| direct | 5573 Mar 16 20:13 | 6° \mathbb{M} 19'44 | | morning rise | 5574 Feb 23 01:49 | 22° \mathbb{M} 45'57 | |
| morning max el | 5573 Mar 28 17:56 | 13° \mathbb{M} 26'43 | 25°11'06 | direct | 5574 Feb 28 09:57 | 20° \mathbb{M} 24'48 | |
| desc. node | 5573 Mar 29 19:06 | 14° \mathbb{M} 31'51 | | morning max el | 5574 Mar 11 02:48 | 26° \mathbb{M} 47'26 | 23°43'10 |
| | 5573 Apr 11 03:50 | 0° \mathbb{M} | | | 5574 Mar 14 02:19 | 0° \mathbb{M} | |
| | 5573 Apr 30 08:04 | 0° \mathbb{M} | | desc. node | 5574 Mar 16 16:07 | 3° \mathbb{M} 02'45 | |
| morning set | 5573 May 03 21:36 | 6° \mathbb{M} 16'45 | | | 5574 Apr 04 18:33 | 0° \mathbb{M} | |
| max. Earth dist. | 5573 May 07 13:16 | 12° \mathbb{M} 57'47 | 1.36575 AU | morning set | 5574 Apr 15 11:49 | 17° \mathbb{M} 26'29 | |
| | | | | max. Earth dist. | 5574 Apr 19 09:06 | 24° \mathbb{M} 10'57 | 1.38706 AU |
| | | | | | 5574 Apr 22 15:03 | 0° \mathbb{M} | |
| superior conj | 5573 May 13 18:46 | 24° \mathbb{M} 56'07 | -1°05'44 | | | | |
| minimum elong | 5573 May 13 22:28 | 25° \mathbb{M} 14'22 | 1°05'06 | superior conj | 5574 Apr 26 18:37 | 7° \mathbb{M} 40'43 | -1°33'51 |
| | 5573 May 16 07:44 | 0° \mathbb{M} | | minimum elong | 5574 Apr 26 23:35 | 8° \mathbb{M} 04'08 | 1°33'13 |
| asc. node | 5573 May 20 15:37 | 8° \mathbb{M} 45'31 | | evening rise | 5574 May 05 22:13 | 25° \mathbb{M} 21'10 | |
| evening rise | 5573 May 22 01:08 | 11° \mathbb{M} 35'01 | | asc. node | 5574 May 07 12:39 | 28° \mathbb{M} 27'47 | |
| | 5573 May 31 21:57 | 0° \mathbb{M} | | | 5574 May 08 07:48 | 0° \mathbb{M} | |
| evening max el | 5573 Jun 08 07:16 | 9° \mathbb{M} 41'47 | 19°40'10 | evening max el | 5574 May 22 05:51 | 21° \mathbb{M} 44'38 | 18°48'48 |
| retrograde | 5573 Jun 18 02:57 | 14° \mathbb{M} 30'15 | | retrograde | 5574 May 30 12:42 | 25° \mathbb{M} 49'03 | |
| evening set | 5573 Jun 20 00:48 | 14° \mathbb{M} 20'08 | | evening set | 5574 Jun 01 14:50 | 25° \mathbb{M} 34'29 | |
| desc. node | 5573 Jun 25 18:18 | 12° \mathbb{M} 07'22 | | inferior conj | 5574 Jun 09 14:50 | 21° \mathbb{M} 14'42 | 0°52'36 |
| inferior conj | 5573 Jun 28 20:09 | 10° \mathbb{M} 16'44 | -0°55'25 | minimum elong | 5574 Jun 09 16:48 | 21° \mathbb{M} 11'07 | 0°51'53 |
| minimum elong | 5573 Jun 28 17:37 | 10° \mathbb{M} 20'42 | 0°54'28 | desc. node | 5574 Jun 12 15:21 | 19° \mathbb{M} 03'24 | |
| min. Earth dist. | 5573 Jul 01 03:20 | 8° \mathbb{M} 50'37 | 0.55512 AU | min. Earth dist. | 5574 Jun 12 19:45 | 18° \mathbb{M} 55'44 | 0.57037 AU |
| morning rise | 5573 Jul 07 08:09 | 5° \mathbb{M} 46'46 | | morning rise | 5574 Jun 17 15:24 | 16° \mathbb{M} 07'58 | |
| direct | 5573 Jul 11 20:56 | 5° \mathbb{M} 01'11 | | direct | 5574 Jun 23 02:18 | 14° \mathbb{M} 55'42 | |
| morning max el | 5573 Jul 25 19:29 | 11° \mathbb{M} 58'13 | 24°40'51 | morning max el | 5574 Jul 07 10:37 | 22° \mathbb{M} 24'37 | 26°13'48 |
| | 5573 Aug 08 14:27 | 0° \mathbb{M} | | | 5574 Jul 14 04:03 | 0° \mathbb{M} | |
| asc. node | 5573 Aug 16 14:54 | 14° \mathbb{M} 39'28 | | | 5574 Aug 01 08:03 | 0° \mathbb{M} | |
| morning set | 5573 Aug 20 11:10 | 22° \mathbb{M} 35'34 | | asc. node | 5574 Aug 03 11:57 | 4° \mathbb{M} 24'47 | |
| | 5573 Aug 23 21:39 | 0° \mathbb{M} | | morning set | 5574 Aug 04 22:05 | 7° \mathbb{M} 23'46 | |
| superior conj | 5573 Aug 27 09:27 | 7° \mathbb{M} 38'00 | 1°31'20 | | | | |
| minimum elong | 5573 Aug 27 07:30 | 7° \mathbb{M} 27'25 | 1°31'09 | superior conj | 5574 Aug 11 20:44 | 22° \mathbb{M} 31'50 | 1°17'19 |
| max. Earth dist. | 5573 Aug 29 02:07 | 11° \mathbb{M} 19'08 | 1.32731 AU | minimum elong | 5574 Aug 11 18:27 | 22° \mathbb{M} 19'13 | 1°16'59 |
| evening rise | 5573 Sep 03 15:29 | 23° \mathbb{M} 02'38 | | max. Earth dist. | 5574 Aug 12 10:59 | 23° \mathbb{M} 50'28 | 1.32091 AU |
| | 5573 Sep 07 03:16 | 0° \mathbb{M} | | | 5574 Aug 15 06:25 | 0° \mathbb{M} | |
| desc. node | 5573 Sep 21 17:34 | 25° \mathbb{M} 02'23 | | evening rise | 5574 Aug 18 19:15 | 7° \mathbb{M} 33'02 | |
| | 5573 Sep 25 04:22 | 0° \mathbb{M} | | | 5574 Aug 30 14:14 | 0° \mathbb{M} | |
| evening max el | 5573 Oct 06 17:26 | 13° \mathbb{M} 36'51 | 27°27'20 | desc. node | 5574 Sep 08 14:35 | 13° \mathbb{M} 54'09 | |
| retrograde | 5573 Oct 20 10:16 | 20° \mathbb{M} 52'49 | | evening max el | 5574 Sep 18 23:43 | 26° \mathbb{M} 04'59 | 27°07'28 |
| evening set | 5573 Oct 27 14:06 | 18° \mathbb{M} 20'13 | | | 5574 Sep 23 18:39 | 0° \mathbb{M} | |
| min. Earth dist. | 5573 Oct 31 06:02 | 15° \mathbb{M} 14'55 | 0.63138 AU | retrograde | 5574 Oct 02 20:36 | 3° \mathbb{M} 17'10 | |
| inferior conj | 5573 Nov 02 23:33 | 12° \mathbb{M} 34'00 | -3°04'30 | evening set | 5574 Oct 09 22:20 | 1° \mathbb{M} 02'58 | |

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|------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| | 5574 Oct 11 11:35 | 30°♄ | | evening set | 5575 Sep 21 10:42 | 13°♄09'54 | |
| min. Earth dist. | 5574 Oct 13 14:12 | 28°♄20'27 | 0.61184 AU | min. Earth dist. | 5575 Sep 25 12:21 | 10°♄35'07 | 0.59109 AU |
| inferior conj | 5574 Oct 16 17:02 | 25°♄38'11 | -4°05'27 | inferior conj | 5575 Sep 28 17:58 | 8°♄08'27 | -4°54'57 |
| minimum elong | 5574 Oct 16 23:28 | 25°♄24'11 | 4°03'42 | minimum elong | 5575 Sep 28 23:22 | 7°♄58'12 | 4°54'03 |
| morning rise | 5574 Oct 24 02:38 | 20°♄45'15 | | morning rise | 5575 Oct 06 14:16 | 3°♄37'55 | |
| direct | 5574 Oct 26 09:50 | 20°♄23'40 | | direct | 5575 Oct 08 22:49 | 3°♄18'54 | |
| asc. node | 5574 Oct 30 11:12 | 21°♄33'43 | | morning max el | 5575 Oct 16 21:59 | 7°♄10'29 | 18°25'48 |
| morning max el | 5574 Nov 02 12:55 | 23°♄57'38 | 17°57'39 | asc. node | 5575 Oct 17 08:14 | 7°♄35'46 | |
| | 5574 Nov 07 09:40 | 0°♄ | | | 5575 Oct 31 12:05 | 0°♄ | |
| morning set | 5574 Nov 18 06:34 | 18°♄44'40 | | morning set | 5575 Nov 01 21:56 | 2°♄41'55 | |
| | 5574 Nov 24 10:34 | 0°♄ | | | | | |
| superior conj | 5574 Nov 28 12:58 | 7°♄16'49 | 0°48'58 | superior conj | 5575 Nov 10 22:38 | 19°♄50'09 | 1°16'17 |
| minimum elong | 5574 Nov 28 16:36 | 7°♄32'42 | 0°48'30 | minimum elong | 5575 Nov 11 02:17 | 20°♄07'02 | 1°15'53 |
| desc. node | 5574 Dec 05 13:52 | 19°♄16'17 | | | 5575 Nov 16 14:02 | 0°♄ | |
| max. Earth dist. | 5574 Dec 06 02:21 | 20°♄07'57 | 1.42416 AU | max. Earth dist. | 5575 Nov 18 09:59 | 3°♄11'11 | 1.40437 AU |
| evening rise | 5574 Dec 12 04:36 | 29°♄59'20 | | desc. node | 5575 Nov 22 10:53 | 10°♄01'17 | |
| | 5574 Dec 12 04:46 | 0°♄ | | evening rise | 5575 Nov 22 19:37 | 10°♄37'34 | |
| | 5575 Jan 01 08:55 | 0°♄ | | | 5575 Dec 05 03:39 | 0°♄ | |
| evening max el | 5575 Jan 13 18:56 | 15°♄22'36 | 22°15'57 | evening max el | 5575 Dec 27 09:47 | 29°♄02'16 | 23°35'51 |
| retrograde | 5575 Jan 23 08:54 | 21°♄04'26 | | | 5575 Dec 28 09:31 | 0°♄ | |
| asc. node | 5575 Jan 26 10:27 | 20°♄15'08 | | retrograde | 5576 Jan 07 02:41 | 5°♄21'29 | |
| evening set | 5575 Jan 27 22:17 | 19°♄13'41 | | evening set | 5576 Jan 12 04:24 | 3°♄15'22 | |
| inferior conj | 5575 Feb 02 06:38 | 12°♄52'25 | 2°07'40 | asc. node | 5576 Jan 13 07:29 | 2°♄12'05 | |
| minimum elong | 5575 Feb 02 04:20 | 13°♄00'26 | 2°06'55 | | 5576 Jan 15 05:26 | 30°♄ | |
| min. Earth dist. | 5575 Feb 02 04:37 | 12°♄59'28 | 0.68146 AU | min. Earth dist. | 5576 Jan 17 01:24 | 27°♄34'29 | 0.68060 AU |
| morning rise | 5575 Feb 07 10:14 | 6°♄42'05 | | inferior conj | 5576 Jan 17 14:34 | 26°♄49'28 | 1°24'07 |
| direct | 5575 Feb 12 03:49 | 4°♄42'40 | | minimum elong | 5576 Jan 17 12:46 | 26°♄55'36 | 1°23'28 |
| morning max el | 5575 Feb 21 14:04 | 10°♄15'12 | 22°14'29 | morning rise | 5576 Jan 22 21:05 | 20°♄43'52 | |
| desc. node | 5575 Mar 03 13:10 | 22°♄17'07 | | direct | 5576 Jan 27 00:42 | 19°♄07'08 | |
| | 5575 Mar 09 02:05 | 0°♄ | | morning max el | 5576 Feb 04 07:11 | 23°♄52'49 | 20°53'09 |
| morning set | 5575 Mar 26 22:37 | 27°♄17'27 | | | 5576 Feb 09 15:03 | 0°♄ | |
| | 5575 Mar 28 14:29 | 0°♄ | | desc. node | 5576 Feb 18 10:10 | 12°♄02'35 | |
| max. Earth dist. | 5575 Apr 01 06:04 | 6°♄03'49 | 1.40901 AU | | 5576 Mar 01 10:50 | 0°♄ | |
| | | | | morning set | 5576 Mar 05 06:31 | 5°♄55'03 | |
| superior conj | 5575 Apr 09 00:54 | 19°♄33'42 | -1°56'28 | max. Earth dist. | 5576 Mar 13 09:47 | 18°♄52'32 | 1.42872 AU |
| minimum elong | 5575 Apr 09 05:39 | 19°♄54'51 | 1°56'07 | | | | |
| | 5575 Apr 14 18:35 | 0°♄ | | superior conj | 5576 Mar 20 08:47 | 0°♄24'35 | -2°08'41 |
| evening rise | 5575 Apr 19 08:38 | 8°♄32'54 | | minimum elong | 5576 Mar 20 10:22 | 0°♄31'18 | 2°08'40 |
| asc. node | 5575 Apr 24 09:41 | 17°♄52'13 | | | 5576 Mar 20 02:58 | 0°♄ | |
| | 5575 May 01 20:18 | 0°♄ | | evening rise | 5576 Apr 01 04:15 | 21°♄01'10 | |
| evening max el | 5575 May 05 12:45 | 4°♄22'11 | 18°17'47 | | 5576 Apr 06 05:40 | 0°♄ | |
| retrograde | 5575 May 12 17:14 | 7°♄57'30 | | asc. node | 5576 Apr 10 06:43 | 6°♄52'45 | |
| evening set | 5575 May 15 02:27 | 7°♄34'42 | | evening max el | 5576 Apr 18 00:20 | 17°♄25'07 | 18°06'27 |
| inferior conj | 5575 May 22 07:09 | 2°♄54'54 | 2°12'16 | retrograde | 5576 Apr 24 14:09 | 20°♄47'32 | |
| minimum elong | 5575 May 22 10:35 | 2°♄47'35 | 2°11'17 | evening set | 5576 Apr 27 06:15 | 20°♄14'01 | |
| min. Earth dist. | 5575 May 25 17:26 | 0°♄01'07 | 0.59084 AU | inferior conj | 5576 May 03 18:57 | 15°♄13'44 | 3°01'47 |
| | 5575 May 25 18:00 | 30°♄ | | minimum elong | 5576 May 03 21:40 | 15°♄07'02 | 3°01'16 |
| morning rise | 5575 May 29 15:41 | 27°♄17'32 | | min. Earth dist. | 5576 May 06 22:20 | 12°♄09'57 | 0.61301 AU |
| desc. node | 5575 May 30 12:23 | 26°♄50'31 | | morning rise | 5576 May 10 11:06 | 9°♄16'25 | |
| direct | 5575 Jun 04 21:52 | 25°♄31'20 | | desc. node | 5576 May 16 09:25 | 7°♄00'19 | |
| | 5575 Jun 15 12:53 | 0°♄ | | direct | 5576 May 17 04:44 | 6°♄58'24 | |
| morning max el | 5575 Jun 19 07:11 | 3°♄20'02 | 27°20'25 | morning max el | 5576 May 31 10:02 | 14°♄56'44 | 27°51'28 |
| | 5575 Jul 08 17:46 | 0°♄ | | | 5576 Jun 12 14:51 | 0°♄ | |
| morning set | 5575 Jul 20 06:26 | 22°♄02'21 | | morning set | 5576 Jun 30 05:42 | 0°♄ | |
| asc. node | 5575 Jul 21 08:57 | 24°♄22'13 | | asc. node | 5576 Jul 03 10:25 | 6°♄25'38 | |
| | 5575 Jul 23 23:43 | 0°♄ | | max. Earth dist. | 5576 Jul 07 05:58 | 14°♄26'59 | |
| | | | | | 5576 Jul 09 07:37 | 18°♄55'31 | 1.32102 AU |
| superior conj | 5575 Jul 27 08:31 | 7°♄24'12 | 0°58'45 | | | | |
| minimum elong | 5575 Jul 27 06:21 | 7°♄12'16 | 0°58'21 | superior conj | 5576 Jul 10 19:05 | 22°♄09'27 | 0°36'11 |
| max. Earth dist. | 5575 Jul 26 22:03 | 6°♄26'21 | 1.31881 AU | minimum elong | 5576 Jul 10 17:32 | 22°♄00'55 | 0°35'51 |
| evening rise | 5575 Aug 03 03:43 | 22°♄15'11 | | | 5576 Jul 14 08:47 | 0°♄ | |
| | 5575 Aug 06 21:36 | 0°♄ | | evening rise | 5576 Jul 17 14:49 | 7°♄02'31 | |
| | 5575 Aug 25 00:46 | 0°♄ | | | 5576 Jul 29 13:27 | 0°♄ | |
| desc. node | 5575 Aug 26 11:37 | 1°♄48'47 | | desc. node | 5576 Aug 12 08:37 | 18°♄23'22 | |
| evening max el | 5575 Aug 31 23:12 | 7°♄45'47 | 26°14'17 | evening max el | 5576 Aug 12 15:18 | 18°♄39'28 | 24°53'01 |
| retrograde | 5575 Sep 14 22:16 | 14°♄53'30 | | retrograde | 5576 Aug 26 12:55 | 25°♄40'20 | |
| | | | | evening set | 5576 Aug 31 22:54 | 24°♄34'07 | |

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|---------------------|-------------------|------------------------|------------|------------------|-------------------|------------------------|------------|
| min. Earth dist. | 5576 Sep 06 02:43 | 21° \mathbb{M} 48'47 | 0.57154 AU | desc. node | 5577 Jul 30 05:39 | 3° \mathbb{M} 06'56 | |
| inferior conj | 5576 Sep 08 23:21 | 19° \mathbb{M} 56'07 | -5°19'43 | retrograde | 5577 Aug 07 15:03 | 5° \mathbb{M} 46'52 | |
| minimum elong | 5576 Sep 09 00:21 | 19° \mathbb{M} 54'28 | 5°19'41 | evening set | 5577 Aug 11 13:05 | 5° \mathbb{M} 13'18 | |
| morning rise | 5576 Sep 17 04:05 | 15° \mathbb{M} 47'45 | | min. Earth dist. | 5577 Aug 18 12:48 | 2° \mathbb{M} 01'03 | 0.55621 AU |
| direct | 5576 Sep 19 17:59 | 15° \mathbb{M} 28'50 | | inferior conj | 5577 Aug 20 08:49 | 0° \mathbb{M} 56'39 | -5°02'52 |
| morning max el | 5576 Sep 28 21:58 | 19° \mathbb{M} 48'10 | 19°15'21 | minimum elong | 5577 Aug 20 03:12 | 1° \mathbb{M} 04'53 | 5°02'09 |
| asc. node | 5576 Oct 03 05:16 | 24° \mathbb{M} 45'43 | | | 5577 Aug 21 23:56 | 30° \mathbb{R} 0 | |
| | 5576 Oct 06 17:25 | 0° \mathbb{A} | | morning rise | 5577 Aug 28 19:39 | 27° \mathbb{O} 04'38 | |
| morning set | 5576 Oct 15 22:11 | 17° \mathbb{A} 04'03 | | direct | 5577 Aug 31 17:55 | 26° \mathbb{O} 44'00 | |
| | 5576 Oct 22 10:03 | 0° \mathbb{M} | | | 5577 Sep 09 09:56 | 0° \mathbb{M} | |
| | | | | morning max el | 5577 Sep 11 10:15 | 1° \mathbb{M} 42'05 | 20°27'00 |
| superior conj | 5576 Oct 24 01:48 | 3° \mathbb{M} 14'21 | 1°33'31 | asc. node | 5577 Sep 20 02:17 | 12° \mathbb{M} 48'40 | |
| minimum elong | 5576 Oct 24 04:15 | 3° \mathbb{M} 26'15 | 1°33'21 | | 5577 Sep 29 08:13 | 0° \mathbb{A} | |
| max. Earth dist. | 5576 Oct 30 15:01 | 15° \mathbb{M} 34'24 | 1.38322 AU | morning set | 5577 Sep 30 04:20 | 1° \mathbb{A} 42'40 | |
| evening rise | 5576 Nov 03 09:28 | 22° \mathbb{M} 17'28 | | | | | |
| | 5576 Nov 07 22:07 | 0° \mathbb{X} | | superior conj | 5577 Oct 07 17:42 | 17° \mathbb{A} 15'52 | 1°41'53 |
| desc. node | 5576 Nov 08 07:53 | 0° \mathbb{X} 40'28 | | minimum elong | 5577 Oct 07 18:37 | 17° \mathbb{A} 20'30 | 1°41'52 |
| | 5576 Nov 28 01:17 | 0° \mathbb{Z} | | max. Earth dist. | 5577 Oct 12 22:08 | 27° \mathbb{A} 32'14 | 1.36309 AU |
| evening max el | 5576 Dec 08 22:50 | 12° \mathbb{Z} 45'36 | 24°53'50 | | 5577 Oct 14 05:01 | 0° \mathbb{M} | |
| retrograde | 5576 Dec 20 16:20 | 19° \mathbb{Z} 34'16 | | evening rise | 5577 Oct 16 19:47 | 4° \mathbb{M} 53'19 | |
| evening set | 5576 Dec 26 07:26 | 17° \mathbb{Z} 13'43 | | desc. node | 5577 Oct 26 04:53 | 21° \mathbb{M} 09'34 | |
| asc. node | 5576 Dec 30 04:31 | 12° \mathbb{Z} 58'56 | | | 5577 Oct 31 19:33 | 0° \mathbb{X} | |
| min. Earth dist. | 5576 Dec 30 20:30 | 12° \mathbb{Z} 07'05 | 0.67611 AU | evening max el | 5577 Nov 21 11:30 | 26° \mathbb{X} 29'46 | 26°02'44 |
| inferior conj | 5576 Dec 31 20:39 | 10° \mathbb{Z} 47'33 | 0°33'45 | | 5577 Nov 25 11:55 | 0° \mathbb{Z} | |
| minimum elong | 5576 Dec 31 19:50 | 10° \mathbb{Z} 50'15 | 0°33'26 | retrograde | 5577 Dec 04 01:10 | 3° \mathbb{Z} 37'59 | |
| morning rise | 5577 Jan 06 08:24 | 4° \mathbb{Z} 48'45 | | evening set | 5577 Dec 10 05:40 | 1° \mathbb{Z} 05'33 | |
| direct | 5577 Jan 09 23:16 | 3° \mathbb{Z} 33'24 | | | 5577 Dec 11 10:29 | 30° \mathbb{R} 0 | |
| morning max el | 5577 Jan 17 08:11 | 7° \mathbb{Z} 42'02 | 19°44'19 | min. Earth dist. | 5577 Dec 14 11:40 | 26° \mathbb{X} 33'59 | 0.66803 AU |
| greatest brilliancy | 5577 Jan 30 08:31 | 24° \mathbb{Z} 46'39 | -0.7m | inferior conj | 5577 Dec 15 23:04 | 24° \mathbb{X} 43'52 | -0°22'33 |
| | 5577 Feb 02 20:35 | 0° \mathbb{A} | | minimum elong | 5577 Dec 15 23:40 | 24° \mathbb{X} 42'00 | 0°22'15 |
| desc. node | 5577 Feb 04 07:10 | 2° \mathbb{A} 10'26 | | asc. node | 5577 Dec 17 01:33 | 23° \mathbb{X} 22'23 | |
| morning set | 5577 Feb 12 02:49 | 14° \mathbb{A} 07'30 | | morning rise | 5577 Dec 21 18:11 | 18° \mathbb{X} 54'14 | |
| | 5577 Feb 22 07:03 | 0° \mathbb{X} | | direct | 5577 Dec 24 21:57 | 17° \mathbb{X} 57'20 | |
| max. Earth dist. | 5577 Feb 23 21:26 | 2° \mathbb{X} 32'01 | 1.44365 AU | morning max el | 5577 Dec 31 16:47 | 21° \mathbb{X} 40'58 | 18°50'38 |
| | | | | | 5578 Jan 07 09:39 | 0° \mathbb{Z} | |
| superior conj | 5577 Feb 28 15:08 | 10° \mathbb{X} 07'19 | -2°04'47 | desc. node | 5578 Jan 22 04:10 | 22° \mathbb{Z} 34'41 | |
| minimum elong | 5577 Feb 28 10:34 | 9° \mathbb{X} 48'52 | 2°04'36 | morning set | 5578 Jan 22 12:45 | 23° \mathbb{Z} 08'15 | |
| | 5577 Mar 12 15:34 | 0° \mathbb{Y} | | | 5578 Jan 26 21:54 | 0° \mathbb{A} | |
| evening rise | 5577 Mar 14 04:33 | 2° \mathbb{Y} 36'31 | | max. Earth dist. | 5578 Feb 06 14:34 | 16° \mathbb{A} 44'54 | 1.45203 AU |
| asc. node | 5577 Mar 28 03:45 | 25° \mathbb{Y} 21'02 | | | | | |
| | 5577 Mar 31 20:29 | 0° \mathbb{B} | | superior conj | 5578 Feb 08 00:17 | 18° \mathbb{A} 57'21 | -1°41'04 |
| evening max el | 5577 Apr 01 13:18 | 0° \mathbb{B} 43'45 | 18°14'06 | minimum elong | 5578 Feb 07 15:00 | 18° \mathbb{A} 20'51 | 1°40'13 |
| retrograde | 5577 Apr 07 22:58 | 4° \mathbb{B} 08'06 | | | 5578 Feb 14 23:57 | 0° \mathbb{X} | |
| evening set | 5577 Apr 10 21:28 | 3° \mathbb{B} 22'27 | | evening rise | 5578 Feb 23 06:08 | 13° \mathbb{X} 14'50 | |
| | 5577 Apr 15 02:40 | 30° \mathbb{R} 0 | | | 5578 Mar 05 16:07 | 0° \mathbb{Y} | |
| inferior conj | 5577 Apr 16 22:14 | 28° \mathbb{Y} 02'52 | 3°26'13 | asc. node | 5578 Mar 15 00:48 | 13° \mathbb{Y} 07'32 | |
| minimum elong | 5577 Apr 16 23:25 | 27° \mathbb{Y} 59'34 | 3°26'07 | evening max el | 5578 Mar 16 00:55 | 14° \mathbb{Y} 11'45 | 18°40'04 |
| min. Earth dist. | 5577 Apr 19 12:08 | 25° \mathbb{Y} 12'11 | 0.63393 AU | retrograde | 5578 Mar 22 15:33 | 17° \mathbb{Y} 50'55 | |
| morning rise | 5577 Apr 23 00:16 | 21° \mathbb{Y} 54'20 | | evening set | 5578 Mar 25 20:31 | 16° \mathbb{Y} 52'25 | |
| direct | 5577 Apr 29 20:25 | 19° \mathbb{Y} 14'17 | | inferior conj | 5578 Mar 31 13:02 | 11° \mathbb{Y} 15'14 | 3°31'20 |
| desc. node | 5577 May 03 06:27 | 19° \mathbb{Y} 49'40 | | minimum elong | 5578 Mar 31 12:43 | 11° \mathbb{Y} 16'13 | 3°31'19 |
| morning max el | 5577 May 13 17:49 | 27° \mathbb{Y} 13'58 | 27°44'50 | min. Earth dist. | 5578 Apr 02 11:27 | 8° \mathbb{Y} 54'15 | 0.65171 AU |
| | 5577 May 16 08:30 | 0° \mathbb{B} | | morning rise | 5578 Apr 06 04:21 | 5° \mathbb{Y} 01'26 | |
| | 5577 Jun 06 07:14 | 0° \mathbb{I} | | direct | 5578 Apr 12 19:41 | 2° \mathbb{Y} 12'14 | |
| morning set | 5577 Jun 17 07:43 | 20° \mathbb{I} 25'50 | | desc. node | 5578 Apr 20 03:28 | 4° \mathbb{Y} 54'11 | |
| | 5577 Jun 21 23:27 | 0° \mathbb{E} | | morning max el | 5578 Apr 26 03:58 | 10° \mathbb{Y} 03'10 | 27°04'15 |
| max. Earth dist. | 5577 Jun 22 11:48 | 1° \mathbb{E} 05'15 | 1.32765 AU | | 5578 May 11 20:39 | 0° \mathbb{B} | |
| asc. node | 5577 Jun 24 03:00 | 4° \mathbb{E} 34'03 | | | 5578 May 29 18:05 | 0° \mathbb{I} | |
| | | | | morning set | 5578 May 31 19:27 | 3° \mathbb{I} 54'58 | |
| superior conj | 5577 Jun 25 02:34 | 6° \mathbb{E} 40'48 | 0°10'12 | max. Earth dist. | 5578 Jun 05 06:49 | 12° \mathbb{I} 46'21 | 1.33888 AU |
| minimum elong | 5577 Jun 25 02:05 | 6° \mathbb{E} 38'08 | 0°10'03 | | | | |
| behind sun begin | 5577 Jun 24 21:56 | 6° \mathbb{E} 15'46 | | superior conj | 5578 Jun 09 04:57 | 20° \mathbb{I} 52'31 | -0°18'27 |
| behind sun end | 5577 Jun 25 06:14 | 7° \mathbb{E} 00'30 | | minimum elong | 5578 Jun 09 05:55 | 20° \mathbb{I} 57'39 | 0°18'17 |
| evening rise | 5577 Jul 02 02:35 | 21° \mathbb{E} 47'46 | | asc. node | 5578 Jun 11 00:02 | 24° \mathbb{I} 39'44 | |
| | 5577 Jul 06 01:41 | 0° \mathbb{O} | | | 5578 Jun 13 12:20 | 0° \mathbb{E} | |
| evening max el | 5577 Jul 25 03:35 | 29° \mathbb{O} 02'06 | 23°16'32 | evening rise | 5578 Jun 16 13:12 | 6° \mathbb{E} 25'16 | |
| | 5577 Jul 26 04:17 | 0° \mathbb{M} | | | 5578 Jun 29 06:31 | 0° \mathbb{O} | |

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| evening max el | 5578 Jul 06 20:10 | 9°Ω27'17 | 21°41'03 | evening max el | 5579 Jun 19 00:03 | 20°Ω25'18 | 20°19'00 |
| desc. node | 5578 Jul 17 02:42 | 15°Ω25'53 | | retrograde | 5579 Jun 29 20:05 | 25°Ω43'52 | |
| retrograde | 5578 Jul 19 06:48 | 15°Ω37'01 | | evening set | 5579 Jul 01 18:55 | 25°Ω34'15 | |
| evening set | 5578 Jul 21 20:42 | 15°Ω21'57 | | desc. node | 5579 Jul 03 23:44 | 25°Ω01'56 | |
| inferior conj | 5578 Jul 31 04:17 | 11°Ω20'48 | -3°53'49 | inferior conj | 5579 Jul 10 22:43 | 21°Ω36'24 | -2°04'20 |
| minimum elong | 5578 Jul 30 19:19 | 11°Ω33'20 | 3°51'22 | minimum elong | 5579 Jul 10 16:56 | 21°Ω44'54 | 2°02'14 |
| min. Earth dist. | 5578 Jul 30 22:39 | 11°Ω28'41 | 0.54829 AU | min. Earth dist. | 5579 Jul 12 10:26 | 20°Ω44'03 | 0.54984 AU |
| morning rise | 5578 Aug 08 19:13 | 7°Ω29'21 | | morning rise | 5579 Jul 19 13:45 | 17°Ω24'41 | |
| direct | 5578 Aug 12 04:14 | 7°Ω04'31 | | direct | 5579 Jul 23 14:41 | 16°Ω49'22 | |
| morning max el | 5578 Aug 24 10:41 | 12°Ω50'33 | 21°58'15 | morning max el | 5579 Aug 06 02:39 | 23°Ω23'47 | 23°41'16 |
| | 5578 Sep 06 02:33 | 0°♊ | | | 5579 Aug 12 01:01 | 0°Ω | |
| asc. node | 5578 Sep 06 23:19 | 1°♊32'09 | | asc. node | 5579 Aug 24 20:21 | 20°Ω46'13 | |
| morning set | 5578 Sep 14 14:06 | 16°♊31'00 | | | 5579 Aug 29 09:45 | 0°♊ | |
| | 5578 Sep 20 22:54 | 0°♊ | | morning set | 5579 Aug 30 01:39 | 1°♊23'50 | |
| superior conj | 5578 Sep 21 18:28 | 1°♊43'08 | 1°42'43 | superior conj | 5579 Sep 06 01:10 | 16°♊27'09 | 1°37'07 |
| minimum elong | 5578 Sep 21 17:59 | 1°♊40'34 | 1°42'43 | minimum elong | 5579 Sep 05 23:38 | 16°♊18'53 | 1°37'01 |
| max. Earth dist. | 5578 Sep 25 11:49 | 9°♊25'50 | 1.34596 AU | max. Earth dist. | 5579 Sep 08 10:17 | 21°♊33'16 | 1.33287 AU |
| evening rise | 5578 Sep 29 22:30 | 18°♊14'46 | | | 5579 Sep 12 11:37 | 0°♊ | |
| | 5578 Oct 06 07:19 | 0°♊ | | evening rise | 5579 Sep 13 13:38 | 2°♊11'23 | |
| desc. node | 5578 Oct 13 01:55 | 11°♊22'47 | | | 5579 Sep 29 04:07 | 0°♊ | |
| | 5578 Oct 26 00:37 | 0°♊ | | desc. node | 5579 Sep 29 22:59 | 1°♊13'04 | |
| evening max el | 5578 Nov 04 00:11 | 10°♊07'24 | 26°55'08 | evening max el | 5579 Oct 17 12:17 | 23°♊29'11 | 27°23'56 |
| retrograde | 5578 Nov 17 04:37 | 17°♊25'05 | | | 5579 Oct 26 23:24 | 0°♊ | |
| evening set | 5578 Nov 23 21:06 | 14°♊45'58 | | retrograde | 5579 Oct 31 02:08 | 0°♊47'34 | |
| min. Earth dist. | 5578 Nov 27 20:37 | 10°♊49'37 | 0.65642 AU | | 5579 Nov 03 23:34 | 30°♊ | |
| inferior conj | 5578 Nov 29 19:44 | 8°♊33'48 | -1°23'37 | evening set | 5579 Nov 07 03:10 | 28°♊09'48 | |
| minimum elong | 5578 Nov 29 22:07 | 8°♊26'55 | 1°22'36 | min. Earth dist. | 5579 Nov 10 21:16 | 24°♊46'57 | 0.64142 AU |
| asc. node | 5578 Dec 03 22:36 | 4°♊18'42 | | inferior conj | 5579 Nov 13 08:13 | 22°♊12'28 | -2°27'33 |
| morning rise | 5578 Dec 06 00:07 | 2°♊55'54 | | minimum elong | 5579 Nov 13 12:34 | 22°♊01'03 | 2°25'53 |
| direct | 5578 Dec 08 18:46 | 2°♊13'44 | | morning rise | 5579 Nov 19 23:24 | 16°♊49'11 | |
| morning max el | 5578 Dec 15 06:50 | 5°♊43'20 | 18°13'14 | asc. node | 5579 Nov 20 19:37 | 16°♊31'40 | |
| | 5578 Dec 31 22:04 | 0°♊ | | direct | 5579 Nov 22 11:22 | 16°♊17'45 | |
| morning set | 5579 Jan 03 02:59 | 3°♊35'07 | | morning max el | 5579 Nov 28 23:35 | 19°♊42'36 | 17°52'52 |
| desc. node | 5579 Jan 09 01:11 | 13°♊10'01 | | | 5579 Dec 06 15:55 | 0°♊ | |
| | | | | morning set | 5579 Dec 15 21:33 | 15°♊25'25 | |
| superior conj | 5579 Jan 18 04:02 | 27°♊39'46 | -1°00'43 | | 5579 Dec 24 13:34 | 0°♊ | |
| minimum elong | 5579 Jan 17 20:41 | 27°♊10'47 | 0°59'46 | desc. node | 5579 Dec 26 22:13 | 3°♊52'52 | |
| | 5579 Jan 19 15:43 | 0°♊ | | superior conj | 5579 Dec 28 22:25 | 7°♊08'59 | -0°14'05 |
| max. Earth dist. | 5579 Jan 20 09:41 | 1°♊10'32 | 1.45308 AU | minimum elong | 5579 Dec 28 20:47 | 7°♊02'26 | 0°13'49 |
| evening rise | 5579 Feb 03 09:12 | 23°♊00'12 | | behind sun begin | 5579 Dec 28 15:33 | 6°♊41'11 | |
| | 5579 Feb 07 20:59 | 0°♊ | | behind sun end | 5579 Dec 29 02:02 | 7°♊23'39 | |
| greatest brilliancy | 5579 Feb 15 06:21 | 11°♊23'52 | -0.7m | max. Earth dist. | 5580 Jan 03 04:15 | 15°♊33'11 | 1.44686 AU |
| evening max el | 5579 Feb 27 08:58 | 27°♊43'49 | 19°23'15 | | 5580 Jan 12 10:13 | 0°♊ | |
| asc. node | 5579 Mar 01 21:52 | 29°♊59'23 | | evening rise | 5580 Jan 13 21:29 | 2°♊15'42 | |
| | 5579 Mar 01 22:12 | 0°♊ | | | 5580 Feb 01 11:57 | 0°♊ | |
| retrograde | 5579 Mar 06 12:17 | 1°♊48'42 | | evening max el | 5580 Feb 10 12:02 | 11°♊17'57 | 20°21'34 |
| evening set | 5579 Mar 10 00:33 | 0°♊36'35 | | asc. node | 5580 Feb 16 18:55 | 15°♊42'21 | |
| | 5579 Mar 10 19:54 | 30°♊ | | retrograde | 5580 Feb 18 10:31 | 15°♊56'50 | |
| inferior conj | 5579 Mar 15 11:54 | 24°♊43'53 | 3°21'38 | evening set | 5580 Feb 22 07:22 | 14°♊30'15 | |
| minimum elong | 5579 Mar 15 10:26 | 24°♊48'43 | 3°21'27 | inferior conj | 5580 Feb 27 16:03 | 8°♊24'18 | 3°00'15 |
| min. Earth dist. | 5579 Mar 16 19:11 | 23°♊01'58 | 0.66545 AU | minimum elong | 5580 Feb 27 13:52 | 8°♊31'42 | 2°59'48 |
| morning rise | 5579 Mar 20 19:59 | 18°♊28'33 | | min. Earth dist. | 5580 Feb 28 09:24 | 7°♊25'13 | 0.67495 AU |
| direct | 5579 Mar 27 01:24 | 15°♊42'43 | | morning rise | 5580 Mar 03 20:09 | 2°♊09'47 | |
| desc. node | 5579 Apr 07 00:29 | 21°♊39'40 | | | 5580 Mar 07 06:52 | 30°♊ | |
| morning max el | 5579 Apr 08 13:50 | 23°♊10'50 | 25°57'30 | direct | 5580 Mar 09 12:37 | 29°♊37'25 | |
| | 5579 Apr 14 14:53 | 0°♊ | | | 5580 Mar 11 21:21 | 0°♊ | |
| | 5579 May 05 04:41 | 0°♊ | | morning max el | 5580 Mar 20 22:29 | 6°♊27'10 | 24°34'17 |
| morning set | 5579 May 14 17:44 | 16°♊41'50 | | desc. node | 5580 Mar 23 21:30 | 9°♊38'12 | |
| max. Earth dist. | 5579 May 18 14:22 | 23°♊58'32 | 1.35468 AU | | 5580 Apr 08 05:05 | 0°♊ | |
| | 5579 May 21 16:18 | 0°♊ | | morning set | 5580 Apr 25 21:21 | 28°♊31'26 | |
| superior conj | 5579 May 23 23:41 | 4°♊37'45 | -0°48'30 | | 5580 Apr 26 17:26 | 0°♊ | |
| minimum elong | 5579 May 24 02:24 | 4°♊51'28 | 0°47'59 | max. Earth dist. | 5580 Apr 29 12:18 | 5°♊00'08 | 1.37450 AU |
| asc. node | 5579 May 28 21:06 | 14°♊40'08 | | superior conj | 5580 May 06 07:35 | 17°♊47'32 | -1°18'05 |
| evening rise | 5579 May 31 20:34 | 20°♊48'44 | | minimum elong | 5580 May 06 11:55 | 18°♊08'34 | 1°17'25 |
| | 5579 Jun 05 10:49 | 0°♊ | | | | | |

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| | 5580 May 12 11:59 | 0°♂ | | max. Earth dist. | 5581 Apr 11 07:49 | 16°♂27'35 | 1.39649 AU |
| evening rise | 5580 May 14 22:13 | 4°♂50'36 | | | 5581 Apr 18 21:58 | 0°♂ | |
| asc. node | 5580 May 14 18:10 | 4°♂30'26 | | | | | |
| | 5580 May 29 17:52 | 0°♂ | | superior conj | 5581 Apr 19 00:36 | 0°♂12'07 | -1°44'22 |
| evening max el | 5580 May 31 16:31 | 2°♂05'37 | 19°15'54 | minimum elong | 5581 Apr 19 05:44 | 0°♂35'46 | 1°43'50 |
| retrograde | 5580 Jun 09 19:19 | 6°♂33'17 | | evening rise | 5581 Apr 28 15:12 | 18°♂23'24 | |
| evening set | 5580 Jun 11 18:24 | 6°♂21'47 | | asc. node | 5581 May 01 15:12 | 24°♂06'05 | |
| desc. node | 5580 Jun 19 20:46 | 2°♂27'53 | | | 5581 May 04 20:05 | 0°♂ | |
| inferior conj | 5580 Jun 20 05:56 | 2°♂12'41 | -0°06'50 | evening max el | 5581 May 14 19:07 | 14°♂24'39 | 18°33'10 |
| minimum elong | 5580 Jun 20 05:39 | 2°♂13'10 | 0°06'45 | retrograde | 5581 May 22 13:04 | 18°♂14'28 | |
| transit middle | 5580 Jun 20 05:39 | 2°♂13'10 | 0°06'45 | evening set | 5581 May 24 18:19 | 17°♂56'39 | |
| transit begin | 5580 Jun 20 02:10 | 2°♂18'57 | | inferior conj | 5581 Jun 01 09:47 | 13°♂28'19 | 1°30'12 |
| transit end | 5580 Jun 20 09:08 | 2°♂07'23 | | minimum elong | 5581 Jun 01 12:44 | 13°♂22'35 | 1°29'13 |
| min. Earth dist. | 5580 Jun 23 00:39 | 0°♂22'27 | 0.56075 AU | min. Earth dist. | 5581 Jun 04 18:44 | 10°♂52'07 | 0.57867 AU |
| | 5580 Jun 23 14:48 | 30°♂♂ | | desc. node | 5581 Jun 06 17:47 | 9°♂30'23 | |
| morning rise | 5580 Jun 28 13:54 | 27°♂27'08 | | morning rise | 5581 Jun 09 03:54 | 8°♂07'48 | |
| direct | 5580 Jul 03 12:19 | 26°♂31'12 | | direct | 5581 Jun 14 23:51 | 6°♂41'38 | |
| | 5580 Jul 13 04:04 | 0°♂ | | morning max el | 5581 Jun 29 09:00 | 14°♂19'18 | 26°46'04 |
| morning max el | 5580 Jul 17 16:03 | 3°♂43'35 | 25°22'36 | | 5581 Jul 11 21:47 | 0°♂ | |
| | 5580 Aug 05 08:41 | 0°♂ | | | 5581 Jul 28 11:54 | 0°♂ | |
| asc. node | 5580 Aug 10 17:23 | 10°♂22'02 | | morning set | 5581 Jul 28 23:17 | 0°♂59'51 | |
| morning set | 5580 Aug 13 13:15 | 16°♂15'02 | | asc. node | 5581 Jul 28 14:26 | 0°♂13'20 | |
| | 5580 Aug 19 20:55 | 0°♂ | | | | | |
| superior conj | 5580 Aug 20 11:20 | 1°♂19'09 | 1°26'00 | superior conj | 5581 Aug 04 23:02 | 16°♂12'59 | 1°09'59 |
| minimum elong | 5580 Aug 20 09:11 | 1°♂07'23 | 1°25'44 | minimum elong | 5581 Aug 04 20:44 | 16°♂00'20 | 1°09'36 |
| max. Earth dist. | 5580 Aug 21 16:17 | 3°♂57'46 | 1.32411 AU | max. Earth dist. | 5581 Aug 05 02:42 | 16°♂33'16 | 1.31959 AU |
| evening rise | 5580 Aug 27 13:37 | 16°♂32'03 | | | 5581 Aug 11 06:43 | 0°♂ | |
| | 5580 Sep 03 10:17 | 0°♂ | | evening rise | 5581 Aug 11 19:40 | 1°♂08'31 | |
| desc. node | 5580 Sep 15 20:01 | 20°♂29'48 | | | 5581 Aug 27 11:10 | 0°♂ | |
| | 5580 Sep 22 23:54 | 0°♂ | | desc. node | 5581 Sep 02 17:02 | 8°♂59'34 | |
| evening max el | 5580 Sep 28 21:38 | 6°♂21'12 | 27°23'01 | evening max el | 5581 Sep 11 01:24 | 18°♂30'26 | 26°48'41 |
| retrograde | 5580 Oct 12 16:36 | 13°♂35'15 | | retrograde | 5581 Sep 24 23:03 | 25°♂39'44 | |
| evening set | 5580 Oct 19 20:30 | 11°♂09'21 | | evening set | 5581 Oct 01 20:50 | 23°♂37'23 | |
| min. Earth dist. | 5580 Oct 23 11:49 | 8°♂14'46 | 0.62335 AU | min. Earth dist. | 5581 Oct 05 15:25 | 21°♂00'18 | 0.60315 AU |
| inferior conj | 5580 Oct 26 09:36 | 5°♂31'46 | -3°31'09 | inferior conj | 5581 Oct 08 20:27 | 18°♂22'44 | -4°28'30 |
| minimum elong | 5580 Oct 26 15:35 | 5°♂17'45 | 3°29'14 | minimum elong | 5581 Oct 09 02:47 | 18°♂09'42 | 4°27'02 |
| morning rise | 5580 Nov 02 12:26 | 0°♂26'29 | | morning rise | 5581 Oct 16 10:48 | 13°♂38'56 | |
| direct | 5580 Nov 04 20:31 | 0°♂02'09 | | direct | 5581 Oct 18 18:17 | 13°♂18'37 | |
| asc. node | 5580 Nov 06 16:38 | 0°♂17'41 | | asc. node | 5581 Oct 24 13:41 | 15°♂33'42 | |
| morning max el | 5580 Nov 11 15:55 | 3°♂30'24 | 17°50'26 | morning max el | 5581 Oct 26 04:35 | 16°♂58'37 | 18°07'03 |
| morning set | 5580 Nov 27 14:15 | 28°♂19'15 | | | 5581 Nov 04 09:38 | 0°♂ | |
| | 5580 Nov 28 12:48 | 0°♂ | | morning set | 5581 Nov 10 22:46 | 11°♂57'38 | |
| superior conj | 5580 Dec 08 18:10 | 17°♂52'43 | 0°28'33 | superior conj | 5581 Nov 20 15:18 | 29°♂50'03 | 1°01'52 |
| minimum elong | 5580 Dec 08 20:44 | 18°♂03'40 | 0°28'12 | minimum elong | 5581 Nov 20 19:10 | 0°♂07'22 | 1°01'22 |
| desc. node | 5580 Dec 12 19:16 | 24°♂39'26 | | | 5581 Nov 20 17:31 | 0°♂ | |
| max. Earth dist. | 5580 Dec 15 20:03 | 29°♂37'28 | 1.43403 AU | max. Earth dist. | 5581 Nov 28 07:07 | 13°♂07'31 | 1.41612 AU |
| | 5580 Dec 16 01:36 | 0°♂ | | desc. node | 5581 Nov 29 16:16 | 15°♂26'00 | |
| evening rise | 5580 Dec 23 09:48 | 11°♂38'54 | | evening rise | 5581 Dec 03 12:32 | 21°♂43'34 | |
| | 5581 Jan 04 13:13 | 0°♂ | | | 5581 Dec 08 18:07 | 0°♂ | |
| evening max el | 5581 Jan 23 09:41 | 24°♂53'52 | 21°31'52 | | 5581 Dec 29 17:43 | 0°♂ | |
| | 5581 Jan 30 19:08 | 0°♂ | | evening max el | 5582 Jan 06 02:29 | 8°♂31'34 | 22°49'46 |
| retrograde | 5581 Feb 01 08:10 | 0°♂11'52 | | retrograde | 5582 Jan 16 03:44 | 14°♂29'33 | |
| asc. node | 5581 Feb 02 15:55 | 0°♂02'33 | | evening set | 5582 Jan 20 22:21 | 12°♂31'59 | |
| | 5581 Feb 02 19:57 | 30°♂ | | asc. node | 5582 Jan 20 12:56 | 12°♂50'49 | |
| evening set | 5581 Feb 05 15:10 | 28°♂29'59 | | inferior conj | 5582 Jan 26 07:18 | 6°♂08'20 | 1°50'02 |
| inferior conj | 5581 Feb 10 23:10 | 22°♂13'33 | 2°29'17 | minimum elong | 5582 Jan 26 05:09 | 6°♂15'45 | 1°49'19 |
| minimum elong | 5581 Feb 10 20:47 | 22°♂21'51 | 2°28'36 | min. Earth dist. | 5582 Jan 26 00:25 | 6°♂32'10 | 0.68157 AU |
| min. Earth dist. | 5581 Feb 11 03:54 | 21°♂57'07 | 0.68025 AU | morning rise | 5582 Jan 31 11:53 | 0°♂00'05 | |
| morning rise | 5581 Feb 16 02:12 | 16°♂01'27 | | | 5582 Jan 31 11:55 | 30°♂♂ | |
| direct | 5581 Feb 21 04:16 | 13°♂49'03 | | direct | 5582 Feb 04 23:25 | 28°♂10'28 | |
| morning max el | 5581 Mar 03 07:45 | 19°♂49'59 | 23°05'00 | | 5582 Feb 09 22:39 | 0°♂ | |
| desc. node | 5581 Mar 10 18:32 | 28°♂29'20 | | morning max el | 5582 Feb 13 21:09 | 3°♂21'42 | 21°38'41 |
| | 5581 Mar 11 22:33 | 0°♂ | | desc. node | 5582 Feb 25 15:32 | 17°♂57'57 | |
| | 5581 Apr 01 09:49 | 0°♂ | | | 5582 Mar 05 23:38 | 0°♂ | |
| morning set | 5581 Apr 07 00:22 | 9°♂08'34 | | morning set | 5582 Mar 17 22:54 | 18°♂25'12 | |
| | | | | max. Earth dist. | 5582 Mar 24 07:51 | 28°♂46'03 | 1.41785 AU |

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| | 5582 Mar 25 01:40 | 0°♿ | | | 5583 Feb 27 01:32 | 0°♿ | |
| | | | max. Earth dist. | | 5583 Mar 06 14:56 | 11°♿57'30 | 1.43577 AU |
| superior conj | 5582 Mar 31 21:50 | 11°♿39'22 -2°03'15 | | superior conj | 5583 Mar 12 18:52 | 22°♿00'37 -2°09'19 | |
| minimum elong | 5582 Apr 01 01:40 | 11°♿56'04 2°03'05 | | minimum elong | 5583 Mar 12 18:05 | 21°♿57'21 2°09'18 | |
| | 5582 Apr 11 02:52 | 0°♿ | | | 5583 Mar 17 13:15 | 0°♿ | |
| evening rise | 5582 Apr 11 19:49 | 1°♿17'42 | | evening rise | 5583 Mar 25 07:46 | 13°♿24'28 | |
| asc. node | 5582 Apr 18 12:13 | 13°♿21'01 | | | 5583 Apr 04 00:33 | 0°♿ | |
| evening max el | 5582 Apr 28 04:18 | 27°♿13'14 18°10'32 | | asc. node | 5583 Apr 05 09:14 | 2°♿08'49 | |
| | 5582 May 02 00:14 | 0°♿ | | evening max el | 5583 Apr 11 16:47 | 10°♿23'18 18°07'23 | |
| retrograde | 5582 May 05 01:15 | 0°♿41'31 | | retrograde | 5583 Apr 18 03:49 | 13°♿45'09 | |
| evening set | 5582 May 07 13:25 | 0°♿14'22 | | evening set | 5583 Apr 20 22:33 | 13°♿06'46 | |
| | 5582 May 08 04:02 | 30°♿♿ | | inferior conj | 5583 Apr 27 05:41 | 7°♿58'10 3°14'51 | |
| inferior conj | 5582 May 14 10:47 | 25°♿25'26 2°36'43 | | minimum elong | 5583 Apr 27 07:48 | 7°♿52'41 3°14'33 | |
| minimum elong | 5582 May 14 14:05 | 25°♿17'54 2°35'55 | | min. Earth dist. | 5583 Apr 30 03:52 | 4°♿57'09 0.62217 AU | |
| min. Earth dist. | 5582 May 17 19:07 | 22°♿24'28 0.60023 AU | | morning rise | 5583 May 03 15:25 | 1°♿54'46 | |
| morning rise | 5582 May 21 12:11 | 19°♿38'08 | | | 5583 May 07 04:03 | 30°♿♿ | |
| desc. node | 5582 May 24 14:48 | 18°♿10'35 | | direct | 5583 May 10 11:02 | 29°♿25'46 | |
| direct | 5582 May 28 00:05 | 17°♿37'58 | | desc. node | 5583 May 11 11:49 | 29°♿28'58 | |
| morning max el | 5582 Jun 11 08:28 | 25°♿31'38 27°38'25 | | | 5583 May 13 21:31 | 0°♿ | |
| | 5582 Jun 15 11:48 | 0°♿ | | morning max el | 5583 May 24 13:52 | 7°♿26'44 27°53'10 | |
| | 5582 Jul 05 07:44 | 0°♿ | | | 5583 Jun 10 18:57 | 0°♿ | |
| morning set | 5582 Jul 13 06:02 | 15°♿32'37 | | morning set | 5583 Jun 27 07:28 | 29°♿46'53 | |
| asc. node | 5582 Jul 15 11:29 | 20°♿14'24 | | | 5583 Jun 27 10:03 | 0°♿ | |
| max. Earth dist. | 5582 Jul 19 13:44 | 29°♿08'16 1.31921 AU | | asc. node | 5583 Jul 02 08:30 | 10°♿20'31 | |
| | 5582 Jul 19 23:08 | 0°♿ | | max. Earth dist. | 5583 Jul 02 21:22 | 11°♿29'43 1.32320 AU | |
| superior conj | 5582 Jul 20 10:29 | 1°♿02'37 0°49'39 | | superior conj | 5583 Jul 04 19:58 | 15°♿42'24 0°25'32 | |
| minimum elong | 5582 Jul 20 08:31 | 0°♿51'48 0°49'15 | | minimum elong | 5583 Jul 04 18:48 | 15°♿36'05 0°25'16 | |
| evening rise | 5582 Jul 27 05:28 | 15°♿53'22 | | | 5583 Jul 11 09:34 | 0°♿ | |
| | 5582 Aug 03 05:08 | 0°♿ | | evening rise | 5583 Jul 11 17:04 | 0°♿40'01 | |
| desc. node | 5582 Aug 20 14:02 | 26°♿23'32 | | | 5583 Jul 27 19:26 | 0°♿ | |
| evening max el | 5582 Aug 23 21:29 | 29°♿50'00 25°42'29 | | evening max el | 5583 Aug 05 11:00 | 10°♿26'33 24°12'57 | |
| | 5582 Aug 24 01:42 | 0°♿ | | desc. node | 5583 Aug 07 11:04 | 12°♿15'00 | |
| retrograde | 5582 Sep 06 20:17 | 6°♿55'37 | | retrograde | 5583 Aug 19 06:14 | 17°♿23'21 | |
| evening set | 5582 Sep 12 23:20 | 5°♿27'14 | | evening set | 5583 Aug 24 01:19 | 16°♿32'20 | |
| min. Earth dist. | 5582 Sep 17 09:34 | 2°♿50'36 0.58248 AU | | min. Earth dist. | 5583 Aug 29 21:48 | 13°♿37'09 0.56419 AU | |
| inferior conj | 5582 Sep 20 13:21 | 0°♿36'01 -5°09'26 | | inferior conj | 5583 Sep 01 10:01 | 12°♿03'23 -5°18'40 | |
| minimum elong | 5582 Sep 20 17:20 | 0°♿28'55 5°09'00 | | minimum elong | 5583 Sep 01 08:15 | 12°♿06'10 5°18'36 | |
| | 5582 Sep 21 09:40 | 30°♿♿ | | morning rise | 5583 Sep 09 17:37 | 8°♿03'24 | |
| morning rise | 5582 Sep 28 13:37 | 26°♿15'33 | | direct | 5583 Sep 12 10:30 | 7°♿44'10 | |
| direct | 5582 Oct 01 00:03 | 25°♿56'50 | | morning max el | 5583 Sep 22 05:37 | 12°♿18'56 19°43'14 | |
| | 5582 Oct 09 10:56 | 0°♿ | | asc. node | 5583 Sep 28 07:46 | 19°♿41'15 | |
| morning max el | 5582 Oct 09 10:16 | 29°♿58'25 18°44'14 | | | 5583 Oct 04 11:02 | 0°♿ | |
| asc. node | 5582 Oct 11 10:43 | 2°♿06'56 | | morning set | 5583 Oct 09 21:28 | 10°♿37'18 | |
| morning set | 5582 Oct 25 18:22 | 26°♿07'12 | | | | | |
| | 5582 Oct 27 18:00 | 0°♿ | | superior conj | 5583 Oct 17 18:20 | 26°♿29'56 1°38'03 | |
| superior conj | 5582 Nov 03 09:09 | 12°♿47'53 1°24'45 | | minimum elong | 5583 Oct 17 20:08 | 26°♿38'52 1°37'58 | |
| minimum elong | 5582 Nov 03 12:23 | 13°♿03'08 1°24'27 | | | 5583 Oct 19 13:04 | 0°♿ | |
| max. Earth dist. | 5582 Nov 10 13:21 | 25°♿54'00 1.39537 AU | | max. Earth dist. | 5583 Oct 23 18:11 | 8°♿02'15 1.37436 AU | |
| | 5582 Nov 12 21:51 | 0°♿ | | evening rise | 5583 Oct 27 12:24 | 14°♿53'50 | |
| evening rise | 5582 Nov 14 13:20 | 2°♿48'32 | | desc. node | 5583 Nov 03 10:18 | 26°♿45'05 | |
| desc. node | 5582 Nov 16 13:16 | 6°♿09'24 | | | 5583 Nov 05 10:11 | 0°♿ | |
| | 5582 Dec 01 23:57 | 0°♿ | | | 5583 Nov 26 17:11 | 0°♿ | |
| evening max el | 5582 Dec 19 16:10 | 22°♿12'39 24°09'35 | | evening max el | 5583 Dec 02 04:49 | 5°♿56'42 25°24'38 | |
| retrograde | 5582 Dec 30 20:00 | 28°♿46'01 | | retrograde | 5583 Dec 14 07:53 | 12°♿55'44 | |
| evening set | 5583 Jan 05 03:23 | 26°♿33'18 | | evening set | 5583 Dec 20 04:37 | 10°♿29'44 | |
| asc. node | 5583 Jan 07 09:58 | 24°♿14'29 | | min. Earth dist. | 5583 Dec 24 14:35 | 5°♿37'43 0.67311 AU | |
| min. Earth dist. | 5583 Jan 09 20:45 | 21°♿07'01 0.67914 AU | | asc. node | 5583 Dec 25 07:00 | 4°♿44'52 | |
| inferior conj | 5583 Jan 10 14:40 | 20°♿06'30 1°03'32 | | inferior conj | 5583 Dec 25 19:28 | 4°♿04'33 0°10'34 | |
| minimum elong | 5583 Jan 10 13:14 | 20°♿11'21 1°02'59 | | minimum elong | 5583 Dec 25 19:12 | 4°♿05'25 0°10'28 | |
| morning rise | 5583 Jan 15 23:10 | 14°♿03'40 | | transit middle | 5583 Dec 25 19:12 | 4°♿05'25 0°10'28 | |
| direct | 5583 Jan 19 21:04 | 12°♿36'33 | | transit begin | 5583 Dec 25 17:04 | 4°♿12'18 | |
| morning max el | 5583 Jan 27 17:41 | 17°♿05'14 20°22'08 | | transit end | 5583 Dec 25 21:20 | 3°♿58'33 | |
| | 5583 Feb 07 01:19 | 0°♿ | | | 5583 Dec 29 05:35 | 30°♿♿ | |
| desc. node | 5583 Feb 12 12:33 | 7°♿53'56 | | morning rise | 5583 Dec 31 10:06 | 28°♿09'11 | |
| morning set | 5583 Feb 24 23:02 | 26°♿43'53 | | direct | 5584 Jan 03 19:55 | 27°♿02'12 | |

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|---------------------|-------------------|----------------------|---------------------|-------------------|----------------------|--|
| | 5584 Jan 09 21:04 | 0°♄ | direct | 5584 Dec 17 18:13 | 11°♄23'22 | |
| morning max el | 5584 Jan 10 22:05 | 0°♄59'11 19°19'25 | morning max el | 5584 Dec 24 09:14 | 14°♄59'51 18°32'33 | |
| greatest brilliancy | 5584 Jan 24 05:01 | 18°♄43'45 -0.7m | | 5585 Jan 04 11:17 | 0°♄ | |
| desc. node | 5584 Jan 30 09:34 | 28°♄09'24 | morning set | 5585 Jan 13 19:24 | 14°♄44'05 | |
| | 5584 Jan 31 14:18 | 0°♄ | desc. node | 5585 Jan 16 06:35 | 18°♄38'48 | |
| morning set | 5584 Feb 03 22:11 | 5°♄08'25 | | 5585 Jan 23 11:09 | 0°♄ | |
| max. Earth dist. | 5584 Feb 17 04:35 | 25°♄50'54 1.44807 AU | | | | |
| | 5584 Feb 19 19:31 | 0°♄ | superior conj | 5585 Jan 29 19:25 | 9°♄57'28 -1°25'27 | |
| | | | minimum elong | 5585 Jan 29 10:06 | 9°♄20'56 1°24'27 | |
| superior conj | 5584 Feb 20 15:04 | 1°♄17'40 -1°57'09 | max. Earth dist. | 5585 Jan 29 22:59 | 10°♄11'27 1.45346 AU | |
| minimum elong | 5584 Feb 20 07:54 | 0°♄49'11 1°56'42 | | 5585 Feb 11 13:13 | 0°♄ | |
| evening rise | 5584 Mar 05 22:40 | 24°♄35'28 | evening rise | 5585 Feb 14 14:12 | 4°♄49'16 | |
| | 5584 Mar 09 04:44 | 0°♄ | greatest brilliancy | 5585 Feb 23 13:52 | 19°♄04'16 -0.8m | |
| asc. node | 5584 Mar 22 06:16 | 20°♄20'53 | | 5585 Mar 02 19:27 | 0°♄ | |
| evening max el | 5584 Mar 25 05:31 | 23°♄47'02 18°23'03 | evening max el | 5585 Mar 08 15:56 | 7°♄17'30 18°56'31 | |
| retrograde | 5584 Mar 31 16:20 | 27°♄16'09 | asc. node | 5585 Mar 09 03:19 | 7°♄45'45 | |
| evening set | 5584 Apr 03 17:30 | 26°♄25'14 | retrograde | 5585 Mar 15 10:55 | 11°♄05'57 | |
| inferior conj | 5584 Apr 09 14:21 | 20°♄58'15 3°30'27 | evening set | 5585 Mar 18 18:58 | 10°♄01'38 | |
| minimum elong | 5584 Apr 09 14:52 | 20°♄56'45 3°30'24 | inferior conj | 5585 Mar 24 08:57 | 4°♄17'46 3°28'48 | |
| min. Earth dist. | 5584 Apr 11 21:53 | 18°♄18'17 0.64195 AU | minimum elong | 5585 Mar 24 08:05 | 4°♄20'30 3°28'43 | |
| morning rise | 5584 Apr 15 11:23 | 14°♄46'56 | min. Earth dist. | 5585 Mar 26 00:49 | 2°♄12'43 0.65812 AU | |
| direct | 5584 Apr 22 06:24 | 12°♄00'57 | | 5585 Mar 27 21:55 | 30°♄ | |
| desc. node | 5584 Apr 27 08:51 | 13°♄20'02 | morning rise | 5585 Mar 29 20:48 | 28°♄03'15 | |
| morning max el | 5584 May 05 22:51 | 19°♄58'51 27°31'15 | direct | 5585 Apr 05 08:33 | 25°♄14'01 | |
| | 5584 May 14 12:31 | 0°♄ | desc. node | 5585 Apr 14 05:52 | 29°♄11'11 | |
| | 5584 Jun 02 19:37 | 0°♄ | | 5585 Apr 15 05:31 | 0°♄ | |
| morning set | 5584 Jun 10 01:08 | 13°♄35'28 | morning max el | 5585 Apr 18 08:54 | 2°♄56'24 26°38'29 | |
| max. Earth dist. | 5584 Jun 14 21:51 | 23°♄27'18 1.33178 AU | | 5585 May 08 19:05 | 0°♄ | |
| | | | morning set | 5585 May 24 07:37 | 26°♄47'37 | |
| superior conj | 5584 Jun 18 01:36 | 0°♄06'48 -0°01'43 | | 5585 May 25 23:50 | 0°♄ | |
| minimum elong | 5584 Jun 18 01:41 | 0°♄07'15 0°01'43 | max. Earth dist. | 5585 May 28 12:01 | 4°♄54'44 1.34508 AU | |
| behind sun begin | 5584 Jun 17 20:18 | 29°♄38'29 | | | | |
| behind sun end | 5584 Jun 18 07:05 | 0°♄36'03 | superior conj | 5585 Jun 02 01:03 | 14°♄08'07 -0°31'07 | |
| asc. node | 5584 Jun 18 05:34 | 0°♄27'55 | minimum elong | 5585 Jun 02 02:45 | 14°♄16'54 0°30'47 | |
| | 5584 Jun 18 00:20 | 0°♄ | asc. node | 5585 Jun 05 02:35 | 20°♄31'40 | |
| evening rise | 5584 Jun 25 04:36 | 15°♄23'01 | evening rise | 5585 Jun 09 14:05 | 29°♄55'13 | |
| | 5584 Jul 02 11:57 | 0°♄ | | 5585 Jun 09 15:00 | 0°♄ | |
| evening max el | 5584 Jul 17 00:15 | 20°♄46'51 22°35'02 | | 5585 Jun 27 12:57 | 0°♄ | |
| desc. node | 5584 Jul 24 08:06 | 26°♄01'20 | evening max el | 5585 Jun 28 21:11 | 1°♄23'19 21°04'02 | |
| retrograde | 5584 Jul 30 03:23 | 27°♄18'54 | retrograde | 5585 Jul 10 16:05 | 7°♄11'46 | |
| evening set | 5584 Aug 02 10:01 | 26°♄55'21 | desc. node | 5585 Jul 11 05:09 | 7°♄11'04 | |
| min. Earth dist. | 5584 Aug 10 07:47 | 23°♄27'23 0.55173 AU | evening set | 5585 Jul 12 21:33 | 7°♄00'07 | |
| inferior conj | 5584 Aug 11 12:26 | 22°♄46'39 -4°40'00 | inferior conj | 5585 Jul 22 05:32 | 3°♄02'27 -3°10'37 | |
| minimum elong | 5584 Aug 11 04:38 | 22°♄57'45 4°38'29 | minimum elong | 5585 Jul 21 21:14 | 3°♄14'08 3°07'58 | |
| morning rise | 5584 Aug 20 01:12 | 18°♄56'51 | min. Earth dist. | 5585 Jul 22 18:00 | 2°♄44'54 0.54781 AU | |
| direct | 5584 Aug 23 03:39 | 18°♄34'48 | | 5585 Jul 28 03:52 | 30°♄ | |
| morning max el | 5584 Sep 03 12:42 | 23°♄53'13 21°03'41 | morning rise | 5585 Jul 30 21:14 | 29°♄05'02 | |
| | 5584 Sep 08 21:51 | 0°♄ | direct | 5585 Aug 03 12:36 | 28°♄36'33 | |
| asc. node | 5584 Sep 14 04:49 | 8°♄02'56 | | 5585 Aug 09 14:31 | 0°♄ | |
| morning set | 5584 Sep 23 05:26 | 25°♄20'40 | morning max el | 5585 Aug 16 08:40 | 4°♄43'19 22°41'20 | |
| | 5584 Sep 25 11:04 | 0°♄ | asc. node | 5585 Sep 01 01:51 | 27°♄00'15 | |
| | | | | 5585 Sep 02 15:42 | 0°♄ | |
| superior conj | 5584 Sep 30 14:25 | 10°♄43'28 1°43'04 | morning set | 5585 Sep 07 16:11 | 10°♄11'13 | |
| minimum elong | 5584 Sep 30 14:43 | 10°♄44'57 1°43'05 | | | | |
| max. Earth dist. | 5584 Oct 05 03:34 | 19°♄55'07 1.35539 AU | superior conj | 5585 Sep 14 18:00 | 25°♄18'11 1°41'04 | |
| evening rise | 5584 Oct 09 06:16 | 27°♄50'45 | minimum elong | 5585 Sep 14 17:01 | 25°♄12'58 1°41'02 | |
| | 5584 Oct 10 10:00 | 0°♄ | | 5585 Sep 16 23:21 | 0°♄ | |
| desc. node | 5584 Oct 20 07:20 | 17°♄08'10 | max. Earth dist. | 5585 Sep 17 21:14 | 1°♄54'09 1.33990 AU | |
| | 5584 Oct 28 17:25 | 0°♄ | evening rise | 5585 Sep 22 14:43 | 11°♄27'56 | |
| evening max el | 5584 Nov 13 17:45 | 19°♄39'50 26°27'29 | | 5585 Oct 02 18:21 | 0°♄ | |
| retrograde | 5584 Nov 26 14:30 | 26°♄52'57 | desc. node | 5585 Oct 07 04:24 | 7°♄12'34 | |
| evening set | 5584 Dec 03 00:14 | 24°♄17'15 | | 5585 Oct 24 03:03 | 0°♄ | |
| min. Earth dist. | 5584 Dec 07 03:31 | 20°♄00'25 0.66355 AU | evening max el | 5585 Oct 27 06:33 | 3°♄12'45 27°10'43 | |
| inferior conj | 5584 Dec 08 19:44 | 17°♄58'55 -0°47'55 | retrograde | 5585 Nov 09 15:17 | 10°♄30'40 | |
| minimum elong | 5584 Dec 08 21:03 | 17°♄54'56 0°47'20 | evening set | 5585 Nov 16 12:02 | 7°♄51'10 | |
| asc. node | 5584 Dec 11 04:03 | 15°♄15'38 | min. Earth dist. | 5585 Nov 20 09:10 | 4°♄09'27 0.65046 AU | |
| morning rise | 5584 Dec 14 18:33 | 12°♄13'37 | inferior conj | 5585 Nov 22 13:16 | 1°♄45'00 -1°50'31 | |

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|---------------------|-------------------|-----------|------------|------------------|-------------------|-----------|------------|
| minimum elong | 5585 Nov 22 16:29 | 1°♊36'03 | 1°49'11 | minimum elong | 5586 Nov 06 02:30 | 15°♍02'56 | 2°53'02 |
| | 5585 Nov 24 03:56 | 30°♍ | | morning rise | 5586 Nov 12 17:29 | 10°♍00'03 | |
| asc. node | 5585 Nov 28 01:06 | 26°♍40'52 | | asc. node | 5586 Nov 14 22:08 | 9°♍32'16 | |
| morning rise | 5585 Nov 28 22:04 | 26°♍12'49 | | direct | 5586 Nov 15 03:29 | 9°♍32'01 | |
| direct | 5585 Dec 01 13:41 | 25°♍35'32 | | morning max el | 5586 Nov 21 17:47 | 12°♍57'01 | 17°49'41 |
| morning max el | 5585 Dec 08 00:48 | 29°♍01'44 | 18°02'28 | | 5586 Dec 03 10:15 | 0°♊ | |
| | 5585 Dec 08 23:04 | 0°♊ | | morning set | 5586 Dec 08 03:11 | 8°♊08'51 | |
| morning set | 5585 Dec 25 22:25 | 25°♊49'22 | | | | | |
| | 5585 Dec 28 11:04 | 0°♋ | | superior conj | 5586 Dec 20 07:56 | 28°♊54'05 | 0°04'56 |
| desc. node | 5586 Jan 03 03:37 | 9°♋18'06 | | minimum elong | 5586 Dec 20 08:28 | 28°♊56'15 | 0°04'53 |
| | | | | behind sun begin | 5586 Dec 19 23:19 | 28°♊18'29 | |
| superior conj | 5586 Jan 09 03:20 | 18°♋54'27 | -0°41'00 | behind sun end | 5586 Dec 20 17:37 | 29°♊33'57 | |
| minimum elong | 5586 Jan 08 22:19 | 18°♋34'32 | 0°40'17 | | 5586 Dec 20 23:57 | 0°♋ | |
| max. Earth dist. | 5586 Jan 12 18:55 | 24°♋40'46 | 1.45135 AU | desc. node | 5586 Dec 21 00:38 | 0°♋02'51 | |
| | 5586 Jan 16 04:20 | 0°♌ | | max. Earth dist. | 5586 Dec 26 12:46 | 8°♋58'09 | 1.44208 AU |
| evening rise | 5586 Jan 25 09:43 | 14°♌19'19 | | evening rise | 5587 Jan 04 20:01 | 23°♋33'03 | |
| | 5586 Feb 04 15:08 | 0°♍ | | | 5587 Jan 09 01:15 | 0°♌ | |
| greatest brilliancy | 5586 Feb 08 01:30 | 5°♍09'03 | -0.7m | | 5587 Jan 30 01:19 | 0°♍ | |
| evening max el | 5586 Feb 19 22:02 | 20°♍51'06 | 19°46'18 | evening max el | 5587 Feb 02 22:41 | 4°♍25'26 | 20°50'07 |
| asc. node | 5586 Feb 24 00:22 | 24°♍10'38 | | asc. node | 5587 Feb 10 21:24 | 9°♍20'05 | |
| retrograde | 5586 Feb 27 08:37 | 25°♍09'21 | | retrograde | 5587 Feb 11 06:57 | 9°♍20'56 | |
| evening set | 5586 Mar 03 00:28 | 23°♍50'58 | | evening set | 5587 Feb 15 07:55 | 7°♍47'51 | |
| inferior conj | 5586 Mar 08 10:23 | 17°♍52'09 | 3°13'49 | inferior conj | 5587 Feb 20 16:03 | 1°♍36'46 | 2°48'11 |
| minimum elong | 5586 Mar 08 08:33 | 17°♍58'15 | 3°13'32 | minimum elong | 5587 Feb 20 13:44 | 1°♍44'45 | 2°47'38 |
| min. Earth dist. | 5586 Mar 09 11:29 | 16°♍28'38 | 0.67006 AU | min. Earth dist. | 5587 Feb 21 03:50 | 0°♍56'13 | 0.67771 AU |
| morning rise | 5586 Mar 13 16:25 | 11°♍37'07 | | | 5587 Feb 21 20:17 | 30°♌ | |
| direct | 5586 Mar 19 16:33 | 8°♍56'17 | | morning rise | 5587 Feb 25 19:22 | 25°♌22'58 | |
| morning max el | 5586 Mar 31 18:19 | 16°♍09'07 | 25°23'32 | direct | 5587 Mar 03 05:39 | 22°♌58'46 | |
| desc. node | 5586 Apr 01 02:53 | 16°♍30'57 | | morning max el | 5587 Mar 14 03:06 | 29°♌28'55 | 23°56'27 |
| | 5586 Apr 12 05:11 | 0°♎ | | | 5587 Mar 14 15:16 | 0°♍ | |
| | 5586 May 01 17:08 | 0°♏ | | desc. node | 5587 Mar 18 23:53 | 4°♍53'53 | |
| morning set | 5586 May 06 22:37 | 9°♏11'40 | | | 5587 Apr 06 00:56 | 0°♎ | |
| max. Earth dist. | 5586 May 10 15:18 | 16°♏00'29 | 1.36280 AU | morning set | 5587 Apr 18 16:32 | 20°♎32'22 | |
| | | | | max. Earth dist. | 5587 Apr 22 11:20 | 27°♎09'11 | 1.38375 AU |
| superior conj | 5586 May 16 15:35 | 27°♏39'05 | -1°01'14 | | 5587 Apr 24 01:28 | 0°♏ | |
| minimum elong | 5586 May 16 19:02 | 27°♏56'14 | 1°00'38 | | | | |
| | 5586 May 17 19:49 | 0°♐ | | superior conj | 5587 Apr 29 17:40 | 10°♏30'30 | -1°29'51 |
| asc. node | 5586 May 22 23:38 | 10°♐28'09 | | minimum elong | 5587 Apr 29 22:30 | 10°♏53'30 | 1°29'12 |
| evening rise | 5586 May 24 19:20 | 14°♐10'24 | | evening rise | 5587 May 08 17:42 | 28°♏00'52 | |
| | 5586 Jun 02 02:07 | 0°♑ | | asc. node | 5587 May 09 20:40 | 0°♐12'43 | |
| evening max el | 5586 Jun 11 06:22 | 12°♑38'02 | 19°49'33 | | 5587 May 09 18:04 | 0°♐ | |
| retrograde | 5586 Jun 21 08:21 | 17°♑34'19 | | evening max el | 5587 May 25 03:28 | 24°♐35'24 | 18°55'12 |
| evening set | 5586 Jun 23 06:03 | 17°♑24'31 | | retrograde | 5587 Jun 02 15:14 | 28°♐45'26 | |
| desc. node | 5586 Jun 28 02:10 | 15°♑42'55 | | evening set | 5587 Jun 04 16:24 | 28°♐31'50 | |
| inferior conj | 5586 Jul 02 03:52 | 13°♑22'50 | -1°13'19 | inferior conj | 5587 Jun 12 19:27 | 24°♐15'07 | 0°37'49 |
| minimum elong | 5586 Jul 02 00:29 | 13°♑28'03 | 1°12'04 | minimum elong | 5587 Jun 12 20:55 | 24°♐12'30 | 0°37'16 |
| min. Earth dist. | 5586 Jul 04 06:23 | 12°♑05'23 | 0.55347 AU | desc. node | 5587 Jun 14 23:09 | 22°♐43'05 | |
| morning rise | 5586 Jul 10 16:54 | 8°♑57'54 | | min. Earth dist. | 5587 Jun 15 22:18 | 22°♐03'00 | 0.56764 AU |
| direct | 5586 Jul 15 02:22 | 8°♑15'25 | | morning rise | 5587 Jun 20 22:05 | 19°♐13'40 | |
| morning max el | 5586 Jul 28 22:44 | 15°♑06'55 | 24°25'41 | direct | 5587 Jun 26 05:47 | 18°♐05'52 | |
| | 5586 Aug 09 17:45 | 0°♒ | | morning max el | 5587 Jul 10 13:19 | 25°♐31'15 | 26°01'17 |
| asc. node | 5586 Aug 18 22:53 | 16°♒24'09 | | | 5587 Jul 14 17:56 | 0°♑ | |
| morning set | 5586 Aug 23 03:54 | 25°♒03'39 | | | 5587 Aug 02 18:58 | 0°♒ | |
| | 5586 Aug 25 11:11 | 0°♓ | | asc. node | 5587 Aug 05 19:55 | 6°♒07'27 | |
| | | | | morning set | 5587 Aug 07 15:02 | 9°♒53'07 | |
| superior conj | 5586 Aug 30 02:23 | 10°♓05'53 | 1°33'03 | | | | |
| minimum elong | 5586 Aug 30 00:32 | 9°♓55'50 | 1°32'52 | superior conj | 5587 Aug 14 13:26 | 24°♒59'52 | 1°19'47 |
| max. Earth dist. | 5586 Aug 31 23:14 | 14°♓08'56 | 1.32858 AU | minimum elong | 5587 Aug 14 11:11 | 24°♒47'24 | 1°19'27 |
| evening rise | 5586 Sep 06 09:55 | 25°♓35'05 | | max. Earth dist. | 5587 Aug 15 07:25 | 26°♒38'57 | 1.32158 AU |
| | 5586 Sep 08 14:50 | 0°♔ | | | 5587 Aug 16 20:04 | 0°♓ | |
| desc. node | 5586 Sep 24 01:26 | 26°♔49'44 | | evening rise | 5587 Aug 21 12:47 | 10°♓03'33 | |
| | 5586 Sep 26 05:07 | 0°♕ | | | 5587 Aug 31 21:38 | 0°♔ | |
| evening max el | 5586 Oct 09 17:37 | 16°♕22'31 | 27°27'28 | desc. node | 5587 Sep 10 22:27 | 15°♔48'44 | |
| retrograde | 5586 Oct 23 09:46 | 23°♕39'26 | | evening max el | 5587 Sep 22 00:43 | 28°♔57'13 | 27°12'34 |
| evening set | 5586 Oct 30 13:07 | 21°♕05'00 | | | 5587 Sep 23 04:08 | 0°♕ | |
| min. Earth dist. | 5586 Nov 03 05:27 | 17°♕55'30 | 0.63404 AU | retrograde | 5587 Oct 05 21:17 | 6°♕10'08 | |
| inferior conj | 5586 Nov 05 21:23 | 15°♕15'46 | -2°54'54 | evening set | 5587 Oct 12 23:51 | 3°♕52'28 | |

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| min. Earth dist. | 5587 Oct 16 15:19 | 1°♍07'10 | 0.61488 AU | evening set | 5588 Sep 23 15:27 | 16°♌05'02 | |
| | 5587 Oct 17 22:06 | 30°♋♌ | | min. Earth dist. | 5588 Sep 27 14:54 | 13°♌30'07 | 0.59423 AU |
| inferior conj | 5587 Oct 19 17:00 | 28°♌24'08 | -3°56'46 | inferior conj | 5588 Sep 30 20:36 | 11°♌00'08 | -4°48'41 |
| minimum elong | 5587 Oct 19 23:22 | 28°♌10'00 | 3°54'56 | minimum elong | 5588 Oct 01 02:21 | 10°♌48'59 | 4°47'39 |
| morning rise | 5587 Oct 27 00:52 | 23°♌27'55 | | morning rise | 5588 Oct 08 15:26 | 6°♌25'58 | |
| direct | 5587 Oct 29 08:08 | 23°♌05'46 | | direct | 5588 Oct 10 23:34 | 6°♌06'42 | |
| asc. node | 5587 Nov 01 19:09 | 23°♌57'45 | | asc. node | 5588 Oct 18 16:11 | 9°♌47'59 | |
| morning max el | 5587 Nov 05 09:02 | 26°♌38'05 | 17°55'07 | morning max el | 5588 Oct 18 19:08 | 9°♌55'02 | 18°20'13 |
| | 5587 Nov 08 07:25 | 0°♍ | | | 5588 Oct 31 22:15 | 0°♍ | |
| morning set | 5587 Nov 21 03:16 | 21°♍23'17 | | morning set | 5588 Nov 03 17:00 | 5°♍16'00 | |
| | 5587 Nov 25 21:00 | 0°♎ | | | | | |
| superior conj | 5587 Dec 01 14:56 | 10°♎10'30 | 0°43'56 | superior conj | 5588 Nov 12 21:30 | 22°♍34'44 | 1°12'49 |
| minimum elong | 5587 Dec 01 18:23 | 10°♎25'26 | 0°43'27 | minimum elong | 5588 Nov 13 01:16 | 22°♍51'57 | 1°12'23 |
| desc. node | 5587 Dec 07 21:41 | 20°♎49'52 | | | 5588 Nov 17 00:26 | 0°♎ | |
| max. Earth dist. | 5587 Dec 09 02:08 | 22°♎47'17 | 1.42687 AU | max. Earth dist. | 5588 Nov 20 10:36 | 5°♎57'25 | 1.40750 AU |
| | 5587 Dec 13 13:01 | 0°♏ | | desc. node | 5588 Nov 23 18:43 | 11°♎35'24 | |
| evening rise | 5587 Dec 15 12:57 | 3°♏09'56 | | evening rise | 5588 Nov 25 00:39 | 13°♎39'08 | |
| | 5588 Jan 02 11:40 | 0°♏ | | | 5588 Dec 05 09:49 | 0°♏ | |
| evening max el | 5588 Jan 16 18:02 | 18°♏01'25 | 22°04'21 | | 5588 Dec 27 18:36 | 0°♏ | |
| retrograde | 5588 Jan 26 04:00 | 23°♏37'12 | | evening max el | 5588 Dec 29 09:23 | 1°♏40'46 | 23°23'58 |
| asc. node | 5588 Jan 28 18:25 | 23°♏01'31 | | retrograde | 5589 Jan 08 22:14 | 7°♏54'30 | |
| evening set | 5588 Jan 30 15:38 | 21°♏48'49 | | evening set | 5589 Jan 13 22:06 | 5°♏50'39 | |
| inferior conj | 5588 Feb 04 23:51 | 15°♏28'44 | 2°13'35 | asc. node | 5589 Jan 14 15:25 | 5°♏11'35 | |
| minimum elong | 5588 Feb 04 21:31 | 15°♏36'52 | 2°12'52 | | 5589 Jan 18 21:47 | 30°♋♌ | |
| min. Earth dist. | 5588 Feb 04 23:35 | 15°♏29'39 | 0.68126 AU | inferior conj | 5589 Jan 19 07:54 | 29°♏25'17 | 1°31'12 |
| morning rise | 5588 Feb 10 03:13 | 9°♏17'48 | | minimum elong | 5589 Jan 19 06:00 | 29°♏31'48 | 1°30'30 |
| direct | 5588 Feb 14 23:00 | 7°♏14'51 | | min. Earth dist. | 5589 Jan 18 20:22 | 0°♏04'51 | 0.68096 AU |
| morning max el | 5588 Feb 24 13:39 | 12°♏54'51 | 22°27'22 | morning rise | 5589 Jan 24 13:50 | 23°♏18'57 | |
| desc. node | 5588 Mar 04 20:55 | 24°♏02'21 | | direct | 5589 Jan 28 19:31 | 21°♏38'50 | |
| | 5588 Mar 09 05:20 | 0°♐ | | morning max el | 5589 Feb 06 05:41 | 26°♏30'40 | 21°04'37 |
| | 5588 Mar 28 22:56 | 0°♐ | | | 5589 Feb 09 10:08 | 0°♏ | |
| morning set | 5588 Mar 29 07:36 | 0°♐35'23 | | desc. node | 5589 Feb 19 17:57 | 13°♏43'44 | |
| max. Earth dist. | 5588 Apr 03 07:32 | 8°♐54'03 | 1.40580 AU | | 5589 Mar 02 17:36 | 0°♐ | |
| | | | | morning set | 5589 Mar 08 18:59 | 9°♐22'01 | |
| superior conj | 5588 Apr 11 02:54 | 22°♐32'05 | -1°53'36 | max. Earth dist. | 5589 Mar 16 10:25 | 21°♐35'40 | 1.42604 AU |
| minimum elong | 5588 Apr 11 07:49 | 22°♐54'15 | 1°53'12 | | 5589 Mar 21 12:07 | 0°♐ | |
| | 5588 Apr 15 05:03 | 0°♑ | | superior conj | 5589 Mar 23 14:24 | 3°♐32'55 | -2°07'45 |
| evening rise | 5588 Apr 21 05:56 | 11°♑18'16 | | minimum elong | 5589 Mar 23 16:42 | 3°♐42'42 | 2°07'41 |
| asc. node | 5588 Apr 25 17:41 | 19°♑40'10 | | evening rise | 5589 Apr 04 04:03 | 23°♐53'41 | |
| | 5588 May 01 19:07 | 0°♒ | | | 5589 Apr 07 13:47 | 0°♑ | |
| evening max el | 5588 May 07 09:23 | 7°♒08'34 | 18°21'10 | asc. node | 5589 Apr 12 14:43 | 8°♑44'43 | |
| retrograde | 5588 May 14 16:57 | 10°♒47'00 | | evening max el | 5589 Apr 20 20:31 | 20°♑08'14 | 18°06'53 |
| evening set | 5588 May 17 01:09 | 10°♒25'34 | | retrograde | 5589 Apr 27 11:45 | 23°♑31'36 | |
| inferior conj | 5588 May 24 08:33 | 5°♒48'51 | 2°02'09 | evening set | 5589 Apr 30 02:54 | 22°♑59'43 | |
| minimum elong | 5588 May 24 11:56 | 5°♒41'48 | 2°01'10 | inferior conj | 5589 May 06 17:42 | 18°♑02'16 | 2°56'00 |
| min. Earth dist. | 5588 May 27 18:59 | 2°♒58'50 | 0.58759 AU | minimum elong | 5589 May 06 20:37 | 17°♑55'15 | 2°55'24 |
| morning rise | 5588 May 31 19:38 | 0°♒15'37 | | min. Earth dist. | 5589 May 09 22:35 | 14°♑58'33 | 0.60974 AU |
| desc. node | 5588 May 31 20:10 | 0°♒14'54 | | morning rise | 5589 May 13 12:13 | 12°♑07'19 | |
| | 5588 Jun 01 07:41 | 30°♋♌ | | desc. node | 5589 May 18 17:11 | 10°♑00'10 | |
| direct | 5588 Jun 06 23:28 | 28°♑34'32 | | direct | 5589 May 20 04:40 | 9°♑53'46 | |
| | 5588 Jun 12 19:43 | 0°♒ | | morning max el | 5589 Jun 03 10:47 | 17°♑50'46 | 27°49'17 |
| morning max el | 5588 Jun 21 08:48 | 6°♒20'41 | 27°12'38 | | 5589 Jun 13 14:09 | 0°♒ | |
| | 5588 Jul 08 23:50 | 0°♓ | | | 5589 Jul 01 16:45 | 0°♓ | |
| morning set | 5588 Jul 21 23:53 | 24°♓33'21 | | morning set | 5589 Jul 06 04:38 | 8°♓58'53 | |
| asc. node | 5588 Jul 22 16:57 | 26°♓03'21 | | asc. node | 5589 Jul 09 13:59 | 16°♓07'01 | |
| | 5588 Jul 24 13:10 | 0°♑ | | max. Earth dist. | 5589 Jul 12 04:31 | 21°♓45'44 | 1.32045 AU |
| superior conj | 5588 Jul 29 01:15 | 9°♑52'47 | 1°01'52 | superior conj | 5589 Jul 13 12:07 | 24°♓38'57 | 0°39'51 |
| minimum elong | 5588 Jul 28 23:03 | 9°♑40'34 | 1°01'28 | minimum elong | 5589 Jul 13 10:26 | 24°♓29'44 | 0°39'30 |
| max. Earth dist. | 5588 Jul 28 18:23 | 9°♑14'48 | 1.31887 AU | | 5589 Jul 15 22:28 | 0°♑ | |
| evening rise | 5588 Aug 04 20:41 | 24°♑44'28 | | evening rise | 5589 Jul 20 07:32 | 9°♑31'03 | |
| | 5588 Aug 07 09:15 | 0°♒ | | | 5589 Jul 30 19:12 | 0°♒ | |
| | 5588 Aug 24 20:13 | 0°♓ | | desc. node | 5589 Aug 14 16:28 | 20°♒41'11 | |
| desc. node | 5588 Aug 27 19:27 | 3°♓53'10 | | evening max el | 5589 Aug 15 18:31 | 21°♒45'27 | 25°06'25 |
| evening max el | 5588 Sep 03 01:24 | 10°♓45'43 | 26°24'11 | retrograde | 5589 Aug 29 16:31 | 28°♒47'29 | |
| retrograde | 5588 Sep 17 00:13 | 17°♓53'40 | | evening set | 5589 Sep 04 07:23 | 27°♒35'33 | |

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|------------------|-------------------|------------------------|------------|------------------|-------------------|------------------------|------------|
| min. Earth dist. | 5589 Sep 09 06:01 | 24° \mathbb{M} 53'06 | 0.57429 AU | retrograde | 5590 Aug 10 20:46 | 8° \mathbb{M} 59'16 | |
| inferior conj | 5589 Sep 12 05:01 | 22° \mathbb{M} 54'18 | -5°18'14 | evening set | 5590 Aug 15 00:20 | 8° \mathbb{M} 21'31 | |
| minimum elong | 5589 Sep 12 06:54 | 22° \mathbb{M} 51'07 | 5°18'09 | min. Earth dist. | 5590 Aug 21 16:32 | 5° \mathbb{M} 14'09 | 0.55804 AU |
| morning rise | 5589 Sep 20 08:41 | 18° \mathbb{M} 42'55 | | inferior conj | 5590 Aug 23 17:19 | 4° \mathbb{M} 01'45 | -5°08'48 |
| direct | 5589 Sep 22 21:38 | 18° \mathbb{M} 24'03 | | minimum elong | 5590 Aug 23 12:39 | 4° \mathbb{M} 08'42 | 5°08'18 |
| morning max el | 5589 Oct 01 20:39 | 22° \mathbb{M} 38'20 | 19°06'34 | morning rise | 5590 Sep 01 03:23 | 0° \mathbb{M} 08'15 | |
| asc. node | 5589 Oct 05 13:14 | 26° \mathbb{M} 48'29 | | | 5590 Sep 01 19:30 | 30° \mathbb{R} 00 | |
| | 5589 Oct 07 19:48 | 0° \mathbb{L} | | direct | 5590 Sep 04 00:09 | 29° \mathbb{L} 48'03 | |
| morning set | 5589 Oct 18 16:09 | 19° \mathbb{L} 35'05 | | | 5590 Sep 06 03:36 | 0° \mathbb{M} | |
| | 5589 Oct 23 22:09 | 0° \mathbb{M} | | morning max el | 5590 Sep 14 10:53 | 4° \mathbb{M} 39'38 | 20°15'02 |
| | | | | asc. node | 5590 Sep 22 10:18 | 14° \mathbb{M} 44'32 | |
| superior conj | 5589 Oct 26 22:25 | 5° \mathbb{M} 52'24 | 1°31'30 | | 5590 Sep 30 19:47 | 0° \mathbb{L} | |
| minimum elong | 5589 Oct 27 01:06 | 6° \mathbb{M} 05'16 | 1°31'18 | morning set | 5590 Oct 02 21:39 | 4° \mathbb{L} 12'06 | |
| max. Earth dist. | 5589 Nov 02 16:02 | 18° \mathbb{M} 27'08 | 1.38636 AU | | | | |
| evening rise | 5589 Nov 06 11:10 | 25° \mathbb{M} 09'54 | | superior conj | 5590 Oct 10 12:47 | 19° \mathbb{L} 49'46 | 1°41'07 |
| | 5589 Nov 09 07:11 | 0° \mathbb{X} | | minimum elong | 5590 Oct 10 13:56 | 19° \mathbb{L} 55'32 | 1°41'05 |
| desc. node | 5589 Nov 10 15:44 | 2° \mathbb{X} 15'42 | | | 5590 Oct 15 16:44 | 0° \mathbb{M} | |
| | 5589 Nov 29 02:09 | 0° \mathbb{Z} | | max. Earth dist. | 5590 Oct 15 22:29 | 0° \mathbb{M} 27'26 | 1.36592 AU |
| evening max el | 5589 Dec 11 22:33 | 15° \mathbb{Z} 23'28 | 24°42'38 | evening rise | 5590 Oct 19 18:46 | 7° \mathbb{M} 38'33 | |
| retrograde | 5589 Dec 23 12:33 | 22° \mathbb{Z} 08'19 | | desc. node | 5590 Oct 28 12:46 | 22° \mathbb{M} 46'48 | |
| evening set | 5589 Dec 29 01:42 | 19° \mathbb{Z} 49'38 | | | 5590 Nov 02 01:36 | 0° \mathbb{X} | |
| asc. node | 5590 Jan 01 12:28 | 16° \mathbb{Z} 06'34 | | evening max el | 5590 Nov 24 11:09 | 29° \mathbb{X} 07'40 | 25°53'14 |
| min. Earth dist. | 5590 Jan 02 15:50 | 14° \mathbb{Z} 38'00 | 0.67701 AU | | 5590 Nov 25 09:08 | 0° \mathbb{Z} | |
| inferior conj | 5590 Jan 03 14:23 | 13° \mathbb{Z} 23'14 | 0°41'50 | retrograde | 5590 Dec 06 22:15 | 6° \mathbb{Z} 14'01 | |
| minimum elong | 5590 Jan 03 13:23 | 13° \mathbb{Z} 26'32 | 0°41'26 | evening set | 5590 Dec 13 00:48 | 3° \mathbb{Z} 43'01 | |
| morning rise | 5590 Jan 09 01:14 | 7° \mathbb{Z} 23'26 | | | 5590 Dec 16 14:13 | 30° \mathbb{R} 00 | |
| direct | 5590 Jan 12 17:53 | 6° \mathbb{Z} 05'06 | | min. Earth dist. | 5590 Dec 17 07:46 | 29° \mathbb{X} 06'12 | 0.66949 AU |
| morning max el | 5590 Jan 20 05:34 | 10° \mathbb{Z} 18'24 | 19°53'40 | inferior conj | 5590 Dec 18 17:30 | 27° \mathbb{X} 20'11 | -0°13'37 |
| | 5590 Feb 04 01:49 | 0° \mathbb{A} | | minimum elong | 5590 Dec 18 17:52 | 27° \mathbb{X} 19'04 | 0°13'27 |
| desc. node | 5590 Feb 06 14:58 | 3° \mathbb{A} 48'28 | | transit middle | 5590 Dec 18 17:52 | 27° \mathbb{X} 19'04 | 0°13'27 |
| morning set | 5590 Feb 15 15:26 | 17° \mathbb{A} 33'24 | | transit begin | 5590 Dec 18 16:18 | 27° \mathbb{X} 23'59 | |
| | 5590 Feb 23 15:08 | 0° \mathbb{H} | | transit end | 5590 Dec 18 19:25 | 27° \mathbb{X} 14'08 | |
| max. Earth dist. | 5590 Feb 26 21:09 | 5° \mathbb{H} 09'00 | 1.44179 AU | asc. node | 5590 Dec 19 09:31 | 26° \mathbb{X} 30'06 | |
| | | | | morning rise | 5590 Dec 24 11:24 | 21° \mathbb{X} 29'04 | |
| superior conj | 5590 Mar 04 00:29 | 13° \mathbb{H} 25'00 | -2°06'37 | direct | 5590 Dec 27 16:39 | 20° \mathbb{X} 29'44 | |
| minimum elong | 5590 Mar 03 20:55 | 13° \mathbb{H} 10'32 | 2°06'30 | morning max el | 5591 Jan 03 13:11 | 24° \mathbb{X} 16'27 | 18°57'34 |
| | 5590 Mar 14 00:14 | 0° \mathbb{Y} | | | 5591 Jan 08 09:19 | 0° \mathbb{Z} | |
| evening rise | 5590 Mar 17 07:31 | 5° \mathbb{Y} 37'15 | | desc. node | 5591 Jan 24 12:01 | 24° \mathbb{Z} 10'32 | |
| asc. node | 5590 Mar 30 11:46 | 27° \mathbb{Y} 18'14 | | morning set | 5591 Jan 25 21:55 | 26° \mathbb{Z} 22'50 | |
| | 5590 Apr 01 10:46 | 0° \mathbb{B} | | | 5591 Jan 28 05:34 | 0° \mathbb{A} | |
| evening max el | 5590 Apr 04 09:27 | 3° \mathbb{B} 24'38 | 18°11'46 | max. Earth dist. | 5591 Feb 09 13:21 | 19° \mathbb{A} 16'37 | 1.45124 AU |
| retrograde | 5590 Apr 10 19:12 | 6° \mathbb{B} 48'00 | | | | | |
| evening set | 5590 Apr 13 16:43 | 6° \mathbb{B} 04'16 | | superior conj | 5591 Feb 11 12:03 | 22° \mathbb{A} 20'22 | -1°45'53 |
| inferior conj | 5590 Apr 19 18:59 | 0° \mathbb{B} 47'21 | 3°23'52 | minimum elong | 5591 Feb 11 03:06 | 21° \mathbb{A} 45'08 | 1°45'09 |
| minimum elong | 5590 Apr 19 20:25 | 0° \mathbb{B} 43'25 | 3°23'42 | | 5591 Feb 16 08:11 | 0° \mathbb{H} | |
| | 5590 Apr 20 12:15 | 30° \mathbb{R} 00 | | evening rise | 5591 Feb 26 12:34 | 16° \mathbb{H} 23'34 | |
| min. Earth dist. | 5590 Apr 22 11:04 | 27° \mathbb{Y} 53'28 | 0.63096 AU | | 5591 Mar 06 21:35 | 0° \mathbb{Y} | |
| morning rise | 5590 Apr 25 22:55 | 24° \mathbb{Y} 39'52 | | asc. node | 5591 Mar 17 08:48 | 15° \mathbb{Y} 11'23 | |
| direct | 5590 May 02 19:06 | 22° \mathbb{Y} 02'24 | | evening max el | 5591 Mar 18 21:24 | 16° \mathbb{Y} 51'04 | 18°35'07 |
| desc. node | 5590 May 05 14:13 | 22° \mathbb{Y} 26'04 | | retrograde | 5591 Mar 25 10:51 | 20° \mathbb{Y} 27'25 | |
| | 5590 May 16 17:04 | 0° \mathbb{B} | | evening set | 5591 Mar 28 14:47 | 19° \mathbb{Y} 30'57 | |
| morning max el | 5590 May 16 18:08 | 0° \mathbb{B} 02'41 | 27°48'08 | inferior conj | 5591 Apr 03 08:19 | 13° \mathbb{Y} 56'21 | 3°31'34 |
| | 5590 Jun 07 14:37 | 0° \mathbb{I} | | minimum elong | 5591 Apr 03 08:12 | 13° \mathbb{Y} 56'42 | 3°31'33 |
| morning set | 5590 Jun 20 03:08 | 23° \mathbb{I} 02'59 | | min. Earth dist. | 5591 Apr 05 09:06 | 11° \mathbb{Y} 30'00 | 0.64928 AU |
| | 5590 Jun 23 12:29 | 0° \mathbb{E} | | morning rise | 5591 Apr 09 00:59 | 7° \mathbb{Y} 42'56 | |
| max. Earth dist. | 5590 Jun 25 09:48 | 3° \mathbb{E} 59'05 | 1.32636 AU | direct | 5591 Apr 15 17:24 | 4° \mathbb{Y} 54'07 | |
| asc. node | 5590 Jun 26 11:03 | 6° \mathbb{E} 13'54 | | desc. node | 5591 Apr 22 11:15 | 7° \mathbb{Y} 11'47 | |
| | | | | morning max el | 5591 Apr 29 04:07 | 12° \mathbb{Y} 47'37 | 27°12'10 |
| superior conj | 5590 Jun 27 20:13 | 9° \mathbb{E} 12'35 | 0°14'19 | | 5591 May 12 23:26 | 0° \mathbb{B} | |
| minimum elong | 5590 Jun 27 19:32 | 9° \mathbb{E} 08'53 | 0°14'10 | | 5591 May 31 04:46 | 0° \mathbb{I} | |
| behind sun begin | 5590 Jun 27 17:05 | 8° \mathbb{E} 55'42 | | morning set | 5591 Jun 03 16:32 | 6° \mathbb{I} 37'24 | |
| behind sun end | 5590 Jun 27 21:58 | 9° \mathbb{E} 22'05 | | max. Earth dist. | 5591 Jun 08 06:20 | 15° \mathbb{I} 44'19 | 1.33684 AU |
| evening rise | 5590 Jul 04 19:22 | 24° \mathbb{E} 16'53 | | | | | |
| | 5590 Jul 07 12:58 | 0° \mathbb{L} | | superior conj | 5591 Jun 11 23:31 | 23° \mathbb{I} 27'36 | -0°13'59 |
| | 5590 Jul 26 04:21 | 0° \mathbb{M} | | minimum elong | 5591 Jun 12 00:15 | 23° \mathbb{I} 31'29 | 0°13'51 |
| evening max el | 5590 Jul 28 06:52 | 2° \mathbb{M} 10'36 | 23°31'14 | behind sun begin | 5591 Jun 11 21:26 | 23° \mathbb{I} 16'39 | |
| desc. node | 5590 Aug 01 13:29 | 5° \mathbb{M} 43'44 | | behind sun end | 5591 Jun 12 03:04 | 23° \mathbb{I} 46'19 | |

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|---------------------|-------------------|-----------------------------------|------------|---------------------|-------------------|-----------------------------------|------------|
| asc. node | 5591 Jun 13 08:05 | 26° Π 19'56 | | minimum elong | 5592 May 25 22:01 | 7° Π 29'46 | 0°43'27 |
| | 5591 Jun 15 01:25 | 0° \mathfrak{E} | | asc. node | 5592 May 30 05:07 | 16° Π 21'15 | |
| evening rise | 5591 Jun 19 06:17 | 8° \mathfrak{E} 55'47 | | evening rise | 5592 Jun 02 14:15 | 23° Π 21'37 | |
| | 5591 Jun 30 08:07 | 0° Ω | | | 5592 Jun 05 20:55 | 0° \mathfrak{E} | |
| evening max el | 5591 Jul 09 22:18 | 12° Ω 33'16 | 21°54'43 | evening max el | 5592 Jun 21 00:21 | 23° \mathfrak{E} 25'26 | 20°30'09 |
| desc. node | 5591 Jul 19 10:31 | 18° Ω 26'29 | | retrograde | 5592 Jul 02 02:29 | 28° \mathfrak{E} 51'42 | |
| retrograde | 5591 Jul 22 13:51 | 18° Ω 49'37 | | evening set | 5592 Jul 04 02:29 | 28° \mathfrak{E} 41'50 | |
| evening set | 5591 Jul 25 07:31 | 18° Ω 32'51 | | desc. node | 5592 Jul 05 07:31 | 28° \mathfrak{E} 26'45 | |
| min. Earth dist. | 5591 Aug 03 02:26 | 14° Ω 46'36 | 0.54884 AU | inferior conj | 5592 Jul 13 07:52 | 24° \mathfrak{E} 44'40 | -2°22'18 |
| inferior conj | 5591 Aug 03 14:13 | 14° Ω 30'04 | -4°07'33 | minimum elong | 5592 Jul 13 01:17 | 24° \mathfrak{E} 54'11 | 2°20'00 |
| minimum elong | 5591 Aug 03 05:20 | 14° Ω 42'31 | 4°05'17 | min. Earth dist. | 5592 Jul 14 13:49 | 24° \mathfrak{E} 01'18 | 0.54900 AU |
| morning rise | 5591 Aug 12 04:39 | 10° Ω 39'39 | | morning rise | 5592 Jul 21 23:15 | 20° \mathfrak{E} 37'10 | |
| direct | 5591 Aug 15 11:45 | 10° Ω 15'44 | | direct | 5592 Jul 25 21:37 | 20° \mathfrak{E} 03'49 | |
| morning max el | 5591 Aug 27 13:01 | 15° Ω 54'43 | 21°43'40 | morning max el | 5592 Aug 08 05:47 | 26° \mathfrak{E} 31'26 | 23°25'35 |
| | 5591 Sep 07 08:11 | 0° \mathfrak{M} | | | 5592 Aug 11 14:06 | 0° Ω | |
| asc. node | 5591 Sep 09 07:21 | 3° \mathfrak{M} 22'31 | | asc. node | 5592 Aug 26 04:24 | 22° Ω 32'19 | |
| morning set | 5591 Sep 17 07:02 | 18° \mathfrak{M} 59'11 | | | 5592 Aug 29 22:08 | 0° \mathfrak{M} | |
| | 5591 Sep 22 12:14 | 0° \mathfrak{L} | | morning set | 5592 Aug 31 18:23 | 3° \mathfrak{M} 51'07 | |
| superior conj | 5591 Sep 24 12:28 | 4° \mathfrak{L} 13'46 | 1°43'02 | superior conj | 5592 Sep 07 18:23 | 18° \mathfrak{M} 55'09 | 1°38'21 |
| minimum elong | 5591 Sep 24 12:10 | 4° \mathfrak{L} 12'14 | 1°43'01 | minimum elong | 5592 Sep 07 16:59 | 18° \mathfrak{M} 47'37 | 1°38'15 |
| max. Earth dist. | 5591 Sep 28 10:49 | 12° \mathfrak{L} 19'30 | 1.34826 AU | max. Earth dist. | 5592 Sep 10 08:00 | 24° \mathfrak{M} 24'00 | 1.33459 AU |
| evening rise | 5591 Oct 02 19:20 | 20° \mathfrak{L} 53'57 | | | 5592 Sep 13 00:26 | 0° \mathfrak{L} | |
| | 5591 Oct 07 17:13 | 0° \mathfrak{M} | | evening rise | 5592 Sep 15 08:49 | 4° \mathfrak{L} 45'29 | |
| desc. node | 5591 Oct 15 09:48 | 13° \mathfrak{M} 02'41 | | | 5592 Sep 29 10:00 | 0° \mathfrak{M} | |
| | 5591 Oct 26 23:12 | 0° \mathfrak{X} | | desc. node | 5592 Oct 01 06:48 | 2° \mathfrak{M} 56'25 | |
| evening max el | 5591 Nov 06 23:55 | 12° \mathfrak{X} 46'58 | 26°48'37 | evening max el | 5592 Oct 19 12:16 | 26° \mathfrak{M} 11'46 | 27°21'25 |
| retrograde | 5591 Nov 20 02:39 | 20° \mathfrak{X} 04'00 | | | 5592 Oct 24 01:13 | 0° \mathfrak{X} | |
| evening set | 5591 Nov 26 17:23 | 17° \mathfrak{X} 25'33 | | retrograde | 5592 Nov 02 00:59 | 3° \mathfrak{X} 30'05 | |
| min. Earth dist. | 5591 Nov 30 17:51 | 13° \mathfrak{X} 23'51 | 0.65840 AU | evening set | 5592 Nov 09 01:00 | 0° \mathfrak{X} 51'43 | |
| inferior conj | 5591 Dec 02 15:11 | 11° \mathfrak{X} 11'29 | -1°14'05 | | 5592 Nov 10 02:40 | 30° \mathfrak{R} \mathfrak{M} | |
| minimum elong | 5591 Dec 02 17:17 | 11° \mathfrak{X} 05'20 | 1°13'11 | min. Earth dist. | 5592 Nov 12 19:54 | 27° \mathfrak{M} 23'57 | 0.64387 AU |
| asc. node | 5591 Dec 06 06:34 | 7° \mathfrak{X} 18'03 | | inferior conj | 5592 Nov 15 05:02 | 24° \mathfrak{M} 51'52 | -2°17'49 |
| morning rise | 5591 Dec 08 18:05 | 5° \mathfrak{X} 31'32 | | minimum elong | 5592 Nov 15 09:06 | 24° \mathfrak{M} 41'04 | 2°16'13 |
| direct | 5591 Dec 11 13:55 | 4° \mathfrak{X} 47'26 | | morning rise | 5592 Nov 21 18:32 | 19° \mathfrak{M} 26'04 | |
| morning max el | 5591 Dec 18 02:35 | 8° \mathfrak{X} 18'37 | 18°17'39 | asc. node | 5592 Nov 22 03:36 | 19° \mathfrak{M} 17'05 | |
| | 5592 Jan 02 05:32 | 0° \mathfrak{Z} | | direct | 5592 Nov 24 07:20 | 18° \mathfrak{M} 53'14 | |
| morning set | 5592 Jan 06 07:42 | 6° \mathfrak{Z} 36'18 | | morning max el | 5592 Nov 30 19:03 | 22° \mathfrak{M} 18'12 | 17°54'45 |
| desc. node | 5592 Jan 11 09:03 | 14° \mathfrak{Z} 44'26 | | | 5592 Dec 06 19:21 | 0° \mathfrak{X} | |
| | 5592 Jan 20 23:57 | 0° \mathfrak{A} | | morning set | 5592 Dec 17 22:24 | 18° \mathfrak{X} 15'18 | |
| superior conj | 5592 Jan 21 15:20 | 1° \mathfrak{A} 00'27 | -1°07'31 | | 5592 Dec 24 22:40 | 0° \mathfrak{Z} | |
| minimum elong | 5592 Jan 21 07:17 | 0° \mathfrak{A} 28'50 | 1°06'31 | desc. node | 5592 Dec 28 06:04 | 5° \mathfrak{Z} 26'12 | |
| max. Earth dist. | 5592 Jan 23 08:09 | 3° \mathfrak{A} 40'39 | 1.45344 AU | superior conj | 5592 Dec 31 06:30 | 10° \mathfrak{Z} 19'49 | -0°21'04 |
| evening rise | 5592 Feb 06 18:40 | 26° \mathfrak{A} 15'34 | | minimum elong | 5592 Dec 31 04:01 | 10° \mathfrak{Z} 09'50 | 0°20'42 |
| | 5592 Feb 09 04:01 | 0° \mathfrak{H} | | max. Earth dist. | 5593 Jan 05 03:11 | 18° \mathfrak{Z} 05'32 | 1.44827 AU |
| greatest brilliancy | 5592 Feb 17 23:14 | 13° \mathfrak{H} 41'08 | -0.8m | | 5593 Jan 12 17:52 | 0° \mathfrak{A} | |
| | 5592 Feb 29 21:18 | 0° \mathfrak{Y} | | evening rise | 5593 Jan 16 08:22 | 5° \mathfrak{A} 33'35 | |
| evening max el | 5592 Mar 01 06:05 | 0° \mathfrak{Y} 22'48 | 19°15'51 | greatest brilliancy | 5593 Jan 31 01:58 | 27° \mathfrak{A} 47'42 | -0.6m |
| asc. node | 5592 Mar 03 05:49 | 2° \mathfrak{Y} 12'15 | | | 5593 Feb 01 14:22 | 0° \mathfrak{H} | |
| retrograde | 5592 Mar 08 07:04 | 4° \mathfrak{Y} 23'07 | | evening max el | 5593 Feb 12 09:58 | 13° \mathfrak{H} 56'48 | 20°12'01 |
| evening set | 5592 Mar 11 18:11 | 3° \mathfrak{Y} 13'06 | | asc. node | 5593 Feb 18 02:50 | 18° \mathfrak{H} 06'37 | |
| | 5592 Mar 15 03:44 | 30° \mathfrak{R} \mathfrak{H} | | retrograde | 5593 Feb 20 05:08 | 18° \mathfrak{H} 29'56 | |
| inferior conj | 5592 Mar 17 06:09 | 27° \mathfrak{H} 22'43 | 3°23'53 | evening set | 5593 Feb 24 00:40 | 17° \mathfrak{H} 05'29 | |
| minimum elong | 5592 Mar 17 04:49 | 27° \mathfrak{H} 27'02 | 3°23'44 | inferior conj | 5593 Mar 01 09:37 | 11° \mathfrak{H} 01'23 | 3°04'07 |
| min. Earth dist. | 5592 Mar 18 15:40 | 25° \mathfrak{H} 34'31 | 0.66367 AU | minimum elong | 5593 Mar 01 07:31 | 11° \mathfrak{H} 08'29 | 3°03'43 |
| morning rise | 5592 Mar 22 15:06 | 21° \mathfrak{H} 07'30 | | min. Earth dist. | 5593 Mar 02 04:57 | 9° \mathfrak{H} 55'56 | 0.67385 AU |
| direct | 5592 Mar 28 22:18 | 18° \mathfrak{H} 20'19 | | morning rise | 5593 Mar 06 14:08 | 4° \mathfrak{H} 46'45 | |
| desc. node | 5592 Apr 08 08:17 | 23° \mathfrak{H} 43'52 | | direct | 5593 Mar 12 08:42 | 2° \mathfrak{H} 11'55 | |
| morning max el | 5592 Apr 10 14:02 | 25° \mathfrak{H} 52'50 | 26°08'44 | morning max el | 5593 Mar 23 22:44 | 9° \mathfrak{H} 07'49 | 24°47'18 |
| | 5592 Apr 14 08:50 | 0° \mathfrak{Y} | | desc. node | 5593 Mar 26 05:19 | 11° \mathfrak{H} 32'42 | |
| | 5592 May 05 12:27 | 0° \mathfrak{B} | | | 5593 Apr 09 09:21 | 0° \mathfrak{Y} | |
| morning set | 5592 May 16 17:06 | 19° \mathfrak{B} 31'18 | | | 5593 Apr 28 03:25 | 0° \mathfrak{B} | |
| max. Earth dist. | 5592 May 20 15:28 | 26° \mathfrak{B} 59'30 | 1.35201 AU | morning set | 5593 Apr 28 23:46 | 1° \mathfrak{B} 29'41 | |
| | 5592 May 22 04:21 | 0° \mathfrak{I} | | max. Earth dist. | 5593 May 02 14:29 | 8° \mathfrak{B} 00'29 | 1.37139 AU |
| superior conj | 5592 May 25 19:35 | 7° \mathfrak{I} 17'20 | -0°43'54 | superior conj | 5593 May 09 05:15 | 20° \mathfrak{B} 32'29 | -1°13'43 |

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| minimum elong | 5593 May 09 09:23 | 20°♄52'37 | 1°13'05 | superior conj | 5594 Apr 22 00:44 | 3°♄04'04 | -1°40'46 |
| | 5593 May 13 23:49 | 0°♄ | | minimum elong | 5594 Apr 22 05:51 | 3°♄27'49 | 1°40'11 |
| asc. node | 5593 May 17 02:07 | 6°♄12'55 | | evening rise | 5594 May 01 11:21 | 21°♄04'09 | |
| evening rise | 5593 May 17 16:51 | 7°♄26'42 | | asc. node | 5594 May 03 23:08 | 25°♄50'45 | |
| | 5593 May 30 09:58 | 0°♄ | | | 5594 May 06 04:14 | 0°♄ | |
| evening max el | 5593 Jun 03 14:57 | 4°♄58'40 | 19°24'00 | evening max el | 5594 May 17 16:09 | 17°♄11'36 | 18°38'10 |
| retrograde | 5593 Jun 12 23:28 | 9°♄33'19 | | retrograde | 5594 May 25 14:21 | 21°♄06'17 | |
| evening set | 5593 Jun 14 22:00 | 9°♄22'23 | | evening set | 5594 May 27 18:30 | 20°♄49'40 | |
| desc. node | 5593 Jun 22 04:32 | 6°♄06'32 | | inferior conj | 5594 Jun 04 12:55 | 16°♄24'16 | 1°17'26 |
| inferior conj | 5593 Jun 23 12:23 | 5°♄15'27 | -0°23'48 | minimum elong | 5594 Jun 04 15:34 | 16°♄19'13 | 1°16'32 |
| minimum elong | 5593 Jun 23 11:20 | 5°♄17'09 | 0°23'25 | min. Earth dist. | 5594 Jun 07 20:45 | 13°♄53'42 | 0.57567 AU |
| min. Earth dist. | 5593 Jun 26 03:24 | 3°♄33'32 | 0.55862 AU | desc. node | 5594 Jun 09 01:33 | 13°♄03'23 | |
| morning rise | 5593 Jul 01 21:54 | 0°♄35'33 | | morning rise | 5594 Jun 12 09:20 | 11°♄08'24 | |
| | 5593 Jul 04 00:35 | 30°♄ | | direct | 5594 Jun 18 02:11 | 9°♄47'17 | |
| direct | 5593 Jul 06 16:58 | 29°♄43'26 | | morning max el | 5594 Jul 02 11:15 | 17°♄22'03 | 26°35'29 |
| | 5593 Jul 09 09:14 | 0°♄ | | | 5594 Jul 12 21:57 | 0°♄ | |
| morning max el | 5593 Jul 20 19:02 | 6°♄50'30 | 25°08'18 | | 5594 Jul 30 00:29 | 0°♄ | |
| | 5593 Aug 06 16:28 | 0°♄ | | asc. node | 5594 Jul 30 22:26 | 1°♄54'03 | |
| asc. node | 5593 Aug 13 01:25 | 12°♄05'02 | | morning set | 5594 Jul 31 16:24 | 3°♄28'25 | |
| morning set | 5593 Aug 16 06:02 | 18°♄42'31 | | | | | |
| | 5593 Aug 21 10:57 | 0°♄ | | superior conj | 5594 Aug 07 15:41 | 18°♄39'33 | 1°12'42 |
| | | | | minimum elong | 5594 Aug 07 13:23 | 18°♄26'51 | 1°12'20 |
| superior conj | 5593 Aug 23 04:07 | 3°♄45'54 | 1°28'01 | max. Earth dist. | 5594 Aug 07 23:05 | 19°♄20'27 | 1.31993 AU |
| minimum elong | 5593 Aug 23 02:02 | 3°♄34'30 | 1°27'46 | | 5594 Aug 12 20:05 | 0°♄ | |
| max. Earth dist. | 5593 Aug 24 13:06 | 6°♄46'11 | 1.32515 AU | evening rise | 5594 Aug 14 12:53 | 3°♄36'54 | |
| evening rise | 5593 Aug 30 07:37 | 19°♄02'40 | | | 5594 Aug 28 15:32 | 0°♄ | |
| | 5593 Sep 04 20:40 | 0°♄ | | desc. node | 5594 Sep 05 00:50 | 10°♄56'36 | |
| desc. node | 5593 Sep 18 03:49 | 22°♄18'44 | | evening max el | 5594 Sep 14 02:53 | 21°♄24'50 | 26°55'59 |
| | 5593 Sep 23 18:09 | 0°♄ | | retrograde | 5594 Sep 28 00:11 | 28°♄35'05 | |
| evening max el | 5593 Oct 01 22:13 | 9°♄08'57 | 27°25'15 | evening set | 5594 Oct 04 23:41 | 26°♄28'15 | |
| retrograde | 5593 Oct 15 16:26 | 16°♄23'30 | | min. Earth dist. | 5594 Oct 08 17:03 | 23°♄49'43 | 0.60620 AU |
| evening set | 5593 Oct 22 20:29 | 13°♄55'04 | | inferior conj | 5594 Oct 11 21:30 | 21°♄10'06 | -4°20'37 |
| min. Earth dist. | 5593 Oct 26 11:56 | 10°♄56'55 | 0.62621 AU | minimum elong | 5594 Oct 12 03:56 | 20°♄56'38 | 4°19'03 |
| inferior conj | 5593 Oct 29 08:16 | 8°♄14'26 | -3°21'48 | morning rise | 5594 Oct 19 10:14 | 16°♄23'07 | |
| minimum elong | 5593 Oct 29 14:03 | 8°♄00'38 | 3°19'51 | direct | 5594 Oct 21 17:33 | 16°♄02'25 | |
| morning rise | 5593 Nov 05 09:21 | 3°♄06'17 | | asc. node | 5594 Oct 26 21:42 | 17°♄51'55 | |
| direct | 5593 Nov 07 17:52 | 2°♄41'03 | | morning max el | 5594 Oct 29 01:07 | 19°♄40'00 | 18°03'21 |
| asc. node | 5593 Nov 09 00:38 | 2°♄48'44 | | | 5594 Nov 05 15:56 | 0°♄ | |
| morning max el | 5593 Nov 14 11:38 | 6°♄08'07 | 17°49'38 | morning set | 5594 Nov 13 18:44 | 14°♄33'37 | |
| | 5593 Nov 29 22:28 | 0°♄ | | | 5594 Nov 22 04:14 | 0°♄ | |
| morning set | 5593 Nov 30 12:13 | 1°♄01'02 | | | | | |
| | | | | superior conj | 5594 Nov 23 15:55 | 2°♄39'18 | 0°57'28 |
| superior conj | 5593 Dec 11 22:16 | 20°♄52'05 | 0°22'38 | minimum elong | 5594 Nov 23 19:45 | 2°♄56'17 | 0°56'59 |
| minimum elong | 5593 Dec 12 00:25 | 21°♄01'06 | 0°22'19 | max. Earth dist. | 5594 Dec 01 07:33 | 15°♄50'12 | 1.41901 AU |
| desc. node | 5593 Dec 15 03:05 | 26°♄12'23 | | desc. node | 5594 Dec 02 00:06 | 16°♄59'05 | |
| | 5593 Dec 17 10:36 | 0°♄ | | evening rise | 5594 Dec 06 19:35 | 24°♄49'59 | |
| max. Earth dist. | 5593 Dec 18 19:48 | 2°♄14'40 | 1.43631 AU | | 5594 Dec 10 01:54 | 0°♄ | |
| evening rise | 5593 Dec 26 19:42 | 14°♄53'27 | | | 5594 Dec 30 16:59 | 0°♄ | |
| | 5594 Jan 05 18:47 | 0°♄ | | evening max el | 5595 Jan 09 01:47 | 11°♄09'28 | 22°37'50 |
| evening max el | 5594 Jan 26 08:25 | 27°♄32'30 | 21°20'42 | retrograde | 5595 Jan 18 23:05 | 17°♄01'59 | |
| | 5594 Jan 29 00:26 | 0°♄ | | asc. node | 5595 Jan 22 20:55 | 15°♄42'45 | |
| retrograde | 5594 Feb 04 03:01 | 2°♄44'29 | | evening set | 5595 Jan 23 15:51 | 15°♄06'44 | |
| asc. node | 5594 Feb 04 23:51 | 2°♄40'27 | | inferior conj | 5595 Jan 29 00:33 | 8°♄43'46 | 1°56'30 |
| evening set | 5594 Feb 08 08:27 | 1°♄04'48 | | minimum elong | 5595 Jan 28 22:20 | 8°♄51'25 | 1°55'45 |
| | 5594 Feb 09 13:12 | 30°♄ | | min. Earth dist. | 5595 Jan 28 19:19 | 9°♄01'53 | 0.68163 AU |
| inferior conj | 5594 Feb 13 16:26 | 24°♄49'38 | 2°34'31 | morning rise | 5595 Feb 03 04:44 | 2°♄34'46 | |
| minimum elong | 5594 Feb 13 14:02 | 24°♄57'54 | 2°33'52 | direct | 5595 Feb 07 18:21 | 0°♄41'47 | |
| min. Earth dist. | 5594 Feb 13 22:55 | 24°♄27'07 | 0.67977 AU | morning max el | 5595 Feb 16 20:26 | 6°♄00'24 | 21°51'00 |
| morning rise | 5594 Feb 18 19:28 | 18°♄37'07 | | desc. node | 5595 Feb 27 23:21 | 19°♄40'40 | |
| direct | 5594 Feb 23 23:39 | 16°♄21'37 | | | 5595 Mar 07 05:02 | 0°♄ | |
| morning max el | 5594 Mar 06 07:47 | 22°♄30'00 | 23°18'16 | morning set | 5595 Mar 21 09:36 | 21°♄46'59 | |
| | 5594 Mar 12 20:56 | 0°♄ | | | 5595 Mar 26 10:45 | 0°♄ | |
| desc. node | 5594 Mar 13 02:20 | 0°♄17'00 | | max. Earth dist. | 5595 Mar 27 09:02 | 1°♄32'28 | 1.41484 AU |
| | 5594 Apr 02 17:29 | 0°♄ | | | | | |
| morning set | 5594 Apr 10 06:46 | 12°♄18'15 | | superior conj | 5595 Apr 04 01:16 | 14°♄40'41 | -2°01'06 |
| max. Earth dist. | 5594 Apr 14 10:05 | 19°♄22'49 | 1.39325 AU | minimum elong | 5595 Apr 04 05:29 | 14°♄59'16 | 2°00'51 |
| | 5594 Apr 20 08:48 | 0°♄ | | | 5595 Apr 12 13:00 | 0°♄ | |

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| evening rise | 5595 Apr 14 18:07 | 4°♄05'04 | | superior conj | 5596 Mar 15 02:07 | 25°♄12'12 | -2°09'28 |
| asc. node | 5595 Apr 20 20:10 | 15°♄09'25 | | minimum elong | 5596 Mar 15 02:14 | 25°♄12'42 | 2°09'28 |
| evening max el | 5595 May 01 00:37 | 29°♄56'44 | 18°12'38 | | 5596 Mar 17 22:37 | 0°♄ | |
| | 5595 May 01 01:58 | 0°♄ | | evening rise | 5596 Mar 27 08:50 | 16°♄19'24 | |
| retrograde | 5595 May 08 00:01 | 3°♄27'12 | | | 5596 Apr 04 05:47 | 0°♄ | |
| evening set | 5595 May 10 11:07 | 3°♄01'41 | | asc. node | 5596 Apr 06 17:13 | 4°♄02'01 | |
| | 5595 May 15 10:32 | 30°♄ | | evening max el | 5596 Apr 13 12:53 | 13°♄04'35 | 18°06'41 |
| inferior conj | 5595 May 17 10:58 | 28°♄15'56 | 2°28'35 | retrograde | 5596 Apr 20 00:43 | 16°♄26'22 | |
| minimum elong | 5595 May 17 14:21 | 28°♄08'24 | 2°27'42 | evening set | 5596 Apr 22 18:31 | 15°♄49'43 | |
| min. Earth dist. | 5595 May 20 20:12 | 25°♄16'55 | 0.59690 AU | inferior conj | 5596 Apr 29 03:31 | 10°♄44'05 | 3°10'38 |
| morning rise | 5595 May 24 14:50 | 22°♄31'48 | | minimum elong | 5596 Apr 29 05:52 | 10°♄38'07 | 3°10'15 |
| desc. node | 5595 May 26 22:34 | 21°♄23'32 | | min. Earth dist. | 5596 May 02 03:40 | 7°♄41'34 | 0.61900 AU |
| direct | 5595 May 31 00:53 | 20°♄36'27 | | morning rise | 5596 May 05 15:26 | 4°♄42'38 | |
| morning max el | 5595 Jun 14 09:47 | 28°♄28'47 | 27°32'58 | direct | 5596 May 12 10:32 | 2°♄17'09 | |
| | 5595 Jun 15 21:32 | 0°♄ | | desc. node | 5596 May 12 19:37 | 2°♄17'35 | |
| | 5595 Jul 06 16:40 | 0°♄ | | morning max el | 5596 May 26 14:20 | 10°♄17'33 | 27°53'21 |
| morning set | 5595 Jul 15 23:47 | 18°♄03'39 | | | 5596 Jun 10 22:53 | 0°♄ | |
| asc. node | 5595 Jul 17 19:28 | 21°♄54'03 | | | 5596 Jun 27 22:18 | 0°♄ | |
| | 5595 Jul 21 13:07 | 0°♄ | | morning set | 5596 Jun 29 02:10 | 2°♄21'08 | |
| max. Earth dist. | 5595 Jul 22 10:13 | 1°♄56'07 | 1.31894 AU | asc. node | 5596 Jul 03 16:30 | 11°♄59'39 | |
| | | | | max. Earth dist. | 5596 Jul 04 18:33 | 14°♄20'09 | 1.32233 AU |
| superior conj | 5595 Jul 23 03:20 | 3°♄30'34 | 0°53'00 | superior conj | 5596 Jul 06 13:15 | 18°♄12'20 | 0°29'25 |
| minimum elong | 5595 Jul 23 01:17 | 3°♄19'18 | 0°52'36 | minimum elong | 5596 Jul 06 11:56 | 18°♄05'10 | 0°29'07 |
| evening rise | 5595 Jul 29 22:18 | 18°♄21'08 | | | 5596 Jul 11 22:46 | 0°♄ | |
| | 5595 Aug 04 15:16 | 0°♄ | | evening rise | 5596 Jul 13 09:46 | 3°♄08'02 | |
| desc. node | 5595 Aug 22 21:51 | 28°♄32'10 | | | 5596 Jul 27 19:33 | 0°♄ | |
| | 5595 Aug 24 05:01 | 0°♄ | | evening max el | 5596 Aug 07 14:27 | 13°♄33'43 | 24°27'13 |
| evening max el | 5595 Aug 27 00:06 | 2°♄51'44 | 25°54'10 | desc. node | 5596 Aug 08 18:53 | 14°♄39'33 | |
| retrograde | 5595 Sep 09 23:08 | 9°♄58'22 | | retrograde | 5596 Aug 21 10:49 | 20°♄32'13 | |
| evening set | 5595 Sep 16 05:46 | 8°♄24'29 | | evening set | 5596 Aug 26 11:13 | 19°♄36'05 | |
| min. Earth dist. | 5595 Sep 20 12:34 | 5°♄48'53 | 0.58544 AU | min. Earth dist. | 5596 Sep 01 01:32 | 16°♄44'38 | 0.56664 AU |
| inferior conj | 5595 Sep 23 17:17 | 3°♄29'39 | -5°04'55 | inferior conj | 5596 Sep 03 16:59 | 15°♄04'01 | -5°20'05 |
| minimum elong | 5595 Sep 23 21:51 | 3°♄21'18 | 5°04'20 | minimum elong | 5596 Sep 03 16:14 | 15°♄05'13 | 5°20'04 |
| | 5595 Sep 29 05:28 | 30°♄ | | morning rise | 5596 Sep 11 23:38 | 11°♄01'13 | |
| morning rise | 5595 Oct 01 16:15 | 29°♄05'45 | | direct | 5596 Sep 14 15:22 | 10°♄42'08 | |
| direct | 5595 Oct 04 01:53 | 28°♄47'01 | | morning max el | 5596 Sep 24 05:08 | 15°♄11'27 | 19°33'02 |
| | 5595 Oct 08 15:58 | 0°♄ | | asc. node | 5596 Sep 29 15:48 | 21°♄40'19 | |
| morning max el | 5595 Oct 12 08:06 | 2°♄44'53 | 18°37'20 | | 5596 Oct 04 19:22 | 0°♄ | |
| asc. node | 5595 Oct 13 18:45 | 4°♄14'31 | | morning set | 5596 Oct 11 15:08 | 13°♄06'38 | |
| morning set | 5595 Oct 28 12:57 | 28°♄39'12 | | | | | |
| | 5595 Oct 29 05:36 | 0°♄ | | superior conj | 5596 Oct 19 14:14 | 29°♄05'06 | 1°36'35 |
| superior conj | 5595 Nov 06 07:03 | 15°♄29'06 | 1°21'54 | minimum elong | 5596 Oct 19 16:17 | 29°♄15'07 | 1°36'28 |
| minimum elong | 5595 Nov 06 10:27 | 15°♄45'01 | 1°21'34 | | 5596 Oct 20 01:25 | 0°♄ | |
| max. Earth dist. | 5595 Nov 13 14:06 | 28°♄41'58 | 1.39855 AU | max. Earth dist. | 5596 Oct 25 18:51 | 10°♄54'54 | 1.37742 AU |
| | 5595 Nov 14 08:00 | 0°♄ | | evening rise | 5596 Oct 29 12:54 | 17°♄42'21 | |
| evening rise | 5595 Nov 17 16:59 | 5°♄45'39 | | desc. node | 5596 Nov 04 18:10 | 28°♄20'18 | |
| desc. node | 5595 Nov 18 21:08 | 7°♄43'12 | | | 5596 Nov 05 18:29 | 0°♄ | |
| | 5595 Dec 03 04:44 | 0°♄ | | | 5596 Nov 26 13:08 | 0°♄ | |
| evening max el | 5595 Dec 22 15:48 | 24°♄49'48 | 23°57'51 | evening max el | 5596 Dec 04 04:39 | 8°♄34'09 | 25°14'08 |
| | 5595 Dec 29 03:47 | 0°♄ | | retrograde | 5596 Dec 16 04:32 | 15°♄29'46 | |
| retrograde | 5596 Jan 02 15:57 | 1°♄18'36 | | evening set | 5596 Dec 21 23:15 | 13°♄05'42 | |
| | 5596 Jan 06 17:50 | 30°♄ | | min. Earth dist. | 5596 Dec 26 10:19 | 8°♄08'29 | 0.67422 AU |
| evening set | 5596 Jan 07 21:19 | 29°♄08'10 | | asc. node | 5596 Dec 26 15:01 | 7°♄53'16 | |
| asc. node | 5596 Jan 09 17:58 | 27°♄17'38 | | inferior conj | 5596 Dec 27 13:31 | 6°♄40'02 | 0°19'01 |
| min. Earth dist. | 5596 Jan 12 15:55 | 23°♄36'42 | 0.67973 AU | minimum elong | 5596 Dec 27 13:02 | 6°♄41'35 | 0°18'50 |
| inferior conj | 5596 Jan 13 08:11 | 22°♄41'30 | 1°11'03 | morning rise | 5597 Jan 02 03:05 | 0°♄43'22 | |
| minimum elong | 5596 Jan 13 06:37 | 22°♄46'51 | 1°10'27 | | 5597 Jan 03 11:02 | 30°♄ | |
| morning rise | 5596 Jan 18 15:56 | 16°♄37'36 | | direct | 5597 Jan 05 14:39 | 29°♄33'29 | |
| direct | 5596 Jan 22 15:47 | 15°♄07'11 | | | 5597 Jan 07 20:06 | 0°♄ | |
| morning max el | 5596 Jan 30 15:44 | 19°♄41'41 | 20°32'39 | morning max el | 5597 Jan 12 19:00 | 3°♄34'17 | 19°27'46 |
| | 5596 Feb 08 03:01 | 0°♄ | | greatest brilliancy | 5597 Jan 25 21:15 | 20°♄55'46 | -0.7m |
| desc. node | 5596 Feb 14 20:23 | 9°♄32'55 | | desc. node | 5597 Jan 31 17:26 | 29°♄46'06 | |
| | 5596 Feb 28 09:14 | 0°♄ | | | 5597 Jan 31 21:04 | 0°♄ | |
| morning set | 5596 Feb 28 12:02 | 0°♄10'48 | | morning set | 5597 Feb 06 09:41 | 8°♄29'51 | |
| max. Earth dist. | 5596 Mar 08 14:46 | 14°♄35'24 | 1.43340 AU | max. Earth dist. | 5597 Feb 19 03:49 | 28°♄24'39 | 1.44667 AU |
| | | | | | 5597 Feb 20 03:54 | 0°♄ | |

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| superior conj | 5597 Feb 23 01:47 | 4° H 38'11 | -2°00'18 | superior conj | 5598 Feb 02 07:26 | 13° \approx 20'35 | -1°31'21 |
| minimum elong | 5597 Feb 22 19:28 | 4° H 12'58 | 1°59'57 | minimum elong | 5598 Feb 01 21:58 | 12° \approx 43'27 | 1°30'21 |
| evening rise | 5597 Mar 09 03:06 | 27° H 39'09 | | max. Earth dist. | 5598 Feb 01 21:58 | 12° \approx 43'28 | 1.45314 AU |
| | 5597 Mar 10 12:46 | 0° Y | | | 5598 Feb 12 21:09 | 0° H | |
| asc. node | 5597 Mar 24 14:16 | 22° Y 20'18 | | evening rise | 5598 Feb 17 22:08 | 8° H 01'30 | |
| evening max el | 5597 Mar 28 01:50 | 26° Y 27'02 | 18°19'34 | greatest brilliancy | 5598 Feb 26 00:34 | 20° H 57'28 | -0.8m |
| retrograde | 5597 Apr 03 12:01 | 29° Y 54'05 | | | 5598 Mar 03 20:56 | 0° Y | |
| evening set | 5597 Apr 06 12:16 | 29° Y 05'01 | | asc. node | 5598 Mar 11 11:19 | 9° Y 53'10 | |
| inferior conj | 5597 Apr 12 10:25 | 23° Y 40'37 | 3°29'13 | evening max el | 5598 Mar 11 12:41 | 9° Y 56'40 | 18°50'23 |
| minimum elong | 5597 Apr 12 11:10 | 23° Y 38'27 | 3°29'10 | retrograde | 5598 Mar 18 05:57 | 13° Y 41'35 | |
| min. Earth dist. | 5597 Apr 14 20:13 | 20° Y 56'37 | 0.63924 AU | evening set | 5598 Mar 21 12:56 | 12° Y 39'16 | |
| morning rise | 5597 Apr 18 09:09 | 17° Y 30'12 | | inferior conj | 5598 Mar 27 03:44 | 6° Y 57'38 | 3°29'54 |
| direct | 5597 Apr 25 04:44 | 14° Y 46'03 | | minimum elong | 5598 Mar 27 03:03 | 6° Y 59'45 | 3°29'52 |
| desc. node | 5597 Apr 29 16:39 | 15° Y 47'26 | | min. Earth dist. | 5598 Mar 28 21:51 | 4° Y 46'56 | 0.65599 AU |
| morning max el | 5597 May 08 22:56 | 22° Y 44'39 | 27°36'38 | morning rise | 5598 Apr 01 16:44 | 0° Y 43'20 | |
| | 5597 May 15 08:43 | 0° B | | | 5598 Apr 02 13:59 | 30° R H | |
| | 5597 Jun 04 04:51 | 0° II | | direct | 5598 Apr 08 05:48 | 27° H 53'57 | |
| morning set | 5597 Jun 12 21:08 | 16° II 13'50 | | | 5598 Apr 14 13:36 | 0° Y | |
| max. Earth dist. | 5597 Jun 17 20:23 | 26° II 22'01 | 1.33027 AU | desc. node | 5598 Apr 16 13:41 | 1° Y 22'35 | |
| | 5597 Jun 19 13:42 | 0° B | | morning max el | 5598 Apr 21 09:02 | 5° Y 39'24 | 26°47'59 |
| | | | | | 5598 May 10 00:32 | 0° B | |
| superior conj | 5597 Jun 20 19:34 | 2° B 39'16 | 0°02'37 | morning set | 5598 May 27 05:32 | 29° B 32'05 | |
| minimum elong | 5597 Jun 20 19:26 | 2° B 38'35 | 0°02'34 | | 5598 May 27 11:23 | 0° II | |
| behind sun begin | 5597 Jun 20 14:07 | 2° B 10'07 | | max. Earth dist. | 5598 May 31 12:19 | 7° II 54'20 | 1.34283 AU |
| behind sun end | 5597 Jun 21 00:46 | 3° B 07'05 | | | | | |
| asc. node | 5597 Jun 20 13:32 | 2° B 06'59 | | superior conj | 5598 Jun 04 20:05 | 16° II 44'22 | -0°26'34 |
| evening rise | 5597 Jun 27 21:26 | 17° B 51'56 | | minimum elong | 5598 Jun 04 21:31 | 16° II 51'50 | 0°26'17 |
| | 5597 Jul 03 20:55 | 0° O | | asc. node | 5598 Jun 07 10:34 | 22° II 11'37 | |
| evening max el | 5597 Jul 20 03:12 | 23° O 54'03 | 22°49'25 | | 5598 Jun 11 03:25 | 0° B | |
| desc. node | 5597 Jul 26 15:54 | 28° O 46'51 | | evening rise | 5598 Jun 12 07:20 | 2° B 26'12 | |
| | 5597 Jul 29 17:31 | 0° M | | | 5598 Jun 28 00:17 | 0° O | |
| retrograde | 5597 Aug 02 09:31 | 0° M 30'45 | | evening max el | 5598 Jul 01 22:27 | 4° O 26'02 | 21°16'38 |
| evening set | 5597 Aug 05 21:24 | 0° M 04'03 | | retrograde | 5598 Jul 13 23:04 | 10° O 22'16 | |
| | 5597 Aug 06 03:40 | 30° R O | | desc. node | 5598 Jul 13 12:53 | 10° O 21'51 | |
| min. Earth dist. | 5597 Aug 13 11:27 | 26° O 41'52 | 0.55314 AU | evening set | 5598 Jul 16 07:08 | 10° O 09'38 | |
| inferior conj | 5597 Aug 14 21:41 | 25° O 52'48 | -4°49'18 | inferior conj | 5598 Jul 25 15:18 | 6° O 11'02 | -3°26'44 |
| minimum elong | 5597 Aug 14 14:33 | 26° O 03'03 | 4°48'04 | minimum elong | 5598 Jul 25 06:38 | 6° O 23'11 | 3°24'06 |
| morning rise | 5597 Aug 23 09:47 | 22° O 02'34 | | min. Earth dist. | 5598 Jul 25 21:25 | 6° O 02'27 | 0.54776 AU |
| direct | 5597 Aug 26 10:48 | 21° O 41'01 | | morning rise | 5598 Aug 03 06:50 | 2° O 16'15 | |
| morning max el | 5597 Sep 06 13:57 | 26° O 52'11 | 20°50'30 | direct | 5598 Aug 06 19:53 | 1° O 49'11 | |
| | 5597 Sep 09 13:35 | 0° M | | morning max el | 5598 Aug 19 11:22 | 7° O 48'36 | 22°26'07 |
| asc. node | 5597 Sep 16 12:49 | 9° M 55'25 | | asc. node | 5598 Sep 03 09:51 | 28° O 48'16 | |
| morning set | 5597 Sep 25 22:30 | 27° M 48'19 | | | 5598 Sep 04 01:18 | 0° M | |
| | 5597 Sep 26 23:57 | 0° B | | morning set | 5598 Sep 10 08:56 | 12° M 38'34 | |
| | | | | | | | |
| superior conj | 5597 Oct 03 08:55 | 13° B 14'26 | 1°42'48 | superior conj | 5598 Sep 17 11:33 | 27° M 47'00 | 1°41'47 |
| minimum elong | 5597 Oct 03 09:25 | 13° B 17'01 | 1°42'47 | minimum elong | 5598 Sep 17 10:45 | 27° M 42'43 | 1°41'45 |
| max. Earth dist. | 5597 Oct 08 03:25 | 22° B 49'13 | 1.35801 AU | | 5598 Sep 18 12:44 | 0° B | |
| | 5597 Oct 11 21:21 | 0° M | | max. Earth dist. | 5598 Sep 20 19:43 | 4° B 46'39 | 1.34191 AU |
| evening rise | 5597 Oct 12 04:12 | 0° M 32'00 | | evening rise | 5598 Sep 25 10:43 | 14° B 04'08 | |
| desc. node | 5597 Oct 22 15:12 | 18° M 45'38 | | | 5598 Oct 04 02:59 | 0° M | |
| | 5597 Oct 29 21:30 | 0° A | | desc. node | 5598 Oct 09 12:11 | 8° M 53'26 | |
| evening max el | 5597 Nov 16 17:31 | 22° A 17'57 | 26°19'15 | | 5598 Oct 24 18:00 | 0° A | |
| retrograde | 5597 Nov 29 11:51 | 29° A 29'24 | | evening max el | 5598 Oct 30 06:17 | 5° A 52'54 | 27°05'46 |
| evening set | 5597 Dec 05 19:49 | 26° A 54'48 | | retrograde | 5598 Nov 12 13:33 | 13° A 10'52 | |
| min. Earth dist. | 5597 Dec 10 00:03 | 22° A 32'50 | 0.66519 AU | evening set | 5598 Nov 19 08:54 | 10° A 31'17 | |
| inferior conj | 5597 Dec 11 14:34 | 20° A 35'15 | -0°38'44 | min. Earth dist. | 5598 Nov 23 06:50 | 6° A 44'34 | 0.65263 AU |
| minimum elong | 5597 Dec 11 15:37 | 20° A 32'02 | 0°38'16 | inferior conj | 5598 Nov 25 09:13 | 4° A 22'56 | -1°40'51 |
| asc. node | 5597 Dec 13 12:04 | 18° A 20'14 | | minimum elong | 5598 Nov 25 12:08 | 4° A 14'43 | 1°39'37 |
| morning rise | 5597 Dec 17 12:03 | 14° A 48'21 | | | 5598 Nov 29 19:04 | 30° R M | |
| direct | 5597 Dec 20 13:07 | 13° A 55'49 | | asc. node | 5598 Nov 30 09:05 | 29° M 34'29 | |
| morning max el | 5597 Dec 27 05:17 | 17° A 34'29 | 18°38'32 | morning rise | 5598 Dec 01 16:27 | 28° M 48'47 | |
| | 5598 Jan 05 15:58 | 0° B | | direct | 5598 Dec 04 09:07 | 28° M 09'50 | |
| morning set | 5598 Jan 17 02:46 | 17° B 53'01 | | | 5598 Dec 09 00:21 | 0° A | |
| desc. node | 5598 Jan 18 14:27 | 20° B 13'55 | | morning max el | 5598 Dec 10 20:22 | 1° A 36'57 | 18°05'54 |
| | 5598 Jan 24 19:18 | 0° \approx | | morning set | 5598 Dec 29 01:22 | 28° A 45'22 | |
| | | | | | 5598 Dec 29 19:32 | 0° B | |

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|---------------------|-------------------|-----------------------|------------|------------------|-------------------|----------------------------|------------|
| desc. node | 5599 Jan 05 11:29 | 10° S 52'07 | | superior conj | 5599 Dec 23 14:21 | 2° S 00'14 | -0°01'44 |
| | | | | minimum elong | 5599 Dec 23 14:09 | 1° S 59'25 | 0°01'42 |
| superior conj | 5599 Jan 12 13:31 | 22° S 11'39 | -0°48'06 | behind sun begin | 5599 Dec 23 04:29 | 1° S 19'44 | |
| minimum elong | 5599 Jan 12 07:37 | 21° S 48'19 | 0°47'18 | behind sun end | 5599 Dec 23 23:50 | 2° S 39'02 | |
| max. Earth dist. | 5599 Jan 15 17:45 | 27° S 12'16 | 1.45213 AU | max. Earth dist. | 5599 Dec 29 11:44 | 11° S 31'18 | 1.44387 AU |
| | 5599 Jan 17 12:30 | 0° \approx | | evening rise | 5600 Jan 08 06:43 | 26° S 50'00 | |
| evening rise | 5599 Jan 28 20:07 | 17° \approx 36'37 | | | 5600 Jan 10 08:18 | 0° \approx | |
| | 5599 Feb 05 20:54 | 0° H | | | 5600 Jan 30 22:06 | 0° H | |
| greatest brilliancy | 5599 Feb 10 21:49 | 7° H 38'27 | -0.7m | evening max el | 5600 Feb 05 20:55 | 7° H 04'09 | 20°39'54 |
| evening max el | 5599 Feb 22 19:27 | 23° H 29'44 | 19°37'51 | asc. node | 5600 Feb 13 05:21 | 11° H 50'03 | |
| asc. node | 5599 Feb 26 08:19 | 26° H 28'00 | | retrograde | 5600 Feb 14 01:44 | 11° H 53'54 | |
| retrograde | 5599 Mar 02 03:22 | 27° H 43'09 | | evening set | 5600 Feb 18 01:12 | 10° H 23'08 | |
| evening set | 5599 Mar 05 17:56 | 26° H 26'58 | | inferior conj | 5600 Feb 23 09:29 | 4° H 13'47 | 2°52'43 |
| inferior conj | 5599 Mar 11 04:18 | 20° H 30'09 | 3°16'48 | minimum elong | 5600 Feb 23 07:12 | 4° H 21'36 | 2°52'11 |
| minimum elong | 5599 Mar 11 02:35 | 20° H 35'49 | 3°16'34 | min. Earth dist. | 5600 Feb 23 23:12 | 3° H 26'43 | 0.67681 AU |
| min. Earth dist. | 5599 Mar 12 07:31 | 19° H 00'10 | 0.66856 AU | | 5600 Feb 26 15:00 | 30° R \approx | |
| morning rise | 5599 Mar 16 10:59 | 14° H 14'54 | | morning rise | 5600 Feb 28 13:00 | 27° \approx 59'38 | |
| direct | 5599 Mar 22 12:59 | 11° H 32'13 | | direct | 5600 Mar 05 01:27 | 25° \approx 32'25 | |
| desc. node | 5599 Apr 03 10:43 | 18° H 30'48 | | | 5600 Mar 13 20:46 | 0° H | |
| morning max el | 5599 Apr 03 18:40 | 18° H 50'45 | 25°35'40 | morning max el | 5600 Mar 16 03:24 | 2° H 09'52 | 24°09'48 |
| | 5599 Apr 13 05:19 | 0° Y | | desc. node | 5600 Mar 20 07:46 | 6° H 45'52 | |
| | 5599 May 03 02:01 | 0° B | | | 5600 Apr 06 06:56 | 0° Y | |
| morning set | 5599 May 09 23:10 | 12° B 04'22 | | morning set | 5600 Apr 20 20:39 | 23° Y 36'14 | |
| max. Earth dist. | 5599 May 13 17:03 | 19° B 02'02 | 1.35988 AU | | 5600 Apr 24 11:49 | 0° B | |
| | 5599 May 19 08:04 | 0° II | | max. Earth dist. | 5600 Apr 24 13:34 | 0° B 07'48 | 1.38047 AU |
| superior conj | 5599 May 19 12:07 | 0° II 20'19 | -0°56'42 | superior conj | 5600 May 01 16:21 | 13° B 18'57 | -1°25'44 |
| minimum elong | 5599 May 19 15:19 | 0° II 36'18 | 0°56'09 | minimum elong | 5600 May 01 21:02 | 13° B 41'22 | 1°25'05 |
| asc. node | 5599 May 25 07:35 | 12° II 09'27 | | | 5600 May 10 04:58 | 0° II | |
| evening rise | 5599 May 27 13:21 | 16° II 44'20 | | evening rise | 5600 May 10 12:58 | 0° II 39'27 | |
| | 5599 Jun 03 08:41 | 0° S | | asc. node | 5600 May 11 04:36 | 1° II 56'25 | |
| evening max el | 5599 Jun 14 05:43 | 15° S 34'34 | 19°59'26 | evening max el | 5600 May 27 01:18 | 27° II 26'40 | 19°02'01 |
| retrograde | 5599 Jun 24 14:04 | 20° S 38'45 | | | 5600 May 30 05:41 | 0° S | |
| evening set | 5599 Jun 26 11:51 | 20° S 29'10 | | retrograde | 5600 Jun 04 18:10 | 1° S 42'31 | |
| desc. node | 5599 Jun 30 09:55 | 19° S 15'38 | | evening set | 5600 Jun 06 18:29 | 1° S 29'46 | |
| inferior conj | 5599 Jul 05 11:58 | 16° S 29'04 | -1°31'29 | | 5600 Jun 10 16:47 | 30° R II | |
| minimum elong | 5599 Jul 05 07:43 | 16° S 35'30 | 1°29'54 | inferior conj | 5600 Jun 15 00:34 | 27° II 15'56 | 0°22'24 |
| min. Earth dist. | 5599 Jul 07 09:33 | 15° S 20'20 | 0.55197 AU | minimum elong | 5600 Jun 15 01:28 | 27° II 14'21 | 0°22'03 |
| morning rise | 5599 Jul 14 01:50 | 12° S 08'59 | | desc. node | 5600 Jun 16 06:57 | 26° II 22'59 | |
| direct | 5599 Jul 18 08:09 | 11° S 29'16 | | min. Earth dist. | 5600 Jun 18 00:57 | 25° II 11'08 | 0.56510 AU |
| morning max el | 5599 Aug 01 01:59 | 18° S 15'10 | 24°10'19 | morning rise | 5600 Jun 23 05:10 | 22° II 19'57 | |
| | 5599 Aug 10 18:41 | 0° Q | | direct | 5600 Jun 28 09:41 | 21° II 16'26 | |
| asc. node | 5599 Aug 21 06:52 | 18° Q 08'49 | | morning max el | 5600 Jul 12 16:05 | 28° II 37'40 | 25°48'10 |
| morning set | 5599 Aug 25 20:36 | 27° Q 31'10 | | | 5600 Jul 14 01:07 | 0° S | |
| | 5599 Aug 27 00:31 | 0° np | | | 5600 Aug 03 05:20 | 0° Q | |
| superior conj | 5599 Sep 01 19:21 | 12° np 33'31 | 1°34'37 | asc. node | 5600 Aug 07 03:54 | 7° Q 49'39 | |
| minimum elong | 5599 Sep 01 17:37 | 12° np 24'04 | 1°34'28 | morning set | 5600 Aug 09 07:55 | 12° Q 21'23 | |
| max. Earth dist. | 5599 Sep 03 20:28 | 16° np 58'39 | 1.32996 AU | superior conj | 5600 Aug 16 06:09 | 27° Q 27'03 | 1°22'05 |
| evening rise | 5599 Sep 09 04:30 | 28° np 07'36 | | minimum elong | 5600 Aug 16 03:55 | 27° Q 14'47 | 1°21'48 |
| | 5599 Sep 10 02:52 | 0° L | | max. Earth dist. | 5600 Aug 17 03:53 | 29° Q 26'33 | 1.32238 AU |
| desc. node | 5599 Sep 26 09:11 | 28° L 35'21 | | | 5600 Aug 17 09:58 | 0° np | |
| | 5599 Sep 27 07:42 | 0° ml | | evening rise | 5600 Aug 23 06:25 | 12° np 33'34 | |
| evening max el | 5599 Oct 12 17:39 | 19° ml 06'47 | 27°26'52 | | 5600 Sep 01 06:08 | 0° L | |
| retrograde | 5599 Oct 26 09:06 | 26° ml 24'30 | | desc. node | 5600 Sep 12 06:11 | 17° L 40'49 | |
| evening set | 5599 Nov 02 11:47 | 23° ml 48'36 | | | 5600 Sep 22 05:58 | 0° ml | |
| min. Earth dist. | 5599 Nov 06 04:38 | 20° ml 34'36 | 0.63668 AU | evening max el | 5600 Sep 24 01:34 | 1° ml 47'39 | 27°16'56 |
| inferior conj | 5599 Nov 08 18:53 | 17° ml 56'24 | -2°45'11 | retrograde | 5600 Oct 07 21:44 | 9° ml 01'05 | |
| minimum elong | 5599 Nov 08 23:44 | 17° ml 44'02 | 2°43'23 | evening set | 5600 Oct 15 00:55 | 6° ml 40'21 | |
| morning rise | 5599 Nov 15 13:16 | 12° ml 38'02 | | min. Earth dist. | 5600 Oct 18 16:11 | 3° ml 51'58 | 0.61788 AU |
| asc. node | 5599 Nov 17 06:07 | 12° ml 11'38 | | inferior conj | 5600 Oct 21 16:35 | 1° ml 08'37 | -3°47'51 |
| direct | 5599 Nov 17 23:51 | 12° ml 08'56 | | minimum elong | 5600 Oct 21 22:51 | 0° ml 54'26 | 3°45'59 |
| morning max el | 5599 Nov 24 13:19 | 15° ml 33'44 | 17°50'26 | | 5600 Oct 22 23:20 | 30° R L | |
| | 5599 Dec 04 17:37 | 0° X | | morning rise | 5600 Oct 28 22:43 | 26° L 09'10 | |
| morning set | 5599 Dec 11 02:39 | 10° X 54'47 | | direct | 5600 Oct 31 06:09 | 25° L 46'20 | |
| | 5599 Dec 22 09:06 | 0° Z | | asc. node | 5600 Nov 03 03:10 | 26° L 23'01 | |
| desc. node | 5599 Dec 23 08:29 | 1° Z 36'08 | | morning max el | 5600 Nov 07 05:00 | 29° L 17'09 | 17°53'02 |

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| | 5600 Nov 07 21:44 | 0°♌ | | superior conj | 5601 Nov 15 20:49 | 25°♌20'27 | 1°09'05 |
| morning set | 5600 Nov 23 00:14 | 24°♌02'07 | | minimum elong | 5601 Nov 16 00:39 | 25°♌37'51 | 1°08'39 |
| | 5600 Nov 26 07:25 | 0°♌ | | | 5601 Nov 18 11:00 | 0°♌ | |
| | | | | max. Earth dist. | 5601 Nov 23 11:22 | 8°♌43'29 | 1.41057 AU |
| superior conj | 5600 Dec 03 17:23 | 13°♌04'55 | 0°38'39 | desc. node | 5601 Nov 26 02:30 | 13°♌08'57 | |
| minimum elong | 5600 Dec 03 20:34 | 13°♌18'41 | 0°38'13 | evening rise | 5601 Nov 28 06:14 | 16°♌42'01 | |
| desc. node | 5600 Dec 09 05:29 | 22°♌22'51 | | | 5601 Dec 06 16:29 | 0°♌ | |
| max. Earth dist. | 5600 Dec 11 01:48 | 25°♌25'15 | 1.42946 AU | | 5601 Dec 28 09:55 | 0°♌ | |
| | 5600 Dec 13 21:36 | 0°♌ | | evening max el | 5602 Jan 01 08:58 | 4°♌19'15 | 23°12'01 |
| evening rise | 5600 Dec 17 21:40 | 6°♌21'08 | | retrograde | 5602 Jan 11 17:43 | 10°♌27'25 | |
| | 5601 Jan 02 15:29 | 0°♌ | | | | | |
| evening max el | 5601 Jan 18 17:04 | 20°♌40'07 | 21°52'55 | | | | |
| retrograde | 5601 Jan 27 23:01 | 26°♌09'44 | | | | | |
| asc. node | 5601 Jan 30 02:24 | 25°♌45'27 | | | | | |
| evening set | 5601 Feb 01 08:59 | 24°♌23'41 | | | | | |
| inferior conj | 5601 Feb 06 17:05 | 18°♌04'51 | 2°19'24 | | | | |
| minimum elong | 5601 Feb 06 14:43 | 18°♌13'05 | 2°18'41 | | | | |
| min. Earth dist. | 5601 Feb 06 18:35 | 17°♌59'41 | 0.68097 AU | | | | |
| morning rise | 5601 Feb 11 20:16 | 11°♌53'28 | | | | | |
| direct | 5601 Feb 16 18:17 | 9°♌47'06 | | | | | |
| morning max el | 5601 Feb 26 13:21 | 15°♌34'26 | 22°40'26 | | | | |
| desc. node | 5601 Mar 07 04:47 | 25°♌48'27 | | | | | |
| | 5601 Mar 10 07:36 | 0°♌ | | | | | |
| | 5601 Mar 30 07:13 | 0°♌ | | | | | |
| morning set | 5601 Apr 01 15:58 | 3°♌51'21 | | | | | |
| max. Earth dist. | 5601 Apr 06 09:20 | 11°♌46'01 | 1.40258 AU | | | | |
| | | | | | | | |
| superior conj | 5601 Apr 14 04:25 | 25°♌28'59 | -1°50'30 | | | | |
| minimum elong | 5601 Apr 14 09:29 | 25°♌51'55 | 1°50'02 | | | | |
| | 5601 Apr 16 15:40 | 0°♌ | | | | | |
| evening rise | 5601 Apr 24 02:58 | 14°♌02'32 | | | | | |
| asc. node | 5601 Apr 28 01:39 | 21°♌27'00 | | | | | |
| | 5601 May 02 21:56 | 0°♌ | | | | | |
| evening max el | 5601 May 10 06:11 | 9°♌55'17 | 18°24'56 | | | | |
| retrograde | 5601 May 17 17:04 | 13°♌37'15 | | | | | |
| evening set | 5601 May 20 00:16 | 13°♌17'07 | | | | | |
| inferior conj | 5601 May 27 10:27 | 8°♌43'21 | 1°51'23 | | | | |
| minimum elong | 5601 May 27 13:44 | 8°♌36'40 | 1°50'21 | | | | |
| min. Earth dist. | 5601 May 30 20:41 | 5°♌57'42 | 0.58445 AU | | | | |
| desc. node | 5601 Jun 03 04:00 | 3°♌42'00 | | | | | |
| morning rise | 5601 Jun 04 00:02 | 3°♌14'26 | | | | | |
| direct | 5601 Jun 10 01:19 | 1°♌38'33 | | | | | |
| morning max el | 5601 Jun 24 10:35 | 9°♌21'45 | 27°04'00 | | | | |
| | 5601 Jul 10 04:42 | 0°♌ | | | | | |
| morning set | 5601 Jul 24 17:14 | 27°♌03'19 | | | | | |
| asc. node | 5601 Jul 25 00:56 | 27°♌43'51 | | | | | |
| | 5601 Jul 26 02:33 | 0°♌ | | | | | |
| | | | | | | | |
| superior conj | 5601 Jul 31 17:59 | 12°♌20'28 | 1°04'51 | | | | |
| minimum elong | 5601 Jul 31 15:45 | 12°♌08'02 | 1°04'28 | | | | |
| max. Earth dist. | 5601 Jul 31 14:45 | 12°♌02'30 | 1.31905 AU | | | | |
| evening rise | 5601 Aug 07 13:45 | 27°♌13'13 | | | | | |
| | 5601 Aug 08 21:33 | 0°♌ | | | | | |
| | 5601 Aug 25 19:07 | 0°♌ | | | | | |
| desc. node | 5601 Aug 30 03:14 | 5°♌54'49 | | | | | |
| evening max el | 5601 Sep 06 03:30 | 13°♌44'01 | 26°33'26 | | | | |
| retrograde | 5601 Sep 20 01:56 | 20°♌52'13 | | | | | |
| evening set | 5601 Sep 26 19:42 | 18°♌58'41 | | | | | |
| min. Earth dist. | 5601 Sep 30 17:12 | 16°♌23'21 | 0.59734 AU | | | | |
| inferior conj | 5601 Oct 03 22:50 | 13°♌50'26 | -4°41'58 | | | | |
| minimum elong | 5601 Oct 04 04:52 | 13°♌38'30 | 4°40'46 | | | | |
| morning rise | 5601 Oct 11 16:08 | 9°♌12'47 | | | | | |
| direct | 5601 Oct 13 23:57 | 8°♌53'11 | | | | | |
| asc. node | 5601 Oct 21 00:13 | 12°♌01'37 | | | | | |
| morning max el | 5601 Oct 21 16:06 | 12°♌38'29 | 18°15'10 | | | | |
| | 5601 Nov 02 07:44 | 0°♌ | | | | | |
| morning set | 5601 Nov 06 12:18 | 7°♌50'35 | | | | | |