| | | | |
|---|---|---|---|
| direct | 2000 Jan 12 04:59 | 10°♉17'18 | |
| | 2000 Mar 27 13:22 | 15°♉ | |
| evening set | 2000 Apr 23 04:16 | 18°♉10'57 | |
| | | | |
| conjunction | 2000 May 10 19:45 | 20°♉26'22 | -1°59'54 |
| minimum elong | 2000 May 10 19:48 | 20°♉26'23 | 1°59'53 |
| max. Earth dist. | 2000 May 10 21:56 | 20°♉27'04 | 10.16612 AU |
| morning rise | 2000 May 28 15:24 | 22°♉43'04 | |
| | 2000 Aug 10 02:26 | 0°♊ | |
| retrograde | 2000 Sep 12 11:34 | 0°♊58'43 | |
| | 2000 Oct 16 00:45 | 30°℞♉ | |
| opposition | 2000 Nov 19 12:41 | 27°♉29'26 | -2°18'55 |
| min. Earth dist. | 2000 Nov 19 10:39 | 27°♉29'51 | 8.13335 AU |
| direct | 2001 Jan 25 00:24 | 24°♉03'34 | |
| | 2001 Apr 20 21:59 | 0°♊ | |
| evening set | 2001 May 07 16:22 | 2°♊03'57 | |
| | | | |
| conjunction | 2001 May 25 12:33 | 4°♊21'38 | -1°41'43 |
| minimum elong | 2001 May 25 12:37 | 4°♊21'39 | 1°41'43 |
| max. Earth dist. | 2001 May 25 15:29 | 4°♊22'34 | 10.10326 AU |
| morning rise | 2001 Jun 12 12:03 | 6°♊40'22 | |
| retrograde | 2001 Sep 27 00:05 | 14°♊58'11 | |
| opposition | 2001 Dec 03 14:13 | 11°♊28'48 | -1°52'22 |
| min. Earth dist. | 2001 Dec 03 11:35 | 11°♊29'21 | 8.08060 AU |
| direct | 2002 Feb 08 01:32 | 8°♊01'53 | |
| evening set | 2002 May 22 11:07 | 16°♊07'52 | |
| | | | |
| conjunction | 2002 Jun 09 11:24 | 18°♊27'19 | -1°17'18 |
| minimum elong | 2002 Jun 09 11:27 | 18°♊27'20 | 1°17'18 |
| max. Earth dist. | 2002 Jun 09 15:29 | 18°♊28'39 | 10.06242 AU |
| morning rise | 2002 Jun 27 13:50 | 20°♊47'30 | |
| retrograde | 2002 Oct 11 13:01 | 29°♊05'07 | |
| opposition | 2002 Dec 17 17:28 | 25°♊35'57 | -1°18'46 |
| min. Earth dist. | 2002 Dec 17 13:50 | 25°♊36'42 | 8.05195 AU |
| direct | 2003 Feb 22 07:41 | 22°♊08'07 | |
| | 2003 Jun 04 01:28 | 0°♋ | |
| evening set | 2003 Jun 06 10:27 | 0°♋18'05 | |
| | | | |
| conjunction | 2003 Jun 24 13:39 | 2°♋38'35 | -0°48'06 |
| minimum elong | 2003 Jun 24 13:42 | 2°♋38'35 | 0°48'06 |
| max. Earth dist. | 2003 Jun 24 18:45 | 2°♋40'14 | 10.04735 AU |
| morning rise | 2003 Jul 12 17:43 | 4°♋59'23 | |
| retrograde | 2003 Oct 25 23:42 | 13°♋14'24 | |
| opposition | 2003 Dec 31 20:57 | 9°♋45'45 | -0°40'15 |
| min. Earth dist. | 2003 Dec 31 16:40 | 9°♋46'38 | 8.05013 AU |
| direct | 2004 Mar 07 16:51 | 6°♋17'10 | |
| evening set | 2004 Jun 20 12:07 | 14°♋29'14 | |
| | | | |
| conjunction | 2004 Jul 08 16:38 | 16°♋49'53 | -0°16'00 |
| minimum elong | 2004 Jul 08 16:39 | 16°♋49'53 | 0°15'59 |
| max. Earth dist. | 2004 Jul 08 22:12 | 16°♋51'41 | 10.05952 AU |
| morning rise | 2004 Jul 26 20:39 | 19°♋10'24 | |
| retrograde | 2004 Nov 08 06:54 | 27°♋20'36 | |
| asc. node | 2005 Jan 08 17:08 | 24°♋18'39 | |
| opposition | 2005 Jan 13 23:06 | 23°♋52'45 | 0°00'34 |
| min. Earth dist. | 2005 Jan 13 18:45 | 23°♋53'39 | 8.07562 AU |
| direct | 2005 Mar 22 02:54 | 20°♋23'39 | |
| evening set | 2005 Jul 05 13:01 | 28°♋35'49 | |
| | 2005 Jul 16 12:30 | 0°♌ | |
| | | | |
| conjunction | 2005 Jul 23 17:01 | 0°♌55'41 | 0°16'57 |
| minimum elong | 2005 Jul 23 17:00 | 0°♌55'41 | 0°16'58 |
| max. Earth dist. | 2005 Jul 23 22:24 | 0°♌57'24 | 10.09830 AU |
| morning rise | 2005 Aug 10 19:19 | 3°♌15'00 | |
| retrograde | 2005 Nov 22 09:01 | 11°♌18'40 | |

| | | | |
|---|---|---|---|
| opposition | 2006 Jan 27 22:48 | 7°♌51'50 | 0°40'57 |
| min. Earth dist. | 2006 Jan 27 18:59 | 7°♌52'37 | 8.12684 AU |
| direct | 2006 Apr 05 12:54 | 4°♌22'32 | |
| evening set | 2006 Jul 20 10:06 | 12°♌32'43 | |
| | | | |
| conjunction | 2006 Aug 07 11:54 | 14°♌50'57 | 0°48'30 |
| minimum elong | 2006 Aug 07 11:52 | 14°♌50'57 | 0°48'30 |
| max. Earth dist. | 2006 Aug 07 16:28 | 14°♌52'25 | 10.16111 AU |
| | 2006 Aug 08 16:06 | 15°♌ | |
| morning rise | 2006 Aug 25 11:02 | 17°♌08'19 | |
| retrograde | 2006 Dec 06 04:07 | 25°♌04'16 | |
| opposition | 2007 Feb 10 18:42 | 21°♌38'35 | 1°18'20 |
| min. Earth dist. | 2007 Feb 10 15:23 | 21°♌39'16 | 8.20036 AU |
| direct | 2007 Apr 19 21:24 | 18°♌09'21 | |
| evening set | 2007 Aug 04 01:11 | 26°♌15'47 | |
| | | | |
| conjunction | 2007 Aug 21 23:28 | 28°♌31'43 | 1°16'49 |
| minimum elong | 2007 Aug 21 23:25 | 28°♌31'42 | 1°16'49 |
| max. Earth dist. | 2007 Aug 22 03:05 | 28°♌32'52 | 10.24381 AU |
| | 2007 Sep 02 13:48 | 0°♍ | |
| morning rise | 2007 Sep 08 18:17 | 0°♍46'33 | |
| retrograde | 2007 Dec 19 14:09 | 8°♍34'04 | |
| opposition | 2008 Feb 24 09:48 | 5°♍09'38 | 1°50'34 |
| min. Earth dist. | 2008 Feb 24 06:49 | 5°♍10'14 | 8.29140 AU |
| direct | 2008 May 03 03:07 | 1°♍40'48 | |
| evening set | 2008 Aug 17 08:04 | 9°♍41'53 | |
| | | | |
| conjunction | 2008 Sep 04 02:00 | 11°♍55'07 | 1°40'25 |
| minimum elong | 2008 Sep 04 01:56 | 11°♍55'06 | 1°40'25 |
| max. Earth dist. | 2008 Sep 04 04:55 | 11°♍56'03 | 10.34125 AU |
| morning rise | 2008 Sep 21 15:47 | 14°♍07'04 | |
| retrograde | 2008 Dec 31 18:08 | 21°♍46'01 | |
| opposition | 2009 Mar 08 19:53 | 18°♍22'51 | 2°16'07 |
| min. Earth dist. | 2009 Mar 08 16:59 | 18°♍23'25 | 8.39445 AU |
| direct | 2009 May 17 02:06 | 14°♍54'41 | |
| evening set | 2009 Aug 31 05:10 | 22°♍49'11 | |
| | | | |
| conjunction | 2009 Sep 17 18:22 | 24°♍59'33 | 1°58'16 |
| minimum elong | 2009 Sep 17 18:19 | 24°♍59'32 | 1°58'17 |
| max. Earth dist. | 2009 Sep 17 21:03 | 25°♍00'23 | 10.44783 AU |
| morning rise | 2009 Oct 05 02:56 | 27°♍08'30 | |
| | 2009 Oct 29 17:09 | 0°♎ | |
| retrograde | 2010 Jan 13 15:57 | 4°♎39'09 | |
| opposition | 2010 Mar 22 00:37 | 1°♎17'12 | 2°34'04 |
| min. Earth dist. | 2010 Mar 21 22:13 | 1°♎17'40 | 8.50381 AU |
| | 2010 Apr 07 18:52 | 30°℞♍ | |
| direct | 2010 May 30 18:08 | 27°♍49'57 | |
| | 2010 Jul 21 15:10 | 0°♎ | |
| evening set | 2010 Sep 13 16:12 | 5°♎37'05 | |
| | | | |
| conjunction | 2010 Oct 01 00:42 | 7°♎44'38 | 2°09'51 |
| minimum elong | 2010 Oct 01 00:40 | 7°♎44'38 | 2°09'51 |
| max. Earth dist. | 2010 Oct 01 02:50 | 7°♎45'18 | 10.55796 AU |
| morning rise | 2010 Oct 18 04:22 | 9°♎50'46 | |
| retrograde | 2011 Jan 26 06:09 | 17°♎13'36 | |
| opposition | 2011 Apr 03 23:56 | 13°♎52'49 | 2°44'04 |
| min. Earth dist. | 2011 Apr 03 22:51 | 13°♎53'02 | 8.61393 AU |
| direct | 2011 Jun 13 03:52 | 10°♎26'39 | |
| evening set | 2011 Sep 26 17:09 | 18°♎06'07 | |
| | | | |
| conjunction | 2011 Oct 13 21:13 | 20°♎11'02 | 2°15'00 |
| minimum elong | 2011 Oct 13 21:12 | 20°♎11'02 | 2°15'00 |
| max. Earth dist. | 2011 Oct 13 21:48 | 20°♎11'13 | 10.66628 AU |
| morning rise | 2011 Oct 30 20:41 | 22°♎14'37 | |
| retrograde | 2012 Feb 07 14:04 | 29°♎30'29 | |

| | | | |
|---|---|---|---|
| opposition | 2012 Apr 15 18:26 | 26°♎10'47 | 2°46'14 |
| min. Earth dist. | 2012 Apr 15 18:42 | 26°♎10'44 | 8.71961 AU |
| direct | 2012 Jun 25 08:00 | 22°♎45'49 | |
| | 2012 Oct 05 20:34 | 0°♏ | |
| evening set | 2012 Oct 08 08:20 | 0°♏17'37 | |
| | | | |
| conjunction | 2012 Oct 25 08:32 | 2°♏20'14 | 2°13'55 |
| minimum elong | 2012 Oct 25 08:33 | 2°♏20'14 | 2°13'55 |
| max. Earth dist. | 2012 Oct 25 07:27 | 2°♏19'54 | 10.76788 AU |
| morning rise | 2012 Nov 11 04:40 | 4°♏21'37 | |
| retrograde | 2013 Feb 18 17:02 | 11°♏31'35 | |
| opposition | 2013 Apr 28 08:27 | 8°♏12'48 | 2°40'59 |
| min. Earth dist. | 2013 Apr 28 09:22 | 8°♏12'37 | 8.81619 AU |
| direct | 2013 Jul 08 05:12 | 4°♏49'06 | |
| evening set | 2013 Oct 20 14:50 | 12°♏13'35 | |
| | | | |
| conjunction | 2013 Nov 06 12:01 | 14°♏14'17 | 2°07'01 |
| minimum elong | 2013 Nov 06 12:02 | 14°♏14'17 | 2°07'01 |
| max. Earth dist. | 2013 Nov 06 10:06 | 14°♏13'42 | 10.85846 AU |
| | 2013 Nov 12 20:30 | 15°♏ | |
| morning rise | 2013 Nov 23 05:35 | 16°♏13'55 | |
| retrograde | 2014 Mar 02 16:19 | 23°♏19'10 | |
| opposition | 2014 May 10 18:28 | 20°♏01'05 | 2°29'00 |
| min. Earth dist. | 2014 May 10 19:32 | 20°♏00'53 | 8.89967 AU |
| direct | 2014 Jul 20 20:35 | 16°♏38'38 | |
| evening set | 2014 Nov 01 13:52 | 23°♏56'29 | |
| | | | |
| conjunction | 2014 Nov 18 08:50 | 25°♏55'40 | 1°54'53 |
| minimum elong | 2014 Nov 18 08:52 | 25°♏55'40 | 1°54'54 |
| max. Earth dist. | 2014 Nov 18 06:53 | 25°♏55'05 | 10.93429 AU |
| morning rise | 2014 Dec 05 00:33 | 27°♏53'57 | |
| | 2014 Dec 23 16:34 | 0°♐ | |
| retrograde | 2015 Mar 14 15:02 | 4°♐55'48 | |
| opposition | 2015 May 23 01:35 | 1°♐38'14 | 2°11'05 |
| min. Earth dist. | 2015 May 23 03:20 | 1°♐37'54 | 8.96670 AU |
| | 2015 Jun 15 00:36 | 30°℞♏ | |
| direct | 2015 Aug 02 05:53 | 28°♏16'57 | |
| | 2015 Sep 18 02:49 | 0°♐ | |
| evening set | 2015 Nov 13 07:03 | 5°♐29'01 | |
| | | | |
| conjunction | 2015 Nov 30 00:16 | 7°♐27'06 | 1°38'13 |
| minimum elong | 2015 Nov 30 00:18 | 7°♐27'07 | 1°38'14 |
| max. Earth dist. | 2015 Nov 29 21:36 | 7°♐26'19 | 10.99239 AU |
| morning rise | 2015 Dec 16 14:54 | 9°♐24'29 | |
| retrograde | 2016 Mar 25 10:01 | 16°♐24'19 | |
| opposition | 2016 Jun 03 06:37 | 13°♐07'00 | 1°48'10 |
| min. Earth dist. | 2016 Jun 03 09:38 | 13°♐06'27 | 9.01490 AU |
| direct | 2016 Aug 13 09:50 | 9°♐46'45 | |
| evening set | 2016 Nov 23 19:53 | 16°♐54'09 | |
| | | | |
| conjunction | 2016 Dec 10 11:51 | 18°♐51'30 | 1°17'47 |
| minimum elong | 2016 Dec 10 11:53 | 18°♐51'31 | 1°17'48 |
| max. Earth dist. | 2016 Dec 10 07:41 | 18°♐50'16 | 11.03082 AU |
| morning rise | 2016 Dec 27 02:15 | 20°♐48'25 | |
| retrograde | 2017 Apr 06 05:06 | 27°♐47'41 | |
| opposition | 2017 Jun 15 10:18 | 24°♐30'22 | 1°21'11 |
| min. Earth dist. | 2017 Jun 15 14:03 | 24°♐29'40 | 9.04267 AU |
| direct | 2017 Aug 25 12:08 | 21°♐10'56 | |
| evening set | 2017 Dec 05 05:46 | 28°♐14'53 | |
| | 2017 Dec 20 04:49 | 0°♑ | |
| | | | |
| conjunction | 2017 Dec 21 21:08 | 0°♑11'54 | 0°54'24 |
| minimum elong | 2017 Dec 21 21:10 | 0°♑11'55 | 0°54'24 |
| max. Earth dist. | 2017 Dec 21 16:38 | 0°♑10'35 | 11.04818 AU |
| morning rise | 2018 Jan 07 11:44 | 2°♑08'43 | |
| retrograde | 2018 Apr 18 01:47 | 9°♑08'56 | |
| opposition | 2018 Jun 27 13:28 | 5°♑51'19 | 0°51'09 |
| min. Earth dist. | 2018 Jun 27 17:05 | 5°♑50'39 | 9.04882 AU |
| direct | 2018 Sep 06 11:08 | 2°♑32'32 | |
| evening set | 2018 Dec 16 14:35 | 9°♑34'22 | |
| | | | |
| conjunction | 2019 Jan 02 05:50 | 11°♑31'25 | 0°28'55 |
| minimum elong | 2019 Jan 02 05:50 | 11°♑31'25 | 0°28'54 |
| max. Earth dist. | 2019 Jan 02 01:40 | 11°♑30'11 | 11.04348 AU |
| morning rise | 2019 Jan 18 20:51 | 13°♑28'28 | |
| retrograde | 2019 Apr 30 00:54 | 20°♑31'08 | |
| opposition | 2019 Jul 09 17:07 | 17°♑12'57 | 0°19'05 |
| min. Earth dist. | 2019 Jul 09 20:34 | 17°♑12'19 | 9.03279 AU |
| direct | 2019 Sep 18 08:47 | 13°♑54'35 | |
| evening set | 2019 Dec 27 23:56 | 20°♑55'44 | |
| | | | |
| conjunction | 2020 Jan 13 15:16 | 22°♑53'10 | 0°02'15 |
| minimum elong | 2020 Jan 13 15:16 | 22°♑53'10 | 0°02'15 |
| behind sun begin | 2020 Jan 13 08:17 | 22°♑51'07 | |
| behind sun end | 2020 Jan 13 22:14 | 22°♑55'12 | |
| max. Earth dist. | 2020 Jan 13 10:39 | 22°♑51'50 | 11.01652 AU |
| morning rise | 2020 Jan 30 07:14 | 24°♑50'50 | |
| desc. node | 2020 Feb 13 05:53 | 26°♑25'25 | |
| | 2020 Mar 22 03:59 | 0°♒ | |
| retrograde | 2020 May 11 04:09 | 1°♒57'25 | |
| | 2020 Jul 01 23:37 | 30°℞♑ | |
| opposition | 2020 Jul 20 22:28 | 28°♑38'28 | -0°13'56 |
| min. Earth dist. | 2020 Jul 21 02:38 | 28°♑37'41 | 8.99470 AU |
| direct | 2020 Sep 29 05:11 | 25°♑20'14 | |
| | 2020 Dec 17 05:04 | 0°♒ | |
| evening set | 2021 Jan 07 11:19 | 2°♒22'12 | |
| | | | |
| conjunction | 2021 Jan 24 03:01 | 4°♒20'21 | -0°24'48 |
| minimum elong | 2021 Jan 24 03:00 | 4°♒20'21 | 0°24'48 |
| max. Earth dist. | 2021 Jan 23 21:13 | 4°♒18'38 | 10.96766 AU |
| morning rise | 2021 Feb 09 20:26 | 6°♒19'01 | |
| retrograde | 2021 May 23 09:19 | 13°♒31'02 | |
| opposition | 2021 Aug 02 06:14 | 10°♒11'04 | -0°46'45 |
| min. Earth dist. | 2021 Aug 02 11:06 | 10°♒10'10 | 8.93529 AU |
| direct | 2021 Oct 11 02:17 | 6°♒52'43 | |
| evening set | 2022 Jan 19 02:29 | 13°♒57'09 | |
| | 2022 Jan 27 22:49 | 15°♒ | |
| | | | |
| conjunction | 2022 Feb 04 19:05 | 15°♒56'23 | -0°51'04 |
| minimum elong | 2022 Feb 04 19:03 | 15°♒56'22 | 0°51'03 |
| max. Earth dist. | 2022 Feb 04 13:11 | 15°♒54'37 | 10.89826 AU |
| morning rise | 2022 Feb 21 14:07 | 17°♒56'21 | |
| retrograde | 2022 Jun 04 21:47 | 25°♒15'11 | |
| opposition | 2022 Aug 14 17:11 | 21°♒54'00 | -1°18'10 |
| min. Earth dist. | 2022 Aug 14 21:47 | 21°♒53'09 | 8.85684 AU |
| direct | 2022 Oct 23 04:08 | 18°♒35'18 | |
| evening set | 2023 Jan 30 22:51 | 25°♒43'38 | |
| | | | |
| conjunction | 2023 Feb 16 16:48 | 27°♒44'17 | -1°15'35 |
| minimum elong | 2023 Feb 16 16:46 | 27°♒44'17 | 1°15'34 |
| max. Earth dist. | 2023 Feb 16 12:05 | 27°♒42'52 | 10.81143 AU |
| morning rise | 2023 Mar 05 13:41 | 29°♒45'52 | |
| | 2023 Mar 07 13:35 | 0°♓ | |
| retrograde | 2023 Jun 17 17:27 | 7°♓12'39 | |
| opposition | 2023 Aug 27 08:28 | 3°♓50'05 | -1°46'52 |
| min. Earth dist. | 2023 Aug 27 11:50 | 3°♓49'27 | 8.76301 AU |
| direct | 2023 Nov 04 07:03 | 0°♓30'49 | |
| evening set | 2024 Feb 12 01:45 | 7°♓44'19 | |
| | | | |
| conjunction | 2024 Feb 28 21:26 | 9°♓46'41 | -1°37'14 |
| minimum elong | 2024 Feb 28 21:23 | 9°♓46'40 | 1°37'14 |
| max. Earth dist. | 2024 Feb 28 17:21 | 9°♓45'26 | 10.71121 AU |
| morning rise | 2024 Mar 16 20:39 | 11°♓50'11 | |
| retrograde | 2024 Jun 29 19:06 | 19°♓25'41 | |

| | | | |
|---|---|---|---|
| opposition | 2024 Sep 08 04:35 | 16°♓01'39 | -2°11'28 |
| min. Earth dist. | 2024 Sep 08 07:12 | 16°♓01'09 | 8.65807 AU |
| direct | 2024 Nov 15 14:21 | 12°♓41'33 | |
| evening set | 2025 Feb 23 12:36 | 20°♓01'24 | |
| conjunction | 2025 Mar 12 10:29 | 22°♓05'47 | -1°54'55 |
| minimum elong | 2025 Mar 12 10:27 | 22°♓05'47 | 1°54'55 |
| max. Earth dist. | 2025 Mar 12 06:40 | 22°♓04'37 | 10.60217 AU |
| morning rise | 2025 Mar 29 12:37 | 24°♓11'29 | |
| | 2025 May 25 03:36 | 0°♈ | |
| retrograde | 2025 Jul 13 04:07 | 1°♈56'04 | |
| | 2025 Sep 01 08:06 | 30°℞♓ | |
| opposition | 2025 Sep 21 05:46 | 28°♓30'34 | -2°30'35 |
| min. Earth dist. | 2025 Sep 21 08:01 | 28°♓30'08 | 8.54677 AU |
| direct | 2025 Nov 28 03:52 | 25°♓09'27 | |
| | 2026 Feb 14 00:12 | 0°♈ | |
| evening set | 2026 Mar 08 08:07 | 2°♈36'35 | |
| conjunction | 2026 Mar 25 08:55 | 4°♈43'16 | -2°07'30 |
| minimum elong | 2026 Mar 25 08:54 | 4°♈43'15 | 2°07'30 |
| max. Earth dist. | 2026 Mar 25 05:51 | 4°♈42'18 | 10.48931 AU |
| morning rise | 2026 Apr 11 14:24 | 6°♈51'24 | |
| retrograde | 2026 Jul 26 19:56 | 14°♈45'00 | |
| opposition | 2026 Oct 04 12:29 | 11°♈18'07 | -2°42'49 |
| min. Earth dist. | 2026 Oct 04 14:10 | 11°♈17'47 | 8.43425 AU |
| direct | 2026 Dec 10 23:31 | 7°♈55'52 | |
| evening set | 2027 Mar 21 12:49 | 15°♈30'51 | |
| conjunction | 2027 Apr 07 17:18 | 17°♈40'03 | -2°13'59 |
| minimum elong | 2027 Apr 07 17:18 | 17°♈40'03 | 2°14'00 |
| max. Earth dist. | 2027 Apr 07 16:09 | 17°♈39'41 | 10.37798 AU |
| morning rise | 2027 Apr 25 02:31 | 19°♈50'45 | |
| retrograde | 2027 Aug 09 18:06 | 27°♈52'49 | |
| opposition | 2027 Oct 18 00:36 | 24°♈24'42 | -2°47'01 |
| min. Earth dist. | 2027 Oct 18 00:55 | 24°♈24'38 | 8.32600 AU |
| direct | 2027 Dec 24 02:47 | 21°♈01'14 | |
| evening set | 2028 Apr 03 03:20 | 28°♈44'19 | |
| | 2028 Apr 13 03:40 | 0°♉ | |
| conjunction | 2028 Apr 20 12:10 | 0°♉56'11 | -2°13'35 |
| minimum elong | 2028 Apr 20 12:11 | 0°♉56'11 | 2°13'35 |
| max. Earth dist. | 2028 Apr 20 12:59 | 0°♉56'27 | 10.27382 AU |
| morning rise | 2028 May 08 01:29 | 3°♉09'31 | |
| retrograde | 2028 Aug 22 22:17 | 11°♉18'49 | |
| opposition | 2028 Oct 30 17:34 | 7°♉49'42 | -2°42'17 |
| min. Earth dist. | 2028 Oct 30 16:21 | 7°♉49'57 | 8.22757 AU |
| direct | 2029 Jan 05 12:39 | 4°♉25'00 | |
| evening set | 2029 Apr 17 03:24 | 12°♉15'58 | |
| conjunction | 2029 May 04 16:57 | 14°♉30'30 | -2°05'51 |
| minimum elong | 2029 May 04 16:59 | 14°♉30'31 | 2°05'51 |
| max. Earth dist. | 2029 May 04 19:16 | 14°♉31'15 | 10.18241 AU |
| | 2029 May 08 12:45 | 15°♉ | |
| morning rise | 2029 May 22 10:35 | 16°♉46'23 | |
| retrograde | 2029 Sep 06 08:35 | 25°♉01'09 | |
| opposition | 2029 Nov 13 15:00 | 21°♉31'22 | -2°28'19 |
| min. Earth dist. | 2029 Nov 13 12:32 | 21°♉31'52 | 8.14441 AU |
| direct | 2030 Jan 19 03:54 | 18°♉05'25 | |
| evening set | 2030 May 01 12:09 | 26°♉03'38 | |
| conjunction | 2030 May 19 06:22 | 28°♉20'36 | -1°50'48 |
| minimum elong | 2030 May 19 06:25 | 28°♉20'37 | 1°50'48 |
| max. Earth dist. | 2030 May 19 09:43 | 28°♉21'41 | 10.10901 AU |
| | 2030 Jun 01 02:34 | 0°♊ | |
| morning rise | 2030 Jun 06 04:09 | 0°♊38'44 | |
| retrograde | 2030 Sep 20 21:30 | 8°♊56'47 | |
| opposition | 2030 Nov 27 15:56 | 5°♊26'42 | -2°05'25 |
| min. Earth dist. | 2030 Nov 27 12:43 | 5°♊27'21 | 8.08153 AU |
| direct | 2031 Feb 02 02:25 | 1°♊59'37 | |
| evening set | 2031 May 16 04:26 | 10°♊03'59 | |
| conjunction | 2031 Jun 03 02:59 | 12°♊22'58 | -1°29'02 |
| minimum elong | 2031 Jun 03 03:02 | 12°♊22'59 | 1°29'02 |
| max. Earth dist. | 2031 Jun 03 06:53 | 12°♊24'14 | 10.05826 AU |
| morning rise | 2031 Jun 21 04:19 | 14°♊42'50 | |
| retrograde | 2031 Oct 05 10:50 | 23°♊01'40 | |
| opposition | 2031 Dec 11 19:00 | 19°♊31'40 | -1°34'43 |
| min. Earth dist. | 2031 Dec 11 15:34 | 19°♊32'23 | 8.04307 AU |
| direct | 2032 Feb 16 07:00 | 16°♊03'36 | |
| evening set | 2032 May 30 02:23 | 24°♊12'40 | |
| conjunction | 2032 Jun 17 04:23 | 26°♊33'00 | -1°01'44 |
| minimum elong | 2032 Jun 17 04:26 | 26°♊33'01 | 1°01'44 |
| max. Earth dist. | 2032 Jun 17 08:53 | 26°♊34'28 | 10.03344 AU |
| morning rise | 2032 Jul 05 08:07 | 28°♊53'53 | |
| | 2032 Jul 14 02:16 | 0°♋ | |
| retrograde | 2032 Oct 18 22:27 | 7°♋11'00 | |
| opposition | 2032 Dec 24 22:55 | 3°♋41'30 | -0°58'03 |
| min. Earth dist. | 2032 Dec 24 19:04 | 3°♋42'18 | 8.03160 AU |
| direct | 2033 Mar 01 16:03 | 0°♋12'40 | |
| evening set | 2033 Jun 14 03:35 | 8°♋24'38 | |
| conjunction | 2033 Jul 02 07:39 | 10°♋45'30 | -0°30'38 |
| minimum elong | 2033 Jul 02 07:40 | 10°♋45'30 | 0°30'38 |
| max. Earth dist. | 2033 Jul 02 12:50 | 10°♋47'11 | 10.03623 AU |
| morning rise | 2033 Jul 20 12:08 | 13°♋06'28 | |
| retrograde | 2033 Nov 02 07:04 | 21°♋19'39 | |
| opposition | 2034 Jan 08 02:12 | 17°♋50'58 | -0°17'51 |
| min. Earth dist. | 2034 Jan 07 21:44 | 17°♋51'54 | 8.04806 AU |
| direct | 2034 Mar 16 02:30 | 14°♋21'41 | |
| asc. node | 2034 Jun 21 15:38 | 21°♋37'32 | |
| evening set | 2034 Jun 29 05:22 | 22°♋34'33 | |
| conjunction | 2034 Jul 17 09:49 | 24°♋55'02 | 0°02'18 |
| minimum elong | 2034 Jul 17 09:49 | 24°♋55'02 | 0°02'18 |
| behind sun begin | 2034 Jul 17 02:27 | 24°♋52'41 | |
| behind sun end | 2034 Jul 17 17:10 | 24°♋57'24 | |
| max. Earth dist. | 2034 Jul 17 15:41 | 24°♋56'55 | 10.06667 AU |
| morning rise | 2034 Aug 04 13:18 | 27°♋15'11 | |
| | 2034 Aug 27 02:46 | 0°♌ | |
| retrograde | 2034 Nov 16 12:01 | 5°♌22'31 | |
| opposition | 2035 Jan 22 03:25 | 1°♌54'55 | 0°23'07 |
| min. Earth dist. | 2035 Jan 21 22:16 | 1°♌55'58 | 8.09161 AU |
| | 2035 Feb 15 19:35 | 30°℞♋ | |
| direct | 2035 Mar 30 13:13 | 28°♋25'29 | |
| | 2035 May 11 20:45 | 0°♌ | |
| evening set | 2035 Jul 14 04:54 | 6°♌37'16 | |
| conjunction | 2035 Aug 01 08:04 | 8°♌56'28 | 0°34'42 |
| minimum elong | 2035 Aug 01 08:02 | 8°♌56'28 | 0°34'43 |
| max. Earth dist. | 2035 Aug 01 14:29 | 8°♌58'32 | 10.12283 AU |
| morning rise | 2035 Aug 19 08:53 | 11°♌14'57 | |
| | 2035 Sep 20 04:01 | 15°♌ | |
| retrograde | 2035 Nov 30 11:07 | 19°♌14'59 | |
| opposition | 2036 Feb 05 01:32 | 15°♌48'41 | 1°02'11 |
| min. Earth dist. | 2036 Feb 04 20:14 | 15°♌49'46 | 8.15939 AU |
| | 2036 Feb 15 02:11 | 15°℞♌ | |
| direct | 2036 Apr 12 22:37 | 12°♌19'26 | |
| | 2036 Jun 08 09:19 | 15°♌ | |
| evening set | 2036 Jul 27 23:41 | 20°♌28'12 | |
| conjunction | 2036 Aug 14 23:53 | 22°♌45'21 | 1°04'42 |
| minimum elong | 2036 Aug 14 23:50 | 22°♌45'20 | 1°04'43 |
| max. Earth dist. | 2036 Aug 15 06:12 | 22°♌47'22 | 10.20105 AU |

| | | | |
|---|---|---|---|
| morning rise | 2036 Sep 01 20:40 | 25°♌01'27 | |
| | 2036 Oct 16 07:34 | 0°♍ | |
| retrograde | 2036 Dec 13 02:58 | 2°♍53'16 | |
| | 2037 Feb 11 06:46 | 30°℞♌ | |
| opposition | 2037 Feb 17 19:27 | 29°♌28'24 | 1°36'57 |
| min. Earth dist. | 2037 Feb 17 14:50 | 29°♌29'20 | 8.24715 AU |
| direct | 2037 Apr 27 04:57 | 25°♌59'36 | |
| | 2037 Jul 07 02:31 | 0°♍ | |
| evening set | 2037 Aug 11 11:08 | 4°♍03'37 | |
| | | | |
| conjunction | 2037 Aug 29 07:12 | 6°♍18'11 | 1°30'34 |
| minimum elong | 2037 Aug 29 07:09 | 6°♍18'10 | 1°30'35 |
| max. Earth dist. | 2037 Aug 29 12:34 | 6°♍19'53 | 10.29657 AU |
| morning rise | 2037 Sep 15 23:10 | 8°♍31'28 | |
| retrograde | 2037 Dec 26 11:36 | 16°♍14'39 | |
| opposition | 2038 Mar 03 08:33 | 12°♍51'13 | 2°05'37 |
| min. Earth dist. | 2038 Mar 03 04:59 | 12°♍51'56 | 8.34959 AU |
| direct | 2038 May 11 06:22 | 9°♍23'07 | |
| evening set | 2038 Aug 25 13:24 | 17°♍20'56 | |
| | | | |
| conjunction | 2038 Sep 12 04:43 | 19°♍32'38 | 1°51'04 |
| minimum elong | 2038 Sep 12 04:40 | 19°♍32'37 | 1°51'04 |
| max. Earth dist. | 2038 Sep 12 08:31 | 19°♍33'49 | 10.40370 AU |
| morning rise | 2038 Sep 29 15:37 | 21°♍42'56 | |
| retrograde | 2039 Jan 08 11:55 | 29°♍17'27 | |
| opposition | 2039 Mar 16 16:13 | 25°♍55'25 | 2°26'59 |
| min. Earth dist. | 2039 Mar 16 13:48 | 25°♍55'53 | 8.46053 AU |
| direct | 2039 May 25 03:06 | 22°♍28'12 | |
| | 2039 Sep 05 15:15 | 0°♎ | |
| evening set | 2039 Sep 08 05:43 | 0°♎18'52 | |
| | | | |
| conjunction | 2039 Sep 25 16:08 | 2°♎27'38 | 2°05'26 |
| minimum elong | 2039 Sep 25 16:06 | 2°♎27'37 | 2°05'26 |
| max. Earth dist. | 2039 Sep 25 18:01 | 2°♎28'13 | 10.51607 AU |
| morning rise | 2039 Oct 12 22:04 | 4°♎34'59 | |
| retrograde | 2040 Jan 21 04:13 | 12°♎01'17 | |
| opposition | 2040 Mar 28 18:15 | 8°♎40'29 | 2°40'29 |
| min. Earth dist. | 2040 Mar 28 16:34 | 8°♎40'49 | 8.57333 AU |
| direct | 2040 Jun 06 17:55 | 5°♎14'19 | |
| evening set | 2040 Sep 20 11:32 | 12°♎57'18 | |
| | | | |
| conjunction | 2040 Oct 07 17:26 | 15°♎03'19 | 2°13'24 |
| minimum elong | 2040 Oct 07 17:25 | 15°♎03'18 | 2°13'23 |
| max. Earth dist. | 2040 Oct 07 18:05 | 15°♎03'31 | 10.62712 AU |
| morning rise | 2040 Oct 24 18:47 | 17°♎07'57 | |
| retrograde | 2041 Feb 01 16:02 | 24°♎26'53 | |
| opposition | 2041 Apr 10 15:12 | 21°♎07'12 | 2°46'01 |
| min. Earth dist. | 2041 Apr 10 14:25 | 21°♎07'21 | 8.68160 AU |
| direct | 2041 Jun 20 01:10 | 17°♎42'11 | |
| evening set | 2041 Oct 03 07:09 | 25°♎17'27 | |
| | | | |
| conjunction | 2041 Oct 20 09:07 | 27°♎21'02 | 2°14'59 |
| minimum elong | 2041 Oct 20 09:07 | 27°♎21'02 | 2°14'58 |
| max. Earth dist. | 2041 Oct 20 08:50 | 27°♎20'57 | 10.73095 AU |
| morning rise | 2041 Nov 06 06:36 | 29°♎23'20 | |
| | 2041 Nov 11 10:58 | 0°♏ | |
| retrograde | 2042 Feb 13 22:50 | 6°♏35'58 | |
| opposition | 2042 Apr 23 07:28 | 3°♏17'14 | 2°43'55 |
| min. Earth dist. | 2042 Apr 23 08:05 | 3°♏17'07 | 8.78021 AU |
| | 2042 Jun 21 10:26 | 30°℞♎ | |
| direct | 2042 Jul 02 23:48 | 29°♎53'25 | |
| | 2042 Jul 14 13:59 | 0°♏ | |
| evening set | 2042 Oct 15 17:56 | 7°♏21'19 | |
| | | | |
| conjunction | 2042 Nov 01 16:31 | 9°♏22'52 | 2°10'32 |
| minimum elong | 2042 Nov 01 16:33 | 9°♏22'53 | 2°10'31 |
| max. Earth dist. | 2042 Nov 01 14:49 | 9°♏22'21 | 10.82340 AU |
| morning rise | 2042 Nov 18 11:02 | 11°♏23'16 | |
| | 2042 Dec 21 13:50 | 15°♏ | |
| retrograde | 2043 Feb 25 23:40 | 18°♏30'46 | |
| opposition | 2043 May 05 19:38 | 15°♏12'46 | 2°34'46 |
| min. Earth dist. | 2043 May 05 22:06 | 15°♏12'18 | 8.86577 AU |
| | 2043 May 08 15:18 | 15°℞♏ | |
| direct | 2043 Jul 15 18:07 | 11°♏50'04 | |
| | 2043 Sep 18 09:46 | 15°♏ | |
| evening set | 2043 Oct 27 20:50 | 19°♏11'11 | |
| | | | |
| conjunction | 2043 Nov 13 16:40 | 21°♏11'04 | 2°00'34 |
| minimum elong | 2043 Nov 13 16:42 | 21°♏11'05 | 2°00'34 |
| max. Earth dist. | 2043 Nov 13 12:55 | 21°♏09'57 | 10.90151 AU |
| morning rise | 2043 Nov 30 09:11 | 23°♏09'59 | |
| | 2044 Feb 21 14:21 | 0°♐ | |
| retrograde | 2044 Mar 08 22:26 | 0°♐13'38 | |
| | 2044 Mar 25 10:02 | 30°℞♏ | |
| opposition | 2044 May 17 04:37 | 26°♏56'04 | 2°19'19 |
| min. Earth dist. | 2044 May 17 08:02 | 26°♏55'26 | 8.93555 AU |
| direct | 2044 Jul 27 07:28 | 23°♏34'24 | |
| | 2044 Oct 31 12:52 | 0°♐ | |
| evening set | 2044 Nov 07 16:53 | 0°♐49'26 | |
| | | | |
| conjunction | 2044 Nov 24 10:46 | 2°♐48'05 | 1°45'46 |
| minimum elong | 2044 Nov 24 10:48 | 2°♐48'05 | 1°45'46 |
| max. Earth dist. | 2044 Nov 24 06:13 | 2°♐46'43 | 10.96274 AU |
| morning rise | 2044 Dec 11 02:00 | 4°♐45'57 | |
| retrograde | 2045 Mar 20 18:13 | 11°♐47'04 | |
| opposition | 2045 May 29 10:58 | 8°♐29'39 | 1°58'26 |
| min. Earth dist. | 2045 May 29 14:29 | 8°♐29'00 | 8.98720 AU |
| direct | 2045 Aug 08 15:01 | 5°♐08'53 | |
| evening set | 2045 Nov 19 07:50 | 12°♐18'48 | |
| | | | |
| conjunction | 2045 Dec 06 00:30 | 14°♐16'36 | 1°26'50 |
| minimum elong | 2045 Dec 06 00:32 | 14°♐16'36 | 1°26'51 |
| max. Earth dist. | 2045 Dec 05 20:06 | 14°♐15'18 | 11.00495 AU |
| morning rise | 2045 Dec 22 15:00 | 16°♐13'50 | |
| retrograde | 2046 Apr 01 14:46 | 23°♐13'49 | |
| opposition | 2046 Jun 10 15:22 | 19°♐56'17 | 1°33'03 |
| min. Earth dist. | 2046 Jun 10 19:03 | 19°♐55'36 | 9.01900 AU |
| direct | 2046 Aug 20 19:12 | 16°♐36'14 | |
| evening set | 2046 Nov 30 19:17 | 23°♐42'12 | |
| | | | |
| conjunction | 2046 Dec 17 11:07 | 25°♐39'33 | 1°04'35 |
| minimum elong | 2046 Dec 17 11:09 | 25°♐39'33 | 1°04'35 |
| max. Earth dist. | 2046 Dec 17 06:22 | 25°♐38'08 | 11.02668 AU |
| morning rise | 2047 Jan 03 01:32 | 27°♐36'32 | |
| | 2047 Jan 24 15:41 | 0°♑ | |
| retrograde | 2047 Apr 13 11:47 | 4°♑36'50 | |
| opposition | 2047 Jun 22 19:09 | 1°♑18'58 | 1°04'10 |
| min. Earth dist. | 2047 Jun 22 23:42 | 1°♑18'08 | 9.02995 AU |
| | 2047 Jul 11 02:59 | 30°℞♐ | |
| direct | 2047 Sep 01 18:30 | 27°♐59'28 | |
| | 2047 Oct 22 11:10 | 0°♑ | |
| evening set | 2047 Dec 12 04:46 | 5°♑02'46 | |
| | | | |
| conjunction | 2047 Dec 28 20:03 | 7°♑00'00 | 0°39'52 |
| minimum elong | 2047 Dec 28 20:04 | 7°♑00'00 | 0°39'51 |
| max. Earth dist. | 2047 Dec 28 14:18 | 6°♑58'18 | 11.02735 AU |
| morning rise | 2048 Jan 14 10:59 | 8°♑57'09 | |
| retrograde | 2048 Apr 24 07:54 | 15°♑59'18 | |
| opposition | 2048 Jul 03 23:05 | 12°♑40'51 | 0°32'47 |
| min. Earth dist. | 2048 Jul 04 04:09 | 12°♑39'55 | 9.01986 AU |
| direct | 2048 Sep 12 16:56 | 9°♑21'41 | |
| evening set | 2048 Dec 22 14:00 | 16°♑23'48 | |
| | | | |
| conjunction | 2049 Jan 08 05:17 | 18°♑21'16 | 0°13'33 |

| | | | |
|---|---|---|---|
| minimum elong | 2049 Jan 08 05:17 | 18°♑21'16 | 0°13'32 |
| behind sun begin | 2049 Jan 08 01:17 | 18°♑20'06 | |
| behind sun end | 2049 Jan 08 09:17 | 18°♑22'26 | |
| max. Earth dist. | 2049 Jan 07 23:23 | 18°♑19'32 | 11.00702 AU |
| morning rise | 2049 Jan 24 21:04 | 20°♑18'54 | |
| retrograde | 2049 May 06 09:12 | 27°♑24'26 | |
| desc. node | 2049 Jul 15 20:32 | 24°♑06'32 | |
| opposition | 2049 Jul 16 03:51 | 24°♑05'11 | -0°00'02 |
| min. Earth dist. | 2049 Jul 16 08:31 | 24°♑04'19 | 8.98910 AU |
| direct | 2049 Sep 24 15:34 | 20°♑46'13 | |
| evening set | 2050 Jan 03 00:34 | 27°♑48'32 | |
| conjunction | 2050 Jan 19 16:18 | 29°♑46'37 | -0°13'32 |
| minimum elong | 2050 Jan 19 16:18 | 29°♑46'37 | 0°13'32 |
| behind sun begin | 2050 Jan 19 12:18 | 29°♑45'26 | |
| behind sun end | 2050 Jan 19 20:18 | 29°♑47'47 | |
| max. Earth dist. | 2050 Jan 19 11:27 | 29°♑45'11 | 10.96626 AU |
| | 2050 Jan 21 13:16 | 0°♒ | |
| morning rise | 2050 Feb 05 09:09 | 1°♒45'05 | |
| retrograde | 2050 May 18 14:28 | 8°♒55'26 | |
| opposition | 2050 Jul 28 10:43 | 5°♒35'13 | -0°33'08 |
| min. Earth dist. | 2050 Jul 28 14:27 | 5°♒34'31 | 8.93853 AU |
| direct | 2050 Oct 06 12:43 | 2°♒16'17 | |
| evening set | 2051 Jan 14 14:15 | 9°♒20'20 | |
| conjunction | 2051 Jan 31 06:37 | 11°♒19'19 | -0°40'15 |
| minimum elong | 2051 Jan 31 06:36 | 11°♒19'18 | 0°40'15 |
| max. Earth dist. | 2051 Jan 31 02:02 | 11°♒17'57 | 10.90637 AU |
| morning rise | 2051 Feb 17 00:52 | 13°♒18'55 | |
| | 2051 Mar 03 19:14 | 15°♒ | |
| retrograde | 2051 May 31 01:17 | 20°♒35'28 | |
| opposition | 2051 Aug 09 20:41 | 17°♒14'10 | -1°05'21 |
| min. Earth dist. | 2051 Aug 10 00:07 | 17°♒13'31 | 8.86996 AU |
| | 2051 Sep 11 14:35 | 15°℞♒ | |
| direct | 2051 Oct 18 11:52 | 13°♒55'03 | |
| | 2051 Nov 23 11:44 | 15°♒ | |
| evening set | 2052 Jan 26 08:35 | 21°♒02'16 | |
| conjunction | 2052 Feb 12 01:53 | 23°♒02'30 | -1°05'39 |
| minimum elong | 2052 Feb 12 01:51 | 23°♒02'29 | 1°05'39 |
| max. Earth dist. | 2052 Feb 11 21:04 | 23°♒01'02 | 10.82964 AU |
| morning rise | 2052 Feb 28 22:03 | 25°♒03'35 | |
| | 2052 Apr 16 13:54 | 0°♓ | |
| retrograde | 2052 Jun 11 17:22 | 2°♓27'30 | |
| | 2052 Aug 09 03:35 | 30°℞♒ | |
| opposition | 2052 Aug 21 10:32 | 29°♒05'00 | -1°35'22 |
| min. Earth dist. | 2052 Aug 21 13:58 | 29°♒04'21 | 8.78608 AU |
| direct | 2052 Oct 29 13:19 | 25°♒45'29 | |
| | 2053 Jan 11 02:52 | 0°♓ | |
| evening set | 2053 Feb 06 08:51 | 2°♓57'17 | |
| conjunction | 2053 Feb 23 03:41 | 4°♓59'02 | -1°28'39 |
| minimum elong | 2053 Feb 23 03:39 | 4°♓59'02 | 1°28'39 |
| max. Earth dist. | 2053 Feb 22 23:30 | 4°♓57'46 | 10.73906 AU |
| morning rise | 2053 Mar 12 02:05 | 7°♓01'53 | |
| retrograde | 2053 Jun 24 15:28 | 14°♓34'09 | |
| opposition | 2053 Sep 03 04:53 | 11°♓10'21 | -2°01'52 |
| min. Earth dist. | 2053 Sep 03 07:41 | 11°♓09'49 | 8.69015 AU |
| direct | 2053 Nov 10 20:13 | 7°♓50'17 | |
| evening set | 2054 Feb 18 16:30 | 15°♓07'53 | |
| conjunction | 2054 Mar 07 13:27 | 17°♓11'31 | -1°48'07 |
| minimum elong | 2054 Mar 07 13:24 | 17°♓11'30 | 1°48'07 |
| max. Earth dist. | 2054 Mar 07 10:56 | 17°♓10'44 | 10.63822 AU |
| morning rise | 2054 Mar 24 14:18 | 19°♓16'23 | |
| retrograde | 2054 Jul 07 22:05 | 26°♓57'33 | |
| opposition | 2054 Sep 16 04:11 | 23°♓32'29 | -2°23'24 |
| min. Earth dist. | 2054 Sep 16 05:32 | 23°♓32'13 | 8.58620 AU |
| direct | 2054 Nov 23 08:06 | 20°♓11'43 | |
| evening set | 2055 Mar 03 08:34 | 27°♓36'05 | |
| conjunction | 2055 Mar 20 08:11 | 29°♓41'52 | -2°02'55 |
| minimum elong | 2055 Mar 20 08:09 | 29°♓41'52 | 2°02'56 |
| max. Earth dist. | 2055 Mar 20 07:17 | 29°♓41'35 | 10.53170 AU |
| | 2055 Mar 22 18:30 | 0°♈ | |
| morning rise | 2055 Apr 06 12:01 | 1°♈49'01 | |
| retrograde | 2055 Jul 21 12:50 | 9°♈39'14 | |
| opposition | 2055 Sep 29 09:02 | 6°♈12'56 | -2°38'35 |
| min. Earth dist. | 2055 Sep 29 08:54 | 6°♈12'58 | 8.47906 AU |
| direct | 2055 Dec 06 00:06 | 2°♈51'20 | |
| evening set | 2056 Mar 15 09:49 | 10°♈23'13 | |
| conjunction | 2056 Apr 01 12:41 | 12°♈31'22 | -2°12'01 |
| minimum elong | 2056 Apr 01 12:41 | 12°♈31'22 | 2°12'01 |
| max. Earth dist. | 2056 Apr 01 12:44 | 12°♈31'23 | 10.42465 AU |
| morning rise | 2056 Apr 18 20:10 | 14°♈40'59 | |
| retrograde | 2056 Aug 03 09:26 | 22°♈39'50 | |
| opposition | 2056 Oct 11 19:20 | 19°♈12'27 | -2°46'10 |
| min. Earth dist. | 2056 Oct 11 18:20 | 19°♈12'39 | 8.37394 AU |
| direct | 2056 Dec 17 23:54 | 15°♈49'51 | |
| evening set | 2057 Mar 28 20:48 | 23°♈29'38 | |
| conjunction | 2057 Apr 15 03:34 | 25°♈40'20 | -2°14'29 |
| minimum elong | 2057 Apr 15 03:35 | 25°♈40'20 | 2°14'30 |
| max. Earth dist. | 2057 Apr 15 04:15 | 25°♈40'33 | 10.32244 AU |
| morning rise | 2057 May 02 15:08 | 27°♈52'32 | |
| | 2057 May 20 06:00 | 0°♉ | |
| retrograde | 2057 Aug 17 11:51 | 5°♉58'56 | |
| opposition | 2057 Oct 25 10:40 | 2°♉30'40 | -2°45'08 |
| min. Earth dist. | 2057 Oct 25 09:18 | 2°♉30'56 | 8.27625 AU |
| | 2057 Nov 29 18:50 | 30°℞♈ | |
| direct | 2057 Dec 31 06:59 | 29°♈06'59 | |
| | 2058 Jan 31 09:16 | 0°♉ | |
| evening set | 2058 Apr 11 17:13 | 6°♉54'35 | |
| conjunction | 2058 Apr 29 04:29 | 9°♉07'52 | -2°09'46 |
| minimum elong | 2058 Apr 29 04:31 | 9°♉07'53 | 2°09'46 |
| max. Earth dist. | 2058 Apr 29 06:22 | 9°♉08'29 | 10.23043 AU |
| morning rise | 2058 May 16 20:21 | 11°♉22'36 | |
| | 2058 Jun 16 14:28 | 15°♉ | |
| retrograde | 2058 Aug 31 19:38 | 19°♉35'00 | |
| opposition | 2058 Nov 08 06:38 | 16°♉06'04 | -2°34'55 |
| min. Earth dist. | 2058 Nov 08 04:35 | 16°♉06'29 | 8.19111 AU |
| | 2058 Nov 22 03:00 | 15°℞♉ | |
| direct | 2059 Jan 13 20:42 | 12°♉41'14 | |
| | 2059 Mar 05 22:57 | 15°♉ | |
| evening set | 2059 Apr 25 22:21 | 20°♉36'05 | |
| conjunction | 2059 May 13 14:28 | 22°♉51'52 | -1°57'41 |
| minimum elong | 2059 May 13 14:31 | 22°♉51'53 | 1°57'41 |
| max. Earth dist. | 2059 May 13 17:43 | 22°♉52'55 | 10.15338 AU |
| morning rise | 2059 May 31 10:34 | 25°♉08'56 | |
| | 2059 Jul 12 19:58 | 0°♊ | |
| retrograde | 2059 Sep 15 06:28 | 3°♊25'18 | |
| | 2059 Nov 21 10:20 | 30°℞♉ | |
| opposition | 2059 Nov 22 06:10 | 29°♉55'57 | -2°15'36 |
| min. Earth dist. | 2059 Nov 22 03:22 | 29°♉56'32 | 8.12273 AU |
| direct | 2060 Jan 27 17:51 | 26°♉29'59 | |
| | 2060 Mar 31 11:50 | 0°♊ | |
| evening set | 2060 May 09 11:33 | 4°♊31'16 | |
| conjunction | 2060 May 27 08:21 | 6°♊49'14 | -1°38'35 |
| minimum elong | 2060 May 27 08:24 | 6°♊49'15 | 1°38'35 |
| max. Earth dist. | 2060 May 27 12:41 | 6°♊50'38 | 10.09495 AU |

| | | | |
|---|---|---|---|
| morning rise | 2060 Jun 14 08:11 | 9°♊08'13 | |
| retrograde | 2060 Sep 28 18:55 | 17°♊26'18 | |
| opposition | 2060 Dec 05 08:05 | 13°♊56'54 | -1°47'58 |
| min. Earth dist. | 2060 Dec 05 04:29 | 13°♊57'39 | 8.07449 AU |
| direct | 2061 Feb 09 19:58 | 10°♊29'54 | |
| evening set | 2061 May 24 07:09 | 18°♊36'30 | |
| | | | |
| conjunction | 2061 Jun 11 07:52 | 20°♊56'09 | -1°13'25 |
| minimum elong | 2061 Jun 11 07:55 | 20°♊56'10 | 1°13'25 |
| max. Earth dist. | 2061 Jun 11 12:54 | 20°♊57'47 | 10.05847 AU |
| morning rise | 2061 Jun 29 10:30 | 23°♊16'27 | |
| | 2061 Sep 01 07:39 | 0°♋ | |
| retrograde | 2061 Oct 13 07:46 | 1°♋33'59 | |
| | 2061 Nov 24 19:04 | 30°℞♊ | |
| opposition | 2061 Dec 19 11:35 | 28°♊04'52 | -1°13'33 |
| min. Earth dist. | 2061 Dec 19 07:25 | 28°♊05'43 | 8.04996 AU |
| direct | 2062 Feb 24 01:55 | 24°♊36'59 | |
| | 2062 May 16 10:50 | 0°♋ | |
| evening set | 2062 Jun 08 06:56 | 2°♋47'18 | |
| | | | |
| conjunction | 2062 Jun 26 10:18 | 5°♋07'52 | -0°43'42 |
| minimum elong | 2062 Jun 26 10:20 | 5°♋07'53 | 0°43'42 |
| max. Earth dist. | 2062 Jun 26 15:43 | 5°♋09'38 | 10.04735 AU |
| morning rise | 2062 Jul 14 14:24 | 7°♋28'41 | |
| retrograde | 2062 Oct 27 18:58 | 15°♋43'20 | |
| opposition | 2063 Jan 02 15:08 | 12°♋14'47 | -0°34'35 |
| min. Earth dist. | 2063 Jan 02 10:52 | 12°♋15'40 | 8.05199 AU |
| direct | 2063 Mar 10 10:20 | 8°♋46'11 | |
| evening set | 2063 Jun 23 08:41 | 16°♋58'22 | |
| | | | |
| conjunction | 2063 Jul 11 13:06 | 19°♋18'58 | -0°11'22 |
| minimum elong | 2063 Jul 11 13:07 | 19°♋18'58 | 0°11'23 |
| behind sun begin | 2063 Jul 11 07:51 | 19°♋17'17 | |
| behind sun end | 2063 Jul 11 18:23 | 19°♋20'40 | |
| max. Earth dist. | 2063 Jul 11 18:26 | 19°♋20'41 | 10.06324 AU |
| morning rise | 2063 Jul 29 17:03 | 21°♋39'24 | |
| retrograde | 2063 Nov 11 02:17 | 29°♋48'58 | |
| asc. node | 2063 Nov 19 04:09 | 29°♋45'16 | |
| opposition | 2064 Jan 16 17:08 | 26°♋21'16 | 0°06'20 |
| min. Earth dist. | 2064 Jan 16 13:11 | 26°♋22'05 | 8.08109 AU |
| direct | 2064 Mar 23 21:33 | 22°♋52'11 | |
| | 2064 Jun 28 19:27 | 0°♌ | |
| evening set | 2064 Jul 07 09:22 | 1°♌04'13 | |
| | | | |
| conjunction | 2064 Jul 25 13:06 | 3°♌23'55 | 0°21'30 |
| minimum elong | 2064 Jul 25 13:05 | 3°♌23'55 | 0°21'31 |
| max. Earth dist. | 2064 Jul 25 17:53 | 3°♌25'28 | 10.10542 AU |
| morning rise | 2064 Aug 12 15:11 | 5°♌43'04 | |
| retrograde | 2064 Nov 24 02:33 | 13°♌45'53 | |
| opposition | 2065 Jan 29 16:28 | 10°♌19'15 | 0°46'26 |
| min. Earth dist. | 2065 Jan 29 12:51 | 10°♌19'59 | 8.13552 AU |
| direct | 2065 Apr 07 08:46 | 6°♌49'59 | |
| evening set | 2065 Jul 22 05:57 | 14°♌59'49 | |
| | 2065 Jul 22 06:31 | 15°♌ | |
| | | | |
| conjunction | 2065 Aug 09 07:20 | 17°♌17'47 | 0°52'42 |
| minimum elong | 2065 Aug 09 07:17 | 17°♌17'46 | 0°52'42 |
| max. Earth dist. | 2065 Aug 09 11:34 | 17°♌19'09 | 10.17115 AU |
| morning rise | 2065 Aug 27 06:03 | 19°♌34'52 | |
| retrograde | 2065 Dec 07 19:33 | 27°♌29'52 | |
| opposition | 2066 Feb 12 11:51 | 24°♌04'23 | 1°23'11 |
| min. Earth dist. | 2066 Feb 12 08:11 | 24°♌05'08 | 8.21172 AU |
| direct | 2066 Apr 21 17:23 | 20°♌35'16 | |
| evening set | 2066 Aug 05 20:05 | 28°♌41'04 | |
| | 2066 Aug 16 07:25 | 0°♍ | |
| | | | |
| conjunction | 2066 Aug 23 17:55 | 0°♍56'41 | 1°20'25 |
| minimum elong | 2066 Aug 23 17:52 | 0°♍56'40 | 1°20'26 |
| max. Earth dist. | 2066 Aug 23 21:52 | 0°♍57'56 | 10.25625 AU |
| morning rise | 2066 Sep 10 12:10 | 3°♍11'09 | |
| retrograde | 2066 Dec 21 05:57 | 10°♍57'40 | |
| opposition | 2067 Feb 26 02:20 | 7°♍33'25 | 1°54'33 |
| min. Earth dist. | 2067 Feb 25 22:43 | 7°♍34'08 | 8.30484 AU |
| direct | 2067 May 05 20:43 | 4°♍04'43 | |
| evening set | 2067 Aug 20 01:50 | 12°♍04'57 | |
| | | | |
| conjunction | 2067 Sep 06 19:20 | 14°♍17'51 | 1°43'15 |
| minimum elong | 2067 Sep 06 19:17 | 14°♍17'50 | 1°43'16 |
| max. Earth dist. | 2067 Sep 06 22:59 | 14°♍19'00 | 10.35544 AU |
| morning rise | 2067 Sep 24 08:28 | 16°♍29'24 | |
| retrograde | 2068 Jan 03 10:21 | 24°♍07'18 | |
| opposition | 2068 Mar 10 11:45 | 20°♍44'18 | 2°19'03 |
| min. Earth dist. | 2068 Mar 10 08:37 | 20°♍44'55 | 8.40924 AU |
| direct | 2068 May 18 18:17 | 17°♍16'17 | |
| evening set | 2068 Sep 01 21:53 | 25°♍09'48 | |
| | | | |
| conjunction | 2068 Sep 19 10:34 | 27°♍19'49 | 2°00'14 |
| minimum elong | 2068 Sep 19 10:32 | 27°♍19'48 | 2°00'14 |
| max. Earth dist. | 2068 Sep 19 13:41 | 27°♍20'47 | 10.46298 AU |
| morning rise | 2068 Oct 06 18:29 | 29°♍28'24 | |
| | 2068 Oct 11 02:56 | 0°♎ | |
| retrograde | 2069 Jan 15 06:00 | 6°♎57'57 | |
| opposition | 2069 Mar 23 15:48 | 3°♎36'10 | 2°35'53 |
| min. Earth dist. | 2069 Mar 23 13:52 | 3°♎36'33 | 8.51920 AU |
| direct | 2069 Jun 01 10:30 | 0°♎09'04 | |
| evening set | 2069 Sep 15 07:40 | 7°♎55'08 | |
| | | | |
| conjunction | 2069 Oct 02 15:34 | 10°♎02'19 | 2°10'53 |
| minimum elong | 2069 Oct 02 15:32 | 10°♎02'19 | 2°10'53 |
| max. Earth dist. | 2069 Oct 02 17:19 | 10°♎02'52 | 10.57334 AU |
| morning rise | 2069 Oct 19 18:45 | 12°♎08'06 | |
| retrograde | 2070 Jan 27 19:01 | 19°♎29'54 | |
| opposition | 2070 Apr 05 14:27 | 16°♎09'16 | 2°44'45 |
| min. Earth dist. | 2070 Apr 05 13:55 | 16°♎09'22 | 8.62925 AU |
| direct | 2070 Jun 14 20:01 | 12°♎43'13 | |
| evening set | 2070 Sep 28 07:11 | 20°♎21'33 | |
| | | | |
| conjunction | 2070 Oct 15 10:44 | 22°♎26'09 | 2°15'08 |
| minimum elong | 2070 Oct 15 10:44 | 22°♎26'09 | 2°15'08 |
| max. Earth dist. | 2070 Oct 15 10:35 | 22°♎26'06 | 10.68124 AU |
| morning rise | 2070 Nov 01 09:56 | 24°♎29'25 | |
| | 2070 Dec 25 20:46 | 0°♏ | |
| retrograde | 2071 Feb 09 01:59 | 1°♏44'19 | |
| | 2071 Mar 27 18:16 | 30°℞♎ | |
| opposition | 2071 Apr 18 08:06 | 28°♎24'43 | 2°45'49 |
| min. Earth dist. | 2071 Apr 18 08:19 | 28°♎24'40 | 8.73413 AU |
| direct | 2071 Jun 27 22:35 | 24°♎59'52 | |
| | 2071 Sep 18 17:23 | 0°♏ | |
| evening set | 2071 Oct 10 21:08 | 2°♏30'33 | |
| | | | |
| conjunction | 2071 Oct 27 21:01 | 4°♏32'53 | 2°13'12 |
| minimum elong | 2071 Oct 27 21:02 | 4°♏32'53 | 2°13'11 |
| max. Earth dist. | 2071 Oct 27 19:48 | 4°♏32'31 | 10.78173 AU |
| morning rise | 2071 Nov 13 16:53 | 6°♏34'01 | |
| retrograde | 2072 Feb 21 04:08 | 13°♏43'08 | |
| opposition | 2072 Apr 29 21:15 | 10°♏24'23 | 2°39'34 |
| min. Earth dist. | 2072 Apr 29 21:42 | 10°♏24'18 | 8.82922 AU |
| direct | 2072 Jul 09 19:46 | 7°♏00'48 | |
| evening set | 2072 Oct 22 02:28 | 14°♏24'15 | |
| | 2072 Oct 27 03:48 | 15°♏ | |
| | | | |
| conjunction | 2072 Nov 07 23:30 | 16°♏24'42 | 2°05'31 |
| minimum elong | 2072 Nov 07 23:32 | 16°♏24'43 | 2°05'31 |
| max. Earth dist. | 2072 Nov 07 22:08 | 16°♏24'18 | 10.87059 AU |

| | | | |
|---|---|---|---|
| morning rise | 2072 Nov 24 16:46 | 18°♏24'07 | |
| retrograde | 2073 Mar 04 04:31 | 25°♏28'41 | |
| opposition | 2073 May 12 06:46 | 22°♏10'38 | 2°26'42 |
| min. Earth dist. | 2073 May 12 07:52 | 22°♏10'25 | 8.91070 AU |
| direct | 2073 Jul 22 09:21 | 18°♏48'18 | |
| evening set | 2073 Nov 03 00:29 | 26°♏05'09 | |
| | | | |
| conjunction | 2073 Nov 19 19:18 | 28°♏04'10 | 1°52'43 |
| minimum elong | 2073 Nov 19 19:20 | 28°♏04'11 | 1°52'43 |
| max. Earth dist. | 2073 Nov 19 17:16 | 28°♏03'34 | 10.94423 AU |
| morning rise | 2073 Dec 06 10:53 | 0°♐02'19 | |
| | 2073 Dec 06 02:56 | 0°♐ | |
| retrograde | 2074 Mar 16 00:57 | 7°♐03'37 | |
| opposition | 2074 May 24 13:21 | 3°♐46'04 | 2°08'03 |
| min. Earth dist. | 2074 May 24 15:48 | 3°♐45'36 | 8.97543 AU |
| direct | 2074 Aug 03 16:33 | 0°♐24'52 | |
| evening set | 2074 Nov 14 16:58 | 7°♐36'09 | |
| | | | |
| conjunction | 2074 Dec 01 10:00 | 9°♐34'06 | 1°35'29 |
| minimum elong | 2074 Dec 01 10:02 | 9°♐34'07 | 1°35'29 |
| max. Earth dist. | 2074 Dec 01 06:24 | 9°♐33'02 | 10.99988 AU |
| morning rise | 2074 Dec 18 00:44 | 11°♐31'24 | |
| retrograde | 2075 Mar 27 19:45 | 18°♐30'52 | |
| opposition | 2075 Jun 05 17:47 | 15°♐13'34 | 1°44'31 |
| min. Earth dist. | 2075 Jun 05 21:19 | 15°♐12'55 | 9.02103 AU |
| direct | 2075 Aug 15 22:01 | 11°♐53'22 | |
| evening set | 2075 Nov 26 05:12 | 19°♐00'11 | |
| | | | |
| conjunction | 2075 Dec 12 21:08 | 20°♐57'28 | 1°14'36 |
| minimum elong | 2075 Dec 12 21:10 | 20°♐57'28 | 1°14'36 |
| max. Earth dist. | 2075 Dec 12 16:38 | 20°♐56'08 | 11.03560 AU |
| morning rise | 2075 Dec 29 11:36 | 22°♐54'19 | |
| retrograde | 2076 Apr 07 15:16 | 29°♐53'27 | |
| opposition | 2076 Jun 16 21:10 | 26°♐36'06 | 1°17'04 |
| min. Earth dist. | 2076 Jun 17 00:37 | 26°♐35'28 | 9.04595 AU |
| direct | 2076 Aug 26 23:06 | 23°♐16'45 | |
| | 2076 Dec 03 16:03 | 0°♑ | |
| evening set | 2076 Dec 06 14:41 | 0°♑20'17 | |
| | | | |
| conjunction | 2076 Dec 23 06:09 | 2°♑17'17 | 0°50'53 |
| minimum elong | 2076 Dec 23 06:10 | 2°♑17'17 | 0°50'53 |
| max. Earth dist. | 2076 Dec 23 02:09 | 2°♑16'06 | 11.05006 AU |
| morning rise | 2077 Jan 08 20:43 | 4°♑14'05 | |
| retrograde | 2077 Apr 19 12:15 | 11°♑14'24 | |
| opposition | 2077 Jun 29 00:15 | 7°♑56'44 | 0°46'42 |
| min. Earth dist. | 2077 Jun 29 03:33 | 7°♑56'07 | 9.04924 AU |
| direct | 2077 Sep 07 21:30 | 4°♑38'01 | |
| evening set | 2077 Dec 17 23:28 | 11°♑39'38 | |
| | | | |
| conjunction | 2078 Jan 03 14:44 | 13°♑36'43 | 0°25'12 |
| minimum elong | 2078 Jan 03 14:45 | 13°♑36'43 | 0°25'11 |
| max. Earth dist. | 2078 Jan 03 10:29 | 13°♑35'28 | 11.04261 AU |
| morning rise | 2078 Jan 20 05:52 | 15°♑33'49 | |
| retrograde | 2078 May 01 12:16 | 22°♑36'43 | |
| opposition | 2078 Jul 11 03:54 | 19°♑18'32 | 0°14'28 |
| min. Earth dist. | 2078 Jul 11 07:48 | 19°♑17'49 | 9.03066 AU |
| direct | 2078 Sep 19 18:04 | 16°♑00'11 | |
| desc. node | 2078 Dec 23 21:09 | 22°♑23'29 | |
| evening set | 2078 Dec 29 09:00 | 23°♑01'21 | |
| | | | |
| conjunction | 2079 Jan 15 00:17 | 24°♑58'50 | -0°01'38 |
| minimum elong | 2079 Jan 15 00:17 | 24°♑58'49 | 0°01'39 |
| behind sun begin | 2079 Jan 14 17:18 | 24°♑56'47 | |
| behind sun end | 2079 Jan 15 07:15 | 25°♑00'52 | |
| max. Earth dist. | 2079 Jan 14 18:52 | 24°♑57'15 | 11.01330 AU |
| morning rise | 2079 Jan 31 16:29 | 26°♑56'36 | |
| | 2079 Feb 28 17:26 | 0°♒ | |
| retrograde | 2079 May 13 13:31 | 4°♒03'36 | |
| opposition | 2079 Jul 23 09:24 | 0°♒44'36 | -0°18'33 |
| min. Earth dist. | 2079 Jul 23 14:09 | 0°♒43'43 | 8.99050 AU |
| | 2079 Aug 02 12:25 | 30°℞♑ | |
| direct | 2079 Oct 01 14:33 | 27°♑26'22 | |
| | 2079 Nov 27 14:20 | 0°♒ | |
| evening set | 2080 Jan 09 20:36 | 4°♒28'33 | |
| | | | |
| conjunction | 2080 Jan 26 12:22 | 6°♒26'46 | -0°28'31 |
| minimum elong | 2080 Jan 26 12:21 | 6°♒26'46 | 0°28'30 |
| max. Earth dist. | 2080 Jan 26 06:40 | 6°♒25'05 | 10.96262 AU |
| morning rise | 2080 Feb 12 05:55 | 8°♒25'32 | |
| | 2080 Apr 26 20:02 | 15°♒ | |
| retrograde | 2080 May 24 20:35 | 15°♒38'08 | |
| | 2080 Jun 22 07:32 | 15°℞♒ | |
| opposition | 2080 Aug 03 17:25 | 12°♒18'05 | -0°51'12 |
| min. Earth dist. | 2080 Aug 03 22:04 | 12°♒17'13 | 8.92949 AU |
| direct | 2080 Oct 12 14:09 | 8°♒59'44 | |
| | 2081 Jan 11 05:00 | 15°♒ | |
| evening set | 2081 Jan 20 12:09 | 16°♒04'27 | |
| | | | |
| conjunction | 2081 Feb 06 04:55 | 18°♒03'48 | -0°54'34 |
| minimum elong | 2081 Feb 06 04:53 | 18°♒03'47 | 0°54'32 |
| max. Earth dist. | 2081 Feb 05 23:48 | 18°♒02'16 | 10.89165 AU |
| morning rise | 2081 Feb 23 00:01 | 20°♒03'53 | |
| retrograde | 2081 Jun 06 10:28 | 27°♒23'25 | |
| opposition | 2081 Aug 16 04:39 | 24°♒02'09 | -1°22'15 |
| min. Earth dist. | 2081 Aug 16 08:39 | 24°♒01'24 | 8.84948 AU |
| direct | 2081 Oct 24 13:44 | 20°♒43'27 | |
| evening set | 2082 Feb 01 09:10 | 27°♒52'13 | |
| | | | |
| conjunction | 2082 Feb 18 03:15 | 29°♒53'01 | -1°18'42 |
| minimum elong | 2082 Feb 18 03:13 | 29°♒53'00 | 1°18'42 |
| max. Earth dist. | 2082 Feb 17 22:33 | 29°♒51'35 | 10.80319 AU |
| | 2082 Feb 19 02:21 | 0°♓ | |
| morning rise | 2082 Mar 07 00:17 | 1°♓54'45 | |
| retrograde | 2082 Jun 19 05:50 | 9°♓22'21 | |
| opposition | 2082 Aug 28 20:23 | 5°♓59'42 | -1°50'26 |
| min. Earth dist. | 2082 Aug 28 23:44 | 5°♓59'04 | 8.75404 AU |
| direct | 2082 Nov 05 17:18 | 2°♓40'25 | |
| evening set | 2083 Feb 13 12:55 | 9°♓54'33 | |
| | | | |
| conjunction | 2083 Mar 02 08:39 | 11°♓57'06 | -1°39'51 |
| minimum elong | 2083 Mar 02 08:37 | 11°♓57'05 | 1°39'51 |
| max. Earth dist. | 2083 Mar 02 03:47 | 11°♓55'36 | 10.70148 AU |
| morning rise | 2083 Mar 19 08:09 | 14°♓00'48 | |
| retrograde | 2083 Jul 02 08:43 | 21°♓37'13 | |
| opposition | 2083 Sep 10 17:09 | 18°♓13'07 | -2°14'20 |
| min. Earth dist. | 2083 Sep 10 20:20 | 18°♓12'30 | 8.64774 AU |
| direct | 2083 Nov 18 01:50 | 14°♓52'59 | |
| evening set | 2084 Feb 26 00:37 | 22°♓13'35 | |
| | | | |
| conjunction | 2084 Mar 13 22:41 | 24°♓18'11 | -1°56'52 |
| minimum elong | 2084 Mar 13 22:39 | 24°♓18'11 | 1°56'53 |
| max. Earth dist. | 2084 Mar 13 18:29 | 24°♓16'54 | 10.59134 AU |
| morning rise | 2084 Mar 31 01:08 | 26°♓24'08 | |
| | 2084 May 01 21:27 | 0°♈ | |
| retrograde | 2084 Jul 14 18:17 | 4°♈09'41 | |
| opposition | 2084 Sep 22 19:03 | 0°♈44'08 | -2°32'33 |
| min. Earth dist. | 2084 Sep 22 21:44 | 0°♈43'36 | 8.53559 AU |
| | 2084 Oct 02 07:52 | 30°℞♓ | |
| direct | 2084 Nov 29 15:31 | 27°♓22'56 | |
| | 2085 Jan 24 04:58 | 0°♈ | |
| evening set | 2085 Mar 09 21:06 | 4°♈50'56 | |
| | | | |
| conjunction | 2085 Mar 26 22:19 | 6°♈57'52 | -2°08'40 |
| minimum elong | 2085 Mar 26 22:18 | 6°♈57'52 | 2°08'41 |

| | | | |
|---|---|---|---|
| max. Earth dist. | 2085 Mar 26 19:44 | 6°♈57'04 | 10.47788 AU |
| morning rise | 2085 Apr 13 04:06 | 9°♈06'15 | |
| retrograde | 2085 Jul 28 09:59 | 17°♈00'51 | |
| opposition | 2085 Oct 06 02:25 | 13°♈33'53 | -2°43'45 |
| min. Earth dist. | 2085 Oct 06 03:53 | 13°♈33'36 | 8.42277 AU |
| direct | 2085 Dec 12 13:22 | 10°♈11'33 | |
| evening set | 2086 Mar 23 03:01 | 17°♈47'28 | |
| | | | |
| conjunction | 2086 Apr 09 07:59 | 19°♈56'57 | -2°14'15 |
| minimum elong | 2086 Apr 09 07:59 | 19°♈56'57 | 2°14'15 |
| max. Earth dist. | 2086 Apr 09 07:30 | 19°♈56'48 | 10.36652 AU |
| morning rise | 2086 Apr 26 17:28 | 22°♈07'55 | |
| | 2086 Jul 27 23:36 | 0°♉ | |
| retrograde | 2086 Aug 11 09:40 | 0°♉10'53 | |
| | 2086 Aug 25 21:38 | 30°℞♈ | |
| opposition | 2086 Oct 19 15:07 | 26°♈42'41 | -2°46'46 |
| min. Earth dist. | 2086 Oct 19 14:49 | 26°♈42'44 | 8.31483 AU |
| direct | 2086 Dec 25 16:44 | 23°♈19'08 | |
| | 2087 Mar 28 05:51 | 0°♉ | |
| evening set | 2087 Apr 05 18:40 | 1°♉03'07 | |
| | | | |
| conjunction | 2087 Apr 23 03:56 | 3°♉15'17 | -2°12'52 |
| minimum elong | 2087 Apr 23 03:57 | 3°♉15'17 | 2°12'53 |
| max. Earth dist. | 2087 Apr 23 04:53 | 3°♉15'35 | 10.26309 AU |
| morning rise | 2087 May 10 17:38 | 5°♉28'54 | |
| retrograde | 2087 Aug 25 16:04 | 13°♉38'56 | |
| opposition | 2087 Nov 02 08:49 | 10°♉09'45 | -2°40'49 |
| min. Earth dist. | 2087 Nov 02 07:17 | 10°♉10'04 | 8.21749 AU |
| direct | 2088 Jan 08 01:47 | 6°♉44'56 | |
| evening set | 2088 Apr 18 19:45 | 14°♉36'46 | |
| | 2088 Apr 21 21:18 | 15°♉ | |
| | | | |
| conjunction | 2088 May 06 09:42 | 16°♉51'34 | -2°04'09 |
| minimum elong | 2088 May 06 09:45 | 16°♉51'34 | 2°04'09 |
| max. Earth dist. | 2088 May 06 11:37 | 16°♉52'11 | 10.17319 AU |
| morning rise | 2088 May 24 03:51 | 19°♉07'43 | |
| retrograde | 2088 Sep 08 02:33 | 27°♉22'59 | |
| opposition | 2088 Nov 15 06:50 | 23°♉53'10 | -2°25'37 |
| min. Earth dist. | 2088 Nov 15 04:36 | 23°♉53'37 | 8.13615 AU |
| direct | 2089 Jan 20 19:10 | 20°♉27'06 | |
| evening set | 2089 May 03 05:31 | 28°♉26'05 | |
| | 2089 May 15 10:24 | 0°♊ | |
| | | | |
| conjunction | 2089 May 21 00:09 | 0°♊43'17 | -1°48'09 |
| minimum elong | 2089 May 21 00:12 | 0°♊43'18 | 1°48'09 |
| max. Earth dist. | 2089 May 21 02:50 | 0°♊44'09 | 10.10195 AU |
| morning rise | 2089 Jun 07 22:26 | 3°♊01'39 | |
| retrograde | 2089 Sep 22 14:19 | 11°♊19'53 | |
| opposition | 2089 Nov 29 08:04 | 7°♊49'49 | -2°01'37 |
| min. Earth dist. | 2089 Nov 29 05:23 | 7°♊50'22 | 8.07565 AU |
| direct | 2090 Feb 03 19:23 | 4°♊22'35 | |
| evening set | 2090 May 17 22:28 | 12°♊27'35 | |
| | | | |
| conjunction | 2090 Jun 04 21:24 | 14°♊46'45 | -1°25'35 |
| minimum elong | 2090 Jun 04 21:27 | 14°♊46'46 | 1°25'35 |
| max. Earth dist. | 2090 Jun 05 01:01 | 14°♊47'55 | 10.05378 AU |
| morning rise | 2090 Jun 22 23:06 | 17°♊06'46 | |
| retrograde | 2090 Oct 07 02:59 | 25°♊25'32 | |
| opposition | 2090 Dec 13 11:21 | 21°♊55'34 | -1°30'01 |
| min. Earth dist. | 2090 Dec 13 08:04 | 21°♊56'15 | 8.03995 AU |
| direct | 2091 Feb 18 00:26 | 18°♊27'22 | |
| evening set | 2091 Jun 01 20:43 | 26°♊36'48 | |
| | | | |
| conjunction | 2091 Jun 19 23:03 | 28°♊57'16 | -0°57'42 |
| minimum elong | 2091 Jun 19 23:06 | 28°♊57'17 | 0°57'41 |
| max. Earth dist. | 2091 Jun 20 03:52 | 28°♊58'50 | 10.03181 AU |
| | 2091 Jun 27 23:57 | 0°♋ | |

| | | | |
|---|---|---|---|
| morning rise | 2091 Jul 08 02:57 | 1°♋18'12 | |
| retrograde | 2091 Oct 21 14:49 | 9°♋35'01 | |
| opposition | 2091 Dec 27 15:15 | 6°♋05'32 | -0°52'45 |
| min. Earth dist. | 2091 Dec 27 11:02 | 6°♋06'25 | 8.03138 AU |
| direct | 2092 Mar 03 08:55 | 2°♋36'37 | |
| evening set | 2092 Jun 15 22:08 | 10°♋48'43 | |
| | | | |
| conjunction | 2092 Jul 04 02:25 | 13°♋09'37 | -0°26'16 |
| minimum elong | 2092 Jul 04 02:26 | 13°♋09'37 | 0°26'15 |
| max. Earth dist. | 2092 Jul 04 08:15 | 13°♋11'30 | 10.03747 AU |
| morning rise | 2092 Jul 22 06:49 | 15°♋30'33 | |
| retrograde | 2092 Nov 04 00:03 | 23°♋43'11 | |
| opposition | 2093 Jan 09 18:17 | 20°♋14'32 | -0°12'20 |
| min. Earth dist. | 2093 Jan 09 13:15 | 20°♋15'34 | 8.05064 AU |
| direct | 2093 Mar 17 19:31 | 16°♋45'10 | |
| asc. node | 2093 May 03 09:04 | 18°♋39'58 | |
| evening set | 2093 Jun 30 23:50 | 24°♋58'00 | |
| | | | |
| conjunction | 2093 Jul 19 04:17 | 27°♋18'24 | 0°06'43 |
| minimum elong | 2093 Jul 19 04:16 | 27°♋18'24 | 0°06'43 |
| behind sun begin | 2093 Jul 18 21:25 | 27°♋16'12 | |
| behind sun end | 2093 Jul 19 11:07 | 27°♋20'36 | |
| max. Earth dist. | 2093 Jul 19 10:49 | 27°♋20'30 | 10.07056 AU |
| morning rise | 2093 Aug 06 07:27 | 29°♋38'24 | |
| | 2093 Aug 09 03:52 | 0°♌ | |
| retrograde | 2093 Nov 18 04:14 | 7°♌45'02 | |
| opposition | 2094 Jan 23 19:18 | 4°♌17'30 | 0°28'31 |
| min. Earth dist. | 2094 Jan 23 13:51 | 4°♌18'37 | 8.09671 AU |
| direct | 2094 Apr 01 06:14 | 0°♌48'02 | |
| evening set | 2094 Jul 15 22:50 | 8°♌59'33 | |
| | | | |
| conjunction | 2094 Aug 03 01:43 | 11°♌18'34 | 0°38'53 |
| minimum elong | 2094 Aug 03 01:41 | 11°♌18'34 | 0°38'54 |
| max. Earth dist. | 2094 Aug 03 08:28 | 11°♌20'45 | 10.12907 AU |
| morning rise | 2094 Aug 21 02:05 | 13°♌36'49 | |
| | 2094 Sep 01 06:52 | 15°♌ | |
| retrograde | 2094 Dec 02 02:23 | 21°♌36'05 | |
| opposition | 2095 Feb 06 17:00 | 18°♌09'52 | 1°07'07 |
| min. Earth dist. | 2095 Feb 06 11:59 | 18°♌10'54 | 8.16669 AU |
| | 2095 Mar 27 15:22 | 15°℞♌ | |
| direct | 2095 Apr 15 15:02 | 14°♌40'36 | |
| | 2095 May 04 15:23 | 15°♌ | |
| evening set | 2095 Jul 30 16:54 | 22°♌48'57 | |
| | | | |
| conjunction | 2095 Aug 17 16:39 | 25°♌05'51 | 1°08'25 |
| minimum elong | 2095 Aug 17 16:36 | 25°♌05'50 | 1°08'25 |
| max. Earth dist. | 2095 Aug 17 22:38 | 25°♌07'46 | 10.20926 AU |
| morning rise | 2095 Sep 04 12:59 | 27°♌21'40 | |
| | 2095 Sep 26 12:46 | 0°♍ | |
| retrograde | 2095 Dec 15 17:45 | 5°♍12'39 | |
| opposition | 2096 Feb 20 10:22 | 1°♍47'54 | 1°41'09 |
| min. Earth dist. | 2096 Feb 20 06:18 | 1°♍48'43 | 8.25624 AU |
| | 2096 Mar 14 20:20 | 30°℞♌ | |
| direct | 2096 Apr 28 20:27 | 28°♌19'07 | |
| | 2096 Jun 12 10:22 | 0°♍ | |
| evening set | 2096 Aug 13 03:29 | 6°♍22'35 | |
| | | | |
| conjunction | 2096 Aug 30 22:59 | 8°♍36'52 | 1°33'36 |
| minimum elong | 2096 Aug 30 22:56 | 8°♍36'51 | 1°33'37 |
| max. Earth dist. | 2096 Aug 31 03:36 | 8°♍38'20 | 10.30629 AU |
| morning rise | 2096 Sep 17 14:30 | 10°♍49'52 | |
| retrograde | 2096 Dec 28 01:15 | 18°♍32'11 | |
| opposition | 2097 Mar 04 22:53 | 15°♍08'53 | 2°08'53 |
| min. Earth dist. | 2097 Mar 04 19:31 | 15°♍09'34 | 8.35995 AU |
| direct | 2097 May 12 22:12 | 11°♍40'51 | |
| evening set | 2097 Aug 27 04:40 | 19°♍38'03 | |

| | | | | | |
|---|---|---|---|---|---|
| conjunction | 2097 Sep | 13 | 19:25 | 21°♍49'26 | 1°53'18 |
| minimum elong | 2097 Sep | 13 | 19:22 | 21°♍49'25 | 1°53'19 |
| max. Earth dist. | 2097 Sep | 13 | 22:50 | 21°♍50'30 | 10.41451 AU |
| morning rise | 2097 Oct | 01 | 05:52 | 23°♍59'27 | |
| | 2097 Nov | 29 | 00:37 | 0°♎ | |
| retrograde | 2098 Jan | 09 | 23:37 | 1°♎33'10 | |
| | 2098 Feb | 21 | 23:52 | 30°℞♍ | |
| opposition | 2098 Mar | 18 | 05:58 | 28°♍11'15 | 2°29'12 |
| min. Earth dist. | 2098 Mar | 18 | 03:01 | 28°♍11'50 | 8.47182 AU |
| direct | 2098 May | 26 | 19:17 | 24°♍44'10 | |
| | 2098 Aug | 18 | 17:55 | 0°♎ | |
| evening set | 2098 Sep | 09 | 19:48 | 2°♎34'05 | |
| | | | | | |
| conjunction | 2098 Sep | 27 | 05:49 | 4°♎42'33 | 2°06'49 |
| minimum elong | 2098 Sep | 27 | 05:47 | 4°♎42'32 | 2°06'49 |
| max. Earth dist. | 2098 Sep | 27 | 08:15 | 4°♎43'18 | 10.52778 AU |
| morning rise | 2098 Oct | 14 | 11:15 | 6°♎49'37 | |
| retrograde | 2099 Jan | 22 | 16:52 | 14°♎15'10 | |
| opposition | 2099 Mar | 31 | 07:22 | 10°♎54'30 | 2°41'36 |
| min. Earth dist. | 2099 Mar | 31 | 04:59 | 10°♎54'57 | 8.58547 AU |
| direct | 2099 Jun | 09 | 08:09 | 7°♎28'30 | |
| evening set | 2099 Sep | 23 | 00:34 | 15°♎10'37 | |
| | | | | | |
| conjunction | 2099 Oct | 10 | 06:09 | 17°♎16'21 | 2°13'53 |
| minimum elong | 2099 Oct | 10 | 06:08 | 17°♎16'21 | 2°13'53 |
| max. Earth dist. | 2099 Oct | 10 | 07:49 | 17°♎16'52 | 10.63972 AU |
| morning rise | 2099 Oct | 27 | 07:00 | 19°♎20'42 | |
| retrograde | 2100 Feb | 04 | 04:29 | 26°♎38'49 | |