conjunction	2000 Jul 01 15:50	10°♋05'47	0°52'20
minimum elong	2000 Jul 01 14:18	10°♋03'15	0°52'19
max. Earth dist.	2000 Jul 21 05:13	22°♋57'12	2.62108 AU
	2000 Aug 01 01:21	0°♌	
morning rise	2000 Aug 19 14:47	11°♌57'02	
	2000 Sep 17 00:19	0°♍	
	2000 Nov 04 02:00	0°♎	
	2000 Dec 23 14:37	0°♏	
	2001 Feb 14 20:06	0°♐	
desc. node	2001 Apr 12 04:42	24°♐22'07	
retrograde	2001 May 11 16:08	29°♐02'57	
opposition	2001 Jun 13 17:46	22°♐45'46	-3°16'18
greatest brilliancy	2001 Jun 14 16:34	22°♐27'18	-2.4m
min. Earth dist.	2001 Jun 21 22:51	20°♐06'36	0.45017 AU
direct	2001 Jul 19 22:45	15°♐06'29	
	2001 Sep 08 17:51	0°♑	
	2001 Oct 27 17:19	0°♒	
	2001 Dec 08 21:52	0°♓	
	2002 Jan 18 22:53	0°♈	
asc. node	2002 Feb 10 13:06	16°♈21'58	
	2002 Mar 01 15:05	0°♉	
	2002 Apr 13 17:36	0°♊	
	2002 May 28 11:43	0°♋	
evening set	2002 Jun 24 02:29	17°♋23'24	
	2002 Jul 13 15:23	0°♌	
conjunction	2002 Aug 10 22:17	18°♌06'09	1°08'51
minimum elong	2002 Aug 10 22:10	18°♌05'59	1°08'51
max. Earth dist.	2002 Aug 14 11:48	20°♌22'29	2.67143 AU
	2002 Aug 29 14:38	0°♍	
morning rise	2002 Sep 24 23:27	16°♍46'31	
	2002 Oct 15 17:38	0°♎	
	2002 Dec 01 14:26	0°♏	
	2003 Jan 17 04:22	0°♐	
desc. node	2003 Feb 28 04:21	26°♐59'46	
	2003 Mar 04 21:17	0°♑	
	2003 Apr 21 23:48	0°♒	
	2003 Jun 17 02:25	0°♓	
retrograde	2003 Jul 29 07:37	10°♓08'02	
min. Earth dist.	2003 Aug 27 09:46	5°♓22'46	0.37272 AU
opposition	2003 Aug 28 17:59	5°♓01'14	-6°37'04
greatest brilliancy	2003 Aug 28 14:16	5°♓03'43	-2.9m
direct	2003 Sep 27 07:52	0°♓07'07	
	2003 Dec 16 13:24	0°♈	
asc. node	2003 Dec 29 11:21	7°♈38'17	
	2004 Feb 03 10:04	0°♉	
	2004 Mar 21 07:39	0°♊	
	2004 May 07 08:46	0°♋	
	2004 Jun 23 20:50	0°♌	
evening set	2004 Jul 31 23:42	24°♌01'47	
	2004 Aug 10 10:14	0°♍	
max. Earth dist.	2004 Sep 05 19:18	16°♍46'42	2.66717 AU
conjunction	2004 Sep 15 12:55	23°♍00'55	0°57'41
minimum elong	2004 Sep 15 13:55	23°♍02'32	0°57'40
	2004 Sep 26 09:15	0°♎	
morning rise	2004 Oct 29 23:42	21°♎54'33	
	2004 Nov 11 05:11	0°♏	
	2004 Dec 25 16:04	0°♐	
desc. node	2005 Jan 15 02:53	14°♐07'27	
	2005 Feb 06 18:32	0°♑	
	2005 Mar 20 18:02	0°♒	
	2005 May 01 02:58	0°♓	
	2005 Jun 12 02:30	0°♈	
	2005 Jul 28 05:12	0°♉	
retrograde	2005 Oct 01 22:04	23°♉22'20	
min. Earth dist.	2005 Oct 30 03:20	17°♉54'05	0.46405 AU
opposition	2005 Nov 07 07:57	15°♉00'37	-0°27'37
greatest brilliancy	2005 Nov 07 04:45	15°♉03'27	-2.4m
asc. node	2005 Nov 15 11:20	12°♉17'17	
direct	2005 Dec 10 04:04	8°♉14'08	
	2006 Feb 17 22:44	0°♊	
	2006 Apr 14 00:59	0°♋	
	2006 Jun 03 18:43	0°♌	
	2006 Jul 22 18:53	0°♍	
evening set	2006 Sep 07 00:56	29°♍15'53	
	2006 Sep 08 04:18	0°♎	
max. Earth dist.	2006 Sep 30 09:18	14°♎28'30	2.60940 AU
conjunction	2006 Oct 23 06:46	29°♎43'23	0°23'17
minimum elong	2006 Oct 23 07:34	29°♎44'44	0°23'17
	2006 Oct 23 16:38	0°♏	
desc. node	2006 Dec 03 01:46	27°♏47'40	
	2006 Dec 06 04:58	0°♐	
morning rise	2006 Dec 09 16:40	2°♐27'47	
	2007 Jan 16 20:54	0°♑	
	2007 Feb 26 01:32	0°♒	
	2007 Apr 06 08:49	0°♓	
	2007 May 15 14:06	0°♈	
	2007 Jun 24 21:27	0°♉	
	2007 Aug 07 06:01	0°♊	
	2007 Sep 28 23:55	0°♋	
asc. node	2007 Oct 03 10:46	1°♋58'39	
retrograde	2007 Nov 15 08:24	12°♋27'03	
min. Earth dist.	2007 Dec 18 23:41	4°♋54'52	0.58934 AU
opposition	2007 Dec 24 19:47	2°♋36'56	3°21'16
greatest brilliancy	2007 Dec 24 01:53	2°♋54'34	-1.7m
	2007 Dec 31 16:00	30°℞♊	
direct	2008 Jan 30 22:33	24°♊04'40	
	2008 Mar 04 10:01	0°♋	
	2008 May 09 20:20	0°♌	
	2008 Jul 01 16:21	0°♍	
	2008 Aug 19 10:03	0°♎	
	2008 Oct 04 04:34	0°♏	
evening set	2008 Oct 16 03:19	8°♏08'05	
desc. node	2008 Oct 20 00:45	10°♏48'46	
max. Earth dist.	2008 Oct 31 03:43	18°♏32'36	2.50336 AU
	2008 Nov 16 08:27	0°♐	
conjunction	2008 Dec 05 22:04	14°♐09'18	-0°27'46
minimum elong	2008 Dec 05 20:45	14°♐06'54	0°27'45
	2008 Dec 27 07:30	0°♑	
morning rise	2009 Jan 31 12:21	26°♑47'41	
	2009 Feb 04 15:55	0°♒	
	2009 Mar 15 03:20	0°♓	
	2009 Apr 22 13:44	0°♈	
	2009 May 31 21:18	0°♉	
	2009 Jul 12 02:56	0°♊	
asc. node	2009 Aug 20 09:14	26°♊34'37	
	2009 Aug 25 17:15	0°♋	
	2009 Oct 16 15:32	0°♌	
retrograde	2009 Dec 20 13:26	19°♌41'43	
min. Earth dist.	2010 Jan 27 18:56	10°♌36'36	0.66398 AU
opposition	2010 Jan 29 19:43	9°♌47'48	4°31'29
greatest brilliancy	2010 Jan 29 11:13	9°♌56'19	-1.3m
direct	2010 Mar 10 17:09	0°♌17'41	
	2010 Jun 07 06:11	0°♍	
	2010 Jul 29 23:46	0°♎	
desc. node	2010 Sep 06 23:10	24°♎42'43	
	2010 Sep 14 22:38	0°♏	

	2010 Oct 28 06:48	0°♐	
evening set	2010 Dec 05 03:05	27°♐50'17	
	2010 Dec 07 23:49	0°♑	
max. Earth dist.	2011 Jan 07 22:20	23°♑44'59	2.37934 AU
	2011 Jan 15 22:41	0°♒	
conjunction	2011 Feb 04 16:40	15°♒30'44	-1°04'45
minimum elong	2011 Feb 04 16:20	15°♒30'05	1°04'46
	2011 Feb 23 01:06	0°♓	
	2011 Apr 02 04:51	0°♈	
morning rise	2011 Apr 16 01:09	10°♈44'29	
	2011 May 11 07:04	0°♉	
	2011 Jun 21 02:50	0°♊	
asc. node	2011 Jul 08 08:48	12°♊11'36	
	2011 Aug 03 09:22	0°♋	
	2011 Sep 19 01:51	0°♌	
	2011 Nov 11 04:15	0°♍	
retrograde	2012 Jan 24 00:54	23°♍05'34	
opposition	2012 Mar 03 20:10	13°♍39'25	4°10'34
greatest brilliancy	2012 Mar 04 02:17	13°♍33'22	-1.3m
min. Earth dist.	2012 Mar 05 16:55	12°♍55'10	0.67368 AU
direct	2012 Apr 14 03:53	3°♍40'56	
	2012 Jul 03 12:32	0°♎	
desc. node	2012 Jul 24 22:03	11°♎51'12	
	2012 Aug 23 15:24	0°♏	
	2012 Oct 07 03:21	0°♐	
	2012 Nov 17 02:36	0°♑	
	2012 Dec 26 00:49	0°♒	
	2013 Feb 02 01:54	0°♓	
evening set	2013 Feb 09 11:08	5°♓50'03	
	2013 Mar 12 06:26	0°♈	
conjunction	2013 Apr 18 00:20	28°♈08'20	-0°23'56
minimum elong	2013 Apr 18 02:17	28°♈12'00	0°23'54
	2013 Apr 20 11:48	0°♉	
asc. node	2013 May 25 07:51	25°♉36'47	
	2013 May 31 10:39	0°♊	
max. Earth dist.	2013 Jun 04 22:42	3°♊12'31	2.46650 AU
morning rise	2013 Jun 19 20:20	13°♊42'03	
	2013 Jul 13 13:22	0°♋	
	2013 Aug 28 02:05	0°♌	
	2013 Oct 15 11:05	0°♍	
	2013 Dec 07 20:41	0°♎	
retrograde	2014 Mar 01 16:24	27°♎31'58	
opposition	2014 Apr 08 21:04	18°♎56'50	2°28'09
greatest brilliancy	2014 Apr 09 09:48	18°♎44'38	-1.6m
min. Earth dist.	2014 Apr 14 12:48	16°♎47'01	0.61757 AU
direct	2014 May 20 01:31	9°♎01'31	
desc. node	2014 Jun 11 21:44	12°♎04'56	
	2014 Jul 26 02:25	0°♏	
	2014 Sep 13 21:57	0°♐	
	2014 Oct 26 10:43	0°♑	
	2014 Dec 04 23:57	0°♒	
	2015 Jan 12 10:20	0°♓	
	2015 Feb 20 00:11	0°♈	
	2015 Mar 31 16:26	0°♉	
asc. node	2015 Apr 12 05:41	8°♉30'26	
evening set	2015 Apr 18 05:53	12°♉53'23	
	2015 May 12 02:40	0°♊	
conjunction	2015 Jun 14 15:56	23°♊17'12	0°37'09
minimum elong	2015 Jun 14 14:17	23°♊14'23	0°37'08
	2015 Jun 24 13:33	0°♋	
max. Earth dist.	2015 Jul 11 12:19	11°♋20'19	2.58688 AU
morning rise	2015 Aug 05 07:47	27°♋37'39	
	2015 Aug 08 23:32	0°♌	
	2015 Sep 25 02:18	0°♍	
	2015 Nov 12 21:41	0°♎	
	2016 Jan 03 14:32	0°♏	
	2016 Mar 06 02:29	0°♐	
retrograde	2016 Apr 17 12:14	8°♐54'02	
desc. node	2016 Apr 28 20:16	8°♐06'00	
opposition	2016 May 22 11:17	1°♐47'23	-1°09'34
greatest brilliancy	2016 May 22 19:54	1°♐39'52	-2.1m
	2016 May 27 13:51	30°℞♏	
min. Earth dist.	2016 May 30 21:29	28°♏51'16	0.50322 AU
direct	2016 Jun 29 23:38	23°♏03'28	
	2016 Aug 02 17:49	0°♐	
	2016 Sep 27 08:07	0°♑	
	2016 Nov 09 05:51	0°♒	
	2016 Dec 19 09:23	0°♓	
	2017 Jan 28 05:39	0°♈	
asc. node	2017 Feb 27 05:16	22°♈09'15	
	2017 Mar 10 00:34	0°♉	
	2017 Apr 21 10:32	0°♊	
	2017 Jun 04 16:16	0°♋	
evening set	2017 Jun 07 09:44	1°♋48'43	
	2017 Jul 20 12:20	0°♌	
conjunction	2017 Jul 27 00:57	4°♌12'29	1°06'04
minimum elong	2017 Jul 27 00:15	4°♌11'21	1°06'04
max. Earth dist.	2017 Aug 05 10:39	10°♌14'57	2.65816 AU
	2017 Sep 05 09:35	0°♍	
morning rise	2017 Sep 11 04:07	3°♍39'56	
	2017 Oct 22 18:29	0°♎	
	2017 Dec 09 08:59	0°♏	
	2018 Jan 26 12:56	0°♐	
desc. node	2018 Mar 16 19:03	29°♐28'59	
	2018 Mar 17 16:40	0°♑	
	2018 May 16 04:55	0°♒	
retrograde	2018 Jun 26 21:04	9°♒13'05	
opposition	2018 Jul 27 05:13	4°♒08'47	-6°28'21
greatest brilliancy	2018 Jul 28 03:05	3°♒53'51	-2.8m
min. Earth dist.	2018 Jul 31 07:45	3°♒01'38	0.38497 AU
	2018 Aug 13 02:14	30°℞♑	
direct	2018 Aug 27 14:05	28°♑36'36	
	2018 Sep 11 00:56	0°♒	
	2018 Nov 15 22:21	0°♓	
	2019 Jan 01 02:20	0°♈	
asc. node	2019 Jan 15 04:48	9°♈30'59	
	2019 Feb 14 10:51	0°♉	
	2019 Mar 31 06:12	0°♊	
	2019 May 16 03:09	0°♋	
	2019 Jul 01 23:19	0°♌	
evening set	2019 Jul 18 08:26	10°♌24'26	
	2019 Aug 18 05:18	0°♍	
max. Earth dist.	2019 Aug 28 19:21	6°♍43'52	2.67533 AU
conjunction	2019 Sep 02 10:42	9°♍41'11	1°04'57
minimum elong	2019 Sep 02 11:24	9°♍42'17	1°04'57
	2019 Oct 04 04:22	0°♎	
morning rise	2019 Oct 16 18:35	8°♎07'25	
	2019 Nov 19 07:40	0°♏	
	2020 Jan 03 09:37	0°♐	
desc. node	2020 Feb 01 18:23	19°♐55'03	
	2020 Feb 16 11:33	0°♑	
	2020 Mar 30 19:43	0°♒	
	2020 May 13 04:17	0°♓	
	2020 Jun 28 01:45	0°♈	
retrograde	2020 Sep 09 22:22	28°♈08'30	
min. Earth dist.	2020 Oct 06 14:13	23°♈25'07	0.41491 AU
opposition	2020 Oct 13 23:26	21°♈04'41	-2°59'45
greatest brilliancy	2020 Oct 13 06:28	21°♈18'13	-2.7m
direct	2020 Nov 14 00:36	15°♈14'00	

asc. node	2020 Dec 02 03:33	17°♈17'42	
	2021 Jan 06 22:27	0°♉	
	2021 Mar 04 03:30	0°♊	
	2021 Apr 23 11:49	0°♋	
	2021 Jun 11 13:34	0°♌	
	2021 Jul 29 20:33	0°♍	
evening set	2021 Aug 23 13:31	15°♍36'34	
	2021 Sep 15 00:14	0°♎	
max. Earth dist.	2021 Sep 20 11:34	3°♎32'33	2.63814 AU
conjunction	2021 Oct 08 04:01	15°♎05'50	0°39'06
minimum elong	2021 Oct 08 05:06	15°♎07'38	0°39'05
	2021 Oct 30 14:21	0°♏	
morning rise	2021 Nov 22 21:33	15°♏48'06	
	2021 Dec 13 09:53	0°♐	
desc. node	2021 Dec 19 17:03	4°♐24'46	
	2022 Jan 24 12:53	0°♑	
	2022 Mar 06 06:23	0°♒	
	2022 Apr 15 03:06	0°♓	
	2022 May 24 23:17	0°♈	
	2022 Jul 05 06:04	0°♉	
	2022 Aug 20 07:56	0°♊	
asc. node	2022 Oct 20 02:15	24°♊51'05	
retrograde	2022 Oct 30 13:26	25°♊36'50	
min. Earth dist.	2022 Dec 01 02:12	18°♊50'27	0.54447 AU
opposition	2022 Dec 08 05:42	16°♊05'47	2°17'42
greatest brilliancy	2022 Dec 07 14:08	16°♊20'44	-1.9m
direct	2023 Jan 12 20:56	8°♊07'45	
	2023 Mar 25 11:45	0°♋	
	2023 May 20 15:31	0°♌	
	2023 Jul 10 11:40	0°♍	
	2023 Aug 27 13:20	0°♎	
evening set	2023 Sep 30 19:54	22°♎23'27	
	2023 Oct 12 04:04	0°♏	
max. Earth dist.	2023 Oct 18 09:13	4°♏12'54	2.54978 AU
desc. node	2023 Nov 06 16:02	17°♏29'38	
conjunction	2023 Nov 18 05:43	25°♏36'44	-0°06'57
minimum elong	2023 Nov 18 05:23	25°♏36'10	0°06'57
behind sun begin	2023 Nov 17 10:07	25°♏02'09	
behind sun end	2023 Nov 19 00:40	26°♏10'13	
	2023 Nov 24 10:15	0°♐	
	2024 Jan 04 14:58	0°♑	
morning rise	2024 Jan 09 05:05	3°♑25'21	
	2024 Feb 13 06:05	0°♒	
	2024 Mar 22 23:47	0°♓	
	2024 Apr 30 15:33	0°♈	
	2024 Jun 09 04:35	0°♉	
	2024 Jul 20 20:43	0°♊	
	2024 Sep 04 19:46	0°♋	
asc. node	2024 Sep 06 02:03	0°♋45'40	
	2024 Nov 04 04:10	0°♌	
retrograde	2024 Dec 06 23:33	6°♌10'16	
	2025 Jan 06 10:44	30°℞♋	
min. Earth dist.	2025 Jan 12 13:32	27°♋37'40	0.64228 AU
opposition	2025 Jan 16 02:39	26°♋12'37	4°17'15
greatest brilliancy	2025 Jan 15 12:58	26°♋26'18	-1.4m
direct	2025 Feb 24 02:00	17°♋00'55	
	2025 Apr 18 04:21	0°♌	
	2025 Jun 17 08:36	0°♍	
	2025 Aug 06 23:23	0°♎	
	2025 Sep 22 07:55	0°♏	
desc. node	2025 Sep 23 15:20	0°♏52'50	
	2025 Nov 04 13:01	0°♐	
evening set	2025 Nov 13 20:53	6°♐43'28	
max. Earth dist.	2025 Nov 30 10:09	18°♐52'01	2.42388 AU
	2025 Dec 15 07:34	0°♑	

conjunction	2026 Jan 09 11:41	19°♑12'56	-0°56'29
minimum elong	2026 Jan 09 09:38	19°♑08'59	0°56'28
	2026 Jan 23 09:17	0°♒	
	2026 Mar 02 14:16	0°♓	
morning rise	2026 Mar 16 13:05	10°♓59'17	
	2026 Apr 09 19:36	0°♈	
	2026 May 18 22:25	0°♉	
	2026 Jun 28 19:29	0°♊	
asc. node	2026 Jul 25 00:14	18°♊18'59	
	2026 Aug 11 08:31	0°♋	
	2026 Sep 28 02:49	0°♌	
	2026 Nov 25 23:37	0°♍	
retrograde	2027 Jan 10 12:59	10°♍25'44	
opposition	2027 Feb 19 15:51	0°♍46'06	4°27'48
greatest brilliancy	2027 Feb 19 16:28	0°♍45'29	-1.3m
min. Earth dist.	2027 Feb 20 00:08	0°♍37'52	0.67792 AU
	2027 Feb 21 14:13	30°℞♌	
direct	2027 Apr 01 14:08	20°♌55'36	
	2027 May 14 14:47	0°♍	
	2027 Jul 15 05:40	0°♎	
desc. node	2027 Aug 11 14:00	16°♎18'32	
	2027 Sep 02 01:52	0°♏	
	2027 Oct 15 23:14	0°♐	
	2027 Nov 25 18:38	0°♑	
	2028 Jan 03 16:02	0°♒	
evening set	2028 Jan 13 06:42	7°♒33'00	
	2028 Feb 10 16:32	0°♓	
	2028 Mar 19 19:36	0°♈	
conjunction	2028 Mar 21 02:36	1°♈00'23	-0°48'39
minimum elong	2028 Mar 21 05:51	1°♈06'44	0°48'37
	2028 Apr 27 22:21	0°♉	
max. Earth dist.	2028 May 11 20:53	10°♉24'20	2.41207 AU
morning rise	2028 May 28 03:27	22°♉20'31	
	2028 Jun 07 18:20	0°♊	
asc. node	2028 Jun 10 23:06	2°♊17'09	
	2028 Jul 20 20:10	0°♋	
	2028 Sep 04 14:36	0°♌	
	2028 Oct 24 01:10	0°♍	
	2028 Dec 21 08:46	0°♎	
retrograde	2029 Feb 14 08:16	13°♎55'21	
opposition	2029 Mar 25 07:49	4°♎57'09	3°18'31
greatest brilliancy	2029 Mar 25 19:52	4°♎45'26	-1.4m
min. Earth dist.	2029 Mar 29 12:50	3°♎18'57	0.64723 AU
	2029 Apr 07 13:09	30°℞♍	
direct	2029 May 05 19:00	24°♍55'45	
	2029 Jun 05 04:49	0°♎	
desc. node	2029 Jun 28 12:38	8°♎54'42	
	2029 Aug 07 16:03	0°♏	
	2029 Sep 23 08:14	0°♐	
	2029 Nov 04 00:32	0°♑	
	2029 Dec 13 05:25	0°♒	
	2030 Jan 20 10:27	0°♓	
	2030 Feb 27 19:07	0°♈	
evening set	2030 Mar 24 16:01	19°♈03'11	
	2030 Apr 08 05:27	0°♉	
asc. node	2030 Apr 28 23:02	15°♉17'15	
	2030 May 19 09:28	0°♊	
conjunction	2030 May 25 10:50	4°♊17'32	0°16'38
minimum elong	2030 May 25 09:48	4°♊15'43	0°16'36
max. Earth dist.	2030 Jun 29 09:13	28°♊28'17	2.54452 AU
	2030 Jul 01 15:20	0°♋	
morning rise	2030 Jul 19 18:14	12°♋08'57	
	2030 Aug 15 23:56	0°♌	
	2030 Oct 02 09:42	0°♍	
	2030 Nov 21 07:55	0°♎	

	2031 Jan 15 22:48	0°♏	
retrograde	2031 Mar 29 00:35	21°♏38'10	
opposition	2031 May 04 12:04	13°♏50'54	0°32'19
greatest brilliancy	2031 May 04 16:18	13°♏47'02	-1.9m
min. Earth dist.	2031 May 12 03:44	11°♏02'57	0.55337 AU
desc. node	2031 May 16 11:41	9°♏32'23	
direct	2031 Jun 13 11:57	4°♏26'17	
	2031 Aug 25 08:08	0°♐	
	2031 Oct 10 13:47	0°♑	
	2031 Nov 20 10:57	0°♒	
	2031 Dec 29 15:16	0°♓	
	2032 Feb 06 19:19	0°♈	
asc. node	2032 Mar 15 21:59	28°♈27'17	
	2032 Mar 18 00:35	0°♉	
	2032 Apr 28 22:45	0°♊	
evening set	2032 May 20 02:45	14°♊38'45	
	2032 Jun 11 19:06	0°♋	
conjunction	2032 Jul 11 05:16	19°♋28'27	0°58'45
minimum elong	2032 Jul 11 03:59	19°♋26'22	0°58'45
max. Earth dist.	2032 Jul 27 00:50	29°♋46'10	2.63652 AU
	2032 Jul 27 09:23	0°♌	
morning rise	2032 Aug 28 00:06	20°♌17'58	
	2032 Sep 12 06:32	0°♍	
	2032 Oct 30 00:38	0°♎	
	2032 Dec 17 16:47	0°♏	
	2033 Feb 06 11:12	0°♐	
desc. node	2033 Apr 02 10:28	28°♐20'48	
	2033 Apr 06 06:51	0°♑	
retrograde	2033 May 26 23:47	12°♑30'17	
opposition	2033 Jun 28 01:30	6°♑41'55	-4°33'54
greatest brilliancy	2033 Jun 29 05:20	6°♑20'33	-2.6m
min. Earth dist.	2033 Jul 05 11:13	4°♑26'22	0.42303 AU
	2033 Jul 27 04:34	30°℞♐	
direct	2033 Aug 01 14:25	29°♐47'30	
	2033 Aug 07 00:48	0°♑	
	2033 Oct 17 21:52	0°♒	
	2033 Dec 01 12:10	0°♓	
	2034 Jan 12 15:15	0°♈	
asc. node	2034 Jan 31 20:17	13°♈41'20	
	2034 Feb 23 23:24	0°♉	
	2034 Apr 08 12:49	0°♊	
	2034 May 23 14:26	0°♋	
evening set	2034 Jul 03 03:43	26°♋16'55	
	2034 Jul 08 22:51	0°♌	
conjunction	2034 Aug 19 05:22	26°♌19'56	1°08'33
minimum elong	2034 Aug 19 05:36	26°♌20'17	1°08'33
max. Earth dist.	2034 Aug 19 17:48	26°♌39'42	2.67511 AU
	2034 Aug 24 23:42	0°♍	
morning rise	2034 Oct 02 21:25	24°♍47'35	
	2034 Oct 11 00:44	0°♎	
	2034 Nov 26 14:16	0°♏	
	2035 Jan 11 13:01	0°♐	
desc. node	2035 Feb 18 09:34	24°♐55'55	
	2035 Feb 26 01:58	0°♑	
	2035 Apr 12 19:36	0°♒	
	2035 May 30 22:08	0°♓	
retrograde	2035 Aug 15 10:01	28°♓26'02	
min. Earth dist.	2035 Sep 11 14:15	23°♓58'38	0.38041 AU
opposition	2035 Sep 15 19:39	22°♓48'07	-5°38'37
greatest brilliancy	2035 Sep 15 04:16	22°♓58'50	-2.9m
direct	2035 Oct 15 08:32	17°♓45'25	
	2035 Dec 01 19:38	0°♈	
asc. node	2035 Dec 19 19:51	8°♈46'59	
	2036 Jan 26 07:15	0°♉	
	2036 Mar 15 02:37	0°♊	
	2036 May 02 00:50	0°♋	
	2036 Jun 18 23:57	0°♌	
	2036 Aug 05 18:43	0°♍	
evening set	2036 Aug 09 05:07	2°♍10'09	
max. Earth dist.	2036 Sep 11 02:46	23°♍07'03	2.65909 AU
	2036 Sep 21 19:17	0°♎	
conjunction	2036 Sep 23 15:45	1°♎11'52	0°51'49
minimum elong	2036 Sep 23 16:52	1°♎13'39	0°51'48
	2036 Nov 06 13:03	0°♏	
morning rise	2036 Nov 07 09:48	0°♏34'36	
	2036 Dec 20 18:01	0°♐	
desc. node	2037 Jan 05 09:20	10°♐52'02	
	2037 Feb 01 11:08	0°♑	
	2037 Mar 14 22:03	0°♒	
	2037 Apr 24 14:44	0°♓	
	2037 Jun 04 13:03	0°♈	
	2037 Jul 17 22:43	0°♉	
	2037 Sep 11 20:29	0°♊	
retrograde	2037 Oct 12 23:09	6°♊15'48	
asc. node	2037 Nov 05 18:39	2°♊13'00	
min. Earth dist.	2037 Nov 11 07:54	0°♊19'34	0.49357 AU
	2037 Nov 12 05:39	30°℞♉	
opposition	2037 Nov 19 09:10	27°♉22'23	0°43'17
greatest brilliancy	2037 Nov 19 03:18	27°♉27'45	-2.2m
direct	2037 Dec 23 06:31	20°♉07'36	
	2038 Feb 05 00:33	0°♊	
	2038 Apr 07 04:57	0°♋	
	2038 May 29 08:38	0°♌	
	2038 Jul 17 22:08	0°♍	
	2038 Sep 03 13:05	0°♎	
evening set	2038 Sep 15 11:23	7°♎43'14	
max. Earth dist.	2038 Oct 06 13:51	21°♎36'29	2.59037 AU
	2038 Oct 19 02:36	0°♏	
conjunction	2038 Nov 01 07:01	8°♏57'18	0°12'54
minimum elong	2038 Nov 01 07:30	8°♏58'07	0°12'53
behind sun begin	2038 Oct 31 19:14	8°♏37'10	
behind sun end	2038 Nov 01 19:45	9°♏19'06	
desc. node	2038 Nov 23 08:22	24°♏13'38	
	2038 Dec 01 13:06	0°♐	
morning rise	2038 Dec 20 00:18	13°♐11'21	
	2039 Jan 12 01:12	0°♑	
	2039 Feb 21 00:46	0°♒	
	2039 Apr 01 02:23	0°♓	
	2039 May 10 01:29	0°♈	
	2039 Jun 18 23:31	0°♉	
	2039 Jul 31 10:58	0°♊	
	2039 Sep 18 07:29	0°♋	
asc. node	2039 Sep 23 17:00	2°♋51'01	
retrograde	2039 Nov 23 20:48	21°♋45'15	
min. Earth dist.	2039 Dec 28 14:41	13°♋49'49	0.61091 AU
opposition	2040 Jan 02 15:28	11°♋49'57	3°47'34
greatest brilliancy	2040 Jan 01 22:13	12°♋07'05	-1.6m
direct	2040 Feb 09 11:48	3°♋01'43	
	2040 May 02 12:07	0°♌	
	2040 Jun 26 04:42	0°♍	
	2040 Aug 14 12:36	0°♎	
	2040 Sep 29 12:10	0°♏	
desc. node	2040 Oct 10 06:47	7°♏19'06	
evening set	2040 Oct 26 00:35	18°♏12'20	
max. Earth dist.	2040 Nov 09 09:22	28°♏20'55	2.47575 AU
	2040 Nov 11 16:52	0°♐	
conjunction	2040 Dec 17 12:49	26°♐11'43	-0°39'21
minimum elong	2040 Dec 17 10:59	26°♐08'17	0°39'20
	2040 Dec 22 14:50	0°♑	

	2041 Jan 30 21:08	0°♒	
morning rise	2041 Feb 15 07:18	12°♒00'35	
	2041 Mar 10 06:09	0°♓	
greatest brilliancy	2041 Mar 25 16:59	12°♓07'28	1.2m
	2041 Apr 17 14:18	0°♈	
	2041 May 26 19:05	0°♉	
	2041 Jul 06 19:31	0°♊	
asc. node	2041 Aug 10 17:15	23°♊59'55	
	2041 Aug 19 20:28	0°♋	
	2041 Oct 08 13:54	0°♌	
retrograde	2041 Dec 28 05:39	27°♌39'16	
min. Earth dist.	2042 Feb 05 07:51	18°♌17'40	0.67174 AU
opposition	2042 Feb 06 12:05	17°♌49'26	4°33'43
greatest brilliancy	2042 Feb 06 06:48	17°♌54'42	-1.3m
direct	2042 Mar 18 19:51	8°♌10'50	
	2042 May 30 13:08	0°♍	
	2042 Jul 24 09:51	0°♎	
desc. node	2042 Aug 28 05:22	21°♎40'13	
	2042 Sep 09 22:54	0°♏	
	2042 Oct 23 11:37	0°♐	
	2042 Dec 03 05:43	0°♑	
evening set	2042 Dec 18 09:52	11°♑33'59	
	2043 Jan 11 04:09	0°♒	
	2043 Feb 18 05:43	0°♓	
conjunction	2043 Feb 20 17:47	1°♓58'41	-1°03'15
minimum elong	2043 Feb 20 19:11	2°♓01'28	1°03'16
max. Earth dist.	2043 Mar 09 06:20	15°♓01'06	2.37120 AU
	2043 Mar 28 08:56	0°♈	
morning rise	2043 May 02 13:30	27°♈04'04	
	2043 May 06 10:41	0°♉	
	2043 Jun 16 05:23	0°♊	
asc. node	2043 Jun 28 16:40	8°♊51'42	
	2043 Jul 29 08:31	0°♋	
	2043 Sep 13 13:26	0°♌	
	2043 Nov 03 19:22	0°♍	
	2044 Jan 19 17:59	0°♎	
retrograde	2044 Jan 31 23:11	0°♎53'01	
	2044 Feb 12 17:26	30°℞♍	
opposition	2044 Mar 11 12:51	21°♍35'51	3°54'54
greatest brilliancy	2044 Mar 11 21:33	21°♍27'17	-1.3m
min. Earth dist.	2044 Mar 14 06:01	20°♍31'44	0.66709 AU
direct	2044 Apr 21 23:36	11°♍34'47	
	2044 Jun 25 03:35	0°♎	
desc. node	2044 Jul 15 04:23	10°♎17'10	
	2044 Aug 17 18:43	0°♏	
	2044 Oct 01 22:01	0°♐	
	2044 Nov 12 02:48	0°♑	
	2044 Dec 21 03:03	0°♒	
	2045 Jan 28 04:58	0°♓	
greatest brilliancy	2045 Feb 03 21:33	5°♓16'54	1.2m
evening set	2045 Feb 25 11:23	22°♓14'28	
	2045 Mar 07 10:14	0°♈	
	2045 Apr 15 16:27	0°♉	
conjunction	2045 May 02 10:43	12°♉26'39	-0°08'33
minimum elong	2045 May 02 11:22	12°♉27'52	0°08'32
behind sun begin	2045 May 01 12:37	11°♉46'01	
behind sun end	2045 May 03 10:08	13°♉09'40	
asc. node	2045 May 15 14:40	22°♉02'57	
	2045 May 26 16:01	0°♊	
max. Earth dist.	2045 Jun 14 21:06	13°♊33'41	2.49582 AU
morning rise	2045 Jul 01 08:52	24°♊57'11	
	2045 Jul 08 18:44	0°♋	
	2045 Aug 23 04:18	0°♌	
	2045 Oct 10 01:55	0°♍	
	2045 Nov 30 18:55	0°♎	
	2046 Feb 04 05:56	0°♏	
retrograde	2046 Mar 11 02:11	6°♏13'56	
	2046 Apr 12 01:51	30°℞♎	
opposition	2046 Apr 17 18:07	27°♎54'06	1°51'04
greatest brilliancy	2046 Apr 18 05:21	27°♎43'29	-1.7m
min. Earth dist.	2046 Apr 24 04:27	25°♎28'25	0.59705 AU
direct	2046 May 28 15:31	18°♎06'16	
desc. node	2046 Jun 02 02:58	18°♎13'59	
	2046 Jul 15 05:13	0°♏	
	2046 Sep 07 05:03	0°♐	
	2046 Oct 20 16:08	0°♑	
	2046 Nov 29 14:25	0°♒	
	2047 Jan 07 05:46	0°♓	
	2047 Feb 14 23:22	0°♈	
	2047 Mar 26 18:50	0°♉	
asc. node	2047 Apr 02 14:09	5°♉00'41	
evening set	2047 Apr 30 19:36	25°♉23'37	
	2047 May 07 07:45	0°♊	
	2047 Jun 19 20:43	0°♋	
conjunction	2047 Jun 25 02:57	3°♋32'06	0°46'33
minimum elong	2047 Jun 25 01:17	3°♋29'20	0°46'32
max. Earth dist.	2047 Jul 17 20:35	18°♋37'13	2.60675 AU
	2047 Aug 04 06:59	0°♌	
morning rise	2047 Aug 14 04:36	6°♌23'47	
	2047 Sep 20 06:29	0°♍	
	2047 Nov 07 14:26	0°♎	
	2047 Dec 27 21:26	0°♏	
	2048 Feb 21 17:50	0°♐	
desc. node	2048 Apr 19 02:05	19°♐35'17	
retrograde	2048 Apr 30 16:53	20°♐22'25	
opposition	2048 Jun 03 14:51	13°♐42'18	-2°19'18
greatest brilliancy	2048 Jun 04 07:50	13°♐28'01	-2.3m
min. Earth dist.	2048 Jun 12 01:35	10°♐52'06	0.47367 AU
direct	2048 Jul 10 22:38	5°♐31'03	
	2048 Sep 17 11:50	0°♑	
	2048 Nov 01 23:07	0°♒	
	2048 Dec 13 01:52	0°♓	
	2049 Jan 22 11:54	0°♈	
asc. node	2049 Feb 17 13:16	19°♈04'50	
	2049 Mar 04 16:50	0°♉	
	2049 Apr 16 10:14	0°♊	
	2049 May 30 21:27	0°♋	
evening set	2049 Jun 17 02:05	11°♋19'10	
	2049 Jul 15 20:40	0°♌	
conjunction	2049 Aug 04 15:16	12°♌41'49	1°08'11
minimum elong	2049 Aug 04 14:55	12°♌41'15	1°08'11
max. Earth dist.	2049 Aug 10 18:56	16°♌37'49	2.66653 AU
	2049 Aug 31 18:23	0°♍	
morning rise	2049 Sep 19 02:31	11°♍39'16	
	2049 Oct 17 23:47	0°♎	
	2049 Dec 04 03:49	0°♏	
	2050 Jan 20 08:41	0°♐	
desc. node	2050 Mar 07 01:49	28°♐37'58	
	2050 Mar 09 07:08	0°♑	
	2050 Apr 29 08:45	0°♒	
retrograde	2050 Jul 15 06:02	26°♒42'24	
opposition	2050 Aug 14 07:52	21°♒45'16	-6°51'31
greatest brilliancy	2050 Aug 14 16:44	21°♒39'22	-2.9m
min. Earth dist.	2050 Aug 15 12:48	21°♒26'02	0.37405 AU
direct	2050 Sep 13 11:02	16°♒42'38	
	2050 Oct 31 20:50	0°♓	
	2050 Dec 23 09:08	0°♈	
asc. node	2051 Jan 05 10:55	8°♈19'22	
	2051 Feb 07 17:58	0°♉	
	2051 Mar 25 13:21	0°♊	

	2051 May 11 00:16	0°♋	
	2051 Jun 27 04:24	0°♌	
evening set	2051 Jul 26 18:57	18°♌43'26	
	2051 Aug 13 14:15	0°♍	
max. Earth dist.	2051 Sep 03 00:44	12°♍59'36	2.67195 AU
conjunction	2051 Sep 10 12:24	17°♍46'26	1°01'08
minimum elong	2051 Sep 10 13:19	17°♍47'53	1°01'07
	2051 Sep 29 13:37	0°♎	
morning rise	2051 Oct 24 20:24	16°♎23'56	
	2051 Nov 14 13:14	0°♏	
	2051 Dec 29 07:11	0°♐	
desc. node	2052 Jan 23 00:39	16°♐56'40	
	2052 Feb 10 19:55	0°♑	
	2052 Mar 24 08:44	0°♒	
	2052 May 05 11:00	0°♓	
	2052 Jun 17 15:13	0°♈	
	2052 Aug 06 16:32	0°♉	
retrograde	2052 Sep 22 19:12	13°♉22'56	
min. Earth dist.	2052 Oct 20 05:06	8°♉16'49	0.44090 AU
opposition	2052 Oct 28 06:34	5°♉33'09	-1°29'04
greatest brilliancy	2052 Oct 27 20:41	5°♉41'31	-2.5m
	2052 Nov 18 09:07	30°℞♈	
asc. node	2052 Nov 22 10:38	29°♈30'24	
direct	2052 Nov 29 06:20	29°♈11'20	
	2052 Dec 10 12:55	0°♉	
	2053 Feb 23 19:45	0°♊	
	2053 Apr 17 10:45	0°♋	
	2053 Jun 06 09:21	0°♌	
	2053 Jul 25 01:53	0°♍	
evening set	2053 Aug 31 19:56	23°♍51'11	
	2053 Sep 10 09:29	0°♎	
max. Earth dist.	2053 Sep 26 04:23	10°♎15'12	2.62323 AU
conjunction	2053 Oct 16 16:59	23°♎47'53	0°30'16
minimum elong	2053 Oct 16 17:56	23°♎49'29	0°30'15
	2053 Oct 25 23:27	0°♏	
morning rise	2053 Dec 02 06:19	25°♏31'26	
	2053 Dec 08 15:52	0°♐	
desc. node	2053 Dec 09 23:21	0°♐55'17	
	2054 Jan 19 13:22	0°♑	
	2054 Mar 01 00:08	0°♒	
	2054 Apr 09 13:07	0°♓	
	2054 May 19 00:03	0°♈	
	2054 Jun 28 14:49	0°♉	
	2054 Aug 11 18:06	0°♊	
	2054 Oct 08 19:54	0°♋	
asc. node	2054 Oct 10 10:39	0°♋33'10	
retrograde	2054 Nov 08 18:43	5°♋54'21	
	2054 Dec 08 00:46	30°℞♊	
min. Earth dist.	2054 Dec 11 11:37	28°♊41'57	0.57014 AU
opposition	2054 Dec 17 22:15	26°♊11'11	2°57'52
greatest brilliancy	2054 Dec 17 04:35	26°♊28'26	-1.8m
direct	2055 Jan 23 10:02	17°♊53'08	
	2055 Mar 14 15:22	0°♋	
	2055 May 14 08:42	0°♌	
	2055 Jul 05 07:05	0°♍	
	2055 Aug 22 18:44	0°♎	
	2055 Oct 07 12:50	0°♏	
evening set	2055 Oct 09 23:33	1°♏39'11	
max. Earth dist.	2055 Oct 25 21:00	12°♏31'15	2.52486 AU
desc. node	2055 Oct 27 22:11	13°♏56'17	
	2055 Nov 19 18:56	0°♐	
conjunction	2055 Nov 28 13:52	6°♐17'46	-0°18'53
minimum elong	2055 Nov 28 13:00	6°♐16'12	0°18'52
	2055 Dec 30 21:26	0°♑	

morning rise	2056 Jan 21 21:55	16°♑36'25	
	2056 Feb 08 09:24	0°♒	
	2056 Mar 17 23:35	0°♓	
	2056 Apr 25 11:54	0°♈	
	2056 Jun 03 20:48	0°♉	
	2056 Jul 15 04:41	0°♊	
asc. node	2056 Aug 27 09:07	28°♊52'16	
	2056 Aug 29 04:10	0°♋	
	2056 Oct 22 04:26	0°♌	
retrograde	2056 Dec 14 20:18	14°♌28'15	
min. Earth dist.	2057 Jan 21 08:57	5°♌36'48	0.65552 AU
opposition	2057 Jan 24 01:32	4°♌32'10	4°27'23
greatest brilliancy	2057 Jan 23 14:37	4°♌43'06	-1.4m
	2057 Feb 05 01:07	30°℞♋	
direct	2057 Mar 04 13:33	25°♋09'36	
	2057 Apr 03 21:32	0°♌	
	2057 Jun 10 21:53	0°♍	
	2057 Aug 01 17:28	0°♎	
desc. node	2057 Sep 13 20:44	27°♎35'35	
	2057 Sep 17 11:27	0°♏	
	2057 Oct 30 19:42	0°♐	
evening set	2057 Nov 25 13:39	18°♐45'16	
	2057 Dec 10 14:33	0°♑	
max. Earth dist.	2057 Dec 18 09:02	5°♑53'06	2.39736 AU
	2058 Jan 18 15:26	0°♒	
conjunction	2058 Jan 23 20:23	4°♒04'10	-1°02'41
minimum elong	2058 Jan 23 19:04	4°♒01'34	1°02'40
	2058 Feb 25 19:03	0°♓	
morning rise	2058 Apr 02 17:53	28°♓16'15	
	2058 Apr 04 23:05	0°♈	
	2058 May 14 00:37	0°♉	
	2058 Jun 23 19:19	0°♊	
asc. node	2058 Jul 15 08:02	15°♊10'19	
	2058 Aug 06 02:30	0°♋	
	2058 Sep 22 01:49	0°♌	
	2058 Nov 15 18:23	0°♍	
retrograde	2059 Jan 18 05:59	18°♍09'37	
opposition	2059 Feb 27 05:31	8°♍37'09	4°19'02
greatest brilliancy	2059 Feb 27 09:19	8°♍33'23	-1.3m
min. Earth dist.	2059 Feb 28 10:26	8°♍08'28	0.67681 AU
	2059 Mar 26 01:41	30°℞♌	
direct	2059 Apr 09 09:48	28°♌41'36	
	2059 Apr 24 10:41	0°♍	
	2059 Jul 08 12:48	0°♎	
desc. node	2059 Aug 01 19:30	13°♎55'22	
	2059 Aug 27 15:39	0°♏	
	2059 Oct 10 22:31	0°♐	
	2059 Nov 20 21:11	0°♑	
	2059 Dec 29 19:44	0°♒	
evening set	2060 Jan 29 00:29	23°♒47'53	
	2060 Feb 05 20:37	0°♓	
	2060 Mar 15 00:06	0°♈	
conjunction	2060 Apr 06 03:55	17°♈07'02	-0°35'16
minimum elong	2060 Apr 06 06:43	17°♈12'24	0°35'14
	2060 Apr 23 03:28	0°♉	
max. Earth dist.	2060 May 26 20:48	24°♉52'36	2.44210 AU
asc. node	2060 Jun 01 07:35	28°♉48'10	
	2060 Jun 02 23:38	0°♊	
morning rise	2060 Jun 10 09:49	5°♊17'37	
	2060 Jul 16 00:24	0°♋	
	2060 Aug 30 13:29	0°♌	
	2060 Oct 18 06:10	0°♍	
	2060 Dec 12 03:08	0°♎	
retrograde	2061 Feb 22 22:45	22°♎04'13	
opposition	2061 Apr 02 12:53	13°♎18'16	2°50'54

greatest brilliancy	2061 Apr 03 01:40	13°♎05'56	-1.5m
min. Earth dist.	2061 Apr 07 13:48	11°♎21'44	0.63199 AU
direct	2061 May 13 21:41	3°♎19'08	
desc. node	2061 Jun 18 19:17	10°♎17'16	
	2061 Jul 31 04:00	0°♏	
	2061 Sep 17 11:42	0°♐	
	2061 Oct 29 15:44	0°♑	
	2061 Dec 08 01:37	0°♒	
	2062 Jan 15 09:20	0°♓	
	2062 Feb 22 20:10	0°♈	
	2062 Apr 03 08:49	0°♉	
evening set	2062 Apr 07 23:05	3°♉24'41	
asc. node	2062 Apr 19 05:29	11°♉42'12	
	2062 May 14 14:55	0°♊	
conjunction	2062 Jun 06 06:05	15°♊51'29	0°29'06
minimum elong	2062 Jun 06 04:35	15°♊48'53	0°29'04
	2062 Jun 26 22:18	0°♋	
max. Earth dist.	2062 Jul 06 12:22	6°♋27'14	2.56900 AU
morning rise	2062 Jul 29 09:38	21°♋37'01	
	2062 Aug 11 06:15	0°♌	
	2062 Sep 27 10:43	0°♍	
	2062 Nov 15 15:19	0°♎	
	2063 Jan 07 14:57	0°♏	
	2063 Mar 23 09:41	0°♐	
retrograde	2063 Apr 09 06:16	1°♐36'41	
	2063 Apr 25 06:58	30°℞♏	
desc. node	2063 May 06 17:57	26°♏58'14	
opposition	2063 May 14 22:22	24°♏10'46	-0°23'12
greatest brilliancy	2063 May 15 01:14	24°♏08'12	-2.0m
min. Earth dist.	2063 May 23 01:50	21°♏16'04	0.52638 AU
direct	2063 Jun 23 04:42	15°♏05'43	
	2063 Aug 14 11:00	0°♐	
	2063 Oct 03 10:20	0°♑	
	2063 Nov 14 07:25	0°♒	
	2063 Dec 23 23:03	0°♓	
	2064 Feb 01 10:32	0°♈	
asc. node	2064 Mar 06 04:39	25°♈05'49	
	2064 Mar 12 21:51	0°♉	
	2064 Apr 24 00:52	0°♊	
evening set	2064 May 30 18:46	25°♊07'58	
	2064 Jun 07 01:08	0°♋	
conjunction	2064 Jul 20 10:03	28°♋30'14	1°03'34
minimum elong	2064 Jul 20 09:05	28°♋28'40	1°03'34
	2064 Jul 22 17:31	0°♌	
max. Earth dist.	2064 Aug 01 16:04	6°♌24'49	2.64965 AU
morning rise	2064 Sep 05 04:52	28°♌29'09	
	2064 Sep 07 14:05	0°♍	
	2064 Oct 25 02:24	0°♎	
	2064 Dec 12 02:45	0°♏	
	2065 Jan 30 05:31	0°♐	
desc. node	2065 Mar 23 16:30	29°♐52'34	
	2065 Mar 23 22:07	0°♑	
retrograde	2065 Jun 12 20:02	27°♑23'12	
opposition	2065 Jul 13 21:03	22°♑02'13	-5°45'45
greatest brilliancy	2065 Jul 15 00:41	21°♑42'25	-2.7m
min. Earth dist.	2065 Jul 19 19:45	20°♑20'26	0.39959 AU
direct	2065 Aug 15 14:43	15°♑55'30	
	2065 Oct 03 19:24	0°♒	
	2065 Nov 22 21:23	0°♓	
	2066 Jan 05 18:44	0°♈	
asc. node	2066 Jan 22 04:19	11°♈23'40	
	2066 Feb 18 01:27	0°♉	
	2066 Apr 03 04:51	0°♊	
	2066 May 18 15:36	0°♋	
	2066 Jul 04 05:27	0°♌	
evening set	2066 Jul 11 23:00	4°♌55'54	
	2066 Aug 20 08:49	0°♍	
max. Earth dist.	2066 Aug 25 00:16	2°♍57'13	2.67633 AU
conjunction	2066 Aug 27 09:58	4°♍28'59	1°06'54
minimum elong	2066 Aug 27 10:29	4°♍29'49	1°06'54
	2066 Oct 06 08:53	0°♎	
morning rise	2066 Oct 10 19:55	2°♎51'55	
	2066 Nov 21 16:49	0°♏	
	2067 Jan 06 03:55	0°♐	
desc. node	2067 Feb 08 16:10	22°♐27'49	
	2067 Feb 19 20:00	0°♑	
	2067 Apr 05 01:38	0°♒	
	2067 May 19 21:52	0°♓	
	2067 Jul 08 21:55	0°♈	
retrograde	2067 Aug 31 00:19	16°♈06'06	
min. Earth dist.	2067 Sep 26 12:51	11°♈35'14	0.39669 AU
opposition	2067 Oct 02 19:55	9°♈42'25	-4°12'02
greatest brilliancy	2067 Oct 02 00:55	9°♈56'42	-2.8m
direct	2067 Nov 02 02:56	4°♈16'10	
asc. node	2067 Dec 10 03:13	12°♈26'55	
	2068 Jan 16 08:05	0°♉	
	2068 Mar 08 08:33	0°♊	
	2068 Apr 26 11:33	0°♋	
	2068 Jun 14 00:17	0°♌	
	2068 Aug 01 01:44	0°♍	
evening set	2068 Aug 17 10:39	10°♍20'15	
max. Earth dist.	2068 Sep 16 14:45	29°♍37'42	2.64857 AU
	2068 Sep 17 04:34	0°♎	
conjunction	2068 Oct 01 21:51	9°♎33'13	0°44'48
minimum elong	2068 Oct 01 22:59	9°♎35'04	0°44'47
	2068 Nov 01 21:01	0°♏	
morning rise	2068 Nov 16 02:56	9°♏34'55	
	2068 Dec 15 21:38	0°♐	
desc. node	2068 Dec 26 15:01	7°♐29'09	
	2069 Jan 27 07:22	0°♑	
	2069 Mar 09 08:47	0°♒	
	2069 Apr 18 13:36	0°♓	
	2069 May 28 19:06	0°♈	
	2069 Jul 09 17:32	0°♉	
	2069 Aug 27 00:53	0°♊	
retrograde	2069 Oct 23 06:16	18°♊04'05	
asc. node	2069 Oct 27 01:58	17°♊57'43	
min. Earth dist.	2069 Nov 22 19:10	11°♊39'58	0.52220 AU
opposition	2069 Nov 30 10:20	8°♊47'18	1°42'02
greatest brilliancy	2069 Nov 29 21:45	8°♊59'10	-2.1m
direct	2070 Jan 04 08:14	1°♊07'19	
	2070 Mar 30 11:24	0°♋	
	2070 May 23 15:44	0°♌	
	2070 Jul 12 22:16	0°♍	
	2070 Aug 29 20:01	0°♎	
evening set	2070 Sep 24 03:49	16°♎27'43	
max. Earth dist.	2070 Oct 13 04:41	29°♎08'35	2.56876 AU
	2070 Oct 14 11:13	0°♏	
conjunction	2070 Nov 10 18:24	18°♏42'05	0°01'42
minimum elong	2070 Nov 10 18:30	18°♏42'14	0°01'41
behind sun begin	2070 Nov 09 22:05	18°♏06'45	
behind sun end	2070 Nov 11 14:55	19°♏17'46	
desc. node	2070 Nov 13 13:34	20°♏39'06	
	2070 Nov 26 20:30	0°♐	
morning rise	2070 Dec 31 03:15	24°♐46'01	
	2071 Jan 07 05:21	0°♑	
	2071 Feb 16 00:54	0°♒	
	2071 Mar 26 22:16	0°♓	
	2071 May 04 16:45	0°♈	

	2071 Jun 13 08:28	0°♉	
	2071 Jul 25 05:45	0°♊	
	2071 Sep 10 00:27	0°♋	
asc. node	2071 Sep 14 01:55	2°♋21'11	
	2071 Nov 22 13:09	0°♌	
retrograde	2071 Dec 02 01:27	0°♌35'23	
	2071 Dec 11 07:32	30°℞♋	
min. Earth dist.	2072 Jan 06 20:17	22°♋18'31	0.62938 AU
greatest brilliancy	2072 Jan 10 09:31	20°♋53'30	-1.5m
opposition	2072 Jan 11 01:05	20°♋37'58	4°07'06
direct	2072 Feb 18 12:42	11°♋35'57	
	2072 Apr 23 23:09	0°♌	
	2072 Jun 20 10:30	0°♍	
	2072 Aug 09 12:32	0°♎	
	2072 Sep 24 18:19	0°♏	
desc. node	2072 Sep 30 12:56	3°♏53'46	
evening set	2072 Nov 05 11:18	28°♏53'26	
	2072 Nov 07 00:35	0°♐	
max. Earth dist.	2072 Nov 20 06:05	9°♐32'39	2.44687 AU
	2072 Dec 17 21:29	0°♑	
conjunction	2072 Dec 30 02:55	9°♑14'57	-0°49'52
minimum elong	2072 Dec 30 00:47	9°♑10'54	0°49'50
	2073 Jan 26 01:50	0°♒	
morning rise	2073 Mar 03 10:05	28°♒28'18	
	2073 Mar 05 08:42	0°♓	
	2073 Apr 12 14:51	0°♈	
	2073 May 21 17:43	0°♉	
	2073 Jul 01 14:41	0°♊	
asc. node	2073 Aug 01 00:23	21°♊08'56	
	2073 Aug 14 06:14	0°♋	
	2073 Oct 01 13:57	0°♌	
	2073 Dec 04 06:57	0°♍	
retrograde	2074 Jan 04 21:02	5°♍28'06	
	2074 Feb 02 23:01	30°℞♌	
opposition	2074 Feb 14 01:59	25°♌43'37	4°31'37
greatest brilliancy	2074 Feb 14 00:02	25°♌45'34	-1.3m
min. Earth dist.	2074 Feb 13 18:18	25°♌51'16	0.67645 AU
direct	2074 Mar 26 18:11	15°♌57'51	
	2074 May 21 07:30	0°♍	
	2074 Jul 18 12:46	0°♎	
desc. node	2074 Aug 18 12:03	18°♎49'23	
	2074 Sep 04 20:19	0°♏	
	2074 Oct 18 15:24	0°♐	
	2074 Nov 28 11:13	0°♑	
evening set	2075 Jan 01 14:38	26°♑15'14	
	2075 Jan 06 09:41	0°♒	
	2075 Feb 13 10:38	0°♓	
conjunction	2075 Mar 09 06:51	18°♓49'21	-0°56'40
minimum elong	2075 Mar 09 09:43	18°♓54'59	0°56'39
	2075 Mar 23 13:08	0°♈	
max. Earth dist.	2075 Apr 24 22:48	24°♈58'02	2.38970 AU
	2075 May 01 14:29	0°♉	
morning rise	2075 May 18 01:41	12°♉18'06	
	2075 Jun 11 08:28	0°♊	
asc. node	2075 Jun 18 22:44	5°♊25'25	
	2075 Jul 24 09:06	0°♋	
	2075 Sep 08 05:39	0°♌	
	2075 Oct 28 05:31	0°♍	
	2075 Dec 29 03:48	0°♎	
retrograde	2076 Feb 09 02:09	8°♎45'22	
	2076 Mar 18 10:42	30°℞♍	
opposition	2076 Mar 19 08:56	29°♍38'18	3°35'03
greatest brilliancy	2076 Mar 19 19:43	29°♍27'45	-1.4m
min. Earth dist.	2076 Mar 22 22:24	28°♍14'45	0.65743 AU
direct	2076 Apr 29 20:56	19°♍36'13	
	2076 Jun 14 11:04	0°♎	
desc. node	2076 Jul 05 10:29	9°♎26'58	
	2076 Aug 11 11:51	0°♏	
	2076 Sep 26 12:27	0°♐	
	2076 Nov 07 00:30	0°♑	
	2076 Dec 16 03:56	0°♒	
	2077 Jan 23 07:33	0°♓	
	2077 Mar 02 14:01	0°♈	
evening set	2077 Mar 13 01:30	8°♈05'55	
	2077 Apr 10 21:30	0°♉	
asc. node	2077 May 05 22:41	18°♉29'20	
conjunction	2077 May 15 20:35	25°♉39'22	0°06'22
minimum elong	2077 May 15 20:09	25°♉38'36	0°06'22
behind sun begin	2077 May 14 20:40	24°♉56'23	
behind sun end	2077 May 16 19:38	26°♉20'45	
	2077 May 21 22:07	0°♊	
max. Earth dist.	2077 Jun 23 12:12	22°♊48'38	2.52339 AU
	2077 Jul 04 01:00	0°♋	
morning rise	2077 Jul 12 02:46	5°♋27'08	
	2077 Aug 18 08:24	0°♌	
	2077 Oct 04 21:27	0°♍	
	2077 Nov 24 09:47	0°♎	
	2078 Jan 21 16:29	0°♏	
retrograde	2078 Mar 21 00:44	15°♏16'21	
opposition	2078 Apr 27 01:39	7°♏13'44	1°08'02
greatest brilliancy	2078 Apr 27 09:39	7°♏06'18	-1.8m
min. Earth dist.	2078 May 04 05:03	4°♏34'24	0.57392 AU
	2078 May 18 14:44	30°℞♎	
desc. node	2078 May 23 09:15	28°♎57'14	
direct	2078 Jun 06 12:50	27°♎36'45	
	2078 Jun 26 04:06	0°♏	
	2078 Aug 30 16:42	0°♐	
	2078 Oct 14 13:13	0°♑	
	2078 Nov 23 23:43	0°♒	
	2079 Jan 01 21:44	0°♓	
	2079 Feb 09 20:07	0°♈	
	2079 Mar 21 19:49	0°♉	
asc. node	2079 Mar 23 21:58	1°♉32'10	
	2079 May 02 12:24	0°♊	
evening set	2079 May 12 14:50	7°♊03'54	
	2079 Jun 15 04:02	0°♋	
conjunction	2079 Jul 05 01:19	13°♋15'23	0°54'14
minimum elong	2079 Jul 04 23:50	13°♋12'56	0°54'12
max. Earth dist.	2079 Jul 23 21:13	25°♋36'35	2.62418 AU
	2079 Jul 30 15:15	0°♌	
morning rise	2079 Aug 22 18:34	14°♌54'02	
	2079 Sep 15 12:29	0°♍	
	2079 Nov 02 11:24	0°♎	
	2079 Dec 21 17:48	0°♏	
	2080 Feb 12 04:14	0°♐	
desc. node	2080 Apr 09 08:10	26°♐10'49	
	2080 Apr 22 13:44	0°♑	
retrograde	2080 May 14 22:22	2°♑48'47	
	2080 Jun 05 07:25	30°℞♐	
opposition	2080 Jun 16 20:28	26°♐36'46	-3°34'38
greatest brilliancy	2080 Jun 17 20:49	26°♐17'10	-2.5m
min. Earth dist.	2080 Jun 24 22:47	24°♐01'24	0.44498 AU
direct	2080 Jul 22 17:05	19°♐05'24	
	2080 Sep 03 07:13	0°♑	
	2080 Oct 24 14:23	0°♒	
	2080 Dec 06 06:22	0°♓	
	2081 Jan 16 11:27	0°♈	
asc. node	2081 Feb 07 20:13	16°♈10'25	
	2081 Feb 27 05:02	0°♉	
	2081 Apr 11 07:39	0°♊	

	2081 May 26 01:23	0°♋		
evening set	2081 Jun 26 09:36	20°♋27'30		
	2081 Jul 11 04:40	0°♌		
conjunction	2081 Aug 13 01:26	21°♌01'35	1°08'53	
minimum elong	2081 Aug 13 01:26	21°♌01'34	1°08'53	
max. Earth dist.	2081 Aug 16 01:28	22°♌56'20	2.67228 AU	
	2081 Aug 27 03:40	0°♍		
morning rise	2081 Sep 27 00:37	19°♍38'55		
	2081 Oct 13 06:17	0°♎		
	2081 Nov 29 01:55	0°♏		
	2082 Jan 14 12:57	0°♐		
desc. node	2082 Feb 25 07:07	26°♐59'18		
	2082 Mar 01 23:28	0°♑		
	2082 Apr 18 10:34	0°♒		
	2082 Jun 10 13:46	0°♓		
retrograde	2082 Aug 02 04:16	14°♓56'19		
min. Earth dist.	2082 Aug 30 18:55	10°♓16'24	0.37356 AU	
opposition	2082 Sep 01 17:40	9°♓45'07	-6°27'09	
greatest brilliancy	2082 Sep 01 11:22	9°♓49'20	-2.9m	
direct	2082 Oct 01 04:13	4°♓50'45		
	2082 Dec 12 10:11	0°♈		
asc. node	2082 Dec 26 19:17	8°♈14'08		
	2083 Jan 31 09:08	0°♉		
	2083 Mar 19 14:35	0°♊		
	2083 May 05 18:46	0°♋		
	2083 Jun 22 08:23	0°♌		
evening set	2083 Aug 04 01:57	26°♌54'55		
	2083 Aug 08 23:03	0°♍		
max. Earth dist.	2083 Sep 08 07:17	19°♍17'37	2.66587 AU	
conjunction	2083 Sep 18 14:21	25°♍53'46	0°56'06	
minimum elong	2083 Sep 18 15:24	25°♍55'27	0°56'06	
	2083 Sep 24 23:20	0°♎		
morning rise	2083 Nov 02 02:30	24°♎52'33		
	2083 Nov 09 20:11	0°♏		
	2083 Dec 24 07:19	0°♐		
desc. node	2084 Jan 13 06:51	13°♐48'11		
	2084 Feb 05 09:03	0°♑		
	2084 Mar 18 06:47	0°♒		
	2084 Apr 28 12:17	0°♓		
	2084 Jun 09 04:24	0°♈		
	2084 Jul 24 07:19	0°♉		
retrograde	2084 Oct 04 14:33	27°♉16'20		
min. Earth dist.	2084 Nov 02 00:28	21°♉43'29	0.46985 AU	
opposition	2084 Nov 10 06:08	18°♉48'00	-0°08'27	
greatest brilliancy	2091 Sep 01 20:49	6°♏58'37	1.2m	
asc. node	2084 Nov 12 18:37	17°♉54'52		
direct	2084 Dec 13 07:36	11°♉55'50		
	2085 Feb 13 13:49	0°♊		
	2085 Apr 10 23:39	0°♋		
	2085 Jun 01 01:48	0°♌		
	2085 Jul 20 06:01	0°♍		
	2085 Sep 05 18:20	0°♎		
evening set	2085 Sep 09 03:28	2°♎10'44		
max. Earth dist.	2085 Oct 02 02:54	17°♎10'26	2.60603 AU	
	2085 Oct 21 09:01	0°♏		
conjunction	2085 Oct 25 11:05	2°♏45'17	0°20'32	
minimum elong	2085 Oct 25 11:48	2°♏46'30	0°20'31	
desc. node	2085 Nov 30 05:55	27°♏23'12		
	2085 Dec 03 23:10	0°♐		
morning rise	2085 Dec 12 02:22	5°♐45'06		
	2086 Jan 14 16:09	0°♑		
	2086 Feb 23 21:00	0°♒		
	2086 Apr 04 03:32	0°♓		
	2086 May 13 06:49	0°♈		

	2086 Jun 22 10:01	0°♉		
	2086 Aug 04 08:53	0°♊		
	2086 Sep 24 09:15	0°♋		
asc. node	2086 Sep 30 16:56	3°♋00'25		
retrograde	2086 Nov 17 14:10	15°♋38'08		
min. Earth dist.	2086 Dec 21 10:48	8°♋00'49	0.59386 AU	
greatest brilliancy	2086 Dec 26 08:38	6°♋04'36	-1.7m	
opposition	2086 Dec 27 02:38	5°♋46'48	3°29'40	
	2087 Jan 12 17:12	30°℞♊		
direct	2087 Feb 02 08:59	27°♊11'00		
	2087 Feb 24 16:36	0°♋		
	2087 May 07 12:08	0°♌		
	2087 Jun 29 22:17	0°♍		
	2087 Aug 17 22:07	0°♎		
	2087 Oct 02 20:32	0°♏		
desc. node	2087 Oct 18 04:18	10°♏25'29		
evening set	2087 Oct 19 11:41	11°♏19'29		
max. Earth dist.	2087 Nov 03 06:00	21°♏35'30	2.49834 AU	
	2087 Nov 15 03:14	0°♐		
conjunction	2087 Dec 09 13:24	17°♐40'48	-0°30'47	
minimum elong	2087 Dec 09 11:57	17°♐38'09	0°30'45	
	2087 Dec 26 04:14	0°♑		
	2088 Feb 03 13:42	0°♒		
morning rise	2088 Feb 04 17:20	0°♒53'25		
	2088 Mar 13 01:13	0°♓		
	2088 Apr 20 10:41	0°♈		
	2088 May 29 16:07	0°♉		
	2088 Jul 09 17:49	0°♊		
asc. node	2088 Aug 17 16:34	26°♊32'55		
	2088 Aug 23 00:23	0°♋		
	2088 Oct 12 22:02	0°♌		
retrograde	2088 Dec 22 14:10	22°♌34'46		
min. Earth dist.	2089 Jan 30 00:20	13°♌25'44	0.66577 AU	
opposition	2089 Jan 31 20:23	12°♌41'38	4°32'43	
greatest brilliancy	2089 Jan 31 12:34	12°♌49'28	-1.3m	
direct	2089 Mar 12 19:37	3°♌09'31		
	2089 Jun 03 19:04	0°♍		
	2089 Jul 27 06:47	0°♎		
desc. node	2089 Sep 04 02:56	24°♎27'15		
	2089 Sep 12 12:49	0°♏		
	2089 Oct 26 01:04	0°♐		
	2089 Dec 05 20:33	0°♑		
evening set	2089 Dec 08 02:27	1°♑41'48		
	2090 Jan 13 20:44	0°♒		
max. Earth dist.	2090 Jan 15 22:11	1°♒36'36	2.37599 AU	
conjunction	2090 Feb 08 05:29	19°♒55'56	-1°04'51	
minimum elong	2090 Feb 08 05:33	19°♒56'05	1°04'50	
	2090 Feb 20 23:27	0°♓		
	2090 Mar 31 02:38	0°♈		
morning rise	2090 Apr 19 20:02	15°♈17'11		
	2090 May 09 03:23	0°♉		
	2090 Jun 18 20:42	0°♊		
asc. node	2090 Jul 05 16:07	11°♊55'26		
	2090 Jul 31 23:25	0°♋		
	2090 Sep 16 08:57	0°♌		
	2090 Nov 07 15:05	0°♍		
retrograde	2091 Jan 26 01:36	25°♍54'48		
opposition	2091 Mar 06 20:15	16°♍30'27	4°06'11	
greatest brilliancy	2091 Mar 07 02:55	16°♍23'51	-1.3m	
min. Earth dist.	2091 Mar 08 21:37	15°♍41'41	0.67272 AU	
direct	2091 Apr 17 04:40	6°♍31'06		
	2091 Jun 30 23:37	0°♎		
desc. node	2091 Jul 23 02:00	11°♎58'11		
	2091 Aug 21 23:56	0°♏		
	2091 Oct 05 19:36	0°♐		

	2091 Nov 15 22:40	0°♉	
	2091 Dec 24 22:41	0°♒	
	2092 Feb 01 00:09	0°♓	
evening set	2092 Feb 14 01:19	10°♓18'25	
	2092 Mar 10 04:01	0°♈	
	2092 Apr 18 07:57	0°♉	
conjunction	2092 Apr 21 09:37	2°♉18'10	-0°20'07
minimum elong	2092 Apr 21 11:16	2°♉21'15	0°20'07
asc. node	2092 May 22 14:24	25°♉15'16	
	2092 May 29 04:47	0°♊	
max. Earth dist.	2092 Jun 07 09:14	6°♊32'32	2.47220 AU
morning rise	2092 Jun 22 16:14	17°♊16'03	
	2092 Jul 11 05:01	0°♋	
	2092 Aug 25 14:25	0°♌	
	2092 Oct 12 17:32	0°♍	
	2092 Dec 04 10:20	0°♎	
	2093 Feb 22 16:15	0°♏	
retrograde	2093 Mar 03 23:51	0°♏30'38	
	2093 Mar 13 01:07	30°℞♎	
opposition	2093 Apr 11 02:21	21°♎58'34	2°18'00
greatest brilliancy	2093 Apr 11 14:41	21°♎46'47	-1.6m
min. Earth dist.	2093 Apr 16 22:16	19°♎45'06	0.61383 AU
direct	2093 May 22 06:01	12°♎04'19	
desc. node	2093 Jun 09 00:33	13°♎58'55	
	2093 Jul 22 03:48	0°♏	
	2093 Sep 11 04:55	0°♐	
	2093 Oct 24 02:20	0°♑	
	2093 Dec 02 19:18	0°♒	
	2094 Jan 10 07:05	0°♓	
	2094 Feb 17 20:50	0°♈	
	2094 Mar 29 12:00	0°♉	
asc. node	2094 Apr 09 13:35	8°♉09'51	
evening set	2094 Apr 21 05:46	16°♉40'17	
	2094 May 09 20:32	0°♊	
conjunction	2094 Jun 17 05:46	26°♊37'11	0°39'49
minimum elong	2094 Jun 17 04:06	26°♊34'20	0°39'47
	2094 Jun 22 05:31	0°♋	
max. Earth dist.	2094 Jul 13 04:33	14°♋01'18	2.59082 AU
	2094 Aug 06 13:32	0°♌	
morning rise	2094 Aug 07 13:50	0°♌39'25	
	2094 Sep 22 13:56	0°♍	
	2094 Nov 10 04:58	0°♎	
	2094 Dec 31 10:13	0°♏	
	2095 Mar 01 06:16	0°♐	
retrograde	2095 Apr 21 13:05	12°♐22'11	
desc. node	2095 Apr 26 23:23	12°♐11'11	
opposition	2095 May 26 06:27	5°♐20'31	-1°26'47
greatest brilliancy	2095 May 26 17:11	5°♐11'13	-2.2m
min. Earth dist.	2095 Jun 03 16:06	2°♐25'37	0.49748 AU
	2095 Jun 11 10:04	30°℞♏	
direct	2095 Jul 03 12:49	26°♏42'11	
	2095 Jul 26 03:48	0°♐	
	2095 Sep 25 01:42	0°♑	
	2095 Nov 07 14:26	0°♒	
	2095 Dec 17 23:19	0°♓	
	2096 Jan 26 21:39	0°♈	
asc. node	2096 Feb 25 12:56	21°♈53'13	
	2096 Mar 07 17:00	0°♉	
	2096 Apr 19 02:28	0°♊	
	2096 Jun 02 07:18	0°♋	
evening set	2096 Jun 09 19:55	4°♋59'37	
	2096 Jul 18 02:29	0°♌	
conjunction	2096 Jul 29 05:28	7°♌10'11	1°06'47
minimum elong	2096 Jul 29 04:50	7°♌09'11	1°06'46
max. Earth dist.	2096 Aug 07 03:01	12°♌52'43	2.66003 AU
	2096 Sep 02 23:02	0°♍	
morning rise	2096 Sep 13 05:07	6°♍30'49	
	2096 Oct 20 06:59	0°♎	
	2096 Dec 06 19:14	0°♏	
	2097 Jan 23 17:32	0°♐	
desc. node	2097 Mar 13 23:18	29°♐50'02	
	2097 Mar 14 06:07	0°♑	
	2097 May 09 13:55	0°♒	
retrograde	2097 Jun 30 22:47	13°♒48'03	
opposition	2097 Jul 31 03:39	8°♒46'49	-6°37'16
greatest brilliancy	2097 Jul 31 23:49	8°♒33'08	-2.9m
min. Earth dist.	2097 Aug 03 18:12	7°♒48'08	0.38187 AU
direct	2097 Aug 31 07:00	3°♒21'53	
	2097 Nov 11 20:00	0°♓	
	2097 Dec 29 01:00	0°♈	
asc. node	2098 Jan 12 10:37	9°♈37'09	
	2098 Feb 11 17:44	0°♉	
	2098 Mar 28 16:29	0°♊	
	2098 May 13 14:54	0°♋	
	2098 Jun 29 11:49	0°♌	
evening set	2098 Jul 20 12:28	13°♌20'54	
	2098 Aug 15 18:28	0°♍	
max. Earth dist.	2098 Aug 30 05:12	9°♍11'07	2.67501 AU
conjunction	2098 Sep 04 12:04	12°♍33'10	1°03'58
minimum elong	2098 Sep 04 12:49	12°♍34'22	1°03'58
	2098 Oct 01 18:13	0°♎	
morning rise	2098 Oct 18 19:22	11°♎00'13	
	2098 Nov 16 21:57	0°♏	
	2098 Dec 31 23:37	0°♐	
desc. node	2099 Jan 29 22:31	19°♐39'36	
	2099 Feb 14 00:02	0°♑	
	2099 Mar 29 04:51	0°♒	
	2099 May 11 06:06	0°♓	
	2099 Jun 25 06:26	0°♈	
	2099 Aug 26 01:42	0°♉	
retrograde	2099 Sep 13 23:03	2°♉29'23	
	2099 Oct 02 18:01	30°℞♈	
min. Earth dist.	2099 Oct 10 18:43	27°♈42'30	0.41921 AU
opposition	2099 Oct 18 08:08	25°♈16'33	-2°37'29
greatest brilliancy	2099 Oct 17 16:31	25°♈29'09	-2.7m
direct	2099 Nov 18 11:45	19°♈20'25	
asc. node	2099 Nov 30 10:01	20°♈15'13	
	2100 Jan 02 03:48	0°♉	
	2100 Mar 01 19:46	0°♊	