

superior conj	2000 Jun 11 10:31	20°II48'01	0°06'07	minimum elong	2002 Oct 31 22:27	7°III37'40	5°39'01
minimum elong	2000 Jun 11 09:15	20°II44'07	0°06'03	min. Earth dist.	2002 Nov 01 08:07	7°III22'57	0.27088 AU
behind sun begin	2000 Jun 10 12:07	19°II39'13		morning rise	2002 Nov 06 03:21	4°III34'19	
behind sun end	2000 Jun 12 06:22	21°II49'02		direct	2002 Nov 21 07:13	0°III03'13	
max. Earth dist.	2000 Jun 11 07:54	20°II39'59	1.73566 AU	asc. node	2002 Nov 24 15:57	0°III16'50	
	2000 Jun 18 22:15	0°☾		greatest brilliancy	2002 Dec 02 06:44	2°III20'20	-4.9m
	2000 Jul 13 08:02	0°♊			2003 Jan 07 13:07	0°♊	
evening rise	2000 Jul 17 11:57	5°♊07'05		morning max el	2003 Jan 11 02:27	3°♊34'33	46°57'41
	2000 Aug 06 17:32	0°♋			2003 Feb 04 13:27	0°♋	
	2000 Aug 31 03:35	0°♌			2003 Mar 02 12:40	0°♌	
	2000 Sep 24 15:26	0°♍		desc. node	2003 Mar 16 05:37	16°♌13'47	
desc. node	2000 Sep 28 10:29	4°III38'07			2003 Mar 27 18:14	0°♍	
	2000 Oct 19 06:18	0°♎			2003 Apr 21 16:18	0°♎	
	2000 Nov 13 02:14	0°♏			2003 May 16 10:58	0°♏	
	2000 Dec 08 08:48	0°♐			2003 Jun 10 03:32	0°♐	
	2001 Jan 03 18:14	0°♑			2003 Jul 04 17:39	0°☾	
evening max el	2001 Jan 17 06:09	14°♑17'16	47°05'36	asc. node	2003 Jul 07 08:53	3°☾13'28	
asc. node	2001 Jan 19 13:39	16°♑37'30		morning set	2003 Jul 13 09:02	10°☾34'52	
	2001 Feb 02 19:14	0°♒			2003 Jul 29 04:25	0°♊	
greatest brilliancy	2001 Feb 26 15:12	15°♒39'55	-4.9m	max. Earth dist.	2003 Aug 15 16:06	21°♊34'19	1.73042 AU
retrograde	2001 Mar 09 01:07	17°♒43'46					
evening set	2001 Mar 26 16:11	11°♒42'31		superior conj	2003 Aug 18 18:05	25°♊23'02	1°18'47
inferior conj	2001 Mar 30 04:17	9°♒31'43	8°01'17	minimum elong	2003 Aug 18 11:53	25°♊03'53	1°18'41
minimum elong	2001 Mar 30 11:43	9°♒19'59	8°00'24		2003 Aug 22 11:36	0°♋	
min. Earth dist.	2001 Mar 29 22:20	9°♒41'04	0.28187 AU		2003 Sep 15 15:58	0°♌	
morning rise	2001 Apr 03 07:29	6°♒58'33		evening rise	2003 Sep 24 10:22	10°♌53'51	
direct	2001 Apr 20 04:34	1°♒27'23			2003 Oct 09 18:56	0°♍	
greatest brilliancy	2001 Apr 29 17:22	3°♒07'39	-4.8m	desc. node	2003 Oct 26 22:22	21°♍19'37	
desc. node	2001 May 11 03:00	8°♒41'20			2003 Nov 02 21:42	0°♎	
	2001 Jun 06 10:25	0°♏			2003 Nov 27 01:07	0°♏	
morning max el	2001 Jun 08 04:41	1°♏40'35	45°50'18		2003 Dec 21 06:32	0°♐	
	2001 Jul 05 16:44	0°♐			2004 Jan 14 17:16	0°♑	
	2001 Aug 01 12:18	0°☾			2004 Feb 08 16:20	0°♒	
	2001 Aug 27 04:12	0°♊		asc. node	2004 Feb 17 01:36	9°♒50'16	
asc. node	2001 Sep 01 06:39	6°♊04'47			2004 Mar 05 18:12	0°♋	
	2001 Sep 21 02:09	0°♋		evening max el	2004 Mar 29 16:40	25°♋14'45	46°00'16
	2001 Oct 15 11:42	0°♌			2004 Apr 03 14:57	0°♌	
	2001 Nov 08 13:28	0°♍		greatest brilliancy	2004 May 06 21:39	23°♍56'09	-4.7m
greatest brilliancy	2001 Nov 26 05:38	22°♍10'09	-3.9m	retrograde	2004 May 17 22:28	26°♍08'18	
	2001 Dec 02 11:11	0°♎		evening set	2004 Jun 02 00:07	21°♍43'16	
morning set	2001 Dec 03 22:56	1°♎52'22		desc. node	2004 Jun 07 14:51	18°♍21'26	
desc. node	2001 Dec 21 19:55	24°♎21'47		inferior conj	2004 Jun 08 08:43	17°♍53'21	-0°10'34
	2001 Dec 26 07:25	0°♏		minimum elong	2004 Jun 08 08:20	17°♍53'57	0°10'27
				transit middle	2004 Jun 08 08:20	17°♍53'57	0°10'27
superior conj	2002 Jan 14 11:32	24°♏07'22	-0°52'42	transit begin	2004 Jun 08 05:14	17°♍58'50	
minimum elong	2002 Jan 13 23:57	23°♏30'55	0°52'14	transit end	2004 Jun 08 11:26	17°♍49'05	
max. Earth dist.	2002 Jan 16 09:00	26°♏30'18	1.71147 AU	min. Earth dist.	2004 Jun 08 06:58	17°♍56'06	0.28888 AU
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	2002 Feb 12 01:18	0°♑		direct	2004 Jun 29 23:15	9°♍37'32	
evening rise	2002 Feb 24 14:23	15°♑41'48		greatest brilliancy	2004 Jul 10 04:16	11°♍30'16	-4.7m
	2002 Mar 08 01:42	0°♒			2004 Aug 07 11:02	0°☾	
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asc. node	2002 Apr 13 23:28	15°♋36'58			2004 Sep 06 22:16	0°♊	
	2002 Apr 25 17:57	0°♌		asc. node	2004 Sep 28 18:28	24°♊17'26	
	2002 May 20 13:27	0°☾			2004 Oct 03 17:20	0°♋	
	2002 Jun 14 20:16	0°♊			2004 Oct 29 00:39	0°♌	
	2002 Jul 10 21:09	0°♋			2004 Nov 22 13:31	0°♍	
desc. node	2002 Aug 03 12:37	25°♋56'42			2004 Dec 16 17:10	0°♎	
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retrograde	2002 Oct 10 18:35	15°♍36'35			2005 Feb 26 15:07	0°♑	
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inferior conj	2002 Oct 31 12:06	7°♍53'26	-5°41'32				




































































































































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minimum elong	2005 Mar 31 11:32	10° Υ 56'00	1°18'16	morning rise	2007 Aug 21 18:48	22° Ω 37'06	
max. Earth dist.	2005 Apr 04 02:17	15° Υ 25'15	1.72462 AU	direct	2007 Sep 08 16:14	16° Ω 35'27	
	2005 Apr 15 20:37	0° \mathcal{B}		greatest brilliancy	2007 Sep 19 13:41	18° Ω 44'27	-4.8m
evening rise	2005 May 08 16:49	28° \mathcal{B} 11'02			2007 Oct 08 06:53	0° \mathcal{M}	
	2005 May 10 04:14	0° Π		asc. node	2007 Oct 27 06:11	16° \mathcal{M} 58'56	
asc. node	2005 May 11 11:15	1° Π 35'21		morning max el	2007 Oct 28 15:05	18° \mathcal{M} 20'38	46°27'59
	2005 Jun 03 15:18	0° \mathcal{E}			2007 Nov 08 21:05	0° \mathcal{A}	
	2005 Jun 28 05:53	0° Ω			2007 Dec 05 13:29	0° \mathcal{M}	
	2005 Jul 23 01:01	0° \mathcal{M}			2007 Dec 30 18:02	0° \mathcal{X}	
	2005 Aug 17 03:05	0° \mathcal{A}			2008 Jan 24 08:06	0° \mathcal{Z}	
desc. node	2005 Aug 31 00:33	16° \mathcal{A} 23'55		desc. node	2008 Feb 15 19:44	27° \mathcal{Z} 42'12	
	2005 Sep 11 16:14	0° \mathcal{M}			2008 Feb 17 16:22	0° \mathcal{A}	
	2005 Oct 08 01:00	0° \mathcal{X}			2008 Mar 12 22:51	0° \mathcal{H}	
evening max el	2005 Nov 03 19:34	28° \mathcal{X} 28'48	47°06'10		2008 Apr 06 05:35	0° Υ	
	2005 Nov 05 08:10	0° \mathcal{Z}			2008 Apr 30 13:34	0° \mathcal{B}	
greatest brilliancy	2005 Dec 14 07:35	29° \mathcal{Z} 31'59	-4.9m	morning set	2008 May 03 01:17	3° \mathcal{B} 03'50	
	2005 Dec 15 15:58	0° \mathcal{A}			2008 May 24 22:52	0° Π	
asc. node	2005 Dec 22 03:50	1° \mathcal{A} 21'58		asc. node	2008 Jun 07 23:08	17° Π 13'08	
retrograde	2005 Dec 24 09:36	1° \mathcal{A} 28'01					
	2006 Jan 01 20:18	30° \mathcal{R} \mathcal{Z}		superior conj	2008 Jun 09 04:20	18° Π 42'50	0°02'56
evening set	2006 Jan 08 09:05	27° \mathcal{Z} 00'49		minimum elong	2008 Jun 09 03:42	18° Π 40'54	0°02'54
inferior conj	2006 Jan 13 23:59	23° \mathcal{Z} 40'06	5°30'44	behind sun begin	2008 Jun 08 05:18	17° Π 32'06	
minimum elong	2006 Jan 13 13:50	23° \mathcal{Z} 55'44	5°28'08	behind sun end	2008 Jun 10 02:05	19° Π 49'42	
min. Earth dist.	2006 Jan 13 06:16	24° \mathcal{Z} 07'23	0.26649 AU	max. Earth dist.	2008 Jun 09 04:51	18° Π 44'27	1.73558 AU
morning rise	2006 Jan 18 18:57	20° \mathcal{Z} 48'06			2008 Jun 18 08:49	0° \mathcal{E}	
direct	2006 Feb 03 09:19	16° \mathcal{Z} 01'19			2008 Jul 12 18:39	0° Ω	
greatest brilliancy	2006 Feb 12 16:13	17° \mathcal{Z} 39'14	-4.9m	evening rise	2008 Jul 15 06:49	3° Ω 04'56	
	2006 Mar 05 08:39	0° \mathcal{A}			2008 Aug 06 04:20	0° \mathcal{M}	
morning max el	2006 Mar 25 06:45	17° \mathcal{A} 58'28	46°31'49		2008 Aug 30 14:41	0° \mathcal{A}	
	2006 Apr 06 01:21	0° \mathcal{H}			2008 Sep 24 02:59	0° \mathcal{M}	
desc. node	2006 Apr 12 17:19	7° \mathcal{H} 05'21		desc. node	2008 Sep 27 12:27	4° \mathcal{M} 08'37	
	2006 May 03 10:25	0° Υ			2008 Oct 18 18:31	0° \mathcal{X}	
	2006 May 29 12:41	0° \mathcal{B}			2008 Nov 12 15:25	0° \mathcal{Z}	
	2006 Jun 24 00:31	0° Π			2008 Dec 07 23:37	0° \mathcal{A}	
	2006 Jul 19 02:41	0° \mathcal{E}			2009 Jan 03 12:35	0° \mathcal{H}	
asc. node	2006 Aug 03 20:48	19° \mathcal{E} 03'40		evening max el	2009 Jan 14 21:24	11° \mathcal{H} 58'34	47°07'21
	2006 Aug 12 20:21	0° Ω		asc. node	2009 Jan 18 15:51	15° \mathcal{H} 45'58	
	2006 Sep 06 06:15	0° \mathcal{M}			2009 Feb 03 03:41	0° Υ	
morning set	2006 Sep 19 21:10	16° \mathcal{M} 53'01		greatest brilliancy	2009 Feb 24 06:17	13° Υ 22'42	-4.9m
	2006 Sep 30 10:02	0° \mathcal{A}		retrograde	2009 Mar 06 17:17	15° Υ 27'27	
	2006 Oct 24 09:58	0° \mathcal{M}		evening set	2009 Mar 24 09:45	9° Υ 22'31	
max. Earth dist.	2006 Oct 25 04:00	0° \mathcal{M} 56'31	1.71626 AU	inferior conj	2009 Mar 27 19:24	7° Υ 15'33	8°09'51
				minimum elong	2009 Mar 28 02:18	7° Υ 04'41	8°09'05
superior conj	2006 Oct 27 17:50	4° \mathcal{M} 10'16	0°58'03	min. Earth dist.	2009 Mar 27 12:19	7° Υ 26'41	0.28147 AU
minimum elong	2006 Oct 28 04:14	4° \mathcal{M} 42'50	0°57'40	morning rise	2009 Mar 31 19:05	4° Υ 47'57	
	2006 Nov 17 08:02	0° \mathcal{X}			2009 Apr 11 12:47	30° \mathcal{R} \mathcal{H}	
desc. node	2006 Nov 23 10:11	7° \mathcal{X} 38'43		direct	2009 Apr 17 19:24	29° \mathcal{H} 11'57	
evening rise	2006 Dec 07 02:24	24° \mathcal{X} 48'50			2009 Apr 24 07:18	0° Υ	
	2006 Dec 11 05:33	0° \mathcal{Z}		greatest brilliancy	2009 Apr 27 06:31	0° Υ 51'19	-4.8m
	2007 Jan 04 03:31	0° \mathcal{A}		desc. node	2009 May 10 05:00	7° Υ 22'48	
	2007 Jan 28 03:32	0° \mathcal{H}		morning max el	2009 Jun 05 20:51	29° Υ 30'33	45°51'07
	2007 Feb 21 08:21	0° Υ			2009 Jun 06 09:07	0° \mathcal{B}	
asc. node	2007 Mar 16 13:32	28° Υ 21'50			2009 Jul 05 08:23	0° Π	
	2007 Mar 17 22:00	0° \mathcal{B}			2009 Aug 01 01:28	0° \mathcal{E}	
	2007 Apr 12 02:15	0° Π			2009 Aug 26 16:12	0° Ω	
	2007 May 08 07:28	0° \mathcal{E}		asc. node	2009 Aug 31 08:38	5° Ω 35'21	
	2007 Jun 05 17:59	0° Ω			2009 Sep 20 13:32	0° \mathcal{M}	
evening max el	2007 Jun 09 02:45	3° Ω 15'54	45°23'27		2009 Oct 14 22:46	0° \mathcal{A}	
desc. node	2007 Jul 06 02:52	25° Ω 23'30			2009 Nov 08 00:23	0° \mathcal{M}	
	2007 Jul 14 18:23	0° \mathcal{M}		greatest brilliancy	2009 Nov 25 18:32	22° \mathcal{M} 16'30	-3.9m
greatest brilliancy	2007 Jul 17 11:42	1° \mathcal{M} 03'57	-4.7m	morning set	2009 Dec 01 10:19	29° \mathcal{M} 23'07	
retrograde	2007 Jul 27 17:28	2° \mathcal{M} 57'23			2009 Dec 01 22:04	0° \mathcal{X}	
	2007 Aug 09 01:10	30° \mathcal{R} Ω		desc. node	2009 Dec 20 22:01	23° \mathcal{X} 54'09	
evening set	2007 Aug 13 21:45	27° Ω 25'46			2009 Dec 25 18:17	0° \mathcal{Z}	
inferior conj	2007 Aug 18 03:41	24° Ω 50'52	-7°58'54				
minimum elong	2007 Aug 17 20:23	25° Ω 02'13	7°58'04	superior conj	2010 Jan 11 21:06	21° \mathcal{Z} 32'15	-0°49'27

minimum elong	2010 Jan 11 09:52	20° ♁ 56'55	0°48'59	min. Earth dist.	2012 Jun 05 23:53	15° ♁ 46'46	0.28870 AU
max. Earth dist.	2010 Jan 13 17:06	23° ♁ 50'37	1.71129 AU	desc. node	2012 Jun 06 16:56	15° ♁ 19'56	
	2010 Jan 18 14:35	0° ♁		morning rise	2012 Jun 12 09:53	11° ♁ 55'01	
	2010 Feb 11 12:10	0° ♁		direct	2012 Jun 27 15:07	7° ♁ 29'16	
evening rise	2010 Feb 22 01:26	13° ♁ 12'28		greatest brilliancy	2012 Jul 07 20:07	9° ♁ 21'30	-4.7m
	2010 Mar 07 12:33	0° ♁			2012 Aug 07 13:43	0° ♁	
	2010 Mar 31 17:35	0° ♁		morning max el	2012 Aug 15 09:07	7° ♁ 13'45	45°48'10
asc. node	2010 Apr 13 01:27	15° ♁ 09'13			2012 Sep 06 14:48	0° ♁	
	2010 Apr 25 05:05	0° ♁		asc. node	2012 Sep 27 20:28	23° ♁ 42'56	
	2010 May 20 01:05	0° ♁			2012 Oct 03 06:59	0° ♁	
	2010 Jun 14 08:50	0° ♁			2012 Oct 28 13:04	0° ♁	
	2010 Jul 10 11:32	0° ♁			2012 Nov 22 01:20	0° ♁	
desc. node	2010 Aug 02 14:43	25° ♁ 15'32			2012 Dec 16 04:38	0° ♁	
	2010 Aug 07 03:47	0° ♁			2013 Jan 09 04:11	0° ♁	
evening max el	2010 Aug 20 03:48	12° ♁ 59'17	45°57'59	desc. node	2013 Jan 17 09:55	10° ♁ 19'30	
	2010 Sep 08 15:44	0° ♁			2013 Feb 02 02:47	0° ♁	
greatest brilliancy	2010 Sep 29 03:59	11° ♁ 42'49	-4.8m	morning set	2013 Feb 16 14:36	18° ♁ 08'55	
retrograde	2010 Oct 08 07:05	13° ♁ 13'58			2013 Feb 26 02:03	0° ♁	
evening set	2010 Oct 24 09:12	8° ♁ 16'58			2013 Mar 22 03:15	0° ♁	
inferior conj	2010 Oct 29 01:10	5° ♁ 30'25	-5°58'48				
minimum elong	2010 Oct 29 11:39	5° ♁ 14'25	5°56'22	superior conj	2013 Mar 28 17:05	8° ♁ 10'36	-1°19'53
min. Earth dist.	2010 Oct 29 21:39	4° ♁ 59'11	0.27150 AU	minimum elong	2013 Mar 29 00:31	8° ♁ 33'43	1°19'44
morning rise	2010 Nov 03 13:38	2° ♁ 14'42		max. Earth dist.	2013 Apr 01 17:14	13° ♁ 09'10	1.72406 AU
	2010 Nov 08 03:06	30° ♁			2013 Apr 15 07:25	0° ♁	
direct	2010 Nov 18 21:18	27° ♁ 39'26		evening rise	2013 May 06 08:47	25° ♁ 59'11	
asc. node	2010 Nov 23 17:59	28° ♁ 07'29			2013 May 09 15:03	0° ♁	
greatest brilliancy	2010 Nov 29 20:43	29° ♁ 56'10	-4.9m	asc. node	2013 May 10 13:22	1° ♁ 08'36	
	2010 Nov 30 00:33	0° ♁			2013 Jun 03 02:13	0° ♁	
	2011 Jan 07 12:30	0° ♁			2013 Jun 27 17:03	0° ♁	
morning max el	2011 Jan 08 16:02	1° ♁ 09'49	46°57'24		2013 Jul 22 12:41	0° ♁	
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	2011 Mar 02 02:39	0° ♁		desc. node	2013 Aug 30 02:30	15° ♁ 50'53	
desc. node	2011 Mar 15 07:30	15° ♁ 40'14			2013 Sep 11 06:16	0° ♁	
	2011 Mar 27 06:53	0° ♁			2013 Oct 07 17:54	0° ♁	
	2011 Apr 21 04:06	0° ♁		evening max el	2013 Nov 01 07:59	26° ♁ 01'29	47°04'26
	2011 May 15 22:12	0° ♁			2013 Nov 05 08:43	0° ♁	
	2011 Jun 09 14:23	0° ♁		greatest brilliancy	2013 Dec 11 21:27	27° ♁ 04'00	-4.9m
	2011 Jul 04 04:17	0° ♁		asc. node	2013 Dec 21 06:00	28° ♁ 58'24	
asc. node	2011 Jul 06 11:01	2° ♁ 47'30		retrograde	2013 Dec 21 21:53	28° ♁ 58'57	
morning set	2011 Jul 11 03:13	8° ♁ 31'05		evening set	2014 Jan 05 18:49	24° ♁ 35'46	
	2011 Jul 28 14:59	0° ♁		min. Earth dist.	2014 Jan 10 19:54	21° ♁ 37'22	0.26612 AU
max. Earth dist.	2011 Aug 13 09:24	19° ♁ 26'53	1.73085 AU	inferior conj	2014 Jan 11 12:24	21° ♁ 11'59	5°11'17
				minimum elong	2014 Jan 11 02:32	21° ♁ 27'09	5°08'40
superior conj	2011 Aug 16 12:08	23° ♁ 17'47	1°17'33	morning rise	2014 Jan 16 10:32	18° ♁ 15'43	
minimum elong	2011 Aug 16 05:29	22° ♁ 57'15	1°17'25	direct	2014 Jan 31 20:49	13° ♁ 33'23	
	2011 Aug 21 22:11	0° ♁		greatest brilliancy	2014 Feb 10 06:14	15° ♁ 13'17	-4.9m
	2011 Sep 15 02:40	0° ♁			2014 Mar 05 21:03	0° ♁	
evening rise	2011 Sep 22 02:08	8° ♁ 40'10		morning max el	2014 Mar 22 19:31	15° ♁ 33'55	46°33'26
	2011 Oct 09 05:50	0° ♁			2014 Apr 05 20:31	0° ♁	
desc. node	2011 Oct 26 00:22	20° ♁ 51'20		desc. node	2014 Apr 11 19:23	6° ♁ 22'53	
	2011 Nov 02 08:51	0° ♁			2014 May 03 01:21	0° ♁	
	2011 Nov 26 12:36	0° ♁			2014 May 29 01:45	0° ♁	
	2011 Dec 20 18:26	0° ♁			2014 Jun 23 12:33	0° ♁	
	2012 Jan 14 05:47	0° ♁			2014 Jul 18 14:06	0° ♁	
	2012 Feb 08 06:01	0° ♁		asc. node	2014 Aug 02 22:48	18° ♁ 35'53	
asc. node	2012 Feb 16 03:35	9° ♁ 14'32			2014 Aug 12 07:24	0° ♁	
	2012 Mar 05 10:25	0° ♁			2014 Sep 05 17:07	0° ♁	
evening max el	2012 Mar 27 07:44	23° ♁ 00'19	46°02'27	morning set	2014 Sep 17 13:24	14° ♁ 40'36	
	2012 Apr 03 15:18	0° ♁			2014 Sep 29 20:52	0° ♁	
greatest brilliancy	2012 May 04 15:22	21° ♁ 48'35	-4.8m	max. Earth dist.	2014 Oct 22 18:18	28° ♁ 36'47	1.71673 AU
retrograde	2012 May 15 14:33	23° ♁ 59'32			2014 Oct 23 20:52	0° ♁	
evening set	2012 May 30 17:21	19° ♁ 33'39					
inferior conj	2012 Jun 06 01:09	15° ♁ 44'46	0°09'21	superior conj	2014 Oct 25 07:31	1° ♁ 48'31	1°00'39
minimum elong	2012 Jun 06 01:30	15° ♁ 44'14	0°09'14	minimum elong	2014 Oct 25 17:53	2° ♁ 21'00	1°00'17
transit middle	2012 Jun 06 01:30	15° ♁ 44'14	0°09'14		2014 Nov 16 19:03	0° ♁	
transit begin	2012 Jun 05 22:10	15° ♁ 49'29		desc. node	2014 Nov 22 12:20	7° ♁ 10'47	
transit end	2012 Jun 06 04:50	15° ♁ 38'59		evening rise	2014 Dec 04 13:19	22° ♁ 17'36	

	2014 Dec 10 16:42	0° \mathfrak{Z}			2017 Apr 28 13:13	0° Υ	
	2015 Jan 03 14:48	0° \approx		desc. node	2017 May 09 07:08	6° Υ 05'22	
	2015 Jan 27 15:00	0° \mathfrak{H}		morning max el	2017 Jun 03 12:30	27° Υ 17'53	45°51'59
	2015 Feb 20 20:05	0° Υ			2017 Jun 06 07:27	0° \mathfrak{B}	
asc. node	2015 Mar 15 15:31	27° Υ 50'58			2017 Jul 05 00:11	0° Π	
	2015 Mar 17 10:15	0° \mathfrak{B}			2017 Jul 31 14:54	0° \mathfrak{G}	
	2015 Apr 11 15:28	0° Π			2017 Aug 26 04:30	0° Ω	
	2015 May 07 22:52	0° \mathfrak{G}		asc. node	2017 Aug 30 10:36	5° Ω 04'50	
	2015 Jun 05 15:33	0° Ω			2017 Sep 20 01:15	0° \mathfrak{M}	
evening max el	2015 Jun 06 18:29	1° Ω 04'50	45°23'40		2017 Oct 14 10:11	0° \mathfrak{L}	
desc. node	2015 Jul 05 04:59	24° Ω 05'29			2017 Nov 07 11:38	0° \mathfrak{M}	
greatest brilliancy	2015 Jul 15 01:02	28° Ω 50'48	-4.7m	greatest brilliancy	2017 Nov 25 03:07	22° \mathfrak{M} 08'19	-3.9m
	2015 Jul 18 22:38	0° \mathfrak{M}		morning set	2017 Nov 28 22:13	26° \mathfrak{M} 54'32	
retrograde	2015 Jul 25 09:29	0° \mathfrak{M} 46'23			2017 Dec 01 09:14	0° \mathfrak{X}	
	2015 Jul 31 15:27	30° \mathfrak{R} Ω		desc. node	2017 Dec 20 00:06	23° \mathfrak{X} 25'36	
evening set	2015 Aug 11 10:06	25° Ω 18'53			2017 Dec 25 05:26	0° \mathfrak{Z}	
inferior conj	2015 Aug 15 19:22	22° Ω 39'06	-7°50'26				
minimum elong	2015 Aug 15 11:34	22° Ω 51'12	7°49'28	superior conj	2018 Jan 09 07:02	18° \mathfrak{Z} 57'28	-0°46'06
min. Earth dist.	2015 Aug 16 00:36	22° Ω 30'58	0.28844 AU	minimum elong	2018 Jan 08 20:15	18° \mathfrak{Z} 23'35	0°45'40
morning rise	2015 Aug 19 12:50	20° Ω 21'57		max. Earth dist.	2018 Jan 11 01:45	21° \mathfrak{Z} 11'49	1.71112 AU
direct	2015 Sep 06 08:29	14° Ω 23'18			2018 Jan 18 01:44	0° \approx	
greatest brilliancy	2015 Sep 17 04:49	16° Ω 31'34	-4.8m		2018 Feb 10 23:20	0° \mathfrak{H}	
	2015 Oct 08 17:29	0° \mathfrak{M}		evening rise	2018 Feb 19 12:30	10° \mathfrak{H} 42'04	
asc. node	2015 Oct 26 08:17	16° \mathfrak{M} 09'08			2018 Mar 06 23:45	0° Υ	
morning max el	2015 Oct 26 07:11	16° \mathfrak{M} 06'25	46°26'29		2018 Mar 31 04:54	0° \mathfrak{B}	
	2015 Nov 08 15:31	0° \mathfrak{L}		asc. node	2018 Apr 12 03:32	14° \mathfrak{B} 40'34	
	2015 Dec 05 04:15	0° \mathfrak{M}			2018 Apr 24 16:40	0° Π	
	2015 Dec 30 07:16	0° \mathfrak{X}			2018 May 19 13:11	0° \mathfrak{G}	
	2016 Jan 23 20:32	0° \mathfrak{Z}			2018 Jun 13 21:54	0° Ω	
desc. node	2016 Feb 14 21:40	27° \mathfrak{Z} 11'17			2018 Jul 10 02:32	0° \mathfrak{M}	
	2016 Feb 17 04:17	0° \approx		desc. node	2018 Aug 01 16:39	24° \mathfrak{M} 32'10	
	2016 Mar 12 10:24	0° \mathfrak{H}			2018 Aug 06 23:27	0° \mathfrak{L}	
	2016 Apr 05 16:50	0° Υ		evening max el	2018 Aug 17 17:31	10° \mathfrak{L} 40'09	45°55'40
	2016 Apr 30 00:36	0° \mathfrak{B}			2018 Sep 09 09:25	0° \mathfrak{M}	
morning set	2016 Apr 30 17:26	0° \mathfrak{B} 51'51		greatest brilliancy	2018 Sep 26 17:13	9° \mathfrak{M} 20'19	-4.8m
	2016 May 24 09:45	0° Π		retrograde	2018 Oct 05 19:04	10° \mathfrak{M} 50'22	
				evening set	2018 Oct 22 01:22	5° \mathfrak{M} 48'55	
superior conj	2016 Jun 06 21:49	16° Π 35'44	-0°00'21	inferior conj	2018 Oct 26 14:16	3° \mathfrak{M} 06'30	-6°15'23
minimum elong	2016 Jun 06 21:54	16° Π 35'59	0°00'20	minimum elong	2018 Oct 27 00:48	2° \mathfrak{M} 50'22	6°13'01
behind sun begin	2016 Jun 05 23:15	15° Π 26'26		min. Earth dist.	2018 Oct 27 11:31	2° \mathfrak{M} 33'59	0.27212 AU
behind sun end	2016 Jun 07 20:32	17° Π 45'33		morning rise	2018 Oct 31 23:44	29° \mathfrak{L} 54'23	
max. Earth dist.	2016 Jun 07 03:29	16° Π 53'12	1.73547 AU		2018 Oct 31 19:42	30° \mathfrak{R} \mathfrak{L}	
asc. node	2016 Jun 07 01:14	16° Π 46'16		direct	2018 Nov 16 10:51	25° \mathfrak{L} 14'32	
	2016 Jun 17 19:39	0° \mathfrak{G}		asc. node	2018 Nov 22 20:05	26° \mathfrak{L} 02'09	
	2016 Jul 12 05:34	0° Ω		greatest brilliancy	2018 Nov 27 11:14	27° \mathfrak{L} 31'34	-4.9m
evening rise	2016 Jul 13 01:40	1° Ω 01'47			2018 Dec 02 17:02	0° \mathfrak{M}	
	2016 Aug 05 15:27	0° \mathfrak{M}		morning max el	2019 Jan 06 04:54	28° \mathfrak{M} 42'12	46°57'22
	2016 Aug 30 02:07	0° \mathfrak{L}			2019 Jan 07 11:18	0° \mathfrak{X}	
	2016 Sep 23 14:51	0° \mathfrak{M}			2019 Feb 03 22:29	0° \mathfrak{Z}	
desc. node	2016 Sep 26 14:31	3° \mathfrak{M} 38'31			2019 Mar 01 16:45	0° \approx	
	2016 Oct 18 07:01	0° \mathfrak{X}		desc. node	2019 Mar 14 09:37	15° \approx 06'41	
	2016 Nov 12 04:54	0° \mathfrak{Z}			2019 Mar 26 19:43	0° \mathfrak{H}	
	2016 Dec 07 14:51	0° \approx			2019 Apr 20 16:11	0° Υ	
	2017 Jan 03 07:47	0° \mathfrak{H}			2019 May 15 09:46	0° \mathfrak{B}	
evening max el	2017 Jan 12 13:18	9° \mathfrak{H} 40'27	47°08'46		2019 Jun 09 01:37	0° Π	
asc. node	2017 Jan 17 17:46	14° \mathfrak{H} 51'40			2019 Jul 03 15:18	0° \mathfrak{G}	
	2017 Feb 03 15:51	0° Υ		asc. node	2019 Jul 05 13:00	2° \mathfrak{G} 19'53	
greatest brilliancy	2017 Feb 21 21:18	11° Υ 03'40	-4.9m	morning set	2019 Jul 08 21:14	6° \mathfrak{G} 25'38	
retrograde	2017 Mar 04 09:09	13° Υ 08'50			2019 Jul 28 01:54	0° Ω	
evening set	2017 Mar 22 02:59	7° Υ 00'44		max. Earth dist.	2019 Aug 11 03:11	17° Ω 19'55	1.73127 AU
inferior conj	2017 Mar 25 10:17	4° Υ 57'13	8°17'38				
minimum elong	2017 Mar 25 16:36	4° Υ 47'18	8°17'01	superior conj	2019 Aug 14 06:07	21° Ω 11'22	1°16'12
min. Earth dist.	2017 Mar 25 01:59	5° Υ 10'17	0.28105 AU	minimum elong	2019 Aug 13 23:03	20° Ω 49'32	1°16'03
morning rise	2017 Mar 29 06:29	2° Υ 34'58			2019 Aug 21 09:06	0° \mathfrak{M}	
	2017 Apr 03 00:25	30° \mathfrak{R} \mathfrak{H}			2019 Sep 14 13:43	0° \mathfrak{L}	
direct	2017 Apr 15 10:18	26° \mathfrak{H} 54'34		evening rise	2019 Sep 19 18:02	6° \mathfrak{L} 25'58	
greatest brilliancy	2017 Apr 24 19:08	28° \mathfrak{H} 32'27	-4.8m		2019 Oct 08 17:06	0° \mathfrak{M}	

desc. node	2019 Oct 25 02:30	20° ♊ 22'21			2022 Jun 23 00:34	0° ♊		
	2019 Nov 01 20:25	0° ♊			2022 Jul 18 01:32	0° ♊		
	2019 Nov 26 00:28	0° ♊		asc. node	2022 Aug 02 00:48	18° ♊ 07'51		
	2019 Dec 20 06:42	0° ♊			2022 Aug 11 18:30	0° ♊		
	2020 Jan 13 18:39	0° ♊			2022 Sep 05 04:05	0° ♊		
asc. node	2020 Feb 07 20:02	0° ♊		morning set	2022 Sep 15 05:45	12° ♊ 28'22		
	2020 Feb 15 05:37	8° ♊ 38'09			2022 Sep 29 07:49	0° ♊		
evening max el	2020 Mar 05 03:07	0° ♊		max. Earth dist.	2022 Oct 20 08:15	26° ♊ 15'47	1.71718 AU	
	2020 Mar 24 22:14	20° ♊ 43'48	46°04'39					
greatest brilliancy	2020 Apr 03 17:11	0° ♊		superior conj	2022 Oct 22 21:17	29° ♊ 26'53	1°03'07	
	2020 May 02 08:51	19° ♊ 40'01	-4.8m	minimum elong	2022 Oct 23 07:33	29° ♊ 59'00	1°02'46	
retrograde	2020 May 13 06:45	21° ♊ 50'25			2022 Oct 23 07:52	0° ♊		
evening set	2020 May 28 10:49	17° ♊ 23'05			2022 Nov 16 06:09	0° ♊		
inferior conj	2020 Jun 03 17:44	13° ♊ 35'40	0°29'12	desc. node	2022 Nov 21 14:21	6° ♊ 42'11		
minimum elong	2020 Jun 03 18:48	13° ♊ 33'59	0°28'52	evening rise	2022 Dec 02 00:16	19° ♊ 46'20		
min. Earth dist.	2020 Jun 03 17:05	13° ♊ 36'41	0.28858 AU		2022 Dec 10 03:54	0° ♊		
desc. node	2020 Jun 05 19:02	12° ♊ 18'24			2023 Jan 03 02:10	0° ♊		
morning rise	2020 Jun 10 02:56	9° ♊ 44'59			2023 Jan 27 02:33	0° ♊		
direct	2020 Jun 25 06:48	5° ♊ 20'12			2023 Feb 20 07:56	0° ♊		
greatest brilliancy	2020 Jul 05 12:43	7° ♊ 12'47	-4.7m	asc. node	2023 Mar 14 17:41	27° ♊ 20'23		
morning max el	2020 Aug 07 15:21	0° ♊			2023 Mar 16 22:34	0° ♊		
	2020 Aug 13 00:14	5° ♊ 01'18	45°47'28	2023 Apr 11 04:47	0° ♊			
	2020 Sep 06 07:22	0° ♊		2023 May 07 14:25	0° ♊			
asc. node	2020 Sep 26 22:39	23° ♊ 08'22		evening max el	2023 Jun 04 11:01	28° ♊ 56'08	45°23'57	
	2020 Oct 02 20:48	0° ♊			2023 Jun 05 13:46	0° ♊		
desc. node	2020 Oct 28 01:41	0° ♊		desc. node	2023 Jul 04 06:53	22° ♊ 45'22		
	2020 Nov 21 13:22	0° ♊		greatest brilliancy	2023 Jul 12 14:43	26° ♊ 38'53	-4.7m	
	2020 Dec 15 16:21	0° ♊		retrograde	2023 Jul 23 01:33	28° ♊ 36'12		
	2021 Jan 08 15:41	0° ♊		evening set	2023 Aug 08 22:41	23° ♊ 13'05		
	2021 Jan 16 11:50	9° ♊ 49'42		inferior conj	2023 Aug 13 11:16	20° ♊ 28'14	-7°41'18	
morning set	2021 Feb 01 14:05	0° ♊		minimum elong	2023 Aug 13 03:01	20° ♊ 41'02	7°40'13	
	2021 Feb 14 01:14	15° ♊ 36'53		min. Earth dist.	2023 Aug 13 15:17	20° ♊ 21'59	0.28871 AU	
	2021 Feb 25 13:11	0° ♊		morning rise	2023 Aug 17 07:12	18° ♊ 07'25		
superior conj	2021 Mar 21 14:16	0° ♊		direct	2023 Sep 04 01:20	12° ♊ 12'14		
	2021 Mar 26 06:58	5° ♊ 50'28	-1°21'09	greatest brilliancy	2023 Sep 14 19:47	14° ♊ 19'04	-4.8m	
	2021 Mar 26 13:47	6° ♊ 11'40	1°21'03		2023 Oct 09 01:11	0° ♊		
	2021 Mar 30 06:51	10° ♊ 48'20	1.72346 AU	morning max el	2023 Oct 23 23:14	13° ♊ 52'22	46°24'47	
	2021 Apr 14 18:22	0° ♊		asc. node	2023 Oct 25 10:20	15° ♊ 20'10		
evening rise	2021 May 04 01:01	23° ♊ 47'44			2023 Nov 08 09:31	0° ♊		
	2021 May 09 02:01	0° ♊			2023 Dec 04 18:51	0° ♊		
asc. node	2021 May 09 15:27	0° ♊ 41'18			2023 Dec 29 20:24	0° ♊		
	2021 Jun 02 13:19	0° ♊		desc. node	2024 Jan 23 08:50	0° ♊		
	2021 Jun 27 04:27	0° ♊			2024 Feb 13 23:46	26° ♊ 41'10		
	2021 Jul 22 00:37	0° ♊			2024 Feb 16 16:05	0° ♊		
	2021 Aug 16 04:27	0° ♊			2024 Mar 11 21:50	0° ♊		
desc. node	2021 Aug 29 04:36	15° ♊ 17'28		morning set	2024 Apr 05 04:00	0° ♊		
	2021 Sep 10 20:39	0° ♊			2024 Apr 28 09:39	28° ♊ 40'19		
	2021 Oct 07 11:21	0° ♊			2024 Apr 29 11:31	0° ♊		
evening max el	2021 Oct 29 20:52	23° ♊ 35'03	47°02'42		2024 May 23 20:30	0° ♊		
	2021 Nov 05 10:44	0° ♊		superior conj	2024 Jun 04 15:34	14° ♊ 29'51	-0°03'34	
greatest brilliancy	2021 Dec 09 10:49	24° ♊ 34'54	-4.9m	minimum elong	2024 Jun 04 16:18	14° ♊ 32'07	0°03'32	
retrograde	2021 Dec 19 10:36	26° ♊ 29'25		behind sun begin	2024 Jun 03 17:58	13° ♊ 23'28		
asc. node	2021 Dec 20 07:58	26° ♊ 28'27		behind sun end	2024 Jun 05 14:38	15° ♊ 40'45		
evening set	2022 Jan 03 04:45	22° ♊ 09'38		max. Earth dist.	2024 Jun 05 03:00	15° ♊ 05'01	1.73528 AU	
min. Earth dist.	2022 Jan 08 09:19	19° ♊ 06'51	0.26579 AU	asc. node	2024 Jun 06 03:13	16° ♊ 19'23		
inferior conj	2022 Jan 09 00:48	18° ♊ 43'08	4°51'07		2024 Jun 17 06:20	0° ♊		
minimum elong	2022 Jan 08 15:16	18° ♊ 57'44	4°48'32	evening rise	2024 Jul 10 20:50	29° ♊ 00'10		
morning rise	2022 Jan 14 02:03	15° ♊ 42'54			2024 Jul 11 16:19	0° ♊		
direct	2022 Jan 29 08:46	11° ♊ 04'37			2024 Aug 05 02:23	0° ♊		
greatest brilliancy	2022 Feb 07 20:00	12° ♊ 46'23	-4.9m		2024 Aug 29 13:23	0° ♊		
	2022 Mar 06 06:30	0° ♊			2024 Sep 23 02:36	0° ♊		
morning max el	2022 Mar 20 09:25	13° ♊ 11'39	46°35'11	desc. node	2024 Sep 25 16:39	3° ♊ 08'57		
	2022 Apr 05 15:18	0° ♊			2024 Oct 17 19:28	0° ♊		
desc. node	2022 Apr 10 21:30	5° ♊ 40'44			2024 Nov 11 18:26	0° ♊		
	2022 May 02 16:10	0° ♊			2024 Dec 07 06:13	0° ♊		
	2022 May 28 14:46	0° ♊			2025 Jan 03 03:24	0° ♊		

evening max el	2025 Jan 10 05:02	7° K 21'57	47°10'07		2027 Jun 08 12:33	0° II	
asc. node	2025 Jan 16 19:50	13° K 57'01			2027 Jul 03 02:02	0° G	
	2025 Feb 04 07:57	0° Y		asc. node	2027 Jul 04 15:03	1° G 53'22	
greatest brilliancy	2025 Feb 19 12:47	8° Y 45'24	-4.9m	morning set	2027 Jul 06 15:14	4° G 20'58	
retrograde	2025 Mar 02 00:36	10° Y 50'09			2027 Jul 27 12:31	0° Q	
evening set	2025 Mar 19 19:58	4° Y 39'32		max. Earth dist.	2027 Aug 08 22:02	15° Q 17'14	1.73164 AU
min. Earth dist.	2025 Mar 22 15:48	2° Y 53'47	0.28060 AU				
inferior conj	2025 Mar 23 01:08	2° Y 39'06	8°24'41	superior conj	2027 Aug 12 00:21	19° Q 06'40	1°14'45
minimum elong	2025 Mar 23 06:46	2° Y 30'13	8°24'12	minimum elong	2027 Aug 11 16:55	18° Q 43'42	1°14'35
morning rise	2025 Mar 26 17:51	0° Y 21'57			2027 Aug 20 19:43	0° M	
	2025 Mar 27 08:41	30° K			2027 Sep 14 00:25	0° L	
direct	2025 Apr 13 01:02	24° K 37'30		evening rise	2027 Sep 17 10:27	4° L 14'36	
greatest brilliancy	2025 Apr 22 07:56	26° K 13'53	-4.8m		2027 Oct 08 03:59	0° M	
	2025 Apr 30 17:16	0° Y		desc. node	2027 Oct 24 04:31	19° M 54'18	
desc. node	2025 May 08 09:10	4° Y 50'31			2027 Nov 01 07:35	0° J	
morning max el	2025 Jun 01 03:29	25° Y 04'00	45°52'59		2027 Nov 25 11:59	0° Z	
	2025 Jun 06 04:43	0° B			2027 Dec 19 18:40	0° \approx	
	2025 Jul 04 15:31	0° II			2028 Jan 13 07:20	0° K	
	2025 Jul 31 03:57	0° G			2028 Feb 07 10:01	0° Y	
	2025 Aug 25 16:27	0° Q		asc. node	2028 Feb 14 07:46	8° Y 02'22	
asc. node	2025 Aug 29 12:49	4° Q 36'03			2028 Mar 04 20:01	0° B	
	2025 Sep 19 12:39	0° M		evening max el	2028 Mar 22 12:27	18° B 26'54	46°07'00
	2025 Oct 13 21:19	0° L			2028 Apr 03 20:28	0° II	
	2025 Nov 06 22:40	0° M		greatest brilliancy	2028 Apr 30 01:32	17° II 30'33	-4.8m
greatest brilliancy	2025 Nov 24 06:03	21° M 42'58	-3.9m	retrograde	2028 May 10 23:03	19° II 41'12	
morning set	2025 Nov 26 10:00	24° M 26'10		evening set	2028 May 26 04:09	15° II 11'59	
	2025 Nov 30 20:14	0° J		inferior conj	2028 Jun 01 10:00	11° II 26'19	0°49'06
desc. node	2025 Dec 19 02:06	22° J 57'14		minimum elong	2028 Jun 01 11:48	11° II 23'30	0°48'34
	2025 Dec 24 16:26	0° Z		min. Earth dist.	2028 Jun 01 09:49	11° II 26'38	0.28843 AU
				desc. node	2028 Jun 04 20:59	9° II 17'28	
superior conj	2026 Jan 06 16:36	16° Z 22'03	-0°42'39	morning rise	2028 Jun 07 19:34	7° II 35'09	
minimum elong	2026 Jan 06 06:24	15° Z 49'58	0°42'12	direct	2028 Jun 22 22:13	3° II 10'47	
max. Earth dist.	2026 Jan 08 06:38	18° Z 21'39	1.71096 AU	greatest brilliancy	2028 Jul 03 05:03	5° II 04'04	-4.7m
	2026 Jan 17 12:43	0° \approx			2028 Aug 07 15:26	0° G	
	2026 Feb 10 10:19	0° K		morning max el	2028 Aug 10 16:03	2° G 51'20	45°46'57
evening rise	2026 Feb 16 23:02	8° K 10'33			2028 Sep 05 23:18	0° Q	
	2026 Mar 06 10:46	0° Y		asc. node	2028 Sep 26 00:36	22° Q 34'19	
	2026 Mar 30 16:01	0° B			2028 Oct 02 10:08	0° M	
asc. node	2026 Apr 11 05:37	14° B 12'35			2028 Oct 27 13:52	0° L	
	2026 Apr 24 04:03	0° II			2028 Nov 21 00:58	0° M	
	2026 May 19 01:05	0° G			2028 Dec 15 03:39	0° J	
	2026 Jun 13 10:47	0° Q			2029 Jan 08 02:47	0° Z	
	2026 Jul 09 17:22	0° M		desc. node	2029 Jan 15 13:58	9° Z 21'44	
desc. node	2026 Jul 31 18:49	23° M 50'05			2029 Feb 01 01:03	0° \approx	
	2026 Aug 06 19:13	0° L		morning set	2029 Feb 11 11:32	13° \approx 04'38	
evening max el	2026 Aug 15 06:32	8° L 20'48	45°53'32		2029 Feb 25 00:03	0° K	
	2026 Sep 10 08:07	0° M			2029 Mar 21 01:04	0° Y	
greatest brilliancy	2026 Sep 24 06:42	7° M 00'12	-4.8m				
retrograde	2026 Oct 03 07:16	8° M 29'28		superior conj	2029 Mar 23 20:12	3° Y 28'53	-1°22'19
evening set	2026 Oct 19 17:48	3° M 23'11		minimum elong	2029 Mar 24 02:20	3° Y 47'58	1°22'14
inferior conj	2026 Oct 24 03:44	0° M 45'03	-6°30'50	max. Earth dist.	2029 Mar 27 17:43	8° Y 19'37	1.72292 AU
minimum elong	2026 Oct 24 14:14	0° M 28'57	6°28'36		2029 Apr 14 05:06	0° B	
min. Earth dist.	2026 Oct 25 01:48	0° M 11'15	0.27280 AU	evening rise	2029 May 01 16:35	21° B 34'50	
	2026 Oct 25 09:10	30° K		asc. node	2029 May 08 17:24	0° II 14'15	
morning rise	2026 Oct 29 10:06	27° L 36'49			2029 May 08 12:46	0° II	
direct	2026 Nov 14 00:27	22° L 51'49			2029 Jun 02 00:11	0° G	
asc. node	2026 Nov 21 22:05	24° L 03'38			2029 Jun 26 15:37	0° Q	
greatest brilliancy	2026 Nov 25 02:39	25° L 09'58	-4.9m		2029 Jul 21 12:21	0° M	
	2026 Dec 04 08:13	0° M			2029 Aug 15 17:06	0° L	
morning max el	2027 Jan 03 17:58	26° M 15'57	46°57'01	desc. node	2029 Aug 28 06:42	14° L 44'44	
	2027 Jan 07 08:53	0° J			2029 Sep 10 10:54	0° M	
	2027 Feb 03 14:31	0° Z			2029 Oct 07 04:47	0° J	
	2027 Mar 01 06:32	0° \approx		evening max el	2029 Oct 27 10:52	21° J 12'55	47°01'08
desc. node	2027 Mar 13 11:45	14° \approx 33'57			2029 Nov 05 13:39	0° Z	
	2027 Mar 26 08:17	0° K		greatest brilliancy	2029 Dec 06 23:38	22° Z 06'57	-4.9m
	2027 Apr 20 03:57	0° Y		retrograde	2029 Dec 16 23:48	24° Z 01'42	
	2027 May 14 21:02	0° B		asc. node	2029 Dec 19 09:59	23° Z 54'25	

evening set	2029 Dec 31 15:07	19°  44'57		max. Earth dist.	2032 Jun 03 01:28	13°  13'45	1.73513 AU
min. Earth dist.	2030 Jan 05 22:29	16°  38'33	0.26550 AU	asc. node	2032 Jun 05 05:19	15°  53'03	
inferior conj	2030 Jan 06 13:18	16°  15'55	4°30'31		2032 Jun 16 17:00	0° 	
minimum elong	2030 Jan 06 04:12	16°  29'48	4°27'57	evening rise	2032 Jul 08 15:38	26°  57'28	
morning rise	2030 Jan 11 17:36	13°  11'57			2032 Jul 11 03:04	0° 	
direct	2030 Jan 26 21:33	8°  37'41			2032 Aug 04 13:20	0° 	
greatest brilliancy	2030 Feb 05 09:21	10°  20'34	-4.9m		2032 Aug 29 00:40	0° 	
	2030 Mar 06 12:51	0° 			2032 Sep 22 14:23	0° 	
morning max el	2030 Mar 17 23:55	10°  51'53	46°36'30	desc. node	2032 Sep 24 18:36	2°  138'50	
	2030 Apr 05 09:19	0° 			2032 Oct 17 08:00	0° 	
desc. node	2030 Apr 09 23:29	4°  15'31			2032 Nov 11 08:04	0° 	
	2030 May 02 06:37	0° 			2032 Dec 06 21:48	0° 	
	2030 May 28 03:33	0° 			2033 Jan 02 23:35	0° 	
	2030 Jun 22 12:23	0° 		evening max el	2033 Jan 07 20:06	5°  11'47	47°11'27
	2030 Jul 17 12:46	0° 		asc. node	2033 Jan 15 22:02	13°  11'42	
asc. node	2030 Aug 01 02:58	17°  40'57			2033 Feb 05 05:27	0° 	
	2030 Aug 11 05:24	0° 		greatest brilliancy	2033 Feb 17 04:53	6°  28'07	-4.9m
	2030 Sep 04 14:50	0° 		retrograde	2033 Feb 27 15:41	8°  31'52	
morning set	2030 Sep 12 21:57	10°  16'27		evening set	2033 Mar 17 12:49	2°  19'17	
	2030 Sep 28 18:34	0° 		inferior conj	2033 Mar 20 16:05	0°  21'38	8°30'58
max. Earth dist.	2030 Oct 17 20:00	23°  48'36	1.71760 AU	minimum elong	2033 Mar 20 21:01	0°  13'51	8°30'36
				min. Earth dist.	2033 Mar 20 06:02	0°  37'30	0.28011 AU
superior conj	2030 Oct 20 11:12	27°  06'24	1°05'28		2033 Mar 21 05:49	30°  11'47	
minimum elong	2030 Oct 20 21:17	27°  37'57	1°05'10	morning rise	2033 Mar 24 05:29	28°  11'09'17	
	2030 Oct 22 18:40	0° 		direct	2033 Apr 10 15:27	22°  11'03	
	2030 Nov 15 17:01	0° 		greatest brilliancy	2033 Apr 19 21:18	23°  11'56'23	-4.8m
desc. node	2030 Nov 20 16:21	6°  14'17			2033 May 02 03:13	0° 	
evening rise	2030 Nov 29 11:26	17°  16'28		desc. node	2033 May 07 11:11	3°  138'19	
	2030 Dec 09 14:52	0° 		morning max el	2033 May 29 17:32	22°  11'47'59	45°53'53
	2031 Jan 02 13:14	0° 			2033 Jun 06 01:09	0° 	
	2031 Jan 26 13:49	0° 			2033 Jul 04 06:37	0° 	
	2031 Feb 19 19:30	0° 			2033 Jul 30 17:00	0° 	
asc. node	2031 Mar 13 19:41	26°  15'00'03			2033 Aug 25 04:29	0° 	
	2031 Mar 16 10:42	0° 		asc. node	2033 Aug 28 14:47	4°  11'06'15	
	2031 Apr 10 18:01	0° 			2033 Sep 19 00:09	0° 	
	2031 May 07 06:06	0° 			2033 Oct 13 08:32	0° 	
evening max el	2031 Jun 02 03:34	26°  11'47'28	45°24'11		2033 Nov 06 09:45	0° 	
	2031 Jun 05 12:57	0° 		greatest brilliancy	2033 Nov 22 18:54	20°  11'33'07	-3.9m
desc. node	2031 Jul 03 09:03	21°  11'22'49		morning set	2033 Nov 23 21:41	21°  11'57'15	
greatest brilliancy	2031 Jul 10 04:57	24°  11'27'26	-4.7m		2033 Nov 30 07:17	0° 	
retrograde	2031 Jul 20 17:08	26°  11'25'37		desc. node	2033 Dec 18 04:11	22°  11'28'58	
evening set	2031 Aug 06 11:10	21°  11'07'13			2033 Dec 24 03:31	0° 	
inferior conj	2031 Aug 11 03:01	18°  11'17'13	-7°31'36	superior conj	2034 Jan 04 02:10	13°  11'46'23	-0°39'06
minimum elong	2031 Aug 10 18:22	18°  11'30'41	7°30'21	minimum elong	2034 Jan 03 16:36	13°  11'16'17	0°38'39
min. Earth dist.	2031 Aug 11 06:01	18°  11'12'32	0.28893 AU	max. Earth dist.	2034 Jan 05 08:27	15°  11'21'36	1.71083 AU
morning rise	2031 Aug 15 01:26	15°  11'52'32			2034 Jan 16 23:49	0° 	
direct	2031 Sep 01 17:57	10°  11'01'11			2034 Feb 09 21:23	0° 	
greatest brilliancy	2031 Sep 12 10:29	12°  11'06'14	-4.8m		2034 Feb 14 09:36	5°  11'38'45	
	2031 Oct 09 06:33	0° 		evening rise	2034 Mar 05 21:51	0° 	
morning max el	2031 Oct 21 14:12	11°  11'35'59	46°23'07		2034 Mar 30 03:12	0° 	
asc. node	2031 Oct 24 12:22	14°  11'32'11			2034 Apr 10 07:36	13°  11'44'05	
	2031 Nov 08 02:59	0° 		asc. node	2034 Apr 23 15:30	0° 	
	2031 Dec 04 09:09	0° 			2034 May 18 13:05	0° 	
	2031 Dec 29 09:17	0° 			2034 Jun 12 23:49	0° 	
	2032 Jan 22 20:56	0° 			2034 Jul 09 08:34	0° 	
desc. node	2032 Feb 13 01:53	26°  11'11'40		desc. node	2034 Jul 30 20:52	23°  11'11'06'28	
	2032 Feb 16 03:41	0° 			2034 Aug 06 15:55	0° 	
	2032 Mar 11 09:04	0° 		evening max el	2034 Aug 12 19:00	5°  11'59'32	45°51'21
	2032 Apr 04 14:58	0° 			2034 Sep 11 16:18	0° 	
morning set	2032 Apr 26 01:56	26°  11'29'20		greatest brilliancy	2034 Sep 21 19:46	4°  11'38'37	-4.8m
	2032 Apr 28 22:18	0° 		retrograde	2034 Sep 30 19:37	6°  11'07'43	
	2032 May 23 07:10	0° 		evening set	2034 Oct 17 10:05	0° 	
superior conj	2032 Jun 02 09:07	12°  11'23'32	-0°06'47		2034 Oct 19 00:40	30°  11'11'47	
minimum elong	2032 Jun 02 10:33	12°  11'27'56	0°06'43	inferior conj	2034 Oct 21 17:04	28°  11'22'30	-6°45'34
behind sun begin	2032 Jun 01 13:40	11°  11'23'45		minimum elong	2034 Oct 22 03:27	28°  11'06'36	6°43'29
behind sun end	2032 Jun 03 07:26	13°  11'32'06		min. Earth dist.	2034 Oct 22 15:50	27°  11'04'40	0.27350 AU

morning rise	2034 Oct 26 20:15	25°♌18'41			2037 May 07 23:51	0°♊	
direct	2034 Nov 11 14:02	20°♌27'53			2037 Jun 01 11:23	0°♋	
asc. node	2034 Nov 21 00:09	22°♌08'45			2037 Jun 26 03:06	0°♌	
greatest brilliancy	2034 Nov 22 18:05	22°♌47'37	-4.9m		2037 Jul 21 00:23	0°♍	
	2034 Dec 05 12:04	0°♎			2037 Aug 15 06:06	0°♎	
morning max el	2035 Jan 01 07:27	23°♎50'05	46°56'45	desc. node	2037 Aug 27 08:39	14°♎10'37	
	2035 Jan 07 06:00	0°♏			2037 Sep 10 01:38	0°♎	
	2035 Feb 03 06:29	0°♐			2037 Oct 06 23:03	0°♏	
	2035 Feb 28 20:23	0°♑		evening max el	2037 Oct 25 01:24	18°♏50'50	46°59'07
desc. node	2035 Mar 12 13:40	14°♑00'07			2037 Nov 05 18:58	0°♐	
	2035 Mar 25 20:56	0°♒		greatest brilliancy	2037 Dec 04 12:07	19°♐36'35	-4.9m
	2035 Apr 19 15:52	0°♓		retrograde	2037 Dec 14 12:47	21°♐31'16	
	2035 May 14 08:26	0°♈		asc. node	2037 Dec 18 12:10	21°♐11'37	
	2035 Jun 07 23:37	0°♉		evening set	2037 Dec 29 01:26	17°♐17'39	
	2035 Jul 02 12:53	0°♊		min. Earth dist.	2038 Jan 03 11:23	14°♐07'33	0.26523 AU
asc. node	2035 Jul 03 17:11	1°♊26'39		inferior conj	2038 Jan 04 01:27	13°♐46'05	4°08'59
morning set	2035 Jul 04 09:30	2°♊16'36		minimum elong	2038 Jan 03 16:54	13°♐59'09	4°06'30
	2035 Jul 26 23:18	0°♋		morning rise	2038 Jan 09 08:43	10°♐38'26	
max. Earth dist.	2035 Aug 06 19:10	13°♋20'56	1.73207 AU	direct	2038 Jan 24 10:20	6°♐08'23	
				greatest brilliancy	2038 Feb 02 22:12	7°♐51'50	-4.9m
superior conj	2035 Aug 09 18:40	17°♋01'39	1°13'13		2038 Mar 06 17:53	0°♑	
minimum elong	2035 Aug 09 10:54	16°♋37'41	1°13'01	morning max el	2038 Mar 15 13:50	8°♑29'03	46°37'56
	2035 Aug 20 06:33	0°♒			2038 Apr 05 03:23	0°♒	
	2035 Sep 13 11:24	0°♓		desc. node	2038 Apr 09 01:35	4°♒17'45	
evening rise	2035 Sep 15 02:55	2°♓02'36			2038 May 01 21:17	0°♓	
	2035 Oct 07 15:13	0°♈			2038 May 27 16:34	0°♈	
desc. node	2035 Oct 23 06:31	19°♈25'06			2038 Jun 22 00:29	0°♉	
	2035 Oct 31 19:06	0°♏			2038 Jul 17 00:17	0°♉	
	2035 Nov 24 23:51	0°♐		asc. node	2038 Jul 31 04:57	17°♉12'35	
	2035 Dec 19 07:00	0°♑			2038 Aug 10 16:34	0°♋	
	2036 Jan 12 20:24	0°♒			2038 Sep 04 01:51	0°♋	
	2036 Feb 07 00:26	0°♓		morning set	2038 Sep 10 14:41	8°♋05'31	
asc. node	2036 Feb 13 09:44	7°♓24'53			2038 Sep 28 05:33	0°♌	
	2036 Mar 04 13:34	0°♈		max. Earth dist.	2038 Oct 15 07:23	21°♌19'35	1.71809 AU
evening max el	2036 Mar 20 03:25	16°♈11'03	46°09'29				
	2036 Apr 04 01:54	0°♉		superior conj	2038 Oct 18 01:41	24°♌46'56	1°07'41
greatest brilliancy	2036 Apr 27 17:57	15°♉20'15	-4.8m	minimum elong	2038 Oct 18 11:31	25°♌17'42	1°07'23
retrograde	2036 May 08 15:58	17°♉31'42			2038 Oct 22 05:43	0°♍	
evening set	2036 May 23 21:47	13°♉00'22			2038 Nov 15 04:12	0°♏	
inferior conj	2036 May 30 02:25	9°♉16'35	1°08'57	desc. node	2038 Nov 19 18:31	5°♏45'52	
minimum elong	2036 May 30 04:56	9°♉12'38	1°08'13	evening rise	2038 Nov 26 22:43	14°♏45'54	
min. Earth dist.	2036 May 30 02:19	9°♉16'44	0.28826 AU		2038 Dec 09 02:12	0°♐	
desc. node	2036 Jun 03 23:07	6°♉17'53			2039 Jan 02 00:46	0°♑	
morning rise	2036 Jun 05 12:13	5°♉25'22			2039 Jan 26 01:32	0°♒	
direct	2036 Jun 20 14:12	1°♉01'07			2039 Feb 19 07:32	0°♓	
greatest brilliancy	2036 Jun 30 21:02	2°♉54'47	-4.7m	asc. node	2039 Mar 12 21:41	26°♓18'25	
	2036 Aug 07 14:37	0°♋			2039 Mar 15 23:17	0°♈	
morning max el	2036 Aug 08 08:37	0°♋42'50	45°46'23		2039 Apr 10 07:45	0°♉	
	2036 Sep 05 15:12	0°♌			2039 May 06 22:26	0°♊	
asc. node	2036 Sep 25 02:39	21°♌59'56		evening max el	2039 May 30 19:33	24°♊36'33	45°24'34
	2036 Oct 01 23:39	0°♍			2039 Jun 05 13:35	0°♋	
	2036 Oct 27 02:21	0°♎		desc. node	2039 Jul 02 11:08	19°♋56'55	
	2036 Nov 20 12:57	0°♏		greatest brilliancy	2039 Jul 07 20:09	22°♋16'41	-4.7m
	2036 Dec 14 15:21	0°♐		retrograde	2039 Jul 18 08:36	24°♋15'04	
	2037 Jan 07 14:16	0°♑		evening set	2039 Aug 03 23:58	19°♋01'24	
desc. node	2037 Jan 14 16:04	8°♑52'25		inferior conj	2039 Aug 08 19:02	16°♋06'26	-7°21'20
	2037 Jan 31 12:23	0°♒		minimum elong	2039 Aug 08 10:03	16°♋20'27	7°19'57
morning set	2037 Feb 08 21:37	10°♒30'32		min. Earth dist.	2039 Aug 08 21:24	16°♋02'45	0.28909 AU
	2037 Feb 24 11:15	0°♓		morning rise	2039 Aug 12 20:00	13°♋37'41	
	2037 Mar 20 12:10	0°♈		direct	2039 Aug 30 10:14	7°♋50'23	
				greatest brilliancy	2039 Sep 10 01:44	9°♋53'59	-4.8m
superior conj	2037 Mar 21 09:16	1°♓05'39	-1°23'20		2039 Oct 09 10:10	0°♉	
minimum elong	2037 Mar 21 14:38	1°♓22'21	1°23'16	morning max el	2039 Oct 19 04:21	9°♉17'23	46°21'31
max. Earth dist.	2037 Mar 25 06:07	5°♓54'30	1.72238 AU	asc. node	2039 Oct 23 14:27	13°♉44'49	
	2037 Apr 13 16:10	0°♈			2039 Nov 07 20:13	0°♊	
evening rise	2037 Apr 29 08:12	19°♈21'03			2039 Dec 03 23:27	0°♋	
asc. node	2037 May 07 19:32	29°♈46'45			2039 Dec 28 22:19	0°♌	

	2040 Jan 22 09:17	0° Z			2042 Jul 09 00:03	0° M	
desc. node	2040 Feb 12 03:49	25° Z 40'38		desc. node	2042 Jul 29 22:49	22° M 21'55	
	2040 Feb 15 15:35	0° \approx			2042 Aug 06 13:20	0° $\underline{\text{A}}$	
	2040 Mar 10 20:39	0° X		evening max el	2042 Aug 10 07:51	3° $\underline{\text{A}}$ 39'25	45°49'25
	2040 Apr 04 02:16	0° Y			2042 Sep 13 15:31	0° M	
morning set	2040 Apr 23 17:40	24° Y 15'43		greatest brilliancy	2042 Sep 19 08:16	2° M 17'05	-4.8m
	2040 Apr 28 09:22	0° X		retrograde	2042 Sep 28 08:41	3° M 46'49	
	2040 May 22 18:06	0° II			2042 Oct 12 08:15	30° R $\underline{\text{A}}$	
				evening set	2042 Oct 15 02:28	28° $\underline{\text{A}}$ 29'55	
superior conj	2040 May 31 02:25	10° II 15'40 -0°10'01		inferior conj	2042 Oct 19 06:29	26° $\underline{\text{A}}$ 00'32	-6°59'35
minimum elong	2040 May 31 04:31	10° II 22'09 0°09'54		minimum elong	2042 Oct 19 16:43	25° $\underline{\text{A}}$ 44'54	6°57'37
behind sun begin	2040 May 30 10:27	9° II 26'36		min. Earth dist.	2042 Oct 20 05:33	25° $\underline{\text{A}}$ 25'18	0.27419 AU
behind sun end	2040 May 31 22:36	11° II 17'41		morning rise	2042 Oct 24 06:25	23° $\underline{\text{A}}$ 01'30	
max. Earth dist.	2040 May 31 22:44	11° II 18'08 1.73490 AU		direct	2042 Nov 09 04:04	18° $\underline{\text{A}}$ 04'37	
asc. node	2040 Jun 04 07:23	15° II 25'55		asc. node	2042 Nov 20 02:15	20° $\underline{\text{A}}$ 18'49	
	2040 Jun 16 03:53	0° E		greatest brilliancy	2042 Nov 20 09:05	20° $\underline{\text{A}}$ 25'33	-4.9m
evening rise	2040 Jul 06 10:23	24° E 53'57			2042 Dec 06 08:11	0° M	
	2040 Jul 10 14:02	0° Ω		morning max el	2042 Dec 29 22:02	21° M 27'39	46°56'34
	2040 Aug 04 00:30	0° M			2043 Jan 07 02:12	0° X	
	2040 Aug 28 12:09	0° $\underline{\text{A}}$			2043 Feb 02 22:00	0° Z	
	2040 Sep 22 02:21	0° M			2043 Feb 28 09:54	0° \approx	
desc. node	2040 Sep 23 20:42	2° M 08'42		desc. node	2043 Mar 11 15:47	13° \approx 27'36	
	2040 Oct 16 20:40	0° X			2043 Mar 25 09:22	0° X	
	2040 Nov 10 21:53	0° Z			2043 Apr 19 03:37	0° Y	
	2040 Dec 06 13:43	0° \approx			2043 May 13 19:45	0° X	
	2041 Jan 02 20:37	0° X			2043 Jun 07 10:38	0° II	
evening max el	2041 Jan 05 09:58	2° X 37'50 47°12'23			2043 Jul 01 23:42	0° E	
asc. node	2041 Jan 14 23:55	12° X 03'44		morning set	2043 Jul 02 03:25	0° E 11'22	
	2041 Feb 06 11:59	0° Y		asc. node	2043 Jul 02 19:10	0° E 59'37	
greatest brilliancy	2041 Feb 14 20:54	4° Y 09'09 -4.9m			2043 Jul 26 10:00	0° Ω	
retrograde	2041 Feb 25 06:07	6° Y 11'48		max. Earth dist.	2043 Aug 04 17:08	11° Ω 27'34	1.73242 AU
evening set	2041 Mar 15 05:05	29° X 57'36					
	2041 Mar 15 03:31	30° R X		superior conj	2043 Aug 07 12:40	14° Ω 55'59	1°11'33
inferior conj	2041 Mar 18 06:47	28° X 02'22 8°36'21		minimum elong	2043 Aug 07 04:36	14° Ω 31'05	1°11'20
minimum elong	2041 Mar 18 10:58	27° X 55'46 8°36'05			2043 Aug 19 17:16	0° M	
min. Earth dist.	2041 Mar 17 20:17	28° X 18'56 0.27967 AU		evening rise	2043 Sep 12 19:20	29° M 50'56	
morning rise	2041 Mar 21 17:04	25° X 54'33			2043 Sep 12 22:15	0° $\underline{\text{A}}$	
direct	2041 Apr 08 05:08	20° X 02'36			2043 Oct 07 02:18	0° M	
greatest brilliancy	2041 Apr 17 11:04	21° X 37'40 -4.8m		desc. node	2043 Oct 22 08:40	18° M 56'51	
	2041 May 03 04:08	0° Y			2043 Oct 31 06:28	0° X	
desc. node	2041 May 06 13:18	2° Y 27'05			2043 Nov 24 11:34	0° Z	
morning max el	2041 May 27 07:03	20° Y 29'32 45°55'01			2043 Dec 18 19:09	0° \approx	
	2041 Jun 05 21:16	0° X			2044 Jan 12 09:16	0° X	
	2041 Jul 03 21:43	0° II			2044 Feb 06 14:41	0° Y	
	2041 Jul 30 06:04	0° E		asc. node	2044 Feb 12 11:47	6° Y 48'22	
	2041 Aug 24 16:33	0° Ω			2044 Mar 04 07:08	0° X	
asc. node	2041 Aug 27 16:46	3° Ω 36'17		evening max el	2044 Mar 17 19:06	13° X 57'55	46°11'51
	2041 Sep 18 11:41	0° M			2044 Apr 04 09:09	0° II	
	2041 Oct 12 19:46	0° $\underline{\text{A}}$		greatest brilliancy	2044 Apr 25 10:00	13° II 10'11	-4.8m
	2041 Nov 05 20:51	0° M		retrograde	2044 May 06 09:01	15° II 22'27	
morning set	2041 Nov 21 10:02	19° M 30'30		evening set	2044 May 21 15:29	10° II 48'58	
	2041 Nov 29 18:20	0° X		inferior conj	2044 May 27 18:42	7° II 06'59	1°28'50
desc. node	2041 Dec 17 06:16	22° X 00'45		minimum elong	2044 May 27 21:56	7° II 01'55	1°27'53
	2041 Dec 23 14:33	0° Z		min. Earth dist.	2044 May 27 18:26	7° II 07'24	0.28814 AU
				morning rise	2044 Jun 03 04:37	3° II 16'00	
superior conj	2042 Jan 01 12:17	11° Z 12'30 -0°35'29		desc. node	2044 Jun 03 01:09	3° II 20'46	
minimum elong	2042 Jan 01 03:25	10° Z 44'37 0°35'05			2044 Jun 10 17:15	30° R X	
max. Earth dist.	2042 Jan 02 11:37	12° Z 25'56 1.71077 AU		direct	2044 Jun 18 06:37	28° X 51'44	
	2042 Jan 16 10:51	0° \approx			2044 Jun 26 03:21	0° II	
	2042 Feb 09 08:27	0° X		greatest brilliancy	2044 Jun 28 12:28	0° II 45'08	-4.7m
evening rise	2042 Feb 11 20:25	3° X 07'43		morning max el	2044 Aug 06 01:26	28° II 35'24	45°45'47
	2042 Mar 05 08:59	0° Y			2044 Aug 07 12:42	0° E	
	2042 Mar 29 14:29	0° X			2044 Sep 05 06:40	0° Ω	
asc. node	2042 Apr 09 09:42	13° X 15'43		asc. node	2044 Sep 24 04:49	21° Ω 26'40	
	2042 Apr 23 03:05	0° II			2044 Oct 01 12:51	0° M	
	2042 May 18 01:14	0° E			2044 Oct 26 14:31	0° $\underline{\text{A}}$	
	2042 Jun 12 13:03	0° Ω			2044 Nov 20 00:36	0° M	

	2044 Dec 14 02:42	0°♊		retrograde	2047 Jul 15 23:46	22°♏05'52	
	2045 Jan 07 01:26	0°♋		evening set	2047 Aug 01 12:45	16°♏56'37	
desc. node	2045 Jan 13 17:59	8°♋23'33		inferior conj	2047 Aug 06 11:04	13°♏56'54	-7°10'19
	2045 Jan 30 23:23	0°♌		minimum elong	2047 Aug 06 01:47	14°♏11'24	7°08'49
morning set	2045 Feb 06 07:51	7°♌57'51		min. Earth dist.	2047 Aug 06 13:05	13°♏53'45	0.28930 AU
	2045 Feb 23 22:07	0°♍		morning rise	2047 Aug 10 14:39	11°♏24'00	
				direct	2047 Aug 28 02:07	5°♏40'33	
superior conj	2045 Mar 18 22:23	28°♍43'35	-1°24'11	greatest brilliancy	2047 Sep 07 17:41	7°♏43'32	-4.8m
minimum elong	2045 Mar 19 02:57	28°♍57'46	1°24'09		2047 Oct 09 11:56	0°♐	
	2045 Mar 19 22:56	0°♑		morning max el	2047 Oct 16 18:07	6°♐58'33	46°19'55
max. Earth dist.	2045 Mar 22 21:02	3°♑38'12	1.72183 AU	asc. node	2047 Oct 22 16:30	12°♐58'40	
	2045 Apr 13 02:52	0°♒			2047 Nov 07 12:53	0°♑	
evening rise	2045 Apr 26 23:51	17°♒08'27			2047 Dec 03 13:23	0°♒	
asc. node	2045 May 06 21:36	29°♒20'09			2047 Dec 28 10:59	0°♓	
	2045 May 07 10:34	0°♓			2048 Jan 21 21:15	0°♋	
	2045 May 31 22:15	0°♌		desc. node	2048 Feb 11 05:58	25°♋11'22	
	2045 Jun 25 14:20	0°♍			2048 Feb 15 03:06	0°♌	
	2045 Jul 20 12:13	0°♎			2048 Mar 10 07:50	0°♍	
	2045 Aug 14 18:57	0°♏			2048 Apr 03 13:11	0°♎	
desc. node	2045 Aug 26 10:45	13°♏37'27		morning set	2048 Apr 21 09:21	22°♎02'48	
	2045 Sep 09 16:15	0°♐			2048 Apr 27 20:05	0°♏	
	2045 Oct 06 17:25	0°♑			2048 May 22 04:42	0°♐	
evening max el	2045 Oct 22 15:56	16°♑29'49	46°57'09				
	2045 Nov 06 01:57	0°♒		superior conj	2048 May 28 19:51	8°♐09'16	-0°13'13
greatest brilliancy	2045 Dec 02 00:59	17°♒07'57	-4.9m	minimum elong	2048 May 28 22:38	8°♐17'49	0°13'05
retrograde	2045 Dec 12 01:29	19°♒01'46		behind sun begin	2048 May 28 09:31	7°♐37'29	
asc. node	2045 Dec 17 14:06	18°♒23'51		behind sun end	2048 May 29 11:45	8°♐58'09	
evening set	2045 Dec 26 12:01	14°♒51'16		max. Earth dist.	2048 May 29 18:19	9°♐18'17	1.73464 AU
min. Earth dist.	2046 Jan 01 00:31	11°♒37'23	0.26496 AU	asc. node	2048 Jun 03 09:22	14°♐59'31	
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minimum elong	2046 Jan 01 05:38	11°♒29'34	3°44'33	evening rise	2048 Jul 04 05:20	22°♑52'09	
morning rise	2046 Jan 06 23:38	8°♒06'01			2048 Jul 10 00:41	0°♒	
direct	2046 Jan 21 22:57	3°♒40'18			2048 Aug 03 11:21	0°♓	
greatest brilliancy	2046 Jan 31 11:15	5°♒24'11	-4.9m		2048 Aug 27 23:21	0°♏	
	2046 Mar 06 20:42	0°♓			2048 Sep 21 14:07	0°♐	
morning max el	2046 Mar 13 02:52	6°♓05'04	46°39'23	desc. node	2048 Sep 22 22:48	1°♐39'13	
	2046 Apr 04 20:37	0°♋			2048 Oct 16 09:15	0°♑	
desc. node	2046 Apr 08 03:39	3°♋37'37			2048 Nov 10 11:41	0°♒	
	2046 May 01 11:21	0°♌			2048 Dec 06 05:43	0°♓	
	2046 May 27 05:04	0°♍			2049 Jan 02 18:10	0°♋	
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asc. node	2046 Jul 30 06:58	16°♏45'27			2049 Feb 08 08:10	0°♌	
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	2046 Sep 03 12:34	0°♑		retrograde	2049 Feb 22 20:43	3°♌52'43	
morning set	2046 Sep 08 07:10	5°♑54'42			2049 Mar 08 17:48	30°♌	
	2046 Sep 27 16:16	0°♒		evening set	2049 Mar 12 21:01	27°♌37'06	
max. Earth dist.	2046 Oct 12 17:11	18°♒46'39	1.71857 AU	inferior conj	2049 Mar 15 21:30	25°♌43'55	8°40'51
				minimum elong	2049 Mar 16 00:54	25°♌38'34	8°40'41
superior conj	2046 Oct 15 16:02	22°♒28'08	1°09'47	min. Earth dist.	2049 Mar 15 10:29	26°♌01'16	0.27920 AU
minimum elong	2046 Oct 16 01:32	22°♒57'52	1°09'30	morning rise	2049 Mar 19 04:57	23°♌40'26	
	2046 Oct 21 16:29	0°♓		direct	2049 Apr 05 18:37	17°♌44'46	
	2046 Nov 14 15:03	0°♋		greatest brilliancy	2049 Apr 15 01:01	19°♌20'02	-4.8m
desc. node	2046 Nov 18 20:30	5°♋18'01			2049 May 03 22:03	0°♎	
evening rise	2046 Nov 24 09:51	12°♋16'02		desc. node	2049 May 05 15:21	1°♎18'34	
	2046 Dec 08 13:11	0°♌		morning max el	2049 May 24 21:11	18°♎13'17	45°56'14
	2047 Jan 01 11:55	0°♍			2049 Jun 05 16:28	0°♏	
	2047 Jan 25 12:54	0°♎			2049 Jul 03 12:20	0°♐	
	2047 Feb 18 19:12	0°♏			2049 Jul 29 18:47	0°♑	
asc. node	2047 Mar 11 23:49	25°♏48'12			2049 Aug 24 04:19	0°♒	
	2047 Mar 15 11:32	0°♓		asc. node	2049 Aug 26 18:58	3°♒07'50	
	2047 Apr 09 21:10	0°♋			2049 Sep 17 22:56	0°♓	
	2047 May 06 14:34	0°♌			2049 Oct 12 06:48	0°♍	
evening max el	2047 May 28 10:37	22°♌24'40	45°25'00		2049 Nov 05 07:48	0°♎	
	2047 Jun 05 14:56	0°♍		morning set	2049 Nov 18 22:17	17°♎03'46	
desc. node	2047 Jul 01 13:02	18°♍29'06			2049 Nov 29 05:18	0°♏	
greatest brilliancy	2047 Jul 05 11:28	20°♍07'14	-4.7m	desc. node	2049 Dec 16 08:15	21°♏32'30	












































































































































	2049 Dec 23 01:32	0°☾	min. Earth dist.	2052 May 25 10:26	4°☿57'49	0.28794 AU
			morning rise	2052 May 31 20:49	1°☿06'17	
superior conj	2049 Dec 29 21:53	8°☿37'14 -0°31'46	desc. node	2052 Jun 02 03:08	0°☿26'02	
minimum elong	2049 Dec 29 13:49	8°☿11'49 0°31'24		2052 Jun 02 23:53	30°☿8	
max. Earth dist.	2049 Dec 30 15:31	9°☿32'43 1.71073 AU	direct	2052 Jun 15 23:10	26°☿42'09	
	2050 Jan 15 21:49	0°☿	greatest brilliancy	2052 Jun 26 03:16	28°☿34'24	-4.7m
	2050 Feb 08 19:24	0°☿		2052 Jun 29 16:38	0°☿	
evening rise	2050 Feb 09 06:47	0°☿35'38	morning max el	2052 Aug 03 17:58	26°☿27'03	45°45'12
	2050 Mar 04 19:59	0°☿		2052 Aug 07 10:03	0°☿	
	2050 Mar 29 01:38	0°☿		2052 Sep 04 21:59	0°☿	
asc. node	2050 Apr 08 11:45	12°☿47'35	asc. node	2052 Sep 23 06:45	20°☿52'42	
	2050 Apr 22 14:33	0°☿		2052 Oct 01 02:02	0°☿	
	2050 May 17 13:16	0°☿		2052 Oct 26 02:44	0°☿	
	2050 Jun 12 02:12	0°☿		2052 Nov 19 12:19	0°☿	
	2050 Jul 08 15:34	0°☿		2052 Dec 13 14:08	0°☿	
desc. node	2050 Jul 29 01:00	21°☿37'54		2053 Jan 06 12:42	0°☿	
	2050 Aug 06 11:20	0°☿	desc. node	2053 Jan 12 20:09	7°☿55'03	
evening max el	2050 Aug 07 21:42	1°☿22'36 45°47'35		2053 Jan 30 10:32	0°☿	
greatest brilliancy	2050 Sep 16 20:14	29°☿56'10 -4.8m	morning set	2053 Feb 03 18:00	5°☿24'21	
	2050 Sep 17 01:04	0°☿		2053 Feb 23 09:12	0°☿	
retrograde	2050 Sep 25 22:20	1°☿26'57				
	2050 Oct 04 11:00	30°☿	superior conj	2053 Mar 16 11:05	26°☿19'17	-1°24'54
evening set	2050 Oct 12 18:55	26°☿04'48	minimum elong	2053 Mar 16 14:47	26°☿30'49	1°24'53
inferior conj	2050 Oct 16 20:02	23°☿39'31 -7°12'33		2053 Mar 19 09:56	0°☿	
minimum elong	2050 Oct 17 06:01	23°☿24'15 7°10'45	max. Earth dist.	2053 Mar 20 12:10	1°☿21'40	1.72129 AU
min. Earth dist.	2050 Oct 17 18:56	23°☿04'33 0.27492 AU		2053 Apr 12 13:50	0°☿	
morning rise	2050 Oct 21 16:38	20°☿45'21	evening rise	2053 Apr 24 14:58	14°☿53'15	
direct	2050 Nov 06 18:44	15°☿42'27	asc. node	2053 May 05 23:33	28°☿52'24	
greatest brilliancy	2050 Nov 17 23:33	18°☿03'34 -4.9m		2053 May 06 21:33	0°☿	
asc. node	2050 Nov 19 04:14	18°☿33'30		2053 May 31 09:23	0°☿	
	2050 Dec 06 23:02	0°☿		2053 Jun 25 01:48	0°☿	
morning max el	2050 Dec 27 13:23	19°☿07'17 46°56'03		2053 Jul 20 00:18	0°☿	
	2051 Jan 06 21:51	0°☿		2053 Aug 14 08:06	0°☿	
	2051 Feb 02 13:23	0°☿	desc. node	2053 Aug 25 12:51	13°☿03'27	
	2051 Feb 27 23:24	0°☿		2053 Sep 09 07:17	0°☿	
desc. node	2051 Mar 10 17:54	12°☿54'56		2053 Oct 06 12:27	0°☿	
	2051 Mar 24 21:48	0°☿	evening max el	2053 Oct 20 06:09	14°☿07'41	46°55'06
	2051 Apr 18 15:21	0°☿		2053 Nov 06 11:38	0°☿	
	2051 May 13 07:01	0°☿	greatest brilliancy	2053 Nov 29 14:39	14°☿40'18	-4.9m
	2051 Jun 06 21:35	0°☿	retrograde	2053 Dec 09 13:52	16°☿32'30	
morning set	2051 Jun 29 21:29	28°☿06'46	asc. node	2053 Dec 16 16:09	15°☿30'20	
	2051 Jul 01 10:28	0°☿	evening set	2053 Dec 23 23:07	12°☿24'51	
asc. node	2051 Jul 01 21:12	0°☿32'55	min. Earth dist.	2053 Dec 29 14:15	9°☿07'08	0.26472 AU
	2051 Jul 25 20:41	0°☿	inferior conj	2053 Dec 30 02:00	8°☿49'09	3°24'35
max. Earth dist.	2051 Aug 02 14:54	9°☿33'41 1.73274 AU	minimum elong	2053 Dec 29 18:41	9°☿00'20	3°22'22
			morning rise	2054 Jan 04 14:37	5°☿34'02	
superior conj	2051 Aug 05 06:57	12°☿51'16 1°09'48	direct	2054 Jan 19 11:20	1°☿12'29	
minimum elong	2051 Aug 04 22:39	12°☿25'39 1°09'34	greatest brilliancy	2054 Jan 29 01:01	2°☿57'13	-4.9m
	2051 Aug 19 03:58	0°☿		2054 Mar 06 22:17	0°☿	
evening rise	2051 Sep 10 12:12	27°☿40'45	morning max el	2054 Mar 10 15:13	3°☿38'33	46°40'38
	2051 Sep 12 09:06	0°☿		2054 Apr 04 13:47	0°☿	
	2051 Oct 06 13:22	0°☿	desc. node	2054 Apr 07 05:40	2°☿56'53	
desc. node	2051 Oct 21 10:40	18°☿28'14		2054 May 01 01:36	0°☿	
	2051 Oct 30 17:50	0°☿		2054 May 26 17:51	0°☿	
	2051 Nov 23 23:18	0°☿		2054 Jun 21 00:00	0°☿	
	2051 Dec 18 07:25	0°☿		2054 Jul 15 22:46	0°☿	
	2052 Jan 11 22:21	0°☿	asc. node	2054 Jul 29 09:08	16°☿17'54	
	2052 Feb 06 05:18	0°☿		2054 Aug 09 14:29	0°☿	
asc. node	2052 Feb 11 13:55	6°☿11'07		2054 Sep 02 23:33	0°☿	
	2052 Mar 04 01:22	0°☿	morning set	2054 Sep 05 23:46	3°☿43'30	
evening max el	2052 Mar 15 11:26	11°☿45'36 46°14'21		2054 Sep 27 03:14	0°☿	
	2052 Apr 04 19:29	0°☿	max. Earth dist.	2054 Oct 10 04:16	16°☿16'57	1.71908 AU
greatest brilliancy	2052 Apr 23 02:36	11°☿00'15 -4.8m				
retrograde	2052 May 04 02:07	13°☿12'30	superior conj	2054 Oct 13 06:45	20°☿09'41	1°11'43
evening set	2052 May 19 09:24	8°☿37'06	minimum elong	2054 Oct 13 15:53	20°☿38'14	1°11'29
inferior conj	2052 May 25 11:00	4°☿56'56 1°48'31		2054 Oct 21 03:31	0°☿	
minimum elong	2052 May 25 14:56	4°☿50'47 1°47'22		2054 Nov 14 02:12	0°☿	

desc. node	2054 Nov 17 22:32	4°♄49'20	morning max el	2057 May 22 12:06	15°♊58'09	45°57'29
evening rise	2054 Nov 21 21:24	9°♄46'41		2057 Jun 05 11:25	0°♄	
	2054 Dec 08 00:28	0°♄		2057 Jul 03 03:05	0°♊	
	2054 Dec 31 23:21	0°♁		2057 Jul 29 07:45	0°♄	
	2055 Jan 25 00:32	0°♄		2057 Aug 23 16:22	0°♊	
	2055 Feb 18 07:10	0°♊	asc. node	2057 Aug 25 20:55	2°♊37'42	
asc. node	2055 Mar 11 01:49	25°♊16'42		2057 Sep 17 10:30	0°♄	
	2055 Mar 15 00:08	0°♄		2057 Oct 11 18:05	0°♄	
	2055 Apr 09 11:03	0°♊		2057 Nov 04 19:00	0°♊	
	2055 May 06 07:27	0°♄	morning set	2057 Nov 16 10:45	14°♊37'07	
evening max el	2055 May 26 01:23	20°♄10'51 45°25'31		2057 Nov 28 16:29	0°♄	
	2055 Jun 05 18:19	0°♊	desc. node	2057 Dec 15 10:23	21°♄04'00	
desc. node	2055 Jun 30 15:14	16°♊57'30		2057 Dec 22 12:44	0°♄	
greatest brilliancy	2055 Jul 03 02:42	17°♊56'35 -4.7m				
retrograde	2055 Jul 13 15:18	19°♊56'03	superior conj	2057 Dec 27 07:32	6°♄01'13 -0°27'59	
evening set	2055 Jul 30 01:41	14°♊50'48	minimum elong	2057 Dec 27 00:19	5°♄38'31 0°27'38	
inferior conj	2055 Aug 04 03:14	11°♊46'39 -6°58'45	max. Earth dist.	2057 Dec 27 23:08	6°♄50'21 1.71074 AU	
minimum elong	2055 Aug 03 17:41	12°♊01'33 6°57'07		2058 Jan 15 09:03	0°♁	
min. Earth dist.	2055 Aug 04 04:58	11°♊43'56 0.28947 AU	evening rise	2058 Feb 06 17:11	28°♁02'40	
morning rise	2055 Aug 08 09:28	9°♊09'44		2058 Feb 08 06:39	0°♄	
direct	2055 Aug 25 17:51	3°♊29'56		2058 Mar 04 07:17	0°♊	
greatest brilliancy	2055 Sep 05 10:06	5°♊33'00 -4.8m		2058 Mar 28 13:04	0°♄	
	2055 Oct 09 12:44	0°♄	asc. node	2058 Apr 07 13:45	12°♄18'31	
morning max el	2055 Oct 14 08:27	4°♄40'28 46°18'21		2058 Apr 22 02:16	0°♊	
asc. node	2055 Oct 21 18:33	12°♄12'22		2058 May 17 01:35	0°♄	
	2055 Nov 07 05:31	0°♄		2058 Jun 11 15:42	0°♊	
	2055 Dec 03 03:28	0°♊		2058 Jul 08 07:37	0°♄	
	2055 Dec 27 23:53	0°♄	desc. node	2058 Jul 28 03:02	20°♄52'00	
	2056 Jan 21 09:29	0°♄	evening max el	2058 Aug 05 12:33	29°♄07'30 45°45'40	
desc. node	2056 Feb 10 08:02	24°♄41'03		2058 Aug 06 10:36	0°♄	
	2056 Feb 14 14:54	0°♁	greatest brilliancy	2058 Sep 14 08:16	27°♄34'48 -4.8m	
	2056 Mar 09 19:17	0°♄	retrograde	2058 Sep 23 11:59	29°♄06'21	
	2056 Apr 03 00:22	0°♊	evening set	2058 Oct 10 11:25	23°♄39'27	
morning set	2056 Apr 19 01:05	19°♊49'04	inferior conj	2058 Oct 14 09:40	21°♄18'02 -7°24'42	
	2056 Apr 27 07:05	0°♄	minimum elong	2058 Oct 14 19:19	21°♄03'16 7°23'06	
	2056 May 21 15:36	0°♊	min. Earth dist.	2058 Oct 15 08:10	20°♄43'39 0.27561 AU	
			morning rise	2058 Oct 19 02:49	18°♄28'46	
superior conj	2056 May 26 13:19	6°♊01'55 -0°16'24	direct	2058 Nov 04 09:43	13°♄20'08	
minimum elong	2056 May 26 16:46	6°♊12'31 0°16'15	greatest brilliancy	2058 Nov 15 13:31	15°♄40'34 -4.9m	
max. Earth dist.	2056 May 27 12:49	7°♊14'10 1.73443 AU	asc. node	2058 Nov 18 06:19	16°♄51'38	
asc. node	2056 Jun 02 11:29	14°♊32'34		2058 Dec 07 10:21	0°♊	
	2056 Jun 15 01:22	0°♄	morning max el	2058 Dec 25 04:33	16°♊46'06 46°55'24	
evening rise	2056 Jul 02 00:14	20°♄49'12		2059 Jan 06 17:06	0°♄	
	2056 Jul 09 11:41	0°♊		2059 Feb 02 04:42	0°♄	
	2056 Aug 02 22:33	0°♄		2059 Feb 27 12:57	0°♁	
	2056 Aug 27 10:55	0°♄	desc. node	2059 Mar 09 19:50	12°♁21'22	
	2056 Sep 21 02:13	0°♊		2059 Mar 24 10:20	0°♄	
desc. node	2056 Sep 22 00:46	1°♊08'22		2059 Apr 18 03:14	0°♊	
	2056 Oct 15 22:11	0°♄		2059 May 12 18:27	0°♄	
	2056 Nov 10 01:55	0°♄		2059 Jun 06 08:41	0°♊	
	2056 Dec 05 22:19	0°♁	morning set	2059 Jun 27 15:46	26°♊02'25	
evening max el	2056 Dec 31 12:51	27°♁47'58 47°14'38	asc. node	2059 Jun 30 23:22	0°♄06'10	
	2057 Jan 02 16:57	0°♄		2059 Jun 30 21:21	0°♄	
asc. node	2057 Jan 13 04:11	10°♄05'19		2059 Jul 25 07:30	0°♊	
greatest brilliancy	2057 Feb 10 04:04	29°♄30'14 -4.9m	max. Earth dist.	2059 Jul 31 12:09	7°♊37'49 1.73306 AU	
	2057 Feb 11 13:31	0°♊				
retrograde	2057 Feb 20 11:44	1°♊32'39	superior conj	2059 Aug 03 01:22	10°♊46'34 1°07'58	
	2057 Mar 01 02:52	30°♄15'58	minimum elong	2059 Aug 02 16:54	10°♊20'25 1°07'43	
evening set	2057 Mar 10 12:31	25°♄15'58		2059 Aug 18 14:51	0°♄	
min. Earth dist.	2057 Mar 13 00:24	23°♄42'48 0.27872 AU	evening rise	2059 Sep 08 05:07	25°♄30'16	
inferior conj	2057 Mar 13 12:10	23°♄24'19 8°44'30		2059 Sep 11 20:08	0°♄	
minimum elong	2057 Mar 13 14:44	23°♄20'16 8°44'24		2059 Oct 06 00:38	0°♊	
morning rise	2057 Mar 16 17:08	21°♄24'51	desc. node	2059 Oct 20 12:42	17°♊59'09	
direct	2057 Apr 03 08:13	15°♄25'47		2059 Oct 30 05:23	0°♄	
greatest brilliancy	2057 Apr 12 14:35	17°♄01'11 -4.8m		2059 Nov 23 11:14	0°♄	
	2057 May 04 11:46	0°♊		2059 Dec 17 19:51	0°♁	
desc. node	2057 May 04 17:21	0°♊11'04		2060 Jan 11 11:38	0°♄	

	2060 Feb 05 20:12	0°♃		2062 Jul 15 10:00	0°♄	
asc. node	2060 Feb 10 15:52	5°♃32'41	asc. node	2062 Jul 28 11:07	15°♄50'14	
	2060 Mar 03 20:14	0°♄		2062 Aug 09 01:26	0°♅	
evening max el	2060 Mar 13 03:36	9°♄32'15 46°16'42		2062 Sep 02 10:21	0°♆	
	2060 Apr 05 09:42	0°♅	morning set	2062 Sep 03 16:35	1°♆33'33	
greatest brilliancy	2060 Apr 20 19:49	8°♅50'20 -4.8m		2062 Sep 26 14:01	0°♆	
retrograde	2060 May 01 18:43	11°♅01'40	max. Earth dist.	2062 Oct 07 18:27	13°♆57'34 1.71960 AU	
evening set	2060 May 17 03:22	6°♅24'26				
inferior conj	2060 May 23 03:13	2°♅46'17 2°08'09	superior conj	2062 Oct 10 21:45	17°♆52'50 1°13'31	
minimum elong	2060 May 23 07:48	2°♅39'04 2°06'50	minimum elong	2062 Oct 11 06:29	18°♆20'05 1°13'19	
min. Earth dist.	2060 May 23 02:38	2°♅47'12 0.28772 AU		2062 Oct 20 14:21	0°♇	
	2060 May 27 15:30	30°♇♄		2062 Nov 13 13:10	0°♈	
morning rise	2060 May 29 12:40	28°♈55'58	desc. node	2062 Nov 17 00:41	4°♈21'41	
desc. node	2060 Jun 01 05:17	27°♈33'28	evening rise	2062 Nov 19 09:10	7°♈18'38	
direct	2060 Jun 13 15:26	24°♈32'04		2062 Dec 07 11:36	0°♉	
greatest brilliancy	2060 Jun 23 17:58	26°♈23'00 -4.7m		2062 Dec 31 10:40	0°♊	
	2060 Jul 01 16:12	0°♅		2063 Jan 24 12:04	0°♋	
morning max el	2060 Aug 01 09:33	24°♅16'20 45°44'45		2063 Feb 17 19:02	0°♌	
	2060 Aug 07 06:42	0°♆	asc. node	2063 Mar 10 03:50	24°♌45'28	
	2060 Sep 04 13:07	0°♇		2063 Mar 14 12:38	0°♍	
asc. node	2060 Sep 22 08:50	20°♇19'12		2063 Apr 09 00:54	0°♎	
	2060 Sep 30 15:10	0°♈		2063 May 06 00:29	0°♏	
	2060 Oct 25 14:58	0°♉	evening max el	2063 May 23 16:04	17°♏57'25 45°26'13	
	2060 Nov 19 00:05	0°♊		2063 Jun 05 23:15	0°♐	
	2060 Dec 13 01:38	0°♋	desc. node	2063 Jun 29 17:16	15°♐22'57	
	2061 Jan 06 00:00	0°♌	greatest brilliancy	2063 Jun 30 17:18	15°♐45'42 -4.7m	
desc. node	2061 Jan 11 22:14	7°♌26'12	retrograde	2063 Jul 11 07:13	17°♐46'45	
	2061 Jan 29 21:42	0°♍	evening set	2063 Jul 27 14:35	12°♐45'10	
morning set	2061 Feb 01 03:53	2°♍49'54	inferior conj	2063 Aug 01 19:16	9°♐36'47 -6°46'35	
	2061 Feb 22 20:16	0°♎	minimum elong	2063 Aug 01 09:32	9°♐51'57 6°44'49	
			min. Earth dist.	2063 Aug 01 20:36	9°♐34'41 0.28962 AU	
superior conj	2061 Mar 13 23:35	23°♎54'22 -1°25'28	morning rise	2063 Aug 06 04:15	6°♐55'56	
minimum elong	2061 Mar 14 02:22	24°♎03'03 1°25'27	direct	2063 Aug 23 09:30	1°♐19'39	
max. Earth dist.	2061 Mar 18 03:40	29°♎06'15 1.72074 AU	greatest brilliancy	2063 Sep 03 02:24	3°♐23'05 -4.8m	
	2061 Mar 18 20:56	0°♃		2063 Oct 09 12:03	0°♑	
	2061 Apr 12 00:47	0°♄	morning max el	2063 Oct 11 23:40	2°♑25'41 46°16'59	
evening rise	2061 Apr 22 05:53	12°♄37'21	asc. node	2063 Oct 20 20:39	11°♑27'46	
asc. node	2061 May 05 01:43	28°♄25'18		2063 Nov 06 21:31	0°♒	
	2061 May 06 08:32	0°♅		2063 Dec 02 17:05	0°♓	
	2061 May 30 20:32	0°♆		2063 Dec 27 12:25	0°♈	
	2061 Jun 24 13:17	0°♇		2064 Jan 20 21:25	0°♉	
	2061 Jul 19 12:23	0°♈	desc. node	2064 Feb 09 09:59	24°♉11'09	
	2061 Aug 13 21:15	0°♉		2064 Feb 14 02:26	0°♊	
desc. node	2061 Aug 24 14:49	12°♉29'08		2064 Mar 09 06:31	0°♋	
	2061 Sep 08 22:24	0°♊		2064 Apr 02 11:20	0°♌	
	2061 Oct 06 07:58	0°♋	morning set	2064 Apr 16 16:15	17°♌34'10	
evening max el	2061 Oct 17 19:13	11°♋42'48 46°52'48		2064 Apr 26 17:51	0°♍	
	2061 Nov 07 00:39	0°♌		2064 May 21 02:16	0°♎	
greatest brilliancy	2061 Nov 27 04:36	12°♌12'27 -4.9m				
retrograde	2061 Dec 07 01:33	14°♌02'35	superior conj	2064 May 24 06:20	3°♌53'58 -0°19'37	
asc. node	2061 Dec 15 18:19	12°♌29'54	minimum elong	2064 May 24 10:26	4°♌06'36 0°19'25	
evening set	2061 Dec 21 10:10	9°♌57'12	max. Earth dist.	2064 May 25 08:03	5°♌13'04 1.73420 AU	
min. Earth dist.	2061 Dec 27 04:14	6°♌35'32 0.26454 AU	asc. node	2064 Jun 01 13:33	14°♌06'16	
inferior conj	2061 Dec 27 14:12	6°♌20'16 3°01'35		2064 Jun 14 12:00	0°♏	
minimum elong	2061 Dec 27 07:36	6°♌30'22 2°59'33	evening rise	2064 Jun 29 18:57	18°♏46'34	
morning rise	2062 Jan 02 05:16	3°♌01'33		2064 Jul 08 22:25	0°♐	
	2062 Jan 09 01:53	30°♌♈		2064 Aug 02 09:30	0°♑	
direct	2062 Jan 16 23:02	28°♈43'41		2064 Aug 26 22:13	0°♒	
	2062 Jan 25 02:25	0°♉		2064 Sep 20 14:05	0°♓	
greatest brilliancy	2062 Jan 26 15:18	0°♉30'15 -4.9m	desc. node	2064 Sep 21 02:52	0°♓38'43	
	2062 Mar 06 22:38	0°♊		2064 Oct 15 10:52	0°♈	
morning max el	2062 Mar 08 03:03	1°♊10'31 46°42'01		2064 Nov 09 15:53	0°♉	
	2062 Apr 04 06:32	0°♋		2064 Dec 05 14:45	0°♊	
desc. node	2062 Apr 06 07:47	2°♋17'04	evening max el	2064 Dec 29 03:28	25°♊26'45 47°15'31	
	2062 Apr 30 15:34	0°♌		2065 Jan 02 16:13	0°♋	
	2062 May 26 06:25	0°♍	asc. node	2065 Jan 12 06:05	9°♋04'00	
	2062 Jun 20 11:45	0°♎	greatest brilliancy	2065 Feb 07 18:33	27°♋09'32 -4.9m	

retrograde	2065 Feb 18 03:03	29° H 12'49		minimum elong	2067 Jul 31 11:01	8° Ω 15'49	1°05'46
evening set	2065 Mar 08 03:27	22° H 55'30			2067 Aug 18 01:26	0° M	
min. Earth dist.	2065 Mar 10 13:50	21° H 24'52	0.27827 AU	evening rise	2067 Sep 05 21:59	23° M 20'34	
inferior conj	2065 Mar 11 02:38	21° H 04'47	8°47'16		2067 Sep 11 06:53	0° Ω	
minimum elong	2065 Mar 11 04:23	21° H 02'02	8°47'13		2067 Oct 05 11:38	0° M	
morning rise	2065 Mar 14 05:29	19° H 08'48		desc. node	2067 Oct 19 14:50	17° M 31'08	
direct	2065 Mar 31 22:08	13° H 06'56			2067 Oct 29 16:42	0° H	
greatest brilliancy	2065 Apr 10 03:34	14° H 41'59	-4.8m		2067 Nov 22 22:57	0° Ω	
desc. node	2065 May 03 19:30	29° H 06'07			2067 Dec 17 08:06	0° \approx	
	2065 May 04 21:45	0° Y			2068 Jan 11 00:44	0° H	
morning max el	2065 May 20 03:44	13° Y 45'22	45°58'44		2068 Feb 05 10:55	0° Y	
	2065 Jun 05 05:38	0° B		asc. node	2068 Feb 09 17:59	4° Y 55'26	
	2065 Jul 02 17:22	0° II			2068 Mar 03 15:07	0° B	
	2065 Jul 28 20:19	0° Ω		evening max el	2068 Mar 10 19:07	7° B 18'21	46°19'03
	2065 Aug 23 04:02	0° Ω			2068 Apr 06 03:59	0° II	
asc. node	2065 Aug 24 22:57	2° Ω 08'50		greatest brilliancy	2068 Apr 18 13:26	6° II 42'11	-4.8m
	2065 Sep 16 21:42	0° M		retrograde	2068 Apr 29 10:52	8° II 52'15	
	2065 Oct 11 05:04	0° Ω		evening set	2068 May 14 21:34	4° II 12'57	
	2065 Nov 04 05:52	0° M		inferior conj	2068 May 20 19:36	0° II 37'07	2°27'36
morning set	2065 Nov 13 23:36	12° M 12'43		minimum elong	2068 May 21 00:50	0° II 28'53	2°26'05
	2065 Nov 28 03:20	0° H		min. Earth dist.	2068 May 20 19:17	0° II 37'37	0.28753 AU
desc. node	2065 Dec 14 12:26	20° H 36'24			2068 May 21 19:11	30° R B	
	2065 Dec 21 23:34	0° Ω		morning rise	2068 May 27 04:29	26° B 47'10	
				desc. node	2068 May 31 07:18	24° B 46'13	
superior conj	2065 Dec 24 17:33	3° Ω 27'38	-0°24'11	direct	2068 Jun 11 07:33	22° B 23'19	
minimum elong	2065 Dec 24 11:15	3° Ω 07'48	0°23'52	greatest brilliancy	2068 Jun 21 09:24	24° B 13'23	-4.7m
max. Earth dist.	2065 Dec 25 09:14	4° Ω 16'59	1.71071 AU		2068 Jul 02 23:31	0° II	
	2066 Jan 14 19:52	0° \approx		morning max el	2068 Jul 30 00:38	22° II 05'04	45°44'15
evening rise	2066 Feb 04 03:54	25° \approx 31'51			2068 Aug 07 02:25	0° Ω	
	2066 Feb 07 17:30	0° H			2068 Sep 04 03:50	0° Ω	
	2066 Mar 03 18:13	0° Y		asc. node	2068 Sep 21 10:58	19° Ω 46'41	
	2066 Mar 28 00:10	0° B			2068 Sep 30 04:01	0° M	
asc. node	2066 Apr 06 15:53	11° B 50'46			2068 Oct 25 02:56	0° Ω	
	2066 Apr 21 13:42	0° II			2068 Nov 18 11:36	0° M	
	2066 May 16 13:38	0° Ω			2068 Dec 12 12:55	0° H	
	2066 Jun 11 05:00	0° Ω			2069 Jan 05 11:08	0° Ω	
	2066 Jul 07 23:36	0° M		desc. node	2069 Jan 11 00:09	6° Ω 57'23	
desc. node	2066 Jul 27 05:00	20° M 06'10			2069 Jan 29 08:42	0° \approx	
evening max el	2066 Aug 03 03:36	26° M 53'49	45°43'49	morning set	2069 Jan 29 13:43	0° \approx 15'43	
	2066 Aug 06 10:34	0° Ω			2069 Feb 22 07:09	0° H	
greatest brilliancy	2066 Sep 11 20:37	25° Ω 15'02	-4.8m				
retrograde	2066 Sep 21 01:11	26° Ω 46'50		superior conj	2069 Mar 11 12:14	21° H 30'29	-1°25'52
evening set	2066 Oct 08 03:55	21° Ω 15'27		minimum elong	2069 Mar 11 14:03	21° H 36'10	1°25'52
inferior conj	2066 Oct 11 23:20	18° Ω 57'47	-7°36'09	max. Earth dist.	2069 Mar 15 17:23	26° H 45'48	1.72012 AU
minimum elong	2066 Oct 12 08:35	18° Ω 43'35	7°34'42		2069 Mar 18 07:43	0° Y	
min. Earth dist.	2066 Oct 12 21:30	18° Ω 23'49	0.27629 AU		2069 Apr 11 11:30	0° B	
morning rise	2066 Oct 16 12:53	16° Ω 13'20		evening rise	2069 Apr 19 20:55	10° B 22'29	
direct	2066 Nov 02 00:40	10° Ω 59'03		asc. node	2069 May 04 03:46	27° B 58'36	
greatest brilliancy	2066 Nov 13 03:27	13° Ω 18'27	-4.9m		2069 May 05 19:17	0° II	
asc. node	2066 Nov 17 08:26	15° Ω 14'18			2069 May 30 07:28	0° Ω	
	2066 Dec 07 18:19	0° M			2069 Jun 24 00:36	0° Ω	
morning max el	2066 Dec 22 19:06	14° M 24'20	46°54'52		2069 Jul 19 00:23	0° M	
	2067 Jan 06 11:28	0° H			2069 Aug 13 10:22	0° Ω	
	2067 Feb 01 19:25	0° Ω		desc. node	2069 Aug 23 16:55	11° Ω 55'18	
	2067 Feb 27 01:58	0° \approx			2069 Sep 08 13:37	0° M	
desc. node	2067 Mar 08 21:58	11° \approx 49'50			2069 Oct 06 03:57	0° H	
	2067 Mar 23 22:23	0° H		evening max el	2069 Oct 15 07:33	9° H 16'36	46°50'35
	2067 Apr 17 14:42	0° Y			2069 Nov 07 17:47	0° Ω	
	2067 May 12 05:30	0° B		greatest brilliancy	2069 Nov 24 18:28	9° Ω 44'49	-4.9m
	2067 Jun 05 19:28	0° II		retrograde	2069 Dec 04 13:11	11° Ω 33'16	
morning set	2067 Jun 25 09:55	23° II 58'31		asc. node	2069 Dec 14 20:15	9° Ω 24'23	
asc. node	2067 Jun 30 01:19	29° II 39'40		evening set	2069 Dec 18 21:25	7° Ω 29'18	
	2067 Jun 30 07:57	0° Ω		inferior conj	2069 Dec 25 02:24	3° Ω 51'41	2°38'08
	2067 Jul 24 18:02	0° Ω		minimum elong	2069 Dec 24 20:34	4° Ω 00'35	2°36'19
max. Earth dist.	2067 Jul 29 07:36	5° Ω 37'22	1.73335 AU	min. Earth dist.	2069 Dec 24 18:18	4° Ω 04'04	0.26443 AU
				morning rise	2069 Dec 30 19:47	0° Ω 29'43	
superior conj	2067 Jul 31 19:38	8° Ω 42'24	1°06'02		2069 Dec 31 18:11	30° R H	

direct	2070 Jan 14 10:38	26°♄14'47			2072 Jul 08 09:19	0°♌	
greatest brilliancy	2070 Jan 24 05:58	28°♄03'50 -4.9m			2072 Aug 01 20:37	0°♍	
	2070 Jan 28 19:29	0°♄			2072 Aug 26 09:45	0°♎	
morning max el	2070 Mar 05 15:34	28°♄44'04 46°43'30	desc. node		2072 Sep 20 04:57	0°♏08'17	
	2070 Mar 06 21:53	0°♄			2072 Sep 20 02:13	0°♐	
	2070 Apr 03 22:56	0°♄			2072 Oct 14 23:55	0°♑	
desc. node	2070 Apr 05 09:50	1°♄37'38			2072 Nov 09 06:21	0°♒	
	2070 Apr 30 05:20	0°♄			2072 Dec 05 07:55	0°♓	
	2070 May 25 18:48	0°♄	evening max el		2072 Dec 26 18:54	23°♓06'22 47°16'20	
	2070 Jun 19 23:20	0°♄			2073 Jan 02 17:07	0°♈	
	2070 Jul 14 21:07	0°♄	asc. node		2073 Jan 11 08:12	8°♈00'22	
asc. node	2070 Jul 27 13:09	15°♄23'02	greatest brilliancy		2073 Feb 05 08:42	24°♈46'57 -4.9m	
	2070 Aug 08 12:19	0°♌	retrograde		2073 Feb 15 18:23	26°♈51'04	
morning set	2070 Sep 01 09:27	29°♌23'48	evening set		2073 Mar 05 17:47	20°♈33'59	
	2070 Sep 01 21:09	0°♍	min. Earth dist.		2073 Mar 08 02:52	19°♈05'27 0.27777 AU	
	2070 Sep 26 00:49	0°♎	inferior conj		2073 Mar 08 16:53	18°♈43'29 8°49'07	
max. Earth dist.	2070 Oct 05 09:55	11°♎42'06 1.72013 AU	minimum elong		2073 Mar 08 17:48	18°♈42'03 8°49'06	
			morning rise		2073 Mar 11 18:01	16°♈50'20	
superior conj	2070 Oct 08 12:45	15°♎35'50 1°15'13	direct		2073 Mar 29 12:16	10°♈46'32	
minimum elong	2070 Oct 08 21:00	16°♎01'36 1°15'01	greatest brilliancy		2073 Apr 07 15:57	12°♈20'38 -4.8m	
	2070 Oct 20 01:14	0°♏	desc. node		2073 May 02 21:31	28°♈01'27	
	2070 Nov 13 00:10	0°♄			2073 May 05 05:32	0°♄	
desc. node	2070 Nov 16 02:40	3°♄53'21	morning max el		2073 May 17 19:20	11°♄31'23 45°59'59	
evening rise	2070 Nov 16 20:56	4°♄50'34			2073 Jun 04 23:47	0°♄	
	2070 Dec 06 22:47	0°♄			2073 Jul 02 07:49	0°♄	
	2070 Dec 30 22:02	0°♄			2073 Jul 28 09:06	0°♄	
	2071 Jan 23 23:41	0°♄			2073 Aug 22 15:56	0°♌	
	2071 Feb 17 07:02	0°♄	asc. node		2073 Aug 24 01:08	1°♌39'46	
asc. node	2071 Mar 09 05:59	24°♄14'13			2073 Sep 16 09:07	0°♍	
	2071 Mar 14 01:19	0°♄			2073 Oct 10 16:16	0°♎	
	2071 Apr 08 14:59	0°♄			2073 Nov 03 17:02	0°♏	
	2071 May 05 17:55	0°♄	morning set		2073 Nov 11 12:35	9°♏47'54	
evening max el	2071 May 21 07:38	15°♄46'16 45°27'10			2073 Nov 27 14:31	0°♑	
	2071 Jun 06 06:16	0°♌	desc. node		2073 Dec 13 14:27	20°♑07'31	
greatest brilliancy	2071 Jun 28 07:33	13°♌34'59 -4.7m			2073 Dec 21 10:47	0°♒	
desc. node	2071 Jun 28 19:12	13°♌45'28					
retrograde	2071 Jul 08 23:43	15°♌38'11	superior conj		2073 Dec 22 03:24	0°♒52'18 -0°20'17	
evening set	2071 Jul 25 03:51	10°♌40'00	minimum elong		2073 Dec 21 22:04	0°♒35'31 0°20'02	
inferior conj	2071 Jul 30 11:31	7°♌27'30 -6°33'52	max. Earth dist.		2073 Dec 22 16:35	1°♒33'48 1.71073 AU	
minimum elong	2071 Jul 30 01:41	7°♌42'50 6°31'59			2074 Jan 14 07:06	0°♓	
min. Earth dist.	2071 Jul 30 12:07	7°♌26'34 0.28978 AU	evening rise		2074 Feb 01 14:03	22°♓57'57	
morning rise	2071 Aug 03 23:17	4°♌42'49			2074 Feb 07 04:46	0°♈	
	2071 Aug 14 14:45	30°♌			2074 Mar 03 05:33	0°♄	
direct	2071 Aug 21 01:57	29°♌10'01			2074 Mar 27 11:41	0°♄	
	2071 Aug 27 18:31	0°♌	asc. node		2074 Apr 05 17:54	11°♄21'26	
greatest brilliancy	2071 Aug 31 18:31	1°♌13'26 -4.8m			2074 Apr 21 01:34	0°♄	
	2071 Oct 09 10:29	0°♍			2074 May 16 02:10	0°♄	
morning max el	2071 Oct 09 15:52	0°♍13'14 46°15'22			2074 Jun 10 18:50	0°♌	
asc. node	2071 Oct 19 22:41	10°♍43'13			2074 Jul 07 16:18	0°♍	
	2071 Nov 06 13:26	0°♎	desc. node		2074 Jul 26 07:10	19°♍19'11	
	2071 Dec 02 06:48	0°♏	evening max el		2074 Jul 31 18:13	24°♍38'15 45°42'07	
	2071 Dec 27 01:05	0°♄			2074 Aug 06 12:07	0°♎	
	2072 Jan 20 09:30	0°♄	greatest brilliancy		2074 Sep 09 09:40	22°♎55'57 -4.8m	
desc. node	2072 Feb 08 12:09	23°♄41'25	retrograde		2074 Sep 18 14:11	24°♎27'30	
	2072 Feb 13 14:07	0°♄	evening set		2074 Oct 05 20:34	18°♎51'58	
	2072 Mar 08 17:54	0°♄	inferior conj		2074 Oct 09 13:18	16°♎37'52 -7°46'34	
	2072 Apr 01 22:29	0°♄	minimum elong		2074 Oct 09 22:06	16°♎24'21 7°45'17	
morning set	2072 Apr 14 07:18	15°♄18'08	min. Earth dist.		2074 Oct 10 11:18	16°♎04'05 0.27695 AU	
	2072 Apr 26 04:50	0°♄	morning rise		2074 Oct 13 23:18	13°♎58'08	
	2072 May 20 13:08	0°♄	direct		2074 Oct 30 15:26	8°♎38'19	
			greatest brilliancy		2074 Nov 10 18:00	10°♎56'57 -4.9m	
superior conj	2072 May 21 23:22	1°♄45'20 -0°22'48	asc. node		2074 Nov 16 10:23	13°♎39'57	
minimum elong	2072 May 22 04:08	1°♄59'57 0°22'34			2074 Dec 08 00:16	0°♏	
max. Earth dist.	2072 May 23 04:29	3°♄14'54 1.73391 AU	morning max el		2074 Dec 20 08:40	11°♏59'10 46°53'59	
asc. node	2072 May 31 15:32	13°♄39'07			2075 Jan 06 05:47	0°♑	
	2072 Jun 13 22:51	0°♄			2075 Feb 01 10:24	0°♒	
evening rise	2072 Jun 27 13:52	16°♄44'01			2075 Feb 26 15:24	0°♓	

desc. node	2075 Mar 08 00:03	11°  16'46			2077 Oct 06 00:53	0° 	
	2075 Mar 23 10:54	0° 		evening max el	2077 Oct 12 20:04	6°  50'28	46°48'32
	2075 Apr 17 02:37	0° 			2077 Nov 08 17:03	0° 	
	2075 May 11 16:59	0° 		greatest brilliancy	2077 Nov 22 07:55	7°  16'36	-4.9m
	2075 Jun 05 06:38	0° 		retrograde	2077 Dec 02 01:21	9°  04'16	
morning set	2075 Jun 23 03:48	21°  52'34		asc. node	2077 Dec 13 22:20	6°  13'55	
asc. node	2075 Jun 29 03:23	29°  12'19		evening set	2077 Dec 16 09:01	5°  01'02	
	2075 Jun 29 18:57	0° 		inferior conj	2077 Dec 22 14:41	1°  23'09	2°14'27
	2075 Jul 24 04:58	0° 		minimum elong	2077 Dec 22 09:40	1°  30'49	2°12'52
max. Earth dist.	2075 Jul 27 01:28	3°  30'53	1.73362 AU	min. Earth dist.	2077 Dec 22 08:10	1°  33'06	0.26433 AU
					2077 Dec 24 21:33	30°  R 	
superior conj	2075 Jul 29 13:57	6°  37'11	1°04'00	morning rise	2077 Dec 28 10:17	27°  R  58'29	
minimum elong	2075 Jul 29 05:13	6°  10'18	1°03'44	direct	2078 Jan 11 22:37	23°  R  45'57	
	2075 Aug 17 12:24	0° 		greatest brilliancy	2078 Jan 21 20:20	25°  R  37'19	-4.9m
evening rise	2075 Sep 03 15:07	21°  10'40			2078 Jan 30 20:26	0° 	
	2075 Sep 10 18:00	0° 		morning max el	2078 Mar 03 05:00	26°  31'49	46°44'48
	2075 Oct 04 22:57	0° 			2078 Mar 06 20:13	0° 	
desc. node	2075 Oct 18 16:49	17°  10'143			2078 Apr 03 15:09	0° 	
	2075 Oct 29 04:20	0° 		desc. node	2078 Apr 04 11:51	0°  58'10	
	2075 Nov 22 10:58	0° 			2078 Apr 29 19:09	0° 	
	2075 Dec 16 20:44	0° 			2078 May 25 07:22	0° 	
	2076 Jan 10 14:18	0° 			2078 Jun 19 11:08	0° 	
	2076 Feb 05 02:18	0° 			2078 Jul 14 08:27	0° 	
asc. node	2076 Feb 08 20:04	4°  Y16'19		asc. node	2078 Jul 26 15:18	14°  55'35	
	2076 Mar 03 11:12	0° 			2078 Aug 07 23:23	0° 	
evening max el	2076 Mar 08 09:36	5°  00'00	46°21'22	morning set	2078 Aug 30 02:07	27°  13'06	
	2076 Apr 07 06:21	0° 			2078 Sep 01 08:06	0° 	
greatest brilliancy	2076 Apr 16 07:01	4°  13'146	-4.8m		2078 Sep 25 11:46	0° 	
retrograde	2076 Apr 27 02:38	6°  14'40		max. Earth dist.	2078 Oct 03 01:50	9°  27'43	1.72064 AU
evening set	2076 May 12 15:39	1°  15'53					
	2076 May 15 23:39	30°  R 		superior conj	2078 Oct 06 03:43	13°  21'821	1°16'46
inferior conj	2076 May 18 11:46	28°  25'46	2°46'53	minimum elong	2078 Oct 06 11:26	13°  22'26	1°16'37
minimum elong	2076 May 18 17:36	28°  16'33	2°45'14		2078 Oct 19 12:15	0° 	
min. Earth dist.	2076 May 18 11:56	28°  25'30	0.28732 AU		2078 Nov 12 11:19	0° 	
morning rise	2076 May 24 19:53	24°  36'28		evening rise	2078 Nov 14 08:51	2°  R  22'35	
desc. node	2076 May 30 09:17	22°  00'32		desc. node	2078 Nov 15 04:42	3°  R  24'44	
direct	2076 Jun 08 22:55	20°  12'16			2078 Dec 06 10:04	0° 	
greatest brilliancy	2076 Jun 19 01:06	22°  02'13	-4.7m		2078 Dec 30 09:28	0° 	
	2076 Jul 03 22:56	0° 			2079 Jan 23 11:18	0° 	
morning max el	2076 Jul 27 15:21	19°  15'28	45°43'56		2079 Feb 16 19:01	0° 	
	2076 Aug 06 22:03	0° 		asc. node	2079 Mar 08 07:57	23°  Y42'28	
	2076 Sep 03 18:45	0° 			2079 Mar 13 14:02	0° 	
asc. node	2076 Sep 20 12:55	19°  12'42			2079 Apr 08 05:12	0° 	
	2076 Sep 29 17:07	0° 			2079 May 05 11:50	0° 	
	2076 Oct 24 15:09	0° 		evening max el	2079 May 18 23:57	13°  56'35	45°27'58
	2076 Nov 17 23:22	0° 			2079 Jun 06 16:15	0° 	
	2076 Dec 12 00:24	0° 		greatest brilliancy	2079 Jun 25 21:44	11°  23'32	-4.7m
	2077 Jan 04 22:27	0° 		desc. node	2079 Jun 27 21:24	12°  03'56	
desc. node	2077 Jan 10 02:20	6°  28'47		retrograde	2079 Jul 06 16:13	13°  02'34	
morning set	2077 Jan 26 23:38	27°  34'00		evening set	2079 Jul 22 17:04	8°  13'401	
	2077 Jan 28 19:56	0° 		inferior conj	2079 Jul 28 03:35	5°  17'18	-6°20'27
	2077 Feb 21 18:19	0° 		minimum elong	2079 Jul 27 17:40	5°  32'44	6°18'30
				min. Earth dist.	2079 Jul 28 03:14	5°  17'51	0.28991 AU
superior conj	2077 Mar 09 00:35	19°  R  04'39	-1°26'06	morning rise	2079 Aug 01 18:09	2°  02'844	
minimum elong	2077 Mar 09 01:26	19°  R  07'19	1°26'07		2079 Aug 06 09:57	30°  R 	
max. Earth dist.	2077 Mar 13 03:49	24°  R  14'09	1.71958 AU	direct	2079 Aug 18 18:39	26°  59'46	
	2077 Mar 17 18:49	0° 		greatest brilliancy	2079 Aug 29 09:49	29°  50'22	-4.8m
	2077 Apr 10 22:35	0° 			2079 Aug 31 19:23	0° 	
evening rise	2077 Apr 17 11:21	8°  R  04'35		morning max el	2079 Oct 07 08:01	28°  00'44	46°13'45
asc. node	2077 May 03 05:43	27°  R  30'25			2079 Oct 09 08:09	0° 	
	2077 May 05 06:25	0° 		asc. node	2079 Oct 19 00:44	9°  R  59'09	
	2077 May 29 18:46	0° 			2079 Nov 06 05:07	0° 	
	2077 Jun 23 12:18	0° 			2079 Dec 01 20:23	0° 	
	2077 Jul 18 12:46	0° 			2079 Dec 26 13:39	0° 	
	2077 Aug 12 23:56	0°			2080 Jan 19 21:28	0°	
desc. node	2077 Aug 22 18:59	11° 20'10		desc. node	2080 Feb 07 14:11	23° 31'40	
	2077 Sep 08 05:24	0°			2080 Feb 13 01:40	0°	

	2080 Mar 08 05:06	0° H		retrograde	2082 Sep 16 02:54	22° Q 09'08	
	2080 Apr 01 09:26	0° Y		evening set	2082 Oct 03 12:59	16° Q 29'31	
morning set	2080 Apr 11 22:33	13° Y 03'16		inferior conj	2082 Oct 07 03:17	14° Q 18'52	-7°56'00
	2080 Apr 25 15:38	0° B		minimum elong	2082 Oct 07 11:33	14° Q 06'10	7°54'55
				min. Earth dist.	2082 Oct 08 01:22	13° Q 44'54	0.27764 AU
superior conj	2080 May 19 16:25	29° B 37'08	-0°25'56	morning rise	2082 Oct 11 09:45	11° Q 43'53	
minimum elong	2080 May 19 21:48	29° B 53'41	0°25'41	direct	2082 Oct 28 05:43	6° Q 18'15	
	2080 May 19 23:51	0° II		greatest brilliancy	2082 Nov 08 09:08	8° Q 37'00	-4.9m
max. Earth dist.	2080 May 21 02:41	1° II 22'34	1.73368 AU	asc. node	2082 Nov 15 12:29	12° Q 09'40	
asc. node	2080 May 30 17:39	13° II 12'44			2082 Dec 08 04:00	0° M	
	2080 Jun 13 09:34	0° Q		morning max el	2082 Dec 17 21:32	9° M 32'58	46°53'14
evening rise	2080 Jun 25 08:39	14° Q 41'21			2083 Jan 05 23:22	0° X	
	2080 Jul 07 20:09	0° Q			2083 Feb 01 00:52	0° Z	
	2080 Aug 01 07:41	0° M			2083 Feb 26 04:22	0° \approx	
	2080 Aug 25 21:13	0° Q		desc. node	2083 Mar 07 01:59	10° \approx 44'31	
desc. node	2080 Sep 19 06:54	29° Q 37'35			2083 Mar 22 23:00	0° H	
	2080 Sep 19 14:19	0° M			2083 Apr 16 14:06	0° Y	
	2080 Oct 14 12:56	0° X			2083 May 11 04:03	0° B	
	2080 Nov 08 20:50	0° Z			2083 Jun 04 17:23	0° II	
	2080 Dec 05 01:17	0° \approx		morning set	2083 Jun 20 22:05	19° II 49'07	
evening max el	2080 Dec 24 10:47	20° \approx 47'32	47°17'03	asc. node	2083 Jun 28 05:31	28° II 46'29	
	2081 Jan 02 19:05	0° H			2083 Jun 29 05:30	0° Q	
asc. node	2081 Jan 10 10:20	6° H 55'45			2083 Jul 23 15:28	0° Q	
greatest brilliancy	2081 Feb 02 23:16	22° H 25'32	-4.9m	max. Earth dist.	2083 Jul 24 20:52	1° Q 30'30	1.73392 AU
retrograde	2081 Feb 13 09:35	24° H 29'52					
evening set	2081 Mar 03 07:48	18° H 14'03		superior conj	2083 Jul 27 08:38	4° Q 34'34	1°01'55
min. Earth dist.	2081 Mar 05 16:00	16° H 46'51	0.27720 AU	minimum elong	2083 Jul 26 23:52	4° Q 07'34	1°01'38
inferior conj	2081 Mar 06 07:12	16° H 23'02	8°50'08		2083 Aug 16 22:59	0° M	
minimum elong	2081 Mar 06 07:15	16° H 22'58	8°50'09	evening rise	2083 Sep 01 08:38	19° M 03'14	
morning rise	2081 Mar 09 06:55	14° H 32'06			2083 Sep 10 04:46	0° Q	
direct	2081 Mar 27 02:36	8° H 27'19			2083 Oct 04 09:59	0° M	
greatest brilliancy	2081 Apr 05 04:15	10° H 00'06	-4.8m	desc. node	2083 Oct 17 18:53	16° M 33'26	
desc. node	2081 May 01 23:32	26° H 59'34			2083 Oct 28 15:41	0° X	
	2081 May 05 10:33	0° Y			2083 Nov 21 22:46	0° Z	
morning max el	2081 May 15 10:06	9° Y 16'29	46°01'13		2083 Dec 16 09:07	0° \approx	
	2081 Jun 04 17:06	0° B			2084 Jan 10 03:38	0° H	
	2081 Jul 01 21:46	0° II			2084 Feb 04 17:32	0° Y	
	2081 Jul 27 21:31	0° Q		asc. node	2084 Feb 07 22:02	3° Y 37'35	
	2081 Aug 22 03:34	0° Q			2084 Mar 03 07:27	0° B	
asc. node	2081 Aug 23 03:03	1° Q 10'39		evening max el	2084 Mar 05 23:31	2° B 41'20	46°23'49
	2081 Sep 15 20:19	0° M			2084 Apr 08 18:53	0° II	
	2081 Oct 10 03:17	0° Q		greatest brilliancy	2084 Apr 14 00:27	2° II 22'27	-4.8m
	2081 Nov 03 03:58	0° M		retrograde	2084 Apr 24 18:47	4° II 30'51	
morning set	2081 Nov 09 01:30	7° M 23'39		evening set	2084 May 10 09:57	29° B 46'05	
	2081 Nov 27 01:27	0° X			2084 May 10 00:00	30° R B	
desc. node	2081 Dec 12 16:34	19° X 39'48		inferior conj	2084 May 16 04:05	26° B 16'03	3°05'52
				minimum elong	2084 May 16 10:30	26° B 05'56	3°04'05
superior conj	2081 Dec 19 13:16	28° X 17'55	-0°16'22	min. Earth dist.	2084 May 16 04:42	26° B 15'05	0.28711 AU
minimum elong	2081 Dec 19 08:57	28° X 04'19	0°16'10	morning rise	2084 May 22 11:17	22° B 27'50	
behind sun begin	2081 Dec 19 05:05	27° X 52'09		desc. node	2084 May 29 11:28	19° B 20'56	
behind sun end	2081 Dec 19 12:49	28° X 16'30		direct	2084 Jun 06 14:12	18° B 02'43	
max. Earth dist.	2081 Dec 19 21:20	28° X 43'18	1.71076 AU	greatest brilliancy	2084 Jun 16 17:15	19° B 53'10	-4.7m
	2081 Dec 20 21:43	0° Z			2084 Jul 04 15:25	0° II	
	2082 Jan 13 18:04	0° \approx		morning max el	2084 Jul 25 06:39	17° II 40'52	45°43'48
evening rise	2082 Jan 30 00:10	20° \approx 24'38			2084 Aug 06 16:32	0° Q	
	2082 Feb 06 15:46	0° H			2084 Sep 03 08:59	0° Q	
	2082 Mar 02 16:37	0° Y		asc. node	2084 Sep 19 14:59	18° Q 40'43	
	2082 Mar 26 22:53	0° B			2084 Sep 29 05:42	0° M	
asc. node	2082 Apr 04 19:54	10° B 53'03			2084 Oct 24 02:58	0° Q	
	2082 Apr 20 13:04	0° II			2084 Nov 17 10:47	0° M	
	2082 May 15 14:19	0° Q			2084 Dec 11 11:36	0° X	
	2082 Jun 10 08:21	0° Q			2085 Jan 04 09:31	0° Z	
	2082 Jul 07 08:54	0° M		desc. node	2085 Jan 09 04:23	6° Z 00'35	
desc. node	2082 Jul 25 09:12	18° M 32'03		morning set	2085 Jan 24 09:10	25° Z 05'46	
evening max el	2082 Jul 29 07:54	22° M 21'29	45°40'12		2085 Jan 28 06:54	0° \approx	
	2082 Aug 06 14:42	0° Q			2085 Feb 21 05:10	0° H	
greatest brilliancy	2082 Sep 06 23:03	20° Q 37'58	-4.8m				

superior conj	2085 Mar 06 12:36	16° H 38'40	-1°26'11	morning rise	2087 Jul 30 13:03	0° Ω 15'34	
minimum elong	2085 Mar 06 12:27	16° H 38'13	1°26'11		2087 Jul 30 23:51	30° R S	
max. Earth dist.	2085 Mar 10 12:53	21° H 39'10	1.71903 AU	direct	2087 Aug 16 11:36	24° S 50'42	
	2085 Mar 17 05:35	0° Y		greatest brilliancy	2087 Aug 27 00:48	26° S 51'47	-4.8m
	2085 Apr 10 09:19	0° B			2087 Sep 02 21:15	0° Ω	
evening rise	2085 Apr 15 01:42	5° B 47'27		morning max el	2087 Oct 04 23:49	25° Ω 48'17	46°12'16
asc. node	2085 May 02 07:53	27° B 03'55			2087 Oct 09 04:44	0° M	
	2085 May 04 17:13	0° II		asc. node	2087 Oct 18 02:49	9° M 16'34	
	2085 May 29 05:45	0° S			2087 Nov 05 20:18	0° L	
	2085 Jun 22 23:39	0° Ω			2087 Dec 01 09:38	0° M	
	2085 Jul 18 00:47	0° M			2087 Dec 26 02:00	0° A	
	2085 Aug 12 13:09	0° L			2088 Jan 19 09:18	0° S	
desc. node	2085 Aug 21 20:59	10° L 45'58		desc. node	2088 Feb 06 16:10	22° S 41'57	
	2085 Sep 07 20:56	0° M			2088 Feb 12 13:09	0° \approx	
	2085 Oct 05 22:06	0° A			2088 Mar 07 16:19	0° H	
evening max el	2085 Oct 10 09:05	4° A 26'52	46°46'12		2088 Mar 31 20:27	0° Y	
	2085 Nov 10 00:42	0° S		morning set	2088 Apr 09 13:15	10° Y 46'24	
greatest brilliancy	2085 Nov 19 20:33	4° S 47'58	-4.9m		2088 Apr 25 02:28	0° B	
retrograde	2085 Nov 29 13:45	6° S 35'26					
asc. node	2085 Dec 13 00:27	2° S 58'44		superior conj	2088 May 17 09:02	27° B 27'27	-0°29'05
evening set	2085 Dec 13 20:42	2° S 32'30		minimum elong	2088 May 17 15:01	27° B 45'53	0°28'48
	2085 Dec 18 07:29	30° R A		max. Earth dist.	2088 May 19 01:16	29° B 31'18	1.73335 AU
inferior conj	2085 Dec 20 02:45	28° A 54'28	1°50'19		2088 May 19 10:36	0° II	
minimum elong	2085 Dec 19 22:35	29° A 00'48	1°48'59	asc. node	2088 May 29 19:43	12° II 46'10	
min. Earth dist.	2085 Dec 19 21:35	29° A 02'20	0.26433 AU		2088 Jun 12 20:18	0° S	
morning rise	2085 Dec 26 00:27	25° A 27'26		evening rise	2088 Jun 23 03:14	12° S 38'04	
direct	2086 Jan 09 11:05	21° A 16'56			2088 Jul 07 06:58	0° Ω	
greatest brilliancy	2086 Jan 19 10:13	23° A 10'10	-4.9m		2088 Jul 31 18:45	0° M	
	2086 Feb 01 05:15	0° S			2088 Aug 25 08:42	0° L	
morning max el	2086 Feb 28 19:06	23° S 57'23	46°46'07	desc. node	2088 Sep 18 09:02	29° L 07'31	
	2086 Mar 06 17:36	0° \approx			2088 Sep 19 02:25	0° M	
	2086 Apr 03 06:55	0° H			2088 Oct 14 01:56	0° A	
desc. node	2086 Apr 03 13:57	0° H 19'51			2088 Nov 08 11:21	0° S	
	2086 Apr 29 08:36	0° Y			2088 Dec 04 18:51	0° \approx	
	2086 May 24 19:34	0° B		evening max el	2088 Dec 22 01:58	18° \approx 27'08	47°17'25
	2086 Jun 18 22:36	0° II			2089 Jan 02 22:26	0° H	
	2086 Jul 13 19:29	0° S		asc. node	2089 Jan 09 12:14	5° H 49'07	
asc. node	2086 Jul 25 17:15	14° S 28'24		greatest brilliancy	2089 Jan 31 14:08	20° H 04'11	-4.9m
	2086 Aug 07 10:09	0° Ω		retrograde	2089 Feb 11 00:12	22° H 07'58	
morning set	2086 Aug 27 19:26	25° Ω 05'22		evening set	2089 Feb 28 21:16	15° H 54'18	
	2086 Aug 31 18:45	0° M		min. Earth dist.	2089 Mar 03 05:23	14° H 27'08	0.27669 AU
	2086 Sep 24 22:24	0° L		inferior conj	2089 Mar 03 21:26	14° H 01'58	8°50'15
max. Earth dist.	2086 Sep 30 18:09	7° L 15'36	1.72112 AU	minimum elong	2089 Mar 03 20:37	14° H 03'16	8°50'14
				morning rise	2089 Mar 06 20:11	12° H 12'25	
superior conj	2086 Oct 03 19:23	11° L 04'06	1°18'10	direct	2089 Mar 24 16:40	6° H 07'23	
minimum elong	2086 Oct 04 02:32	11° L 26'24	1°18'02	greatest brilliancy	2089 Apr 02 17:05	7° H 39'07	-4.8m
	2086 Oct 18 22:59	0° M		desc. node	2089 May 01 01:41	25° H 58'40	
evening rise	2086 Nov 11 21:15	29° M 57'01			2089 May 05 14:07	0° Y	
	2086 Nov 11 22:13	0° A		morning max el	2089 May 12 23:57	6° Y 58'16	46°02'27
desc. node	2086 Nov 14 06:52	2° A 57'25			2089 Jun 04 10:20	0° B	
	2086 Dec 05 21:09	0° S			2089 Jul 01 11:46	0° II	
	2086 Dec 29 20:46	0° \approx			2089 Jul 27 10:01	0° S	
	2087 Jan 22 22:52	0° H			2089 Aug 21 15:16	0° Ω	
	2087 Feb 16 06:59	0° Y		asc. node	2089 Aug 22 05:08	0° Ω 41'43	
asc. node	2087 Mar 07 10:01	23° Y 11'01			2089 Sep 15 07:36	0° M	
	2087 Mar 13 02:46	0° B			2089 Oct 09 14:23	0° L	
	2087 Apr 07 19:30	0° II			2089 Nov 02 15:00	0° M	
	2087 May 05 06:04	0° S		morning set	2089 Nov 06 14:51	5° M 00'25	
evening max el	2087 May 16 16:37	11° S 28'09	45°28'58		2089 Nov 26 12:27	0° A	
	2087 Jun 07 05:22	0° Ω		desc. node	2089 Dec 11 18:37	19° A 11'39	
greatest brilliancy	2087 Jun 23 12:44	9° Ω 13'48	-4.7m				
desc. node	2087 Jun 26 23:25	10° Ω 19'26		superior conj	2089 Dec 16 23:45	25° A 45'16	-0°12'29
retrograde	2087 Jul 04 08:45	11° Ω 19'45		minimum elong	2089 Dec 16 20:27	25° A 34'53	0°12'19
evening set	2087 Jul 20 06:39	6° Ω 28'58		behind sun begin	2089 Dec 16 02:54	24° A 39'41	
inferior conj	2087 Jul 25 19:47	3° Ω 08'06	-6°06'43	behind sun end	2089 Dec 17 13:59	26° A 30'04	
minimum elong	2087 Jul 25 09:52	3° Ω 23'32	6°04'40	max. Earth dist.	2089 Dec 17 00:40	25° A 48'10	1.71080 AU
min. Earth dist.	2087 Jul 25 18:35	3° Ω 09'58	0.28996 AU		2089 Dec 20 08:43	0° S	

	2090 Jan 13 05:06	0°≈		morning max el	2092 Jul 22 22:49	15°Ⅱ30'59	45°43'38
evening rise	2090 Jan 27 10:38	17°≈52'14			2092 Aug 06 11:05	0°☾	
	2090 Feb 06 02:51	0°✕			2092 Sep 02 23:32	0°♁	
	2090 Mar 02 03:49	0°Υ		asc. node	2092 Sep 18 17:09	18°♁07'51	
	2090 Mar 26 10:17	0°♄			2092 Sep 28 18:37	0°♍	
asc. node	2090 Apr 03 22:03	10°♄24'21			2092 Oct 23 15:06	0°♊	
	2090 Apr 20 00:51	0°Ⅱ			2092 Nov 16 22:30	0°♌	
	2090 May 15 02:51	0°☾			2092 Dec 10 23:06	0°♌	
	2090 Jun 09 22:20	0°♁			2093 Jan 03 20:53	0°♄	
	2090 Jul 07 02:10	0°♍		desc. node	2093 Jan 08 06:20	5°♄31'04	
desc. node	2090 Jul 24 11:11	17°♍43'20		morning set	2093 Jan 21 18:45	22°♄29'43	
evening max el	2090 Jul 26 20:49	20°♍02'11	45°38'35		2093 Jan 27 18:10	0°≈	
	2090 Aug 06 19:19	0°♊			2093 Feb 20 16:21	0°✕	
greatest brilliancy	2090 Sep 04 12:22	18°♊19'32	-4.8m				
retrograde	2090 Sep 13 15:54	19°♊50'49		superior conj	2093 Mar 04 00:38	14°✕11'37	-1°26'05
evening set	2090 Oct 01 05:20	14°♊06'58		minimum elong	2093 Mar 03 23:27	14°✕07'57	1°26'05
inferior conj	2090 Oct 04 17:23	11°♊59'42	-8°04'40	max. Earth dist.	2093 Mar 07 21:56	19°✕03'01	1.71848 AU
minimum elong	2090 Oct 05 01:02	11°♊47'55	8°03'45		2093 Mar 16 16:40	0°Υ	
min. Earth dist.	2090 Oct 05 15:31	11°♊25'37	0.27832 AU		2093 Apr 09 20:21	0°♄	
morning rise	2090 Oct 08 20:22	9°♊29'36		evening rise	2093 Apr 12 16:10	3°♄29'43	
direct	2090 Oct 25 19:51	3°♊57'49		asc. node	2093 May 01 09:55	26°♄36'04	
greatest brilliancy	2090 Nov 06 00:40	6°♊17'20	-4.9m		2093 May 04 04:19	0°Ⅱ	
asc. node	2090 Nov 14 14:36	10°♊42'04			2093 May 28 17:05	0°☾	
	2090 Dec 08 06:22	0°♌			2093 Jun 22 11:25	0°♁	
morning max el	2090 Dec 15 11:04	7°♌07'58	46°52'37		2093 Jul 17 13:17	0°♍	
	2091 Jan 05 16:44	0°♌			2093 Aug 12 02:56	0°♊	
	2091 Jan 31 15:19	0°♄		desc. node	2093 Aug 20 23:06	10°♊10'30	
	2091 Feb 25 17:23	0°≈			2093 Sep 07 13:13	0°♌	
desc. node	2091 Mar 06 04:09	10°≈12'41			2093 Oct 05 20:38	0°♌	
	2091 Mar 22 11:12	0°✕		evening max el	2093 Oct 07 23:00	2°♌04'32	46°44'02
	2091 Apr 16 01:46	0°Υ			2093 Nov 12 00:04	0°♄	
	2091 May 10 15:20	0°♄		greatest brilliancy	2093 Nov 17 08:55	2°♄18'18	-4.9m
	2091 Jun 04 04:26	0°Ⅱ		retrograde	2093 Nov 27 02:29	4°♄05'38	
morning set	2091 Jun 18 16:00	17°Ⅱ43'27		evening set	2093 Dec 11 08:42	0°♄02'58	
asc. node	2091 Jun 27 07:29	28°Ⅱ19'07			2093 Dec 11 10:57	30°♌♌	
	2091 Jun 28 16:24	0°☾		asc. node	2093 Dec 12 02:24	29°♌39'09	
max. Earth dist.	2091 Jul 22 16:57	29°☾31'08	1.73420 AU	inferior conj	2093 Dec 17 14:50	26°♌24'48	1°25'57
	2091 Jul 23 02:19	0°♁		minimum elong	2093 Dec 17 11:34	26°♌29'46	1°24'53
				min. Earth dist.	2093 Dec 17 10:44	26°♌31'01	0.26432 AU
superior conj	2091 Jul 25 02:58	2°♁29'46	0°59'43	morning rise	2093 Dec 23 14:26	22°♌55'40	
minimum elong	2091 Jul 24 18:11	2°♁02'44	0°59'24	direct	2094 Jan 06 23:58	18°♌47'14	
	2091 Aug 16 09:54	0°♍		greatest brilliancy	2094 Jan 16 23:31	20°♌41'25	-4.9m
evening rise	2091 Aug 30 01:58	16°♍54'23			2094 Feb 02 05:16	0°♄	
	2091 Sep 09 15:50	0°♊		morning max el	2094 Feb 26 09:22	21°♄34'29	46°47'17
	2091 Oct 03 21:18	0°♌			2094 Mar 06 14:35	0°≈	
desc. node	2091 Oct 16 20:59	16°♌04'20		desc. node	2094 Apr 02 16:01	29°≈40'55	
	2091 Oct 28 03:21	0°♌			2094 Apr 02 22:45	0°✕	
	2091 Nov 21 10:52	0°♄			2094 Apr 28 22:15	0°Υ	
	2091 Dec 15 21:50	0°≈			2094 May 24 08:01	0°♄	
	2092 Jan 09 17:21	0°✕			2094 Jun 18 10:21	0°Ⅱ	
	2092 Feb 04 09:13	0°Υ			2094 Jul 13 06:49	0°☾	
asc. node	2092 Feb 07 00:09	2°Υ58'16		asc. node	2094 Jul 24 19:21	14°☾00'42	
	2092 Mar 03 04:40	0°♄			2094 Aug 06 21:16	0°♁	
evening max el	2092 Mar 03 13:37	0°♄22'25	46°26'19	morning set	2094 Aug 25 12:36	22°♁56'08	
	2092 Apr 11 05:25	0°Ⅱ			2094 Aug 31 05:46	0°♍	
greatest brilliancy	2092 Apr 11 17:05	0°Ⅱ11'18	-4.8m		2094 Sep 24 09:26	0°♊	
retrograde	2092 Apr 22 11:12	2°Ⅱ20'04		max. Earth dist.	2094 Sep 28 07:39	4°♊53'34	1.72162 AU
	2092 May 03 05:51	30°♌♌					
evening set	2092 May 08 04:16	27°♌31'53		superior conj	2094 Oct 01 10:52	8°♊48'06	1°19'27
inferior conj	2092 May 13 20:19	24°♌05'04	3°24'41	minimum elong	2094 Oct 01 17:25	9°♊08'30	1°19'20
minimum elong	2092 May 14 03:17	23°♌54'06	3°22'46		2094 Oct 18 10:06	0°♌	
min. Earth dist.	2092 May 13 21:04	24°♌03'52	0.28695 AU	evening rise	2094 Nov 09 09:20	27°♌29'19	
morning rise	2092 May 20 02:31	20°♌18'24			2094 Nov 11 09:28	0°♌	
desc. node	2092 May 28 13:28	16°♌44'56		desc. node	2094 Nov 13 08:50	2°♌28'16	
direct	2092 Jun 04 05:41	15°♌51'45			2094 Dec 05 08:34	0°♄	
greatest brilliancy	2092 Jun 14 09:10	17°♌42'43	-4.7m		2094 Dec 29 08:22	0°≈	
	2092 Jul 05 04:20	0°Ⅱ			2095 Jan 22 10:44	0°✕	

	2095 Feb 15 19:17	0°♄		2097 Aug 21 02:58	0°♌
asc. node	2095 Mar 06 12:08	22°♄38'44		2097 Sep 14 18:54	0°♍
	2095 Mar 12 15:53	0°♂		2097 Oct 09 01:30	0°♎
	2095 Apr 07 10:16	0°♈		2097 Nov 02 02:05	0°♏
	2095 May 05 01:04	0°♉	morning set	2097 Nov 04 04:12	2°♏37'03
evening max el	2095 May 14 09:10	9°♉18'36 45°29'59		2097 Nov 25 23:33	0°♐
	2095 Jun 07 23:27	0°♊	desc. node	2097 Dec 10 20:38	18°♐43'00
greatest brilliancy	2095 Jun 21 04:23	7°♊04'13 -4.7m			
desc. node	2095 Jun 26 01:23	8°♊30'32	superior conj	2097 Dec 14 09:54	23°♐11'15 -0°08'31
retrograde	2095 Jul 02 00:53	9°♊10'19	minimum elong	2097 Dec 14 07:39	23°♐04'08 0°08'25
evening set	2095 Jul 17 20:26	4°♊23'18	behind sun begin	2097 Dec 13 08:51	21°♐52'25
inferior conj	2095 Jul 23 12:03	0°♊58'30 -5°52'28	behind sun end	2097 Dec 15 06:27	24°♐15'53
minimum elong	2095 Jul 23 02:13	1°♊13'51 5°50'21	max. Earth dist.	2097 Dec 14 03:16	22°♐50'21 1.71094 AU
min. Earth dist.	2095 Jul 23 10:18	1°♊01'14 0.29002 AU		2097 Dec 19 19:51	0°♑
	2095 Jul 25 01:35	30°♑♄		2098 Jan 12 16:16	0°♒
morning rise	2095 Jul 28 07:59	28°♄01'51	evening rise	2098 Jan 24 20:33	15°♒17'39
direct	2095 Aug 14 04:19	22°♄41'16		2098 Feb 05 14:04	0°♓
greatest brilliancy	2095 Aug 24 15:58	24°♄40'43 -4.7m		2098 Mar 01 15:06	0°♈
	2095 Sep 04 06:40	0°♌		2098 Mar 25 21:44	0°♉
morning max el	2095 Oct 02 14:42	23°♌32'41 46°10'35	asc. node	2098 Apr 03 00:04	9°♉55'12
	2095 Oct 09 01:03	0°♍		2098 Apr 19 12:40	0°♊
asc. node	2095 Oct 17 04:53	8°♍33'25		2098 May 14 15:25	0°♋
	2095 Nov 05 11:41	0°♎		2098 Jun 09 12:26	0°♌
	2095 Nov 30 23:10	0°♏		2098 Jul 06 19:45	0°♍
	2095 Dec 25 14:38	0°♐	desc. node	2098 Jul 23 13:22	16°♍54'35
	2096 Jan 18 21:23	0°♑	evening max el	2098 Jul 24 10:03	17°♍44'08 45°37'10
desc. node	2096 Feb 05 18:21	22°♑12'12		2098 Aug 07 01:47	0°♎
	2096 Feb 12 00:50	0°♒	greatest brilliancy	2098 Sep 02 01:19	16°♎01'40 -4.8m
	2096 Mar 07 03:43	0°♓	retrograde	2098 Sep 11 05:35	17°♎33'49
	2096 Mar 31 07:37	0°♈	evening set	2098 Sep 28 21:39	11°♎45'48
morning set	2096 Apr 07 03:50	8°♈28'37	inferior conj	2098 Oct 02 07:40	9°♎41'40 -8°12'21
	2096 Apr 24 13:30	0°♉	minimum elong	2098 Oct 02 14:42	9°♎30'51 8°11'35
			min. Earth dist.	2098 Oct 03 05:36	9°♎07'56 0.27901 AU
superior conj	2096 May 15 01:42	25°♉17'19 -0°32'12	morning rise	2098 Oct 06 07:24	7°♎16'26
minimum elong	2096 May 15 08:15	25°♉37'30 0°31'53	direct	2098 Oct 23 10:25	1°♎38'32
max. Earth dist.	2096 May 16 22:45	27°♉36'02 1.73299 AU	greatest brilliancy	2098 Nov 03 16:11	3°♎58'51 -4.9m
	2096 May 18 21:32	0°♊	asc. node	2098 Nov 13 16:33	9°♎17'58
asc. node	2096 May 28 21:42	12°♊18'45		2098 Dec 08 07:11	0°♏
	2096 Jun 12 07:12	0°♋	morning max el	2098 Dec 13 01:33	4°♏45'58 46°51'43
evening rise	2096 Jun 20 21:51	10°♋34'18		2099 Jan 05 09:40	0°♐
	2096 Jul 06 17:58	0°♌		2099 Jan 31 05:36	0°♑
	2096 Jul 31 06:00	0°♍		2099 Feb 25 06:22	0°♒
	2096 Aug 24 20:23	0°♎	desc. node	2099 Mar 05 06:12	9°♒40'34
desc. node	2096 Sep 17 11:07	28°♎36'35		2099 Mar 21 23:21	0°♓
	2096 Sep 18 14:46	0°♏		2099 Apr 15 13:22	0°♈
	2096 Oct 13 15:17	0°♐		2099 May 10 02:31	0°♉
	2096 Nov 08 02:20	0°♑		2099 Jun 03 15:18	0°♊
	2096 Dec 04 13:11	0°♒	morning set	2099 Jun 16 09:53	15°♊38'10
evening max el	2096 Dec 19 16:08	16°♒03'01 47°17'47	asc. node	2099 Jun 26 09:35	27°♊52'39
	2097 Jan 03 04:03	0°♓		2099 Jun 28 03:07	0°♋
asc. node	2097 Jan 08 14:23	4°♓40'16	max. Earth dist.	2099 Jul 20 14:43	27°♋37'32 1.73446 AU
greatest brilliancy	2097 Jan 29 05:31	17°♓42'16 -4.9m			
retrograde	2097 Feb 08 14:20	19°♓44'56	superior conj	2099 Jul 22 21:24	0°♌25'50 0°57'27
evening set	2097 Feb 26 10:11	13°♓34'14	minimum elong	2099 Jul 22 12:38	29°♌58'52 0°57'08
inferior conj	2097 Mar 01 11:33	11°♓39'59 8°49'25		2099 Jul 22 13:00	0°♍
minimum elong	2097 Mar 01 09:51	11°♓42'39 8°49'23		2099 Aug 15 20:39	0°♎
min. Earth dist.	2097 Feb 28 19:00	12°♓05'58 0.27612 AU	evening rise	2099 Aug 27 19:40	14°♎47'18
morning rise	2097 Mar 04 09:45	9°♓51'08		2099 Sep 09 02:43	0°♏
direct	2097 Mar 22 05:56	3°♓46'29		2099 Oct 03 08:25	0°♐
greatest brilliancy	2097 Mar 31 06:17	5°♓17'48 -4.8m	desc. node	2099 Oct 15 22:59	15°♐35'33
desc. node	2097 Apr 30 03:43	24°♓58'40		2099 Oct 27 14:48	0°♑
	2097 May 05 16:16	0°♈		2099 Nov 20 22:47	0°♒
morning max el	2097 May 10 12:58	4°♈37'35 46°03'48		2099 Dec 15 10:25	0°♓
	2097 Jun 04 03:17	0°♉		2100 Jan 09 07:00	0°♈
	2097 Jul 01 01:42	0°♊		2100 Feb 04 01:02	0°♉
	2097 Jul 26 22:30	0°♋	asc. node	2100 Feb 06 02:14	2°♈18'45
asc. node	2097 Aug 21 07:17	0°♌13'00	evening max el	2100 Mar 02 04:38	28°♈05'52 46°28'48

2100 Mar 04 02:36 0°8