

conjunction	12600 Jun 17 03:23	4°☿57'14 -0°40'18			12605 Feb 04 20:03	0°♊	
minimum elong	12600 Jun 17 05:27	5°☿01'01 0°41'13			12605 Mar 23 10:31	0°♋	
	12600 Jul 20 12:21	0°♌	desc. node		12605 Apr 02 21:20	6°♋28'36	
morning rise	12600 Aug 17 03:32	21°♌19'14			12605 May 12 08:56	0°♍	
asc. node	12600 Aug 18 06:26	22°♌11'36			12605 Jul 08 13:09	0°♎	
	12600 Aug 28 06:11	0°♏	retrograde		12605 Sep 12 02:46	18°♎16'28	
	12600 Oct 05 09:02	0°♐	opposition		12605 Oct 20 09:34	9°♎43'50 -4°59'21	
	12600 Nov 12 17:48	0°♑	greatest brilliancy		12605 Oct 21 09:43	9°♎20'47 -1.5m	
	12600 Dec 22 07:33	0°♒	min. Earth dist.		12605 Oct 26 08:23	7°♎27'46 0.61417 AU	
	12601 Feb 02 05:19	0°♓			12605 Nov 25 09:43	30°♏♑	
	12601 Mar 20 06:57	0°♊	direct		12605 Nov 30 11:15	29°♑49'56	
	12601 May 16 05:26	0°♋			12605 Dec 05 14:08	0°♌	
desc. node	12601 Jun 29 10:16	11°♋18'40			12606 Feb 21 04:17	0°♍	
retrograde	12601 Jul 02 18:22	11°♋22'52			12606 Apr 08 05:39	0°☿	
min. Earth dist.	12601 Aug 10 19:28	2°♋09'43 0.67436 AU	asc. node		12606 Apr 10 04:29	1°☿22'28	
opposition	12601 Aug 12 13:11	1°♋28'22 -1°34'38			12606 May 19 03:00	0°♌	
greatest brilliancy	12601 Aug 12 09:59	1°♋31'32 -1.3m			12606 Jun 26 21:57	0°♍	
	12601 Aug 16 06:53	30°♏♊			12606 Aug 04 04:42	0°♐	
direct	12601 Sep 22 01:45	21°♊53'13			12606 Sep 12 02:32	0°♑	
	12601 Nov 01 21:12	0°♋			12606 Oct 22 11:11	0°♒	
	12602 Jan 04 13:02	0°♍	evening set		12606 Nov 05 06:25	9°♒57'11	
	12602 Feb 23 19:38	0°♎			12606 Dec 03 18:09	0°♓	
	12602 Apr 10 02:38	0°♏					
	12602 May 22 03:14	0°☿	conjunction		12606 Dec 29 22:05	17°♓51'42 0°27'38	
evening set	12602 Jun 17 04:29	19°☿30'38	minimum elong		12606 Dec 29 23:17	17°♓53'42 0°28'32	
	12602 Jun 30 21:05	0°♌			12607 Jan 17 02:37	0°♊	
asc. node	12602 Jul 05 22:42	3°♌54'59	max. Earth dist.		12607 Jan 22 14:55	3°♊38'19 2.60319 AU	
max. Earth dist.	12602 Aug 03 08:28	26°♌09'02 2.36514 AU	morning rise		12607 Feb 16 15:29	19°♊56'11	
	12602 Aug 08 05:27	0°♍	desc. node		12607 Feb 18 08:56	21°♊02'56	
					12607 Mar 04 08:25	0°♋	
conjunction	12602 Aug 23 00:58	11°♍44'10 0°33'16			12607 Apr 21 06:34	0°♍	
minimum elong	12602 Aug 22 21:39	11°♍37'36 0°32'51			12607 Jun 10 02:35	0°♎	
	12602 Sep 15 01:44	0°♐			12607 Aug 02 18:10	0°♏	
	12602 Oct 23 07:30	0°♑			12607 Oct 21 07:17	0°☿	
morning rise	12602 Nov 05 04:45	9°♑55'26	retrograde		12607 Oct 31 14:18	0°☿37'11	
	12602 Dec 01 19:11	0°♒			12607 Nov 10 12:19	30°♏♑	
	12603 Jan 12 07:12	0°♓	opposition		12607 Dec 05 01:44	23°♑38'27 -4°18'53	
	12603 Feb 25 14:12	0°♊	greatest brilliancy		12607 Dec 06 13:19	23°♑07'27 -2.2m	
	12603 Apr 14 23:03	0°♋	min. Earth dist.		12607 Dec 13 19:39	20°♑36'20 0.48934 AU	
desc. node	12603 May 17 07:40	17°♋52'36	direct		12608 Jan 11 21:22	15°♑04'23	
	12603 Jun 11 19:02	0°♍	asc. node		12608 Feb 26 12:29	27°♑21'00	
retrograde	12603 Aug 05 23:40	13°♑58'08			12608 Mar 02 21:41	0°☿	
opposition	12603 Sep 15 04:37	4°♑32'42 -3°44'05			12608 Apr 20 17:22	0°♌	
greatest brilliancy	12603 Sep 15 09:43	4°♑27'41 -1.3m			12608 Jun 01 04:39	0°♍	
min. Earth dist.	12603 Sep 17 07:01	3°♑43'16 0.67805 AU			12608 Jul 11 02:01	0°♐	
	12603 Sep 27 04:45	30°♏♋			12608 Aug 20 08:18	0°♑	
direct	12603 Oct 26 19:58	24°♋32'14			12608 Sep 30 23:28	0°♒	
	12603 Nov 28 00:25	0°♍			12608 Nov 13 09:33	0°♓	
	12604 Jan 31 09:46	0°♎	evening set		12608 Dec 21 22:51	25°♓39'55	
	12604 Mar 19 07:37	0°♏			12608 Dec 28 13:50	0°♊	
	12604 May 01 00:12	0°☿	desc. node		12609 Jan 05 00:42	4°♊51'22	
asc. node	12604 May 22 23:02	16°☿20'30					
	12604 Jun 09 19:43	0°♌	conjunction		12609 Feb 07 00:55	26°♊07'31 -0°17'54	
	12604 Jul 18 02:34	0°♍	minimum elong		12609 Feb 07 00:21	26°♊06'36 0°17'17	
	12604 Aug 24 23:03	0°♐			12609 Feb 13 02:32	0°♋	
evening set	12604 Aug 29 02:40	3°♐16'37	max. Earth dist.		12609 Feb 14 21:16	1°♋08'09 2.67007 AU	
greatest brilliancy	12604 Aug 31 08:43	5°♐03'07 1.1m	morning rise		12609 Mar 23 04:57	24°♋10'35	
	12604 Oct 02 08:32	0°♑			12609 Apr 01 10:16	0°♍	
					12609 May 19 01:54	0°♎	
conjunction	12604 Nov 06 05:40	26°♑23'41 1°04'32			12609 Jul 05 21:52	0°♏	
minimum elong	12604 Nov 06 06:52	26°♑25'55 1°05'16			12609 Aug 23 06:54	0°☿	
	12604 Nov 11 02:34	0°♒			12609 Oct 12 18:08	0°♌	
max. Earth dist.	12604 Dec 20 23:31	28°♒42'57 2.48458 AU			12609 Dec 15 12:08	0°♍	
	12604 Dec 22 19:27	0°♓	retrograde		12610 Jan 12 06:10	4°♍31'50	
morning rise	12605 Jan 04 20:14	9°♓03'15	asc. node		12610 Jan 13 19:43	4°♍30'52	

	12610 Feb 09 10:55	30° \mathbb{R} 8 \mathbb{Q}			12615 May 07 06:18	0° \mathbb{I}	
opposition	12610 Feb 10 21:18	29° \mathbb{Q} 36'55	2°08'58				
greatest brilliancy	12610 Feb 11 01:30	29° \mathbb{Q} 34'06	-3.0m	conjunction	12615 May 29 11:54	15° \mathbb{I} 34'15	-0°56'59
min. Earth dist.	12610 Feb 13 20:51	28° \mathbb{Q} 48'44	0.36960 AU	minimum elong	12615 May 29 13:32	15° \mathbb{I} 37'08	0°57'52
direct	12610 Mar 13 06:14	24° \mathbb{Q} 22'36			12615 Jun 18 14:00	0° \mathbb{Q}	
	12610 Apr 11 20:20	0° \mathbb{M}		morning rise	12615 Jul 23 03:57	25° \mathbb{Q} 36'57	
	12610 Jun 08 07:48	0° \mathbb{L}			12615 Jul 28 23:08	0° \mathbb{Q}	
	12610 Jul 24 13:47	0° \mathbb{M}		asc. node	12615 Sep 05 02:22	29° \mathbb{Q} 19'57	
	12610 Sep 07 19:20	0° \mathbb{J}			12615 Sep 05 22:57	0° \mathbb{M}	
	12610 Oct 23 16:27	0° \mathbb{Z}			12615 Oct 14 06:27	0° \mathbb{L}	
desc. node	12610 Nov 22 23:09	19° \mathbb{Z} 27'50			12615 Nov 21 18:38	0° \mathbb{M}	
	12610 Dec 09 12:04	0° \mathbb{M}			12615 Dec 31 12:53	0° \mathbb{J}	
	12611 Jan 25 22:05	0° \mathbb{H}			12616 Feb 11 22:47	0° \mathbb{Z}	
evening set	12611 Jan 29 03:08	2° \mathbb{H} 01'33			12616 Mar 30 22:02	0° \mathbb{M}	
max. Earth dist.	12611 Mar 09 02:37	26° \mathbb{H} 40'37	2.68186 AU	retrograde	12616 Jun 19 11:01	28° \mathbb{M} 20'21	
				desc. node	12616 Jul 15 23:32	23° \mathbb{M} 41'12	
conjunction	12611 Mar 14 08:16	0° \mathbb{Y} 00'08	-0°53'13	min. Earth dist.	12616 Jul 26 21:41	19° \mathbb{M} 37'22	0.65487 AU
minimum elong	12611 Mar 14 07:09	29° \mathbb{H} 58'22	0°53'06	opposition	12616 Jul 30 02:38	18° \mathbb{M} 21'05	-0°31'49
	12611 Mar 14 08:11	0° \mathbb{Y}		greatest brilliancy	12616 Jul 30 00:53	18° \mathbb{M} 22'49	-1.4m
morning rise	12611 Apr 26 14:02	27° \mathbb{Y} 41'04		direct	12616 Sep 07 18:56	9° \mathbb{M} 02'53	
	12611 Apr 30 04:00	0° \mathbb{B}			12616 Nov 18 09:11	0° \mathbb{H}	
	12611 Jun 14 23:35	0° \mathbb{I}			12617 Jan 13 13:33	0° \mathbb{Y}	
	12611 Jul 29 14:41	0° \mathbb{Q}			12617 Mar 03 11:05	0° \mathbb{B}	
	12611 Sep 11 01:10	0° \mathbb{Q}			12617 Apr 17 09:44	0° \mathbb{I}	
	12611 Oct 23 13:44	0° \mathbb{M}		evening set	12617 May 25 15:46	27° \mathbb{I} 13'39	
asc. node	12611 Dec 01 20:02	27° \mathbb{M} 43'05			12617 May 29 10:33	0° \mathbb{Q}	
	12611 Dec 05 02:49	0° \mathbb{L}		max. Earth dist.	12617 Jun 11 03:40	9° \mathbb{Q} 25'07	2.40962 AU
	12612 Jan 19 20:00	0° \mathbb{M}			12617 Jul 08 07:23	0° \mathbb{Q}	
retrograde	12612 Mar 26 20:09	24° \mathbb{M} 37'15		asc. node	12617 Jul 22 17:04	11° \mathbb{Q} 08'10	
min. Earth dist.	12612 Apr 22 07:19	19° \mathbb{M} 51'12	0.42526 AU				
greatest brilliancy	12612 Apr 28 16:21	17° \mathbb{M} 46'00	-2.6m	conjunction	12617 Jul 24 18:15	12° \mathbb{Q} 43'51	0°01'29
opposition	12612 Apr 30 09:35	17° \mathbb{M} 11'55	6°16'37	minimum elong	12617 Jul 24 18:13	12° \mathbb{Q} 43'47	0°00'43
direct	12612 May 31 19:53	11° \mathbb{M} 07'23		behind sun begin	12617 Jul 23 14:27	11° \mathbb{Q} 49'45	
	12612 Aug 03 05:10	0° \mathbb{J}		behind sun end	12617 Jul 25 21:59	13° \mathbb{Q} 37'51	
	12612 Sep 27 20:39	0° \mathbb{Z}			12617 Aug 15 18:52	0° \mathbb{M}	
desc. node	12612 Oct 10 05:30	7° \mathbb{Z} 10'19			12617 Sep 22 16:57	0° \mathbb{L}	
	12612 Nov 17 17:24	0° \mathbb{M}		morning rise	12617 Oct 04 19:49	9° \mathbb{L} 34'09	
	12613 Jan 06 02:12	0° \mathbb{H}			12617 Oct 30 22:42	0° \mathbb{M}	
	12613 Feb 23 06:10	0° \mathbb{Y}			12617 Dec 09 09:24	0° \mathbb{J}	
evening set	12613 Mar 04 12:24	5° \mathbb{Y} 52'07			12618 Jan 19 22:04	0° \mathbb{Z}	
max. Earth dist.	12613 Mar 30 23:38	22° \mathbb{Y} 51'49	2.63845 AU		12618 Mar 05 13:44	0° \mathbb{M}	
	12613 Apr 10 22:31	0° \mathbb{B}			12618 Apr 24 13:32	0° \mathbb{H}	
				desc. node	12618 Jun 02 22:50	19° \mathbb{H} 19'51	
conjunction	12613 Apr 17 23:58	4° \mathbb{B} 38'09	-1°09'56		12618 Jul 07 03:07	0° \mathbb{Y}	
minimum elong	12613 Apr 17 23:40	4° \mathbb{B} 37'40	1°10'22	retrograde	12618 Jul 23 12:05	1° \mathbb{Y} 32'52	
	12613 May 25 20:37	0° \mathbb{I}			12618 Aug 08 02:15	30° \mathbb{R} 8 \mathbb{H}	
morning rise	12613 Jun 02 20:09	5° \mathbb{I} 27'40		opposition	12618 Sep 02 02:10	21° \mathbb{H} 53'29	-2°59'38
	12613 Jul 07 22:42	0° \mathbb{Q}		greatest brilliancy	12618 Sep 02 02:19	21° \mathbb{H} 53'20	-1.3m
	12613 Aug 18 07:40	0° \mathbb{Q}		min. Earth dist.	12618 Sep 02 16:34	21° \mathbb{H} 39'17	0.68466 AU
	12613 Sep 27 07:59	0° \mathbb{M}		direct	12618 Oct 13 11:10	11° \mathbb{H} 59'48	
asc. node	12613 Oct 18 12:40	16° \mathbb{M} 09'52			12618 Dec 16 19:08	0° \mathbb{Y}	
	12613 Nov 05 14:24	0° \mathbb{L}			12619 Feb 09 22:53	0° \mathbb{B}	
	12613 Dec 15 03:17	0° \mathbb{M}			12619 Mar 28 10:40	0° \mathbb{I}	
	12614 Jan 25 16:13	0° \mathbb{J}			12619 May 09 18:21	0° \mathbb{Q}	
	12614 Mar 14 15:08	0° \mathbb{Z}		asc. node	12619 Jun 09 13:08	23° \mathbb{Q} 06'54	
retrograde	12614 May 14 06:12	19° \mathbb{Z} 30'57			12619 Jun 18 11:57	0° \mathbb{Q}	
min. Earth dist.	12614 Jun 15 13:35	12° \mathbb{Z} 29'50	0.56113 AU		12619 Jul 26 18:34	0° \mathbb{M}	
opposition	12614 Jun 22 09:47	9° \mathbb{Z} 51'43	2°46'45	evening set	12619 Jul 30 05:27	2° \mathbb{M} 44'10	
greatest brilliancy	12614 Jun 21 18:00	10° \mathbb{Z} 06'56	-1.8m		12619 Sep 02 14:12	0° \mathbb{L}	
direct	12614 Jul 28 20:28	1° \mathbb{Z} 42'02					
desc. node	12614 Aug 28 16:08	6° \mathbb{Z} 46'18		conjunction	12619 Oct 10 16:55	29° \mathbb{L} 51'35	1°04'40
	12614 Oct 22 12:29	0° \mathbb{M}		minimum elong	12619 Oct 10 15:16	29° \mathbb{L} 48'22	1°05'02
	12614 Dec 16 08:09	0° \mathbb{H}			12619 Oct 10 21:17	0° \mathbb{M}	
	12615 Feb 04 10:37	0° \mathbb{Y}			12619 Nov 19 11:38	0° \mathbb{J}	
	12615 Mar 23 15:08	0° \mathbb{B}		max. Earth dist.	12619 Dec 02 09:41	9° \mathbb{J} 29'55	2.42808 AU
evening set	12615 Apr 10 21:08	12° \mathbb{B} 04'07		morning rise	12619 Dec 15 22:41	19° \mathbb{J} 17'24	
max. Earth dist.	12615 Apr 27 11:52	23° \mathbb{B} 17'34	2.54316 AU		12619 Dec 31 00:57	0° \mathbb{Z}	

	12620 Feb 13 01:06	0°♊			12625 Jan 12 17:16	30°♎	
	12620 Mar 31 01:09	0°♋	min. Earth dist.		12625 Jan 18 12:13	28°♎16'17	0.40522 AU
desc. node	12620 Apr 19 15:22	11°♋48'51	asc. node		12625 Jan 30 09:02	25°♎18'06	
	12620 May 21 15:46	0°♌	direct		12625 Feb 13 17:29	23°♎50'56	
	12620 Jul 28 18:41	0°♍			12625 Mar 16 10:19	0°♏	
retrograde	12620 Aug 27 10:24	4°♍35'19			12625 May 10 14:23	0°♐	
	12620 Sep 23 16:11	30°♌			12625 Jun 23 09:29	0°♑	
opposition	12620 Oct 05 15:44	25°♌38'29	-4°38'21		12625 Aug 04 21:20	0°♒	
greatest brilliancy	12620 Oct 06 07:48	25°♌22'56	-1.4m		12625 Sep 17 02:42	0°♓	
min. Earth dist.	12620 Oct 10 02:58	23°♌54'46	0.64727 AU		12625 Oct 31 17:26	0°♐	
direct	12620 Nov 16 04:37	15°♌36'39		desc. node	12625 Dec 09 11:55	25°♐19'58	
	12621 Jan 09 10:45	0°♍			12625 Dec 16 17:36	0°♑	
	12621 Mar 04 07:07	0°♎	evening set		12626 Jan 14 21:29	18°♑40'19	
	12621 Apr 17 09:30	0°♏			12626 Feb 01 16:57	0°♒	
asc. node	12621 Apr 26 18:05	6°♏47'34					
	12621 May 27 15:57	0°♐	conjunction		12626 Feb 28 20:01	17°♒12'06	-0°41'21
	12621 Jul 05 03:40	0°♑	minimum elong		12626 Feb 28 18:58	17°♒10'26	0°41'01
	12621 Aug 12 04:35	0°♒	max. Earth dist.		12626 Feb 28 11:27	16°♒58'31	2.68378 AU
	12621 Sep 19 19:51	0°♓			12626 Mar 21 00:26	0°♓	
evening set	12621 Oct 12 17:06	17°♓18'00	morning rise		12626 Apr 13 01:39	14°♓39'23	
	12621 Oct 29 21:10	0°♐			12626 May 07 01:44	0°♑	
	12621 Dec 10 21:03	0°♑			12626 Jun 22 11:48	0°♒	
					12626 Aug 07 03:41	0°♓	
conjunction	12621 Dec 11 08:56	0°♑20'41	0°44'59		12626 Sep 21 03:46	0°♐	
minimum elong	12621 Dec 11 10:49	0°♑23'59	0°45'55		12626 Nov 05 02:53	0°♑	
max. Earth dist.	12622 Jan 11 11:59	21°♑38'11	2.56251 AU	asc. node	12626 Dec 18 12:10	27°♑34'46	
	12622 Jan 24 00:36	0°♒			12626 Dec 22 14:38	0°♒	
morning rise	12622 Feb 01 07:55	5°♒29'07		retrograde	12627 Mar 02 14:47	25°♒32'45	
desc. node	12622 Mar 07 03:03	27°♒21'10		min. Earth dist.	12627 Mar 28 11:32	21°♒17'10	0.38151 AU
	12622 Mar 11 07:02	0°♋	greatest brilliancy		12627 Apr 01 22:01	20°♒01'05	-2.9m
	12622 Apr 28 17:31	0°♌	opposition		12627 Apr 03 04:57	19°♒38'48	6°20'49
	12622 Jun 19 05:56	0°♍	direct		12627 May 02 19:13	14°♒29'40	
	12622 Aug 18 14:15	0°♎			12627 Jun 26 13:49	0°♓	
retrograde	12622 Oct 10 04:24	12°♎43'42			12627 Aug 20 11:09	0°♐	
opposition	12622 Nov 15 10:43	5°♎01'13	-4°57'38		12627 Oct 09 02:17	0°♑	
greatest brilliancy	12622 Nov 16 21:35	4°♎29'18	-1.9m	desc. node	12627 Oct 27 16:44	11°♑25'29	
min. Earth dist.	12622 Nov 23 10:51	2°♎05'47	0.54428 AU		12627 Nov 26 19:55	0°♒	
	12622 Nov 29 14:37	30°♎			12628 Jan 14 05:39	0°♋	
direct	12622 Dec 25 00:17	25°♎41'25		evening set	12628 Feb 19 18:29	22°♋53'05	
	12623 Jan 20 07:34	0°♏			12628 Mar 02 00:30	0°♌	
asc. node	12623 Mar 15 02:19	26°♏14'19		max. Earth dist.	12628 Mar 21 23:02	12°♌42'39	2.66183 AU
	12623 Mar 21 02:11	0°♐					
	12623 May 03 12:36	0°♑	conjunction		12628 Apr 03 18:41	20°♌57'45	-1°06'14
	12623 Jun 12 08:47	0°♒	minimum elong		12628 Apr 03 17:55	20°♌56'31	1°06'29
	12623 Jul 21 08:10	0°♓			12628 Apr 17 16:47	0°♑	
	12623 Aug 29 20:59	0°♔	morning rise		12628 May 18 02:16	20°♑03'12	
	12623 Oct 09 20:33	0°♐			12628 Jun 01 21:41	0°♒	
	12623 Nov 21 17:19	0°♑			12628 Jul 15 11:41	0°♓	
evening set	12623 Dec 06 01:37	9°♑44'47			12628 Aug 26 11:44	0°♐	
	12624 Jan 05 11:45	0°♒			12628 Oct 06 04:32	0°♑	
desc. node	12624 Jan 22 15:38	11°♒12'52	asc. node		12628 Nov 04 08:49	21°♑52'02	
					12628 Nov 15 04:51	0°♒	
conjunction	12624 Jan 24 09:31	12°♒20'50	-0°00'58		12628 Dec 25 18:05	0°♓	
minimum elong	12624 Jan 24 09:29	12°♒20'47	0°00'13		12629 Feb 07 14:42	0°♐	
behind sun begin	12624 Jan 23 14:06	11°♒49'22			12629 Apr 14 17:11	0°♑	
behind sun end	12624 Jan 25 04:52	12°♒52'11		retrograde	12629 Apr 27 10:05	1°♑08'15	
max. Earth dist.	12624 Feb 07 01:30	21°♒10'28	2.65047 AU		12629 May 09 20:27	30°♒	
	12624 Feb 20 19:54	0°♋	min. Earth dist.		12629 May 27 07:48	24°♒58'53	0.51003 AU
morning rise	12624 Mar 09 20:03	11°♋27'05	greatest brilliancy		12629 Jun 03 03:24	22°♒27'11	-2.1m
	12624 Apr 08 06:41	0°♌	opposition		12629 Jun 04 07:11	22°♒01'21	4°15'38
	12624 May 26 12:48	0°♍	direct		12629 Jul 08 23:34	14°♒32'46	
	12624 Jul 14 19:33	0°♎			12629 Sep 04 18:59	0°♑	
	12624 Sep 04 14:48	0°♏	desc. node		12629 Sep 14 01:40	4°♑13'42	
	12624 Nov 07 17:55	0°♐			12629 Nov 02 13:38	0°♒	
retrograde	12624 Dec 10 22:40	6°♐01'54			12629 Dec 24 10:54	0°♋	
opposition	12625 Jan 11 06:56	0°♐25'55	-1°20'01		12630 Feb 11 14:21	0°♌	
greatest brilliancy	12625 Jan 11 17:58	0°♐17'36	-2.8m	evening set	12630 Mar 26 18:23	27°♌33'08	

	12630 Mar 30 12:17	0°♄			12634 Nov 26 21:50	0°♄	
max. Earth dist.	12630 Apr 15 19:19	10°♄45'57	2.58621 AU		12635 Jan 07 08:51	0°♄	
					12635 Feb 20 11:05	0°♄	
conjunction	12630 May 12 04:04	28°♄35'49	-1°06'32		12635 Apr 09 03:29	0°♄	
minimum elong	12630 May 12 04:54	28°♄37'15	1°07'17	desc. node	12635 May 07 08:17	16°♄15'12	
	12630 May 14 05:04	0°♄			12635 Jun 02 17:02	0°♄	
	12630 Jun 25 18:55	0°♄		retrograde	12635 Aug 13 22:30	21°♄40'26	
morning rise	12630 Jul 01 07:45	4°♄00'17		opposition	12635 Sep 22 20:30	12°♄24'14	-4°06'39
	12630 Aug 05 12:05	0°♄		greatest brilliancy	12635 Sep 23 05:13	12°♄15'43	-1.3m
	12630 Sep 13 19:50	0°♄		min. Earth dist.	12635 Sep 25 19:32	11°♄14'51	0.67000 AU
asc. node	12630 Sep 21 22:03	6°♄15'45		direct	12635 Nov 03 12:36	2°♄21'46	
	12630 Oct 22 10:11	0°♄			12636 Jan 24 06:52	0°♄	
	12630 Nov 30 04:26	0°♄			12636 Mar 13 16:21	0°♄	
	12631 Jan 09 07:23	0°♄			12636 Apr 25 19:20	0°♄	
	12631 Feb 21 16:31	0°♄		asc. node	12636 May 13 07:43	12°♄56'14	
	12631 Apr 14 23:50	0°♄			12636 Jun 04 18:29	0°♄	
retrograde	12631 Jun 06 16:41	14°♄28'49			12636 Jul 13 02:54	0°♄	
min. Earth dist.	12631 Jul 12 07:13	6°♄20'59	0.62536 AU		12636 Aug 20 00:40	0°♄	
opposition	12631 Jul 16 23:18	4°♄30'18	0°38'47	evening set	12636 Sep 15 01:29	20°♄24'00	
greatest brilliancy	12631 Jul 16 20:47	4°♄32'47	-1.6m		12636 Sep 27 11:31	0°♄	
	12631 Jul 29 04:03	30°♄			12636 Nov 06 07:02	0°♄	
desc. node	12631 Aug 02 10:52	28°♄41'52					
direct	12631 Aug 24 13:52	25°♄33'55		conjunction	12636 Nov 19 21:40	9°♄56'50	0°59'18
	12631 Sep 22 14:58	0°♄		minimum elong	12636 Nov 19 23:35	10°♄00'17	1°00'08
	12631 Nov 30 22:23	0°♄			12636 Dec 18 01:08	0°♄	
	12632 Jan 22 18:39	0°♄		max. Earth dist.	12636 Dec 29 14:07	8°♄01'31	2.51386 AU
	12632 Mar 10 19:27	0°♄		morning rise	12637 Jan 15 09:31	19°♄30'36	
	12632 Apr 24 13:34	0°♄			12637 Jan 31 01:06	0°♄	
evening set	12632 May 06 04:38	8°♄06'47			12637 Mar 18 10:39	0°♄	
max. Earth dist.	12632 May 19 16:46	17°♄42'13	2.46386 AU	desc. node	12637 Mar 23 21:07	3°♄24'39	
	12632 Jun 05 16:10	0°♄			12637 May 06 15:53	0°♄	
					12637 Jun 29 23:38	0°♄	
conjunction	12632 Jun 29 14:48	17°♄47'08	-0°27'13	retrograde	12637 Sep 21 16:40	27°♄02'13	
minimum elong	12632 Jun 29 16:39	17°♄50'36	0°28'07	opposition	12637 Oct 29 08:17	18°♄45'27	-5°04'38
	12632 Jul 15 16:58	0°♄		greatest brilliancy	12637 Oct 30 12:55	18°♄18'26	-1.6m
asc. node	12632 Aug 08 12:01	18°♄22'52		min. Earth dist.	12637 Nov 05 02:26	16°♄12'44	0.59173 AU
	12632 Aug 23 08:20	0°♄		direct	12637 Dec 09 00:16	8°♄59'45	
morning rise	12632 Sep 02 20:33	8°♄16'07			12638 Feb 12 11:52	0°♄	
	12632 Sep 30 09:07	0°♄		asc. node	12638 Mar 31 14:03	29°♄08'15	
	12632 Nov 07 16:04	0°♄			12638 Apr 01 20:18	0°♄	
	12632 Dec 17 03:31	0°♄			12638 May 13 09:09	0°♄	
	12633 Jan 27 20:00	0°♄			12638 Jun 21 10:48	0°♄	
	12633 Mar 14 04:03	0°♄			12638 Jul 29 22:04	0°♄	
	12633 May 06 07:01	0°♄			12638 Sep 06 23:54	0°♄	
desc. node	12633 Jun 19 14:01	16°♄38'05			12638 Oct 17 12:28	0°♄	
retrograde	12633 Jul 10 07:23	19°♄06'14		evening set	12638 Nov 17 02:58	21°♄46'31	
min. Earth dist.	12633 Aug 19 04:18	9°♄37'34	0.68098 AU		12638 Nov 28 23:08	0°♄	
opposition	12633 Aug 20 01:49	9°♄16'17	-2°08'08				
greatest brilliancy	12633 Aug 19 23:05	9°♄18'59	-1.3m	conjunction	12639 Jan 08 13:39	27°♄27'28	0°17'06
	12633 Sep 21 12:36	30°♄		minimum elong	12639 Jan 08 14:23	27°♄28'41	0°17'58
direct	12633 Sep 29 22:56	29°♄33'29			12639 Jan 12 09:49	0°♄	
	12633 Oct 08 15:18	0°♄		max. Earth dist.	12639 Jan 28 10:40	10°♄31'36	2.62230 AU
	12633 Dec 28 21:02	0°♄		desc. node	12639 Feb 08 10:00	17°♄39'13	
	12634 Feb 18 11:47	0°♄		morning rise	12639 Feb 24 21:58	28°♄15'46	
	12634 Apr 05 04:13	0°♄			12639 Feb 27 15:13	0°♄	
	12634 May 17 07:42	0°♄			12639 Apr 16 07:39	0°♄	
asc. node	12634 Jun 26 06:59	0°♄10'10			12639 Jun 04 10:33	0°♄	
	12634 Jun 26 01:43	0°♄			12639 Jul 26 00:11	0°♄	
evening set	12634 Jul 01 11:37	4°♄11'13			12639 Sep 23 19:26	0°♄	
	12634 Aug 03 09:23	0°♄		retrograde	12639 Nov 14 05:23	12°♄33'20	
				opposition	12639 Dec 17 14:28	6°♄02'17	-3°34'07
conjunction	12634 Sep 09 16:21	29°♄34'51	0°48'48	greatest brilliancy	12639 Dec 18 21:22	5°♄36'23	-2.4m
minimum elong	12634 Sep 09 12:18	29°♄26'49	0°48'38	min. Earth dist.	12639 Dec 26 07:08	3°♄08'25	0.45814 AU
	12634 Sep 10 05:03	0°♄			12640 Jan 06 12:33	30°♄	
	12634 Oct 18 10:26	0°♄		direct	12640 Jan 23 02:17	28°♄03'41	
max. Earth dist.	12634 Oct 25 01:36	5°♄07'29	2.37413 AU		12640 Feb 08 21:08	0°♄	
morning rise	12634 Nov 21 04:09	25°♄43'15		asc. node	12640 Feb 16 22:57	2°♄09'45	

	12640 Apr 11 16:17	0°♏		minimum elong	12645 Apr 26 09:59	13°♎16'57	1°10'43
	12640 May 25 01:23	0°♍			12645 May 21 04:07	0°♊	
	12640 Jul 04 18:59	0°♌		morning rise	12645 Jun 12 11:18	15°♊25'23	
	12640 Aug 14 14:26	0°♍			12645 Jul 03 02:02	0°♎	
	12640 Sep 25 15:30	0°♎			12645 Aug 13 05:23	0°♏	
	12640 Nov 08 09:31	0°♐			12645 Sep 21 23:10	0°♍	
	12640 Dec 23 19:18	0°♑		asc. node	12645 Oct 08 19:37	12°♍56'00	
desc. node	12640 Dec 26 02:25	1°♑29'33			12645 Oct 30 22:40	0°♌	
evening set	12640 Dec 30 22:18	4°♑37'27			12645 Dec 09 02:28	0°♍	
	12641 Feb 08 10:51	0°♋			12646 Jan 18 21:30	0°♎	
					12646 Mar 05 06:58	0°♐	
conjunction	12641 Feb 15 02:09	4°♋13'37 -0°27'08		retrograde	12646 May 23 03:47	29°♐25'26	
minimum elong	12641 Feb 15 01:20	4°♋12'19 0°26'37		min. Earth dist.	12646 Jun 25 16:50	21°♐58'20	0.58652 AU
max. Earth dist.	12641 Feb 19 22:01	7°♋17'47 2.67728 AU		opposition	12646 Jul 01 18:59	19°♐35'45	1°57'29
	12641 Mar 27 17:44	0°♑		greatest brilliancy	12646 Jul 01 09:00	19°♐45'30	-1.7m
morning rise	12641 Mar 30 19:01	1°♑55'57		direct	12646 Aug 08 01:58	11°♐07'07	
	12641 May 14 03:04	0°♎		desc. node	12646 Aug 18 20:53	11°♐48'46	
	12641 Jun 30 08:43	0°♊			12646 Oct 13 16:52	0°♑	
	12641 Aug 16 12:42	0°♎			12646 Dec 10 11:34	0°♋	
	12641 Oct 03 06:12	0°♏			12647 Jan 30 09:57	0°♑	
	12641 Nov 23 07:44	0°♍			12647 Mar 18 21:19	0°♎	
asc. node	12642 Jan 04 03:40	18°♍35'02		evening set	12647 Apr 19 23:23	21°♎21'36	
retrograde	12642 Jan 30 19:37	22°♍59'28			12647 May 02 13:56	0°♊	
opposition	12642 Mar 01 13:27	18°♍03'30 4°11'50		max. Earth dist.	12647 May 05 00:25	1°♊41'14	2.51650 AU
greatest brilliancy	12642 Mar 01 09:16	18°♍06'16 -3.0m					
min. Earth dist.	12642 Mar 01 03:32	18°♍10'05 0.36399 AU		conjunction	12647 Jun 09 06:13	26°♊40'06	-0°48'22
direct	12642 Mar 30 21:34	13°♍10'45		minimum elong	12647 Jun 09 08:10	26°♊43'38	0°49'17
	12642 May 25 13:33	0°♌			12647 Jun 13 20:18	0°♎	
	12642 Jul 16 04:09	0°♍			12647 Jul 24 02:58	0°♏	
	12642 Sep 01 06:40	0°♎		morning rise	12647 Aug 06 04:53	10°♏00'03	
	12642 Oct 18 02:57	0°♐		asc. node	12647 Aug 26 08:12	25°♏35'18	
desc. node	12642 Nov 13 03:20	16°♐31'22			12647 Aug 31 23:55	0°♍	
	12642 Dec 04 11:30	0°♑			12647 Oct 09 04:53	0°♌	
	12643 Jan 21 04:37	0°♋			12647 Nov 16 14:31	0°♍	
evening set	12643 Feb 06 00:55	9°♋58'07			12647 Dec 26 04:39	0°♎	
	12643 Mar 09 17:23	0°♑			12648 Feb 06 04:56	0°♐	
max. Earth dist.	12643 Mar 14 03:00	2°♑47'51 2.67709 AU			12648 Mar 23 18:51	0°♑	
					12648 May 24 00:08	0°♋	
conjunction	12643 Mar 22 01:13	7°♑50'52 -0°58'57		retrograde	12648 Jun 27 03:29	6°♋23'02	
minimum elong	12643 Mar 22 00:10	7°♑49'13 0°58'58		desc. node	12648 Jul 06 02:18	5°♋51'31	
	12643 Apr 25 11:41	0°♎			12648 Jul 28 16:51	30°♎	
morning rise	12643 May 04 12:33	5°♎52'43		min. Earth dist.	12648 Aug 04 11:51	27°♑22'38	0.66690 AU
	12643 Jun 10 01:43	0°♊		opposition	12648 Aug 06 21:03	26°♑25'52	-1°09'43
	12643 Jul 24 06:48	0°♎		greatest brilliancy	12648 Aug 06 18:00	26°♑28'53	-1.4m
	12643 Sep 05 02:58	0°♏		direct	12648 Sep 16 00:42	16°♑57'40	
	12643 Oct 16 19:55	0°♍			12648 Nov 08 18:46	0°♋	
asc. node	12643 Nov 22 02:23	26°♍21'46			12649 Jan 07 15:51	0°♑	
	12643 Nov 27 03:06	0°♌			12649 Feb 26 09:03	0°♎	
	12644 Jan 08 21:47	0°♍			12649 Apr 12 13:53	0°♊	
	12644 Feb 29 21:26	0°♎			12649 May 24 15:53	0°♎	
retrograde	12644 Apr 08 04:07	9°♎23'03		evening set	12649 Jun 06 22:15	9°♎49'59	
min. Earth dist.	12644 May 05 17:13	4°♎08'55 0.45518 AU		max. Earth dist.	12649 Jul 02 00:23	28°♎51'32	2.38183 AU
greatest brilliancy	12644 May 12 13:04	1°♎47'02 -2.4m			12649 Jul 03 12:00	0°♏	
opposition	12644 May 14 03:53	1°♎13'13 5°40'33		asc. node	12649 Jul 12 23:07	7°♏18'48	
	12644 May 17 17:47	30°♎					
direct	12644 Jun 15 18:13	24°♎36'10		conjunction	12649 Aug 09 18:11	29°♏04'50	0°19'44
	12644 Jul 16 19:12	0°♎		minimum elong	12649 Aug 09 16:14	29°♏00'58	0°19'08
	12644 Sep 20 05:00	0°♐			12649 Aug 10 22:09	0°♍	
desc. node	12644 Sep 30 11:38	5°♐38'31			12649 Sep 17 19:15	0°♌	
	12644 Nov 11 23:01	0°♑		morning rise	12649 Oct 22 20:08	27°♌31'47	
	12645 Jan 01 01:39	0°♋			12649 Oct 26 00:29	0°♍	
	12645 Feb 18 13:10	0°♑			12649 Dec 04 10:32	0°♎	
evening set	12645 Mar 12 10:42	13°♑54'05			12650 Jan 14 21:10	0°♐	
max. Earth dist.	12645 Apr 05 13:26	29°♑30'26 2.62219 AU			12650 Feb 28 05:09	0°♑	
	12645 Apr 06 07:31	0°♎			12650 Apr 18 01:01	0°♋	
				desc. node	12650 May 24 01:04	19°♋09'35	
conjunction	12645 Apr 26 09:54	13°♎16'49 -1°10'09			12650 Jun 18 02:45	0°♑	

retrograde	12650 Jul 31 04:15	9°Υ09'04			12655 Oct 04 17:44	0°♄	
	12650 Sep 08 14:36	30°♄			12655 Nov 16 20:25	0°♄	
opposition	12650 Sep 09 13:53	29°♄37'08	-3°26'41	evening set	12655 Dec 15 20:52	19°♄29'58	
greatest brilliancy	12650 Sep 09 16:36	29°♄34'27	-1.3m		12655 Dec 31 18:55	0°♄	
min. Earth dist.	12650 Sep 11 00:28	29°♄03'06	0.68230 AU	desc. node	12656 Jan 12 17:48	7°♄48'16	
direct	12650 Oct 21 02:50	19°♄39'06					
	12650 Dec 06 08:30	0°Υ		conjunction	12656 Feb 01 20:32	20°♄48'41	-0°11'03
	12651 Feb 03 20:11	0°♄		minimum elong	12656 Feb 01 20:11	20°♄48'06	0°10'23
	12651 Mar 23 04:19	0°♄		behind sun begin	12656 Feb 01 05:24	20°♄24'21	
	12651 May 04 18:23	0°♄		behind sun end	12656 Feb 02 10:58	21°♄11'51	
asc. node	12651 May 30 22:12	19°♄32'13		max. Earth dist.	12656 Feb 12 07:11	27°♄30'31	2.66239 AU
	12651 Jun 13 13:59	0°♄			12656 Feb 16 04:42	0°♄	
	12651 Jul 21 20:57	0°♄		morning rise	12656 Mar 17 12:26	19°♄15'39	
evening set	12651 Aug 16 12:19	20°♄20'30			12656 Apr 03 13:03	0°Υ	
	12651 Aug 28 16:50	0°♄			12656 May 21 10:17	0°♄	
	12651 Oct 06 00:31	0°♄			12656 Jul 08 19:50	0°♄	
					12656 Aug 27 10:05	0°♄	
conjunction	12651 Oct 26 17:36	15°♄50'12	1°06'16		12656 Oct 20 06:24	0°♄	
minimum elong	12651 Oct 26 17:49	15°♄50'37	1°06'52	retrograde	12656 Dec 28 17:50	21°♄53'48	
	12651 Nov 14 15:39	0°♄		asc. node	12657 Jan 20 18:41	18°♄40'42	
max. Earth dist.	12651 Dec 14 08:34	21°♄35'43	2.45964 AU	opposition	12657 Jan 27 21:34	16°♄45'18	0°31'56
	12651 Dec 26 05:32	0°♄		greatest brilliancy	12657 Jan 27 23:53	16°♄43'41	-2.9m
morning rise	12651 Dec 28 04:31	1°♄22'24		min. Earth dist.	12657 Feb 02 04:02	15°♄16'41	0.38204 AU
	12652 Feb 08 04:06	0°♄		direct	12657 Feb 28 13:09	10°♄59'01	
	12652 Mar 25 20:29	0°♄			12657 Apr 27 16:22	0°♄	
desc. node	12652 Apr 09 16:01	9°♄06'11			12657 Jun 14 21:06	0°♄	
	12652 May 15 07:18	0°Υ			12657 Jul 29 00:49	0°♄	
	12652 Jul 14 06:03	0°♄			12657 Sep 11 04:52	0°♄	
retrograde	12652 Sep 05 05:17	12°♄47'54			12657 Oct 26 10:20	0°♄	
opposition	12652 Oct 13 22:51	4°♄03'58	-4°51'58	desc. node	12657 Nov 29 15:10	22°♄10'32	
greatest brilliancy	12652 Oct 14 19:29	3°♄44'09	-1.5m		12657 Dec 11 19:56	0°♄	
min. Earth dist.	12652 Oct 19 06:11	2°♄01'43	0.63016 AU	evening set	12658 Jan 23 02:30	26°♄52'59	
	12652 Oct 24 17:32	30°♄Υ			12658 Jan 28 00:38	0°♄	
direct	12652 Nov 24 06:27	24°Υ05'27		max. Earth dist.	12658 Mar 05 10:49	23°♄03'33	2.68383 AU
	12652 Dec 26 19:42	0°♄					
	12653 Feb 25 11:38	0°♄		conjunction	12658 Mar 08 13:37	25°♄02'08	-0°48'37
	12653 Apr 11 15:42	0°♄		minimum elong	12658 Mar 08 12:31	25°♄00'23	0°48'26
asc. node	12653 Apr 17 03:17	3°♄54'42			12658 Mar 16 09:24	0°Υ	
	12653 May 22 07:09	0°♄		morning rise	12658 Apr 20 17:44	22°Υ33'05	
	12653 Jun 29 23:00	0°♄			12658 May 02 07:45	0°♄	
	12653 Aug 07 02:48	0°♄			12658 Jun 17 10:02	0°♄	
	12653 Sep 14 20:50	0°♄			12658 Aug 01 11:49	0°♄	
evening set	12653 Oct 25 00:47	0°♄			12658 Sep 14 13:44	0°♄	
	12653 Oct 26 10:53	1°♄02'12			12658 Oct 27 23:42	0°♄	
	12653 Dec 06 03:09	0°♄		asc. node	12658 Dec 08 20:54	28°♄34'13	
					12658 Dec 11 00:39	0°♄	
conjunction	12653 Dec 22 04:10	11°♄03'19	0°35'09		12659 Jan 30 09:20	0°♄	
minimum elong	12653 Dec 22 05:42	11°♄05'56	0°36'04	retrograde	12659 Jan 17 09:51	12°♄58'52	
max. Earth dist.	12654 Jan 18 00:22	29°♄07'45	2.58592 AU	min. Earth dist.	12659 Apr 12 07:51	8°♄31'21	0.40336 AU
	12654 Jan 19 07:51	0°♄		greatest brilliancy	12659 Apr 18 01:15	6°♄45'07	-2.7m
morning rise	12654 Feb 10 05:02	14°♄21'53		opposition	12659 Apr 19 16:40	6°♄14'20	6°31'40
desc. node	12654 Feb 25 03:11	24°♄00'00		direct	12659 May 20 05:37	0°♄36'21	
	12654 Mar 06 12:35	0°♄			12659 Aug 11 05:30	0°♄	
	12654 Apr 23 14:23	0°Υ			12659 Oct 02 14:26	0°♄	
	12654 Jun 13 00:18	0°♄		desc. node	12659 Oct 17 20:40	9°♄06'33	
	12654 Aug 07 16:32	0°♄			12659 Nov 21 10:00	0°♄	
retrograde	12654 Oct 21 22:01	23°♄03'25			12660 Jan 09 08:10	0°♄	
opposition	12654 Nov 26 05:02	15°♄44'02	-4°39'58		12660 Feb 26 08:23	0°Υ	
greatest brilliancy	12654 Nov 27 17:13	15°♄11'40	-2.0m	evening set	12660 Feb 27 14:50	0°Υ48'09	
min. Earth dist.	12654 Dec 04 16:40	12°♄42'28	0.51437 AU	max. Earth dist.	12660 Mar 27 05:01	19°Υ03'57	2.64997 AU
direct	12655 Jan 03 21:00	6°♄46'36					
asc. node	12655 Mar 05 10:34	26°♄27'09		conjunction	12660 Apr 11 19:31	29°Υ11'19	-1°08'54
	12655 Mar 11 17:05	0°♄		minimum elong	12660 Apr 11 19:01	29°Υ10'30	1°09'16
	12655 Apr 26 12:38	0°♄			12660 Apr 13 01:20	0°♄	
	12655 Jun 06 04:01	0°♄		morning rise	12660 May 26 21:00	29°♄08'31	
	12655 Jul 15 14:04	0°♄			12660 May 28 03:21	0°♄	
	12655 Aug 24 11:11	0°♄			12660 Jul 10 11:22	0°♄	

	12660 Aug 21 03:37	0°♊	min. Earth dist.	12665 Aug 27 11:43	17°♋02'09	0.68425 AU
	12660 Sep 30 11:13	0°♍	direct	12665 Oct 07 16:54	7°♋11'22	
asc. node	12660 Oct 25 14:22	19°♍01'47		12665 Dec 21 08:41	0°♍	
	12660 Nov 09 00:51	0°♌		12666 Feb 12 21:40	0°♌	
	12660 Dec 18 22:05	0°♍		12666 Mar 31 02:32	0°♍	
	12661 Jan 30 03:11	0°♌		12666 May 12 09:38	0°♌	
	12661 Mar 22 03:46	0°♋	asc. node	12666 Jun 16 13:10	26°♌25'50	
retrograde	12661 May 07 06:11	12°♋23'53		12666 Jun 21 04:28	0°♊	
min. Earth dist.	12661 Jun 07 11:58	5°♋44'51 0.53901 AU	evening set	12666 Jul 17 05:18	20°♊18'23	
opposition	12661 Jun 14 20:58	2°♋56'43 3°24'17		12666 Jul 29 12:00	0°♍	
greatest brilliancy	12661 Jun 14 00:17	3°♋16'26 -1.9m		12666 Sep 05 07:37	0°♌	
	12661 Jun 22 23:08	30°♌♌				
direct	12661 Jul 20 13:40	25°♌04'03	conjunction	12666 Sep 27 09:31	17°♌24'18 0°59'55	
	12661 Aug 19 17:59	0°♋	minimum elong	12666 Sep 27 06:25	17°♌18'12 1°00'04	
desc. node	12661 Sep 04 06:49	5°♋20'38		12666 Oct 13 13:28	0°♍	
	12661 Oct 26 13:38	0°♌	max. Earth dist.	12666 Nov 20 04:53	28°♍37'08 2.40273 AU	
	12661 Dec 19 00:11	0°♋		12666 Nov 22 01:26	0°♌	
	12662 Feb 06 17:01	0°♍	morning rise	12666 Dec 05 16:00	10°♌01'39	
	12662 Mar 25 19:40	0°♌		12667 Jan 02 12:12	0°♋	
evening set	12662 Apr 04 06:11	6°♌12'04		12667 Feb 15 11:18	0°♌	
max. Earth dist.	12662 Apr 22 06:46	18°♌14'16 2.56335 AU		12667 Apr 03 15:26	0°♋	
	12662 May 09 12:55	0°♍	desc. node	12667 Apr 27 09:59	14°♋07'31	
				12667 May 26 03:31	0°♍	
conjunction	12662 May 21 18:18	8°♍28'54 -1°01'51	retrograde	12667 Aug 22 02:12	29°♍28'29	
minimum elong	12662 May 21 19:36	8°♍31'10 1°02'41	opposition	12667 Sep 30 15:38	20°♍22'33 -4°26'15	
	12662 Jun 21 00:24	0°♌	greatest brilliancy	12667 Oct 01 04:24	20°♍10'09 -1.3m	
morning rise	12662 Jul 13 04:53	16°♌15'09	min. Earth dist.	12667 Oct 04 10:57	18°♍53'46 0.65873 AU	
	12662 Jul 31 14:01	0°♊	direct	12667 Nov 11 06:38	10°♍19'30	
	12662 Sep 08 17:42	0°♍		12668 Jan 16 01:59	0°♌	
asc. node	12662 Sep 12 04:01	2°♍39'49		12668 Mar 07 18:18	0°♍	
	12662 Oct 17 04:05	0°♌		12668 Apr 20 10:59	0°♌	
	12662 Nov 24 18:15	0°♍	asc. node	12668 May 03 16:43	9°♌40'37	
	12663 Jan 03 14:26	0°♌		12668 May 30 14:58	0°♊	
	12663 Feb 15 06:26	0°♋		12668 Jul 08 01:22	0°♍	
	12663 Apr 05 09:32	0°♌		12668 Aug 15 00:29	0°♌	
retrograde	12663 Jun 14 16:07	23°♌01'30		12668 Sep 22 13:05	0°♍	
min. Earth dist.	12663 Jul 21 07:29	14°♌33'17 0.64289 AU	evening set	12668 Oct 01 04:01	6°♍35'23	
desc. node	12663 Jul 23 15:23	13°♌37'56		12668 Nov 01 10:40	0°♌	
opposition	12663 Jul 25 03:50	13°♌01'45 -0°03'30				
greatest brilliancy	12663 Jul 25 03:43	13°♌01'51 -1.5m	conjunction	12668 Dec 02 11:31	22°♌24'07 0°51'38	
direct	12663 Sep 02 08:42	3°♌52'34	minimum elong	12668 Dec 02 13:33	22°♌27'44 0°52'33	
	12663 Nov 23 15:27	0°♋		12668 Dec 13 06:38	0°♋	
	12664 Jan 17 07:12	0°♍	max. Earth dist.	12669 Jan 06 06:04	16°♋31'41 2.54177 AU	
	12664 Mar 05 20:51	0°♌	morning rise	12669 Jan 25 06:18	29°♋18'39	
	12664 Apr 19 19:07	0°♍		12669 Jan 26 07:11	0°♌	
evening set	12664 May 16 21:26	19°♍05'48	desc. node	12669 Mar 13 22:05	0°♋13'47	
max. Earth dist.	12664 May 31 01:45	29°♍22'54 2.43381 AU		12669 Mar 13 13:22	0°♋	
	12664 May 31 22:01	0°♌		12669 May 01 05:34	0°♍	
	12664 Jul 10 21:42	0°♊		12669 Jun 22 16:12	0°♌	
				12669 Aug 27 20:42	0°♍	
conjunction	12664 Jul 13 06:06	1°♊48'09 -0°11'40	retrograde	12669 Oct 01 21:15	6°♍13'07	
minimum elong	12664 Jul 13 07:07	1°♊50'06 0°12'31		12669 Nov 02 22:52	30°♌♌	
behind sun begin	12664 Jul 12 13:58	1°♊17'11	opposition	12669 Nov 07 19:08	28°♌14'20 -5°03'15	
behind sun end	12664 Jul 14 00:16	2°♊23'02	greatest brilliancy	12669 Nov 09 03:37	27°♌44'06 -1.8m	
asc. node	12664 Jul 29 18:25	14°♊34'22	min. Earth dist.	12669 Nov 15 06:24	25°♌27'50 0.56660 AU	
	12664 Aug 18 11:24	0°♍	direct	12669 Dec 17 21:54	18°♌40'45	
morning rise	12664 Sep 20 13:29	26°♍08'23		12670 Feb 01 01:12	0°♍	
	12664 Sep 25 10:39	0°♌	asc. node	12670 Mar 22 00:47	27°♍29'23	
	12664 Nov 02 16:22	0°♍		12670 Mar 25 20:36	0°♌	
	12664 Dec 12 02:07	0°♌		12670 May 07 08:46	0°♊	
	12665 Jan 22 14:25	0°♋		12670 Jun 15 20:00	0°♍	
	12665 Mar 08 09:43	0°♌		12670 Jul 24 12:56	0°♌	
	12665 Apr 28 06:55	0°♋		12670 Sep 01 19:37	0°♍	
desc. node	12665 Jun 09 16:24	19°♋14'02		12670 Oct 12 12:43	0°♌	
retrograde	12665 Jul 17 20:53	26°♋45'10		12670 Nov 24 03:25	0°♋	
opposition	12665 Aug 27 13:09	17°♋00'43 -2°39'20	evening set	12670 Nov 28 04:21	2°♋46'18	
greatest brilliancy	12665 Aug 27 11:45	17°♋02'07 -1.3m		12671 Jan 07 17:04	0°♌	

conjunction	12671 Jan 17 18:17	6°≈36'15	0°06'30		12676 Feb 15 03:43	0°♂	
minimum elong	12671 Jan 17 18:34	6°≈36'44	0°07'19	retrograde	12676 Apr 19 10:52	22°♂39'46	
behind sun begin	12671 Jan 17 00:32	6°≈07'14		min. Earth dist.	12676 May 18 05:51	16°♂55'19	0.48560 AU
behind sun end	12671 Jan 18 12:36	7°≈06'13		greatest brilliancy	12676 May 25 04:24	14°♂25'00	-2.2m
desc. node	12671 Jan 29 09:55	14°≈11'47		opposition	12676 May 26 13:25	13°♂55'03	4°53'55
max. Earth dist.	12671 Feb 03 02:27	17°≈14'07	2.63901 AU	direct	12676 Jun 29 08:55	6°♂48'09	
	12671 Feb 22 22:59	0°♂			12676 Sep 11 05:03	0°♂	
morning rise	12671 Mar 04 22:51	6°♂22'13		desc. node	12676 Sep 20 16:42	4°♂46'41	
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	12671 May 30 01:08	0°♂			12676 Dec 26 21:51	0°♂	
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greatest brilliancy	12672 Jan 01 08:22	19°♂24'10	-2.6m				
min. Earth dist.	12672 Jan 08 15:23	17°♂06'28	0.42772 AU	conjunction	12677 May 05 05:29	22°♂20'38	-1°08'44
direct	12672 Feb 04 07:49	12°♂26'36		minimum elong	12677 May 05 06:00	22°♂21'30	1°09'25
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	12672 Sep 20 04:26	0°♂		asc. node	12677 Sep 29 00:04	9°♂29'17	
	12672 Nov 03 07:57	0°♂			12677 Oct 25 11:02	0°♂	
desc. node	12672 Dec 16 04:29	28°♂10'04			12677 Dec 03 08:41	0°♂	
	12672 Dec 19 00:20	0°≈			12678 Jan 12 16:12	0°♂	
evening set	12673 Jan 08 14:01	13°≈15'07			12678 Feb 25 14:47	0°♂	
	12673 Feb 03 19:27	0°♂			12678 Apr 22 12:59	0°≈	
				retrograde	12678 May 31 14:37	8°≈41'22	
conjunction	12673 Feb 22 23:56	12°♂11'20	-0°35'44	min. Earth dist.	12678 Jul 05 07:29	0°≈50'39	0.60904 AU
minimum elong	12673 Feb 22 22:57	12°♂09'46	0°35'21		12678 Jul 07 11:08	30°♂♂	
max. Earth dist.	12673 Feb 24 23:01	13°♂25'59	2.68193 AU	opposition	12678 Jul 10 14:33	28°♂45'34	1°10'45
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morning rise	12673 Apr 07 09:00	9°♀41'31		desc. node	12678 Aug 09 01:56	20°♂28'52	
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asc. node	12673 Dec 25 12:18	25°♂36'45			12679 Apr 27 21:01	0°♂	
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min. Earth dist.	12674 Mar 16 14:20	7°♂35'06	0.36946 AU		12679 Jun 09 02:22	0°♂	
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opposition	12674 Mar 20 05:49	6°♂35'40	5°43'27	conjunction	12679 Jun 20 22:14	8°♂41'35	-0°37'13
direct	12674 Apr 18 08:24	1°♂41'57		minimum elong	12679 Jun 21 00:16	8°♂45'20	0°38'09
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	12675 Mar 05 02:11	0°♀			12679 Dec 20 22:28	0°♂	
max. Earth dist.	12675 Mar 19 05:53	9°♀00'26	2.66973 AU		12680 Jan 31 15:58	0°♂	
					12680 Mar 17 08:02	0°≈	
conjunction	12675 Mar 29 20:40	15°♀48'21	-1°03'39		12680 May 11 11:39	0°♂	
minimum elong	12675 Mar 29 19:46	15°♀46'54	1°03'48	desc. node	12680 Jun 26 06:36	13°♂47'18	
	12675 Apr 20 19:53	0°♂		retrograde	12680 Jul 04 17:18	14°♂13'27	
morning rise	12675 May 12 17:28	14°♂20'58		min. Earth dist.	12680 Aug 12 22:14	4°♂56'47	0.67599 AU
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	12675 Aug 30 11:56	0°♂			12680 Aug 25 21:35	30°♂≈	
	12675 Oct 10 14:52	0°♂		direct	12680 Sep 24 00:48	24°≈43'06	
asc. node	12675 Nov 12 10:09	24°♂18'19			12680 Oct 26 04:20	0°♂	
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

































































































































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	12681 May 19 20:35	0°♋		desc. node	12686 Feb 15 03:56	20°♊36'47	
evening set	12681 Jun 20 05:49	23°♋31'26		morning rise	12686 Feb 18 17:30	22°♊54'40	
	12681 Jun 28 16:30	0°♌			12686 Mar 01 18:57	0°♋	
asc. node	12681 Jul 03 07:08	3°♌33'24			12686 Apr 18 14:05	0°♋	
	12681 Aug 06 01:43	0°♍			12686 Jun 07 04:06	0°♌	
max. Earth dist.	12681 Aug 17 17:52	9°♍14'37	2.36307 AU		12686 Jul 30 02:36	0°♌	
					12686 Oct 06 17:41	0°♍	
conjunction	12681 Aug 26 20:56	16°♍29'04	0°37'17	retrograde	12686 Nov 03 13:40	4°♍10'14	
minimum elong	12681 Aug 26 17:16	16°♍21'49	0°36'55		12686 Nov 29 12:18	30°♌♊	
	12681 Sep 12 21:48	0°♎		opposition	12686 Dec 07 20:13	27°♊16'12	-4°08'30
	12681 Oct 21 02:24	0°♏		greatest brilliancy	12686 Dec 09 06:46	26°♊46'13	-2.2m
morning rise	12681 Nov 08 22:00	14°♏28'49		min. Earth dist.	12686 Dec 16 13:43	24°♊15'24	0.48355 AU
	12681 Nov 29 12:02	0°♐		direct	12687 Jan 14 09:15	18°♊47'52	
	12682 Jan 09 21:05	0°♑		asc. node	12687 Feb 23 21:07	28°♊44'26	
	12682 Feb 22 23:33	0°♒			12687 Feb 26 16:08	0°♋	
desc. node	12682 Apr 11 23:20	0°♋			12687 Apr 18 15:14	0°♌	
	12682 May 14 02:27	18°♋02'38			12687 May 30 13:02	0°♍	
	12682 Jun 07 07:38	0°♎			12687 Jul 09 13:59	0°♎	
retrograde	12682 Aug 07 23:51	16°♎47'58			12687 Aug 18 21:19	0°♏	
opposition	12682 Sep 17 03:25	7°♎24'23	-3°51'04		12687 Sep 29 12:21	0°♐	
greatest brilliancy	12682 Sep 17 09:20	7°♎18'35	-1.3m		12687 Nov 11 21:48	0°♑	
min. Earth dist.	12682 Sep 19 10:22	6°♎30'30	0.67684 AU	evening set	12687 Dec 25 04:30	28°♑46'37	
	12682 Oct 08 12:02	30°♒♋			12687 Dec 27 01:24	0°♒	
direct	12682 Oct 28 18:19	27°♋23'14		desc. node	12688 Jan 02 19:24	4°♒24'08	
	12682 Nov 19 09:17	0°♌					
	12683 Jan 28 04:37	0°♍		conjunction	12688 Feb 10 01:59	29°♒03'23	-0°20'41
	12683 Mar 17 16:53	0°♎		minimum elong	12688 Feb 10 01:20	29°♒02'20	0°20'06
	12683 Apr 29 15:27	0°♏			12688 Feb 11 13:28	0°♋	
asc. node	12683 May 21 06:56	16°♏03'05		max. Earth dist.	12688 Feb 17 09:57	3°♋43'55	2.67169 AU
	12683 Jun 08 14:01	0°♌		morning rise	12688 Mar 25 03:30	27°♋01'39	
	12683 Jul 16 22:15	0°♍			12688 Mar 29 20:24	0°♎	
greatest brilliancy	12683 Aug 16 22:05	24°♍33'55	1.2m		12688 May 16 10:29	0°♌	
	12683 Aug 23 18:55	0°♎			12688 Jul 03 03:08	0°♊	
evening set	12683 Sep 02 21:07	7°♎57'31			12688 Aug 20 04:54	0°♋	
	12683 Oct 01 03:35	0°♏			12688 Oct 08 21:14	0°♌	
	12683 Nov 09 19:59	0°♐			12688 Dec 06 04:13	0°♍	
				asc. node	12689 Jan 11 03:21	9°♍10'54	
conjunction	12683 Nov 10 10:31	0°♐26'52	1°03'30	retrograde	12689 Jan 16 05:20	9°♍21'04	
minimum elong	12683 Nov 10 12:00	0°♐29'36	1°04'16	opposition	12689 Feb 14 21:18	4°♍27'16	2°39'12
	12683 Dec 21 10:34	0°♑		greatest brilliancy	12689 Feb 15 00:53	4°♍24'51	-3.0m
max. Earth dist.	12683 Dec 24 05:10	1°♑56'44	2.49012 AU	min. Earth dist.	12689 Feb 17 04:48	3°♍49'56	0.36785 AU
morning rise	12684 Jan 08 10:08	12°♑29'11			12689 Mar 06 21:47	30°♌♍	
	12684 Feb 03 08:15	0°♒		direct	12689 Mar 17 01:21	29°♌18'18	
	12684 Mar 20 18:36	0°♋			12689 Mar 27 01:22	0°♍	
desc. node	12684 Mar 30 15:36	6°♋09'07			12689 Jun 04 08:38	0°♎	
	12684 May 09 09:00	0°♌			12689 Jul 21 11:42	0°♏	
	12684 Jul 04 09:03	0°♍			12689 Sep 05 00:22	0°♐	
retrograde	12684 Sep 14 09:46	21°♍16'33			12689 Oct 21 00:23	0°♑	
opposition	12684 Oct 22 13:32	12°♍46'58	-5°01'02	desc. node	12689 Nov 19 18:48	19°♑06'43	
greatest brilliancy	12684 Oct 23 14:45	12°♍22'57	-1.6m		12689 Dec 06 21:18	0°♒	
min. Earth dist.	12684 Oct 28 16:26	10°♍27'10	0.61010 AU		12690 Jan 23 08:10	0°♋	
direct	12684 Dec 02 13:23	2°♍54'05		evening set	12690 Jan 31 02:41	4°♋54'05	
	12685 Feb 17 18:44	0°♊		max. Earth dist.	12690 Mar 10 10:09	29°♋07'48	2.68113 AU
	12685 Apr 05 14:03	0°♋			12690 Mar 11 19:02	0°♌	
asc. node	12685 Apr 07 12:22	1°♋20'50					
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	12685 Jun 24 14:50	0°♍		minimum elong	12690 Mar 16 05:18	2°♌48'50	0°54'59
	12685 Aug 01 22:12	0°♎			12690 Apr 27 15:27	0°♌	
	12685 Sep 09 19:37	0°♏		morning rise	12690 Apr 28 13:03	0°♍34'56	
	12685 Oct 20 03:08	0°♐			12690 Jun 12 11:07	0°♊	
evening set	12685 Nov 08 02:34	13°♐39'44			12690 Jul 27 01:22	0°♋	
	12685 Dec 01 08:35	0°♑			12690 Sep 08 09:54	0°♌	
					12690 Oct 20 18:41	0°♍	
conjunction	12686 Jan 01 07:09	21°♑06'17	0°24'44	asc. node	12690 Nov 29 03:01	27°♍59'09	
minimum elong	12686 Jan 01 08:14	21°♑08'06	0°25'39		12690 Dec 01 23:47	0°♎	
	12686 Jan 14 15:16	0°♒			12691 Jan 15 16:25	0°♏	

retrograde	12691 Mar 30 18:43	28° \mathbb{M} 58'41		max. Earth dist.	12696 Jun 15 05:12	14° \mathfrak{S} 09'18	2.40392 AU
min. Earth dist.	12691 Apr 26 10:00	24° \mathbb{M} 08'11	0.43105 AU		12696 Jul 06 01:57	0° \mathcal{Q}	
greatest brilliancy	12691 May 02 22:51	21° \mathbb{M} 58'24	-2.5m	asc. node	12696 Jul 20 00:10	10° \mathcal{Q} 45'05	
opposition	12691 May 04 16:03	21° \mathbb{M} 24'04	6°10'16				
direct	12691 Jun 05 07:16	15° \mathbb{M} 13'09		conjunction	12696 Jul 28 04:34	17° \mathcal{Q} 07'38	0°05'53
	12691 Jul 30 02:35	0° \mathfrak{Z}		minimum elong	12696 Jul 28 04:03	17° \mathcal{Q} 06'38	0°05'10
	12691 Sep 25 13:10	0° \mathfrak{Z}		behind sun begin	12696 Jul 27 00:59	16° \mathcal{Q} 13'48	
desc. node	12691 Oct 08 02:33	7° \mathfrak{Z} 11'45		behind sun end	12696 Jul 29 07:07	17° \mathcal{Q} 59'30	
	12691 Nov 15 20:16	0° \approx			12696 Aug 13 14:15	0° \mathfrak{M}	
	12692 Jan 04 09:33	0° \mathfrak{H}			12696 Sep 20 12:17	0° \mathfrak{L}	
	12692 Feb 21 16:17	0° \mathcal{Y}		morning rise	12696 Oct 08 19:28	14° \mathfrak{L} 26'25	
evening set	12692 Mar 06 11:17	8° \mathcal{Y} 44'09			12696 Oct 28 17:08	0° \mathbb{M}	
max. Earth dist.	12692 Apr 01 14:42	25° \mathcal{Y} 32'41	2.63567 AU		12696 Dec 07 01:59	0° \mathfrak{Z}	
	12692 Apr 08 10:50	0° \mathfrak{B}			12697 Jan 17 11:28	0° \mathfrak{Z}	
					12697 Mar 02 21:26	0° \approx	
conjunction	12692 Apr 20 00:23	7° \mathfrak{B} 35'43	-1°10'12		12697 Apr 21 07:04	0° \mathfrak{H}	
minimum elong	12692 Apr 20 00:12	7° \mathfrak{B} 35'25	1°10'42	desc. node	12697 May 30 18:47	19° \mathfrak{H} 59'48	
	12692 May 23 10:42	0° \mathbb{I}			12697 Jun 26 23:19	0° \mathcal{Y}	
morning rise	12692 Jun 05 01:45	8° \mathbb{I} 38'57		retrograde	12697 Jul 25 11:26	4° \mathcal{Y} 22'23	
	12692 Jul 05 14:00	0° \mathfrak{S}			12697 Aug 20 18:09	30° \mathfrak{R} \mathfrak{H}	
	12692 Aug 15 23:33	0° \mathcal{Q}		opposition	12697 Sep 04 00:13	24° \mathfrak{H} 44'30	-3°08'05
	12692 Sep 24 23:38	0° \mathfrak{M}		greatest brilliancy	12697 Sep 04 00:51	24° \mathfrak{H} 43'53	-1.3m
asc. node	12692 Oct 15 20:57	15° \mathfrak{M} 56'46		min. Earth dist.	12697 Sep 04 18:44	24° \mathfrak{H} 26'14	0.68445 AU
	12692 Nov 03 04:42	0° \mathfrak{L}		direct	12697 Oct 15 09:08	14° \mathfrak{H} 49'50	
	12692 Dec 12 14:21	0° \mathbb{M}			12697 Dec 12 10:39	0° \mathcal{Y}	
	12693 Jan 22 19:30	0° \mathfrak{Z}			12698 Feb 07 00:35	0° \mathfrak{B}	
	12693 Mar 10 15:32	0° \mathfrak{Z}			12698 Mar 25 22:07	0° \mathbb{I}	
retrograde	12693 May 16 13:15	22° \mathfrak{Z} 52'12			12698 May 07 10:33	0° \mathfrak{S}	
min. Earth dist.	12693 Jun 18 02:11	15° \mathfrak{Z} 45'09	0.56632 AU	asc. node	12698 Jun 06 21:44	22° \mathfrak{S} 48'23	
opposition	12693 Jun 24 18:10	13° \mathfrak{Z} 10'24	2°33'21		12698 Jun 16 06:41	0° \mathcal{Q}	
greatest brilliancy	12693 Jun 24 03:55	13° \mathfrak{Z} 24'12	-1.8m		12698 Jul 24 14:20	0° \mathfrak{M}	
direct	12693 Jul 31 08:36	4° \mathfrak{Z} 56'38		evening set	12698 Aug 02 22:55	7° \mathfrak{M} 25'02	
desc. node	12693 Aug 25 11:56	8° \mathfrak{Z} 25'30			12698 Aug 31 09:53	0° \mathfrak{L}	
	12693 Oct 18 15:51	0° \approx			12698 Oct 08 15:59	0° \mathbb{M}	
	12693 Dec 13 08:07	0° \mathfrak{H}					
	12694 Feb 01 17:54	0° \mathcal{Y}		conjunction	12698 Oct 14 08:36	4° \mathbb{M} 23'39	1°05'31
	12694 Mar 21 02:37	0° \mathfrak{B}		minimum elong	12698 Oct 14 07:24	4° \mathbb{M} 21'19	1°05'58
evening set	12694 Apr 13 00:57	15° \mathfrak{B} 09'43			12698 Nov 17 04:38	0° \mathfrak{Z}	
max. Earth dist.	12694 Apr 29 06:53	26° \mathfrak{B} 10'12	2.53833 AU	max. Earth dist.	12698 Dec 05 07:19	13° \mathfrak{Z} 18'12	2.43411 AU
	12694 May 04 20:45	0° \mathbb{I}		morning rise	12698 Dec 18 20:48	23° \mathfrak{Z} 03'49	
					12698 Dec 28 15:36	0° \mathfrak{Z}	
conjunction	12694 May 31 22:36	18° \mathbb{I} 58'31	-0°55'00		12699 Feb 10 12:35	0° \approx	
minimum elong	12694 Jun 01 00:19	19° \mathbb{I} 01'34	0°55'53		12699 Mar 29 07:25	0° \mathfrak{H}	
	12694 Jun 16 06:38	0° \mathfrak{S}		desc. node	12699 Apr 17 10:59	11° \mathfrak{H} 38'05	
morning rise	12694 Jul 26 04:43	29° \mathfrak{S} 36'17			12699 May 19 09:25	0° \mathcal{Y}	
	12694 Jul 26 17:15	0° \mathcal{Q}			12699 Jul 22 14:35	0° \mathfrak{B}	
asc. node	12694 Sep 02 10:03	28° \mathcal{Q} 58'16		retrograde	12699 Aug 30 14:19	7° \mathfrak{B} 30'32	
	12694 Sep 03 17:47	0° \mathfrak{M}			12699 Oct 05 01:33	30° \mathfrak{R} \mathcal{Y}	
	12694 Oct 12 01:05	0° \mathfrak{L}		opposition	12699 Oct 08 17:06	28° \mathcal{Y} 36'18	-4°42'28
	12694 Nov 19 11:55	0° \mathbb{M}		greatest brilliancy	12699 Oct 09 10:13	28° \mathcal{Y} 19'45	-1.4m
	12694 Dec 29 03:08	0° \mathfrak{Z}		min. Earth dist.	12699 Oct 13 08:26	26° \mathcal{Y} 48'39	0.64420 AU
	12695 Feb 09 06:50	0° \mathfrak{Z}		direct	12699 Nov 19 04:23	18° \mathcal{Y} 34'46	
	12695 Mar 28 13:37	0° \approx			12700 Jan 05 14:22	0° \mathfrak{B}	
	12695 Jun 08 00:04	0° \mathfrak{H}			12700 Mar 02 08:23	0° \mathbb{I}	
retrograde	12695 Jun 22 11:17	1° \mathfrak{H} 16'41			12700 Apr 15 21:25	0° \mathfrak{S}	
	12695 Jul 06 06:11	30° \mathfrak{R} \approx		asc. node	12700 Apr 25 02:09	6° \mathfrak{S} 38'02	
desc. node	12695 Jul 13 18:25	28° \approx 13'58			12700 May 26 08:29	0° \mathcal{Q}	
min. Earth dist.	12695 Jul 30 01:26	22° \approx 30'00	0.65740 AU		12700 Jul 03 22:16	0° \mathfrak{M}	
opposition	12695 Aug 02 02:17	21° \approx 17'38	-0°43'20		12700 Aug 10 23:38	0° \mathfrak{L}	
greatest brilliancy	12695 Aug 01 23:59	21° \approx 19'56	-1.4m		12700 Sep 18 14:17	0° \mathbb{M}	
direct	12695 Sep 10 19:53	11° \approx 57'21		evening set	12700 Oct 16 21:41	21° \mathbb{M} 22'07	
	12695 Nov 15 04:39	0° \mathfrak{H}			12700 Oct 28 14:12	0° \mathfrak{Z}	
	12696 Jan 11 13:47	0° \mathcal{Y}			12700 Dec 09 12:11	0° \mathfrak{Z}	
	12696 Feb 29 20:17	0° \mathfrak{B}					
	12696 Apr 14 23:41	0° \mathbb{I}		conjunction	12700 Dec 14 23:17	3° \mathfrak{Z} 48'05	0°42'27
	12696 May 27 03:23	0° \mathfrak{S}		minimum elong	12700 Dec 15 01:06	3° \mathfrak{Z} 51'14	0°43'23
evening set	12696 May 28 09:18	0° \mathfrak{S} 54'52		max. Earth dist.	12701 Jan 14 05:23	24° \mathfrak{Z} 25'54	2.56707 AU

	12701 Jan 22 13:34	0°♊		12705 Dec 19 08:37	0°♎	
morning rise	12701 Feb 04 12:36	8°♊33'35		12706 Feb 28 11:35	0°♎	
desc. node	12701 Mar 04 21:52	26°♊55'59	retrograde	12706 Mar 06 23:44	0°♎18'24	
	12701 Mar 09 17:21	0°♋		12706 Mar 13 11:23	30°♎♊	
	12701 Apr 26 23:34	0°♌	min. Earth dist.	12706 Apr 01 20:41	26°♎01'20	0.38489 AU
	12701 Jun 17 02:02	0°♍	opposition	12706 Apr 07 22:01	24°♎15'26	6°28'11
	12701 Aug 14 14:04	0°♎	greatest brilliancy	12706 Apr 06 12:57	24°♎39'42	-2.9m
retrograde	12701 Oct 13 21:36	16°♎00'54	direct	12706 May 07 16:44	19°♎01'36	
opposition	12701 Nov 18 22:32	8°♎22'48		12706 Jun 21 11:38	0°♎	
greatest brilliancy	12701 Nov 20 09:42	7°♎50'40		12706 Aug 17 23:01	0°♏	
min. Earth dist.	12701 Nov 27 00:10	5°♎26'21		12706 Oct 07 02:58	0°♐	
	12701 Dec 17 00:51	30°♏♋	desc. node	12706 Oct 25 11:57	11°♐31'27	
direct	12701 Dec 28 07:14	29°♏06'43		12706 Nov 25 01:40	0°♑	
	12702 Jan 08 19:38	0°♒		12707 Jan 12 14:11	0°♋	
asc. node	12702 Mar 13 09:04	26°♒43'22	evening set	12707 Feb 22 17:59	25°♋45'26	
	12702 Mar 18 17:39	0°♌		12707 Mar 01 11:03	0°♌	
	12702 May 01 19:52	0°♍	max. Earth dist.	12707 Mar 25 10:05	15°♌16'06	2.65990 AU
	12702 Jun 10 21:30	0°♎				
	12702 Jul 19 22:58	0°♎	conjunction	12707 Apr 07 18:28	23°♌52'22	-1°07'12
	12702 Aug 28 12:16	0°♎	minimum elong	12707 Apr 07 17:46	23°♌51'14	1°07'29
	12702 Oct 08 11:25	0°♏		12707 Apr 17 04:57	0°♏	
	12702 Nov 20 07:11	0°♐	morning rise	12707 May 22 04:59	23°♏06'32	
evening set	12702 Dec 09 10:49	12°♐59'41		12707 Jun 01 10:58	0°♒	
	12703 Jan 04 00:27	0°♑		12707 Jul 15 01:32	0°♌	
desc. node	12703 Jan 20 11:40	10°♑46'28		12707 Aug 26 01:35	0°♍	
				12707 Oct 05 17:41	0°♎	
conjunction	12703 Jan 27 11:36	15°♑18'56	asc. node	12707 Nov 03 16:01	21°♎43'11	
minimum elong	12703 Jan 27 11:28	15°♑18'44		12707 Nov 14 16:00	0°♎	
behind sun begin	12703 Jan 26 16:14	14°♑47'35		12707 Dec 25 00:13	0°♎	
behind sun end	12703 Jan 28 06:43	15°♑49'51		12708 Feb 06 05:40	0°♏	
max. Earth dist.	12703 Feb 09 11:34	23°♑42'01		12708 Apr 04 01:32	0°♐	
	12703 Feb 19 07:24	0°♋	retrograde	12708 Apr 30 20:56	4°♐42'55	
morning rise	12703 Mar 13 17:53	14°♋16'20		12708 May 26 14:53	30°♎♏	
	12703 Apr 07 16:46	0°♌	min. Earth dist.	12708 May 31 00:19	28°♏27'16	0.51560 AU
	12703 May 25 20:22	0°♍	opposition	12708 Jun 07 20:26	25°♏31'49	4°02'55
	12703 Jul 13 21:24	0°♎	greatest brilliancy	12708 Jun 06 18:27	25°♏56'09	-2.1m
	12703 Sep 03 01:00	0°♌	direct	12708 Jul 12 17:48	17°♏58'14	
	12703 Nov 02 00:02	0°♍		12708 Aug 31 13:25	0°♐	
retrograde	12703 Dec 16 18:51	10°♍16'29	desc. node	12708 Sep 11 21:37	4°♐52'54	
opposition	12704 Jan 16 19:34	4°♍46'45		12708 Oct 31 06:46	0°♑	
greatest brilliancy	12704 Jan 17 03:08	4°♍41'09		12708 Dec 22 14:32	0°♋	
min. Earth dist.	12704 Jan 23 18:50	2°♍43'26		12709 Feb 09 22:58	0°♌	
asc. node	12704 Jan 29 17:42	1°♍06'13	evening set	12709 Mar 29 20:13	0°♏32'41	
	12704 Feb 03 12:49	30°♎♌		12709 Mar 29 00:13	0°♏	
direct	12704 Feb 18 21:58	28°♌21'48	max. Earth dist.	12709 Apr 18 12:49	13°♏33'31	2.58208 AU
	12704 Mar 05 07:28	0°♎		12709 May 12 19:30	0°♒	
	12704 May 07 19:32	0°♎				
	12704 Jun 21 08:59	0°♎	conjunction	12709 May 15 10:02	1°♒47'27	-1°05'31
	12704 Aug 03 03:14	0°♎	minimum elong	12709 May 15 11:00	1°♒49'07	1°06'18
	12704 Sep 15 11:23	0°♏		12709 Jun 24 11:09	0°♌	
	12704 Oct 30 03:20	0°♐	morning rise	12709 Jul 04 23:07	7°♌36'28	
desc. node	12704 Dec 07 07:50	24°♐56'32		12709 Aug 04 05:23	0°♍	
	12704 Dec 15 04:05	0°♑		12709 Sep 12 13:28	0°♎	
evening set	12705 Jan 17 22:59	21°♑36'41	asc. node	12709 Sep 20 05:41	5°♎56'26	
	12705 Jan 31 03:46	0°♋		12709 Oct 21 03:16	0°♎	
				12709 Nov 28 19:49	0°♎	
conjunction	12705 Mar 03 18:34	20°♋02'32		12710 Jan 07 19:02	0°♏	
minimum elong	12705 Mar 03 17:29	20°♋00'49		12710 Feb 19 19:20	0°♐	
max. Earth dist.	12705 Mar 02 21:43	19°♋29'31		12710 Apr 11 15:42	0°♑	
	12705 Mar 19 11:29	0°♌	retrograde	12710 Jun 09 18:27	17°♑31'09	
morning rise	12705 Apr 15 23:15	17°♌29'13	min. Earth dist.	12710 Jul 15 13:20	9°♑18'53	0.62892 AU
	12705 May 05 12:45	0°♍	opposition	12710 Jul 20 01:12	7°♑32'07	0°26'26
	12705 Jun 20 22:07	0°♎	greatest brilliancy	12710 Jul 19 23:33	7°♑33'45	-1.5m
	12705 Aug 05 12:09	0°♌	desc. node	12710 Jul 31 06:52	3°♑20'34	
	12705 Sep 19 08:18	0°♍		12710 Aug 12 17:43	30°♎♐	
	12705 Nov 02 22:48	0°♎	direct	12710 Aug 27 17:25	28°♐33'14	
asc. node	12705 Dec 16 21:34	28°♎29'40		12710 Sep 12 17:41	0°♑	

	12710 Nov 28 10:46	0° H	morning rise	12716 Jan 19 19:54	22° Z 49'00	
	12711 Jan 20 22:04	0° Y		12716 Jan 30 13:14	0° \approx	
	12711 Mar 10 05:21	0° B		12716 Mar 16 19:29	0° H	
	12711 Apr 24 03:29	0° II	desc. node	12716 Mar 21 16:44	3° H 04'39	
evening set	12711 May 10 15:43	11° II 31'25		12716 May 04 18:35	0° Y	
max. Earth dist.	12711 May 24 03:37	21° II 08'35	2.45830 AU	12716 Jun 27 08:27	0° B	
	12711 Jun 05 08:54	0° E		12716 Sep 20 20:17	0° II	
			retrograde	12716 Sep 25 02:16	0° II 06'23	
conjunction	12711 Jul 04 14:22	21° E 43'49	-0°23'33	12716 Sep 29 06:45	30° R B	
minimum elong	12711 Jul 04 16:03	21° E 46'59	0°24'28	12716 Nov 01 14:04	21° B 52'55	-5°04'28
	12711 Jul 15 11:31	0° O	opposition	12716 Nov 02 19:33	21° B 25'08	-1.7m
asc. node	12711 Aug 07 19:50	18° O 00'42	greatest brilliancy	12716 Nov 08 10:56	19° B 17'42	0.58722 AU
	12711 Aug 23 03:47	0° M	min. Earth dist.	12716 Dec 12 03:08	12° B 08'54	
morning rise	12711 Sep 08 14:50	12° M 57'40	direct	12717 Feb 09 11:28	0° II	
	12711 Sep 30 04:29	0° A		12717 Mar 29 23:04	29° II 15'28	
	12711 Nov 07 10:20	0° M	asc. node	12717 Mar 31 01:25	0° E	
	12711 Dec 16 19:32	0° Z		12717 May 11 22:17	0° O	
	12712 Jan 27 08:02	0° Z		12717 Jun 20 02:56	0° M	
	12712 Mar 12 08:15	0° \approx		12717 Jul 28 14:56	0° A	
	12712 May 03 09:37	0° H		12717 Sep 05 16:14	0° M	
desc. node	12712 Jun 17 09:31	18° H 13'17		12717 Oct 16 03:35	0° Z	
retrograde	12712 Jul 13 06:47	21° H 56'42		12717 Nov 20 20:19	25° Z 21'47	
opposition	12712 Aug 22 23:51	12° H 07'45	-2°17'50	12717 Nov 27 12:43	0° Z	
min. Earth dist.	12712 Aug 22 06:24	12° H 25'03	0.68179 AU	12718 Jan 10 21:52	0° \approx	
greatest brilliancy	12712 Aug 22 21:15	12° H 10'19	-1.3m			
direct	12712 Oct 02 21:07	2° H 23'36		conjunction	12718 Jan 11 21:14	0° \approx 38'39 0°14'04
	12712 Dec 26 08:35	0° Y		minimum elong	12718 Jan 11 21:51	0° \approx 39'39 0°14'56
	12713 Feb 16 16:50	0° B		behind sun begin	12718 Jan 11 14:50	0° \approx 28'04
	12713 Apr 03 16:10	0° II		behind sun end	12718 Jan 12 04:51	0° \approx 51'13
	12713 May 15 23:28	0° E		max. Earth dist.	12718 Jan 30 22:55	13° \approx 09'20 2.62584 AU
asc. node	12713 Jun 24 13:18	29° E 47'35		desc. node	12718 Feb 06 03:54	17° \approx 11'18
	12713 Jun 24 19:45	0° O			12718 Feb 26 01:40	0° H
evening set	12713 Jul 05 22:36	8° O 36'28	morning rise	12718 Feb 27 23:03	1° H 12'30	
	12713 Aug 02 04:36	0° M		12718 Apr 14 15:54	0° Y	
	12713 Sep 09 00:30	0° A		12718 Jun 02 14:31	0° B	
				12718 Jul 23 17:03	0° II	
conjunction	12713 Sep 14 15:21	4° A 26'55	0°51'57	12718 Sep 19 10:32	0° E	
minimum elong	12713 Sep 14 11:22	4° A 19'03	0°51'54	retrograde	12718 Nov 18 09:16	16° E 19'33
	12713 Oct 17 05:12	0° M		opposition	12718 Dec 21 14:47	9° E 53'52 -3°18'57
max. Earth dist.	12713 Nov 02 18:35	12° M 45'04	2.37926 AU	greatest brilliancy	12718 Dec 22 19:36	9° E 29'56 -2.4m
morning rise	12713 Nov 25 13:03	29° M 56'22		min. Earth dist.	12718 Dec 30 06:29	7° E 02'45 0.45229 AU
	12713 Nov 25 15:01	0° Z		direct	12719 Jan 26 18:35	2° E 03'13
	12714 Jan 05 23:27	0° Z		asc. node	12719 Feb 15 06:56	4° E 37'42
	12714 Feb 18 21:44	0° \approx			12719 Apr 09 23:51	0° O
	12714 Apr 07 06:51	0° H			12719 May 24 04:33	0° M
desc. node	12714 May 05 04:13	16° H 16'06			12719 Jul 04 04:20	0° A
	12714 May 30 22:08	0° Y			12719 Aug 14 02:00	0° M
retrograde	12714 Aug 16 23:13	24° Y 30'30			12719 Sep 25 03:34	0° Z
opposition	12714 Sep 25 19:16	15° Y 16'16	-4°12'41		12719 Nov 07 21:17	0° Z
greatest brilliancy	12714 Sep 26 04:52	15° Y 06'53	-1.3m		12719 Dec 23 06:34	0° \approx
min. Earth dist.	12714 Sep 28 22:16	14° Y 02'58	0.66808 AU	desc. node	12719 Dec 24 20:58	1° \approx 02'26
direct	12714 Nov 06 10:24	5° Y 13'18		evening set	12720 Jan 04 02:45	7° \approx 40'43
	12715 Jan 21 18:07	0° B			12720 Feb 07 21:43	0° H
	12715 Mar 12 23:23	0° II				
	12715 Apr 25 09:17	0° E		conjunction	12720 Feb 19 02:48	7° H 08'15 -0°29'46
asc. node	12715 May 12 15:11	12° E 41'03		minimum elong	12720 Feb 19 01:55	7° H 06'51 0°29'18
	12715 Jun 04 11:35	0° O		max. Earth dist.	12720 Feb 23 12:23	9° H 55'57 2.67844 AU
	12715 Jul 12 21:17	0° M			12720 Mar 26 04:14	0° Y
	12715 Aug 19 19:07	0° A		morning rise	12720 Apr 02 17:30	4° Y 46'53
evening set	12715 Sep 20 19:49	25° A 03'59			12720 May 12 12:49	0° B
	12715 Sep 27 05:10	0° M			12720 Jun 28 16:30	0° II
	12715 Nov 05 23:19	0° Z			12720 Aug 14 16:01	0° E
					12720 Sep 30 23:18	0° O
conjunction	12715 Nov 24 22:31	13° Z 50'32	0°57'31		12720 Nov 19 16:51	0° M
minimum elong	12715 Nov 25 00:32	13° Z 54'10	0°58'23	asc. node	12721 Jan 02 11:51	21° M 15'52
	12715 Dec 17 15:35	0° Z		retrograde	12721 Feb 04 21:48	27° M 58'13
max. Earth dist.	12716 Jan 02 16:02	11° Z 07'48	2.51961 AU	opposition	12721 Mar 06 15:41	22° M 59'47 4°37'26

greatest brilliancy	12721 Mar 06 08:43	23° \mathbb{M} 04'24	-3.0m			12726 May 01 04:34	0° \mathbb{I}	
min. Earth dist.	12721 Mar 05 13:50	23° \mathbb{M} 16'53	0.36415 AU	max. Earth dist.		12726 May 07 22:32	4° \mathbb{I} 40'20	2.51093 AU
direct	12721 Apr 04 19:18	18° \mathbb{M} 08'52						
	12721 May 20 10:31	0° \mathbb{L}		conjunction		12726 Jun 12 21:58	0° \mathbb{L} 16'12	-0°45'44
	12721 Jul 13 15:14	0° \mathbb{M}		minimum elong		12726 Jun 12 23:58	0° \mathbb{L} 19'50	0°46'40
	12721 Aug 30 07:24	0° \mathbb{J}				12726 Jun 12 13:03	0° \mathbb{L}	
	12721 Oct 16 08:54	0° \mathbb{Z}				12726 Jul 22 20:56	0° \mathbb{Q}	
desc. node	12721 Nov 10 23:18	16° \mathbb{Z} 13'14		morning rise		12726 Aug 10 15:05	14° \mathbb{Q} 21'42	
	12721 Dec 02 19:49	0° \approx		asc. node		12726 Aug 24 14:32	25° \mathbb{Q} 11'47	
	12722 Jan 19 14:16	0° \mathbb{H}				12726 Aug 30 18:21	0° \mathbb{M}	
evening set	12722 Feb 09 00:51	12° \mathbb{H} 51'06				12726 Oct 07 23:02	0° \mathbb{L}	
	12722 Mar 08 04:06	0° \mathbb{Y}				12726 Nov 15 07:30	0° \mathbb{M}	
max. Earth dist.	12722 Mar 16 12:04	5° \mathbb{Y} 17'45	2.67588 AU			12726 Dec 24 19:15	0° \mathbb{J}	
						12727 Feb 04 14:51	0° \mathbb{Z}	
conjunction	12722 Mar 25 00:29	10° \mathbb{Y} 43'37	-1°00'29			12727 Mar 22 17:23	0° \approx	
minimum elong	12722 Mar 24 23:28	10° \mathbb{Y} 42'00	1°00'34			12727 May 20 00:30	0° \mathbb{H}	
	12722 Apr 23 23:21	0° \mathbb{B}		retrograde		12727 Jul 01 02:26	9° \mathbb{H} 14'35	
morning rise	12722 May 07 13:15	8° \mathbb{B} 50'26		desc. node		12727 Jul 04 23:07	9° \mathbb{H} 08'46	
	12722 Jun 08 14:01	0° \mathbb{I}		min. Earth dist.		12727 Aug 08 14:07	0° \mathbb{H} 10'52	0.66896 AU
	12722 Jul 22 19:13	0° \mathbb{L}				12727 Aug 09 01:04	30° \mathbb{R} \approx	
	12722 Sep 03 14:42	0° \mathbb{Q}		opposition		12727 Aug 10 19:19	29° \approx 18'00	-1°20'24
	12722 Oct 15 05:48	0° \mathbb{M}		greatest brilliancy		12727 Aug 10 15:59	29° \approx 21'18	-1.4m
asc. node	12722 Nov 20 10:57	26° \mathbb{M} 26'03		direct		12727 Sep 20 00:05	19° \approx 48'12	
	12722 Nov 25 08:32	0° \mathbb{L}				12727 Nov 05 14:47	0° \mathbb{H}	
	12723 Jan 06 15:20	0° \mathbb{M}				12728 Jan 06 13:17	0° \mathbb{Y}	
	12723 Feb 25 00:54	0° \mathbb{J}				12728 Feb 25 17:36	0° \mathbb{B}	
retrograde	12723 Apr 12 22:31	13° \mathbb{J} 23'29				12728 Apr 11 03:51	0° \mathbb{I}	
min. Earth dist.	12723 May 10 15:30	8° \mathbb{J} 04'09	0.46088 AU			12728 May 23 09:08	0° \mathbb{L}	
greatest brilliancy	12723 May 17 13:21	5° \mathbb{J} 39'35	-2.4m	evening set		12728 Jun 10 19:18	13° \mathbb{L} 40'15	
opposition	12723 May 19 02:56	5° \mathbb{J} 06'36	5°30'34			12728 Jul 02 07:06	0° \mathbb{Q}	
	12723 Jun 05 11:48	30° \mathbb{R} \mathbb{M}		max. Earth dist.		12728 Jul 07 23:03	4° \mathbb{Q} 21'56	2.37697 AU
direct	12723 Jun 21 00:16	28° \mathbb{M} 23'37		asc. node		12728 Jul 11 07:47	6° \mathbb{Q} 58'03	
	12723 Jul 07 05:34	0° \mathbb{J}				12728 Aug 09 17:58	0° \mathbb{M}	
	12723 Sep 18 12:53	0° \mathbb{Z}						
desc. node	12723 Sep 29 07:35	5° \mathbb{Z} 48'19		conjunction		12728 Aug 14 10:24	3° \mathbb{M} 42'00	0°24'04
	12723 Nov 10 23:17	0° \approx		minimum elong		12728 Aug 14 07:58	3° \mathbb{M} 37'13	0°23'32
	12723 Dec 31 07:57	0° \mathbb{H}				12728 Sep 16 14:47	0° \mathbb{L}	
	12724 Feb 17 22:51	0° \mathbb{Y}				12728 Oct 24 18:49	0° \mathbb{M}	
evening set	12724 Mar 15 11:12	16° \mathbb{Y} 49'35		morning rise		12728 Oct 27 17:57	2° \mathbb{M} 18'01	
	12724 Apr 04 19:35	0° \mathbb{B}				12728 Dec 03 02:50	0° \mathbb{J}	
max. Earth dist.	12724 Apr 08 05:58	2° \mathbb{B} 14'45	2.61860 AU			12729 Jan 13 10:27	0° \mathbb{Z}	
						12729 Feb 26 13:34	0° \approx	
conjunction	12724 Apr 29 13:26	16° \mathbb{B} 21'24	-1°09'58			12729 Apr 15 22:55	0° \mathbb{H}	
minimum elong	12724 Apr 29 13:38	16° \mathbb{B} 21'44	1°10'36	desc. node		12729 May 21 20:49	19° \mathbb{H} 30'46	
	12724 May 19 17:58	0° \mathbb{I}				12729 Jun 13 19:48	0° \mathbb{Y}	
morning rise	12724 Jun 15 21:44	18° \mathbb{I} 48'15		retrograde		12729 Aug 03 04:25	11° \mathbb{Y} 58'35	
	12724 Jul 01 17:14	0° \mathbb{L}		opposition		12729 Sep 12 12:12	2° \mathbb{Y} 28'15	-3°34'11
	12724 Aug 11 21:25	0° \mathbb{Q}		greatest brilliancy		12729 Sep 12 15:34	2° \mathbb{Y} 24'56	-1.3m
	12724 Sep 20 15:32	0° \mathbb{M}		min. Earth dist.		12729 Sep 14 02:43	1° \mathbb{Y} 50'20	0.68160 AU
asc. node	12724 Oct 07 01:52	12° \mathbb{M} 36'42				12729 Sep 18 20:04	30° \mathbb{R} \mathbb{H}	
	12724 Oct 29 14:33	0° \mathbb{L}		direct		12729 Oct 24 00:25	22° \mathbb{H} 29'33	
	12724 Dec 07 16:21	0° \mathbb{M}				12729 Dec 01 14:07	0° \mathbb{Y}	
	12725 Jan 17 06:14	0° \mathbb{J}				12730 Feb 01 17:57	0° \mathbb{B}	
	12725 Mar 03 00:15	0° \mathbb{Z}				12730 Mar 21 14:13	0° \mathbb{I}	
	12725 May 06 04:39	0° \approx				12730 May 03 09:45	0° \mathbb{L}	
retrograde	12725 May 26 07:09	2° \approx 34'32		asc. node		12730 May 29 06:28	19° \mathbb{L} 14'49	
	12725 Jun 14 07:57	30° \mathbb{R} \mathbb{Z}				12730 Jun 12 08:13	0° \mathbb{Q}	
min. Earth dist.	12725 Jun 29 01:23	25° \mathbb{Z} 02'19	0.59091 AU			12730 Jul 20 16:32	0° \mathbb{M}	
opposition	12725 Jul 04 23:16	22° \mathbb{Z} 43'25	1°44'32	evening set		12730 Aug 21 06:57	25° \mathbb{M} 03'48	
greatest brilliancy	12725 Jul 04 14:34	22° \mathbb{Z} 51'56	-1.7m			12730 Aug 27 12:33	0° \mathbb{L}	
direct	12725 Aug 11 08:44	14° \mathbb{Z} 11'40				12730 Oct 04 19:19	0° \mathbb{M}	
desc. node	12725 Aug 16 16:56	14° \mathbb{Z} 22'07						
	12725 Oct 10 05:07	0° \approx		conjunction		12730 Oct 31 03:14	20° \mathbb{M} 06'26	1°05'57
	12725 Dec 08 09:08	0° \mathbb{H}		minimum elong		12730 Oct 31 03:49	20° \mathbb{M} 07'31	1°06'37
	12726 Jan 28 16:41	0° \mathbb{Y}				12730 Nov 13 08:43	0° \mathbb{J}	
	12726 Mar 17 08:50	0° \mathbb{B}		max. Earth dist.		12730 Dec 18 00:21	25° \mathbb{J} 10'16	2.46536 AU
evening set	12726 Apr 23 05:10	24° \mathbb{B} 31'51				12730 Dec 24 20:11	0° \mathbb{Z}	

morning rise	12730 Dec 31 21:42	4°  57'10	min. Earth dist.	12736 Feb 07 10:29	20°  04'38	0.37874 AU
	12731 Feb 06 15:38	0° 	direct	12736 Mar 05 02:29	15°  04'08	
	12731 Mar 25 03:30	0° 		12736 Apr 23 05:38	0° 	
desc. node	12731 Apr 08 10:23	8°  49'56		12736 Jun 12 11:59	0° 	
	12731 May 14 04:52	0° 		12736 Jul 27 03:35	0° 	
	12731 Jul 11 11:09	0° 		12736 Sep 09 12:08	0° 	
retrograde	12731 Sep 09 10:36	15°  04'13		12736 Oct 24 19:28	0° 	
opposition	12731 Oct 18 01:01	7°  04'00 -4°54'41	desc. node	12736 Nov 27 10:56	21°  03'48'03	
greatest brilliancy	12731 Oct 18 22:40	6°  43'13 -1.5m		12736 Dec 10 05:52	0° 	
min. Earth dist.	12731 Oct 23 11:56	4°  58'17 0.62661 AU	evening set	12737 Jan 26 02:23	29°  46'11	
	12731 Nov 07 06:40	30° 		12737 Jan 26 11:07	0° 	
direct	12731 Nov 28 06:27	27°  06'05	max. Earth dist.	12737 Mar 07 20:03	25°  33'00	2.68346 AU
	12731 Dec 20 10:52	0° 				
	12732 Feb 24 07:20	0° 	conjunction	12737 Mar 11 11:50	27°  35'10 -0°50'38	
	12732 Apr 10 01:27	0° 	minimum elong	12737 Mar 11 10:43	27°  35'02'24 0°50'29	
asc. node	12732 Apr 15 10:56	3°  04'14		12737 Mar 14 20:26	0° 	
	12732 May 20 22:08	0° 	morning rise	12737 Apr 23 16:09	25°  02'50'00	
	12732 Jun 28 16:09	0° 		12737 Apr 30 19:05	0° 	
	12732 Aug 05 20:31	0° 		12737 Jun 15 21:02	0° 	
	12732 Sep 13 14:04	0° 		12737 Jul 30 21:28	0° 	
	12732 Oct 23 16:52	0° 		12737 Sep 12 20:35	0° 	
evening set	12732 Oct 30 10:57	4°  55'11		12737 Oct 26 01:13	0° 	
	12732 Dec 04 17:36	0° 	asc. node	12737 Dec 07 03:41	29°  02'18	
				12737 Dec 08 13:54	0° 	
conjunction	12732 Dec 25 15:46	14°  02'24'20 0°32'21		12738 Jan 25 18:54	0° 	
minimum elong	12732 Dec 25 17:11	14°  02'26'45 0°33'17	retrograde	12738 Mar 21 12:48	17°  32'28	
	12733 Jan 17 20:20	0° 	min. Earth dist.	12738 Apr 16 13:01	13°  01'36	0.40855 AU
max. Earth dist.	12733 Jan 20 15:36	1°  51'37 2.59007 AU	greatest brilliancy	12738 Apr 22 11:38	11°  09'47 -2.7m	
morning rise	12733 Feb 13 08:17	17°  23'40	opposition	12738 Apr 24 04:03	10°  37'51 6°29'59	
desc. node	12733 Feb 22 22:11	23°  34'54	direct	12738 May 24 20:43	4°  53'33	
	12733 Mar 04 22:40	0° 		12738 Aug 08 02:37	0° 	
	12733 Apr 21 20:55	0° 		12738 Sep 30 11:49	0° 	
	12733 Jun 10 23:31	0° 	desc. node	12738 Oct 15 17:33	9°  01'15	
	12733 Aug 04 16:04	0° 		12738 Nov 19 14:54	0° 	
retrograde	12733 Oct 25 16:51	26°  12'27'46		12739 Jan 07 16:38	0° 	
opposition	12733 Nov 29 19:22	19°  12'34 -4°32'37		12739 Feb 24 19:15	0° 	
greatest brilliancy	12733 Dec 01 07:09	18°  14'03'39 -2.1m	evening set	12739 Mar 02 13:19	3°  03'38'19	
min. Earth dist.	12733 Dec 08 07:58	16°  10'59 0.50871 AU	max. Earth dist.	12739 Mar 30 16:46	21°  03'38'06 2.64758 AU	
direct	12734 Jan 07 05:43	10°  19'50		12739 Apr 12 14:08	0° 	
asc. node	12734 Mar 03 19:37	27°  12'22'08				
	12734 Mar 08 16:29	0° 	conjunction	12739 Apr 15 19:15	2°  05'52 -1°09'29	
	12734 Apr 24 15:53	0° 	minimum elong	12739 Apr 15 18:49	2°  05'10 1°09'54	
	12734 Jun 04 14:45	0° 		12739 May 27 17:40	0° 	
	12734 Jul 14 03:24	0° 	morning rise	12739 May 31 00:57	2°  14'32	
	12734 Aug 23 01:04	0° 		12739 Jul 10 02:38	0° 	
	12734 Oct 03 07:10	0° 		12739 Aug 20 19:09	0° 	
	12734 Nov 15 09:01	0° 		12739 Sep 30 02:11	0° 	
evening set	12734 Dec 19 03:54	22°  03'40'38	asc. node	12739 Oct 24 22:19	18°  03'50'07	
	12734 Dec 30 06:36	0° 		12739 Nov 08 14:07	0° 	
desc. node	12735 Jan 10 13:11	7°  22'07		12739 Dec 18 07:26	0° 	
				12740 Jan 29 02:41	0° 	
conjunction	12735 Feb 04 22:08	23°  46'14 -0°13'54		12740 Mar 18 07:37	0° 	
minimum elong	12735 Feb 04 21:40	23°  45'30 0°13'15	retrograde	12740 May 10 14:45	15°  03'51'17	
behind sun begin	12735 Feb 04 10:56	23°  45'28'16	min. Earth dist.	12740 Jun 11 02:49	9°  05'41 0.54455 AU	
behind sun end	12735 Feb 05 08:25	24°  45'02'44	opposition	12740 Jun 18 07:42	6°  03'20'27 3°10'50	
	12735 Feb 14 15:30	0° 	greatest brilliancy	12740 Jun 17 12:39	6°  03'38'44 -1.9m	
max. Earth dist.	12735 Feb 14 17:18	0°  02'52 2.66441 AU		12740 Jul 08 13:45	30° 	
morning rise	12735 Mar 21 10:42	22°  06'36	direct	12740 Jul 24 04:16	28°  03'23'17	
	12735 Apr 02 22:46	0° 		12740 Aug 09 18:24	0° 	
	12735 May 20 18:00	0° 	desc. node	12740 Sep 02 03:11	6°  03'29'25	
	12735 Jul 07 23:22	0° 		12740 Oct 24 00:31	0° 	
	12735 Aug 26 03:49	0° 		12740 Dec 17 02:30	0° 	
	12735 Oct 17 16:09	0° 		12741 Feb 05 01:31	0° 	
retrograde	12736 Jan 03 15:39	26°  08'28'35		12741 Mar 24 07:52	0° 	
asc. node	12736 Jan 20 03:06	24°  08'45'54	evening set	12741 Apr 07 08:34	9°  03'13'02	
opposition	12736 Feb 02 17:03	21°  08'23'40 1°01'25	max. Earth dist.	12741 Apr 25 02:43	21°  08'06'22 2.55882 AU	
greatest brilliancy	12736 Feb 02 20:53	21°  08'20'59 -3.0m		12741 May 08 03:48	0° 	

conjunction	12741 May 25 02:13	11° Π 45'19	-1°00'17			12746 Aug 04 09:09	0° \mathcal{B}		
minimum elong	12741 May 25 03:38	11° Π 47'47	1°01'10	retrograde		12746 Aug 25 05:29	2° \mathcal{B} 22'31		
	12741 Jun 19 17:20	0° \mathcal{E}				12746 Sep 13 16:13	30° \mathcal{R} Υ		
morning rise	12741 Jul 17 00:37	20° \mathcal{E} 01'30		opposition		12746 Oct 03 16:05	23° Υ 18'52	-4°31'11	
	12741 Jul 30 08:19	0° Ω		greatest brilliancy		12746 Oct 04 05:46	23° Υ 05'34	-1.4m	
	12741 Sep 07 12:38	0° \mathcal{M}		min. Earth dist.		12746 Oct 07 14:57	21° Υ 46'35	0.65617 AU	
asc. node	12741 Sep 10 12:07	2° \mathcal{M} 18'45		direct		12746 Nov 14 05:16	13° Υ 15'58		
	12741 Oct 15 22:44	0° $\underline{\Omega}$				12747 Jan 12 22:12	0° \mathcal{B}		
	12741 Nov 23 11:24	0° \mathcal{M}				12747 Mar 06 21:56	0° Π		
	12742 Jan 02 04:15	0° \mathcal{A}				12747 Apr 19 23:46	0° \mathcal{E}		
	12742 Feb 13 13:12	0° \mathcal{Z}		asc. node		12747 May 03 00:48	9° \mathcal{E} 28'51		
	12742 Apr 02 19:07	0° \approx				12747 May 30 07:55	0° Ω		
retrograde	12742 Jun 17 16:48	26° \approx 00'19				12747 Jul 07 20:07	0° \mathcal{M}		
desc. node	12742 Jul 21 10:27	18° \approx 40'14				12747 Aug 14 19:32	0° $\underline{\Omega}$		
min. Earth dist.	12742 Jul 24 11:51	17° \approx 28'27	0.64590 AU			12747 Sep 22 07:19	0° \mathcal{M}		
opposition	12742 Jul 28 04:37	16° \approx 00'17	-0°15'28	evening set		12747 Oct 06 13:19	10° \mathcal{M} 52'39		
greatest brilliancy	12742 Jul 28 03:43	16° \approx 01'11	-1.5m			12747 Nov 01 03:19	0° \mathcal{A}		
direct	12742 Sep 05 11:24	6° \approx 49'00							
	12742 Nov 20 19:48	0° \mathcal{H}		conjunction		12747 Dec 07 05:22	26° \mathcal{A} 01'10	0°49'20	
	12743 Jan 15 09:19	0° Υ		minimum elong		12747 Dec 07 07:24	26° \mathcal{A} 04'46	0°50'16	
	12743 Mar 05 06:46	0° \mathcal{B}				12747 Dec 12 21:16	0° \mathcal{Z}		
	12743 Apr 19 09:21	0° Π		max. Earth dist.		12748 Jan 10 05:30	19° \mathcal{Z} 31'50	2.54670 AU	
evening set	12743 May 21 11:24	22° Π 37'39				12748 Jan 25 19:26	0° \approx		
	12743 May 31 15:01	0° \mathcal{E}		morning rise		12748 Jan 29 13:04	2° \approx 28'59		
max. Earth dist.	12743 Jun 05 05:58	3° \mathcal{E} 23'23	2.42796 AU	desc. node		12748 Mar 11 16:27	29° \approx 50'07		
	12743 Jul 10 16:24	0° Ω				12748 Mar 11 22:41	0° \mathcal{H}		
						12748 Apr 29 09:53	0° Υ		
conjunction	12743 Jul 18 11:13	5° Ω 58'44	-0°07'32			12748 Jun 20 07:56	0° \mathcal{B}		
minimum elong	12743 Jul 18 11:54	6° Ω 00'05	0°08'22			12748 Aug 22 03:12	0° Π		
behind sun begin	12743 Jul 17 12:34	5° Ω 15'07		retrograde		12748 Oct 05 12:00	9° Π 26'45		
behind sun end	12743 Jul 19 11:15	6° Ω 45'04		opposition		12748 Nov 11 04:54	1° Π 31'49	-5°00'56	
asc. node	12743 Jul 29 01:32	14° Ω 10'53		greatest brilliancy		12748 Nov 12 13:53	1° Π 01'10	-1.8m	
	12743 Aug 18 06:55	0° \mathcal{M}				12748 Nov 15 07:28	30° \mathcal{R} \mathcal{B}		
	12743 Sep 25 06:10	0° $\underline{\Omega}$		min. Earth dist.		12748 Nov 18 18:04	28° \mathcal{B} 43'51	0.56117 AU	
morning rise	12743 Sep 26 12:29	0° $\underline{\Omega}$ 59'56		direct		12748 Dec 21 03:05	22° \mathcal{B} 01'20		
	12743 Nov 02 11:01	0° \mathcal{M}				12749 Jan 27 04:53	0° Π		
	12743 Dec 11 18:50	0° \mathcal{A}		asc. node		12749 Mar 20 07:34	27° Π 47'25		
	12744 Jan 22 03:45	0° \mathcal{Z}				12749 Mar 23 17:54	0° \mathcal{E}		
	12744 Mar 06 16:36	0° \approx				12749 May 05 18:01	0° Ω		
	12744 Apr 25 20:24	0° \mathcal{H}				12749 Jun 14 09:44	0° \mathcal{M}		
desc. node	12744 Jun 07 12:03	20° \mathcal{H} 11'59				12749 Jul 23 04:22	0° $\underline{\Omega}$		
retrograde	12744 Jul 20 20:11	29° \mathcal{H} 34'45				12749 Aug 31 11:16	0° \mathcal{M}		
opposition	12744 Aug 30 10:57	19° \mathcal{H} 51'31	-2°48'19			12749 Oct 11 03:39	0° \mathcal{A}		
greatest brilliancy	12744 Aug 30 09:51	19° \mathcal{H} 52'37	-1.3m			12749 Nov 22 17:07	0° \mathcal{Z}		
min. Earth dist.	12744 Aug 30 13:11	19° \mathcal{H} 49'19	0.68454 AU	evening set		12749 Dec 01 15:58	6° \mathcal{Z} 08'13		
direct	12744 Oct 10 14:57	10° \mathcal{H} 01'09				12750 Jan 06 05:20	0° \approx		
	12744 Dec 18 10:34	0° Υ							
	12745 Feb 11 01:11	0° \mathcal{B}		conjunction		12750 Jan 20 21:59	9° \approx 39'00	0°03'33	
	12745 Mar 29 14:33	0° Π		minimum elong		12750 Jan 20 22:10	9° \approx 39'18	0°04'21	
	12745 May 11 02:01	0° \mathcal{E}		behind sun begin		12750 Jan 20 02:49	9° \approx 07'45		
asc. node	12745 Jun 14 21:17	26° \mathcal{E} 05'53		behind sun end		12750 Jan 21 17:30	10° \approx 10'50		
	12745 Jun 19 23:12	0° Ω		desc. node		12750 Jan 27 05:18	13° \approx 45'28		
evening set	12745 Jul 21 19:44	24° Ω 51'54		max. Earth dist.		12750 Feb 05 11:49	19° \approx 46'06	2.64186 AU	
	12745 Jul 28 07:42	0° \mathcal{M}				12750 Feb 21 09:46	0° \mathcal{H}		
	12745 Sep 04 03:14	0° $\underline{\Omega}$		morning rise		12750 Mar 07 21:34	9° \mathcal{H} 14'18		
						12750 Apr 09 20:14	0° Υ		
conjunction	12745 Oct 02 05:28	22° $\underline{\Omega}$ 07'46	1°01'46			12750 May 28 06:56	0° \mathcal{B}		
minimum elong	12745 Oct 02 02:46	22° $\underline{\Omega}$ 02'28	1°02'02			12750 Jul 17 02:12	0° Π		
	12745 Oct 12 08:08	0° \mathcal{M}				12750 Sep 08 07:09	0° \mathcal{E}		
	12745 Nov 20 18:22	0° \mathcal{A}		retrograde		12750 Dec 03 17:37	29° \mathcal{E} 44'06		
max. Earth dist.	12745 Nov 24 19:22	3° \mathcal{A} 00'11	2.40862 AU	opposition		12751 Jan 04 18:11	23° \mathcal{E} 49'45	-2°06'49	
morning rise	12745 Dec 09 19:20	14° \mathcal{A} 00'49		greatest brilliancy		12751 Jan 05 12:36	23° \mathcal{E} 35'22	-2.6m	
	12746 Jan 01 02:43	0° \mathcal{Z}		min. Earth dist.		12751 Jan 12 19:44	21° \mathcal{E} 19'28	0.42181 AU	
	12746 Feb 13 22:19	0° \approx		asc. node		12751 Feb 05 16:09	16° \mathcal{E} 47'53		
	12746 Apr 01 20:28	0° \mathcal{H}		direct		12751 Feb 08 07:31	16° \mathcal{E} 44'54		
desc. node	12746 Apr 25 05:34	14° \mathcal{H} 01'08				12751 Mar 27 04:33	0° Ω		
	12746 May 23 16:57	0° Υ				12751 May 15 14:13	0° \mathcal{M}		

	12751 Jun 27 03:37	0°♎			12756 Aug 06 21:07	0°♏		
	12751 Aug 07 22:02	0°♍			12756 Sep 15 10:03	0°♎		
	12751 Sep 19 14:04	0°♊	asc. node		12756 Sep 27 07:12	9°♎09'51		
	12751 Nov 02 18:17	0°♐			12756 Oct 24 03:44	0°♎		
desc. node	12751 Dec 15 00:26	27°♐46'27			12756 Dec 01 23:34	0°♍		
	12751 Dec 18 10:51	0°♐			12757 Jan 11 02:54	0°♊		
evening set	12752 Jan 12 16:37	16°♐14'39			12757 Feb 23 14:51	0°♐		
	12752 Feb 03 06:01	0°♋			12757 Apr 18 04:37	0°♐		
			retrograde		12757 Jun 03 16:22	11°♐46'23		
conjunction	12752 Feb 26 23:12	15°♋03'39 -0°38'09	min. Earth dist.		12757 Jul 08 14:01	3°♐51'15	0.61304 AU	
minimum elong	12752 Feb 26 22:11	15°♋02'01 0°37'48	opposition		12757 Jul 13 17:23	1°♐49'31	0°58'02	
max. Earth dist.	12752 Feb 28 11:19	16°♋00'53 2.68264 AU	greatest brilliancy		12757 Jul 13 13:10	1°♐53'41	-1.6m	
	12752 Mar 21 12:46	0°♑			12757 Jul 18 10:13	30°♋♐		
morning rise	12752 Apr 10 06:39	12°♑31'42	desc. node		12757 Aug 06 22:13	24°♐17'19		
	12752 May 07 17:14	0°♋	direct		12757 Aug 20 20:16	23°♐02'04		
	12752 Jun 23 10:31	0°♊			12757 Sep 27 03:30	0°♐		
	12752 Aug 08 14:11	0°♌			12757 Dec 01 22:41	0°♋		
	12752 Sep 23 08:52	0°♏			12758 Jan 23 11:06	0°♑		
	12752 Nov 08 14:36	0°♎			12758 Mar 12 12:59	0°♋		
asc. node	12752 Dec 23 21:24	27°♎04'45			12758 Apr 26 11:36	0°♊		
	12752 Dec 29 10:07	0°♎	evening set		12758 May 02 20:59	4°♊25'15		
retrograde	12753 Feb 22 11:33	16°♎51'14	max. Earth dist.		12758 May 16 15:14	14°♊04'17	2.48241 AU	
min. Earth dist.	12753 Mar 21 01:24	12°♎32'40 0.37146 AU			12758 Jun 07 19:37	0°♌		
greatest brilliancy	12753 Mar 24 05:47	11°♎40'09 -3.0m						
opposition	12753 Mar 25 04:12	11°♎24'38 5°59'14	conjunction		12758 Jun 24 17:40	12°♌26'43 -0°34'01		
direct	12753 Apr 23 10:10	6°♎28'29	minimum elong		12758 Jun 24 19:39	12°♌30'24 0°34'57		
	12753 Jul 02 07:29	0°♍			12758 Jul 18 01:35	0°♏		
	12753 Aug 22 20:37	0°♊	asc. node		12758 Aug 14 21:18	21°♏25'58		
	12753 Oct 10 09:46	0°♐			12758 Aug 25 20:40	0°♎		
desc. node	12753 Nov 01 03:08	13°♐31'08	morning rise		12758 Aug 26 08:48	0°♎23'47		
	12753 Nov 27 14:48	0°♐			12758 Oct 02 23:00	0°♎		
	12754 Jan 14 18:49	0°♋	greatest brilliancy		12758 Oct 14 22:43	9°♎26'41 1.2m		
evening set	12754 Feb 16 21:22	20°♋45'17			12758 Nov 10 05:25	0°♍		
	12754 Mar 03 12:36	0°♑			12758 Dec 19 14:27	0°♊		
max. Earth dist.	12754 Mar 21 14:21	11°♑29'52 2.66814 AU			12759 Jan 30 03:43	0°♐		
					12759 Mar 16 10:48	0°♐		
conjunction	12754 Apr 01 19:57	18°♑41'52 -1°04'51			12759 May 09 03:42	0°♋		
minimum elong	12754 Apr 01 19:05	18°♑40'30 1°05'03	desc. node		12759 Jun 25 02:34	15°♋58'16		
	12754 Apr 19 07:37	0°♋	retrograde		12759 Jul 08 16:22	17°♋04'02		
morning rise	12754 May 15 18:44	17°♋21'06	min. Earth dist.		12759 Aug 16 23:49	7°♋44'35 0.67731 AU		
	12754 Jun 03 18:10	0°♊	opposition		12759 Aug 18 09:34	7°♋11'04 -1°55'06		
	12754 Jul 17 15:42	0°♌	greatest brilliancy		12759 Aug 18 06:14	7°♋14'23 -1.3m		
	12754 Aug 29 00:43	0°♏			12759 Sep 08 08:05	30°♋♐		
	12754 Oct 09 02:36	0°♎	direct		12759 Sep 27 23:56	27°♐32'53		
asc. node	12754 Nov 10 17:19	24°♎13'27			12759 Oct 19 06:43	0°♋		
	12754 Nov 18 11:44	0°♎			12759 Dec 31 00:06	0°♑		
	12754 Dec 29 11:12	0°♍			12760 Feb 20 10:07	0°♋		
	12755 Feb 12 06:21	0°♊			12760 Apr 06 05:20	0°♊		
retrograde	12755 Apr 24 01:02	26°♊24'47			12760 May 18 13:03	0°♌		
min. Earth dist.	12755 May 23 01:38	20°♊33'39 0.49130 AU	evening set		12760 Jun 24 11:14	27°♌42'01		
greatest brilliancy	12755 May 29 23:12	18°♊03'08 -2.2m			12760 Jun 27 11:10	0°♏		
opposition	12755 May 31 06:30	17°♊34'28 4°41'56	asc. node		12760 Jul 01 14:00	3°♏10'17		
direct	12755 Jul 04 07:12	10°♊22'07			12760 Aug 04 21:30	0°♎		
	12755 Sep 08 20:53	0°♐						
desc. node	12755 Sep 19 12:16	5°♐10'46	conjunction		12760 Aug 31 18:08	21°♎17'08 0°41'09		
	12755 Nov 04 16:45	0°♐	minimum elong		12760 Aug 31 14:16	21°♎09'29 0°40'52		
	12755 Dec 26 02:39	0°♋			12760 Sep 11 17:47	0°♎		
	12756 Feb 13 03:42	0°♑	max. Earth dist.		12760 Sep 13 02:23	1°♎04'36 2.36335 AU		
evening set	12756 Mar 23 14:10	25°♑04'32			12760 Oct 19 21:40	0°♍		
	12756 Mar 31 03:55	0°♋	morning rise		12760 Nov 13 11:30	18°♍53'21		
max. Earth dist.	12756 Apr 14 03:01	9°♋10'34 2.59940 AU			12760 Nov 28 05:38	0°♊		
					12761 Jan 08 12:00	0°♐		
conjunction	12756 May 08 09:50	25°♋27'33 -1°08'06			12761 Feb 21 10:13	0°♐		
minimum elong	12756 May 08 10:27	25°♋28'36 1°08'50			12761 Apr 10 01:44	0°♋		
	12756 May 15 01:44	0°♊	desc. node		12761 May 11 22:30	18°♋09'39		
morning rise	12756 Jun 26 08:41	29°♊36'42			12761 Jun 04 04:42	0°♑		
	12756 Jun 26 21:41	0°♌	retrograde		12761 Aug 11 00:13	19°♑36'25		

opposition	12761 Sep 20 01:40	10°♈14'30	-3°57'44			12766 Dec 25 12:33	0°♊	
greatest brilliancy	12761 Sep 20 08:20	10°♈07'58	-1.3m	evening set		12766 Dec 28 09:58	1°♊53'23	
min. Earth dist.	12761 Sep 22 12:02	9°♈17'12	0.67540 AU	desc. node		12766 Dec 31 14:17	3°♊57'49	
direct	12761 Oct 31 15:48	0°♈12'52				12767 Feb 09 23:58	0°♋	
	12762 Jan 25 21:26	0°♌						
	12762 Mar 16 01:27	0°♍		conjunction		12767 Feb 13 02:53	1°♋59'31	-0°23'26
	12762 Apr 28 06:03	0°♎		minimum elong		12767 Feb 13 02:09	1°♋58'21	0°22'53
asc. node	12762 May 19 13:57	15°♎45'25		max. Earth dist.		12767 Feb 19 21:56	6°♋19'18	2.67327 AU
	12762 Jun 07 07:33	0°♏		morning rise		12767 Mar 29 01:31	29°♋52'29	
	12762 Jul 15 17:00	0°♐				12767 Mar 29 06:16	0°♌	
greatest brilliancy	12762 Aug 02 22:28	14°♐26'25	1.2m			12767 May 15 19:12	0°♌	
	12762 Aug 22 13:47	0°♑				12767 Jul 02 09:10	0°♍	
evening set	12762 Sep 07 18:29	12°♑45'35				12767 Aug 19 04:46	0°♎	
	12762 Sep 29 21:45	0°♒				12767 Oct 07 05:21	0°♏	
	12762 Nov 08 12:47	0°♓				12767 Dec 01 06:33	0°♐	
				asc. node		12768 Jan 10 11:26	13°♐19'10	
conjunction	12762 Nov 14 15:33	4°♓30'53	1°02'15	retrograde		12768 Jan 22 07:13	14°♐12'52	
minimum elong	12762 Nov 14 17:14	4°♓33'57	1°03'04	opposition		12768 Feb 20 22:14	9°♐20'05	3°09'04
	12762 Dec 20 01:29	0°♑		greatest brilliancy		12768 Feb 21 00:34	9°♐18'31	-3.0m
max. Earth dist.	12762 Dec 27 13:11	5°♑14'40	2.49617 AU	min. Earth dist.		12768 Feb 22 13:48	8°♐53'45	0.36628 AU
morning rise	12763 Jan 11 22:51	15°♑52'55		direct		12768 Mar 21 18:05	4°♐16'35	
	12763 Feb 01 20:41	0°♒				12768 Jun 01 00:46	0°♑	
	12763 Mar 20 03:23	0°♓				12768 Jul 19 06:40	0°♒	
desc. node	12763 Mar 29 11:32	5°♓50'45				12768 Sep 03 03:52	0°♓	
	12763 May 08 10:37	0°♈				12768 Oct 19 07:23	0°♑	
	12763 Jul 02 11:08	0°♉		desc. node		12768 Nov 17 15:01	18°♑47'46	
retrograde	12763 Sep 18 16:48	24°♉15'47				12768 Dec 05 05:53	0°♒	
opposition	12763 Oct 26 16:54	15°♉49'03	-5°02'06			12769 Jan 21 17:42	0°♓	
greatest brilliancy	12763 Oct 27 18:59	15°♉24'12	-1.6m	evening set		12769 Feb 03 02:40	7°♓48'03	
min. Earth dist.	12763 Nov 01 22:27	13°♉26'42	0.60609 AU			12769 Mar 10 05:21	0°♈	
direct	12763 Dec 06 13:57	5°♉57'23		max. Earth dist.		12769 Mar 12 20:42	1°♈40'33	2.68030 AU
	12764 Feb 16 05:55	0°♊						
	12764 Apr 03 21:55	0°♋		conjunction		12769 Mar 19 05:19	5°♈43'03	-0°56'48
asc. node	12764 Apr 05 21:24	1°♋22'06		minimum elong		12769 Mar 19 04:15	5°♈41'20	0°56'47
	12764 May 15 07:51	0°♌				12769 Apr 26 02:30	0°♉	
	12764 Jun 23 07:40	0°♍		morning rise		12769 May 01 12:36	3°♉30'34	
	12764 Jul 31 15:32	0°♎				12769 Jun 10 22:32	0°♊	
	12764 Sep 08 12:20	0°♏				12769 Jul 25 12:30	0°♋	
	12764 Oct 18 18:34	0°♐				12769 Sep 06 19:48	0°♌	
evening set	12764 Nov 11 23:37	17°♐24'12				12769 Oct 19 01:42	0°♍	
	12764 Nov 29 22:27	0°♑		asc. node		12769 Nov 27 11:39	28°♍12'27	
						12769 Nov 30 00:16	0°♎	
conjunction	12765 Jan 04 16:56	24°♑22'34	0°21'45			12770 Jan 12 21:32	0°♏	
minimum elong	12765 Jan 04 17:53	24°♑24'09	0°22'39			12770 Mar 13 06:02	0°♐	
	12765 Jan 13 03:28	0°♒		retrograde		12770 Apr 03 17:20	3°♐12'49	
max. Earth dist.	12765 Jan 26 17:29	8°♒57'51	2.61096 AU			12770 Apr 24 21:17	30°♒♌	
desc. node	12765 Feb 12 22:22	20°♒10'02		min. Earth dist.		12770 Apr 30 10:57	28°♌17'40	0.43653 AU
morning rise	12765 Feb 21 19:29	25°♒53'31		greatest brilliancy		12770 May 07 03:12	26°♌04'00	-2.5m
	12765 Feb 28 05:19	0°♓		opposition		12770 May 08 19:48	25°♌29'50	6°02'58
	12765 Apr 16 21:47	0°♈		direct		12770 Jun 09 17:39	19°♌12'43	
	12765 Jun 05 06:27	0°♉				12770 Jul 25 07:16	0°♓	
	12765 Jul 27 14:15	0°♊				12770 Sep 23 03:13	0°♑	
	12765 Sep 29 10:27	0°♋		desc. node		12770 Oct 05 22:38	7°♑14'30	
retrograde	12765 Nov 07 12:20	7°♋45'19				12770 Nov 13 22:03	0°♌	
opposition	12765 Dec 11 15:27	0°♋56'08	-3°57'07			12771 Jan 02 16:14	0°♍	
greatest brilliancy	12765 Dec 13 00:43	0°♋27'29	-2.3m			12771 Feb 20 01:53	0°♎	
	12765 Dec 14 08:30	30°♒♍		evening set		12771 Mar 10 11:17	11°♈38'44	
min. Earth dist.	12765 Dec 20 09:51	27°♍56'17	0.47772 AU	max. Earth dist.		12771 Apr 05 04:38	28°♈12'35	2.63255 AU
direct	12766 Jan 17 21:58	22°♍34'29				12771 Apr 07 22:35	0°♉	
	12766 Feb 21 08:54	0°♎						
asc. node	12766 Feb 22 05:56	0°♎20'58		conjunction		12771 Apr 24 02:52	10°♉37'41	-1°10'21
	12766 Apr 16 10:04	0°♏		minimum elong		12771 Apr 24 02:47	10°♉37'32	1°10'54
	12766 May 28 20:20	0°♐				12771 May 23 00:09	0°♊	
	12766 Jul 08 01:29	0°♑		morning rise		12771 Jun 09 09:44	11°♊55'55	
	12766 Aug 17 10:07	0°♒				12771 Jul 05 04:39	0°♋	
	12766 Sep 28 01:03	0°♓				12771 Aug 15 14:58	0°♌	
	12766 Nov 10 09:48	0°♑				12771 Sep 24 15:16	0°♍	

asc. node	12771 Oct 15 03:58	15° \mathbb{M} 40'42		min. Earth dist.	12776 Sep 07 19:56	27° \mathbb{H} 12'39	0.68426 AU
	12771 Nov 02 19:37	0° \mathbb{L}		direct	12776 Oct 18 07:01	17° \mathbb{H} 38'54	
	12771 Dec 12 02:52	0° \mathbb{M}			12776 Dec 08 18:09	0° \mathbb{Y}	
	12772 Jan 22 01:35	0° \mathbb{J}			12777 Feb 05 01:25	0° \mathbb{B}	
	12772 Mar 08 00:04	0° \mathbb{Z}			12777 Mar 24 09:21	0° \mathbb{I}	
retrograde	12772 May 19 17:13	26° \mathbb{Z} 07'15			12777 May 06 02:47	0° \mathbb{G}	
min. Earth dist.	12772 Jun 21 12:04	18° \mathbb{Z} 54'56	0.57105 AU	asc. node	12777 Jun 05 05:57	22° \mathbb{G} 28'53	
greatest brilliancy	12772 Jun 27 11:30	16° \mathbb{Z} 35'38	-1.8m		12777 Jun 15 01:40	0° \mathbb{Q}	
opposition	12772 Jun 28 00:19	16° \mathbb{Z} 23'11	2°20'08		12777 Jul 23 10:36	0° \mathbb{M}	
direct	12772 Aug 03 17:28	8° \mathbb{Z} 05'59		evening set	12777 Aug 07 16:13	12° \mathbb{M} 04'39	
desc. node	12772 Aug 23 08:17	10° \mathbb{Z} 16'24			12777 Aug 30 06:13	0° \mathbb{L}	
	12772 Oct 15 15:54	0° \mathbb{A}			12777 Oct 07 11:21	0° \mathbb{M}	
	12772 Dec 11 07:42	0° \mathbb{H}		conjunction	12777 Oct 18 23:34	8° \mathbb{M} 52'27	1°06'04
	12773 Jan 31 01:12	0° \mathbb{Y}		minimum elong	12777 Oct 18 22:51	8° \mathbb{M} 51'05	1°06'36
	12773 Mar 19 14:10	0° \mathbb{B}			12777 Nov 15 22:11	0° \mathbb{J}	
evening set	12773 Apr 16 05:16	18° \mathbb{B} 16'10		max. Earth dist.	12777 Dec 09 11:01	17° \mathbb{J} 16'05	2.43987 AU
max. Earth dist.	12773 May 02 05:22	29° \mathbb{B} 08'49	2.53299 AU	morning rise	12777 Dec 22 18:25	26° \mathbb{J} 48'20	
	12773 May 03 11:10	0° \mathbb{I}			12777 Dec 27 06:37	0° \mathbb{Z}	
conjunction	12773 Jun 04 11:12	22° \mathbb{I} 26'50	-0°52'49		12778 Feb 09 00:18	0° \mathbb{A}	
minimum elong	12773 Jun 04 13:00	22° \mathbb{I} 30'03	0°53'45		12778 Mar 27 14:04	0° \mathbb{H}	
	12773 Jun 14 23:00	0° \mathbb{G}		desc. node	12778 Apr 15 05:04	11° \mathbb{H} 23'49	
	12773 Jul 25 10:50	0° \mathbb{Q}			12778 May 17 04:48	0° \mathbb{Y}	
morning rise	12773 Jul 30 09:12	3° \mathbb{Q} 44'17			12778 Jul 17 17:27	0° \mathbb{B}	
asc. node	12773 Aug 31 16:18	28° \mathbb{Q} 35'13		retrograde	12778 Sep 02 18:36	10° \mathbb{B} 25'23	
	12773 Sep 02 11:53	0° \mathbb{M}		opposition	12778 Oct 11 18:21	1° \mathbb{B} 33'29	-4°46'09
	12773 Oct 10 18:59	0° \mathbb{L}		greatest brilliancy	12778 Oct 12 12:24	1° \mathbb{B} 16'01	-1.4m
	12773 Nov 18 04:45	0° \mathbb{M}			12778 Oct 15 18:53	30° \mathbb{R} \mathbb{Y}	
	12773 Dec 27 17:30	0° \mathbb{J}		min. Earth dist.	12778 Oct 16 12:47	29° \mathbb{Y} 42'46	0.64112 AU
	12774 Feb 07 15:59	0° \mathbb{Z}		direct	12778 Nov 22 03:46	21° \mathbb{Y} 32'24	
	12774 Mar 26 08:53	0° \mathbb{A}			12779 Jan 01 03:30	0° \mathbb{B}	
	12774 May 29 11:04	0° \mathbb{H}			12779 Feb 28 08:24	0° \mathbb{I}	
retrograde	12774 Jun 25 10:01	4° \mathbb{H} 09'54			12779 Apr 14 08:53	0° \mathbb{G}	
desc. node	12774 Jul 11 15:29	2° \mathbb{H} 23'18		asc. node	12779 Apr 23 09:26	6° \mathbb{G} 28'00	
	12774 Jul 20 10:43	30° \mathbb{R} \mathbb{A}			12779 May 25 00:36	0° \mathbb{Q}	
min. Earth dist.	12774 Aug 02 03:41	25° \mathbb{A} 20'09	0.65989 AU		12779 Jul 02 16:22	0° \mathbb{M}	
opposition	12774 Aug 05 01:13	24° \mathbb{A} 11'01	-0°54'31		12779 Aug 09 18:12	0° \mathbb{L}	
greatest brilliancy	12774 Aug 04 22:24	24° \mathbb{A} 13'48	-1.4m		12779 Sep 17 08:20	0° \mathbb{M}	
direct	12774 Sep 13 20:50	14° \mathbb{A} 49'05		evening set	12779 Oct 21 01:45	25° \mathbb{M} 24'59	
	12774 Nov 11 18:40	0° \mathbb{H}			12779 Oct 27 06:57	0° \mathbb{J}	
	12775 Jan 09 13:37	0° \mathbb{Y}			12779 Dec 08 03:08	0° \mathbb{Z}	
	12775 Feb 28 05:40	0° \mathbb{B}		conjunction	12779 Dec 18 13:31	7° \mathbb{Z} 15'09	0°39'48
	12775 Apr 14 14:04	0° \mathbb{I}		minimum elong	12779 Dec 18 15:17	7° \mathbb{Z} 18'12	0°40'45
evening set	12775 Jun 02 02:25	4° \mathbb{G} 34'42		max. Earth dist.	12780 Jan 17 01:46	27° \mathbb{Z} 18'50	2.57154 AU
max. Earth dist.	12775 Jun 20 23:06	18° \mathbb{G} 39'01	2.39831 AU		12780 Jan 21 02:21	0° \mathbb{A}	
	12775 Jul 05 21:10	0° \mathbb{Q}		morning rise	12780 Feb 07 17:25	11° \mathbb{A} 38'33	
asc. node	12775 Jul 19 08:31	10° \mathbb{Q} 23'23		desc. node	12780 Mar 01 16:29	26° \mathbb{A} 30'43	
					12780 Mar 07 03:27	0° \mathbb{H}	
conjunction	12775 Aug 02 16:07	21° \mathbb{Q} 33'15	0°10'15		12780 Apr 24 05:35	0° \mathbb{Y}	
minimum elong	12775 Aug 02 15:11	21° \mathbb{Q} 31'25	0°09'34		12780 Jun 13 23:04	0° \mathbb{B}	
behind sun begin	12775 Aug 01 15:41	20° \mathbb{Q} 45'26			12780 Aug 10 00:05	0° \mathbb{I}	
behind sun end	12775 Aug 03 14:40	22° \mathbb{Q} 17'26		retrograde	12780 Oct 16 13:37	19° \mathbb{I} 18'53	
	12775 Aug 13 10:07	0° \mathbb{M}		opposition	12780 Nov 21 10:19	11° \mathbb{I} 44'34	-4°48'27
	12775 Sep 20 07:52	0° \mathbb{L}		greatest brilliancy	12780 Nov 22 21:28	11° \mathbb{I} 12'32	-1.9m
morning rise	12775 Oct 14 20:35	19° \mathbb{L} 21'09		min. Earth dist.	12780 Nov 29 13:56	8° \mathbb{I} 47'05	0.53300 AU
	12775 Oct 28 11:35	0° \mathbb{M}		direct	12780 Dec 30 14:15	2° \mathbb{I} 32'27	
	12775 Dec 06 18:27	0° \mathbb{J}		asc. node	12781 Mar 10 17:52	27° \mathbb{I} 18'54	
	12776 Jan 17 00:52	0° \mathbb{Z}			12781 Mar 15 06:20	0° \mathbb{G}	
	12776 Mar 01 05:36	0° \mathbb{A}			12781 Apr 29 02:45	0° \mathbb{Q}	
	12776 Apr 19 02:52	0° \mathbb{H}			12781 Jun 08 10:05	0° \mathbb{M}	
desc. node	12776 May 28 14:42	20° \mathbb{H} 32'45			12781 Jul 17 13:29	0° \mathbb{L}	
	12776 Jun 20 22:24	0° \mathbb{Y}			12781 Aug 26 03:01	0° \mathbb{M}	
retrograde	12776 Jul 28 11:02	7° \mathbb{Y} 10'50			12781 Oct 06 01:32	0° \mathbb{J}	
	12776 Aug 31 16:16	30° \mathbb{R} \mathbb{H}			12781 Nov 17 20:17	0° \mathbb{Z}	
opposition	12776 Sep 06 22:03	27° \mathbb{H} 34'16	-3°16'11	evening set	12781 Dec 11 20:01	16° \mathbb{Z} 15'29	
greatest brilliancy	12776 Sep 06 23:10	27° \mathbb{H} 33'10	-1.3m		12782 Jan 01 12:26	0° \mathbb{A}	

desc. node	12782 Jan 17 06:52	10°≈19'50		asc. node	12786 Oct 31 23:21	21°≈35'02	
					12786 Nov 12 02:51	0°≈	
conjunction	12782 Jan 29 14:30	18°≈19'22 -0°06'51			12786 Dec 22 06:08	0°≈	
minimum elong	12782 Jan 29 14:17	18°≈19'00 0°06'08			12787 Feb 02 22:05	0°≈	
behind sun begin	12782 Jan 28 20:06	17°≈49'39			12787 Mar 28 15:41	0°≈	
behind sun end	12782 Jan 30 08:27	18°≈48'21		retrograde	12787 May 04 07:24	8°≈20'24	
max. Earth dist.	12782 Feb 10 20:41	26°≈13'11 2.65537 AU		min. Earth dist.	12787 Jun 03 17:52	1°≈57'53 0.52152 AU	
	12782 Feb 16 18:13	0°≈			12787 Jun 08 23:39	30°≈	
morning rise	12782 Mar 15 16:50	17°≈08'37		greatest brilliancy	12787 Jun 10 10:10	29°≈27'19 -2.0m	
	12782 Apr 05 02:07	0°≈		opposition	12787 Jun 11 10:29	29°≈04'23 3°49'40	
	12782 May 23 03:12	0°≈		direct	12787 Jul 16 11:46	21°≈25'49	
	12782 Jul 10 22:51	0°≈			12787 Aug 26 12:05	0°≈	
	12782 Aug 30 12:40	0°≈		desc. node	12787 Sep 09 18:10	5°≈40'45	
	12782 Oct 26 17:30	0°≈			12787 Oct 28 21:48	0°≈	
retrograde	12782 Dec 20 14:28	14°≈36'09			12787 Dec 20 17:34	0°≈	
opposition	12783 Jan 20 09:24	9°≈11'32 -0°28'55			12788 Feb 08 07:19	0°≈	
greatest brilliancy	12783 Jan 20 13:22	9°≈08'38 -2.8m			12788 Mar 26 12:00	0°≈	
min. Earth dist.	12783 Jan 26 23:31	7°≈15'51 0.39551 AU		evening set	12788 Mar 31 21:17	3°≈31'12	
asc. node	12783 Jan 27 02:05	7°≈14'00		max. Earth dist.	12788 Apr 20 08:10	16°≈24'20 2.57796 AU	
direct	12783 Feb 22 05:35	2°≈55'17			12788 May 10 09:52	0°≈	
	12783 May 04 19:25	0°≈					
	12783 Jun 19 07:37	0°≈		conjunction	12788 May 17 15:48	4°≈59'03 -1°04'22	
	12783 Aug 01 09:05	0°≈		minimum elong	12788 May 17 16:52	5°≈00'55 1°05'11	
	12783 Sep 13 20:03	0°≈			12788 Jun 22 03:27	0°≈	
	12783 Oct 28 13:02	0°≈		morning rise	12788 Jul 07 14:55	11°≈13'40	
desc. node	12783 Dec 05 03:13	24°≈32'53			12788 Aug 01 22:59	0°≈	
	12783 Dec 13 14:10	0°≈			12788 Sep 10 07:36	0°≈	
evening set	12784 Jan 21 00:06	24°≈32'56		asc. node	12788 Sep 17 13:55	5°≈37'16	
	12784 Jan 29 14:06	0°≈			12788 Oct 18 20:58	0°≈	
max. Earth dist.	12784 Mar 04 09:41	22°≈03'51 2.68410 AU			12788 Nov 26 11:49	0°≈	
					12789 Jan 05 07:18	0°≈	
conjunction	12784 Mar 05 17:36	22°≈54'24 -0°45'48			12789 Feb 16 23:17	0°≈	
minimum elong	12784 Mar 05 16:30	22°≈52'39 0°45'34			12789 Apr 07 14:38	0°≈	
	12784 Mar 16 22:03	0°≈		retrograde	12789 Jun 11 18:54	20°≈33'56	
morning rise	12784 Apr 17 21:46	20°≈21'29		min. Earth dist.	12789 Jul 17 18:15	12°≈18'00 0.63246 AU	
	12784 May 02 23:16	0°≈		opposition	12789 Jul 22 02:59	10°≈34'10 0°13'59	
	12784 Jun 18 07:48	0°≈		greatest brilliancy	12789 Jul 22 02:09	10°≈35'00 -1.5m	
	12784 Aug 02 19:46	0°≈		desc. node	12789 Jul 28 02:19	8°≈15'13	
	12784 Sep 16 11:56	0°≈		direct	12789 Aug 29 22:20	1°≈32'56	
	12784 Oct 30 18:29	0°≈			12789 Nov 24 20:37	0°≈	
asc. node	12784 Dec 14 03:46	29°≈16'51			12790 Jan 18 01:09	0°≈	
	12784 Dec 15 07:08	0°≈			12790 Mar 07 15:22	0°≈	
	12785 Feb 10 16:49	0°≈			12790 Apr 21 17:34	0°≈	
retrograde	12785 Mar 10 07:42	5°≈06'19		evening set	12790 May 13 02:49	14°≈56'07	
min. Earth dist.	12785 Apr 05 04:35	0°≈47'56 0.38915 AU		max. Earth dist.	12790 May 26 21:48	24°≈48'14 2.45253 AU	
	12785 Apr 07 21:50	30°≈			12790 Jun 03 01:41	0°≈	
greatest brilliancy	12785 Apr 10 04:00	29°≈19'39 -2.8m					
opposition	12785 Apr 11 15:17	28°≈53'23 6°33'06		conjunction	12790 Jul 07 14:46	25°≈42'44 -0°19'47	
direct	12785 May 11 12:35	23°≈33'59		minimum elong	12790 Jul 07 16:15	25°≈45'33 0°20'40	
	12785 Jun 13 19:51	0°≈			12790 Jul 13 06:01	0°≈	
	12785 Aug 14 07:52	0°≈		asc. node	12790 Aug 05 03:02	17°≈37'33	
	12785 Oct 04 03:02	0°≈			12790 Aug 20 23:09	0°≈	
desc. node	12785 Oct 22 08:24	11°≈03'56		morning rise	12790 Sep 12 10:54	17°≈43'11	
	12785 Nov 22 07:16	0°≈			12790 Sep 27 23:52	0°≈	
	12786 Jan 09 22:33	0°≈			12790 Nov 05 04:46	0°≈	
evening set	12786 Feb 24 16:18	28°≈36'07			12790 Dec 14 11:56	0°≈	
	12786 Feb 26 21:24	0°≈			12791 Jan 24 20:41	0°≈	
max. Earth dist.	12786 Mar 26 18:32	17°≈45'40 2.65782 AU			12791 Mar 10 13:35	0°≈	
					12791 Apr 30 16:58	0°≈	
conjunction	12786 Apr 09 17:31	26°≈46'05 -1°08'03		desc. node	12791 Jun 15 05:07	19°≈36'02	
minimum elong	12786 Apr 09 16:54	26°≈45'04 1°08'23		retrograde	12791 Jul 16 05:19	24°≈46'56	
	12786 Apr 14 16:58	0°≈		opposition	12791 Aug 25 21:34	14°≈58'46 -2°27'21	
morning rise	12786 May 24 07:20	26°≈09'39		min. Earth dist.	12791 Aug 25 07:17	15°≈12'57 0.68261 AU	
	12786 May 30 00:15	0°≈		greatest brilliancy	12791 Aug 25 19:07	15°≈01'13 -1.3m	
	12786 Jul 12 15:30	0°≈		direct	12791 Oct 05 20:16	5°≈13'29	
	12786 Aug 23 15:31	0°≈			12791 Dec 23 17:34	0°≈	
	12786 Oct 03 06:44	0°≈			12792 Feb 14 21:57	0°≈	

	12792 Apr 01 04:48	0°♊		behind sun end	12797 Jan 14 16:41	4°♊07'18	
	12792 May 13 16:06	0°♋		max. Earth dist.	12797 Feb 01 10:57	15°♊45'01	2.62899 AU
asc. node	12792 Jun 21 21:15	29°♋26'45		desc. node	12797 Feb 02 23:22	16°♊44'11	
	12792 Jun 22 14:33	0°♌			12797 Feb 23 13:05	0°♋	
evening set	12792 Jul 09 08:14	12°♌58'09		morning rise	12797 Mar 01 22:28	4°♋05'04	
	12792 Jul 31 00:20	0°♍			12797 Apr 12 01:10	0°♌	
	12792 Sep 06 20:09	0°♎			12797 May 30 19:48	0°♍	
					12797 Jul 20 12:35	0°♊	
conjunction	12792 Sep 18 12:36	9°♎14'56	0°54'48		12797 Sep 14 15:36	0°♋	
minimum elong	12792 Sep 18 08:48	9°♎07'25	0°54'49	retrograde	12797 Nov 21 16:26	20°♋08'12	
	12792 Oct 14 23:56	0°♏		opposition	12797 Dec 24 16:31	13°♋48'42	-3°02'48
max. Earth dist.	12792 Nov 08 17:12	18°♏59'30	2.38453 AU	greatest brilliancy	12797 Dec 25 19:16	13°♋26'47	-2.5m
	12792 Nov 23 08:06	0°♐		min. Earth dist.	12798 Jan 02 08:04	10°♋59'53	0.44603 AU
morning rise	12792 Nov 28 21:21	4°♐07'48		direct	12798 Jan 29 13:41	6°♋06'43	
	12793 Jan 03 14:05	0°♑		asc. node	12798 Feb 12 14:47	7°♋28'23	
	12793 Feb 16 08:43	0°♒			12798 Apr 05 23:58	0°♌	
	12793 Apr 04 11:05	0°♋			12798 May 21 04:47	0°♍	
desc. node	12793 May 01 23:58	16°♋14'22			12798 Jul 01 11:52	0°♎	
	12793 May 27 06:57	0°♌			12798 Aug 11 12:25	0°♏	
retrograde	12793 Aug 19 01:25	27°♌22'19			12798 Sep 22 15:05	0°♐	
opposition	12793 Sep 27 18:49	18°♌09'55	-4°18'22		12798 Nov 05 08:59	0°♑	
greatest brilliancy	12793 Sep 28 05:13	17°♌59'46	-1.3m		12798 Dec 20 18:04	0°♒	
min. Earth dist.	12793 Oct 01 00:53	16°♌53'36	0.66610 AU	desc. node	12798 Dec 21 17:40	0°♒38'23	
direct	12793 Nov 08 08:49	8°♌07'01		evening set	12799 Jan 06 05:46	10°♒40'58	
	12794 Jan 18 00:53	0°♓			12799 Feb 05 08:56	0°♋	
	12794 Mar 10 05:33	0°♊					
	12794 Apr 22 23:21	0°♋		conjunction	12799 Feb 21 01:51	9°♋59'39	-0°32'18
asc. node	12794 May 09 23:33	12°♋26'53		minimum elong	12799 Feb 21 00:55	9°♋58'11	0°31'53
	12794 Jun 02 05:24	0°♌		max. Earth dist.	12799 Feb 24 22:29	12°♋26'45	2.67956 AU
	12794 Jul 10 16:44	0°♍			12799 Mar 24 15:07	0°♌	
	12794 Aug 17 14:45	0°♎		morning rise	12799 Apr 05 14:25	7°♌34'54	
evening set	12794 Sep 24 09:20	29°♎31'49			12799 May 10 23:03	0°♍	
	12794 Sep 24 23:57	0°♏			12799 Jun 27 01:02	0°♊	
	12794 Nov 03 16:31	0°♐			12799 Aug 12 20:43	0°♋	
					12799 Sep 28 19:21	0°♌	
conjunction	12794 Nov 27 20:14	17°♐36'32	0°55'34		12799 Nov 16 12:01	0°♍	
minimum elong	12794 Nov 27 22:18	17°♐40'16	0°56'29	asc. node	12799 Dec 31 21:02	23°♍34'33	
	12794 Dec 15 06:42	0°♑			12800 Jan 19 11:03	0°♎	
max. Earth dist.	12795 Jan 04 20:15	14°♑16'46	2.52493 AU	retrograde	12800 Feb 09 21:51	2°♎55'53	
morning rise	12795 Jan 22 04:59	26°♑04'02			12800 Mar 02 13:46	30°♎	
	12795 Jan 28 01:57	0°♒		min. Earth dist.	12800 Mar 09 01:37	28°♎20'23	0.36448 AU
	12795 Mar 15 05:00	0°♋		opposition	12800 Mar 10 17:04	27°♎54'13	5°01'05
desc. node	12795 Mar 19 11:20	2°♋41'49		greatest brilliancy	12800 Mar 10 07:24	28°♎00'38	-3.0m
	12795 May 02 22:22	0°♌		direct	12800 Apr 08 20:01	23°♎04'21	
	12795 Jun 24 20:26	0°♍			12800 May 12 16:27	0°♎	
	12795 Sep 04 00:06	0°♊			12800 Jul 09 21:40	0°♏	
retrograde	12795 Sep 28 13:45	3°♊13'34			12800 Aug 27 06:06	0°♐	
	12795 Oct 21 05:28	30°♊			12800 Oct 13 13:39	0°♑	
opposition	12795 Nov 04 21:03	25°♊03'25	-5°03'43	desc. node	12800 Nov 07 18:51	15°♑55'57	
greatest brilliancy	12795 Nov 06 03:08	24°♊35'04	-1.7m		12800 Nov 30 03:26	0°♒	
min. Earth dist.	12795 Nov 11 20:19	22°♊26'12	0.58233 AU		12801 Jan 16 23:37	0°♋	
direct	12795 Dec 15 06:19	15°♊21'52		evening set	12801 Feb 11 00:17	15°♋43'24	
	12796 Feb 06 01:00	0°♊			12801 Mar 05 14:47	0°♌	
asc. node	12796 Mar 27 06:15	29°♊23'52		max. Earth dist.	12801 Mar 17 20:59	7°♌47'24	2.67466 AU
	12796 Mar 28 03:56	0°♋					
	12796 May 09 10:09	0°♌		conjunction	12801 Mar 26 23:10	13°♌35'26	-1°01'55
	12796 Jun 17 18:35	0°♍		minimum elong	12801 Mar 26 22:12	13°♌33'53	1°02'03
	12796 Jul 26 07:58	0°♎			12801 Apr 21 11:04	0°♍	
	12796 Sep 03 09:16	0°♏		morning rise	12801 May 09 13:08	11°♍47'03	
	12796 Oct 13 19:46	0°♐			12801 Jun 06 02:21	0°♊	
evening set	12796 Nov 23 10:41	28°♐49'19			12801 Jul 20 07:38	0°♋	
	12796 Nov 25 03:28	0°♑			12801 Sep 01 02:32	0°♌	
	12797 Jan 08 11:00	0°♒			12801 Oct 12 16:02	0°♍	
				asc. node	12801 Nov 17 18:42	26°♍27'11	
conjunction	12797 Jan 14 02:34	3°♒44'03	0°11'06		12801 Nov 22 15:02	0°♎	
minimum elong	12797 Jan 14 03:03	3°♒44'51	0°11'57		12802 Jan 03 11:58	0°♏	
behind sun begin	12797 Jan 13 13:25	3°♒22'23			12802 Feb 20 01:44	0°♐	

retrograde	12802 Apr 15 15:23	17° ♊ 19'18		evening set	12807 Jun 14 19:34	17° ♊ 38'39	
min. Earth dist.	12802 May 13 13:46	11° ♊ 53'25	0.46651 AU		12807 Jul 01 01:29	0° ♊	
greatest brilliancy	12802 May 20 11:31	9° ♊ 27'37	-2.3m	asc. node	12807 Jul 09 14:51	6° ♊ 35'27	
opposition	12802 May 21 23:39	8° ♊ 55'32	5°20'00	max. Earth dist.	12807 Jul 16 04:58	11° ♊ 41'53	2.37283 AU
direct	12802 Jun 24 02:23	2° ♊ 06'41			12807 Aug 08 13:33	0° ♊	
	12802 Sep 14 16:34	0° ♊					
desc. node	12802 Sep 26 03:05	6° ♊ 01'26		conjunction	12807 Aug 19 03:55	8° ♊ 22'26	0°28'21
	12802 Nov 07 22:03	0° ♊		minimum elong	12807 Aug 19 01:04	8° ♊ 16'48	0°27'51
	12802 Dec 28 13:27	0° ♊			12807 Sep 15 10:34	0° ♊	
	12803 Feb 15 08:08	0° ♊			12807 Oct 23 13:50	0° ♊	
evening set	12803 Mar 18 11:21	19° ♊ 44'45		morning rise	12807 Nov 01 11:52	6° ♊ 54'54	
	12803 Apr 03 07:37	0° ♊			12807 Dec 01 20:06	0° ♊	
max. Earth dist.	12803 Apr 10 20:31	4° ♊ 55'51	2.61525 AU		12808 Jan 12 00:52	0° ♊	
					12808 Feb 24 23:19	0° ♊	
conjunction	12803 May 02 16:29	19° ♊ 25'06	-1°09'42		12808 Apr 12 22:59	0° ♊	
minimum elong	12803 May 02 16:48	19° ♊ 25'38	1°10'21	desc. node	12808 May 18 16:20	19° ♊ 46'28	
	12803 May 18 08:03	0° ♊			12808 Jun 09 02:30	0° ♊	
morning rise	12803 Jun 19 07:13	22° ♊ 09'28		retrograde	12808 Aug 05 03:57	14° ♊ 47'24	
	12803 Jun 30 08:43	0° ♊		opposition	12808 Sep 14 10:00	5° ♊ 18'25	-3°41'33
	12803 Aug 10 13:39	0° ♊		greatest brilliancy	12808 Sep 14 13:58	5° ♊ 14'31	-1.3m
	12803 Sep 19 07:53	0° ♊		min. Earth dist.	12808 Sep 16 03:37	4° ♊ 37'25	0.68061 AU
asc. node	12803 Oct 05 09:11	12° ♊ 19'39			12808 Sep 28 15:49	30° ♊	
	12803 Oct 28 06:12	0° ♊		direct	12808 Oct 25 22:26	25° ♊ 19'11	
	12803 Dec 06 05:57	0° ♊			12808 Nov 24 15:48	0° ♊	
	12804 Jan 15 14:58	0° ♊			12809 Jan 29 13:55	0° ♊	
	12804 Feb 28 19:23	0° ♊			12809 Mar 18 23:17	0° ♊	
	12804 Apr 27 12:39	0° ♊			12809 May 01 00:23	0° ♊	
retrograde	12804 May 28 09:10	5° ♊ 44'19		asc. node	12809 May 26 12:49	18° ♊ 55'18	
	12804 Jun 26 09:41	30° ♊			12809 Jun 10 01:41	0° ♊	
min. Earth dist.	12804 Jul 01 08:49	28° ♊ 07'43	0.59528 AU		12809 Jul 18 11:19	0° ♊	
opposition	12804 Jul 07 03:27	25° ♊ 51'40	1°31'32	evening set	12809 Aug 25 06:01	29° ♊ 56'53	
greatest brilliancy	12804 Jul 06 19:58	25° ♊ 59'00	-1.7m		12809 Aug 25 07:35	0° ♊	
direct	12804 Aug 13 16:02	17° ♊ 17'00			12809 Oct 02 13:43	0° ♊	
desc. node	12804 Aug 13 13:44	17° ♊ 17'01					
	12804 Oct 05 06:43	0° ♊		conjunction	12809 Nov 03 13:12	24° ♊ 22'59	1°05'23
	12804 Dec 05 04:24	0° ♊		minimum elong	12809 Nov 03 14:10	24° ♊ 24'46	1°06'06
	12805 Jan 25 22:08	0° ♊			12809 Nov 11 01:45	0° ♊	
	12805 Mar 14 19:30	0° ♊		max. Earth dist.	12809 Dec 20 13:36	28° ♊ 39'23	2.47156 AU
evening set	12805 Apr 25 11:24	27° ♊ 43'56			12809 Dec 22 11:13	0° ♊	
	12805 Apr 28 18:44	0° ♊		morning rise	12810 Jan 03 13:27	8° ♊ 28'22	
max. Earth dist.	12805 May 10 02:40	7° ♊ 50'43	2.50576 AU		12810 Feb 04 03:56	0° ♊	
	12805 Jun 10 05:45	0° ♊			12810 Mar 22 11:39	0° ♊	
				desc. node	12810 Apr 05 06:16	8° ♊ 33'49	
conjunction	12805 Jun 15 13:12	3° ♊ 51'56	-0°43'00		12810 May 11 04:32	0° ♊	
minimum elong	12805 Jun 15 15:12	3° ♊ 55'36	0°43'57		12810 Jul 07 02:11	0° ♊	
	12805 Jul 20 15:14	0° ♊		retrograde	12810 Sep 11 15:58	18° ♊ 41'55	
morning rise	12805 Aug 13 23:20	18° ♊ 39'25		opposition	12810 Oct 20 03:02	10° ♊ 03'04	-4°56'59
asc. node	12805 Aug 21 22:59	24° ♊ 51'18		greatest brilliancy	12810 Oct 21 01:33	9° ♊ 41'26	-1.5m
	12805 Aug 28 13:24	0° ♊		min. Earth dist.	12810 Oct 25 16:42	7° ♊ 54'44	0.62302 AU
	12805 Oct 05 17:52	0° ♊		direct	12810 Nov 30 06:17	0° ♊ 06'04	
	12805 Nov 13 01:05	0° ♊			12811 Feb 21 01:18	0° ♊	
	12805 Dec 22 10:20	0° ♊			12811 Apr 08 11:09	0° ♊	
	12806 Feb 02 01:15	0° ♊		asc. node	12811 Apr 13 19:30	3° ♊ 45'26	
	12806 Mar 19 17:10	0° ♊			12811 May 19 13:22	0° ♊	
	12806 May 14 19:50	0° ♊			12811 Jun 27 09:32	0° ♊	
desc. node	12806 Jul 01 19:25	12° ♊ 07'13			12811 Aug 04 14:17	0° ♊	
retrograde	12806 Jul 03 01:05	12° ♊ 07'48			12811 Sep 12 07:10	0° ♊	
min. Earth dist.	12806 Aug 10 15:49	3° ♊ 01'30	0.67080 AU		12811 Oct 22 08:40	0° ♊	
opposition	12806 Aug 12 18:03	2° ♊ 11'32	-1°31'04	evening set	12811 Nov 03 11:48	8° ♊ 49'21	
greatest brilliancy	12806 Aug 12 14:28	2° ♊ 15'06	-1.3m		12811 Dec 03 07:49	0° ♊	
	12806 Aug 18 08:21	30° ♊					
direct	12806 Sep 22 00:58	22° ♊ 40'15		conjunction	12811 Dec 29 03:43	17° ♊ 45'50	0°29'26
	12806 Oct 30 15:51	0° ♊		minimum elong	12811 Dec 29 05:02	17° ♊ 48'03	0°30'23
	12807 Jan 03 08:02	0° ♊			12812 Jan 16 08:48	0° ♊	
	12807 Feb 23 00:30	0° ♊		max. Earth dist.	12812 Jan 23 10:35	4° ♊ 41'36	2.59445 AU
	12807 Apr 09 16:30	0° ♊		morning rise	12812 Feb 16 11:28	20° ♊ 24'58	
	12807 May 22 01:19	0° ♊		desc. node	12812 Feb 20 17:01	23° ♊ 08'58	

	12812 Mar 02 09:05	0° H			12817 Aug 03 15:30	0° X	
	12812 Apr 19 04:17	0° Y			12817 Sep 27 06:51	0° Z	
	12812 Jun 08 00:22	0° B	desc. node		12817 Oct 12 13:27	8° Z 57'22	
	12812 Jul 31 20:48	0° II			12817 Nov 16 18:32	0° \approx	
retrograde	12812 Oct 28 11:52	29° II 54'23			12818 Jan 05 00:09	0° H	
opposition	12812 Dec 02 11:15	22° II 43'35 -4°24'09			12818 Feb 22 05:11	0° Y	
greatest brilliancy	12812 Dec 03 22:22	22° II 12'27 -2.1m	evening set		12818 Mar 04 12:57	6° Y 31'39	
min. Earth dist.	12812 Dec 11 01:51	19° II 41'40 0.50300 AU	max. Earth dist.		12818 Apr 01 03:32	24° Y 12'11 2.64488 AU	
direct	12813 Jan 09 16:15	13° II 56'23			12818 Apr 10 01:56	0° B	
asc. node	12813 Mar 01 04:34	28° II 25'16					
	12813 Mar 04 06:51	0° C	conjunction		12818 Apr 17 20:38	5° B 04'46 -1°09'56	
	12813 Apr 21 17:35	0° D	minimum elong		12818 Apr 17 20:18	5° B 04'14 1°10'25	
	12813 Jun 02 01:10	0° P			12818 May 25 06:58	0° II	
	12813 Jul 11 16:52	0° E	morning rise		12818 Jun 02 06:40	5° II 25'39	
	12813 Aug 20 15:15	0° M			12818 Jul 07 17:02	0° C	
	12813 Sep 30 20:55	0° X			12818 Aug 18 10:09	0° D	
	12813 Nov 12 21:49	0° Z			12818 Sep 27 17:11	0° P	
evening set	12813 Dec 21 11:21	25° Z 51'24	asc. node		12818 Oct 22 05:49	18° P 36'48	
	12813 Dec 27 18:24	0° \approx			12818 Nov 06 04:04	0° E	
desc. node	12814 Jan 07 07:37	6° \approx 54'11			12818 Dec 15 18:14	0° M	
					12819 Jan 26 05:08	0° X	
conjunction	12814 Feb 07 00:07	26° \approx 44'08 -0°16'46			12819 Mar 15 00:37	0° Z	
minimum elong	12814 Feb 06 23:34	26° \approx 43'15 0°16'09	retrograde		12819 May 13 20:18	19° Z 14'19	
	12814 Feb 12 02:27	0° H	min. Earth dist.		12819 Jun 14 14:52	12° Z 23'28 0.54968 AU	
max. Earth dist.	12814 Feb 16 03:22	2° H 34'55 2.66639 AU	opposition		12819 Jun 21 16:50	9° Z 40'17 2°57'28	
morning rise	12814 Mar 23 09:16	24° H 57'41	greatest brilliancy		12819 Jun 20 23:16	9° Z 57'10 -1.9m	
	12814 Mar 31 08:51	0° Y	direct		12819 Jul 27 16:33	1° Z 39'18	
	12814 May 18 02:29	0° B	desc. node		12819 Aug 30 23:16	7° Z 48'00	
	12814 Jul 05 04:15	0° II			12819 Oct 21 08:05	0° \approx	
	12814 Aug 23 00:09	0° C			12819 Dec 15 03:32	0° H	
	12814 Oct 13 10:37	0° D			12820 Feb 03 09:09	0° Y	
	12814 Dec 25 04:43	0° P			12820 Mar 21 19:20	0° B	
retrograde	12815 Jan 07 14:34	1° P 07'43	evening set		12820 Apr 09 11:45	12° B 16'38	
asc. node	12815 Jan 17 10:29	0° P 30'46	max. Earth dist.		12820 Apr 27 00:31	24° B 02'56 2.55384 AU	
	12815 Jan 20 23:55	30° R D			12820 May 05 17:54	0° II	
opposition	12815 Feb 06 14:17	26° D 06'20 1°31'36					
greatest brilliancy	12815 Feb 06 19:04	26° D 03'02 -3.0m	conjunction		12820 May 27 12:25	15° II 07'36 -0°58'33	
min. Earth dist.	12815 Feb 10 17:41	24° D 57'48 0.37561 AU	minimum elong		12820 May 27 13:56	15° II 10'16 0°59'26	
direct	12815 Mar 09 14:54	20° D 35'46			12820 Jun 17 09:17	0° C	
	12815 Apr 17 13:55	0° P	morning rise		12820 Jul 20 00:26	23° C 58'06	
	12815 Jun 09 22:15	0° E			12820 Jul 28 01:26	0° D	
	12815 Jul 25 04:30	0° M			12820 Sep 05 06:18	0° P	
	12815 Sep 07 18:32	0° X	asc. node		12820 Sep 07 18:03	1° P 55'56	
	12815 Oct 23 04:10	0° Z			12820 Oct 13 16:16	0° E	
desc. node	12815 Nov 25 06:45	21° Z 26'05			12820 Nov 21 03:48	0° M	
	12815 Dec 08 15:33	0° \approx			12820 Dec 30 17:57	0° X	
	12816 Jan 24 21:24	0° H			12821 Feb 10 20:52	0° Z	
evening set	12816 Jan 29 03:21	2° H 41'12			12821 Mar 30 09:05	0° \approx	
max. Earth dist.	12816 Mar 09 09:35	28° H 09'31 2.68304 AU	retrograde		12821 Jun 19 15:11	28° \approx 56'14	
	12816 Mar 12 07:16	0° Y	desc. node		12821 Jul 18 07:27	23° \approx 30'04	
			min. Earth dist.		12821 Jul 26 14:19	20° \approx 21'27 0.64884 AU	
conjunction	12816 Mar 13 11:11	0° Y 44'17 -0°52'36	opposition		12821 Jul 30 04:11	18° \approx 56'09 -0°27'07	
minimum elong	12816 Mar 13 10:04	0° Y 42'31 0°52'31	greatest brilliancy		12821 Jul 30 02:33	18° \approx 57'47 -1.5m	
morning rise	12816 Apr 25 15:20	28° Y 18'35	direct		12821 Sep 07 14:01	9° \approx 43'01	
	12816 Apr 28 06:20	0° B			12821 Nov 16 19:59	0° H	
	12816 Jun 13 08:16	0° II			12822 Jan 12 10:30	0° Y	
	12816 Jul 28 07:52	0° C			12822 Mar 02 16:17	0° B	
	12816 Sep 10 04:51	0° D			12822 Apr 16 23:28	0° II	
	12816 Oct 23 05:04	0° P	evening set		12822 May 24 01:32	26° II 10'08	
asc. node	12816 Dec 04 11:46	29° P 26'16			12822 May 29 08:02	0° C	
	12816 Dec 05 07:28	0° E	max. Earth dist.		12822 Jun 08 08:59	7° C 22'15 2.42204 AU	
	12817 Jan 20 22:55	0° M			12822 Jul 08 11:04	0° D	
retrograde	12817 Mar 24 16:56	22° M 02'06					
min. Earth dist.	12817 Apr 19 17:15	17° M 27'55 0.41359 AU	conjunction		12822 Jul 21 18:15	10° D 13'46 -0°03'20	
greatest brilliancy	12817 Apr 25 21:19	15° M 30'45 -2.6m	minimum elong		12822 Jul 21 18:38	10° D 14'29 0°04'07	
opposition	12817 Apr 27 14:10	14° M 58'09 6°26'49	behind sun begin		12822 Jul 20 16:04	9° D 23'10	
direct	12817 May 28 12:39	9° M 07'45	behind sun end		12822 Jul 22 21:11	11° D 05'51	

asc. node	12822 Jul 26 09:15	13°♊48'48		retrograde	12827 Oct 08 23:57	12°♊38'13	
	12822 Aug 16 02:13	0°♍		opposition	12827 Nov 14 13:28	4°♊46'40	-4°57'58
	12822 Sep 23 01:10	0°♌		greatest brilliancy	12827 Nov 15 22:46	4°♊15'47	-1.8m
morning rise	12822 Sep 30 14:34	5°♌58'37		min. Earth dist.	12827 Nov 22 05:29	1°♊56'45	0.55607 AU
	12822 Oct 31 04:52	0°♍			12827 Nov 27 20:28	30°♋♌	
	12822 Dec 09 10:39	0°♎		direct	12827 Dec 24 07:59	25°♋19'20	
	12823 Jan 19 16:19	0°♏			12828 Jan 21 01:16	0°♊	
	12823 Mar 04 23:20	0°♐		asc. node	12828 Mar 17 16:13	28°♊09'28	
	12823 Apr 23 12:06	0°♑			12828 Mar 20 14:16	0°♋	
desc. node	12823 Jun 05 08:13	21°♑02'14			12828 May 03 03:27	0°♌	
	12823 Jul 03 02:45	0°♒			12828 Jun 11 23:40	0°♍	
retrograde	12823 Jul 23 18:40	2°♒23'56			12828 Jul 20 19:50	0°♌	
	12823 Aug 12 01:07	30°♋♌			12828 Aug 29 02:48	0°♍	
opposition	12823 Sep 02 08:32	22°♋41'43	-2°56'56		12828 Oct 08 18:27	0°♎	
greatest brilliancy	12823 Sep 02 07:44	22°♋42'30	-1.3m		12828 Nov 20 06:48	0°♏	
min. Earth dist.	12823 Sep 02 13:46	22°♋36'32	0.68489 AU	evening set	12828 Dec 04 03:33	9°♏29'37	
direct	12823 Oct 13 13:44	12°♋50'32			12829 Jan 03 17:42	0°♐	
	12823 Dec 15 07:03	0°♒					
	12824 Feb 09 03:36	0°♓		conjunction	12829 Jan 23 02:11	12°♐42'13	0°00'33
	12824 Mar 27 02:05	0°♊		minimum elong	12829 Jan 23 02:12	12°♐42'14	0°01'20
	12824 May 08 18:11	0°♋		behind sun begin	12829 Jan 22 06:31	12°♐10'10	
asc. node	12824 Jun 12 05:48	25°♋46'48		behind sun end	12829 Jan 23 21:53	13°♐14'17	
	12824 Jun 17 17:57	0°♌		desc. node	12829 Jan 24 00:56	13°♐19'15	
evening set	12824 Jul 25 09:14	29°♌23'40		max. Earth dist.	12829 Feb 06 23:01	22°♐20'45	2.64456 AU
	12824 Jul 26 03:37	0°♍			12829 Feb 18 20:44	0°♑	
	12824 Sep 01 23:08	0°♌		morning rise	12829 Mar 09 20:56	12°♑07'15	
					12829 Apr 07 05:24	0°♒	
conjunction	12824 Oct 06 00:10	26°♌47'48	1°03'18		12829 May 25 13:00	0°♓	
minimum elong	12824 Oct 05 21:53	26°♌43'22	1°03'38		12829 Jul 14 01:28	0°♊	
	12824 Oct 10 03:00	0°♍			12829 Sep 04 10:37	0°♋	
	12824 Nov 18 11:21	0°♎			12829 Nov 11 08:00	0°♌	
max. Earth dist.	12824 Nov 28 16:18	7°♎34'17	2.41428 AU	retrograde	12829 Dec 07 08:17	3°♌47'31	
morning rise	12824 Dec 12 21:42	17°♎57'53			12830 Jan 01 06:19	30°♋♌	
	12824 Dec 29 17:06	0°♏		opposition	12830 Jan 08 01:42	27°♌58'53	-1°45'09
	12825 Feb 11 09:12	0°♐		greatest brilliancy	12830 Jan 08 16:59	27°♌47'04	-2.7m
	12825 Mar 30 01:44	0°♑		min. Earth dist.	12830 Jan 15 21:58	25°♌33'55	0.41656 AU
desc. node	12825 Apr 21 23:44	13°♑51'26		asc. node	12830 Feb 03 01:08	21°♌32'00	
	12825 May 20 08:32	0°♒		direct	12830 Feb 11 08:57	21°♌02'33	
	12825 Jul 26 07:03	0°♓			12830 Mar 20 22:39	0°♌	
retrograde	12825 Aug 27 08:19	5°♓16'17			12830 May 12 05:29	0°♍	
	12825 Sep 25 13:15	30°♋♌			12830 Jun 24 07:45	0°♌	
opposition	12825 Oct 05 16:26	26°♒14'35	-4°35'44		12830 Aug 05 06:43	0°♍	
greatest brilliancy	12825 Oct 06 06:57	26°♒00'27	-1.4m		12830 Sep 17 00:25	0°♎	
min. Earth dist.	12825 Oct 09 18:10	24°♒39'29	0.65364 AU		12830 Oct 31 05:06	0°♏	
direct	12825 Nov 16 04:34	16°♒12'02		desc. node	12830 Dec 11 20:09	27°♏21'56	
	12826 Jan 08 10:57	0°♓			12830 Dec 15 21:41	0°♐	
	12826 Mar 04 00:24	0°♊		evening set	12831 Jan 14 18:15	19°♐11'54	
	12826 Apr 17 11:56	0°♋			12831 Jan 31 16:52	0°♌	
asc. node	12826 Apr 30 08:16	9°♋17'10					
	12826 May 28 00:19	0°♌		conjunction	12831 Feb 28 22:06	17°♋54'52	-0°40'30
	12826 Jul 05 14:24	0°♍		minimum elong	12831 Feb 28 21:02	17°♋53'11	0°40'12
	12826 Aug 12 14:17	0°♌		max. Earth dist.	12831 Mar 01 22:06	18°♋32'54	2.68312 AU
	12826 Sep 20 01:30	0°♍			12831 Mar 19 23:37	0°♒	
evening set	12826 Oct 09 21:30	15°♍06'56		morning rise	12831 Apr 13 04:32	15°♒21'58	
	12826 Oct 29 20:07	0°♎			12831 May 06 03:42	0°♓	
					12831 Jun 21 19:45	0°♊	
conjunction	12826 Dec 09 22:40	29°♎36'22	0°46'56		12831 Aug 06 20:38	0°♋	
minimum elong	12826 Dec 10 00:40	29°♎39'53	0°47'53		12831 Sep 21 09:45	0°♌	
	12826 Dec 10 12:08	0°♏			12831 Nov 06 03:16	0°♍	
max. Earth dist.	12827 Jan 12 05:04	22°♏31'41	2.55154 AU	asc. node	12831 Dec 22 04:02	28°♍20'08	
	12827 Jan 23 07:56	0°♐			12831 Dec 25 03:12	0°♌	
morning rise	12827 Jan 31 19:45	5°♐38'43		retrograde	12832 Feb 27 00:48	21°♌47'12	
desc. node	12827 Mar 09 11:07	29°♐26'18		min. Earth dist.	12832 Mar 24 11:10	17°♌29'59	0.37439 AU
	12827 Mar 10 08:17	0°♑		greatest brilliancy	12832 Mar 28 00:45	16°♌30'06	-2.9m
	12827 Apr 27 14:50	0°♒		opposition	12832 Mar 29 02:13	16°♌12'12	6°12'10
	12827 Jun 18 01:53	0°♓		direct	12832 Apr 27 10:23	11°♌12'13	
	12827 Aug 17 12:10	0°♊			12832 Jun 27 11:40	0°♍	

	12832 Aug 19 13:58	0°♊	minimum elong	12837 Jun 27 15:00	16°♊16'40	0°31'37
	12832 Oct 07 13:03	0°♋		12837 Jul 15 20:12	0°♌	
desc. node	12832 Oct 28 23:42	13°♋17'18	asc. node	12837 Aug 12 04:50	21°♌03'01	
	12832 Nov 24 22:06	0°♌		12837 Aug 23 16:09	0°♍	
	12833 Jan 12 04:18	0°♎	morning rise	12837 Aug 29 23:30	4°♍56'37	
evening set	12833 Feb 18 19:34	23°♎34'36		12837 Sep 30 18:32	0°♎	
	12833 Feb 28 23:44	0°♏	greatest brilliancy	12837 Oct 01 21:21	0°♎52'55	1.2m
max. Earth dist.	12833 Mar 22 22:43	13°♏57'56 2.66638 AU		12837 Nov 07 24:00	0°♏	
				12837 Dec 17 06:49	0°♐	
conjunction	12833 Apr 03 18:24	21°♏32'57 -1°05'57		12838 Jan 27 15:57	0°♑	
minimum elong	12833 Apr 03 17:36	21°♏31'40 1°06'13		12838 Mar 13 14:34	0°♒	
	12833 Apr 16 20:07	0°♓		12838 May 05 02:21	0°♈	
morning rise	12833 May 17 19:44	20°♓19'45	desc. node	12838 Jun 21 22:02	17°♈53'52	
	12833 Jun 01 07:39	0°♊	retrograde	12838 Jul 10 14:21	19°♈55'30	
	12833 Jul 15 05:33	0°♋	min. Earth dist.	12838 Aug 19 00:51	10°♈33'44	0.67862 AU
	12833 Aug 26 14:10	0°♌	opposition	12838 Aug 20 07:43	10°♈03'04	-2°05'07
	12833 Oct 06 14:43	0°♍	greatest brilliancy	12838 Aug 20 04:21	10°♈06'25	-1.3m
asc. node	12833 Nov 08 00:35	24°♍08'16	direct	12838 Sep 30 00:26	0°♈23'39	
	12833 Nov 15 21:03	0°♎		12838 Dec 27 13:48	0°♏	
	12833 Dec 26 14:05	0°♏		12839 Feb 17 16:08	0°♐	
	12834 Feb 08 13:29	0°♐		12839 Apr 04 18:05	0°♑	
	12834 Apr 21 18:42	0°♑		12839 May 17 05:32	0°♒	
retrograde	12834 Apr 26 12:53	0°♑09'58		12839 Jun 26 05:46	0°♓	
	12834 May 01 05:41	30°♒♊	evening set	12839 Jun 28 16:07	1°♓52'06	
min. Earth dist.	12834 May 25 21:22	24°♊11'48 0.49738 AU	asc. node	12839 Jun 29 21:23	2°♓48'24	
opposition	12834 Jun 02 23:26	21°♊13'30 4°29'16		12839 Aug 03 17:01	0°♈	
greatest brilliancy	12834 Jun 01 17:41	21°♊40'58 -2.2m				
direct	12834 Jul 07 04:13	13°♊55'42	conjunction	12839 Sep 05 14:44	26°♈04'53	0°44'48
	12834 Sep 04 04:41	0°♋	minimum elong	12839 Sep 05 10:43	25°♈56'55	0°44'35
desc. node	12834 Sep 16 09:16	5°♋41'14		12839 Sep 10 13:18	0°♌	
	12834 Nov 01 12:20	0°♌	max. Earth dist.	12839 Oct 05 22:32	20°♌02'26	2.36558 AU
	12834 Dec 23 07:34	0°♍		12839 Oct 18 16:22	0°♍	
	12835 Feb 10 13:10	0°♎	morning rise	12839 Nov 18 01:07	23°♍18'26	
evening set	12835 Mar 26 14:19	27°♎59'31		12839 Nov 26 22:41	0°♐	
	12835 Mar 29 16:27	0°♏		12840 Jan 07 02:31	0°♑	
max. Earth dist.	12835 Apr 16 18:51	11°♏53'34 2.59569 AU		12840 Feb 19 20:42	0°♒	
				12840 Apr 07 04:26	0°♈	
conjunction	12835 May 11 13:52	28°♏33'26 -1°07'19	desc. node	12840 May 08 17:58	18°♈14'06	
minimum elong	12835 May 11 14:37	28°♏34'43 1°08'06		12840 May 31 06:09	0°♏	
	12835 May 13 16:38	0°♊	retrograde	12840 Aug 13 00:56	22°♏27'35	
	12835 Jun 25 14:20	0°♋	opposition	12840 Sep 22 00:21	13°♏07'14	-4°04'08
morning rise	12835 Jun 29 20:58	3°♋04'06	greatest brilliancy	12840 Sep 22 07:40	13°♏00'03	-1.3m
	12835 Aug 05 14:53	0°♌	min. Earth dist.	12840 Sep 24 13:38	12°♏07'05	0.67390 AU
	12835 Sep 14 04:07	0°♍	direct	12840 Nov 02 14:22	3°♏05'32	
asc. node	12835 Sep 25 16:04	8°♍52'12		12841 Jan 22 10:14	0°♐	
	12835 Oct 22 21:11	0°♎		12841 Mar 13 08:43	0°♑	
	12835 Nov 30 15:05	0°♏		12841 Apr 25 20:20	0°♒	
	12836 Jan 09 14:10	0°♐	asc. node	12841 May 16 22:16	15°♒30'17	
	12836 Feb 21 16:13	0°♑		12841 Jun 05 01:19	0°♓	
	12836 Apr 13 10:31	0°♒		12841 Jul 13 12:16	0°♈	
retrograde	12836 Jun 05 17:00	14°♒52'09	greatest brilliancy	12841 Jul 20 17:41	5°♈42'55	1.2m
min. Earth dist.	12836 Jul 10 19:52	6°♒53'23 0.61705 AU		12841 Aug 20 09:12	0°♉	
opposition	12836 Jul 15 20:29	4°♒54'15 0°45'16	evening set	12841 Sep 11 12:03	17°♉24'46	
greatest brilliancy	12836 Jul 15 17:16	4°♒57'25 -1.6m		12841 Sep 27 16:18	0°♊	
	12836 Jul 29 09:38	30°♒♋		12841 Nov 06 05:41	0°♌	
desc. node	12836 Aug 03 18:25	28°♋29'29				
direct	12836 Aug 23 03:28	26°♋04'09	conjunction	12841 Nov 17 17:59	8°♋29'19	1°00'47
	12836 Sep 19 08:22	0°♌	minimum elong	12841 Nov 17 19:51	8°♋32'44	1°01'39
	12836 Nov 28 13:28	0°♍		12841 Dec 17 16:14	0°♎	
	12837 Jan 20 15:40	0°♎	max. Earth dist.	12841 Dec 29 19:53	8°♎30'26	2.50178 AU
	12837 Mar 09 23:35	0°♏	morning rise	12842 Jan 14 10:41	19°♎15'19	
	12837 Apr 24 01:56	0°♊		12842 Jan 30 08:47	0°♋	
evening set	12837 May 05 05:20	7°♊42'41		12842 Mar 17 11:52	0°♌	
max. Earth dist.	12837 May 19 03:03	17°♊29'56 2.47687 AU	desc. node	12842 Mar 26 06:27	5°♌31'03	
	12837 Jun 05 12:31	0°♋		12842 May 05 12:18	0°♏	
				12842 Jun 28 16:07	0°♐	
conjunction	12837 Jun 27 13:07	16°♋13'09 -0°30'41	retrograde	12842 Sep 21 01:37	27°♋20'19	

opposition	12842 Oct 28 22:04	18°♄56'27 -5°02'48			12848 Jan 20 03:27	0°♄	
greatest brilliancy	12842 Oct 30 00:51	18°♄30'57 -1.6m	evening set		12848 Feb 06 02:54	10°♄41'39	
min. Earth dist.	12842 Nov 04 06:30	16°♄31'40 0.60168 AU			12848 Mar 07 16:08	0°♄	
direct	12842 Dec 08 16:23	9°♄06'46	max. Earth dist.		12848 Mar 14 08:23	4°♄14'16	2.67948 AU
	12843 Feb 12 09:46	0°♄					
	12843 Apr 02 03:02	0°♄	conjunction		12848 Mar 21 04:08	8°♄34'37 -0°58'27	
asc. node	12843 Apr 04 04:49	1°♄25'06	minimum elong		12848 Mar 21 03:05	8°♄32'56 0°58'29	
	12843 May 13 20:48	0°♄			12848 Apr 23 14:02	0°♄	
	12843 Jun 21 23:52	0°♄	morning rise		12848 May 03 11:50	6°♄25'10	
	12843 Jul 30 08:51	0°♄			12848 Jun 08 10:25	0°♄	
	12843 Sep 07 05:27	0°♄			12848 Jul 23 00:08	0°♄	
	12843 Oct 17 10:36	0°♄			12848 Sep 04 06:22	0°♄	
evening set	12843 Nov 15 16:50	21°♄00'18			12848 Oct 16 09:49	0°♄	
	12843 Nov 28 12:52	0°♄	asc. node		12848 Nov 24 19:36	28°♄21'08	
conjunction	12844 Jan 07 23:58	27°♄33'16 0°18'48			12848 Nov 27 02:53	0°♄	
minimum elong	12844 Jan 08 00:47	27°♄34'38 0°19'42			12849 Jan 09 08:28	0°♄	
	12844 Jan 11 16:04	0°♄	retrograde		12849 Mar 04 01:29	0°♄	
max. Earth dist.	12844 Jan 29 09:48	11°♄42'14 2.61450 AU	min. Earth dist.		12849 Apr 06 14:29	7°♄22'54	
desc. node	12844 Feb 10 17:45	19°♄44'11	greatest brilliancy		12849 May 03 12:57	2°♄21'36 0.44196 AU	
morning rise	12844 Feb 24 20:02	28°♄49'33			12849 May 10 06:22	0°♄05'27 -2.5m	
	12844 Feb 26 16:00	0°♄			12849 May 10 12:44	30°♄	
	12844 Apr 14 05:54	0°♄	opposition		12849 May 11 22:01	29°♄31'38 5°54'41	
	12844 Jun 02 09:39	0°♄	direct		12849 Jun 13 02:16	23°♄08'17	
	12844 Jul 24 04:24	0°♄			12849 Jul 18 07:37	0°♄	
	12844 Sep 22 21:31	0°♄	desc. node		12849 Sep 19 14:42	0°♄	
retrograde	12844 Nov 10 14:58	11°♄25'50			12849 Oct 02 17:43	7°♄18'25	
opposition	12844 Dec 14 13:25	4°♄42'25 -3°44'33			12849 Nov 10 23:04	0°♄	
greatest brilliancy	12844 Dec 15 21:25	4°♄15'10 -2.3m			12849 Dec 30 22:44	0°♄	
min. Earth dist.	12844 Dec 23 09:03	1°♄43'25 0.47131 AU	evening set		12850 Feb 17 11:39	0°♄	
	12844 Dec 28 22:09	30°♄			12850 Mar 12 11:00	14°♄32'17	
direct	12845 Jan 20 14:22	26°♄28'14	max. Earth dist.		12850 Apr 05 10:47	0°♄	
	12845 Feb 12 16:34	0°♄			12850 Apr 06 15:22	0°♄46'34 2.62955 AU	
asc. node	12845 Feb 19 13:04	2°♄13'52	conjunction		12850 Apr 26 04:41	13°♄37'50 -1°10'23	
	12845 Apr 12 23:19	0°♄	minimum elong		12850 Apr 26 04:43	13°♄37'52 1°11'00	
	12845 May 26 00:41	0°♄			12850 May 20 14:11	0°♄	
	12845 Jul 05 11:04	0°♄	morning rise		12850 Jun 11 16:50	15°♄10'43	
	12845 Aug 14 21:46	0°♄			12850 Jul 02 19:54	0°♄	
	12845 Sep 25 13:18	0°♄			12850 Aug 13 06:53	0°♄	
	12845 Nov 07 21:53	0°♄			12850 Sep 22 07:12	0°♄	
	12845 Dec 23 00:06	0°♄	asc. node		12850 Oct 12 11:05	15°♄24'22	
desc. node	12845 Dec 28 10:45	3°♄33'21			12850 Oct 31 10:43	0°♄	
evening set	12845 Dec 30 14:20	4°♄57'21			12850 Dec 09 15:35	0°♄	
	12846 Feb 07 10:58	0°♄			12851 Jan 19 08:25	0°♄	
conjunction	12846 Feb 15 02:32	4°♄52'51 -0°26'05	retrograde		12851 Mar 05 12:37	0°♄	
minimum elong	12846 Feb 15 01:44	4°♄51'34 0°25'35	min. Earth dist.		12851 May 22 20:30	29°♄22'20	
max. Earth dist.	12846 Feb 21 05:53	8°♄47'29 2.67475 AU	opposition		12851 Jun 24 21:14	22°♄05'37 0.57586 AU	
	12846 Mar 26 16:40	0°♄	greatest brilliancy		12851 Jul 01 06:47	19°♄36'09 2°06'48	
morning rise	12846 Mar 30 22:43	2°♄41'19	direct		12851 Jun 30 19:21	19°♄47'17 -1.8m	
	12846 May 13 04:36	0°♄	desc. node		12851 Aug 07 04:06	11°♄15'39	
	12846 Jun 29 16:16	0°♄			12851 Aug 21 04:42	12°♄24'07	
	12846 Aug 16 06:31	0°♄			12851 Oct 12 09:48	0°♄	
	12846 Oct 03 17:54	0°♄			12851 Dec 09 05:48	0°♄	
	12846 Nov 25 13:59	0°♄			12852 Jan 29 07:52	0°♄	
asc. node	12847 Jan 07 20:00	16°♄56'07	evening set		12852 Mar 17 01:33	0°♄	
retrograde	12847 Jan 26 11:43	19°♄06'15			12852 Apr 18 09:53	21°♄23'06	
opposition	12847 Feb 24 23:37	14°♄14'08 3°38'01	max. Earth dist.		12852 May 01 01:51	0°♄	
greatest brilliancy	12847 Feb 25 00:26	14°♄13'35 -3.0m			12852 May 04 06:22	2°♄11'27 2.52811 AU	
min. Earth dist.	12847 Feb 26 01:06	13°♄57'18 0.36482 AU	conjunction		12852 Jun 06 23:22	25°♄53'50 -0°50'32	
direct	12847 Mar 26 13:33	9°♄15'35	minimum elong		12852 Jun 07 01:13	25°♄57'11 0°51'28	
	12847 May 28 05:45	0°♄			12852 Jun 12 16:00	0°♄	
	12847 Jul 16 22:23	0°♄			12852 Jul 23 05:20	0°♄	
	12847 Sep 01 05:45	0°♄	morning rise		12852 Aug 02 12:33	7°♄49'06	
	12847 Oct 17 13:35	0°♄	asc. node		12852 Aug 29 00:21	28°♄13'41	
desc. node	12847 Nov 15 10:33	18°♄28'21			12852 Aug 31 07:01	0°♄	
	12847 Dec 03 14:16	0°♄			12852 Oct 08 13:51	0°♄	

	12852 Nov 15 22:21	0°♌		min. Earth dist.	12857 Oct 18 16:41	2°♊36'15	0.63801 AU
	12852 Dec 25 08:27	0°♏			12857 Oct 25 18:13	30°♏	
	12853 Feb 05 01:45	0°♎		direct	12857 Nov 24 03:15	24°♏29'26	
	12853 Mar 23 05:56	0°♍			12857 Dec 25 16:17	0°♏	
	12853 May 22 08:10	0°♋			12858 Feb 25 06:46	0°♌	
retrograde	12853 Jun 27 08:14	7°♋04'16			12858 Apr 11 19:44	0°♍	
desc. node	12853 Jul 08 11:44	6°♋14'16		asc. node	12858 Apr 20 17:47	6°♍20'59	
	12853 Jul 30 15:10	30°♋			12858 May 22 16:13	0°♎	
min. Earth dist.	12853 Aug 04 05:54	28°♋11'49	0.66225 AU		12858 Jun 30 09:54	0°♏	
opposition	12853 Aug 07 00:33	27°♋05'35	-1°05'38		12858 Aug 07 12:03	0°♐	
greatest brilliancy	12853 Aug 06 21:17	27°♋08'49	-1.4m		12858 Sep 15 01:30	0°♌	
direct	12853 Sep 15 23:16	17°♋41'56		evening set	12858 Oct 24 06:57	29°♌30'46	
	12853 Nov 06 22:37	0°♋			12858 Oct 24 22:50	0°♏	
	12854 Jan 06 11:18	0°♏			12858 Dec 05 17:22	0°♎	
	12854 Feb 25 13:44	0°♏					
	12854 Apr 12 03:27	0°♌		conjunction	12858 Dec 21 04:07	10°♎43'32	0°37'03
	12854 May 24 13:35	0°♍		minimum elong	12858 Dec 21 05:46	10°♎46'22	0°38'00
evening set	12854 Jun 04 22:30	8°♍21'26			12859 Jan 18 14:44	0°♍	
max. Earth dist.	12854 Jun 24 20:38	23°♍17'19	2.39321 AU	max. Earth dist.	12859 Jan 18 22:19	0°♍12'39	2.57640 AU
	12854 Jul 03 16:06	0°♎		morning rise	12859 Feb 09 22:05	14°♍43'33	
asc. node	12854 Jul 16 15:42	9°♎59'38		desc. node	12859 Feb 27 12:02	26°♍06'49	
					12859 Mar 05 13:34	0°♋	
conjunction	12854 Aug 06 05:12	26°♎02'11	0°14'39		12859 Apr 22 12:06	0°♏	
minimum elong	12854 Aug 06 03:48	25°♎59'27	0°14'00		12859 Jun 11 21:39	0°♏	
behind sun begin	12854 Aug 05 13:02	25°♎30'29			12859 Aug 06 18:07	0°♌	
behind sun end	12854 Aug 06 18:33	26°♎28'24		retrograde	12859 Oct 20 03:57	22°♌37'14	
	12854 Aug 11 06:11	0°♏		opposition	12859 Nov 24 22:07	15°♌06'54	-4°42'38
	12854 Sep 18 04:02	0°♐		greatest brilliancy	12859 Nov 26 09:11	14°♌35'05	-2.0m
morning rise	12854 Oct 18 17:51	24°♐06'33		min. Earth dist.	12859 Dec 03 04:44	12°♌07'51	0.52757 AU
	12854 Oct 26 06:53	0°♌		direct	12860 Jan 02 22:03	5°♌59'07	
	12854 Dec 04 11:52	0°♏		asc. node	12860 Mar 08 03:07	28°♌00'21	
	12855 Jan 14 15:11	0°♎			12860 Mar 11 14:30	0°♍	
	12855 Feb 27 14:47	0°♍			12860 Apr 26 08:34	0°♎	
	12855 Apr 17 00:41	0°♋			12860 Jun 05 22:20	0°♏	
desc. node	12855 May 26 09:55	20°♋59'09			12860 Jul 15 03:54	0°♐	
	12855 Jun 16 03:36	0°♏			12860 Aug 23 17:43	0°♌	
retrograde	12855 Jul 31 09:34	9°♏59'24			12860 Oct 03 15:32	0°♏	
opposition	12855 Sep 09 19:45	0°♏23'57	-3°24'05		12860 Nov 15 09:07	0°♎	
greatest brilliancy	12855 Sep 09 21:20	0°♏22'23	-1.3m	evening set	12860 Dec 14 05:44	19°♎32'15	
	12855 Sep 10 20:01	30°♏			12860 Dec 30 00:05	0°♍	
min. Earth dist.	12855 Sep 10 20:46	29°♏59'15	0.68379 AU	desc. node	12861 Jan 14 01:29	9°♍52'40	
direct	12855 Oct 21 05:56	20°♏27'57					
	12855 Dec 04 13:06	0°♏		conjunction	12861 Jan 31 17:34	21°♍20'24	-0°09'47
	12856 Feb 03 00:20	0°♏		minimum elong	12861 Jan 31 17:15	21°♍19'53	0°09'05
	12856 Mar 21 19:21	0°♌		behind sun begin	12861 Jan 31 01:07	20°♍53'53	
	12856 May 03 17:48	0°♍		behind sun end	12861 Feb 01 09:22	21°♍45'53	
asc. node	12856 Jun 02 12:12	22°♍08'08		max. Earth dist.	12861 Feb 12 07:51	28°♍47'59	2.65773 AU
	12856 Jun 12 19:23	0°♎			12861 Feb 14 04:47	0°♋	
	12856 Jul 21 05:37	0°♏		morning rise	12861 Mar 17 15:40	20°♋00'55	
evening set	12856 Aug 11 13:46	16°♏54'58			12861 Apr 02 11:29	0°♏	
	12856 Aug 28 01:30	0°♐			12861 May 20 10:29	0°♏	
	12856 Oct 05 06:03	0°♌			12861 Jul 08 01:27	0°♌	
					12861 Aug 27 03:24	0°♍	
conjunction	12856 Oct 22 13:58	13°♌20'36	1°06'20		12861 Oct 21 08:08	0°♎	
minimum elong	12856 Oct 22 13:42	13°♌20'06	1°06'56	retrograde	12861 Dec 24 08:47	18°♎59'57	
	12856 Nov 13 15:32	0°♏		opposition	12862 Jan 24 00:44	13°♎40'15	-0°01'40
max. Earth dist.	12856 Dec 12 08:48	21°♏02'41	2.44617 AU	greatest brilliancy	12862 Jan 24 01:06	13°♎39'59	-2.9m
	12856 Dec 24 21:51	0°♎		asc. node	12862 Jan 24 09:49	13°♎33'39	
morning rise	12856 Dec 25 13:41	0°♎28'01		min. Earth dist.	12862 Jan 30 04:10	11°♎53'28	0.39114 AU
	12857 Feb 06 12:35	0°♍		direct	12862 Feb 25 12:07	7°♎33'03	
	12857 Mar 24 21:41	0°♋			12862 Apr 30 09:52	0°♏	
desc. node	12857 Apr 12 00:57	11°♋10'16			12862 Jun 16 03:27	0°♐	
	12857 May 14 02:15	0°♏			12862 Jul 29 13:40	0°♌	
	12857 Jul 12 14:28	0°♏			12862 Sep 11 04:05	0°♏	
retrograde	12857 Sep 04 22:07	13°♏19'41			12862 Oct 25 22:22	0°♎	
opposition	12857 Oct 13 19:10	4°♏29'48	-4°49'26	desc. node	12862 Dec 01 23:03	24°♎10'26	
greatest brilliancy	12857 Oct 14 14:03	4°♏11'32	-1.4m		12862 Dec 10 23:58	0°♍	

evening set	12863 Jan 23 01:20	27° \approx 29'34		asc. node	12867 Sep 15 20:18	5° \cap 15'24	
	12863 Jan 27 00:09	0° H			12867 Oct 17 14:29	0° $\underline{\text{A}}$	
max. Earth dist.	12863 Mar 06 22:33	24° H 39'58	2.68417 AU		12867 Nov 25 04:10	0° \cap	
					12868 Jan 03 20:42	0° J	
conjunction	12863 Mar 08 16:32	25° H 46'30	-0°47'56		12868 Feb 15 05:42	0° Z	
minimum elong	12863 Mar 08 15:24	25° H 44'43	0°47'45		12868 Apr 03 21:37	0° \approx	
	12863 Mar 15 08:25	0° Y		retrograde	12868 Jun 13 17:26	23° \approx 31'36	
morning rise	12863 Apr 20 20:05	23° Y 13'40		min. Earth dist.	12868 Jul 19 21:22	15° \approx 12'44	0.63577 AU
	12863 May 01 09:52	0° B		opposition	12868 Jul 24 03:26	13° \approx 31'39	0°01'58
	12863 Jun 16 18:05	0° II		greatest brilliancy	12868 Jul 24 03:21	13° \approx 31'44	-1.5m
	12863 Aug 01 04:38	0° G		desc. node	12868 Jul 24 23:37	13° \approx 11'43	
	12863 Sep 14 17:38	0° Ω		direct	12868 Sep 01 02:32	4° \approx 28'11	
	12863 Oct 28 17:30	0° \cap			12868 Nov 21 04:37	0° H	
asc. node	12863 Dec 12 11:59	29° \cap 58'20			12869 Jan 15 04:17	0° Y	
	12863 Dec 12 13:01	0° $\underline{\text{A}}$			12869 Mar 05 01:43	0° B	
	12864 Feb 03 04:39	0° \cap			12869 Apr 19 08:05	0° II	
retrograde	12864 Mar 13 17:30	9° \cap 50'14		evening set	12869 May 15 14:06	18° II 20'39	
min. Earth dist.	12864 Apr 08 11:07	5° \cap 30'35	0.39337 AU	max. Earth dist.	12869 May 29 13:21	28° II 22'50	2.44655 AU
greatest brilliancy	12864 Apr 13 18:12	3° \cap 55'40	-2.8m		12869 May 31 18:51	0° G	
opposition	12864 Apr 15 07:15	3° \cap 27'48	6°35'51				
	12864 Apr 28 04:18	30° R $\underline{\text{A}}$		conjunction	12869 Jul 10 16:48	29° G 44'52	-0°15'53
direct	12864 May 15 07:56	28° $\underline{\text{A}}$ 03'00		minimum elong	12869 Jul 10 18:04	29° G 47'16	0°16'46
	12864 Jun 02 00:41	0° \cap			12869 Jul 11 00:45	0° Ω	
	12864 Aug 10 12:04	0° J		asc. node	12869 Aug 02 10:11	17° Ω 14'07	
	12864 Oct 01 01:31	0° Z			12869 Aug 18 18:32	0° \cap	
desc. node	12864 Oct 19 04:45	10° Z 56'10		morning rise	12869 Sep 16 10:20	22° \cap 35'46	
	12864 Nov 19 12:06	0° \approx			12869 Sep 25 19:02	0° $\underline{\text{A}}$	
	12865 Jan 07 06:30	0° H			12869 Nov 02 22:56	0° \cap	
	12865 Feb 24 07:23	0° Y			12869 Dec 12 04:08	0° J	
evening set	12865 Feb 26 15:38	1° Y 28'50			12870 Jan 22 09:31	0° Z	
max. Earth dist.	12865 Mar 28 04:54	20° Y 18'48	2.65552 AU		12870 Mar 07 19:58	0° \approx	
					12870 Apr 27 04:49	0° H	
conjunction	12865 Apr 11 17:53	29° Y 42'35	-1°08'47	desc. node	12870 Jun 12 01:41	20° H 47'07	
minimum elong	12865 Apr 11 17:20	29° Y 41'41	1°09'11	retrograde	12870 Jul 18 02:53	27° H 35'24	
	12865 Apr 12 04:36	0° B		opposition	12870 Aug 27 19:11	17° H 48'06	-2°36'27
morning rise	12865 May 26 11:07	29° B 15'59		min. Earth dist.	12870 Aug 27 07:52	17° H 59'19	0.68345 AU
	12865 May 27 13:16	0° II		greatest brilliancy	12870 Aug 27 16:54	17° H 50'22	-1.3m
	12865 Jul 10 05:29	0° G		direct	12870 Oct 07 19:58	8° H 01'48	
	12865 Aug 21 05:58	0° Ω			12870 Dec 19 23:24	0° Y	
	12865 Sep 30 20:57	0° \cap			12871 Feb 12 02:32	0° B	
asc. node	12865 Oct 29 07:42	21° \cap 25'39			12871 Mar 30 17:23	0° II	
	12865 Nov 09 15:34	0° $\underline{\text{A}}$			12871 May 12 08:57	0° G	
	12865 Dec 19 14:50	0° \cap		asc. node	12871 Jun 20 05:40	29° G 06'00	
	12866 Jan 30 19:30	0° J			12871 Jun 21 09:49	0° Ω	
	12866 Mar 22 22:22	0° Z		evening set	12871 Jul 13 17:34	17° Ω 18'45	
retrograde	12866 May 06 14:29	11° Z 50'49			12871 Jul 29 20:41	0° \cap	
min. Earth dist.	12866 Jun 06 07:49	5° Z 22'55	0.52686 AU		12871 Sep 05 16:26	0° $\underline{\text{A}}$	
opposition	12866 Jun 13 22:07	2° Z 30'41	3°36'23				
greatest brilliancy	12866 Jun 12 23:18	2° Z 52'16	-2.0m	conjunction	12871 Sep 23 09:45	14° $\underline{\text{A}}$ 01'13	0°57'20
	12866 Jun 20 20:03	30° R J		minimum elong	12871 Sep 23 06:10	13° $\underline{\text{A}}$ 54'08	0°57'27
direct	12866 Jul 19 03:12	24° J 47'53			12871 Oct 13 19:12	0° \cap	
	12866 Aug 19 04:50	0° Z		max. Earth dist.	12871 Nov 14 15:59	24° \cap 26'28	2.38973 AU
desc. node	12866 Sep 06 14:31	6° Z 34'41			12871 Nov 22 01:33	0° J	
	12866 Oct 25 11:06	0° \approx		morning rise	12871 Dec 03 05:16	8° J 17'28	
	12866 Dec 17 20:12	0° H			12872 Jan 02 04:55	0° Z	
	12867 Feb 05 15:35	0° Y			12872 Feb 14 19:54	0° \approx	
	12867 Mar 24 23:44	0° B			12872 Apr 01 16:01	0° H	
evening set	12867 Apr 03 23:41	6° B 32'00		desc. node	12872 Apr 28 18:23	16° H 08'32	
max. Earth dist.	12867 Apr 23 02:42	19° B 14'03	2.57337 AU		12872 May 23 19:03	0° Y	
	12867 May 09 00:03	0° II			12872 Aug 14 21:28	0° B	
				retrograde	12872 Aug 21 02:30	0° B 13'39	
conjunction	12867 May 20 23:56	8° II 15'26	-1°03'01		12872 Aug 27 03:43	30° R Y	
minimum elong	12867 May 21 01:08	8° II 17'31	1°03'54	opposition	12872 Sep 29 18:12	21° Y 02'58	-4°23'39
	12867 Jun 20 19:22	0° G		greatest brilliancy	12872 Sep 30 05:21	20° Y 52'03	-1.3m
morning rise	12867 Jul 11 10:16	14° G 58'45		min. Earth dist.	12872 Oct 03 03:22	19° Y 43'41	0.66405 AU
	12867 Jul 31 16:03	0° Ω		direct	12872 Nov 10 08:13	11° Y 00'17	
	12867 Sep 09 01:15	0° \cap			12873 Jan 14 02:58	0° B	

	12873 Mar 07 10:34	0°♊		conjunction	12878 Feb 23 01:23	12°♋53'00 -0°34'49
	12873 Apr 20 12:42	0°♌		minimum elong	12878 Feb 23 00:24	12°♋51'27 0°34'25
asc. node	12873 May 07 07:13	12°♌12'46		max. Earth dist.	12878 Feb 26 06:54	14°♋56'03 2.68045 AU
	12873 May 30 22:38	0°♍			12878 Mar 22 01:18	0°♎
	12873 Jul 08 11:48	0°♎		morning rise	12878 Apr 07 12:36	10°♎26'09
	12873 Aug 15 10:15	0°♏			12878 May 08 08:32	0°♐
	12873 Sep 22 18:50	0°♐			12878 Jun 24 08:45	0°♊
evening set	12873 Sep 27 22:05	3°♐57'18			12878 Aug 10 00:39	0°♌
	12873 Nov 01 09:56	0°♑			12878 Sep 25 15:23	0°♍
					12878 Nov 12 11:36	0°♎
conjunction	12873 Nov 30 17:23	21°♑20'35 0°53'29		asc. node	12878 Dec 29 03:50	25°♎35'26
minimum elong	12873 Nov 30 19:31	21°♑24'23 0°54'25			12879 Jan 08 10:13	0°♏
	12873 Dec 12 22:01	0°♐		retrograde	12879 Feb 13 16:40	7°♏56'08
max. Earth dist.	12874 Jan 06 20:12	17°♐18'07 2.53003 AU		min. Earth dist.	12879 Mar 13 12:16	3°♏25'34 0.36572 AU
morning rise	12874 Jan 24 13:46	29°♐18'17		opposition	12879 Mar 15 18:11	2°♏49'21 5°22'28
	12874 Jan 25 14:42	0°♑		greatest brilliancy	12879 Mar 15 05:25	2°♏57'56 -3.0m
	12874 Mar 12 14:28	0°♋			12879 Mar 27 01:50	30°♎♎
desc. node	12874 Mar 16 06:10	2°♋19'10		direct	12879 Apr 13 22:28	27°♎58'45
	12874 Apr 30 02:28	0°♌			12879 May 01 12:10	0°♏
	12874 Jun 21 10:43	0°♐			12879 Jul 06 23:49	0°♐
	12874 Aug 26 12:11	0°♊			12879 Aug 25 03:59	0°♑
retrograde	12874 Sep 30 22:40	6°♊20'15			12879 Oct 11 18:16	0°♐
	12874 Nov 02 07:17	30°♎♏		desc. node	12879 Nov 05 14:56	15°♐39'40
opposition	12874 Nov 07 03:31	28°♏13'11 -5°02'28			12879 Nov 28 11:00	0°♑
greatest brilliancy	12874 Nov 08 10:11	27°♏44'22 -1.7m			12880 Jan 15 08:52	0°♋
min. Earth dist.	12874 Nov 14 06:19	25°♏33'18 0.57755 AU		evening set	12880 Feb 13 23:18	18°♋35'01
direct	12874 Dec 17 10:15	18°♏34'11			12880 Mar 03 01:19	0°♌
	12875 Feb 01 03:47	0°♊		max. Earth dist.	12880 Mar 19 08:05	10°♌20'36 2.67322 AU
asc. node	12875 Mar 25 14:24	29°♊35'44				
	12875 Mar 26 05:11	0°♌		conjunction	12880 Mar 28 21:46	16°♌27'20 -1°03'16
	12875 May 07 21:25	0°♍		minimum elong	12880 Mar 28 20:50	16°♌25'51 1°03'26
	12875 Jun 16 09:34	0°♎			12880 Apr 18 22:42	0°♐
	12875 Jul 25 00:09	0°♏		morning rise	12880 May 11 13:29	14°♐44'45
	12875 Sep 02 01:21	0°♐			12880 Jun 03 14:37	0°♊
	12875 Oct 12 11:00	0°♑			12880 Jul 17 19:55	0°♌
	12875 Nov 23 17:25	0°♐			12880 Aug 29 14:00	0°♍
evening set	12875 Nov 27 00:40	2°♐17'10			12880 Oct 10 01:40	0°♎
	12876 Jan 06 23:28	0°♑		asc. node	12880 Nov 15 01:22	26°♎27'32
					12880 Nov 19 20:54	0°♏
conjunction	12876 Jan 17 08:03	6°♑50'41 0°08'07			12880 Dec 31 08:55	0°♐
minimum elong	12876 Jan 17 08:24	6°♑51'15 0°08'57			12881 Feb 15 12:53	0°♑
behind sun begin	12876 Jan 16 15:25	6°♑23'19		retrograde	12881 Apr 18 06:18	21°♑17'26
behind sun end	12876 Jan 18 01:23	7°♑19'10		min. Earth dist.	12881 May 16 13:02	15°♑44'21 0.47264 AU
desc. node	12876 Jan 31 19:13	16°♑18'38		greatest brilliancy	12881 May 23 10:10	13°♑17'20 -2.3m
max. Earth dist.	12876 Feb 04 01:56	18°♑26'31 2.63211 AU		opposition	12881 May 24 21:00	12°♑46'06 5°08'25
	12876 Feb 21 23:53	0°♋		direct	12881 Jun 27 04:19	5°♑51'18
morning rise	12876 Mar 03 22:39	6°♋59'55			12881 Sep 10 15:15	0°♐
	12876 Apr 09 09:48	0°♌		desc. node	12881 Sep 23 00:02	6°♐20'20
	12876 May 28 00:39	0°♐			12881 Nov 04 19:54	0°♑
	12876 Jul 17 08:36	0°♊			12881 Dec 25 18:43	0°♋
	12876 Sep 10 04:52	0°♌			12882 Feb 12 17:18	0°♌
retrograde	12876 Nov 25 01:57	23°♌59'44		evening set	12882 Mar 20 10:45	22°♌38'44
opposition	12876 Dec 27 19:08	17°♌46'04 -2°45'19			12882 Mar 31 19:35	0°♐
greatest brilliancy	12876 Dec 28 19:36	17°♌26'14 -2.5m		max. Earth dist.	12882 Apr 12 08:16	7°♐32'23 2.61188 AU
min. Earth dist.	12877 Jan 05 07:59	15°♌00'42 0.44029 AU				
direct	12877 Feb 01 10:57	10°♌11'49		conjunction	12882 May 04 18:54	22°♐27'52 -1°09'16
asc. node	12877 Feb 09 23:36	10°♌42'43		minimum elong	12882 May 04 19:20	22°♐28'34 1°09'59
	12877 Apr 01 16:43	0°♍			12882 May 15 22:13	0°♊
	12877 May 18 03:47	0°♎		morning rise	12882 Jun 21 16:42	25°♊30'37
	12877 Jun 28 19:02	0°♏			12882 Jun 28 00:33	0°♌
	12877 Aug 08 22:32	0°♐			12882 Aug 08 06:26	0°♍
	12877 Sep 20 02:07	0°♑			12882 Sep 17 00:52	0°♎
	12877 Nov 02 20:01	0°♐		asc. node	12882 Oct 02 17:47	12°♎03'52
desc. node	12877 Dec 18 13:00	0°♑13'18			12882 Oct 25 22:22	0°♏
	12877 Dec 18 04:50	0°♑			12882 Dec 03 19:54	0°♐
evening set	12878 Jan 08 08:48	13°♑42'05			12883 Jan 13 00:03	0°♑
	12878 Feb 02 19:24	0°♋			12883 Feb 25 16:03	0°♐

	12883 Apr 22 01:02	0°≈			12888 Apr 28 15:38	0°☾	
retrograde	12883 May 31 11:02	8°≈55'53		asc. node	12888 May 23 21:17	18°☾38'24	
min. Earth dist.	12883 Jul 04 16:24	1°≈15'24 0.59986 AU			12888 Jun 07 20:02	0°♈	
	12883 Jul 07 21:19	30°♈♂			12888 Jul 16 07:01	0°♊	
opposition	12883 Jul 10 08:35	29°♂01'44 1°18'15			12888 Aug 23 03:23	0°♌	
greatest brilliancy	12883 Jul 10 02:18	29°♂07'53 -1.7m		evening set	12888 Aug 29 01:28	4°♌41'05	
desc. node	12883 Aug 11 09:50	20°♂35'59			12888 Sep 30 08:38	0°♍	
direct	12883 Aug 17 02:03	20°♂23'52					
	12883 Sep 30 17:43	0°≈		conjunction	12888 Nov 06 20:30	28°♍33'07 1°04'33	
	12883 Dec 02 22:12	0°♐		minimum elong	12888 Nov 06 21:45	28°♍35'26 1°05'20	
	12884 Jan 24 03:20	0°♑			12888 Nov 08 19:07	0°♒	
	12884 Mar 12 06:10	0°♓			12888 Dec 20 02:28	0°♈	
	12884 Apr 26 08:55	0°♊		max. Earth dist.	12888 Dec 22 23:40	2°♈02'13 2.47749 AU	
evening set	12884 Apr 27 17:47	0°♊56'23		morning rise	12889 Jan 06 04:41	11°♈57'56	
max. Earth dist.	12884 May 12 08:13	11°♊03'42 2.50051 AU			12889 Feb 01 16:27	0°≈	
	12884 Jun 07 22:27	0°☾			12889 Mar 19 20:11	0°♐	
				desc. node	12889 Apr 02 01:33	8°♐15'48	
conjunction	12884 Jun 18 04:53	7°☾28'57 -0°40'07			12889 May 08 05:11	0°♑	
minimum elong	12884 Jun 18 06:53	7°☾32'37 0°41'04			12889 Jul 02 23:17	0°♓	
	12884 Jul 18 09:39	0°♈		retrograde	12889 Sep 13 21:57	21°♓41'58	
morning rise	12884 Aug 17 08:58	23°♈00'05		opposition	12889 Oct 22 06:32	13°♓05'36 -4°58'45	
asc. node	12884 Aug 19 06:19	24°♈28'11		greatest brilliancy	12889 Oct 23 05:47	12°♓43'18 -1.5m	
	12884 Aug 26 08:45	0°♊		min. Earth dist.	12889 Oct 27 23:33	10°♓54'26 0.61920 AU	
	12884 Oct 03 13:16	0°♌		direct	12889 Dec 02 08:23	3°♓10'07	
	12884 Nov 10 19:27	0°♍			12890 Feb 17 14:50	0°♊	
	12884 Dec 20 02:19	0°♒			12890 Apr 05 19:19	0°☾	
	12885 Jan 30 12:39	0°♈		asc. node	12890 Apr 11 03:27	3°☾43'02	
	12885 Mar 16 18:41	0°≈			12890 May 17 04:04	0°♈	
	12885 May 10 04:09	0°♐			12890 Jun 25 03:04	0°♊	
desc. node	12885 Jun 28 14:26	14°♐45'37			12890 Aug 02 08:42	0°♌	
retrograde	12885 Jul 04 22:43	15°♐00'48			12890 Sep 10 01:11	0°♍	
min. Earth dist.	12885 Aug 12 17:31	5°♐51'52 0.67262 AU			12890 Oct 20 01:28	0°♒	
opposition	12885 Aug 14 16:45	5°♐04'59 -1°41'37		evening set	12890 Nov 06 08:40	12°♒33'57	
greatest brilliancy	12885 Aug 14 12:59	5°♐08'44 -1.3m			12890 Nov 30 22:53	0°♈	
	12885 Aug 28 09:53	30°♐≈					
direct	12885 Sep 24 02:43	25°≈32'04		conjunction	12890 Dec 31 13:04	21°♈01'17 0°26'33	
	12885 Oct 23 10:30	0°♐		minimum elong	12890 Dec 31 14:15	21°♈03'17 0°27'29	
	12885 Dec 31 01:31	0°♑			12891 Jan 13 21:58	0°≈	
	12886 Feb 20 07:36	0°♓		max. Earth dist.	12891 Jan 25 04:39	7°≈28'50 2.59845 AU	
	12886 Apr 07 05:41	0°♊		desc. node	12891 Feb 17 12:25	22°≈42'47	
	12886 May 19 18:02	0°☾		morning rise	12891 Feb 18 13:34	23°≈23'24	
evening set	12886 Jun 17 20:16	21°☾37'30			12891 Feb 28 20:10	0°♐	
	12886 Jun 28 20:14	0°♈			12891 Apr 17 12:25	0°♑	
asc. node	12886 Jul 06 21:37	6°♈11'45			12891 Jun 06 02:31	0°♓	
max. Earth dist.	12886 Jul 24 19:08	20°♈06'35 2.36894 AU			12891 Jul 29 05:30	0°♊	
	12886 Aug 06 09:15	0°♊			12891 Oct 07 11:37	0°☾	
				retrograde	12891 Nov 01 09:29	3°☾24'18	
conjunction	12886 Aug 22 22:19	13°♊04'46 0°32'32			12891 Nov 24 19:12	30°♊♊	
minimum elong	12886 Aug 22 19:06	12°♊58'24 0°32'07		opposition	12891 Dec 06 04:42	26°♊18'47 -4°14'54	
	12886 Sep 13 06:20	0°♌		greatest brilliancy	12891 Dec 07 15:17	25°♊48'24 -2.1m	
	12886 Oct 21 08:47	0°♍		min. Earth dist.	12891 Dec 14 21:52	23°♊16'12 0.49673 AU	
morning rise	12886 Nov 05 06:19	11°♍32'11		direct	12892 Jan 13 05:36	17°♊37'41	
	12886 Nov 29 13:25	0°♒		asc. node	12892 Feb 27 11:22	29°♊37'52	
	12887 Jan 09 15:30	0°♈			12892 Feb 28 06:05	0°☾	
	12887 Feb 22 09:34	0°≈			12892 Apr 18 15:25	0°♈	
	12887 Apr 11 00:18	0°♐			12892 May 30 09:20	0°♊	
desc. node	12887 May 16 11:42	19°♐58'11			12892 Jul 09 04:55	0°♌	
	12887 Jun 05 17:59	0°♑			12892 Aug 18 04:43	0°♍	
retrograde	12887 Aug 08 03:12	17°♑37'09			12892 Sep 28 10:35	0°♒	
opposition	12887 Sep 17 08:13	8°♑09'32 -3°48'33			12892 Nov 10 10:59	0°♈	
greatest brilliancy	12887 Sep 17 12:46	8°♑05'03 -1.3m		evening set	12892 Dec 23 17:17	28°♈58'28	
min. Earth dist.	12887 Sep 19 05:00	7°♑25'29 0.67965 AU			12892 Dec 25 06:43	0°≈	
	12887 Oct 11 22:09	30°♐♐		desc. node	12893 Jan 04 04:07	6°≈28'41	
direct	12887 Oct 28 21:43	28°♐09'57					
	12887 Nov 15 22:46	0°♑		conjunction	12893 Feb 09 00:22	29°≈38'21 -0°19'31	
	12888 Jan 27 07:59	0°♓		minimum elong	12893 Feb 08 23:44	29°≈37'21 0°18'56	
	12888 Mar 16 08:21	0°♊			12893 Feb 09 13:53	0°♐	

max. Earth dist.	12893 Feb 17 12:03	5° H 03'56	2.66816 AU	greatest brilliancy	12898 Jun 23 09:00	13° Z 14'06	-1.9m
morning rise	12893 Mar 25 06:28	27° H 45'57		opposition	12898 Jun 24 01:02	12° Z 58'40	2°44'00
	12893 Mar 28 19:23	0° Y		direct	12898 Jul 30 05:39	4° Z 54'02	
	12893 May 15 11:35	0° B		desc. node	12898 Aug 27 19:52	9° Z 19'15	
	12893 Jul 02 10:12	0° II			12898 Oct 17 11:22	0° \approx	
	12893 Aug 19 22:45	0° E			12898 Dec 12 03:08	0° H	
	12893 Oct 09 12:16	0° Q			12899 Jan 31 16:04	0° Y	
	12893 Dec 10 21:38	0° M			12899 Mar 20 06:33	0° B	
retrograde	12894 Jan 11 17:02	5° M 48'27		evening set	12899 Apr 12 15:09	15° B 20'47	
asc. node	12894 Jan 14 19:04	5° M 44'50		max. Earth dist.	12899 Apr 29 20:21	26° B 56'09	2.54924 AU
opposition	12894 Feb 10 12:03	0° M 50'52	2°01'47		12899 May 04 08:09	0° II	
greatest brilliancy	12894 Feb 10 17:15	0° M 47'20	-3.0m				
	12894 Feb 13 14:59	30° R Q		conjunction	12899 May 30 22:00	18° II 28'35	-0°56'41
min. Earth dist.	12894 Feb 14 03:22	29° Q 51'40	0.37248 AU	minimum elong	12899 May 30 23:36	18° II 31'26	0°57'38
direct	12894 Mar 13 02:50	25° Q 28'33			12899 Jun 16 01:42	0° E	
	12894 Apr 08 11:29	0° M		morning rise	12899 Jul 23 22:51	27° E 51'38	
	12894 Jun 06 02:33	0° E			12899 Jul 26 19:11	0° Q	
	12894 Jul 22 02:36	0° M			12899 Sep 04 00:36	0° M	
	12894 Sep 04 23:11	0° Z		asc. node	12899 Sep 06 02:03	1° M 35'55	
	12894 Oct 20 11:46	0° Z			12899 Oct 12 10:18	0° E	
desc. node	12894 Nov 22 02:46	21° Z 05'39			12899 Nov 19 20:31	0° M	
	12894 Dec 06 00:40	0° \approx			12899 Dec 29 07:52	0° Z	
	12895 Jan 22 07:25	0° H			12900 Feb 09 05:01	0° \approx	
evening set	12895 Jan 31 03:34	5° H 35'08			12900 Mar 28 01:30	0° \approx	
	12895 Mar 10 18:00	0° Y			12900 Jun 05 00:31	0° H	
max. Earth dist.	12895 Mar 11 21:12	0° Y 43'07	2.68269 AU	retrograde	12900 Jun 22 13:24	1° H 52'56	
					12900 Jul 09 06:02	30° R \approx	
conjunction	12895 Mar 16 09:22	3° Y 34'45	-0°54'27	desc. node	12900 Jul 16 04:15	28° \approx 09'04	
minimum elong	12895 Mar 16 08:16	3° Y 33'00	0°54'24	min. Earth dist.	12900 Jul 29 17:26	23° \approx 15'06	0.65164 AU
	12895 Apr 26 17:34	0° B		opposition	12900 Aug 02 04:10	21° \approx 53'03	-0°38'41
morning rise	12895 Apr 28 13:34	1° B 10'51		greatest brilliancy	12900 Aug 02 01:53	21° \approx 55'18	-1.4m
	12895 Jun 11 19:36	0° II		direct	12900 Sep 10 17:35	12° \approx 37'49	
	12895 Jul 26 18:33	0° E			12900 Nov 13 13:38	0° H	
	12895 Sep 08 13:48	0° Q			12901 Jan 10 09:49	0° Y	
	12895 Oct 21 10:22	0° M			12901 Mar 01 00:37	0° B	
asc. node	12895 Dec 02 20:29	29° M 46'27			12901 Apr 15 12:43	0° II	
	12895 Dec 03 04:18	0° E		evening set	12901 May 27 17:29	29° II 47'09	
	12896 Jan 17 15:29	0° M			12901 May 28 00:33	0° E	
retrograde	12896 Mar 27 19:04	26° M 26'30		max. Earth dist.	12901 Jun 12 10:33	11° E 19'48	2.41663 AU
min. Earth dist.	12896 Apr 22 22:08	21° M 47'12	0.41858 AU		12901 Jul 07 05:42	0° Q	
greatest brilliancy	12896 Apr 29 05:04	19° M 46'16	-2.6m	asc. node	12901 Jul 24 16:47	13° Q 26'03	
opposition	12896 Apr 30 21:48	19° M 13'13	6°22'09				
direct	12896 Jun 01 02:58	13° M 16'35		conjunction	12901 Jul 26 01:46	14° Q 29'58	0°00'59
	12896 Jul 29 18:01	0° Z		minimum elong	12901 Jul 26 01:42	14° Q 29'51	0°00'13
	12896 Sep 23 23:28	0° Z		behind sun begin	12901 Jul 24 22:25	13° Q 36'58	
desc. node	12896 Oct 09 08:54	8° Z 55'39		behind sun end	12901 Jul 27 05:00	15° Q 22'47	
	12896 Nov 13 20:59	0° \approx			12901 Aug 14 21:57	0° M	
	12897 Jan 02 07:01	0° H			12901 Sep 21 21:02	0° E	
	12897 Feb 19 14:51	0° Y		morning rise	12901 Oct 05 12:41	10° E 47'42	
evening set	12897 Mar 06 12:19	9° Y 24'45			12901 Oct 29 23:50	0° M	
max. Earth dist.	12897 Apr 02 13:05	26° Y 44'20	2.64222 AU		12901 Dec 08 03:40	0° Z	
	12897 Apr 07 13:43	0° B			12902 Jan 18 06:06	0° Z	
					12902 Mar 03 07:27	0° \approx	
conjunction	12897 Apr 19 21:22	8° B 02'45	-1°10'16		12902 Apr 21 06:39	0° H	
minimum elong	12897 Apr 19 21:08	8° B 02'21	1°10'48	desc. node	12902 Jun 03 03:42	21° H 44'01	
	12897 May 22 20:22	0° II			12902 Jun 25 08:26	0° Y	
morning rise	12897 Jun 04 11:48	8° II 35'57		retrograde	12902 Jul 26 16:22	5° Y 13'00	
	12897 Jul 05 07:31	0° E			12902 Aug 24 10:29	30° R H	
	12897 Aug 16 01:10	0° Q		opposition	12902 Sep 05 06:15	25° H 31'46	-3°05'23
	12897 Sep 25 08:07	0° M		greatest brilliancy	12902 Sep 05 05:51	25° H 32'10	-1.3m
asc. node	12897 Oct 19 13:07	18° M 23'09		min. Earth dist.	12902 Sep 05 14:55	25° H 23'12	0.68492 AU
	12897 Nov 03 18:00	0° E		direct	12902 Oct 16 13:28	15° H 39'39	
	12897 Dec 13 05:19	0° M			12902 Dec 11 20:17	0° Y	
	12898 Jan 23 08:53	0° Z			12903 Feb 07 04:25	0° B	
	12898 Mar 11 01:31	0° Z			12903 Mar 26 12:31	0° II	
retrograde	12898 May 16 00:45	22° Z 35'17			12903 May 08 09:21	0° E	
min. Earth dist.	12898 Jun 17 01:19	15° Z 40'01	0.55474 AU	asc. node	12903 Jun 11 11:59	25° E 25'10	

	12903 Jun 17 11:46	0°♈		behind sun end	12908 Jan 28 01:56	16°♊17'06	
	12903 Jul 25 22:47	0°♉		max. Earth dist.	12908 Feb 10 13:32	25°♊00'39	2.64740 AU
evening set	12903 Jul 31 03:32	4°♉06'36			12908 Feb 18 07:48	0°♊	
	12903 Sep 01 18:42	0°♊		morning rise	12908 Mar 12 20:26	15°♊00'06	
	12903 Oct 09 22:02	0°♋			12908 Apr 05 15:00	0°♋	
					12908 May 23 19:56	0°♌	
conjunction	12903 Oct 11 18:44	1°♋26'49	1°04'33		12908 Jul 12 02:21	0°♌	
minimum elong	12903 Oct 11 16:57	1°♋23'23	1°04'59		12908 Sep 01 18:34	0°♍	
	12903 Nov 18 05:03	0°♌			12908 Nov 03 02:12	0°♎	
max. Earth dist.	12903 Dec 04 06:40	11°♌53'56	2.42053 AU	retrograde	12908 Dec 11 22:51	7°♎56'04	
morning rise	12903 Dec 17 21:16	21°♌47'38		opposition	12909 Jan 12 11:31	2°♎12'54	-1°21'56
	12903 Dec 29 08:39	0°♍		greatest brilliancy	12909 Jan 12 23:19	2°♎03'52	-2.7m
	12904 Feb 10 21:34	0°♍			12909 Jan 19 17:23	30°♋♍	
	12904 Mar 28 08:53	0°♋		min. Earth dist.	12909 Jan 20 00:03	29°♍55'02	0.41137 AU
desc. node	12904 Apr 19 19:44	13°♋40'53		asc. node	12909 Feb 01 08:51	26°♍48'44	
	12904 May 18 03:31	0°♎		direct	12909 Feb 15 10:50	25°♍25'28	
	12904 Jul 20 14:28	0°♌			12909 Mar 13 13:12	0°♎	
retrograde	12904 Aug 30 09:45	8°♌08'05			12909 May 09 16:04	0°♏	
	12904 Oct 06 10:30	30°♋♎			12909 Jun 22 10:08	0°♏	
opposition	12904 Oct 08 16:05	29°♎08'12	-4°39'54		12909 Aug 03 14:38	0°♏	
greatest brilliancy	12904 Oct 09 07:26	28°♎53'16	-1.4m		12909 Sep 15 10:25	0°♏	
min. Earth dist.	12904 Oct 12 21:28	27°♎29'46	0.65094 AU		12909 Oct 29 15:42	0°♐	
direct	12904 Nov 19 04:05	19°♎06'02		desc. node	12909 Dec 09 15:14	26°♐56'44	
	12905 Jan 04 14:17	0°♌			12909 Dec 14 08:18	0°♑	
	12905 Mar 02 02:07	0°♌		evening set	12910 Jan 17 20:37	22°♑10'24	
	12905 Apr 15 23:57	0°♍			12910 Jan 30 03:27	0°♋	
asc. node	12905 Apr 28 16:11	9°♍06'37					
	12905 May 26 16:34	0°♎		conjunction	12910 Mar 03 21:27	20°♋47'09	-0°42'50
	12905 Jul 04 08:25	0°♏		minimum elong	12910 Mar 03 20:22	20°♋45'26	0°42'33
	12905 Aug 11 08:40	0°♏		max. Earth dist.	12910 Mar 04 08:15	21°♋04'16	2.68363 AU
	12905 Sep 18 19:16	0°♏			12910 Mar 18 10:18	0°♎	
evening set	12905 Oct 14 07:49	19°♏25'04		morning rise	12910 Apr 16 02:55	18°♎13'11	
	12905 Oct 28 12:39	0°♏			12910 May 04 14:20	0°♌	
	12905 Dec 09 03:01	0°♐			12910 Jun 20 05:37	0°♌	
					12910 Aug 05 04:18	0°♍	
conjunction	12905 Dec 13 16:21	3°♐11'42	0°44'24		12910 Sep 19 12:42	0°♎	
minimum elong	12905 Dec 13 18:18	3°♐15'07	0°45'22		12910 Nov 03 19:50	0°♏	
max. Earth dist.	12906 Jan 15 00:01	25°♐23'11	2.55675 AU	asc. node	12910 Dec 20 11:53	29°♏26'08	
	12906 Jan 21 20:50	0°♑			12910 Dec 21 10:54	0°♏	
morning rise	12906 Feb 04 01:49	8°♑46'30		retrograde	12911 Mar 03 16:24	26°♏42'02	
desc. node	12906 Mar 07 07:26	29°♑03'44		min. Earth dist.	12911 Mar 29 19:09	22°♏26'58	0.37735 AU
	12906 Mar 08 18:39	0°♋		opposition	12911 Apr 03 23:40	20°♏59'01	6°22'57
	12906 Apr 25 21:02	0°♎		greatest brilliancy	12911 Apr 02 19:09	21°♏19'13	-2.9m
	12906 Jun 15 22:21	0°♌		direct	12911 May 03 08:19	15°♏55'24	
	12906 Aug 13 13:13	0°♌			12911 Jun 23 22:41	0°♏	
retrograde	12906 Oct 12 11:07	15°♌49'27			12911 Aug 18 03:33	0°♏	
opposition	12906 Nov 17 22:23	8°♌01'30	-4°54'16		12911 Oct 06 14:32	0°♐	
greatest brilliancy	12906 Nov 19 08:02	7°♌30'28	-1.8m	desc. node	12911 Oct 27 19:57	13°♐05'18	
min. Earth dist.	12906 Nov 25 18:20	5°♌08'57	0.55092 AU		12911 Nov 24 04:16	0°♑	
	12906 Dec 13 11:53	30°♋♌			12912 Jan 11 12:53	0°♋	
direct	12906 Dec 27 14:30	28°♌37'29		evening set	12912 Feb 22 19:28	26°♋27'49	
	12907 Jan 11 04:31	0°♌			12912 Feb 28 09:57	0°♎	
asc. node	12907 Mar 17 01:22	28°♌34'58		max. Earth dist.	12912 Mar 25 11:45	16°♎34'51	2.66444 AU
	12907 Mar 19 08:31	0°♍					
	12907 May 02 12:41	0°♎		conjunction	12912 Apr 06 18:25	24°♎28'06	-1°06'58
	12907 Jun 11 13:47	0°♏		minimum elong	12912 Apr 06 17:41	24°♎26'56	1°07'16
	12907 Jul 20 11:31	0°♏			12912 Apr 15 07:42	0°♌	
	12907 Aug 28 18:28	0°♏		morning rise	12912 May 20 22:11	23°♌22'30	
	12907 Oct 08 09:13	0°♏			12912 May 30 20:20	0°♌	
	12907 Nov 19 20:20	0°♐			12912 Jul 13 18:56	0°♍	
evening set	12907 Dec 08 15:35	12°♐51'32			12912 Aug 25 03:43	0°♎	
	12908 Jan 03 05:57	0°♑			12912 Oct 05 03:36	0°♏	
desc. node	12908 Jan 22 19:39	12°♑51'31		asc. node	12912 Nov 06 08:58	24°♏02'44	
					12912 Nov 14 07:50	0°♏	
conjunction	12908 Jan 27 06:29	15°♑45'30	-0°02'31		12912 Dec 24 19:25	0°♏	
minimum elong	12908 Jan 27 06:23	15°♑45'20	0°01'45		12913 Feb 06 02:26	0°♏	
behind sun begin	12908 Jan 26 10:49	15°♑13'32			12913 Apr 06 01:03	0°♐	

retrograde	12913 Apr 29 23:00	3° ♄ 51'15			12918 Jun 25 00:37	0° ♄	
	12913 May 23 02:32	30° ♄ 7'		asc. node	12918 Jun 28 05:34	2° ♄ 27'38	
min. Earth dist.	12913 May 29 14:25	27° ♄ 47'41	0.50294 AU	evening set	12918 Jul 02 21:19	6° ♄ 02'55	
greatest brilliancy	12913 Jun 05 10:44	25° ♄ 15'51	-2.1m		12918 Aug 02 12:50	0° ♄	
opposition	12913 Jun 06 15:02	24° ♄ 49'38	4°16'20		12918 Sep 09 08:59	0° ♄	
direct	12913 Jul 11 00:02	17° ♄ 27'09					
	12913 Aug 31 00:02	0° ♄		conjunction	12918 Sep 10 12:30	0° ♄ 54'33	0°48'13
desc. node	12913 Sep 14 05:26	6° ♄ 17'22		minimum elong	12918 Sep 10 08:25	0° ♄ 46'29	0°48'05
	12913 Oct 30 05:20	0° ♄			12918 Oct 17 11:00	0° ♄	
	12913 Dec 21 10:58	0° ♄		max. Earth dist.	12918 Oct 21 06:43	2° ♄ 58'26	2.36876 AU
	12914 Feb 08 21:24	0° ♄		morning rise	12918 Nov 22 14:52	27° ♄ 43'42	
	12914 Mar 28 03:44	0° ♄			12918 Nov 25 15:26	0° ♄	
evening set	12914 Mar 29 15:56	0° ♄ 58'50			12919 Jan 05 16:35	0° ♄	
max. Earth dist.	12914 Apr 19 09:21	14° ♄ 36'29	2.59149 AU		12919 Feb 18 06:53	0° ♄	
	12914 May 12 06:11	0° ♄			12919 Apr 06 07:34	0° ♄	
				desc. node	12919 May 07 12:52	18° ♄ 15'24	
conjunction	12914 May 14 20:02	1° ♄ 45'31	-1°06'23		12919 May 29 11:59	0° ♄	
minimum elong	12914 May 14 20:54	1° ♄ 47'00	1°07'11	retrograde	12919 Aug 17 00:26	25° ♄ 18'28	
	12914 Jun 24 05:34	0° ♄		opposition	12919 Sep 25 23:12	15° ♄ 59'42	-4°10'07
morning rise	12914 Jul 03 12:38	6° ♄ 40'36		greatest brilliancy	12919 Sep 26 07:16	15° ♄ 51'48	-1.3m
	12914 Aug 04 07:16	0° ♄		min. Earth dist.	12919 Sep 28 16:09	14° ♄ 56'06	0.67239 AU
	12914 Sep 12 21:06	0° ♄		direct	12919 Nov 06 14:20	5° ♄ 57'55	
asc. node	12914 Sep 23 22:23	8° ♄ 31'28			12920 Jan 20 19:55	0° ♄	
	12914 Oct 21 14:00	0° ♄			12920 Mar 11 15:12	0° ♄	
	12914 Nov 29 06:35	0° ♄			12920 Apr 24 10:11	0° ♄	
	12915 Jan 08 02:15	0° ♄		asc. node	12920 May 15 06:28	15° ♄ 15'46	
	12915 Feb 19 19:48	0° ♄			12920 Jun 03 18:46	0° ♄	
	12915 Apr 11 04:12	0° ♄		greatest brilliancy	12920 Jun 30 02:20	20° ♄ 23'46	1.2m
retrograde	12915 Jun 09 16:43	17° ♄ 54'32			12920 Jul 12 07:25	0° ♄	
min. Earth dist.	12915 Jul 15 00:38	9° ♄ 52'26	0.62084 AU		12920 Aug 19 04:43	0° ♄	
opposition	12915 Jul 19 22:27	7° ♄ 56'14	0°32'39	evening set	12920 Sep 16 04:08	22° ♄ 00'06	
greatest brilliancy	12915 Jul 19 20:12	7° ♄ 58'27	-1.6m		12920 Sep 26 11:08	0° ♄	
desc. node	12915 Aug 02 14:57	2° ♄ 58'39			12920 Nov 04 22:58	0° ♄	
	12915 Aug 15 04:46	30° ♄ 7'					
direct	12915 Aug 27 09:31	29° ♄ 03'26		conjunction	12920 Nov 21 19:35	12° ♄ 24'54	0°59'09
	12915 Sep 09 04:27	0° ♄		minimum elong	12920 Nov 21 21:35	12° ♄ 28'32	1°00'02
	12915 Nov 27 01:48	0° ♄			12920 Dec 16 07:20	0° ♄	
	12916 Jan 19 19:18	0° ♄		max. Earth dist.	12921 Jan 01 20:36	11° ♄ 35'07	2.50720 AU
	12916 Mar 08 09:38	0° ♄		morning rise	12921 Jan 17 22:25	22° ♄ 36'47	
	12916 Apr 22 15:50	0° ♄			12921 Jan 28 21:11	0° ♄	
evening set	12916 May 08 14:39	11° ♄ 02'44			12921 Mar 15 20:44	0° ♄	
max. Earth dist.	12916 May 22 10:26	20° ♄ 48'49	2.47097 AU	desc. node	12921 Mar 24 01:07	5° ♄ 10'05	
	12916 Jun 04 04:55	0° ♄			12921 May 03 14:57	0° ♄	
					12921 Jun 26 01:14	0° ♄	
conjunction	12916 Jul 01 11:14	20° ♄ 06'13	-0°27'10		12921 Sep 16 05:54	0° ♄	
minimum elong	12916 Jul 01 13:01	20° ♄ 09'33	0°28'06	retrograde	12921 Sep 24 08:00	0° ♄ 23'06	
	12916 Jul 14 14:07	0° ♄			12921 Oct 02 04:37	30° ♄ 7'	
asc. node	12916 Aug 10 10:58	20° ♄ 39'02		opposition	12921 Nov 01 02:45	22° ♄ 02'00	-5°02'51
	12916 Aug 22 10:45	0° ♄		greatest brilliancy	12921 Nov 02 06:18	21° ♄ 35'51	-1.6m
morning rise	12916 Sep 03 19:14	9° ♄ 41'39		min. Earth dist.	12921 Nov 07 15:18	19° ♄ 33'54	0.59738 AU
greatest brilliancy	12916 Sep 11 10:48	15° ♄ 43'02	1.2m	direct	12921 Dec 11 19:49	12° ♄ 14'11	
	12916 Sep 29 13:01	0° ♄			12922 Feb 09 08:55	0° ♄	
	12916 Nov 06 17:32	0° ♄			12922 Mar 31 07:40	0° ♄	
	12916 Dec 15 22:22	0° ♄		asc. node	12922 Apr 02 12:40	1° ♄ 29'32	
	12917 Jan 26 03:53	0° ♄			12922 May 12 09:33	0° ♄	
	12917 Mar 11 19:04	0° ♄			12922 Jun 20 15:48	0° ♄	
	12917 May 02 06:45	0° ♄			12922 Jul 29 01:48	0° ♄	
desc. node	12917 Jun 19 18:31	19° ♄ 34'37			12922 Sep 05 22:13	0° ♄	
retrograde	12917 Jul 13 11:16	22° ♄ 45'30			12922 Oct 16 02:25	0° ♄	
min. Earth dist.	12917 Aug 22 02:00	13° ♄ 21'15	0.67994 AU	evening set	12922 Nov 19 09:51	24° ♄ 35'34	
opposition	12917 Aug 23 05:31	12° ♄ 53'59	-2°14'48		12922 Nov 27 03:18	0° ♄	
greatest brilliancy	12917 Aug 23 02:11	12° ♄ 57'17	-1.3m		12923 Jan 10 04:52	0° ♄	
direct	12917 Oct 03 00:52	3° ♄ 13'13					
	12917 Dec 25 00:49	0° ♄		conjunction	12923 Jan 11 07:19	0° ♄ 44'01	0°15'49
	12918 Feb 15 21:27	0° ♄		minimum elong	12923 Jan 11 08:01	0° ♄ 45'11	0°16'41
	12918 Apr 03 06:38	0° ♄		max. Earth dist.	12923 Feb 01 02:28	14° ♄ 26'44	2.61807 AU
	12918 May 15 22:06	0° ♄		desc. node	12923 Feb 08 13:31	19° ♄ 18'26	

	12923 Feb 25 02:59	0° H	direct	12928 Jun 17 08:13	27° M 01'25	
morning rise	12923 Feb 27 21:26	1° H 46'29		12928 Jul 09 17:38	0° A	
	12923 Apr 13 14:24	0° Y		12928 Sep 17 00:01	0° Z	
	12923 Jun 01 13:38	0° B	desc. node	12928 Sep 30 15:12	7° Z 27'16	
	12923 Jul 22 21:05	0° II		12928 Nov 09 00:02	0° \approx	
	12923 Sep 19 09:16	0° G		12928 Dec 29 05:30	0° H	
retrograde	12923 Nov 15 18:16	15° G 04'18		12929 Feb 15 21:41	0° Y	
opposition	12923 Dec 19 10:31	8° G 26'24 -3°31'08	evening set	12929 Mar 15 09:44	17° Y 23'44	
greatest brilliancy	12923 Dec 20 17:09	8° G 00'33 -2.3m		12929 Apr 03 23:15	0° B	
min. Earth dist.	12923 Dec 28 05:57	5° G 28'45 0.46540 AU	max. Earth dist.	12929 Apr 09 01:06	3° B 18'24 2.62649 AU	
direct	12924 Jan 25 07:07	0° G 18'43				
asc. node	12924 Feb 18 21:50	4° G 20'04	conjunction	12929 Apr 29 05:44	16° B 36'19 -1°10'18	
	12924 Apr 10 10:39	0° Ω	minimum elong	12929 Apr 29 05:52	16° B 36'32 1°10'57	
	12924 May 24 05:21	0° M		12929 May 19 04:38	0° II	
	12924 Jul 03 21:12	0° A	morning rise	12929 Jun 15 00:02	18° II 25'09	
	12924 Aug 13 09:51	0° M		12929 Jul 01 11:45	0° G	
	12924 Sep 24 01:46	0° A		12929 Aug 11 23:29	0° Ω	
	12924 Nov 06 10:02	0° Z		12929 Sep 20 23:45	0° M	
	12924 Dec 21 11:44	0° \approx	asc. node	12929 Oct 10 19:25	15° M 09'17	
desc. node	12924 Dec 26 06:07	3° \approx 06'56		12929 Oct 30 02:16	0° A	
evening set	12925 Jan 02 18:50	8° \approx 01'03		12929 Dec 08 04:37	0° M	
	12925 Feb 05 22:04	0° H		12930 Jan 17 15:44	0° A	
				12930 Mar 03 03:51	0° Z	
conjunction	12925 Feb 18 02:34	7° H 46'34 -0°28'44		12930 May 05 20:50	0° \approx	
minimum elong	12925 Feb 18 01:42	7° H 45'12 0°28'15	retrograde	12930 May 25 23:31	2° \approx 37'34	
max. Earth dist.	12925 Feb 23 14:17	11° H 16'09 2.67599 AU		12930 Jun 14 05:53	30° R Z	
	12925 Mar 25 03:11	0° Y	min. Earth dist.	12930 Jun 28 06:07	25° Z 16'46 0.58084 AU	
morning rise	12925 Apr 02 20:45	5° Y 31'22	opposition	12930 Jul 04 13:20	22° Z 49'34 1°53'16	
	12925 May 11 14:03	0° B	greatest brilliancy	12930 Jul 04 03:18	22° Z 59'19 -1.8m	
	12925 Jun 27 23:23	0° II	direct	12930 Aug 10 15:51	14° Z 25'24	
	12925 Aug 14 08:39	0° G	desc. node	12930 Aug 19 01:26	14° Z 50'42	
	12925 Oct 01 08:38	0° Ω		12930 Oct 08 20:07	0° \approx	
	12925 Nov 21 13:52	0° M		12930 Dec 07 02:46	0° H	
asc. node	12926 Jan 06 03:46	20° M 03'58		12931 Jan 27 14:14	0° Y	
retrograde	12926 Jan 31 11:33	23° M 59'39		12931 Mar 16 12:45	0° B	
opposition	12926 Mar 02 00:24	19° M 06'25 4°05'30	evening set	12931 Apr 22 14:33	24° B 30'32	
greatest brilliancy	12926 Mar 01 23:23	19° M 07'06 -3.0m		12931 Apr 30 16:17	0° II	
min. Earth dist.	12926 Mar 02 11:45	18° M 58'55 0.36423 AU	max. Earth dist.	12931 May 08 05:15	5° II 10'55 2.52313 AU	
direct	12926 Mar 31 12:43	14° M 10'56				
	12926 May 23 22:27	0° A	conjunction	12931 Jun 11 11:38	29° II 21'54 -0°48'06	
	12926 Jul 14 13:12	0° M	minimum elong	12931 Jun 11 13:32	29° II 25'19 0°49'04	
	12926 Aug 30 08:08	0° A		12931 Jun 12 08:46	0° G	
	12926 Oct 15 20:26	0° Z		12931 Jul 22 23:43	0° Ω	
desc. node	12926 Nov 13 06:36	18° Z 08'57	morning rise	12931 Aug 07 16:22	11° Ω 55'40	
	12926 Dec 01 23:08	0° \approx	asc. node	12931 Aug 28 08:13	27° Ω 51'43	
	12927 Jan 18 13:33	0° H		12931 Aug 31 02:14	0° M	
evening set	12927 Feb 09 01:56	13° H 32'37		12931 Oct 08 09:00	0° A	
	12927 Mar 07 03:14	0° Y		12931 Nov 15 16:23	0° M	
max. Earth dist.	12927 Mar 17 20:15	6° Y 47'40 2.67847 AU		12931 Dec 24 23:53	0° A	
				12932 Feb 04 12:08	0° Z	
conjunction	12927 Mar 25 02:15	11° Y 24'34 -1°00'01		12932 Mar 21 04:38	0° \approx	
minimum elong	12927 Mar 25 01:14	11° Y 22'57 1°00'06		12932 May 17 12:58	0° H	
	12927 Apr 23 01:57	0° B	retrograde	12932 Jun 30 05:59	9° H 58'46	
morning rise	12927 May 07 11:19	9° B 19'42	desc. node	12932 Jul 06 07:10	9° H 44'16	
	12927 Jun 07 22:41	0° II	min. Earth dist.	12932 Aug 07 08:36	1° H 03'17 0.66454 AU	
	12927 Jul 22 11:58	0° G	opposition	12932 Aug 09 23:50	0° H 00'35 -1°16'42	
	12927 Sep 03 16:55	0° Ω	greatest brilliancy	12932 Aug 09 20:13	0° H 04'11 -1.4m	
	12927 Oct 15 17:48	0° M		12932 Aug 10 00:25	30° R \approx	
asc. node	12927 Nov 24 02:13	28° M 27'12	direct	12932 Sep 19 01:42	20° \approx 34'58	
	12927 Nov 26 05:45	0° A		12932 Nov 02 13:14	0° H	
	12928 Jan 07 22:05	0° M		12933 Jan 04 07:30	0° Y	
	12928 Feb 27 09:42	0° A		12933 Feb 23 21:21	0° B	
retrograde	12928 Apr 10 08:39	11° A 31'26		12933 Apr 10 16:34	0° II	
min. Earth dist.	12928 May 07 15:00	6° A 23'07 0.44797 AU		12933 May 23 05:58	0° G	
greatest brilliancy	12928 May 14 08:38	4° A 04'45 -2.4m	evening set	12933 Jun 08 18:37	12° G 09'24	
opposition	12928 May 15 23:25	3° A 31'14 5°45'05	max. Earth dist.	12933 Jun 30 10:14	28° G 27'59 2.38792 AU	
	12928 May 27 04:06	30° R M		12933 Jul 02 10:29	0° Ω	

asc. node	12933 Jul 14 22:28	9°♏36'21			12938 Apr 20 19:01	0°♑	
					12938 Jun 09 21:14	0°♑	
conjunction	12933 Aug 10 19:02	0°♑34'23 0°19'02			12938 Aug 03 17:25	0°♑	
minimum elong	12933 Aug 10 17:11	0°♑30'44 0°18'26		retrograde	12938 Oct 23 22:02	26°♑00'21	
	12933 Aug 10 01:33	0°♑		opposition	12938 Nov 28 12:14	18°♑34'49 -4°35'58	
	12933 Sep 16 23:32	0°♑		greatest brilliancy	12938 Nov 29 23:17	18°♑03'17 -2.0m	
morning rise	12933 Oct 23 15:30	28°♑53'23		min. Earth dist.	12938 Dec 06 22:19	15°♑33'55 0.52153 AU	
	12933 Oct 25 01:40	0°♑		direct	12939 Jan 06 09:24	9°♑31'53	
	12933 Dec 03 04:58	0°♑		asc. node	12939 Mar 07 09:43	28°♑47'40	
	12934 Jan 13 05:26	0°♑			12939 Mar 09 14:18	0°♑	
	12934 Feb 26 00:11	0°♑			12939 Apr 25 11:19	0°♑	
	12934 Apr 14 23:39	0°♑			12939 Jun 05 08:49	0°♑	
desc. node	12934 May 24 05:41	21°♑21'57			12939 Jul 14 17:21	0°♑	
	12934 Jun 12 01:17	0°♑			12939 Aug 23 08:08	0°♑	
retrograde	12934 Aug 03 07:26	12°♑49'01			12939 Oct 03 05:47	0°♑	
opposition	12934 Sep 12 17:33	3°♑14'52 -3°31'43			12939 Nov 14 22:33	0°♑	
greatest brilliancy	12934 Sep 12 19:40	3°♑12'47 -1.3m		evening set	12939 Dec 18 13:16	22°♑43'47	
min. Earth dist.	12934 Sep 13 22:10	2°♑46'41 0.68336 AU			12939 Dec 29 12:27	0°♑	
	12934 Sep 21 03:14	30°♑		desc. node	12940 Jan 12 21:43	9°♑26'54	
direct	12934 Oct 24 05:30	23°♑18'08					
	12934 Nov 29 11:48	0°♑		conjunction	12940 Feb 04 18:41	24°♑17'03 -0°12'38	
	12935 Jan 31 21:20	0°♑		minimum elong	12940 Feb 04 18:16	24°♑16'22 0°11'58	
	12935 Mar 21 04:57	0°♑		behind sun begin	12940 Feb 04 05:23	23°♑55'39	
	12935 May 03 08:58	0°♑		behind sun end	12940 Feb 05 07:08	24°♑37'05	
asc. node	12935 Jun 01 20:36	21°♑50'57			12940 Feb 13 16:05	0°♑	
	12935 Jun 12 13:26	0°♑		max. Earth dist.	12940 Feb 15 19:56	1°♑23'05 2.65989 AU	
	12935 Jul 21 00:55	0°♑		morning rise	12940 Mar 20 13:21	22°♑50'19	
evening set	12935 Aug 17 09:20	21°♑40'56			12940 Mar 31 21:38	0°♑	
	12935 Aug 27 20:53	0°♑			12940 May 18 18:43	0°♑	
	12935 Oct 05 00:38	0°♑			12940 Jul 06 05:33	0°♑	
					12940 Aug 24 21:14	0°♑	
conjunction	12935 Oct 28 02:30	17°♑44'53 1°06'19			12940 Oct 17 13:10	0°♑	
minimum elong	12935 Oct 28 02:42	17°♑45'15 1°06'58		retrograde	12940 Dec 29 06:06	23°♑27'25	
	12935 Nov 13 08:35	0°♑		asc. node	12941 Jan 22 17:51	19°♑53'16	
max. Earth dist.	12935 Dec 17 00:29	24°♑38'29 2.45233 AU		opposition	12941 Jan 28 17:52	18°♑13'04 0°26'34	
	12935 Dec 24 12:46	0°♑		greatest brilliancy	12941 Jan 28 20:01	18°♑11'32 -2.9m	
morning rise	12935 Dec 30 08:55	4°♑07'43		min. Earth dist.	12941 Feb 03 11:42	16°♑34'53 0.38670 AU	
	12936 Feb 06 00:37	0°♑		direct	12941 Mar 01 18:29	12°♑15'37	
	12936 Mar 23 05:16	0°♑			12941 Apr 26 10:58	0°♑	
desc. node	12936 Apr 09 20:45	10°♑56'09			12941 Jun 13 19:25	0°♑	
	12936 May 12 00:26	0°♑			12941 Jul 27 16:12	0°♑	
	12936 Jul 08 21:34	0°♑			12941 Sep 09 11:01	0°♑	
retrograde	12936 Sep 08 01:21	16°♑17'13			12941 Oct 24 07:18	0°♑	
opposition	12936 Oct 16 21:02	7°♑29'40 -4°52'17		desc. node	12941 Nov 29 18:59	23°♑48'06	
greatest brilliancy	12936 Oct 17 16:46	7°♑10'37 -1.4m			12941 Dec 09 09:52	0°♑	
min. Earth dist.	12936 Oct 21 22:25	5°♑32'44 0.63469 AU			12942 Jan 25 10:38	0°♑	
	12936 Nov 07 16:54	30°♑		evening set	12942 Jan 26 02:14	0°♑24'45	
direct	12936 Nov 27 05:01	27°♑30'18		max. Earth dist.	12942 Mar 09 07:23	27°♑08'52 2.68425 AU	
	12936 Dec 17 19:35	0°♑					
	12937 Feb 23 01:36	0°♑		conjunction	12942 Mar 11 14:50	28°♑36'45 -0°49'58	
	12937 Apr 10 05:18	0°♑		minimum elong	12942 Mar 11 13:43	28°♑34'59 0°49'50	
asc. node	12937 Apr 19 02:11	6°♑15'57			12942 Mar 13 19:21	0°♑	
	12937 May 21 07:32	0°♑		morning rise	12942 Apr 23 18:08	26°♑04'36	
	12937 Jun 29 03:44	0°♑			12942 Apr 29 21:04	0°♑	
	12937 Aug 06 06:34	0°♑			12942 Jun 15 05:04	0°♑	
	12937 Sep 13 19:30	0°♑			12942 Jul 30 14:28	0°♑	
	12937 Oct 23 15:27	0°♑			12942 Sep 13 00:50	0°♑	
evening set	12937 Oct 28 08:19	3°♑27'28			12942 Oct 26 19:08	0°♑	
	12937 Dec 04 08:08	0°♑		asc. node	12942 Dec 10 20:57	0°♑33'13	
					12942 Dec 10 00:48	0°♑	
conjunction	12937 Dec 24 16:05	14°♑06'16 0°34'16			12943 Jan 28 20:37	0°♑	
minimum elong	12937 Dec 24 17:38	14°♑08'55 0°35'14		retrograde	12943 Mar 19 01:54	14°♑28'57	
	12938 Jan 17 03:27	0°♑		min. Earth dist.	12943 Apr 13 18:21	10°♑06'31 0.39755 AU	
max. Earth dist.	12938 Jan 21 15:05	2°♑59'34 2.58077 AU		greatest brilliancy	12943 Apr 19 07:06	8°♑26'16 -2.8m	
morning rise	12938 Feb 13 01:31	17°♑46'02		opposition	12943 Apr 20 21:12	7°♑57'11 6°36'49	
desc. node	12938 Feb 25 07:30	25°♑42'16		direct	12943 May 21 04:14	2°♑26'49	
	12938 Mar 03 23:56	0°♑			12943 Aug 08 11:00	0°♑	

	12943 Sep 29 22:31	0°♄		behind sun end	12948 Jul 15 12:53	4°♂21'53	
desc. node	12943 Oct 18 00:11	10°♄48'38		asc. node	12948 Jul 31 17:39	16°♂50'44	
	12943 Nov 18 16:26	0°♁			12948 Aug 17 14:23	0°♁	
	12944 Jan 06 14:27	0°♂		morning rise	12948 Sep 21 07:45	27°♁23'25	
	12944 Feb 23 17:40	0°♂			12948 Sep 24 14:55	0°♂	
evening set	12944 Mar 01 15:22	4°♂21'29			12948 Nov 01 17:51	0°♂	
max. Earth dist.	12944 Mar 30 16:31	22°♂53'14	2.65318 AU		12948 Dec 10 21:01	0°♂	
	12944 Apr 10 16:41	0°♂			12949 Jan 20 22:55	0°♄	
					12949 Mar 06 03:03	0°♁	
conjunction	12944 Apr 14 18:03	2°♂38'12	-1°09'25		12949 Apr 24 19:14	0°♂	
minimum elong	12944 Apr 14 17:36	2°♂37'27	1°09'51	desc. node	12949 Jun 09 21:05	21°♂48'33	
	12944 May 26 02:40	0°♂			12949 Jul 12 17:09	0°♂	
morning rise	12944 May 29 14:40	2°♂21'32		retrograde	12949 Jul 21 00:08	0°♂25'05	
	12944 Jul 08 19:44	0°♂			12949 Jul 29 01:57	30°♂♂	
	12944 Aug 19 20:34	0°♂		opposition	12949 Aug 30 17:09	20°♂38'53	-2°45'32
	12944 Sep 29 11:18	0°♁		min. Earth dist.	12949 Aug 30 09:49	20°♂46'09	0.68399 AU
asc. node	12944 Oct 27 14:49	21°♁13'23		greatest brilliancy	12949 Aug 30 15:09	20°♂40'52	-1.3m
	12944 Nov 08 04:37	0°♂		direct	12949 Oct 10 20:08	10°♂51'20	
	12944 Dec 18 00:25	0°♂			12949 Dec 16 23:23	0°♂	
	12945 Jan 28 19:26	0°♂			12950 Feb 10 04:59	0°♂	
	12945 Mar 19 00:50	0°♄			12950 Mar 29 04:23	0°♂	
retrograde	12945 May 09 21:28	15°♄19'02			12950 May 11 00:22	0°♂	
min. Earth dist.	12945 Jun 09 20:39	8°♄46'43	0.53217 AU	asc. node	12950 Jun 18 12:01	28°♂43'48	
greatest brilliancy	12945 Jun 16 12:12	6°♄15'40	-2.0m		12950 Jun 20 03:50	0°♂	
opposition	12945 Jun 17 09:22	5°♄55'37	3°22'54	evening set	12950 Jul 18 07:29	21°♂50'57	
	12945 Jul 06 01:55	30°♂♂			12950 Jul 28 16:03	0°♁	
direct	12945 Jul 22 19:46	28°♂08'40			12950 Sep 04 12:08	0°♂	
	12945 Aug 09 16:36	0°♄					
desc. node	12945 Sep 04 10:38	7°♄37'24		conjunction	12950 Sep 28 07:05	18°♂48'13	0°59'36
	12945 Oct 22 21:32	0°♁		minimum elong	12950 Sep 28 03:51	18°♂41'52	0°59'47
	12945 Dec 15 21:51	0°♂			12950 Oct 12 14:18	0°♂	
	12946 Feb 03 23:27	0°♂			12950 Nov 20 19:11	0°♂	
	12946 Mar 23 11:26	0°♂		max. Earth dist.	12950 Nov 20 13:55	29°♂50'07	2.39546 AU
evening set	12946 Apr 07 01:55	9°♂32'27		morning rise	12950 Dec 07 09:26	12°♂19'11	
max. Earth dist.	12946 Apr 25 17:40	21°♂57'30	2.56907 AU		12950 Dec 31 20:11	0°♄	
	12946 May 07 14:31	0°♂			12951 Feb 13 07:42	0°♁	
					12951 Mar 31 21:54	0°♂	
conjunction	12946 May 24 07:11	11°♂29'58	-1°01'35	desc. node	12951 Apr 27 14:19	16°♂02'32	
minimum elong	12946 May 24 08:29	11°♂32'14	1°02'29		12951 May 22 10:03	0°♂	
	12946 Jun 19 11:49	0°♂			12951 Aug 01 05:04	0°♂	
morning rise	12946 Jul 15 04:37	18°♂41'36		retrograde	12951 Aug 25 02:27	3°♂04'38	
	12946 Jul 30 09:42	0°♂			12951 Sep 16 05:51	30°♂♂	
	12946 Sep 07 19:23	0°♁		opposition	12951 Oct 03 17:21	23°♂55'48	-4°28'40
asc. node	12946 Sep 14 03:36	4°♁54'25		greatest brilliancy	12951 Oct 04 05:22	23°♂44'05	-1.3m
	12946 Oct 16 08:16	0°♂		min. Earth dist.	12951 Oct 07 06:47	22°♂32'36	0.66180 AU
	12946 Nov 23 20:38	0°♂		direct	12951 Nov 14 08:08	13°♂53'09	
	12947 Jan 02 10:11	0°♂			12952 Jan 11 22:52	0°♂	
	12947 Feb 13 12:34	0°♄			12952 Mar 05 14:13	0°♂	
	12947 Apr 02 08:13	0°♁			12952 Apr 19 01:07	0°♂	
retrograde	12947 Jun 17 16:33	26°♁30'33		asc. node	12952 May 05 14:44	12°♂00'14	
desc. node	12947 Jul 23 19:54	18°♁14'04			12952 May 29 14:53	0°♂	
min. Earth dist.	12947 Jul 24 02:04	18°♁08'01	0.63909 AU		12952 Jul 07 05:43	0°♁	
opposition	12947 Jul 28 04:26	16°♁30'42	-0°10'09		12952 Aug 14 04:29	0°♂	
greatest brilliancy	12947 Jul 28 03:50	16°♁31'18	-1.5m		12952 Sep 21 12:29	0°♂	
direct	12947 Sep 05 07:08	7°♁24'43		evening set	12952 Oct 02 12:58	8°♂28'18	
	12947 Nov 19 07:38	0°♂			12952 Oct 31 02:23	0°♂	
	12948 Jan 14 05:33	0°♂					
	12948 Mar 03 10:52	0°♂		conjunction	12952 Dec 04 14:43	25°♂05'41	0°51'15
	12948 Apr 17 21:48	0°♂		minimum elong	12952 Dec 04 16:50	25°♂09'27	0°52'12
evening set	12948 May 19 02:58	21°♂49'09			12952 Dec 11 12:44	0°♄	
	12948 May 30 11:38	0°♂		max. Earth dist.	12953 Jan 09 14:24	20°♄10'10	2.53557 AU
max. Earth dist.	12948 Jun 02 03:57	1°♂56'53	2.44105 AU		12953 Jan 24 03:17	0°♁	
	12948 Jul 09 19:33	0°♂		morning rise	12953 Jan 27 21:56	2°♁31'38	
					12953 Mar 11 00:10	0°♂	
conjunction	12948 Jul 14 19:28	3°♂48'36	-0°11'55	desc. node	12953 Mar 14 02:32	1°♂58'26	
minimum elong	12948 Jul 14 20:29	3°♂50'32	0°12'46		12953 Apr 28 07:16	0°♂	
behind sun begin	12948 Jul 14 04:04	3°♂19'12			12953 Jun 19 03:24	0°♂	

	12953 Aug 20 23:12	0°♂			12958 Oct 09 22:01	0°♂	
retrograde	12953 Oct 04 07:17	9°♂26'53		desc. node	12958 Nov 03 11:29	15°♂25'08	
opposition	12953 Nov 10 10:01	1°♂23'04 -5°00'27			12958 Nov 26 18:08	0°♂	
greatest brilliancy	12953 Nov 11 17:20	0°♂53'47 -1.7m			12959 Jan 13 17:49	0°♂	
	12953 Nov 14 02:45	30°♂8		evening set	12959 Feb 16 22:53	21°♂27'42	
min. Earth dist.	12953 Nov 17 17:17	28°♂39'48 0.57285 AU			12959 Mar 02 11:38	0°♂	
direct	12953 Dec 20 15:36	21°♂46'26		max. Earth dist.	12959 Mar 22 22:24	12°♂59'12 2.67177 AU	
	12954 Jan 27 13:30	0°♂					
asc. node	12954 Mar 23 23:26	29°♂51'13		conjunction	12959 Apr 01 20:54	19°♂20'28 -1°04'31	
	12954 Mar 24 04:53	0°♂		minimum elong	12959 Apr 01 20:02	19°♂19'04 1°04'45	
	12954 May 06 08:19	0°♂			12959 Apr 18 10:12	0°♂	
	12954 Jun 15 00:24	0°♂		morning rise	12959 May 15 14:33	17°♂43'53	
	12954 Jul 23 16:08	0°♂			12959 Jun 03 03:03	0°♂	
	12954 Aug 31 17:04	0°♂			12959 Jul 17 08:48	0°♂	
	12954 Oct 11 01:41	0°♂			12959 Aug 29 02:38	0°♂	
	12954 Nov 22 06:44	0°♂			12959 Oct 09 13:09	0°♂	
evening set	12954 Nov 30 15:34	5°♂47'01		asc. node	12959 Nov 14 09:57	26°♂26'46	
	12955 Jan 05 11:26	0°♂			12959 Nov 19 05:23	0°♂	
					12959 Dec 30 09:54	0°♂	
conjunction	12955 Jan 20 14:03	9°♂58'41 0°05'04			12960 Feb 13 11:38	0°♂	
minimum elong	12955 Jan 20 14:17	9°♂59'04 0°05'53		retrograde	12960 Apr 21 19:10	25°♂08'40	
behind sun begin	12955 Jan 19 19:22	9°♂28'02		min. Earth dist.	12960 May 20 08:34	19°♂30'12 0.47834 AU	
behind sun end	12955 Jan 21 09:11	10°♂30'05		greatest brilliancy	12960 May 27 06:36	17°♂01'09 -2.3m	
desc. node	12955 Jan 29 13:58	15°♂51'45		opposition	12960 May 28 16:11	16°♂30'53 4°56'23	
max. Earth dist.	12955 Feb 06 17:49	21°♂09'55 2.63546 AU		direct	12960 Jul 01 03:37	9°♂30'47	
	12955 Feb 20 10:29	0°♂			12960 Sep 07 08:18	0°♂	
morning rise	12955 Mar 07 23:08	9°♂55'26		desc. node	12960 Sep 20 20:48	6°♂42'43	
	12955 Apr 08 18:38	0°♂			12960 Nov 02 16:38	0°♂	
	12955 May 27 06:10	0°♂			12960 Dec 23 23:36	0°♂	
	12955 Jul 16 06:21	0°♂			12961 Feb 11 02:16	0°♂	
	12955 Sep 08 01:26	0°♂		evening set	12961 Mar 23 11:30	25°♂35'09	
retrograde	12955 Nov 30 11:12	27°♂54'00			12961 Mar 30 07:18	0°♂	
opposition	12956 Jan 01 22:38	21°♂45'49 -2°26'41		max. Earth dist.	12961 Apr 14 20:44	10°♂10'33 2.60809 AU	
greatest brilliancy	12956 Jan 02 20:23	21°♂28'19 -2.5m					
min. Earth dist.	12956 Jan 10 07:02	19°♂05'12 0.43465 AU		conjunction	12961 May 07 23:14	25°♂34'39 -1°08'42	
direct	12956 Feb 06 07:21	14°♂19'34		minimum elong	12961 May 07 23:47	25°♂35'34 1°09'27	
asc. node	12956 Feb 09 07:40	14°♂23'31			12961 May 14 12:01	0°♂	
	12956 Mar 28 21:41	0°♂		morning rise	12961 Jun 25 05:07	28°♂58'07	
	12956 May 16 00:29	0°♂			12961 Jun 26 15:57	0°♂	
	12956 Jun 27 01:27	0°♂			12961 Aug 06 22:57	0°♂	
	12956 Aug 07 08:26	0°♂			12961 Sep 15 17:57	0°♂	
	12956 Sep 18 13:09	0°♂		asc. node	12961 Oct 01 00:31	11°♂43'55	
	12956 Nov 01 07:03	0°♂			12961 Oct 24 15:12	0°♂	
desc. node	12956 Dec 16 07:49	29°♂47'26			12961 Dec 02 11:12	0°♂	
	12956 Dec 16 15:32	0°♂			12962 Jan 11 11:24	0°♂	
evening set	12957 Jan 11 12:18	16°♂43'46			12962 Feb 23 16:55	0°♂	
	12957 Feb 01 05:48	0°♂			12962 Apr 17 18:55	0°♂	
				retrograde	12962 Jun 03 11:55	12°♂00'47	
conjunction	12957 Feb 26 00:58	15°♂46'26 -0°37'17		min. Earth dist.	12962 Jul 07 22:33	4°♂16'28 0.60401 AU	
minimum elong	12957 Feb 25 23:56	15°♂44'48 0°36'56		opposition	12962 Jul 13 11:38	2°♂05'55 1°05'21	
max. Earth dist.	12957 Feb 28 16:01	17°♂26'28 2.68131 AU		greatest brilliancy	12962 Jul 13 06:32	2°♂10'55 -1.7m	
	12957 Mar 20 11:32	0°♂			12962 Jul 18 22:39	30°♂8	
morning rise	12957 Apr 10 10:35	13°♂17'00		desc. node	12962 Aug 09 06:31	24°♂12'06	
	12957 May 06 18:24	0°♂		direct	12962 Aug 20 09:19	23°♂24'55	
	12957 Jun 22 17:20	0°♂			12962 Sep 25 09:46	0°♂	
	12957 Aug 08 06:09	0°♂			12962 Nov 30 15:14	0°♂	
	12957 Sep 23 14:07	0°♂			12963 Jan 22 08:40	0°♂	
	12957 Nov 09 17:32	0°♂			12963 Mar 11 17:08	0°♂	
asc. node	12957 Dec 27 11:49	27°♂20'29			12963 Apr 25 23:20	0°♂	
	12958 Jan 01 23:31	0°♂		evening set	12963 May 02 01:17	4°♂10'24	
retrograde	12958 Feb 18 12:08	12°♂55'41		max. Earth dist.	12963 May 16 09:01	14°♂08'18 2.49473 AU	
min. Earth dist.	12958 Mar 17 21:09	8°♂30'49 0.36710 AU			12963 Jun 07 15:09	0°♂	
opposition	12958 Mar 20 18:59	7°♂43'35 5°41'43					
greatest brilliancy	12958 Mar 20 02:47	7°♂54'33 -3.0m		conjunction	12963 Jun 22 23:05	11°♂11'13 -0°37'02	
direct	12958 Apr 18 21:33	2°♂52'07		minimum elong	12963 Jun 23 01:03	11°♂14'51 0°38'00	
	12958 Jul 03 18:57	0°♂			12963 Jul 18 03:44	0°♂	
	12958 Aug 22 23:50	0°♂		asc. node	12963 Aug 18 12:22	24°♂03'39	

morning rise	12963 Aug 22 22:46	27° Ω 30'31		min. Earth dist.	12968 Oct 31 07:14	13° \mathcal{B} 52'12	0.61532 AU
	12963 Aug 26 03:30	0° \mathfrak{M}		direct	12968 Dec 05 11:01	6° \mathcal{B} 13'08	
	12963 Oct 03 07:57	0° \mathfrak{L}			12969 Feb 15 00:51	0° Π	
	12963 Nov 10 13:17	0° \mathfrak{M}			12969 Apr 04 02:25	0° \mathfrak{L}	
	12963 Dec 19 18:11	0° \mathcal{A}		asc. node	12969 Apr 09 11:11	3° \mathfrak{L} 42'00	
	12964 Jan 30 00:42	0° \mathfrak{Z}			12969 May 15 17:58	0° Ω	
	12964 Mar 14 22:19	0° \approx			12969 Jun 23 19:46	0° \mathfrak{M}	
	12964 May 06 23:23	0° \mathcal{H}			12969 Aug 01 02:18	0° \mathfrak{L}	
desc. node	12964 Jun 26 11:39	17° \mathcal{H} 02'59			12969 Sep 08 18:29	0° \mathfrak{M}	
retrograde	12964 Jul 07 19:31	17° \mathcal{H} 50'09			12969 Oct 18 17:41	0° \mathcal{A}	
min. Earth dist.	12964 Aug 15 19:22	8° \mathcal{H} 38'14	0.67434 AU	evening set	12969 Nov 10 05:11	16° \mathcal{A} 18'18	
opposition	12964 Aug 17 14:42	7° \mathcal{H} 55'17	-1°51'47		12969 Nov 29 13:30	0° \mathfrak{Z}	
greatest brilliancy	12964 Aug 17 10:50	7° \mathcal{H} 59'07	-1.3m				
	12964 Sep 10 21:05	30° $\mathcal{R}\approx$		conjunction	12970 Jan 03 22:16	24° \mathfrak{Z} 17'03	0°23'37
direct	12964 Sep 27 03:13	28° \approx 20'43		minimum elong	12970 Jan 03 23:20	24° \mathfrak{Z} 18'50	0°24'33
	12964 Oct 14 08:30	0° \mathcal{H}			12970 Jan 12 10:42	0° \approx	
	12964 Dec 28 17:45	0° Υ		max. Earth dist.	12970 Jan 27 19:41	10° \approx 11'50	2.60235 AU
	12965 Feb 18 14:38	0° \mathcal{B}		desc. node	12970 Feb 15 08:07	22° \approx 17'46	
	12965 Apr 05 19:06	0° Π		morning rise	12970 Feb 21 15:45	26° \approx 22'48	
	12965 May 18 11:06	0° \mathfrak{L}			12970 Feb 27 06:45	0° \mathcal{H}	
evening set	12965 Jun 21 20:30	25° \mathfrak{L} 35'15			12970 Apr 15 20:06	0° Υ	
	12965 Jun 27 15:23	0° Ω			12970 Jun 04 04:42	0° \mathcal{B}	
asc. node	12965 Jul 05 05:56	5° Ω 50'19			12970 Jul 26 16:47	0° Π	
max. Earth dist.	12965 Aug 04 03:37	29° Ω 09'25	2.36534 AU		12970 Sep 29 14:47	0° \mathfrak{L}	
	12965 Aug 05 05:18	0° \mathfrak{M}		retrograde	12970 Nov 05 08:09	6° \mathfrak{L} 53'52	
				opposition	12970 Dec 09 21:43	29° Π 53'32	-4°04'43
conjunction	12965 Aug 27 17:42	17° \mathfrak{M} 48'54	0°36'34		12970 Dec 09 14:16	30° $\mathcal{R}\Pi$	
minimum elong	12965 Aug 27 14:08	17° \mathfrak{M} 41'51	0°36'12	greatest brilliancy	12970 Dec 11 07:39	29° Π 23'56	-2.2m
	12965 Sep 12 02:14	0° \mathfrak{L}		min. Earth dist.	12970 Dec 18 16:04	26° Π 50'52	0.49079 AU
	12965 Oct 20 03:39	0° \mathfrak{M}		direct	12971 Jan 16 18:43	21° Π 17'47	
morning rise	12965 Nov 10 01:29	16° \mathfrak{M} 10'35			12971 Feb 23 10:55	0° \mathfrak{L}	
	12965 Nov 28 06:28	0° \mathcal{A}		asc. node	12971 Feb 25 19:58	1° \mathfrak{L} 01'02	
	12966 Jan 08 05:52	0° \mathfrak{Z}			12971 Apr 17 11:45	0° Ω	
	12966 Feb 20 19:51	0° \approx			12971 May 29 17:06	0° \mathfrak{M}	
	12966 Apr 09 02:39	0° \mathcal{H}			12971 Jul 08 16:35	0° \mathfrak{L}	
desc. node	12966 May 14 07:40	20° \mathcal{H} 06'53			12971 Aug 17 17:34	0° \mathfrak{M}	
	12966 Jun 02 16:38	0° Υ			12971 Sep 27 23:24	0° \mathcal{A}	
retrograde	12966 Aug 11 01:16	20° Υ 25'49			12971 Nov 09 23:11	0° \mathfrak{Z}	
opposition	12966 Sep 20 06:21	10° Υ 59'47	-3°55'10		12971 Dec 24 18:10	0° \approx	
greatest brilliancy	12966 Sep 20 11:37	10° Υ 54'37	-1.3m	evening set	12971 Dec 27 23:13	2° \approx 06'31	
min. Earth dist.	12966 Sep 22 07:23	10° Υ 11'41	0.67870 AU	desc. node	12972 Jan 02 23:36	6° \approx 02'53	
direct	12966 Oct 31 21:22	0° Υ 59'41			12972 Feb 09 00:34	0° \mathcal{H}	
	12967 Jan 24 23:44	0° \mathcal{B}					
	12967 Mar 15 16:38	0° Π		conjunction	12972 Feb 13 01:09	2° \mathcal{H} 34'36	-0°22'16
	12967 Apr 28 06:27	0° \mathfrak{L}		minimum elong	12972 Feb 13 00:26	2° \mathcal{H} 33'27	0°21'43
asc. node	12967 May 23 05:53	18° \mathfrak{L} 22'23		max. Earth dist.	12972 Feb 20 23:32	7° \mathcal{H} 38'36	2.66980 AU
	12967 Jun 07 14:10	0° Ω			12972 Mar 27 05:11	0° Υ	
	12967 Jul 16 02:44	0° \mathfrak{M}		morning rise	12972 Mar 28 04:44	0° Υ 37'12	
	12967 Aug 22 23:23	0° \mathfrak{L}			12972 May 13 19:53	0° \mathcal{B}	
evening set	12967 Sep 03 19:40	9° \mathfrak{L} 22'08			12972 Jun 30 15:26	0° Π	
greatest brilliancy	12967 Sep 10 06:52	14° \mathfrak{L} 27'51	1.1m		12972 Aug 17 21:18	0° \mathfrak{L}	
	12967 Sep 30 03:52	0° \mathfrak{M}			12972 Oct 06 17:21	0° Ω	
	12967 Nov 08 12:45	0° \mathcal{A}			12972 Dec 03 12:54	0° \mathfrak{M}	
				asc. node	12973 Jan 13 03:19	10° \mathfrak{M} 26'36	
conjunction	12967 Nov 12 03:10	2° \mathcal{A} 40'53	1°03'29	retrograde	12973 Jan 16 18:58	10° \mathfrak{M} 31'44	
minimum elong	12967 Nov 12 04:43	2° \mathcal{A} 43'45	1°04'19	opposition	12973 Feb 15 09:59	5° \mathfrak{M} 36'22	2°31'33
	12967 Dec 19 17:49	0° \mathfrak{Z}		greatest brilliancy	12973 Feb 15 15:13	5° \mathfrak{M} 32'50	-3.0m
max. Earth dist.	12967 Dec 27 03:25	5° \mathfrak{Z} 13'34	2.48316 AU	min. Earth dist.	12973 Feb 18 13:01	4° \mathfrak{M} 45'50	0.37025 AU
morning rise	12968 Jan 10 19:53	15° \mathfrak{Z} 27'02		direct	12973 Mar 17 19:26	0° \mathfrak{M} 20'23	
	12968 Feb 01 04:58	0° \approx			12973 Jun 03 02:28	0° \mathfrak{L}	
	12968 Mar 18 04:48	0° \mathcal{H}			12973 Jul 20 00:05	0° \mathfrak{M}	
desc. node	12968 Mar 30 20:16	7° \mathcal{H} 56'28			12973 Sep 03 03:49	0° \mathcal{A}	
	12968 May 06 06:34	0° Υ			12973 Oct 18 19:20	0° \mathfrak{Z}	
	12968 Jun 30 01:38	0° \mathcal{B}		desc. node	12973 Nov 19 22:25	20° \mathfrak{Z} 44'55	
retrograde	12968 Sep 17 02:16	24° \mathcal{B} 40'59			12973 Dec 04 09:32	0° \approx	
opposition	12968 Oct 25 09:34	16° \mathcal{B} 07'19	-5°00'06		12974 Jan 20 17:08	0° \mathcal{H}	
greatest brilliancy	12968 Oct 26 09:45	15° \mathcal{B} 44'12	-1.5m	evening set	12974 Feb 03 03:21	8° \mathcal{H} 28'37	

	12974 Mar 09 04:28	0°♿			12979 Feb 07 14:08	0°♿	
max. Earth dist.	12974 Mar 14 06:44	3°♿13'52	2.68210 AU		12979 Mar 25 20:26	0°♿	
					12979 May 27 11:55	0°♿	
conjunction	12974 Mar 19 07:44	6°♿25'57	-0°56'14	retrograde	12979 Jun 25 12:16	4°♿49'47	
minimum elong	12974 Mar 19 06:39	6°♿24'13	0°56'14	desc. node	12979 Jul 13 23:17	2°♿32'47	
	12974 Apr 25 04:36	0°♿			12979 Jul 22 13:40	30°♿	
morning rise	12974 May 01 12:55	4°♿05'26		min. Earth dist.	12979 Aug 01 21:34	26°♿08'18	0.65447 AU
	12974 Jun 10 06:37	0°♿		opposition	12979 Aug 05 04:23	24°♿50'13	-0°50'17
	12974 Jul 25 04:45	0°♿		greatest brilliancy	12979 Aug 05 01:32	24°♿53'03	-1.4m
	12974 Sep 06 22:04	0°♿		direct	12979 Sep 13 20:46	15°♿32'35	
	12974 Oct 19 15:03	0°♿			12979 Nov 10 00:12	0°♿	
asc. node	12974 Dec 01 02:54	0°♿02'28			12980 Jan 08 08:30	0°♿	
	12974 Dec 01 01:29	0°♿			12980 Feb 27 09:07	0°♿	
	12975 Jan 14 14:18	0°♿			12980 Apr 13 02:14	0°♿	
	12975 Mar 22 02:41	0°♿			12980 May 25 17:12	0°♿	
retrograde	12975 Apr 01 17:17	0°♿49'30		evening set	12980 May 30 09:56	3°♿25'08	
	12975 Apr 12 04:54	30°♿		max. Earth dist.	12980 Jun 15 15:29	15°♿23'58	2.41096 AU
min. Earth dist.	12975 Apr 28 03:14	26°♿04'03	0.42419 AU		12980 Jul 05 00:20	0°♿	
greatest brilliancy	12975 May 04 11:55	23°♿59'37	-2.6m	asc. node	12980 Jul 21 23:25	13°♿01'41	
opposition	12975 May 06 04:29	23°♿26'11	6°15'53				
direct	12975 Jun 06 14:47	17°♿22'49		conjunction	12980 Jul 29 10:49	18°♿49'42	0°05'22
	12975 Jul 26 06:47	0°♿		minimum elong	12980 Jul 29 10:22	18°♿48'50	0°04'38
	12975 Sep 22 14:50	0°♿		behind sun begin	12980 Jul 28 07:21	17°♿56'19	
desc. node	12975 Oct 08 06:21	8°♿57'44		behind sun end	12980 Jul 30 13:22	19°♿41'22	
	12975 Nov 12 23:28	0°♿			12980 Aug 12 17:39	0°♿	
	12976 Jan 01 14:07	0°♿			12980 Sep 19 16:56	0°♿	
	12976 Feb 19 00:44	0°♿		morning rise	12980 Oct 09 12:16	15°♿39'26	
evening set	12976 Mar 09 11:08	12°♿16'25			12980 Oct 27 19:00	0°♿	
max. Earth dist.	12976 Apr 05 00:25	29°♿18'55	2.63942 AU		12980 Dec 05 21:06	0°♿	
	12976 Apr 06 01:45	0°♿			12981 Jan 15 20:29	0°♿	
					12981 Feb 28 16:25	0°♿	
conjunction	12976 Apr 22 21:34	10°♿59'32	-1°10'30		12981 Apr 18 03:16	0°♿	
minimum elong	12976 Apr 22 21:26	10°♿59'19	1°11'04	desc. node	12981 May 30 23:14	22°♿19'17	
	12976 May 21 10:06	0°♿			12981 Jun 18 18:35	0°♿	
morning rise	12976 Jun 07 17:03	11°♿46'08		retrograde	12981 Jul 28 13:42	8°♿02'04	
	12976 Jul 03 22:26	0°♿			12981 Sep 03 00:17	30°♿	
	12976 Aug 14 16:35	0°♿		opposition	12981 Sep 07 04:05	28°♿22'09	-3°13'39
	12976 Sep 23 23:19	0°♿		greatest brilliancy	12981 Sep 07 04:07	28°♿22'06	-1.3m
asc. node	12976 Oct 17 20:40	18°♿09'43		min. Earth dist.	12981 Sep 07 16:48	28°♿09'35	0.68498 AU
	12976 Nov 02 07:59	0°♿		direct	12981 Oct 18 13:07	18°♿28'53	
	12976 Dec 11 16:22	0°♿			12981 Dec 06 23:59	0°♿	
	12977 Jan 21 13:02	0°♿			12982 Feb 04 04:33	0°♿	
	12977 Mar 08 07:06	0°♿			12982 Mar 23 23:24	0°♿	
retrograde	12977 May 19 06:19	25°♿57'33			12982 May 06 01:18	0°♿	
min. Earth dist.	12977 Jun 20 12:45	18°♿57'40	0.56014 AU	asc. node	12982 Jun 08 19:59	25°♿05'35	
opposition	12977 Jun 27 10:09	16°♿18'26	2°30'13		12982 Jun 15 06:21	0°♿	
greatest brilliancy	12977 Jun 26 19:43	16°♿32'20	-1.8m		12982 Jul 23 18:33	0°♿	
direct	12977 Aug 02 20:16	8°♿09'33		evening set	12982 Aug 03 21:10	8°♿47'14	
desc. node	12977 Aug 25 16:38	11°♿05'04			12982 Aug 30 14:31	0°♿	
	12977 Oct 14 10:11	0°♿			12982 Oct 07 17:01	0°♿	
	12977 Dec 10 02:08	0°♿					
	12978 Jan 29 22:58	0°♿		conjunction	12982 Oct 15 11:48	6°♿02'26	1°05'29
	12978 Mar 18 17:49	0°♿		minimum elong	12982 Oct 15 10:31	5°♿59'57	1°05'57
evening set	12978 Apr 15 18:10	18°♿24'05			12982 Nov 15 22:31	0°♿	
	12978 May 02 22:29	0°♿		max. Earth dist.	12982 Dec 07 10:21	15°♿53'49	2.42669 AU
max. Earth dist.	12978 May 02 13:39	29°♿44'57	2.54460 AU	morning rise	12982 Dec 20 20:42	25°♿37'04	
					12982 Dec 26 23:56	0°♿	
conjunction	12978 Jun 03 07:19	21°♿49'13	-0°54'42		12983 Feb 08 09:48	0°♿	
minimum elong	12978 Jun 03 09:00	21°♿52'13	0°55'39		12983 Mar 26 16:12	0°♿	
	12978 Jun 14 18:19	0°♿		desc. node	12983 Apr 17 15:41	13°♿29'24	
	12978 Jul 25 13:22	0°♿			12983 May 15 23:43	0°♿	
morning rise	12978 Jul 27 21:45	1°♿46'04			12983 Jul 15 22:02	0°♿	
	12978 Sep 02 19:32	0°♿		retrograde	12983 Sep 02 11:26	11°♿02'42	
asc. node	12978 Sep 04 09:57	1°♿14'28		opposition	12983 Oct 11 17:05	2°♿05'05	-4°43'41
	12978 Oct 11 05:06	0°♿		greatest brilliancy	12983 Oct 12 09:21	1°♿49'19	-1.4m
	12978 Nov 18 14:03	0°♿		min. Earth dist.	12983 Oct 16 02:49	0°♿22'45	0.64812 AU
	12978 Dec 27 22:36	0°♿			12983 Oct 17 02:32	30°♿	

direct	12983 Nov 22 05:41	22°♄03'24	evening set	12989 Jan 19 22:04	25°♁07'14	
	12983 Dec 30 23:24	0°♄		12989 Jan 27 14:00	0°♄	
	12984 Feb 28 01:35	0°♄				
	12984 Apr 13 11:24	0°♄	conjunction	12989 Mar 05 19:32	23°♄37'26	-0°45'01
asc. node	12984 Apr 26 00:45	8°♄57'53	minimum elong	12989 Mar 05 18:26	23°♄35'41	0°44'48
	12984 May 24 09:02	0°♄	max. Earth dist.	12989 Mar 05 15:23	23°♄30'51	2.68402 AU
	12984 Jul 02 03:04	0°♄		12989 Mar 15 20:58	0°♄	
	12984 Aug 09 03:50	0°♄	morning rise	12989 Apr 18 00:14	21°♄02'52	
	12984 Sep 16 13:47	0°♄		12989 May 02 00:57	0°♄	
evening set	12984 Oct 17 13:48	23°♄33'09		12989 Jun 17 15:37	0°♄	
	12984 Oct 26 05:44	0°♄		12989 Aug 02 12:31	0°♄	
	12984 Dec 06 18:12	0°♄		12989 Sep 16 16:58	0°♄	
				12989 Oct 31 15:31	0°♄	
conjunction	12984 Dec 16 07:39	6°♄42'00 0°41'47	asc. node	12989 Dec 17 21:11	0°♄24'07	
minimum elong	12984 Dec 16 09:31	6°♄45'16 0°42'45		12989 Dec 17 05:22	0°♄	
max. Earth dist.	12985 Jan 16 16:16	28°♄09'54 2.56149 AU		12990 Feb 20 06:03	0°♄	
	12985 Jan 19 09:51	0°♄	retrograde	12990 Mar 07 07:33	1°♄33'33	
morning rise	12985 Feb 06 07:17	11°♄53'05		12990 Mar 22 07:17	30°♄	
desc. node	12985 Mar 04 02:24	28°♄38'49	min. Earth dist.	12990 Apr 02 04:13	27°♄18'48	0.38038 AU
	12985 Mar 06 05:04	0°♄	opposition	12990 Apr 07 19:29	25°♄42'25	6°31'15
	12985 Apr 23 03:26	0°♄	greatest brilliancy	12990 Apr 06 12:36	26°♄04'32	-2.9m
	12985 Jun 12 19:48	0°♄	direct	12990 May 07 07:16	20°♄34'58	
	12985 Aug 08 23:13	0°♄		12990 Jun 17 07:43	0°♄	
retrograde	12985 Oct 15 02:02	19°♄05'48		12990 Aug 14 13:12	0°♄	
opposition	12985 Nov 20 09:35	11°♄22'11 -4°49'46		12990 Oct 03 14:13	0°♄	
greatest brilliancy	12985 Nov 21 19:37	10°♄50'58 -1.9m	desc. node	12990 Oct 24 15:55	12°♄55'08	
min. Earth dist.	12985 Nov 28 09:10	8°♄27'10 0.54533 AU		12990 Nov 21 09:25	0°♄	
direct	12985 Dec 29 23:28	2°♄01'48		12991 Jan 08 20:54	0°♄	
asc. node	12986 Mar 14 08:01	29°♄04'27	evening set	12991 Feb 24 18:42	29°♄20'09	
	12986 Mar 15 21:03	0°♄		12991 Feb 25 19:58	0°♄	
	12986 Apr 29 19:22	0°♄	max. Earth dist.	12991 Mar 28 00:38	19°♄11'35	2.66256 AU
	12986 Jun 09 02:30	0°♄				
	12986 Jul 18 02:36	0°♄	conjunction	12991 Apr 09 17:32	27°♄22'00	-1°07'51
	12986 Aug 26 10:05	0°♄	minimum elong	12991 Apr 09 16:53	27°♄20'56	1°08'13
	12986 Oct 06 00:19	0°♄		12991 Apr 13 19:14	0°♄	
	12986 Nov 17 10:22	0°♄	morning rise	12991 May 24 00:05	26°♄24'36	
evening set	12986 Dec 11 01:15	16°♄08'06		12991 May 29 09:01	0°♄	
	12986 Dec 31 18:41	0°♄		12991 Jul 12 08:16	0°♄	
desc. node	12987 Jan 19 15:28	12°♄24'48		12991 Aug 23 17:11	0°♄	
				12991 Oct 03 16:33	0°♄	
conjunction	12987 Jan 29 08:57	18°♄44'59 -0°05'28	asc. node	12991 Nov 04 16:22	23°♄54'38	
minimum elong	12987 Jan 29 08:45	18°♄44'40 0°04'43		12991 Nov 12 19:03	0°♄	
behind sun begin	12987 Jan 28 13:51	18°♄14'00		12991 Dec 23 02:03	0°♄	
behind sun end	12987 Jan 30 03:40	19°♄15'20		12992 Feb 03 19:30	0°♄	
max. Earth dist.	12987 Feb 12 03:53	27°♄39'36 2.64998 AU		12992 Mar 29 02:33	0°♄	
	12987 Feb 15 19:15	0°♄	retrograde	12992 May 02 08:27	7°♄28'09	
morning rise	12987 Mar 15 18:56	17°♄50'52	min. Earth dist.	12992 Jun 01 05:18	1°♄20'00	0.50845 AU
	12987 Apr 04 00:59	0°♄		12992 Jun 04 20:11	30°♄	
	12987 May 22 03:27	0°♄	greatest brilliancy	12992 Jun 08 02:22	28°♄47'02	-2.1m
	12987 Jul 10 04:26	0°♄	opposition	12992 Jun 09 04:59	28°♄22'19	4°03'09
	12987 Aug 30 06:03	0°♄	direct	12992 Jul 13 19:42	20°♄55'06	
	12987 Oct 28 04:32	0°♄		12992 Aug 25 02:10	0°♄	
retrograde	12987 Dec 16 14:05	12°♄08'54	desc. node	12992 Sep 11 01:46	7°♄00'05	
opposition	12988 Jan 16 22:50	6°♄31'44 -0°57'38		12992 Oct 26 20:17	0°♄	
greatest brilliancy	12988 Jan 17 07:00	6°♄25'33 -2.8m		12992 Dec 18 13:38	0°♄	
min. Earth dist.	12988 Jan 24 05:00	4°♄20'46 0.40597 AU		12993 Feb 06 05:23	0°♄	
asc. node	12988 Jan 30 16:23	2°♄34'41		12993 Mar 25 15:10	0°♄	
	12988 Feb 15 21:18	30°♄	evening set	12993 Mar 31 17:00	3°♄56'54	
direct	12988 Feb 19 11:28	29°♄54'22	max. Earth dist.	12993 Apr 20 21:26	17°♄14'52	2.58750 AU
	12988 Feb 23 01:58	0°♄		12993 May 09 20:12	0°♄	
	12988 May 05 19:28	0°♄				
	12988 Jun 19 09:12	0°♄	conjunction	12993 May 17 01:12	4°♄55'25	-1°05'20
	12988 Jul 31 20:29	0°♄	minimum elong	12993 May 17 02:12	4°♄57'06	1°06'11
	12988 Sep 12 19:09	0°♄		12993 Jun 21 21:23	0°♄	
	12988 Oct 27 01:40	0°♄	morning rise	12993 Jul 06 03:22	10°♄14'56	
desc. node	12988 Dec 06 11:39	26°♄34'05		12993 Aug 02 00:12	0°♄	
	12988 Dec 11 18:41	0°♄		12993 Sep 10 14:26	0°♄	

asc. node	12993 Sep 21 05:24	8°♎11'32		asc. node	12999 May 13 13:30	15°♊00'00	
	12993 Oct 19 06:59	0°♊			12999 Jun 02 11:44	0°♊	
	12993 Nov 26 22:07	0°♌			12999 Jul 11 01:58	0°♎	
	12994 Jan 05 14:28	0°♈			12999 Aug 17 23:41	0°♊	
	12994 Feb 17 00:18	0°♊		evening set	12999 Sep 20 22:55	26°♊40'43	
	12994 Apr 07 04:56	0°♍			12999 Sep 25 05:38	0°♌	
retrograde	12994 Jun 11 16:57	20°♍56'19			12999 Nov 03 16:18	0°♈	
min. Earth dist.	12994 Jul 17 06:27	12°♍50'00	0.62457 AU	conjunction	12999 Nov 25 21:04	16°♈19'12	0°57'20
opposition	12994 Jul 22 00:09	10°♍57'51	0°20'14	minimum elong	12999 Nov 25 23:10	16°♈23'02	0°58'15
greatest brilliancy	12994 Jul 21 22:49	10°♍59'10	-1.6m		12999 Dec 14 22:57	0°♊	
desc. node	12994 Jul 30 11:43	7°♍44'14		max. Earth dist.	13000 Jan 04 16:32	14°♊30'15	2.51297 AU
direct	12994 Aug 29 14:39	2°♍02'12		morning rise	13000 Jan 21 08:56	25°♊54'34	
	12994 Nov 23 11:02	0°♋			13000 Jan 27 10:29	0°♍	
	12995 Jan 16 21:55	0°♎			13000 Mar 14 06:51	0°♋	
	12995 Mar 06 19:14	0°♉		desc. node	13000 Mar 21 21:40	4°♋49'49	
	12995 Apr 21 05:40	0°♌			13000 May 01 19:24	0°♎	
evening set	12995 May 12 00:36	14°♌23'53			13000 Jun 23 14:29	0°♉	
max. Earth dist.	12995 May 25 15:39	24°♌03'45	2.46547 AU		13000 Sep 02 09:41	0°♌	
	12995 Jun 02 21:39	0°♋		retrograde	13000 Sep 27 14:23	3°♌24'02	
conjunction	12995 Jul 05 08:49	23°♋57'45	-0°23'36		13000 Oct 20 23:34	30°♋	
minimum elong	12995 Jul 05 10:27	24°♋00'49	0°24'31	opposition	13000 Nov 04 07:06	25°♉06'00	-5°02'25
	12995 Jul 13 08:44	0°♊		greatest brilliancy	13000 Nov 05 11:30	24°♉39'10	-1.6m
asc. node	12995 Aug 08 19:05	20°♊17'16		min. Earth dist.	13000 Nov 11 00:20	22°♉34'03	0.59303 AU
	12995 Aug 21 06:15	0°♎		direct	13000 Dec 14 23:33	15°♉19'46	
morning rise	12995 Sep 08 12:14	14°♎19'52			13001 Feb 06 01:24	0°♌	
	12995 Sep 28 08:31	0°♊			13001 Mar 29 11:51	0°♋	
	12995 Nov 05 12:02	0°♌		asc. node	13001 Mar 31 21:36	1°♋36'19	
	12995 Dec 14 14:46	0°♈			13001 May 10 22:32	0°♊	
	12996 Jan 24 16:40	0°♊			13001 Jun 19 08:00	0°♎	
	12996 Mar 09 00:48	0°♍			13001 Jul 27 18:54	0°♊	
	12996 Apr 28 15:38	0°♋			13001 Sep 04 14:57	0°♌	
desc. node	12996 Jun 16 14:50	21°♋02'31			13001 Oct 14 18:01	0°♈	
retrograde	12996 Jul 15 08:44	25°♋35'30		evening set	13001 Nov 23 03:48	28°♈12'14	
min. Earth dist.	12996 Aug 24 04:32	16°♋07'57	0.68096 AU		13001 Nov 25 17:30	0°♊	
opposition	12996 Aug 25 03:39	15°♋45'05	-2°24'21		13002 Jan 08 17:34	0°♍	
greatest brilliancy	12996 Aug 25 00:29	15°♋48'13	-1.3m	conjunction	13002 Jan 14 14:44	3°♍54'48	0°12'46
direct	12996 Oct 05 00:51	6°♋02'46		minimum elong	13002 Jan 14 15:18	3°♍55'45	0°13'39
	12996 Dec 21 08:13	0°♎		behind sun begin	13002 Jan 14 04:38	3°♍38'03	
	12997 Feb 13 01:28	0°♉		behind sun end	13002 Jan 15 01:59	4°♍13'26	
	12997 Mar 31 18:15	0°♌		max. Earth dist.	13002 Feb 03 15:57	17°♍06'02	2.62182 AU
	12997 May 13 13:55	0°♋		desc. node	13002 Feb 06 08:42	18°♍51'32	
	12997 Jun 22 18:59	0°♊			13002 Feb 23 14:07	0°♋	
asc. node	12997 Jun 25 12:39	2°♊05'42		morning rise	13002 Mar 02 22:16	4°♋42'20	
evening set	12997 Jul 06 05:13	10°♊20'15			13002 Apr 11 23:23	0°♎	
	12997 Jul 31 08:34	0°♎			13002 May 30 18:35	0°♉	
	12997 Sep 07 05:05	0°♊			13002 Jul 20 16:05	0°♌	
					13002 Sep 15 11:36	0°♋	
conjunction	12997 Sep 14 09:46	5°♊42'16	0°51'23	retrograde	13002 Nov 19 22:54	18°♋45'33	
minimum elong	12997 Sep 14 05:43	5°♊34'15	0°51'21	opposition	13002 Dec 23 08:56	12°♋12'58	-3°16'27
	12997 Oct 15 06:29	0°♌		greatest brilliancy	13002 Dec 24 13:42	11°♋48'49	-2.4m
max. Earth dist.	12997 Oct 29 01:03	10°♌41'20	2.37317 AU	min. Earth dist.	13003 Jan 01 01:59	9°♋18'17	0.45954 AU
	12997 Nov 23 09:22	0°♈		direct	13003 Jan 28 23:01	4°♋12'07	
morning rise	12997 Nov 25 23:50	1°♈57'13		asc. node	13003 Feb 17 06:23	6°♋44'45	
	12998 Jan 03 08:03	0°♊			13003 Apr 08 16:50	0°♊	
	12998 Feb 15 18:38	0°♍			13003 May 23 08:46	0°♎	
	12998 Apr 03 12:46	0°♋			13003 Jul 03 06:58	0°♊	
desc. node	12998 May 04 09:08	18°♋14'19			13003 Aug 12 21:49	0°♌	
	12998 May 25 22:47	0°♎			13003 Sep 23 14:08	0°♈	
retrograde	12998 Aug 18 23:10	28°♎07'17			13003 Nov 05 22:02	0°♊	
opposition	12998 Sep 27 21:34	18°♎50'19	-4°15'49		13003 Dec 20 23:06	0°♍	
greatest brilliancy	12998 Sep 28 06:29	18°♎41'37	-1.3m		13003 Dec 25 00:54	2°♍39'57	
min. Earth dist.	12998 Sep 30 19:10	17°♎42'20	0.67063 AU	desc. node	13004 Jan 06 23:31	11°♍05'05	
direct	12998 Nov 08 13:38	8°♎48'04		evening set	13004 Feb 05 08:57	0°♋	
	12999 Jan 17 02:19	0°♉					
	12999 Mar 09 21:02	0°♌		conjunction	13004 Feb 22 02:44	10°♋40'44	-0°31'21
	12999 Apr 22 23:36	0°♋					

minimum elong	13004 Feb 22 01:49	10° H 39'16	0°30'54	min. Earth dist.	13009 Jul 01 14:55	28° Z 23'56	0.58538 AU
max. Earth dist.	13004 Feb 27 01:37	13° H 49'45	2.67724 AU	opposition	13009 Jul 07 18:38	26° Z 00'01	1°39'55
	13004 Mar 23 13:38	0° Y		greatest brilliancy	13009 Jul 07 10:00	26° Z 08'26	-1.7m
morning rise	13004 Apr 05 18:46	8° Y 21'36		direct	13009 Aug 14 01:21	17° Z 32'19	
	13004 May 09 23:45	0° B		desc. node	13009 Aug 16 21:43	17° Z 35'19	
	13004 Jun 26 07:11	0° II			13009 Oct 04 20:28	0° \approx	
	13004 Aug 12 12:05	0° D			13009 Dec 04 21:55	0° H	
	13004 Sep 29 02:10	0° Q			13010 Jan 25 19:34	0° Y	
	13004 Nov 18 00:58	0° M			13010 Mar 14 23:07	0° B	
asc. node	13005 Jan 04 11:31	22° M 48'44		evening set	13010 Apr 25 20:23	27° B 41'19	
retrograde	13005 Feb 05 09:15	28° M 56'34			13010 Apr 29 05:54	0° II	
opposition	13005 Mar 07 01:59	24° M 01'26	4°31'44	max. Earth dist.	13010 May 11 01:06	8° II 06'45	2.51762 AU
greatest brilliancy	13005 Mar 06 22:21	24° M 03'51	-3.0m		13010 Jun 11 00:35	0° D	
min. Earth dist.	13005 Mar 06 20:29	24° M 05'05	0.36392 AU				
direct	13005 Apr 05 11:26	19° M 08'24		conjunction	13010 Jun 15 02:32	2° D 56'50	-0°45'28
	13005 May 18 13:45	0° L		minimum elong	13010 Jun 15 04:29	3° D 00'21	0°46'26
	13005 Jul 11 23:35	0° M			13010 Jul 21 16:58	0° Q	
	13005 Aug 28 08:36	0° J		morning rise	13010 Aug 12 00:37	16° Q 13'41	
	13005 Oct 14 02:09	0° Z		asc. node	13010 Aug 26 13:55	27° Q 27'58	
desc. node	13005 Nov 11 03:03	17° Z 51'44			13010 Aug 29 20:11	0° M	
	13005 Nov 30 07:09	0° \approx			13010 Oct 07 02:59	0° L	
	13006 Jan 16 22:53	0° H			13010 Nov 14 09:32	0° M	
evening set	13006 Feb 12 01:53	16° H 25'58			13010 Dec 23 14:59	0° J	
	13006 Mar 05 13:37	0° Y			13011 Feb 02 23:01	0° Z	
max. Earth dist.	13006 Mar 20 08:15	9° Y 22'25	2.67748 AU		13011 Mar 20 05:28	0° \approx	
					13011 May 14 13:16	0° H	
conjunction	13006 Mar 28 01:15	14° Y 17'05	-1°01'30	retrograde	13011 Jul 04 03:51	12° H 50'39	
minimum elong	13006 Mar 28 00:15	14° Y 15'30	1°01'39	desc. node	13011 Jul 05 04:00	12° H 50'16	
	13006 Apr 21 13:17	0° B		min. Earth dist.	13011 Aug 11 11:25	3° H 51'38	0.66671 AU
morning rise	13006 May 10 11:43	12° B 16'45		opposition	13011 Aug 13 22:15	2° H 53'19	-1°27'23
	13006 Jun 06 10:41	0° II		greatest brilliancy	13011 Aug 13 18:21	2° H 57'11	-1.4m
	13006 Jul 21 00:02	0° D			13011 Aug 21 09:05	30° R \approx	
	13006 Sep 02 04:13	0° Q		direct	13011 Sep 23 02:17	23° \approx 25'44	
	13006 Oct 14 03:07	0° M			13011 Oct 29 08:47	0° H	
asc. node	13006 Nov 22 10:37	28° M 32'51			13012 Jan 03 02:17	0° Y	
	13006 Nov 24 10:42	0° L			13012 Feb 23 04:37	0° B	
	13007 Jan 05 15:48	0° M			13012 Apr 09 05:40	0° II	
	13007 Feb 22 22:54	0° J			13012 May 21 22:31	0° D	
retrograde	13007 Apr 15 01:11	15° J 36'20		evening set	13012 Jun 12 15:01	15° D 58'04	
min. Earth dist.	13007 May 12 13:51	10° J 22'53	0.45362 AU		13012 Jul 01 05:04	0° Q	
greatest brilliancy	13007 May 19 09:31	8° J 01'19	-2.4m	max. Earth dist.	13012 Jul 06 19:52	4° Q 17'45	2.38264 AU
opposition	13007 May 20 23:29	7° J 28'16	5°34'46	asc. node	13012 Jul 13 06:15	9° Q 14'47	
direct	13007 Jun 22 12:35	0° J 52'40			13012 Aug 08 21:00	0° M	
	13007 Sep 15 04:33	0° Z					
desc. node	13007 Sep 29 12:06	7° Z 39'52		conjunction	13012 Aug 15 11:08	5° M 11'29	0°23'23
	13007 Nov 07 23:02	0° \approx		minimum elong	13012 Aug 15 08:49	5° M 06'56	0°22'51
	13007 Dec 28 10:58	0° H			13012 Sep 15 18:52	0° L	
	13008 Feb 15 06:33	0° Y			13012 Oct 23 20:01	0° M	
evening set	13008 Mar 18 10:14	20° Y 19'41		morning rise	13012 Oct 28 15:45	3° M 45'32	
	13008 Apr 02 10:31	0° B			13012 Dec 01 21:30	0° J	
max. Earth dist.	13008 Apr 11 15:17	5° B 59'24	2.62305 AU		13013 Jan 11 19:12	0° Z	
					13013 Feb 24 09:30	0° \approx	
conjunction	13008 May 02 08:39	19° B 40'10	-1°10'05		13013 Apr 12 23:43	0° H	
minimum elong	13008 May 02 08:53	19° B 40'34	1°10'46	desc. node	13013 May 22 01:56	21° H 40'45	
	13008 May 17 17:48	0° II			13013 Jun 08 10:48	0° Y	
morning rise	13008 Jun 18 09:28	21° II 46'04		retrograde	13013 Aug 06 05:15	15° Y 37'53	
	13008 Jun 30 02:24	0° D		opposition	13013 Sep 15 15:31	6° Y 05'21	-3°38'57
	13008 Aug 10 15:11	0° Q		greatest brilliancy	13013 Sep 15 18:17	6° Y 02'37	-1.3m
	13008 Sep 19 15:53	0° M		min. Earth dist.	13013 Sep 17 00:43	5° Y 32'42	0.68288 AU
asc. node	13008 Oct 09 02:25	14° M 51'51			13013 Oct 02 08:43	30° R H	
	13008 Oct 28 18:01	0° L		direct	13013 Oct 27 04:43	26° H 07'44	
	13008 Dec 06 18:32	0° M			13013 Nov 23 00:10	0° Y	
	13009 Jan 16 00:49	0° J			13014 Jan 29 16:41	0° B	
	13009 Feb 28 23:14	0° Z			13014 Mar 19 14:09	0° II	
	13009 Apr 28 05:17	0° \approx			13014 May 02 00:09	0° D	
retrograde	13009 May 29 03:02	5° \approx 49'18		asc. node	13014 May 31 05:08	21° D 33'42	
	13009 Jun 27 08:36	30° R Z			13014 Jun 11 07:47	0° Q	

	13014 Jul 19 20:43	0°♏			13019 May 18 03:00	0°♄	
evening set	13014 Aug 22 03:58	26°♏23'57			13019 Jul 05 09:55	0°♊	
	13014 Aug 26 16:52	0°♌			13019 Aug 23 16:32	0°♎	
	13014 Oct 03 19:46	0°♍			13019 Oct 15 03:42	0°♏	
				retrograde	13020 Jan 04 05:12	27°♏55'00	
conjunction	13014 Nov 01 14:06	22°♍05'50 1°06'00		asc. node	13020 Jan 22 02:24	25°♏55'28	
minimum elong	13014 Nov 01 14:41	22°♍06'57 1°06'42		opposition	13020 Feb 03 10:49	22°♏45'14 0°55'09	
	13014 Nov 12 02:00	0°♌		greatest brilliancy	13020 Feb 03 14:49	22°♏42'26 -2.9m	
max. Earth dist.	13014 Dec 20 11:22	28°♌05'08 2.45814 AU		min. Earth dist.	13020 Feb 08 19:52	21°♏14'38 0.38302 AU	
	13014 Dec 23 03:49	0°♄		direct	13020 Mar 06 03:25	16°♏56'30	
morning rise	13015 Jan 03 03:51	7°♄46'16			13020 Apr 21 20:52	0°♏	
	13015 Feb 04 12:42	0°♌			13020 Jun 11 10:10	0°♌	
	13015 Mar 22 13:07	0°♌			13020 Jul 25 19:02	0°♍	
desc. node	13015 Apr 08 15:16	10°♌39'09			13020 Sep 07 18:25	0°♌	
	13015 May 10 23:52	0°♏			13020 Oct 22 16:32	0°♄	
	13015 Jul 06 13:34	0°♄		desc. node	13020 Nov 27 14:48	23°♄25'23	
retrograde	13015 Sep 12 04:52	19°♄14'05			13020 Dec 07 19:52	0°♌	
opposition	13015 Oct 20 23:16	10°♄29'08 -4°54'39			13021 Jan 23 21:07	0°♌	
greatest brilliancy	13015 Oct 21 20:00	10°♄09'12 -1.5m		evening set	13021 Jan 29 02:35	3°♌18'42	
min. Earth dist.	13015 Oct 26 05:32	8°♄27'53 0.63125 AU		max. Earth dist.	13021 Mar 11 14:51	29°♌35'35 2.68400 AU	
direct	13015 Dec 01 07:04	0°♄30'31			13021 Mar 12 06:15	0°♏	
	13016 Feb 21 18:20	0°♊					
	13016 Apr 08 14:17	0°♎		conjunction	13021 Mar 14 13:05	1°♏26'56 -0°51'57	
asc. node	13016 Apr 17 09:38	6°♎10'15		minimum elong	13021 Mar 14 11:58	1°♏25'09 0°51'51	
	13016 May 19 22:28	0°♏		morning rise	13021 Apr 26 16:45	28°♏56'44	
	13016 Jun 27 21:13	0°♏			13021 Apr 28 08:12	0°♄	
	13016 Aug 05 00:52	0°♌			13021 Jun 13 15:50	0°♊	
	13016 Sep 12 13:28	0°♍			13021 Jul 28 23:53	0°♎	
	13016 Oct 22 08:16	0°♌			13021 Sep 11 07:32	0°♏	
evening set	13016 Nov 01 08:44	7°♌21'22			13021 Oct 24 20:40	0°♏	
	13016 Dec 02 23:14	0°♄			13021 Dec 07 14:41	0°♌	
				asc. node	13021 Dec 09 03:35	1°♌01'53	
conjunction	13016 Dec 28 03:54	17°♄27'53 0°31'25			13022 Jan 24 11:57	0°♍	
minimum elong	13016 Dec 28 05:20	17°♄30'20 0°32'22		retrograde	13022 Mar 23 05:29	19°♍05'09	
	13017 Jan 15 16:30	0°♌		min. Earth dist.	13022 Apr 18 02:36	14°♍37'54 0.40246 AU	
max. Earth dist.	13017 Jan 24 05:14	5°♌41'36 2.58498 AU		greatest brilliancy	13022 Apr 23 18:42	12°♍53'09 -2.7m	
morning rise	13017 Feb 16 05:11	20°♌48'24		opposition	13022 Apr 25 09:39	12°♍22'50 6°35'29	
desc. node	13017 Feb 23 02:28	25°♌16'19		direct	13022 May 25 22:21	6°♍46'04	
	13017 Mar 02 10:36	0°♌			13022 Aug 05 04:42	0°♌	
	13017 Apr 19 02:22	0°♏			13022 Sep 27 19:01	0°♄	
	13017 Jun 07 22:02	0°♄		desc. node	13022 Oct 15 21:40	10°♄44'28	
	13017 Jul 31 22:06	0°♊			13022 Nov 16 20:55	0°♌	
retrograde	13017 Oct 27 16:35	29°♊21'40			13023 Jan 04 22:32	0°♌	
opposition	13017 Dec 02 01:47	22°♊00'48 -4°28'33			13023 Feb 22 04:05	0°♏	
greatest brilliancy	13017 Dec 03 12:47	21°♊29'29 -2.0m		evening set	13023 Mar 05 13:37	7°♏11'21	
min. Earth dist.	13017 Dec 10 13:40	18°♊58'55 0.51580 AU		max. Earth dist.	13023 Apr 03 05:30	25°♏29'28 2.65078 AU	
direct	13018 Jan 09 19:13	13°♊01'59			13023 Apr 10 04:58	0°♄	
asc. node	13018 Mar 05 17:56	29°♊41'23					
	13018 Mar 06 08:10	0°♎		conjunction	13023 Apr 18 17:13	5°♄31'55 -1°09'56	
	13018 Apr 23 13:43	0°♏		minimum elong	13023 Apr 18 16:50	5°♄31'18 1°10'25	
	13018 Jun 03 19:27	0°♏			13023 May 25 16:24	0°♊	
	13018 Jul 13 06:52	0°♌		morning rise	13023 Jun 02 18:08	5°♊26'43	
	13018 Aug 21 22:25	0°♍			13023 Jul 08 10:20	0°♎	
	13018 Oct 01 19:47	0°♌			13023 Aug 19 11:23	0°♏	
	13018 Nov 13 11:48	0°♄			13023 Sep 29 01:35	0°♏	
evening set	13018 Dec 21 21:05	25°♄55'28		asc. node	13023 Oct 26 21:51	21°♏01'26	
	13018 Dec 28 00:47	0°♌			13023 Nov 07 17:21	0°♌	
desc. node	13019 Jan 10 17:19	9°♌00'03			13023 Dec 17 09:38	0°♍	
					13024 Jan 27 19:52	0°♌	
conjunction	13019 Feb 07 20:40	27°♌14'53 -0°15'29			13024 Mar 15 13:59	0°♄	
minimum elong	13019 Feb 07 20:09	27°♌14'04 0°14'51		retrograde	13024 May 13 05:22	18°♄47'29	
behind sun begin	13019 Feb 07 13:15	27°♌02'59		min. Earth dist.	13024 Jun 13 10:21	12°♄09'50 0.53794 AU	
behind sun end	13019 Feb 08 03:03	27°♌25'09		opposition	13024 Jun 20 20:34	9°♄20'45 3°09'04	
	13019 Feb 12 03:27	0°♌		greatest brilliancy	13024 Jun 20 01:11	9°♄39'11 -2.0m	
max. Earth dist.	13019 Feb 18 09:48	4°♌00'51 2.66197 AU		direct	13024 Jul 26 12:50	1°♄29'00	
morning rise	13019 Mar 24 12:09	25°♌41'33		desc. node	13024 Sep 02 08:00	8°♄51'29	
	13019 Mar 31 07:49	0°♏			13024 Oct 20 05:00	0°♌	

	13024 Dec 13 22:54	0° H			13029 Oct 11 09:01	0° M		
	13025 Feb 02 07:05	0° Y			13029 Nov 19 12:24	0° X		
	13025 Mar 21 22:58	0° B		max. Earth dist.	13029 Nov 26 02:37	4° X 56'00	2.40133 AU	
evening set	13025 Apr 10 03:21	12° B 31'41		morning rise	13029 Dec 11 13:16	16° X 20'22		
max. Earth dist.	13025 Apr 28 07:35	24° B 39'22	2.56477 AU		13029 Dec 30 11:07	0° Z		
	13025 May 06 04:55	0° II			13030 Feb 11 19:22	0° \approx		
					13030 Mar 30 04:03	0° H		
conjunction	13025 May 27 13:54	14° II 43'53	-1°00'01	desc. node	13030 Apr 25 10:41	15° H 55'55		
minimum elong	13025 May 27 15:18	14° II 46'20	1°00'57		13030 May 20 02:48	0° Y		
	13025 Jun 18 04:21	0° E			13030 Jul 24 22:33	0° B		
morning rise	13025 Jul 18 23:05	22° E 24'53		retrograde	13030 Aug 28 02:51	5° B 57'16		
	13025 Jul 29 03:41	0° Q			13030 Sep 28 07:56	30° R Y		
	13025 Sep 06 13:59	0° M		opposition	13030 Oct 06 17:02	26° Y 50'36	-4°33'13	
asc. node	13025 Sep 12 11:52	4° M 34'24		greatest brilliancy	13030 Oct 07 05:59	26° Y 38'00	-1.3m	
	13025 Oct 15 02:32	0° L		min. Earth dist.	13030 Oct 10 11:01	25° Y 23'07	0.65953 AU	
	13025 Nov 22 13:25	0° M		direct	13030 Nov 17 08:15	16° Y 47'52		
	13025 Dec 31 23:51	0° X			13031 Jan 08 09:28	0° B		
	13026 Feb 11 19:47	0° Z			13031 Mar 04 16:24	0° II		
	13026 Mar 30 21:34	0° \approx			13031 Apr 18 13:26	0° E		
retrograde	13026 Jun 20 16:47	29° \approx 30'06		asc. node	13031 May 04 23:21	11° E 49'24		
desc. node	13026 Jul 21 15:39	23° \approx 13'38			13031 May 29 07:40	0° Q		
min. Earth dist.	13026 Jul 27 07:14	21° \approx 03'24	0.64241 AU		13031 Jul 07 00:29	0° M		
opposition	13026 Jul 31 05:21	19° \approx 30'14	-0°22'10		13031 Aug 13 23:40	0° L		
greatest brilliancy	13026 Jul 31 03:56	19° \approx 31'38	-1.5m		13031 Sep 21 06:59	0° M		
direct	13026 Sep 08 10:37	10° \approx 21'36		evening set	13031 Oct 07 23:44	12° M 49'11		
	13026 Nov 16 05:46	0° H			13031 Oct 30 19:27	0° X		
	13027 Jan 12 05:56	0° Y						
	13027 Mar 02 19:45	0° B		conjunction	13031 Dec 09 09:49	28° X 45'32	0°48'54	
	13027 Apr 17 11:17	0° II		minimum elong	13031 Dec 09 11:55	28° X 49'17	0°49'52	
evening set	13027 May 23 15:45	25° II 18'23			13031 Dec 11 03:51	0° Z		
	13027 May 30 04:04	0° E						
max. Earth dist.	13027 Jun 06 18:00	5° E 30'58	2.43529 AU	max. Earth dist.	13032 Jan 13 08:38	23° Z 01'42	2.54063 AU	
	13027 Jul 09 13:55	0° Q		morning rise	13032 Jan 23 16:07	0° \approx		
					13032 Feb 01 05:32	5° \approx 43'30		
conjunction	13027 Jul 19 22:37	7° Q 54'37	-0°07'52	desc. node	13032 Mar 09 10:08	0° H		
minimum elong	13027 Jul 19 23:20	7° Q 55'59	0°08'42		13032 Mar 11 21:37	1° H 35'03		
behind sun begin	13027 Jul 19 00:36	7° Q 12'27			13032 Apr 26 12:34	0° Y		
behind sun end	13027 Jul 20 22:03	8° Q 39'34			13032 Jun 16 21:39	0° B		
asc. node	13027 Jul 31 01:05	16° Q 28'16		retrograde	13032 Aug 16 08:16	0° II		
	13027 Aug 17 09:48	0° M		opposition	13032 Oct 07 19:15	12° II 37'39		
	13027 Sep 24 10:30	0° L		greatest brilliancy	13032 Nov 13 18:31	4° II 37'46	-4°57'50	
morning rise	13027 Sep 27 05:10	2° L 11'54		min. Earth dist.	13032 Nov 15 02:28	4° II 08'01	-1.8m	
	13027 Nov 01 12:41	0° M			13032 Nov 21 05:18	1° II 51'44	0.56768 AU	
	13027 Dec 10 14:00	0° X		direct	13032 Nov 26 12:22	30° R B		
	13027 Dec 20 12:34	0° Z			13032 Dec 23 21:52	25° B 03'47		
	13028 Jan 20 10:42	0° \approx		asc. node	13033 Jan 21 12:06	0° II		
	13028 Mar 04 10:42	0° \approx			13033 Mar 22 06:42	0° E 09'14		
	13028 Apr 22 11:57	0° H			13033 Mar 22 00:52	0° E		
desc. node	13028 Jun 07 17:02	22° H 42'14			13033 May 04 17:46	0° Q		
	13028 Jun 29 18:56	0° Y			13033 Jun 13 14:50	0° M		
retrograde	13028 Jul 23 21:50	3° Y 14'50			13033 Jul 22 08:26	0° L		
	13028 Aug 15 10:11	30° R H			13033 Aug 30 09:37	0° M		
opposition	13028 Sep 02 14:59	23° H 29'55	-2°54'19		13033 Oct 09 17:29	0° X		
min. Earth dist.	13028 Sep 02 11:58	23° H 32'53	0.68451 AU		13033 Nov 20 21:11	0° Z		
greatest brilliancy	13028 Sep 02 13:20	23° H 31'33	-1.3m	evening set	13033 Dec 04 03:24	9° Z 09'11		
direct	13028 Oct 13 19:13	13° H 40'59			13034 Jan 04 00:23	0° \approx		
	13028 Dec 13 17:24	0° Y						
	13029 Feb 08 06:40	0° B		conjunction	13034 Jan 23 17:34	13° \approx 00'53	0°02'06	
	13029 Mar 27 15:24	0° II		minimum elong	13034 Jan 23 17:41	13° \approx 01'06	0°02'54	
	13029 May 09 16:02	0° E		behind sun begin	13034 Jan 22 21:56	12° \approx 28'45		
asc. node	13029 Jun 16 19:58	28° E 24'24		behind sun end	13034 Jan 24 13:27	13° \approx 33'26		
	13029 Jun 18 22:02	0° Q		desc. node	13034 Jan 27 09:45	15° \approx 25'04		
evening set	13029 Jul 22 20:26	26° Q 21'27		max. Earth dist.	13034 Feb 09 06:35	23° \approx 46'52	2.63839 AU	
	13029 Jul 27 11:26	0° M			13034 Feb 18 21:54	0° H		
	13029 Sep 03 07:36	0° L		morning rise	13034 Mar 10 21:52	12° H 47'03		
					13034 Apr 07 04:17	0° Y		
conjunction	13029 Oct 03 03:01	23° L 32'46	1°01'31		13034 May 25 12:48	0° B		
minimum elong	13029 Oct 03 00:11	23° L 27'11	1°01'49		13034 Jul 14 06:02	0° II		

	13034 Sep 05 03:52	0°☿			13039 Dec 23 03:57	0°♄		
	13034 Nov 16 22:21	0°♂			13040 Feb 10 11:07	0°♂		
retrograde	13034 Dec 04 21:36	1°♂53'28		evening set	13040 Mar 26 12:05	28°♂30'56		
	13034 Dec 22 05:20	30°♄☿			13040 Mar 28 19:11	0°♄		
opposition	13035 Jan 06 04:43	25°☿51'20 -2°06'37		max. Earth dist.	13040 Apr 17 09:46	12°♄49'11	2.60437 AU	
greatest brilliancy	13035 Jan 06 23:23	25°☿36'26 -2.6m						
min. Earth dist.	13035 Jan 14 09:00	23°☿15'56 0.42863 AU		conjunction	13040 May 11 02:49	28°♄39'50 -1°08'01		
asc. node	13035 Feb 07 14:58	18°☿37'16		minimum elong	13040 May 11 03:29	28°♄40'57 1°08'48		
direct	13035 Feb 10 03:38	18°☿34'28			13040 May 13 02:10	0°♂		
	13035 Mar 25 06:21	0°♂			13040 Jun 25 07:42	0°☿		
	13035 May 14 16:43	0°♄		morning rise	13040 Jun 28 16:34	2°☿23'50		
	13035 Jun 26 05:36	0°♂			13040 Aug 05 15:39	0°♂		
	13035 Aug 06 17:09	0°♄			13040 Sep 14 11:01	0°♄		
	13035 Sep 17 23:48	0°♄		asc. node	13040 Sep 29 07:16	11°♄24'08		
	13035 Oct 31 18:20	0°♄			13040 Oct 23 07:52	0°♂		
desc. node	13035 Dec 15 04:47	29°♄24'01			13040 Dec 01 02:19	0°♄		
	13035 Dec 16 02:53	0°♄			13041 Jan 09 22:48	0°♄		
evening set	13036 Jan 15 14:22	19°♄41'35			13041 Feb 21 18:52	0°♄		
	13036 Jan 31 17:00	0°♄			13041 Apr 14 02:41	0°♄		
				retrograde	13041 Jun 06 14:22	15°♄06'38		
conjunction	13036 Feb 29 23:17	18°♄36'29 -0°39'39		min. Earth dist.	13041 Jul 11 06:20	7°♄17'32 0.60812 AU		
minimum elong	13036 Feb 29 22:13	18°♄34'48 0°39'20		opposition	13041 Jul 16 15:00	5°♄11'06 0°52'23		
max. Earth dist.	13036 Mar 03 01:09	19°♄55'34 2.68204 AU		greatest brilliancy	13041 Jul 16 11:03	5°♄14'59 -1.6m		
	13036 Mar 18 22:36	0°♂			13041 Jul 31 03:30	30°♄☿		
morning rise	13036 Apr 13 07:35	16°♂05'08		desc. node	13041 Aug 07 03:04	28°♄12'32		
	13036 May 05 05:08	0°♄		direct	13041 Aug 23 15:39	26°♄27'02		
	13036 Jun 21 03:00	0°♂			13041 Sep 18 07:04	0°♄		
	13036 Aug 06 13:12	0°☿			13041 Nov 28 05:09	0°♄		
	13036 Sep 21 15:26	0°♂			13042 Jan 20 12:30	0°♂		
	13036 Nov 07 04:59	0°♄			13042 Mar 10 03:11	0°♄		
asc. node	13036 Dec 25 20:58	28°♄51'18			13042 Apr 24 13:19	0°♂		
	13036 Dec 28 01:16	0°♂		evening set	13042 May 05 08:50	7°♄25'19		
retrograde	13037 Feb 23 09:42	17°♄53'15		max. Earth dist.	13042 May 19 07:50	17°♄10'00 2.48941 AU		
min. Earth dist.	13037 Mar 22 06:21	13°♄33'04 0.36866 AU			13042 Jun 06 07:53	0°☿		
opposition	13037 Mar 25 18:57	12°♄35'43 5°58'38						
greatest brilliancy	13037 Mar 24 23:29	12°♄48'56 -3.0m		conjunction	13042 Jun 26 16:40	14°☿52'30 -0°33'53		
direct	13037 Apr 23 20:06	7°♄43'05		minimum elong	13042 Jun 26 18:35	14°☿56'03 0°34'51		
	13037 Jun 30 04:59	0°♄			13042 Jul 16 22:13	0°♂		
	13037 Aug 20 17:13	0°♄		asc. node	13042 Aug 16 20:26	23°♄42'00		
	13037 Oct 08 00:46	0°♄			13042 Aug 24 22:49	0°♄		
desc. node	13037 Nov 01 07:42	15°♄11'05		morning rise	13042 Aug 27 10:48	1°♄57'01		
	13037 Nov 25 00:58	0°♄			13042 Oct 02 03:10	0°♄		
	13038 Jan 12 02:55	0°♄		greatest brilliancy	13042 Nov 07 15:45	28°♄42'33 1.2m		
evening set	13038 Feb 19 22:16	24°♄19'15			13042 Nov 09 07:28	0°♄		
	13038 Feb 28 22:22	0°♂			13042 Dec 18 10:15	0°♄		
max. Earth dist.	13038 Mar 25 09:20	15°♂31'37 2.67034 AU			13043 Jan 28 12:51	0°♄		
					13043 Mar 14 02:25	0°♄		
conjunction	13038 Apr 04 19:43	22°♂12'20 -1°05'40			13043 May 04 23:55	0°♄		
minimum elong	13038 Apr 04 18:54	22°♂11'01 1°05'56		desc. node	13043 Jun 25 07:50	19°♄05'36		
	13038 Apr 16 22:14	0°♄		retrograde	13043 Jul 11 18:08	20°♄41'38		
morning rise	13038 May 18 15:28	20°♄42'13		min. Earth dist.	13043 Aug 19 22:28	11°♄26'07 0.67585 AU		
	13038 Jun 01 15:57	0°♂		opposition	13043 Aug 21 13:09	10°♄47'47 -2°01'54		
	13038 Jul 15 22:07	0°☿		greatest brilliancy	13043 Aug 21 09:17	10°♄51'37 -1.3m		
	13038 Aug 27 15:47	0°♂		direct	13043 Oct 01 02:48	1°♄11'30		
	13038 Oct 08 01:20	0°♄			13043 Dec 27 05:57	0°♂		
asc. node	13038 Nov 12 17:45	26°♄22'31			13044 Feb 17 19:32	0°♄		
	13038 Nov 17 15:03	0°♄			13044 Apr 04 06:52	0°♂		
	13038 Dec 28 13:13	0°♄			13044 May 17 02:54	0°☿		
	13039 Feb 10 17:55	0°♄		evening set	13044 Jun 25 23:27	29°☿40'25		
retrograde	13039 Apr 26 08:16	28°♄55'44			13044 Jun 26 09:43	0°♂		
min. Earth dist.	13039 May 25 02:35	23°♄12'30 0.48392 AU		asc. node	13044 Jul 03 13:10	5°♄28'18		
greatest brilliancy	13039 Jun 01 02:04	20°♄41'28 -2.2m			13044 Aug 04 01:02	0°♄		
opposition	13039 Jun 02 10:06	20°♄12'28 4°43'58		max. Earth dist.	13044 Aug 20 10:42	12°♄57'27 2.36342 AU		
direct	13039 Jul 06 03:47	13°♄07'08						
	13039 Sep 04 17:21	0°♄		conjunction	13044 Sep 01 13:19	22°♄33'41 0°40'25		
desc. node	13039 Sep 19 16:51	7°♄08'59		minimum elong	13044 Sep 01 09:30	22°♄26'07 0°40'09		
	13039 Nov 01 11:50	0°♄			13044 Sep 10 22:17	0°♄		

	13044 Oct 18 23:01	0°♍		direct	13050 Jan 20 06:50	24°♊59'52	
morning rise	13044 Nov 14 16:02	20°♍38'32			13050 Feb 17 02:52	0°♊	
	13044 Nov 27 00:10	0°♊		asc. node	13050 Feb 24 04:45	2°♊36'13	
	13045 Jan 06 20:52	0°♊			13050 Apr 15 05:24	0°♊	
	13045 Feb 19 06:44	0°♊			13050 May 28 00:13	0°♊	
desc. node	13045 Apr 07 05:55	0°♊			13050 Jul 07 04:09	0°♊	
	13045 May 12 03:29	20°♊12'36			13050 Aug 16 06:28	0°♍	
	13045 May 30 20:07	0°♍			13050 Sep 26 12:15	0°♊	
	13045 Aug 14 00:11	23°♍15'13			13050 Nov 08 11:23	0°♊	
retrograde	13045 Sep 23 04:38	13°♍51'00	-4°01'37		13050 Dec 23 05:36	0°♊	
opposition	13045 Sep 23 10:42	13°♍45'03	-1.3m	evening set	13050 Dec 31 05:41	5°♊15'07	
greatest brilliancy	13045 Sep 25 10:21	12°♍58'21	0.67736 AU	desc. node	13050 Dec 31 18:23	5°♊35'54	
min. Earth dist.	13045 Nov 03 19:57	3°♍50'08			13051 Feb 07 11:19	0°♊	
direct	13046 Jan 22 11:43	0°♊					
asc. node	13046 Mar 13 23:13	0°♊		conjunction	13051 Feb 16 02:26	5°♊31'22	-0°25'02
	13046 Apr 26 19:52	0°♊		minimum elong	13051 Feb 16 01:39	5°♊30'08	0°24'31
	13046 May 21 12:09	18°♊04'42		max. Earth dist.	13051 Feb 23 13:17	10°♊16'34	2.67153 AU
	13046 Jun 06 06:56	0°♊			13051 Mar 26 15:19	0°♍	
greatest brilliancy	13046 Jul 14 21:07	0°♊		morning rise	13051 Apr 01 03:05	3°♍28'14	
	13046 Aug 21 18:11	0°♊			13051 May 13 04:52	0°♊	
	13046 Aug 24 18:20	2°♊22'52	1.1m		13051 Jun 29 21:48	0°♊	
	13046 Sep 08 16:58	14°♊10'58			13051 Aug 16 21:44	0°♊	
evening set	13046 Sep 28 22:12	0°♍			13051 Oct 05 02:51	0°♊	
	13046 Nov 07 05:52	0°♊			13051 Nov 29 00:47	0°♊	
conjunction	13046 Nov 16 08:49	6°♊46'55	1°02'13	asc. node	13052 Jan 12 10:53	14°♊38'42	
	13046 Nov 16 10:34	6°♊50'09	1°03'05	retrograde	13052 Jan 22 19:03	15°♊19'55	
	13046 Dec 18 09:05	0°♊		opposition	13052 Feb 21 09:44	10°♊26'04	3°01'28
	13046 Dec 30 04:36	8°♊20'16	2.48910 AU	greatest brilliancy	13052 Feb 21 14:18	10°♊23'00	-3.0m
max. Earth dist.	13047 Jan 14 08:55	18°♊52'02		min. Earth dist.	13052 Feb 23 21:34	9°♊45'50	0.36822 AU
morning rise	13047 Jan 30 17:42	0°♊		direct	13052 Mar 22 14:57	5°♊15'53	
desc. node	13047 Mar 17 13:55	0°♊			13052 May 30 17:49	0°♊	
	13047 Mar 29 16:34	7°♊38'27			13052 Jul 17 19:16	0°♍	
	13047 May 05 09:04	0°♍			13052 Sep 01 07:41	0°♊	
	13047 Jun 28 08:25	0°♊		desc. node	13052 Oct 17 02:42	0°♊	
retrograde	13047 Sep 21 07:44	27°♊40'04			13052 Nov 17 18:54	20°♊25'38	
opposition	13047 Oct 29 12:48	19°♊09'20	-5°00'55		13052 Dec 02 18:26	0°♊	
greatest brilliancy	13047 Oct 30 13:58	18°♊45'21	-1.5m	evening set	13053 Jan 19 02:52	0°♊	
min. Earth dist.	13047 Nov 04 14:53	16°♊50'18	0.61132 AU		13053 Feb 06 03:29	11°♊22'19	
direct	13047 Dec 09 13:24	9°♊16'07		max. Earth dist.	13053 Mar 07 15:00	0°♍	
asc. node	13048 Feb 13 06:25	0°♊			13053 Mar 16 15:40	5°♍43'27	2.68150 AU
	13048 Apr 02 08:32	0°♊		conjunction	13053 Mar 22 06:16	9°♍17'13	-0°57'56
	13048 Apr 07 19:29	3°♊43'27		minimum elong	13053 Mar 22 05:12	9°♍15'32	0°57'59
	13048 May 14 07:21	0°♊			13053 Apr 23 15:53	0°♊	
evening set	13048 Jun 22 11:59	0°♊		morning rise	13053 May 04 12:06	6°♊59'30	
	13048 Jul 30 19:17	0°♊			13053 Jun 08 18:17	0°♊	
	13048 Sep 07 11:02	0°♍			13053 Jul 23 16:07	0°♊	
	13048 Oct 17 09:09	0°♊			13053 Sep 05 08:03	0°♊	
conjunction	13048 Nov 14 02:50	20°♊05'09		asc. node	13053 Oct 17 22:03	0°♊	
	13048 Nov 28 03:30	0°♊			13053 Nov 29 11:09	0°♊16'15	
	13049 Jan 07 07:50	27°♊33'47	0°20'37		13053 Nov 29 01:58	0°♊	
	13049 Jan 07 08:46	27°♊35'21	0°21'31		13054 Jan 11 20:29	0°♍	
max. Earth dist.	13049 Jan 10 23:05	0°♊		retrograde	13054 Mar 09 03:09	0°♊	
	13049 Jan 30 07:34	12°♊50'03	2.60649 AU	min. Earth dist.	13054 Apr 05 14:38	5°♊08'52	
	13049 Feb 13 03:19	21°♊52'00			13054 May 02 05:54	0°♊18'45	0.42960 AU
	13049 Feb 24 17:35	29°♊21'50		greatest brilliancy	13054 May 03 05:08	30°♊	
desc. node	13049 Feb 25 17:18	0°♊		opposition	13054 May 08 17:42	28°♊10'01	-2.5m
morning rise	13049 Apr 14 04:09	0°♍		direct	13054 May 10 10:16	27°♊36'15	6°08'20
retrograde	13049 Jun 02 07:52	0°♊			13054 Jun 11 00:23	21°♊26'47	
	13049 Jul 24 06:57	0°♊			13054 Jul 20 19:51	0°♊	
	13049 Sep 23 21:14	0°♊		desc. node	13054 Sep 20 03:28	0°♊	
	13049 Nov 09 07:49	10°♊25'36			13054 Oct 06 03:22	9°♊01'53	
opposition	13049 Dec 13 15:33	3°♊30'06	-3°53'32		13054 Nov 11 01:01	0°♊	
greatest brilliancy	13049 Dec 15 00:26	3°♊01'33	-2.2m		13054 Dec 30 20:48	0°♊	
min. Earth dist.	13049 Dec 22 09:10	0°♊28'48	0.48499 AU	evening set	13055 Feb 17 10:21	0°♍	
	13049 Dec 23 19:55	30°♊			13055 Mar 13 10:52	15°♍09'47	
					13055 Apr 05 13:33	0°♊	

max. Earth dist.	13055 Apr 08 16:16	2°♄01'07	2.63647 AU		13060 Jan 15 10:29	0°♄	
					13060 Feb 28 01:38	0°♄	
conjunction	13055 Apr 26 23:03	13°♄58'57	-1°10'36		13060 Apr 16 01:43	0°♄	
minimum elong	13055 Apr 26 23:00	13°♄58'54	1°11'12	desc. node	13060 May 28 20:19	22°♄49'46	
	13055 May 20 23:38	0°♄			13060 Jun 14 06:39	0°♄	
morning rise	13055 Jun 11 23:50	14°♄59'36		retrograde	13060 Jul 31 11:52	10°♄49'41	
	13055 Jul 03 13:20	0°♄		opposition	13060 Sep 10 01:44	1°♄11'20	-3°21'30
	13055 Aug 14 08:21	0°♄		greatest brilliancy	13060 Sep 10 02:20	1°♄10'44	-1.3m
	13055 Sep 23 15:22	0°♄		min. Earth dist.	13060 Sep 10 19:04	0°♄54'14	0.68497 AU
asc. node	13055 Oct 17 04:13	17°♄53'56			13060 Sep 13 02:13	30°♄	
	13055 Nov 01 23:24	0°♄		direct	13060 Oct 21 11:09	21°♄17'02	
	13055 Dec 11 05:29	0°♄			13060 Dec 02 14:24	0°♄	
	13056 Jan 20 20:13	0°♄			13061 Feb 02 03:16	0°♄	
	13056 Mar 05 19:37	0°♄			13061 Mar 22 09:45	0°♄	
retrograde	13056 May 22 11:57	29°♄14'17			13061 May 04 17:04	0°♄	
min. Earth dist.	13056 Jun 23 23:43	22°♄09'05	0.56506 AU	asc. node	13061 Jun 07 04:48	24°♄47'34	
opposition	13056 Jun 30 17:19	19°♄33'05	2°16'34		13061 Jun 14 01:02	0°♄	
greatest brilliancy	13056 Jun 30 04:29	19°♄45'30	-1.8m		13061 Jul 22 14:35	0°♄	
direct	13056 Aug 06 07:36	11°♄20'14		evening set	13061 Aug 08 13:24	13°♄24'50	
desc. node	13056 Aug 23 13:05	13°♄03'27			13061 Aug 29 10:40	0°♄	
	13056 Oct 11 04:08	0°♄			13061 Oct 06 12:15	0°♄	
	13056 Dec 08 00:24	0°♄					
	13057 Jan 28 05:40	0°♄		conjunction	13061 Oct 20 03:45	10°♄34'56	1°06'03
	13057 Mar 17 04:58	0°♄		minimum elong	13061 Oct 20 02:57	10°♄33'25	1°06'38
evening set	13057 Apr 18 22:25	21°♄29'44			13061 Nov 14 15:59	0°♄	
	13057 May 01 12:36	0°♄		max. Earth dist.	13061 Dec 11 09:20	19°♄44'53	2.43256 AU
max. Earth dist.	13057 May 05 07:06	2°♄34'23	2.53944 AU	morning rise	13061 Dec 24 19:44	29°♄25'36	
					13061 Dec 25 15:01	0°♄	
conjunction	13057 Jun 06 19:14	25°♄15'25	-0°52'30		13062 Feb 06 21:46	0°♄	
minimum elong	13057 Jun 06 21:00	25°♄18'33	0°53'29		13062 Mar 24 23:33	0°♄	
	13057 Jun 13 10:33	0°♄		desc. node	13062 Apr 15 10:37	13°♄15'36	
	13057 Jul 24 06:59	0°♄			13062 May 13 21:11	0°♄	
morning rise	13057 Aug 01 00:36	5°♄49'39			13062 Jul 11 21:37	0°♄	
	13057 Sep 01 13:54	0°♄		retrograde	13062 Sep 05 13:52	13°♄56'35	
asc. node	13057 Sep 02 15:56	0°♄50'26		opposition	13062 Oct 14 17:49	5°♄01'29	-4°47'00
	13057 Oct 09 23:29	0°♄		greatest brilliancy	13062 Oct 15 11:08	4°♄44'45	-1.4m
	13057 Nov 17 07:33	0°♄		min. Earth dist.	13062 Oct 19 08:18	3°♄14'44	0.64521 AU
	13057 Dec 26 13:53	0°♄			13062 Oct 28 05:19	30°♄	
	13058 Feb 06 00:40	0°♄		direct	13062 Nov 25 05:41	25°♄00'04	
	13058 Mar 23 18:53	0°♄			13062 Dec 25 04:59	0°♄	
	13058 May 21 20:22	0°♄			13063 Feb 25 22:56	0°♄	
retrograde	13058 Jun 28 11:08	7°♄42'21			13063 Apr 12 21:50	0°♄	
desc. node	13058 Jul 11 20:30	6°♄30'26		asc. node	13063 Apr 25 08:20	8°♄49'11	
	13058 Aug 02 08:35	30°♄			13063 May 24 00:40	0°♄	
min. Earth dist.	13058 Aug 05 00:53	28°♄56'56	0.65705 AU		13063 Jul 01 21:04	0°♄	
opposition	13058 Aug 08 03:09	27°♄43'17	-1°01'28		13063 Aug 08 22:36	0°♄	
greatest brilliancy	13058 Aug 07 23:49	27°♄46'36	-1.4m		13063 Sep 16 08:09	0°♄	
direct	13058 Sep 16 21:09	18°♄23'32		evening set	13063 Oct 22 18:27	27°♄38'06	
	13058 Nov 06 02:33	0°♄			13063 Oct 25 22:50	0°♄	
	13059 Jan 06 06:39	0°♄			13063 Dec 06 09:26	0°♄	
	13059 Feb 25 17:44	0°♄					
	13059 Apr 12 16:02	0°♄		conjunction	13063 Dec 20 22:28	10°♄11'03	0°39'05
	13059 May 25 10:09	0°♄		minimum elong	13063 Dec 21 00:15	10°♄14'09	0°40'04
evening set	13059 Jun 04 02:27	7°♄03'11			13064 Jan 18 22:49	0°♄	
max. Earth dist.	13059 Jun 21 06:14	19°♄46'41	2.40502 AU	max. Earth dist.	13064 Jan 20 08:40	0°♄56'50	2.56597 AU
	13059 Jul 04 19:05	0°♄		morning rise	13064 Feb 10 12:29	14°♄59'25	
asc. node	13059 Jul 21 07:10	12°♄39'31		desc. node	13064 Mar 01 21:18	28°♄13'50	
					13064 Mar 04 15:21	0°♄	
conjunction	13059 Aug 03 21:32	23°♄13'25	0°09'43		13064 Apr 21 09:52	0°♄	
minimum elong	13059 Aug 03 20:40	23°♄11'45	0°09'01		13064 Jun 10 18:13	0°♄	
behind sun begin	13059 Aug 02 20:50	22°♄25'15			13064 Aug 05 17:11	0°♄	
behind sun end	13059 Aug 04 20:30	23°♄58'18		retrograde	13064 Oct 18 17:12	22°♄20'50	
	13059 Aug 12 13:13	0°♄		opposition	13064 Nov 23 19:59	14°♄41'26	-4°44'39
	13059 Sep 19 12:24	0°♄		greatest brilliancy	13064 Nov 25 06:19	14°♄10'04	-1.9m
morning rise	13059 Oct 15 14:00	20°♄36'12		min. Earth dist.	13064 Dec 01 21:48	11°♄44'45	0.53985 AU
	13059 Oct 27 13:33	0°♄		direct	13065 Jan 02 06:12	5°♄24'15	
	13059 Dec 05 13:53	0°♄		asc. node	13065 Mar 12 16:22	29°♄39'57	

	13065 Mar 13 06:10	0°☾		conjunction	13070 Apr 12 16:30	0°♏14'59	-1°08'39
	13065 Apr 28 01:17	0°♏		minimum elong	13070 Apr 12 15:55	0°♏14'03	1°09'03
	13065 Jun 07 14:42	0°♐			13070 Apr 12 07:14	0°♏	
	13065 Jul 16 17:03	0°♑		morning rise	13070 May 27 02:32	29°♏27'03	
	13065 Aug 25 00:57	0°♒			13070 May 27 22:13	0°♐	
	13065 Oct 04 14:41	0°♑			13070 Jul 10 22:05	0°☾	
	13065 Nov 15 23:43	0°♑			13070 Aug 22 06:55	0°♏	
evening set	13065 Dec 14 10:40	19°♑24'49			13070 Oct 02 05:26	0°♐	
	13065 Dec 30 06:51	0°♑		asc. node	13070 Nov 02 23:02	23°♐45'37	
desc. node	13066 Jan 17 11:37	11°♑59'27			13070 Nov 11 06:00	0°♑	
					13070 Dec 21 08:35	0°♒	
conjunction	13066 Feb 01 11:38	21°♑45'30	-0°08'22		13071 Feb 01 14:13	0°♑	
minimum elong	13066 Feb 01 11:20	21°♑45'02	0°07'41		13071 Mar 24 23:31	0°♑	
behind sun begin	13066 Jan 31 17:59	21°♑16'56		retrograde	13071 May 06 19:20	11°♑05'01	
behind sun end	13066 Feb 02 04:42	22°♑13'07		min. Earth dist.	13071 Jun 05 21:56	4°♑50'50	0.51445 AU
	13066 Feb 14 06:09	0°♑		opposition	13071 Jun 13 19:08	1°♑54'41	3°49'34
max. Earth dist.	13066 Feb 14 15:57	0°♑15'45	2.65246 AU	greatest brilliancy	13071 Jun 12 18:23	2°♑17'49	-2.1m
morning rise	13066 Mar 18 17:40	20°♑43'04			13071 Jun 19 01:15	30°♑♑	
	13066 Apr 02 10:25	0°♑		direct	13071 Jul 18 16:05	24°♑22'06	
	13066 May 20 10:29	0°♑			13071 Aug 19 22:44	0°♑	
	13066 Jul 08 06:33	0°♐		desc. node	13071 Sep 09 23:18	7°♑50'36	
	13066 Aug 27 19:43	0°☾			13071 Oct 25 09:50	0°♑	
	13066 Oct 23 10:26	0°♏			13071 Dec 17 16:25	0°♑	
retrograde	13066 Dec 21 07:06	16°♏22'04			13072 Feb 05 13:43	0°♑	
opposition	13067 Jan 21 10:08	10°♏50'35	-0°32'27		13072 Mar 24 02:58	0°♑	
greatest brilliancy	13067 Jan 21 14:45	10°♏47'09	-2.8m	evening set	13072 Apr 03 17:31	6°♑53'22	
min. Earth dist.	13067 Jan 28 10:37	8°♏45'51	0.40120 AU	max. Earth dist.	13072 Apr 23 12:07	19°♑56'53	2.58346 AU
asc. node	13067 Jan 29 01:22	8°♏35'16			13072 May 08 10:37	0°♐	
direct	13067 Feb 23 14:06	4°♏22'45					
	13067 May 03 17:55	0°♐		conjunction	13072 May 20 05:53	8°♐03'53	-1°04'10
	13067 Jun 18 07:33	0°♑		minimum elong	13072 May 20 06:58	8°♐05'45	1°05'02
	13067 Jul 31 02:15	0°♒			13072 Jun 20 13:49	0°☾	
	13067 Sep 12 03:47	0°♑		morning rise	13072 Jul 09 17:53	13°☾48'16	
	13067 Oct 26 11:23	0°♑			13072 Jul 31 17:57	0°♏	
desc. node	13067 Dec 05 07:52	26°♑11'40			13072 Sep 09 08:40	0°♐	
	13067 Dec 11 04:45	0°♑		asc. node	13072 Sep 19 13:44	7°♐52'25	
evening set	13068 Jan 23 23:06	28°♑03'38			13072 Oct 18 00:50	0°♑	
	13068 Jan 27 00:15	0°♑			13072 Nov 25 14:23	0°♒	
					13073 Jan 04 03:18	0°♑	
conjunction	13068 Mar 08 18:06	26°♑28'50	-0°47'11		13073 Feb 15 05:43	0°♑	
minimum elong	13068 Mar 08 16:58	26°♑27'03	0°47'00		13073 Apr 04 10:39	0°♑	
max. Earth dist.	13068 Mar 08 00:13	26°♑00'31	2.68413 AU	retrograde	13073 Jun 14 19:02	23°♑59'20	
	13068 Mar 14 07:23	0°♑		min. Earth dist.	13073 Jul 20 13:09	15°♑48'23	0.62836 AU
morning rise	13068 Apr 20 22:28	23°♑54'42		opposition	13073 Jul 25 02:32	14°♑00'16	0°07'38
	13068 Apr 30 11:16	0°♑		greatest brilliancy	13073 Jul 25 02:04	14°♑00'43	-1.6m
	13068 Jun 16 01:13	0°♐		desc. node	13073 Jul 28 07:46	12°♑44'30	
	13068 Jul 31 20:15	0°☾		direct	13073 Sep 01 19:11	5°♑01'46	
	13068 Sep 14 20:58	0°♏			13073 Nov 20 17:13	0°♑	
	13068 Oct 29 11:59	0°♐			13074 Jan 15 00:09	0°♑	
	13068 Dec 14 05:54	0°♑			13074 Mar 05 04:52	0°♑	
asc. node	13068 Dec 16 04:06	1°♑12'34			13074 Apr 19 19:33	0°♐	
	13069 Feb 08 10:39	0°♒		evening set	13074 May 15 10:33	17°♐45'12	
retrograde	13069 Mar 11 17:31	6°♒21'11		max. Earth dist.	13074 May 28 22:34	27°♐21'54	2.45987 AU
min. Earth dist.	13069 Apr 06 13:49	2°♒04'17	0.38421 AU		13074 Jun 01 14:24	0°☾	
greatest brilliancy	13069 Apr 11 04:14	0°♒44'26	-2.9m				
opposition	13069 Apr 12 13:00	0°♒20'31	6°36'58	conjunction	13074 Jul 09 07:15	27°☾51'10	-0°19'54
	13069 Apr 13 17:13	30°♒♑		minimum elong	13074 Jul 09 08:42	27°☾53'55	0°20'48
direct	13069 May 12 06:58	25°♑07'48			13074 Jul 12 03:25	0°♏	
	13069 Jun 09 17:48	0°♒		asc. node	13074 Aug 07 02:39	19°♏54'07	
	13069 Aug 11 20:46	0°♑			13074 Aug 20 02:01	0°♐	
	13069 Oct 01 13:59	0°♑		morning rise	13074 Sep 13 06:10	18°♐59'45	
desc. node	13069 Oct 22 13:01	12°♑46'21			13074 Sep 27 04:29	0°♑	
	13069 Nov 19 14:57	0°♑			13074 Nov 04 07:13	0°♒	
	13070 Jan 07 05:18	0°♑			13074 Dec 13 08:00	0°♑	
	13070 Feb 24 06:21	0°♑			13075 Jan 23 06:23	0°♑	
evening set	13070 Feb 27 17:06	2°♑10'24			13075 Mar 08 07:45	0°♑	
max. Earth dist.	13070 Mar 30 12:23	21°♑45'49	2.66054 AU		13075 Apr 27 04:11	0°♑	

desc. node	13075 Jun 15 10:16	22° H 18'19			13080 Jul 25 11:59	0° L	
retrograde	13075 Jul 19 07:23	28° H 25'27			13080 Sep 02 08:03	0° M	
min. Earth dist.	13075 Aug 28 06:51	18° H 54'44	0.68193 AU		13080 Oct 12 10:08	0° N	
opposition	13075 Aug 29 01:38	18° H 36'07	-2°33'48		13080 Nov 23 08:07	0° O	
greatest brilliancy	13075 Aug 28 22:40	18° H 39'04	-1.3m	evening set	13080 Nov 25 18:45	1° O 42'17	
direct	13075 Oct 08 23:27	8° H 52'16			13081 Jan 06 06:28	0° P	
	13075 Dec 19 11:57	0° Y					
	13076 Feb 12 05:09	0° B		conjunction	13081 Jan 16 20:12	7° P 01'45	0°09'46
	13076 Mar 30 06:05	0° I		minimum elong	13081 Jan 16 20:38	7° P 02'29	0°10'37
	13076 May 12 06:03	0° O		behind sun begin	13081 Jan 16 05:09	6° P 36'52	
	13076 Jun 21 13:33	0° L		behind sun end	13081 Jan 17 12:07	7° P 28'04	
asc. node	13076 Jun 23 19:51	1° L 43'45		desc. node	13081 Feb 03 04:01	18° P 24'37	
evening set	13076 Jul 10 13:55	14° L 39'16		max. Earth dist.	13081 Feb 05 03:19	19° P 41'42	2.62514 AU
	13076 Jul 30 04:19	0° M			13081 Feb 21 01:18	0° H	
	13076 Sep 06 01:02	0° L		morning rise	13081 Mar 04 22:02	7° H 36'28	
					13081 Apr 09 08:27	0° Y	
conjunction	13076 Sep 19 07:35	10° L 31'15	0°54'19		13081 May 27 23:54	0° B	
minimum elong	13076 Sep 19 03:42	10° L 23'34	0°54'21		13081 Jul 17 12:23	0° I	
	13076 Oct 14 01:45	0° M			13081 Sep 10 22:47	0° O	
max. Earth dist.	13076 Nov 06 17:05	18° M 17'27	2.37796 AU	retrograde	13081 Nov 23 04:12	22° O 33'46	
	13076 Nov 22 03:08	0° N		opposition	13081 Dec 26 09:52	16° O 06'52	-3°00'32
morning rise	13076 Nov 30 09:01	6° N 10'49		greatest brilliancy	13081 Dec 27 12:25	15° O 44'46	-2.4m
	13077 Jan 01 23:29	0° O		min. Earth dist.	13082 Jan 04 01:09	13° O 15'24	0.45327 AU
	13077 Feb 14 06:28	0° P		direct	13082 Jan 31 15:31	8° O 14'13	
	13077 Apr 01 18:21	0° H		asc. node	13082 Feb 14 13:15	9° O 34'53	
desc. node	13077 May 02 05:11	18° H 11'21			13082 Apr 04 13:02	0° L	
	13077 May 23 11:55	0° Y			13082 May 20 08:06	0° M	
	13077 Aug 08 23:29	0° B			13082 Jun 30 14:14	0° L	
retrograde	13077 Aug 21 23:33	0° B 58'11			13082 Aug 10 08:17	0° M	
	13077 Sep 03 11:09	30° R Y			13082 Sep 21 01:45	0° N	
opposition	13077 Sep 30 20:41	21° Y 43'17	-4°21'14		13082 Nov 03 09:50	0° O	
greatest brilliancy	13077 Oct 01 06:31	21° Y 33'41	-1.3m		13082 Dec 18 10:34	0° P	
min. Earth dist.	13077 Oct 03 22:42	20° Y 31'00	0.66881 AU	desc. node	13082 Dec 21 22:03	2° P 16'35	
direct	13077 Nov 11 12:26	11° Y 40'35		evening set	13083 Jan 09 02:51	14° P 06'23	
	13078 Jan 14 02:50	0° B			13083 Feb 02 20:01	0° H	
	13078 Mar 08 01:48	0° I					
	13078 Apr 21 13:02	0° O		conjunction	13083 Feb 24 01:50	13° H 32'48	-0°33'51
asc. node	13078 May 11 21:37	14° O 45'50		minimum elong	13083 Feb 24 00:52	13° H 31'16	0°33'28
	13078 Jun 01 05:10	0° L		max. Earth dist.	13083 Feb 28 13:54	16° H 24'28	2.67838 AU
	13078 Jul 09 21:08	0° M			13083 Mar 22 00:17	0° Y	
	13078 Aug 16 19:10	0° L		morning rise	13083 Apr 08 15:49	11° Y 10'11	
	13078 Sep 24 00:24	0° M			13083 May 08 09:42	0° B	
evening set	13078 Sep 25 14:11	1° M 13'14			13083 Jun 24 15:30	0° I	
	13078 Nov 02 09:35	0° N			13083 Aug 10 16:39	0° O	
					13083 Sep 26 22:12	0° L	
conjunction	13078 Nov 29 20:10	20° N 08'57	0°55'20		13083 Nov 14 20:47	0° M	
minimum elong	13078 Nov 29 22:19	20° N 12'51	0°56'17	asc. node	13084 Jan 02 20:10	25° M 12'56	
	13078 Dec 13 14:17	0° O			13084 Jan 16 09:59	0° L	
max. Earth dist.	13079 Jan 07 16:16	17° O 32'21	2.51837 AU	retrograde	13084 Feb 10 10:38	3° L 55'47	
morning rise	13079 Jan 24 18:52	29° O 11'53			13084 Mar 07 07:05	30° R M	
	13079 Jan 25 23:25	0° P		min. Earth dist.	13084 Mar 10 05:53	29° M 13'27	0.36372 AU
	13079 Mar 12 16:39	0° H		opposition	13084 Mar 11 04:06	28° M 58'44	4°56'32
desc. node	13079 Mar 19 16:51	4° H 27'41		greatest brilliancy	13084 Mar 10 21:31	29° M 03'06	-3.0m
	13079 Apr 29 23:49	0° Y		direct	13084 Apr 09 08:13	24° M 08'05	
	13079 Jun 21 05:05	0° B			13084 May 10 04:09	0° L	
	13079 Aug 26 01:02	0° I			13084 Jul 08 04:00	0° M	
retrograde	13079 Oct 01 00:43	6° I 30'42			13084 Aug 25 06:25	0° N	
	13079 Nov 02 21:29	30° R B			13084 Oct 11 06:27	0° O	
opposition	13079 Nov 07 13:54	28° B 16'14	-5°01'21	desc. node	13084 Nov 07 23:36	17° O 36'17	
greatest brilliancy	13079 Nov 08 19:07	27° B 48'42	-1.7m		13084 Nov 27 14:27	0° P	
min. Earth dist.	13079 Nov 14 10:21	25° B 41'28	0.58830 AU		13085 Jan 14 07:55	0° H	
direct	13079 Dec 18 03:42	18° B 31'57		evening set	13085 Feb 14 01:08	19° H 18'16	
	13080 Feb 02 03:12	0° I			13085 Mar 02 23:55	0° Y	
	13080 Mar 26 12:39	0° O		max. Earth dist.	13085 Mar 21 16:02	11° Y 50'33	2.67646 AU
asc. node	13080 Mar 29 05:06	1° O 45'54					
	13080 May 08 09:56	0° L		conjunction	13085 Mar 29 23:21	17° Y 08'14	-1°02'52
	13080 Jun 16 23:33	0° M		minimum elong	13085 Mar 29 22:25	17° Y 06'44	1°03'04

	13085 Apr 19 00:35	0°♄		min. Earth dist.	13090 Aug 13 14:24	6°♄40'18	0.66869 AU
morning rise	13085 May 12 11:08	15°♄12'31		opposition	13090 Aug 15 20:50	5°♄46'17	-1°38'00
	13085 Jun 03 22:42	0°♄		greatest brilliancy	13090 Aug 15 16:44	5°♄50'21	-1.4m
	13085 Jul 18 12:13	0°♄			13090 Aug 31 19:02	30°♄≈	
	13085 Aug 30 15:55	0°♄		direct	13090 Sep 25 01:39	26°≈16'52	
	13085 Oct 11 13:16	0°♄			13090 Oct 21 15:27	0°♄	
asc. node	13085 Nov 19 18:54	28°♄35'37			13090 Dec 30 18:52	0°♄	
	13085 Nov 21 17:12	0°♄			13091 Feb 20 10:59	0°♄	
	13086 Jan 02 12:50	0°♄			13091 Apr 07 18:16	0°♄	
	13086 Feb 18 05:32	0°♄			13091 May 20 14:53	0°♄	
retrograde	13086 Apr 17 18:50	19°♄37'29		evening set	13091 Jun 16 12:44	19°♄49'38	
min. Earth dist.	13086 May 15 11:19	14°♄19'25	0.45917 AU		13091 Jun 29 23:51	0°♄	
greatest brilliancy	13086 May 22 09:33	11°♄54'41	-2.4m	asc. node	13091 Jul 11 14:08	8°♄52'49	
opposition	13086 May 23 22:22	11°♄22'27	5°23'39	max. Earth dist.	13091 Jul 13 03:05	10°♄04'01	2.37821 AU
direct	13086 Jun 25 17:29	4°♄41'11			13091 Aug 07 17:06	0°♄	
	13086 Sep 11 03:59	0°♄					
desc. node	13086 Sep 26 07:51	7°♄55'04		conjunction	13091 Aug 20 01:59	9°♄45'06	0°27'36
	13086 Nov 04 20:32	0°≈		minimum elong	13091 Aug 19 23:15	9°♄39'42	0°27'06
	13086 Dec 25 15:49	0°♄			13091 Sep 14 15:15	0°♄	
	13087 Feb 12 15:21	0°♄			13091 Oct 22 15:41	0°♄	
evening set	13087 Mar 21 10:02	23°♄14'07		morning rise	13091 Nov 02 10:14	8°♄23'31	
	13087 Mar 31 22:04	0°♄			13091 Nov 30 15:27	0°♄	
max. Earth dist.	13087 Apr 14 05:50	8°♄40'24	2.61974 AU		13092 Jan 10 10:23	0°♄	
					13092 Feb 22 20:19	0°≈	
conjunction	13087 May 05 10:46	22°♄42'11	-1°09'44		13092 Apr 10 01:55	0°♄	
minimum elong	13087 May 05 11:08	22°♄42'46	1°10'28	desc. node	13092 May 18 21:59	21°♄54'10	
	13087 May 16 07:25	0°♄			13092 Jun 04 05:23	0°♄	
morning rise	13087 Jun 21 18:02	25°♄05'13		retrograde	13092 Aug 08 04:34	18°♄26'00	
	13087 Jun 28 17:29	0°♄		opposition	13092 Sep 17 13:32	8°♄55'06	-3°46'05
	13087 Aug 09 07:10	0°♄		greatest brilliancy	13092 Sep 17 17:00	8°♄51'41	-1.3m
	13087 Sep 18 08:12	0°♄		min. Earth dist.	13092 Sep 19 03:04	8°♄18'10	0.68202 AU
asc. node	13087 Oct 07 09:14	14°♄33'45			13092 Oct 16 04:25	30°♄♄	
	13087 Oct 27 09:53	0°♄		direct	13092 Oct 29 02:16	28°♄56'35	
	13087 Dec 05 08:40	0°♄			13092 Nov 11 14:36	0°♄	
	13088 Jan 14 10:35	0°♄			13093 Jan 26 09:50	0°♄	
	13088 Feb 26 21:06	0°♄			13093 Mar 16 22:22	0°♄	
	13088 Apr 21 20:25	0°≈			13093 Apr 29 14:28	0°♄	
retrograde	13088 May 31 06:52	8°≈59'47		asc. node	13093 May 28 11:27	21°♄14'00	
min. Earth dist.	13088 Jul 03 23:54	1°≈29'12	0.58984 AU		13093 Jun 09 01:18	0°♄	
	13088 Jul 07 19:21	30°♄♄			13093 Jul 17 15:51	0°♄	
opposition	13088 Jul 09 23:14	29°♄09'08	1°26'38		13093 Aug 24 12:30	0°♄	
greatest brilliancy	13088 Jul 09 15:56	29°♄16'17	-1.7m	evening set	13093 Aug 26 01:04	1°♄12'31	
desc. node	13088 Aug 13 18:24	20°♄40'40			13093 Oct 01 14:59	0°♄	
direct	13088 Aug 16 08:40	20°♄38'06					
	13088 Sep 29 06:18	0°≈		conjunction	13093 Nov 04 23:54	26°♄21'46	1°05'26
	13088 Dec 01 15:20	0°♄		minimum elong	13093 Nov 05 00:53	26°♄23'37	1°06'13
	13089 Jan 23 00:24	0°♄			13093 Nov 09 20:00	0°♄	
	13089 Mar 12 09:30	0°♄			13093 Dec 20 19:53	0°♄	
	13089 Apr 26 20:00	0°♄		max. Earth dist.	13093 Dec 22 20:12	1°♄26'00	2.46419 AU
evening set	13089 Apr 28 01:51	0°♄50'49		morning rise	13094 Jan 05 19:44	11°♄17'15	
max. Earth dist.	13089 May 12 20:34	11°♄00'58	2.51253 AU		13094 Feb 02 02:06	0°≈	
	13089 Jun 08 17:16	0°♄			13094 Mar 19 22:35	0°♄	
				desc. node	13094 Apr 05 11:46	10°♄22'14	
conjunction	13089 Jun 17 16:37	6°♄29'02	-0°42'45		13094 May 08 01:42	0°♄	
minimum elong	13089 Jun 17 18:34	6°♄32'35	0°43'44		13094 Jul 02 13:27	0°♄	
	13089 Jul 19 11:19	0°♄		retrograde	13094 Sep 14 08:46	22°♄08'29	
morning rise	13089 Aug 15 07:15	20°♄27'02		opposition	13094 Oct 23 00:40	13°♄26'15	-4°56'40
asc. node	13089 Aug 23 22:01	27°♄06'41		greatest brilliancy	13094 Oct 23 22:27	13°♄05'21	-1.5m
	13089 Aug 27 15:18	0°♄		min. Earth dist.	13094 Oct 28 11:00	11°♄21'09	0.62769 AU
	13089 Oct 04 21:58	0°♄		direct	13094 Dec 03 07:03	3°♄28'05	
	13089 Nov 12 03:28	0°♄			13095 Feb 18 08:59	0°♄	
	13089 Dec 21 06:39	0°♄			13095 Apr 06 22:58	0°♄	
	13090 Jan 31 10:28	0°♄		asc. node	13095 Apr 15 17:37	6°♄05'58	
	13090 Mar 17 07:37	0°≈			13095 May 18 13:14	0°♄	
	13090 May 10 00:55	0°♄			13095 Jun 26 14:26	0°♄	
desc. node	13090 Jul 02 00:54	15°♄36'40			13095 Aug 03 18:46	0°♄	
retrograde	13090 Jul 06 03:09	15°♄42'59			13095 Sep 11 07:00	0°♄	

	13095 Oct 21 00:44	0°♊		13100 Jun 12 02:48	0°♊
evening set	13095 Nov 05 10:27	11°♊17'24		13100 Jul 27 10:02	0°♊
	13095 Dec 01 14:14	0°♊		13100 Sep 09 15:32	0°♊
conjunction	13095 Dec 31 15:50	20°♊49'10 0°28'30		13100 Oct 23 00:13	0°♊
minimum elong	13095 Dec 31 17:09	20°♊51'24 0°29'28	asc. node	13100 Dec 05 08:14	0°♊
	13096 Jan 14 05:47	0°♊		13100 Dec 07 11:32	1°♊27'20
max. Earth dist.	13096 Jan 26 18:18	8°♊21'20 2.58944 AU	retrograde	13101 Jan 20 18:46	0°♊
morning rise	13096 Feb 19 07:57	23°♊48'39	min. Earth dist.	13101 Mar 27 07:31	23°♊38'40
desc. node	13096 Feb 20 22:29	24°♊51'08	greatest brilliancy	13101 Apr 22 07:51	19°♊08'07 0.40726 AU
	13096 Feb 28 21:49	0°♊	opposition	13101 Apr 28 04:50	17°♊17'52 -2.7m
	13096 Apr 16 10:35	0°♊	direct	13101 Apr 29 20:45	16°♊46'22 6°32'34
	13096 Jun 05 00:20	0°♊		13101 May 30 12:54	11°♊03'34
	13096 Jul 28 07:13	0°♊		13101 Aug 01 12:20	0°♊
	13096 Oct 08 05:30	0°♊	desc. node	13101 Sep 25 12:43	0°♊
retrograde	13096 Oct 30 11:54	2°♊43'23		13101 Oct 13 18:37	10°♊42'46
	13096 Nov 20 05:47	30°♊		13101 Nov 14 23:50	0°♊
opposition	13096 Dec 04 15:27	25°♊26'50 -4°20'17		13102 Jan 03 05:30	0°♊
greatest brilliancy	13096 Dec 06 01:56	24°♊56'03 -2.1m			
min. Earth dist.	13096 Dec 13 03:56	22°♊24'59 0.51017 AU			
direct	13097 Jan 12 03:45	16°♊32'25			
	13097 Mar 01 15:54	0°♊			
asc. node	13097 Mar 03 03:26	0°♊43'35			
	13097 Apr 20 14:52	0°♊			
	13097 Jun 01 05:54	0°♊			
	13097 Jul 10 20:25	0°♊			
	13097 Aug 19 12:42	0°♊			
	13097 Sep 29 09:38	0°♊			
	13097 Nov 11 00:44	0°♊			
evening set	13097 Dec 24 04:56	29°♊07'25			
	13097 Dec 25 12:43	0°♊			
desc. node	13098 Jan 07 12:37	8°♊33'15			
conjunction	13098 Feb 09 22:33	0°♊12'52 -0°18'20			
minimum elong	13098 Feb 09 21:56	0°♊11'54 0°17'45			
	13098 Feb 09 14:31	0°♊			
max. Earth dist.	13098 Feb 19 22:09	6°♊36'38 2.66415 AU			
morning rise	13098 Mar 26 10:19	28°♊32'03			
	13098 Mar 28 17:59	0°♊			
	13098 May 15 11:36	0°♊			
	13098 Jul 02 15:06	0°♊			
	13098 Aug 20 13:42	0°♊			
	13098 Oct 11 01:10	0°♊			
	13098 Dec 18 19:43	0°♊			
retrograde	13099 Jan 08 05:03	2°♊28'42			
asc. node	13099 Jan 19 10:17	1°♊39'58			
	13099 Jan 28 04:55	30°♊			
opposition	13099 Feb 07 06:06	27°♊22'57 1°24'36			
greatest brilliancy	13099 Feb 07 11:31	27°♊19'10 -3.0m			
min. Earth dist.	13099 Feb 12 02:56	26°♊01'27 0.37953 AU			
direct	13099 Mar 10 16:46	21°♊42'23			
	13099 Apr 15 22:26	0°♊			
	13099 Jun 08 20:21	0°♊			
	13099 Jul 23 20:03	0°♊			
	13099 Sep 06 00:51	0°♊			
	13099 Oct 21 01:08	0°♊			
desc. node	13099 Nov 25 11:16	23°♊04'37			
	13099 Dec 06 05:20	0°♊			
	13100 Jan 22 07:04	0°♊			
evening set	13100 Feb 01 03:10	6°♊13'43			
	13100 Mar 10 16:42	0°♊			
max. Earth dist.	13100 Mar 14 00:09	2°♊05'55 2.68376 AU			
conjunction	13100 Mar 17 11:40	4°♊18'18 -0°53'51			
minimum elong	13100 Mar 17 10:33	4°♊16'31 0°53'49			
	13100 Apr 26 19:07	0°♊			
morning rise	13100 Apr 29 15:16	1°♊49'21			