conjunction	13602 Jan 29 05:06	19°♒36'37	-0°00'39
minimum elong	13602 Jan 29 05:03	19°♒36'32	0°00'06
behind sun begin	13602 Jan 28 09:24	19°♒04'12	
behind sun end	13602 Jan 30 00:41	20°♒08'51	
	13602 Feb 14 01:59	0°♓	
max. Earth dist.	13602 Feb 16 04:33	1°♓22'12	2.63089 AU
morning rise	13602 Mar 16 19:09	19°♓46'22	
	13602 Apr 01 22:06	0°♈	
	13602 May 20 00:44	0°♉	
	13602 Jul 08 13:11	0°♊	
	13602 Aug 29 21:55	0°♋	
	13602 Nov 02 20:13	0°♌	
retrograde	13602 Dec 07 05:04	6°♌16'00	
opposition	13603 Jan 09 02:44	29°♋58'34	-2°05'43
	13603 Jan 09 00:58	30°℞♋	
greatest brilliancy	13603 Jan 09 21:46	29°♋43'01	-2.5m
min. Earth dist.	13603 Jan 17 16:27	27°♋11'41	0.44321 AU
asc. node	13603 Feb 11 12:10	22°♋21'54	
direct	13603 Feb 13 20:35	22°♋19'32	
	13603 Mar 20 13:13	0°♌	
	13603 May 12 21:52	0°♍	
	13603 Jun 24 13:25	0°♎	
	13603 Aug 04 13:09	0°♏	
	13603 Sep 15 01:41	0°♐	
	13603 Oct 28 00:22	0°♑	
	13603 Dec 11 15:26	0°♒	
desc. node	13603 Dec 15 19:27	2°♒44'52	
evening set	13604 Jan 21 07:15	26°♒30'19	
	13604 Jan 26 17:32	0°♓	
conjunction	13604 Mar 06 22:20	25°♓39'53	-0°42'32
minimum elong	13604 Mar 06 21:12	25°♓38'06	0°42'20
max. Earth dist.	13604 Mar 10 14:25	27°♓59'41	2.68034 AU
	13604 Mar 13 18:15	0°♈	
morning rise	13604 Apr 19 08:06	23°♈10'24	
	13604 Apr 30 02:46	0°♉	
	13604 Jun 16 07:59	0°♊	
	13604 Aug 02 05:30	0°♋	
	13604 Sep 17 22:11	0°♌	
	13604 Nov 04 03:22	0°♍	
	13604 Dec 25 05:41	0°♎	
asc. node	13604 Dec 29 18:21	2°♎20'55	
retrograde	13605 Feb 24 19:38	19°♎42'57	
min. Earth dist.	13605 Mar 24 17:17	15°♎10'28	0.36495 AU
opposition	13605 Mar 26 15:41	14°♎39'38	5°54'28
greatest brilliancy	13605 Mar 26 03:54	14°♎47'28	-3.0m
direct	13605 Apr 24 17:44	9°♎50'04	
	13605 Jun 26 10:25	0°♏	
	13605 Aug 16 18:35	0°♐	
	13605 Oct 03 12:33	0°♑	
desc. node	13605 Nov 01 22:40	18°♑35'58	
	13605 Nov 20 00:44	0°♒	
	13606 Jan 06 20:02	0°♓	
	13606 Feb 23 16:02	0°♈	
evening set	13606 Feb 25 21:15	1°♈23'45	
max. Earth dist.	13606 Apr 01 12:17	23°♈18'54	2.67449 AU
conjunction	13606 Apr 10 17:15	29°♈11'28	-1°07'12
minimum elong	13606 Apr 10 16:30	29°♈10'17	1°07'36
	13606 Apr 11 23:36	0°♉	
morning rise	13606 May 24 07:30	27°♉24'11	
	13606 May 28 06:27	0°♊	
	13606 Jul 12 05:03	0°♋	
	13606 Aug 24 16:21	0°♌	
	13606 Oct 05 18:18	0°♍	
	13606 Nov 15 19:31	0°♎	
asc. node	13606 Nov 16 17:14	0°♎39'55	
	13606 Dec 26 19:16	0°♏	
	13607 Feb 08 03:05	0°♐	
	13607 Apr 07 18:04	0°♑	
retrograde	13607 Apr 30 23:23	3°♑41'05	
	13607 May 23 12:18	30°℞♐	
min. Earth dist.	13607 May 29 01:03	28°♐12'03	0.46912 AU
greatest brilliancy	13607 Jun 05 01:53	25°♐42'53	-2.3m
opposition	13607 Jun 06 10:36	25°♐13'44	4°49'26
direct	13607 Jul 09 16:30	18°♐22'02	
	13607 Aug 26 20:57	0°♑	
desc. node	13607 Sep 20 08:05	11°♑09'17	
	13607 Oct 26 01:42	0°♒	
	13607 Dec 17 05:32	0°♓	
	13608 Feb 04 22:53	0°♈	
	13608 Mar 23 20:59	0°♉	
evening set	13608 Apr 01 06:19	5°♉22'29	
max. Earth dist.	13608 Apr 24 12:26	20°♉29'14	2.61408 AU
	13608 May 08 21:30	0°♊	
conjunction	13608 May 16 11:37	5°♊04'27	-1°07'50
minimum elong	13608 May 16 12:20	5°♊05'40	1°08'44
	13608 Jun 21 22:04	0°♋	
morning rise	13608 Jul 03 07:19	7°♋59'15	
	13608 Aug 03 00:03	0°♌	
	13608 Sep 12 09:57	0°♍	
asc. node	13608 Oct 03 07:07	15°♍53'30	
	13608 Oct 21 15:14	0°♎	
	13608 Nov 29 09:49	0°♏	
	13609 Jan 07 19:42	0°♐	
	13609 Feb 18 13:00	0°♑	
	13609 Apr 07 13:57	0°♒	
retrograde	13609 Jun 12 09:59	21°♒39'31	
min. Earth dist.	13609 Jul 16 12:00	14°♒01'27	0.59744 AU
opposition	13609 Jul 22 05:49	11°♒46'12	0°41'35
greatest brilliancy	13609 Jul 22 02:23	11°♒49'34	-1.7m
desc. node	13609 Aug 07 18:18	6°♒03'52	
direct	13609 Aug 28 20:46	3°♒10'02	
	13609 Nov 20 07:42	0°♓	
	13610 Jan 14 09:21	0°♈	
	13610 Mar 05 01:29	0°♉	
	13610 Apr 20 10:48	0°♊	
evening set	13610 May 10 07:58	13°♊26'33	
max. Earth dist.	13610 May 24 20:44	23°♊29'46	2.50348 AU
	13610 Jun 03 02:55	0°♋	
conjunction	13610 Jun 30 16:07	19°♋48'59	-0°33'35
minimum elong	13610 Jun 30 17:56	19°♋52'18	0°34'35
	13610 Jul 14 11:31	0°♌	
asc. node	13610 Aug 20 18:31	28°♌14'38	
	13610 Aug 23 01:12	0°♍	
morning rise	13610 Aug 29 15:50	5°♍06'41	
	13610 Sep 30 11:46	0°♎	
	13610 Nov 07 14:20	0°♏	
	13610 Dec 16 06:54	0°♐	
	13611 Jan 25 14:13	0°♑	
	13611 Mar 09 20:32	0°♒	
	13611 Apr 27 22:24	0°♓	
desc. node	13611 Jun 26 00:09	25°♓03'54	
retrograde	13611 Jul 17 23:08	27°♓50'50	
min. Earth dist.	13611 Aug 25 15:48	18°♓43'35	0.67213 AU
opposition	13611 Aug 27 16:52	17°♓54'50	-2°15'10
greatest brilliancy	13611 Aug 27 11:45	17°♓59'55	-1.3m
direct	13611 Oct 07 00:59	8°♓22'54	

	13611 Dec 18 23:31	0°♈	
	13612 Feb 12 06:11	0°♉	
	13612 Mar 31 03:37	0°♊	
	13612 May 14 01:13	0°♋	
	13612 Jun 24 03:04	0°♌	
evening set	13612 Jun 29 01:24	3°♌42'42	
asc. node	13612 Jul 07 10:45	10°♌04'31	
max. Earth dist.	13612 Aug 01 07:14	29°♌14'53	2.37040 AU
	13612 Aug 02 06:23	0°♍	
conjunction	13612 Sep 03 02:07	25°♍03'19	0°38'55
minimum elong	13612 Sep 02 22:28	24°♍56'04	0°38'40
	13612 Sep 09 07:47	0°♎	
	13612 Oct 17 04:41	0°♏	
morning rise	13612 Nov 16 15:20	23°♏45'15	
	13612 Nov 24 18:31	0°♐	
	13613 Jan 03 21:21	0°♑	
	13613 Feb 15 07:56	0°♒	
	13613 Apr 02 00:24	0°♓	
desc. node	13613 May 12 20:06	24°♓20'27	
	13613 May 23 03:30	0°♈	
	13613 Aug 11 03:20	0°♉	
retrograde	13613 Aug 20 02:42	0°♉28'13	
	13613 Aug 28 18:36	30°℞♈	
opposition	13613 Sep 29 09:02	20°♈59'44	-4°09'04
greatest brilliancy	13613 Sep 29 13:55	20°♈54'55	-1.3m
min. Earth dist.	13613 Oct 01 04:16	20°♈17'10	0.68075 AU
direct	13613 Nov 09 21:35	11°♈00'28	
	13614 Jan 14 17:53	0°♉	
	13614 Mar 09 10:21	0°♊	
	13614 Apr 23 18:17	0°♋	
asc. node	13614 May 25 09:35	22°♋45'16	
	13614 Jun 04 03:06	0°♌	
	13614 Jul 13 05:13	0°♍	
	13614 Aug 20 05:00	0°♎	
evening set	13614 Sep 10 05:58	16°♎41'07	
	13614 Sep 27 03:12	0°♏	
	13614 Nov 04 21:52	0°♐	
conjunction	13614 Nov 19 09:32	10°♐55'35	1°02'22
minimum elong	13614 Nov 19 11:25	10°♐59'07	1°03'18
	13614 Dec 15 06:50	0°♑	
max. Earth dist.	13615 Jan 04 21:24	14°♑45'04	2.47436 AU
morning rise	13615 Jan 18 22:44	24°♑35'30	
	13615 Jan 26 18:46	0°♒	
	13615 Mar 12 17:43	0°♓	
desc. node	13615 Mar 30 08:44	11°♓17'33	
	13615 Apr 29 13:21	0°♈	
	13615 Jun 20 18:45	0°♉	
	13615 Aug 28 13:07	0°♊	
retrograde	13615 Sep 26 17:21	4°♊25'24	
	13615 Oct 23 09:39	30°℞♉	
opposition	13615 Nov 04 03:45	25°♉47'26	-4°58'31
greatest brilliancy	13615 Nov 05 03:10	25°♉24'57	-1.5m
min. Earth dist.	13615 Nov 09 19:22	23°♉37'18	0.62138 AU
direct	13615 Dec 15 06:01	15°♉51'00	
	13616 Feb 06 03:27	0°♊	
	13616 Mar 29 22:07	0°♋	
asc. node	13616 Apr 11 15:18	8°♋27'00	
	13616 May 12 03:18	0°♌	
	13616 Jun 20 21:01	0°♍	
	13616 Jul 29 05:48	0°♎	
	13616 Sep 05 13:53	0°♏	
	13616 Oct 14 21:25	0°♐	
evening set	13616 Nov 18 02:32	25°♐08'25	
	13616 Nov 24 21:03	0°♑	
	13617 Jan 06 21:19	0°♒	
conjunction	13617 Jan 12 09:15	3°♒43'54	0°18'33
minimum elong	13617 Jan 12 10:09	3°♒45'25	0°19'28
max. Earth dist.	13617 Feb 06 05:05	20°♒19'57	2.59659 AU
desc. node	13617 Feb 13 19:58	25°♒20'52	
	13617 Feb 20 22:41	0°♓	
morning rise	13617 Mar 02 09:43	6°♓08'33	
	13617 Apr 08 20:34	0°♈	
	13617 May 27 13:35	0°♉	
	13617 Jul 17 20:33	0°♊	
	13617 Sep 14 08:11	0°♋	
retrograde	13617 Nov 12 18:56	15°♋48'10	
opposition	13617 Dec 17 16:06	8°♋39'07	-3°46'31
greatest brilliancy	13617 Dec 18 23:17	8°♋11'30	-2.1m
min. Earth dist.	13617 Dec 26 07:22	5°♋36'50	0.49994 AU
	13618 Jan 20 22:38	30°℞♊	
direct	13618 Jan 24 18:40	29°♊53'44	
	13618 Jan 28 15:38	0°♋	
asc. node	13618 Feb 28 01:44	7°♋09'25	
	13618 Apr 12 14:07	0°♌	
	13618 May 26 08:36	0°♍	
	13618 Jul 05 13:23	0°♎	
	13618 Aug 14 05:10	0°♏	
	13618 Sep 23 18:00	0°♐	
	13618 Nov 04 21:38	0°♑	
	13618 Dec 18 21:46	0°♒	
desc. node	13619 Jan 01 10:22	8°♒59'09	
evening set	13619 Jan 05 15:36	11°♒46'09	
	13619 Feb 02 14:05	0°♓	
conjunction	13619 Feb 21 22:07	12°♓26'41	-0°28'03
minimum elong	13619 Feb 21 21:14	12°♓25'16	0°27'37
max. Earth dist.	13619 Mar 02 19:31	18°♓07'55	2.66766 AU
	13619 Mar 21 11:12	0°♈	
morning rise	13619 Apr 07 03:01	10°♈32'47	
	13619 May 08 00:09	0°♉	
	13619 Jun 24 21:14	0°♊	
	13619 Aug 12 04:21	0°♋	
	13619 Sep 30 17:33	0°♌	
	13619 Nov 24 10:29	0°♍	
asc. node	13620 Jan 16 09:31	17°♍15'22	
retrograde	13620 Jan 23 09:55	17°♍34'22	
opposition	13620 Feb 22 07:16	12°♍34'54	2°45'14
greatest brilliancy	13620 Feb 22 15:05	12°♍29'31	-3.0m
min. Earth dist.	13620 Feb 26 04:59	11°♍30'32	0.37402 AU
direct	13620 Mar 24 03:54	7°♍07'47	
	13620 May 28 11:09	0°♎	
	13620 Jul 15 04:51	0°♏	
	13620 Aug 28 23:30	0°♐	
	13620 Oct 13 00:04	0°♑	
desc. node	13620 Nov 18 09:25	23°♑46'44	
	13620 Nov 28 00:34	0°♒	
	13621 Jan 13 23:46	0°♓	
evening set	13621 Feb 12 01:53	18°♓24'29	
	13621 Mar 02 10:07	0°♈	
max. Earth dist.	13621 Mar 23 23:49	13°♈39'23	2.68329 AU
conjunction	13621 Mar 28 05:48	16°♈21'05	-1°00'07
minimum elong	13621 Mar 28 04:45	16°♈19'25	1°00'17
	13621 Apr 18 16:25	0°♉	
morning rise	13621 May 10 08:47	13°♉53'51	
	13621 Jun 04 05:55	0°♊	
	13621 Jul 19 18:44	0°♋	
	13621 Sep 02 03:57	0°♌	
	13621 Oct 15 11:30	0°♍	
	13621 Nov 27 04:58	0°♎	
asc. node	13621 Dec 03 10:06	4°♎20'52	
	13622 Jan 10 00:31	0°♏	

	13622 Mar 03 21:57	0°♐	
retrograde	13622 Apr 09 03:39	8°♐31'08	
min. Earth dist.	13622 May 05 06:11	3°♐54'24	0.41569 AU
greatest brilliancy	13622 May 11 12:08	1°♐55'01	-2.6m
opposition	13622 May 13 03:51	1°♐23'09	6°20'26
	13622 May 17 14:03	30°℞♏	
direct	13622 Jun 13 04:45	25°♏30'07	
	13622 Jul 10 22:12	0°♐	
	13622 Sep 14 07:56	0°♑	
desc. node	13622 Oct 06 18:14	12°♑39'00	
	13622 Nov 05 09:39	0°♒	
	13622 Dec 25 06:17	0°♓	
	13623 Feb 12 01:17	0°♈	
evening set	13623 Mar 19 08:32	22°♈09'48	
	13623 Mar 31 15:44	0°♉	
max. Earth dist.	13623 Apr 15 18:52	9°♉43'55	2.64411 AU
conjunction	13623 May 02 15:05	20°♉41'55	-1°11'02
minimum elong	13623 May 02 15:08	20°♉42'02	1°11'46
	13623 May 16 17:35	0°♊	
morning rise	13623 Jun 17 03:53	21°♊08'53	
	13623 Jun 30 01:13	0°♋	
	13623 Aug 11 13:58	0°♌	
	13623 Sep 21 12:04	0°♍	
asc. node	13623 Oct 21 03:16	22°♍18'59	
	13623 Oct 31 05:37	0°♎	
	13623 Dec 09 12:41	0°♏	
	13624 Jan 18 16:00	0°♐	
	13624 Mar 02 02:56	0°♑	
	13624 Apr 29 02:40	0°♒	
retrograde	13624 May 27 22:12	5°♒14'48	
	13624 Jun 24 08:12	30°℞♑	
min. Earth dist.	13624 Jun 28 19:45	28°♑21'42	0.55211 AU
opposition	13624 Jul 05 20:34	25°♑39'30	2°10'36
greatest brilliancy	13624 Jul 05 07:33	25°♑52'02	-1.9m
direct	13624 Aug 10 23:01	17°♑36'34	
desc. node	13624 Aug 24 05:28	18°♑38'47	
	13624 Oct 01 07:17	0°♒	
	13624 Dec 01 05:30	0°♓	
	13625 Jan 22 10:05	0°♈	
	13625 Mar 12 05:09	0°♉	
evening set	13625 Apr 24 06:58	27°♉55'54	
	13625 Apr 27 09:27	0°♊	
max. Earth dist.	13625 May 11 17:30	9°♊39'03	2.55221 AU
	13625 Jun 10 04:00	0°♋	
conjunction	13625 Jun 11 10:45	0°♋54'08	-0°51'55
minimum elong	13625 Jun 11 12:28	0°♋57'09	0°52'57
	13625 Jul 21 18:38	0°♌	
morning rise	13625 Aug 04 07:52	10°♌04'18	
	13625 Aug 30 15:12	0°♍	
asc. node	13625 Sep 06 15:45	5°♍23'33	
	13625 Oct 08 07:50	0°♎	
	13625 Nov 15 14:49	0°♏	
	13625 Dec 24 11:00	0°♐	
	13626 Feb 03 00:54	0°♑	
	13626 Mar 19 04:19	0°♒	
	13626 May 11 10:10	0°♓	
retrograde	13626 Jul 04 13:53	14°♓42'54	
desc. node	13626 Jul 12 12:35	14°♓17'17	
min. Earth dist.	13626 Aug 10 15:13	6°♓06'55	0.65057 AU
opposition	13626 Aug 14 04:00	4°♓42'45	-1°15'04
greatest brilliancy	13626 Aug 13 23:25	4°♓47'18	-1.4m
	13626 Aug 26 21:19	30°℞♒	
direct	13626 Sep 22 15:28	25°♒28'37	
	13626 Oct 22 04:28	0°♓	
	13626 Dec 30 05:07	0°♈	

	13627 Feb 20 09:55	0°♉	
	13627 Apr 08 12:50	0°♊	
	13627 May 22 06:44	0°♋	
evening set	13627 Jun 08 02:47	12°♋04'29	
max. Earth dist.	13627 Jun 23 16:26	23°♋29'08	2.41945 AU
	13627 Jul 02 10:27	0°♌	
asc. node	13627 Jul 25 04:19	17°♌13'55	
conjunction	13627 Aug 06 07:39	26°♌35'19	0°08'36
minimum elong	13627 Aug 06 06:55	26°♌33'55	0°07'56
behind sun begin	13627 Aug 05 06:36	25°♌46'50	
behind sun end	13627 Aug 07 07:15	27°♌21'01	
	13627 Aug 10 17:10	0°♍	
	13627 Sep 17 21:34	0°♎	
morning rise	13627 Oct 16 17:22	22°♎49'02	
	13627 Oct 25 19:54	0°♏	
	13627 Dec 03 09:34	0°♐	
	13628 Jan 12 12:06	0°♑	
	13628 Feb 24 01:52	0°♒	
	13628 Apr 10 11:37	0°♓	
desc. node	13628 May 29 12:48	27°♓21'47	
	13628 Jun 03 23:58	0°♈	
retrograde	13628 Aug 06 16:30	18°♈04'15	
opposition	13628 Sep 16 06:52	8°♈22'19	-3°31'56
greatest brilliancy	13628 Sep 16 06:16	8°♈22'55	-1.2m
min. Earth dist.	13628 Sep 16 13:32	8°♈15'44	0.68554 AU
	13628 Oct 12 04:40	30°℞♓	
direct	13628 Oct 27 12:36	28°♓30'47	
	13628 Nov 12 20:07	0°♈	
	13629 Jan 26 16:23	0°♉	
	13629 Mar 18 01:40	0°♊	
	13629 May 01 15:08	0°♋	
asc. node	13629 Jun 11 01:19	29°♋25'59	
	13629 Jun 11 19:26	0°♌	
	13629 Jul 20 20:53	0°♍	
evening set	13629 Aug 10 06:07	16°♍02'45	
	13629 Aug 27 20:24	0°♎	
	13629 Oct 04 17:08	0°♏	
conjunction	13629 Oct 22 04:13	13°♏40'04	1°06'04
minimum elong	13629 Oct 22 03:14	13°♏38'08	1°06'43
	13629 Nov 12 08:44	0°♐	
max. Earth dist.	13629 Dec 14 15:05	24°♐10'58	2.41745 AU
	13629 Dec 22 13:58	0°♑	
morning rise	13629 Dec 28 14:06	4°♑21'17	
	13630 Feb 02 23:19	0°♒	
	13630 Mar 20 01:08	0°♓	
desc. node	13630 Apr 16 03:46	17°♓03'57	
	13630 May 07 15:17	0°♈	
	13630 Jul 02 02:45	0°♉	
retrograde	13630 Sep 11 07:30	20°♉56'38	
opposition	13630 Oct 20 15:25	11°♉55'30	-4°48'34
greatest brilliancy	13630 Oct 21 07:13	11°♉40'07	-1.4m
min. Earth dist.	13630 Oct 24 19:01	10°♉18'38	0.65290 AU
direct	13630 Dec 01 03:12	1°♉53'04	
	13631 Feb 20 12:56	0°♊	
	13631 Apr 09 16:47	0°♋	
asc. node	13631 Apr 29 05:21	13°♋32'39	
	13631 May 21 20:59	0°♌	
	13631 Jun 30 05:34	0°♍	
	13631 Aug 07 08:56	0°♎	
	13631 Sep 14 11:25	0°♏	
	13631 Oct 23 12:06	0°♐	
evening set	13631 Oct 25 19:52	1°♐45'02	
	13631 Dec 03 04:17	0°♑	
conjunction	13631 Dec 25 10:46	15°♑49'25	0°37'53

minimum elong	13631 Dec 25 12:39	15°♑52'43	0°38'54
	13632 Jan 14 21:57	0°♒	
max. Earth dist.	13632 Jan 27 03:47	8°♒19'14	2.55422 AU
morning rise	13632 Feb 15 22:14	21°♒31'24	
	13632 Feb 28 20:14	0°♓	
desc. node	13632 Mar 02 13:48	1°♓46'45	
	13632 Apr 15 22:40	0°♈	
	13632 Jun 04 13:05	0°♉	
	13632 Jul 28 18:02	0°♊	
retrograde	13632 Oct 23 04:23	28°♊27'09	
opposition	13632 Nov 28 16:25	20°♊36'49	-4°37'12
greatest brilliancy	13632 Nov 30 00:23	20°♊07'12	-1.8m
min. Earth dist.	13632 Dec 06 09:39	17°♊45'53	0.55366 AU
direct	13633 Jan 07 09:15	11°♊10'36	
	13633 Mar 08 13:16	0°♋	
asc. node	13633 Mar 16 13:10	4°♋24'14	
	13633 Apr 25 18:03	0°♌	
	13633 Jun 06 00:07	0°♍	
	13633 Jul 15 03:28	0°♎	
	13633 Aug 23 01:59	0°♏	
	13633 Oct 01 23:34	0°♐	
	13633 Nov 12 13:13	0°♑	
evening set	13633 Dec 19 11:04	25°♑31'58	
	13633 Dec 26 01:31	0°♒	
desc. node	13634 Jan 18 02:48	15°♒23'18	
conjunction	13634 Feb 07 02:52	28°♒30'23	-0°11'18
minimum elong	13634 Feb 07 02:28	28°♒29'43	0°10'40
behind sun begin	13634 Feb 06 11:37	28°♒05'34	
behind sun end	13634 Feb 07 17:19	28°♒53'53	
	13634 Feb 09 09:58	0°♓	
max. Earth dist.	13634 Feb 21 17:04	7°♓57'41	2.64616 AU
morning rise	13634 Mar 24 16:34	27°♓45'58	
	13634 Mar 28 05:11	0°♈	
	13634 May 15 01:32	0°♉	
	13634 Jul 02 20:50	0°♊	
	13634 Aug 22 07:49	0°♋	
	13634 Oct 16 22:03	0°♌	
retrograde	13634 Dec 23 00:32	20°♌02'05	
opposition	13635 Jan 23 14:55	14°♌16'06	-0°38'12
greatest brilliancy	13635 Jan 23 20:45	14°♌11'38	-2.7m
min. Earth dist.	13635 Jan 31 07:56	11°♌54'16	0.41373 AU
asc. node	13635 Feb 01 22:02	11°♌26'12	
direct	13635 Feb 26 17:54	7°♌23'48	
	13635 May 01 15:05	0°♍	
	13635 Jun 16 13:01	0°♎	
	13635 Jul 28 20:07	0°♏	
	13635 Sep 09 03:25	0°♐	
	13635 Oct 22 15:31	0°♑	
desc. node	13635 Dec 05 23:19	29°♑32'42	
	13635 Dec 06 15:58	0°♒	
	13636 Jan 22 00:11	0°♓	
evening set	13636 Jan 29 18:33	4°♓58'03	
	13636 Mar 09 03:21	0°♈	
conjunction	13636 Mar 14 17:53	3°♈33'11	-0°49'52
minimum elong	13636 Mar 14 16:44	3°♈31'21	0°49'49
max. Earth dist.	13636 Mar 15 14:03	4°♈05'09	2.68366 AU
	13636 Apr 25 10:24	0°♉	
morning rise	13636 Apr 26 22:05	0°♉56'45	
	13636 Jun 11 09:14	0°♊	
	13636 Jul 27 17:19	0°♋	
	13636 Sep 11 10:09	0°♌	
	13636 Oct 26 18:44	0°♍	
	13636 Dec 12 02:01	0°♎	
asc. node	13636 Dec 20 03:11	4°♎58'55	
	13637 Feb 04 22:57	0°♏	
retrograde	13637 Mar 13 18:37	8°♏28'39	
min. Earth dist.	13637 Apr 09 02:08	4°♏12'19	0.37537 AU
opposition	13637 Apr 13 21:53	2°♏50'54	6°43'18
greatest brilliancy	13637 Apr 12 18:29	3°♏10'15	-2.9m
	13637 Apr 24 21:42	30°℞♎	
direct	13637 May 13 06:16	27°♎50'03	
	13637 May 31 16:09	0°♏	
	13637 Aug 07 06:54	0°♐	
	13637 Sep 26 18:34	0°♑	
desc. node	13637 Oct 23 03:55	16°♑13'20	
	13637 Nov 14 10:48	0°♒	
	13638 Jan 01 20:29	0°♓	
	13638 Feb 18 23:29	0°♈	
evening set	13638 Mar 05 16:20	9°♈14'28	
max. Earth dist.	13638 Apr 06 13:59	29°♈29'28	2.66583 AU
	13638 Apr 07 09:04	0°♉	
conjunction	13638 Apr 18 13:06	7°♉10'12	-1°09'47
minimum elong	13638 Apr 18 12:37	7°♉09'25	1°10'19
	13638 May 23 13:59	0°♊	
morning rise	13638 Jun 01 15:40	6°♊00'13	
	13638 Jul 07 06:50	0°♋	
	13638 Aug 19 09:30	0°♌	
	13638 Sep 30 00:13	0°♍	
asc. node	13638 Nov 06 22:03	28°♍04'17	
	13638 Nov 09 12:02	0°♎	
	13638 Dec 19 16:33	0°♏	
	13639 Jan 30 07:38	0°♐	
	13639 Mar 19 12:40	0°♑	
retrograde	13639 May 11 17:25	16°♑18'50	
min. Earth dist.	13639 Jun 10 04:51	10°♑18'05	0.49968 AU
greatest brilliancy	13639 Jun 17 04:29	7°♑43'54	-2.2m
opposition	13639 Jun 18 06:03	7°♑20'16	3°50'39
direct	13639 Jul 22 13:38	0°♑00'15	
desc. node	13639 Sep 10 14:56	12°♑11'01	
	13639 Oct 18 07:29	0°♒	
	13639 Dec 11 12:48	0°♓	
	13640 Jan 30 23:43	0°♈	
	13640 Mar 19 04:38	0°♉	
evening set	13640 Apr 09 08:55	13°♉36'45	
max. Earth dist.	13640 Apr 30 09:49	27°♉25'31	2.59410 AU
	13640 May 04 06:43	0°♊	
conjunction	13640 May 25 10:04	14°♊15'09	-1°03'43
minimum elong	13640 May 25 11:11	14°♊17'05	1°04'41
	13640 Jun 17 05:15	0°♋	
morning rise	13640 Jul 14 00:12	19°♋01'01	
	13640 Jul 29 03:15	0°♌	
	13640 Sep 07 08:04	0°♍	
asc. node	13640 Sep 23 12:01	12°♍20'51	
	13640 Oct 16 08:18	0°♎	
	13640 Nov 23 21:48	0°♏	
	13641 Jan 02 00:51	0°♐	
	13641 Feb 12 04:05	0°♑	
	13641 Mar 30 02:20	0°♒	
	13641 Jun 10 09:00	0°♓	
retrograde	13641 Jun 20 16:19	0°♓41'42	
	13641 Jun 30 15:45	30°℞♒	
min. Earth dist.	13641 Jul 25 21:27	22°♒41'37	0.61915 AU
desc. node	13641 Jul 29 00:26	21°♒27'39	
opposition	13641 Jul 30 20:59	20°♒43'36	-0°04'33
greatest brilliancy	13641 Jul 30 20:44	20°♒43'51	-1.6m
direct	13641 Sep 07 05:59	11°♒52'19	
	13641 Nov 11 15:58	0°♓	
	13642 Jan 08 15:02	0°♈	
	13642 Feb 28 01:37	0°♉	
	13642 Apr 15 17:12	0°♊	

evening set	13642 May 20 01:47	23°♊25'29	
	13642 May 29 10:22	0°♋	
max. Earth dist.	13642 Jun 02 20:34	3°♋08'16	2.47451 AU
	13642 Jul 09 17:47	0°♌	
conjunction	13642 Jul 12 18:02	2°♌14'46	-0°20'03
minimum elong	13642 Jul 12 19:25	2°♌17'20	0°20'59
asc. node	13642 Aug 11 01:12	24°♌28'22	
	13642 Aug 18 05:08	0°♍	
morning rise	13642 Sep 14 20:24	21°♍34'10	
	13642 Sep 25 13:20	0°♎	
greatest brilliancy	13642 Oct 06 23:21	9°♎00'49	1.2m
	13642 Nov 02 13:49	0°♏	
	13642 Dec 11 04:09	0°♐	
	13643 Jan 20 07:57	0°♑	
	13643 Mar 04 04:58	0°♒	
	13643 Apr 20 21:36	0°♓	
desc. node	13643 Jun 16 03:04	27°♓34'32	
	13643 Jun 23 04:57	0°♈	
retrograde	13643 Jul 25 12:14	5°♈37'49	
	13643 Aug 24 05:03	30°℞♓	
min. Earth dist.	13643 Sep 03 00:50	26°♓15'00	0.67988 AU
opposition	13643 Sep 04 06:22	25°♓45'41	-2°46'14
greatest brilliancy	13643 Sep 04 02:09	25°♓49'52	-1.3m
direct	13643 Oct 15 00:02	16°♓05'45	
	13643 Dec 09 17:30	0°♈	
	13644 Feb 06 09:20	0°♉	
	13644 Mar 26 01:01	0°♊	
	13644 May 09 04:05	0°♋	
	13644 Jun 19 07:16	0°♌	
asc. node	13644 Jun 27 17:39	6°♌21'46	
evening set	13644 Jul 13 01:03	18°♌03'55	
	13644 Jul 28 10:11	0°♍	
	13644 Sep 04 11:01	0°♎	
conjunction	13644 Sep 20 15:04	12°♎50'17	0°53'09
minimum elong	13644 Sep 20 11:04	12°♎42'21	0°53'15
	13644 Oct 12 07:38	0°♏	
max. Earth dist.	13644 Oct 25 19:45	10°♏36'11	2.36656 AU
	13644 Nov 19 21:18	0°♐	
morning rise	13644 Dec 02 23:50	9°♐57'30	
	13644 Dec 29 23:45	0°♑	
	13645 Feb 10 08:05	0°♒	
	13645 Mar 27 16:10	0°♓	
desc. node	13645 May 02 21:24	22°♓09'59	
	13645 May 16 12:39	0°♈	
	13645 Jul 18 07:37	0°♉	
retrograde	13645 Aug 27 23:42	8°♉08'36	
	13645 Oct 03 22:08	30°℞♈	
opposition	13645 Oct 06 23:17	28°♈48'40	-4°26'41
greatest brilliancy	13645 Oct 07 07:47	28°♈40'19	-1.3m
min. Earth dist.	13645 Oct 09 14:23	27°♈46'46	0.67376 AU
direct	13645 Nov 17 13:14	18°♈46'55	
	13646 Jan 04 13:31	0°♉	
	13646 Mar 03 06:30	0°♊	
	13646 Apr 18 09:32	0°♋	
asc. node	13646 May 15 18:02	19°♋27'28	
	13646 May 30 00:31	0°♌	
	13646 Jul 08 04:36	0°♍	
greatest brilliancy	13646 Jul 23 23:14	12°♍23'08	1.2m
	13646 Aug 15 05:21	0°♎	
	13646 Sep 22 04:38	0°♏	
evening set	13646 Sep 27 12:32	4°♏10'20	
	13646 Oct 31 00:39	0°♐	
conjunction	13646 Dec 03 10:36	24°♐53'27	0°55'09
minimum elong	13646 Dec 03 12:58	24°♐57'46	0°56'09
	13646 Dec 10 11:13	0°♑	
max. Earth dist.	13647 Jan 13 21:14	24°♑23'51	2.50455 AU
	13647 Jan 21 24:00	0°♒	
morning rise	13647 Jan 29 16:37	5°♒15'34	
	13647 Mar 07 21:04	0°♓	
desc. node	13647 Mar 20 10:01	8°♓05'57	
	13647 Apr 24 07:48	0°♈	
	13647 Jun 14 07:05	0°♉	
	13647 Aug 13 09:06	0°♊	
retrograde	13647 Oct 06 02:51	13°♊04'06	
opposition	13647 Nov 12 22:31	4°♊40'59	-4°56'48
greatest brilliancy	13647 Nov 14 01:39	4°♊15'11	-1.6m
min. Earth dist.	13647 Nov 19 08:47	2°♊14'31	0.59995 AU
	13647 Nov 25 14:33	30°℞♉	
direct	13647 Dec 23 15:50	24°♉51'44	
	13648 Jan 22 09:52	0°♊	
	13648 Mar 22 19:42	0°♋	
asc. node	13648 Apr 02 01:48	6°♋31'20	
	13648 May 06 04:50	0°♌	
	13648 Jun 15 08:13	0°♍	
	13648 Jul 23 21:54	0°♎	
	13648 Aug 31 09:43	0°♏	
	13648 Oct 09 20:43	0°♐	
	13648 Nov 19 23:54	0°♑	
evening set	13648 Nov 30 05:08	7°♑14'12	
	13649 Jan 02 03:10	0°♒	
conjunction	13649 Jan 22 03:53	13°♒28'22	0°07'18
minimum elong	13649 Jan 22 04:13	13°♒28'56	0°08'08
behind sun begin	13649 Jan 21 10:07	12°♒58'46	
behind sun end	13649 Jan 22 22:20	13°♒59'05	
desc. node	13649 Feb 03 20:40	21°♒53'09	
max. Earth dist.	13649 Feb 12 03:08	27°♒18'49	2.61656 AU
	13649 Feb 16 05:53	0°♓	
morning rise	13649 Mar 10 17:22	14°♓31'44	
	13649 Apr 04 01:29	0°♈	
	13649 May 22 08:59	0°♉	
	13649 Jul 11 12:39	0°♊	
	13649 Sep 03 19:29	0°♋	
retrograde	13649 Nov 25 23:46	27°♋25'02	
opposition	13649 Dec 29 20:06	20°♋43'20	-2°56'00
greatest brilliancy	13649 Dec 30 22:02	20°♋21'16	-2.3m
min. Earth dist.	13650 Jan 07 15:10	17°♋45'07	0.46856 AU
direct	13650 Feb 04 18:20	12°♋31'17	
asc. node	13650 Feb 18 10:48	13°♋48'17	
	13650 Apr 01 06:40	0°♌	
	13650 May 18 15:35	0°♍	
	13650 Jun 28 23:26	0°♎	
	13650 Aug 08 06:22	0°♏	
	13650 Sep 18 06:04	0°♐	
	13650 Oct 30 18:18	0°♑	
	13650 Dec 14 01:03	0°♒	
desc. node	13650 Dec 22 13:22	5°♒38'25	
evening set	13651 Jan 14 16:30	20°♒47'37	
	13651 Jan 28 21:41	0°♓	
conjunction	13651 Mar 01 23:20	20°♓32'57	-0°36'49
minimum elong	13651 Mar 01 22:16	20°♓31'16	0°36'33
max. Earth dist.	13651 Mar 07 21:55	24°♓19'54	2.67571 AU
	13651 Mar 16 20:01	0°♈	
morning rise	13651 Apr 14 16:07	18°♈15'34	
	13651 May 03 06:11	0°♉	
	13651 Jun 19 17:55	0°♊	
	13651 Aug 06 04:42	0°♋	
	13651 Sep 22 22:40	0°♌	
	13651 Nov 11 09:27	0°♍	
asc. node	13652 Jan 06 17:29	28°♍22'46	

	13652	Jan	11	06:00	0°♎				13657	Mar	07	08:56	0°♉	
retrograde	13652	Feb	11	09:30	5°♎45'48				13657	Apr	22	17:17	0°♊	
opposition	13652	Mar	11	20:40	0°♎53'43	4°44'19		evening set	13657	May	03	05:20	7°♊02'54	
greatest brilliancy	13652	Mar	11	20:57	0°♎53'32	-3.0m		max. Earth dist.	13657	May	18	23:35	17°♊48'08	2.52604 AU
min. Earth dist.	13652	Mar	12	14:50	0°♎41'44	0.36447 AU			13657	Jun	05	11:35	0°♋	
	13652	Mar	15	06:30	30°℞♍									
direct	13652	Apr	10	08:02	25°♍57'01			conjunction	13657	Jun	21	23:37	11°♋44'44	-0°42'15
	13652	May	05	11:36	0°♎			minimum elong	13657	Jun	22	01:28	11°♋48'04	0°43'16
	13652	Jul	05	04:09	0°♏				13657	Jul	16	23:57	0°♌	
	13652	Aug	21	16:44	0°♐			morning rise	13657	Aug	18	00:15	24°♌05'18	
	13652	Oct	07	00:08	0°♑				13657	Aug	25	17:22	0°♍	
desc. node	13652	Nov	08	15:19	20°♑59'10			asc. node	13657	Aug	27	20:30	1°♍38'22	
	13652	Nov	22	18:11	0°♒				13657	Oct	03	06:54	0°♎	
	13653	Jan	09	03:29	0°♓				13657	Nov	10	11:17	0°♏	
evening set	13653	Feb	19	23:36	26°♓20'44				13657	Dec	19	04:32	0°♐	
	13653	Feb	25	18:44	0°♈				13658	Jan	28	12:51	0°♑	
max. Earth dist.	13653	Mar	28	22:40	19°♈43'09	2.67949 AU			13658	Mar	13	00:28	0°♒	
									13658	May	02	05:39	0°♓	
conjunction	13653	Apr	04	21:39	24°♈08'39	-1°04'41		desc. node	13658	Jul	02	17:21	22°♓13'51	
minimum elong	13653	Apr	04	20:46	24°♈07'14	1°05'01		retrograde	13658	Jul	12	06:18	22°♓47'57	
	13653	Apr	14	01:55	0°♉			min. Earth dist.	13658	Aug	19	05:41	13°♓54'39	0.66371 AU
morning rise	13653	May	18	05:09	21°♉59'17			opposition	13658	Aug	21	23:21	12°♓49'27	-1°51'33
	13653	May	30	12:10	0°♊			greatest brilliancy	13658	Aug	21	17:57	12°♓54'49	-1.4m
	13653	Jul	14	17:27	0°♋			direct	13658	Sep	30	23:22	3°♓25'06	
	13653	Aug	27	14:38	0°♌				13658	Dec	23	02:28	0°♈	
	13653	Oct	09	04:50	0°♍				13659	Feb	15	00:03	0°♉	
	13653	Nov	19	21:22	0°♎				13659	Apr	03	14:55	0°♊	
asc. node	13653	Nov	23	17:58	2°♎47'17				13659	May	17	12:17	0°♋	
	13653	Dec	31	18:52	0°♏			evening set	13659	Jun	20	01:04	24°♋18'45	
	13654	Feb	15	07:23	0°♐				13659	Jun	27	16:14	0°♌	
retrograde	13654	Apr	21	23:33	23°♐47'56			max. Earth dist.	13659	Jul	10	10:25	9°♌37'31	2.39045 AU
min. Earth dist.	13654	May	19	00:59	18°♐43'33	0.44448 AU		asc. node	13659	Jul	15	11:31	13°♌28'10	
greatest brilliancy	13654	May	25	21:09	16°♐24'20	-2.5m			13659	Aug	05	21:44	0°♍	
opposition	13654	May	27	10:14	15°♐52'34	5°32'45								
direct	13654	Jun	28	17:27	9°♐26'13			conjunction	13659	Aug	21	22:44	12°♍33'23	0°26'07
	13654	Sep	04	04:08	0°♑			minimum elong	13659	Aug	21	20:15	12°♍28'30	0°25'40
desc. node	13654	Sep	27	00:06	11°♑43'11				13659	Sep	13	00:37	0°♎	
	13654	Oct	29	20:44	0°♒				13659	Oct	20	21:54	0°♏	
	13654	Dec	19	21:58	0°♓			morning rise	13659	Nov	03	21:57	10°♏59'46	
	13655	Feb	07	05:11	0°♈				13659	Nov	28	10:48	0°♐	
evening set	13655	Mar	27	05:42	0°♉08'20				13660	Jan	07	12:04	0°♑	
	13655	Mar	27	00:29	0°♉				13660	Feb	18	22:04	0°♒	
max. Earth dist.	13655	Apr	21	07:13	16°♉18'32	2.62859 AU			13660	Apr	04	18:25	0°♓	
								desc. node	13660	May	19	15:25	26°♓11'13	
conjunction	13655	May	10	22:58	29°♉14'18	-1°09'48			13660	May	26	20:48	0°♈	
minimum elong	13655	May	10	23:25	29°♉15'03	1°10'38		retrograde	13660	Aug	14	07:47	25°♈40'02	
	13655	May	12	02:30	0°♊			opposition	13660	Sep	23	18:12	16°♈05'04	-3°54'51
	13655	Jun	25	07:06	0°♋			greatest brilliancy	13660	Sep	23	20:24	16°♈02'53	-1.2m
morning rise	13655	Jun	26	15:01	0°♋55'24			min. Earth dist.	13660	Sep	24	20:38	15°♈38'59	0.68419 AU
	13655	Aug	06	14:48	0°♌			direct	13660	Nov	04	04:33	6°♈08'59	
	13655	Sep	16	06:39	0°♍				13661	Jan	19	06:28	0°♉	
asc. node	13655	Oct	11	09:01	19°♍00'31				13661	Mar	12	11:02	0°♊	
	13655	Oct	25	17:27	0°♎				13661	Apr	26	12:15	0°♋	
	13655	Dec	03	16:58	0°♏			asc. node	13661	Jun	01	09:01	25°♋54'38	
	13656	Jan	12	08:15	0°♐				13661	Jun	06	20:30	0°♌	
	13656	Feb	23	13:37	0°♑				13661	Jul	15	23:08	0°♍	
	13656	Apr	13	20:20	0°♒				13661	Aug	22	23:00	0°♎	
retrograde	13656	Jun	05	21:29	15°♒18'41			evening set	13661	Aug	27	11:38	3°♎35'39	
min. Earth dist.	13656	Jul	09	00:38	8°♒00'18	0.57806 AU			13661	Sep	29	20:15	0°♏	
opposition	13656	Jul	15	09:20	5°♒31'37	1°17'37								
greatest brilliancy	13656	Jul	15	02:15	5°♒38'31	-1.8m		conjunction	13661	Nov	07	13:02	0°♐00'51	1°05'40
	13656	Jul	31	12:45	30°℞♑			minimum elong	13661	Nov	07	14:01	0°♐02'44	1°06'32
desc. node	13656	Aug	14	10:25	27°♑27'59				13661	Nov	07	12:35	0°♐	
direct	13656	Aug	21	09:08	27°♑09'28				13661	Dec	17	18:26	0°♑	
	13656	Sep	13	01:33	0°♒			max. Earth dist.	13661	Dec	27	21:46	7°♑19'39	2.44898 AU
	13656	Nov	24	07:32	0°♓			morning rise	13662	Jan	10	01:32	16°♑41'50	
	13657	Jan	17	01:13	0°♈				13662	Jan	29	03:36	0°♒	

	13662 Mar 15 01:39	0°♓	
desc. node	13662 Apr 06 04:33	14°♓05'51	
	13662 May 02 02:17	0°♈	
	13662 Jun 24 07:47	0°♉	
retrograde	13662 Sep 19 22:38	29°♉02'42	
opposition	13662 Oct 28 19:06	20°♉13'37	-4°55'58
greatest brilliancy	13662 Oct 29 15:07	19°♉54'16	-1.4m
min. Earth dist.	13662 Nov 02 18:31	18°♉18'16	0.63668 AU
direct	13662 Dec 09 02:18	10°♉13'42	
	13663 Feb 12 02:03	0°♊	
	13663 Apr 03 13:42	0°♋	
asc. node	13663 Apr 19 13:20	10°♋49'48	
	13663 May 16 08:27	0°♌	
	13663 Jun 24 22:36	0°♍	
	13663 Aug 02 04:57	0°♎	
	13663 Sep 09 10:06	0°♏	
	13663 Oct 18 13:37	0°♐	
evening set	13663 Nov 08 23:45	15°♐55'49	
	13663 Nov 28 08:33	0°♑	
conjunction	13664 Jan 05 11:17	26°♑46'05	0°26'49
minimum elong	13664 Jan 05 12:37	26°♑48'22	0°27'47
	13664 Jan 10 04:28	0°♒	
max. Earth dist.	13664 Feb 02 17:51	15°♒53'56	2.57858 AU
desc. node	13664 Feb 21 15:30	28°♒22'58	
morning rise	13664 Feb 24 21:14	0°♓29'54	
	13664 Feb 24 02:54	0°♓	
	13664 Apr 11 01:16	0°♈	
	13664 May 30 01:27	0°♉	
	13664 Jul 21 08:01	0°♊	
	13664 Sep 22 22:19	0°♋	
retrograde	13664 Nov 03 09:47	8°♋29'05	
opposition	13664 Dec 09 01:59	1°♋00'14	-4°12'31
greatest brilliancy	13664 Dec 10 10:23	0°♋30'53	-2.0m
	13664 Dec 11 20:22	30°℞♊	
min. Earth dist.	13664 Dec 17 09:35	28°♊00'29	0.52465 AU
direct	13665 Jan 16 23:44	21°♊53'58	
	13665 Feb 22 18:37	0°♋	
asc. node	13665 Mar 06 23:34	5°♋25'05	
	13665 Apr 18 02:24	0°♌	
	13665 May 30 13:44	0°♍	
	13665 Jul 09 05:26	0°♎	
	13665 Aug 17 12:08	0°♏	
	13665 Sep 26 16:38	0°♐	
	13665 Nov 07 12:22	0°♑	
	13665 Dec 21 05:54	0°♒	
evening set	13665 Dec 29 10:45	5°♒29'28	
desc. node	13666 Jan 08 04:58	11°♒58'23	
	13666 Feb 04 17:31	0°♓	
conjunction	13666 Feb 15 16:07	7°♓04'33	-0°21'20
minimum elong	13666 Feb 15 15:23	7°♓03'23	0°20'49
max. Earth dist.	13666 Feb 26 23:46	14°♓21'10	2.65916 AU
	13666 Mar 23 12:55	0°♈	
morning rise	13666 Apr 01 09:40	5°♈36'51	
	13666 May 10 04:30	0°♉	
	13666 Jun 27 10:11	0°♊	
	13666 Aug 15 12:45	0°♋	
	13666 Oct 06 00:46	0°♌	
	13666 Dec 09 08:20	0°♍	
retrograde	13667 Jan 09 02:04	5°♍19'12	
asc. node	13667 Jan 23 08:14	4°♍01'49	
opposition	13667 Feb 08 15:10	0°♍01'54	1°11'18
	13667 Feb 08 17:47	30°℞♌	
greatest brilliancy	13667 Feb 08 21:06	29°♌57'36	-2.9m
min. Earth dist.	13667 Feb 14 14:11	28°♌18'45	0.38892 AU
direct	13667 Mar 12 22:28	23°♌58'30	
	13667 Apr 12 05:39	0°♍	
	13667 Jun 06 21:19	0°♎	
	13667 Jul 21 09:57	0°♏	
	13667 Sep 02 20:29	0°♐	
	13667 Oct 17 01:36	0°♑	
desc. node	13667 Nov 26 02:21	26°♑26'14	
	13667 Dec 01 13:39	0°♒	
	13668 Jan 17 05:05	0°♓	
evening set	13668 Feb 07 00:39	13°♓14'03	
	13668 Mar 04 11:48	0°♈	
max. Earth dist.	13668 Mar 20 13:13	10°♈10'10	2.68458 AU
conjunction	13668 Mar 22 11:36	11°♈23'40	-0°56'15
minimum elong	13668 Mar 22 10:29	11°♈21'54	0°56'21
	13668 Apr 20 18:29	0°♉	
morning rise	13668 May 04 13:24	8°♉48'13	
	13668 Jun 06 12:11	0°♊	
	13668 Jul 22 09:30	0°♋	
	13668 Sep 05 07:57	0°♌	
	13668 Oct 19 10:26	0°♍	
	13668 Dec 02 08:53	0°♎	
asc. node	13668 Dec 10 10:11	5°♎25'12	
	13669 Jan 17 17:46	0°♏	
retrograde	13669 Mar 29 06:22	26°♏23'23	
min. Earth dist.	13669 Apr 24 00:42	22°♏02'11	0.39507 AU
greatest brilliancy	13669 Apr 29 09:34	20°♏25'22	-2.8m
opposition	13669 Apr 30 22:53	19°♏57'08	6°44'23
direct	13669 May 31 01:18	14°♏30'11	
	13669 Jul 25 11:26	0°♐	
	13669 Sep 19 06:18	0°♑	
desc. node	13669 Oct 13 09:52	14°♑14'46	
	13669 Nov 08 14:06	0°♒	
	13669 Dec 27 17:40	0°♓	
	13670 Feb 14 05:17	0°♈	
evening set	13670 Mar 13 11:30	17°♈06'47	
	13670 Apr 02 18:06	0°♉	
max. Earth dist.	13670 Apr 11 19:44	5°♉49'03	2.65491 AU
conjunction	13670 Apr 26 12:05	15°♉18'30	-1°11'03
minimum elong	13670 Apr 26 11:54	15°♉18'12	1°11'43
	13670 May 18 22:01	0°♊	
morning rise	13670 Jun 10 07:13	14°♊56'18	
	13670 Jul 02 10:35	0°♋	
	13670 Aug 14 06:08	0°♌	
	13670 Sep 24 11:55	0°♍	
asc. node	13670 Oct 28 04:20	25°♍11'29	
	13670 Nov 03 13:05	0°♎	
	13670 Dec 13 04:15	0°♏	
	13671 Jan 22 18:48	0°♐	
	13671 Mar 08 12:16	0°♑	
retrograde	13671 May 21 17:23	27°♑54'09	
min. Earth dist.	13671 Jun 21 13:50	21°♑23'43	0.52935 AU
greatest brilliancy	13671 Jun 28 08:46	18°♑49'36	-2.0m
opposition	13671 Jun 29 03:01	18°♑32'18	2°52'08
direct	13671 Aug 03 10:54	10°♑47'19	
desc. node	13671 Aug 31 21:20	15°♑12'10	
	13671 Oct 09 00:42	0°♒	
	13671 Dec 05 11:12	0°♓	
	13672 Jan 25 20:54	0°♈	
	13672 Mar 14 10:31	0°♉	
evening set	13672 Apr 17 18:06	22°♉08'44	
	13672 Apr 29 14:54	0°♊	
max. Earth dist.	13672 May 06 19:01	4°♊47'51	2.57192 AU
conjunction	13672 Jun 03 20:32	23°♊57'28	-0°57'41
minimum elong	13672 Jun 03 22:02	24°♊00'04	0°58'42
	13672 Jun 12 12:26	0°♋	

	13672 Jul 24	07:24	0°♌		
morning rise	13672 Jul 25	14:42	0°♌57'30		
	13672 Sep 02	08:27	0°♍		
asc. node	13672 Sep 13	17:37	8°♍43'08		
	13672 Oct 11	04:41	0°♎		
	13672 Nov 18	14:17	0°♏		
	13672 Dec 27	12:24	0°♐		
	13673 Feb 06	05:28	0°♑		
	13673 Mar 22	20:49	0°♒		
	13673 May 18	09:11	0°♓		
retrograde	13673 Jun 28	16:22	9°♓19'10		
desc. node	13673 Jul 19	05:10	6°♓26'38		
min. Earth dist.	13673 Aug 03	22:30	0°♓59'02	0.63770 AU	
	13673 Aug 06	10:10	30°℞♒		
opposition	13673 Aug 08	03:32	29°♒19'00	-0°47'07	
greatest brilliancy	13673 Aug 08	00:10	29°♒22'20	-1.5m	
direct	13673 Sep 16	04:26	20°♒14'27		
	13673 Oct 31	13:29	0°♓		
	13674 Jan 02	11:44	0°♈		
	13674 Feb 22	22:33	0°♉		
	13674 Apr 10	21:47	0°♊		
	13674 May 24	16:41	0°♋		
evening set	13674 May 30	13:18	4°♋09'36		
max. Earth dist.	13674 Jun 13	14:50	14°♋16'49	2.44411 AU	
	13674 Jul 04	23:11	0°♌		
conjunction	13674 Jul 26	02:10	15°♌56'30	-0°04'21	
minimum elong	13674 Jul 26	02:34	15°♌57'15	0°05'09	
behind sun begin	13674 Jul 25	01:34	15°♌09'36		
behind sun end	13674 Jul 27	03:34	16°♌44'57		
asc. node	13674 Aug 01	05:40	20°♌38'37		
	13674 Aug 13	08:49	0°♍		
	13674 Sep 20	15:12	0°♎		
morning rise	13674 Oct 02	10:28	9°♎19'58		
	13674 Oct 28	14:21	0°♏		
	13674 Dec 06	03:39	0°♐		
	13675 Jan 15	05:13	0°♑		
	13675 Feb 26	19:48	0°♒		
	13675 Apr 14	13:40	0°♓		
desc. node	13675 Jun 06	07:03	28°♓14'26		
	13675 Jun 10	06:50	0°♈		
retrograde	13675 Aug 02	00:26	13°♈15'36		
opposition	13675 Sep 11	17:15	3°♈28'36	-3°14'11	
min. Earth dist.	13675 Sep 11	07:14	3°♈38'30	0.68432 AU	
greatest brilliancy	13675 Sep 11	14:43	3°♈31'06	-1.3m	
	13675 Sep 20	17:50	30°℞♓		
direct	13675 Oct 22	18:43	23°♓41'52		
	13675 Nov 27	03:24	0°♈		
	13676 Jan 31	03:49	0°♉		
	13676 Mar 20	19:36	0°♊		
	13676 May 04	05:53	0°♋		
	13676 Jun 14	10:48	0°♌		
asc. node	13676 Jun 18	00:52	2°♌41'46		
	13676 Jul 23	13:35	0°♍		
evening set	13676 Jul 28	09:48	3°♍47'25		
	13676 Aug 30	13:45	0°♎		
	13676 Oct 07	10:04	0°♏		
conjunction	13676 Oct 08	13:51	0°♏54'41	1°02'43	
minimum elong	13676 Oct 08	11:12	0°♏49'28	1°03'09	
	13676 Nov 15	00:04	0°♐		
max. Earth dist.	13676 Nov 30	09:29	11°♐40'43	2.39253 AU	
morning rise	13676 Dec 18	00:10	24°♐47'18		
	13676 Dec 25	02:44	0°♑		
	13677 Feb 05	10:03	0°♒		
	13677 Mar 22	12:15	0°♓		
desc. node	13677 Apr 22	23:40	19°♓38'10		
	13677 May 10	11:16	0°♈		
	13677 Jul 06	22:59	0°♉		
retrograde	13677 Sep 05	01:09	15°♉53'26		
opposition	13677 Oct 14	16:45	6°♉43'15	-4°40'41	
greatest brilliancy	13677 Oct 15	05:10	6°♉31'07	-1.3m	
min. Earth dist.	13677 Oct 18	03:36	5°♉22'22	0.66363 AU	
	13677 Nov 02	13:13	30°℞♈		
direct	13677 Nov 25	06:28	26°♈40'37		
	13677 Dec 19	15:58	0°♉		
	13678 Feb 24	14:19	0°♊		
	13678 Apr 12	20:48	0°♋		
asc. node	13678 May 06	03:52	16°♋19'58		
	13678 May 24	20:09	0°♌		
	13678 Jul 03	03:22	0°♍		
	13678 Aug 10	05:28	0°♎		
	13678 Sep 17	05:55	0°♏		
evening set	13678 Oct 13	22:13	20°♏41'15		
	13678 Oct 26	03:30	0°♐		
	13678 Dec 05	15:41	0°♑		
conjunction	13678 Dec 16	07:46	7°♑39'49	0°45'41	
minimum elong	13678 Dec 16	10:00	7°♑43'47	0°46'43	
	13679 Jan 17	05:42	0°♒		
max. Earth dist.	13679 Jan 21	20:46	3°♒10'05	2.53290 AU	
morning rise	13679 Feb 08	17:49	15°♒14'57		
	13679 Mar 03	01:46	0°♓		
desc. node	13679 Mar 10	09:39	4°♓45'43		
	13679 Apr 19	06:04	0°♈		
	13679 Jun 08	07:15	0°♉		
	13679 Aug 03	06:59	0°♊		
retrograde	13679 Oct 16	01:20	22°♊06'36		
opposition	13679 Nov 22	04:59	14°♊00'31	-4°48'12	
greatest brilliancy	13679 Nov 23	11:08	13°♊32'13	-1.7m	
min. Earth dist.	13679 Nov 29	09:08	11°♊19'27	0.57552 AU	
direct	13680 Jan 01	10:17	4°♊22'22		
	13680 Mar 14	14:34	0°♋		
asc. node	13680 Mar 23	11:26	5°♋16'16		
	13680 Apr 29	20:11	0°♌		
	13680 Jun 09	13:55	0°♍		
	13680 Jul 18	10:36	0°♎		
	13680 Aug 26	03:23	0°♏		
	13680 Oct 04	19:00	0°♐		
	13680 Nov 15	02:20	0°♑		
evening set	13680 Dec 11	10:05	18°♑24'37		
	13680 Dec 28	09:06	0°♒		
desc. node	13681 Jan 24	21:39	18°♒24'39		
conjunction	13681 Jan 31	10:06	22°♒42'24	-0°03'46	
minimum elong	13681 Jan 31	09:58	22°♒42'10	0°03'02	
behind sun begin	13681 Jan 30	14:06	22°♒09'32		
behind sun end	13681 Feb 01	05:49	23°♒14'46		
	13681 Feb 11	13:33	0°♓		
max. Earth dist.	13681 Feb 17	19:55	4°♓04'23	2.63386 AU	
morning rise	13681 Mar 18	18:51	22°♓40'30		
	13681 Mar 30	07:52	0°♈		
	13681 May 17	07:56	0°♉		
	13681 Jul 05	15:08	0°♊		
	13681 Aug 26	09:40	0°♋		
	13681 Oct 26	13:14	0°♌		
retrograde	13681 Dec 10	14:24	10°♌06'27		
opposition	13682 Jan 12	04:44	3°♌55'10	-1°46'07	
greatest brilliancy	13682 Jan 12	21:00	3°♌42'02	-2.5m	
min. Earth dist.	13682 Jan 20	15:44	1°♌11'51	0.43735 AU	
	13682 Jan 24	15:17	30°℞♋		
asc. node	13682 Feb 08	20:28	26°♋50'38		
direct	13682 Feb 16	16:53	26°♋24'16		
	13682 Mar 11	17:47	0°♌		

	13682 May 09 09:59	0°♍	
	13682 Jun 21 16:51	0°♎	
	13682 Aug 01 21:47	0°♏	
	13682 Sep 12 12:18	0°♐	
	13682 Oct 25 11:32	0°♑	
	13682 Dec 09 02:31	0°♒	
desc. node	13682 Dec 12 17:15	2°♒23'02	
evening set	13683 Jan 23 09:28	29°♒29'41	
	13683 Jan 24 04:19	0°♓	
conjunction	13683 Mar 09 21:13	28°♓31'56	-0°44'47
minimum elong	13683 Mar 09 20:04	28°♓30'06	0°44'39
	13683 Mar 12 04:43	0°♈	
max. Earth dist.	13683 Mar 12 23:11	0°♈29'19	2.68115 AU
morning rise	13683 Apr 22 05:34	26°♈00'23	
	13683 Apr 28 12:49	0°♉	
	13683 Jun 14 17:04	0°♊	
	13683 Jul 31 12:23	0°♋	
	13683 Sep 16 00:20	0°♌	
	13683 Nov 01 18:41	0°♍	
	13683 Dec 21 08:07	0°♎	
asc. node	13683 Dec 28 02:44	3°♎43'25	
retrograde	13684 Feb 29 12:29	24°♎37'31	
min. Earth dist.	13684 Mar 28 02:26	20°♎09'50	0.36603 AU
opposition	13684 Mar 30 14:38	19°♎29'19	6°10'59
greatest brilliancy	13684 Mar 29 23:45	19°♎39'21	-3.0m
direct	13684 Apr 28 17:49	14°♎39'11	
	13684 Jun 21 01:36	0°♏	
	13684 Aug 13 08:42	0°♐	
	13684 Sep 30 14:12	0°♑	
desc. node	13684 Oct 29 20:27	18°♑24'47	
	13684 Nov 17 06:57	0°♒	
	13685 Jan 04 04:31	0°♓	
	13685 Feb 21 02:02	0°♈	
evening set	13685 Feb 27 19:43	4°♈14'21	
max. Earth dist.	13685 Apr 02 22:26	25°♈50'32	2.67292 AU
	13685 Apr 09 10:45	0°♉	
conjunction	13685 Apr 12 15:44	2°♉03'10	-1°08'07
minimum elong	13685 Apr 12 15:03	2°♉02'04	1°08'36
	13685 May 25 18:26	0°♊	
morning rise	13685 May 26 08:05	0°♊22'25	
	13685 Jul 09 17:24	0°♋	
	13685 Aug 22 04:33	0°♌	
	13685 Oct 03 05:40	0°♍	
asc. node	13685 Nov 13 23:23	0°♎34'00	
	13685 Nov 13 04:57	0°♎	
	13685 Dec 23 24:00	0°♏	
	13686 Feb 04 17:54	0°♐	
	13686 Mar 30 11:40	0°♑	
retrograde	13686 May 03 11:36	7°♑29'39	
min. Earth dist.	13686 May 31 21:14	1°♑53'49	0.47486 AU
	13686 Jun 06 05:07	30°℞♐	
greatest brilliancy	13686 Jun 07 21:25	29°♐23'37	-2.3m
opposition	13686 Jun 09 04:34	28°♐55'37	4°35'44
direct	13686 Jul 12 14:40	21°♐58'24	
	13686 Aug 20 14:28	0°♑	
desc. node	13686 Sep 17 06:39	11°♑46'13	
	13686 Oct 22 16:25	0°♒	
	13686 Dec 14 08:25	0°♓	
	13687 Feb 02 06:55	0°♈	
	13687 Mar 22 08:14	0°♉	
evening set	13687 Apr 04 05:11	8°♉14'42	
max. Earth dist.	13687 Apr 26 23:17	23°♉03'24	2.61049 AU
	13687 May 07 11:09	0°♊	
conjunction	13687 May 19 14:16	8°♊06'53	-1°06'57
minimum elong	13687 May 19 15:06	8°♊08'18	1°07'53
	13687 Jun 20 13:26	0°♋	
morning rise	13687 Jul 06 17:45	11°♋21'56	
	13687 Aug 01 16:27	0°♌	
	13687 Sep 11 02:45	0°♍	
asc. node	13687 Oct 01 13:38	15°♍33'54	
	13687 Oct 20 07:45	0°♎	
	13687 Nov 28 01:08	0°♏	
	13688 Jan 06 08:11	0°♐	
	13688 Feb 16 18:47	0°♑	
	13688 Apr 03 21:24	0°♒	
retrograde	13688 Jun 14 10:05	24°♒45'13	
min. Earth dist.	13688 Jul 18 17:49	17°♒03'19	0.60193 AU
opposition	13688 Jul 24 08:55	14°♒50'43	0°28'29
greatest brilliancy	13688 Jul 24 06:38	14°♒52'58	-1.7m
desc. node	13688 Aug 04 16:59	10°♒41'13	
direct	13688 Aug 31 04:31	6°♒11'36	
	13688 Nov 16 12:27	0°♓	
	13689 Jan 11 11:02	0°♈	
	13689 Mar 02 10:36	0°♉	
	13689 Apr 18 00:12	0°♊	
evening set	13689 May 12 12:54	16°♊35'10	
max. Earth dist.	13689 May 27 00:29	26°♊38'14	2.49827 AU
	13689 May 31 19:18	0°♋	
conjunction	13689 Jul 03 06:49	23°♋22'58	-0°30'26
minimum elong	13689 Jul 03 08:33	23°♋26'08	0°31'24
	13689 Jul 12 05:56	0°♌	
asc. node	13689 Aug 18 03:01	27°♌53'24	
	13689 Aug 20 20:47	0°♍	
morning rise	13689 Sep 02 01:07	9°♍26'04	
	13689 Sep 28 07:32	0°♎	
	13689 Nov 05 09:21	0°♏	
	13689 Dec 14 00:05	0°♐	
	13690 Jan 23 04:05	0°♑	
	13690 Mar 07 04:14	0°♒	
	13690 Apr 24 13:40	0°♓	
desc. node	13690 Jun 22 21:05	26°♓36'42	
	13690 Jul 09 03:50	0°♈	
retrograde	13690 Jul 19 20:18	0°♈42'00	
	13690 Jul 30 03:33	30°℞♓	
min. Earth dist.	13690 Aug 27 17:05	21°♓32'04	0.67404 AU
opposition	13690 Aug 29 15:08	20°♓46'23	-2°24'49
greatest brilliancy	13690 Aug 29 09:58	20°♓51'31	-1.3m
direct	13690 Oct 09 02:11	11°♓12'55	
	13690 Dec 14 22:40	0°♈	
	13691 Feb 09 08:21	0°♉	
	13691 Mar 29 14:24	0°♊	
	13691 May 12 16:35	0°♋	
	13691 Jun 22 21:17	0°♌	
evening set	13691 Jul 03 00:46	7°♌38'36	
asc. node	13691 Jul 05 18:20	9°♌43'01	
	13691 Aug 01 02:15	0°♍	
max. Earth dist.	13691 Aug 11 00:54	7°♍46'36	2.36701 AU
conjunction	13691 Sep 07 18:41	29°♍40'58	0°42'36
minimum elong	13691 Sep 07 14:50	29°♍33'19	0°42'26
	13691 Sep 08 04:17	0°♎	
	13691 Oct 16 00:52	0°♏	
morning rise	13691 Nov 21 07:10	28°♏16'00	
	13691 Nov 23 13:23	0°♐	
	13692 Jan 02 13:54	0°♑	
	13692 Feb 13 20:56	0°♒	
	13692 Mar 30 07:22	0°♓	
desc. node	13692 May 09 16:42	24°♓20'34	
	13692 May 19 19:40	0°♈	
	13692 Jul 28 10:14	0°♉	

retrograde	13692 Aug 22 01:25	3°♉16'42	
	13692 Sep 13 19:18	30°℞♈	
opposition	13692 Oct 01 06:36	23°♈49'29	-4°14'39
greatest brilliancy	13692 Oct 01 12:07	23°♈44'04	-1.3m
min. Earth dist.	13692 Oct 03 04:59	23°♈03'53	0.67979 AU
direct	13692 Nov 11 20:04	13°♈49'49	
	13693 Jan 10 13:41	0°♉	
	13693 Mar 06 13:46	0°♊	
	13693 Apr 21 06:45	0°♋	
asc. node	13693 May 22 16:49	22°♋29'14	
	13693 Jun 01 19:50	0°♌	
	13693 Jul 11 00:04	0°♍	
	13693 Aug 18 00:36	0°♎	
evening set	13693 Sep 14 01:20	21°♎25'22	
	13693 Sep 24 22:33	0°♏	
greatest brilliancy	13693 Sep 30 11:30	4°♏20'41	1.1m
	13693 Nov 02 16:09	0°♐	
conjunction	13693 Nov 22 15:31	15°♐02'42	1°00'52
minimum elong	13693 Nov 22 17:38	15°♐06'38	1°01'51
	13693 Dec 12 23:21	0°♑	
max. Earth dist.	13694 Jan 07 04:02	18°♑01'20	2.48022 AU
morning rise	13694 Jan 21 12:27	28°♑01'59	
	13694 Jan 24 08:53	0°♒	
	13694 Mar 10 04:31	0°♓	
desc. node	13694 Mar 27 05:48	10°♓58'19	
	13694 Apr 26 18:46	0°♈	
	13694 Jun 17 11:10	0°♉	
	13694 Aug 21 04:03	0°♊	
retrograde	13694 Sep 28 22:17	7°♊24'03	
	13694 Nov 03 02:43	30°℞♉	
opposition	13694 Nov 06 06:09	28°♉48'26	-4°58'17
greatest brilliancy	13694 Nov 07 06:09	28°♉25'24	-1.5m
min. Earth dist.	13694 Nov 12 01:02	26°♉35'30	0.61770 AU
direct	13694 Dec 17 07:04	18°♉53'17	
	13695 Feb 01 06:31	0°♊	
	13695 Mar 28 00:04	0°♋	
asc. node	13695 Apr 09 23:41	8°♋30'55	
	13695 May 10 15:39	0°♌	
	13695 Jun 19 13:27	0°♍	
	13695 Jul 27 23:39	0°♎	
	13695 Sep 04 07:40	0°♏	
	13695 Oct 13 14:14	0°♐	
evening set	13695 Nov 21 22:49	28°♐52'45	
	13695 Nov 23 12:21	0°♑	
	13696 Jan 05 10:52	0°♒	
conjunction	13696 Jan 15 18:10	6°♒59'25	0°15'28
minimum elong	13696 Jan 15 18:55	7°♒00'40	0°16'21
max. Earth dist.	13696 Feb 08 22:33	23°♒07'00	2.60057 AU
desc. node	13696 Feb 11 16:18	24°♒55'13	
	13696 Feb 19 10:18	0°♓	
morning rise	13696 Mar 04 11:22	9°♓07'05	
	13696 Apr 06 05:47	0°♈	
	13696 May 24 18:42	0°♉	
	13696 Jul 14 16:04	0°♊	
	13696 Sep 09 14:02	0°♋	
retrograde	13696 Nov 15 16:13	19°♋19'35	
opposition	13696 Dec 20 09:38	12°♋15'31	-3°34'24
greatest brilliancy	13696 Dec 21 15:42	11°♋49'09	-2.2m
min. Earth dist.	13696 Dec 29 02:51	9°♋13'07	0.49406 AU
direct	13697 Jan 27 08:10	3°♋36'07	
asc. node	13697 Feb 25 09:11	8°♋58'27	
	13697 Apr 08 22:30	0°♌	
	13697 May 23 13:21	0°♍	
	13697 Jul 03 00:31	0°♎	
	13697 Aug 11 18:34	0°♏	
	13697 Sep 21 07:49	0°♐	
	13697 Nov 02 10:53	0°♑	
	13697 Dec 16 10:05	0°♒	
desc. node	13697 Dec 29 07:29	8°♒34'29	
evening set	13698 Jan 07 20:18	14°♒51'44	
	13698 Jan 31 01:28	0°♓	
conjunction	13698 Feb 23 21:46	15°♓20'39	-0°30'41
minimum elong	13698 Feb 23 20:49	15°♓19'08	0°30'18
max. Earth dist.	13698 Mar 04 03:48	20°♓37'02	2.66932 AU
	13698 Mar 18 21:45	0°♈	
morning rise	13698 Apr 09 00:08	13°♈21'39	
	13698 May 05 09:39	0°♉	
	13698 Jun 22 04:32	0°♊	
	13698 Aug 09 06:45	0°♋	
	13698 Sep 27 08:05	0°♌	
	13698 Nov 19 06:24	0°♍	
asc. node	13699 Jan 13 15:57	21°♍09'14	
retrograde	13699 Jan 27 13:57	22°♍21'34	
opposition	13699 Feb 26 06:55	17°♍25'14	3°14'57
greatest brilliancy	13699 Feb 26 14:19	17°♍20'13	-3.0m
min. Earth dist.	13699 Mar 01 15:26	16°♍30'47	0.37140 AU
direct	13699 Mar 28 18:18	12°♍05'52	
	13699 May 24 09:07	0°♎	
	13699 Jul 12 19:44	0°♏	
	13699 Aug 27 01:40	0°♐	
	13699 Oct 11 06:50	0°♑	
desc. node	13699 Nov 16 08:02	23°♑30'47	
	13699 Nov 26 09:22	0°♒	
	13700 Jan 12 09:34	0°♓	
evening set	13700 Feb 15 01:00	21°♓16'26	
	13700 Feb 28 20:37	0°♈	
max. Earth dist.	13700 Mar 26 11:34	16°♈13'01	2.68283 AU
conjunction	13700 Mar 31 03:17	19°♈10'15	-1°01'36
minimum elong	13700 Mar 31 02:16	19°♈08'38	1°01'50
	13700 Apr 17 03:33	0°♉	
morning rise	13700 May 13 06:37	16°♉45'18	
	13700 Jun 02 17:26	0°♊	
	13700 Jul 18 06:04	0°♋	
	13700 Aug 31 14:06	0°♌	
	13700 Oct 13 19:00	0°♍	
	13700 Nov 25 06:52	0°♎	
asc. node	13700 Dec 01 18:01	4°♎33'41	
	13701 Jan 07 12:24	0°♏	
	13701 Feb 26 08:05	0°♐	
retrograde	13701 Apr 13 06:04	12°♐58'28	
min. Earth dist.	13701 May 09 11:32	8°♐16'26	0.42092 AU
greatest brilliancy	13701 May 15 20:54	6°♐12'46	-2.6m
opposition	13701 May 17 12:15	5°♐40'41	6°11'31
	13701 Jun 10 23:05	30°℞♏	
direct	13701 Jun 17 20:13	29°♏41'06	
	13701 Jun 24 19:26	0°♐	
	13701 Sep 11 11:32	0°♑	
desc. node	13701 Oct 04 15:54	12°♑49'09	
	13701 Nov 03 08:08	0°♒	
	13701 Dec 23 11:25	0°♓	
	13702 Feb 10 09:51	0°♈	
evening set	13702 Mar 22 07:02	25°♈01'18	
	13702 Mar 30 02:40	0°♉	
max. Earth dist.	13702 Apr 18 04:16	12°♉15'40	2.64145 AU
conjunction	13702 May 05 15:04	23°♉38'30	-1°10'54
minimum elong	13702 May 05 15:13	23°♉38'46	1°11'41
	13702 May 15 06:22	0°♊	
morning rise	13702 Jun 20 08:23	24°♊17'53	
	13702 Jun 28 15:29	0°♋	

	13702 Aug 10 05:14	0°♌	
	13702 Sep 20 03:48	0°♍	
asc. node	13702 Oct 19 10:42	22°♍03'32	
	13702 Oct 29 21:00	0°♎	
	13702 Dec 08 02:21	0°♏	
	13703 Jan 17 01:06	0°♐	
	13703 Feb 28 23:20	0°♑	
	13703 Apr 24 07:35	0°♒	
retrograde	13703 Jun 01 02:45	8°♒35'57	
min. Earth dist.	13703 Jul 03 06:00	1°♒38'38	0.55711 AU
	13703 Jul 07 12:38	30°℞♑	
opposition	13703 Jul 10 04:53	28°♑57'57	1°56'06
greatest brilliancy	13703 Jul 09 17:24	29°♑09'00	-1.9m
direct	13703 Aug 15 12:11	20°♑51'22	
desc. node	13703 Aug 23 02:16	21°♑12'12	
	13703 Sep 27 13:17	0°♒	
	13703 Nov 29 21:57	0°♓	
	13704 Jan 21 14:11	0°♈	
	13704 Mar 10 14:43	0°♉	
	13704 Apr 25 22:29	0°♊	
evening set	13704 Apr 27 09:39	0°♊58'35	
max. Earth dist.	13704 May 14 13:16	12°♊31'56	2.54744 AU
	13704 Jun 08 19:29	0°♋	
conjunction	13704 Jun 14 20:05	4°♋14'46	-0°49'38
minimum elong	13704 Jun 14 21:51	4°♋17'53	0°50'40
	13704 Jul 20 11:47	0°♌	
morning rise	13704 Aug 08 06:50	13°♌59'12	
	13704 Aug 29 09:22	0°♍	
asc. node	13704 Sep 04 22:16	5°♍00'57	
	13704 Oct 07 02:18	0°♎	
	13704 Nov 14 08:45	0°♏	
	13704 Dec 23 03:13	0°♐	
	13705 Feb 01 13:22	0°♑	
	13705 Mar 17 08:05	0°♒	
	13705 May 08 04:06	0°♓	
retrograde	13705 Jul 07 11:31	17°♓37'49	
desc. node	13705 Jul 10 10:05	17°♓34'22	
min. Earth dist.	13705 Aug 13 17:21	8°♓59'04	0.65329 AU
opposition	13705 Aug 17 03:14	7°♓37'55	-1°26'11
greatest brilliancy	13705 Aug 16 22:09	7°♓42'57	-1.4m
	13705 Sep 09 15:36	30°℞♒	
direct	13705 Sep 25 18:12	28°♒21'50	
	13705 Oct 12 21:32	0°♓	
	13705 Dec 27 19:21	0°♈	
	13706 Feb 18 15:11	0°♉	
	13706 Apr 07 00:41	0°♊	
	13706 May 20 22:34	0°♋	
evening set	13706 Jun 11 17:50	15°♋38'45	
max. Earth dist.	13706 Jun 27 14:48	27°♋19'47	2.41387 AU
	13706 Jul 01 04:48	0°♌	
asc. node	13706 Jul 23 12:16	16°♌52'16	
	13706 Aug 09 12:52	0°♍	
conjunction	13706 Aug 10 15:12	0°♍51'07	0°12'49
minimum elong	13706 Aug 10 14:04	0°♍48'56	0°12'11
behind sun begin	13706 Aug 09 19:25	0°♍12'42	
behind sun end	13706 Aug 11 08:44	1°♍25'11	
	13706 Sep 16 17:37	0°♎	
morning rise	13706 Oct 21 16:12	27°♎39'37	
	13706 Oct 24 15:23	0°♏	
	13706 Dec 02 03:37	0°♐	
	13707 Jan 11 03:42	0°♑	
	13707 Feb 22 13:26	0°♒	
	13707 Apr 09 15:13	0°♓	
desc. node	13707 May 28 10:12	27°♓42'02	
	13707 Jun 02 00:37	0°♈	
retrograde	13707 Aug 10 13:59	20°♈52'30	
opposition	13707 Sep 20 04:14	11°♈11'40	-3°39'10
greatest brilliancy	13707 Sep 20 04:06	11°♈11'49	-1.2m
min. Earth dist.	13707 Sep 20 14:12	11°♈01'50	0.68556 AU
direct	13707 Oct 31 11:52	1°♈19'23	
	13708 Jan 25 06:32	0°♉	
	13708 Mar 16 08:39	0°♊	
	13708 Apr 30 04:59	0°♋	
asc. node	13708 Jun 09 08:37	29°♋06'49	
	13708 Jun 10 13:02	0°♌	
	13708 Jul 19 16:34	0°♍	
evening set	13708 Aug 14 21:44	20°♍38'29	
	13708 Aug 26 16:53	0°♎	
	13708 Oct 03 13:18	0°♏	
conjunction	13708 Oct 26 19:37	18°♏11'28	1°06'27
minimum elong	13708 Oct 26 19:10	18°♏10'35	1°07'10
	13708 Nov 11 03:40	0°♐	
max. Earth dist.	13708 Dec 19 04:34	28°♐28'11	2.42325 AU
	13708 Dec 21 06:50	0°♑	
morning rise	13709 Jan 01 11:48	8°♑07'10	
	13709 Feb 01 13:24	0°♒	
	13709 Mar 18 11:14	0°♓	
desc. node	13709 Apr 14 00:20	16°♓48'20	
	13709 May 05 18:03	0°♈	
	13709 Jun 29 06:06	0°♉	
retrograde	13709 Sep 14 09:42	23°♉49'24	
opposition	13709 Oct 23 15:36	14°♉50'12	-4°50'59
greatest brilliancy	13709 Oct 24 08:11	14°♉34'05	-1.4m
min. Earth dist.	13709 Oct 27 22:42	13°♉10'09	0.64999 AU
direct	13709 Dec 04 02:47	4°♉48'24	
	13710 Feb 18 00:51	0°♊	
	13710 Apr 08 00:08	0°♋	
asc. node	13710 Apr 27 11:34	13°♋24'03	
	13710 May 20 11:06	0°♌	
	13710 Jun 28 22:49	0°♍	
	13710 Aug 06 03:29	0°♎	
	13710 Sep 13 06:06	0°♏	
	13710 Oct 22 06:01	0°♐	
evening set	13710 Oct 30 02:17	5°♐54'04	
	13710 Dec 01 20:45	0°♑	
conjunction	13710 Dec 29 01:23	19°♑17'59	0°35'03
minimum elong	13710 Dec 29 03:09	19°♑21'03	0°36'03
	13711 Jan 13 12:27	0°♒	
max. Earth dist.	13711 Jan 29 21:33	11°♒07'43	2.55906 AU
morning rise	13711 Feb 19 02:24	24°♒35'10	
	13711 Feb 27 08:24	0°♓	
desc. node	13711 Mar 01 11:04	1°♓22'43	
	13711 Apr 15 07:39	0°♈	
	13711 Jun 03 16:06	0°♉	
	13711 Jul 27 03:55	0°♊	
	13711 Oct 10 16:03	0°♋	
retrograde	13711 Oct 27 15:18	1°♋37'43	
	13711 Nov 12 17:25	30°℞♊	
opposition	13711 Dec 03 00:54	23°♊51'04	-4°31'17
greatest brilliancy	13711 Dec 04 08:56	23°♊21'32	-1.9m
min. Earth dist.	13711 Dec 10 22:03	20°♊57'32	0.54829 AU
direct	13712 Jan 11 14:58	14°♊28'17	
	13712 Mar 05 05:54	0°♋	
asc. node	13712 Mar 14 21:26	5°♋04'35	
	13712 Apr 23 20:57	0°♌	
	13712 Jun 04 11:24	0°♍	
	13712 Jul 13 17:43	0°♎	
	13712 Aug 21 17:04	0°♏	
	13712 Sep 30 14:26	0°♐	
	13712 Nov 11 03:18	0°♑	

evening set	13712 Dec 22 21:51	28°♉51'15	
	13712 Dec 24 14:34	0°♒	
desc. node	13713 Jan 16 00:03	14°♒58'07	
	13713 Feb 07 21:52	0°♓	
conjunction	13713 Feb 10 05:47	1°♓30'53	-0°14'13
minimum elong	13713 Feb 10 05:16	1°♓30'04	0°13'36
behind sun begin	13713 Feb 09 19:00	1°♓13'23	
behind sun end	13713 Feb 10 15:32	1°♓46'44	
max. Earth dist.	13713 Feb 24 05:05	10°♓33'06	2.64893 AU
	13713 Mar 26 15:47	0°♈	
morning rise	13713 Mar 27 14:39	0°♈36'13	
	13713 May 13 10:11	0°♉	
	13713 Jul 01 01:41	0°♊	
	13713 Aug 20 03:34	0°♋	
	13713 Oct 13 09:42	0°♌	
retrograde	13713 Dec 27 12:57	24°♌06'40	
opposition	13714 Jan 27 22:33	18°♌26'03	-0°13'57
greatest brilliancy	13714 Jan 28 00:46	18°♌24'22	-2.8m
asc. node	13714 Jan 31 06:58	17°♌24'26	
min. Earth dist.	13714 Feb 04 08:12	16°♌10'56	0.40870 AU
direct	13714 Mar 02 18:01	11°♌42'17	
	13714 Apr 28 00:58	0°♍	
	13714 Jun 14 09:15	0°♎	
	13714 Jul 27 01:17	0°♏	
	13714 Sep 07 11:54	0°♐	
	13714 Oct 21 01:14	0°♑	
desc. node	13714 Dec 03 20:11	29°♑11'03	
	13714 Dec 05 02:02	0°♒	
	13715 Jan 20 10:25	0°♓	
evening set	13715 Feb 01 20:10	7°♓55'45	
	13715 Mar 08 13:47	0°♈	
conjunction	13715 Mar 18 16:20	6°♈24'19	-0°51'53
minimum elong	13715 Mar 18 15:11	6°♈22'29	0°51'52
max. Earth dist.	13715 Mar 18 23:07	6°♈35'03	2.68420 AU
	13715 Apr 24 20:55	0°♉	
morning rise	13715 Apr 30 19:25	3°♉46'37	
	13715 Jun 10 19:21	0°♊	
	13715 Jul 27 02:01	0°♋	
	13715 Sep 10 15:44	0°♌	
	13715 Oct 25 17:57	0°♍	
	13715 Dec 10 09:42	0°♎	
asc. node	13715 Dec 19 10:14	5°♎43'17	
	13716 Jan 30 22:25	0°♏	
retrograde	13716 Mar 18 07:27	13°♏18'09	
min. Earth dist.	13716 Apr 13 08:34	9°♏03'02	0.37855 AU
greatest brilliancy	13716 Apr 17 10:47	7°♏53'23	-2.9m
opposition	13716 Apr 18 16:45	7°♏32'03	6°48'26
direct	13716 May 18 02:14	2°♏27'06	
	13716 Aug 04 05:00	0°♐	
	13716 Sep 24 15:19	0°♑	
desc. node	13716 Oct 21 01:52	16°♑07'57	
	13716 Nov 12 14:46	0°♒	
	13716 Dec 31 03:42	0°♓	
	13717 Feb 17 08:45	0°♈	
evening set	13717 Mar 08 14:59	12°♈05'55	
	13717 Apr 05 20:00	0°♉	
max. Earth dist.	13717 Apr 09 01:26	2°♉03'51	2.66404 AU
conjunction	13717 Apr 21 11:54	10°♉03'20	-1°10'21
minimum elong	13717 Apr 21 11:29	10°♉02'40	1°10'56
	13717 May 22 02:19	0°♊	
morning rise	13717 Jun 04 16:58	9°♊00'50	
	13717 Jul 05 20:09	0°♋	
	13717 Aug 17 23:11	0°♌	
	13717 Sep 28 13:32	0°♍	

asc. node	13717 Nov 05 05:38	27°♍55'52	
	13717 Nov 07 23:58	0°♎	
	13717 Dec 18 01:08	0°♏	
	13718 Jan 28 07:39	0°♐	
	13718 Mar 16 02:42	0°♑	
retrograde	13718 May 15 02:14	19°♑57'39	
min. Earth dist.	13718 Jun 13 20:52	13°♑51'13	0.50538 AU
opposition	13718 Jun 21 20:20	10°♑53'51	3°35'58
greatest brilliancy	13718 Jun 20 20:24	11°♑16'03	-2.1m
direct	13718 Jul 26 08:12	3°♑29'00	
desc. node	13718 Sep 08 13:12	13°♑17'18	
	13718 Oct 15 11:15	0°♒	
	13718 Dec 09 12:05	0°♓	
	13719 Jan 29 05:49	0°♈	
	13719 Mar 18 14:35	0°♉	
evening set	13719 Apr 13 09:52	16°♉34'48	
	13719 May 03 19:29	0°♊	
max. Earth dist.	13719 May 04 01:02	0°♊09'14	2.59022 AU
conjunction	13719 May 29 15:22	17°♊25'11	-1°02'19
minimum elong	13719 May 29 16:36	17°♊27'17	1°03'19
	13719 Jun 16 20:15	0°♋	
morning rise	13719 Jul 18 14:25	22°♋33'56	
	13719 Jul 28 19:53	0°♌	
	13719 Sep 07 01:40	0°♍	
asc. node	13719 Sep 22 19:40	12°♍01'24	
	13719 Oct 16 02:06	0°♎	
	13719 Nov 23 14:45	0°♏	
	13720 Jan 01 15:24	0°♐	
	13720 Feb 11 13:12	0°♑	
	13720 Mar 27 20:45	0°♒	
	13720 May 29 21:19	0°♓	
retrograde	13720 Jun 23 15:23	3°♓43'20	
	13720 Jul 16 23:41	30°℞♒	
desc. node	13720 Jul 26 22:07	26°♒29'59	
min. Earth dist.	13720 Jul 29 01:37	25°♒39'56	0.62285 AU
opposition	13720 Aug 02 22:30	23°♒44'42	-0°17'03
greatest brilliancy	13720 Aug 02 21:11	23°♒46'00	-1.6m
direct	13720 Sep 10 11:33	14°♒50'43	
	13720 Nov 08 03:27	0°♓	
	13721 Jan 06 12:50	0°♈	
	13721 Feb 26 08:45	0°♉	
	13721 Apr 14 05:08	0°♊	
evening set	13721 May 23 11:42	26°♊47'06	
	13721 May 28 01:27	0°♋	
max. Earth dist.	13721 Jun 06 08:17	6°♋35'20	2.46876 AU
	13721 Jul 08 11:02	0°♌	
conjunction	13721 Jul 16 16:22	6°♌08'30	-0°16'17
minimum elong	13721 Jul 16 17:33	6°♌10'43	0°17'10
asc. node	13721 Aug 09 07:23	24°♌04'50	
	13721 Aug 16 23:46	0°♍	
morning rise	13721 Sep 19 14:27	26°♍15'09	
	13721 Sep 24 08:36	0°♎	
	13721 Nov 01 08:50	0°♏	
	13721 Dec 09 21:56	0°♐	
	13722 Jan 18 23:07	0°♑	
	13722 Mar 02 15:05	0°♒	
	13722 Apr 18 19:49	0°♓	
desc. node	13722 Jun 14 01:12	28°♓30'57	
	13722 Jun 17 22:22	0°♈	
retrograde	13722 Jul 28 08:29	8°♈25'48	
	13722 Sep 03 12:48	30°℞♓	
min. Earth dist.	13722 Sep 06 01:02	29°♓00'33	0.68100 AU
opposition	13722 Sep 07 03:25	28°♓34'26	-2°54'57
greatest brilliancy	13722 Sep 06 23:22	28°♓38'26	-1.3m
direct	13722 Oct 17 23:40	18°♓53'09	

	13722 Dec 05 19:30	0°♈	
	13723 Feb 04 08:27	0°♉	
	13723 Mar 25 10:43	0°♊	
	13723 May 08 18:52	0°♋	
	13723 Jun 19 00:54	0°♌	
asc. node	13723 Jun 27 00:38	6°♌00'50	
evening set	13723 Jul 18 08:25	22°♌19'53	
	13723 Jul 28 05:19	0°♍	
	13723 Sep 04 06:36	0°♎	
conjunction	13723 Sep 26 14:17	17°♎43'19	0°55'59
minimum elong	13723 Sep 26 10:26	17°♎35'42	0°56'09
	13723 Oct 12 02:48	0°♏	
max. Earth dist.	13723 Nov 09 09:20	22°♏06'17	2.37074 AU
	13723 Nov 19 15:21	0°♐	
morning rise	13723 Dec 08 12:05	14°♐18'48	
	13723 Dec 29 15:56	0°♑	
	13724 Feb 09 21:23	0°♒	
	13724 Mar 26 00:43	0°♓	
desc. node	13724 Apr 30 19:23	22°♓04'19	
	13724 May 14 10:28	0°♈	
	13724 Jul 13 19:02	0°♉	
retrograde	13724 Aug 30 22:17	10°♉56'37	
opposition	13724 Oct 09 21:03	1°♉38'13	-4°31'03
greatest brilliancy	13724 Oct 10 06:16	1°♉29'11	-1.3m
min. Earth dist.	13724 Oct 12 15:30	0°♉33'10	0.67223 AU
	13724 Oct 14 01:34	30°℞♈	
direct	13724 Nov 20 12:00	21°♈36'23	
	13724 Dec 31 03:41	0°♉	
	13725 Mar 01 06:37	0°♊	
	13725 Apr 16 21:13	0°♋	
asc. node	13725 May 14 02:23	19°♋14'46	
	13725 May 28 17:13	0°♌	
	13725 Jul 06 23:41	0°♍	
	13725 Aug 14 01:12	0°♎	
	13725 Sep 21 00:03	0°♏	
evening set	13725 Oct 02 05:42	8°♏47'19	
	13725 Oct 29 18:46	0°♐	
conjunction	13725 Dec 07 12:23	28°♐49'02	0°52'53
minimum elong	13725 Dec 07 14:47	28°♐53'25	0°53'56
	13725 Dec 09 03:28	0°♑	
max. Earth dist.	13726 Jan 16 22:55	27°♑29'52	2.51014 AU
	13726 Jan 20 13:56	0°♒	
morning rise	13726 Feb 02 03:51	8°♒35'41	
	13726 Mar 06 08:12	0°♓	
desc. node	13726 Mar 18 05:50	7°♓42'50	
	13726 Apr 22 14:41	0°♈	
	13726 Jun 12 04:39	0°♉	
	13726 Aug 09 14:21	0°♊	
retrograde	13726 Oct 09 09:12	16°♊06'03	
opposition	13726 Nov 16 03:00	7°♊45'47	-4°54'40
greatest brilliancy	13726 Nov 17 06:38	7°♊19'34	-1.6m
min. Earth dist.	13726 Nov 22 16:58	5°♊16'23	0.59561 AU
	13726 Dec 09 11:07	30°℞♉	
direct	13726 Dec 26 18:48	27°♉58'36	
	13727 Jan 13 22:10	0°♊	
	13727 Mar 21 15:08	0°♋	
asc. node	13727 Apr 01 09:37	6°♋43'20	
	13727 May 05 14:55	0°♌	
	13727 Jun 14 23:35	0°♍	
	13727 Jul 23 15:20	0°♎	
	13727 Aug 31 03:28	0°♏	
	13727 Oct 09 13:43	0°♐	
	13727 Nov 19 15:30	0°♑	
evening set	13727 Dec 04 21:06	10°♑46'37	
	13728 Jan 01 17:01	0°♒	
conjunction	13728 Jan 26 10:27	16°♒37'24	0°04'13
minimum elong	13728 Jan 26 10:39	16°♒37'44	0°05'01
behind sun begin	13728 Jan 25 14:52	16°♒04'52	
behind sun end	13728 Jan 27 06:26	17°♒10'35	
desc. node	13728 Feb 02 16:51	21°♒26'13	
	13728 Feb 15 17:55	0°♓	
max. Earth dist.	13728 Feb 15 20:50	0°♓04'46	2.61996 AU
morning rise	13728 Mar 13 17:58	17°♓27'11	
	13728 Apr 02 11:29	0°♈	
	13728 May 20 15:56	0°♉	
	13728 Jul 09 13:00	0°♊	
	13728 Aug 31 23:42	0°♋	
	13728 Nov 16 13:17	0°♌	
retrograde	13728 Nov 30 04:11	1°♌05'02	
	13728 Dec 13 06:41	30°℞♋	
opposition	13729 Jan 02 18:05	24°♋29'10	-2°39'56
greatest brilliancy	13729 Jan 03 18:05	24°♋08'58	-2.4m
min. Earth dist.	13729 Jan 11 12:29	21°♋32'49	0.46244 AU
direct	13729 Feb 08 11:31	16°♋24'14	
asc. node	13729 Feb 16 18:37	16°♋53'20	
	13729 Mar 28 08:21	0°♌	
	13729 May 16 13:00	0°♍	
	13729 Jun 27 06:47	0°♎	
	13729 Aug 06 17:22	0°♏	
	13729 Sep 16 18:18	0°♐	
	13729 Oct 29 06:41	0°♑	
	13729 Dec 12 13:00	0°♒	
desc. node	13729 Dec 20 11:10	5°♒15'12	
evening set	13730 Jan 17 20:06	23°♒49'40	
	13730 Jan 27 09:02	0°♓	
conjunction	13730 Mar 04 22:48	23°♓25'51	-0°39'16
minimum elong	13730 Mar 04 21:42	23°♓24'06	0°39'01
max. Earth dist.	13730 Mar 10 06:30	26°♓48'58	2.67688 AU
	13730 Mar 15 06:45	0°♈	
morning rise	13730 Apr 17 13:49	21°♈05'16	
	13730 May 01 16:11	0°♉	
	13730 Jun 18 02:33	0°♊	
	13730 Aug 04 10:17	0°♋	
	13730 Sep 20 21:28	0°♌	
	13730 Nov 08 14:31	0°♍	
	13731 Jan 03 19:35	0°♎	
asc. node	13731 Jan 05 01:29	0°♎31'47	
retrograde	13731 Feb 16 08:42	10°♎38'21	
opposition	13731 Mar 17 20:46	5°♎45'15	5°08'24
greatest brilliancy	13731 Mar 17 18:47	5°♎46'33	-3.0m
min. Earth dist.	13731 Mar 18 00:59	5°♎42'27	0.36381 AU
direct	13731 Apr 16 06:34	0°♎51'42	
	13731 Jul 03 02:14	0°♏	
	13731 Aug 20 13:17	0°♐	
	13731 Oct 06 04:11	0°♑	
desc. node	13731 Nov 07 12:58	20°♑44'57	
	13731 Nov 22 01:28	0°♒	
	13732 Jan 08 12:28	0°♓	
evening set	13732 Feb 23 22:57	29°♓12'55	
	13732 Feb 25 04:50	0°♈	
max. Earth dist.	13732 Mar 31 10:49	22°♈17'54	2.67834 AU
conjunction	13732 Apr 07 20:18	27°♈00'23	-1°05'52
minimum elong	13732 Apr 07 19:28	26°♈59'03	1°06'14
	13732 Apr 12 12:52	0°♉	
morning rise	13732 May 21 05:12	24°♉55'55	
	13732 May 28 23:40	0°♊	
	13732 Jul 13 04:59	0°♋	
	13732 Aug 26 01:38	0°♌	
	13732 Oct 07 14:28	0°♍	
	13732 Nov 18 04:06	0°♎	

asc. node	13732 Nov 22 00:14	2°♎47'11	
	13732 Dec 29 18:38	0°♏	
	13733 Feb 12 07:45	0°♐	
retrograde	13733 Apr 25 15:53	27°♐50'28	
min. Earth dist.	13733 May 23 00:53	22°♐39'29	0.45007 AU
greatest brilliancy	13733 May 29 21:18	20°♐18'10	-2.4m
opposition	13733 May 31 09:13	19°♐47'01	5°20'22
direct	13733 Jul 02 20:45	13°♐14'46	
	13733 Aug 31 11:04	0°♑	
desc. node	13733 Sep 24 22:00	12°♑05'59	
	13733 Oct 27 15:16	0°♒	
	13733 Dec 18 01:41	0°♓	
	13734 Feb 05 13:09	0°♈	
	13734 Mar 25 11:13	0°♉	
evening set	13734 Mar 30 04:19	3°♉00'31	
max. Earth dist.	13734 Apr 23 15:55	18°♉49'42	2.62528 AU
	13734 May 10 15:22	0°♊	
conjunction	13734 May 14 00:28	2°♊14'42	-1°09'14
minimum elong	13734 May 14 01:00	2°♊15'36	1°10'07
	13734 Jun 23 21:28	0°♋	
morning rise	13734 Jun 29 23:10	4°♋13'12	
	13734 Aug 05 06:04	0°♌	
	13734 Sep 14 22:13	0°♍	
asc. node	13734 Oct 09 15:06	18°♍42'39	
	13734 Oct 24 08:42	0°♎	
	13734 Dec 02 06:52	0°♏	
	13735 Jan 10 18:53	0°♐	
	13735 Feb 21 15:57	0°♑	
	13735 Apr 11 13:14	0°♒	
retrograde	13735 Jun 09 23:16	18°♒30'42	
min. Earth dist.	13735 Jul 13 08:22	11°♒08'18	0.58299 AU
opposition	13735 Jul 19 14:35	8°♒42'04	1°03'49
greatest brilliancy	13735 Jul 19 08:53	8°♒47'37	-1.8m
desc. node	13735 Aug 13 09:00	1°♒16'05	
direct	13735 Aug 25 19:21	0°♒16'28	
	13735 Nov 22 17:43	0°♓	
	13736 Jan 16 03:35	0°♈	
	13736 Mar 05 17:48	0°♉	
	13736 Apr 21 06:10	0°♊	
evening set	13736 May 06 08:45	10°♊08'22	
max. Earth dist.	13736 May 21 21:07	20°♊45'23	2.52107 AU
	13736 Jun 04 03:17	0°♋	
conjunction	13736 Jun 25 11:22	15°♋12'04	-0°39'28
minimum elong	13736 Jun 25 13:13	15°♋15'24	0°40'30
	13736 Jul 15 17:35	0°♌	
morning rise	13736 Aug 22 04:52	28°♌14'07	
	13736 Aug 24 12:02	0°♍	
asc. node	13736 Aug 26 04:22	1°♍17'31	
	13736 Oct 02 01:44	0°♎	
	13736 Nov 09 05:20	0°♏	
	13736 Dec 17 20:41	0°♐	
	13737 Jan 27 01:29	0°♑	
	13737 Mar 11 06:02	0°♒	
	13737 Apr 29 14:15	0°♓	
desc. node	13737 Jun 30 14:31	24°♓24'17	
retrograde	13737 Jul 15 03:23	25°♓41'38	
min. Earth dist.	13737 Aug 22 08:01	16°♓45'11	0.66615 AU
opposition	13737 Aug 24 22:11	15°♓43'34	-2°01'51
greatest brilliancy	13737 Aug 24 16:35	15°♓49'07	-1.4m
direct	13737 Oct 04 01:26	6°♓17'17	
	13737 Dec 20 08:27	0°♈	
	13738 Feb 13 03:04	0°♉	
	13738 Apr 02 01:39	0°♊	
	13738 May 16 03:25	0°♋	
evening set	13738 Jun 23 20:15	28°♋04'33	
	13738 Jun 26 10:10	0°♌	
asc. node	13738 Jul 13 18:58	13°♌06'34	
max. Earth dist.	13738 Jul 15 23:07	14°♌46'01	2.38550 AU
	13738 Aug 04 17:19	0°♍	
conjunction	13738 Aug 26 11:37	17°♍02'47	0°30'11
minimum elong	13738 Aug 26 08:45	16°♍57'06	0°29'48
	13738 Sep 11 20:50	0°♎	
	13738 Oct 19 17:42	0°♏	
morning rise	13738 Nov 08 17:56	15°♏42'19	
	13738 Nov 27 05:09	0°♐	
	13739 Jan 06 03:56	0°♑	
	13739 Feb 17 10:04	0°♒	
	13739 Apr 03 23:40	0°♓	
desc. node	13739 May 18 11:31	26°♓18'16	
	13739 May 25 07:46	0°♈	
retrograde	13739 Aug 18 05:14	28°♈28'58	
opposition	13739 Sep 27 15:40	18°♈55'10	-4°01'08
greatest brilliancy	13739 Sep 27 18:29	18°♈52'23	-1.2m
min. Earth dist.	13739 Sep 28 21:45	18°♈25'33	0.68376 AU
direct	13739 Nov 08 03:52	8°♈58'18	
	13740 Jan 17 11:20	0°♉	
	13740 Mar 10 15:52	0°♊	
	13740 Apr 25 01:04	0°♋	
asc. node	13740 May 30 15:55	25°♋37'05	
	13740 Jun 05 13:16	0°♌	
	13740 Jul 14 17:55	0°♍	
	13740 Aug 21 18:33	0°♎	
evening set	13740 Sep 01 06:49	8°♎20'41	
	13740 Sep 28 15:36	0°♏	
	13740 Nov 06 06:54	0°♐	
conjunction	13740 Nov 11 23:35	4°♐20'12	1°04'53
minimum elong	13740 Nov 12 00:56	4°♐22'47	1°05'46
	13740 Dec 16 10:59	0°♑	
max. Earth dist.	13740 Dec 31 09:43	10°♑47'41	2.45499 AU
morning rise	13741 Jan 13 18:47	20°♑16'59	
	13741 Jan 27 17:37	0°♒	
	13741 Mar 13 12:06	0°♓	
desc. node	13741 Apr 04 01:23	13°♓48'07	
	13741 Apr 30 06:37	0°♈	
	13741 Jun 21 20:05	0°♉	
	13741 Sep 04 02:55	0°♊	
retrograde	13741 Sep 23 01:07	1°♊58'28	
	13741 Oct 10 18:35	30°℞♉	
opposition	13741 Oct 31 20:18	23°♉11'28	-4°56'49
greatest brilliancy	13741 Nov 01 17:02	22°♉51'27	-1.4m
min. Earth dist.	13741 Nov 05 23:27	21°♉12'51	0.63350 AU
direct	13741 Dec 12 03:30	13°♉12'21	
	13742 Feb 09 00:00	0°♊	
	13742 Apr 01 18:39	0°♋	
asc. node	13742 Apr 17 21:37	10°♋48'30	
	13742 May 14 22:01	0°♌	
	13742 Jun 23 15:42	0°♍	
	13742 Jul 31 23:18	0°♎	
	13742 Sep 08 04:22	0°♏	
	13742 Oct 17 06:53	0°♐	
evening set	13742 Nov 13 00:13	19°♐50'27	
	13742 Nov 27 00:19	0°♑	
conjunction	13743 Jan 08 22:44	0°♒07'22	0°23'46
minimum elong	13743 Jan 08 23:55	0°♒09'23	0°24'43
	13743 Jan 08 18:26	0°♒	
max. Earth dist.	13743 Feb 05 10:19	18°♒39'44	2.58303 AU
desc. node	13743 Feb 19 12:01	27°♒57'29	
	13743 Feb 22 14:50	0°♓	
morning rise	13743 Feb 28 00:23	3°♓31'16	

	13743 Apr 10 10:31	0°♈	
	13743 May 29 05:56	0°♉	
	13743 Jul 20 00:32	0°♊	
	13743 Sep 18 21:31	0°♋	
retrograde	13743 Nov 08 02:32	11°♋50'30	
opposition	13743 Dec 13 15:14	4°♋26'07	-4°03'17
greatest brilliancy	13743 Dec 14 23:08	3°♋57'26	-2.0m
min. Earth dist.	13743 Dec 22 01:57	1°♋24'48	0.51905 AU
	13743 Dec 26 06:31	30°℞♊	
direct	13744 Jan 21 10:23	25°♊24'24	
	13744 Feb 17 09:03	0°♋	
asc. node	13744 Mar 05 07:30	6°♋36'24	
	13744 Apr 15 21:34	0°♌	
	13744 May 28 22:34	0°♍	
	13744 Jul 07 18:58	0°♎	
	13744 Aug 16 03:13	0°♏	
	13744 Sep 25 07:44	0°♐	
	13744 Nov 06 02:42	0°♑	
	13744 Dec 19 19:07	0°♒	
evening set	13745 Jan 01 17:37	8°♒39'07	
desc. node	13745 Jan 06 02:05	11°♒32'28	
	13745 Feb 03 05:38	0°♓	
conjunction	13745 Feb 18 16:54	10°♓00'05	-0°24'06
minimum elong	13745 Feb 18 16:06	9°♓58'48	0°23'37
max. Earth dist.	13745 Mar 01 11:14	16°♓54'43	2.66119 AU
	13745 Mar 21 23:59	0°♈	
morning rise	13745 Apr 04 07:13	8°♈25'32	
	13745 May 08 14:07	0°♉	
	13745 Jun 25 16:56	0°♊	
	13745 Aug 13 13:03	0°♋	
	13745 Oct 03 07:41	0°♌	
	13745 Dec 01 21:13	0°♍	
retrograde	13746 Jan 13 23:50	9°♍49'35	
asc. node	13746 Jan 21 14:39	9°♍27'31	
opposition	13746 Feb 13 09:09	4°♍37'12	1°40'17
greatest brilliancy	13746 Feb 13 16:35	4°♍31'54	-2.9m
min. Earth dist.	13746 Feb 18 21:32	3°♍03'16	0.38495 AU
	13746 Mar 03 16:55	30°℞♌	
direct	13746 Mar 17 05:56	28°♌43'18	
	13746 Mar 30 19:29	0°♍	
	13746 Jun 04 00:22	0°♎	
	13746 Jul 19 09:01	0°♏	
	13746 Sep 01 02:37	0°♐	
	13746 Oct 15 10:42	0°♑	
desc. node	13746 Nov 24 01:21	26°♑07'59	
	13746 Nov 29 23:55	0°♒	
	13747 Jan 15 15:53	0°♓	
evening set	13747 Feb 09 23:57	16°♓05'45	
	13747 Mar 03 22:58	0°♈	
max. Earth dist.	13747 Mar 23 22:02	12°♈38'19	2.68453 AU
conjunction	13747 Mar 26 08:36	14°♈11'07	-0°57'57
minimum elong	13747 Mar 26 07:30	14°♈09'23	0°58'06
	13747 Apr 20 06:02	0°♉	
morning rise	13747 May 08 10:25	11°♉36'48	
	13747 Jun 05 23:50	0°♊	
	13747 Jul 21 20:31	0°♋	
	13747 Sep 04 17:03	0°♌	
	13747 Oct 18 15:30	0°♍	
	13747 Dec 01 05:26	0°♎	
asc. node	13747 Dec 09 17:59	5°♎48'40	
	13748 Jan 15 13:37	0°♏	
	13748 Mar 21 06:42	0°♐	
retrograde	13748 Apr 02 14:59	1°♐04'56	
	13748 Apr 14 19:05	30°℞♏	
min. Earth dist.	13748 Apr 28 08:26	26°♏40'31	0.39963 AU
greatest brilliancy	13748 May 03 23:33	24°♏57'47	-2.7m
opposition	13748 May 05 13:34	24°♏28'34	6°40'10
direct	13748 Jun 04 22:59	18°♏55'30	
	13748 Jul 20 11:28	0°♐	
	13748 Sep 16 19:05	0°♑	
desc. node	13748 Oct 11 07:59	14°♑17'07	
	13748 Nov 06 15:38	0°♒	
	13748 Dec 26 00:18	0°♓	
	13749 Feb 12 14:42	0°♈	
evening set	13749 Mar 16 09:36	19°♈56'33	
	13749 Apr 01 05:30	0°♉	
max. Earth dist.	13749 Apr 14 06:27	8°♉21'45	2.65265 AU
conjunction	13749 Apr 29 10:54	18°♉11'38	-1°11'13
minimum elong	13749 Apr 29 10:48	18°♉11'29	1°11'55
	13749 May 17 11:03	0°♊	
morning rise	13749 Jun 13 09:46	17°♊59'43	
	13749 Jul 01 00:54	0°♋	
	13749 Aug 12 21:17	0°♌	
	13749 Sep 23 03:17	0°♍	
asc. node	13749 Oct 26 12:32	24°♍58'50	
	13749 Nov 02 03:48	0°♎	
	13749 Dec 11 16:41	0°♏	
	13750 Jan 21 01:22	0°♐	
	13750 Mar 06 01:05	0°♑	
	13750 May 10 22:29	0°♒	
retrograde	13750 May 24 23:47	1°♒22'14	
	13750 Jun 07 16:30	30°℞♑	
min. Earth dist.	13750 Jun 25 01:55	24°♑47'30	0.53462 AU
opposition	13750 Jul 02 13:47	21°♑56'57	2°37'18
greatest brilliancy	13750 Jul 01 21:12	22°♑12'40	-2.0m
direct	13750 Aug 07 03:02	14°♑07'51	
desc. node	13750 Aug 29 18:15	17°♑01'22	
	13750 Oct 05 09:22	0°♒	
	13750 Dec 03 06:53	0°♓	
	13751 Jan 24 02:00	0°♈	
	13751 Mar 13 20:24	0°♉	
evening set	13751 Apr 21 19:48	25°♉08'32	
	13751 Apr 29 03:58	0°♊	
max. Earth dist.	13751 May 10 10:05	7°♊31'47	2.56752 AU
conjunction	13751 Jun 08 03:36	27°♊12'11	-0°55'47
minimum elong	13751 Jun 08 05:09	27°♊14'54	0°56'49
	13751 Jun 12 03:44	0°♋	
	13751 Jul 24 00:18	0°♌	
morning rise	13751 Jul 30 09:09	4°♌41'13	
	13751 Sep 02 02:18	0°♍	
asc. node	13751 Sep 13 00:22	8°♍21'29	
	13751 Oct 10 22:50	0°♎	
	13751 Nov 18 07:53	0°♏	
	13751 Dec 27 04:06	0°♐	
	13752 Feb 05 16:54	0°♑	
	13752 Mar 20 21:45	0°♒	
	13752 May 14 05:39	0°♓	
retrograde	13752 Jul 01 14:31	12°♓16'42	
desc. node	13752 Jul 17 03:06	10°♓38'31	
min. Earth dist.	13752 Aug 07 01:53	3°♓53'19	0.64082 AU
opposition	13752 Aug 11 03:35	2°♓16'44	-0°58'53
greatest brilliancy	13752 Aug 10 23:31	2°♓20'45	-1.5m
	13752 Aug 17 00:38	30°℞♒	
direct	13752 Sep 19 08:07	23°♒09'51	
	13752 Oct 26 08:53	0°♓	
	13752 Dec 31 05:12	0°♈	
	13753 Feb 21 04:27	0°♉	
	13753 Apr 09 09:34	0°♊	
	13753 May 23 08:07	0°♋	
evening set	13753 Jun 03 01:02	7°♋36'16	

max. Earth dist.	13753 Jun 17	03:24	17°♋47'25	2.43843 AU	
	13753 Jul 03	16:59	0°♌		
conjunction	13753 Jul 30	04:24	20°♌00'11	-0°00'17	
minimum elong	13753 Jul 30	04:25	20°♌00'14	0°01'02	
behind sun begin	13753 Jul 29	02:07	19°♌09'56		
behind sun end	13753 Jul 31	06:43	20°♌50'35		
asc. node	13753 Jul 30	13:42	20°♌17'57		
	13753 Aug 12	03:55	0°♍		
	13753 Sep 19	10:40	0°♎		
morning rise	13753 Oct 07	07:45	14°♎08'35		
	13753 Oct 27	09:21	0°♏		
	13753 Dec 04	21:14	0°♐		
	13754 Jan 13	20:17	0°♑		
	13754 Feb 25	06:30	0°♒		
	13754 Apr 12	15:07	0°♓		
desc. node	13754 Jun 04	04:51	28°♓47'57		
	13754 Jun 06	18:58	0°♈		
retrograde	13754 Aug 04	21:13	16°♈04'47		
opposition	13754 Sep 14	14:42	6°♈18'54	-3°22'04	
min. Earth dist.	13754 Sep 14	08:29	6°♈25'03	0.68484 AU	
greatest brilliancy	13754 Sep 14	12:34	6°♈21'00	-1.3m	
	13754 Oct 02	04:37	30°℞♓		
direct	13754 Oct 25	18:22	26°♓31'05		
	13754 Nov 20	06:51	0°♈		
	13755 Jan 28	21:13	0°♉		
	13755 Mar 20	03:04	0°♊		
	13755 May 03	19:38	0°♋		
	13755 Jun 14	04:09	0°♌		
asc. node	13755 Jun 17	08:23	2°♌22'49		
	13755 Jul 23	08:56	0°♍		
evening set	13755 Aug 02	21:05	8°♍13'43		
	13755 Aug 30	09:50	0°♎		
	13755 Oct 07	05:50	0°♏		
conjunction	13755 Oct 14	08:25	5°♏35'41	1°04'08	
minimum elong	13755 Oct 14	06:14	5°♏31'22	1°04'39	
	13755 Nov 14	18:33	0°♐		
max. Earth dist.	13755 Dec 07	04:32	16°♐58'23	2.39801 AU	
morning rise	13755 Dec 23	02:52	28°♐46'13		
	13755 Dec 24	19:10	0°♑		
	13756 Feb 04	23:35	0°♒		
	13756 Mar 20	21:26	0°♓		
desc. node	13756 Apr 20	20:14	19°♓26'08		
	13756 May 08	11:53	0°♈		
	13756 Jul 03	15:52	0°♉		
retrograde	13756 Sep 08	01:24	18°♉45'16		
opposition	13756 Oct 17	15:58	9°♉36'58	-4°44'01	
greatest brilliancy	13756 Oct 18	05:14	9°♉24'03	-1.3m	
min. Earth dist.	13756 Oct 21	06:58	8°♉12'16	0.66120 AU	
	13756 Nov 20	02:09	30°℞♈		
direct	13756 Nov 28	06:11	29°♈34'34		
	13756 Dec 06	15:34	0°♉		
	13757 Feb 22	07:00	0°♊		
	13757 Apr 11	05:05	0°♋		
asc. node	13757 May 04	10:06	16°♋09'21		
	13757 May 23	10:34	0°♌		
	13757 Jul 01	20:47	0°♍		
	13757 Aug 09	00:13	0°♎		
	13757 Sep 16	00:48	0°♏		
evening set	13757 Oct 18	09:20	25°♏02'49		
	13757 Oct 24	21:34	0°♐		
	13757 Dec 04	08:11	0°♑		
conjunction	13757 Dec 20	01:47	11°♑17'14	0°43'03	
minimum elong	13757 Dec 20	03:56	11°♑21'03	0°44'06	
	13758 Jan 15	20:04	0°♒		

max. Earth dist.	13758 Jan 24	13:49	5°♒59'00	2.53795 AU	
morning rise	13758 Feb 11	23:46	18°♒23'33		
	13758 Mar 01	13:31	0°♓		
desc. node	13758 Mar 08	07:04	4°♓23'14		
	13758 Apr 17	14:09	0°♈		
	13758 Jun 06	08:13	0°♉		
	13758 Jul 31	08:46	0°♊		
retrograde	13758 Oct 19	10:04	25°♊13'03		
opposition	13758 Nov 25	11:24	17°♊10'23	-4°44'05	
greatest brilliancy	13758 Nov 26	17:57	16°♊41'50	-1.7m	
min. Earth dist.	13758 Dec 02	20:06	14°♊25'53	0.57042 AU	
direct	13759 Jan 04	15:11	7°♊34'47		
	13759 Mar 12	21:53	0°♋		
asc. node	13759 Mar 22	19:11	5°♋42'19		
	13759 Apr 29	02:02	0°♌		
	13759 Jun 09	02:28	0°♍		
	13759 Jul 18	01:38	0°♎		
	13759 Aug 25	19:06	0°♏		
	13759 Oct 04	10:23	0°♐		
	13759 Nov 14	16:51	0°♑		
evening set	13759 Dec 15	23:01	21°♑49'38		
	13759 Dec 27	22:28	0°♒		
desc. node	13760 Jan 23	19:26	18°♒00'14		
conjunction	13760 Feb 04	13:58	25°♒45'32	-0°06'44	
minimum elong	13760 Feb 04	13:43	25°♒45'08	0°06'04	
behind sun begin	13760 Feb 03	19:00	25°♒14'26		
behind sun end	13760 Feb 05	08:27	26°♒15'49		
	13760 Feb 11	01:35	0°♓		
max. Earth dist.	13760 Feb 21	09:41	6°♓43'06	2.63705 AU	
morning rise	13760 Mar 21	17:24	25°♓31'52		
	13760 Mar 28	18:21	0°♈		
	13760 May 15	16:05	0°♉		
	13760 Jul 03	18:33	0°♊		
	13760 Aug 24	00:45	0°♋		
	13760 Oct 21	14:41	0°♌		
retrograde	13760 Dec 14	22:57	13°♌58'35		
opposition	13761 Jan 16	07:33	7°♌52'47	-1°25'32	
greatest brilliancy	13761 Jan 16	20:45	7°♌42'12	-2.6m	
min. Earth dist.	13761 Jan 24	14:10	5°♌14'05	0.43169 AU	
asc. node	13761 Feb 07	05:19	1°♌45'07		
direct	13761 Feb 20	12:49	0°♌29'45		
	13761 May 06	18:10	0°♍		
	13761 Jun 19	19:09	0°♎		
	13761 Jul 31	05:49	0°♏		
	13761 Sep 10	22:29	0°♐		
	13761 Oct 23	22:22	0°♑		
	13761 Dec 07	13:24	0°♒		
desc. node	13761 Dec 10	14:00	1°♒59'46		
	13762 Jan 22	15:08	0°♓		
evening set	13762 Jan 26	12:20	2°♓29'43		
	13762 Mar 10	15:29	0°♈		
conjunction	13762 Mar 12	20:07	1°♈23'30	-0°47'00	
minimum elong	13762 Mar 12	18:57	1°♈21'40	0°46'54	
max. Earth dist.	13762 Mar 15	06:42	2°♈56'25	2.68208 AU	
morning rise	13762 Apr 25	02:58	28°♈49'31		
	13762 Apr 26	23:26	0°♉		
	13762 Jun 13	02:55	0°♊		
	13762 Jul 29	20:13	0°♋		
	13762 Sep 14	03:50	0°♌		
	13762 Oct 30	12:37	0°♍		
	13762 Dec 17	21:24	0°♎		
asc. node	13762 Dec 26	09:42	4°♎53'38		
retrograde	13763 Mar 06	05:17	29°♎31'51		
min. Earth dist.	13763 Apr 02	10:04	25°♎08'50	0.36765 AU	
opposition	13763 Apr 05	13:05	24°♎17'57	6°24'54	

greatest brilliancy	13763 Apr 04 18:54	24°♎30'18	-3.0m
direct	13763 May 04 15:01	19°♎26'21	
	13763 Jun 16 17:56	0°♏	
	13763 Aug 11 19:54	0°♐	
	13763 Sep 29 14:57	0°♑	
desc. node	13763 Oct 28 17:46	18°♑13'45	
	13763 Nov 16 12:50	0°♒	
	13764 Jan 03 12:53	0°♓	
	13764 Feb 20 12:03	0°♈	
evening set	13764 Mar 02 19:05	7°♈06'03	
max. Earth dist.	13764 Apr 05 11:54	28°♈27'01	2.67152 AU
	13764 Apr 07 22:10	0°♉	
conjunction	13764 Apr 15 14:29	4°♉54'54	-1°08'59
minimum elong	13764 Apr 15 13:53	4°♉53'56	1°09'29
	13764 May 24 06:57	0°♊	
morning rise	13764 May 29 08:35	3°♊19'53	
	13764 Jul 08 06:32	0°♋	
	13764 Aug 20 17:39	0°♌	
	13764 Oct 01 17:57	0°♍	
	13764 Nov 11 15:14	0°♎	
asc. node	13764 Nov 12 06:30	0°♎28'15	
	13764 Dec 22 05:46	0°♏	
	13765 Feb 02 11:23	0°♐	
	13765 Mar 25 04:56	0°♑	
retrograde	13765 May 06 23:46	11°♑19'09	
min. Earth dist.	13765 Jun 04 16:22	5°♑37'43	0.48067 AU
opposition	13765 Jun 12 23:05	2°♑38'40	4°21'25
greatest brilliancy	13765 Jun 11 17:26	3°♑05'28	-2.3m
	13765 Jun 20 16:11	30°℞♐	
direct	13765 Jul 16 13:23	25°♐36'07	
	13765 Aug 13 13:32	0°♑	
desc. node	13765 Sep 15 04:32	12°♑30'03	
	13765 Oct 20 03:49	0°♒	
	13765 Dec 12 09:55	0°♓	
	13766 Jan 31 13:59	0°♈	
	13766 Mar 20 18:40	0°♉	
evening set	13766 Apr 07 05:26	11°♉10'14	
max. Earth dist.	13766 Apr 29 11:44	25°♉41'19	2.60696 AU
	13766 May 06 00:10	0°♊	
conjunction	13766 May 22 17:46	11°♊11'54	-1°05'55
minimum elong	13766 May 22 18:42	11°♊13'29	1°06'52
	13766 Jun 19 04:29	0°♋	
morning rise	13766 Jul 10 04:47	14°♋46'23	
	13766 Jul 31 09:00	0°♌	
	13766 Sep 09 20:09	0°♍	
asc. node	13766 Sep 29 21:24	15°♍15'13	
	13766 Oct 19 01:10	0°♎	
	13766 Nov 26 17:31	0°♏	
	13767 Jan 04 21:47	0°♐	
	13767 Feb 15 01:58	0°♑	
	13767 Apr 02 09:08	0°♒	
retrograde	13767 Jun 18 11:11	27°♒51'38	
min. Earth dist.	13767 Jul 23 00:16	20°♒05'54	0.60616 AU
opposition	13767 Jul 28 12:27	17°♒56'14	0°15'13
greatest brilliancy	13767 Jul 28 11:16	17°♒57'24	-1.7m
desc. node	13767 Aug 03 14:33	15°♒36'22	
direct	13767 Sep 04 12:19	9°♒13'55	
	13767 Nov 14 11:33	0°♓	
	13768 Jan 10 10:44	0°♈	
	13768 Feb 29 18:19	0°♉	
	13768 Apr 16 12:19	0°♊	
evening set	13768 May 15 20:49	19°♊51'13	
max. Earth dist.	13768 May 30 04:50	29°♊50'14	2.49279 AU
	13768 May 30 10:23	0°♋	
conjunction	13768 Jul 07 01:09	27°♋06'19	-0°27'01
minimum elong	13768 Jul 07 02:47	27°♋09'19	0°27'59
	13768 Jul 10 23:10	0°♌	
asc. node	13768 Aug 16 08:50	27°♌28'55	
	13768 Aug 19 15:25	0°♍	
morning rise	13768 Sep 06 14:01	13°♍54'35	
	13768 Sep 27 02:49	0°♎	
	13768 Nov 04 04:23	0°♏	
greatest brilliancy	13768 Dec 01 18:09	21°♏32'10	1.2m
	13768 Dec 12 17:47	0°♐	
	13769 Jan 21 18:53	0°♑	
	13769 Mar 05 13:19	0°♒	
	13769 Apr 22 08:12	0°♓	
desc. node	13769 Jun 20 18:42	27°♓57'14	
	13769 Jun 27 18:59	0°♈	
retrograde	13769 Jul 22 16:43	3°♈31'38	
	13769 Aug 14 23:15	30°℞♓	
min. Earth dist.	13769 Aug 30 18:22	24°♓18'47	0.67561 AU
opposition	13769 Sep 01 12:43	23°♓36'51	-2°34'18
greatest brilliancy	13769 Sep 01 07:36	23°♓41'55	-1.3m
direct	13769 Oct 12 02:24	14°♓01'42	
	13769 Dec 11 15:31	0°♈	
	13770 Feb 07 09:04	0°♉	
	13770 Mar 28 00:19	0°♊	
	13770 May 11 07:11	0°♋	
	13770 Jun 21 14:37	0°♌	
asc. node	13770 Jul 04 00:27	9°♌20'37	
evening set	13770 Jul 07 03:59	11°♌44'07	
	13770 Jul 30 21:03	0°♍	
max. Earth dist.	13770 Aug 25 02:37	19°♍48'21	2.36388 AU
	13770 Sep 06 23:35	0°♎	
conjunction	13770 Sep 12 16:29	4°♎31'36	0°46'13
minimum elong	13770 Sep 12 12:28	4°♎23'37	0°46'10
	13770 Oct 14 19:50	0°♏	
	13770 Nov 22 07:15	0°♐	
morning rise	13770 Nov 26 01:01	2°♐51'58	
	13771 Jan 01 05:47	0°♑	
	13771 Feb 12 09:44	0°♒	
	13771 Mar 29 14:47	0°♓	
desc. node	13771 May 08 14:28	24°♓19'55	
	13771 May 18 14:08	0°♈	
	13771 Jul 22 13:03	0°♉	
retrograde	13771 Aug 25 22:44	6°♉04'30	
	13771 Sep 26 08:49	30°℞♈	
opposition	13771 Oct 05 03:58	26°♈38'49	-4°19'49
greatest brilliancy	13771 Oct 05 10:14	26°♈32'40	-1.3m
min. Earth dist.	13771 Oct 07 06:23	25°♈49'21	0.67874 AU
direct	13771 Nov 15 19:06	16°♈38'38	
	13772 Jan 08 01:39	0°♉	
	13772 Mar 04 15:58	0°♊	
	13772 Apr 19 18:49	0°♋	
asc. node	13772 May 21 01:05	22°♋15'36	
	13772 May 31 12:24	0°♌	
	13772 Jul 09 18:47	0°♍	
	13772 Aug 16 19:56	0°♎	
greatest brilliancy	13772 Sep 11 20:43	20°♎38'28	1.1m
evening set	13772 Sep 18 21:19	26°♎11'23	
	13772 Sep 23 17:26	0°♏	
	13772 Nov 01 09:45	0°♐	
conjunction	13772 Nov 26 22:21	19°♐12'00	0°59'06
minimum elong	13772 Nov 27 00:38	19°♐16'14	1°00'06
	13772 Dec 11 15:04	0°♑	
max. Earth dist.	13773 Jan 10 08:07	21°♑14'18	2.48618 AU
	13773 Jan 22 22:18	0°♒	
morning rise	13773 Jan 25 02:58	1°♒30'45	

	13773 Mar 08 14:55	0°♓	
desc. node	13773 Mar 25 01:54	10°♓37'46	
	13773 Apr 25 00:22	0°♈	
	13773 Jun 15 05:25	0°♉	
	13773 Aug 16 03:36	0°♊	
retrograde	13773 Oct 02 02:31	10°♊23'15	
opposition	13773 Nov 09 09:05	1°♊50'15	-4°57'26
greatest brilliancy	13773 Nov 10 09:50	1°♊26'36	-1.5m
	13773 Nov 14 04:28	30°℞♉	
min. Earth dist.	13773 Nov 15 08:14	29°♉33'44	0.61388 AU
direct	13773 Dec 20 09:33	21°♉56'30	
	13774 Jan 27 16:15	0°♊	
	13774 Mar 25 23:50	0°♋	
asc. node	13774 Apr 08 07:46	8°♋37'00	
	13774 May 09 03:02	0°♌	
	13774 Jun 18 05:23	0°♍	
	13774 Jul 26 17:19	0°♎	
	13774 Sep 03 01:29	0°♏	
	13774 Oct 12 07:08	0°♐	
	13774 Nov 22 03:39	0°♑	
evening set	13774 Nov 25 18:31	2°♑35'28	
	13775 Jan 04 00:19	0°♒	
conjunction	13775 Jan 19 03:04	10°♒14'51	0°12'20
minimum elong	13775 Jan 19 03:39	10°♒15'51	0°13'12
behind sun begin	13775 Jan 18 15:41	9°♒55'44	
behind sun end	13775 Jan 19 15:38	10°♒35'59	
desc. node	13775 Feb 09 12:13	24°♒28'59	
max. Earth dist.	13775 Feb 11 15:09	25°♒52'52	2.60447 AU
	13775 Feb 17 21:47	0°♓	
morning rise	13775 Mar 08 13:23	12°♓06'24	
	13775 Apr 05 15:03	0°♈	
	13775 May 24 00:22	0°♉	
	13775 Jul 13 13:31	0°♊	
	13775 Sep 07 05:43	0°♋	
retrograde	13775 Nov 20 15:26	22°♋49'56	
opposition	13775 Dec 25 02:58	15°♋51'15	-3°21'41
greatest brilliancy	13775 Dec 26 07:51	15°♋26'06	-2.2m
min. Earth dist.	13776 Jan 02 21:10	12°♋49'01	0.48800 AU
direct	13776 Jan 31 21:22	7°♋17'34	
asc. node	13776 Feb 24 16:42	11°♋01'22	
	13776 Apr 06 01:23	0°♌	
	13776 May 21 16:15	0°♍	
	13776 Jul 01 10:25	0°♎	
	13776 Aug 10 07:03	0°♏	
	13776 Sep 19 21:02	0°♐	
	13776 Oct 31 23:51	0°♑	
	13776 Dec 14 22:20	0°♒	
desc. node	13776 Dec 27 05:16	8°♒10'55	
evening set	13777 Jan 11 01:40	17°♒58'05	
	13777 Jan 29 12:50	0°♓	
conjunction	13777 Feb 26 22:03	18°♓15'37	-0°33'16
minimum elong	13777 Feb 26 21:03	18°♓14'00	0°32'56
max. Earth dist.	13777 Mar 06 15:21	23°♓11'21	2.67084 AU
	13777 Mar 17 08:16	0°♈	
morning rise	13777 Apr 11 21:53	16°♈11'39	
	13777 May 03 19:09	0°♉	
	13777 Jun 20 12:11	0°♊	
	13777 Aug 07 10:22	0°♋	
	13777 Sep 25 02:05	0°♌	
	13777 Nov 15 16:58	0°♍	
asc. node	13778 Jan 12 00:12	24°♍28'27	
retrograde	13778 Feb 01 15:33	27°♍03'47	
opposition	13778 Mar 03 04:30	22°♍09'57	3°43'08
greatest brilliancy	13778 Mar 03 11:15	22°♍05'26	-3.0m
min. Earth dist.	13778 Mar 06 00:40	21°♍24'14	0.36903 AU
direct	13778 Apr 02 10:05	16°♍57'17	
	13778 May 19 14:39	0°♎	
	13778 Jul 10 08:11	0°♏	
	13778 Aug 25 02:51	0°♐	
	13778 Oct 09 12:58	0°♑	
desc. node	13778 Nov 14 05:59	23°♑14'33	
	13778 Nov 24 17:44	0°♒	
	13779 Jan 10 19:06	0°♓	
evening set	13779 Feb 18 00:29	24°♓08'58	
	13779 Feb 27 06:57	0°♈	
max. Earth dist.	13779 Mar 28 21:46	18°♈44'27	2.68215 AU
conjunction	13779 Apr 03 01:23	22°♈00'44	-1°03'01
minimum elong	13779 Apr 03 00:25	21°♈59'13	1°03'18
	13779 Apr 15 14:30	0°♉	
morning rise	13779 May 16 05:40	19°♉39'14	
	13779 Jun 01 04:42	0°♊	
	13779 Jul 16 17:10	0°♋	
	13779 Aug 30 00:17	0°♌	
	13779 Oct 12 03:09	0°♍	
	13779 Nov 23 10:43	0°♎	
asc. node	13779 Nov 30 01:01	4°♎41'04	
	13780 Jan 05 05:26	0°♏	
	13780 Feb 22 01:02	0°♐	
retrograde	13780 Apr 16 02:34	17°♐13'59	
min. Earth dist.	13780 May 12 14:26	12°♐26'08	0.42615 AU
greatest brilliancy	13780 May 19 01:38	10°♐19'00	-2.6m
opposition	13780 May 20 16:24	9°♐46'54	6°01'30
direct	13780 Jun 21 05:09	3°♐41'04	
	13780 Sep 07 12:18	0°♑	
desc. node	13780 Oct 01 13:40	13°♑00'29	
	13780 Oct 31 06:27	0°♒	
	13780 Dec 20 16:44	0°♓	
	13781 Feb 07 18:42	0°♈	
evening set	13781 Mar 24 05:27	27°♈51'55	
	13781 Mar 27 13:56	0°♉	
max. Earth dist.	13781 Apr 19 14:23	14°♉47'57	2.63846 AU
conjunction	13781 May 07 15:32	26°♉35'32	-1°10'39
minimum elong	13781 May 07 15:49	26°♉35'59	1°11'28
	13781 May 12 19:26	0°♊	
morning rise	13781 Jun 22 14:33	27°♊29'46	
	13781 Jun 26 05:52	0°♋	
	13781 Aug 07 20:22	0°♌	
	13781 Sep 17 19:11	0°♍	
asc. node	13781 Oct 16 16:46	21°♍46'15	
	13781 Oct 27 11:58	0°♎	
	13781 Dec 05 15:49	0°♏	
	13782 Jan 14 10:46	0°♐	
	13782 Feb 25 22:29	0°♑	
	13782 Apr 18 20:42	0°♒	
retrograde	13782 Jun 03 06:09	11°♒51'34	
min. Earth dist.	13782 Jul 05 15:11	4°♒49'56	0.56228 AU
opposition	13782 Jul 12 11:39	2°♒11'32	1°41'55
greatest brilliancy	13782 Jul 12 01:45	2°♒21'04	-1.8m
	13782 Jul 18 07:54	30°℞♑	
direct	13782 Aug 18 00:08	24°♑01'04	
desc. node	13782 Aug 20 01:08	24°♑02'37	
	13782 Sep 20 20:30	0°♒	
	13782 Nov 26 13:40	0°♓	
	13783 Jan 18 18:31	0°♈	
	13783 Mar 09 00:42	0°♉	
	13783 Apr 24 12:04	0°♊	
evening set	13783 Apr 30 11:55	3°♊59'35	
max. Earth dist.	13783 May 17 05:06	15°♊17'11	2.54268 AU
	13783 Jun 07 11:39	0°♋	

conjunction	13783 Jun 18 05:23	7°♋34'31	-0°47'14
minimum elong	13783 Jun 18 07:10	7°♋37'42	0°48'17
	13783 Jul 19 05:39	0°♌	
morning rise	13783 Aug 12 06:38	17°♌55'11	
	13783 Aug 28 04:08	0°♍	
asc. node	13783 Sep 03 05:55	4°♍39'30	
	13783 Oct 05 21:07	0°♎	
	13783 Nov 13 02:44	0°♏	
	13783 Dec 21 19:19	0°♐	
	13784 Jan 31 01:44	0°♑	
	13784 Mar 14 12:31	0°♒	
	13784 May 04 04:47	0°♓	
desc. node	13784 Jul 07 08:17	20°♓30'14	
retrograde	13784 Jul 09 09:19	20°♓31'52	
min. Earth dist.	13784 Aug 15 20:39	11°♓49'31	0.65616 AU
opposition	13784 Aug 19 02:35	10°♓32'23	-1°37'04
greatest brilliancy	13784 Aug 18 21:08	10°♓37'47	-1.4m
direct	13784 Sep 27 20:33	1°♓14'03	
	13784 Dec 24 07:39	0°♈	
	13785 Feb 15 20:04	0°♉	
	13785 Apr 04 12:20	0°♊	
	13785 May 18 14:15	0°♋	
evening set	13785 Jun 14 08:49	19°♋13'21	
	13785 Jun 28 23:06	0°♌	
max. Earth dist.	13785 Jun 30 16:52	1°♌17'52	2.40848 AU
asc. node	13785 Jul 20 19:55	16°♌29'59	
	13785 Aug 07 08:47	0°♍	
conjunction	13785 Aug 13 22:47	5°♍07'08	0°16'58
minimum elong	13785 Aug 13 21:16	5°♍04'10	0°16'25
	13785 Sep 14 14:05	0°♎	
	13785 Oct 22 11:25	0°♏	
morning rise	13785 Oct 25 13:49	2°♏26'42	
	13785 Nov 29 22:11	0°♐	
	13786 Jan 08 19:42	0°♑	
	13786 Feb 20 01:19	0°♒	
	13786 Apr 06 19:31	0°♓	
desc. node	13786 May 25 06:29	27°♓57'14	
	13786 May 29 05:48	0°♈	
retrograde	13786 Aug 12 10:55	23°♈40'48	
opposition	13786 Sep 22 01:44	14°♈01'11	-3°46'09
greatest brilliancy	13786 Sep 22 02:09	14°♈00'46	-1.2m
min. Earth dist.	13786 Sep 22 15:46	13°♈47'21	0.68563 AU
direct	13786 Nov 02 11:15	4°♈07'46	
	13787 Jan 21 17:58	0°♉	
	13787 Mar 14 14:55	0°♊	
	13787 Apr 28 18:19	0°♋	
asc. node	13787 Jun 07 15:27	28°♋47'59	
	13787 Jun 09 06:03	0°♌	
	13787 Jul 18 11:35	0°♍	
evening set	13787 Aug 19 14:43	25°♍18'22	
	13787 Aug 25 12:41	0°♎	
	13787 Oct 02 08:57	0°♏	
conjunction	13787 Oct 31 10:33	22°♏42'09	1°06'34
minimum elong	13787 Oct 31 10:36	22°♏42'13	1°07'20
	13787 Nov 09 22:19	0°♐	
	13787 Dec 19 23:39	0°♑	
max. Earth dist.	13787 Dec 23 01:43	2°♑15'10	2.42930 AU
morning rise	13788 Jan 05 09:12	11°♑52'03	
	13788 Jan 31 03:33	0°♒	
	13788 Mar 15 21:28	0°♓	
desc. node	13788 Apr 10 21:11	16°♓32'35	
	13788 May 02 21:16	0°♈	
	13788 Jun 25 12:57	0°♉	
retrograde	13788 Sep 16 10:11	26°♉42'33	
opposition	13788 Oct 25 15:28	17°♉45'25	-4°52'57
greatest brilliancy	13788 Oct 26 08:54	17°♉28'31	-1.4m
min. Earth dist.	13788 Oct 30 02:54	16°♉01'27	0.64723 AU
direct	13788 Dec 06 03:29	7°♉43'55	
	13789 Feb 14 09:06	0°♊	
	13789 Apr 05 06:57	0°♋	
asc. node	13789 Apr 24 19:47	13°♋19'23	
	13789 May 18 01:14	0°♌	
	13789 Jun 26 16:07	0°♍	
	13789 Aug 03 21:56	0°♎	
	13789 Sep 11 00:24	0°♏	
	13789 Oct 19 23:21	0°♐	
evening set	13789 Nov 02 07:41	10°♐01'35	
	13789 Nov 29 12:31	0°♑	
conjunction	13789 Dec 31 15:50	22°♑47'02	0°32'07
minimum elong	13789 Dec 31 17:27	22°♑49'51	0°33'07
	13790 Jan 11 02:19	0°♒	
max. Earth dist.	13790 Jan 31 12:30	13°♒52'30	2.56382 AU
morning rise	13790 Feb 21 06:57	27°♒40'31	
	13790 Feb 24 19:58	0°♓	
desc. node	13790 Feb 26 08:17	0°♓59'27	
	13790 Apr 12 16:07	0°♈	
	13790 May 31 18:51	0°♉	
	13790 Jul 23 15:14	0°♊	
	13790 Sep 29 16:01	0°♋	
retrograde	13790 Oct 30 04:42	4°♋52'54	
	13790 Nov 27 09:12	30°℞♊	
opposition	13790 Dec 05 11:00	27°♊10'19	-4°24'20
greatest brilliancy	13790 Dec 06 19:02	26°♊40'57	-1.9m
min. Earth dist.	13790 Dec 13 11:46	24°♊14'22	0.54297 AU
direct	13791 Jan 13 23:14	17°♊50'55	
	13791 Mar 01 09:29	0°♋	
asc. node	13791 Mar 13 05:37	5°♋52'29	
	13791 Apr 21 21:49	0°♌	
	13791 Jun 02 22:17	0°♍	
	13791 Jul 12 08:12	0°♎	
	13791 Aug 20 08:33	0°♏	
	13791 Sep 29 05:36	0°♐	
	13791 Nov 09 17:26	0°♑	
	13791 Dec 23 03:24	0°♒	
evening set	13791 Dec 26 06:47	2°♒07'11	
desc. node	13792 Jan 13 21:09	14°♒33'05	
	13792 Feb 06 09:26	0°♓	
conjunction	13792 Feb 13 07:43	4°♓30'13	-0°17'06
minimum elong	13792 Feb 13 07:06	4°♓29'14	0°16'33
max. Earth dist.	13792 Feb 26 19:13	13°♓12'27	2.65143 AU
	13792 Mar 24 02:05	0°♈	
morning rise	13792 Mar 29 12:50	3°♈27'14	
	13792 May 10 18:37	0°♉	
	13792 Jun 28 06:28	0°♊	
	13792 Aug 16 23:45	0°♋	
	13792 Oct 09 02:37	0°♌	
retrograde	13792 Dec 31 04:45	28°♌23'21	
asc. node	13793 Jan 28 13:15	23°♌40'15	
opposition	13793 Jan 31 10:58	22°♌48'16	0°12'17
greatest brilliancy	13793 Oct 11 17:27	25°♐25'46	0.7m
min. Earth dist.	13793 Feb 07 13:10	20°♌40'41	0.40377 AU
direct	13793 Mar 05 20:04	16°♌14'16	
	13793 Apr 22 15:37	0°♍	
	13793 Jun 11 01:06	0°♎	
	13793 Jul 24 04:52	0°♏	
	13793 Sep 04 20:01	0°♐	
	13793 Oct 18 11:09	0°♑	
desc. node	13793 Nov 30 18:36	28°♑51'17	
	13793 Dec 02 12:30	0°♒	
	13794 Jan 17 20:58	0°♓	

evening set	13794 Feb 03	20:24	10°♓50'25		
	13794 Mar 06	00:28	0°♈		
conjunction	13794 Mar 20	13:43	9°♈13'19	-0°53'47	
minimum elong	13794 Mar 20	12:34	9°♈11'30	0°53'51	
max. Earth dist.	13794 Mar 20	06:10	9°♈01'23	2.68450 AU	
	13794 Apr 22	07:43	0°♉		
morning rise	13794 May 02	16:30	6°♉35'45		
	13794 Jun 08	05:57	0°♊		
	13794 Jul 24	11:27	0°♋		
	13794 Sep 07	22:18	0°♌		
	13794 Oct 22	18:37	0°♍		
	13794 Dec 06	20:41	0°♎		
asc. node	13794 Dec 16	17:24	6°♎23'14		
	13795 Jan 25	02:25	0°♏		
retrograde	13795 Mar 22	22:40	18°♏13'28		
min. Earth dist.	13795 Apr 17	18:22	13°♏58'03	0.38203 AU	
greatest brilliancy	13795 Apr 22	05:20	12°♏41'28	-2.9m	
opposition	13795 Apr 23	13:28	12°♏18'18	6°51'21	
direct	13795 May 23	02:49	7°♏08'47		
	13795 Jul 31	17:33	0°♐		
	13795 Sep 22	09:38	0°♑		
desc. node	13795 Oct 18	24:00	16°♑04'50		
	13795 Nov 10	18:04	0°♒		
	13795 Dec 29	10:57	0°♓		
	13796 Feb 15	18:17	0°♈		
evening set	13796 Mar 10	13:29	14°♈56'24		
	13796 Apr 03	07:13	0°♉		
max. Earth dist.	13796 Apr 10	14:18	4°♉39'55	2.66214 AU	
conjunction	13796 Apr 23	10:21	12°♉55'31	-1°10'48	
minimum elong	13796 Apr 23	10:02	12°♉55'00	1°11'26	
	13796 May 19	14:56	0°♊		
morning rise	13796 Jun 06	18:17	12°♊01'13		
	13796 Jul 03	09:49	0°♋		
	13796 Aug 15	13:25	0°♌		
	13796 Sep 26	03:43	0°♍		
asc. node	13796 Nov 02	13:51	27°♍46'33		
	13796 Nov 05	13:02	0°♎		
	13796 Dec 15	11:10	0°♏		
	13797 Jan 25	09:55	0°♐		
	13797 Mar 12	01:29	0°♑		
retrograde	13797 May 17	11:56	23°♑36'08		
min. Earth dist.	13797 Jun 16	11:59	17°♑25'20	0.51093 AU	
opposition	13797 Jun 24	10:58	14°♑27'53	3°20'54	
greatest brilliancy	13797 Jun 23	12:47	14°♑48'31	-2.1m	
direct	13797 Jul 29	04:37	6°♑58'16		
desc. node	13797 Sep 05	09:57	14°♑33'43		
	13797 Oct 11	09:44	0°♒		
	13797 Dec 06	10:14	0°♓		
	13798 Jan 26	11:43	0°♈		
	13798 Mar 16	00:41	0°♉		
evening set	13798 Apr 15	10:42	19°♉32'12		
	13798 May 01	08:26	0°♊		
max. Earth dist.	13798 May 05	13:18	2°♊47'45	2.58614 AU	
conjunction	13798 May 31	20:23	20°♊34'43	-1°00'48	
minimum elong	13798 May 31	21:42	20°♊36'59	1°01'48	
	13798 Jun 14	11:20	0°♋		
morning rise	13798 Jul 21	05:07	26°♋08'09		
	13798 Jul 26	12:30	0°♌		
	13798 Sep 04	19:17	0°♍		
asc. node	13798 Sep 20	02:17	11°♍39'54		
	13798 Oct 13	20:02	0°♎		
	13798 Nov 21	08:03	0°♏		
	13798 Dec 30	06:37	0°♐		
	13799 Feb 08	23:32	0°♑		
	13799 Mar 25	18:03	0°♒		
	13799 May 23	09:55	0°♓		
retrograde	13799 Jun 26	15:29	6°♓44'26		
desc. node	13799 Jul 24	19:36	1°♓25'39		
	13799 Jul 28	17:02	30°℞♒		
min. Earth dist.	13799 Aug 01	07:00	28°♒37'07	0.62646 AU	
opposition	13799 Aug 06	00:04	26°♒45'38	-0°29'31	
greatest brilliancy	13799 Aug 05	21:46	26°♒47'54	-1.6m	
direct	13799 Sep 13	16:39	17°♒48'53		
	13799 Nov 04	05:02	0°♓		
	13800 Jan 04	09:20	0°♈		
	13800 Feb 24	15:45	0°♉		
	13800 Apr 12	17:27	0°♊		
evening set	13800 May 26	21:13	0°♋07'07		
	13800 May 26	17:10	0°♋		
max. Earth dist.	13800 Jun 09	12:59	9°♋49'02	2.46308 AU	
	13800 Jul 07	04:56	0°♌		
conjunction	13800 Jul 20	14:25	10°♌01'01	-0°12'28	
minimum elong	13800 Jul 20	15:23	10°♌02'49	0°13'21	
behind sun begin	13800 Jul 20	00:54	9°♌35'35		
behind sun end	13800 Jul 21	05:51	10°♌30'04		
asc. node	13800 Aug 07	14:05	23°♌41'18		
	13800 Aug 15	18:56	0°♍		
	13800 Sep 23	04:11	0°♎		
morning rise	13800 Sep 24	09:01	0°♎56'50		
	13800 Oct 31	04:00	0°♏		
	13800 Dec 08	15:45	0°♐		
	13801 Jan 17	14:21	0°♑		
	13801 Mar 01	01:33	0°♒		
	13801 Apr 16	19:28	0°♓		
desc. node	13801 Jun 11	22:48	29°♓19'42		
	13801 Jun 13	13:40	0°♈		
retrograde	13801 Jul 31	05:32	11°♈14'56		
min. Earth dist.	13801 Sep 09	03:00	1°♈46'37	0.68199 AU	
opposition	13801 Sep 10	01:06	1°♈24'46	-3°03'34	
greatest brilliancy	13801 Sep 09	21:20	1°♈28'29	-1.3m	
	13801 Sep 13	15:13	30°℞♓		
direct	13801 Oct 20	23:17	21°♓42'04		
	13801 Dec 01	05:32	0°♈		
	13802 Feb 02	05:22	0°♉		
	13802 Mar 23	19:35	0°♊		
	13802 May 07	09:30	0°♋		
	13802 Jun 17	18:52	0°♌		
asc. node	13802 Jun 25	08:05	5°♌40'05		
evening set	13802 Jul 22	15:31	26°♌34'41		
	13802 Jul 27	01:09	0°♍		
	13802 Sep 03	03:04	0°♎		
conjunction	13802 Oct 01	10:47	22°♎29'02	0°58'25	
minimum elong	13802 Oct 01	07:13	22°♎21'57	0°58'42	
	13802 Oct 10	22:51	0°♏		
max. Earth dist.	13802 Nov 17	08:13	29°♏10'21	2.37510 AU	
	13802 Nov 18	10:04	0°♐		
morning rise	13802 Dec 12	20:32	18°♐31'20		
	13802 Dec 28	08:32	0°♑		
	13803 Feb 08	10:58	0°♒		
	13803 Mar 25	09:35	0°♓		
desc. node	13803 Apr 29	15:44	21°♓55'04		
	13803 May 13	09:21	0°♈		
	13803 Jul 10	20:22	0°♉		
retrograde	13803 Sep 03	21:36	13°♉46'48		
opposition	13803 Oct 13	19:53	4°♉30'21	-4°35'13	
greatest brilliancy	13803 Oct 14	05:58	4°♉20'30	-1.3m	
min. Earth dist.	13803 Oct 16	18:56	3°♉20'58	0.67031 AU	
	13803 Oct 25	17:54	30°℞♈		
direct	13803 Nov 24	11:41	24°♈28'19		

	13803 Dec 26 15:47	0°♉	
	13804 Feb 28 03:38	0°♊	
	13804 Apr 15 07:06	0°♋	
asc. node	13804 May 12 08:57	19°♋01'40	
	13804 May 27 08:35	0°♌	
	13804 Jul 05 17:50	0°♍	
	13804 Aug 12 20:35	0°♎	
	13804 Sep 19 19:28	0°♏	
evening set	13804 Oct 06 20:44	13°♏19'08	
	13804 Oct 28 13:17	0°♐	
	13804 Dec 07 20:19	0°♑	
conjunction	13804 Dec 11 10:31	2°♑36'22	0°50'34
minimum elong	13804 Dec 11 12:55	2°♑40'42	0°51'36
	13805 Jan 19 04:31	0°♒	
max. Earth dist.	13805 Jan 19 18:10	0°♒23'33	2.51547 AU
morning rise	13805 Feb 05 12:28	11°♒50'07	
	13805 Mar 04 19:58	0°♓	
desc. node	13805 Mar 16 02:56	7°♓20'34	
	13805 Apr 20 22:20	0°♈	
	13805 Jun 10 03:46	0°♉	
	13805 Aug 06 04:45	0°♊	
retrograde	13805 Oct 12 16:18	19°♊08'36	
opposition	13805 Nov 19 07:51	10°♊51'32	-4°52'08
greatest brilliancy	13805 Nov 20 12:10	10°♊24'48	-1.6m
min. Earth dist.	13805 Nov 26 02:40	8°♊18'11	0.59093 AU
direct	13805 Dec 29 22:46	1°♊06'10	
	13806 Mar 19 06:57	0°♋	
asc. node	13806 Mar 30 16:43	6°♋58'17	
	13806 May 03 23:06	0°♌	
	13806 Jun 13 13:18	0°♍	
	13806 Jul 22 07:13	0°♎	
	13806 Aug 29 19:52	0°♏	
	13806 Oct 08 05:41	0°♐	
	13806 Nov 18 06:28	0°♑	
evening set	13806 Dec 08 12:53	14°♑18'56	
	13806 Dec 31 06:39	0°♒	
conjunction	13807 Jan 29 16:00	19°♒44'35	0°01'09
minimum elong	13807 Jan 29 16:06	19°♒44'44	0°01'56
behind sun begin	13807 Jan 28 19:45	19°♒11'02	
behind sun end	13807 Jan 30 12:27	20°♒18'25	
desc. node	13807 Jan 31 14:46	21°♒01'58	
	13807 Feb 14 06:02	0°♓	
max. Earth dist.	13807 Feb 18 09:10	2°♓41'49	2.62357 AU
morning rise	13807 Mar 17 17:31	20°♓20'42	
	13807 Apr 01 21:46	0°♈	
	13807 May 19 23:24	0°♉	
	13807 Jul 08 14:35	0°♊	
	13807 Aug 30 08:15	0°♋	
	13807 Nov 05 15:13	0°♌	
retrograde	13807 Dec 05 08:06	4°♌44'58	
	13808 Jan 02 05:14	30°℞♋	
opposition	13808 Jan 07 15:31	28°♋14'29	-2°23'12
greatest brilliancy	13808 Jan 08 13:17	27°♋56'16	-2.4m
min. Earth dist.	13808 Jan 16 07:55	25°♋20'46	0.45650 AU
direct	13808 Feb 13 02:36	20°♋16'16	
asc. node	13808 Feb 16 03:16	20°♋20'14	
	13808 Mar 23 16:09	0°♌	
	13808 May 14 07:59	0°♍	
	13808 Jun 25 12:55	0°♎	
	13808 Aug 05 03:18	0°♏	
	13808 Sep 15 05:31	0°♐	
	13808 Oct 27 18:06	0°♑	
	13808 Dec 11 00:09	0°♒	
desc. node	13808 Dec 18 08:01	4°♒51'39	
evening set	13809 Jan 21 00:26	26°♒53'28	
	13809 Jan 25 19:51	0°♓	
conjunction	13809 Mar 07 22:16	26°♓19'09	-0°41'38
minimum elong	13809 Mar 07 21:08	26°♓17'21	0°41'27
max. Earth dist.	13809 Mar 12 15:51	29°♓19'40	2.67817 AU
	13809 Mar 13 17:14	0°♈	
morning rise	13809 Apr 20 11:01	23°♈54'30	
	13809 Apr 30 02:09	0°♉	
	13809 Jun 16 11:18	0°♊	
	13809 Aug 02 16:17	0°♋	
	13809 Sep 18 21:26	0°♌	
	13809 Nov 05 23:39	0°♍	
	13809 Dec 29 07:58	0°♎	
asc. node	13810 Jan 03 09:04	2°♎23'31	
retrograde	13810 Feb 21 03:53	15°♎30'39	
opposition	13810 Mar 22 19:59	10°♎35'26	5°30'26
min. Earth dist.	13810 Mar 22 08:24	10°♎43'07	0.36365 AU
greatest brilliancy	13810 Mar 22 15:09	10°♎38'38	-3.0m
direct	13810 Apr 21 03:14	5°♎43'54	
	13810 Jun 29 16:47	0°♏	
	13810 Aug 18 07:50	0°♐	
	13810 Oct 04 07:14	0°♑	
desc. node	13810 Nov 05 10:08	20°♑31'18	
	13810 Nov 20 08:01	0°♒	
	13811 Jan 06 20:50	0°♓	
	13811 Feb 23 14:30	0°♈	
evening set	13811 Feb 26 22:16	2°♈05'32	
max. Earth dist.	13811 Apr 03 22:05	24°♈51'36	2.67739 AU
conjunction	13811 Apr 11 18:26	29°♈51'40	-1°06'57
minimum elong	13811 Apr 11 17:40	29°♈50'25	1°07'24
	13811 Apr 11 23:40	0°♉	
morning rise	13811 May 25 04:39	27°♉51'34	
	13811 May 28 11:20	0°♊	
	13811 Jul 12 17:00	0°♋	
	13811 Aug 25 13:15	0°♌	
	13811 Oct 07 00:47	0°♍	
	13811 Nov 17 11:38	0°♎	
asc. node	13811 Nov 21 07:14	2°♎46'56	
	13811 Dec 28 19:49	0°♏	
	13812 Feb 10 13:36	0°♐	
	13812 Apr 13 04:03	0°♑	
retrograde	13812 Apr 29 07:05	1°♑52'02	
	13812 May 15 04:52	30°℞♐	
min. Earth dist.	13812 May 26 22:45	26°♐35'34	0.45583 AU
greatest brilliancy	13812 Jun 02 21:05	24°♐11'05	-2.4m
opposition	13812 Jun 04 07:49	23°♐40'45	5°07'01
direct	13812 Jul 06 23:34	17°♐02'35	
	13812 Aug 27 04:58	0°♑	
desc. node	13812 Sep 22 20:09	12°♑34'29	
	13812 Oct 25 07:30	0°♒	
	13812 Dec 16 04:22	0°♓	
	13813 Feb 03 20:28	0°♈	
	13813 Mar 23 21:30	0°♉	
evening set	13813 Apr 02 03:53	5°♉54'44	
max. Earth dist.	13813 Apr 26 04:54	21°♉28'19	2.62211 AU
	13813 May 09 04:01	0°♊	
conjunction	13813 May 17 02:24	5°♊16'20	-1°08'33
minimum elong	13813 May 17 03:04	5°♊17'26	1°09'28
	13813 Jun 22 12:01	0°♋	
morning rise	13813 Jul 03 07:31	7°♋31'21	
	13813 Aug 03 21:59	0°♌	
	13813 Sep 13 14:50	0°♍	
asc. node	13813 Oct 07 23:00	18°♍25'57	
	13813 Oct 23 01:13	0°♎	
	13813 Nov 30 22:08	0°♏	

	13814 Jan 09 06:58	0°♐	
	13814 Feb 19 20:20	0°♑	
	13814 Apr 08 14:08	0°♒	
retrograde	13814 Jun 13 02:08	21°♒41'34	
min. Earth dist.	13814 Jul 16 16:36	14°♒14'37	0.58760 AU
opposition	13814 Jul 22 19:26	11°♒51'34	0°50'06
greatest brilliancy	13814 Jul 22 15:04	11°♒55'49	-1.7m
desc. node	13814 Aug 11 07:09	5°♒26'25	
direct	13814 Aug 29 04:35	3°♒22'21	
	13814 Nov 20 00:29	0°♓	
	13815 Jan 14 04:52	0°♈	
	13815 Mar 05 02:00	0°♉	
	13815 Apr 20 18:25	0°♊	
evening set	13815 May 10 14:52	13°♊19'27	
max. Earth dist.	13815 May 25 19:13	23°♊44'49	2.51586 AU
	13815 Jun 03 18:24	0°♋	
conjunction	13815 Jun 30 02:04	18°♋46'01	-0°36'29
minimum elong	13815 Jun 30 03:52	18°♋49'18	0°37'29
	13815 Jul 15 10:46	0°♌	
	13815 Aug 24 06:36	0°♍	
asc. node	13815 Aug 25 10:37	0°♍53'48	
morning rise	13815 Aug 27 11:40	2°♍28'03	
	13815 Oct 01 20:55	0°♎	
	13815 Nov 09 00:13	0°♏	
	13815 Dec 17 14:07	0°♐	
	13816 Jan 26 15:49	0°♑	
	13816 Mar 09 13:58	0°♒	
	13816 Apr 27 04:08	0°♓	
desc. node	13816 Jun 28 12:33	26°♓17'03	
retrograde	13816 Jul 18 00:47	28°♓32'17	
min. Earth dist.	13816 Aug 25 10:19	19°♓32'23	0.66813 AU
opposition	13816 Aug 27 20:16	18°♓34'58	-2°11'55
greatest brilliancy	13816 Aug 27 14:34	18°♓40'37	-1.3m
direct	13816 Oct 07 01:43	9°♓06'42	
	13816 Dec 17 11:12	0°♈	
	13817 Feb 11 05:37	0°♉	
	13817 Mar 31 12:12	0°♊	
	13817 May 14 18:13	0°♋	
	13817 Jun 25 03:34	0°♌	
evening set	13817 Jun 27 18:44	1°♌57'56	
asc. node	13817 Jul 12 00:45	12°♌42'59	
max. Earth dist.	13817 Jul 23 00:43	21°♌07'35	2.38037 AU
	13817 Aug 03 12:12	0°♍	
conjunction	13817 Aug 31 05:10	21°♍43'13	0°34'19
minimum elong	13817 Aug 31 01:56	21°♍36'51	0°34'00
	13817 Sep 10 16:21	0°♎	
	13817 Oct 18 13:01	0°♏	
morning rise	13817 Nov 13 15:54	20°♏28'40	
	13817 Nov 25 23:27	0°♐	
	13818 Jan 04 20:18	0°♑	
	13818 Feb 15 23:11	0°♒	
	13818 Apr 02 06:50	0°♓	
desc. node	13818 May 16 09:39	26°♓23'01	
	13818 May 22 23:15	0°♈	
	13818 Aug 06 08:37	0°♉	
retrograde	13818 Aug 21 02:03	1°♉15'02	
	13818 Sep 04 03:55	30°℞♈	
opposition	13818 Sep 30 12:40	21°♈42'45	-4°07'01
greatest brilliancy	13818 Sep 30 16:11	21°♈39'17	-1.2m
min. Earth dist.	13818 Oct 01 23:12	21°♈08'49	0.68317 AU
direct	13818 Nov 11 02:13	11°♈44'58	
	13819 Jan 14 12:26	0°♉	
	13819 Mar 09 20:30	0°♊	
	13819 Apr 24 14:11	0°♋	
asc. node	13819 May 30 00:06	25°♋21'16	
	13819 Jun 05 06:27	0°♌	
	13819 Jul 14 13:03	0°♍	
	13819 Aug 21 14:17	0°♎	
evening set	13819 Sep 07 03:55	13°♎09'18	
	13819 Sep 28 10:55	0°♏	
	13819 Nov 06 01:02	0°♐	
conjunction	13819 Nov 17 11:51	8°♐42'21	1°03'48
minimum elong	13819 Nov 17 13:33	8°♐45'34	1°04'45
	13819 Dec 16 03:23	0°♑	
max. Earth dist.	13820 Jan 04 18:45	14°♑10'23	2.46124 AU
morning rise	13820 Jan 18 13:06	23°♑53'36	
	13820 Jan 27 07:42	0°♒	
	13820 Mar 11 23:03	0°♓	
desc. node	13820 Apr 01 22:14	13°♓29'03	
	13820 Apr 28 12:09	0°♈	
	13820 Jun 19 11:45	0°♉	
	13820 Aug 26 10:04	0°♊	
retrograde	13820 Sep 26 03:38	4°♊53'03	
	13820 Oct 24 07:35	30°℞♉	
opposition	13820 Nov 03 21:33	26°♉08'36	-4°57'12
greatest brilliancy	13820 Nov 04 19:10	25°♉47'50	-1.5m
min. Earth dist.	13820 Nov 09 05:23	24°♉05'52	0.63014 AU
direct	13820 Dec 15 04:38	16°♉10'16	
	13821 Feb 05 14:16	0°♊	
	13821 Mar 30 22:27	0°♋	
asc. node	13821 Apr 16 06:05	10°♋48'46	
	13821 May 13 11:18	0°♌	
	13821 Jun 22 08:55	0°♍	
	13821 Jul 30 18:00	0°♎	
	13821 Sep 06 23:03	0°♏	
	13821 Oct 16 00:32	0°♐	
evening set	13821 Nov 17 00:28	23°♐43'36	
	13821 Nov 25 16:19	0°♑	
	13822 Jan 07 08:26	0°♒	
conjunction	13822 Jan 12 10:16	3°♒28'24	0°20'39
minimum elong	13822 Jan 12 11:17	3°♒30'09	0°21'36
max. Earth dist.	13822 Feb 08 01:26	21°♒23'24	2.58729 AU
desc. node	13822 Feb 17 08:15	27°♒31'29	
	13822 Feb 21 02:45	0°♓	
morning rise	13822 Mar 03 03:35	6°♓32'47	
	13822 Apr 08 19:53	0°♈	
	13822 May 27 11:03	0°♉	
	13822 Jul 17 19:17	0°♊	
	13822 Sep 14 16:04	0°♋	
retrograde	13822 Nov 11 21:29	15°♋12'18	
opposition	13822 Dec 17 05:03	7°♋52'51	-3°53'19
greatest brilliancy	13822 Dec 18 12:26	7°♋24'48	-2.1m
min. Earth dist.	13822 Dec 25 17:24	4°♋50'47	0.51316 AU
	13823 Jan 12 11:25	30°℞♊	
direct	13823 Jan 24 20:24	28°♊55'40	
	13823 Feb 06 09:56	0°♋	
asc. node	13823 Mar 04 14:46	7°♋57'14	
	13823 Apr 14 13:03	0°♌	
	13823 May 28 05:42	0°♍	
	13823 Jul 07 07:15	0°♎	
	13823 Aug 15 17:22	0°♏	
	13823 Sep 24 22:08	0°♐	
	13823 Nov 05 16:32	0°♑	
	13823 Dec 19 07:55	0°♒	
desc. node	13824 Jan 04 23:41	11°♒07'56	
evening set	13824 Jan 06 00:35	11°♒49'12	
	13824 Feb 02 17:20	0°♓	
conjunction	13824 Feb 22 18:04	12°♓56'50	-0°26'50
minimum elong	13824 Feb 22 17:12	12°♓55'26	0°26'25

max. Earth dist.	13824 Mar 04 01:33	19°♓33'31	2.66317 AU
	13824 Mar 20 10:35	0°♈	
morning rise	13824 Apr 07 05:17	11°♈15'55	
	13824 May 06 23:23	0°♉	
	13824 Jun 23 23:46	0°♊	
	13824 Aug 11 14:26	0°♋	
	13824 Sep 30 18:55	0°♌	
	13824 Nov 26 10:09	0°♍	
retrograde	13825 Jan 18 23:54	14°♍18'46	
asc. node	13825 Jan 19 22:44	14°♍18'25	
opposition	13825 Feb 18 02:37	9°♍11'14	2°09'01
greatest brilliancy	13825 Feb 18 11:11	9°♍05'13	-2.9m
min. Earth dist.	13825 Feb 23 05:53	7°♍45'04	0.38118 AU
direct	13825 Mar 21 14:59	3°♍26'23	
	13825 May 31 20:49	0°♎	
	13825 Jul 17 05:38	0°♏	
	13825 Aug 30 07:02	0°♐	
	13825 Oct 13 18:23	0°♑	
desc. node	13825 Nov 21 22:59	25°♑49'30	
	13825 Nov 28 09:01	0°♒	
	13826 Jan 14 01:40	0°♓	
evening set	13826 Feb 13 00:12	19°♓00'13	
	13826 Mar 02 09:11	0°♈	
max. Earth dist.	13826 Mar 26 06:09	15°♈06'49	2.68426 AU
conjunction	13826 Mar 29 06:57	17°♈02'14	-0°59'36
minimum elong	13826 Mar 29 05:53	17°♈00'32	0°59'48
	13826 Apr 18 16:36	0°♉	
morning rise	13826 May 11 09:15	14°♉30'08	
	13826 Jun 04 10:28	0°♊	
	13826 Jul 20 06:36	0°♋	
	13826 Sep 03 01:40	0°♌	
	13826 Oct 16 21:00	0°♍	
	13826 Nov 29 04:17	0°♎	
asc. node	13826 Dec 08 01:18	6°♎06'52	
	13827 Jan 12 17:49	0°♏	
	13827 Mar 09 19:35	0°♐	
retrograde	13827 Apr 07 16:51	5°♐35'57	
min. Earth dist.	13827 May 03 14:47	1°♐07'02	0.40417 AU
	13827 May 07 06:01	30°℞♏	
greatest brilliancy	13827 May 09 09:15	29°♏19'53	-2.7m
opposition	13827 May 10 23:44	28°♏49'46	6°34'27
direct	13827 Jun 10 14:24	23°♏10'44	
	13827 Jul 15 05:24	0°♐	
	13827 Sep 15 05:12	0°♑	
desc. node	13827 Oct 10 05:29	14°♑20'54	
	13827 Nov 05 16:00	0°♒	
	13827 Dec 25 06:04	0°♓	
	13828 Feb 11 23:23	0°♈	
evening set	13828 Mar 19 08:31	22°♈48'32	
	13828 Mar 30 16:12	0°♉	
max. Earth dist.	13828 Apr 16 19:24	10°♉59'07	2.64997 AU
conjunction	13828 May 02 11:02	21°♉08'17	-1°11'16
minimum elong	13828 May 02 11:03	21°♉08'17	1°12'02
	13828 May 15 23:17	0°♊	
morning rise	13828 Jun 16 14:28	21°♊08'41	
	13828 Jun 29 14:10	0°♋	
	13828 Aug 11 11:09	0°♌	
	13828 Sep 21 17:14	0°♍	
asc. node	13828 Oct 24 18:11	24°♍43'53	
	13828 Oct 31 17:13	0°♎	
	13828 Dec 10 04:17	0°♏	
	13829 Jan 19 08:15	0°♐	
	13829 Mar 03 17:34	0°♑	
	13829 May 01 01:49	0°♒	
retrograde	13829 May 28 06:10	4°♒46'11	
	13829 Jun 23 07:26	30°℞♑	
min. Earth dist.	13829 Jun 28 13:51	28°♑06'40	0.54004 AU
opposition	13829 Jul 05 23:18	25°♑18'09	2°22'38
greatest brilliancy	13829 Jul 05 08:31	25°♑32'13	-2.0m
direct	13829 Aug 10 18:01	17°♑24'40	
desc. node	13829 Aug 27 16:54	19°♑05'33	
	13829 Oct 01 08:19	0°♒	
	13829 Dec 01 01:20	0°♓	
	13830 Jan 22 06:35	0°♈	
	13830 Mar 12 05:56	0°♉	
evening set	13830 Apr 24 21:01	28°♉07'52	
	13830 Apr 27 16:48	0°♊	
max. Earth dist.	13830 May 12 22:50	10°♊12'09	2.56297 AU
	13830 Jun 10 18:57	0°♋	
conjunction	13830 Jun 11 10:43	0°♋27'33	-0°53'46
minimum elong	13830 Jun 11 12:21	0°♋30'25	0°54'49
	13830 Jul 22 17:07	0°♌	
morning rise	13830 Aug 03 04:57	8°♌28'23	
	13830 Aug 31 19:55	0°♍	
asc. node	13830 Sep 11 07:16	8°♍00'45	
	13830 Oct 09 16:30	0°♎	
	13830 Nov 17 00:44	0°♏	
	13830 Dec 25 18:58	0°♐	
	13831 Feb 04 03:45	0°♑	
	13831 Mar 19 23:14	0°♒	
	13831 May 11 14:35	0°♓	
retrograde	13831 Jul 05 14:04	15°♓14'22	
desc. node	13831 Jul 16 01:23	14°♓30'07	
min. Earth dist.	13831 Aug 11 06:38	6°♓46'47	0.64419 AU
opposition	13831 Aug 15 03:55	5°♓14'32	-1°10'24
greatest brilliancy	13831 Aug 14 23:15	5°♓19'09	-1.5m
	13831 Aug 29 13:46	30°℞♒	
direct	13831 Sep 23 10:57	26°♒05'04	
	13831 Oct 20 16:33	0°♓	
	13831 Dec 29 20:53	0°♈	
	13832 Feb 20 09:49	0°♉	
	13832 Apr 07 21:07	0°♊	
	13832 May 21 23:29	0°♋	
evening set	13832 Jun 06 12:57	11°♋03'30	
max. Earth dist.	13832 Jun 20 15:12	21°♋16'55	2.43287 AU
	13832 Jul 02 10:55	0°♌	
asc. node	13832 Jul 28 20:40	19°♌54'51	
conjunction	13832 Aug 03 07:25	24°♌05'23	0°03'53
minimum elong	13832 Aug 03 07:07	24°♌04'48	0°03'09
behind sun begin	13832 Aug 02 04:43	23°♌14'07	
behind sun end	13832 Aug 04 09:31	24°♌55'31	
	13832 Aug 10 23:22	0°♍	
	13832 Sep 18 06:40	0°♎	
morning rise	13832 Oct 12 05:50	18°♎57'59	
	13832 Oct 26 04:52	0°♏	
	13832 Dec 03 15:13	0°♐	
	13833 Jan 12 11:36	0°♑	
	13833 Feb 23 17:24	0°♒	
	13833 Apr 10 17:21	0°♓	
desc. node	13833 Jun 02 00:56	29°♓14'39	
	13833 Jun 03 14:24	0°♈	
retrograde	13833 Aug 07 18:39	18°♈54'05	
opposition	13833 Sep 17 12:26	9°♈09'25	-3°29'44
greatest brilliancy	13833 Sep 17 10:46	9°♈11'03	-1.2m
min. Earth dist.	13833 Sep 17 10:40	9°♈11'09	0.68539 AU
	13833 Oct 18 09:39	30°℞♓	
direct	13833 Oct 28 17:25	29°♓20'10	
	13833 Nov 08 09:57	0°♈	
	13834 Jan 26 12:54	0°♉	
	13834 Mar 18 10:17	0°♊	

	13834 May 02 09:18	0°♋	
	13834 Jun 12 21:22	0°♌	
asc. node	13834 Jun 15 15:08	2°♌02'50	
	13834 Jul 22 04:06	0°♍	
evening set	13834 Aug 07 10:32	12°♍44'51	
	13834 Aug 29 05:50	0°♎	
	13834 Oct 06 01:40	0°♏	
conjunction	13834 Oct 19 03:10	10°♏16'27	1°05'16
minimum elong	13834 Oct 19 01:31	10°♏13'14	1°05'51
	13834 Nov 13 13:18	0°♐	
max. Earth dist.	13834 Dec 12 05:41	21°♐40'54	2.40377 AU
	13834 Dec 23 11:57	0°♑	
morning rise	13834 Dec 27 05:04	2°♑42'59	
	13835 Feb 03 13:31	0°♒	
	13835 Mar 20 07:06	0°♓	
desc. node	13835 Apr 19 16:36	19°♓12'27	
	13835 May 07 13:32	0°♈	
	13835 Jul 01 14:59	0°♉	
retrograde	13835 Sep 12 01:14	21°♉36'40	
opposition	13835 Oct 21 15:18	12°♉30'25	-4°46'54
greatest brilliancy	13835 Oct 22 05:29	12°♉16'38	-1.3m
min. Earth dist.	13835 Oct 25 10:57	11°♉01'22	0.65889 AU
direct	13835 Dec 02 06:12	2°♉27'49	
	13836 Feb 20 22:08	0°♊	
	13836 Apr 09 13:43	0°♋	
asc. node	13836 May 02 18:04	16°♋00'59	
	13836 May 22 01:33	0°♌	
	13836 Jun 30 14:37	0°♍	
	13836 Aug 07 19:04	0°♎	
	13836 Sep 14 19:33	0°♏	
evening set	13836 Oct 22 19:32	29°♏22'22	
	13836 Oct 23 15:21	0°♐	
	13836 Dec 03 00:27	0°♑	
conjunction	13836 Dec 23 19:55	14°♑54'43	0°40'18
minimum elong	13836 Dec 23 21:57	14°♑58'20	0°41'19
	13837 Jan 14 10:22	0°♒	
max. Earth dist.	13837 Jan 27 06:14	8°♒46'47	2.54306 AU
morning rise	13837 Feb 15 06:32	21°♒33'21	
	13837 Feb 28 01:22	0°♓	
desc. node	13837 Mar 06 04:17	4°♓00'04	
	13837 Apr 15 22:30	0°♈	
	13837 Jun 04 09:53	0°♉	
	13837 Jul 28 14:17	0°♊	
retrograde	13837 Oct 22 20:49	28°♊21'57	
opposition	13837 Nov 28 19:04	20°♊22'55	-4°39'07
greatest brilliancy	13837 Nov 30 01:59	19°♊54'09	-1.8m
min. Earth dist.	13837 Dec 06 07:22	17°♊35'35	0.56554 AU
direct	13838 Jan 07 21:08	10°♊49'39	
	13838 Mar 09 23:39	0°♋	
asc. node	13838 Mar 21 03:16	6°♋12'32	
	13838 Apr 27 07:30	0°♌	
	13838 Jun 07 15:39	0°♍	
	13838 Jul 16 17:37	0°♎	
	13838 Aug 24 11:44	0°♏	
	13838 Oct 03 02:28	0°♐	
	13838 Nov 13 07:45	0°♑	
evening set	13838 Dec 19 10:42	25°♑11'33	
	13838 Dec 26 11:59	0°♒	
desc. node	13839 Jan 21 16:13	17°♒33'49	
conjunction	13839 Feb 07 17:44	28°♒48'05	-0°09'45
minimum elong	13839 Feb 07 17:23	28°♒47'31	0°09'05
behind sun begin	13839 Feb 07 00:46	28°♒20'22	
behind sun end	13839 Feb 08 09:59	29°♒14'38	
	13839 Feb 09 13:44	0°♓	

max. Earth dist.	13839 Feb 23 22:53	9°♓20'41	2.64004 AU
morning rise	13839 Mar 25 16:39	28°♓24'09	
	13839 Mar 28 05:01	0°♈	
	13839 May 15 00:31	0°♉	
	13839 Jul 02 22:25	0°♊	
	13839 Aug 22 17:16	0°♋	
	13839 Oct 18 08:06	0°♌	
retrograde	13839 Dec 20 08:58	17°♌59'00	
opposition	13840 Jan 21 13:34	11°♌58'48	-1°03'15
greatest brilliancy	13840 Jan 21 23:17	11°♌51'05	-2.6m
min. Earth dist.	13840 Jan 29 15:28	9°♌25'40	0.42620 AU
asc. node	13840 Feb 06 11:37	7°♌14'09	
direct	13840 Feb 25 09:21	4°♌44'45	
	13840 May 03 18:52	0°♍	
	13840 Jun 17 19:33	0°♎	
	13840 Jul 29 13:37	0°♏	
	13840 Sep 09 09:09	0°♐	
	13840 Oct 22 09:57	0°♑	
	13840 Dec 06 01:02	0°♒	
desc. node	13840 Dec 08 11:55	1°♒37'12	
	13841 Jan 21 02:30	0°♓	
evening set	13841 Jan 29 13:43	5°♓26'10	
	13841 Mar 09 02:39	0°♈	
conjunction	13841 Mar 15 17:57	4°♈12'42	-0°49'07
minimum elong	13841 Mar 15 16:46	4°♈10'50	0°49'04
max. Earth dist.	13841 Mar 17 15:30	5°♈24'56	2.68268 AU
	13841 Apr 25 10:25	0°♉	
morning rise	13841 Apr 27 23:49	1°♉37'23	
	13841 Jun 11 13:15	0°♊	
	13841 Jul 28 04:41	0°♋	
	13841 Sep 12 08:12	0°♌	
	13841 Oct 28 08:14	0°♍	
	13841 Dec 14 17:18	0°♎	
asc. node	13841 Dec 24 16:38	5°♎57'04	
	13842 Feb 12 12:28	0°♏	
retrograde	13842 Mar 11 03:11	4°♏33'51	
min. Earth dist.	13842 Apr 06 20:14	0°♏14'51	0.36968 AU
	13842 Apr 07 18:08	30°℞♎	
opposition	13842 Apr 10 14:14	29°♎13'34	6°36'40
greatest brilliancy	13842 Apr 09 16:48	29°♎28'11	-3.0m
direct	13842 May 09 15:40	24°♎20'05	
	13842 Jun 09 07:57	0°♏	
	13842 Aug 09 01:47	0°♐	
	13842 Sep 27 14:02	0°♑	
desc. node	13842 Oct 26 16:22	18°♑06'06	
	13842 Nov 14 18:11	0°♒	
	13843 Jan 01 21:09	0°♓	
	13843 Feb 18 22:04	0°♈	
evening set	13843 Mar 06 17:11	9°♈55'31	
	13843 Apr 07 09:34	0°♉	
max. Earth dist.	13843 Apr 08 23:15	1°♉00'08	2.67007 AU
conjunction	13843 Apr 19 12:05	7°♉44'52	-1°09'41
minimum elong	13843 Apr 19 11:33	7°♉44'00	1°10'15
	13843 May 23 19:30	0°♊	
morning rise	13843 Jun 02 08:32	6°♊16'36	
	13843 Jul 07 19:53	0°♋	
	13843 Aug 20 07:14	0°♌	
	13843 Oct 01 07:00	0°♍	
asc. node	13843 Nov 11 14:46	0°♎22'40	
	13843 Nov 11 02:33	0°♎	
	13843 Dec 21 12:56	0°♏	
	13844 Feb 01 07:41	0°♐	
	13844 Mar 20 22:14	0°♑	
retrograde	13844 May 10 12:48	15°♑08'11	
min. Earth dist.	13844 Jun 08 10:28	9°♑22'01	0.48644 AU

opposition	13844 Jun 16	17:25	6°♋21'57	4°06'28	
greatest brilliancy	13844 Jun 15	13:29	6°♋47'18	-2.2m	
	13844 Jul 09	19:54	30°℞♐		
direct	13844 Jul 20	14:05	29°♐14'01		
	13844 Jul 31	18:23	0°♋		
desc. node	13844 Sep 13	01:59	13°♋22'24		
	13844 Oct 17	11:16	0°♒		
	13844 Dec 10	10:09	0°♓		
	13845 Jan 29	20:34	0°♈		
	13845 Mar 19	04:53	0°♉		
evening set	13845 Apr 10	05:19	14°♉05'23		
max. Earth dist.	13845 May 02	00:20	28°♉19'48	2.60325 AU	
	13845 May 04	12:57	0°♊		
conjunction	13845 May 25	20:56	14°♊17'00	-1°04'45	
minimum elong	13845 May 25	21:58	14°♊18'46	1°05'44	
	13845 Jun 17	19:15	0°♋		
morning rise	13845 Jul 13	16:12	18°♋12'33		
	13845 Jul 30	01:14	0°♌		
	13845 Sep 08	13:18	0°♍		
asc. node	13845 Sep 28	04:15	14°♍55'03		
	13845 Oct 17	18:33	0°♎		
	13845 Nov 25	10:10	0°♏		
	13846 Jan 03	12:00	0°♐		
	13846 Feb 13	10:22	0°♑		
	13846 Mar 31	00:39	0°♒		
	13846 Jun 09	11:36	0°♓		
retrograde	13846 Jun 21	12:51	0°♓56'44		
	13846 Jul 03	04:56	30°℞♒		
min. Earth dist.	13846 Jul 26	07:00	23°♒06'32	0.61015 AU	
opposition	13846 Jul 31	15:05	21°♒00'44	0°02'11	
greatest brilliancy	13846 Jul 31	14:56	21°♒00'52	-1.6m	
desc. node	13846 Aug 01	12:11	20°♒40'02		
direct	13846 Sep 07	18:04	12°♒15'23		
	13846 Nov 11	04:22	0°♓		
	13847 Jan 08	09:08	0°♈		
	13847 Feb 28	01:40	0°♉		
	13847 Apr 16	00:30	0°♊		
evening set	13847 May 20	04:14	23°♊06'13		
	13847 May 30	01:40	0°♋		
max. Earth dist.	13847 Jun 03	03:16	2°♋51'43	2.48720 AU	
	13847 Jul 10	16:30	0°♌		
conjunction	13847 Jul 11	19:10	0°♌49'21	-0°23'34	
minimum elong	13847 Jul 11	20:40	0°♌52'07	0°24'30	
asc. node	13847 Aug 15	15:22	27°♌06'06		
	13847 Aug 19	09:55	0°♍		
morning rise	13847 Sep 12	03:13	18°♍24'41		
	13847 Sep 26	21:43	0°♎		
	13847 Nov 03	22:55	0°♏		
greatest brilliancy	13847 Nov 13	15:20	7°♏36'26	1.2m	
	13847 Dec 12	10:58	0°♐		
	13848 Jan 21	09:21	0°♑		
	13848 Mar 03	22:34	0°♒		
	13848 Apr 20	04:30	0°♓		
desc. node	13848 Jun 18	16:51	29°♓08'24		
	13848 Jun 21	04:53	0°♈		
retrograde	13848 Jul 25	14:36	6°♈22'03		
	13848 Aug 26	08:08	30°℞♓		
min. Earth dist.	13848 Sep 02	20:47	27°♓05'47	0.67703 AU	
opposition	13848 Sep 04	10:33	26°♓28'23	-2°43'28	
greatest brilliancy	13848 Sep 04	05:36	26°♓33'17	-1.3m	
direct	13848 Oct 15	01:25	16°♓51'37		
	13848 Dec 07	23:14	0°♈		
	13849 Feb 05	07:57	0°♉		
	13849 Mar 26	09:32	0°♊		
	13849 May 09	21:38	0°♋		
	13849 Jun 20	08:14	0°♌		
asc. node	13849 Jul 02	08:13	9°♌00'42		
evening set	13849 Jul 11	05:46	15°♌46'45		
	13849 Jul 29	16:25	0°♍		
	13849 Sep 05	19:31	0°♎		
max. Earth dist.	13849 Sep 12	10:47	5°♎15'59	2.36222 AU	
conjunction	13849 Sep 17	11:29	9°♎15'32	0°49'31	
minimum elong	13849 Sep 17	07:24	9°♎07'27	0°49'32	
	13849 Oct 13	15:22	0°♏		
	13849 Nov 21	01:29	0°♐		
morning rise	13849 Nov 30	15:01	7°♐19'19		
	13849 Dec 30	21:54	0°♑		
	13850 Feb 10	22:43	0°♒		
	13850 Mar 27	22:35	0°♓		
desc. node	13850 May 06	11:22	24°♓16'19		
	13850 May 16	10:08	0°♈		
	13850 Jul 17	06:46	0°♉		
retrograde	13850 Aug 28	21:39	8°♉53'59		
	13850 Oct 06	19:42	30°℞♈		
opposition	13850 Oct 08	02:13	29°♈30'10	-4°24'42	
greatest brilliancy	13850 Oct 08	09:19	29°♈23'13	-1.3m	
min. Earth dist.	13850 Oct 10	09:21	28°♈36'10	0.67736 AU	
direct	13850 Nov 18	17:35	19°♈29'23		
	13851 Jan 04	01:10	0°♉		
	13851 Mar 03	15:38	0°♊		
	13851 Apr 19	05:29	0°♋		
asc. node	13851 May 20	08:10	22°♋01'41		
	13851 May 31	04:09	0°♌		
	13851 Jul 09	13:11	0°♍		
	13851 Aug 16	15:30	0°♎		
greatest brilliancy	13851 Aug 31	19:54	12°♎02'40	1.2m	
	13851 Sep 23	13:00	0°♏		
evening set	13851 Sep 24	15:09	0°♏51'25		
	13851 Nov 01	04:21	0°♐		
conjunction	13851 Dec 02	01:16	23°♐11'24	0°57'13	
minimum elong	13851 Dec 02	03:40	23°♐15'49	0°58'14	
	13851 Dec 11	07:56	0°♑		
max. Earth dist.	13852 Jan 14	08:47	24°♑19'06	2.49175 AU	
	13852 Jan 22	12:50	0°♒		
morning rise	13852 Jan 29	14:43	4°♒52'35		
	13852 Mar 07	02:25	0°♓		
desc. node	13852 Mar 22	23:02	10°♓16'52		
	13852 Apr 23	07:14	0°♈		
	13852 Jun 13	02:01	0°♉		
	13852 Aug 11	22:20	0°♊		
retrograde	13852 Oct 05	08:01	13°♊22'17		
opposition	13852 Nov 12	12:17	4°♊52'20	-4°56'18	
greatest brilliancy	13852 Nov 13	13:51	4°♊27'59	-1.6m	
min. Earth dist.	13852 Nov 18	16:06	2°♊31'45	0.60958 AU	
	13852 Nov 25	16:42	30°℞♉		
direct	13852 Dec 23	11:43	24°♉59'45		
	13853 Jan 21	21:02	0°♊		
	13853 Mar 23	21:04	0°♋		
asc. node	13853 Apr 06	14:30	8°♋43'57		
	13853 May 07	13:02	0°♌		
	13853 Jun 16	20:12	0°♍		
	13853 Jul 25	10:06	0°♎		
	13853 Sep 01	18:44	0°♏		
	13853 Oct 10	23:55	0°♐		
	13853 Nov 20	19:19	0°♑		
evening set	13853 Nov 29	13:38	6°♑15'45		
	13854 Jan 02	14:29	0°♒		
conjunction	13854 Jan 22	10:18	13°♒25'55	0°09'16	
minimum elong	13854 Jan 22	10:45	13°♒26'40	0°10'06	

behind sun begin	13854 Jan 21 18:14	12°♒58'58	
behind sun end	13854 Jan 23 03:16	13°♒54'20	
desc. node	13854 Feb 07 10:38	24°♒05'21	
max. Earth dist.	13854 Feb 14 01:42	28°♒27'20	2.60836 AU
	13854 Feb 16 10:11	0°♓	
morning rise	13854 Mar 11 13:29	15°♓01'11	
	13854 Apr 04 01:19	0°♈	
	13854 May 22 07:18	0°♉	
	13854 Jul 11 13:08	0°♊	
	13854 Sep 04 05:01	0°♋	
retrograde	13854 Nov 24 14:45	26°♋19'44	
opposition	13854 Dec 28 20:15	19°♋26'06	-3°08'16
greatest brilliancy	13854 Dec 29 23:43	19°♋02'18	-2.2m
min. Earth dist.	13855 Jan 06 13:57	16°♋25'04	0.48194 AU
direct	13855 Feb 04 08:58	10°♋58'00	
asc. node	13855 Feb 23 01:05	13°♋19'35	
	13855 Apr 03 22:03	0°♌	
	13855 May 20 17:57	0°♍	
	13855 Jun 30 19:39	0°♎	
	13855 Aug 09 18:55	0°♏	
	13855 Sep 19 09:40	0°♐	
	13855 Oct 31 12:21	0°♑	
	13855 Dec 14 10:25	0°♒	
desc. node	13855 Dec 26 02:22	7°♒46'21	
evening set	13856 Jan 15 07:08	21°♒04'10	
	13856 Jan 29 00:22	0°♓	
conjunction	13856 Mar 01 22:05	21°♓09'28	-0°35'49
minimum elong	13856 Mar 01 21:01	21°♓07'47	0°35'31
max. Earth dist.	13856 Mar 09 03:19	25°♓45'37	2.67257 AU
	13856 Mar 15 19:16	0°♈	
morning rise	13856 Apr 14 19:05	19°♈00'03	
	13856 May 02 05:20	0°♉	
	13856 Jun 18 20:41	0°♊	
	13856 Aug 05 15:11	0°♋	
	13856 Sep 22 22:28	0°♌	
	13856 Nov 12 12:18	0°♍	
asc. node	13857 Jan 10 08:14	27°♍21'35	
	13857 Jan 20 16:48	0°♎	
retrograde	13857 Feb 06 13:20	1°♎46'59	
	13857 Feb 23 08:38	30°℞♍	
opposition	13857 Mar 08 02:07	26°♍54'22	4°10'20
greatest brilliancy	13857 Mar 08 07:41	26°♍50'39	-3.0m
min. Earth dist.	13857 Mar 10 08:05	26°♍18'11	0.36719 AU
direct	13857 Apr 07 04:00	21°♍46'58	
	13857 May 13 13:51	0°♎	
	13857 Jul 07 17:31	0°♏	
	13857 Aug 23 03:06	0°♐	
	13857 Oct 07 18:41	0°♑	
desc. node	13857 Nov 12 02:35	22°♑56'39	
	13857 Nov 23 01:51	0°♒	
	13858 Jan 09 04:27	0°♓	
evening set	13858 Feb 21 00:23	27°♓01'56	
	13858 Feb 25 17:18	0°♈	
max. Earth dist.	13858 Mar 31 05:58	21°♈12'27	2.68160 AU
conjunction	13858 Apr 05 23:40	24°♈51'09	-1°04'21
minimum elong	13858 Apr 05 22:44	24°♈49'41	1°04'41
	13858 Apr 14 01:44	0°♉	
morning rise	13858 May 19 04:44	22°♉32'42	
	13858 May 30 16:30	0°♊	
	13858 Jul 15 04:56	0°♋	
	13858 Aug 28 11:09	0°♌	
	13858 Oct 10 12:00	0°♍	
	13858 Nov 21 15:31	0°♎	
asc. node	13858 Nov 28 07:43	4°♎46'10	
	13859 Jan 03 00:45	0°♏	
	13859 Feb 18 08:28	0°♐	
retrograde	13859 Apr 20 21:51	21°♐28'16	
min. Earth dist.	13859 May 17 15:45	16°♐35'21	0.43160 AU
greatest brilliancy	13859 May 24 05:45	14°♐24'09	-2.5m
opposition	13859 May 25 20:03	13°♐52'08	5°50'22
direct	13859 Jun 26 12:43	7°♐40'09	
	13859 Sep 05 06:31	0°♑	
desc. node	13859 Sep 30 11:50	13°♑16'22	
	13859 Oct 30 03:03	0°♒	
	13859 Dec 19 21:11	0°♓	
	13860 Feb 07 02:56	0°♈	
	13860 Mar 26 00:44	0°♉	
evening set	13860 Mar 27 05:02	0°♉45'01	
max. Earth dist.	13860 Apr 22 05:28	17°♉28'46	2.63560 AU
conjunction	13860 May 10 16:35	29°♉34'04	-1°10'18
minimum elong	13860 May 10 16:57	29°♉34'41	1°11'09
	13860 May 11 08:17	0°♊	
	13860 Jun 24 20:21	0°♋	
morning rise	13860 Jun 25 20:41	0°♋41'54	
	13860 Aug 06 11:55	0°♌	
	13860 Sep 16 11:12	0°♍	
asc. node	13860 Oct 15 00:16	21°♍30'21	
	13860 Oct 26 03:38	0°♎	
	13860 Dec 04 06:00	0°♏	
	13861 Jan 12 21:12	0°♐	
	13861 Feb 23 23:14	0°♑	
	13861 Apr 15 01:19	0°♒	
retrograde	13861 Jun 06 11:44	15°♒08'46	
min. Earth dist.	13861 Jul 09 02:09	8°♒01'53	0.56729 AU
opposition	13861 Jul 15 18:55	5°♒26'39	1°27'32
greatest brilliancy	13861 Jul 15 10:35	5°♒34'42	-1.8m
	13861 Jul 31 18:08	30°℞♑	
desc. node	13861 Aug 17 23:19	27°♑16'55	
direct	13861 Aug 21 11:45	27°♑12'12	
	13861 Sep 12 19:56	0°♒	
	13861 Nov 24 01:54	0°♓	
	13862 Jan 16 21:03	0°♈	
	13862 Mar 07 09:13	0°♉	
	13862 Apr 23 00:17	0°♊	
evening set	13862 May 03 16:17	7°♊06'22	
max. Earth dist.	13862 May 19 23:47	18°♊09'36	2.53780 AU
	13862 Jun 06 02:35	0°♋	
conjunction	13862 Jun 21 16:52	11°♋00'33	-0°44'39
minimum elong	13862 Jun 21 18:41	11°♋03'47	0°45'42
	13862 Jul 17 22:36	0°♌	
morning rise	13862 Aug 16 08:09	21°♌56'23	
	13862 Aug 26 22:25	0°♍	
asc. node	13862 Sep 01 12:21	4°♍16'29	
	13862 Oct 04 15:56	0°♎	
	13862 Nov 11 21:10	0°♏	
	13862 Dec 20 12:08	0°♐	
	13863 Jan 29 15:05	0°♑	
	13863 Mar 13 18:28	0°♒	
	13863 May 02 11:05	0°♓	
desc. node	13863 Jul 06 05:44	23°♓06'41	
retrograde	13863 Jul 13 08:24	23°♓25'46	
min. Earth dist.	13863 Aug 20 00:12	14°♓39'28	0.65864 AU
opposition	13863 Aug 23 01:36	13°♓26'45	-1°47'49
greatest brilliancy	13863 Aug 22 19:51	13°♓32'27	-1.4m
direct	13863 Oct 01 21:09	4°♓06'15	
	13863 Dec 22 16:10	0°♈	
	13864 Feb 14 23:22	0°♉	
	13864 Apr 02 22:44	0°♊	
	13864 May 17 04:39	0°♋	
evening set	13864 Jun 18 03:35	22°♋57'46	

	13864 Jun 27 16:03	0°♌	
max. Earth dist.	13864 Jul 05 16:13	5°♌58'57	2.40268 AU
asc. node	13864 Jul 19 01:09	16°♌05'51	
	13864 Aug 06 03:16	0°♍	
conjunction	13864 Aug 18 11:44	9°♍36'57	0°21'19
minimum elong	13864 Aug 18 09:47	9°♍33'07	0°20'48
	13864 Sep 13 09:16	0°♎	
	13864 Oct 21 06:28	0°♏	
morning rise	13864 Oct 30 14:53	7°♏22'04	
	13864 Nov 28 16:14	0°♐	
	13865 Jan 07 11:40	0°♑	
	13865 Feb 18 13:41	0°♒	
	13865 Apr 05 01:00	0°♓	
desc. node	13865 May 23 04:15	28°♓10'03	
	13865 May 26 15:26	0°♈	
retrograde	13865 Aug 15 08:23	26°♈28'02	
opposition	13865 Sep 24 22:47	16°♈49'55	-3°52'46
greatest brilliancy	13865 Sep 24 23:51	16°♈48'52	-1.2m
min. Earth dist.	13865 Sep 25 17:27	16°♈31'32	0.68546 AU
direct	13865 Nov 05 08:49	6°♈55'23	
	13866 Jan 19 01:55	0°♉	
	13866 Mar 12 20:21	0°♊	
	13866 Apr 27 07:20	0°♋	
asc. node	13866 Jun 05 23:05	28°♋31'12	
	13866 Jun 07 22:50	0°♌	
	13866 Jul 17 06:14	0°♍	
evening set	13866 Aug 24 11:08	0°♎06'27	
	13866 Aug 24 07:53	0°♎	
	13866 Oct 01 03:44	0°♏	
conjunction	13866 Nov 05 04:07	27°♏19'05	1°06'21
minimum elong	13866 Nov 05 04:40	27°♏20'09	1°07'10
	13866 Nov 08 15:56	0°♐	
	13866 Dec 18 15:29	0°♑	
max. Earth dist.	13866 Dec 26 21:39	6°♑01'14	2.43564 AU
morning rise	13867 Jan 09 07:42	15°♑40'02	
	13867 Jan 29 16:58	0°♒	
	13867 Mar 15 07:26	0°♓	
desc. node	13867 Apr 09 18:13	16°♓16'47	
	13867 May 02 01:02	0°♈	
	13867 Jun 23 23:15	0°♉	
retrograde	13867 Sep 20 12:11	29°♉36'02	
opposition	13867 Oct 29 15:55	20°♉41'22	-4°54'20
greatest brilliancy	13867 Oct 30 10:17	20°♉23'36	-1.4m
min. Earth dist.	13867 Nov 03 08:01	18°♉53'06	0.64432 AU
direct	13867 Dec 10 03:21	10°♉40'08	
	13868 Feb 12 12:17	0°♊	
	13868 Apr 03 12:43	0°♋	
asc. node	13868 Apr 23 04:18	13°♋16'25	
	13868 May 16 15:04	0°♌	
	13868 Jun 25 09:27	0°♍	
	13868 Aug 02 16:31	0°♎	
	13868 Sep 09 18:50	0°♏	
	13868 Oct 18 16:41	0°♐	
evening set	13868 Nov 06 12:45	14°♐07'56	
	13868 Nov 28 04:06	0°♑	
conjunction	13869 Jan 04 06:47	26°♑17'06	0°29'04
minimum elong	13869 Jan 04 08:16	26°♑19'41	0°30'02
	13869 Jan 09 15:52	0°♒	
max. Earth dist.	13869 Feb 03 05:31	16°♒41'16	2.56849 AU
	13869 Feb 23 07:16	0°♓	
morning rise	13869 Feb 24 12:08	0°♓47'21	
desc. node	13869 Feb 24 04:10	0°♓34'18	
	13869 Apr 11 00:35	0°♈	
	13869 May 29 22:16	0°♉	
	13869 Jul 21 05:24	0°♊	
	13869 Sep 23 04:48	0°♋	
retrograde	13869 Nov 02 20:31	8°♋09'08	
opposition	13869 Dec 08 22:00	0°♋30'52	-4°16'41
greatest brilliancy	13869 Dec 10 05:57	0°♋01'42	-1.9m
	13869 Dec 10 07:49	30°℞♊	
min. Earth dist.	13869 Dec 17 00:45	27°♊33'30	0.53746 AU
direct	13870 Jan 17 06:35	21°♊14'51	
	13870 Feb 24 19:05	0°♋	
asc. node	13870 Mar 11 12:30	6°♋45'56	
	13870 Apr 19 20:12	0°♌	
	13870 Jun 01 08:02	0°♍	
	13870 Jul 10 22:01	0°♎	
	13870 Aug 18 23:42	0°♏	
	13870 Sep 27 20:41	0°♐	
	13870 Nov 08 07:38	0°♑	
	13870 Dec 21 16:22	0°♒	
evening set	13870 Dec 29 15:56	5°♒22'52	
desc. node	13871 Jan 11 18:06	14°♒07'32	
	13871 Feb 04 21:07	0°♓	
conjunction	13871 Feb 16 10:25	7°♓30'28	-0°19'59
minimum elong	13871 Feb 16 09:43	7°♓29'20	0°19'28
max. Earth dist.	13871 Mar 01 08:44	15°♓50'38	2.65387 AU
	13871 Mar 23 12:30	0°♈	
morning rise	13871 Apr 02 11:41	6°♈19'15	
	13871 May 10 03:24	0°♉	
	13871 Jun 27 12:09	0°♊	
	13871 Aug 15 22:13	0°♋	
	13871 Oct 07 03:26	0°♌	
	13871 Dec 15 18:53	0°♍	
retrograde	13872 Jan 05 22:36	2°♍37'33	
	13872 Jan 26 14:08	30°℞♌	
asc. node	13872 Jan 27 20:55	29°♌40'54	
opposition	13872 Feb 05 22:46	27°♌08'26	0°38'43
greatest brilliancy	13872 Feb 06 02:34	27°♌05'36	-2.8m
min. Earth dist.	13872 Feb 12 18:59	25°♌07'20	0.39892 AU
direct	13872 Mar 09 22:37	20°♌44'20	
	13872 Apr 17 06:32	0°♍	
	13872 Jun 08 13:52	0°♎	
	13872 Jul 22 07:06	0°♏	
	13872 Sep 03 03:17	0°♐	
	13872 Oct 16 20:32	0°♑	
desc. node	13872 Nov 28 16:08	28°♑30'34	
	13872 Nov 30 22:42	0°♒	
	13873 Jan 16 07:26	0°♓	
evening set	13873 Feb 06 21:27	13°♓46'15	
	13873 Mar 04 11:03	0°♈	
conjunction	13873 Mar 23 12:11	12°♈04'12	-0°55'39
minimum elong	13873 Mar 23 11:03	12°♈02'24	0°55'44
max. Earth dist.	13873 Mar 22 15:13	11°♈30'59	2.68457 AU
	13873 Apr 20 18:22	0°♉	
morning rise	13873 May 05 14:41	9°♉27'09	
	13873 Jun 06 16:22	0°♊	
	13873 Jul 22 20:56	0°♋	
	13873 Sep 06 05:33	0°♌	
	13873 Oct 20 21:16	0°♍	
	13873 Dec 04 12:46	0°♎	
asc. node	13873 Dec 15 01:15	6°♎55'40	
	13874 Jan 21 04:38	0°♏	
retrograde	13874 Mar 27 07:56	22°♏57'29	
min. Earth dist.	13874 Apr 22 03:12	18°♏40'04	0.38557 AU
greatest brilliancy	13874 Apr 26 20:15	17°♏17'54	-2.8m
opposition	13874 Apr 28 05:53	16°♏53'11	6°51'56
direct	13874 May 28 01:05	11°♏38'46	
	13874 Jul 27 22:07	0°♐	

	13874 Sep 20 02:51	0°♉	
desc. node	13874 Oct 16 21:46	16°♉02'04	
	13874 Nov 08 21:01	0°♒	
	13874 Dec 27 18:03	0°♓	
	13875 Feb 14 03:45	0°♈	
evening set	13875 Mar 14 12:04	17°♈46'54	
	13875 Apr 02 18:24	0°♉	
max. Earth dist.	13875 Apr 14 02:39	7°♉15'15	2.65993 AU
conjunction	13875 Apr 27 09:41	15°♉49'21	-1°11'09
minimum elong	13875 Apr 27 09:27	15°♉48'58	1°11'49
	13875 May 19 03:24	0°♊	
morning rise	13875 Jun 10 21:24	15°♊05'19	
	13875 Jul 02 23:08	0°♋	
	13875 Aug 15 03:06	0°♌	
	13875 Sep 25 17:18	0°♍	
asc. node	13875 Nov 01 19:27	27°♍32'55	
	13875 Nov 05 01:48	0°♎	
	13875 Dec 14 21:39	0°♏	
	13876 Jan 24 14:17	0°♐	
	13876 Mar 09 08:37	0°♑	
retrograde	13876 May 20 21:07	27°♑06'42	
min. Earth dist.	13876 Jun 20 02:29	20°♑50'24	0.51657 AU
opposition	13876 Jun 27 23:00	17°♑54'39	3°06'02
greatest brilliancy	13876 Jun 27 02:46	18°♑13'34	-2.1m
direct	13876 Aug 01 22:31	10°♑20'09	
desc. node	13876 Sep 03 08:52	16°♑00'00	
	13876 Oct 08 04:22	0°♒	
	13876 Dec 04 08:16	0°♓	
	13877 Jan 24 17:53	0°♈	
	13877 Mar 14 11:06	0°♉	
evening set	13877 Apr 18 10:54	22°♉27'53	
	13877 Apr 29 21:48	0°♊	
max. Earth dist.	13877 May 08 02:08	5°♊26'27	2.58185 AU
conjunction	13877 Jun 04 01:39	23°♊44'14	-0°59'09
minimum elong	13877 Jun 04 03:03	23°♊46'39	1°00'11
	13877 Jun 13 02:50	0°♋	
morning rise	13877 Jul 24 21:23	29°♋45'23	
	13877 Jul 25 05:23	0°♌	
	13877 Sep 03 12:52	0°♍	
asc. node	13877 Sep 18 08:41	11°♍18'19	
	13877 Oct 12 13:36	0°♎	
	13877 Nov 20 00:46	0°♏	
	13877 Dec 28 21:16	0°♐	
	13878 Feb 07 09:44	0°♑	
	13878 Mar 23 17:02	0°♒	
	13878 May 18 12:50	0°♓	
retrograde	13878 Jun 29 16:06	9°♓43'28	
desc. node	13878 Jul 22 18:24	6°♓05'10	
min. Earth dist.	13878 Aug 04 12:24	1°♓31'36	0.63023 AU
	13878 Aug 08 09:11	30°♑℞♒	
opposition	13878 Aug 09 00:57	29°♒44'25	-0°41'38
greatest brilliancy	13878 Aug 08 21:47	29°♒47'32	-1.5m
direct	13878 Sep 16 19:35	20°♒44'58	
	13878 Oct 30 18:04	0°♓	
	13879 Jan 02 04:56	0°♈	
	13879 Feb 22 22:38	0°♉	
	13879 Apr 11 05:49	0°♊	
	13879 May 25 09:04	0°♋	
evening set	13879 May 30 06:16	3°♋26'12	
max. Earth dist.	13879 Jun 12 16:35	13°♋00'36	2.45747 AU
	13879 Jul 05 23:09	0°♌	
conjunction	13879 Jul 24 12:36	13°♌53'36	-0°08'39
minimum elong	13879 Jul 24 13:18	13°♌54'55	0°09'29
behind sun begin	13879 Jul 23 16:21	13°♌15'22	
behind sun end	13879 Jul 25 10:15	14°♌34'32	
asc. node	13879 Aug 05 21:54	23°♌19'13	
	13879 Aug 14 14:30	0°♍	
	13879 Sep 22 00:08	0°♎	
morning rise	13879 Sep 29 03:46	5°♎38'44	
	13879 Oct 29 23:20	0°♏	
	13879 Dec 07 09:32	0°♐	
	13880 Jan 16 05:23	0°♑	
	13880 Feb 27 11:53	0°♒	
	13880 Apr 13 19:54	0°♓	
desc. node	13880 Jun 08 19:34	0°♈01'09	
	13880 Jun 08 18:31	0°♈	
retrograde	13880 Aug 02 03:49	14°♈04'14	
opposition	13880 Sep 11 22:54	4°♈15'10	-3°11'50
min. Earth dist.	13880 Sep 11 05:17	4°♈32'37	0.68302 AU
greatest brilliancy	13880 Sep 11 19:31	4°♈18'32	-1.3m
	13880 Sep 23 03:21	30°♓℞	
direct	13880 Oct 22 21:40	24°♓31'00	
	13880 Nov 24 15:47	0°♈	
	13881 Jan 30 00:41	0°♉	
	13881 Mar 21 03:48	0°♊	
	13881 May 04 23:33	0°♋	
	13881 Jun 15 12:16	0°♌	
asc. node	13881 Jun 22 15:20	5°♌20'07	
	13881 Jul 24 20:28	0°♍	
evening set	13881 Jul 25 23:15	0°♍52'06	
	13881 Aug 31 23:13	0°♎	
conjunction	13881 Oct 05 06:44	27°♎13'52	1°00'35
minimum elong	13881 Oct 05 03:30	27°♎07'28	1°00'56
	13881 Oct 08 18:47	0°♏	
	13881 Nov 16 04:52	0°♐	
max. Earth dist.	13881 Nov 24 08:26	6°♐14'28	2.37990 AU
morning rise	13881 Dec 16 03:41	22°♐40'40	
	13881 Dec 26 01:15	0°♑	
	13882 Feb 06 00:36	0°♒	
	13882 Mar 22 18:35	0°♓	
desc. node	13882 Apr 26 12:11	21°♓45'01	
	13882 May 10 09:06	0°♈	
	13882 Jul 06 07:36	0°♉	
retrograde	13882 Sep 05 21:09	16°♉36'50	
opposition	13882 Oct 15 18:24	7°♉22'20	-4°38'55
greatest brilliancy	13882 Oct 16 05:25	7°♉11'35	-1.3m
min. Earth dist.	13882 Oct 18 22:03	6°♉08'30	0.66851 AU
	13882 Nov 05 23:32	30°♑℞♈	
direct	13882 Nov 26 10:05	27°♈19'45	
	13882 Dec 18 03:08	0°♉	
	13883 Feb 24 23:02	0°♊	
	13883 Apr 13 16:41	0°♋	
asc. node	13883 May 10 16:40	18°♋51'02	
	13883 May 25 23:47	0°♌	
	13883 Jul 04 11:42	0°♍	
	13883 Aug 11 15:27	0°♎	
	13883 Sep 18 14:13	0°♏	
evening set	13883 Oct 11 11:21	17°♏50'48	
	13883 Oct 27 07:07	0°♐	
	13883 Dec 06 12:36	0°♑	
conjunction	13883 Dec 15 08:45	6°♑24'21	0°48'05
minimum elong	13883 Dec 15 11:07	6°♑28'36	0°49'07
	13884 Jan 17 18:43	0°♒	
max. Earth dist.	13884 Jan 22 15:10	3°♒20'47	2.52087 AU
morning rise	13884 Feb 08 21:37	15°♒05'55	
	13884 Mar 02 07:27	0°♓	
desc. node	13884 Mar 13 00:24	6°♓59'11	
	13884 Apr 18 05:48	0°♈	
	13884 Jun 07 03:13	0°♉	

	13884 Aug 02	00:46	0°♊		
retrograde	13884 Oct 15	00:40	22°♊13'04		
opposition	13884 Nov 21	13:07	13°♊59'20	-4°48'50	
greatest brilliancy	13884 Nov 22	18:01	13°♊32'07	-1.7m	
min. Earth dist.	13884 Nov 28	11:20	11°♊23'00	0.58643 AU	
direct	13885 Jan 01	01:59	4°♊15'33		
	13885 Mar 15	19:24	0°♋		
asc. node	13885 Mar 28	01:00	7°♋17'43		
	13885 May 01	07:00	0°♌		
	13885 Jun 11	03:27	0°♍		
	13885 Jul 19	23:41	0°♎		
	13885 Aug 27	12:43	0°♏		
	13885 Oct 05	21:50	0°♐		
	13885 Nov 15	21:18	0°♑		
evening set	13885 Dec 11	03:31	17°♑49'02		
	13885 Dec 28	19:56	0°♒		
desc. node	13886 Jan 28	11:56	20°♒37'09		
conjunction	13886 Jan 31	21:16	22°♒51'43	-0°01'59	
minimum elong	13886 Jan 31	21:15	22°♒51'42	0°01'15	
behind sun begin	13886 Jan 31	00:59	22°♒18'13		
behind sun end	13886 Feb 01	17:31	23°♒25'09		
	13886 Feb 11	17:44	0°♓		
max. Earth dist.	13886 Feb 19	20:05	5°♓17'16	2.62692 AU	
morning rise	13886 Mar 19	17:11	23°♓15'09		
	13886 Mar 30	07:40	0°♈		
	13886 May 17	06:33	0°♉		
	13886 Jul 05	16:06	0°♊		
	13886 Aug 26	18:28	0°♋		
	13886 Oct 28	11:24	0°♌		
retrograde	13886 Dec 08	12:37	8°♌33'09		
opposition	13887 Jan 10	16:02	2°♌07'59	-2°04'48	
greatest brilliancy	13887 Jan 11	11:05	1°♌52'10	-2.4m	
	13887 Jan 17	01:57	30°℞♋		
min. Earth dist.	13887 Jan 19	06:01	29°♋17'52	0.45070 AU	
asc. node	13887 Feb 13	10:03	24°♋20'03		
direct	13887 Feb 15	19:03	24°♋17'35		
	13887 Mar 17	09:06	0°♌		
	13887 May 11	23:01	0°♍		
	13887 Jun 23	18:06	0°♎		
	13887 Aug 03	13:24	0°♏		
	13887 Sep 13	17:20	0°♐		
	13887 Oct 26	06:12	0°♑		
	13887 Dec 09	11:52	0°♒		
desc. node	13887 Dec 16	05:40	4°♒28'31		
evening set	13888 Jan 24	02:44	29°♒53'02		
	13888 Jan 24	07:03	0°♓		
conjunction	13888 Mar 09	20:41	29°♓10'13	-0°43'56	
minimum elong	13888 Mar 09	19:32	29°♓08'23	0°43'48	
	13888 Mar 11	04:02	0°♈		
max. Earth dist.	13888 Mar 14	03:42	1°♈53'47	2.67917 AU	
morning rise	13888 Apr 22	07:53	26°♈42'52		
	13888 Apr 27	12:28	0°♉		
	13888 Jun 13	20:32	0°♊		
	13888 Jul 30	22:53	0°♋		
	13888 Sep 15	22:18	0°♌		
	13888 Nov 02	11:09	0°♍		
	13888 Dec 23	17:34	0°♎		
asc. node	13888 Dec 31	15:43	4°♎04'02		
retrograde	13889 Feb 25	05:00	20°♎33'14		
opposition	13889 Mar 26	22:55	15°♎35'00	5°50'56	
min. Earth dist.	13889 Mar 25	18:23	15°♎53'56	0.36405 AU	
greatest brilliancy	13889 Mar 26	14:47	15°♎40'24	-3.0m	
direct	13889 Apr 25	01:47	10°♎44'55		
	13889 Jun 24	18:02	0°♏		
	13889 Aug 14	23:29	0°♐		
	13889 Oct 01	09:39	0°♑		
desc. node	13889 Nov 02	08:48	20°♑20'01		
	13889 Nov 17	14:49	0°♒		
	13890 Jan 04	05:43	0°♓		
	13890 Feb 21	00:44	0°♈		
evening set	13890 Feb 28	20:32	4°♈55'21		
max. Earth dist.	13890 Apr 05	06:21	27°♈19'37	2.67633 AU	
	13890 Apr 09	11:02	0°♉		
conjunction	13890 Apr 13	15:54	2°♉40'56	-1°07'56	
minimum elong	13890 Apr 13	15:12	2°♉39'48	1°08'24	
	13890 May 25	23:40	0°♊		
morning rise	13890 May 27	03:54	0°♊46'07		
	13890 Jul 10	05:51	0°♋		
	13890 Aug 23	01:56	0°♌		
	13890 Oct 04	12:21	0°♍		
	13890 Nov 14	20:35	0°♎		
asc. node	13890 Nov 18	15:17	2°♎45'57		
	13890 Dec 25	22:54	0°♏		
	13891 Feb 07	00:10	0°♐		
	13891 Apr 03	07:40	0°♑		
retrograde	13891 May 03	00:23	5°♑53'58		
min. Earth dist.	13891 May 30	20:20	0°♑32'42	0.46163 AU	
	13891 Jun 01	10:26	30°℞♐		
greatest brilliancy	13891 Jun 06	21:35	28°♐04'42	-2.4m	
opposition	13891 Jun 08	06:56	27°♐35'24	4°52'54	
direct	13891 Jul 11	05:09	20°♐51'20		
	13891 Aug 22	02:04	0°♑		
desc. node	13891 Sep 20	18:09	13°♑08'58		
	13891 Oct 22	21:28	0°♒		
	13891 Dec 14	06:44	0°♓		
	13892 Feb 02	04:04	0°♈		
	13892 Mar 21	08:12	0°♉		
evening set	13892 Apr 04	03:23	8°♉48'03		
max. Earth dist.	13892 Apr 27	19:45	24°♉09'14	2.61874 AU	
	13892 May 06	17:01	0°♊		
conjunction	13892 May 19	04:12	8°♊17'18	-1°07'44	
minimum elong	13892 May 19	04:57	8°♊18'34	1°08'40	
	13892 Jun 20	02:49	0°♋		
morning rise	13892 Jul 05	15:57	10°♋49'39		
	13892 Aug 01	14:08	0°♌		
	13892 Sep 11	07:48	0°♍		
asc. node	13892 Oct 05	05:58	18°♍06'31		
	13892 Oct 20	18:19	0°♎		
	13892 Nov 28	14:17	0°♏		
	13893 Jan 06	20:17	0°♐		
	13893 Feb 17	02:39	0°♑		
	13893 Apr 04	21:20	0°♒		
retrograde	13893 Jun 15	06:03	24°♒51'54		
min. Earth dist.	13893 Jul 19	01:29	17°♒19'57	0.59199 AU	
opposition	13893 Jul 25	00:12	15°♒00'31	0°36'17	
greatest brilliancy	13893 Jul 24	21:07	15°♒03'32	-1.7m	
desc. node	13893 Aug 08	04:21	9°♒58'50		
direct	13893 Aug 31	12:09	6°♒27'59		
	13893 Nov 16	03:21	0°♓		
	13894 Jan 11	05:28	0°♈		
	13894 Mar 02	10:15	0°♉		
	13894 Apr 18	07:01	0°♊		
evening set	13894 May 12	20:20	16°♊28'52		
max. Earth dist.	13894 May 27	14:33	26°♊38'52	2.51051 AU	
	13894 Jun 01	09:53	0°♋		
conjunction	13894 Jul 02	16:34	22°♋19'28	-0°33'23	
minimum elong	13894 Jul 02	18:19	22°♋22'40	0°34'24	
	13894 Jul 13	04:12	0°♌		
asc. node	13894 Aug 22	16:49	0°♍29'57		

	13894 Aug 22 01:12	0°♍	
morning rise	13894 Aug 30 19:27	6°♍44'23	
	13894 Sep 29 15:58	0°♎	
	13894 Nov 06 18:55	0°♏	
	13894 Dec 15 07:27	0°♐	
	13895 Jan 24 06:19	0°♑	
	13895 Mar 07 22:36	0°♒	
	13895 Apr 24 20:52	0°♓	
desc. node	13895 Jun 26 10:09	27°♓56'18	
	13895 Jul 05 17:20	0°♈	
retrograde	13895 Jul 20 23:49	1°♈23'49	
	13895 Aug 04 13:03	30°℞♓	
min. Earth dist.	13895 Aug 28 13:02	22°♓20'21	0.67003 AU
opposition	13895 Aug 30 18:34	21°♓27'17	-2°21'49
greatest brilliancy	13895 Aug 30 12:50	21°♓32'58	-1.3m
direct	13895 Oct 10 00:48	11°♓57'18	
	13895 Dec 14 08:00	0°♈	
	13896 Feb 09 06:50	0°♉	
	13896 Mar 28 22:24	0°♊	
	13896 May 12 09:16	0°♋	
	13896 Jun 22 21:33	0°♌	
evening set	13896 Jun 30 16:19	5°♌49'06	
asc. node	13896 Jul 09 08:14	12°♌21'31	
max. Earth dist.	13896 Jul 28 08:59	26°♌56'22	2.37573 AU
	13896 Aug 01 07:48	0°♍	
conjunction	13896 Sep 03 21:17	26°♍19'55	0°38'12
minimum elong	13896 Sep 03 17:44	26°♍12'52	0°37'58
	13896 Sep 08 12:31	0°♎	
	13896 Oct 16 08:46	0°♏	
morning rise	13896 Nov 17 11:43	25°♏09'51	
	13896 Nov 23 17:55	0°♐	
	13897 Jan 02 12:38	0°♑	
	13897 Feb 13 12:09	0°♒	
	13897 Mar 30 14:03	0°♓	
desc. node	13897 May 13 06:34	26°♓24'39	
	13897 May 19 16:14	0°♈	
	13897 Jul 26 12:13	0°♉	
retrograde	13897 Aug 23 01:29	4°♉03'59	
	13897 Sep 17 11:51	30°℞♈	
opposition	13897 Oct 02 10:45	24°♈33'30	-4°12'42
greatest brilliancy	13897 Oct 02 15:03	24°♈29'16	-1.3m
min. Earth dist.	13897 Oct 04 01:43	23°♈55'12	0.68228 AU
direct	13897 Nov 12 23:50	14°♈34'58	
	13898 Jan 10 05:05	0°♉	
	13898 Mar 06 22:38	0°♊	
	13898 Apr 22 01:54	0°♋	
asc. node	13898 May 27 07:15	25°♋05'14	
	13898 Jun 02 22:53	0°♌	
	13898 Jul 12 07:59	0°♍	
	13898 Aug 19 10:18	0°♎	
evening set	13898 Sep 10 23:05	17°♎53'07	
	13898 Sep 26 06:46	0°♏	
	13898 Nov 03 19:46	0°♐	
conjunction	13898 Nov 20 19:46	12°♐54'28	1°02'31
minimum elong	13898 Nov 20 21:45	12°♐58'11	1°03'28
	13898 Dec 13 20:15	0°♑	
max. Earth dist.	13899 Jan 07 04:18	17°♑32'58	2.46696 AU
morning rise	13899 Jan 21 04:17	27°♑23'52	
	13899 Jan 24 22:04	0°♒	
	13899 Mar 10 10:09	0°♓	
desc. node	13899 Mar 30 18:54	13°♓09'13	
	13899 Apr 26 17:58	0°♈	
	13899 Jun 17 05:00	0°♉	
	13899 Aug 20 08:42	0°♊	
retrograde	13899 Sep 29 08:42	7°♊50'27	
	13899 Nov 04 18:26	30°℞♉	
opposition	13899 Nov 07 00:02	29°♉08'56	-4°57'14
greatest brilliancy	13899 Nov 07 22:34	28°♉47'19	-1.5m
min. Earth dist.	13899 Nov 12 12:06	27°♉02'16	0.62624 AU
direct	13899 Dec 18 05:32	19°♉11'22	
	13900 Feb 01 15:08	0°♊	
	13900 Mar 28 23:05	0°♋	
asc. node	13900 Apr 14 12:14	10°♋49'32	
	13900 May 11 22:26	0°♌	
	13900 Jun 21 00:19	0°♍	
	13900 Jul 29 11:15	0°♎	
	13900 Sep 05 16:42	0°♏	
	13900 Oct 14 17:37	0°♐	
evening set	13900 Nov 20 23:17	27°♐33'47	
	13900 Nov 24 08:10	0°♑	
	13901 Jan 05 22:35	0°♒	
conjunction	13901 Jan 15 19:56	6°♒45'41	0°17'35
minimum elong	13901 Jan 15 20:49	6°♒47'10	0°18'29
max. Earth dist.	13901 Feb 10 13:19	24°♒01'18	2.59146 AU
desc. node	13901 Feb 15 06:14	27°♒07'53	
	13901 Feb 19 14:53	0°♓	
morning rise	13901 Mar 06 05:01	9°♓31'08	
	13901 Apr 07 05:31	0°♈	
	13901 May 25 16:41	0°♉	
	13901 Jul 15 15:41	0°♊	
	13901 Sep 10 22:47	0°♋	
retrograde	13901 Nov 15 17:27	18°♋35'31	
opposition	13901 Dec 20 19:03	11°♋20'37	-3°42'41
greatest brilliancy	13901 Dec 22 01:35	10°♋53'23	-2.1m
min. Earth dist.	13901 Dec 29 08:10	8°♋18'27	0.50723 AU
direct	13902 Jan 28 05:09	2°♋27'57	
asc. node	13902 Mar 02 22:22	9°♋29'49	
	13902 Apr 12 00:14	0°♌	
	13902 May 26 10:59	0°♍	
	13902 Jul 05 18:06	0°♎	
	13902 Aug 14 06:08	0°♏	
	13902 Sep 23 11:16	0°♐	
	13902 Nov 04 05:18	0°♑	
	13902 Dec 17 20:00	0°♒	
desc. node	13903 Jan 02 20:49	10°♒43'33	
evening set	13903 Jan 09 07:44	15°♒00'10	
	13903 Feb 01 04:42	0°♓	
conjunction	13903 Feb 25 19:13	15°♓53'45	-0°29'32
minimum elong	13903 Feb 25 18:17	15°♓52'14	0°29'09
max. Earth dist.	13903 Mar 07 13:05	22°♓08'06	2.66535 AU
	13903 Mar 19 21:08	0°♈	
morning rise	13903 Apr 11 02:54	14°♈05'44	
	13903 May 06 08:46	0°♉	
	13903 Jun 23 06:56	0°♊	
	13903 Aug 10 16:40	0°♋	
	13903 Sep 29 08:57	0°♌	
	13903 Nov 22 22:33	0°♍	
asc. node	13904 Jan 19 06:55	18°♍37'53	
retrograde	13904 Jan 24 21:57	18°♍49'58	
opposition	13904 Feb 23 20:18	13°♍46'21	2°37'35
greatest brilliancy	13904 Feb 24 05:36	13°♍39'53	-3.0m
min. Earth dist.	13904 Feb 28 12:09	12°♍28'40	0.37779 AU
direct	13904 Mar 26 02:52	8°♍09'21	
	13904 May 28 08:45	0°♎	
	13904 Jul 15 00:05	0°♏	
	13904 Aug 28 10:23	0°♐	
	13904 Oct 12 01:18	0°♑	
desc. node	13904 Nov 19 19:25	25°♑30'09	
	13904 Nov 26 17:29	0°♒	
	13905 Jan 12 10:58	0°♓	

evening set	13905 Feb 16 00:41	21°♓55'24		
	13905 Feb 28 19:09	0°♈		
max. Earth dist.	13905 Mar 28 14:04	17°♈35'14	2.68405 AU	
conjunction	13905 Apr 01 05:10	19°♈53'18	-1°01'10	
minimum elong	13905 Apr 01 04:08	19°♈51'40	1°01'24	
	13905 Apr 17 03:09	0°♉		
morning rise	13905 May 14 07:26	17°♉22'31		
	13905 Jun 02 21:17	0°♊		
	13905 Jul 18 16:59	0°♋		
	13905 Sep 01 10:38	0°♌		
	13905 Oct 15 03:03	0°♍		
	13905 Nov 27 04:22	0°♎		
asc. node	13905 Dec 06 08:02	6°♎21'49		
	13906 Jan 10 02:24	0°♏		
	13906 Mar 02 22:39	0°♐		
retrograde	13906 Apr 11 17:23	10°♐05'26		
min. Earth dist.	13906 May 07 19:19	5°♐32'39	0.40904 AU	
greatest brilliancy	13906 May 13 18:19	3°♐40'11	-2.7m	
opposition	13906 May 15 09:13	3°♐09'21	6°26'56	
	13906 May 26 07:14	30°℞♏		
direct	13906 Jun 15 03:27	27°♏24'12		
	13906 Jul 05 18:12	0°♐		
	13906 Sep 12 11:36	0°♑		
desc. node	13906 Oct 08 03:49	14°♑28'40		
	13906 Nov 03 15:10	0°♒		
	13906 Dec 23 11:14	0°♓		
	13907 Feb 10 07:42	0°♈		
evening set	13907 Mar 23 07:26	25°♈40'38		
	13907 Mar 30 02:49	0°♉		
max. Earth dist.	13907 Apr 20 09:38	13°♉38'29	2.64758 AU	
conjunction	13907 May 06 10:57	24°♉04'24	-1°11'14	
minimum elong	13907 May 06 11:04	24°♉04'35	1°12'00	
	13907 May 15 11:47	0°♊		
morning rise	13907 Jun 20 18:32	24°♊16'04		
	13907 Jun 29 04:05	0°♋		
	13907 Aug 11 01:56	0°♌		
	13907 Sep 21 08:13	0°♍		
asc. node	13907 Oct 24 01:16	24°♍29'42		
	13907 Oct 31 07:38	0°♎		
	13907 Dec 09 16:51	0°♏		
	13908 Jan 18 16:15	0°♐		
	13908 Mar 01 12:48	0°♑		
	13908 Apr 24 23:11	0°♒		
retrograde	13908 May 31 13:46	8°♒10'07		
min. Earth dist.	13908 Jul 02 03:03	1°♒24'34	0.54544 AU	
	13908 Jul 05 20:10	30°℞♑		
opposition	13908 Jul 09 08:39	28°♑38'58	2°07'50	
greatest brilliancy	13908 Jul 08 19:38	28°♑51'25	-1.9m	
direct	13908 Aug 14 07:41	20°♑41'01		
desc. node	13908 Aug 25 15:29	21°♑27'33		
	13908 Sep 26 15:18	0°♒		
	13908 Nov 28 17:49	0°♓		
	13909 Jan 20 10:23	0°♈		
	13909 Mar 10 14:57	0°♉		
	13909 Apr 26 05:16	0°♊		
evening set	13909 Apr 27 23:42	1°♊10'12		
max. Earth dist.	13909 May 15 16:42	13°♊01'35	2.55847 AU	
	13909 Jun 09 10:02	0°♋		
conjunction	13909 Jun 14 19:25	3°♋46'06	-0°51'36	
minimum elong	13909 Jun 14 21:06	3°♋49'03	0°52'38	
	13909 Jul 21 10:10	0°♌		
morning rise	13909 Aug 07 01:43	12°♌17'18		
	13909 Aug 30 14:13	0°♍		
asc. node	13909 Sep 09 14:09	7°♍38'27		
	13909 Oct 08 11:15	0°♎		
	13909 Nov 15 18:57	0°♏		
	13909 Dec 24 11:22	0°♐		
	13910 Feb 02 16:19	0°♑		
	13910 Mar 18 03:10	0°♒		
	13910 May 08 09:50	0°♓		
retrograde	13910 Jul 08 13:56	18°♓10'18		
desc. node	13910 Jul 13 22:53	17°♓58'46		
min. Earth dist.	13910 Aug 14 10:39	9°♓38'33	0.64714 AU	
opposition	13910 Aug 18 03:36	8°♓10'24	-1°21'49	
greatest brilliancy	13910 Aug 17 22:23	8°♓15'35	-1.4m	
	13910 Sep 13 19:53	30°℞♒		
direct	13910 Sep 26 12:13	28°♒58'40		
	13910 Oct 09 21:39	0°♓		
	13910 Dec 27 10:41	0°♈		
	13911 Feb 18 14:41	0°♉		
	13911 Apr 07 08:19	0°♊		
	13911 May 21 14:24	0°♋		
evening set	13911 Jun 11 04:02	14°♋37'41		
max. Earth dist.	13911 Jun 25 17:24	25°♋14'07	2.42690 AU	
	13911 Jul 02 04:17	0°♌		
asc. node	13911 Jul 28 02:20	19°♌30'26		
conjunction	13911 Aug 08 14:24	28°♌19'58	0°08'07	
minimum elong	13911 Aug 08 13:45	28°♌18'43	0°07'28	
behind sun begin	13911 Aug 07 13:23	27°♌31'45		
behind sun end	13911 Aug 09 14:07	29°♌05'43		
	13911 Aug 10 18:14	0°♍		
	13911 Sep 18 02:15	0°♎		
morning rise	13911 Oct 18 05:39	23°♎51'13		
	13911 Oct 26 00:22	0°♏		
	13911 Dec 03 09:40	0°♐		
	13912 Jan 12 03:54	0°♑		
	13912 Feb 23 05:51	0°♒		
	13912 Apr 08 22:04	0°♓		
desc. node	13912 May 30 23:00	29°♓36'36		
	13912 May 31 17:40	0°♈		
retrograde	13912 Aug 10 16:43	21°♈40'29		
opposition	13912 Sep 20 09:25	11°♈57'06	-3°37'05	
greatest brilliancy	13912 Sep 20 08:17	11°♈58'13	-1.2m	
min. Earth dist.	13912 Sep 20 11:57	11°♈54'35	0.68564 AU	
direct	13912 Oct 31 14:32	2°♈06'40		
	13913 Jan 24 03:01	0°♉		
	13913 Mar 16 17:28	0°♊		
	13913 Apr 30 23:07	0°♋		
	13913 Jun 11 14:40	0°♌		
asc. node	13913 Jun 13 22:27	1°♌43'57		
	13913 Jul 20 23:09	0°♍		
evening set	13913 Aug 12 03:03	17°♍22'49		
	13913 Aug 28 01:28	0°♎		
	13913 Oct 04 21:00	0°♏		
conjunction	13913 Oct 24 00:24	15°♏02'36	1°06'04	
minimum elong	13913 Oct 23 23:17	15°♏00'25	1°06'44	
	13913 Nov 12 07:33	0°♐		
max. Earth dist.	13913 Dec 16 18:12	25°♐59'49	2.41000 AU	
	13913 Dec 22 04:29	0°♑		
morning rise	13913 Dec 31 07:55	6°♑40'44		
	13914 Feb 02 03:35	0°♒		
	13914 Mar 18 17:28	0°♓		
desc. node	13914 Apr 17 14:22	18°♓58'53		
	13914 May 05 16:52	0°♈		
	13914 Jun 28 20:06	0°♉		
retrograde	13914 Sep 15 02:24	24°♉26'35		
opposition	13914 Oct 24 14:25	15°♉22'35	-4°49'17	
greatest brilliancy	13914 Oct 25 05:33	15°♉07'54	-1.3m	
min. Earth dist.	13914 Oct 28 14:21	13°♉49'24	0.65650 AU	

direct	13914 Dec 05 04:11	5°♉19'52	
	13915 Feb 18 10:28	0°♊	
	13915 Apr 08 21:58	0°♋	
asc. node	13915 May 02 02:39	15°♋53'49	
	13915 May 21 16:42	0°♌	
	13915 Jun 30 08:49	0°♍	
	13915 Aug 07 14:21	0°♎	
	13915 Sep 14 14:37	0°♏	
	13915 Oct 23 09:17	0°♐	
evening set	13915 Oct 28 05:35	3°♐40'42	
	13915 Dec 02 16:40	0°♑	
conjunction	13915 Dec 28 14:38	18°♑33'00	0°37'23
minimum elong	13915 Dec 28 16:34	18°♑36'24	0°38'24
	13916 Jan 14 00:32	0°♒	
max. Earth dist.	13916 Jan 31 03:56	11°♒43'42	2.54812 AU
morning rise	13916 Feb 19 13:43	24°♒44'01	
	13916 Feb 27 13:09	0°♓	
desc. node	13916 Mar 04 00:27	3°♓35'09	
	13916 Apr 14 07:04	0°♈	
	13916 Jun 02 12:29	0°♉	
	13916 Jul 25 23:43	0°♊	
	13916 Oct 09 21:43	0°♋	
retrograde	13916 Oct 26 09:37	1°♋31'30	
	13916 Nov 10 23:35	30°℞♊	
opposition	13916 Dec 02 03:12	23°♊36'19	-4°33'28
greatest brilliancy	13916 Dec 03 10:18	23°♊07'26	-1.8m
min. Earth dist.	13916 Dec 09 17:46	20°♊47'07	0.56043 AU
direct	13917 Jan 11 01:39	14°♊05'41	
	13917 Mar 06 17:12	0°♋	
asc. node	13917 Mar 19 10:32	6°♋47'08	
	13917 Apr 25 11:00	0°♌	
	13917 Jun 06 03:51	0°♍	
	13917 Jul 15 09:06	0°♎	
	13917 Aug 23 04:10	0°♏	
	13917 Oct 01 18:31	0°♐	
	13917 Nov 11 22:39	0°♑	
evening set	13917 Dec 22 22:02	28°♑32'36	
	13917 Dec 25 01:23	0°♒	
desc. node	13918 Jan 19 13:12	17°♒08'06	
	13918 Feb 08 01:35	0°♓	
conjunction	13918 Feb 10 21:31	1°♓50'57	-0°12'43
minimum elong	13918 Feb 10 21:03	1°♓50'11	0°12'08
behind sun begin	13918 Feb 10 08:01	1°♓28'57	
behind sun end	13918 Feb 11 10:04	2°♓11'25	
max. Earth dist.	13918 Feb 26 10:02	11°♓55'33	2.64284 AU
	13918 Mar 26 15:20	0°♈	
morning rise	13918 Mar 28 15:38	1°♈16'43	
	13918 May 13 08:49	0°♉	
	13918 Jul 01 02:48	0°♊	
	13918 Aug 20 12:03	0°♋	
	13918 Oct 14 15:04	0°♌	
retrograde	13918 Dec 24 19:53	21°♌59'30	
opposition	13919 Jan 25 19:49	16°♌05'30	-0°40'16
greatest brilliancy	13919 Jan 26 02:03	16°♌00'37	-2.7m
min. Earth dist.	13919 Feb 02 18:41	13°♌37'05	0.42061 AU
asc. node	13919 Feb 04 19:13	13°♌01'09	
direct	13919 Mar 01 06:58	9°♌01'09	
	13919 May 01 11:04	0°♍	
	13919 Jun 16 17:06	0°♎	
	13919 Jul 28 19:31	0°♏	
	13919 Sep 08 18:20	0°♐	
	13919 Oct 21 20:22	0°♑	
	13919 Dec 05 11:43	0°♒	
desc. node	13919 Dec 07 09:46	1°♒16'02	
	13920 Jan 20 13:05	0°♓	
evening set	13920 Feb 02 15:21	8°♓24'04	
	13920 Mar 07 13:03	0°♈	
conjunction	13920 Mar 18 16:42	7°♈04'30	-0°51'10
minimum elong	13920 Mar 18 15:31	7°♈02'39	0°51'11
max. Earth dist.	13920 Mar 20 03:28	7°♈59'37	2.68316 AU
	13920 Apr 23 20:36	0°♉	
morning rise	13920 Apr 30 21:35	4°♉28'11	
	13920 Jun 09 22:53	0°♊	
	13920 Jul 26 12:50	0°♋	
	13920 Sep 10 13:07	0°♌	
	13920 Oct 26 06:11	0°♍	
	13920 Dec 11 21:02	0°♎	
asc. node	13920 Dec 23 00:50	6°♎51'22	
	13921 Feb 04 08:58	0°♏	
retrograde	13921 Mar 15 19:40	9°♏27'37	
min. Earth dist.	13921 Apr 11 06:27	5°♏09'57	0.37191 AU
greatest brilliancy	13921 Apr 14 11:33	4°♏17'00	-2.9m
opposition	13921 Apr 15 11:32	4°♏00'26	6°45'30
	13921 May 02 18:34	30°℞♎	
direct	13921 May 14 16:07	29°♎04'21	
	13921 May 26 14:53	0°♏	
	13921 Aug 06 03:07	0°♐	
	13921 Sep 25 11:25	0°♑	
desc. node	13921 Oct 24 14:14	17°♑59'26	
	13921 Nov 12 22:22	0°♒	
	13921 Dec 31 04:27	0°♓	
	13922 Feb 17 07:15	0°♈	
evening set	13922 Mar 09 15:55	12°♈47'05	
	13922 Apr 05 20:11	0°♉	
max. Earth dist.	13922 Apr 11 08:42	3°♉31'27	2.66828 AU
conjunction	13922 Apr 22 11:13	10°♉38'36	-1°10'19
minimum elong	13922 Apr 22 10:46	10°♉37'53	1°10'55
	13922 May 22 07:12	0°♊	
morning rise	13922 Jun 05 10:35	9°♊18'33	
	13922 Jul 06 08:14	0°♋	
	13922 Aug 18 19:46	0°♌	
	13922 Sep 29 19:09	0°♍	
asc. node	13922 Nov 09 20:38	0°♎13'18	
	13922 Nov 09 13:28	0°♎	
	13922 Dec 19 20:42	0°♏	
	13923 Jan 30 06:50	0°♐	
	13923 Mar 18 08:41	0°♑	
retrograde	13923 May 15 01:17	18°♑49'45	
min. Earth dist.	13923 Jun 13 03:50	12°♑57'50	0.49217 AU
greatest brilliancy	13923 Jun 20 07:02	10°♑22'12	-2.2m
opposition	13923 Jun 21 09:02	9°♑58'25	3°51'42
direct	13923 Jul 25 11:44	2°♑45'05	
desc. node	13923 Sep 12 00:52	14°♑22'31	
	13923 Oct 15 15:57	0°♒	
	13923 Dec 09 09:49	0°♓	
	13924 Jan 29 02:54	0°♈	
	13924 Mar 17 14:55	0°♉	
evening set	13924 Apr 13 05:07	17°♉00'35	
	13924 May 03 01:37	0°♊	
max. Earth dist.	13924 May 04 15:19	1°♊02'20	2.59921 AU
conjunction	13924 May 29 00:47	17°♊23'40	-1°03'29
minimum elong	13924 May 29 01:56	17°♊25'37	1°04'28
	13924 Jun 16 09:49	0°♋	
morning rise	13924 Jul 17 05:09	21°♋42'35	
	13924 Jul 28 17:05	0°♌	
	13924 Sep 07 05:46	0°♍	
asc. node	13924 Sep 26 10:00	14°♍34'23	
	13924 Oct 16 11:01	0°♎	
	13924 Nov 24 01:49	0°♏	

	13925 Jan 02	01:27	0°♐		
	13925 Feb 11	18:45	0°♑		
	13925 Mar 28	18:47	0°♒		
	13925 May 29	21:42	0°♓		
retrograde	13925 Jun 24	14:45	4°♓00'27		
	13925 Jul 18	17:30	30°℞♒		
min. Earth dist.	13925 Jul 29	13:39	26°♒05'27	0.61429 AU	
desc. node	13925 Jul 30	10:55	25°♒44'39		
opposition	13925 Aug 03	17:24	24°♒03'35	-0°10'36	
greatest brilliancy	13925 Aug 03	16:34	24°♒04'24	-1.6m	
direct	13925 Sep 10	22:24	15°♒15'27		
	13925 Nov 07	14:26	0°♓		
	13926 Jan 06	06:43	0°♈		
	13926 Feb 26	08:49	0°♉		
	13926 Apr 14	12:40	0°♊		
evening set	13926 May 23	10:51	26°♊19'44		
	13926 May 28	17:11	0°♋		
max. Earth dist.	13926 Jun 06	03:09	5°♋55'25	2.48173 AU	
	13926 Jul 09	10:16	0°♌		
conjunction	13926 Jul 15	13:18	4°♌32'13	-0°20'02	
minimum elong	13926 Jul 15	14:38	4°♌34'42	0°20'58	
asc. node	13926 Aug 13	23:06	26°♌44'35		
	13926 Aug 18	04:58	0°♍		
morning rise	13926 Sep 16	17:36	22°♍56'43		
	13926 Sep 25	17:06	0°♎		
greatest brilliancy	13926 Nov 01	14:52	29°♎07'08	1.2m	
	13926 Nov 02	17:42	0°♏		
	13926 Dec 11	04:10	0°♐		
	13927 Jan 19	23:44	0°♑		
	13927 Mar 03	07:54	0°♒		
	13927 Apr 19	02:09	0°♓		
desc. node	13927 Jun 17	13:37	0°♈09'21		
	13927 Jun 17	03:52	0°♈		
retrograde	13927 Jul 29	13:29	9°♈12'43		
	13927 Sep 06	16:04	30°℞♓		
min. Earth dist.	13927 Sep 06	22:57	29°♓53'11	0.67856 AU	
opposition	13927 Sep 08	08:35	29°♓19'50	-2°52'27	
greatest brilliancy	13927 Sep 08	03:47	29°♓24'35	-1.3m	
direct	13927 Oct 19	00:10	19°♓41'32		
	13927 Dec 04	20:08	0°♈		
	13928 Feb 04	05:50	0°♉		
	13928 Mar 24	18:29	0°♊		
	13928 May 08	11:59	0°♋		
	13928 Jun 19	01:51	0°♌		
asc. node	13928 Jun 30	15:24	8°♌39'41		
evening set	13928 Jul 15	08:36	19°♌51'36		
	13928 Jul 28	11:59	0°♍		
	13928 Sep 04	15:55	0°♎		
conjunction	13928 Sep 22	07:05	13°♎59'41	0°52'35	
minimum elong	13928 Sep 22	03:02	13°♎51'40	0°52'42	
max. Earth dist.	13928 Oct 09	22:51	27°♎59'56	2.36278 AU	
	13928 Oct 12	11:34	0°♏		
	13928 Nov 19	20:29	0°♐		
morning rise	13928 Dec 05	04:03	11°♐42'52		
	13928 Dec 29	14:42	0°♑		
	13929 Feb 09	12:15	0°♒		
	13929 Mar 26	06:59	0°♓		
desc. node	13929 May 04	07:32	24°♓09'47		
	13929 May 14	07:43	0°♈		
	13929 Jul 12	21:47	0°♉		
retrograde	13929 Aug 31	21:31	11°♉43'19		
opposition	13929 Oct 11	00:31	2°♉21'15	-4°29'19	
greatest brilliancy	13929 Oct 11	08:28	2°♉13'27	-1.3m	
min. Earth dist.	13929 Oct 13	11:49	1°♉23'08	0.67600 AU	
	13929 Oct 17	01:29	30°℞♈		
direct	13929 Nov 21	15:19	22°♈19'47		
	13929 Dec 30	09:14	0°♉		
	13930 Mar 01	14:32	0°♊		
	13930 Apr 17	16:16	0°♋		
asc. node	13930 May 18	15:06	21°♋47'15		
	13930 May 29	20:04	0°♌		
	13930 Jul 08	07:37	0°♍		
	13930 Aug 15	10:54	0°♎		
greatest brilliancy	13930 Aug 20	08:31	3°♎53'12	1.2m	
	13930 Sep 22	08:20	0°♏		
evening set	13930 Sep 29	09:24	5°♏32'06		
	13930 Oct 30	22:47	0°♐		
conjunction	13930 Dec 06	03:45	27°♐09'33	0°55'08	
minimum elong	13930 Dec 06	06:13	27°♐14'05	0°56'09	
	13930 Dec 10	00:45	0°♑		
max. Earth dist.	13931 Jan 17	12:21	27°♑28'37	2.49737 AU	
	13931 Jan 21	03:27	0°♒		
morning rise	13931 Feb 02	02:24	8°♒13'58		
	13931 Mar 06	14:05	0°♓		
desc. node	13931 Mar 21	20:16	9°♓55'41		
	13931 Apr 22	14:26	0°♈		
	13931 Jun 11	23:44	0°♉		
	13931 Aug 09	04:32	0°♊		
retrograde	13931 Oct 09	15:18	16°♊22'57		
opposition	13931 Nov 16	16:15	7°♊56'01	-4°54'29	
greatest brilliancy	13931 Nov 17	18:33	7°♊30'59	-1.6m	
min. Earth dist.	13931 Nov 22	23:17	5°♊32'23	0.60546 AU	
	13931 Dec 10	14:29	30°℞♉		
direct	13931 Dec 27	13:19	28°♉04'32		
	13932 Jan 14	05:23	0°♊		
	13932 Mar 21	16:38	0°♋		
asc. node	13932 Apr 04	22:25	8°♋53'51		
	13932 May 05	23:13	0°♌		
	13932 Jun 15	11:36	0°♍		
	13932 Jul 24	03:26	0°♎		
	13932 Aug 31	12:20	0°♏		
	13932 Oct 09	16:46	0°♐		
	13932 Nov 19	10:50	0°♑		
evening set	13932 Dec 03	07:47	9°♑53'55		
	13933 Jan 01	04:25	0°♒		
conjunction	13933 Jan 25	17:50	16°♒37'30	0°06'09	
minimum elong	13933 Jan 25	18:09	16°♒38'02	0°06'57	
behind sun begin	13933 Jan 24	23:03	16°♒06'07		
behind sun end	13933 Jan 26	13:15	17°♒09'56		
desc. node	13933 Feb 05	07:31	23°♒39'26		
	13933 Feb 14	22:22	0°♓		
max. Earth dist.	13933 Feb 16	13:26	1°♓04'04	2.61208 AU	
morning rise	13933 Mar 14	14:17	17°♓57'28		
	13933 Apr 02	11:26	0°♈		
	13933 May 20	14:10	0°♉		
	13933 Jul 09	13:02	0°♊		
	13933 Sep 01	07:41	0°♋		
retrograde	13933 Nov 28	14:51	29°♋56'33		
opposition	13934 Jan 01	16:02	23°♋07'44	-2°53'20	
greatest brilliancy	13934 Jan 02	17:32	22°♋45'45	-2.3m	
min. Earth dist.	13934 Jan 10	09:17	20°♋08'25	0.47613 AU	
direct	13934 Feb 07	21:40	14°♋46'07		
asc. node	13934 Feb 21	07:58	16°♋00'40		
	13934 Mar 31	06:53	0°♌		
	13934 May 18	17:32	0°♍		
	13934 Jun 29	04:37	0°♎		
	13934 Aug 08	07:13	0°♏		
	13934 Sep 17	22:56	0°♐		
	13934 Oct 30	01:25	0°♑		
	13934 Dec 12	22:49	0°♒		

desc. node	13934 Dec 23 23:30	7°♒21'22	
evening set	13935 Jan 18 11:04	24°♒07'07	
	13935 Jan 27 12:03	0°♓	
conjunction	13935 Mar 05 21:42	24°♓02'24	-0°38'17
minimum elong	13935 Mar 05 20:36	24°♓00'38	0°38'04
max. Earth dist.	13935 Mar 12 15:35	28°♓20'12	2.67403 AU
	13935 Mar 15 06:19	0°♈	
morning rise	13935 Apr 18 16:26	21°♈48'43	
	13935 May 01 15:37	0°♉	
	13935 Jun 18 05:19	0°♊	
	13935 Aug 04 20:11	0°♋	
	13935 Sep 21 19:25	0°♌	
	13935 Nov 10 11:36	0°♍	
asc. node	13936 Jan 09 14:21	29°♍57'54	
	13936 Jan 09 16:41	0°♎	
retrograde	13936 Feb 12 14:12	6°♎42'44	
opposition	13936 Mar 13 04:09	1°♎50'42	4°37'21
greatest brilliancy	13936 Mar 13 07:34	1°♎48'25	-3.0m
min. Earth dist.	13936 Mar 14 16:56	1°♎26'10	0.36582 AU
	13936 Mar 20 05:59	30°℞♍	
direct	13936 Apr 11 23:14	26°♍48'24	
	13936 May 03 23:56	0°♎	
	13936 Jul 04 20:03	0°♏	
	13936 Aug 21 01:14	0°♐	
	13936 Oct 05 23:49	0°♑	
desc. node	13936 Nov 10 01:19	22°♑42'24	
	13936 Nov 21 09:57	0°♒	
	13937 Jan 07 13:56	0°♓	
evening set	13937 Feb 23 22:50	29°♓52'21	
	13937 Feb 24 03:41	0°♈	
max. Earth dist.	13937 Apr 02 13:19	23°♈39'03	2.68085 AU
conjunction	13937 Apr 08 20:48	27°♈39'44	-1°05'34
minimum elong	13937 Apr 08 19:56	27°♈38'22	1°05'58
	13937 Apr 12 12:57	0°♉	
morning rise	13937 May 22 02:53	25°♉24'54	
	13937 May 29 04:22	0°♊	
	13937 Jul 13 16:58	0°♋	
	13937 Aug 26 22:31	0°♌	
	13937 Oct 08 21:30	0°♍	
	13937 Nov 19 21:09	0°♎	
asc. node	13937 Nov 26 15:26	4°♎51'34	
	13937 Dec 31 21:39	0°♏	
	13938 Feb 15 00:37	0°♐	
retrograde	13938 Apr 24 20:17	25°♐45'54	
min. Earth dist.	13938 May 21 16:50	20°♐48'50	0.43726 AU
greatest brilliancy	13938 May 28 11:32	18°♐32'35	-2.5m
opposition	13938 May 30 00:59	18°♐01'00	5°37'51
direct	13938 Jun 30 23:32	11°♐42'45	
	13938 Sep 01 14:27	0°♑	
desc. node	13938 Sep 28 10:20	13°♑38'30	
	13938 Oct 27 21:12	0°♒	
	13938 Dec 18 00:40	0°♓	
	13939 Feb 05 10:43	0°♈	
	13939 Mar 25 11:15	0°♉	
evening set	13939 Mar 31 03:38	3°♉36'51	
max. Earth dist.	13939 Apr 25 19:53	20°♉08'54	2.63272 AU
	13939 May 10 20:53	0°♊	
conjunction	13939 May 14 16:58	2°♊32'00	-1°09'48
minimum elong	13939 May 14 17:27	2°♊32'49	1°10'41
	13939 Jun 24 10:38	0°♋	
morning rise	13939 Jun 30 02:29	3°♋54'14	
	13939 Aug 06 03:25	0°♌	
	13939 Sep 16 03:22	0°♍	
asc. node	13939 Oct 14 07:25	21°♍13'07	
	13939 Oct 25 19:43	0°♎	
	13939 Dec 03 20:49	0°♏	
	13940 Jan 12 08:33	0°♐	
	13940 Feb 23 01:44	0°♑	
	13940 Apr 11 16:53	0°♒	
retrograde	13940 Jun 09 16:58	18°♒25'54	
min. Earth dist.	13940 Jul 12 12:43	11°♒13'37	0.57211 AU
opposition	13940 Jul 19 01:34	8°♒41'33	1°13'10
greatest brilliancy	13940 Jul 18 18:43	8°♒48'12	-1.8m
desc. node	13940 Aug 15 20:28	0°♒55'16	
direct	13940 Aug 24 21:08	0°♒23'27	
	13940 Nov 21 10:49	0°♓	
	13941 Jan 14 22:38	0°♈	
	13941 Mar 05 17:27	0°♉	
	13941 Apr 21 12:29	0°♊	
evening set	13941 May 06 19:58	10°♊12'03	
max. Earth dist.	13941 May 22 18:35	21°♊02'08	2.53277 AU
	13941 Jun 04 17:32	0°♋	
conjunction	13941 Jun 25 04:16	14°♋26'46	-0°41'58
minimum elong	13941 Jun 25 06:04	14°♋30'00	0°42'59
	13941 Jul 16 15:28	0°♌	
morning rise	13941 Aug 20 10:36	26°♌00'17	
	13941 Aug 25 16:28	0°♍	
asc. node	13941 Aug 30 18:33	3°♍53'33	
	13941 Oct 03 10:27	0°♎	
	13941 Nov 10 15:19	0°♏	
	13941 Dec 19 04:50	0°♐	
	13942 Jan 28 04:36	0°♑	
	13942 Mar 12 01:12	0°♒	
	13942 Apr 29 21:26	0°♓	
desc. node	13942 Jul 04 03:17	25°♓25'13	
retrograde	13942 Jul 16 07:37	26°♓19'48	
min. Earth dist.	13942 Aug 23 02:43	17°♓30'06	0.66100 AU
opposition	13942 Aug 26 00:14	16°♓21'05	-1°58'21
greatest brilliancy	13942 Aug 25 18:12	16°♓27'04	-1.4m
direct	13942 Oct 04 21:00	6°♓58'49	
	13942 Dec 19 20:44	0°♈	
	13943 Feb 13 01:50	0°♉	
	13943 Apr 02 09:09	0°♊	
	13943 May 16 19:32	0°♋	
evening set	13943 Jun 22 20:59	26°♋38'59	
	13943 Jun 27 09:39	0°♌	
max. Earth dist.	13943 Jul 11 19:19	10°♌46'46	2.39718 AU
asc. node	13943 Jul 18 08:51	15°♌45'11	
	13943 Aug 05 22:25	0°♍	
conjunction	13943 Aug 23 22:37	14°♍02'05	0°25'27
minimum elong	13943 Aug 23 20:15	13°♍57'27	0°25'01
	13943 Sep 13 04:55	0°♎	
	13943 Oct 21 01:44	0°♏	
morning rise	13943 Nov 05 13:21	12°♏11'42	
	13943 Nov 28 10:16	0°♐	
	13944 Jan 07 03:31	0°♑	
	13944 Feb 18 02:03	0°♒	
	13944 Apr 03 06:57	0°♓	
desc. node	13944 May 21 01:52	28°♓19'50	
	13944 May 24 03:56	0°♈	
retrograde	13944 Aug 18 07:49	29°♈16'55	
opposition	13944 Sep 27 20:32	19°♈40'19	-3°59'11
greatest brilliancy	13944 Sep 27 22:13	19°♈38'39	-1.2m
min. Earth dist.	13944 Sep 28 19:02	19°♈18'07	0.68507 AU
direct	13944 Nov 08 06:06	9°♈44'59	
	13945 Jan 16 04:35	0°♉	
	13945 Mar 11 00:12	0°♊	
	13945 Apr 25 19:40	0°♋	
asc. node	13945 Jun 04 06:36	28°♋14'29	

	13945 Jun 06 15:34	0°♌	
	13945 Jul 16 01:22	0°♍	
	13945 Aug 23 03:59	0°♎	
evening set	13945 Aug 29 04:29	4°♎46'52	
	13945 Sep 29 23:40	0°♏	
	13945 Nov 07 10:44	0°♐	
conjunction	13945 Nov 09 16:42	1°♐43'30	1°05'50
minimum elong	13945 Nov 09 17:41	1°♐45'22	1°06'43
	13945 Dec 17 08:21	0°♑	
max. Earth dist.	13945 Dec 30 17:30	9°♑44'50	2.44144 AU
morning rise	13946 Jan 13 02:40	19°♑19'34	
	13946 Jan 28 07:16	0°♒	
	13946 Mar 13 18:15	0°♓	
desc. node	13946 Apr 07 15:03	15°♓58'58	
	13946 Apr 30 05:59	0°♈	
	13946 Jun 21 12:45	0°♉	
	13946 Sep 02 04:28	0°♊	
retrograde	13946 Sep 23 15:59	2°♊30'31	
	13946 Oct 13 16:46	30°℞♉	
opposition	13946 Nov 01 16:56	23°♉38'26	-4°55'31
greatest brilliancy	13946 Nov 02 12:14	23°♉19'47	-1.4m
min. Earth dist.	13946 Nov 06 12:43	21°♉46'33	0.64097 AU
direct	13946 Dec 13 02:29	13°♉37'37	
	13947 Feb 09 08:20	0°♊	
	13947 Apr 02 16:25	0°♋	
asc. node	13947 Apr 22 10:20	13°♋12'00	
	13947 May 16 03:36	0°♌	
	13947 Jun 25 01:54	0°♍	
	13947 Aug 02 10:41	0°♎	
	13947 Sep 09 13:24	0°♏	
	13947 Oct 18 10:40	0°♐	
evening set	13947 Nov 11 15:36	18°♐07'45	
	13947 Nov 27 20:47	0°♑	
conjunction	13948 Jan 08 19:11	29°♑40'06	0°26'03
minimum elong	13948 Jan 08 20:31	29°♑42'25	0°27'00
	13948 Jan 09 06:43	0°♒	
max. Earth dist.	13948 Feb 06 21:38	19°♒26'11	2.57293 AU
	13948 Feb 22 19:54	0°♓	
desc. node	13948 Feb 23 02:07	0°♓10'13	
morning rise	13948 Feb 28 14:59	3°♓48'10	
	13948 Apr 09 10:25	0°♈	
	13948 May 28 03:23	0°♉	
	13948 Jul 18 22:53	0°♊	
	13948 Sep 18 04:42	0°♋	
retrograde	13948 Nov 06 12:45	11°♋24'37	
opposition	13948 Dec 12 08:49	3°♋50'26	-4°08'32
greatest brilliancy	13948 Dec 13 16:24	3°♋21'39	-1.9m
min. Earth dist.	13948 Dec 20 13:07	0°♋52'07	0.53172 AU
	13948 Dec 23 01:00	30°℞♊	
direct	13949 Jan 20 12:30	24°♊38'08	
	13949 Feb 18 23:12	0°♋	
asc. node	13949 Mar 09 20:01	7°♋46'58	
	13949 Apr 17 16:18	0°♌	
	13949 May 30 16:42	0°♍	
	13949 Jul 09 10:59	0°♎	
	13949 Aug 17 14:07	0°♏	
	13949 Sep 26 11:16	0°♐	
	13949 Nov 06 21:40	0°♑	
	13949 Dec 20 05:33	0°♒	
evening set	13950 Jan 02 00:30	8°♒36'42	
desc. node	13950 Jan 09 16:00	13°♒42'54	
	13950 Feb 03 09:18	0°♓	
conjunction	13950 Feb 19 12:03	10°♓27'51	-0°22'47
minimum elong	13950 Feb 19 11:16	10°♓26'35	0°22'20
max. Earth dist.	13950 Mar 03 17:28	18°♓20'10	2.65639 AU
	13950 Mar 21 23:38	0°♈	
morning rise	13950 Apr 05 09:02	9°♈07'51	
	13950 May 08 13:02	0°♉	
	13950 Jun 25 18:58	0°♊	
	13950 Aug 13 22:41	0°♋	
	13950 Oct 04 09:55	0°♌	
	13950 Dec 06 03:35	0°♍	
retrograde	13951 Jan 10 18:02	6°♍52'38	
asc. node	13951 Jan 26 05:35	5°♍21'19	
opposition	13951 Feb 10 11:07	1°♍29'05	1°05'40
greatest brilliancy	13951 Feb 10 17:11	1°♍24'38	-2.8m
	13951 Feb 15 12:47	30°℞♌	
min. Earth dist.	13951 Feb 16 23:50	29°♌34'45	0.39428 AU
direct	13951 Mar 15 04:20	25°♌14'09	
	13951 Apr 10 21:16	0°♍	
	13951 Jun 06 23:04	0°♎	
	13951 Jul 21 08:05	0°♏	
	13951 Sep 02 09:50	0°♐	
	13951 Oct 16 05:22	0°♑	
desc. node	13951 Nov 27 12:56	28°♑09'19	
	13951 Nov 30 08:29	0°♒	
	13952 Jan 15 17:42	0°♓	
evening set	13952 Feb 10 22:25	16°♓41'52	
	13952 Mar 02 21:44	0°♈	
max. Earth dist.	13952 Mar 25 01:28	14°♈02'07	2.68476 AU
conjunction	13952 Mar 26 10:32	14°♈54'29	-0°57'25
minimum elong	13952 Mar 26 09:25	14°♈52'42	0°57'35
	13952 Apr 19 05:21	0°♉	
morning rise	13952 May 08 12:16	12°♉17'11	
	13952 Jun 05 03:15	0°♊	
	13952 Jul 21 06:59	0°♋	
	13952 Sep 04 13:28	0°♌	
	13952 Oct 19 00:58	0°♍	
	13952 Dec 02 07:18	0°♎	
asc. node	13952 Dec 13 08:14	7°♎22'27	
	13953 Jan 17 18:19	0°♏	
retrograde	13953 Mar 31 13:02	27°♏38'22	
min. Earth dist.	13953 Apr 26 10:18	23°♏18'50	0.38947 AU
greatest brilliancy	13953 May 01 09:15	21°♏50'44	-2.8m
opposition	13953 May 02 20:30	21°♏24'24	6°50'18
direct	13953 Jun 01 18:58	16°♏04'37	
	13953 Jul 23 12:32	0°♐	
	13953 Sep 17 17:39	0°♑	
desc. node	13953 Oct 14 19:52	16°♑02'00	
	13953 Nov 06 22:56	0°♒	
	13953 Dec 26 00:27	0°♓	
	13954 Feb 12 12:45	0°♈	
evening set	13954 Mar 17 10:55	20°♈38'13	
	13954 Apr 01 05:22	0°♉	
max. Earth dist.	13954 Apr 16 13:23	9°♉48'11	2.65795 AU
conjunction	13954 Apr 30 09:10	18°♉43'31	-1°11'23
minimum elong	13954 Apr 30 09:02	18°♉43'17	1°12'07
	13954 May 17 15:59	0°♊	
morning rise	13954 Jun 14 00:05	18°♊08'37	
	13954 Jul 01 12:53	0°♋	
	13954 Aug 13 17:23	0°♌	
	13954 Sep 24 07:30	0°♍	
asc. node	13954 Oct 31 02:15	27°♍20'32	
	13954 Nov 03 15:04	0°♎	
	13954 Dec 13 08:32	0°♏	
	13955 Jan 22 19:19	0°♐	
	13955 Mar 07 19:25	0°♑	
	13955 May 15 16:06	0°♒	
retrograde	13955 May 25 06:45	0°♒38'51	

	13955 Jun 03	15:14	30°℞♌		
min. Earth dist.	13955 Jun 24	18:11	24°♌16'03	0.52221 AU	
opposition	13955 Jul 02	11:11	21°♌22'30	2°50'56	
greatest brilliancy	13955 Jul 01	16:49	21°♌39'47	-2.0m	
direct	13955 Aug 06	15:00	13°♌43'03		
desc. node	13955 Sep 02	07:37	17°♌40'46		
	13955 Oct 05	14:03	0°♒		
	13955 Dec 03	03:57	0°♓		
	13956 Jan 23	22:36	0°♈		
	13956 Mar 12	20:20	0°♉		
evening set	13956 Apr 21	12:33	25°♉27'40		
	13956 Apr 28	10:07	0°♊		
max. Earth dist.	13956 May 10	21:28	8°♊17'35	2.57768 AU	
conjunction	13956 Jun 07	08:04	26°♊57'18	-0°57'22	
minimum elong	13956 Jun 07	09:33	26°♊59'52	0°58'24	
	13956 Jun 11	17:37	0°♋		
	13956 Jul 23	21:58	0°♌		
morning rise	13956 Jul 28	13:43	3°♌23'57		
	13956 Sep 02	06:36	0°♍		
asc. node	13956 Sep 16	15:48	10°♍57'32		
	13956 Oct 11	07:41	0°♎		
	13956 Nov 18	18:12	0°♏		
	13956 Dec 27	12:43	0°♐		
	13957 Feb 05	20:50	0°♑		
	13957 Mar 21	17:41	0°♒		
	13957 May 14	10:37	0°♓		
retrograde	13957 Jul 02	16:42	12°♓43'54		
desc. node	13957 Jul 20	15:44	10°♓30'33		
min. Earth dist.	13957 Aug 07	17:22	4°♓27'54	0.63363 AU	
opposition	13957 Aug 12	02:02	2°♓44'17	-0°53'42	
greatest brilliancy	13957 Aug 11	22:03	2°♓48'14	-1.5m	
	13957 Aug 19	04:39	30°℞♒		
direct	13957 Sep 19	22:41	23°♒42'32		
	13957 Oct 25	07:38	0°♓		
	13957 Dec 30	21:33	0°♈		
	13958 Feb 21	03:42	0°♉		
	13958 Apr 09	16:36	0°♊		
	13958 May 23	23:25	0°♋		
evening set	13958 Jun 02	18:16	6°♋53'29		
max. Earth dist.	13958 Jun 16	09:16	16°♋38'37	2.45164 AU	
	13958 Jul 04	15:56	0°♌		
conjunction	13958 Jul 28	14:29	17°♌56'18	-0°04'37	
minimum elong	13958 Jul 28	14:54	17°♌57'05	0°05'24	
behind sun begin	13958 Jul 27	14:23	17°♌10'37		
behind sun end	13958 Jul 29	15:24	18°♌43'37		
asc. node	13958 Aug 04	03:40	22°♌55'39		
	13958 Aug 13	08:54	0°♍		
	13958 Sep 20	19:18	0°♎		
morning rise	13958 Oct 04	00:30	10°♎26'17		
	13958 Oct 28	18:26	0°♏		
	13958 Dec 06	03:33	0°♐		
	13959 Jan 14	21:05	0°♑		
	13959 Feb 25	23:19	0°♒		
	13959 Apr 12	22:16	0°♓		
	13959 Jun 06	09:48	0°♈		
desc. node	13959 Jun 07	17:12	0°♈36'29		
retrograde	13959 Aug 06	02:07	16°♈52'38		
opposition	13959 Sep 15	19:58	7°♈04'33	-3°19'53	
min. Earth dist.	13959 Sep 15	06:10	7°♈18'14	0.68372 AU	
greatest brilliancy	13959 Sep 15	16:55	7°♈07'35	-1.3m	
	13959 Oct 06	05:07	30°℞♓		
direct	13959 Oct 26	19:15	27°♓19'11		
	13959 Nov 18	01:50	0°♈		
	13960 Jan 28	17:47	0°♉		
	13960 Mar 19	11:04	0°♊		
	13960 May 03	12:52	0°♋		
	13960 Jun 14	04:53	0°♌		
asc. node	13960 Jun 20	21:40	5°♌00'03		
	13960 Jul 23	14:54	0°♍		
evening set	13960 Jul 30	11:47	5°♍21'03		
	13960 Aug 30	18:20	0°♎		
	13960 Oct 07	13:43	0°♏		
conjunction	13960 Oct 10	06:46	2°♏08'32	1°02'29	
minimum elong	13960 Oct 10	03:59	2°♏03'02	1°02'57	
	13960 Nov 14	22:49	0°♐		
max. Earth dist.	13960 Dec 01	07:22	12°♐29'43	2.38555 AU	
morning rise	13960 Dec 20	11:55	26°♐52'29		
	13960 Dec 24	17:28	0°♑		
	13961 Feb 04	14:10	0°♒		
	13961 Mar 21	04:00	0°♓		
desc. node	13961 Apr 24	10:16	21°♓35'40		
	13961 May 08	10:15	0°♈		
	13961 Jul 03	02:51	0°♉		
retrograde	13961 Sep 08	21:56	19°♉26'35		
opposition	13961 Oct 18	16:53	10°♉14'02	-4°42'16	
greatest brilliancy	13961 Oct 19	04:45	10°♉02'27	-1.3m	
min. Earth dist.	13961 Oct 22	00:12	8°♉56'34	0.66656 AU	
direct	13961 Nov 29	07:19	0°♉11'11		
	13962 Feb 22	16:11	0°♊		
	13962 Apr 12	01:49	0°♋		
asc. node	13962 May 09	00:39	18°♋41'10		
	13962 May 24	15:01	0°♌		
	13962 Jul 03	05:44	0°♍		
	13962 Aug 10	10:26	0°♎		
	13962 Sep 17	08:55	0°♏		
evening set	13962 Oct 16	02:32	22°♏23'16		
	13962 Oct 26	00:41	0°♐		
	13962 Dec 05	04:27	0°♑		
conjunction	13962 Dec 19	07:30	10°♑13'30	0°45'25	
minimum elong	13962 Dec 19	09:48	10°♑17'38	0°46'26	
	13963 Jan 16	08:28	0°♒		
max. Earth dist.	13963 Jan 25	18:57	6°♒30'16	2.52634 AU	
morning rise	13963 Feb 12	07:00	18°♒22'36		
	13963 Mar 01	18:42	0°♓		
desc. node	13963 Mar 11	20:40	6°♓35'55		
	13963 Apr 17	13:30	0°♈		
	13963 Jun 06	03:51	0°♉		
	13963 Jul 31	02:25	0°♊		
retrograde	13963 Oct 19	11:33	25°♊19'03		
opposition	13963 Nov 25	19:30	17°♊08'40	-4°44'58	
greatest brilliancy	13963 Nov 27	00:47	16°♊41'07	-1.7m	
min. Earth dist.	13963 Dec 02	20:03	14°♊30'15	0.58171 AU	
direct	13964 Jan 05	04:55	7°♊26'59		
	13964 Mar 13	03:00	0°♋		
asc. node	13964 Mar 26	08:22	7°♋39'48		
	13964 Apr 29	13:29	0°♌		
	13964 Jun 09	17:01	0°♍		
	13964 Jul 18	15:59	0°♎		
	13964 Aug 26	05:41	0°♏		
	13964 Oct 04	14:15	0°♐		
	13964 Nov 14	12:27	0°♑		
evening set	13964 Dec 14	17:58	21°♑17'49		
	13964 Dec 27	09:26	0°♒		
desc. node	13965 Jan 26	08:11	20°♒10'24		
conjunction	13965 Feb 04	03:04	25°♒59'13	-0°05'06	
minimum elong	13965 Feb 04	02:52	25°♒58'52	0°04'24	
behind sun begin	13965 Feb 03	07:12	25°♒26'29		
behind sun end	13965 Feb 04	22:32	26°♒31'14		
	13965 Feb 10	05:34	0°♓		

max. Earth dist.	13965 Feb 22 07:46	7°♓53'43	2.63010 AU
morning rise	13965 Mar 22 17:09	26°♓09'52	
	13965 Mar 28 17:47	0°♈	
	13965 May 15 14:16	0°♉	
	13965 Jul 03 18:58	0°♊	
	13965 Aug 24 08:25	0°♋	
	13965 Oct 23 02:36	0°♌	
retrograde	13965 Dec 12 18:03	12°♌21'34	
opposition	13966 Jan 14 17:10	6°♌02'14	-1°45'31
greatest brilliancy	13966 Jan 15 09:22	5°♌48'56	-2.5m
min. Earth dist.	13966 Jan 23 06:29	3°♌14'54	0.44475 AU
	13966 Feb 04 06:37	30°℞♋	
asc. node	13966 Feb 11 17:06	28°♋46'55	
direct	13966 Feb 19 12:16	28°♋20'27	
	13966 Mar 07 00:58	0°♌	
	13966 May 09 09:40	0°♍	
	13966 Jun 21 21:23	0°♎	
	13966 Aug 01 22:16	0°♏	
	13966 Sep 12 04:23	0°♐	
	13966 Oct 24 17:54	0°♑	
	13966 Dec 07 23:28	0°♒	
desc. node	13966 Dec 14 03:22	4°♒05'33	
	13967 Jan 22 18:17	0°♓	
evening set	13967 Jan 27 05:45	2°♓53'29	
	13967 Mar 10 14:53	0°♈	
conjunction	13967 Mar 13 20:20	2°♈03'00	-0°46'11
minimum elong	13967 Mar 13 19:09	2°♈01'07	0°46'07
max. Earth dist.	13967 Mar 17 16:40	4°♈29'33	2.68011 AU
morning rise	13967 Apr 26 05:44	29°♈32'54	
	13967 Apr 26 22:52	0°♉	
	13967 Jun 13 06:01	0°♊	
	13967 Jul 30 06:15	0°♋	
	13967 Sep 15 01:00	0°♌	
	13967 Nov 01 03:09	0°♍	
	13967 Dec 20 21:51	0°♎	
asc. node	13967 Dec 30 23:41	5°♎28'59	
retrograde	13968 Mar 02 05:10	25°♎29'57	
min. Earth dist.	13968 Mar 30 04:56	20°♎56'37	0.36463 AU
opposition	13968 Mar 31 23:36	20°♎28'21	6°08'51
greatest brilliancy	13968 Mar 31 12:30	20°♎35'43	-3.0m
direct	13968 Apr 30 00:19	15°♎39'08	
	13968 Jun 20 04:08	0°♏	
	13968 Aug 12 12:31	0°♐	
	13968 Sep 29 10:58	0°♑	
desc. node	13968 Oct 31 06:41	20°♑08'48	
	13968 Nov 15 20:57	0°♒	
	13969 Jan 02 14:12	0°♓	
	13969 Feb 19 10:39	0°♈	
evening set	13969 Mar 03 19:23	7°♈46'28	
	13969 Apr 07 22:03	0°♉	
max. Earth dist.	13969 Apr 07 14:29	29°♈47'57	2.67493 AU
conjunction	13969 Apr 16 14:33	5°♉32'41	-1°08'49
minimum elong	13969 Apr 16 13:55	5°♉31'39	1°09'21
	13969 May 24 11:31	0°♊	
morning rise	13969 May 30 04:30	3°♊43'56	
	13969 Jul 08 18:08	0°♋	
	13969 Aug 21 14:09	0°♌	
	13969 Oct 02 23:50	0°♍	
	13969 Nov 13 06:11	0°♎	
asc. node	13969 Nov 16 21:32	2°♎40'17	
	13969 Dec 24 03:58	0°♏	
	13970 Feb 04 16:15	0°♐	
	13970 Mar 28 08:11	0°♑	
retrograde	13970 May 06 16:48	9°♑47'27	
min. Earth dist.	13970 Jun 03 17:03	4°♑20'31	0.46736 AU
greatest brilliancy	13970 Jun 10 19:43	1°♑50'17	-2.3m
opposition	13970 Jun 12 03:16	1°♑22'19	4°38'33
	13970 Jun 16 02:01	30°℞♐	
direct	13970 Jul 15 07:57	24°♐32'20	
	13970 Aug 15 15:47	0°♑	
desc. node	13970 Sep 18 16:36	13°♑48'15	
	13970 Oct 20 09:41	0°♒	
	13970 Dec 12 08:37	0°♓	
	13971 Jan 31 11:25	0°♈	
	13971 Mar 20 18:47	0°♉	
evening set	13971 Apr 08 02:31	11°♉40'52	
max. Earth dist.	13971 May 01 10:54	26°♉50'45	2.61512 AU
	13971 May 06 05:56	0°♊	
conjunction	13971 May 23 06:48	11°♊19'53	-1°06'47
minimum elong	13971 May 23 07:40	11°♊21'21	1°07'45
	13971 Jun 19 17:27	0°♋	
morning rise	13971 Jul 10 02:06	14°♋12'00	
	13971 Aug 01 05:50	0°♌	
	13971 Sep 11 00:03	0°♍	
asc. node	13971 Oct 04 11:13	17°♍45'25	
	13971 Oct 20 10:33	0°♎	
	13971 Nov 28 05:36	0°♏	
	13972 Jan 06 09:11	0°♐	
	13972 Feb 16 09:35	0°♑	
	13972 Apr 02 09:22	0°♒	
retrograde	13972 Jun 18 08:14	27°♒59'00	
min. Earth dist.	13972 Jul 22 08:54	20°♒22'13	0.59649 AU
opposition	13972 Jul 28 03:39	18°♒06'13	0°22'56
greatest brilliancy	13972 Jul 28 01:44	18°♒08'05	-1.7m
desc. node	13972 Aug 06 03:06	14°♒44'41	
direct	13972 Sep 03 18:08	9°♒30'44	
	13972 Nov 13 02:16	0°♓	
	13973 Jan 09 05:24	0°♈	
	13973 Feb 28 18:17	0°♉	
	13973 Apr 16 19:34	0°♊	
evening set	13973 May 16 00:57	19°♊36'52	
max. Earth dist.	13973 May 30 13:05	29°♊38'14	2.50522 AU
	13973 May 31 01:33	0°♋	
conjunction	13973 Jul 06 07:15	25°♋53'10	-0°30'14
minimum elong	13973 Jul 06 08:56	25°♋56'14	0°31'12
	13973 Jul 11 21:57	0°♌	
	13973 Aug 20 20:06	0°♍	
asc. node	13973 Aug 21 00:25	0°♍08'16	
morning rise	13973 Sep 04 04:51	11°♍04'04	
	13973 Sep 28 11:07	0°♎	
	13973 Nov 05 13:24	0°♏	
	13973 Dec 14 00:18	0°♐	
	13974 Jan 22 20:12	0°♑	
	13974 Mar 06 06:53	0°♒	
	13974 Apr 22 15:07	0°♓	
desc. node	13974 Jun 24 07:31	29°♓23'21	
	13974 Jun 26 09:10	0°♈	
retrograde	13974 Jul 23 22:21	4°♈15'30	
	13974 Aug 18 10:32	30°℞♓	
min. Earth dist.	13974 Aug 31 14:48	25°♓08'56	0.67207 AU
opposition	13974 Sep 02 16:42	24°♓19'23	-2°31'21
greatest brilliancy	13974 Sep 02 10:56	24°♓25'07	-1.3m
direct	13974 Oct 13 00:25	14°♓47'51	
	13974 Dec 10 22:18	0°♈	
	13975 Feb 07 06:54	0°♉	
	13975 Mar 28 08:02	0°♊	
	13975 May 11 23:51	0°♋	
	13975 Jun 22 15:11	0°♌	
evening set	13975 Jul 05 14:00	9°♌41'23	
asc. node	13975 Jul 08 15:58	12°♌01'02	

	13975 Aug 01 03:16	0°♍		
max. Earth dist.	13975 Aug 05 16:28	3°♍31'53	2.37153 AU	
	13975 Sep 08 08:45	0°♎		
conjunction	13975 Sep 09 13:05	0°♎56'06	0°41'53	
minimum elong	13975 Sep 09 09:17	0°♎48'36	0°41'45	
	13975 Oct 16 04:43	0°♏		
morning rise	13975 Nov 23 05:15	29°♏45'52		
	13975 Nov 23 12:34	0°♐		
	13976 Jan 02 05:00	0°♑		
	13976 Feb 13 01:04	0°♒		
	13976 Mar 28 21:21	0°♓		
desc. node	13976 May 11 03:01	26°♓24'03		
	13976 May 17 10:40	0°♈		
	13976 Jul 20 04:17	0°♉		
retrograde	13976 Aug 26 01:08	6°♉53'17		
	13976 Sep 28 15:13	30°℞♈		
opposition	13976 Oct 05 08:41	27°♈24'14	-4°18'02	
greatest brilliancy	13976 Oct 05 13:42	27°♈19'18	-1.3m	
min. Earth dist.	13976 Oct 07 03:17	26°♈42'19	0.68142 AU	
direct	13976 Nov 15 21:24	17°♈25'03		
	13977 Jan 06 13:22	0°♉		
	13977 Mar 04 23:36	0°♊		
	13977 Apr 20 13:03	0°♋		
asc. node	13977 May 25 13:58	24°♋49'34		
	13977 Jun 01 14:43	0°♌		
	13977 Jul 11 02:15	0°♍		
	13977 Aug 18 05:35	0°♎		
evening set	13977 Sep 15 18:21	22°♎38'06		
	13977 Sep 25 02:01	0°♏		
	13977 Nov 02 14:06	0°♐		
conjunction	13977 Nov 25 02:39	17°♐04'39	1°01'00	
minimum elong	13977 Nov 25 04:51	17°♐08'45	1°02'00	
	13977 Dec 12 12:55	0°♑		
max. Earth dist.	13978 Jan 10 15:47	20°♑58'55	2.47276 AU	
	13978 Jan 23 12:20	0°♒		
morning rise	13978 Jan 24 18:49	0°♒52'58		
	13978 Mar 08 21:13	0°♓		
desc. node	13978 Mar 28 16:15	12°♓50'13		
	13978 Apr 25 00:00	0°♈		
	13978 Jun 14 23:40	0°♉		
	13978 Aug 15 12:06	0°♊		
retrograde	13978 Oct 02 14:00	10°♊47'55		
opposition	13978 Nov 10 01:57	2°♊09'00	-4°56'45	
greatest brilliancy	13978 Nov 11 01:14	1°♊46'38	-1.5m	
	13978 Nov 15 16:22	30°℞♉		
min. Earth dist.	13978 Nov 15 17:06	29°♉59'19	0.62263 AU	
direct	13978 Dec 21 05:06	22°♉12'09		
	13979 Jan 27 23:32	0°♊		
	13979 Mar 26 22:48	0°♋		
asc. node	13979 Apr 12 20:07	10°♋53'40		
	13979 May 10 09:45	0°♌		
	13979 Jun 19 16:05	0°♍		
	13979 Jul 28 04:43	0°♎		
	13979 Sep 04 10:21	0°♏		
	13979 Oct 13 10:30	0°♐		
	13979 Nov 22 23:43	0°♑		
evening set	13979 Nov 24 21:22	1°♑22'23		
	13980 Jan 04 12:27	0°♒		
conjunction	13980 Jan 19 05:54	10°♒03'30	0°14'27	
minimum elong	13980 Jan 19 06:37	10°♒04'43	0°15'20	
behind sun begin	13980 Jan 19 00:57	9°♒55'08		
behind sun end	13980 Jan 19 12:17	10°♒14'18		
max. Earth dist.	13980 Feb 13 04:44	26°♒45'18	2.59553 AU	
desc. node	13980 Feb 13 03:26	26°♒43'10		
	13980 Feb 18 02:50	0°♓		
morning rise	13980 Mar 08 06:56	12°♓30'30		
	13980 Apr 04 15:03	0°♈		
	13980 May 22 22:20	0°♉		
	13980 Jul 12 12:44	0°♊		
	13980 Sep 06 12:50	0°♋		
retrograde	13980 Nov 18 12:32	22°♋02'50		
opposition	13980 Dec 23 10:22	14°♋52'14	-3°30'54	
greatest brilliancy	13980 Dec 24 15:40	14°♋26'14	-2.1m	
min. Earth dist.	13981 Jan 01 00:17	11°♋50'27	0.50156 AU	
direct	13981 Jan 30 14:21	6°♋04'51		
asc. node	13981 Feb 28 06:11	11°♋17'07		
	13981 Apr 08 06:24	0°♌		
	13981 May 23 15:39	0°♍		
	13981 Jul 03 05:26	0°♎		
	13981 Aug 11 19:47	0°♏		
	13981 Sep 21 01:17	0°♐		
	13981 Nov 01 18:46	0°♑		
	13981 Dec 15 08:32	0°♒		
desc. node	13981 Dec 30 18:10	10°♒18'51		
evening set	13982 Jan 11 12:58	18°♒07'05		
	13982 Jan 29 16:18	0°♓		
conjunction	13982 Feb 27 19:24	18°♓48'35	-0°32'10	
minimum elong	13982 Feb 27 18:23	18°♓46'58	0°31'50	
max. Earth dist.	13982 Mar 08 22:41	24°♓39'18	2.66719 AU	
	13982 Mar 17 07:52	0°♈		
morning rise	13982 Apr 13 00:08	16°♈54'43		
	13982 May 03 18:26	0°♉		
	13982 Jun 20 14:27	0°♊		
	13982 Aug 07 19:29	0°♋		
	13982 Sep 26 00:34	0°♌		
	13982 Nov 17 23:10	0°♍		
asc. node	13983 Jan 16 13:08	22°♍34'50		
retrograde	13983 Jan 28 21:21	23°♍32'36		
opposition	13983 Feb 27 18:28	18°♍32'15	3°07'05	
greatest brilliancy	13983 Feb 28 03:43	18°♍25'51	-3.0m	
min. Earth dist.	13983 Mar 03 19:30	17°♍25'18	0.37482 AU	
direct	13983 Mar 30 17:56	13°♍03'01		
	13983 May 24 05:17	0°♎		
	13983 Jul 12 15:29	0°♏		
	13983 Aug 26 13:12	0°♐		
	13983 Oct 10 08:39	0°♑		
desc. node	13983 Nov 17 18:24	25°♑13'45		
	13983 Nov 25 02:45	0°♒		
	13984 Jan 10 21:07	0°♓		
evening set	13984 Feb 18 23:26	24°♓46'24		
	13984 Feb 27 05:52	0°♈		
max. Earth dist.	13984 Mar 29 23:48	20°♈05'12	2.68363 AU	
conjunction	13984 Apr 03 02:19	22°♈41'23	-1°02'37	
minimum elong	13984 Apr 03 01:19	22°♈39'48	1°02'55	
	13984 Apr 14 14:27	0°♉		
morning rise	13984 May 16 04:56	20°♉12'43		
	13984 May 31 08:59	0°♊		
	13984 Jul 16 04:27	0°♋		
	13984 Aug 29 20:52	0°♌		
	13984 Oct 12 10:29	0°♍		
	13984 Nov 24 06:11	0°♎		
asc. node	13984 Dec 03 15:20	6°♎34'44		
	13985 Jan 06 14:39	0°♏		
	13985 Feb 24 18:09	0°♐		
retrograde	13985 Apr 14 20:12	14°♐36'41		
min. Earth dist.	13985 May 10 23:18	10°♐00'42	0.41421 AU	
greatest brilliancy	13985 May 17 04:22	8°♐02'09	-2.6m	
opposition	13985 May 18 19:31	7°♐30'49	6°17'48	
direct	13985 Jun 18 18:28	1°♐39'25		

	13985 Sep 08 12:59	0°♉	
desc. node	13985 Oct 05 02:34	14°♉39'58	
	13985 Oct 31 13:25	0°♒	
	13985 Dec 20 16:32	0°♓	
	13986 Feb 07 16:30	0°♈	
evening set	13986 Mar 25 05:43	28°♈30'45	
	13986 Mar 27 13:57	0°♉	
max. Earth dist.	13986 Apr 21 20:46	16°♉11'58	2.64512 AU
conjunction	13986 May 08 10:39	26°♉59'18	-1°11'02
minimum elong	13986 May 08 10:51	26°♉59'38	1°11'52
	13986 May 13 00:49	0°♊	
morning rise	13986 Jun 22 22:32	27°♊22'46	
	13986 Jun 26 18:36	0°♋	
	13986 Aug 08 17:28	0°♌	
	13986 Sep 19 00:11	0°♍	
asc. node	13986 Oct 21 08:49	24°♍14'10	
	13986 Oct 28 23:15	0°♎	
	13986 Dec 07 06:47	0°♏	
	13987 Jan 16 01:52	0°♐	
	13987 Feb 27 10:58	0°♑	
	13987 Apr 20 06:23	0°♒	
retrograde	13987 Jun 03 20:24	11°♒33'45	
min. Earth dist.	13987 Jul 05 15:46	4°♒42'25	0.55059 AU
opposition	13987 Jul 12 17:50	1°♒59'19	1°52'53
greatest brilliancy	13987 Jul 12 06:26	2°♒10'16	-1.9m
	13987 Jul 18 01:13	30°℞♑	
direct	13987 Aug 17 19:57	23°♑57'20	
desc. node	13987 Aug 23 12:44	24°♑09'24	
	13987 Sep 20 19:42	0°♒	
	13987 Nov 26 08:20	0°♓	
	13988 Jan 18 13:53	0°♈	
	13988 Mar 08 00:07	0°♉	
	13988 Apr 23 17:57	0°♊	
evening set	13988 Apr 30 02:08	4°♊11'49	
max. Earth dist.	13988 May 17 12:57	15°♊54'46	2.55374 AU
	13988 Jun 07 01:13	0°♋	
conjunction	13988 Jun 17 04:09	7°♋04'50	-0°49'17
minimum elong	13988 Jun 17 05:53	7°♋07'53	0°50'20
	13988 Jul 19 03:10	0°♌	
morning rise	13988 Aug 09 23:06	16°♌08'08	
	13988 Aug 28 08:23	0°♍	
asc. node	13988 Sep 06 20:23	7°♍15'11	
	13988 Oct 06 05:56	0°♎	
	13988 Nov 13 13:19	0°♏	
	13988 Dec 22 04:11	0°♐	
	13989 Jan 31 05:39	0°♑	
	13989 Mar 15 08:34	0°♒	
	13989 May 04 11:57	0°♓	
retrograde	13989 Jul 10 13:24	21°♓06'31	
desc. node	13989 Jul 10 20:13	21°♓06'29	
min. Earth dist.	13989 Aug 16 13:31	12°♓31'37	0.64993 AU
opposition	13989 Aug 20 03:17	11°♓06'30	-1°33'01
greatest brilliancy	13989 Aug 19 21:33	11°♓12'11	-1.4m
direct	13989 Sep 28 13:51	1°♓52'56	
	13989 Dec 23 21:23	0°♈	
	13990 Feb 15 18:42	0°♉	
	13990 Apr 04 19:20	0°♊	
	13990 May 19 05:30	0°♋	
evening set	13990 Jun 13 18:11	18°♋10'09	
max. Earth dist.	13990 Jun 28 23:57	29°♋19'20	2.42111 AU
	13990 Jun 29 21:57	0°♌	
asc. node	13990 Jul 25 09:30	19°♌08'24	
	13990 Aug 08 13:21	0°♍	
conjunction	13990 Aug 11 20:36	2°♍33'10	0°12'18
minimum elong	13990 Aug 11 19:34	2°♍31'10	0°11'42
behind sun begin	13990 Aug 11 00:17	1°♍53'53	
behind sun end	13990 Aug 12 14:50	3°♍08'28	
	13990 Sep 15 21:55	0°♎	
morning rise	13990 Oct 22 05:02	28°♎43'36	
	13990 Oct 23 19:42	0°♏	
	13990 Dec 01 03:51	0°♐	
	13991 Jan 09 19:55	0°♑	
	13991 Feb 20 18:10	0°♒	
	13991 Apr 07 03:09	0°♓	
desc. node	13991 May 28 20:41	29°♓54'56	
	13991 May 29 00:37	0°♈	
retrograde	13991 Aug 13 15:47	24°♈29'17	
opposition	13991 Sep 23 06:52	14°♈47'07	-3°44'10
greatest brilliancy	13991 Sep 23 06:11	14°♈47'48	-1.2m
min. Earth dist.	13991 Sep 23 12:43	14°♈41'20	0.68573 AU
direct	13991 Nov 03 12:13	4°♈55'56	
	13992 Jan 21 12:31	0°♉	
	13992 Mar 13 22:47	0°♊	
	13992 Apr 28 11:57	0°♋	
	13992 Jun 09 07:36	0°♌	
asc. node	13992 Jun 11 05:41	1°♌25'34	
	13992 Jul 18 18:20	0°♍	
evening set	13992 Aug 15 18:09	21°♍57'48	
	13992 Aug 25 21:35	0°♎	
	13992 Oct 02 16:54	0°♏	
conjunction	13992 Oct 27 18:01	19°♏40'01	1°06'32
minimum elong	13992 Oct 27 17:29	19°♏38'57	1°07'16
	13992 Nov 10 02:16	0°♐	
	13992 Dec 19 21:14	0°♑	
max. Earth dist.	13992 Dec 20 04:14	0°♑12'53	2.41574 AU
morning rise	13993 Jan 03 07:53	10°♑32'28	
	13993 Jan 30 17:38	0°♒	
	13993 Mar 16 03:43	0°♓	
desc. node	13993 Apr 14 11:13	18°♓43'45	
	13993 May 02 20:19	0°♈	
	13993 Jun 25 03:54	0°♉	
retrograde	13993 Sep 17 05:33	27°♉20'12	
opposition	13993 Oct 26 14:40	18°♉18'29	-4°51'25
greatest brilliancy	13993 Oct 27 06:39	18°♉02'57	-1.4m
min. Earth dist.	13993 Oct 30 17:49	16°♉42'04	0.65364 AU
direct	13993 Dec 07 02:43	8°♉16'02	
	13994 Feb 14 16:31	0°♊	
	13994 Apr 06 03:24	0°♋	
asc. node	13994 Apr 29 08:26	15°♋45'56	
	13994 May 19 05:52	0°♌	
	13994 Jun 28 01:34	0°♍	
	13994 Aug 05 08:43	0°♎	
	13994 Sep 12 09:16	0°♏	
	13994 Oct 21 03:13	0°♐	
evening set	13994 Oct 31 12:56	7°♐53'04	
	13994 Nov 30 09:08	0°♑	
conjunction	13994 Dec 31 06:07	22°♑04'32	0°34'29
minimum elong	13994 Dec 31 07:55	22°♑07'42	0°35'29
	13995 Jan 11 14:59	0°♒	
max. Earth dist.	13995 Feb 02 01:21	14°♒39'31	2.55292 AU
morning rise	13995 Feb 21 18:22	27°♒49'56	
	13995 Feb 25 01:11	0°♓	
desc. node	13995 Mar 01 21:55	3°♓11'49	
	13995 Apr 12 15:56	0°♈	
	13995 May 31 15:47	0°♉	
	13995 Jul 23 11:56	0°♊	
	13995 Sep 29 20:28	0°♋	
retrograde	13995 Oct 29 23:13	4°♋43'30	
	13995 Nov 26 13:54	30°℞♊	

opposition	13995 Dec 05 12:09	26°♊52'00	-4°27'24
greatest brilliancy	13995 Dec 06 19:14	26°♊23'10	-1.8m
min. Earth dist.	13995 Dec 13 04:42	24°♊01'20	0.55493 AU
direct	13996 Jan 14 06:02	17°♊24'31	
	13996 Mar 01 22:45	0°♋	
asc. node	13996 Mar 16 17:26	7°♋28'23	
	13996 Apr 22 11:27	0°♌	
	13996 Jun 03 13:53	0°♍	
	13996 Jul 12 22:39	0°♎	
	13996 Aug 20 18:54	0°♏	
	13996 Sep 29 09:15	0°♐	
	13996 Nov 09 12:42	0°♑	
	13996 Dec 22 14:23	0°♒	
evening set	13996 Dec 25 08:58	1°♒53'14	
desc. node	13997 Jan 16 11:00	16°♒43'55	
	13997 Feb 05 13:22	0°♓	
conjunction	13997 Feb 13 00:29	4°♓52'22	-0°15'38
minimum elong	13997 Feb 12 23:55	4°♓51'27	0°15'05
behind sun begin	13997 Feb 12 17:39	4°♓41'15	
behind sun end	13997 Feb 13 06:10	5°♓01'38	
max. Earth dist.	13997 Feb 27 18:40	14°♓26'20	2.64571 AU
	13997 Mar 24 01:45	0°♈	
morning rise	13997 Mar 30 13:36	4°♈07'36	
	13997 May 10 17:23	0°♉	
	13997 Jun 28 07:51	0°♊	
	13997 Aug 17 08:41	0°♋	
	13997 Oct 10 07:11	0°♌	
retrograde	13997 Dec 28 10:03	26°♌01'19	
opposition	13998 Jan 29 02:29	20°♌13'30	-0°16'34
greatest brilliancy	13998 Jan 29 05:09	20°♌11'27	-2.7m
asc. node	13998 Feb 02 03:37	18°♌58'16	
min. Earth dist.	13998 Feb 05 21:28	17°♌49'46	0.41514 AU
direct	13998 Mar 04 06:52	13°♌18'13	
	13998 Apr 26 16:21	0°♍	
	13998 Jun 13 12:02	0°♎	
	13998 Jul 25 23:53	0°♏	
	13998 Sep 06 02:16	0°♐	
	13998 Oct 19 05:45	0°♑	
	13998 Dec 02 21:38	0°♒	
desc. node	13998 Dec 04 06:34	0°♒54'22	
	13999 Jan 17 23:14	0°♓	
evening set	13999 Feb 04 17:38	11°♓23'18	
	13999 Mar 05 23:22	0°♈	
conjunction	13999 Mar 21 15:45	9°♈56'44	-0°53'09
minimum elong	13999 Mar 21 14:35	9°♈54'52	0°53'13
max. Earth dist.	13999 Mar 22 15:10	10°♈33'50	2.68381 AU
	13999 Apr 22 06:57	0°♉	
morning rise	13999 May 03 19:04	7°♉18'28	
	13999 Jun 08 08:48	0°♊	
	13999 Jul 24 21:23	0°♋	
	13999 Sep 08 18:42	0°♌	
	13999 Oct 24 05:36	0°♍	
	13999 Dec 09 05:23	0°♎	
asc. node	13999 Dec 21 07:46	7°♎36'57	
	14000 Jan 29 15:13	0°♏	
retrograde	14000 Mar 19 07:37	14°♏19'39	
min. Earth dist.	14000 Apr 14 15:59	10°♏02'34	0.37449 AU
greatest brilliancy	14000 Apr 18 05:04	9°♏03'07	-2.9m
opposition	14000 Apr 19 07:34	8°♏44'29	6°51'53
direct	14000 May 18 15:53	3°♏44'50	
	14000 Aug 01 22:22	0°♐	
	14000 Sep 22 07:10	0°♑	
desc. node	14000 Oct 21 11:46	17°♑53'48	
	14000 Nov 10 01:50	0°♒	
	14000 Dec 28 11:22	0°♓	
	14001 Feb 14 16:15	0°♈	
evening set	14001 Mar 11 14:45	15°♈38'47	
	14001 Apr 03 06:53	0°♉	
max. Earth dist.	14001 Apr 12 16:50	6°♉00'26	2.66666 AU
conjunction	14001 Apr 24 10:06	13°♉31'35	-1°10'50
minimum elong	14001 Apr 24 09:44	13°♉31'00	1°11'29
	14001 May 19 19:17	0°♊	
morning rise	14001 Jun 07 11:42	12°♊18'33	
	14001 Jul 03 21:14	0°♋	
	14001 Aug 16 09:06	0°♌	
	14001 Sep 27 08:06	0°♍	
asc. node	14001 Nov 07 03:04	0°♎03'37	
	14001 Nov 07 01:07	0°♎	
	14001 Dec 17 05:14	0°♏	
	14002 Jan 27 07:30	0°♐	
	14002 Mar 14 04:06	0°♑	
retrograde	14002 May 17 13:30	22°♑32'14	
min. Earth dist.	14002 Jun 15 22:44	16°♑33'23	0.49800 AU
greatest brilliancy	14002 Jun 23 00:51	13°♑57'25	-2.2m
opposition	14002 Jun 24 00:56	13°♑35'11	3°36'25
direct	14002 Jul 28 08:18	6°♑16'23	
desc. node	14002 Sep 08 23:16	15°♑32'20	
	14002 Oct 11 15:36	0°♒	
	14002 Dec 06 08:06	0°♓	
	14003 Jan 26 08:33	0°♈	
	14003 Mar 16 00:36	0°♉	
evening set	14003 Apr 16 05:43	19°♉57'21	
	14003 May 01 14:12	0°♊	
max. Earth dist.	14003 May 07 09:52	3°♊50'52	2.59547 AU
conjunction	14003 Jun 01 05:20	20°♊31'27	-1°02'03
minimum elong	14003 Jun 01 06:34	20°♊33'34	1°03'04
	14003 Jun 15 00:41	0°♋	
morning rise	14003 Jul 20 17:56	25°♋11'50	
	14003 Jul 27 09:38	0°♌	
	14003 Sep 05 23:20	0°♍	
asc. node	14003 Sep 24 17:08	14°♍14'00	
	14003 Oct 15 04:49	0°♎	
	14003 Nov 22 18:53	0°♏	
	14003 Dec 31 16:18	0°♐	
	14004 Feb 10 04:41	0°♑	
	14004 Mar 25 15:49	0°♒	
	14004 May 22 14:43	0°♓	
retrograde	14004 Jun 26 15:21	7°♓03'56	
desc. node	14004 Jul 27 08:23	0°♓47'02	
	14004 Jul 29 10:15	30°℞♒	
min. Earth dist.	14004 Jul 31 19:08	29°♒04'54	0.61817 AU
opposition	14004 Aug 05 19:35	27°♒06'01	-0°23'21
greatest brilliancy	14004 Aug 05 17:39	27°♒07'55	-1.6m
direct	14004 Sep 13 03:33	18°♒15'21	
	14004 Nov 02 14:06	0°♓	
	14005 Jan 03 02:40	0°♈	
	14005 Feb 23 15:09	0°♉	
	14005 Apr 12 00:12	0°♊	
evening set	14005 May 25 20:11	29°♊39'13	
	14005 May 26 08:06	0°♋	
max. Earth dist.	14005 Jun 08 13:53	9°♋19'27	2.47613 AU
	14005 Jul 07 03:36	0°♌	
conjunction	14005 Jul 18 10:33	8°♌22'13	-0°16'19
minimum elong	14005 Jul 18 11:42	8°♌24'20	0°17'11
asc. node	14005 Aug 11 05:12	26°♌20'20	
	14005 Aug 15 23:53	0°♍	
morning rise	14005 Sep 20 09:42	27°♍32'27	
	14005 Sep 23 12:46	0°♎	
greatest brilliancy	14005 Oct 17 23:13	19°♎16'33	1.2m

	14005 Oct 31 13:16	0°♏	
	14005 Dec 08 22:32	0°♐	
	14006 Jan 17 15:34	0°♑	
	14006 Feb 28 19:02	0°♒	
	14006 Apr 16 02:44	0°♓	
	14006 Jun 12 00:34	0°♈	
desc. node	14006 Jun 14 11:17	1°♈00'59	
retrograde	14006 Jul 31 11:24	12°♈01'16	
min. Earth dist.	14006 Sep 08 23:24	2°♈39'07	0.67974 AU
opposition	14006 Sep 10 05:48	2°♈08'58	-3°01'08
greatest brilliancy	14006 Sep 10 01:10	2°♈13'33	-1.3m
	14006 Sep 15 17:19	30°℞♓	
direct	14006 Oct 20 22:45	22°♓29'24	
	14006 Nov 29 01:37	0°♈	
	14007 Feb 01 02:40	0°♉	
	14007 Mar 23 03:08	0°♊	
	14007 May 07 02:01	0°♋	
	14007 Jun 17 18:56	0°♌	
asc. node	14007 Jun 28 21:25	8°♌17'43	
evening set	14007 Jul 19 15:46	24°♌06'30	
	14007 Jul 27 06:46	0°♍	
	14007 Sep 03 11:26	0°♎	
conjunction	14007 Sep 27 06:20	18°♎52'52	0°55'29
minimum elong	14007 Sep 27 02:27	18°♎45'09	0°55'41
	14007 Oct 11 07:00	0°♏	
max. Earth dist.	14007 Oct 31 01:11	15°♏33'25	2.36574 AU
	14007 Nov 18 15:01	0°♐	
morning rise	14007 Dec 09 17:10	16°♐06'25	
	14007 Dec 28 07:30	0°♑	
	14008 Feb 08 02:20	0°♒	
	14008 Mar 23 16:33	0°♓	
desc. node	14008 May 01 06:06	24°♓03'40	
	14008 May 11 07:41	0°♈	
	14008 Jul 08 03:42	0°♉	
retrograde	14008 Sep 02 21:34	14°♉31'00	
opposition	14008 Oct 12 22:18	5°♉10'30	-4°33'27
greatest brilliancy	14008 Oct 13 06:59	5°♉01'59	-1.3m
min. Earth dist.	14008 Oct 15 12:42	4°♉09'17	0.67454 AU
	14008 Oct 26 18:35	30°℞♈	
direct	14008 Nov 23 12:21	25°♈08'45	
	14008 Dec 23 15:17	0°♉	
	14009 Feb 26 12:10	0°♊	
	14009 Apr 15 02:51	0°♋	
asc. node	14009 May 15 22:55	21°♋34'33	
	14009 May 27 12:01	0°♌	
	14009 Jul 06 02:05	0°♍	
greatest brilliancy	14009 Aug 04 08:46	22°♍57'30	1.2m
	14009 Aug 13 06:13	0°♎	
	14009 Sep 20 03:23	0°♏	
evening set	14009 Oct 03 04:31	10°♏14'40	
	14009 Oct 28 16:43	0°♐	
	14009 Dec 07 17:00	0°♑	
conjunction	14009 Dec 09 06:54	1°♑09'22	0°52'50
minimum elong	14009 Dec 09 09:24	1°♑13'56	0°53'53
	14010 Jan 18 17:37	0°♒	
max. Earth dist.	14010 Jan 19 21:29	0°♒48'23	2.50325 AU
morning rise	14010 Feb 04 14:19	11°♒36'12	
	14010 Mar 04 01:37	0°♓	
desc. node	14010 Mar 18 17:04	9°♓33'36	
	14010 Apr 19 22:01	0°♈	
	14010 Jun 08 23:00	0°♉	
	14010 Aug 04 19:59	0°♊	
retrograde	14010 Oct 11 23:05	19°♊23'31	
opposition	14010 Nov 18 20:02	10°♊59'27	-4°52'06
greatest brilliancy	14010 Nov 19 22:49	10°♊33'58	-1.6m
min. Earth dist.	14010 Nov 25 05:32	8°♊33'35	0.60128 AU
direct	14010 Dec 29 14:12	1°♊09'35	
	14011 Mar 19 09:09	0°♋	
asc. node	14011 Apr 03 06:21	9°♋06'40	
	14011 May 04 08:26	0°♌	
	14011 Jun 14 02:36	0°♍	
	14011 Jul 22 20:40	0°♎	
	14011 Aug 30 06:00	0°♏	
	14011 Oct 08 09:43	0°♐	
	14011 Nov 18 02:21	0°♑	
evening set	14011 Dec 07 01:46	13°♑31'21	
	14011 Dec 30 18:10	0°♒	
conjunction	14012 Jan 29 01:44	19°♒49'52	0°03'00
minimum elong	14012 Jan 29 01:53	19°♒50'07	0°03'45
behind sun begin	14012 Jan 28 05:32	19°♒16'12	
behind sun end	14012 Jan 29 22:14	20°♒24'00	
desc. node	14012 Feb 03 03:38	23°♒12'35	
	14012 Feb 13 10:17	0°♓	
max. Earth dist.	14012 Feb 19 04:32	3°♓46'46	2.61565 AU
morning rise	14012 Mar 16 15:14	20°♓54'24	
	14012 Mar 30 21:21	0°♈	
	14012 May 17 21:10	0°♉	
	14012 Jul 06 13:59	0°♊	
	14012 Aug 28 14:52	0°♋	
	14012 Nov 06 04:59	0°♌	
retrograde	14012 Dec 01 14:39	3°♌33'54	
	14012 Dec 25 14:10	30°℞♋	
opposition	14013 Jan 04 12:11	26°♋50'25	-2°37'39
greatest brilliancy	14013 Jan 05 11:40	26°♋30'22	-2.3m
min. Earth dist.	14013 Jan 13 06:21	23°♋52'16	0.47011 AU
direct	14013 Feb 10 11:21	18°♋36'03	
asc. node	14013 Feb 18 15:19	19°♋03'54	
	14013 Mar 25 23:52	0°♌	
	14013 May 15 13:57	0°♍	
	14013 Jun 26 11:47	0°♎	
	14013 Aug 05 18:14	0°♏	
	14013 Sep 15 11:16	0°♐	
	14013 Oct 27 13:48	0°♑	
	14013 Dec 10 10:40	0°♒	
desc. node	14013 Dec 20 21:35	6°♒58'47	
evening set	14014 Jan 20 14:58	27°♒10'40	
	14014 Jan 24 23:11	0°♓	
conjunction	14014 Mar 07 21:32	26°♓56'32	-0°40'43
minimum elong	14014 Mar 07 20:24	26°♓54'44	0°40'32
	14014 Mar 12 16:46	0°♈	
max. Earth dist.	14014 Mar 14 01:52	0°♈52'40	2.67538 AU
morning rise	14014 Apr 20 13:54	24°♈38'41	
	14014 Apr 29 01:21	0°♉	
	14014 Jun 15 13:44	0°♊	
	14014 Aug 02 01:43	0°♋	
	14014 Sep 18 18:26	0°♌	
	14014 Nov 06 17:30	0°♍	
	14015 Jan 01 18:23	0°♎	
asc. node	14015 Jan 06 22:19	2°♎11'27	
retrograde	14015 Feb 16 17:05	11°♎34'42	
opposition	14015 Mar 18 04:34	6°♎43'04	5°02'18
greatest brilliancy	14015 Mar 18 05:47	6°♎42'15	-3.0m
min. Earth dist.	14015 Mar 19 02:36	6°♎28'30	0.36466 AU
direct	14015 Apr 16 16:48	1°♎45'27	
	14015 Jul 01 16:08	0°♏	
	14015 Aug 18 20:59	0°♐	
	14015 Oct 04 03:23	0°♑	
desc. node	14015 Nov 07 23:41	22°♑29'35	
	14015 Nov 19 16:54	0°♒	
	14016 Jan 05 22:33	0°♓	

	14016 Feb 22 13:19	0°♈	
evening set	14016 Feb 26 21:56	2°♈44'49	
max. Earth dist.	14016 Apr 03 23:33	26°♈11'19	2.67983 AU
	14016 Apr 09 23:25	0°♉	
conjunction	14016 Apr 10 19:14	0°♉31'33	-1°06'42
minimum elong	14016 Apr 10 18:26	0°♉30'16	1°07'08
morning rise	14016 May 24 02:29	28°♉21'03	
	14016 May 26 15:24	0°♊	
	14016 Jul 11 04:14	0°♋	
	14016 Aug 24 09:25	0°♌	
	14016 Oct 06 07:12	0°♍	
	14016 Nov 17 04:03	0°♎	
asc. node	14016 Nov 23 22:10	4°♎52'30	
	14016 Dec 28 21:54	0°♏	
	14017 Feb 11 03:16	0°♐	
retrograde	14017 Apr 27 16:22	29°♐52'30	
min. Earth dist.	14017 May 24 16:28	24°♐49'59	0.44273 AU
greatest brilliancy	14017 May 31 13:34	22°♐30'32	-2.5m
opposition	14017 Jun 02 01:43	21°♐59'43	5°25'03
direct	14017 Jul 04 07:20	15°♐35'17	
	14017 Aug 27 12:54	0°♑	
desc. node	14017 Sep 25 08:28	14°♑03'11	
	14017 Oct 24 14:01	0°♒	
	14017 Dec 15 03:35	0°♓	
	14018 Feb 02 18:09	0°♈	
	14018 Mar 22 21:32	0°♉	
evening set	14018 Apr 02 02:40	6°♉29'41	
max. Earth dist.	14018 Apr 27 08:17	22°♉46'05	2.62946 AU
	14018 May 08 09:15	0°♊	
conjunction	14018 May 16 18:57	5°♊33'05	-1°09'12
minimum elong	14018 May 16 19:32	5°♊34'03	1°10'06
	14018 Jun 22 00:29	0°♋	
morning rise	14018 Jul 02 10:38	7°♋11'52	
	14018 Aug 03 18:14	0°♌	
	14018 Sep 13 18:41	0°♍	
asc. node	14018 Oct 11 12:37	20°♍53'52	
	14018 Oct 23 10:56	0°♎	
	14018 Dec 01 11:05	0°♏	
	14019 Jan 09 20:02	0°♐	
	14019 Feb 20 05:57	0°♑	
	14019 Apr 08 17:52	0°♒	
retrograde	14019 Jun 12 19:38	21°♒38'06	
min. Earth dist.	14019 Jul 15 21:20	14°♒20'53	0.57689 AU
opposition	14019 Jul 22 06:38	11°♒51'44	0°59'11
greatest brilliancy	14019 Jul 22 01:10	11°♒57'03	-1.8m
desc. node	14019 Aug 13 19:27	4°♒52'05	
direct	14019 Aug 28 05:31	3°♒30'26	
	14019 Nov 18 17:44	0°♓	
	14020 Jan 13 00:08	0°♈	
	14020 Mar 03 01:52	0°♉	
	14020 Apr 19 00:57	0°♊	
evening set	14020 May 08 23:08	13°♊16'29	
max. Earth dist.	14020 May 24 17:08	24°♊00'35	2.52764 AU
	14020 Jun 02 08:51	0°♋	
conjunction	14020 Jun 27 16:01	17°♋53'19	-0°39'10
minimum elong	14020 Jun 27 17:49	17°♋56'34	0°40'11
	14020 Jul 14 08:42	0°♌	
morning rise	14020 Aug 23 14:55	0°♍07'54	
	14020 Aug 23 10:47	0°♍	
asc. node	14020 Aug 28 01:39	3°♍31'56	
	14020 Oct 01 05:00	0°♎	
	14020 Nov 08 09:18	0°♏	
	14020 Dec 16 21:15	0°♐	
	14021 Jan 25 17:57	0°♑	
	14021 Mar 09 08:23	0°♒	
	14021 Apr 26 11:12	0°♓	
desc. node	14021 Jul 01 01:19	27°♓26'53	
retrograde	14021 Jul 18 05:55	29°♓13'02	
min. Earth dist.	14021 Aug 25 04:39	20°♓20'21	0.66351 AU
opposition	14021 Aug 27 23:02	19°♓14'25	-2°08'34
greatest brilliancy	14021 Aug 27 16:46	19°♓20'39	-1.4m
direct	14021 Oct 06 22:17	9°♓50'30	
	14021 Dec 15 21:37	0°♈	
	14022 Feb 10 03:48	0°♉	
	14022 Mar 30 19:28	0°♊	
	14022 May 14 10:27	0°♋	
evening set	14022 Jun 25 14:41	0°♌20'40	
	14022 Jun 25 03:31	0°♌	
asc. node	14022 Jul 15 16:26	15°♌23'42	
max. Earth dist.	14022 Jul 15 15:46	15°♌22'26	2.39202 AU
	14022 Aug 03 18:02	0°♍	
conjunction	14022 Aug 27 10:21	18°♍28'12	0°29'30
minimum elong	14022 Aug 27 07:35	18°♍22'46	0°29'09
	14022 Sep 11 01:14	0°♎	
	14022 Oct 18 21:44	0°♏	
morning rise	14022 Nov 09 11:15	16°♏58'33	
	14022 Nov 26 05:00	0°♐	
	14023 Jan 04 19:57	0°♑	
	14023 Feb 15 14:57	0°♒	
	14023 Apr 01 13:42	0°♓	
desc. node	14023 May 18 22:16	28°♓24'51	
	14023 May 21 19:13	0°♈	
	14023 Aug 01 22:42	0°♉	
retrograde	14023 Aug 21 06:57	2°♉05'27	
	14023 Sep 08 08:46	30°℞♈	
opposition	14023 Sep 30 18:08	22°♈29'59	-4°05'15
greatest brilliancy	14023 Sep 30 20:25	22°♈27'43	-1.2m
min. Earth dist.	14023 Oct 01 19:53	22°♈04'33	0.68471 AU
direct	14023 Nov 11 04:08	12°♈33'59	
	14024 Jan 13 02:38	0°♉	
	14024 Mar 08 03:29	0°♊	
	14024 Apr 23 07:46	0°♋	
asc. node	14024 Jun 01 12:52	27°♋56'01	
	14024 Jun 04 08:02	0°♌	
	14024 Jul 13 20:12	0°♍	
	14024 Aug 20 23:52	0°♎	
evening set	14024 Sep 01 23:44	9°♎31'25	
	14024 Sep 27 19:33	0°♏	
	14024 Nov 05 05:43	0°♐	
conjunction	14024 Nov 13 05:07	6°♐06'36	1°05'04
minimum elong	14024 Nov 13 06:31	6°♐09'16	1°05'59
	14024 Dec 15 01:35	0°♑	
max. Earth dist.	14025 Jan 02 15:07	13°♑30'27	2.44733 AU
morning rise	14025 Jan 15 21:08	22°♑57'15	
	14025 Jan 25 21:59	0°♒	
	14025 Mar 11 05:29	0°♓	
desc. node	14025 Apr 04 12:08	15°♓40'38	
	14025 Apr 27 11:32	0°♈	
	14025 Jun 18 04:30	0°♉	
	14025 Aug 24 05:32	0°♊	
retrograde	14025 Sep 25 20:05	5°♊25'07	
	14025 Oct 25 12:11	30°℞♉	
opposition	14025 Nov 03 17:45	26°♉35'13	-4°56'09
greatest brilliancy	14025 Nov 04 13:48	26°♉15'49	-1.4m
min. Earth dist.	14025 Nov 08 16:32	24°♉40'25	0.63780 AU
direct	14025 Dec 15 01:27	16°♉34'53	
	14026 Feb 04 21:02	0°♊	
	14026 Mar 30 19:42	0°♋	
asc. node	14026 Apr 19 17:44	13°♋09'57	

	14026 May 13 16:21	0°♌	
	14026 Jun 22 18:32	0°♍	
	14026 Jul 31 04:47	0°♎	
	14026 Sep 07 07:36	0°♏	
	14026 Oct 16 04:07	0°♐	
evening set	14026 Nov 14 18:08	22°♐07'15	
	14026 Nov 25 12:51	0°♑	
	14027 Jan 06 21:03	0°♒	
conjunction	14027 Jan 11 07:53	3°♒04'06	0°22'57
minimum elong	14027 Jan 11 09:04	3°♒06'08	0°23'52
max. Earth dist.	14027 Feb 08 17:12	22°♒17'30	2.57744 AU
desc. node	14027 Feb 19 23:16	29°♒45'19	
	14027 Feb 20 08:10	0°♓	
morning rise	14027 Mar 02 18:29	6°♓50'35	
	14027 Apr 07 19:59	0°♈	
	14027 May 26 08:25	0°♉	
	14027 Jul 16 17:12	0°♊	
	14027 Sep 13 21:18	0°♋	
retrograde	14027 Nov 10 04:23	14°♋44'37	
opposition	14027 Dec 15 21:14	7°♋14'16	-3°59'19
greatest brilliancy	14027 Dec 17 04:08	6°♋46'13	-2.0m
min. Earth dist.	14027 Dec 24 03:23	4°♋15'13	0.52625 AU
	14028 Jan 07 09:53	30°℞♊	
direct	14028 Jan 23 19:56	28°♊06'16	
	14028 Feb 09 20:44	0°♋	
asc. node	14028 Mar 07 03:58	8°♋58'32	
	14028 Apr 14 09:26	0°♌	
	14028 May 28 00:55	0°♍	
	14028 Jul 07 00:09	0°♎	
	14028 Aug 15 04:52	0°♏	
	14028 Sep 24 02:03	0°♐	
	14028 Nov 04 11:38	0°♑	
	14028 Dec 17 18:25	0°♒	
evening set	14029 Jan 04 08:08	11°♒49'13	
desc. node	14029 Jan 06 12:47	13°♒17'00	
	14029 Jan 31 21:03	0°♓	
conjunction	14029 Feb 21 13:41	13°♓25'50	-0°25'35
minimum elong	14029 Feb 21 12:49	13°♓24'26	0°25'10
max. Earth dist.	14029 Mar 05 02:26	20°♓50'47	2.65866 AU
	14029 Mar 19 10:18	0°♈	
morning rise	14029 Apr 07 07:05	11°♈58'21	
	14029 May 05 22:16	0°♉	
	14029 Jun 23 01:26	0°♊	
	14029 Aug 10 23:00	0°♋	
	14029 Sep 30 18:05	0°♌	
	14029 Nov 28 13:32	0°♍	
retrograde	14030 Jan 14 14:38	11°♍19'46	
asc. node	14030 Jan 23 11:28	10°♍49'11	
opposition	14030 Feb 14 03:37	6°♍01'08	1°34'05
greatest brilliancy	14030 Feb 14 11:33	5°♍55'22	-2.9m
min. Earth dist.	14030 Feb 20 05:06	4°♍15'49	0.39005 AU
	14030 Mar 15 04:55	30°℞♌	
direct	14030 Mar 18 13:27	29°♌55'11	
	14030 Mar 21 21:44	0°♍	
	14030 Jun 03 01:14	0°♎	
	14030 Jul 18 06:56	0°♏	
	14030 Aug 30 15:43	0°♐	
	14030 Oct 13 14:07	0°♑	
desc. node	14030 Nov 24 11:27	27°♑50'46	
	14030 Nov 27 18:22	0°♒	
	14031 Jan 13 04:00	0°♓	
evening set	14031 Feb 12 22:25	19°♓35'47	
	14031 Mar 01 08:20	0°♈	
max. Earth dist.	14031 Mar 27 13:43	16°♈36'31	2.68475 AU
conjunction	14031 Mar 29 08:23	17°♈44'06	-0°59'06
minimum elong	14031 Mar 29 07:18	17°♈42'23	0°59'18
	14031 Apr 17 16:13	0°♉	
morning rise	14031 May 11 09:44	15°♉07'23	
	14031 Jun 03 14:08	0°♊	
	14031 Jul 19 17:08	0°♋	
	14031 Sep 02 21:36	0°♌	
	14031 Oct 17 04:59	0°♍	
	14031 Nov 30 02:46	0°♎	
asc. node	14031 Dec 11 14:37	7°♎46'45	
	14032 Jan 14 13:54	0°♏	
	14032 Mar 16 07:31	0°♐	
retrograde	14032 Apr 03 21:56	2°♐25'39	
	14032 Apr 22 16:07	30°℞♏	
min. Earth dist.	14032 Apr 29 17:27	28°♏04'46	0.39383 AU
greatest brilliancy	14032 May 05 00:28	26°♏29'28	-2.8m
opposition	14032 May 06 13:14	26°♏01'43	6°46'26
direct	14032 Jun 05 14:38	20°♏36'15	
	14032 Jul 16 23:28	0°♐	
	14032 Sep 14 04:23	0°♑	
desc. node	14032 Oct 11 18:29	16°♑06'00	
	14032 Nov 03 23:27	0°♒	
	14032 Dec 23 06:17	0°♓	
	14033 Feb 09 21:24	0°♈	
evening set	14033 Mar 19 08:54	23°♈28'33	
	14033 Mar 29 16:00	0°♉	
max. Earth dist.	14033 Apr 17 21:49	12°♉17'53	2.65585 AU
conjunction	14033 May 02 07:58	21°♉37'04	-1°11'30
minimum elong	14033 May 02 07:55	21°♉37'00	1°12'15
	14033 May 15 04:15	0°♊	
morning rise	14033 Jun 16 02:14	21°♊11'44	
	14033 Jun 29 02:29	0°♋	
	14033 Aug 11 07:49	0°♌	
	14033 Sep 21 22:08	0°♍	
asc. node	14033 Oct 28 09:53	27°♍08'33	
	14033 Nov 01 04:58	0°♎	
	14033 Dec 10 20:10	0°♏	
	14034 Jan 20 01:25	0°♐	
	14034 Mar 04 09:29	0°♑	
	14034 May 02 06:32	0°♒	
retrograde	14034 May 27 15:30	4°♒12'50	
	14034 Jun 20 22:02	30°℞♑	
min. Earth dist.	14034 Jun 27 09:45	27°♑43'57	0.52775 AU
opposition	14034 Jul 04 23:47	24°♑52'01	2°35'26
greatest brilliancy	14034 Jul 04 07:08	25°♑07'46	-2.0m
direct	14034 Aug 09 07:08	17°♑08'04	
desc. node	14034 Aug 30 04:40	19°♑37'46	
	14034 Sep 30 11:21	0°♒	
	14034 Nov 29 21:24	0°♓	
	14035 Jan 21 02:31	0°♈	
	14035 Mar 11 05:15	0°♉	
evening set	14035 Apr 24 13:50	28°♉27'10	
	14035 Apr 26 22:16	0°♊	
max. Earth dist.	14035 May 13 16:47	11°♊09'02	2.57337 AU
conjunction	14035 Jun 10 14:33	0°♋11'05	-0°55'26
minimum elong	14035 Jun 10 16:06	0°♋13'46	0°56'29
	14035 Jun 10 08:09	0°♋	
	14035 Jul 22 14:16	0°♌	
morning rise	14035 Aug 01 06:55	7°♌05'04	
	14035 Sep 01 00:07	0°♍	
asc. node	14035 Sep 14 22:04	10°♍35'29	
	14035 Oct 10 01:43	0°♎	
	14035 Nov 17 11:52	0°♏	
	14035 Dec 26 04:42	0°♐	
	14036 Feb 04 08:49	0°♑	

	14036 Mar 18 20:09	0°♒	
	14036 May 09 21:16	0°♓	
retrograde	14036 Jul 04 16:05	15°♓43'49	
desc. node	14036 Jul 17 12:57	14°♓35'20	
min. Earth dist.	14036 Aug 09 20:38	7°♓24'48	0.63688 AU
opposition	14036 Aug 14 02:38	5°♓43'46	-1°05'40
greatest brilliancy	14036 Aug 13 21:52	5°♓48'29	-1.5m
	14036 Aug 30 06:03	30°♑♒	
direct	14036 Sep 22 02:23	26°♒39'54	
	14036 Oct 17 02:32	0°♓	
	14036 Dec 27 12:04	0°♈	
	14037 Feb 18 08:25	0°♉	
	14037 Apr 07 03:37	0°♊	
	14037 May 21 14:16	0°♋	
evening set	14037 Jun 05 05:40	10°♋19'07	
max. Earth dist.	14037 Jun 19 03:11	20°♋18'16	2.44580 AU
	14037 Jul 02 09:14	0°♌	
conjunction	14037 Jul 31 16:05	21°♌58'20	-0°00'34
minimum elong	14037 Jul 31 16:12	21°♌58'33	0°01'17
behind sun begin	14037 Jul 30 14:19	21°♌09'18	
behind sun end	14037 Aug 01 18:04	22°♌47'52	
asc. node	14037 Aug 01 10:33	22°♌33'32	
	14037 Aug 11 03:38	0°♍	
	14037 Sep 18 14:35	0°♎	
morning rise	14037 Oct 07 21:54	15°♎15'14	
	14037 Oct 26 13:25	0°♏	
	14037 Dec 03 21:24	0°♐	
	14038 Jan 12 12:41	0°♑	
	14038 Feb 23 10:54	0°♒	
	14038 Apr 10 01:35	0°♓	
	14038 Jun 02 07:56	0°♈	
desc. node	14038 Jun 04 15:14	1°♈07'01	
retrograde	14038 Aug 08 00:16	19°♈41'55	
opposition	14038 Sep 17 17:17	9°♈54'42	-3°27'39
min. Earth dist.	14038 Sep 17 06:25	10°♈05'28	0.68434 AU
greatest brilliancy	14038 Sep 17 14:32	9°♈57'26	-1.3m
direct	14038 Oct 28 17:56	0°♈08'25	
	14039 Jan 25 08:17	0°♉	
	14039 Mar 17 17:45	0°♊	
	14039 May 02 02:20	0°♋	
	14039 Jun 12 22:05	0°♌	
asc. node	14039 Jun 19 05:08	4°♌41'01	
	14039 Jul 22 10:11	0°♍	
evening set	14039 Aug 03 22:12	9°♍44'42	
	14039 Aug 29 14:26	0°♎	
	14039 Oct 06 09:32	0°♏	
conjunction	14039 Oct 15 02:43	6°♏53'01	1°04'00
minimum elong	14039 Oct 15 00:23	6°♏48'25	1°04'32
	14039 Nov 13 17:30	0°♐	
max. Earth dist.	14039 Dec 06 18:45	17°♐34'59	2.39092 AU
	14039 Dec 23 10:14	0°♑	
morning rise	14039 Dec 24 17:04	0°♑56'54	
	14040 Feb 03 04:12	0°♒	
	14040 Mar 18 14:00	0°♓	
desc. node	14040 Apr 21 07:24	21°♓23'22	
	14040 May 05 12:34	0°♈	
	14040 Jun 29 03:45	0°♉	
retrograde	14040 Sep 10 23:57	22°♉18'12	
opposition	14040 Oct 20 16:18	13°♉07'29	-4°45'18
greatest brilliancy	14040 Oct 21 04:57	12°♉55'08	-1.3m
min. Earth dist.	14040 Oct 24 02:33	11°♉47'07	0.66429 AU
direct	14040 Dec 01 05:43	3°♉04'50	
	14041 Feb 19 05:33	0°♊	
	14041 Apr 09 09:24	0°♋	
asc. node	14041 May 06 06:56	18°♋30'19	
	14041 May 22 05:24	0°♌	
	14041 Jun 30 23:27	0°♍	
	14041 Aug 08 05:40	0°♎	
	14041 Sep 15 04:21	0°♏	
evening set	14041 Oct 19 14:01	26°♏45'59	
	14041 Oct 23 19:20	0°♐	
	14041 Dec 02 21:31	0°♑	
conjunction	14041 Dec 22 02:32	13°♑53'10	0°42'43
minimum elong	14041 Dec 22 04:45	13°♑57'09	0°43'45
	14042 Jan 13 23:27	0°♒	
max. Earth dist.	14042 Jan 27 19:27	9°♒31'49	2.53149 AU
morning rise	14042 Feb 14 13:52	21°♒32'52	
	14042 Feb 27 07:09	0°♓	
desc. node	14042 Mar 08 17:53	6°♓12'07	
	14042 Apr 14 22:30	0°♈	
	14042 Jun 03 06:22	0°♉	
	14042 Jul 27 09:20	0°♊	
retrograde	14042 Oct 21 21:38	28°♊24'53	
opposition	14042 Nov 28 01:48	20°♊17'45	-4°40'38
greatest brilliancy	14042 Nov 29 07:19	19°♊49'59	-1.7m
min. Earth dist.	14042 Dec 05 04:59	17°♊37'15	0.57665 AU
direct	14043 Jan 07 07:28	10°♊38'35	
	14043 Mar 10 04:52	0°♋	
asc. node	14043 Mar 24 15:01	8°♋05'10	
	14043 Apr 27 18:12	0°♌	
	14043 Jun 08 05:18	0°♍	
	14043 Jul 17 07:15	0°♎	
	14043 Aug 24 21:56	0°♏	
	14043 Oct 03 06:25	0°♐	
	14043 Nov 13 03:48	0°♑	
evening set	14043 Dec 18 07:26	24°♑43'33	
	14043 Dec 25 23:35	0°♒	
desc. node	14044 Jan 24 06:21	19°♒45'24	
conjunction	14044 Feb 07 07:22	29°♒02'40	-0°08'06
minimum elong	14044 Feb 07 07:03	29°♒02'09	0°07'27
behind sun begin	14044 Feb 06 13:01	28°♒32'29	
behind sun end	14044 Feb 08 01:06	29°♒31'47	
	14044 Feb 08 18:17	0°♓	
max. Earth dist.	14044 Feb 24 19:32	10°♓28'50	2.63326 AU
morning rise	14044 Mar 24 15:39	29°♓00'48	
	14044 Mar 26 04:51	0°♈	
	14044 May 12 23:01	0°♉	
	14044 Jun 30 23:21	0°♊	
	14044 Aug 21 01:39	0°♋	
	14044 Oct 17 17:17	0°♌	
retrograde	14044 Dec 16 01:15	16°♌09'02	
opposition	14045 Jan 17 18:12	9°♌55'47	-1°25'35
greatest brilliancy	14045 Jan 18 07:33	9°♌44'59	-2.5m
min. Earth dist.	14045 Jan 26 06:23	7°♌11'08	0.43881 AU
asc. node	14045 Feb 09 01:39	3°♌36'53	
direct	14045 Feb 22 07:40	2°♌22'10	
	14045 May 05 16:04	0°♍	
	14045 Jun 18 23:16	0°♎	
	14045 Jul 30 06:12	0°♏	
	14045 Sep 09 14:36	0°♐	
	14045 Oct 22 04:53	0°♑	
	14045 Dec 05 10:34	0°♒	
desc. node	14045 Dec 11 00:54	3°♒43'06	
	14046 Jan 20 05:18	0°♓	
evening set	14046 Jan 29 08:37	5°♓53'39	
	14046 Mar 08 01:47	0°♈	
conjunction	14046 Mar 15 19:17	4°♈54'31	-0°48'21
minimum elong	14046 Mar 15 18:06	4°♈52'39	0°48'20
max. Earth dist.	14046 Mar 19 02:00	6°♈59'26	2.68119 AU

	14046 Apr 24 09:29	0°♉	
morning rise	14046 Apr 28 02:41	2°♉21'17	
	14046 Jun 10 15:52	0°♊	
	14046 Jul 27 14:10	0°♋	
	14046 Sep 12 04:45	0°♌	
	14046 Oct 28 21:42	0°♍	
	14046 Dec 16 12:59	0°♎	
asc. node	14046 Dec 28 07:01	6°♎41'21	
	14047 Feb 27 05:36	0°♏	
retrograde	14047 Mar 06 23:39	0°♏24'39	
	14047 Mar 14 17:09	30°℞♎	
min. Earth dist.	14047 Apr 03 15:30	25°♎55'21	0.36564 AU
opposition	14047 Apr 05 22:49	25°♎18'19	6°24'02
greatest brilliancy	14047 Apr 05 08:53	25°♎27'40	-3.0m
direct	14047 May 05 01:17	20°♎28'37	
	14047 Jun 14 12:43	0°♏	
	14047 Aug 09 22:21	0°♐	
	14047 Sep 27 10:58	0°♑	
desc. node	14047 Oct 29 04:12	19°♑58'32	
	14047 Nov 14 02:15	0°♒	
	14047 Dec 31 22:03	0°♓	
	14048 Feb 17 20:10	0°♈	
evening set	14048 Mar 05 18:21	10°♈38'08	
	14048 Apr 05 08:53	0°♉	
max. Earth dist.	14048 Apr 08 23:39	2°♉18'08	2.67363 AU
conjunction	14048 Apr 18 13:05	8°♉24'24	-1°09'36
minimum elong	14048 Apr 18 12:31	8°♉23'30	1°10'10
	14048 May 21 23:26	0°♊	
morning rise	14048 Jun 01 04:34	6°♊41'03	
	14048 Jul 06 06:40	0°♋	
	14048 Aug 19 02:38	0°♌	
	14048 Sep 30 11:34	0°♍	
	14048 Nov 10 16:05	0°♎	
asc. node	14048 Nov 14 03:47	2°♎34'03	
	14048 Dec 21 09:39	0°♏	
	14049 Feb 01 10:43	0°♐	
	14049 Mar 22 16:35	0°♑	
retrograde	14049 May 09 07:23	13°♑39'48	
min. Earth dist.	14049 Jun 06 14:38	8°♑05'41	0.47316 AU
opposition	14049 Jun 14 22:28	5°♑07'40	4°23'50
greatest brilliancy	14049 Jun 13 16:39	5°♑34'24	-2.3m
	14049 Jul 01 22:00	30°℞♐	
direct	14049 Jul 18 08:06	28°♐11'51	
	14049 Aug 04 14:32	0°♑	
desc. node	14049 Sep 15 14:59	14°♑35'04	
	14049 Oct 16 18:10	0°♒	
	14049 Dec 09 08:53	0°♓	
	14050 Jan 28 17:40	0°♈	
	14050 Mar 18 04:33	0°♉	
evening set	14050 Apr 10 02:34	14°♉36'15	
max. Earth dist.	14050 May 03 01:32	29°♉32'22	2.61173 AU
	14050 May 03 18:20	0°♊	
conjunction	14050 May 25 10:07	14°♊24'30	-1°05'44
minimum elong	14050 May 25 11:05	14°♊26'08	1°06'42
	14050 Jun 17 07:53	0°♋	
morning rise	14050 Jul 12 12:12	17°♋34'43	
	14050 Jul 29 21:44	0°♌	
	14050 Sep 08 16:46	0°♍	
asc. node	14050 Oct 01 18:31	17°♍27'12	
	14050 Oct 18 03:20	0°♎	
	14050 Nov 25 21:28	0°♏	
	14051 Jan 03 22:35	0°♐	
	14051 Feb 13 17:15	0°♑	
	14051 Mar 31 00:19	0°♒	
	14051 Jun 08 07:53	0°♓	
retrograde	14051 Jun 21 09:15	1°♓07'12	
	14051 Jul 03 23:00	30°℞♒	
min. Earth dist.	14051 Jul 25 15:18	23°♒26'28	0.60079 AU
opposition	14051 Jul 31 07:17	21°♒12'59	0°09'33
greatest brilliancy	14051 Jul 31 06:38	21°♒13'37	-1.7m
desc. node	14051 Aug 04 01:19	19°♒45'51	
direct	14051 Sep 07 01:32	12°♒34'41	
	14051 Nov 09 17:59	0°♓	
	14052 Jan 07 03:09	0°♈	
	14052 Feb 27 00:46	0°♉	
	14052 Apr 14 06:44	0°♊	
evening set	14052 May 18 07:57	22°♊51'21	
	14052 May 28 15:56	0°♋	
max. Earth dist.	14052 Jun 01 20:11	2°♋54'56	2.49988 AU
conjunction	14052 Jul 09 00:15	29°♋33'34	-0°26'52
minimum elong	14052 Jul 09 01:50	29°♋36'27	0°27'50
	14052 Jul 09 14:40	0°♌	
asc. node	14052 Aug 18 06:45	29°♌45'25	
	14052 Aug 18 14:23	0°♍	
morning rise	14052 Sep 07 15:29	15°♍27'43	
	14052 Sep 26 06:11	0°♎	
	14052 Nov 03 08:17	0°♏	
	14052 Dec 11 17:56	0°♐	
	14053 Jan 20 11:06	0°♑	
	14053 Mar 03 16:30	0°♒	
	14053 Apr 19 12:03	0°♓	
	14053 Jun 19 07:55	0°♈	
desc. node	14053 Jun 21 05:18	0°♈39'09	
retrograde	14053 Jul 25 20:04	7°♈06'46	
	14053 Aug 28 10:23	30°℞♓	
min. Earth dist.	14053 Sep 02 15:35	27°♓57'41	0.67374 AU
opposition	14053 Sep 04 14:37	27°♓11'00	-2°40'46
greatest brilliancy	14053 Sep 04 08:50	27°♓16'44	-1.3m
direct	14053 Oct 15 00:36	17°♓38'02	
	14053 Dec 06 03:28	0°♈	
	14054 Feb 04 05:12	0°♉	
	14054 Mar 25 16:32	0°♊	
	14054 May 09 13:22	0°♋	
	14054 Jun 20 07:40	0°♌	
asc. node	14054 Jul 05 21:18	11°♌38'27	
evening set	14054 Jul 08 16:33	13°♌45'32	
	14054 Jul 29 21:30	0°♍	
max. Earth dist.	14054 Aug 15 17:04	13°♍05'47	2.36768 AU
	14054 Sep 06 03:48	0°♎	
conjunction	14054 Sep 13 10:09	5°♎45'21	0°45'34
minimum elong	14054 Sep 13 06:11	5°♎37'28	0°45'31
	14054 Oct 13 23:46	0°♏	
	14054 Nov 21 06:48	0°♐	
morning rise	14054 Nov 26 23:49	4°♐24'02	
	14054 Dec 30 21:31	0°♑	
	14055 Feb 10 14:41	0°♒	
	14055 Mar 27 05:58	0°♓	
desc. node	14055 May 09 01:26	26°♓22'43	
	14055 May 15 07:52	0°♈	
	14055 Jul 15 06:39	0°♉	
retrograde	14055 Aug 29 00:03	9°♉40'57	
opposition	14055 Oct 08 05:52	0°♉13'13	-4°23'01
greatest brilliancy	14055 Oct 08 11:32	0°♉07'38	-1.3m
	14055 Oct 08 19:18	30°℞♈	
min. Earth dist.	14055 Oct 10 03:24	29°♈28'25	0.68041 AU
direct	14055 Nov 18 18:51	20°♈13'37	
	14056 Jan 02 10:34	0°♉	
	14056 Mar 01 23:36	0°♊	
	14056 Apr 18 00:02	0°♋	
asc. node	14056 May 22 21:13	24°♋35'02	

	14056 May 30 06:34	0°♌	
	14056 Jul 08 20:27	0°♍	
	14056 Aug 16 00:39	0°♎	
evening set	14056 Sep 19 17:07	27°♎30'27	
	14056 Sep 22 20:50	0°♏	
greatest brilliancy	14056 Oct 10 04:12	13°♏36'03	1.1m
	14056 Oct 31 07:53	0°♐	
conjunction	14056 Nov 28 11:30	21°♐18'54	0°59'13
minimum elong	14056 Nov 28 13:53	21°♐23'19	1°00'14
	14056 Dec 10 05:04	0°♑	
max. Earth dist.	14057 Jan 13 05:02	24°♑28'18	2.47896 AU
	14057 Jan 21 02:20	0°♒	
morning rise	14057 Jan 27 10:01	4°♒23'22	
	14057 Mar 06 08:25	0°♓	
desc. node	14057 Mar 25 13:23	12°♓30'13	
	14057 Apr 22 06:44	0°♈	
	14057 Jun 11 20:24	0°♉	
	14057 Aug 10 09:15	0°♊	
retrograde	14057 Oct 04 19:25	13°♊45'33	
opposition	14057 Nov 12 04:11	5°♊09'02	-4°55'41
greatest brilliancy	14057 Nov 13 04:04	4°♊46'06	-1.5m
min. Earth dist.	14057 Nov 17 22:02	2°♊56'55	0.61894 AU
	14057 Nov 26 03:08	30°♉℞	
direct	14057 Dec 23 05:18	25°♉13'22	
	14058 Jan 21 02:26	0°♊	
	14058 Mar 23 20:47	0°♋	
asc. node	14058 Apr 10 04:11	10°♋59'33	
	14058 May 07 20:47	0°♌	
	14058 Jun 17 08:01	0°♍	
	14058 Jul 25 22:32	0°♎	
	14058 Sep 02 04:22	0°♏	
	14058 Oct 11 03:38	0°♐	
	14058 Nov 20 15:22	0°♑	
evening set	14058 Nov 27 19:27	5°♑10'14	
	14059 Jan 02 02:16	0°♒	
conjunction	14059 Jan 21 16:18	13°♒21'51	0°11'15
minimum elong	14059 Jan 21 16:52	13°♒22'48	0°12'05
behind sun begin	14059 Jan 21 02:45	12°♒58'59	
behind sun end	14059 Jan 22 06:58	13°♒46'36	
desc. node	14059 Feb 09 23:11	26°♒16'01	
max. Earth dist.	14059 Feb 15 00:02	29°♒35'43	2.59961 AU
	14059 Feb 15 14:46	0°♓	
morning rise	14059 Mar 11 09:26	15°♓30'41	
	14059 Apr 03 00:48	0°♈	
	14059 May 21 04:41	0°♉	
	14059 Jul 10 11:36	0°♊	
	14059 Sep 03 10:18	0°♋	
retrograde	14059 Nov 22 08:41	25°♋31'47	
opposition	14059 Dec 27 03:08	18°♋25'58	-3°18'11
greatest brilliancy	14059 Dec 28 07:06	18°♋01'20	-2.2m
min. Earth dist.	14060 Jan 04 19:18	15°♋23'52	0.49563 AU
direct	14060 Feb 03 02:19	9°♋44'35	
asc. node	14060 Feb 26 13:12	13°♋19'28	
	14060 Apr 04 05:32	0°♌	
	14060 May 20 18:17	0°♍	
	14060 Jun 30 15:41	0°♎	
	14060 Aug 09 08:49	0°♏	
	14060 Sep 18 15:03	0°♐	
	14060 Oct 30 08:14	0°♑	
	14060 Dec 12 21:08	0°♒	
desc. node	14060 Dec 27 15:34	9°♒54'05	
evening set	14061 Jan 13 18:53	21°♒14'39	
	14061 Jan 27 03:58	0°♓	
conjunction	14061 Mar 01 20:20	21°♓44'32	-0°34'46
minimum elong	14061 Mar 01 19:17	21°♓42'51	0°34'30
max. Earth dist.	14061 Mar 10 07:44	27°♓09'34	2.66895 AU
	14061 Mar 14 18:39	0°♈	
morning rise	14061 Apr 14 22:12	19°♈45'02	
	14061 May 01 04:16	0°♉	
	14061 Jun 17 22:33	0°♊	
	14061 Aug 04 23:43	0°♋	
	14061 Sep 22 19:33	0°♌	
	14061 Nov 13 12:31	0°♍	
asc. node	14062 Jan 13 20:23	25°♍59'02	
retrograde	14062 Feb 01 21:16	28°♍12'57	
opposition	14062 Mar 03 15:47	23°♍15'57	3°35'35
greatest brilliancy	14062 Mar 04 00:29	23°♍10'02	-3.0m
min. Earth dist.	14062 Mar 07 03:30	22°♍19'03	0.37203 AU
direct	14062 Apr 03 05:26	17°♍54'32	
	14062 May 18 05:48	0°♎	
	14062 Jul 09 03:13	0°♏	
	14062 Aug 23 14:12	0°♐	
	14062 Oct 07 14:51	0°♑	
desc. node	14062 Nov 14 16:32	24°♑57'20	
	14062 Nov 22 11:16	0°♒	
	14063 Jan 08 06:46	0°♓	
evening set	14063 Feb 20 23:40	27°♓40'10	
	14063 Feb 24 16:12	0°♈	
max. Earth dist.	14063 Apr 01 12:41	22°♈40'48	2.68303 AU
conjunction	14063 Apr 06 01:11	25°♈32'54	-1°03'59
minimum elong	14063 Apr 06 00:14	25°♈31'24	1°04'21
	14063 Apr 13 01:17	0°♉	
morning rise	14063 May 19 04:06	23°♉06'42	
	14063 May 29 20:08	0°♊	
	14063 Jul 14 15:28	0°♋	
	14063 Aug 28 07:02	0°♌	
	14063 Oct 10 18:38	0°♍	
	14063 Nov 22 10:03	0°♎	
asc. node	14063 Dec 01 22:07	6°♎42'34	
	14064 Jan 04 07:56	0°♏	
	14064 Feb 20 15:38	0°♐	
retrograde	14064 Apr 17 22:01	18°♐58'25	
min. Earth dist.	14064 May 14 02:22	14°♐18'05	0.41925 AU
greatest brilliancy	14064 May 20 11:52	12°♐14'52	-2.6m
opposition	14064 May 22 02:26	11°♐43'36	6°07'34
direct	14064 Jun 22 08:14	5°♐46'03	
	14064 Sep 04 09:19	0°♑	
desc. node	14064 Oct 02 00:04	14°♑52'29	
	14064 Oct 28 10:15	0°♒	
	14064 Dec 17 20:57	0°♓	
	14065 Feb 05 00:35	0°♈	
	14065 Mar 25 00:27	0°♉	
evening set	14065 Mar 27 04:36	1°♉22'45	
max. Earth dist.	14065 Apr 23 06:16	18°♉43'53	2.64223 AU
conjunction	14065 May 10 11:43	29°♉57'44	-1°10'45
minimum elong	14065 May 10 12:03	29°♉58'16	1°11'36
	14065 May 10 13:06	0°♊	
	14065 Jun 24 08:10	0°♋	
morning rise	14065 Jun 25 04:38	0°♋34'59	
	14065 Aug 06 07:53	0°♌	
	14065 Sep 16 14:58	0°♍	
asc. node	14065 Oct 18 14:00	23°♍56'11	
	14065 Oct 26 13:51	0°♎	
	14065 Dec 04 20:10	0°♏	
	14066 Jan 13 11:52	0°♐	
	14066 Feb 24 11:35	0°♑	
	14066 Apr 15 10:01	0°♒	
retrograde	14066 Jun 06 00:26	14°♒52'34	
min. Earth dist.	14066 Jul 08 02:08	7°♒56'26	0.55574 AU

opposition	14066 Jul 15 01:26	5°♒15'25	1°38'17
greatest brilliancy	14066 Jul 14 15:36	5°♒24'53	-1.9m
	14066 Jul 30 13:25	30°℞♑	
direct	14066 Aug 20 07:23	27°♑09'53	
desc. node	14066 Aug 20 11:17	27°♑09'53	
	14066 Sep 11 20:40	0°♒	
	14066 Nov 22 20:49	0°♓	
	14067 Jan 15 16:41	0°♈	
	14067 Mar 06 08:53	0°♉	
	14067 Apr 22 06:25	0°♊	
evening set	14067 May 03 04:14	7°♊13'16	
max. Earth dist.	14067 May 20 09:40	18°♊49'03	2.54888 AU
	14067 Jun 05 16:15	0°♋	
conjunction	14067 Jun 20 13:34	10°♋25'23	-0°46'52
minimum elong	14067 Jun 20 15:19	10°♋28'29	0°47'54
	14067 Jul 17 19:57	0°♌	
morning rise	14067 Aug 13 23:03	20°♌04'56	
	14067 Aug 27 02:08	0°♍	
asc. node	14067 Sep 05 02:43	6°♍53'05	
	14067 Oct 04 23:56	0°♎	
	14067 Nov 12 06:44	0°♏	
	14067 Dec 20 20:01	0°♐	
	14068 Jan 29 18:13	0°♑	
	14068 Mar 12 14:03	0°♒	
	14068 Apr 30 18:41	0°♓	
desc. node	14068 Jul 07 18:45	23°♓53'24	
retrograde	14068 Jul 12 11:16	24°♓01'57	
min. Earth dist.	14068 Aug 18 15:52	15°♓24'04	0.65292 AU
opposition	14068 Aug 22 02:40	14°♓01'57	-1°43'55
greatest brilliancy	14068 Aug 21 20:29	14°♓08'05	-1.4m
direct	14068 Sep 30 16:38	4°♓46'30	
	14068 Dec 20 04:58	0°♈	
	14069 Feb 12 21:48	0°♉	
	14069 Apr 02 05:53	0°♊	
	14069 May 16 20:22	0°♋	
evening set	14069 Jun 16 08:27	21°♋43'14	
	14069 Jun 27 15:37	0°♌	
max. Earth dist.	14069 Jul 02 02:26	3°♌17'43	2.41555 AU
asc. node	14069 Jul 22 16:59	18°♌46'50	
	14069 Aug 06 08:38	0°♍	
conjunction	14069 Aug 15 03:37	6°♍48'11	0°16'27
minimum elong	14069 Aug 15 02:10	6°♍45'22	0°15'55
behind sun begin	14069 Aug 14 21:05	6°♍35'30	
behind sun end	14069 Aug 15 07:15	6°♍55'14	
	14069 Sep 13 17:47	0°♎	
	14069 Oct 21 15:09	0°♏	
morning rise	14069 Oct 26 04:46	3°♏36'34	
	14069 Nov 28 21:54	0°♐	
	14070 Jan 07 11:35	0°♑	
	14070 Feb 18 06:02	0°♒	
	14070 Apr 04 08:09	0°♓	
desc. node	14070 May 25 17:20	0°♈09'12	
	14070 May 25 10:23	0°♈	
retrograde	14070 Aug 15 13:58	27°♈18'41	
opposition	14070 Sep 25 04:22	17°♈37'27	-3°50'57
greatest brilliancy	14070 Sep 25 04:10	17°♈37'39	-1.2m
min. Earth dist.	14070 Sep 25 13:25	17°♈28'31	0.68593 AU
direct	14070 Nov 05 11:07	7°♈45'27	
	14071 Jan 17 18:26	0°♉	
	14071 Mar 12 03:14	0°♊	
	14071 Apr 27 00:15	0°♋	
	14071 Jun 07 23:58	0°♌	
asc. node	14071 Jun 09 12:18	1°♌07'14	
	14071 Jul 17 12:58	0°♍	
evening set	14071 Aug 20 09:43	26°♍34'52	
	14071 Aug 24 17:15	0°♎	
	14071 Oct 01 12:33	0°♏	
conjunction	14071 Nov 01 10:30	24°♏14'54	1°06'41
minimum elong	14071 Nov 01 10:28	24°♏14'50	1°07'28
	14071 Nov 08 20:56	0°♐	
	14071 Dec 18 14:04	0°♑	
max. Earth dist.	14071 Dec 24 18:04	4°♑32'06	2.42157 AU
morning rise	14072 Jan 07 06:44	14°♑21'40	
	14072 Jan 29 07:47	0°♒	
	14072 Mar 13 14:04	0°♓	
desc. node	14072 Apr 11 07:55	18°♓27'47	
	14072 Apr 30 00:15	0°♈	
	14072 Jun 21 14:40	0°♉	
	14072 Sep 13 02:16	0°♊	
retrograde	14072 Sep 19 07:58	0°♊13'39	
	14072 Sep 25 09:31	30°℞♉	
opposition	14072 Oct 28 14:32	21°♉13'42	-4°53'06
greatest brilliancy	14072 Oct 29 07:15	20°♉57'27	-1.4m
min. Earth dist.	14072 Nov 01 20:45	19°♉34'23	0.65101 AU
direct	14072 Dec 09 01:36	11°♉11'36	
	14073 Feb 10 18:24	0°♊	
	14073 Apr 03 08:32	0°♋	
asc. node	14073 Apr 26 15:45	15°♋40'47	
	14073 May 16 19:07	0°♌	
	14073 Jun 25 18:19	0°♍	
	14073 Aug 03 02:52	0°♎	
	14073 Sep 10 03:31	0°♏	
	14073 Oct 18 20:39	0°♐	
evening set	14073 Nov 03 19:48	12°♐04'33	
	14073 Nov 28 01:11	0°♑	
conjunction	14074 Jan 02 21:49	25°♑36'28	0°31'29
minimum elong	14074 Jan 02 23:28	25°♑39'22	0°32'28
	14074 Jan 09 05:12	0°♒	
max. Earth dist.	14074 Feb 03 22:18	17°♒34'40	2.55784 AU
	14074 Feb 22 13:10	0°♓	
morning rise	14074 Feb 23 23:44	0°♓57'01	
desc. node	14074 Feb 26 19:13	2°♓48'06	
	14074 Apr 10 00:54	0°♈	
	14074 May 28 19:29	0°♉	
	14074 Jul 20 02:12	0°♊	
	14074 Sep 22 08:16	0°♋	
retrograde	14074 Nov 01 10:59	7°♋56'33	
opposition	14074 Dec 07 21:04	0°♋08'27	-4°20'23
	14074 Dec 08 06:14	30°℞♊	
greatest brilliancy	14074 Dec 09 03:56	29°♊39'55	-1.9m
min. Earth dist.	14074 Dec 15 16:40	27°♊15'50	0.54983 AU
direct	14075 Jan 16 11:34	20°♊44'17	
	14075 Feb 25 13:05	0°♋	
asc. node	14075 Mar 15 01:37	8°♋16'08	
	14075 Apr 20 11:07	0°♌	
	14075 Jun 02 00:32	0°♍	
	14075 Jul 11 13:09	0°♎	
	14075 Aug 19 10:34	0°♏	
	14075 Sep 28 00:40	0°♐	
	14075 Nov 08 03:11	0°♑	
	14075 Dec 21 03:36	0°♒	
evening set	14075 Dec 28 19:02	5°♒11'35	
desc. node	14076 Jan 14 08:01	16°♒18'08	
	14076 Feb 04 01:19	0°♓	
conjunction	14076 Feb 16 03:23	7°♓53'19	-0°18'33
minimum elong	14076 Feb 16 02:42	7°♓52'13	0°18'03
max. Earth dist.	14076 Mar 01 05:57	17°♓01'06	2.64832 AU
	14076 Mar 21 12:21	0°♈	
morning rise	14076 Apr 01 12:08	6°♈59'07	

	14076 May 08 02:09	0°♉		
	14076 Jun 25 13:10	0°♊		
	14076 Aug 14 06:05	0°♋		
	14076 Oct 06 04:23	0°♌		
	14076 Dec 26 12:30	0°♍		
retrograde	14077 Jan 01 02:03	0°♍11'31		
	14077 Jan 06 13:22	30°℞♌		
asc. node	14077 Jan 30 09:59	25°♌07'29		
opposition	14077 Feb 01 12:26	24°♌29'17	0°08'44	
greatest brilliancy	14076 May 06 15:30	29°♈05'52	1.8m	
min. Earth dist.	14077 Feb 08 23:56	22°♌12'23	0.41008 AU	
direct	14077 Mar 07 10:16	17°♌42'53		
	14077 Apr 21 03:21	0°♍		
	14077 Jun 10 04:33	0°♎		
	14077 Jul 23 04:16	0°♏		
	14077 Sep 03 11:05	0°♐		
	14077 Oct 16 16:13	0°♑		
	14077 Nov 30 08:33	0°♒		
desc. node	14077 Dec 01 05:09	0°♒34'00		
	14078 Jan 15 10:11	0°♓		
evening set	14078 Feb 06 18:05	14°♓18'05		
	14078 Mar 03 10:20	0°♈		
conjunction	14078 Mar 23 13:30	12°♈45'50	-0°55'02	
minimum elong	14078 Mar 23 12:20	12°♈44'00	0°55'10	
max. Earth dist.	14078 Mar 24 01:36	13°♈05'01	2.68420 AU	
	14078 Apr 19 17:59	0°♉		
morning rise	14078 May 05 16:06	10°♉07'04		
	14078 Jun 05 19:31	0°♊		
	14078 Jul 22 06:50	0°♋		
	14078 Sep 06 01:13	0°♌		
	14078 Oct 21 06:09	0°♍		
	14078 Dec 05 16:31	0°♎		
asc. node	14078 Dec 18 13:44	8°♎16'58		
	14079 Jan 23 22:33	0°♏		
retrograde	14079 Mar 23 21:23	19°♏17'09		
min. Earth dist.	14079 Apr 19 01:05	15°♏01'24	0.37772 AU	
greatest brilliancy	14079 Apr 23 00:12	13°♏53'59	-2.9m	
opposition	14079 Apr 24 05:35	13°♏33'04	6°55'32	
direct	14079 May 23 15:01	8°♏29'10		
	14079 Jul 29 08:28	0°♐		
	14079 Sep 20 01:26	0°♑		
desc. node	14079 Oct 19 10:53	17°♑51'08		
	14079 Nov 08 05:26	0°♒		
	14079 Dec 26 18:54	0°♓		
	14080 Feb 13 01:58	0°♈		
evening set	14080 Mar 13 12:31	18°♈27'32		
	14080 Mar 31 18:14	0°♉		
max. Earth dist.	14080 Apr 14 01:59	8°♉29'56	2.66487 AU	
conjunction	14080 Apr 26 08:09	16°♉22'15	-1°11'14	
minimum elong	14080 Apr 26 07:53	16°♉21'49	1°11'56	
	14080 May 17 08:02	0°♊		
morning rise	14080 Jun 09 12:30	15°♊17'07		
	14080 Jul 01 11:02	0°♋		
	14080 Aug 13 23:25	0°♌		
	14080 Sep 24 22:13	0°♍		
asc. node	14080 Nov 04 10:48	29°♍53'57		
	14080 Nov 04 14:02	0°♎		
	14080 Dec 14 15:09	0°♏		
	14081 Jan 24 10:08	0°♐		
	14081 Mar 10 06:40	0°♑		
retrograde	14081 May 20 00:03	26°♑14'12		
min. Earth dist.	14081 Jun 18 16:37	20°♑09'08	0.50377 AU	
opposition	14081 Jun 26 16:35	17°♑11'33	3°20'48	
greatest brilliancy	14081 Jun 25 18:11	17°♑32'20	-2.1m	
direct	14081 Jul 31 03:42	9°♑47'46		

desc. node	14081 Sep 05 20:53	16°♑53'03		
	14081 Oct 07 09:04	0°♒		
	14081 Dec 03 05:23	0°♓		
	14082 Jan 23 14:11	0°♈		
	14082 Mar 13 10:32	0°♉		
evening set	14082 Apr 18 06:11	22°♉53'28		
	14082 Apr 29 03:02	0°♊		
max. Earth dist.	14082 May 09 01:32	6°♊34'14	2.59153 AU	
conjunction	14082 Jun 03 10:02	23°♊39'26	-1°00'30	
minimum elong	14082 Jun 03 11:22	23°♊41'43	1°01'31	
	14082 Jun 12 15:39	0°♋		
morning rise	14082 Jul 23 07:31	28°♋42'51		
	14082 Jul 25 02:13	0°♌		
	14082 Sep 03 16:59	0°♍		
asc. node	14082 Sep 21 23:56	13°♍52'42		
	14082 Oct 12 22:52	0°♎		
	14082 Nov 20 12:26	0°♏		
	14082 Dec 29 07:54	0°♐		
	14083 Feb 07 15:44	0°♑		
	14083 Mar 23 15:17	0°♒		
	14083 May 17 19:14	0°♓		
retrograde	14083 Jun 29 15:06	10°♓06'36		
desc. node	14083 Jul 25 06:01	5°♓38'58		
min. Earth dist.	14083 Aug 03 23:29	2°♓04'30	0.62188 AU	
opposition	14083 Aug 08 21:30	0°♓08'04	-0°35'57	
greatest brilliancy	14083 Aug 08 18:33	0°♓10'59	-1.6m	
	14083 Aug 09 05:42	30°℞♒		
direct	14083 Sep 16 09:27	21°♒14'56		
	14083 Oct 28 22:26	0°♓		
	14083 Dec 31 21:01	0°♈		
	14084 Feb 21 21:07	0°♉		
	14084 Apr 09 11:43	0°♊		
	14084 May 23 23:04	0°♋		
evening set	14084 May 28 04:59	2°♋57'53		
max. Earth dist.	14084 Jun 11 00:50	12°♋44'06	2.47039 AU	
	14084 Jul 04 20:51	0°♌		
conjunction	14084 Jul 21 07:35	12°♌12'38	-0°12'32	
minimum elong	14084 Jul 21 08:30	12°♌14'22	0°13'23	
behind sun begin	14084 Jul 20 18:20	11°♌47'51		
behind sun end	14084 Jul 21 22:40	12°♌40'53		
asc. node	14084 Aug 08 11:24	25°♌56'53		
	14084 Aug 13 18:29	0°♍		
	14084 Sep 21 07:57	0°♎		
morning rise	14084 Sep 24 02:54	2°♎11'42		
greatest brilliancy	14084 Sep 29 17:31	6°♎36'50	1.2m	
	14084 Oct 29 08:14	0°♏		
	14084 Dec 06 16:23	0°♐		
	14085 Jan 15 07:06	0°♑		
	14085 Feb 26 06:12	0°♒		
	14085 Apr 13 04:17	0°♓		
	14085 Jun 07 09:00	0°♈		
desc. node	14085 Jun 11 09:31	1°♈46'46		
retrograde	14085 Aug 02 08:48	14°♈51'21		
min. Earth dist.	14085 Sep 10 23:57	5°♈27'01	0.68090 AU	
opposition	14085 Sep 12 03:26	4°♈59'47	-3°09'34	
greatest brilliancy	14085 Sep 11 22:58	5°♈04'12	-1.3m	
	14085 Sep 25 13:20	30°℞♓		
direct	14085 Oct 22 22:41	25°♓19'05		
	14085 Nov 22 00:39	0°♈		
	14086 Jan 28 20:45	0°♉		
	14086 Mar 20 10:43	0°♊		
	14086 May 04 15:42	0°♋		
	14086 Jun 15 12:08	0°♌		
asc. node	14086 Jun 26 04:40	7°♌57'50		
evening set	14086 Jul 22 21:41	28°♌19'05		

	14086 Jul 25 01:52	0°♍		
	14086 Sep 01 07:16	0°♎		
conjunction	14086 Oct 01 03:13	23°♎40'56	0°58'01	
minimum elong	14086 Sep 30 23:33	23°♎33'40	0°58'20	
	14086 Oct 09 02:34	0°♏		
max. Earth dist.	14086 Nov 12 18:17	27°♏11'19	2.36942 AU	
	14086 Nov 16 09:27	0°♐		
morning rise	14086 Dec 13 04:38	20°♐26'32		
	14086 Dec 26 00:01	0°♑		
	14087 Feb 05 16:03	0°♒		
	14087 Mar 22 01:51	0°♓		
desc. node	14087 Apr 29 03:09	23°♓54'57		
	14087 May 09 08:01	0°♈		
	14087 Jul 04 17:18	0°♉		
retrograde	14087 Sep 05 22:03	17°♉22'00		
opposition	14087 Oct 15 20:56	8°♉03'08	-4°37'21	
greatest brilliancy	14087 Oct 16 06:21	7°♉53'55	-1.3m	
min. Earth dist.	14087 Oct 18 14:29	6°♉58'54	0.67280 AU	
	14087 Nov 08 22:08	30°℞♈		
direct	14087 Nov 26 10:59	28°♈01'28		
	14087 Dec 15 02:52	0°♉		
	14088 Feb 24 05:47	0°♊		
	14088 Apr 12 11:23	0°♋		
asc. node	14088 May 13 05:35	21°♋22'30		
	14088 May 25 02:44	0°♌		
	14088 Jul 03 19:55	0°♍		
greatest brilliancy	14088 Jul 13 00:05	7°♍07'47	1.1m	
	14088 Aug 11 01:28	0°♎		
	14088 Sep 17 22:46	0°♏		
evening set	14088 Oct 06 20:39	14°♏50'05		
	14088 Oct 26 11:09	0°♐		
	14088 Dec 05 09:43	0°♑		
conjunction	14088 Dec 12 06:41	5°♑01'29	0°50'27	
minimum elong	14088 Dec 12 09:11	5°♑06'02	0°51'29	
	14089 Jan 16 08:04	0°♒		
max. Earth dist.	14089 Jan 21 23:26	3°♒55'02	2.50868 AU	
morning rise	14089 Feb 06 23:57	14°♒53'57		
	14089 Mar 01 13:16	0°♓		
desc. node	14089 Mar 15 13:52	9°♓11'12		
	14089 Apr 17 05:45	0°♈		
	14089 Jun 05 22:58	0°♉		
	14089 Jul 31 17:09	0°♊		
retrograde	14089 Oct 14 06:47	22°♊27'08		
opposition	14089 Nov 21 00:48	14°♊05'57	-4°49'21	
greatest brilliancy	14089 Nov 22 04:03	13°♊40'04	-1.6m	
min. Earth dist.	14089 Nov 27 13:39	11°♊37'19	0.59663 AU	
direct	14089 Dec 31 16:15	4°♊18'08		
	14090 Mar 15 20:31	0°♋		
asc. node	14090 Mar 31 12:31	9°♋22'08		
	14090 May 01 15:07	0°♌		
	14090 Jun 11 15:40	0°♍		
	14090 Jul 20 12:19	0°♎		
	14090 Aug 27 22:29	0°♏		
	14090 Oct 06 01:56	0°♐		
	14090 Nov 15 17:36	0°♑		
evening set	14090 Dec 09 18:06	17°♑05'32		
	14090 Dec 28 08:01	0°♒		
conjunction	14091 Jan 31 07:47	22°♒58'36	-0°00'08	
minimum elong	14091 Jan 31 07:46	22°♒58'34	0°00'36	
behind sun begin	14091 Jan 30 11:16	22°♒24'30		
behind sun end	14091 Feb 01 04:15	23°♒32'37		
desc. node	14091 Jan 31 01:56	22°♒48'56		
	14091 Feb 10 22:27	0°♓		
max. Earth dist.	14091 Feb 20 20:17	6°♓29'59	2.61920 AU	
morning rise	14091 Mar 19 14:52	23°♓48'44		
	14091 Mar 29 07:36	0°♈		
	14091 May 16 04:42	0°♉		
	14091 Jul 04 16:01	0°♊		
	14091 Aug 26 01:39	0°♋		
	14091 Oct 29 07:34	0°♌		
retrograde	14091 Dec 05 17:16	7°♌12'52		
opposition	14092 Jan 08 09:19	0°♌35'06	-2°21'06	
greatest brilliancy	14092 Jan 09 06:43	0°♌17'02	-2.4m	
	14092 Jan 10 02:50	30°℞♋		
min. Earth dist.	14092 Jan 17 04:21	27°♋37'51	0.46393 AU	
direct	14092 Feb 14 03:47	22°♋27'47		
asc. node	14092 Feb 16 23:07	22°♋31'08		
	14092 Mar 19 15:31	0°♌		
	14092 May 12 07:07	0°♍		
	14092 Jun 23 17:11	0°♎		
	14092 Aug 03 03:50	0°♏		
	14092 Sep 12 22:22	0°♐		
	14092 Oct 25 01:14	0°♑		
	14092 Dec 07 21:56	0°♒		
desc. node	14092 Dec 17 19:02	6°♒35'58		
evening set	14093 Jan 22 19:21	0°♓15'02		
	14093 Jan 22 10:05	0°♓		
conjunction	14093 Mar 09 21:12	29°♓50'17	-0°43'04	
minimum elong	14093 Mar 09 20:02	29°♓48'26	0°42'57	
	14093 Mar 10 03:18	0°♈		
max. Earth dist.	14093 Mar 15 09:32	3°♈20'48	2.67686 AU	
morning rise	14093 Apr 22 11:13	27°♈28'05		
	14093 Apr 26 11:22	0°♉		
	14093 Jun 12 22:37	0°♊		
	14093 Jul 30 08:00	0°♋		
	14093 Sep 15 18:57	0°♌		
	14093 Nov 03 03:45	0°♍		
	14093 Dec 26 13:04	0°♎		
asc. node	14094 Jan 04 05:37	4°♎05'51		
retrograde	14094 Feb 20 17:53	16°♎26'27		
opposition	14094 Mar 22 04:25	11°♎34'05	5°25'22	
greatest brilliancy	14094 Mar 22 03:26	11°♎34'44	-3.0m	
min. Earth dist.	14094 Mar 22 13:20	11°♎28'12	0.36391 AU	
direct	14094 Apr 20 13:32	6°♎39'52		
	14094 Jun 27 04:22	0°♏		
	14094 Aug 15 14:44	0°♐		
	14094 Oct 01 06:04	0°♑		
desc. node	14094 Nov 04 20:37	22°♑15'28		
	14094 Nov 16 23:20	0°♒		
	14095 Jan 03 06:55	0°♓		
	14095 Feb 19 23:00	0°♈		
evening set	14095 Feb 28 21:54	5°♈38'21		
max. Earth dist.	14095 Apr 06 11:25	28°♈45'42	2.67890 AU	
	14095 Apr 08 10:10	0°♉		
conjunction	14095 Apr 13 17:58	3°♉23'24	-1°07'45	
minimum elong	14095 Apr 13 17:14	3°♉22'14	1°08'14	
	14095 May 25 02:56	0°♊		
morning rise	14095 May 27 01:57	1°♊16'26		
	14095 Jul 09 16:02	0°♋		
	14095 Aug 22 20:48	0°♌		
	14095 Oct 04 17:20	0°♍		
	14095 Nov 15 11:33	0°♎		
asc. node	14095 Nov 22 04:07	4°♎50'52		
	14095 Dec 26 23:25	0°♏		
	14096 Feb 08 11:05	0°♐		
	14096 Apr 06 09:58	0°♑		
retrograde	14096 Apr 30 10:53	3°♑57'58		
	14096 May 24 00:18	30°℞♐		
min. Earth dist.	14096 May 27 17:31	28°♐48'36	0.44839 AU	

greatest brilliancy	14096 Jun 03 15:15	26°♐26'48	-2.4m
opposition	14096 Jun 05 01:58	25°♐56'48	5°11'20
direct	14096 Jul 07 12:53	19°♐26'05	
	14096 Aug 21 18:35	0°♑	
desc. node	14096 Sep 22 06:20	14°♑32'33	
	14096 Oct 21 04:41	0°♒	
	14096 Dec 12 05:44	0°♓	
	14097 Jan 31 01:13	0°♈	
	14097 Mar 20 07:41	0°♉	
evening set	14097 Apr 04 02:09	9°♉23'16	
max. Earth dist.	14097 Apr 28 19:02	25°♉20'26	2.62643 AU
	14097 May 05 21:47	0°♊	
conjunction	14097 May 18 20:51	8°♊33'47	-1°08'27
minimum elong	14097 May 18 21:33	8°♊34'56	1°09'24
	14097 Jun 19 14:54	0°♋	
morning rise	14097 Jul 04 18:13	10°♋27'50	
	14097 Aug 01 09:55	0°♌	
	14097 Sep 11 11:00	0°♍	
asc. node	14097 Oct 08 19:41	20°♍36'15	
	14097 Oct 21 03:09	0°♎	
	14097 Nov 29 02:12	0°♏	
	14098 Jan 07 08:19	0°♐	
	14098 Feb 17 11:21	0°♑	
	14098 Apr 05 00:13	0°♒	
retrograde	14098 Jun 14 21:58	24°♒51'19	
min. Earth dist.	14098 Jul 18 05:22	17°♒30'05	0.58171 AU
opposition	14098 Jul 24 12:25	15°♒02'59	0°45'06
greatest brilliancy	14098 Jul 24 08:19	15°♒06'58	-1.8m
desc. node	14098 Aug 10 17:39	9°♒13'26	
direct	14098 Aug 30 15:49	6°♒38'18	
	14098 Nov 14 20:06	0°♓	
	14099 Jan 10 00:13	0°♈	
	14099 Mar 01 09:26	0°♉	
	14099 Apr 17 12:48	0°♊	
evening set	14099 May 12 04:21	16°♊25'21	
max. Earth dist.	14099 May 27 19:39	27°♊06'45	2.52264 AU
	14099 May 31 23:44	0°♋	
conjunction	14099 Jul 01 05:32	21°♋23'56	-0°36'12
minimum elong	14099 Jul 01 07:17	21°♋27'06	0°37'12
	14099 Jul 13 01:50	0°♌	
	14099 Aug 22 05:25	0°♍	
asc. node	14099 Aug 26 08:00	3°♍08'12	
morning rise	14099 Aug 27 20:18	4°♍17'40	
	14099 Sep 30 00:19	0°♎	
	14099 Nov 07 04:23	0°♏	
	14099 Dec 15 14:57	0°♐	
	14100 Jan 24 08:40	0°♑	
	14100 Mar 07 17:13	0°♒	
	14100 Apr 24 04:28	0°♓	
desc. node	14100 Jun 28 22:57	29°♓13'05	
	14100 Jul 02 09:14	0°♈	
retrograde	14100 Jul 21 03:22	2°♈05'35	
	14100 Aug 07 20:42	30°♓℞	
min. Earth dist.	14100 Aug 28 06:11	23°♓10'14	0.66571 AU
opposition	14100 Aug 30 21:40	22°♓07'17	-2°18'39
greatest brilliancy	14100 Aug 30 15:14	22°♓13'39	-1.4m
direct	14100 Oct 09 23:57	12°♓41'36	
	14100 Dec 12 16:49	0°♈	
	14101 Feb 08 04:25	0°♉	
	14101 Mar 29 04:56	0°♊	
	14101 May 13 00:33	0°♋	
	14101 Jun 23 20:29	0°♌	
evening set	14101 Jun 29 12:56	4°♌12'48	
asc. node	14101 Jul 13 21:28	14°♌59'12	
max. Earth dist.	14101 Jul 21 02:23	20°♌27'39	2.38668 AU
	14101 Aug 02 12:45	0°♍	
conjunction	14101 Sep 01 03:04	23°♍06'11	0°33'38
minimum elong	14101 Aug 31 23:57	23°♍00'02	0°33'22
	14101 Sep 09 20:47	0°♎	
	14101 Oct 17 17:17	0°♏	
morning rise	14101 Nov 14 09:23	21°♏45'57	
	14101 Nov 24 23:41	0°♐	
	14102 Jan 03 12:46	0°♑	