conjunction	7601 Aug 19 10:05	2°♍46'52	0°56'55
minimum elong	7601 Aug 19 07:49	2°♍42'44	0°56'50
	7601 Sep 26 17:05	0°♎	
max. Earth dist.	7601 Sep 29 14:50	2°♎00'53	2.50922 AU
morning rise	7601 Oct 16 06:04	13°♎24'50	
	7601 Nov 10 01:14	0°♏	
	7601 Dec 26 18:17	0°♐	
	7602 Feb 14 09:01	0°♑	
	7602 Apr 10 22:37	0°♒	
desc. node	7602 May 01 07:20	9°♒11'49	
retrograde	7602 Jun 23 17:59	22°♒14'05	
opposition	7602 Jul 31 07:04	13°♒58'15	-3°15'38
greatest brilliancy	7602 Aug 01 00:18	13°♒41'59	-1.7m
min. Earth dist.	7602 Aug 06 20:51	11°♒29'34	0.59148 AU
direct	7602 Sep 09 23:58	4°♒12'19	
	7602 Nov 23 11:29	0°♓	
	7603 Jan 09 07:35	0°♈	
	7603 Feb 19 10:06	0°♉	
asc. node	7603 Mar 30 17:07	0°♊15'24	
	7603 Mar 30 09:12	0°♊	
	7603 May 07 22:08	0°♋	
	7603 Jun 16 04:20	0°♌	
	7603 Jul 26 22:44	0°♍	
evening set	7603 Aug 17 03:02	15°♍03'17	
	7603 Sep 07 15:47	0°♎	
conjunction	7603 Oct 09 17:47	21°♎39'50	1°04'19
minimum elong	7603 Oct 09 18:35	21°♎41'10	1°04'21
	7603 Oct 22 08:15	0°♏	
max. Earth dist.	7603 Oct 30 08:00	5°♏14'18	2.61777 AU
morning rise	7603 Nov 27 03:04	23°♏13'17	
	7603 Dec 07 17:49	0°♐	
	7604 Jan 24 12:38	0°♑	
	7604 Mar 13 18:35	0°♒	
desc. node	7604 Mar 18 04:59	2°♒38'27	
	7604 May 04 20:37	0°♓	
	7604 Jul 07 14:11	0°♈	
retrograde	7604 Aug 14 21:12	7°♈30'06	
opposition	7604 Sep 17 10:11	0°♈59'20	-5°51'01
greatest brilliancy	7604 Sep 19 05:23	0°♈23'25	-2.3m
	7604 Sep 20 09:26	30°℞♓	
min. Earth dist.	7604 Sep 26 02:30	28°♓07'09	0.46295 AU
direct	7604 Oct 24 03:04	23°♓01'05	
	7604 Nov 26 08:53	0°♈	
	7605 Jan 19 21:13	0°♉	
asc. node	7605 Feb 14 18:01	17°♉49'41	
	7605 Mar 03 15:06	0°♊	
	7605 Apr 13 07:02	0°♋	
	7605 May 24 04:38	0°♌	
	7605 Jul 05 08:49	0°♍	
	7605 Aug 18 06:06	0°♎	
evening set	7605 Oct 01 07:19	29°♎02'39	
	7605 Oct 02 18:39	0°♏	
conjunction	7605 Nov 17 10:37	29°♏20'06	0°38'19
minimum elong	7605 Nov 17 11:38	29°♏21'44	0°38'24
	7605 Nov 18 11:40	0°♐	
max. Earth dist.	7605 Nov 22 08:43	2°♐28'12	2.67365 AU
morning rise	7605 Dec 31 20:32	27°♐32'15	
	7606 Jan 04 17:47	0°♑	
desc. node	7606 Feb 03 02:39	18°♑37'21	
	7606 Feb 21 00:33	0°♒	
	7606 Apr 09 03:27	0°♓	
	7606 May 26 07:35	0°♈	
	7606 Jul 13 10:38	0°♉	
	7606 Sep 04 13:46	0°♊	
retrograde	7606 Oct 31 21:15	16°♊56'18	
opposition	7606 Nov 30 18:01	11°♊58'20	-2°30'07
greatest brilliancy	7606 Nov 30 21:36	11°♊55'57	-3.0m
min. Earth dist.	7606 Nov 30 21:06	11°♊56'17	0.36692 AU
direct	7606 Dec 30 07:50	7°♊03'08	
asc. node	7607 Jan 02 17:47	7°♊07'48	
	7607 Mar 07 13:49	0°♋	
	7607 Apr 26 04:25	0°♌	
	7607 Jun 11 18:27	0°♍	
	7607 Jul 28 09:11	0°♎	
	7607 Sep 13 14:49	0°♏	
	7607 Oct 31 05:41	0°♐	
evening set	7607 Nov 08 08:00	5°♐06'16	
max. Earth dist.	7607 Dec 14 22:34	28°♐17'13	2.67439 AU
	7607 Dec 17 15:07	0°♑	
desc. node	7607 Dec 22 00:26	2°♑47'59	
conjunction	7607 Dec 23 02:47	3°♑30'03	-0°00'35
minimum elong	7607 Dec 23 02:43	3°♑29'57	0°00'29
behind sun begin	7607 Dec 22 08:24	3°♑00'42	
behind sun end	7607 Dec 23 21:03	3°♑59'13	
	7608 Feb 02 04:25	0°♒	
morning rise	7608 Feb 04 22:10	1°♒47'20	
	7608 Mar 18 12:21	0°♓	
	7608 May 01 11:37	0°♈	
	7608 Jun 13 04:16	0°♉	
	7608 Jul 24 21:59	0°♊	
	7608 Sep 04 13:56	0°♋	
	7608 Oct 18 12:08	0°♌	
asc. node	7608 Nov 19 16:45	18°♌43'30	
	7608 Dec 17 17:30	0°♍	
retrograde	7609 Jan 07 10:50	2°♍58'25	
	7609 Jan 27 15:37	30°℞♌	
min. Earth dist.	7609 Feb 03 19:39	27°♌47'22	0.45207 AU
greatest brilliancy	7609 Feb 10 19:30	25°♌22'39	-2.4m
opposition	7609 Feb 12 06:12	24°♌52'25	4°36'21
direct	7609 Mar 16 18:04	18°♌17'39	
	7609 May 03 13:05	0°♍	
	7609 Jul 01 21:03	0°♎	
	7609 Aug 22 14:16	0°♏	
	7609 Oct 11 06:26	0°♐	
desc. node	7609 Nov 07 23:37	17°♐08'12	
	7609 Nov 28 10:51	0°♑	
evening set	7609 Dec 13 08:54	9°♑30'14	
max. Earth dist.	7610 Jan 06 16:45	25°♑15'20	2.62085 AU
	7610 Jan 13 22:07	0°♒	
conjunction	7610 Jan 27 18:52	9°♒11'45	-0°40'32
minimum elong	7610 Jan 27 17:45	9°♒09'53	0°40'26
	7610 Feb 27 11:09	0°♓	
morning rise	7610 Mar 15 13:05	11°♓10'06	
	7610 Apr 11 01:51	0°♈	
	7610 May 21 24:00	0°♉	
	7610 Jun 30 16:04	0°♊	
	7610 Aug 08 18:40	0°♋	
	7610 Sep 17 07:44	0°♌	
asc. node	7610 Oct 07 15:46	14°♌57'55	
	7610 Oct 28 20:48	0°♍	
	7610 Dec 15 00:52	0°♎	
retrograde	7611 Feb 21 20:37	23°♎39'22	
min. Earth dist.	7611 Mar 27 03:18	16°♎15'37	0.58313 AU
greatest brilliancy	7611 Apr 01 05:58	14°♎15'28	-1.7m
opposition	7611 Apr 02 06:48	13°♎51'07	4°52'36
direct	7611 May 09 05:52	5°♎25'17	

Command: swevents -p4 -doall -mpdf -eswe -b1.1.7600 -n183366 -roundmin

	7611 Jul 26 12:13	0°♏		
	7611 Sep 20 05:07	0°♐		
desc. node	7611 Sep 25 23:56	3°♐20'22		
	7611 Nov 09 11:04	0°♑		
	7611 Dec 26 12:04	0°♒		
evening set	7612 Jan 21 07:17	17°♒15'08		
max. Earth dist.	7612 Feb 05 15:26	27°♒47'16	2.51683 AU	
	7612 Feb 08 19:47	0°♓		
conjunction	7612 Mar 11 07:32	22°♓22'51	-1°05'52	
minimum elong	7612 Mar 11 07:01	22°♓21'53	1°05'52	
	7612 Mar 21 18:19	0°♈		
	7612 Apr 30 19:21	0°♉		
morning rise	7612 May 06 17:06	4°♉31'13		
	7612 Jun 08 14:05	0°♊		
	7612 Jul 16 21:05	0°♋		
asc. node	7612 Aug 24 12:44	29°♋58'37		
	7612 Aug 24 13:27	0°♌		
	7612 Oct 03 14:50	0°♍		
	7612 Nov 15 07:36	0°♎		
	7613 Jan 02 03:19	0°♏		
	7613 Mar 15 13:14	0°♐		
retrograde	7613 Mar 29 03:57	1°♐08'52		
	7613 Apr 11 05:21	30°℞♏		
min. Earth dist.	7613 May 06 06:37	22°♏08'41	0.66334 AU	
opposition	7613 May 08 15:29	21°♏11'58	3°04'47	
greatest brilliancy	7613 May 08 09:41	21°♏17'44	-1.4m	
direct	7613 Jun 17 13:59	11°♏45'14		
desc. node	7613 Aug 13 00:06	25°♏58'02		
	7613 Aug 22 04:09	0°♐		
	7613 Oct 18 05:18	0°♑		
	7613 Dec 06 03:13	0°♒		
	7614 Jan 19 20:41	0°♓		
	7614 Mar 02 14:17	0°♈		
evening set	7614 Mar 09 22:01	5°♈26'39		
max. Earth dist.	7614 Apr 03 21:45	24°♈22'53	2.38540 AU	
	7614 Apr 11 04:50	0°♉		
conjunction	7614 May 10 17:48	23°♉04'00	-0°41'43	
minimum elong	7614 May 10 20:56	23°♉10'10	0°41'47	
	7614 May 19 12:47	0°♊		
	7614 Jun 26 11:31	0°♋		
asc. node	7614 Jul 12 10:42	12°♋32'35		
morning rise	7614 Jul 21 23:28	19°♋58'49		
	7614 Aug 03 22:19	0°♌		
	7614 Sep 12 17:13	0°♍		
	7614 Oct 24 15:07	0°♎		
	7614 Dec 08 12:58	0°♏		
	7615 Jan 27 07:39	0°♐		
	7615 Apr 04 07:24	0°♑		
retrograde	7615 May 02 08:41	4°♑15'06		
	7615 May 28 04:32	30°℞♐		
opposition	7615 Jun 11 12:12	24°♐43'35	0°40'09	
greatest brilliancy	7615 Jun 11 13:17	24°♐42'31	-1.3m	
min. Earth dist.	7615 Jun 12 22:45	24°♐09'27	0.67882 AU	
desc. node	7615 Jun 30 23:14	17°♐49'43		
direct	7615 Jul 22 22:19	14°♐45'59		
	7615 Sep 18 21:34	0°♑		
	7615 Nov 14 02:16	0°♒		
	7615 Dec 30 14:34	0°♓		
	7616 Feb 10 18:20	0°♈		
	7616 Mar 21 08:21	0°♉		
	7616 Apr 28 13:34	0°♊		
evening set	7616 May 15 15:12	13°♊31'23		
asc. node	7616 May 29 10:56	24°♊27'52		
	7616 Jun 05 11:18	0°♋		
	7616 Jul 14 00:05	0°♌		
conjunction	7616 Jul 24 17:48	8°♌11'32	0°37'24	
minimum elong	7616 Jul 24 14:51	8°♌05'57	0°37'17	
	7616 Aug 22 22:45	0°♍		
max. Earth dist.	7616 Sep 12 16:05	15°♍01'07	2.45506 AU	
morning rise	7616 Sep 26 10:10	24°♍46'29		
	7616 Oct 03 21:25	0°♎		
	7616 Nov 17 05:05	0°♏		
	7617 Jan 03 06:57	0°♐		
	7617 Feb 23 09:38	0°♑		
	7617 Apr 27 23:29	0°♒		
desc. node	7617 May 17 21:39	5°♒43'22		
retrograde	7617 Jun 07 08:19	8°♒01'10		
	7617 Jul 14 02:16	30°℞♑		
opposition	7617 Jul 15 21:55	29°♑18'10	-2°06'36	
greatest brilliancy	7617 Jul 16 06:30	29°♑09'54	-1.5m	
min. Earth dist.	7617 Jul 21 02:22	27°♑18'28	0.62847 AU	
direct	7617 Aug 26 05:26	19°♑19'26		
	7617 Oct 10 15:55	0°♒		
	7617 Dec 05 13:15	0°♓		
	7618 Jan 18 21:13	0°♈		
	7618 Feb 28 05:04	0°♉		
	7618 Apr 07 19:03	0°♊		
asc. node	7618 Apr 16 10:36	6°♊47'43		
	7618 May 16 00:45	0°♋		
	7618 Jun 23 23:33	0°♌		
evening set	7618 Jul 25 19:27	23°♌43'32		
	7618 Aug 03 10:02	0°♍		
	7618 Sep 14 19:30	0°♎		
conjunction	7618 Sep 21 16:56	4°♎44'30	1°07'07	
minimum elong	7618 Sep 21 16:54	4°♎44'27	1°07'08	
max. Earth dist.	7618 Oct 19 18:41	23°♎42'03	2.58089 AU	
	7618 Oct 29 06:46	0°♏		
morning rise	7618 Nov 11 23:04	8°♏58'05		
	7618 Dec 14 16:31	0°♐		
	7619 Jan 31 22:27	0°♑		
	7619 Mar 23 16:20	0°♒		
desc. node	7619 Apr 04 19:10	6°♒48'38		
	7619 May 19 22:18	0°♓		
retrograde	7619 Jul 23 16:20	18°♓09'52		
opposition	7619 Aug 28 02:24	10°♓50'56	-5°01'15	
greatest brilliancy	7619 Aug 29 12:58	10°♓20'09	-2.0m	
min. Earth dist.	7619 Sep 05 10:58	7°♓53'13	0.51727 AU	
direct	7619 Oct 05 21:41	1°♓53'55		
	7619 Dec 20 08:24	0°♈		
	7620 Feb 02 23:28	0°♉		
asc. node	7620 Mar 03 09:43	21°♉42'50		
	7620 Mar 14 09:12	0°♊		
	7620 Apr 22 20:05	0°♋		
	7620 Jun 01 20:45	0°♌		
	7620 Jul 13 07:54	0°♍		
	7620 Aug 25 15:19	0°♎		
evening set	7620 Sep 14 16:50	13°♎28'50		
	7620 Oct 09 17:56	0°♏		
conjunction	7620 Nov 02 18:23	15°♏34'59	0°50'43	
minimum elong	7620 Nov 02 19:34	15°♏36'54	0°50'47	
max. Earth dist.	7620 Nov 13 08:04	22°♏22'40	2.65815 AU	
	7620 Nov 25 06:09	0°♐		
morning rise	7620 Dec 18 06:57	14°♐38'22		
	7621 Jan 11 14:42	0°♑		
desc. node	7621 Feb 19 17:01	24°♑32'20		
	7621 Feb 28 10:43	0°♒		
	7621 Apr 17 20:24	0°♓		
	7621 Jun 06 18:50	0°♈		
	7621 Aug 01 15:01	0°♉		
retrograde	7621 Sep 28 20:59	16°♉21'27		

opposition	7621 Oct 29 09:59	11°♉10'23	-5°15'29
greatest brilliancy	7621 Oct 30 14:45	10°♉50'06	-2.8m
min. Earth dist.	7621 Nov 03 20:45	9°♉38'44	0.38766 AU
direct	7621 Nov 30 06:57	5°♉21'33	
asc. node	7622 Jan 19 10:11	19°♉59'33	
	7622 Feb 06 14:35	0°♊	
	7622 Mar 25 08:35	0°♋	
	7622 May 08 05:16	0°♌	
	7622 Jun 21 07:20	0°♍	
	7622 Aug 05 12:13	0°♎	
	7622 Sep 20 21:48	0°♏	
evening set	7622 Oct 25 00:51	21°♏43'48	
	7622 Nov 07 01:57	0°♐	
max. Earth dist.	7622 Dec 06 06:27	18°♐30'12	2.68063 AU
conjunction	7622 Dec 09 08:42	20°♐28'04	0°15'15
minimum elong	7622 Dec 09 09:09	20°♐28'47	0°15'21
behind sun begin	7622 Dec 09 04:09	20°♐20'51	
behind sun end	7622 Dec 09 14:09	20°♐36'43	
	7622 Dec 24 08:26	0°♑	
desc. node	7623 Jan 07 15:19	9°♑07'01	
morning rise	7623 Jan 22 01:17	18°♑21'31	
	7623 Feb 09 02:31	0°♒	
	7623 Mar 26 23:21	0°♓	
	7623 May 10 20:21	0°♈	
	7623 Jun 23 20:28	0°♉	
	7623 Aug 06 11:04	0°♊	
	7623 Sep 20 08:52	0°♋	
	7623 Nov 14 23:53	0°♌	
asc. node	7623 Dec 07 10:16	5°♌52'30	
retrograde	7623 Dec 16 10:20	6°♌27'00	
min. Earth dist.	7624 Jan 11 09:42	1°♌59'06	0.40173 AU
	7624 Jan 17 21:07	30°℞♋	
opposition	7624 Jan 18 15:58	29°♋45'27	2°51'45
greatest brilliancy	7624 Jan 17 19:35	0°♌01'11	-2.8m
direct	7624 Feb 18 04:04	24°♋08'35	
	7624 Mar 20 21:25	0°♌	
	7624 May 22 09:58	0°♍	
	7624 Jul 12 12:04	0°♎	
	7624 Aug 30 20:04	0°♏	
	7624 Oct 18 12:01	0°♐	
desc. node	7624 Nov 24 13:36	23°♐12'20	
evening set	7624 Nov 29 06:35	26°♐11'01	
	7624 Dec 05 06:58	0°♑	
max. Earth dist.	7624 Dec 27 23:32	14°♑31'48	2.64817 AU
conjunction	7625 Jan 13 01:41	24°♑58'25	-0°25'42
minimum elong	7625 Jan 13 00:56	24°♑57'10	0°25'35
	7625 Jan 20 17:47	0°♒	
morning rise	7625 Feb 27 03:19	24°♒58'08	
	7625 Mar 06 12:40	0°♓	
	7625 Apr 18 13:41	0°♈	
	7625 May 30 00:43	0°♉	
	7625 Jul 09 06:41	0°♊	
	7625 Aug 17 23:55	0°♋	
	7625 Sep 27 08:40	0°♌	
asc. node	7625 Oct 24 07:47	19°♌04'55	
	7625 Nov 09 16:41	0°♍	
	7626 Jan 04 23:22	0°♎	
retrograde	7626 Feb 05 19:18	6°♎24'11	
	7626 Mar 08 08:00	30°℞♍	
min. Earth dist.	7626 Mar 08 19:33	29°♍49'14	0.53592 AU
greatest brilliancy	7626 Mar 14 21:31	27°♍30'11	-1.9m
opposition	7626 Mar 16 06:08	26°♍59'03	5°11'59
direct	7626 Apr 20 14:54	19°♍09'16	
	7626 Jun 06 13:53	0°♎	
	7626 Aug 07 01:59	0°♏	
	7626 Sep 28 11:47	0°♐	
desc. node	7626 Oct 12 13:13	8°♐24'32	
	7626 Nov 16 17:09	0°♑	
	7627 Jan 02 11:07	0°♒	
evening set	7627 Jan 05 10:16	1°♒57'22	
max. Earth dist.	7627 Jan 23 17:53	14°♒11'30	2.56324 AU
	7627 Feb 15 20:05	0°♓	
conjunction	7627 Feb 21 23:38	4°♓16'59	-0°59'23
minimum elong	7627 Feb 21 22:28	4°♓14'58	0°59'19
	7627 Mar 30 00:04	0°♈	
morning rise	7627 Apr 14 10:26	11°♈20'09	
	7627 May 09 08:10	0°♉	
	7627 Jun 17 09:42	0°♊	
	7627 Jul 25 22:12	0°♋	
	7627 Sep 02 19:22	0°♌	
asc. node	7627 Sep 11 06:20	6°♌24'40	
	7627 Oct 13 03:59	0°♍	
	7627 Nov 25 16:29	0°♎	
	7628 Jan 16 00:10	0°♏	
retrograde	7628 Mar 15 14:40	17°♏38'39	
min. Earth dist.	7628 Apr 21 00:19	9°♏11'49	0.63954 AU
opposition	7628 Apr 24 21:17	7°♏39'17	3°52'50
greatest brilliancy	7628 Apr 24 09:04	7°♏51'26	-1.5m
	7628 May 18 16:52	30°℞♎	
direct	7628 Jun 02 20:25	28°♎31'59	
	7628 Jun 18 22:04	0°♏	
desc. node	7628 Aug 29 13:27	27°♏31'47	
	7628 Sep 03 08:20	0°♐	
	7628 Oct 26 14:12	0°♑	
	7628 Dec 13 13:29	0°♒	
	7629 Jan 27 01:38	0°♓	
evening set	7629 Feb 17 04:33	14°♓57'02	
max. Earth dist.	7629 Mar 03 22:26	25°♓38'49	2.43621 AU
	7629 Mar 09 20:30	0°♈	
conjunction	7629 Apr 14 07:11	26°♈41'23	-1°00'14
minimum elong	7629 Apr 14 09:06	26°♈45'05	1°00'17
	7629 Apr 18 14:38	0°♉	
	7629 May 27 02:15	0°♊	
morning rise	7629 Jun 20 05:38	19°♊02'17	
	7629 Jul 04 03:21	0°♋	
asc. node	7629 Jul 29 04:58	19°♋37'16	
	7629 Aug 11 15:02	0°♌	
	7629 Sep 20 10:22	0°♍	
	7629 Nov 01 11:13	0°♎	
	7629 Dec 16 23:37	0°♏	
	7630 Feb 07 10:49	0°♐	
retrograde	7630 Apr 19 00:22	21°♐46'01	
opposition	7630 May 29 10:41	12°♐01'47	1°38'56
greatest brilliancy	7630 May 29 10:58	12°♐01'31	-1.3m
min. Earth dist.	7630 May 29 09:29	12°♐02'59	0.68055 AU
direct	7630 Jul 09 11:14	2°♐13'13	
desc. node	7630 Jul 17 12:45	2°♐36'01	
	7630 Oct 01 21:53	0°♑	
	7630 Nov 22 21:06	0°♒	
	7631 Jan 07 10:54	0°♓	
	7631 Feb 18 08:49	0°♈	
	7631 Mar 29 22:08	0°♉	
evening set	7631 Apr 17 19:19	14°♉44'11	
	7631 May 07 03:47	0°♊	
	7631 Jun 14 01:10	0°♋	
asc. node	7631 Jun 16 03:00	1°♋38'14	
conjunction	7631 Jun 26 14:03	9°♋51'32	0°07'31
minimum elong	7631 Jun 26 13:14	9°♋49'56	0°07'23
behind sun begin	7631 Jun 25 09:51	8°♋56'18	

behind sun end	7631 Jun 27 16:37	10°♋43'33	
	7631 Jul 22 12:17	0°♌	
max. Earth dist.	7631 Aug 17 13:30	19°♌46'06	2.39978 AU
	7631 Aug 31 08:20	0°♍	
morning rise	7631 Sep 04 05:47	2°♍51'37	
	7631 Oct 12 04:45	0°♎	
	7631 Nov 25 14:20	0°♏	
	7632 Jan 12 06:58	0°♐	
	7632 Mar 05 23:35	0°♑	
retrograde	7632 May 23 06:40	24°♑42'00	
desc. node	7632 Jun 03 11:22	23°♑54'25	
opposition	7632 Jul 01 15:12	15°♑36'50	-0°59'45
greatest brilliancy	7632 Jul 01 18:01	15°♑34'06	-1.4m
min. Earth dist.	7632 Jul 05 08:47	14°♑09'29	0.65591 AU
direct	7632 Aug 12 05:20	5°♑33'52	
	7632 Oct 26 11:52	0°♒	
	7632 Dec 15 10:36	0°♓	
	7633 Jan 27 13:22	0°♈	
	7633 Mar 08 11:01	0°♉	
	7633 Apr 15 19:44	0°♊	
asc. node	7633 May 03 02:22	13°♊38'40	
	7633 May 23 20:45	0°♋	
evening set	7633 Jun 30 04:57	28°♋56'40	
	7633 Jul 01 14:10	0°♌	
	7633 Aug 10 18:41	0°♍	
conjunction	7633 Sep 01 07:30	15°♍30'47	1°03'11
minimum elong	7633 Sep 01 06:06	15°♍28'18	1°03'09
	7633 Sep 21 22:25	0°♎	
max. Earth dist.	7633 Oct 07 14:01	10°♎45'36	2.53676 AU
morning rise	7633 Oct 26 10:51	23°♎28'59	
	7633 Nov 05 06:28	0°♏	
	7633 Dec 21 19:06	0°♐	
	7634 Feb 08 18:17	0°♑	
	7634 Apr 02 22:37	0°♒	
desc. node	7634 Apr 21 10:00	9°♒20'05	
	7634 Jun 17 20:39	0°♓	
retrograde	7634 Jul 03 21:42	1°♓27'40	
	7634 Jul 19 03:44	30°℞♒	
opposition	7634 Aug 09 19:00	23°♒29'47	-3°55'38
greatest brilliancy	7634 Aug 10 18:12	23°♒08'14	-1.8m
min. Earth dist.	7634 Aug 17 02:03	20°♒47'42	0.56715 AU
direct	7634 Sep 18 23:37	13°♒56'39	
	7634 Nov 13 10:05	0°♓	
	7635 Jan 02 12:29	0°♈	
	7635 Feb 13 11:25	0°♉	
asc. node	7635 Mar 21 02:50	27°♉08'03	
	7635 Mar 24 19:54	0°♊	
	7635 May 02 14:41	0°♋	
	7635 Jun 11 01:41	0°♌	
	7635 Jul 22 00:24	0°♍	
evening set	7635 Aug 28 10:34	26°♍16'27	
	7635 Sep 02 20:54	0°♎	
	7635 Oct 17 15:45	0°♏	
conjunction	7635 Oct 19 04:11	0°♏59'49	1°00'22
minimum elong	7635 Oct 19 05:15	1°♏01'34	1°00'26
max. Earth dist.	7635 Nov 05 02:10	12°♏01'47	2.63442 AU
	7635 Dec 03 01:08	0°♐	
morning rise	7635 Dec 05 08:38	1°♐28'25	
	7636 Jan 19 14:58	0°♑	
desc. node	7636 Mar 08 07:48	0°♒02'43	
	7636 Mar 08 06:01	0°♒	
	7636 Apr 27 14:44	0°♓	
	7636 Jun 22 04:57	0°♈	
retrograde	7636 Aug 29 22:22	20°♈33'44	
opposition	7636 Oct 01 06:24	14°♈33'00	-6°01'24
greatest brilliancy	7636 Oct 03 01:53	13°♈58'37	-2.5m
min. Earth dist.	7636 Oct 09 10:26	11°♈58'54	0.43287 AU
direct	7636 Nov 05 10:18	7°♈18'05	
	7637 Jan 08 22:11	0°♉	
asc. node	7637 Feb 05 01:49	17°♉09'05	
	7637 Feb 23 19:14	0°♊	
	7637 Apr 06 16:31	0°♋	
	7637 May 18 07:26	0°♌	
	7637 Jun 29 24:00	0°♍	
	7637 Aug 13 06:01	0°♎	
	7637 Sep 28 00:35	0°♏	
evening set	7637 Oct 10 04:11	7°♏49'58	
	7637 Nov 13 20:34	0°♐	
conjunction	7637 Nov 25 12:08	7°♐24'22	0°30'12
minimum elong	7637 Nov 25 13:00	7°♐25'44	0°30'17
max. Earth dist.	7637 Nov 27 11:51	8°♐40'09	2.67854 AU
	7637 Dec 31 02:11	0°♑	
morning rise	7638 Jan 08 12:38	5°♑21'37	
desc. node	7638 Jan 24 05:21	15°♑21'04	
	7638 Feb 16 03:50	0°♒	
	7638 Apr 03 18:24	0°♓	
	7638 May 19 22:46	0°♈	
	7638 Jul 05 02:35	0°♉	
	7638 Aug 21 16:59	0°♊	
	7638 Oct 19 16:13	0°♋	
retrograde	7638 Nov 18 13:11	5°♋36'22	
min. Earth dist.	7638 Dec 16 02:21	1°♋08'02	0.37009 AU
opposition	7638 Dec 19 06:36	0°♋15'55	-0°22'08
greatest brilliancy	7638 Dec 19 06:02	0°♋16'18	-3.1m
	7638 Dec 20 05:57	30°℞♊	
asc. node	7638 Dec 24 02:17	28°♊58'23	
direct	7639 Jan 17 13:58	25°♊20'48	
	7639 Feb 14 02:13	0°♋	
	7639 Apr 16 19:53	0°♌	
	7639 Jun 04 23:21	0°♍	
	7639 Jul 22 17:22	0°♎	
	7639 Sep 08 13:39	0°♏	
	7639 Oct 26 12:11	0°♐	
evening set	7639 Nov 16 08:36	13°♐06'33	
desc. node	7639 Dec 12 03:27	29°♐26'24	
	7639 Dec 13 00:33	0°♑	
max. Earth dist.	7639 Dec 20 01:08	4°♑28'50	2.66742 AU
conjunction	7639 Dec 31 00:10	11°♑30'16	-0°09'57
minimum elong	7639 Dec 30 23:52	11°♑29'47	0°09'51
behind sun begin	7639 Dec 30 09:03	11°♑05'58	
behind sun end	7639 Dec 31 14:42	11°♑53'36	
	7640 Jan 28 12:56	0°♒	
morning rise	7640 Feb 13 02:14	10°♒13'48	
	7640 Mar 13 16:01	0°♓	
	7640 Apr 26 06:58	0°♈	
	7640 Jun 07 11:52	0°♉	
	7640 Jul 18 14:32	0°♊	
	7640 Aug 28 08:25	0°♋	
	7640 Oct 09 08:55	0°♌	
asc. node	7640 Nov 10 02:33	20°♌36'00	
	7640 Nov 26 16:47	0°♍	
retrograde	7641 Jan 18 19:16	16°♍21'56	
min. Earth dist.	7641 Feb 16 10:06	10°♍41'11	0.48216 AU
greatest brilliancy	7641 Feb 23 05:15	8°♍13'46	-2.2m
opposition	7641 Feb 24 17:52	7°♍40'28	5°03'09
direct	7641 Mar 30 06:11	0°♍36'32	
	7641 Jun 23 19:39	0°♎	
	7641 Aug 16 17:44	0°♏	
	7641 Oct 06 05:09	0°♐	
desc. node	7641 Oct 29 02:26	14°♐00'27	

	7641 Nov 23 17:39	0°♉	
evening set	7641 Dec 21 14:08	17°♉46'59	
	7642 Jan 09 07:26	0°♒	
max. Earth dist.	7642 Jan 12 13:37	2°♒09'00	2.60238 AU
conjunction	7642 Feb 05 13:46	18°♒12'55	-0°48'20
minimum elong	7642 Feb 05 12:32	18°♒10'50	0°48'15
	7642 Feb 22 19:10	0°♓	
morning rise	7642 Mar 25 15:54	21°♓40'18	
	7642 Apr 06 06:12	0°♈	
	7642 May 16 23:12	0°♉	
	7642 Jun 25 09:52	0°♊	
	7642 Aug 03 06:41	0°♋	
	7642 Sep 11 12:24	0°♌	
asc. node	7642 Sep 27 23:53	12°♌17'44	
	7642 Oct 22 11:16	0°♍	
	7642 Dec 06 16:07	0°♎	
	7643 Feb 08 09:23	0°♏	
retrograde	7643 Mar 02 09:10	3°♏03'15	
	7643 Mar 23 06:31	30°℞♎	
min. Earth dist.	7643 Apr 05 20:08	25°♎15'35	0.60566 AU
greatest brilliancy	7643 Apr 10 08:39	23°♎28'28	-1.6m
opposition	7643 Apr 11 04:44	23°♎08'37	4°34'00
direct	7643 May 18 22:48	14°♎26'19	
	7643 Jul 17 02:19	0°♏	
	7643 Sep 14 06:14	0°♐	
desc. node	7643 Sep 16 02:36	1°♐02'04	
	7643 Nov 04 09:33	0°♑	
	7643 Dec 21 18:16	0°♒	
evening set	7644 Jan 30 21:34	27°♒02'17	
	7644 Feb 04 03:57	0°♓	
max. Earth dist.	7644 Feb 14 02:59	6°♓58'59	2.48909 AU
	7644 Mar 17 01:38	0°♈	
conjunction	7644 Mar 22 16:54	4°♈09'24	-1°06'34
minimum elong	7644 Mar 22 17:05	4°♈09'43	1°06'35
	7644 Apr 26 00:18	0°♉	
morning rise	7644 May 21 13:44	19°♉45'20	
	7644 Jun 03 16:23	0°♊	
	7644 Jul 11 20:48	0°♋	
asc. node	7644 Aug 14 21:03	26°♋29'22	
	7644 Aug 19 10:36	0°♌	
	7644 Sep 28 08:27	0°♍	
	7644 Nov 09 16:35	0°♎	
	7644 Dec 26 07:57	0°♏	
	7645 Feb 23 03:28	0°♐	
retrograde	7645 Apr 05 18:48	9°♐04'35	
	7645 May 14 06:29	30°℞♏	
min. Earth dist.	7645 May 14 18:37	29°♏47'56	0.67225 AU
opposition	7645 May 16 07:28	29°♏11'14	2°34'22
greatest brilliancy	7645 May 16 04:30	29°♏14'11	-1.3m
direct	7645 Jun 25 16:52	19°♏35'37	
desc. node	7645 Aug 03 02:50	26°♏54'37	
	7645 Aug 11 15:44	0°♐	
	7645 Oct 12 03:51	0°♑	
	7645 Nov 30 23:32	0°♒	
	7646 Jan 14 23:59	0°♓	
	7646 Feb 25 19:36	0°♈	
evening set	7646 Mar 22 23:01	18°♈53'37	
	7646 Apr 06 10:03	0°♉	
	7646 May 14 17:21	0°♊	
max. Earth dist.	7646 May 16 01:51	1°♊04'13	2.36722 AU
conjunction	7646 May 27 02:19	9°♊47'35	-0°25'48
minimum elong	7646 May 27 04:51	9°♊52'36	0°25'53
	7646 Jun 21 15:20	0°♋	
asc. node	7646 Jul 02 20:38	8°♋50'00	
	7646 Jul 30 01:27	0°♌	
morning rise	7646 Aug 07 23:24	6°♌50'07	
	7646 Sep 07 19:40	0°♍	
	7646 Oct 19 15:23	0°♎	
	7646 Dec 03 06:12	0°♏	
	7647 Jan 20 23:49	0°♐	
	7647 Mar 21 00:23	0°♑	
retrograde	7647 May 10 03:47	11°♑55'30	
opposition	7647 Jun 19 02:08	2°♑32'22	0°04'11
greatest brilliancy	7647 Jun 19 02:23	2°♑32'07	-1.3m
min. Earth dist.	7647 Jun 21 08:27	1°♑38'56	0.67339 AU
desc. node	7647 Jun 21 02:09	1°♑45'07	
	7647 Jun 25 14:28	30°℞♐	
direct	7647 Jul 30 15:37	22°♐31'31	
	7647 Sep 06 22:46	0°♑	
	7647 Nov 07 18:06	0°♒	
	7647 Dec 25 05:09	0°♓	
	7648 Feb 05 16:13	0°♈	
	7648 Mar 16 08:44	0°♉	
	7648 Apr 23 15:09	0°♊	
asc. node	7648 May 19 18:57	20°♊42'12	
	7648 May 31 13:46	0°♋	
evening set	7648 Jun 01 11:07	0°♋42'00	
	7648 Jul 09 03:34	0°♌	
conjunction	7648 Aug 08 16:26	23°♌01'28	0°49'55
minimum elong	7648 Aug 08 13:39	22°♌56'18	0°49'50
	7648 Aug 18 03:30	0°♍	
max. Earth dist.	7648 Sep 22 20:19	25°♍36'59	2.48560 AU
	7648 Sep 29 02:47	0°♎	
morning rise	7648 Oct 07 23:46	6°♎08'46	
	7648 Nov 12 09:04	0°♏	
	7648 Dec 29 03:45	0°♐	
	7649 Feb 17 05:55	0°♑	
	7649 Apr 16 01:12	0°♒	
desc. node	7649 May 08 00:26	8°♒46'46	
retrograde	7649 Jun 16 10:42	16°♒28'15	
opposition	7649 Jul 24 12:06	7°♒59'26	-2°46'23
greatest brilliancy	7649 Jul 25 01:16	7°♒46'54	-1.6m
min. Earth dist.	7649 Jul 30 11:36	5°♒42'56	0.60922 AU
	7649 Aug 17 16:06	30°℞♑	
direct	7649 Sep 03 13:24	28°♑06'28	
	7649 Sep 21 05:44	0°♒	
	7649 Nov 28 07:26	0°♓	
	7650 Jan 12 22:59	0°♈	
	7650 Feb 22 17:09	0°♉	
	7650 Apr 02 12:07	0°♊	
asc. node	7650 Apr 06 18:15	3°♊19'43	
	7650 May 10 21:12	0°♋	
	7650 Jun 18 23:00	0°♌	
	7650 Jul 29 12:40	0°♍	
evening set	7650 Aug 07 20:29	6°♍42'25	
	7650 Sep 10 00:52	0°♎	
conjunction	7650 Oct 02 05:15	15°♎06'23	1°06'10
minimum elong	7650 Oct 02 05:46	15°♎07'15	1°06'12
	7650 Oct 24 13:46	0°♏	
max. Earth dist.	7650 Oct 26 01:18	0°♏58'33	2.60239 AU
morning rise	7650 Nov 20 18:07	17°♏43'23	
	7650 Dec 09 22:05	0°♐	
	7651 Jan 26 20:25	0°♑	
	7651 Mar 17 15:13	0°♒	
desc. node	7651 Mar 25 22:15	4°♒50'26	
	7651 May 10 09:09	0°♓	
retrograde	7651 Aug 05 06:32	29°♓11'15	
opposition	7651 Sep 08 16:40	22°♓17'47	-5°32'32
greatest brilliancy	7651 Sep 10 08:59	21°♓43'05	-2.2m

min. Earth dist.	7651 Sep 17 08:50	19°♓19'28	0.48759 AU
direct	7651 Oct 16 11:20	13°♓49'46	
	7651 Dec 09 01:47	0°♈	
	7652 Jan 26 10:29	0°♉	
asc. node	7652 Feb 22 19:32	19°♉34'01	
	7652 Mar 07 22:25	0°♊	
	7652 Apr 16 23:05	0°♋	
	7652 May 27 09:10	0°♌	
	7652 Jul 08 03:57	0°♍	
	7652 Aug 20 17:19	0°♎	
evening set	7652 Sep 24 08:30	23°♎01'53	
	7652 Oct 05 00:17	0°♏	
conjunction	7652 Nov 11 06:08	24°♏01'56	0°43'44
minimum elong	7652 Nov 11 07:15	24°♏03'45	0°43'49
max. Earth dist.	7652 Nov 18 14:47	28°♏44'12	2.66784 AU
	7652 Nov 20 14:19	0°♐	
morning rise	7652 Dec 26 02:14	22°♐32'37	
	7653 Jan 06 21:05	0°♑	
desc. node	7653 Feb 09 19:42	21°♑26'25	
	7653 Feb 23 09:15	0°♒	
	7653 Apr 12 00:15	0°♓	
	7653 May 30 04:51	0°♈	
	7653 Jul 19 15:26	0°♉	
	7653 Sep 23 01:03	0°♊	
retrograde	7653 Oct 17 09:54	3°♊31'37	
	7653 Nov 10 20:21	30°℞♉	
opposition	7653 Nov 16 05:31	28°♉35'27	-3°56'01
greatest brilliancy	7653 Nov 16 19:31	28°♉26'06	-3.0m
min. Earth dist.	7653 Nov 19 00:09	27°♉50'59	0.37220 AU
direct	7653 Dec 16 13:24	23°♉23'58	
asc. node	7654 Jan 09 19:46	27°♉12'30	
	7654 Jan 18 01:55	0°♊	
	7654 Mar 15 18:26	0°♋	
	7654 May 01 01:19	0°♌	
	7654 Jun 15 07:21	0°♍	
	7654 Jul 31 04:26	0°♎	
	7654 Sep 15 23:51	0°♏	
evening set	7654 Nov 02 06:36	29°♏55'45	
	7654 Nov 02 09:17	0°♐	
max. Earth dist.	7654 Dec 11 08:59	24°♐41'03	2.67829 AU
conjunction	7654 Dec 17 05:40	28°♐24'47	0°06'04
minimum elong	7654 Dec 17 05:50	28°♐25'03	0°06'10
behind sun begin	7654 Dec 16 12:36	27°♐57'39	
behind sun end	7654 Dec 17 23:04	28°♐52'29	
	7654 Dec 19 17:27	0°♑	
desc. node	7654 Dec 28 17:08	5°♑44'03	
morning rise	7655 Jan 29 22:19	26°♑27'32	
	7655 Feb 04 09:18	0°♒	
	7655 Mar 21 23:15	0°♓	
	7655 May 05 08:15	0°♈	
	7655 Jun 17 13:50	0°♉	
	7655 Jul 30 00:40	0°♊	
	7655 Sep 10 17:38	0°♋	
	7655 Oct 27 04:56	0°♌	
asc. node	7655 Nov 27 18:23	15°♌39'55	
retrograde	7655 Dec 29 22:32	22°♌27'52	
min. Earth dist.	7656 Jan 25 12:14	17°♌38'36	0.42826 AU
greatest brilliancy	7656 Feb 01 09:51	15°♌22'18	-2.6m
opposition	7656 Feb 02 16:21	14°♌56'56	4°02'27
direct	7656 Mar 05 06:52	8°♌47'52	
	7656 May 12 03:46	0°♍	
	7656 Jul 05 20:17	0°♎	
	7656 Aug 25 09:22	0°♏	
	7656 Oct 13 14:13	0°♐	
desc. node	7656 Nov 14 16:08	19°♐56'42	
	7656 Nov 30 14:47	0°♑	
evening set	7656 Dec 07 07:32	4°♑15'23	
max. Earth dist.	7657 Jan 02 12:39	21°♑07'08	2.63407 AU
	7657 Jan 16 02:43	0°♒	
conjunction	7657 Jan 21 09:13	3°♒28'27	-0°34'32
minimum elong	7657 Jan 21 08:13	3°♒26'49	0°34'26
	7657 Mar 01 19:13	0°♓	
morning rise	7657 Mar 08 06:46	4°♓27'28	
	7657 Apr 13 15:27	0°♈	
	7657 May 24 19:48	0°♉	
	7657 Jul 03 18:13	0°♊	
	7657 Aug 12 02:39	0°♋	
	7657 Sep 20 22:12	0°♌	
asc. node	7657 Oct 14 17:15	17°♌17'14	
	7657 Nov 02 00:07	0°♍	
	7657 Dec 21 06:54	0°♎	
retrograde	7658 Feb 15 03:16	16°♎57'53	
min. Earth dist.	7658 Mar 19 10:09	9°♎55'32	0.56292 AU
greatest brilliancy	7658 Mar 25 00:10	7°♎45'44	-1.8m
opposition	7658 Mar 26 04:40	7°♎18'05	5°03'41
	7658 Apr 19 22:05	30°℞♍	
direct	7658 May 01 12:00	29°♍07'18	
	7658 May 13 14:53	0°♎	
	7658 Jul 30 20:38	0°♏	
	7658 Sep 22 23:56	0°♐	
desc. node	7658 Oct 02 16:25	5°♐40'53	
	7658 Nov 11 19:31	0°♑	
	7658 Dec 28 18:34	0°♒	
evening set	7659 Jan 14 08:04	11°♒00'00	
max. Earth dist.	7659 Jan 30 20:16	22°♒11'27	2.53830 AU
	7659 Feb 11 03:56	0°♓	
conjunction	7659 Mar 04 03:06	14°♓45'15	-1°03'52
minimum elong	7659 Mar 04 02:13	14°♓43'42	1°03'49
	7659 Mar 25 06:03	0°♈	
morning rise	7659 Apr 27 02:38	24°♈25'49	
	7659 May 04 10:57	0°♉	
	7659 Jun 12 09:12	0°♊	
	7659 Jul 20 18:39	0°♋	
	7659 Aug 28 12:21	0°♌	
asc. node	7659 Sep 01 14:50	3°♌07'52	
	7659 Oct 07 15:20	0°♍	
	7659 Nov 19 13:06	0°♎	
	7660 Jan 07 08:13	0°♏	
retrograde	7660 Mar 23 09:56	25°♏56'20	
min. Earth dist.	7660 Apr 29 19:23	17°♏10'26	0.65392 AU
opposition	7660 May 02 20:20	15°♏57'46	3°25'36
greatest brilliancy	7660 May 02 11:57	16°♏06'06	-1.4m
direct	7660 Jun 11 09:29	6°♏39'03	
desc. node	7660 Aug 19 16:42	26°♏36'48	
	7660 Aug 26 19:09	0°♐	
	7660 Oct 21 01:56	0°♑	
	7660 Dec 08 15:13	0°♒	
	7661 Jan 22 07:38	0°♓	
evening set	7661 Feb 28 13:41	26°♓38'42	
	7661 Mar 05 03:02	0°♈	
max. Earth dist.	7661 Mar 18 08:43	9°♈51'26	2.40684 AU
	7661 Apr 13 19:50	0°♉	
conjunction	7661 Apr 28 17:38	11°♉33'33	-0°51'19
minimum elong	7661 Apr 28 20:29	11°♉39'06	0°51'21
	7661 May 22 05:44	0°♊	
	7661 Jun 29 05:23	0°♋	
morning rise	7661 Jul 08 03:34	7°♋01'24	
asc. node	7661 Jul 19 12:03	15°♋54'51	
	7661 Aug 06 15:51	0°♌	

	7661 Sep 15 09:49	0°♍	
	7661 Oct 27 07:15	0°♎	
	7661 Dec 11 08:19	0°♏	
	7662 Jan 30 21:34	0°♐	
retrograde	7662 Apr 26 14:34	29°♐24'12	
opposition	7662 Jun 05 22:14	19°♐46'38	1°04'53
greatest brilliancy	7662 Jun 05 23:16	19°♐45'37	-1.3m
min. Earth dist.	7662 Jun 06 16:58	19°♐28'06	0.68093 AU
desc. node	7662 Jul 07 15:46	10°♐26'43	
direct	7662 Jul 17 05:17	9°♐52'35	
	7662 Sep 24 00:11	0°♑	
	7662 Nov 17 05:14	0°♒	
	7663 Jan 02 08:56	0°♓	
	7663 Feb 13 11:31	0°♈	
	7663 Mar 25 01:57	0°♉	
	7663 May 02 07:38	0°♊	
evening set	7663 May 03 17:36	1°♊07'14	
asc. node	7663 Jun 06 12:05	27°♊52'07	
	7663 Jun 09 04:54	0°♋	
conjunction	7663 Jul 13 08:56	26°♋41'34	0°25'34
minimum elong	7663 Jul 13 06:30	26°♋36'53	0°25'26
	7663 Jul 17 15:59	0°♌	
	7663 Aug 26 12:12	0°♍	
max. Earth dist.	7663 Sep 04 01:37	6°♍16'00	2.42996 AU
morning rise	7663 Sep 17 20:02	16°♍12'36	
	7663 Oct 07 08:19	0°♎	
	7663 Nov 20 14:53	0°♏	
	7664 Jan 06 20:24	0°♐	
	7664 Feb 27 18:20	0°♑	
	7664 May 09 10:20	0°♒	
desc. node	7664 May 24 14:24	2°♒24'47	
retrograde	7664 May 31 17:19	2°♒42'51	
	7664 Jun 21 11:21	30°℞♑	
opposition	7664 Jul 09 16:34	23°♑49'20	-1°38'21
greatest brilliancy	7664 Jul 09 22:19	23°♑43'46	-1.5m
min. Earth dist.	7664 Jul 14 05:53	22°♑03'37	0.64206 AU
direct	7664 Aug 20 04:36	13°♑47'51	
	7664 Oct 17 10:16	0°♒	
	7664 Dec 09 06:43	0°♓	
	7665 Jan 22 02:28	0°♈	
	7665 Mar 03 06:22	0°♉	
	7665 Apr 10 18:09	0°♊	
asc. node	7665 Apr 23 12:01	10°♊02'16	
	7665 May 18 21:24	0°♋	
	7665 Jun 26 16:45	0°♌	
evening set	7665 Jul 15 01:42	13°♌50'58	
	7665 Aug 05 23:14	0°♍	
conjunction	7665 Sep 13 05:16	27°♍14'23	1°06'24
minimum elong	7665 Sep 13 04:42	27°♍13'24	1°06'23
	7665 Sep 17 04:36	0°♎	
max. Earth dist.	7665 Oct 14 19:59	18°♎51'57	2.56200 AU
	7665 Oct 31 12:51	0°♏	
morning rise	7665 Nov 05 01:39	2°♏59'20	
	7665 Dec 16 22:17	0°♐	
	7666 Feb 03 09:45	0°♑	
	7666 Mar 26 23:20	0°♒	
desc. node	7666 Apr 11 12:16	8°♒25'47	
	7666 May 27 03:29	0°♓	
retrograde	7666 Jul 14 18:01	11°♓10'26	
opposition	7666 Aug 19 21:12	3°♓33'01	-4°34'05
greatest brilliancy	7666 Aug 21 02:53	3°♓06'03	-1.9m
min. Earth dist.	7666 Aug 27 20:08	0°♓40'06	0.54043 AU
	7666 Aug 29 17:57	30°℞♒	
direct	7666 Sep 28 09:49	24°♒17'23	
	7666 Oct 29 02:35	0°♓	
	7666 Dec 25 20:54	0°♈	
	7667 Feb 07 03:17	0°♉	
asc. node	7667 Mar 11 11:13	24°♉13'58	
	7667 Mar 19 00:26	0°♊	
	7667 Apr 27 03:07	0°♋	
	7667 Jun 05 20:14	0°♌	
	7667 Jul 17 00:19	0°♍	
	7667 Aug 29 01:21	0°♎	
evening set	7667 Sep 08 01:35	6°♎47'28	
	7667 Oct 12 23:09	0°♏	
conjunction	7667 Oct 28 05:09	9°♏56'58	0°55'07
minimum elong	7667 Oct 28 06:20	9°♏58'52	0°55'12
max. Earth dist.	7667 Nov 10 14:32	18°♏36'23	2.64855 AU
	7667 Nov 28 09:02	0°♐	
morning rise	7667 Dec 13 09:49	9°♐33'53	
	7668 Jan 14 19:11	0°♑	
desc. node	7668 Feb 27 09:42	27°♑11'52	
	7668 Mar 02 22:23	0°♒	
	7668 Apr 21 01:34	0°♓	
	7668 Jun 11 20:09	0°♈	
	7668 Aug 16 08:33	0°♉	
retrograde	7668 Sep 15 03:39	4°♉55'59	
	7668 Oct 14 10:49	30°℞♈	
opposition	7668 Oct 16 11:11	29°♈24'19	-5°47'54
greatest brilliancy	7668 Oct 18 00:59	28°♈56'10	-2.7m
min. Earth dist.	7668 Oct 23 11:25	27°♈20'05	0.40589 AU
direct	7668 Nov 18 19:30	22°♈57'18	
	7668 Dec 21 23:49	0°♉	
asc. node	7669 Jan 26 11:28	18°♉04'13	
	7669 Feb 14 12:18	0°♊	
	7669 Mar 30 10:36	0°♋	
	7669 May 12 02:18	0°♌	
	7669 Jun 24 10:28	0°♍	
	7669 Aug 08 03:18	0°♎	
	7669 Sep 23 04:57	0°♏	
evening set	7669 Oct 18 18:33	16°♏22'08	
	7669 Nov 09 04:44	0°♐	
conjunction	7669 Dec 03 11:32	15°♐24'41	0°21'34
minimum elong	7669 Dec 03 12:10	15°♐25'42	0°21'40
max. Earth dist.	7669 Dec 02 13:57	14°♐50'26	2.68074 AU
	7669 Dec 26 10:42	0°♑	
desc. node	7670 Jan 14 07:43	12°♑01'58	
morning rise	7670 Jan 16 06:17	13°♑16'20	
	7670 Feb 11 08:04	0°♒	
	7670 Mar 29 12:34	0°♓	
	7670 May 13 22:38	0°♈	
	7670 Jun 27 18:30	0°♉	
	7670 Aug 11 17:22	0°♊	
	7670 Sep 28 15:25	0°♋	
retrograde	7670 Dec 04 21:45	23°♋49'31	
asc. node	7670 Dec 14 12:02	23°♋10'42	
min. Earth dist.	7670 Dec 31 01:26	19°♋29'07	0.38426 AU
opposition	7671 Jan 05 21:16	17°♋48'04	1°37'47
greatest brilliancy	7671 Jan 05 11:15	17°♋55'20	-2.9m
direct	7671 Feb 04 15:10	12°♋34'17	
	7671 Apr 04 10:34	0°♌	
	7671 May 28 10:46	0°♍	
	7671 Jul 16 19:17	0°♎	
	7671 Sep 03 09:34	0°♏	
	7671 Oct 21 17:14	0°♐	
evening set	7671 Nov 24 07:33	21°♐04'34	
desc. node	7671 Dec 02 06:13	26°♐06'05	
	7671 Dec 08 09:34	0°♑	
max. Earth dist.	7671 Dec 25 05:42	10°♑45'37	2.65778 AU

conjunction	7672 Jan 07 23:40	19°♉37'41	-0°19'13
minimum elong	7672 Jan 07 23:05	19°♉36'45	0°19'06
	7672 Jan 23 21:40	0°♒	
morning rise	7672 Feb 21 13:03	18°♒58'51	
	7672 Mar 08 20:51	0°♓	
	7672 Apr 21 04:35	0°♈	
	7672 Jun 01 23:39	0°♉	
	7672 Jul 12 14:17	0°♊	
	7672 Aug 21 16:55	0°♋	
	7672 Oct 01 14:25	0°♌	
asc. node	7672 Oct 31 09:31	20°♌31'30	
	7672 Nov 15 06:45	0°♍	
retrograde	7673 Jan 29 07:12	28°♍36'24	
min. Earth dist.	7673 Feb 28 05:51	22°♍25'33	0.51255 AU
greatest brilliancy	7673 Mar 06 17:00	20°♍00'46	-2.1m
opposition	7673 Mar 08 04:14	19°♍27'46	5°13'12
direct	7673 Apr 11 18:09	11°♍57'11	
	7673 Jun 14 01:34	0°♎	
	7673 Aug 10 12:15	0°♏	
	7673 Oct 01 00:33	0°♐	
desc. node	7673 Oct 19 05:49	11°♐00'29	
	7673 Nov 18 23:05	0°♑	
evening set	7673 Dec 29 22:41	26°♑14'28	
	7674 Jan 04 16:14	0°♒	
max. Earth dist.	7674 Jan 18 18:32	9°♒20'50	2.58175 AU
conjunction	7674 Feb 14 16:47	27°♒37'06	-0°55'10
minimum elong	7674 Feb 14 15:33	27°♒34'58	0°55'06
	7674 Feb 18 03:34	0°♓	
	7674 Apr 01 11:46	0°♈	
morning rise	7674 Apr 05 11:41	2°♈54'16	
	7674 May 12 00:29	0°♉	
	7674 Jun 20 06:16	0°♊	
	7674 Jul 28 22:11	0°♋	
	7674 Sep 05 21:58	0°♌	
asc. node	7674 Sep 18 07:52	9°♌21'46	
	7674 Oct 16 10:19	0°♍	
	7674 Nov 29 10:05	0°♎	
	7675 Jan 22 09:05	0°♏	
retrograde	7675 Mar 10 15:05	12°♏02'06	
min. Earth dist.	7675 Apr 15 04:48	3°♏51'56	0.62570 AU
opposition	7675 Apr 19 17:46	2°♏03'51	4°11'17
greatest brilliancy	7675 Apr 19 02:16	2°♏19'14	-1.5m
	7675 Apr 25 00:53	30°℞♎	
direct	7675 May 28 05:06	23°♎06'46	
	7675 Jul 04 03:10	0°♏	
desc. node	7675 Sep 06 06:01	29°♏08'08	
	7675 Sep 07 20:41	0°♐	
	7675 Oct 30 04:29	0°♑	
	7675 Dec 16 22:41	0°♒	
	7676 Jan 30 11:08	0°♓	
evening set	7676 Feb 10 00:10	7°♓23'26	
max. Earth dist.	7676 Feb 23 21:17	17°♓17'10	2.46019 AU
	7676 Mar 12 08:35	0°♈	
conjunction	7676 Apr 04 00:12	16°♈53'16	-1°04'19
minimum elong	7676 Apr 04 01:18	16°♈55'21	1°04'20
	7676 Apr 21 05:37	0°♉	
	7676 May 29 19:36	0°♊	
morning rise	7676 Jun 06 18:19	6°♊14'47	
	7676 Jul 06 22:06	0°♋	
asc. node	7676 Aug 05 06:47	22°♋56'49	
	7676 Aug 14 09:58	0°♌	
	7676 Sep 23 04:54	0°♍	
	7676 Nov 04 06:40	0°♎	
	7676 Dec 20 01:56	0°♏	
	7677 Feb 12 05:21	0°♐	
retrograde	7677 Apr 13 08:33	16°♐52'39	
opposition	7677 May 23 21:01	7°♐03'54	2°02'21
min. Earth dist.	7677 May 23 04:04	7°♐20'45	0.67814 AU
greatest brilliancy	7677 May 23 20:09	7°♐04'46	-1.3m
	7677 Jun 13 03:28	30°℞♏	
direct	7677 Jul 03 15:53	27°♏20'29	
desc. node	7677 Jul 24 05:38	29°♏40'25	
	7677 Jul 25 17:16	0°♐	
	7677 Oct 05 15:12	0°♑	
	7677 Nov 25 16:16	0°♒	
	7678 Jan 10 01:38	0°♓	
	7678 Feb 20 23:53	0°♈	
	7678 Apr 01 14:31	0°♉	
evening set	7678 Apr 06 01:25	3°♉27'09	
	7678 May 09 21:13	0°♊	
conjunction	7678 Jun 13 03:59	27°♊08'39	-0°07'14
minimum elong	7678 Jun 13 04:47	27°♊10'14	0°07'21
behind sun begin	7678 Jun 12 01:15	26°♊15'50	
behind sun end	7678 Jun 14 08:20	28°♊04'37	
	7678 Jun 16 18:48	0°♋	
asc. node	7678 Jun 23 04:56	5°♋03'43	
	7678 Jul 25 04:49	0°♌	
max. Earth dist.	7678 Jul 27 07:00	1°♌36'33	2.37806 AU
morning rise	7678 Aug 23 20:33	22°♌30'19	
	7678 Sep 02 22:50	0°♍	
	7678 Oct 14 17:23	0°♎	
	7678 Nov 28 02:54	0°♏	
	7679 Jan 15 02:28	0°♐	
	7679 Mar 11 07:42	0°♑	
retrograde	7679 May 18 02:56	19°♑40'40	
desc. node	7679 Jun 11 04:18	16°♑01'32	
opposition	7679 Jun 26 18:49	10°♑26'57	-0°32'51
greatest brilliancy	7679 Jun 26 20:05	10°♑25'43	-1.4m
min. Earth dist.	7679 Jun 29 20:54	9°♑14'29	0.66506 AU
direct	7679 Aug 07 10:05	0°♑24'13	
	7679 Oct 31 19:17	0°♒	
	7679 Dec 19 15:23	0°♓	
	7680 Jan 31 12:24	0°♈	
	7680 Mar 11 08:31	0°♉	
	7680 Apr 18 16:18	0°♊	
asc. node	7680 May 10 03:43	16°♊58'53	
	7680 May 26 15:55	0°♋	
evening set	7680 Jun 17 22:10	17°♋23'44	
	7680 Jul 04 06:51	0°♌	
	7680 Aug 13 08:02	0°♍	
conjunction	7680 Aug 22 11:19	6°♍39'12	0°58'48
minimum elong	7680 Aug 22 09:15	6°♍35'27	0°58'45
	7680 Sep 24 08:27	0°♎	
max. Earth dist.	7680 Oct 01 14:33	5°♎01'39	2.51466 AU
morning rise	7680 Oct 18 18:22	16°♎44'48	
	7680 Nov 07 14:05	0°♏	
	7680 Dec 24 03:36	0°♐	
	7681 Feb 11 11:21	0°♑	
	7681 Apr 07 02:03	0°♒	
desc. node	7681 Apr 28 03:02	9°♒54'01	
retrograde	7681 Jun 26 02:32	25°♒19'12	
opposition	7681 Aug 02 13:45	17°♒06'39	-3°26'23
greatest brilliancy	7681 Aug 03 08:20	16°♒49'11	-1.7m
min. Earth dist.	7681 Aug 09 07:37	14°♒34'50	0.58711 AU
direct	7681 Sep 12 05:32	7°♒23'01	
	7681 Nov 19 19:28	0°♓	
	7682 Jan 06 14:44	0°♈	
	7682 Feb 17 00:37	0°♉	
asc. node	7682 Mar 28 04:19	0°♊03'07	
	7682 Mar 28 02:43	0°♊	

	7682 May 05 16:32	0°♋	
	7682 Jun 13 22:18	0°♌	
	7682 Jul 24 15:26	0°♍	
evening set	7682 Aug 19 20:14	18°♍36'08	
	7682 Sep 05 06:47	0°♎	
conjunction	7682 Oct 12 01:30	24°♎49'17	1°03'21
minimum elong	7682 Oct 12 02:24	24°♎50'45	1°03'24
	7682 Oct 19 21:30	0°♏	
max. Earth dist.	7682 Nov 01 01:00	7°♏57'44	2.62107 AU
morning rise	7682 Nov 29 04:51	26°♏09'17	
	7682 Dec 05 05:19	0°♐	
	7683 Jan 21 21:43	0°♑	
	7683 Mar 11 22:45	0°♒	
desc. node	7683 Mar 16 01:03	2°♒27'21	
	7683 May 02 11:20	0°♓	
	7683 Jul 01 22:11	0°♈	
retrograde	7683 Aug 19 05:13	11°♈16'26	
opposition	7683 Sep 21 11:40	4°♈51'27	-5°54'26
greatest brilliancy	7683 Sep 23 07:21	4°♈15'23	-2.3m
min. Earth dist.	7683 Sep 30 01:35	2°♈02'21	0.45692 AU
	7683 Oct 06 22:45	30°℞♓	
direct	7683 Oct 27 22:15	27°♓00'50	
	7683 Nov 17 23:48	0°♈	
	7684 Jan 17 09:52	0°♉	
asc. node	7684 Feb 13 03:47	18°♉06'15	
	7684 Feb 29 19:47	0°♊	
	7684 Apr 10 17:22	0°♋	
	7684 May 21 17:10	0°♌	
	7684 Jul 02 21:55	0°♍	
	7684 Aug 15 18:56	0°♎	
	7684 Sep 30 06:58	0°♏	
evening set	7684 Oct 03 12:07	2°♏05'07	
	7684 Nov 15 23:32	0°♐	
conjunction	7684 Nov 19 10:54	2°♐12'50	0°36'02
minimum elong	7684 Nov 19 11:54	2°♐14'25	0°36'08
max. Earth dist.	7684 Nov 23 18:45	4°♐58'06	2.67479 AU
morning rise	7685 Jan 02 18:45	0°♑21'20	
	7685 Jan 02 05:18	0°♑	
desc. node	7685 Jan 30 22:16	18°♑12'46	
	7685 Feb 18 11:15	0°♒	
	7685 Apr 06 11:57	0°♓	
	7685 May 23 10:55	0°♈	
	7685 Jul 10 01:35	0°♉	
	7685 Aug 30 07:53	0°♊	
retrograde	7685 Nov 04 19:13	21°♊51'55	
opposition	7685 Dec 04 19:59	16°♊51'30	-2°00'57
min. Earth dist.	7685 Dec 04 06:40	17°♊00'22	0.36638 AU
greatest brilliancy	7685 Dec 04 21:42	16°♊50'21	-3.1m
asc. node	7685 Dec 31 03:43	12°♊02'15	
direct	7686 Jan 03 07:38	11°♊58'12	
	7686 Mar 02 13:06	0°♋	
	7686 Apr 22 20:13	0°♌	
	7686 Jun 08 21:10	0°♍	
	7686 Jul 25 16:19	0°♎	
	7686 Sep 11 00:06	0°♏	
	7686 Oct 28 16:20	0°♐	
evening set	7686 Nov 10 08:41	7°♐59'15	
	7686 Dec 15 02:56	0°♑	
max. Earth dist.	7686 Dec 16 10:58	0°♑51'00	2.67339 AU
desc. node	7686 Dec 18 20:10	2°♑22'11	
conjunction	7686 Dec 25 02:00	6°♑21'26	-0°03'20
minimum elong	7686 Dec 25 01:53	6°♑21'14	0°03'13
behind sun begin	7686 Dec 24 07:43	5°♑52'12	
behind sun end	7686 Dec 25 20:03	6°♑50'17	

	7687 Jan 30 17:13	0°♒	
morning rise	7687 Feb 06 22:18	4°♒42'40	
	7687 Mar 17 01:43	0°♓	
	7687 Apr 30 00:57	0°♈	
	7687 Jun 11 16:38	0°♉	
	7687 Jul 23 08:01	0°♊	
	7687 Sep 02 18:32	0°♋	
	7687 Oct 16 01:13	0°♌	
asc. node	7687 Nov 18 03:58	19°♌59'34	
	7687 Dec 09 12:03	0°♍	
retrograde	7688 Jan 11 03:22	6°♍58'42	
min. Earth dist.	7688 Feb 07 18:21	1°♍42'26	0.45750 AU
	7688 Feb 12 16:24	30°℞♌	
greatest brilliancy	7688 Feb 14 17:17	29°♌16'52	-2.4m
opposition	7688 Feb 16 05:09	28°♌45'23	4°45'55
direct	7688 Mar 19 20:12	22°♌05'17	
	7688 Apr 27 02:42	0°♍	
	7688 Jun 28 10:51	0°♎	
	7688 Aug 19 16:41	0°♏	
	7688 Oct 08 14:08	0°♐	
desc. node	7688 Nov 04 19:14	16°♐46'16	
	7688 Nov 25 21:53	0°♑	
evening set	7688 Dec 15 10:13	12°♑25'25	
max. Earth dist.	7689 Jan 08 04:29	27°♑50'03	2.61755 AU
	7689 Jan 11 11:39	0°♒	
conjunction	7689 Jan 29 22:02	12°♒13'50	-0°42'49
minimum elong	7689 Jan 29 20:53	12°♒11'54	0°42'43
	7689 Feb 25 02:32	0°♓	
morning rise	7689 Mar 17 21:40	14°♓27'32	
	7689 Apr 08 18:27	0°♈	
	7689 May 19 17:11	0°♉	
	7689 Jun 28 09:12	0°♊	
	7689 Aug 06 10:51	0°♋	
	7689 Sep 14 21:18	0°♌	
asc. node	7689 Oct 05 01:53	14°♌56'03	
	7689 Oct 26 04:00	0°♍	
	7689 Dec 11 11:34	0°♎	
retrograde	7690 Feb 23 23:57	26°♎50'12	
min. Earth dist.	7690 Mar 29 12:08	19°♎22'09	0.58754 AU
opposition	7690 Apr 04 12:20	17°♎00'53	4°48'36
greatest brilliancy	7690 Apr 03 12:34	17°♎24'12	-1.7m
direct	7690 May 11 15:59	8°♎31'41	
	7690 Jul 22 12:42	0°♏	
	7690 Sep 17 05:23	0°♐	
desc. node	7690 Sep 22 19:08	3°♐11'17	
	7690 Nov 06 19:21	0°♑	
	7690 Dec 24 00:59	0°♒	
evening set	7691 Jan 23 13:42	20°♒24'43	
	7691 Feb 06 11:56	0°♓	
max. Earth dist.	7691 Feb 07 12:33	0°♓42'47	2.51182 AU
conjunction	7691 Mar 14 21:05	25°♓52'35	-1°06'21
minimum elong	7691 Mar 14 20:44	25°♓51'56	1°06'20
	7691 Mar 20 12:41	0°♈	
	7691 Apr 29 14:59	0°♉	
morning rise	7691 May 10 21:37	8°♉38'34	
	7691 Jun 07 10:04	0°♊	
	7691 Jul 15 16:34	0°♋	
asc. node	7691 Aug 22 22:50	29°♋43'33	
	7691 Aug 23 07:25	0°♌	
	7691 Oct 02 05:54	0°♍	
	7691 Nov 13 17:09	0°♎	
	7691 Dec 30 22:46	0°♏	
	7692 Mar 04 15:58	0°♐	
retrograde	7692 Mar 31 02:43	4°♐01'52	
	7692 Apr 24 18:40	30°℞♏	

min. Earth dist.	7692 May 08 10:25	24°♏58'13	0.66531 AU
opposition	7692 May 10 15:09	24°♏05'43	2°56'16
greatest brilliancy	7692 May 10 10:05	24°♏10'45	-1.4m
direct	7692 Jun 19 16:10	14°♏37'00	
desc. node	7692 Aug 09 19:18	26°♏39'31	
	7692 Aug 17 19:11	0°♐	
	7692 Oct 15 05:42	0°♑	
	7692 Dec 03 13:13	0°♒	
	7693 Jan 17 11:48	0°♓	
	7693 Feb 28 08:41	0°♈	
evening set	7693 Mar 12 19:14	9°♈15'22	
	7693 Apr 09 01:13	0°♉	
max. Earth dist.	7693 Apr 09 20:39	0°♉37'31	2.38118 AU
conjunction	7693 May 14 06:01	27°♉30'05	-0°38'18
minimum elong	7693 May 14 09:07	27°♉36'10	0°38'21
	7693 May 17 10:01	0°♊	
	7693 Jun 24 08:34	0°♋	
asc. node	7693 Jul 09 21:55	12°♋14'03	
morning rise	7693 Jul 25 18:31	24°♋35'57	
	7693 Aug 01 18:12	0°♌	
	7693 Sep 10 10:58	0°♍	
	7693 Oct 22 05:40	0°♎	
	7693 Dec 05 22:09	0°♏	
	7694 Jan 24 04:24	0°♐	
	7694 Mar 28 05:57	0°♑	
retrograde	7694 May 04 07:20	7°♑03'37	
	7694 Jun 07 04:17	30°℞♐	
opposition	7694 Jun 13 10:54	27°♐33'39	0°29'41
greatest brilliancy	7694 Jun 13 11:48	27°♐32'45	-1.3m
min. Earth dist.	7694 Jun 15 01:35	26°♐55'30	0.67799 AU
desc. node	7694 Jun 27 18:44	22°♐13'04	
direct	7694 Jul 24 22:34	17°♐35'13	
	7694 Sep 14 06:09	0°♑	
	7694 Nov 11 03:49	0°♒	
	7694 Dec 28 02:20	0°♓	
	7695 Feb 08 10:58	0°♈	
	7695 Mar 20 03:35	0°♉	
	7695 Apr 27 10:01	0°♊	
evening set	7695 May 20 09:24	18°♊11'43	
asc. node	7695 May 27 20:37	24°♊06'14	
	7695 Jun 04 07:53	0°♋	
	7695 Jul 12 19:52	0°♌	
conjunction	7695 Jul 29 04:53	12°♌28'33	0°40'48
minimum elong	7695 Jul 29 01:53	12°♌22'53	0°40'40
	7695 Aug 21 16:55	0°♍	
max. Earth dist.	7695 Sep 16 01:28	18°♍21'52	2.46100 AU
morning rise	7695 Sep 30 04:30	28°♍20'44	
	7695 Oct 02 13:18	0°♎	
	7695 Nov 15 17:53	0°♏	
	7696 Jan 01 15:02	0°♐	
	7696 Feb 21 06:55	0°♑	
	7696 Apr 22 07:53	0°♒	
desc. node	7696 May 14 17:19	7°♒22'43	
retrograde	7696 Jun 09 11:37	10°♒55'58	
opposition	7696 Jul 18 00:06	2°♒15'25	-2°17'34
greatest brilliancy	7696 Jul 18 09:43	2°♒06'11	-1.5m
min. Earth dist.	7696 Jul 23 08:59	0°♒11'53	0.62510 AU
	7696 Jul 23 21:31	30°℞♑	
direct	7696 Aug 28 07:54	22°♑17'25	
	7696 Oct 05 01:37	0°♒	
	7696 Dec 02 14:06	0°♓	
	7697 Jan 16 09:31	0°♈	
	7697 Feb 25 21:48	0°♉	
	7697 Apr 05 13:29	0°♊	
asc. node	7697 Apr 13 19:29	6°♊28'36	
	7697 May 13 19:27	0°♋	
	7697 Jun 21 17:33	0°♌	
evening set	7697 Jul 28 22:53	27°♌42'02	
	7697 Aug 01 02:43	0°♍	
	7697 Sep 12 10:35	0°♎	
conjunction	7697 Sep 24 07:15	8°♎09'07	1°07'03
minimum elong	7697 Sep 24 07:23	8°♎09'21	1°07'04
max. Earth dist.	7697 Oct 21 10:16	26°♎25'01	2.58542 AU
	7697 Oct 26 20:02	0°♏	
morning rise	7697 Nov 14 04:14	12°♏01'17	
	7697 Dec 12 03:35	0°♐	
	7698 Jan 29 05:58	0°♑	
	7698 Mar 20 15:40	0°♒	
desc. node	7698 Apr 01 15:11	6°♒48'51	
	7698 May 15 14:48	0°♓	
retrograde	7698 Jul 26 12:03	21°♓31'18	
opposition	7698 Aug 30 17:18	14°♓16'59	-5°09'14
greatest brilliancy	7698 Sep 01 05:24	13°♓45'03	-2.0m
min. Earth dist.	7698 Sep 08 03:59	11°♓18'15	0.51188 AU
direct	7698 Oct 08 09:30	5°♓24'28	
	7698 Dec 16 17:43	0°♈	
	7699 Jan 31 06:01	0°♉	
asc. node	7699 Mar 01 20:42	21°♉41'31	
	7699 Mar 12 22:00	0°♊	
	7699 Apr 21 10:59	0°♋	
	7699 May 31 11:52	0°♌	
	7699 Jul 11 22:18	0°♍	
	7699 Aug 24 04:40	0°♎	
evening set	7699 Sep 18 03:17	16°♎44'22	
	7699 Oct 08 06:16	0°♏	
conjunction	7699 Nov 05 22:23	18°♏35'32	0°48'47
minimum elong	7699 Nov 05 23:34	18°♏37'26	0°48'52
max. Earth dist.	7699 Nov 15 23:16	25°♏02'03	2.66035 AU
	7699 Nov 23 17:41	0°♐	
morning rise	7699 Dec 21 07:12	17°♐31'07	
	7700 Jan 10 01:19	0°♑	
desc. node	7700 Feb 17 12:21	24°♑10'39	
	7700 Feb 26 19:24	0°♒	
	7700 Apr 16 00:29	0°♓	
	7700 Jun 04 11:22	0°♈	
	7700 Jul 28 11:41	0°♉	
retrograde	7700 Oct 03 21:19	20°♉51'12	
opposition	7700 Nov 03 04:50	15°♉44'05	-4°59'56
greatest brilliancy	7700 Nov 04 06:54	15°♉25'59	-2.9m
min. Earth dist.	7700 Nov 08 06:04	14°♉20'16	0.38412 AU
direct	7700 Dec 04 17:32	10°♉03'26	
asc. node	7701 Jan 17 21:19	21°♉43'06	
	7701 Feb 02 23:44	0°♊	
	7701 Mar 23 04:06	0°♋	
	7701 May 06 10:22	0°♌	
	7701 Jun 19 16:03	0°♍	
	7701 Aug 03 22:17	0°♎	
	7701 Sep 19 08:23	0°♏	
evening set	7701 Oct 28 03:48	24°♏41'21	
	7701 Nov 05 12:59	0°♐	
max. Earth dist.	7701 Dec 08 16:39	21°♐00'40	2.68048 AU
conjunction	7701 Dec 12 09:09	23°♐21'12	0°12'33
minimum elong	7701 Dec 12 09:32	23°♐21'47	0°12'41
behind sun begin	7701 Dec 11 22:09	23°♐03'44	
behind sun end	7701 Dec 12 20:54	23°♐39'51	
	7701 Dec 22 20:02	0°♑	
desc. node	7702 Jan 05 09:33	8°♑39'01	
morning rise	7702 Jan 25 01:09	21°♑15'01	
	7702 Feb 07 14:31	0°♒	

	7702 Mar 25 11:09	0°♓	
	7702 May 09 06:48	0°♈	
	7702 Jun 22 03:52	0°♉	
	7702 Aug 04 12:15	0°♊	
	7702 Sep 17 18:27	0°♋	
	7702 Nov 08 11:51	0°♌	
asc. node	7702 Dec 05 19:59	9°♌27'05	
retrograde	7702 Dec 20 15:00	10°♌59'41	
min. Earth dist.	7703 Jan 15 16:44	6°♌27'52	0.40642 AU
greatest brilliancy	7703 Jan 22 04:43	4°♌26'24	-2.7m
opposition	7703 Jan 23 03:48	4°♌08'14	3°12'12
	7703 Feb 07 11:15	30°℞♋	
direct	7703 Feb 22 21:48	28°♋25'15	
	7703 Mar 10 15:45	0°♌	
	7703 May 20 16:10	0°♍	
	7703 Jul 11 11:53	0°♎	
	7703 Aug 30 01:53	0°♏	
	7703 Oct 17 20:52	0°♐	
desc. node	7703 Nov 23 08:40	22°♐47'54	
evening set	7703 Dec 03 07:34	29°♐05'24	
	7703 Dec 04 18:00	0°♑	
max. Earth dist.	7703 Dec 31 15:12	17°♑12'34	2.64572 AU
conjunction	7704 Jan 17 03:19	27°♑56'29	-0°28'18
minimum elong	7704 Jan 17 02:29	27°♑55'07	0°28'11
	7704 Jan 20 06:42	0°♒	
morning rise	7704 Mar 02 08:17	28°♒06'07	
	7704 Mar 05 03:08	0°♓	
	7704 Apr 17 05:10	0°♈	
	7704 May 28 16:35	0°♉	
	7704 Jul 07 22:04	0°♊	
	7704 Aug 16 13:32	0°♋	
	7704 Sep 25 17:48	0°♌	
asc. node	7704 Oct 22 18:36	19°♌18'26	
	7704 Nov 07 13:35	0°♍	
	7704 Dec 30 15:34	0°♎	
retrograde	7705 Feb 09 03:05	9°♎50'51	
min. Earth dist.	7705 Mar 12 08:47	3°♎11'12	0.54122 AU
greatest brilliancy	7705 Mar 18 09:25	0°♎53'12	-1.9m
opposition	7705 Mar 19 17:16	0°♎22'42	5°11'22
	7705 Mar 20 17:08	30°℞♍	
direct	7705 Apr 24 07:23	22°♍28'39	
	7705 Jun 01 08:46	0°♎	
	7705 Aug 04 17:50	0°♏	
	7705 Sep 26 15:39	0°♐	
desc. node	7705 Oct 10 08:56	8°♐09'32	
	7705 Nov 15 02:25	0°♑	
	7705 Dec 31 23:50	0°♒	
evening set	7706 Jan 08 14:41	5°♒01'36	
max. Earth dist.	7706 Jan 26 10:45	16°♒58'25	2.55855 AU
	7706 Feb 14 11:21	0°♓	
conjunction	7706 Feb 25 09:10	7°♓36'24	-1°00'47
minimum elong	7706 Feb 25 08:05	7°♓34'29	1°00'45
	7706 Mar 28 17:10	0°♈	
morning rise	7706 Apr 18 07:09	15°♈08'19	
	7706 May 08 02:28	0°♉	
	7706 Jun 16 04:31	0°♊	
	7706 Jul 24 16:42	0°♋	
	7706 Sep 01 12:22	0°♌	
asc. node	7706 Sep 09 17:02	6°♌13'45	
	7706 Oct 11 17:32	0°♍	
	7706 Nov 23 22:10	0°♎	
	7707 Jan 13 01:59	0°♏	
retrograde	7707 Mar 19 14:22	20°♏35'30	
min. Earth dist.	7707 Apr 25 05:12	12°♏04'42	0.64248 AU
opposition	7707 Apr 28 21:57	10°♏36'25	3°45'36
greatest brilliancy	7707 Apr 28 10:41	10°♏47'37	-1.4m
direct	7707 Jun 07 00:11	1°♏26'38	
desc. node	7707 Aug 28 09:10	27°♏44'46	
	7707 Sep 01 20:21	0°♐	
	7707 Oct 25 18:59	0°♑	
	7707 Dec 13 01:08	0°♒	
	7708 Jan 26 17:19	0°♓	
evening set	7708 Feb 21 19:02	18°♓27'57	
max. Earth dist.	7708 Mar 07 15:04	29°♓16'30	2.43026 AU
	7708 Mar 08 14:43	0°♈	
	7708 Apr 17 10:15	0°♉	
conjunction	7708 Apr 18 12:01	0°♉49'31	-0°58'26
minimum elong	7708 Apr 18 14:10	0°♉53'41	0°58'29
	7708 May 25 22:19	0°♊	
morning rise	7708 Jun 25 05:10	23°♊53'37	
	7708 Jul 02 23:02	0°♋	
asc. node	7708 Jul 27 13:52	19°♋17'37	
	7708 Aug 10 09:32	0°♌	
	7708 Sep 19 02:45	0°♍	
	7708 Oct 31 00:04	0°♎	
	7708 Dec 15 05:32	0°♏	
	7709 Feb 04 19:18	0°♐	
retrograde	7709 Apr 21 22:03	24°♐33'53	
opposition	7709 Jun 01 08:45	14°♐51'01	1°29'05
greatest brilliancy	7709 Jun 01 09:14	14°♐50'32	-1.3m
min. Earth dist.	7709 Jun 01 11:54	14°♐47'53	0.68098 AU
direct	7709 Jul 12 11:07	5°♐01'09	
desc. node	7709 Jul 15 08:42	5°♐04'11	
	7709 Sep 29 08:57	0°♑	
	7709 Nov 21 03:54	0°♒	
	7710 Jan 06 01:10	0°♓	
	7710 Feb 17 03:04	0°♈	
	7710 Mar 28 18:31	0°♉	
evening set	7710 Apr 22 05:24	19°♉05'50	
	7710 May 06 00:54	0°♊	
	7710 Jun 12 21:56	0°♋	
asc. node	7710 Jun 14 13:24	1°♋17'54	
conjunction	7710 Jul 01 08:58	14°♋30'38	0°12'00
minimum elong	7710 Jul 01 07:41	14°♋28'07	0°11'53
behind sun begin	7710 Jun 30 10:57	13°♋47'35	
behind sun end	7710 Jul 02 04:25	15°♋08'38	
	7710 Jul 21 07:46	0°♌	
max. Earth dist.	7710 Aug 23 13:23	25°♌10'18	2.40523 AU
	7710 Aug 30 01:47	0°♍	
morning rise	7710 Sep 08 11:48	6°♍54'39	
	7710 Oct 10 19:33	0°♎	
	7710 Nov 24 01:30	0°♏	
	7711 Jan 10 11:44	0°♐	
	7711 Mar 04 09:35	0°♑	
retrograde	7711 May 27 07:55	27°♑33'36	
desc. node	7711 Jun 02 07:29	27°♑20'14	
opposition	7711 Jul 05 15:46	18°♑30'32	-1°10'43
greatest brilliancy	7711 Jul 05 19:14	18°♑27'09	-1.4m
min. Earth dist.	7711 Jul 09 13:46	16°♑59'11	0.65368 AU
direct	7711 Aug 16 06:31	8°♑27'40	
	7711 Oct 24 19:36	0°♒	
	7711 Dec 14 17:55	0°♓	
	7712 Jan 27 04:28	0°♈	
	7712 Mar 07 05:46	0°♉	
	7712 Apr 14 16:02	0°♊	
asc. node	7712 May 01 13:35	13°♊20'16	
	7712 May 22 17:13	0°♋	
	7712 Jun 30 09:43	0°♌	
evening set	7712 Jul 04 14:27	3°♌11'51	
	7712 Aug 09 12:31	0°♍	

conjunction	7712 Sep 05 04:05	19°♍10'42	1°04'15
minimum elong	7712 Sep 05 02:54	19°♍08'37	1°04'14
	7712 Sep 20 14:06	0°♎	
max. Earth dist.	7712 Oct 10 10:43	13°♎39'10	2.54162 AU
morning rise	7712 Oct 29 20:37	26°♎42'24	
	7712 Nov 03 19:41	0°♏	
	7712 Dec 20 05:16	0°♐	
	7713 Feb 06 23:06	0°♑	
	7713 Mar 31 12:44	0°♒	
desc. node	7713 Apr 19 05:30	9°♒40'50	
	7713 Jun 07 19:40	0°♓	
retrograde	7713 Jul 07 09:03	4°♓35'46	
	7713 Aug 03 16:56	30°℞♒	
opposition	7713 Aug 13 03:37	26°♒41'44	-4°05'39
greatest brilliancy	7713 Aug 14 04:22	26°♒18'52	-1.8m
min. Earth dist.	7713 Aug 20 14:51	23°♒56'32	0.56229 AU
direct	7713 Sep 22 06:34	17°♒11'22	
	7713 Nov 09 18:45	0°♓	
	7713 Dec 31 15:12	0°♈	
	7714 Feb 11 23:49	0°♉	
asc. node	7714 Mar 19 12:59	26°♉57'08	
	7714 Mar 23 11:56	0°♊	
	7714 May 01 07:56	0°♋	
	7714 Jun 09 18:51	0°♌	
	7714 Jul 20 16:39	0°♍	
evening set	7714 Sep 01 00:49	29°♍41'09	
	7714 Sep 01 11:49	0°♎	
	7714 Oct 16 05:09	0°♏	
conjunction	7714 Oct 22 10:24	4°♏04'56	0°59'01
minimum elong	7714 Oct 22 11:30	4°♏06'45	0°59'04
max. Earth dist.	7714 Nov 07 17:47	14°♏41'56	2.63724 AU
	7714 Dec 01 13:00	0°♐	
morning rise	7714 Dec 08 09:52	4°♐22'45	
	7715 Jan 18 00:53	0°♑	
desc. node	7715 Mar 07 02:47	29°♑45'22	
	7715 Mar 07 12:21	0°♒	
	7715 Apr 26 12:24	0°♓	
	7715 Jun 19 20:07	0°♈	
retrograde	7715 Sep 04 07:25	24°♈29'47	
opposition	7715 Oct 06 11:56	18°♈34'18	-5°59'50
greatest brilliancy	7715 Oct 08 06:38	18°♈00'49	-2.5m
min. Earth dist.	7715 Oct 14 11:59	16°♈04'59	0.42757 AU
direct	7715 Nov 10 07:00	11°♈27'57	
	7716 Jan 06 11:32	0°♉	
asc. node	7716 Feb 04 12:57	17°♉42'56	
	7716 Feb 22 17:58	0°♊	
	7716 Apr 05 00:06	0°♋	
	7716 May 16 18:19	0°♌	
	7716 Jun 28 11:57	0°♍	
	7716 Aug 11 18:06	0°♎	
	7716 Sep 26 12:30	0°♏	
evening set	7716 Oct 13 07:59	10°♏49'40	
	7716 Nov 12 08:22	0°♐	
conjunction	7716 Nov 28 12:36	10°♐17'00	0°27'44
minimum elong	7716 Nov 28 13:24	10°♐18'16	0°27'51
max. Earth dist.	7716 Nov 29 21:07	11°♐08'36	2.67911 AU
	7716 Dec 29 13:51	0°♑	
morning rise	7717 Jan 11 11:53	8°♑12'45	
desc. node	7717 Jan 22 00:35	14°♑55'11	
	7717 Feb 14 14:58	0°♒	
	7717 Apr 02 03:59	0°♓	
	7717 May 18 04:53	0°♈	
	7717 Jul 03 01:34	0°♉	
	7717 Aug 18 22:15	0°♊	
	7717 Oct 12 06:10	0°♋	
retrograde	7717 Nov 23 06:53	10°♋26'38	
min. Earth dist.	7717 Dec 20 09:59	6°♋01'39	0.37217 AU
asc. node	7717 Dec 22 13:44	5°♋26'09	
opposition	7717 Dec 24 04:17	4°♋59'37	0°07'21
greatest brilliancy	7717 Dec 24 03:48	4°♋59'57	-3.0m
direct	7718 Jan 22 10:58	0°♋02'02	
	7718 Apr 13 22:45	0°♌	
	7718 Jun 02 22:41	0°♍	
	7718 Jul 20 23:19	0°♎	
	7718 Sep 06 22:28	0°♏	
	7718 Oct 24 22:45	0°♐	
evening set	7718 Nov 19 08:25	15°♐57'34	
desc. node	7718 Dec 09 23:02	29°♐00'19	
	7718 Dec 11 12:35	0°♑	
max. Earth dist.	7718 Dec 22 14:14	7°♑03'33	2.66578 AU
conjunction	7719 Jan 02 23:42	14°♑22'15	-0°12'39
minimum elong	7719 Jan 02 23:19	14°♑21'38	0°12'31
behind sun begin	7719 Jan 02 11:34	14°♑02'45	
behind sun end	7719 Jan 03 11:03	14°♑40'32	
	7719 Jan 27 02:11	0°♒	
morning rise	7719 Feb 16 03:59	13°♒12'42	
	7719 Mar 13 06:01	0°♓	
	7719 Apr 25 20:58	0°♈	
	7719 Jun 07 01:07	0°♉	
	7719 Jul 18 01:59	0°♊	
	7719 Aug 27 16:15	0°♋	
	7719 Oct 08 07:58	0°♌	
asc. node	7719 Nov 09 11:25	21°♌16'58	
	7719 Nov 24 05:14	0°♍	
retrograde	7720 Jan 23 07:44	20°♍08'12	
min. Earth dist.	7720 Feb 21 04:34	14°♍22'21	0.48822 AU
greatest brilliancy	7720 Feb 27 23:11	11°♍54'37	-2.2m
opposition	7720 Feb 29 11:56	11°♍21'04	5°08'00
direct	7720 Apr 03 05:41	4°♍11'50	
	7720 Jun 20 23:33	0°♎	
	7720 Aug 14 17:58	0°♏	
	7720 Oct 04 12:14	0°♐	
desc. node	7720 Oct 26 22:39	13°♐40'40	
	7720 Nov 22 04:35	0°♑	
evening set	7720 Dec 24 15:07	20°♑41'56	
	7721 Jan 07 21:13	0°♒	
max. Earth dist.	7721 Jan 15 02:42	4°♒46'09	2.59873 AU
conjunction	7721 Feb 08 17:31	21°♒16'58	-0°50'20
minimum elong	7721 Feb 08 16:16	21°♒14'51	0°50'15
	7721 Feb 21 11:10	0°♓	
morning rise	7721 Mar 29 02:55	25°♓03'43	
	7721 Apr 04 23:42	0°♈	
	7721 May 15 17:24	0°♉	
	7721 Jun 24 03:56	0°♊	
	7721 Aug 01 23:39	0°♋	
	7721 Sep 10 02:53	0°♌	
asc. node	7721 Sep 26 09:30	12°♌11'51	
	7721 Oct 20 20:28	0°♍	
	7721 Dec 04 11:47	0°♎	
	7722 Feb 01 05:49	0°♏	
retrograde	7722 Mar 05 12:12	6°♏10'48	
	7722 Apr 04 18:28	30°℞♎	
min. Earth dist.	7722 Apr 09 04:38	28°♎18'20	0.60990 AU
opposition	7722 Apr 14 09:07	26°♎15'23	4°28'28
greatest brilliancy	7722 Apr 13 14:08	26°♎34'09	-1.6m
direct	7722 May 22 07:07	17°♎29'47	
	7722 Jul 13 04:58	0°♏	
	7722 Sep 12 03:04	0°♐	
desc. node	7722 Sep 13 22:34	1°♐00'08	
	7722 Nov 02 16:38	0°♑	

	7722 Dec 20 06:34	0°♒	
	7723 Feb 02 19:47	0°♓	
evening set	7723 Feb 03 05:35	0°♓17'02	
max. Earth dist.	7723 Feb 17 04:15	10°♓03'59	2.48387 AU
	7723 Mar 16 19:55	0°♈	
conjunction	7723 Mar 27 09:51	7°♈48'31	-1°06'21
minimum elong	7723 Mar 27 10:15	7°♈49'16	1°06'22
	7723 Apr 25 20:09	0°♉	
morning rise	7723 May 27 00:05	24°♉06'29	
	7723 Jun 03 12:53	0°♊	
	7723 Jul 11 16:56	0°♋	
greatest brilliancy	7723 Aug 01 16:18	16°♋24'49	1.2m
asc. node	7723 Aug 14 08:38	26°♋15'10	
	7723 Aug 19 05:18	0°♌	
	7723 Sep 28 00:20	0°♍	
	7723 Nov 09 03:30	0°♎	
	7723 Dec 25 08:03	0°♏	
	7724 Feb 19 22:27	0°♐	
retrograde	7724 Apr 08 17:31	11°♐56'56	
min. Earth dist.	7724 May 17 22:08	2°♐36'50	0.67372 AU
opposition	7724 May 19 06:41	2°♐04'26	2°25'09
greatest brilliancy	7724 May 19 04:16	2°♐06'51	-1.3m
	7724 May 24 13:05	30°℞♏	
direct	7724 Jun 28 18:08	22°♏26'56	
desc. node	7724 Jul 31 22:14	28°♏04'33	
	7724 Aug 06 20:17	0°♐	
	7724 Oct 10 00:26	0°♑	
	7724 Nov 29 08:19	0°♒	
	7725 Jan 13 14:30	0°♓	
	7725 Feb 24 13:27	0°♈	
evening set	7725 Mar 27 00:34	22°♈54'47	
	7725 Apr 05 05:49	0°♉	
	7725 May 13 13:56	0°♊	
conjunction	7725 May 31 19:04	14°♊25'00	-0°21'36
minimum elong	7725 May 31 21:17	14°♊29'23	0°21'41
max. Earth dist.	7725 Jun 01 20:32	15°♊15'25	2.36633 AU
	7725 Jun 20 11:48	0°♋	
asc. node	7725 Jul 01 06:36	8°♋29'43	
	7725 Jul 28 20:58	0°♌	
morning rise	7725 Aug 12 14:53	11°♌17'39	
	7725 Sep 06 13:20	0°♍	
	7725 Oct 18 06:07	0°♎	
	7725 Dec 01 16:15	0°♏	
	7726 Jan 19 00:10	0°♐	
	7726 Mar 17 07:01	0°♑	
retrograde	7726 May 13 03:06	14°♑45'36	
desc. node	7726 Jun 18 21:04	6°♑38'34	
opposition	7726 Jun 22 01:13	5°♑24'14	-0°06'37
greatest brilliancy	7726 Jun 22 01:28	5°♑23'59	-1.3m
min. Earth dist.	7726 Jun 24 11:52	4°♑26'39	0.67215 AU
	7726 Jul 06 13:33	30°℞♐	
direct	7726 Aug 02 15:50	25°♐22'43	
	7726 Aug 31 23:50	0°♑	
	7726 Nov 05 15:15	0°♒	
	7726 Dec 23 15:52	0°♓	
	7727 Feb 04 08:41	0°♈	
	7727 Mar 16 04:03	0°♉	
	7727 Apr 23 11:34	0°♊	
asc. node	7727 May 19 05:02	20°♊21'45	
greatest brilliancy	7727 May 27 05:33	26°♊41'54	1.2m
	7727 May 31 10:02	0°♋	
evening set	7727 Jun 07 03:31	5°♋17'33	
	7727 Jul 08 22:48	0°♌	
conjunction	7727 Aug 13 22:18	27°♌05'39	0°52'28
minimum elong	7727 Aug 13 19:38	27°♌00'44	0°52'22
	7727 Aug 17 21:00	0°♍	
max. Earth dist.	7727 Sep 26 23:07	28°♍44'58	2.49125 AU
	7727 Sep 28 18:04	0°♎	
morning rise	7727 Oct 12 15:00	9°♎35'58	
	7727 Nov 11 21:38	0°♏	
	7727 Dec 28 12:19	0°♐	
	7728 Feb 16 06:09	0°♑	
	7728 Apr 12 17:44	0°♒	
desc. node	7728 May 05 19:46	9°♒48'55	
retrograde	7728 Jun 19 17:27	19°♒29'46	
opposition	7728 Jul 27 17:07	11°♒04'00	-2°57'18
greatest brilliancy	7728 Jul 28 07:32	10°♒50'19	-1.6m
min. Earth dist.	7728 Aug 02 20:58	8°♒43'51	0.60528 AU
direct	7728 Sep 06 17:40	1°♒12'28	
	7728 Nov 25 23:53	0°♓	
	7729 Jan 11 08:41	0°♈	
	7729 Feb 21 09:02	0°♉	
	7729 Apr 01 06:32	0°♊	
asc. node	7729 Apr 05 05:40	3°♊05'46	
	7729 May 09 16:13	0°♋	
	7729 Jun 17 17:24	0°♌	
	7729 Jul 28 05:39	0°♍	
evening set	7729 Aug 11 16:58	10°♍23'42	
	7729 Sep 08 16:05	0°♎	
conjunction	7729 Oct 05 15:12	18°♎21'02	1°05'33
minimum elong	7729 Oct 05 15:51	18°♎22'07	1°05'35
	7729 Oct 23 03:08	0°♏	
max. Earth dist.	7729 Oct 28 16:34	3°♏39'49	2.60611 AU
morning rise	7729 Nov 23 21:19	20°♏42'16	
	7729 Dec 08 09:31	0°♐	
	7730 Jan 25 04:59	0°♑	
	7730 Mar 15 17:40	0°♒	
desc. node	7730 Mar 23 17:48	4°♒42'46	
	7730 May 07 17:09	0°♓	
	7730 Jul 17 22:33	0°♈	
retrograde	7730 Aug 09 10:41	2°♈48'02	
	7730 Aug 30 13:47	30°℞♓	
opposition	7730 Sep 12 14:17	25°♓59'55	-5°38'30
greatest brilliancy	7730 Sep 14 07:35	25°♓24'34	-2.2m
min. Earth dist.	7730 Sep 21 05:39	23°♓03'12	0.48160 AU
direct	7730 Oct 20 03:00	17°♓38'21	
	7730 Dec 04 23:21	0°♈	
	7731 Jan 24 08:21	0°♉	
asc. node	7731 Feb 21 05:28	19°♉40'58	
	7731 Mar 07 07:07	0°♊	
	7731 Apr 16 11:53	0°♋	
	7731 May 26 23:27	0°♌	
	7731 Jul 07 18:20	0°♍	
	7731 Aug 20 07:05	0°♎	
evening set	7731 Sep 28 14:56	26°♎07'32	
	7731 Oct 04 13:15	0°♏	
conjunction	7731 Nov 15 07:26	26°♏56'08	0°41'35
minimum elong	7731 Nov 15 08:32	26°♏57'53	0°41'41
	7731 Nov 20 02:36	0°♐	
max. Earth dist.	7731 Nov 22 04:38	1°♐19'46	2.66937 AU
morning rise	7731 Dec 30 01:00	25°♐21'51	
	7732 Jan 06 08:46	0°♑	
desc. node	7732 Feb 08 14:45	21°♑01'20	
	7732 Feb 22 19:44	0°♒	
	7732 Apr 10 07:42	0°♓	
	7732 May 28 05:03	0°♈	
	7732 Jul 16 19:54	0°♉	
	7732 Sep 13 21:00	0°♊	
retrograde	7732 Oct 22 11:05	8°♊20'16	

opposition	7732 Nov 21 06:45	3°♊25'08	-3°31'25
greatest brilliancy	7732 Nov 21 17:41	3°♊17'50	-3.0m
min. Earth dist.	7732 Nov 23 10:06	2°♊50'52	0.36994 AU
	7732 Dec 05 06:05	30°℞♉	
direct	7732 Dec 21 10:37	28°♉19'00	
	7733 Jan 06 06:44	0°♊	
asc. node	7733 Jan 08 04:50	0°♊25'11	
	7733 Mar 12 20:30	0°♋	
	7733 Apr 28 23:53	0°♌	
	7733 Jun 13 13:09	0°♍	
	7733 Jul 29 13:21	0°♎	
	7733 Sep 14 10:18	0°♏	
	7733 Oct 31 20:44	0°♐	
evening set	7733 Nov 05 08:08	2°♐49'30	
max. Earth dist.	7733 Dec 13 18:35	27°♐09'32	2.67766 AU
	7733 Dec 18 05:44	0°♑	
conjunction	7733 Dec 20 05:09	1°♑15'31	0°03'22
minimum elong	7733 Dec 20 05:13	1°♑15'37	0°03'30
behind sun begin	7733 Dec 19 11:07	0°♑46'48	
behind sun end	7733 Dec 20 23:20	1°♑44'27	
desc. node	7733 Dec 26 12:33	5°♑16'53	
morning rise	7734 Feb 01 21:55	29°♑20'27	
	7734 Feb 02 22:17	0°♒	
	7734 Mar 20 12:29	0°♓	
	7734 May 03 20:59	0°♈	
	7734 Jun 16 00:58	0°♉	
	7734 Jul 28 08:16	0°♊	
	7734 Sep 08 17:04	0°♋	
	7734 Oct 24 01:25	0°♌	
asc. node	7734 Nov 26 05:14	17°♌38'30	
retrograde	7735 Jan 02 19:44	26°♌42'12	
min. Earth dist.	7735 Jan 29 14:21	21°♌48'39	0.43340 AU
opposition	7735 Feb 06 21:00	19°♌02'45	4°16'22
greatest brilliancy	7735 Feb 05 12:33	19°♌30'02	-2.5m
direct	7735 Mar 10 14:40	12°♌48'03	
	7735 May 09 10:45	0°♍	
	7735 Jul 04 15:03	0°♎	
	7735 Aug 24 13:31	0°♏	
	7735 Oct 12 22:42	0°♐	
desc. node	7735 Nov 13 11:51	19°♐33'38	
	7735 Nov 30 02:06	0°♑	
evening set	7735 Dec 11 08:27	7°♑09'12	
max. Earth dist.	7736 Jan 06 02:51	23°♑45'08	2.63118 AU
	7736 Jan 15 16:16	0°♒	
conjunction	7736 Jan 25 11:12	6°♒27'19	-0°36'57
minimum elong	7736 Jan 25 10:10	6°♒25'36	0°36'50
	7736 Feb 29 10:26	0°♓	
morning rise	7736 Mar 11 13:09	7°♓39'04	
	7736 Apr 12 07:45	0°♈	
	7736 May 23 12:37	0°♉	
	7736 Jul 02 10:52	0°♊	
	7736 Aug 10 18:05	0°♋	
	7736 Sep 19 10:30	0°♌	
asc. node	7736 Oct 13 03:50	17°♌20'38	
	7736 Oct 31 04:24	0°♍	
	7736 Dec 18 04:32	0°♎	
retrograde	7737 Feb 18 09:23	20°♎15'02	
min. Earth dist.	7737 Mar 22 21:26	13°♎07'47	0.56774 AU
greatest brilliancy	7737 Mar 28 09:05	11°♎00'07	-1.8m
opposition	7737 Mar 29 12:30	10°♎33'27	5°00'53
direct	7737 May 05 00:21	2°♎18'49	
	7737 Jul 28 04:41	0°♏	
	7737 Sep 21 01:46	0°♐	
desc. node	7737 Sep 30 11:31	5°♐28'30	
	7737 Nov 10 04:17	0°♑	
	7737 Dec 27 07:33	0°♒	
evening set	7738 Jan 17 13:09	14°♒05'56	
max. Earth dist.	7738 Feb 02 13:33	24°♒59'15	2.53353 AU
	7738 Feb 09 19:56	0°♓	
conjunction	7738 Mar 07 14:04	18°♓08'21	-1°04'46
minimum elong	7738 Mar 07 13:18	18°♓06'59	1°04'45
	7738 Mar 24 00:05	0°♈	
morning rise	7738 May 01 02:36	28°♈22'07	
	7738 May 03 06:11	0°♉	
	7738 Jun 11 04:46	0°♊	
	7738 Jul 19 13:40	0°♋	
	7738 Aug 27 05:49	0°♌	
asc. node	7738 Aug 31 00:52	2°♌54'09	
	7738 Oct 06 05:41	0°♍	
	7738 Nov 17 21:06	0°♎	
	7739 Jan 04 22:21	0°♏	
retrograde	7739 Mar 27 09:53	28°♏51'41	
min. Earth dist.	7739 May 04 00:07	20°♏01'50	0.65631 AU
opposition	7739 May 06 20:30	18°♏53'43	3°17'30
greatest brilliancy	7739 May 06 12:59	19°♏01'12	-1.4m
direct	7739 Jun 15 11:33	9°♏32'49	
desc. node	7739 Aug 18 11:36	27°♏04'33	
	7739 Aug 24 20:05	0°♐	
	7739 Oct 20 03:41	0°♑	
	7739 Dec 08 01:29	0°♒	
	7740 Jan 21 22:45	0°♓	
	7740 Mar 03 21:18	0°♈	
evening set	7740 Mar 04 07:26	0°♈18'41	
max. Earth dist.	7740 Mar 23 10:19	14°♈34'20	2.40178 AU
	7740 Apr 12 16:00	0°♉	
conjunction	7740 May 03 01:39	15°♉49'56	-0°48'36
minimum elong	7740 May 03 04:36	15°♉55'42	0°48'40
	7740 May 21 02:40	0°♊	
	7740 Jun 28 02:01	0°♋	
morning rise	7740 Jul 12 24:00	11°♋44'06	
asc. node	7740 Jul 17 23:20	15°♋37'41	
	7740 Aug 05 11:12	0°♌	
	7740 Sep 14 02:55	0°♍	
	7740 Oct 25 20:52	0°♎	
	7740 Dec 09 15:57	0°♏	
	7741 Jan 28 14:01	0°♐	
	7741 Apr 09 19:29	0°♑	
retrograde	7741 Apr 29 13:22	2°♑13'30	
	7741 May 18 04:02	30°℞♐	
opposition	7741 Jun 08 20:52	22°♐37'31	0°54'36
greatest brilliancy	7741 Jun 08 21:54	22°♐36'30	-1.3m
min. Earth dist.	7741 Jun 09 20:07	22°♐14'33	0.68055 AU
desc. node	7741 Jul 05 11:37	14°♐04'24	
direct	7741 Jul 20 04:56	12°♐42'21	
	7741 Sep 20 21:36	0°♑	
	7741 Nov 15 08:13	0°♒	
	7741 Dec 31 20:54	0°♓	
	7742 Feb 12 04:03	0°♈	
	7742 Mar 23 21:03	0°♉	
	7742 May 01 03:58	0°♊	
evening set	7742 May 08 09:11	5°♊42'47	
asc. node	7742 Jun 04 22:26	27°♊32'04	
	7742 Jun 08 01:22	0°♋	
	7742 Jul 16 11:37	0°♌	
conjunction	7742 Jul 17 22:58	1°♌07'58	0°29'30
minimum elong	7742 Jul 17 20:17	1°♌02'48	0°29'22
	7742 Aug 25 06:10	0°♍	
max. Earth dist.	7742 Sep 07 19:30	9°♍55'04	2.43586 AU
morning rise	7742 Sep 21 17:52	19°♍56'15	

	7742 Oct 05 23:49	0°♎	
	7742 Nov 19 03:03	0°♏	
	7743 Jan 05 03:11	0°♐	
	7743 Feb 25 11:51	0°♑	
	7743 May 02 20:01	0°♒	
desc. node	7743 May 23 10:27	4°♒43'01	
retrograde	7743 Jun 04 19:35	5°♒36'11	
	7743 Jul 05 00:10	30°℞♑	
opposition	7743 Jul 13 17:49	26°♑45'03	-1°49'20
greatest brilliancy	7743 Jul 14 00:29	26°♑38'38	-1.5m
min. Earth dist.	7743 Jul 18 11:38	24°♑55'13	0.63908 AU
direct	7743 Aug 24 05:55	16°♑43'48	
	7743 Oct 14 22:44	0°♒	
	7743 Dec 08 10:03	0°♓	
	7744 Jan 21 15:22	0°♈	
	7744 Mar 01 23:15	0°♉	
	7744 Apr 09 12:42	0°♊	
asc. node	7744 Apr 21 21:00	9°♊43'04	
	7744 May 17 16:12	0°♋	
	7744 Jun 25 10:53	0°♌	
evening set	7744 Jul 19 08:37	17°♌59'24	
	7744 Aug 04 16:06	0°♍	
	7744 Sep 15 19:48	0°♎	
conjunction	7744 Sep 16 21:58	0°♎45'24	1°06'47
minimum elong	7744 Sep 16 21:36	0°♎44'47	1°06'48
max. Earth dist.	7744 Oct 17 10:58	21°♎34'57	2.56686 AU
	7744 Oct 30 02:07	0°♏	
morning rise	7744 Nov 08 08:09	6°♏05'55	
	7744 Dec 15 09:04	0°♐	
	7745 Feb 01 16:22	0°♑	
	7745 Mar 24 19:45	0°♒	
desc. node	7745 Apr 09 08:12	8°♒33'08	
	7745 May 22 22:34	0°♓	
retrograde	7745 Jul 18 09:47	14°♓24'21	
opposition	7745 Aug 23 08:24	6°♓51'10	-4°43'02
greatest brilliancy	7745 Aug 24 15:41	6°♓22'52	-1.9m
min. Earth dist.	7745 Aug 31 09:54	3°♓56'29	0.53527 AU
	7745 Sep 13 04:16	30°℞♒	
direct	7745 Oct 01 18:18	27°♒38'54	
	7745 Oct 20 20:19	0°♓	
	7745 Dec 23 16:02	0°♈	
	7746 Feb 05 12:51	0°♉	
asc. node	7746 Mar 09 22:00	24°♉08'19	
	7746 Mar 17 14:48	0°♊	
	7746 Apr 25 19:01	0°♋	
	7746 Jun 04 12:06	0°♌	
	7746 Jul 15 15:21	0°♍	
	7746 Aug 27 15:13	0°♎	
evening set	7746 Sep 11 14:09	10°♎07'59	
	7746 Oct 11 11:54	0°♏	
conjunction	7746 Oct 31 10:07	12°♏59'34	0°53'25
minimum elong	7746 Oct 31 11:19	13°♏01'30	0°53'29
max. Earth dist.	7746 Nov 13 05:41	21°♏15'48	2.65116 AU
	7746 Nov 26 20:45	0°♐	
morning rise	7746 Dec 16 10:02	12°♐26'32	
	7747 Jan 13 05:38	0°♑	
desc. node	7747 Feb 25 05:28	26°♑52'26	
	7747 Mar 02 06:21	0°♒	
	7747 Apr 20 03:34	0°♓	
	7747 Jun 10 05:37	0°♈	
	7747 Aug 09 22:45	0°♉	
retrograde	7747 Sep 20 21:12	9°♉09'29	
opposition	7747 Oct 21 23:57	3°♉42'59	-5°39'12
greatest brilliancy	7747 Oct 23 11:51	3°♉16'41	-2.7m
min. Earth dist.	7747 Oct 28 18:20	1°♉44'58	0.40137 AU
	7747 Nov 04 08:14	30°℞♈	
direct	7747 Nov 23 23:15	27°♈25'12	
	7747 Dec 13 13:18	0°♉	
asc. node	7748 Jan 25 22:56	19°♉08'34	
	7748 Feb 12 21:06	0°♊	
	7748 Mar 28 13:01	0°♋	
	7748 May 10 10:39	0°♌	
	7748 Jun 22 21:02	0°♍	
	7748 Aug 06 14:31	0°♎	
	7748 Sep 21 16:21	0°♏	
evening set	7748 Oct 21 21:40	19°♏19'55	
	7748 Nov 07 16:20	0°♐	
max. Earth dist.	7748 Dec 04 23:27	17°♐19'09	2.68098 AU
conjunction	7748 Dec 06 11:41	18°♐16'38	0°18'57
minimum elong	7748 Dec 06 12:15	18°♐17'32	0°19'04
	7748 Dec 24 22:39	0°♑	
desc. node	7749 Jan 12 02:39	11°♑34'37	
morning rise	7749 Jan 19 05:24	16°♑07'24	
	7749 Feb 09 20:11	0°♒	
	7749 Mar 28 00:01	0°♓	
	7749 May 12 07:59	0°♈	
	7749 Jun 25 23:26	0°♉	
	7749 Aug 09 12:51	0°♊	
	7749 Sep 25 06:26	0°♋	
retrograde	7749 Dec 09 08:20	28°♋33'30	
asc. node	7749 Dec 12 21:55	28°♋27'58	
min. Earth dist.	7750 Jan 04 10:31	24°♋11'18	0.38800 AU
opposition	7750 Jan 10 14:39	22°♋22'30	2°03'22
greatest brilliancy	7750 Jan 10 01:32	22°♋32'13	-2.9m
direct	7750 Feb 09 14:07	17°♋03'27	
	7750 Mar 30 21:37	0°♌	
	7750 May 26 02:20	0°♍	
	7750 Jul 14 22:25	0°♎	
	7750 Sep 01 17:09	0°♏	
	7750 Oct 20 03:12	0°♐	
evening set	7750 Nov 27 08:09	23°♐57'01	
desc. node	7750 Nov 30 01:28	25°♐40'15	
	7750 Dec 06 21:23	0°♑	
max. Earth dist.	7750 Dec 27 21:13	13°♑24'38	2.65579 AU
conjunction	7751 Jan 11 00:22	22°♑32'20	-0°21'52
minimum elong	7751 Jan 10 23:43	22°♑31'16	0°21'45
	7751 Jan 22 11:09	0°♒	
morning rise	7751 Feb 24 16:22	22°♒01'31	
	7751 Mar 08 11:39	0°♓	
	7751 Apr 20 20:11	0°♈	
	7751 Jun 01 15:18	0°♉	
	7751 Jul 12 05:06	0°♊	
	7751 Aug 21 05:18	0°♋	
	7751 Sep 30 21:01	0°♌	
asc. node	7751 Oct 30 20:15	20°♌53'53	
	7751 Nov 13 20:00	0°♍	
	7752 Jan 15 23:06	0°♎	
retrograde	7752 Feb 02 17:39	2°♎10'09	
	7752 Feb 19 22:53	30°℞♍	
min. Earth dist.	7752 Mar 03 21:19	25°♍54'22	0.51811 AU
greatest brilliancy	7752 Mar 10 07:24	23°♍30'11	-2.0m
opposition	7752 Mar 11 18:07	22°♍57'33	5°14'43
direct	7752 Apr 15 13:47	15°♍22'10	
	7752 Jun 10 07:40	0°♎	
	7752 Aug 08 08:24	0°♏	
	7752 Sep 29 06:10	0°♐	
desc. node	7752 Oct 17 01:40	10°♐42'38	
	7752 Nov 17 09:19	0°♑	
evening set	7753 Jan 02 02:13	29°♑15'06	
	7753 Jan 03 05:36	0°♒	

max. Earth dist.	7753 Jan 21 11:01	12°♒05'10	2.57741 AU
	7753 Feb 16 19:15	0°♓	
conjunction	7753 Feb 18 00:20	0°♓50'14	-0°56'53
minimum elong	7753 Feb 17 23:07	0°♓48'09	0°56'49
	7753 Mar 31 05:10	0°♈	
morning rise	7753 Apr 09 04:12	6°♈31'14	
	7753 May 10 18:59	0°♉	
	7753 Jun 19 01:12	0°♊	
	7753 Jul 27 16:42	0°♋	
	7753 Sep 04 14:46	0°♌	
asc. node	7753 Sep 16 19:15	9°♌13'15	
	7753 Oct 14 23:13	0°♍	
	7753 Nov 27 13:30	0°♎	
	7754 Jan 18 19:10	0°♏	
retrograde	7754 Mar 13 16:21	15°♏01'38	
min. Earth dist.	7754 Apr 18 11:13	6°♏46'55	0.62902 AU
opposition	7754 Apr 22 19:34	5°♏03'18	4°04'43
greatest brilliancy	7754 Apr 22 05:07	5°♏17'40	-1.5m
	7754 May 06 15:23	30°℞♎	
direct	7754 May 31 09:24	26°♎03'34	
	7754 Jun 27 12:38	0°♏	
desc. node	7754 Sep 04 01:39	29°♏13'03	
	7754 Sep 05 13:15	0°♐	
	7754 Oct 28 10:31	0°♑	
	7754 Dec 15 10:44	0°♒	
	7755 Jan 29 02:51	0°♓	
evening set	7755 Feb 13 11:58	10°♓47'15	
max. Earth dist.	7755 Feb 27 06:43	20°♓39'15	2.45427 AU
	7755 Mar 12 02:40	0°♈	
conjunction	7755 Apr 09 00:27	20°♈49'57	-1°03'14
minimum elong	7755 Apr 09 01:51	20°♈52'34	1°03'16
	7755 Apr 21 01:05	0°♉	
	7755 May 29 15:35	0°♊	
morning rise	7755 Jun 12 14:20	10°♊58'21	
	7755 Jul 06 17:48	0°♋	
asc. node	7755 Aug 04 15:58	22°♋37'55	
	7755 Aug 14 04:32	0°♌	
	7755 Sep 22 21:18	0°♍	
	7755 Nov 03 19:12	0°♎	
	7755 Dec 19 06:29	0°♏	
	7756 Feb 10 05:22	0°♐	
retrograde	7756 Apr 16 06:55	19°♐41'04	
opposition	7756 May 26 19:12	9°♐53'35	1°52'44
min. Earth dist.	7756 May 26 06:49	10°♐05'53	0.67901 AU
greatest brilliancy	7756 May 26 18:43	9°♐54'04	-1.3m
direct	7756 Jul 06 15:12	0°♐08'39	
desc. node	7756 Jul 22 01:23	1°♐29'39	
	7756 Oct 03 07:00	0°♑	
	7756 Nov 24 00:03	0°♒	
	7757 Jan 08 16:05	0°♓	
	7757 Feb 19 18:02	0°♈	
	7757 Mar 31 10:40	0°♉	
evening set	7757 Apr 10 07:50	7°♉39'59	
	7757 May 08 18:03	0°♊	
	7757 Jun 15 15:15	0°♋	
conjunction	7757 Jun 18 00:13	1°♋52'25	-0°02'38
minimum elong	7757 Jun 18 00:31	1°♋53'01	0°02'45
behind sun begin	7757 Jun 16 18:18	0°♋53'25	
behind sun end	7757 Jun 19 06:43	2°♋52'36	
asc. node	7757 Jun 21 14:31	4°♋42'35	
	7757 Jul 24 00:02	0°♌	
max. Earth dist.	7757 Aug 04 06:12	8°♌38'23	2.38255 AU
morning rise	7757 Aug 28 08:08	26°♌47'18	
	7757 Sep 01 16:05	0°♍	
	7757 Oct 13 07:56	0°♎	
	7757 Nov 26 13:30	0°♏	
	7758 Jan 13 05:38	0°♐	
	7758 Mar 08 10:20	0°♑	
retrograde	7758 May 21 03:28	22°♑31'12	
desc. node	7758 Jun 09 00:22	20°♑16'20	
opposition	7758 Jun 29 18:35	13°♑19'37	-0°43'46
greatest brilliancy	7758 Jun 29 20:21	13°♑17'53	-1.4m
min. Earth dist.	7758 Jul 03 01:11	12°♑02'53	0.66325 AU
direct	7758 Aug 10 10:05	3°♑16'35	
	7758 Oct 29 09:23	0°♒	
	7758 Dec 17 23:57	0°♓	
	7759 Jan 30 03:55	0°♈	
	7759 Mar 11 03:23	0°♉	
	7759 Apr 18 12:38	0°♊	
asc. node	7759 May 09 14:59	16°♊40'36	
	7759 May 26 12:19	0°♋	
evening set	7759 Jun 23 11:25	21°♋49'45	
	7759 Jul 04 02:12	0°♌	
	7759 Aug 13 01:34	0°♍	
conjunction	7759 Aug 27 12:03	10°♍30'11	1°00'29
minimum elong	7759 Aug 27 10:11	10°♍26'49	1°00'25
	7759 Sep 23 23:38	0°♎	
max. Earth dist.	7759 Oct 05 15:15	8°♎04'24	2.51976 AU
morning rise	7759 Oct 23 06:34	20°♎04'59	
	7759 Nov 07 02:36	0°♏	
	7759 Dec 23 12:39	0°♐	
	7760 Feb 10 14:05	0°♑	
	7760 Apr 04 09:27	0°♒	
desc. node	7760 Apr 25 22:23	10°♒29'14	
retrograde	7760 Jun 29 12:09	28°♒24'08	
opposition	7760 Aug 05 20:32	20°♒15'12	-3°36'50
greatest brilliancy	7760 Aug 06 16:37	19°♒56'24	-1.7m
min. Earth dist.	7760 Aug 12 18:28	17°♒40'01	0.58259 AU
direct	7760 Sep 15 10:47	10°♒33'33	
	7760 Nov 16 22:02	0°♓	
	7761 Jan 04 20:25	0°♈	
	7761 Feb 15 14:05	0°♉	
asc. node	7761 Mar 26 14:45	29°♉51'14	
	7761 Mar 26 19:17	0°♊	
	7761 May 04 10:05	0°♋	
	7761 Jun 12 15:34	0°♌	
	7761 Jul 23 07:38	0°♍	
evening set	7761 Aug 23 13:09	22°♍08'36	
	7761 Sep 03 21:27	0°♎	
conjunction	7761 Oct 15 09:31	27°♎59'30	1°02'16
minimum elong	7761 Oct 15 10:30	28°♎01'08	1°02'19
	7761 Oct 18 10:28	0°♏	
max. Earth dist.	7761 Nov 03 14:36	10°♏36'09	2.62429 AU
morning rise	7761 Dec 02 07:08	29°♏06'43	
	7761 Dec 03 16:29	0°♐	
	7762 Jan 20 06:35	0°♑	
	7762 Mar 10 03:10	0°♒	
desc. node	7762 Mar 13 19:24	2°♒13'02	
	7762 Apr 30 04:15	0°♓	
	7762 Jun 27 08:12	0°♈	
retrograde	7762 Aug 23 10:43	15°♈02'11	
opposition	7762 Sep 25 12:41	8°♈42'22	-5°56'44
greatest brilliancy	7762 Sep 27 08:26	8°♈06'26	-2.4m
min. Earth dist.	7762 Oct 04 00:38	5°♈56'18	0.45131 AU
direct	7762 Oct 31 14:54	0°♈59'23	
	7763 Jan 14 19:12	0°♉	
asc. node	7763 Feb 11 14:10	18°♉25'37	
	7763 Feb 27 23:41	0°♊	
	7763 Apr 10 03:12	0°♋	

	7763 May 21 05:10	0°♌		
	7763 Jul 02 10:25	0°♍		
	7763 Aug 15 07:13	0°♎		
	7763 Sep 29 18:49	0°♏		
evening set	7763 Oct 07 17:21	5°♏08'43		
	7763 Nov 15 11:01	0°♐		
conjunction	7763 Nov 23 12:17	5°♐07'47	0°33'41	
minimum elong	7763 Nov 23 13:14	5°♐09'18	0°33'46	
max. Earth dist.	7763 Nov 27 07:31	7°♐32'52	2.67578 AU	
	7764 Jan 01 16:26	0°♑		
morning rise	7764 Jan 06 18:22	3°♑13'23		
desc. node	7764 Jan 29 17:04	17°♑47'28		
	7764 Feb 17 21:33	0°♒		
	7764 Apr 04 20:09	0°♓		
	7764 May 21 14:28	0°♈		
	7764 Jul 07 18:41	0°♉		
	7764 Aug 26 15:52	0°♊		
retrograde	7764 Nov 09 16:07	26°♊43'07		
opposition	7764 Dec 09 19:39	21°♊39'22	-1°31'27	
min. Earth dist.	7764 Dec 08 14:13	21°♊58'59	0.36669 AU	
greatest brilliancy	7764 Dec 09 20:04	21°♊39'06	-3.1m	
asc. node	7764 Dec 29 14:54	17°♊23'26		
direct	7765 Jan 08 03:20	16°♊46'49		
	7765 Feb 25 21:03	0°♋		
	7765 Apr 20 10:36	0°♌		
	7765 Jun 06 23:53	0°♍		
	7765 Jul 23 23:38	0°♎		
	7765 Sep 09 09:32	0°♏		
	7765 Oct 27 03:06	0°♐		
evening set	7765 Nov 13 09:27	10°♐51'58		
	7765 Dec 13 14:54	0°♑		
desc. node	7765 Dec 16 15:27	1°♑55'28		
max. Earth dist.	7765 Dec 18 21:18	3°♑21'16	2.67209 AU	
conjunction	7765 Dec 28 01:51	9°♑13'37	-0°06'03	
minimum elong	7765 Dec 28 01:40	9°♑13'18	0°05'56	
behind sun begin	7765 Dec 27 08:18	8°♑45'32		
behind sun end	7765 Dec 28 19:02	9°♑41'06		
	7766 Jan 29 06:07	0°♒		
morning rise	7766 Feb 09 23:28	7°♒39'50		
	7766 Mar 15 15:03	0°♓		
	7766 Apr 28 13:59	0°♈		
	7766 Jun 10 04:30	0°♉		
	7766 Jul 21 17:33	0°♊		
	7766 Aug 31 23:13	0°♋		
	7766 Oct 13 17:04	0°♌		
asc. node	7766 Nov 16 13:25	21°♌04'34		
	7766 Dec 03 21:40	0°♍		
retrograde	7767 Jan 14 19:39	10°♍56'06		
min. Earth dist.	7767 Feb 11 15:45	5°♍35'05	0.46349 AU	
greatest brilliancy	7767 Feb 18 15:01	3°♍08'14	-2.4m	
opposition	7767 Feb 20 03:36	2°♍35'56	4°54'02	
	7767 Feb 27 21:45	30°℞♌		
direct	7767 Mar 25 00:12	25°♌50'07		
	7767 Apr 20 21:08	0°♍		
	7767 Jun 26 23:03	0°♎		
	7767 Aug 18 19:09	0°♏		
	7767 Oct 07 22:09	0°♐		
desc. node	7767 Nov 03 15:05	16°♐24'18		
	7767 Nov 25 09:15	0°♑		
evening set	7767 Dec 19 10:38	15°♑18'28		
	7768 Jan 11 01:36	0°♒		
max. Earth dist.	7768 Jan 11 19:36	0°♒29'32	2.61423 AU	
conjunction	7768 Feb 03 00:36	15°♒14'15	-0°45'01	
minimum elong	7768 Feb 02 23:25	15°♒12'16	0°44'55	
	7768 Feb 24 18:29	0°♓		
morning rise	7768 Mar 21 06:19	17°♓44'26		
	7768 Apr 07 11:45	0°♈		
	7768 May 18 11:01	0°♉		
	7768 Jun 27 02:46	0°♊		
	7768 Aug 05 03:10	0°♋		
	7768 Sep 13 10:50	0°♌		
asc. node	7768 Oct 03 11:06	14°♌52'30		
	7768 Oct 24 11:27	0°♍		
	7768 Dec 09 01:15	0°♎		
	7769 Feb 24 23:01	0°♏		
retrograde	7769 Feb 27 04:58	0°♏02'05		
	7769 Mar 01 10:32	30°℞♎		
min. Earth dist.	7769 Apr 01 22:49	22°♎28'24	0.59229 AU	
opposition	7769 Apr 07 18:27	20°♎11'17	4°44'02	
greatest brilliancy	7769 Apr 06 19:49	20°♎33'33	-1.7m	
direct	7769 May 15 01:44	11°♎38'24		
	7769 Jul 19 07:50	0°♏		
	7769 Sep 15 05:03	0°♐		
desc. node	7769 Sep 20 14:51	3°♐03'50		
	7769 Nov 05 03:38	0°♑		
	7769 Dec 22 14:00	0°♒		
evening set	7770 Jan 26 19:58	23°♒33'51		
	7770 Feb 05 04:14	0°♓		
max. Earth dist.	7770 Feb 10 10:44	3°♓39'55	2.50683 AU	
conjunction	7770 Mar 18 10:53	29°♓22'36	-1°06'39	
minimum elong	7770 Mar 18 10:41	29°♓22'14	1°06'40	
	7770 Mar 19 07:22	0°♈		
	7770 Apr 28 11:10	0°♉		
morning rise	7770 May 15 03:06	12°♉47'05		
	7770 Jun 06 06:50	0°♊		
	7770 Jul 14 12:55	0°♋		
asc. node	7770 Aug 21 10:16	29°♋29'23		
	7770 Aug 22 02:11	0°♌		
	7770 Sep 30 21:40	0°♍		
	7770 Nov 12 03:24	0°♎		
	7770 Dec 28 20:05	0°♏		
	7771 Feb 27 11:26	0°♐		
retrograde	7771 Apr 04 02:24	6°♐55'15		
	7771 May 06 23:27	30°℞♏		
min. Earth dist.	7771 May 12 14:41	27°♏47'46	0.66724 AU	
opposition	7771 May 14 14:52	26°♏59'44	2°47'26	
greatest brilliancy	7771 May 14 10:29	27°♏04'07	-1.3m	
direct	7771 Jun 23 17:29	17°♏29'00		
desc. node	7771 Aug 08 14:40	27°♏28'11		
	7771 Aug 15 01:31	0°♐		
	7771 Oct 14 05:10	0°♑		
	7771 Dec 02 23:06	0°♒		
	7772 Jan 17 02:55	0°♓		
	7772 Feb 28 02:59	0°♈		
evening set	7772 Mar 16 17:10	13°♈06'08		
	7772 Apr 07 21:22	0°♉		
max. Earth dist.	7772 Apr 16 15:58	6°♉47'15	2.37709 AU	
	7772 May 16 07:00	0°♊		
conjunction	7772 May 18 19:23	1°♊59'09	-0°34'38	
minimum elong	7772 May 18 22:21	2°♊05'02	0°34'43	
	7772 Jun 23 05:29	0°♋		
asc. node	7772 Jul 08 08:20	11°♋54'07		
morning rise	7772 Jul 30 13:19	29°♋12'11		
	7772 Jul 31 14:05	0°♌		
	7772 Sep 09 04:53	0°♍		
	7772 Oct 20 20:26	0°♎		
	7772 Dec 04 07:44	0°♏		
	7773 Jan 22 02:34	0°♐		
	7773 Mar 23 10:42	0°♑		

retrograde	7773 May 07 06:41	9°♉52'41	
opposition	7773 Jun 16 09:40	0°♉24'27	0°19'03
greatest brilliancy	7773 Jun 16 10:21	0°♉23'48	-1.3m
	7773 Jun 17 10:30	30°℞♐	
min. Earth dist.	7773 Jun 18 04:52	29°♐41'54	0.67717 AU
desc. node	7773 Jun 25 14:06	26°♐51'37	
direct	7773 Jul 27 21:54	20°♐25'06	
	7773 Sep 10 02:13	0°♑	
	7773 Nov 09 04:12	0°♒	
	7773 Dec 26 14:04	0°♓	
	7774 Feb 07 03:51	0°♈	
	7774 Mar 18 23:03	0°♉	
	7774 Apr 26 06:30	0°♊	
evening set	7774 May 25 01:49	22°♊48'35	
asc. node	7774 May 26 06:32	23°♊45'22	
	7774 Jun 03 04:16	0°♋	
	7774 Jul 11 15:14	0°♌	
conjunction	7774 Aug 02 14:50	16°♌43'34	0°44'00
minimum elong	7774 Aug 02 11:49	16°♌37'54	0°43'53
	7774 Aug 20 10:36	0°♍	
max. Earth dist.	7774 Sep 19 10:32	21°♍42'37	2.46686 AU
	7774 Oct 01 04:45	0°♎	
morning rise	7774 Oct 03 22:53	1°♎55'29	
	7774 Nov 14 06:23	0°♏	
	7774 Dec 30 23:01	0°♐	
	7775 Feb 19 04:55	0°♑	
	7775 Apr 19 06:40	0°♒	
desc. node	7775 May 13 12:43	8°♒51'10	
retrograde	7775 Jun 13 16:58	13°♒54'06	
opposition	7775 Jul 22 03:31	5°♒16'24	-2°28'36
greatest brilliancy	7775 Jul 22 14:16	5°♒06'07	-1.5m
min. Earth dist.	7775 Jul 27 16:35	3°♒09'06	0.62164 AU
	7775 Aug 05 11:16	30°℞♑	
direct	7775 Sep 01 10:21	25°♑19'12	
	7775 Sep 30 01:59	0°♒	
	7775 Dec 01 11:58	0°♓	
	7776 Jan 15 20:55	0°♈	
	7776 Feb 25 14:28	0°♉	
	7776 Apr 04 08:18	0°♊	
asc. node	7776 Apr 12 06:58	6°♊13'47	
	7776 May 12 14:41	0°♋	
	7776 Jun 20 12:01	0°♌	
	7776 Jul 30 19:42	0°♍	
evening set	7776 Aug 01 22:55	1°♍33'02	
	7776 Sep 11 01:44	0°♎	
conjunction	7776 Sep 27 19:41	11°♎30'05	1°06'49
minimum elong	7776 Sep 27 19:58	11°♎30'35	1°06'51
max. Earth dist.	7776 Oct 24 01:13	29°♎06'58	2.58955 AU
	7776 Oct 25 09:14	0°♏	
morning rise	7776 Nov 17 08:51	15°♏03'43	
	7776 Dec 10 14:37	0°♐	
	7777 Jan 27 13:37	0°♑	
	7777 Mar 18 15:42	0°♒	
desc. node	7777 Mar 30 10:39	6°♒46'51	
	7777 May 12 12:37	0°♓	
retrograde	7777 Jul 30 11:01	24°♓59'03	
opposition	7777 Sep 03 10:26	17°♓49'38	-5°16'50
greatest brilliancy	7777 Sep 04 23:49	17°♓16'41	-2.1m
min. Earth dist.	7777 Sep 11 21:17	14°♓51'25	0.50609 AU
direct	7777 Oct 11 21:02	9°♓02'22	
	7777 Dec 13 18:10	0°♈	
	7778 Jan 29 09:22	0°♉	
asc. node	7778 Feb 28 07:16	21°♉43'02	
	7778 Mar 11 09:13	0°♊	
	7778 Apr 20 01:16	0°♋	
	7778 May 30 03:04	0°♌	
	7778 Jul 10 13:11	0°♍	
	7778 Aug 22 18:37	0°♎	
evening set	7778 Sep 21 11:15	19°♎54'27	
	7778 Oct 06 19:07	0°♏	
conjunction	7778 Nov 09 00:23	21°♏32'01	0°46'48
minimum elong	7778 Nov 09 01:34	21°♏33'54	0°46'54
max. Earth dist.	7778 Nov 18 13:55	27°♏39'51	2.66226 AU
	7778 Nov 22 05:36	0°♐	
morning rise	7778 Dec 24 05:50	20°♐20'54	
	7779 Jan 08 12:18	0°♑	
desc. node	7779 Feb 15 07:51	23°♑48'18	
	7779 Feb 25 04:40	0°♒	
	7779 Apr 14 05:41	0°♓	
	7779 Jun 02 06:24	0°♈	
	7779 Jul 24 20:20	0°♉	
retrograde	7779 Oct 08 23:53	25°♉28'06	
opposition	7779 Nov 08 02:23	20°♉24'54	-4°42'17
greatest brilliancy	7779 Nov 09 01:29	20°♉09'01	-2.9m
min. Earth dist.	7779 Nov 12 15:48	19°♉09'49	0.38036 AU
direct	7779 Dec 09 09:09	14°♉52'25	
asc. node	7780 Jan 16 06:13	23°♉44'15	
	7780 Jan 29 14:47	0°♊	
	7780 Mar 19 18:48	0°♋	
	7780 May 03 13:09	0°♌	
	7780 Jun 16 23:39	0°♍	
	7780 Aug 01 08:00	0°♎	
	7780 Sep 16 19:04	0°♏	
evening set	7780 Oct 30 05:05	27°♏35'38	
	7780 Nov 03 00:17	0°♐	
max. Earth dist.	7780 Dec 10 01:04	23°♐27'45	2.68025 AU
conjunction	7780 Dec 14 08:05	26°♐11'20	0°09'55
minimum elong	7780 Dec 14 08:23	26°♐11'48	0°10'02
behind sun begin	7780 Dec 13 17:47	25°♐48'38	
behind sun end	7780 Dec 14 22:58	26°♐34'59	
	7780 Dec 20 07:57	0°♑	
desc. node	7781 Jan 02 05:40	8°♑13'32	
morning rise	7781 Jan 26 23:46	24°♑06'07	
	7781 Feb 05 02:56	0°♒	
	7781 Mar 22 23:33	0°♓	
	7781 May 06 18:12	0°♈	
	7781 Jun 19 12:47	0°♉	
	7781 Aug 01 15:53	0°♊	
	7781 Sep 14 09:07	0°♋	
	7781 Nov 02 14:30	0°♌	
asc. node	7781 Dec 03 06:47	12°♌34'04	
retrograde	7781 Dec 23 16:46	15°♌28'27	
min. Earth dist.	7782 Jan 18 22:00	10°♌53'19	0.41100 AU
greatest brilliancy	7782 Jan 25 12:05	8°♌48'10	-2.7m
opposition	7782 Jan 26 13:58	8°♌27'31	3°31'13
direct	7782 Feb 26 11:00	2°♌38'48	
	7782 May 16 17:00	0°♍	
	7782 Jul 08 10:11	0°♎	
	7782 Aug 27 07:16	0°♏	
	7782 Oct 15 05:50	0°♐	
desc. node	7782 Nov 20 04:44	22°♐24'36	
	7782 Dec 02 05:26	0°♑	
evening set	7782 Dec 05 07:55	1°♑58'01	
max. Earth dist.	7783 Jan 02 05:51	19°♑50'53	2.64327 AU
	7783 Jan 17 20:05	0°♒	
conjunction	7783 Jan 19 04:14	0°♒52'41	-0°30'48
minimum elong	7783 Jan 19 03:21	0°♒51'13	0°30'42
	7783 Mar 03 18:02	0°♓	
morning rise	7783 Mar 05 12:43	1°♓12'48	

	7783 Apr 15 21:03	0°♈	
	7783 May 27 08:53	0°♉	
	7783 Jul 06 14:03	0°♊	
	7783 Aug 15 04:02	0°♋	
	7783 Sep 24 04:24	0°♌	
asc. node	7783 Oct 21 06:00	19°♌29'13	
	7783 Nov 05 13:42	0°♍	
	7783 Dec 26 10:28	0°♎	
retrograde	7784 Feb 12 11:22	13°♎14'09	
min. Earth dist.	7784 Mar 14 22:12	6°♎28'58	0.54629 AU
greatest brilliancy	7784 Mar 20 20:11	4°♎13'05	-1.9m
opposition	7784 Mar 22 03:08	3°♎43'19	5°10'12
	7784 Apr 01 11:21	30°℞♍	
direct	7784 Apr 26 21:52	25°♍45'01	
	7784 May 24 14:42	0°♎	
	7784 Aug 01 07:43	0°♏	
	7784 Sep 23 19:14	0°♐	
desc. node	7784 Oct 07 04:14	7°♐54'15	
	7784 Nov 12 12:00	0°♑	
	7784 Dec 29 13:14	0°♒	
evening set	7785 Jan 10 18:39	8°♒03'52	
max. Earth dist.	7785 Jan 28 03:27	19°♒43'41	2.55399 AU
	7785 Feb 12 03:29	0°♓	
conjunction	7785 Feb 27 17:54	10°♓53'06	-1°02'05
minimum elong	7785 Feb 27 16:53	10°♓51'19	1°02'01
	7785 Mar 26 11:10	0°♈	
morning rise	7785 Apr 21 02:32	18°♈53'09	
	7785 May 05 21:31	0°♉	
	7785 Jun 13 23:51	0°♊	
	7785 Jul 22 11:32	0°♋	
	7785 Aug 30 05:38	0°♌	
asc. node	7785 Sep 07 03:09	6°♌01'12	
	7785 Oct 09 07:28	0°♍	
	7785 Nov 21 04:55	0°♎	
	7786 Jan 09 09:20	0°♏	
retrograde	7786 Mar 21 15:23	23°♏32'26	
min. Earth dist.	7786 Apr 27 10:38	14°♏57'26	0.64526 AU
opposition	7786 Apr 30 22:49	13°♏33'35	3°38'06
greatest brilliancy	7786 Apr 30 12:29	13°♏43'53	-1.4m
direct	7786 Jun 09 02:39	4°♏21'33	
desc. node	7786 Aug 25 04:06	28°♏00'53	
	7786 Aug 29 04:58	0°♐	
	7786 Oct 22 22:45	0°♑	
	7786 Dec 10 12:21	0°♒	
	7787 Jan 24 09:01	0°♓	
evening set	7787 Feb 24 09:13	21°♓58'11	
	7787 Mar 07 09:23	0°♈	
max. Earth dist.	7787 Mar 11 17:30	3°♈11'46	2.42490 AU
	7787 Apr 16 06:43	0°♉	
conjunction	7787 Apr 22 15:11	4°♉53'28	-0°56'29
minimum elong	7787 Apr 22 17:35	4°♉58'05	0°56'32
	7787 May 24 19:28	0°♊	
morning rise	7787 Jun 30 00:50	28°♊35'06	
	7787 Jul 01 19:54	0°♋	
asc. node	7787 Jul 26 00:55	18°♋59'52	
	7787 Aug 09 05:08	0°♌	
	7787 Sep 17 20:03	0°♍	
	7787 Oct 29 13:43	0°♎	
	7787 Dec 13 12:31	0°♏	
	7788 Feb 02 07:29	0°♐	
retrograde	7788 Apr 23 21:18	27°♐22'38	
opposition	7788 Jun 03 07:20	17°♐41'10	1°19'03
greatest brilliancy	7788 Jun 03 08:00	17°♐40'31	-1.3m
min. Earth dist.	7788 Jun 03 14:56	17°♐33'39	0.68109 AU
desc. node	7788 Jul 12 04:20	7°♐51'52	
direct	7788 Jul 14 10:14	7°♐50'00	
	7788 Sep 25 15:30	0°♑	
	7788 Nov 18 08:57	0°♒	
	7789 Jan 03 14:11	0°♓	
	7789 Feb 14 20:23	0°♈	
	7789 Mar 26 14:19	0°♉	
evening set	7789 Apr 25 17:35	23°♉32'24	
	7789 May 03 21:55	0°♊	
	7789 Jun 10 19:05	0°♋	
asc. node	7789 Jun 12 00:02	0°♋57'08	
conjunction	7789 Jul 05 01:42	19°♋03'54	0°16'21
minimum elong	7789 Jul 04 24:00	19°♋00'34	0°16'12
	7789 Jul 19 04:05	0°♌	
max. Earth dist.	7789 Aug 27 05:29	29°♌32'30	2.41092 AU
	7789 Aug 27 20:21	0°♍	
morning rise	7789 Sep 11 14:12	10°♍48'26	
	7789 Oct 08 11:34	0°♎	
	7789 Nov 21 13:54	0°♏	
	7790 Jan 07 18:00	0°♐	
	7790 Feb 28 23:21	0°♑	
	7790 May 21 01:16	0°♒	
retrograde	7790 May 29 09:42	0°♒24'37	
desc. node	7790 May 30 03:24	0°♒24'25	
	7790 Jun 06 13:05	30°℞♑	
opposition	7790 Jul 07 16:11	21°♑23'54	-1°21'43
greatest brilliancy	7790 Jul 07 20:24	21°♑19'48	-1.4m
min. Earth dist.	7790 Jul 11 18:34	19°♑48'21	0.65106 AU
direct	7790 Aug 18 06:31	11°♑20'54	
	7790 Oct 20 22:14	0°♒	
	7790 Dec 11 23:44	0°♓	
	7791 Jan 24 18:26	0°♈	
	7791 Mar 05 23:24	0°♉	
	7791 Apr 13 11:13	0°♊	
asc. node	7791 Apr 29 22:38	12°♊59'46	
	7791 May 21 12:41	0°♋	
	7791 Jun 29 04:33	0°♌	
evening set	7791 Jul 09 01:27	7°♌30'34	
	7791 Aug 08 06:02	0°♍	
conjunction	7791 Sep 08 23:50	22°♍48'54	1°05'11
minimum elong	7791 Sep 08 22:52	22°♍47'12	1°05'08
	7791 Sep 19 05:49	0°♎	
max. Earth dist.	7791 Oct 13 04:46	16°♎27'51	2.54670 AU
morning rise	7791 Nov 02 04:36	29°♎52'22	
	7791 Nov 02 09:13	0°♏	
	7791 Dec 18 15:56	0°♐	
	7792 Feb 05 04:50	0°♑	
	7792 Mar 28 05:35	0°♒	
desc. node	7792 Apr 16 01:00	9°♒56'46	
	7792 May 31 10:10	0°♓	
retrograde	7792 Jul 09 22:00	7°♓44'04	
opposition	7792 Aug 15 12:20	29°♒53'53	-4°15'23
	7792 Aug 15 05:41	30°℞♒	
greatest brilliancy	7792 Aug 16 14:42	29°♒29'36	-1.8m
min. Earth dist.	7792 Aug 23 02:09	27°♒06'35	0.55739 AU
direct	7792 Sep 24 12:22	20°♒26'05	
	7792 Nov 04 13:00	0°♓	
	7792 Dec 28 16:17	0°♈	
	7793 Feb 09 11:32	0°♉	
asc. node	7793 Mar 16 23:16	26°♉47'39	
	7793 Mar 21 03:23	0°♊	
	7793 Apr 29 00:29	0°♋	
	7793 Jun 07 11:09	0°♌	
	7793 Jul 18 07:58	0°♍	
	7793 Aug 30 01:53	0°♎	
evening set	7793 Sep 03 15:50	3°♎08'04	

	7793 Oct 13 17:57	0°♏	
conjunction	7793 Oct 24 16:55	7°♏11'17	0°57'32
minimum elong	7793 Oct 24 18:05	7°♏13'10	0°57'37
max. Earth dist.	7793 Nov 09 06:26	17°♏18'02	2.64031 AU
	7793 Nov 29 00:33	0°♐	
morning rise	7793 Dec 10 10:51	7°♐17'10	
	7794 Jan 15 10:48	0°♑	
desc. node	7794 Mar 03 22:13	29°♑28'00	
	7794 Mar 04 19:03	0°♒	
	7794 Apr 23 11:21	0°♓	
	7794 Jun 15 17:53	0°♈	
retrograde	7794 Sep 07 18:33	28°♈29'48	
opposition	7794 Oct 09 19:07	22°♈39'44	-5°56'43
greatest brilliancy	7794 Oct 11 12:54	22°♈07'24	-2.6m
min. Earth dist.	7794 Oct 17 16:07	20°♈14'54	0.42246 AU
direct	7794 Nov 13 05:21	15°♈42'23	
	7795 Jan 01 10:48	0°♉	
asc. node	7795 Feb 02 00:09	18°♉22'41	
	7795 Feb 19 13:55	0°♊	
	7795 Apr 03 06:30	0°♋	
	7795 May 15 04:27	0°♌	
	7795 Jun 26 23:16	0°♍	
	7795 Aug 10 05:31	0°♎	
	7795 Sep 24 23:43	0°♏	
evening set	7795 Oct 16 12:21	13°♏51'04	
	7795 Nov 10 19:34	0°♐	
conjunction	7795 Dec 01 13:36	13°♐11'13	0°25'12
minimum elong	7795 Dec 01 14:21	13°♐12'23	0°25'19
max. Earth dist.	7795 Dec 02 09:39	13°♐43'01	2.67977 AU
	7795 Dec 28 01:11	0°♑	
morning rise	7796 Jan 14 11:16	11°♑04'41	
desc. node	7796 Jan 19 19:30	14°♑29'00	
	7796 Feb 13 02:08	0°♒	
	7796 Mar 30 14:00	0°♓	
	7796 May 15 11:52	0°♈	
	7796 Jun 30 02:11	0°♉	
	7796 Aug 15 07:45	0°♊	
	7796 Oct 05 18:43	0°♋	
retrograde	7796 Nov 27 01:00	15°♋19'43	
asc. node	7796 Dec 19 23:37	11°♋58'06	
min. Earth dist.	7796 Dec 23 19:58	10°♋56'22	0.37450 AU
opposition	7796 Dec 28 02:25	9°♋45'19	0°36'47
greatest brilliancy	7796 Dec 27 23:27	9°♋47'23	-3.0m
direct	7797 Jan 26 12:29	4°♋44'38	
	7797 Apr 09 17:39	0°♌	
	7797 May 30 19:29	0°♍	
	7797 Jul 18 03:56	0°♎	
	7797 Sep 04 06:21	0°♏	
	7797 Oct 22 08:30	0°♐	
evening set	7797 Nov 21 09:34	18°♐51'44	
desc. node	7797 Dec 06 17:49	28°♐34'12	
	7797 Dec 08 23:52	0°♑	
max. Earth dist.	7797 Dec 24 02:38	9°♑38'17	2.66417 AU
conjunction	7798 Jan 05 00:17	17°♑17'02	-0°15'21
minimum elong	7798 Jan 04 23:50	17°♑16'18	0°15'14
behind sun begin	7798 Jan 04 18:03	17°♑07'00	
behind sun end	7798 Jan 05 05:36	17°♑25'36	
	7798 Jan 24 14:53	0°♒	
morning rise	7798 Feb 18 06:09	16°♒13'20	
	7798 Mar 10 19:49	0°♓	
	7798 Apr 23 11:17	0°♈	
	7798 Jun 04 15:09	0°♉	
	7798 Jul 15 14:42	0°♊	
	7798 Aug 25 01:47	0°♋	
	7798 Oct 05 09:39	0°♌	
asc. node	7798 Nov 06 22:00	21°♌54'22	
	7798 Nov 20 03:14	0°♍	
retrograde	7799 Jan 25 22:09	23°♍53'34	
min. Earth dist.	7799 Feb 23 23:26	18°♍02'27	0.49397 AU
greatest brilliancy	7799 Mar 02 17:13	15°♍34'50	-2.2m
opposition	7799 Mar 04 05:49	15°♍01'14	5°11'59
direct	7799 Apr 07 05:49	7°♍46'40	
	7799 Jun 17 21:15	0°♎	
	7799 Aug 12 16:11	0°♏	
	7799 Oct 02 18:04	0°♐	
desc. node	7799 Oct 24 17:55	13°♐21'19	
	7799 Nov 20 14:27	0°♑	
evening set	7799 Dec 27 17:45	23°♑41'13	
	7800 Jan 06 09:56	0°♒	
max. Earth dist.	7800 Jan 17 21:14	7°♒33'59	2.59482 AU
conjunction	7800 Feb 11 23:23	24°♒26'32	-0°52'18
minimum elong	7800 Feb 11 22:09	24°♒24'25	0°52'13
	7800 Feb 20 02:10	0°♓	
morning rise	7800 Apr 01 16:08	28°♓33'07	
	7800 Apr 03 16:24	0°♈	
	7800 May 14 11:14	0°♉	
	7800 Jun 22 22:09	0°♊	
	7800 Jul 31 17:20	0°♋	
	7800 Sep 08 18:38	0°♌	
asc. node	7800 Sep 24 20:59	12°♌06'33	
	7800 Oct 19 07:39	0°♍	
	7800 Dec 02 11:09	0°♎	
	7801 Jan 27 03:05	0°♏	
retrograde	7801 Mar 08 14:59	9°♏15'23	
min. Earth dist.	7801 Apr 12 12:30	1°♏17'54	0.61369 AU
	7801 Apr 15 19:17	30°℞♎	
opposition	7801 Apr 17 12:23	29°♎19'12	4°22'40
greatest brilliancy	7801 Apr 16 18:27	29°♎37'00	-1.6m
direct	7801 May 25 12:37	20°♎30'41	
	7801 Jul 08 18:30	0°♏	
	7801 Sep 09 22:25	0°♐	
desc. node	7801 Sep 11 17:54	0°♐59'17	
	7801 Oct 31 23:10	0°♑	
	7801 Dec 18 18:30	0°♒	
	7802 Feb 01 11:10	0°♓	
evening set	7802 Feb 06 15:38	3°♓36'15	
max. Earth dist.	7802 Feb 20 10:11	13°♓18'15	2.47808 AU
	7802 Mar 15 13:36	0°♈	
conjunction	7802 Mar 31 06:38	11°♈36'23	-1°05'54
minimum elong	7802 Mar 31 07:15	11°♈37'32	1°05'56
	7802 Apr 24 15:17	0°♉	
morning rise	7802 May 31 15:53	28°♉40'14	
	7802 Jun 02 08:38	0°♊	
	7802 Jul 10 12:31	0°♋	
greatest brilliancy	7802 Jul 15 08:09	3°♋47'05	1.2m
asc. node	7802 Aug 12 17:55	25°♋56'57	
	7802 Aug 17 23:49	0°♌	
	7802 Sep 26 16:36	0°♍	
	7802 Nov 07 15:32	0°♎	
	7802 Dec 23 10:42	0°♏	
	7803 Feb 16 08:32	0°♐	
retrograde	7803 Apr 12 16:30	14°♐46'12	
min. Earth dist.	7803 May 22 00:47	5°♐22'48	0.67498 AU
opposition	7803 May 23 05:00	4°♐54'42	2°15'54
greatest brilliancy	7803 May 23 03:05	4°♐56'37	-1.3m
	7803 Jun 05 06:40	30°℞♏	
direct	7803 Jul 02 17:22	25°♏15'35	
desc. node	7803 Jul 30 17:55	29°♏23'19	
	7803 Aug 01 22:29	0°♐	

	7803 Oct 08 19:59	0°♉	
	7803 Nov 28 17:10	0°♒	
	7804 Jan 13 05:25	0°♓	
	7804 Feb 24 07:47	0°♈	
evening set	7804 Mar 31 03:41	26°♈58'31	
	7804 Apr 04 02:01	0°♉	
	7804 May 12 10:46	0°♊	
conjunction	7804 Jun 05 14:37	19°♊07'47	-0°17'10
minimum elong	7804 Jun 05 16:27	19°♊11'25	0°17'17
	7804 Jun 19 08:15	0°♋	
max. Earth dist.	7804 Jun 23 07:28	3°♋07'58	2.36684 AU
asc. node	7804 Jun 29 15:44	8°♋07'56	
	7804 Jul 27 16:15	0°♌	
morning rise	7804 Aug 17 07:18	15°♌46'59	
	7804 Sep 05 06:41	0°♍	
	7804 Oct 16 20:44	0°♎	
	7804 Nov 30 02:42	0°♏	
	7805 Jan 17 02:10	0°♐	
	7805 Mar 13 23:52	0°♑	
retrograde	7805 May 16 03:27	17°♑34'12	
desc. node	7805 Jun 16 17:25	11°♑24'26	
opposition	7805 Jun 25 00:23	8°♑14'52	-0°17'21
greatest brilliancy	7805 Jun 25 00:59	8°♑14'18	-1.4m
min. Earth dist.	7805 Jun 27 15:16	7°♑13'10	0.67077 AU
	7805 Jul 19 21:35	30°℞♐	
direct	7805 Aug 05 14:52	28°♐12'49	
	7805 Aug 23 06:37	0°♑	
	7805 Nov 03 10:46	0°♒	
	7805 Dec 22 02:17	0°♓	
	7806 Feb 03 01:12	0°♈	
	7806 Mar 14 23:39	0°♉	
	7806 Apr 22 08:27	0°♊	
greatest brilliancy	7806 May 11 05:10	14°♊55'37	1.2m
asc. node	7806 May 17 16:17	20°♊02'27	
	7806 May 30 06:53	0°♋	
evening set	7806 Jun 11 19:01	9°♋49'42	
	7806 Jul 07 18:36	0°♌	
	7806 Aug 16 14:58	0°♍	
conjunction	7806 Aug 18 03:25	1°♍07'02	0°54'48
minimum elong	7806 Aug 18 00:54	1°♍02'25	0°54'43
	7806 Sep 27 09:42	0°♎	
max. Earth dist.	7806 Sep 30 06:33	2°♎00'14	2.49667 AU
morning rise	7806 Oct 16 06:05	13°♎02'12	
	7806 Nov 10 10:31	0°♏	
	7806 Dec 26 21:26	0°♐	
	7807 Feb 14 07:52	0°♑	
	7807 Apr 10 17:36	0°♒	
desc. node	7807 May 04 15:26	10°♒41'12	
retrograde	7807 Jun 24 01:25	22°♒29'56	
opposition	7807 Jul 31 22:05	14°♒07'25	-3°07'59
greatest brilliancy	7807 Aug 01 13:51	13°♒52'29	-1.6m
min. Earth dist.	7807 Aug 07 05:31	11°♒44'02	0.60123 AU
direct	7807 Sep 10 20:49	4°♒17'12	
	7807 Nov 24 13:20	0°♓	
	7808 Jan 10 17:26	0°♈	
	7808 Feb 21 00:15	0°♉	
	7808 Mar 31 00:26	0°♊	
asc. node	7808 Apr 03 16:24	2°♊51'31	
	7808 May 08 10:53	0°♋	
	7808 Jun 16 11:41	0°♌	
	7808 Jul 26 22:45	0°♍	
evening set	7808 Aug 15 12:57	14°♍03'10	
	7808 Sep 07 07:32	0°♎	
conjunction	7808 Oct 09 01:18	21°♎35'12	1°04'47
minimum elong	7808 Oct 09 02:03	21°♎36'28	1°04'50
	7808 Oct 21 16:46	0°♏	
max. Earth dist.	7808 Oct 31 05:33	6°♏16'58	2.60971 AU
morning rise	7808 Nov 27 00:42	23°♏41'10	
	7808 Dec 06 21:10	0°♐	
	7809 Jan 23 13:57	0°♑	
	7809 Mar 13 21:13	0°♒	
desc. node	7809 Mar 21 12:16	4°♒31'27	
	7809 May 05 05:17	0°♓	
	7809 Jul 09 10:14	0°♈	
retrograde	7809 Aug 13 11:04	6°♈21'52	
	7809 Sep 15 09:06	30°℞♓	
opposition	7809 Sep 16 10:20	29°♓38'42	-5°43'28
greatest brilliancy	7809 Sep 18 04:21	29°♓02'53	-2.2m
min. Earth dist.	7809 Sep 25 01:20	26°♓43'31	0.47588 AU
direct	7809 Oct 23 15:40	21°♓23'43	
	7809 Nov 30 02:11	0°♈	
	7810 Jan 22 04:36	0°♉	
asc. node	7810 Feb 19 15:37	19°♉49'30	
	7810 Mar 05 15:14	0°♊	
	7810 Apr 15 00:08	0°♋	
	7810 May 25 13:05	0°♌	
	7810 Jul 06 08:04	0°♍	
	7810 Aug 18 20:18	0°♎	
evening set	7810 Oct 01 21:25	29°♎13'44	
	7810 Oct 03 01:46	0°♏	
conjunction	7810 Nov 18 09:16	29°♏51'41	0°39'22
minimum elong	7810 Nov 18 10:21	29°♏53'24	0°39'28
	7810 Nov 18 14:29	0°♐	
max. Earth dist.	7810 Nov 24 18:36	3°♐56'10	2.67077 AU
morning rise	7811 Jan 02 00:12	28°♐12'43	
	7811 Jan 04 19:57	0°♑	
desc. node	7811 Feb 06 10:06	20°♑37'28	
	7811 Feb 21 05:41	0°♒	
	7811 Apr 09 14:52	0°♓	
	7811 May 27 05:55	0°♈	
	7811 Jul 15 04:47	0°♉	
	7811 Sep 08 18:07	0°♊	
retrograde	7811 Oct 28 08:21	13°♊04'34	
opposition	7811 Nov 27 05:28	8°♊09'32	-3°05'55
greatest brilliancy	7811 Nov 27 13:32	8°♊04'09	-3.0m
min. Earth dist.	7811 Nov 28 17:14	7°♊45'44	0.36845 AU
direct	7811 Dec 27 03:48	3°♊07'36	
asc. node	7812 Jan 07 16:10	4°♊01'41	
	7812 Mar 09 17:38	0°♋	
	7812 Apr 26 21:31	0°♌	
	7812 Jun 11 18:32	0°♍	
	7812 Jul 27 21:49	0°♎	
	7812 Sep 12 20:13	0°♏	
	7812 Oct 30 07:38	0°♐	
evening set	7812 Nov 08 08:47	5°♐42'29	
max. Earth dist.	7812 Dec 16 02:55	29°♐36'45	2.67677 AU
	7812 Dec 16 17:31	0°♑	
conjunction	7812 Dec 23 04:40	4°♑07'00	0°00'38
minimum elong	7812 Dec 23 04:39	4°♑06'58	0°00'45
behind sun begin	7812 Dec 22 10:19	3°♑37'46	
behind sun end	7812 Dec 23 22:59	4°♑36'10	
desc. node	7812 Dec 24 08:28	4°♑51'19	
	7813 Feb 01 10:46	0°♒	
morning rise	7813 Feb 04 22:07	2°♒15'26	
	7813 Mar 19 01:06	0°♓	
	7813 May 02 08:54	0°♈	
	7813 Jun 14 11:13	0°♉	
	7813 Jul 26 15:17	0°♊	
	7813 Sep 06 17:13	0°♋	

	7813 Oct 21 04:34	0°♌	
asc. node	7813 Nov 24 15:47	19°♌21'09	
	7813 Dec 26 20:00	0°♍	
retrograde	7814 Jan 06 15:36	0°♍51'02	
	7814 Jan 17 09:36	30°℞♌	
min. Earth dist.	7814 Feb 02 14:09	25°♌53'11	0.43911 AU
opposition	7814 Feb 10 23:29	23°♌03'32	4°28'35
greatest brilliancy	7814 Feb 09 13:29	23°♌32'19	-2.5m
direct	7814 Mar 14 22:01	16°♌42'55	
	7814 May 05 06:36	0°♍	
	7814 Jul 02 08:43	0°♎	
	7814 Aug 22 17:26	0°♏	
	7814 Oct 11 07:04	0°♐	
desc. node	7814 Nov 11 07:41	19°♐11'01	
	7814 Nov 28 13:20	0°♑	
evening set	7814 Dec 14 08:11	10°♑01'08	
max. Earth dist.	7815 Jan 08 18:30	26°♑25'27	2.62824 AU
	7815 Jan 14 05:49	0°♒	
conjunction	7815 Jan 28 12:42	9°♒25'23	-0°39'18
minimum elong	7815 Jan 28 11:37	9°♒23'35	0°39'11
	7815 Feb 28 01:47	0°♓	
morning rise	7815 Mar 15 19:44	10°♓51'12	
	7815 Apr 12 00:13	0°♈	
	7815 May 23 05:26	0°♉	
	7815 Jul 02 03:16	0°♊	
	7815 Aug 10 09:03	0°♋	
	7815 Sep 18 22:18	0°♌	
asc. node	7815 Oct 12 13:06	17°♌22'16	
	7815 Oct 30 08:49	0°♍	
	7815 Dec 16 07:49	0°♎	
retrograde	7816 Feb 22 15:34	23°♎32'08	
min. Earth dist.	7816 Mar 26 09:38	16°♎18'41	0.57282 AU
opposition	7816 Apr 01 19:59	13°♎48'19	4°57'32
greatest brilliancy	7816 Mar 31 17:37	14°♎14'05	-1.8m
direct	7816 May 08 11:11	5°♎29'46	
	7816 Jul 25 09:19	0°♏	
	7816 Sep 19 03:03	0°♐	
desc. node	7816 Sep 28 07:30	5°♐18'13	
	7816 Nov 08 12:53	0°♑	
	7816 Dec 25 20:28	0°♒	
evening set	7817 Jan 20 17:45	17°♒11'10	
max. Earth dist.	7817 Feb 05 10:25	27°♒53'12	2.52874 AU
	7817 Feb 08 11:56	0°♓	
conjunction	7817 Mar 11 00:52	21°♓31'16	-1°05'32
minimum elong	7817 Mar 11 00:14	21°♓30'09	1°05'30
	7817 Mar 22 18:18	0°♈	
	7817 May 02 01:46	0°♉	
morning rise	7817 May 05 02:41	2°♉18'33	
	7817 Jun 10 00:49	0°♊	
	7817 Jul 18 09:12	0°♋	
	7817 Aug 25 23:41	0°♌	
asc. node	7817 Aug 29 11:58	2°♌41'37	
	7817 Oct 04 20:21	0°♍	
	7817 Nov 16 05:38	0°♎	
	7818 Jan 02 14:58	0°♏	
	7818 Mar 13 05:41	0°♐	
retrograde	7818 Mar 30 10:21	1°♐47'34	
	7818 Apr 15 17:00	30°℞♏	
min. Earth dist.	7818 May 07 04:43	22°♏53'50	0.65869 AU
opposition	7818 May 09 20:49	21°♏49'51	3°09'11
greatest brilliancy	7818 May 09 14:03	21°♏56'36	-1.4m
direct	7818 Jun 18 13:32	12°♏26'55	
desc. node	7818 Aug 16 07:22	27°♏38'20	
	7818 Aug 21 15:48	0°♐	
	7818 Oct 18 04:45	0°♑	
	7818 Dec 06 11:35	0°♒	
	7819 Jan 20 13:43	0°♓	
	7819 Mar 03 15:19	0°♈	
evening set	7819 Mar 09 01:10	3°♈59'24	
max. Earth dist.	7819 Mar 29 21:41	19°♈37'05	2.39682 AU
	7819 Apr 12 11:55	0°♉	
conjunction	7819 May 08 10:08	20°♉08'03	-0°45'39
minimum elong	7819 May 08 13:11	20°♉14'01	0°45'43
	7819 May 20 23:30	0°♊	
	7819 Jun 27 22:48	0°♋	
asc. node	7819 Jul 17 10:13	15°♋19'06	
morning rise	7819 Jul 18 20:29	16°♋26'08	
	7819 Aug 05 06:57	0°♌	
	7819 Sep 13 20:37	0°♍	
	7819 Oct 25 11:10	0°♎	
	7819 Dec 09 00:31	0°♏	
	7820 Jan 27 08:55	0°♐	
	7820 Apr 01 20:12	0°♑	
retrograde	7820 May 02 12:52	5°♑02'27	
	7820 May 30 17:48	30°℞♐	
opposition	7820 Jun 11 19:16	25°♐27'55	0°44'13
greatest brilliancy	7820 Jun 11 20:14	25°♐26'58	-1.3m
min. Earth dist.	7820 Jun 12 22:40	25°♐00'50	0.68021 AU
desc. node	7820 Jul 03 06:59	18°♐02'00	
direct	7820 Jul 23 03:35	15°♐31'37	
	7820 Sep 17 12:37	0°♑	
	7820 Nov 13 10:50	0°♒	
	7820 Dec 30 09:18	0°♓	
	7821 Feb 10 21:08	0°♈	
	7821 Mar 22 16:35	0°♉	
	7821 Apr 30 00:31	0°♊	
evening set	7821 May 13 00:13	10°♊17'02	
asc. node	7821 Jun 03 08:09	27°♊10'39	
	7821 Jun 06 21:52	0°♋	
	7821 Jul 15 07:14	0°♌	
conjunction	7821 Jul 22 13:05	5°♌33'50	0°33'21
minimum elong	7821 Jul 22 10:12	5°♌28'19	0°33'11
	7821 Aug 24 00:10	0°♍	
max. Earth dist.	7821 Sep 11 13:49	13°♍34'22	2.44183 AU
morning rise	7821 Sep 25 16:16	23°♍40'14	
	7821 Oct 04 15:31	0°♎	
	7821 Nov 17 15:37	0°♏	
	7822 Jan 03 10:36	0°♐	
	7822 Feb 23 07:12	0°♑	
	7822 Apr 27 06:28	0°♒	
desc. node	7822 May 21 05:30	6°♒45'13	
retrograde	7822 Jun 07 23:55	8°♒31'07	
opposition	7822 Jul 16 19:46	29°♑42'35	-2°00'23
	7822 Jul 16 01:40	30°℞♑	
greatest brilliancy	7822 Jul 17 03:22	29°♑35'15	-1.5m
min. Earth dist.	7822 Jul 21 17:22	27°♑49'10	0.63607 AU
direct	7822 Aug 27 06:38	19°♑41'39	
	7822 Oct 10 22:41	0°♒	
	7822 Dec 06 12:07	0°♓	
	7823 Jan 20 04:29	0°♈	
	7823 Mar 01 16:57	0°♉	
	7823 Apr 09 08:17	0°♊	
asc. node	7823 Apr 21 08:16	9°♊26'14	
	7823 May 17 12:03	0°♋	
	7823 Jun 25 05:54	0°♌	
evening set	7823 Jul 24 12:48	22°♌00'41	
	7823 Aug 04 09:34	0°♍	
	7823 Sep 15 11:21	0°♎	
conjunction	7823 Sep 21 13:13	4°♎12'52	1°07'01

minimum elong	7823 Sep 21 13:03	4°♎12'34	1°07'00
max. Earth dist.	7823 Oct 21 05:13	24°♎22'54	2.57131 AU
	7823 Oct 29 15:36	0°♏	
morning rise	7823 Nov 12 14:12	9°♏11'22	
	7823 Dec 14 20:06	0°♐	
	7824 Jan 31 23:26	0°♑	
	7824 Mar 22 17:26	0°♒	
desc. node	7824 Apr 07 03:25	8°♒37'08	
	7824 May 19 04:43	0°♓	
retrograde	7824 Jul 22 04:47	17°♓44'09	
opposition	7824 Aug 26 22:11	10°♓15'20	-4°51'52
greatest brilliancy	7824 Aug 28 06:53	9°♓45'49	-1.9m
min. Earth dist.	7824 Sep 04 00:38	7°♓20'17	0.52979 AU
direct	7824 Oct 05 02:51	1°♓07'18	
	7824 Dec 21 06:06	0°♈	
	7825 Feb 03 20:39	0°♉	
asc. node	7825 Mar 08 09:00	24°♉04'30	
	7825 Mar 16 04:37	0°♊	
	7825 Apr 24 11:05	0°♋	
	7825 Jun 03 04:37	0°♌	
	7825 Jul 14 07:14	0°♍	
	7825 Aug 26 05:54	0°♎	
evening set	7825 Sep 15 00:03	13°♎22'15	
	7825 Oct 10 01:21	0°♏	
conjunction	7825 Nov 03 13:32	15°♏58'25	0°51'37
minimum elong	7825 Nov 03 14:44	16°♏00'21	0°51'43
max. Earth dist.	7825 Nov 15 18:09	23°♏49'53	2.65347 AU
	7825 Nov 25 09:03	0°♐	
morning rise	7825 Dec 19 09:25	15°♐17'06	
	7826 Jan 11 16:42	0°♑	
desc. node	7826 Feb 23 00:41	26°♑30'47	
	7826 Feb 28 15:07	0°♒	
	7826 Apr 18 06:56	0°♓	
	7826 Jun 07 18:27	0°♈	
	7826 Aug 04 09:17	0°♉	
retrograde	7826 Sep 25 20:54	13°♉31'42	
opposition	7826 Oct 26 16:32	8°♉10'40	-5°28'32
greatest brilliancy	7826 Oct 28 02:24	7°♉46'13	-2.8m
min. Earth dist.	7826 Nov 02 02:56	6°♉19'45	0.39658 AU
direct	7826 Nov 28 08:24	2°♉02'25	
asc. node	7827 Jan 24 07:39	20°♉23'08	
	7827 Feb 09 21:25	0°♊	
	7827 Mar 27 12:01	0°♋	
	7827 May 09 17:18	0°♌	
	7827 Jun 22 06:53	0°♍	
	7827 Aug 06 01:37	0°♎	
	7827 Sep 21 03:54	0°♏	
evening set	7827 Oct 25 23:42	22°♏15'24	
	7827 Nov 07 04:10	0°♐	
max. Earth dist.	7827 Dec 08 10:48	19°♐50'18	2.68111 AU
conjunction	7827 Dec 10 11:11	21°♐07'02	0°16'21
minimum elong	7827 Dec 10 11:40	21°♐07'48	0°16'29
	7827 Dec 24 10:51	0°♑	
desc. node	7828 Jan 10 22:27	11°♑08'14	
morning rise	7828 Jan 23 04:03	18°♑57'31	
	7828 Feb 09 08:36	0°♒	
	7828 Mar 26 12:00	0°♓	
	7828 May 10 18:17	0°♈	
	7828 Jun 24 05:57	0°♉	
	7828 Aug 07 11:18	0°♊	
	7828 Sep 22 06:13	0°♋	
	7828 Nov 21 19:08	0°♌	
asc. node	7828 Dec 11 08:08	3°♌13'24	
retrograde	7828 Dec 13 16:13	3°♌15'47	
	7829 Jan 04 18:11	30°℞♋	
min. Earth dist.	7829 Jan 08 18:35	28°♋52'20	0.39162 AU
opposition	7829 Jan 15 06:57	26°♋55'28	2°27'44
greatest brilliancy	7829 Jan 14 14:35	27°♋07'46	-2.9m
direct	7829 Feb 14 09:56	21°♋31'23	
	7829 Mar 25 04:01	0°♌	
	7829 May 23 13:43	0°♍	
	7829 Jul 12 23:45	0°♎	
	7829 Aug 30 23:52	0°♏	
	7829 Oct 18 12:45	0°♐	
desc. node	7829 Nov 27 21:06	25°♐15'29	
evening set	7829 Nov 30 08:44	26°♐49'42	
	7829 Dec 05 08:57	0°♑	
max. Earth dist.	7829 Dec 30 09:21	15°♑58'32	2.65369 AU
conjunction	7830 Jan 14 00:55	25°♑27'09	-0°24'29
minimum elong	7830 Jan 14 00:11	25°♑25'58	0°24'21
	7830 Jan 21 00:22	0°♒	
morning rise	7830 Feb 27 19:20	25°♒04'30	
	7830 Mar 07 02:08	0°♓	
	7830 Apr 19 11:27	0°♈	
	7830 May 31 06:45	0°♉	
	7830 Jul 10 20:00	0°♊	
	7830 Aug 19 18:16	0°♋	
	7830 Sep 29 05:00	0°♌	
asc. node	7830 Oct 29 07:57	21°♌14'03	
	7830 Nov 11 13:17	0°♍	
	7831 Jan 07 09:16	0°♎	
retrograde	7831 Feb 06 05:02	5°♎42'35	
	7831 Mar 06 18:38	30°℞♍	
min. Earth dist.	7831 Mar 08 13:51	29°♍20'46	0.52343 AU
greatest brilliancy	7831 Mar 14 21:13	26°♍58'25	-2.0m
opposition	7831 Mar 16 07:14	26°♍26'14	5°15'23
direct	7831 Apr 20 07:32	18°♍46'15	
	7831 Jun 06 23:49	0°♎	
	7831 Aug 07 01:58	0°♏	
	7831 Sep 28 10:31	0°♐	
desc. node	7831 Oct 15 20:30	10°♐25'01	
	7831 Nov 16 18:50	0°♑	
	7832 Jan 02 18:35	0°♒	
evening set	7832 Jan 06 05:10	2°♒15'23	
max. Earth dist.	7832 Jan 25 05:07	14°♒52'36	2.57315 AU
	7832 Feb 16 10:45	0°♓	
conjunction	7832 Feb 22 07:21	4°♓02'58	-0°58'28
minimum elong	7832 Feb 22 06:10	4°♓00'57	0°58'25
	7832 Mar 29 22:25	0°♈	
morning rise	7832 Apr 12 20:13	10°♈08'09	
	7832 May 09 13:13	0°♉	
	7832 Jun 17 19:44	0°♊	
	7832 Jul 26 10:43	0°♋	
	7832 Sep 03 07:07	0°♌	
asc. node	7832 Sep 15 05:03	9°♌02'27	
	7832 Oct 13 11:56	0°♍	
	7832 Nov 25 17:40	0°♎	
	7833 Jan 15 13:59	0°♏	
retrograde	7833 Mar 16 18:18	18°♏02'25	
min. Earth dist.	7833 Apr 21 17:20	9°♏43'22	0.63226 AU
opposition	7833 Apr 25 21:20	8°♏03'50	3°57'47
greatest brilliancy	7833 Apr 25 07:48	8°♏17'18	-1.5m
	7833 May 22 06:49	30°℞♎	
direct	7833 Jun 03 12:57	29°♎01'45	
	7833 Jun 16 11:41	0°♏	
desc. node	7833 Sep 01 20:23	29°♏21'19	
	7833 Sep 03 02:17	0°♐	
	7833 Oct 26 14:56	0°♑	
	7833 Dec 13 21:51	0°♒	
	7834 Jan 27 18:09	0°♓	

evening set	7834 Feb 16 23:45	14°♓11'51	
max. Earth dist.	7834 Mar 02 22:04	24°♓12'27	2.44881 AU
	7834 Mar 10 20:48	0°♈	
conjunction	7834 Apr 12 23:56	24°♈45'16	-1°01'58
minimum elong	7834 Apr 13 01:33	24°♈48'19	1°02'00
	7834 Apr 19 20:54	0°♉	
	7834 May 28 12:04	0°♊	
morning rise	7834 Jun 17 08:15	15°♊37'12	
	7834 Jul 05 13:58	0°♋	
asc. node	7834 Aug 03 02:17	22°♋20'29	
	7834 Aug 12 23:23	0°♌	
	7834 Sep 21 13:48	0°♍	
	7834 Nov 02 07:46	0°♎	
	7834 Dec 17 11:24	0°♏	
	7835 Feb 07 09:50	0°♐	
retrograde	7835 Apr 20 06:36	22°♐31'26	
opposition	7835 May 30 17:49	12°♐45'06	1°42'59
min. Earth dist.	7835 May 30 09:26	12°♐53'27	0.67958 AU
greatest brilliancy	7835 May 30 17:38	12°♐45'17	-1.3m
direct	7835 Jul 10 14:21	2°♐58'53	
desc. node	7835 Jul 20 20:52	3°♐35'43	
	7835 Oct 01 18:42	0°♑	
	7835 Nov 23 05:53	0°♒	
	7836 Jan 08 05:10	0°♓	
	7836 Feb 19 11:13	0°♈	
	7836 Mar 30 06:15	0°♉	
evening set	7836 Apr 14 16:24	11°♉58'12	
	7836 May 07 14:49	0°♊	
	7836 Jun 14 12:03	0°♋	
asc. node	7836 Jun 20 01:34	4°♋23'34	
conjunction	7836 Jun 22 18:12	6°♋30'57	0°01'58
minimum elong	7836 Jun 22 18:01	6°♋30'37	0°01'50
behind sun begin	7836 Jun 21 11:43	5°♋30'55	
behind sun end	7836 Jun 24 00:19	7°♋30'16	
	7836 Jul 22 19:52	0°♌	
max. Earth dist.	7836 Aug 11 18:42	15°♌16'20	2.38746 AU
	7836 Aug 31 10:04	0°♍	
morning rise	7836 Sep 01 15:01	0°♍53'37	
	7836 Oct 11 23:12	0°♎	
	7836 Nov 25 00:54	0°♏	
	7837 Jan 11 10:04	0°♐	
	7837 Mar 05 17:41	0°♑	
retrograde	7837 May 24 05:16	25°♑21'53	
desc. node	7837 Jun 06 20:24	24°♑11'53	
opposition	7837 Jul 02 18:30	16°♑12'28	-0°54'39
greatest brilliancy	7837 Jul 02 20:50	16°♑10'12	-1.4m
min. Earth dist.	7837 Jul 06 05:02	14°♑51'51	0.66104 AU
direct	7837 Aug 13 09:10	6°♑09'08	
	7837 Oct 26 19:45	0°♒	
	7837 Dec 16 07:02	0°♓	
	7838 Jan 28 18:11	0°♈	
	7838 Mar 09 21:03	0°♉	
	7838 Apr 17 07:51	0°♊	
asc. node	7838 May 08 00:22	16°♊20'35	
	7838 May 25 07:51	0°♋	
evening set	7838 Jun 28 01:46	26°♋18'19	
	7838 Jul 02 21:08	0°♌	
	7838 Aug 11 19:10	0°♍	
conjunction	7838 Aug 31 11:18	14°♍17'35	1°01'57
minimum elong	7838 Aug 31 09:39	14°♍14'38	1°01'55
	7838 Sep 22 15:22	0°♎	
max. Earth dist.	7838 Oct 08 14:35	11°♎03'32	2.52512 AU
morning rise	7838 Oct 26 16:32	23°♎20'01	
	7838 Nov 05 15:57	0°♏	
	7838 Dec 21 22:50	0°♐	
	7839 Feb 08 18:31	0°♑	
	7839 Apr 02 21:23	0°♒	
desc. node	7839 Apr 24 17:57	10°♒57'19	
	7839 Jun 17 19:21	0°♓	
retrograde	7839 Jul 03 22:38	1°♓27'39	
	7839 Jul 19 04:51	30°℞♒	
opposition	7839 Aug 10 02:52	23°♒22'02	-3°46'58
greatest brilliancy	7839 Aug 11 00:25	23°♒01'53	-1.7m
min. Earth dist.	7839 Aug 17 03:22	20°♒44'33	0.57807 AU
direct	7839 Sep 19 13:57	13°♒42'10	
	7839 Nov 14 18:51	0°♓	
	7840 Jan 04 01:27	0°♈	
	7840 Feb 15 03:23	0°♉	
asc. node	7840 Mar 25 00:26	29°♉38'19	
	7840 Mar 25 11:38	0°♊	
	7840 May 03 03:17	0°♋	
	7840 Jun 11 08:23	0°♌	
	7840 Jul 21 23:28	0°♍	
evening set	7840 Aug 27 07:01	25°♍42'25	
	7840 Sep 02 12:00	0°♎	
	7840 Oct 16 23:43	0°♏	
conjunction	7840 Oct 18 17:49	1°♏09'28	1°01'05
minimum elong	7840 Oct 18 18:51	1°♏11'11	1°01'08
max. Earth dist.	7840 Nov 06 02:00	13°♏10'18	2.62779 AU
	7840 Dec 02 04:20	0°♐	
morning rise	7840 Dec 05 08:53	2°♐02'19	
	7841 Jan 18 16:29	0°♑	
	7841 Mar 08 09:07	0°♒	
desc. node	7841 Mar 11 15:08	1°♒58'15	
	7841 Apr 28 00:07	0°♓	
	7841 Jun 23 10:37	0°♈	
retrograde	7841 Aug 27 15:01	18°♈47'47	
opposition	7841 Sep 29 13:53	12°♈33'13	-5°57'46
greatest brilliancy	7841 Oct 01 09:38	11°♈57'43	-2.4m
min. Earth dist.	7841 Oct 08 01:11	9°♈49'47	0.44586 AU
direct	7841 Nov 04 08:34	4°♈58'21	
	7842 Jan 11 23:57	0°♉	
asc. node	7842 Feb 10 01:30	18°♉48'29	
	7842 Feb 26 02:54	0°♊	
	7842 Apr 08 13:07	0°♋	
	7842 May 19 17:24	0°♌	
	7842 Jun 30 23:11	0°♍	
	7842 Aug 13 19:41	0°♎	
	7842 Sep 28 06:52	0°♏	
evening set	7842 Oct 10 22:48	8°♏12'02	
	7842 Nov 13 22:49	0°♐	
conjunction	7842 Nov 26 13:35	8°♐01'54	0°31'15
minimum elong	7842 Nov 26 14:28	8°♐03'19	0°31'22
max. Earth dist.	7842 Nov 29 21:51	10°♐09'27	2.67689 AU
	7842 Dec 31 04:07	0°♑	
morning rise	7843 Jan 09 17:11	6°♑03'26	
desc. node	7843 Jan 27 12:48	17°♑22'26	
	7843 Feb 16 08:44	0°♒	
	7843 Apr 04 05:34	0°♓	
	7843 May 20 19:48	0°♈	
	7843 Jul 06 14:50	0°♉	
	7843 Aug 24 09:41	0°♊	
	7843 Oct 30 21:29	0°♋	
retrograde	7843 Nov 15 15:21	1°♋36'09	
	7843 Dec 01 08:32	30°℞♊	
min. Earth dist.	7843 Dec 14 00:06	26°♊57'37	0.36734 AU
opposition	7843 Dec 15 20:02	26°♊28'19	-1°01'18
greatest brilliancy	7843 Dec 15 19:46	26°♊28'30	-3.1m
asc. node	7843 Dec 29 01:33	23°♊15'37	

direct	7844 Jan 14 01:52	21°♊35'52	
	7844 Feb 20 22:06	0°♋	
	7844 Apr 17 21:29	0°♌	
	7844 Jun 05 01:33	0°♍	
	7844 Jul 22 06:35	0°♎	
	7844 Sep 07 18:48	0°♏	
	7844 Oct 25 13:46	0°♐	
evening set	7844 Nov 16 10:11	13°♐44'34	
	7844 Dec 12 02:52	0°♑	
desc. node	7844 Dec 14 10:39	1°♑28'41	
max. Earth dist.	7844 Dec 21 06:43	5°♑50'02	2.67091 AU
conjunction	7844 Dec 31 01:46	12°♑05'44	-0°08'47
minimum elong	7844 Dec 31 01:30	12°♑05'18	0°08'38
behind sun begin	7844 Dec 30 09:42	11°♑40'00	
behind sun end	7844 Dec 31 17:18	12°♑30'37	
	7845 Jan 27 19:17	0°♒	
morning rise	7845 Feb 13 00:15	10°♒36'05	
	7845 Mar 14 05:02	0°♓	
	7845 Apr 27 04:07	0°♈	
	7845 Jun 08 17:53	0°♉	
	7845 Jul 20 04:59	0°♊	
	7845 Aug 30 06:16	0°♋	
	7845 Oct 11 12:58	0°♌	
asc. node	7845 Nov 15 00:10	22°♌01'54	
	7845 Nov 29 12:11	0°♍	
retrograde	7846 Jan 18 13:22	14°♍50'47	
min. Earth dist.	7846 Feb 15 13:08	9°♍24'26	0.46930 AU
greatest brilliancy	7846 Feb 22 12:01	6°♍57'01	-2.3m
opposition	7846 Feb 24 01:00	6°♍24'05	5°01'16
	7846 Mar 20 20:57	30°℞♌	
direct	7846 Mar 29 03:56	29°♌32'29	
	7846 Apr 06 15:54	0°♍	
	7846 Jun 24 07:34	0°♎	
	7846 Aug 16 20:22	0°♏	
	7846 Oct 06 05:22	0°♐	
desc. node	7846 Nov 01 10:15	16°♐02'32	
	7846 Nov 23 19:54	0°♑	
evening set	7846 Dec 22 12:14	18°♑14'25	
	7847 Jan 09 14:51	0°♒	
max. Earth dist.	7847 Jan 14 14:17	3°♒15'58	2.61079 AU
conjunction	7847 Feb 06 04:49	18°♒18'41	-0°47'11
minimum elong	7847 Feb 06 03:37	18°♒16'38	0°47'05
	7847 Feb 23 09:50	0°♓	
morning rise	7847 Mar 25 16:28	21°♓05'19	
	7847 Apr 07 04:42	0°♈	
	7847 May 18 04:56	0°♉	
	7847 Jun 26 20:56	0°♊	
	7847 Aug 04 20:36	0°♋	
	7847 Sep 13 01:56	0°♌	
asc. node	7847 Oct 02 22:49	14°♌50'08	
	7847 Oct 23 21:09	0°♍	
	7847 Dec 07 19:41	0°♎	
	7848 Feb 08 21:47	0°♏	
retrograde	7848 Mar 02 08:33	3°♏10'27	
	7848 Mar 23 12:13	30°℞♎	
min. Earth dist.	7848 Apr 05 07:35	25°♎31'37	0.59644 AU
opposition	7848 Apr 10 22:57	23°♎18'13	4°39'08
greatest brilliancy	7848 Apr 10 01:19	23°♎39'35	-1.6m
direct	7848 May 18 08:30	14°♎42'18	
	7848 Jul 15 19:52	0°♏	
	7848 Sep 13 03:17	0°♐	
desc. node	7848 Sep 18 10:32	2°♐58'18	
	7848 Nov 03 11:08	0°♑	
	7848 Dec 21 02:19	0°♒	
evening set	7849 Jan 30 04:07	26°♒47'45	
	7849 Feb 03 19:41	0°♓	
max. Earth dist.	7849 Feb 13 14:18	6°♓48'06	2.50124 AU
	7849 Mar 18 00:59	0°♈	
conjunction	7849 Mar 22 03:51	3°♈00'42	-1°06'47
minimum elong	7849 Mar 22 03:51	3°♈00'42	1°06'47
	7849 Apr 27 06:08	0°♉	
morning rise	7849 May 19 12:42	17°♉06'25	
	7849 Jun 05 02:27	0°♊	
	7849 Jul 13 08:25	0°♋	
asc. node	7849 Aug 19 20:07	29°♋12'48	
	7849 Aug 20 20:37	0°♌	
	7849 Sep 29 13:43	0°♍	
	7849 Nov 10 14:46	0°♎	
	7849 Dec 26 20:15	0°♏	
	7850 Feb 22 18:07	0°♐	
retrograde	7850 Apr 07 01:51	9°♐45'53	
min. Earth dist.	7850 May 15 17:03	0°♐35'20	0.66888 AU
opposition	7850 May 17 13:28	29°♏51'00	2°38'33
greatest brilliancy	7850 May 17 09:39	29°♏54'48	-1.3m
	7850 May 17 04:27	30°℞♏	
direct	7850 Jun 26 17:08	20°♏18'44	
desc. node	7850 Aug 06 10:41	28°♏24'22	
	7850 Aug 10 20:21	0°♐	
	7850 Oct 12 03:19	0°♑	
	7850 Dec 01 08:29	0°♒	
	7851 Jan 15 17:44	0°♓	
	7851 Feb 26 21:00	0°♈	
evening set	7851 Mar 21 16:01	16°♈59'42	
	7851 Apr 07 17:07	0°♉	
max. Earth dist.	7851 Apr 26 14:17	14°♉38'48	2.37293 AU
	7851 May 16 03:23	0°♊	
conjunction	7851 May 24 11:44	6°♊35'38	-0°30'43
minimum elong	7851 May 24 14:33	6°♊41'12	0°30'48
	7851 Jun 23 01:33	0°♋	
asc. node	7851 Jul 07 17:21	11°♋33'07	
	7851 Jul 31 09:02	0°♌	
morning rise	7851 Aug 05 09:56	3°♌53'20	
	7851 Sep 08 21:56	0°♍	
	7851 Oct 20 10:41	0°♎	
	7851 Dec 03 17:24	0°♏	
	7852 Jan 21 02:18	0°♐	
	7852 Mar 19 09:42	0°♑	
retrograde	7852 May 10 06:43	12°♑40'47	
opposition	7852 Jun 19 08:02	3°♑14'18	0°08'30
greatest brilliancy	7852 Jun 19 08:25	3°♑13'56	-1.3m
min. Earth dist.	7852 Jun 21 06:54	2°♑28'06	0.67630 AU
desc. node	7852 Jun 23 10:14	1°♑37'44	
	7852 Jun 27 16:17	30°℞♐	
direct	7852 Jul 30 19:55	23°♐14'16	
	7852 Sep 05 03:37	0°♑	
	7852 Nov 07 02:50	0°♒	
	7852 Dec 25 01:11	0°♓	
	7853 Feb 05 20:31	0°♈	
	7853 Mar 17 18:33	0°♉	
	7853 Apr 25 03:10	0°♊	
asc. node	7853 May 24 17:37	23°♊26'23	
evening set	7853 May 29 18:04	27°♊24'28	
	7853 Jun 02 00:51	0°♋	
	7853 Jul 10 10:42	0°♌	
conjunction	7853 Aug 07 00:49	20°♌58'00	0°47'01
minimum elong	7853 Aug 06 21:51	20°♌52'26	0°46'54
	7853 Aug 19 04:13	0°♍	
max. Earth dist.	7853 Sep 23 02:27	25°♍15'31	2.47252 AU
	7853 Sep 29 19:59	0°♎	

morning rise	7853 Oct 07 17:35	5°♎30'57	
	7853 Nov 12 18:40	0°♏	
	7853 Dec 29 07:03	0°♐	
	7854 Feb 17 04:05	0°♑	
	7854 Apr 15 16:50	0°♒	
desc. node	7854 May 11 08:21	10°♒07'34	
retrograde	7854 Jun 16 23:32	16°♒51'54	
opposition	7854 Jul 25 06:52	8°♒17'06	-2°39'24
greatest brilliancy	7854 Jul 25 18:47	8°♒05'42	-1.5m
min. Earth dist.	7854 Jul 30 22:57	6°♒06'55	0.61805 AU
	7854 Aug 19 16:34	30°℞♑	
direct	7854 Sep 04 11:34	28°♑20'50	
	7854 Sep 20 23:22	0°♒	
	7854 Nov 29 07:22	0°♓	
	7855 Jan 14 07:18	0°♈	
	7855 Feb 24 06:29	0°♉	
	7855 Apr 04 02:42	0°♊	
asc. node	7855 Apr 11 18:03	5°♊58'55	
	7855 May 12 09:44	0°♋	
	7855 Jun 20 06:30	0°♌	
	7855 Jul 30 12:48	0°♍	
evening set	7855 Aug 06 22:21	5°♍22'07	
	7855 Sep 10 16:58	0°♎	
conjunction	7855 Oct 02 07:57	14°♎50'26	1°06'27
minimum elong	7855 Oct 02 08:24	14°♎51'11	1°06'28
	7855 Oct 24 22:24	0°♏	
max. Earth dist.	7855 Oct 27 17:36	1°♏51'19	2.59343 AU
morning rise	7855 Nov 21 13:18	18°♏06'01	
	7855 Dec 10 01:33	0°♐	
	7856 Jan 26 21:24	0°♑	
	7856 Mar 16 16:49	0°♒	
desc. node	7856 Mar 28 05:12	6°♒41'14	
	7856 May 09 16:20	0°♓	
retrograde	7856 Aug 03 07:48	28°♓25'17	
opposition	7856 Sep 07 02:53	21°♓20'25	-5°23'46
greatest brilliancy	7856 Sep 08 17:21	20°♓46'39	-2.1m
min. Earth dist.	7856 Sep 15 14:48	18°♓22'22	0.50042 AU
direct	7856 Oct 15 07:17	12°♓38'44	
	7856 Dec 10 11:55	0°♈	
	7857 Jan 27 11:37	0°♉	
asc. node	7857 Feb 26 17:18	21°♉44'47	
	7857 Mar 09 19:50	0°♊	
	7857 Apr 18 14:56	0°♋	
	7857 May 28 17:36	0°♌	
	7857 Jul 09 03:29	0°♍	
	7857 Aug 21 08:09	0°♎	
evening set	7857 Sep 24 19:18	23°♎04'50	
	7857 Oct 05 07:44	0°♏	
conjunction	7857 Nov 12 03:20	24°♏30'10	0°44'44
minimum elong	7857 Nov 12 04:29	24°♏32'00	0°44'50
	7857 Nov 20 17:20	0°♐	
max. Earth dist.	7857 Nov 21 01:39	0°♐13'18	2.66406 AU
morning rise	7857 Dec 27 05:30	23°♐12'49	
	7858 Jan 06 23:04	0°♑	
desc. node	7858 Feb 13 02:46	23°♑25'17	
	7858 Feb 23 13:46	0°♒	
	7858 Apr 12 11:09	0°♓	
	7858 May 31 03:15	0°♈	
	7858 Jul 21 14:36	0°♉	
	7858 Oct 11 18:06	0°♊	
retrograde	7858 Oct 13 20:03	0°♊01'41	
	7858 Oct 15 21:58	30°℞♉	
opposition	7858 Nov 12 22:02	25°♉01'06	-4°23'00
greatest brilliancy	7858 Nov 13 17:58	24°♉47'27	-2.9m
min. Earth dist.	7858 Nov 16 22:05	23°♉55'30	0.37737 AU
direct	7858 Dec 13 22:19	19°♉35'20	
asc. node	7859 Jan 14 17:20	26°♉00'43	
	7859 Jan 24 09:28	0°♊	
	7859 Mar 18 07:50	0°♋	
	7859 May 02 15:45	0°♌	
	7859 Jun 16 07:13	0°♍	
	7859 Jul 31 17:36	0°♎	
	7859 Sep 16 05:34	0°♏	
	7859 Nov 02 11:28	0°♐	
evening set	7859 Nov 03 06:33	0°♐30'12	
max. Earth dist.	7859 Dec 13 11:30	25°♐58'04	2.67972 AU
conjunction	7859 Dec 18 08:12	29°♐03'25	0°07'13
minimum elong	7859 Dec 18 08:25	29°♐03'45	0°07'21
behind sun begin	7859 Dec 17 15:46	28°♐37'19	
behind sun end	7859 Dec 19 01:03	29°♐30'11	
	7859 Dec 19 19:48	0°♑	
desc. node	7860 Jan 01 01:10	7°♑47'12	
morning rise	7860 Jan 30 23:57	27°♑00'16	
	7860 Feb 04 15:11	0°♒	
	7860 Mar 21 11:36	0°♓	
	7860 May 05 05:08	0°♈	
	7860 Jun 17 21:19	0°♉	
	7860 Jul 30 19:52	0°♊	
	7860 Sep 12 02:37	0°♋	
	7860 Oct 29 14:33	0°♌	
asc. node	7860 Dec 01 17:46	15°♌14'24	
retrograde	7860 Dec 27 17:16	19°♌49'43	
min. Earth dist.	7861 Jan 23 00:11	15°♌11'37	0.41613 AU
opposition	7861 Jan 30 21:37	12°♌39'51	3°48'13
greatest brilliancy	7861 Jan 29 17:20	13°♌02'37	-2.7m
direct	7861 Mar 02 22:20	6°♌45'14	
	7861 May 13 13:48	0°♍	
	7861 Jul 06 08:25	0°♎	
	7861 Aug 25 13:01	0°♏	
	7861 Oct 13 15:07	0°♐	
desc. node	7861 Nov 17 23:50	21°♐59'26	
	7861 Nov 30 17:08	0°♑	
evening set	7861 Dec 08 07:47	4°♑49'19	
max. Earth dist.	7862 Jan 04 18:53	22°♑26'05	2.64060 AU
	7862 Jan 16 09:46	0°♒	
conjunction	7862 Jan 22 05:20	3°♒48'44	-0°33'18
minimum elong	7862 Jan 22 04:23	3°♒47'10	0°33'10
	7862 Mar 02 09:12	0°♓	
morning rise	7862 Mar 08 17:46	4°♓20'30	
	7862 Apr 14 13:04	0°♈	
	7862 May 26 01:02	0°♉	
	7862 Jul 05 05:36	0°♊	
	7862 Aug 13 17:58	0°♋	
	7862 Sep 22 14:41	0°♌	
asc. node	7862 Oct 19 15:00	19°♌35'33	
	7862 Nov 03 14:45	0°♍	
	7862 Dec 22 19:29	0°♎	
retrograde	7863 Feb 15 19:11	16°♎37'11	
min. Earth dist.	7863 Mar 19 12:32	9°♎45'29	0.55172 AU
greatest brilliancy	7863 Mar 25 07:02	7°♎32'13	-1.9m
opposition	7863 Mar 26 13:03	7°♎03'13	5°08'14
	7863 Apr 19 06:51	30°℞♍	
direct	7863 May 01 10:58	29°♍00'43	
	7863 May 14 06:08	0°♎	
	7863 Jul 30 19:33	0°♏	
	7863 Sep 22 22:30	0°♐	
desc. node	7863 Oct 05 23:42	7°♐39'40	
	7863 Nov 11 21:29	0°♑	
	7863 Dec 29 02:35	0°♒	
evening set	7864 Jan 14 21:50	11°♒04'54	

max. Earth dist.	7864 Feb 01 00:41	22°♒36'33	2.54948 AU
	7864 Feb 11 19:42	0°♓	
conjunction	7864 Mar 03 02:31	14°♓09'36	-1°03'13
minimum elong	7864 Mar 03 01:35	14°♓07'56	1°03'10
	7864 Mar 25 05:27	0°♈	
morning rise	7864 Apr 24 22:41	22°♈39'10	
	7864 May 04 17:02	0°♉	
	7864 Jun 12 19:41	0°♊	
	7864 Jul 21 06:45	0°♋	
	7864 Aug 28 23:05	0°♌	
asc. node	7864 Sep 05 13:10	5°♌48'02	
	7864 Oct 07 21:30	0°♍	
	7864 Nov 19 12:05	0°♎	
	7865 Jan 06 20:11	0°♏	
retrograde	7865 Mar 24 16:16	26°♏30'22	
min. Earth dist.	7865 Apr 30 15:40	17°♏51'24	0.64818 AU
opposition	7865 May 03 23:51	16°♏31'21	3°30'12
greatest brilliancy	7865 May 03 14:19	16°♏40'52	-1.4m
direct	7865 Jun 12 05:47	7°♏17'11	
desc. node	7865 Aug 22 23:51	28°♏22'08	
	7865 Aug 26 09:52	0°♐	
	7865 Oct 21 01:45	0°♑	
	7865 Dec 08 23:12	0°♒	
	7866 Jan 23 00:20	0°♓	
evening set	7866 Feb 27 23:58	25°♓30'29	
	7866 Mar 06 03:38	0°♈	
max. Earth dist.	7866 Mar 16 06:32	7°♈27'54	2.41957 AU
	7866 Apr 15 02:51	0°♉	
conjunction	7866 Apr 26 19:37	9°♉00'56	-0°54'16
minimum elong	7866 Apr 26 22:10	9°♉05'54	0°54'20
	7866 May 23 16:28	0°♊	
	7866 Jun 30 16:49	0°♋	
morning rise	7866 Jul 04 21:51	3°♋19'07	
asc. node	7866 Jul 24 11:49	18°♋41'27	
	7866 Aug 08 00:57	0°♌	
	7866 Sep 16 13:37	0°♍	
	7866 Oct 28 03:38	0°♎	
	7866 Dec 11 19:57	0°♏	
	7867 Jan 30 22:10	0°♐	
	7867 Apr 22 03:10	0°♑	
retrograde	7867 Apr 27 21:06	0°♑12'01	
	7867 May 03 12:00	30°℞♐	
opposition	7867 Jun 07 05:42	20°♐31'43	1°08'50
greatest brilliancy	7867 Jun 07 06:27	20°♐30'58	-1.3m
min. Earth dist.	7867 Jun 07 16:54	20°♐20'35	0.68123 AU
desc. node	7867 Jul 10 23:40	11°♐00'01	
direct	7867 Jul 18 08:55	10°♐39'27	
	7867 Sep 23 17:28	0°♑	
	7867 Nov 17 13:19	0°♒	
	7868 Jan 03 03:06	0°♓	
	7868 Feb 14 13:36	0°♈	
	7868 Mar 25 09:50	0°♉	
evening set	7868 Apr 30 06:21	28°♉01'25	
	7868 May 02 18:23	0°♊	
	7868 Jun 09 15:29	0°♋	
asc. node	7868 Jun 10 09:56	0°♋36'27	
conjunction	7868 Jul 09 18:51	23°♋38'59	0°20'40
minimum elong	7868 Jul 09 16:44	23°♋34'53	0°20'31
	7868 Jul 17 23:34	0°♌	
	7868 Aug 26 14:10	0°♍	
max. Earth dist.	7868 Aug 31 12:48	3°♍39'11	2.41677 AU
morning rise	7868 Sep 15 16:40	14°♍43'05	
	7868 Oct 07 03:00	0°♎	
	7868 Nov 20 01:53	0°♏	
	7869 Jan 06 00:12	0°♐	
	7869 Feb 26 14:44	0°♑	
	7869 May 07 19:18	0°♒	
desc. node	7869 May 27 22:22	3°♒10'28	
retrograde	7869 Jun 01 13:26	3°♒18'03	
	7869 Jun 24 10:55	30°℞♑	
opposition	7869 Jul 10 17:12	24°♑19'38	-1°32'44
greatest brilliancy	7869 Jul 10 22:11	24°♑14'47	-1.4m
min. Earth dist.	7869 Jul 14 22:48	22°♑40'56	0.64853 AU
direct	7869 Aug 21 06:02	14°♑16'46	
	7869 Oct 17 17:26	0°♒	
	7869 Dec 10 04:18	0°♓	
	7870 Jan 23 08:16	0°♈	
	7870 Mar 04 17:16	0°♉	
	7870 Apr 12 06:43	0°♊	
asc. node	7870 Apr 28 09:33	12°♊42'23	
	7870 May 20 08:20	0°♋	
	7870 Jun 27 23:19	0°♌	
evening set	7870 Jul 13 09:48	11°♌43'49	
	7870 Aug 06 23:11	0°♍	
conjunction	7870 Sep 12 18:35	26°♍25'40	1°05'53
minimum elong	7870 Sep 12 17:50	26°♍24'21	1°05'53
	7870 Sep 17 21:01	0°♎	
max. Earth dist.	7870 Oct 16 04:35	19°♎27'07	2.55155 AU
	7870 Oct 31 22:12	0°♏	
morning rise	7870 Nov 05 12:36	3°♏03'08	
	7870 Dec 17 02:11	0°♐	
	7871 Feb 03 10:26	0°♑	
	7871 Mar 26 23:25	0°♒	
desc. node	7871 Apr 14 20:19	10°♒10'13	
	7871 May 27 07:40	0°♓	
retrograde	7871 Jul 14 13:18	10°♓57'56	
opposition	7871 Aug 19 22:52	3°♓11'30	-4°24'52
greatest brilliancy	7871 Aug 21 02:34	2°♓46'01	-1.8m
min. Earth dist.	7871 Aug 27 14:17	0°♓23'06	0.55238 AU
	7871 Aug 28 16:07	30°℞♒	
direct	7871 Sep 28 18:14	23°♒47'00	
	7871 Oct 31 02:23	0°♓	
	7871 Dec 27 13:44	0°♈	
	7872 Feb 08 21:54	0°♉	
asc. node	7872 Mar 15 10:28	26°♉40'48	
	7872 Mar 19 18:28	0°♊	
	7872 Apr 27 17:15	0°♋	
	7872 Jun 06 03:58	0°♌	
	7872 Jul 16 23:52	0°♍	
	7872 Aug 28 16:26	0°♎	
evening set	7872 Sep 07 04:13	6°♎29'16	
	7872 Oct 12 07:04	0°♏	
conjunction	7872 Oct 27 22:04	10°♏14'38	0°55'59
minimum elong	7872 Oct 27 23:15	10°♏16'33	0°56'03
max. Earth dist.	7872 Nov 11 17:23	19°♏50'57	2.64301 AU
	7872 Nov 27 12:23	0°♐	
morning rise	7872 Dec 13 11:08	10°♐10'13	
	7873 Jan 13 21:03	0°♑	
desc. node	7873 Mar 01 17:42	29°♑09'42	
	7873 Mar 03 02:20	0°♒	
	7873 Apr 21 11:32	0°♓	
	7873 Jun 12 20:35	0°♈	
	7873 Aug 22 02:31	0°♉	
retrograde	7873 Sep 12 12:00	2°♉37'35	
	7873 Oct 03 03:58	30°℞♈	
opposition	7873 Oct 14 05:40	26°♈53'41	-5°52'00
greatest brilliancy	7873 Oct 15 22:32	26°♈22'35	-2.6m
min. Earth dist.	7873 Oct 21 22:24	24°♈34'01	0.41697 AU
direct	7873 Nov 17 08:38	20°♈06'06	

	7873 Dec 27 08:07	0°♉	
asc. node	7874 Jan 31 09:30	19°♉09'31	
	7874 Feb 17 04:43	0°♊	
	7874 Apr 01 10:34	0°♋	
	7874 May 13 13:35	0°♌	
	7874 Jun 25 10:25	0°♍	
	7874 Aug 08 17:16	0°♎	
	7874 Sep 23 11:28	0°♏	
evening set	7874 Oct 19 14:56	16°♏48'33	
	7874 Nov 09 07:17	0°♐	
conjunction	7874 Dec 04 13:02	16°♐02'02	0°22'40
minimum elong	7874 Dec 04 13:42	16°♐03'05	0°22'48
max. Earth dist.	7874 Dec 04 23:22	16°♐18'25	2.68030 AU
	7874 Dec 26 13:01	0°♑	
morning rise	7875 Jan 17 09:10	13°♑53'40	
desc. node	7875 Jan 17 15:35	14°♑03'53	
	7875 Feb 11 13:53	0°♒	
	7875 Mar 30 00:54	0°♓	
	7875 May 14 20:16	0°♈	
	7875 Jun 29 05:06	0°♉	
	7875 Aug 13 21:58	0°♊	
	7875 Oct 02 08:52	0°♋	
retrograde	7875 Dec 02 15:03	20°♋12'36	
asc. node	7875 Dec 19 09:43	18°♋18'48	
min. Earth dist.	7875 Dec 29 06:14	15°♋50'39	0.37681 AU
opposition	7876 Jan 03 00:08	14°♋30'20	1°05'38
greatest brilliancy	7876 Jan 02 18:20	14°♋34'27	-3.0m
direct	7876 Feb 01 13:21	9°♋26'20	
	7876 Apr 06 02:18	0°♌	
	7876 May 28 13:40	0°♍	
	7876 Jul 16 07:38	0°♎	
	7876 Sep 02 14:05	0°♏	
	7876 Oct 20 18:32	0°♐	
evening set	7876 Nov 24 09:31	21°♐43'12	
desc. node	7876 Dec 04 13:50	28°♐09'24	
	7876 Dec 07 11:38	0°♑	
max. Earth dist.	7876 Dec 26 11:44	12°♑06'51	2.66250 AU
conjunction	7877 Jan 07 23:56	20°♑09'29	-0°18'00
minimum elong	7877 Jan 07 23:24	20°♑08'37	0°17'52
	7877 Jan 23 04:05	0°♒	
morning rise	7877 Feb 21 07:26	19°♒11'57	
	7877 Mar 09 10:09	0°♓	
	7877 Apr 22 02:11	0°♈	
	7877 Jun 03 06:01	0°♉	
	7877 Jul 14 04:37	0°♊	
	7877 Aug 23 13:06	0°♋	
	7877 Oct 03 14:16	0°♌	
asc. node	7877 Nov 05 10:00	22°♌26'56	
	7877 Nov 17 09:39	0°♍	
retrograde	7878 Jan 29 11:39	27°♍34'21	
min. Earth dist.	7878 Feb 27 18:15	21°♍36'57	0.49946 AU
greatest brilliancy	7878 Mar 06 09:31	19°♍10'37	-2.1m
opposition	7878 Mar 07 21:48	18°♍37'00	5°15'09
direct	7878 Apr 11 02:23	11°♍17'21	
	7878 Jun 14 12:47	0°♎	
	7878 Aug 10 13:28	0°♏	
	7878 Sep 30 23:56	0°♐	
desc. node	7878 Oct 22 13:01	13°♐01'30	
	7878 Nov 19 00:47	0°♑	
evening set	7878 Dec 30 19:33	26°♑37'58	
	7879 Jan 04 23:24	0°♒	
max. Earth dist.	7879 Jan 20 15:22	10°♒19'51	2.59096 AU
conjunction	7879 Feb 15 04:35	27°♒33'45	-0°54'09
minimum elong	7879 Feb 15 03:21	27°♒31'38	0°54'03
	7879 Feb 18 17:58	0°♓	
	7879 Apr 02 09:47	0°♈	
morning rise	7879 Apr 05 04:47	2°♈00'46	
	7879 May 13 05:33	0°♉	
	7879 Jun 21 16:43	0°♊	
	7879 Jul 30 11:20	0°♋	
	7879 Sep 07 10:51	0°♌	
asc. node	7879 Sep 23 07:14	11°♌57'49	
	7879 Oct 17 19:45	0°♍	
	7879 Nov 30 12:54	0°♎	
	7880 Jan 22 23:55	0°♏	
retrograde	7880 Mar 10 16:58	12°♏18'10	
min. Earth dist.	7880 Apr 14 18:53	4°♏16'22	0.61730 AU
opposition	7880 Apr 19 14:53	2°♏21'12	4°16'28
greatest brilliancy	7880 Apr 18 21:53	2°♏38'06	-1.6m
	7880 Apr 25 16:33	30°℞♎	
direct	7880 May 27 17:29	23°♎30'11	
	7880 Jul 02 11:07	0°♏	
	7880 Sep 06 16:13	0°♐	
desc. node	7880 Sep 08 13:10	1°♐00'21	
	7880 Oct 29 05:27	0°♑	
	7880 Dec 16 06:44	0°♒	
	7881 Jan 30 03:13	0°♓	
evening set	7881 Feb 09 00:51	6°♓53'07	
max. Earth dist.	7881 Feb 22 19:47	16°♓37'49	2.47266 AU
	7881 Mar 13 08:12	0°♈	
conjunction	7881 Apr 03 01:38	15°♈19'44	-1°05'18
minimum elong	7881 Apr 03 02:30	15°♈21'20	1°05'19
	7881 Apr 22 11:25	0°♉	
	7881 May 31 05:18	0°♊	
morning rise	7881 Jun 04 04:49	3°♊07'11	
greatest brilliancy	7881 Jun 23 06:53	18°♊07'32	1.2m
	7881 Jul 08 08:50	0°♋	
asc. node	7881 Aug 10 04:06	25°♋39'18	
	7881 Aug 15 18:53	0°♌	
	7881 Sep 24 09:17	0°♍	
	7881 Nov 05 04:04	0°♎	
	7881 Dec 20 14:34	0°♏	
	7882 Feb 12 03:20	0°♐	
retrograde	7882 Apr 14 16:09	17°♐36'20	
min. Earth dist.	7882 May 24 02:57	8°♐10'18	0.67602 AU
opposition	7882 May 25 03:41	7°♐45'38	2°06'26
greatest brilliancy	7882 May 25 02:10	7°♐47'08	-1.3m
	7882 Jun 17 09:36	30°℞♏	
direct	7882 Jul 04 16:59	28°♏05'18	
	7882 Jul 23 07:31	0°♐	
desc. node	7882 Jul 27 13:38	0°♐54'34	
	7882 Oct 05 12:44	0°♑	
	7882 Nov 26 00:43	0°♒	
	7883 Jan 10 19:30	0°♓	
	7883 Feb 22 01:42	0°♈	
	7883 Apr 02 22:15	0°♉	
evening set	7883 Apr 04 07:10	1°♉03'22	
	7883 May 11 08:05	0°♊	
conjunction	7883 Jun 10 07:24	23°♊43'46	-0°12'49
minimum elong	7883 Jun 10 08:48	23°♊46'31	0°12'55
behind sun begin	7883 Jun 09 14:17	23°♊09'52	
behind sun end	7883 Jun 11 03:18	24°♊23'10	
	7883 Jun 18 05:32	0°♋	
asc. node	7883 Jun 28 03:20	7°♋49'12	
max. Earth dist.	7883 Jul 11 04:49	18°♋04'34	2.36914 AU
	7883 Jul 26 12:31	0°♌	
morning rise	7883 Aug 21 18:35	20°♌04'06	
	7883 Sep 04 01:01	0°♍	
	7883 Oct 15 12:16	0°♎	

	7883 Nov 28 14:04	0°♏	
	7884 Jan 15 05:35	0°♐	
	7884 Mar 09 23:33	0°♑	
retrograde	7884 May 18 04:51	20°♑23'14	
desc. node	7884 Jun 13 13:13	16°♑00'32	
opposition	7884 Jun 26 23:28	11°♑05'43	-0°28'10
greatest brilliancy	7884 Jun 27 00:26	11°♑04'47	-1.4m
min. Earth dist.	7884 Jun 29 17:50	10°♑00'33	0.66907 AU
direct	7884 Aug 07 12:59	1°♑03'18	
	7884 Oct 31 03:04	0°♒	
	7884 Dec 19 11:02	0°♓	
	7885 Jan 31 16:20	0°♈	
	7885 Mar 12 18:00	0°♉	
greatest brilliancy	7885 Apr 19 17:39	29°♉38'57	1.2m
	7885 Apr 20 04:19	0°♊	
asc. node	7885 May 15 02:15	19°♊42'12	
	7885 May 28 03:05	0°♋	
evening set	7885 Jun 15 11:34	14°♋24'22	
	7885 Jul 05 14:13	0°♌	
	7885 Aug 14 09:11	0°♍	
conjunction	7885 Aug 21 06:31	5°♍03'42	0°56'54
minimum elong	7885 Aug 21 04:11	4°♍59'27	0°56'49
	7885 Sep 25 01:53	0°♎	
max. Earth dist.	7885 Oct 02 12:17	5°♎11'19	2.50220 AU
morning rise	7885 Oct 18 18:31	16°♎22'42	
	7885 Nov 08 00:04	0°♏	
	7885 Dec 24 07:21	0°♐	
	7886 Feb 11 10:56	0°♑	
	7886 Apr 06 22:48	0°♒	
desc. node	7886 May 01 10:55	11°♒24'58	
retrograde	7886 Jun 26 09:54	25°♒29'43	
opposition	7886 Aug 03 02:31	17°♒10'09	-3°18'27
greatest brilliancy	7886 Aug 03 19:36	16°♒53'59	-1.6m
min. Earth dist.	7886 Aug 09 12:31	14°♒44'24	0.59708 AU
direct	7886 Sep 12 22:01	7°♒21'24	
	7886 Nov 20 22:51	0°♓	
	7887 Jan 08 01:06	0°♈	
	7887 Feb 18 14:42	0°♉	
	7887 Mar 29 17:29	0°♊	
asc. node	7887 Apr 02 01:41	2°♊36'07	
	7887 May 07 04:36	0°♋	
	7887 Jun 15 04:58	0°♌	
	7887 Jul 25 14:56	0°♍	
evening set	7887 Aug 19 09:37	17°♍44'39	
	7887 Sep 05 22:16	0°♎	
conjunction	7887 Oct 12 11:03	24°♎49'17	1°03'55
minimum elong	7887 Oct 12 11:55	24°♎50'43	1°03'58
	7887 Oct 20 05:58	0°♏	
max. Earth dist.	7887 Nov 02 19:20	8°♏55'58	2.61350 AU
morning rise	7887 Nov 30 02:59	26°♏38'38	
	7887 Dec 05 08:41	0°♐	
	7888 Jan 21 23:01	0°♑	
	7888 Mar 11 01:24	0°♒	
desc. node	7888 Mar 18 08:08	4°♒20'52	
	7888 May 01 20:04	0°♓	
	7888 Jul 02 11:03	0°♈	
retrograde	7888 Aug 16 11:02	9°♈57'37	
opposition	7888 Sep 19 07:04	3°♈19'21	-5°47'33
greatest brilliancy	7888 Sep 21 01:41	2°♈43'23	-2.3m
min. Earth dist.	7888 Sep 27 23:13	0°♈25'07	0.47030 AU
	7888 Sep 29 06:35	30°♓℞	
direct	7888 Oct 26 06:04	25°♓11'29	
	7888 Nov 22 13:41	0°♈	
	7889 Jan 18 22:00	0°♉	
asc. node	7889 Feb 17 02:53	20°♉02'05	
	7889 Mar 02 22:26	0°♊	
	7889 Apr 12 11:51	0°♋	
	7889 May 23 02:13	0°♌	
	7889 Jul 03 21:12	0°♍	
	7889 Aug 16 08:49	0°♎	
	7889 Sep 30 13:38	0°♏	
evening set	7889 Oct 04 04:15	2°♏21'15	
	7889 Nov 16 01:53	0°♐	
conjunction	7889 Nov 20 11:25	2°♐48'23	0°37'04
minimum elong	7889 Nov 20 12:27	2°♐50'01	0°37'10
max. Earth dist.	7889 Nov 26 07:00	6°♐30'47	2.67230 AU
	7890 Jan 02 06:55	0°♑	
morning rise	7890 Jan 03 23:15	1°♑03'54	
desc. node	7890 Feb 03 05:41	20°♑13'57	
	7890 Feb 18 15:43	0°♒	
	7890 Apr 06 22:26	0°♓	
	7890 May 24 07:49	0°♈	
	7890 Jul 11 16:50	0°♉	
	7890 Sep 02 20:58	0°♊	
retrograde	7890 Nov 01 08:58	17°♊53'02	
opposition	7890 Dec 01 05:20	12°♊57'19	-2°38'33
greatest brilliancy	7890 Dec 01 10:54	12°♊53'39	-3.0m
min. Earth dist.	7890 Dec 02 02:09	12°♊43'35	0.36747 AU
direct	7890 Dec 30 21:18	7°♊58'54	
asc. node	7891 Jan 05 03:12	8°♊10'04	
	7891 Mar 06 05:19	0°♋	
	7891 Apr 24 16:47	0°♌	
	7891 Jun 09 22:53	0°♍	
	7891 Jul 26 05:37	0°♎	
	7891 Sep 11 05:34	0°♏	
	7891 Oct 28 18:02	0°♐	
evening set	7891 Nov 11 10:04	8°♐37'02	
	7891 Dec 15 04:58	0°♑	
max. Earth dist.	7891 Dec 18 13:42	2°♑08'21	2.67593 AU
desc. node	7891 Dec 22 03:11	4°♑24'24	
conjunction	7891 Dec 26 04:52	7°♑00'04	-0°02'11
minimum elong	7891 Dec 26 04:45	6°♑59'54	0°02'03
behind sun begin	7891 Dec 25 10:27	6°♑30'43	
behind sun end	7891 Dec 26 23:04	7°♑29'05	
	7892 Jan 30 23:11	0°♒	
morning rise	7892 Feb 07 22:32	5°♒11'07	
	7892 Mar 16 14:02	0°♓	
	7892 Apr 29 21:32	0°♈	
	7892 Jun 11 22:29	0°♉	
	7892 Jul 23 23:39	0°♊	
	7892 Sep 03 19:22	0°♋	
	7892 Oct 17 13:09	0°♌	
asc. node	7892 Nov 22 01:58	20°♌51'14	
	7892 Dec 13 08:04	0°♍	
retrograde	7893 Jan 09 13:31	4°♍59'28	
	7893 Feb 05 10:31	30°♋℞	
min. Earth dist.	7893 Feb 05 14:20	29°♌56'52	0.44480 AU
greatest brilliancy	7893 Feb 12 14:41	27°♌34'05	-2.5m
opposition	7893 Feb 14 01:47	27°♌04'02	4°39'41
direct	7893 Mar 18 06:56	20°♌37'12	
	7893 Apr 29 05:50	0°♍	
	7893 Jun 28 23:30	0°♎	
	7893 Aug 19 20:08	0°♏	
	7893 Oct 08 14:37	0°♐	
desc. node	7893 Nov 08 02:15	18°♐47'46	
	7893 Nov 25 23:49	0°♑	
evening set	7893 Dec 16 09:25	12°♑56'35	
max. Earth dist.	7894 Jan 10 10:15	29°♑07'06	2.62517 AU
	7894 Jan 11 18:37	0°♒	

conjunction	7894 Jan 30 15:49	12°♒27'24	-0°41'38
minimum elong	7894 Jan 30 14:42	12°♒25'31	0°41'31
	7894 Feb 25 16:32	0°♓	
morning rise	7894 Mar 18 03:28	14°♓06'38	
	7894 Apr 09 16:25	0°♈	
	7894 May 20 22:28	0°♉	
	7894 Jun 29 20:23	0°♊	
	7894 Aug 08 01:12	0°♋	
	7894 Sep 16 11:45	0°♌	
asc. node	7894 Oct 10 00:17	17°♌23'44	
	7894 Oct 27 15:39	0°♍	
	7894 Dec 12 17:36	0°♎	
retrograde	7895 Feb 24 20:33	26°♎47'14	
min. Earth dist.	7895 Mar 29 20:11	19°♎28'31	0.57742 AU
greatest brilliancy	7895 Apr 04 01:22	17°♎26'07	-1.7m
opposition	7895 Apr 05 02:50	17°♎01'09	4°53'44
direct	7895 May 11 20:46	8°♎39'17	
	7895 Jul 22 09:13	0°♏	
	7895 Sep 17 03:04	0°♐	
desc. node	7895 Sep 26 02:49	5°♐08'44	
	7895 Nov 06 20:45	0°♑	
	7895 Dec 24 08:40	0°♒	
evening set	7896 Jan 24 00:15	20°♒21'00	
	7896 Feb 07 03:09	0°♓	
max. Earth dist.	7896 Feb 08 13:25	0°♓59'07	2.52348 AU
conjunction	7896 Mar 13 14:54	25°♓01'51	-1°06'08
minimum elong	7896 Mar 13 14:25	25°♓00'58	1°06'07
	7896 Mar 20 11:39	0°♈	
	7896 Apr 29 20:30	0°♉	
morning rise	7896 May 08 07:13	6°♉25'34	
	7896 Jun 07 20:16	0°♊	
	7896 Jul 16 04:31	0°♋	
	7896 Aug 23 17:55	0°♌	
asc. node	7896 Aug 26 21:53	2°♌25'57	
	7896 Oct 02 12:04	0°♍	
	7896 Nov 13 16:03	0°♎	
	7896 Dec 30 11:43	0°♏	
	7897 Mar 03 19:07	0°♐	
retrograde	7897 Apr 01 09:48	4°♐40'03	
	7897 Apr 27 21:06	30°℞♏	
min. Earth dist.	7897 May 09 07:07	25°♏43'19	0.66080 AU
opposition	7897 May 11 19:55	24°♏42'34	3°00'39
greatest brilliancy	7897 May 11 13:49	24°♏48'40	-1.4m
direct	7897 Jun 20 14:21	15°♏17'58	
desc. node	7897 Aug 13 03:12	28°♏16'44	
	7897 Aug 17 05:39	0°♐	
	7897 Oct 15 05:18	0°♑	
	7897 Dec 03 21:44	0°♒	
	7898 Jan 18 04:50	0°♓	
	7898 Mar 01 09:25	0°♈	
evening set	7898 Mar 11 21:02	7°♈44'24	
max. Earth dist.	7898 Apr 03 00:34	24°♈24'59	2.39147 AU
	7898 Apr 10 07:43	0°♉	
conjunction	7898 May 11 23:13	24°♉36'08	-0°42'23
minimum elong	7898 May 12 02:18	24°♉42'11	0°42'27
	7898 May 18 19:57	0°♊	
	7898 Jun 25 19:00	0°♋	
asc. node	7898 Jul 14 18:56	14°♋57'24	
morning rise	7898 Jul 22 21:00	21°♋16'57	
	7898 Aug 03 02:07	0°♌	
	7898 Sep 11 13:55	0°♍	
	7898 Oct 23 01:32	0°♎	
	7898 Dec 06 09:52	0°♏	
	7899 Jan 24 06:28	0°♐	
	7899 Mar 27 06:38	0°♑	
retrograde	7899 May 05 12:41	7°♑49'44	
	7899 Jun 10 07:55	30°℞♐	
opposition	7899 Jun 14 17:18	28°♐16'35	0°33'48
greatest brilliancy	7899 Jun 14 18:09	28°♐15'44	-1.3m
min. Earth dist.	7899 Jun 15 23:49	27°♐46'23	0.67981 AU
desc. node	7899 Jul 01 02:48	22°♐16'19	
direct	7899 Jul 26 01:42	18°♐19'33	
	7899 Sep 13 19:06	0°♑	
	7899 Nov 11 12:42	0°♒	
	7899 Dec 28 21:48	0°♓	
	7900 Feb 09 14:37	0°♈	
	7900 Mar 21 12:39	0°♉	
	7900 Apr 28 21:36	0°♊	
evening set	7900 May 17 15:53	14°♊51'39	
asc. node	7900 Jun 01 18:57	26°♊50'40	
	7900 Jun 05 18:43	0°♋	
	7900 Jul 14 02:55	0°♌	
conjunction	7900 Jul 27 03:37	9°♌59'51	0°37'01
minimum elong	7900 Jul 27 00:36	9°♌54'05	0°36'53
	7900 Aug 22 17:59	0°♍	
max. Earth dist.	7900 Sep 15 17:19	17°♍30'13	2.44766 AU
morning rise	7900 Sep 29 14:53	27°♍24'47	
	7900 Oct 03 06:56	0°♎	
	7900 Nov 16 04:00	0°♏	
	7901 Jan 01 18:21	0°♐	
	7901 Feb 21 04:25	0°♑	
	7901 Apr 22 18:05	0°♒	
desc. node	7901 May 19 01:15	8°♒31'47	
retrograde	7901 Jun 11 05:21	11°♒25'59	
opposition	7901 Jul 19 22:05	2°♒39'56	-2°11'18
greatest brilliancy	7901 Jul 20 06:39	2°♒31'40	-1.5m
min. Earth dist.	7901 Jul 24 22:21	0°♒43'55	0.63296 AU
	7901 Jul 26 20:33	30°℞♑	
direct	7901 Aug 30 06:50	22°♑39'46	
	7901 Oct 06 04:40	0°♒	
	7901 Dec 04 12:23	0°♓	
	7902 Jan 18 16:48	0°♈	
	7902 Feb 28 10:11	0°♉	
	7902 Apr 08 03:39	0°♊	
asc. node	7902 Apr 19 19:29	9°♊09'38	
	7902 May 16 07:52	0°♋	
	7902 Jun 24 01:03	0°♌	
evening set	7902 Jul 28 16:12	25°♌59'31	
	7902 Aug 03 03:12	0°♍	
	7902 Sep 14 02:59	0°♎	
conjunction	7902 Sep 25 04:30	7°♎39'51	1°07'03
minimum elong	7902 Sep 25 04:30	7°♎39'52	1°07'04
max. Earth dist.	7902 Oct 24 03:11	27°♎17'02	2.57557 AU
	7902 Oct 28 05:03	0°♏	
morning rise	7902 Nov 15 20:22	12°♏17'05	
	7902 Dec 13 07:04	0°♐	
	7903 Jan 30 06:46	0°♑	
	7903 Mar 21 16:37	0°♒	
desc. node	7903 Apr 05 22:22	8°♒37'37	
	7903 May 16 20:43	0°♓	
retrograde	7903 Jul 26 21:39	21°♓02'30	
opposition	7903 Aug 31 11:10	13°♓37'47	-4°59'59
greatest brilliancy	7903 Sep 01 21:05	13°♓07'15	-2.0m
min. Earth dist.	7903 Sep 08 15:37	10°♓41'52	0.52441 AU
direct	7903 Oct 09 10:40	4°♓34'21	
	7903 Dec 19 16:28	0°♈	
	7904 Feb 03 03:17	0°♉	
asc. node	7904 Mar 06 18:56	24°♉00'30	
	7904 Mar 14 17:30	0°♊	
	7904 Apr 23 02:14	0°♋	

	7904 Jun 01 20:14	0°♌	
	7904 Jul 12 22:22	0°♍	
	7904 Aug 24 20:03	0°♎	
evening set	7904 Sep 18 10:11	16°♎37'24	
	7904 Oct 08 14:21	0°♏	
conjunction	7904 Nov 06 17:49	18°♏59'12	0°49'44
minimum elong	7904 Nov 06 19:02	19°♏01'10	0°49'49
max. Earth dist.	7904 Nov 18 04:07	26°♏20'42	2.65566 AU
	7904 Nov 23 20:56	0°♐	
morning rise	7904 Dec 22 09:41	18°♐09'51	
	7905 Jan 10 03:18	0°♑	
desc. node	7905 Feb 20 19:35	26°♑09'06	
	7905 Feb 26 23:34	0°♒	
	7905 Apr 16 10:38	0°♓	
	7905 Jun 05 10:02	0°♈	
	7905 Jul 30 21:41	0°♉	
retrograde	7905 Sep 30 15:56	17°♉51'22	
opposition	7905 Oct 31 07:22	12°♉34'53	-5°16'10
greatest brilliancy	7905 Nov 01 14:50	12°♉12'20	-2.8m
min. Earth dist.	7905 Nov 06 07:50	10°♉51'48	0.39235 AU
direct	7905 Dec 02 16:52	6°♉34'55	
asc. node	7906 Jan 22 18:51	21°♉48'50	
	7906 Feb 06 15:45	0°♊	
	7906 Mar 25 09:48	0°♋	
	7906 May 07 23:17	0°♌	
	7906 Jun 20 16:04	0°♍	
	7906 Aug 04 11:58	0°♎	
	7906 Sep 19 14:42	0°♏	
evening set	7906 Oct 29 01:42	25°♏11'44	
	7906 Nov 05 15:18	0°♐	
max. Earth dist.	7906 Dec 10 23:41	22°♐24'57	2.68101 AU
conjunction	7906 Dec 13 11:09	23°♐59'16	0°13'42
minimum elong	7906 Dec 13 11:33	23°♐59'56	0°13'49
behind sun begin	7906 Dec 13 02:13	23°♐45'07	
behind sun end	7906 Dec 13 20:54	24°♐14'44	
	7906 Dec 22 22:18	0°♑	
desc. node	7907 Jan 08 18:04	10°♑42'49	
morning rise	7907 Jan 26 03:23	21°♑50'12	
	7907 Feb 07 20:11	0°♒	
	7907 Mar 25 23:03	0°♓	
	7907 May 10 03:42	0°♈	
	7907 Jun 23 12:03	0°♉	
	7907 Aug 06 10:41	0°♊	
	7907 Sep 20 12:00	0°♋	
	7907 Nov 13 23:05	0°♌	
asc. node	7907 Dec 10 19:44	7°♌21'56	
retrograde	7907 Dec 18 21:17	7°♌50'02	
min. Earth dist.	7908 Jan 13 23:02	3°♌25'28	0.39583 AU
opposition	7908 Jan 20 19:58	1°♌20'36	2°50'02
greatest brilliancy	7908 Jan 20 00:30	1°♌35'23	-2.8m
	7908 Jan 25 08:45	30°℞♋	
direct	7908 Feb 20 00:58	25°♋51'16	
	7908 Mar 17 07:51	0°♌	
	7908 May 20 22:48	0°♍	
	7908 Jul 11 00:39	0°♎	
	7908 Aug 29 06:19	0°♏	
	7908 Oct 16 22:03	0°♐	
desc. node	7908 Nov 25 16:29	24°♐50'46	
evening set	7908 Dec 03 08:10	29°♐40'47	
	7908 Dec 03 20:19	0°♑	
max. Earth dist.	7909 Jan 01 18:37	18°♑28'04	2.65140 AU
conjunction	7909 Jan 17 01:15	28°♑21'50	-0°27'03
minimum elong	7909 Jan 17 00:28	28°♑20'33	0°26'55
	7909 Jan 19 13:29	0°♒	
morning rise	7909 Mar 02 22:43	28°♒08'41	
	7909 Mar 05 16:29	0°♓	
	7909 Apr 18 02:26	0°♈	
	7909 May 29 21:40	0°♉	
	7909 Jul 09 10:07	0°♊	
	7909 Aug 18 06:26	0°♋	
	7909 Sep 27 12:42	0°♌	
asc. node	7909 Oct 27 17:13	21°♌28'59	
	7909 Nov 09 08:37	0°♍	
	7910 Jan 01 16:55	0°♎	
retrograde	7910 Feb 09 13:45	9°♎12'26	
min. Earth dist.	7910 Mar 12 05:38	2°♎43'57	0.52911 AU
greatest brilliancy	7910 Mar 18 09:43	0°♎23'44	-2.0m
opposition	7910 Mar 19 19:03	29°♍51'59	5°15'15
	7910 Mar 19 10:37	30°℞♍	
direct	7910 Apr 23 22:30	22°♍07'28	
	7910 Jun 01 21:28	0°♎	
	7910 Aug 04 18:24	0°♏	
	7910 Sep 26 14:47	0°♐	
desc. node	7910 Oct 13 16:14	10°♐08'54	
	7910 Nov 15 04:27	0°♑	
	7911 Jan 01 07:47	0°♒	
evening set	7911 Jan 09 06:56	5°♒13'24	
max. Earth dist.	7911 Jan 28 01:16	17°♒42'58	2.56900 AU
	7911 Feb 15 02:39	0°♓	
conjunction	7911 Feb 25 13:48	7°♓14'13	-0°59'56
minimum elong	7911 Feb 25 12:40	7°♓12'16	0°59'52
	7911 Mar 29 16:15	0°♈	
morning rise	7911 Apr 17 12:25	13°♈44'49	
	7911 May 09 08:07	0°♉	
	7911 Jun 17 14:51	0°♊	
	7911 Jul 26 05:04	0°♋	
	7911 Sep 02 23:34	0°♌	
asc. node	7911 Sep 14 14:50	8°♌51'30	
	7911 Oct 13 00:40	0°♍	
	7911 Nov 24 22:23	0°♎	
	7912 Jan 13 15:11	0°♏	
retrograde	7912 Mar 19 18:46	21°♏03'05	
min. Earth dist.	7912 Apr 24 22:23	12°♏40'08	0.63567 AU
opposition	7912 Apr 28 22:58	11°♏03'51	3°50'31
greatest brilliancy	7912 Apr 28 10:19	11°♏16'28	-1.5m
direct	7912 Jun 06 17:25	1°♏59'27	
desc. node	7912 Aug 30 16:49	29°♏34'04	
	7912 Aug 31 13:19	0°♐	
	7912 Oct 24 19:15	0°♑	
	7912 Dec 12 09:09	0°♒	
	7913 Jan 26 09:37	0°♓	
evening set	7913 Feb 20 11:14	17°♓35'51	
max. Earth dist.	7913 Mar 06 21:37	28°♓00'35	2.44342 AU
	7913 Mar 09 15:04	0°♈	
conjunction	7913 Apr 16 23:02	28°♈39'54	-1°00'30
minimum elong	7913 Apr 17 00:53	28°♈43'27	1°00'33
	7913 Apr 18 16:58	0°♉	
	7913 May 27 09:00	0°♊	
morning rise	7913 Jun 22 01:40	20°♊14'12	
	7913 Jul 04 10:46	0°♋	
asc. node	7913 Aug 01 13:47	22°♋03'55	
	7913 Aug 11 18:59	0°♌	
	7913 Sep 20 07:05	0°♍	
	7913 Oct 31 21:08	0°♎	
	7913 Dec 15 17:33	0°♏	
	7914 Feb 04 18:53	0°♐	
retrograde	7914 Apr 23 06:06	25°♐21'21	
opposition	7914 Jun 02 16:14	15°♐35'45	1°33'03
min. Earth dist.	7914 Jun 02 10:54	15°♐41'04	0.68020 AU

greatest brilliancy	7914 Jun 02 16:16	15°♐35'43	-1.3m
direct	7914 Jul 13 13:44	5°♐48'25	
desc. node	7914 Jul 18 16:39	5°♐57'43	
	7914 Sep 29 04:04	0°♑	
	7914 Nov 21 11:48	0°♒	
	7915 Jan 06 18:39	0°♓	
	7915 Feb 18 04:45	0°♈	
	7915 Mar 30 02:01	0°♉	
evening set	7915 Apr 20 00:41	16°♉16'02	
	7915 May 07 11:36	0°♊	
	7915 Jun 14 08:51	0°♋	
asc. node	7915 Jun 19 12:06	4°♋03'26	
conjunction	7915 Jun 28 12:05	11°♋08'57	0°06'30
minimum elong	7915 Jun 28 11:22	11°♋07'33	0°06'22
behind sun begin	7915 Jun 27 06:59	10°♋11'46	
behind sun end	7915 Jul 22 15:47	0°♌	
max. Earth dist.	7915 Aug 18 15:46	20°♌37'39	2.39276 AU
	7915 Aug 31 04:20	0°♍	
morning rise	7915 Sep 06 21:31	4°♍58'06	
	7915 Oct 11 14:58	0°♎	
	7915 Nov 24 13:00	0°♏	
	7916 Jan 10 15:36	0°♐	
	7916 Mar 03 04:51	0°♑	
retrograde	7916 May 27 07:40	28°♑12'39	
desc. node	7916 Jun 04 15:11	27°♑46'43	
opposition	7916 Jul 05 18:11	19°♑05'05	-1°05'36
greatest brilliancy	7916 Jul 05 21:06	19°♑02'15	-1.4m
min. Earth dist.	7916 Jul 09 07:32	17°♑41'40	0.65901 AU
direct	7916 Aug 16 07:48	9°♑01'42	
	7916 Oct 24 02:35	0°♒	
	7916 Dec 14 14:12	0°♓	
	7917 Jan 27 09:16	0°♈	
	7917 Mar 08 15:45	0°♉	
	7917 Apr 16 04:04	0°♊	
asc. node	7917 May 06 11:00	16°♊01'17	
	7917 May 24 04:11	0°♋	
	7917 Jul 01 16:36	0°♌	
evening set	7917 Jul 02 13:41	0°♌40'29	
	7917 Aug 10 13:06	0°♍	
conjunction	7917 Sep 04 09:44	18°♍02'28	1°03'15
minimum elong	7917 Sep 04 08:18	17°♍59'55	1°03'12
	7917 Sep 21 07:18	0°♎	
max. Earth dist.	7917 Oct 11 19:00	14°♎10'51	2.53029 AU
morning rise	7917 Oct 30 02:40	26°♎34'48	
	7917 Nov 04 05:33	0°♏	
	7917 Dec 20 09:19	0°♐	
	7918 Feb 06 23:32	0°♑	
	7918 Mar 31 11:34	0°♒	
desc. node	7918 Apr 22 13:16	11°♒20'57	
	7918 Jun 07 19:17	0°♓	
retrograde	7918 Jul 07 10:28	4°♓35'15	
	7918 Aug 03 15:15	30°♑℞♒	
opposition	7918 Aug 13 10:45	26°♒32'54	-3°57'03
greatest brilliancy	7918 Aug 14 09:35	26°♒11'34	-1.7m
min. Earth dist.	7918 Aug 20 13:15	23°♒53'52	0.57350 AU
direct	7918 Sep 22 18:07	16°♒55'41	
	7918 Nov 11 04:18	0°♓	
	7919 Jan 02 04:34	0°♈	
	7919 Feb 13 16:27	0°♉	
asc. node	7919 Mar 24 11:48	29°♉27'37	
	7919 Mar 25 04:35	0°♊	
	7919 May 02 21:29	0°♋	
	7919 Jun 11 02:20	0°♌	
	7919 Jul 21 16:17	0°♍	
evening set	7919 Aug 31 21:40	29°♍08'51	
	7919 Sep 02 03:16	0°♎	
	7919 Oct 16 13:24	0°♏	
conjunction	7919 Oct 23 00:11	4°♏15'18	0°59'46
minimum elong	7919 Oct 23 01:18	4°♏17'08	0°59'51
max. Earth dist.	7919 Nov 09 14:57	15°♏46'20	2.63080 AU
	7919 Dec 01 16:29	0°♐	
morning rise	7919 Dec 09 09:47	4°♐56'06	
	7920 Jan 18 02:42	0°♑	
	7920 Mar 06 15:36	0°♒	
desc. node	7920 Mar 09 10:52	1°♒42'28	
	7920 Apr 25 21:20	0°♓	
	7920 Jun 19 21:52	0°♈	
retrograde	7920 Sep 01 02:44	22°♈42'32	
opposition	7920 Oct 03 19:22	16°♈34'08	-5°57'42
greatest brilliancy	7920 Oct 05 15:04	15°♈59'10	-2.5m
min. Earth dist.	7920 Oct 12 05:10	13°♈53'56	0.44000 AU
direct	7920 Nov 08 07:14	9°♈08'23	
	7921 Jan 08 17:51	0°♉	
asc. node	7921 Feb 08 11:29	19°♉16'42	
	7921 Feb 24 02:29	0°♊	
	7921 Apr 06 21:22	0°♋	
	7921 May 18 05:04	0°♌	
	7921 Jun 29 12:01	0°♍	
	7921 Aug 12 08:34	0°♎	
	7921 Sep 26 19:23	0°♏	
evening set	7921 Oct 14 02:16	11°♏11'11	
	7921 Nov 12 11:00	0°♐	
conjunction	7921 Nov 29 13:28	10°♐53'09	0°28'49
minimum elong	7921 Nov 29 14:18	10°♐54'29	0°28'56
max. Earth dist.	7921 Dec 02 10:01	12°♐42'03	2.67778 AU
	7921 Dec 29 16:06	0°♑	
morning rise	7922 Jan 12 15:08	8°♑51'46	
desc. node	7922 Jan 25 08:19	16°♑56'32	
	7922 Feb 14 20:16	0°♒	
	7922 Apr 02 15:38	0°♓	
	7922 May 19 02:14	0°♈	
	7922 Jul 04 13:08	0°♉	
	7922 Aug 21 10:15	0°♊	
	7922 Oct 18 17:15	0°♋	
retrograde	7922 Nov 20 13:07	6°♋34'00	
min. Earth dist.	7922 Dec 18 11:45	2°♋00'09	0.36812 AU
opposition	7922 Dec 20 21:32	1°♋21'15	-0°30'23
greatest brilliancy	7922 Dec 20 21:08	1°♋21'31	-3.1m
	7922 Dec 25 23:56	30°♑℞♊	
asc. node	7922 Dec 27 11:05	29°♊37'41	
direct	7923 Jan 19 04:57	26°♊28'15	
	7923 Feb 11 20:38	0°♋	
	7923 Apr 16 02:00	0°♌	
	7923 Jun 04 00:43	0°♍	
	7923 Jul 21 12:19	0°♎	
	7923 Sep 07 03:30	0°♏	
	7923 Oct 25 00:13	0°♐	
evening set	7923 Nov 20 10:22	16°♐36'23	
	7923 Dec 11 14:42	0°♑	
desc. node	7923 Dec 13 06:18	1°♑02'52	
max. Earth dist.	7923 Dec 24 16:40	8°♑19'43	2.66958 AU
conjunction	7924 Jan 04 01:20	14°♑57'30	-0°11'28
minimum elong	7924 Jan 04 00:59	14°♑56'57	0°11'20
behind sun begin	7924 Jan 03 11:43	14°♑35'40	
behind sun end	7924 Jan 04 14:16	15°♑18'13	
	7924 Jan 27 08:19	0°♒	
morning rise	7924 Feb 17 00:48	13°♒32'29	
	7924 Mar 12 18:53	0°♓	

	7924 Apr 25 18:15	0°♈	
	7924 Jun 07 07:30	0°♉	
	7924 Jul 18 17:00	0°♊	
	7924 Aug 28 14:32	0°♋	
	7924 Oct 09 11:37	0°♌	
asc. node	7924 Nov 13 11:28	22°♌52'43	
	7924 Nov 25 19:15	0°♍	
retrograde	7925 Jan 22 05:59	18°♍43'59	
min. Earth dist.	7925 Feb 19 11:12	13°♍11'21	0.47489 AU
greatest brilliancy	7925 Feb 26 08:10	10°♍44'18	-2.3m
opposition	7925 Feb 27 21:21	10°♍10'50	5°07'23
direct	7925 Apr 02 05:27	3°♍13'36	
	7925 Jun 21 11:05	0°♎	
	7925 Aug 14 19:51	0°♏	
	7925 Oct 04 11:44	0°♐	
desc. node	7925 Oct 30 05:19	15°♐41'41	
	7925 Nov 22 06:06	0°♑	
evening set	7925 Dec 25 13:26	21°♑10'17	
	7926 Jan 08 03:48	0°♒	
max. Earth dist.	7926 Jan 17 05:53	5°♒57'48	2.60727 AU
conjunction	7926 Feb 09 08:36	21°♒22'59	-0°49'14
minimum elong	7926 Feb 09 07:23	21°♒20'56	0°49'08
	7926 Feb 22 00:52	0°♓	
morning rise	7926 Mar 29 02:18	24°♓26'46	
	7926 Apr 05 21:12	0°♈	
	7926 May 16 22:18	0°♉	
	7926 Jun 25 14:31	0°♊	
	7926 Aug 03 13:34	0°♋	
	7926 Sep 11 16:51	0°♌	
asc. node	7926 Oct 01 09:11	14°♌45'09	
	7926 Oct 22 07:13	0°♍	
	7926 Dec 05 16:25	0°♎	
	7927 Feb 01 22:14	0°♏	
retrograde	7927 Mar 06 11:16	6°♏19'04	
	7927 Apr 05 23:39	30°℞♎	
min. Earth dist.	7927 Apr 09 15:17	28°♎35'57	0.60049 AU
greatest brilliancy	7927 Apr 14 06:34	26°♎46'02	-1.6m
opposition	7927 Apr 15 03:19	26°♎25'32	4°33'49
direct	7927 May 22 15:58	17°♎46'55	
	7927 Jul 12 20:45	0°♏	
	7927 Sep 11 23:17	0°♐	
desc. node	7927 Sep 17 05:33	2°♐54'48	
	7927 Nov 02 17:35	0°♑	
	7927 Dec 20 14:09	0°♒	
evening set	7928 Feb 03 11:24	0°♓00'31	
	7928 Feb 03 11:06	0°♓	
max. Earth dist.	7928 Feb 17 20:19	10°♓00'36	2.49598 AU
	7928 Mar 16 18:51	0°♈	
conjunction	7928 Mar 25 19:37	6°♈36'43	-1°06'44
minimum elong	7928 Mar 25 19:48	6°♈37'03	1°06'44
	7928 Apr 26 01:25	0°♉	
morning rise	7928 May 23 21:11	21°♉23'47	
	7928 Jun 03 22:15	0°♊	
	7928 Jul 12 03:52	0°♋	
asc. node	7928 Aug 18 05:44	28°♋56'09	
	7928 Aug 19 14:48	0°♌	
	7928 Sep 28 05:27	0°♍	
	7928 Nov 09 01:58	0°♎	
	7928 Dec 24 21:12	0°♏	
	7929 Feb 18 17:33	0°♐	
retrograde	7929 Apr 10 00:58	12°♐38'24	
min. Earth dist.	7929 May 18 19:09	3°♐25'16	0.67044 AU
opposition	7929 May 20 12:25	2°♐44'04	2°29'25
greatest brilliancy	7929 May 20 09:08	2°♐47'20	-1.3m
	7929 May 27 12:15	30°℞♏	
direct	7929 Jun 29 18:03	23°♏10'27	
desc. node	7929 Aug 04 06:00	29°♏30'27	
	7929 Aug 05 18:24	0°♐	
	7929 Oct 09 22:42	0°♑	
	7929 Nov 29 16:24	0°♒	
	7930 Jan 14 07:42	0°♓	
	7930 Feb 25 14:42	0°♈	
evening set	7930 Mar 25 15:44	20°♈55'17	
	7930 Apr 06 13:04	0°♉	
max. Earth dist.	7930 May 06 09:32	23°♉12'56	2.36991 AU
	7930 May 15 00:22	0°♊	
conjunction	7930 May 29 02:46	11°♊08'29	-0°26'44
minimum elong	7930 May 29 05:21	11°♊13'35	0°26'50
	7930 Jun 21 22:27	0°♋	
asc. node	7930 Jul 06 04:47	11°♋15'08	
	7930 Jul 30 04:48	0°♌	
morning rise	7930 Aug 10 02:21	8°♌24'19	
	7930 Sep 07 15:41	0°♍	
	7930 Oct 19 01:27	0°♎	
	7930 Dec 02 03:35	0°♏	
	7931 Jan 19 03:11	0°♐	
	7931 Mar 16 19:40	0°♑	
retrograde	7931 May 14 07:40	15°♑30'27	
desc. node	7931 Jun 22 05:41	6°♑30'12	
opposition	7931 Jun 23 06:52	6°♑05'24	-0°02'11
greatest brilliancy	7931 Jun 23 07:00	6°♑05'16	-1.3m
min. Earth dist.	7931 Jun 25 08:48	5°♑16'10	0.67510 AU
	7931 Jul 09 22:57	30°℞♐	
direct	7931 Aug 03 18:31	26°♐04'58	
	7931 Aug 30 17:40	0°♑	
	7931 Nov 05 22:44	0°♒	
	7931 Dec 24 10:48	0°♓	
	7932 Feb 05 12:01	0°♈	
	7932 Mar 16 13:07	0°♉	
	7932 Apr 23 23:14	0°♊	
asc. node	7932 May 23 04:04	23°♊06'43	
	7932 May 31 21:14	0°♋	
evening set	7932 Jun 03 11:33	2°♋02'56	
	7932 Jul 09 06:25	0°♌	
conjunction	7932 Aug 11 07:53	25°♌05'29	0°49'46
minimum elong	7932 Aug 11 05:00	25°♌00'07	0°49'41
	7932 Aug 17 22:26	0°♍	
max. Earth dist.	7932 Sep 26 15:40	28°♍41'55	2.47823 AU
	7932 Sep 28 12:02	0°♎	
morning rise	7932 Oct 11 08:57	8°♎58'54	
	7932 Nov 11 07:54	0°♏	
	7932 Dec 27 16:17	0°♐	
	7933 Feb 15 05:17	0°♑	
	7933 Apr 12 11:54	0°♒	
desc. node	7933 May 09 03:48	11°♒12'26	
retrograde	7933 Jun 20 06:22	19°♒49'19	
opposition	7933 Jul 28 10:13	11°♒17'01	-2°50'08
greatest brilliancy	7933 Jul 28 23:15	11°♒04'34	-1.6m
min. Earth dist.	7933 Aug 03 05:00	9°♒04'21	0.61428 AU
direct	7933 Sep 07 12:18	1°♒21'58	
	7933 Nov 27 00:22	0°♓	
	7934 Jan 12 16:54	0°♈	
	7934 Feb 22 21:50	0°♉	
	7934 Apr 02 20:24	0°♊	
asc. node	7934 Apr 10 02:56	5°♊41'12	
	7934 May 11 04:03	0°♋	
	7934 Jun 19 00:23	0°♌	
	7934 Jul 29 05:35	0°♍	
evening set	7934 Aug 10 22:35	9°♍12'22	
	7934 Sep 09 08:16	0°♎	

conjunction	7934 Oct 05 19:56	18°♎09'24	1°05'55
minimum elong	7934 Oct 05 20:30	18°♎10'22	1°05'58
	7934 Oct 23 12:01	0°♏	
max. Earth dist.	7934 Oct 30 11:48	4°♏37'47	2.59760 AU
morning rise	7934 Nov 24 16:47	21°♏05'40	
	7934 Dec 08 13:15	0°♐	
	7935 Jan 25 06:17	0°♑	
	7935 Mar 15 19:47	0°♒	
desc. node	7935 Mar 27 01:09	6°♒34'24	
	7935 May 08 01:12	0°♓	
	7935 Jul 21 03:07	0°♈	
retrograde	7935 Aug 08 03:02	1°♈50'46	
	7935 Aug 25 06:44	30°℞♓	
opposition	7935 Sep 11 19:15	24°♓50'23	-5°29'52
greatest brilliancy	7935 Sep 13 10:45	24°♓15'57	-2.1m
min. Earth dist.	7935 Sep 20 09:25	21°♓51'57	0.49494 AU
direct	7935 Oct 19 18:26	16°♓14'30	
	7935 Dec 07 20:06	0°♈	
	7936 Jan 26 12:53	0°♉	
asc. node	7936 Feb 26 04:06	21°♉48'13	
	7936 Mar 08 06:22	0°♊	
	7936 Apr 17 04:39	0°♋	
	7936 May 27 08:08	0°♌	
	7936 Jul 07 17:42	0°♍	
	7936 Aug 19 21:38	0°♎	
evening set	7936 Sep 28 04:08	26°♎16'04	
	7936 Oct 03 20:26	0°♏	
conjunction	7936 Nov 15 06:37	27°♏28'16	0°42'35
minimum elong	7936 Nov 15 07:45	27°♏30'04	0°42'42
	7936 Nov 19 05:25	0°♐	
max. Earth dist.	7936 Nov 23 11:42	2°♐43'31	2.66602 AU
morning rise	7936 Dec 30 04:57	26°♐03'35	
	7937 Jan 05 10:28	0°♑	
desc. node	7937 Feb 10 22:29	23°♑02'07	
	7937 Feb 21 23:45	0°♒	
	7937 Apr 10 17:51	0°♓	
	7937 May 29 02:15	0°♈	
	7937 Jul 18 15:41	0°♉	
	7937 Sep 20 14:35	0°♊	
retrograde	7937 Oct 18 18:14	4°♊38'01	
	7937 Nov 16 12:39	30°℞♉	
opposition	7937 Nov 17 18:46	29°♉39'38	-4°01'38
greatest brilliancy	7937 Nov 18 11:26	29°♉28'20	-3.0m
min. Earth dist.	7937 Nov 21 05:24	28°♉43'47	0.37482 AU
direct	7937 Dec 18 10:49	24°♉20'16	
asc. node	7938 Jan 13 05:00	28°♉38'02	
	7938 Jan 17 06:47	0°♊	
	7938 Mar 15 17:04	0°♋	
	7938 Apr 30 17:23	0°♌	
	7938 Jun 14 14:32	0°♍	
	7938 Jul 30 03:08	0°♎	
	7938 Sep 14 16:02	0°♏	
	7938 Oct 31 22:37	0°♐	
evening set	7938 Nov 06 08:08	3°♐24'47	
max. Earth dist.	7938 Dec 16 00:57	28°♐32'58	2.67931 AU
	7938 Dec 18 07:45	0°♑	
conjunction	7938 Dec 21 08:02	1°♑54'52	0°04'30
minimum elong	7938 Dec 21 08:09	1°♑55'03	0°04'38
behind sun begin	7938 Dec 20 14:19	1°♑26'43	
behind sun end	7938 Dec 22 01:59	2°♑23'24	
desc. node	7938 Dec 29 19:58	7°♑19'33	
morning rise	7939 Feb 02 23:21	29°♑52'45	
	7939 Feb 03 03:50	0°♒	
	7939 Mar 21 00:25	0°♓	
	7939 May 04 17:10	0°♈	
	7939 Jun 17 07:16	0°♉	
	7939 Jul 30 01:36	0°♊	
	7939 Sep 10 23:00	0°♋	
	7939 Oct 27 02:59	0°♌	
asc. node	7939 Dec 01 03:55	17°♌35'06	
retrograde	7940 Jan 01 19:41	24°♌11'05	
min. Earth dist.	7940 Jan 28 03:04	19°♌29'18	0.42141 AU
greatest brilliancy	7940 Feb 03 22:58	17°♌16'54	-2.6m
opposition	7940 Feb 05 05:20	16°♌52'11	4°04'09
direct	7940 Mar 07 12:25	10°♌51'21	
	7940 May 10 01:43	0°♍	
	7940 Jul 04 04:28	0°♎	
	7940 Aug 23 17:40	0°♏	
	7940 Oct 11 23:37	0°♐	
desc. node	7940 Nov 15 18:43	21°♐35'07	
	7940 Nov 29 04:11	0°♑	
evening set	7940 Dec 11 08:19	7°♑42'35	
max. Earth dist.	7941 Jan 07 06:32	24°♑59'58	2.63799 AU
	7941 Jan 14 22:55	0°♒	
conjunction	7941 Jan 25 07:11	6°♒46'54	-0°35'44
minimum elong	7941 Jan 25 06:11	6°♒45'15	0°35'38
	7941 Mar 01 00:07	0°♓	
morning rise	7941 Mar 11 23:08	7°♓29'28	
	7941 Apr 13 05:14	0°♈	
	7941 May 24 17:49	0°♉	
	7941 Jul 03 22:13	0°♊	
	7941 Aug 12 09:19	0°♋	
	7941 Sep 21 02:40	0°♌	
asc. node	7941 Oct 18 02:01	19°♌41'47	
	7941 Nov 01 18:24	0°♍	
	7941 Dec 19 15:24	0°♎	
retrograde	7942 Feb 19 01:02	19°♎57'57	
min. Earth dist.	7942 Mar 23 00:28	13°♎00'54	0.55669 AU
opposition	7942 Mar 29 21:45	10°♎21'00	5°05'48
greatest brilliancy	7942 Mar 28 16:28	10°♎49'23	-1.8m
direct	7942 May 04 23:00	2°♎14'52	
	7942 Jul 28 03:41	0°♏	
	7942 Sep 21 00:16	0°♐	
desc. node	7942 Oct 03 19:22	7°♐27'30	
	7942 Nov 10 05:54	0°♑	
	7942 Dec 27 14:58	0°♒	
evening set	7943 Jan 18 02:44	14°♒10'31	
max. Earth dist.	7943 Feb 04 01:23	25°♒37'02	2.54467 AU
	7943 Feb 10 10:55	0°♓	
conjunction	7943 Mar 07 13:39	17°♓32'37	-1°04'14
minimum elong	7943 Mar 07 12:49	17°♓31'09	1°04'12
	7943 Mar 24 22:44	0°♈	
morning rise	7943 Apr 29 21:55	26°♈33'12	
	7943 May 04 11:42	0°♉	
	7943 Jun 12 15:01	0°♊	
	7943 Jul 21 01:54	0°♋	
	7943 Aug 28 17:00	0°♌	
asc. node	7943 Sep 05 00:09	5°♌35'35	
	7943 Oct 07 12:32	0°♍	
	7943 Nov 18 21:00	0°♎	
	7944 Jan 05 11:44	0°♏	
retrograde	7944 Mar 27 15:08	29°♏25'13	
min. Earth dist.	7944 May 03 18:08	20°♏43'21	0.65073 AU
opposition	7944 May 06 23:29	19°♏26'08	3°22'13
greatest brilliancy	7944 May 06 14:41	19°♏34'55	-1.4m
direct	7944 Jun 15 08:07	10°♏10'06	
desc. node	7944 Aug 20 20:08	28°♏48'05	
	7944 Aug 23 10:32	0°♐	
	7944 Oct 19 03:48	0°♑	
	7944 Dec 07 09:34	0°♒	

	7945 Jan 21 15:12	0°♓	
evening set	7945 Mar 03 16:25	29°♓07'13	
	7945 Mar 04 21:19	0°♈	
max. Earth dist.	7945 Mar 20 16:44	11°♈40'46	2.41380 AU
	7945 Apr 13 22:09	0°♉	
conjunction	7945 May 01 03:19	13°♉16'57	-0°51'46
minimum elong	7945 May 01 06:04	13°♉22'18	0°51'50
	7945 May 22 12:27	0°♊	
	7945 Jun 29 12:40	0°♋	
morning rise	7945 Jul 09 22:04	8°♋11'25	
asc. node	7945 Jul 22 21:07	18°♋21'51	
	7945 Aug 06 19:49	0°♌	
	7945 Sep 15 06:38	0°♍	
	7945 Oct 26 17:34	0°♎	
	7945 Dec 10 04:15	0°♏	
	7946 Jan 28 16:03	0°♐	
	7946 Apr 07 15:51	0°♑	
retrograde	7946 Apr 30 19:53	2°♑59'49	
	7946 May 22 07:30	30°℞♐	
opposition	7946 Jun 10 03:28	23°♐20'33	0°58'41
greatest brilliancy	7946 Jun 10 04:14	23°♐19'47	-1.3m
min. Earth dist.	7946 Jun 10 17:25	23°♐06'42	0.68129 AU
desc. node	7946 Jul 08 19:40	14°♐26'55	
direct	7946 Jul 21 07:46	13°♐27'33	
	7946 Sep 20 14:01	0°♑	
	7946 Nov 15 16:46	0°♒	
	7947 Jan 01 15:47	0°♓	
	7947 Feb 13 06:54	0°♈	
	7947 Mar 25 05:34	0°♉	
	7947 May 02 15:03	0°♊	
evening set	7947 May 05 19:04	2°♊30'16	
asc. node	7947 Jun 09 20:30	0°♋16'53	
	7947 Jun 09 11:57	0°♋	
conjunction	7947 Jul 15 12:31	28°♋14'46	0°24'53
minimum elong	7947 Jul 15 10:05	28°♋10'02	0°24'44
	7947 Jul 17 18:54	0°♌	
	7947 Aug 26 07:38	0°♍	
max. Earth dist.	7947 Sep 06 08:55	8°♍09'24	2.42255 AU
morning rise	7947 Sep 20 19:18	18°♍38'21	
	7947 Oct 06 18:03	0°♎	
	7947 Nov 19 13:45	0°♏	
	7948 Jan 05 06:54	0°♐	
	7948 Feb 25 08:37	0°♑	
	7948 Apr 30 19:45	0°♒	
desc. node	7948 May 25 18:08	5°♒36'33	
retrograde	7948 Jun 04 16:47	6°♒10'51	
	7948 Jul 06 10:25	30°℞♑	
opposition	7948 Jul 13 17:54	27°♑14'32	-1°43'36
greatest brilliancy	7948 Jul 13 23:40	27°♑08'56	-1.4m
min. Earth dist.	7948 Jul 18 02:08	25°♑33'18	0.64594 AU
direct	7948 Aug 24 05:27	17°♑12'14	
	7948 Oct 14 04:03	0°♒	
	7948 Dec 08 07:29	0°♓	
	7949 Jan 21 21:34	0°♈	
	7949 Mar 03 11:01	0°♉	
	7949 Apr 11 02:25	0°♊	
asc. node	7949 Apr 26 20:56	12°♊25'19	
	7949 May 19 04:26	0°♋	
	7949 Jun 26 18:39	0°♌	
evening set	7949 Jul 17 17:06	15°♌53'16	
	7949 Aug 05 16:55	0°♍	
conjunction	7949 Sep 16 13:03	0°♎00'41	1°06'25
minimum elong	7949 Sep 16 12:30	29°♍59'45	1°06'25
	7949 Sep 16 12:39	0°♎	
max. Earth dist.	7949 Oct 19 05:58	22°♎28'21	2.55614 AU
	7949 Oct 30 11:27	0°♏	
morning rise	7949 Nov 08 20:32	6°♏13'15	
	7949 Dec 15 12:42	0°♐	
	7950 Feb 01 16:40	0°♑	
	7950 Mar 24 19:28	0°♒	
desc. node	7950 Apr 12 15:41	10°♒19'18	
	7950 May 23 01:57	0°♓	
retrograde	7950 Jul 18 02:37	14°♓10'36	
opposition	7950 Aug 23 09:03	6°♓27'51	-4°33'59
greatest brilliancy	7950 Aug 24 14:05	6°♓01'12	-1.9m
min. Earth dist.	7950 Aug 31 03:03	3°♓37'54	0.54730 AU
	7950 Sep 11 11:25	30°℞♒	
direct	7950 Oct 02 00:29	27°♒07'07	
	7950 Oct 23 11:27	0°♓	
	7950 Dec 25 08:54	0°♈	
	7951 Feb 07 07:27	0°♉	
asc. node	7951 Mar 14 20:39	26°♉33'11	
	7951 Mar 19 09:00	0°♊	
	7951 Apr 27 09:36	0°♋	
	7951 Jun 05 20:34	0°♌	
	7951 Jul 16 15:44	0°♍	
	7951 Aug 28 07:05	0°♎	
evening set	7951 Sep 11 15:59	9°♎48'47	
	7951 Oct 11 20:20	0°♏	
conjunction	7951 Nov 01 03:03	13°♏17'24	0°54'18
minimum elong	7951 Nov 01 04:16	13°♏19'22	0°54'24
max. Earth dist.	7951 Nov 15 05:02	22°♏24'48	2.64550 AU
	7951 Nov 27 00:17	0°♐	
morning rise	7951 Dec 17 11:38	13°♐03'28	
	7952 Jan 13 07:24	0°♑	
desc. node	7952 Feb 28 12:38	28°♑49'50	
	7952 Mar 01 09:59	0°♒	
	7952 Apr 19 13:06	0°♓	
	7952 Jun 10 04:35	0°♈	
	7952 Aug 12 15:29	0°♉	
retrograde	7952 Sep 17 04:26	6°♉43'50	
opposition	7952 Oct 18 15:43	1°♉05'27	-5°45'51
greatest brilliancy	7952 Oct 20 07:18	0°♉35'35	-2.6m
	7952 Oct 22 06:20	30°℞♈	
min. Earth dist.	7952 Oct 26 01:55	28°♈51'45	0.41187 AU
direct	7952 Nov 21 12:06	24°♈26'36	
	7952 Dec 20 14:53	0°♉	
asc. node	7953 Jan 29 20:31	20°♉03'10	
	7953 Feb 14 17:06	0°♊	
	7953 Mar 30 14:05	0°♋	
	7953 May 11 22:26	0°♌	
	7953 Jun 23 21:18	0°♍	
	7953 Aug 07 04:48	0°♎	
	7953 Sep 21 23:06	0°♏	
evening set	7953 Oct 22 17:46	19°♏46'14	
	7953 Nov 07 18:59	0°♐	
conjunction	7953 Dec 07 13:16	18°♐54'08	0°20'05
minimum elong	7953 Dec 07 13:52	18°♐55'06	0°20'13
max. Earth dist.	7953 Dec 07 11:24	18°♐51'12	2.68061 AU
	7953 Dec 25 00:46	0°♑	
desc. node	7954 Jan 15 10:38	13°♑37'20	
morning rise	7954 Jan 20 08:19	16°♑44'59	
	7954 Feb 10 01:27	0°♒	
	7954 Mar 28 11:33	0°♓	
	7954 May 13 04:36	0°♈	
	7954 Jun 27 08:43	0°♉	
	7954 Aug 11 15:13	0°♊	
	7954 Sep 28 15:49	0°♋	
retrograde	7954 Dec 07 01:17	24°♋56'27	

asc. node	7954 Dec 17 21:16	24°♋07'47	
min. Earth dist.	7955 Jan 02 12:34	20°♋35'46	0.37976 AU
opposition	7955 Jan 07 18:03	19°♋06'02	1°32'40
greatest brilliancy	7955 Jan 07 09:15	19°♋12'20	-3.0m
direct	7955 Feb 06 08:38	13°♋58'03	
	7955 Apr 03 01:20	0°♌	
	7955 May 27 07:07	0°♍	
	7955 Jul 15 11:27	0°♎	
	7955 Sep 01 22:00	0°♏	
	7955 Oct 20 04:44	0°♐	
evening set	7955 Nov 28 09:22	24°♐34'01	
desc. node	7955 Dec 03 09:01	27°♐43'01	
	7955 Dec 06 23:35	0°♑	
max. Earth dist.	7955 Dec 29 21:01	14°♑35'20	2.66051 AU
conjunction	7956 Jan 12 00:18	23°♑02'46	-0°20'39
minimum elong	7956 Jan 11 23:41	23°♑01'46	0°20'31
	7956 Jan 22 17:29	0°♒	
morning rise	7956 Feb 25 10:04	22°♒12'57	
	7956 Mar 08 00:29	0°♓	
	7956 Apr 20 16:48	0°♈	
	7956 Jun 01 20:17	0°♉	
	7956 Jul 12 17:42	0°♊	
	7956 Aug 21 23:43	0°♋	
	7956 Oct 01 19:05	0°♌	
asc. node	7956 Nov 03 19:13	22°♌52'09	
	7956 Nov 14 20:31	0°♍	
	7957 Jan 19 20:25	0°♎	
retrograde	7957 Feb 01 22:21	1°♎12'17	
	7957 Feb 14 14:27	30°℞♍	
min. Earth dist.	7957 Mar 03 12:38	25°♍08'00	0.50532 AU
greatest brilliancy	7957 Mar 10 00:50	22°♍43'13	-2.1m
opposition	7957 Mar 11 12:47	22°♍09'41	5°17'09
direct	7957 Apr 14 20:57	14°♍45'05	
	7957 Jun 10 20:51	0°♎	
	7957 Aug 08 10:07	0°♏	
	7957 Sep 29 05:47	0°♐	
desc. node	7957 Oct 20 08:37	12°♐42'30	
	7957 Nov 17 11:11	0°♑	
evening set	7958 Jan 02 20:30	29°♑33'12	
	7958 Jan 03 12:56	0°♒	
max. Earth dist.	7958 Jan 23 07:59	13°♒03'01	2.58710 AU
	7958 Feb 17 09:56	0°♓	
conjunction	7958 Feb 18 09:20	0°♓40'06	-0°55'53
minimum elong	7958 Feb 18 08:08	0°♓38'02	0°55'48
	7958 Apr 01 03:27	0°♈	
morning rise	7958 Apr 08 17:48	5°♈29'04	
	7958 May 12 00:08	0°♉	
	7958 Jun 20 11:21	0°♊	
	7958 Jul 29 05:08	0°♋	
	7958 Sep 06 02:38	0°♌	
asc. node	7958 Sep 21 16:29	11°♌48'03	
	7958 Oct 16 07:22	0°♍	
	7958 Nov 28 15:00	0°♎	
	7959 Jan 19 08:58	0°♏	
retrograde	7959 Mar 14 17:49	15°♏22'25	
min. Earth dist.	7959 Apr 19 01:02	7°♏16'45	0.62123 AU
opposition	7959 Apr 23 18:05	5°♏24'28	4°09'51
greatest brilliancy	7959 Apr 23 01:59	5°♏40'28	-1.5m
	7959 May 08 20:21	30°℞♎	
direct	7959 Jun 01 00:14	26°♎30'53	
	7959 Jun 26 10:00	0°♏	
	7959 Sep 05 07:51	0°♐	
desc. node	7959 Sep 07 09:13	1°♐05'10	
	7959 Oct 28 10:57	0°♑	
	7959 Dec 15 18:24	0°♒	
	7960 Jan 29 18:49	0°♓	
evening set	7960 Feb 13 09:55	10°♓10'36	
max. Earth dist.	7960 Feb 27 09:14	20°♓05'11	2.46738 AU
	7960 Mar 12 02:30	0°♈	
conjunction	7960 Apr 06 20:48	19°♈04'13	-1°04'29
minimum elong	7960 Apr 06 21:53	19°♈06'14	1°04'31
	7960 Apr 21 07:28	0°♉	
	7960 May 30 02:07	0°♊	
morning rise	7960 Jun 08 18:28	7°♊35'42	
	7960 Jul 07 05:26	0°♋	
asc. node	7960 Aug 08 15:25	25°♋23'15	
	7960 Aug 14 14:13	0°♌	
	7960 Sep 23 02:08	0°♍	
	7960 Nov 03 16:40	0°♎	
	7960 Dec 18 18:52	0°♏	
	7961 Feb 09 03:44	0°♐	
retrograde	7961 Apr 17 14:54	20°♐27'45	
min. Earth dist.	7961 May 27 04:32	10°♐59'25	0.67716 AU
opposition	7961 May 28 02:25	10°♐37'38	1°56'47
greatest brilliancy	7961 May 28 01:15	10°♐38'47	-1.3m
direct	7961 Jul 07 17:50	0°♐56'01	
desc. node	7961 Jul 25 09:06	2°♐39'30	
	7961 Oct 03 02:52	0°♑	
	7961 Nov 24 07:27	0°♒	
	7962 Jan 09 09:04	0°♓	
	7962 Feb 20 19:05	0°♈	
	7962 Apr 01 17:53	0°♉	
evening set	7962 Apr 08 11:46	5°♉11'57	
	7962 May 10 04:45	0°♊	
conjunction	7962 Jun 15 01:22	28°♊23'16	-0°08'19
minimum elong	7962 Jun 15 02:17	28°♊25'06	0°08'27
behind sun begin	7962 Jun 13 23:59	27°♊33'03	
behind sun end	7962 Jun 16 04:36	29°♊17'08	
	7962 Jun 17 02:16	0°♋	
asc. node	7962 Jun 26 13:55	7°♋29'29	
max. Earth dist.	7962 Jul 22 14:50	27°♋52'57	2.37249 AU
	7962 Jul 25 08:22	0°♌	
morning rise	7962 Aug 26 06:12	24°♌21'51	
	7962 Sep 02 19:04	0°♍	
	7962 Oct 14 03:34	0°♎	
	7962 Nov 27 01:15	0°♏	
	7963 Jan 13 09:12	0°♐	
	7963 Mar 08 03:18	0°♑	
retrograde	7963 May 22 05:51	23°♑13'59	
desc. node	7963 Jun 12 07:43	20°♑23'59	
opposition	7963 Jun 30 22:36	13°♑58'01	-0°39'00
greatest brilliancy	7963 Jun 30 23:58	13°♑56'40	-1.4m
min. Earth dist.	7963 Jul 03 19:39	12°♑50'14	0.66753 AU
direct	7963 Aug 11 12:13	3°♑55'24	
	7963 Oct 29 16:20	0°♒	
	7963 Dec 18 19:19	0°♓	
	7964 Jan 31 07:34	0°♈	
	7964 Mar 11 12:33	0°♉	
	7964 Apr 19 00:12	0°♊	
asc. node	7964 May 13 12:28	19°♊22'45	
	7964 May 26 23:02	0°♋	
evening set	7964 Jun 20 02:25	18°♋56'01	
	7964 Jul 04 09:17	0°♌	
	7964 Aug 13 02:41	0°♍	
conjunction	7964 Aug 25 08:55	8°♍59'49	0°58'49
minimum elong	7964 Aug 25 06:47	8°♍55'57	0°58'45
	7964 Sep 23 17:19	0°♎	
max. Earth dist.	7964 Oct 05 19:47	8°♎26'34	2.50773 AU
morning rise	7964 Oct 22 07:18	19°♎44'45	

	7964 Nov 06 12:59	0°♏	
	7964 Dec 22 16:50	0°♐	
	7965 Feb 09 13:57	0°♑	
	7965 Apr 04 06:30	0°♒	
desc. node	7965 Apr 29 05:59	12°♒03'38	
retrograde	7965 Jun 29 18:55	28°♒34'17	
opposition	7965 Aug 06 08:37	20°♒17'33	-3°28'53
greatest brilliancy	7965 Aug 07 02:52	20°♒00'18	-1.7m
min. Earth dist.	7965 Aug 12 21:02	17°♒49'52	0.59296 AU
direct	7965 Sep 16 01:39	10°♒30'57	
	7965 Nov 18 01:29	0°♓	
	7966 Jan 06 07:08	0°♈	
	7966 Feb 17 04:51	0°♉	
	7966 Mar 28 10:51	0°♊	
asc. node	7966 Mar 31 12:56	2°♊23'55	
	7966 May 05 22:54	0°♋	
	7966 Jun 13 22:51	0°♌	
	7966 Jul 24 07:31	0°♍	
evening set	7966 Aug 23 03:37	21°♍20'24	
	7966 Sep 04 13:11	0°♎	
conjunction	7966 Oct 15 19:33	28°♎01'02	1°02'54
minimum elong	7966 Oct 15 20:29	28°♎02'36	1°02'58
	7966 Oct 18 19:09	0°♏	
max. Earth dist.	7966 Nov 05 12:47	11°♏40'58	2.61694 AU
morning rise	7966 Dec 03 05:14	29°♏36'07	
	7966 Dec 03 20:09	0°♐	
	7967 Jan 20 08:10	0°♑	
	7967 Mar 10 05:58	0°♒	
desc. node	7967 Mar 17 03:51	4°♒09'14	
	7967 Apr 30 12:28	0°♓	
	7967 Jun 28 13:52	0°♈	
retrograde	7967 Aug 21 16:07	13°♈40'56	
opposition	7967 Sep 24 07:08	7°♈08'29	-5°50'44
greatest brilliancy	7967 Sep 26 02:27	6°♈32'22	-2.3m
min. Earth dist.	7967 Oct 02 23:43	4°♈15'44	0.46439 AU
	7967 Oct 19 23:18	30°℞♓	
direct	7967 Oct 31 00:36	29°♓08'24	
	7967 Nov 11 05:26	0°♈	
	7968 Jan 17 09:20	0°♉	
asc. node	7968 Feb 16 13:17	20°♉18'23	
	7968 Mar 01 03:17	0°♊	
	7968 Apr 10 22:39	0°♋	
	7968 May 21 15:19	0°♌	
	7968 Jul 02 10:50	0°♍	
	7968 Aug 14 22:07	0°♎	
	7968 Sep 29 02:17	0°♏	
evening set	7968 Oct 07 09:24	5°♏24'26	
	7968 Nov 14 13:59	0°♐	
conjunction	7968 Nov 23 12:13	5°♐41'44	0°34'44
minimum elong	7968 Nov 23 13:11	5°♐43'17	0°34'52
max. Earth dist.	7968 Nov 28 16:33	8°♐59'45	2.67356 AU
	7968 Dec 31 18:34	0°♑	
morning rise	7969 Jan 06 21:33	3°♑52'50	
desc. node	7969 Feb 01 00:54	19°♑48'38	
	7969 Feb 17 02:33	0°♒	
	7969 Apr 05 07:09	0°♓	
	7969 May 22 11:26	0°♈	
	7969 Jul 09 08:21	0°♉	
	7969 Aug 29 17:50	0°♊	
retrograde	7969 Nov 06 12:47	22°♊48'41	
opposition	7969 Dec 06 07:58	17°♊51'47	-2°09'31
greatest brilliancy	7969 Dec 06 11:26	17°♊49'30	-3.1m
min. Earth dist.	7969 Dec 06 14:19	17°♊47'36	0.36652 AU
asc. node	7970 Jan 03 12:39	12°♊57'11	
direct	7970 Jan 04 20:53	12°♊56'28	
	7970 Mar 02 01:21	0°♋	
	7970 Apr 22 08:13	0°♌	
	7970 Jun 08 01:49	0°♍	
	7970 Jul 24 13:09	0°♎	
	7970 Sep 09 15:12	0°♏	
	7970 Oct 27 04:58	0°♐	
evening set	7970 Nov 14 10:14	11°♐28'45	
	7970 Dec 13 16:59	0°♑	
desc. node	7970 Dec 19 22:53	3°♑58'11	
max. Earth dist.	7970 Dec 21 02:22	4°♑41'55	2.67503 AU
conjunction	7970 Dec 29 03:45	9°♑50'05	-0°04'53
minimum elong	7970 Dec 29 03:35	9°♑49'49	0°04'45
behind sun begin	7970 Dec 28 09:47	9°♑21'27	
behind sun end	7970 Dec 29 21:22	10°♑18'12	
	7971 Jan 29 12:11	0°♒	
morning rise	7971 Feb 10 21:52	8°♒04'13	
	7971 Mar 16 03:41	0°♓	
	7971 Apr 29 11:09	0°♈	
	7971 Jun 11 11:09	0°♉	
	7971 Jul 23 09:53	0°♊	
	7971 Sep 03 00:10	0°♋	
	7971 Oct 16 03:10	0°♌	
asc. node	7971 Nov 21 12:57	22°♌09'48	
	7971 Dec 07 15:01	0°♍	
retrograde	7972 Jan 14 10:06	9°♍05'34	
min. Earth dist.	7972 Feb 10 15:49	3°♍56'58	0.45032 AU
greatest brilliancy	7972 Feb 17 15:07	1°♍33'25	-2.4m
opposition	7972 Feb 19 03:12	1°♍02'07	4°49'41
	7972 Feb 22 04:00	30°℞♌	
direct	7972 Mar 22 14:02	24°♌29'15	
	7972 Apr 22 17:09	0°♍	
	7972 Jun 26 11:25	0°♎	
	7972 Aug 17 22:10	0°♏	
	7972 Oct 06 22:15	0°♐	
desc. node	7972 Nov 05 21:58	18°♐25'50	
	7972 Nov 24 10:47	0°♑	
evening set	7972 Dec 19 09:58	15°♑49'55	
	7973 Jan 10 08:03	0°♒	
max. Earth dist.	7973 Jan 12 21:52	1°♒41'00	2.62208 AU
conjunction	7973 Feb 02 18:13	15°♒27'14	-0°43'51
minimum elong	7973 Feb 02 17:03	15°♒25'18	0°43'45
	7973 Feb 24 07:53	0°♓	
morning rise	7973 Mar 21 10:41	17°♓20'34	
	7973 Apr 08 09:07	0°♈	
	7973 May 19 15:59	0°♉	
	7973 Jun 28 14:03	0°♊	
	7973 Aug 06 18:06	0°♋	
	7973 Sep 15 02:19	0°♌	
asc. node	7973 Oct 08 11:21	17°♌22'22	
	7973 Oct 26 00:21	0°♍	
	7973 Dec 10 08:31	0°♎	
retrograde	7974 Feb 27 23:29	29°♎59'25	
min. Earth dist.	7974 Apr 02 04:46	22°♎36'28	0.58183 AU
greatest brilliancy	7974 Apr 07 08:01	20°♎35'43	-1.7m
opposition	7974 Apr 08 08:38	20°♎11'34	4°49'25
direct	7974 May 15 06:20	11°♎46'42	
	7974 Jul 19 03:35	0°♏	
	7974 Sep 15 02:11	0°♐	
desc. node	7974 Sep 23 22:09	5°♐00'24	
	7974 Nov 05 04:36	0°♑	
	7974 Dec 22 21:22	0°♒	
evening set	7975 Jan 27 05:54	23°♒28'14	
	7975 Feb 05 19:10	0°♓	
max. Earth dist.	7975 Feb 11 15:05	4°♓01'25	2.51851 AU

conjunction	7975 Mar 18 03:40	28°♓28'58	-1°06'35
minimum elong	7975 Mar 18 03:20	28°♓28'23	1°06'34
	7975 Mar 20 05:54	0°♈	
	7975 Apr 29 16:06	0°♉	
morning rise	7975 May 13 10:32	10°♉29'27	
	7975 Jun 07 16:19	0°♊	
	7975 Jul 16 00:13	0°♋	
	7975 Aug 23 12:20	0°♌	
asc. node	7975 Aug 26 08:03	2°♌10'22	
	7975 Oct 02 03:54	0°♍	
	7975 Nov 13 02:53	0°♎	
	7975 Dec 29 10:19	0°♏	
	7976 Feb 27 01:48	0°♐	
retrograde	7976 Apr 04 07:54	7°♐32'49	
	7976 May 08 17:37	30°℞♏	
min. Earth dist.	7976 May 12 09:22	28°♏33'22	0.66282 AU
opposition	7976 May 14 19:07	27°♏35'44	2°51'57
greatest brilliancy	7976 May 14 13:39	27°♏41'11	-1.4m
direct	7976 Jun 23 16:35	18°♏09'33	
desc. node	7976 Aug 10 22:42	29°♏02'15	
	7976 Aug 13 09:20	0°♐	
	7976 Oct 13 03:59	0°♑	
	7976 Dec 02 07:03	0°♒	
	7977 Jan 16 19:38	0°♓	
	7977 Feb 28 03:39	0°♈	
evening set	7977 Mar 15 16:26	11°♈28'25	
max. Earth dist.	7977 Apr 08 13:12	29°♈31'34	2.38680 AU
	7977 Apr 09 04:03	0°♉	
conjunction	7977 May 16 09:44	28°♉58'05	-0°39'02
minimum elong	7977 May 16 12:48	29°♉04'07	0°39'07
	7977 May 17 17:13	0°♊	
	7977 Jun 24 16:06	0°♋	
asc. node	7977 Jul 13 06:31	14°♋39'34	
morning rise	7977 Jul 27 16:01	25°♋55'03	
	7977 Aug 01 22:07	0°♌	
	7977 Sep 10 07:53	0°♍	
	7977 Oct 21 16:25	0°♎	
	7977 Dec 04 19:47	0°♏	
	7978 Jan 22 05:28	0°♐	
	7978 Mar 22 17:46	0°♑	
retrograde	7978 May 08 12:16	10°♑38'38	
opposition	7978 Jun 17 15:51	1°♑06'42	0°23'20
greatest brilliancy	7978 Jun 17 16:30	1°♑06'03	-1.3m
min. Earth dist.	7978 Jun 19 01:20	0°♑33'35	0.67912 AU
	7978 Jun 20 11:23	30°℞♐	
desc. node	7978 Jun 28 22:28	26°♐48'32	
direct	7978 Jul 29 01:04	21°♐09'13	
	7978 Sep 09 10:32	0°♑	
	7978 Nov 09 11:46	0°♒	
	7978 Dec 27 08:27	0°♓	
	7979 Feb 08 06:39	0°♈	
	7979 Mar 20 07:41	0°♉	
	7979 Apr 27 18:07	0°♊	
evening set	7979 May 22 07:56	19°♊27'31	
asc. node	7979 May 31 05:56	26°♊31'10	
	7979 Jun 04 15:31	0°♋	
	7979 Jul 12 23:01	0°♌	
conjunction	7979 Jul 31 14:06	14°♌16'38	0°40'25
minimum elong	7979 Jul 31 11:02	14°♌10'47	0°40'16
	7979 Aug 21 12:31	0°♍	
max. Earth dist.	7979 Sep 19 15:41	21°♍14'56	2.45344 AU
	7979 Oct 01 23:09	0°♎	
morning rise	7979 Oct 03 09:21	1°♎00'15	
	7979 Nov 14 17:14	0°♏	
	7979 Dec 31 03:05	0°♐	
	7980 Feb 19 03:33	0°♑	
	7980 Apr 17 20:58	0°♒	
desc. node	7980 May 15 20:50	10°♒04'10	
retrograde	7980 Jun 13 09:41	14°♒20'37	
opposition	7980 Jul 21 23:46	5°♒36'51	-2°22'04
greatest brilliancy	7980 Jul 22 09:18	5°♒27'40	-1.5m
min. Earth dist.	7980 Jul 27 03:03	3°♒38'05	0.62961 AU
	7980 Aug 06 07:42	30°℞♑	
direct	7980 Sep 01 07:05	25°♑37'37	
	7980 Sep 29 02:40	0°♒	
	7980 Dec 01 10:06	0°♓	
	7981 Jan 16 03:37	0°♈	
	7981 Feb 26 02:03	0°♉	
	7981 Apr 05 21:42	0°♊	
asc. node	7981 Apr 17 04:26	8°♊51'09	
	7981 May 14 02:32	0°♋	
	7981 Jun 21 19:19	0°♌	
evening set	7981 Jul 31 20:04	29°♌59'28	
	7981 Jul 31 20:22	0°♍	
	7981 Sep 11 18:31	0°♎	
conjunction	7981 Sep 27 18:41	11°♎04'35	1°06'57
minimum elong	7981 Sep 27 18:52	11°♎04'54	1°06'58
	7981 Oct 25 18:41	0°♏	
max. Earth dist.	7981 Oct 25 23:24	0°♏07'51	2.58004 AU
morning rise	7981 Nov 18 00:52	15°♏19'31	
	7981 Dec 10 18:26	0°♐	
	7982 Jan 27 14:43	0°♑	
	7982 Mar 18 17:13	0°♒	
desc. node	7982 Apr 02 18:23	8°♒36'50	
	7982 May 12 19:39	0°♓	
retrograde	7982 Jul 29 13:04	24°♓20'51	
opposition	7982 Sep 02 23:57	17°♓00'14	-5°07'38
greatest brilliancy	7982 Sep 04 11:12	16°♓28'43	-2.0m
min. Earth dist.	7982 Sep 11 07:39	14°♓02'45	0.51906 AU
direct	7982 Oct 11 19:45	8°♓01'27	
	7982 Dec 15 21:59	0°♈	
	7983 Jan 31 08:46	0°♉	
asc. node	7983 Mar 05 05:23	23°♉58'42	
	7983 Mar 13 05:46	0°♊	
	7983 Apr 21 16:49	0°♋	
	7983 May 31 11:12	0°♌	
	7983 Jul 11 12:48	0°♍	
	7983 Aug 23 09:31	0°♎	
evening set	7983 Sep 21 20:24	19°♎53'16	
	7983 Oct 07 02:52	0°♏	
conjunction	7983 Nov 09 21:30	21°♏59'27	0°47'46
minimum elong	7983 Nov 09 22:42	22°♏01'22	0°47'53
max. Earth dist.	7983 Nov 20 14:45	28°♏52'57	2.65798 AU
	7983 Nov 22 08:35	0°♐	
morning rise	7983 Dec 25 09:08	21°♐01'28	
	7984 Jan 08 13:58	0°♑	
desc. node	7984 Feb 18 15:33	25°♑48'30	
	7984 Feb 25 08:23	0°♒	
	7984 Apr 13 15:10	0°♓	
	7984 Jun 02 03:52	0°♈	
	7984 Jul 26 00:23	0°♉	
retrograde	7984 Oct 04 09:50	22°♉15'17	
opposition	7984 Nov 03 23:43	17°♉02'44	-5°01'50
greatest brilliancy	7984 Nov 05 04:13	16°♉42'30	-2.8m
min. Earth dist.	7984 Nov 09 13:24	15°♉28'25	0.38852 AU
direct	7984 Dec 05 23:58	11°♉10'58	
asc. node	7985 Jan 20 06:44	23°♉28'21	
	7985 Feb 01 23:20	0°♊	
	7985 Mar 22 05:16	0°♋	
	7985 May 05 04:24	0°♌	

	7985 Jun 18 00:48	0°♍	
	7985 Aug 01 22:01	0°♎	
	7985 Sep 17 01:15	0°♏	
evening set	7985 Oct 31 04:01	28°♏08'37	
	7985 Nov 03 02:15	0°♐	
max. Earth dist.	7985 Dec 12 13:01	25°♐00'20	2.68102 AU
conjunction	7985 Dec 15 11:02	26°♐51'25	0°11'01
minimum elong	7985 Dec 15 11:22	26°♐51'56	0°11'10
behind sun begin	7985 Dec 14 21:58	26°♐30'41	
behind sun end	7985 Dec 16 00:46	27°♐13'12	
	7985 Dec 20 09:47	0°♑	
desc. node	7986 Jan 05 12:41	10°♑15'35	
morning rise	7986 Jan 28 02:27	24°♑42'12	
	7986 Feb 05 08:07	0°♒	
	7986 Mar 23 10:47	0°♓	
	7986 May 07 14:06	0°♈	
	7986 Jun 20 19:24	0°♉	
	7986 Aug 03 11:53	0°♊	
	7986 Sep 16 22:13	0°♋	
	7986 Nov 06 23:58	0°♌	
asc. node	7986 Dec 08 05:46	11°♌02'37	
retrograde	7986 Dec 22 04:51	12°♌24'40	
min. Earth dist.	7987 Jan 17 03:47	7°♌58'17	0.40034 AU
greatest brilliancy	7987 Jan 23 10:37	6°♌03'04	-2.8m
opposition	7987 Jan 24 08:56	5°♌45'55	3°11'11
direct	7987 Feb 23 18:42	0°♌10'50	
	7987 May 18 03:04	0°♍	
	7987 Jul 09 00:05	0°♎	
	7987 Aug 27 12:05	0°♏	
	7987 Oct 15 06:57	0°♐	
desc. node	7987 Nov 23 11:15	24°♐25'38	
	7987 Dec 02 07:25	0°♑	
evening set	7987 Dec 06 08:50	2°♑34'04	
max. Earth dist.	7988 Jan 04 05:30	21°♑00'24	2.64913 AU
	7988 Jan 18 02:29	0°♒	
conjunction	7988 Jan 20 02:35	1°♒18'24	-0°29'37
minimum elong	7988 Jan 20 01:44	1°♒17'00	0°29'29
	7988 Mar 03 07:03	0°♓	
morning rise	7988 Mar 05 02:40	1°♓13'51	
	7988 Apr 15 18:01	0°♈	
	7988 May 27 13:35	0°♉	
	7988 Jul 07 01:34	0°♊	
	7988 Aug 15 20:08	0°♋	
	7988 Sep 24 22:14	0°♌	
asc. node	7988 Oct 25 03:42	21°♌42'02	
	7988 Nov 06 07:08	0°♍	
	7988 Dec 27 05:55	0°♎	
retrograde	7989 Feb 11 21:20	12°♎41'14	
min. Earth dist.	7989 Mar 14 19:56	6°♎07'14	0.53444 AU
greatest brilliancy	7989 Mar 20 21:54	3°♎48'15	-2.0m
opposition	7989 Mar 22 06:41	3°♎16'55	5°14'26
	7989 Mar 31 09:44	30°℞♍	
direct	7989 Apr 26 14:09	25°♍28'19	
	7989 May 25 06:36	0°♎	
	7989 Aug 01 08:16	0°♏	
	7989 Sep 23 18:06	0°♐	
desc. node	7989 Oct 10 11:45	9°♐53'49	
	7989 Nov 12 13:24	0°♑	
	7989 Dec 29 20:17	0°♒	
evening set	7990 Jan 11 10:40	8°♒15'44	
max. Earth dist.	7990 Jan 29 21:57	20°♒35'26	2.56458 AU
	7990 Feb 12 17:50	0°♓	
conjunction	7990 Feb 27 22:26	10°♓30'46	-1°01'18
minimum elong	7990 Feb 27 21:22	10°♓28'56	1°01'15
	7990 Mar 27 09:27	0°♈	
morning rise	7990 Apr 20 07:12	17°♈27'40	
	7990 May 07 02:42	0°♉	
	7990 Jun 15 10:06	0°♊	
	7990 Jul 24 00:06	0°♋	
	7990 Aug 31 17:13	0°♌	
asc. node	7990 Sep 12 02:16	8°♌41'02	
	7990 Oct 10 15:05	0°♍	
	7990 Nov 22 05:36	0°♎	
	7991 Jan 09 23:24	0°♏	
retrograde	7991 Mar 22 17:56	24°♏01'03	
min. Earth dist.	7991 Apr 28 02:13	15°♏35'02	0.63871 AU
opposition	7991 May 02 00:04	14°♏01'33	3°42'59
greatest brilliancy	7991 May 01 12:14	14°♏13'20	-1.5m
direct	7991 Jun 09 22:13	4°♏54'55	
desc. node	7991 Aug 28 12:29	29°♏48'52	
	7991 Aug 28 21:30	0°♐	
	7991 Oct 22 22:54	0°♑	
	7991 Dec 10 20:05	0°♒	
	7992 Jan 25 00:43	0°♓	
evening set	7992 Feb 24 01:13	21°♓05'18	
	7992 Mar 07 08:51	0°♈	
max. Earth dist.	7992 Mar 09 18:33	1°♈45'24	2.43756 AU
	7992 Apr 16 12:22	0°♉	
conjunction	7992 Apr 20 02:26	2°♉44'33	-0°58'44
minimum elong	7992 Apr 20 04:31	2°♉48'32	0°58'48
	7992 May 25 05:10	0°♊	
morning rise	7992 Jun 26 00:17	25°♊02'59	
	7992 Jul 02 06:53	0°♋	
asc. node	7992 Jul 29 23:07	21°♋43'55	
	7992 Aug 09 14:14	0°♌	
	7992 Sep 18 00:30	0°♍	
	7992 Oct 29 11:15	0°♎	
	7992 Dec 13 01:20	0°♏	
	7993 Feb 01 08:43	0°♐	
retrograde	7993 Apr 25 03:39	28°♐08'57	
opposition	7993 Jun 04 14:01	18°♐24'16	1°23'05
min. Earth dist.	7993 Jun 04 11:37	18°♐26'40	0.68071 AU
greatest brilliancy	7993 Jun 04 14:13	18°♐24'04	-1.3m
direct	7993 Jul 15 13:53	8°♐35'58	
desc. node	7993 Jul 15 12:03	8°♐35'58	
	7993 Sep 25 10:12	0°♑	
	7993 Nov 18 17:16	0°♒	
	7994 Jan 04 08:11	0°♓	
	7994 Feb 15 22:31	0°♈	
	7994 Mar 27 22:03	0°♉	
evening set	7994 Apr 23 10:48	20°♉37'29	
	7994 May 05 08:32	0°♊	
	7994 Jun 12 05:35	0°♋	
asc. node	7994 Jun 16 21:42	3°♋41'41	
conjunction	7994 Jul 02 08:47	15°♋52'27	0°11'06
minimum elong	7994 Jul 02 07:34	15°♋50'04	0°10'56
behind sun begin	7994 Jul 01 08:51	15°♋05'30	
behind sun end	7994 Jul 03 06:18	16°♋34'37	
	7994 Jul 20 11:24	0°♌	
max. Earth dist.	7994 Aug 23 08:26	25°♌50'21	2.39816 AU
	7994 Aug 28 22:09	0°♍	
morning rise	7994 Sep 10 05:24	9°♍05'31	
	7994 Oct 09 06:18	0°♎	
	7994 Nov 22 00:56	0°♏	
	7995 Jan 07 21:41	0°♐	
	7995 Feb 28 19:06	0°♑	
	7995 May 16 18:38	0°♒	
retrograde	7995 May 30 09:10	1°♒03'28	
desc. node	7995 Jun 02 10:46	0°♒59'58	

	7995 Jun 12 07:01	30°℞♉	
opposition	7995 Jul 08 18:06	21°♉57'42	-1°16'26
greatest brilliancy	7995 Jul 08 21:37	21°♉54'16	-1.4m
min. Earth dist.	7995 Jul 12 10:25	20°♉31'30	0.65693 AU
direct	7995 Aug 19 07:40	11°♉54'38	
	7995 Oct 21 04:05	0°♒	
	7995 Dec 12 20:10	0°♓	
	7996 Jan 25 23:51	0°♈	
	7996 Mar 06 10:16	0°♉	
	7996 Apr 14 00:19	0°♊	
asc. node	7996 May 03 22:14	15°♊42'56	
	7996 May 22 00:39	0°♋	
	7996 Jun 29 12:10	0°♌	
evening set	7996 Jul 06 00:50	5°♌00'19	
	7996 Aug 08 07:00	0°♍	
conjunction	7996 Sep 07 08:01	21°♍46'52	1°04'19
minimum elong	7996 Sep 07 06:50	21°♍44'44	1°04'19
	7996 Sep 18 23:00	0°♎	
max. Earth dist.	7996 Oct 13 21:56	17°♎16'01	2.53531 AU
morning rise	7996 Nov 01 13:08	29°♎50'33	
	7996 Nov 01 18:48	0°♏	
	7996 Dec 17 19:35	0°♐	
	7997 Feb 04 04:51	0°♑	
	7997 Mar 28 04:02	0°♒	
desc. node	7997 Apr 19 08:41	11°♒39'55	
	7997 May 31 09:34	0°♓	
retrograde	7997 Jul 09 21:15	7°♓43'24	
opposition	7997 Aug 15 19:01	29°♒44'21	-4°06'44
	7997 Aug 15 02:09	30°℞♒	
greatest brilliancy	7997 Aug 16 19:10	29°♒21'53	-1.8m
min. Earth dist.	7997 Aug 23 00:44	27°♒03'08	0.56879 AU
direct	7997 Sep 24 23:38	20°♒10'15	
	7997 Nov 05 23:06	0°♓	
	7997 Dec 30 05:19	0°♈	
	7998 Feb 11 04:06	0°♉	
asc. node	7998 Mar 21 22:13	29°♉17'25	
	7998 Mar 22 20:20	0°♊	
	7998 Apr 30 14:42	0°♋	
	7998 Jun 08 19:33	0°♌	
	7998 Jul 19 08:36	0°♍	
	7998 Aug 30 18:07	0°♎	
evening set	7998 Sep 03 12:11	2°♎35'23	
	7998 Oct 14 02:39	0°♏	
conjunction	7998 Oct 25 06:52	7°♏22'16	0°58'21
minimum elong	7998 Oct 25 08:01	7°♏24'10	0°58'25
max. Earth dist.	7998 Nov 11 07:06	18°♏28'18	2.63370 AU
	7998 Nov 29 04:07	0°♐	
morning rise	7998 Dec 11 11:23	7°♐51'49	
	7999 Jan 15 12:29	0°♑	
	7999 Mar 04 22:06	0°♒	
desc. node	7999 Mar 07 05:33	1°♒24'49	
	7999 Apr 23 19:55	0°♓	
	7999 Jun 16 17:43	0°♈	
retrograde	7999 Sep 05 13:51	26°♈35'29	
opposition	7999 Oct 07 23:41	20°♈32'58	-5°56'19
greatest brilliancy	7999 Oct 09 19:17	19°♈58'27	-2.5m
min. Earth dist.	7999 Oct 16 06:03	17°♈56'43	0.43438 AU
direct	7999 Nov 12 05:50	13°♈15'27	
	8000 Jan 05 02:27	0°♉	
asc. node	8000 Feb 06 22:02	19°♉49'28	
	8000 Feb 22 00:06	0°♊	
	8000 Apr 04 04:22	0°♋	
	8000 May 15 15:33	0°♌	
	8000 Jun 26 23:45	0°♍	
	8000 Aug 09 20:29	0°♎	
	8000 Sep 24 07:06	0°♏	
evening set	8000 Oct 16 06:40	14°♏12'46	
	8000 Nov 09 22:27	0°♐	
conjunction	8000 Dec 01 14:25	13°♐47'15	0°26'18
minimum elong	8000 Dec 01 15:11	13°♐48'28	0°26'26
max. Earth dist.	8000 Dec 03 19:27	15°♐11'29	2.67850 AU
	8000 Dec 27 03:20	0°♑	
morning rise	8001 Jan 14 14:23	11°♑43'30	
desc. node	8001 Jan 22 03:02	16°♑30'39	
	8001 Feb 12 06:59	0°♒	
	8001 Mar 31 00:57	0°♓	
	8001 May 16 08:22	0°♈	
	8001 Jul 01 12:30	0°♉	
	8001 Aug 17 16:36	0°♊	
	8001 Oct 10 19:50	0°♋	
retrograde	8001 Nov 24 04:04	11°♋24'23	
min. Earth dist.	8001 Dec 21 19:40	6°♋54'46	0.36944 AU
opposition	8001 Dec 24 19:19	6°♋05'55	-0°00'40
asc. node	8001 Dec 24 22:46	6°♋03'34	
greatest brilliancy	8001 Dec 24 19:21	6°♋05'53	-3.1m
direct	8002 Jan 23 03:15	1°♋11'23	
	8002 Apr 12 02:18	0°♌	
	8002 May 31 22:53	0°♍	
	8002 Jul 18 17:29	0°♎	
	8002 Sep 04 11:40	0°♏	
	8002 Oct 22 10:08	0°♐	
evening set	8002 Nov 22 10:21	19°♐28'28	
	8002 Dec 09 02:03	0°♑	
desc. node	8002 Dec 10 01:39	0°♑37'25	
max. Earth dist.	8002 Dec 26 04:32	10°♑53'07	2.66799 AU
conjunction	8003 Jan 06 01:09	17°♑50'27	-0°14'09
minimum elong	8003 Jan 06 00:43	17°♑49'46	0°14'00
behind sun begin	8003 Jan 05 15:38	17°♑35'10	
behind sun end	8003 Jan 06 09:49	18°♑04'22	
	8003 Jan 24 20:52	0°♒	
morning rise	8003 Feb 19 02:18	16°♒31'29	
	8003 Mar 11 08:11	0°♓	
	8003 Apr 24 07:38	0°♈	
	8003 Jun 05 20:15	0°♉	
	8003 Jul 17 04:15	0°♊	
	8003 Aug 26 22:31	0°♋	
	8003 Oct 07 11:38	0°♌	
asc. node	8003 Nov 11 21:21	23°♌35'16	
	8003 Nov 22 13:27	0°♍	
retrograde	8004 Jan 25 19:25	22°♍32'33	
min. Earth dist.	8004 Feb 23 08:13	16°♍53'06	0.48081 AU
greatest brilliancy	8004 Mar 01 02:36	14°♍26'48	-2.2m
opposition	8004 Mar 02 15:57	13°♍52'52	5°12'13
direct	8004 Apr 05 03:38	6°♍50'15	
	8004 Jun 17 10:48	0°♎	
	8004 Aug 11 18:54	0°♏	
	8004 Oct 01 18:07	0°♐	
desc. node	8004 Oct 27 01:14	15°♐22'09	
	8004 Nov 19 16:26	0°♑	
evening set	8004 Dec 27 13:46	24°♑04'15	
	8005 Jan 05 17:02	0°♒	
max. Earth dist.	8005 Jan 18 18:05	8°♒33'31	2.60372 AU
conjunction	8005 Feb 11 11:57	24°♒26'07	-0°51'12
minimum elong	8005 Feb 11 10:43	24°♒24'02	0°51'06
	8005 Feb 19 16:19	0°♓	
morning rise	8005 Mar 31 12:40	27°♓48'44	
	8005 Apr 03 14:13	0°♈	
	8005 May 14 16:04	0°♉	
	8005 Jun 23 08:18	0°♊	

	8005 Aug 01 06:27	0°♋	
	8005 Sep 09 07:33	0°♌	
asc. node	8005 Sep 28 18:26	14°♌38'25	
	8005 Oct 19 17:17	0°♍	
	8005 Dec 02 14:43	0°♎	
	8006 Jan 26 19:21	0°♏	
retrograde	8006 Mar 08 12:18	9°♏26'36	
min. Earth dist.	8006 Apr 11 22:11	1°♏39'34	0.60485 AU
greatest brilliancy	8006 Apr 16 11:45	29°♎51'23	-1.6m
	8006 Apr 16 03:02	30°℞♎	
opposition	8006 Apr 17 07:30	29°♎31'52	4°27'58
direct	8006 May 25 00:30	20°♎50'16	
	8006 Jul 07 08:03	0°♏	
	8006 Sep 08 18:23	0°♐	
desc. node	8006 Sep 14 01:43	2°♐53'57	
	8006 Oct 31 00:03	0°♑	
	8006 Dec 18 02:13	0°♒	
	8007 Feb 01 02:51	0°♓	
evening set	8007 Feb 05 18:26	3°♓12'20	
max. Earth dist.	8007 Feb 20 01:37	13°♓11'20	2.49090 AU
	8007 Mar 15 13:14	0°♈	
conjunction	8007 Mar 29 11:14	10°♈11'50	-1°06'30
minimum elong	8007 Mar 29 11:38	10°♈12'34	1°06'32
	8007 Apr 24 21:27	0°♉	
morning rise	8007 May 28 05:44	25°♉40'15	
	8007 Jun 02 18:58	0°♊	
	8007 Jul 11 00:17	0°♋	
asc. node	8007 Aug 16 17:19	28°♋41'36	
	8007 Aug 18 09:49	0°♌	
	8007 Sep 26 21:53	0°♍	
	8007 Nov 07 13:49	0°♎	
	8007 Dec 22 23:32	0°♏	
	8008 Feb 15 04:56	0°♐	
retrograde	8008 Apr 11 22:45	15°♐30'15	
min. Earth dist.	8008 May 20 21:09	6°♐14'29	0.67208 AU
opposition	8008 May 22 11:22	5°♐36'24	2°20'06
greatest brilliancy	8008 May 22 08:35	5°♐39'11	-1.3m
	8008 Jun 06 18:10	30°℞♏	
direct	8008 Jul 01 20:10	26°♏01'11	
	8008 Jul 29 07:32	0°♐	
desc. node	8008 Aug 01 01:53	0°♐45'54	
	8008 Oct 06 17:07	0°♑	
	8008 Nov 27 00:30	0°♒	
	8009 Jan 11 21:54	0°♓	
	8009 Feb 23 08:30	0°♈	
evening set	8009 Mar 28 15:38	24°♈51'35	
	8009 Apr 04 09:02	0°♉	
	8009 May 12 21:25	0°♊	
max. Earth dist.	8009 May 17 10:05	3°♊34'14	2.36755 AU
conjunction	8009 Jun 01 17:42	15°♊41'05	-0°22'37
minimum elong	8009 Jun 01 19:59	15°♊45'36	0°22'43
	8009 Jun 19 19:37	0°♋	
asc. node	8009 Jul 03 15:50	10°♋55'39	
	8009 Jul 28 01:07	0°♌	
morning rise	8009 Aug 13 17:40	12°♌51'27	
	8009 Sep 05 10:12	0°♍	
	8009 Oct 16 17:07	0°♎	
	8009 Nov 29 14:48	0°♏	
	8010 Jan 16 05:44	0°♐	
	8010 Mar 12 14:26	0°♑	
retrograde	8010 May 16 06:51	18°♑19'20	
desc. node	8010 Jun 19 00:44	11°♑19'42	
opposition	8010 Jun 25 05:28	8°♑55'35	-0°12'54
greatest brilliancy	8010 Jun 25 05:51	8°♑55'13	-1.3m
min. Earth dist.	8010 Jun 27 10:19	8°♑03'32	0.67405 AU
	8010 Jul 23 16:25	30°℞♐	
direct	8010 Aug 05 18:31	28°♐54'44	
	8010 Aug 19 12:13	0°♑	
	8010 Nov 02 17:29	0°♒	
	8010 Dec 21 20:47	0°♓	
	8011 Feb 03 04:08	0°♈	
	8011 Mar 15 08:15	0°♉	
	8011 Apr 22 19:41	0°♊	
asc. node	8011 May 21 14:02	22°♊45'38	
	8011 May 30 17:47	0°♋	
evening set	8011 Jun 08 03:45	6°♋38'14	
	8011 Jul 08 02:09	0°♌	
conjunction	8011 Aug 15 14:06	29°♌10'43	0°52'21
minimum elong	8011 Aug 15 11:21	29°♌05'36	0°52'15
	8011 Aug 16 16:41	0°♍	
	8011 Sep 27 04:15	0°♎	
max. Earth dist.	8011 Sep 30 01:12	2°♎01'18	2.48404 AU
morning rise	8011 Oct 15 00:27	12°♎26'22	
	8011 Nov 09 21:30	0°♏	
	8011 Dec 26 02:05	0°♐	
	8012 Feb 13 07:34	0°♑	
	8012 Apr 08 12:38	0°♒	
desc. node	8012 May 05 22:56	12°♒08'27	
retrograde	8012 Jun 22 12:06	22°♒48'21	
opposition	8012 Jul 30 13:58	14°♒18'35	-3°00'43
greatest brilliancy	8012 Jul 31 04:06	14°♒05'06	-1.6m
min. Earth dist.	8012 Aug 05 11:47	12°♒03'25	0.61061 AU
direct	8012 Sep 09 14:59	4°♒25'07	
	8012 Nov 23 13:54	0°♓	
	8013 Jan 10 02:04	0°♈	
	8013 Feb 20 13:39	0°♉	
	8013 Mar 31 14:56	0°♊	
asc. node	8013 Apr 07 14:13	5°♊26'29	
	8013 May 08 23:19	0°♋	
	8013 Jun 16 19:07	0°♌	
	8013 Jul 26 22:59	0°♍	
evening set	8013 Aug 13 20:09	12°♍56'14	
	8013 Sep 06 23:57	0°♎	
conjunction	8013 Oct 08 06:31	21°♎25'22	1°05'16
minimum elong	8013 Oct 08 07:14	21°♎26'34	1°05'19
	8013 Oct 21 01:50	0°♏	
max. Earth dist.	8013 Nov 01 06:58	7°♏25'29	2.60143 AU
morning rise	8013 Nov 26 20:01	24°♏04'38	
	8013 Dec 06 01:06	0°♐	
	8014 Jan 22 15:22	0°♑	
	8014 Mar 12 23:13	0°♒	
desc. node	8014 Mar 23 21:02	6°♒26'26	
	8014 May 04 12:27	0°♓	
	8014 Jul 10 03:47	0°♈	
retrograde	8014 Aug 11 02:40	5°♈23'02	
	8014 Sep 10 01:19	30°℞♓	
opposition	8014 Sep 14 14:34	28°♓27'56	-5°35'28
greatest brilliancy	8014 Sep 16 07:13	27°♓52'52	-2.2m
min. Earth dist.	8014 Sep 23 06:46	25°♓29'21	0.48913 AU
direct	8014 Oct 22 09:42	19°♓58'28	
	8014 Dec 02 07:51	0°♈	
	8015 Jan 23 10:18	0°♉	
asc. node	8015 Feb 23 15:05	21°♉55'29	
	8015 Mar 06 15:24	0°♊	
	8015 Apr 15 17:58	0°♋	
	8015 May 25 22:53	0°♌	
	8015 Jul 06 08:28	0°♍	
	8015 Aug 18 11:40	0°♎	
evening set	8015 Oct 01 10:19	29°♎21'54	
	8015 Oct 02 09:32	0°♏	

	8015 Nov 17 17:43	0°♐		
conjunction	8015 Nov 18 07:42	0°♐22'22	0°40'24	
minimum elong	8015 Nov 18 08:47	0°♐24'07	0°40'31	
max. Earth dist.	8015 Nov 25 21:12	5°♐12'28	2.66762 AU	
morning rise	8016 Jan 02 03:18	28°♐52'20		
	8016 Jan 03 22:05	0°♑		
desc. node	8016 Feb 08 17:54	22°♑37'56		
	8016 Feb 20 10:08	0°♒		
	8016 Apr 08 01:15	0°♓		
	8016 May 26 02:36	0°♈		
	8016 Jul 14 21:07	0°♉		
	8016 Sep 11 09:54	0°♊		
retrograde	8016 Oct 22 23:14	9°♊24'55		
opposition	8016 Nov 21 19:39	4°♊28'41	-3°37'48	
greatest brilliancy	8016 Nov 22 09:11	4°♊19'37	-3.0m	
min. Earth dist.	8016 Nov 24 17:11	3°♊42'16	0.37226 AU	
	8016 Dec 11 17:53	30°℞♉		
direct	8016 Dec 22 03:37	29°♉16'00		
	8017 Jan 01 14:40	0°♊		
asc. node	8017 Jan 10 14:20	1°♊44'49		
	8017 Mar 11 18:00	0°♋		
	8017 Apr 27 15:44	0°♌		
	8017 Jun 11 20:19	0°♍		
	8017 Jul 27 12:03	0°♎		
	8017 Sep 12 02:21	0°♏		
	8017 Oct 29 09:45	0°♐		
evening set	8017 Nov 08 08:39	6°♐17'26		
	8017 Dec 15 19:39	0°♑		
max. Earth dist.	8017 Dec 17 14:15	1°♑07'38	2.67883 AU	
conjunction	8017 Dec 23 06:42	4°♑44'31	0°01'48	
minimum elong	8017 Dec 23 06:43	4°♑44'33	0°01'57	
behind sun begin	8017 Dec 22 12:25	4°♑15'28		
behind sun end	8017 Dec 24 01:01	5°♑13'39		
desc. node	8017 Dec 26 15:28	6°♑53'07		
	8018 Jan 31 16:28	0°♒		
morning rise	8018 Feb 04 22:07	2°♒44'23		
	8018 Mar 18 13:24	0°♓		
	8018 May 02 05:42	0°♈		
	8018 Jun 14 18:07	0°♉		
	8018 Jul 27 08:50	0°♊		
	8018 Sep 07 22:04	0°♋		
	8018 Oct 23 00:38	0°♌		
asc. node	8018 Nov 28 14:21	19°♌38'31		
retrograde	8019 Jan 04 20:59	28°♌31'37		
min. Earth dist.	8019 Jan 31 07:19	23°♌44'54	0.42656 AU	
greatest brilliancy	8019 Feb 07 03:53	21°♌30'15	-2.6m	
opposition	8019 Feb 08 12:03	21°♌03'38	4°18'45	
direct	8019 Mar 12 01:06	14°♌56'38		
	8019 May 06 00:38	0°♍		
	8019 Jul 01 21:32	0°♎		
	8019 Aug 21 21:02	0°♏		
	8019 Oct 10 07:33	0°♐		
desc. node	8019 Nov 13 14:39	21°♐13'01		
	8019 Nov 27 15:00	0°♑		
evening set	8019 Dec 14 08:51	10°♑36'00		
max. Earth dist.	8020 Jan 09 17:09	27°♑32'22	2.63522 AU	
	8020 Jan 13 11:55	0°♒		
conjunction	8020 Jan 28 08:48	9°♒45'06	-0°38'07	
minimum elong	8020 Jan 28 07:45	9°♒43'23	0°37'59	
	8020 Feb 27 14:48	0°♓		
morning rise	8020 Mar 14 04:33	10°♓39'13		
	8020 Apr 10 21:08	0°♈		
	8020 May 22 10:22	0°♉		
	8020 Jul 01 14:46	0°♊		
	8020 Aug 10 00:53	0°♋		
	8020 Sep 18 15:20	0°♌		
asc. node	8020 Oct 15 13:25	19°♌46'42		
	8020 Oct 29 23:41	0°♍		
	8020 Dec 15 18:47	0°♎		
retrograde	8021 Feb 21 05:32	23°♎17'28		
min. Earth dist.	8021 Mar 25 10:56	16°♎16'13	0.56145 AU	
greatest brilliancy	8021 Mar 31 01:31	14°♎05'51	-1.8m	
opposition	8021 Apr 01 05:59	13°♎38'14	5°02'45	
direct	8021 May 07 11:33	5°♎28'40		
	8021 Jul 24 07:20	0°♏		
	8021 Sep 18 00:42	0°♐		
desc. node	8021 Sep 30 14:37	7°♐16'29		
	8021 Nov 07 13:45	0°♑		
	8021 Dec 25 03:10	0°♒		
evening set	8022 Jan 20 07:04	17°♒15'15		
max. Earth dist.	8022 Feb 05 22:10	28°♒30'54	2.53995 AU	
	8022 Feb 08 02:11	0°♓		
conjunction	8022 Mar 09 23:46	20°♓54'06	-1°05'06	
minimum elong	8022 Mar 09 23:03	20°♓52'49	1°05'04	
	8022 Mar 22 16:08	0°♈		
morning rise	8022 May 02 20:40	0°♉26'56		
	8022 May 02 06:23	0°♉		
	8022 Jun 10 10:12	0°♊		
	8022 Jul 18 20:49	0°♋		
	8022 Aug 26 10:37	0°♌		
asc. node	8022 Sep 02 10:21	5°♌22'08		
	8022 Oct 05 03:23	0°♍		
	8022 Nov 16 06:10	0°♎		
	8023 Jan 02 05:38	0°♏		
	8023 Mar 10 21:09	0°♐		
retrograde	8023 Mar 30 13:30	2°♐21'12		
	8023 Apr 18 04:30	30°℞♏		
min. Earth dist.	8023 May 06 21:34	23°♏36'17	0.65324 AU	
opposition	8023 May 09 23:41	22°♏22'25	3°13'51	
greatest brilliancy	8023 May 09 15:40	22°♏30'24	-1.4m	
direct	8023 Jun 18 12:03	13°♏04'25		
desc. node	8023 Aug 18 14:52	29°♏18'41		
	8023 Aug 20 04:14	0°♐		
	8023 Oct 17 03:59	0°♑		
	8023 Dec 05 19:04	0°♒		
	8024 Jan 20 05:48	0°♓		
	8024 Mar 02 15:13	0°♈		
evening set	8024 Mar 06 08:42	2°♈43'34		
max. Earth dist.	8024 Mar 23 19:37	15°♈39'56	2.40856 AU	
	8024 Apr 11 18:02	0°♉		
conjunction	8024 May 04 09:48	17°♉29'44	-0°49'07	
minimum elong	8024 May 04 12:41	17°♉35'20	0°49'12	
	8024 May 20 09:13	0°♊		
	8024 Jun 27 09:18	0°♋		
morning rise	8024 Jul 13 19:09	12°♋56'03		
asc. node	8024 Jul 20 07:56	18°♋03'40		
	8024 Aug 04 15:23	0°♌		
	8024 Sep 13 00:09	0°♍		
	8024 Oct 24 07:54	0°♎		
	8024 Dec 07 13:04	0°♏		
	8025 Jan 25 11:44	0°♐		
	8025 Mar 30 14:32	0°♑		
retrograde	8025 May 02 18:20	5°♑49'15		
	8025 Jun 02 03:17	30°℞♐		
opposition	8025 Jun 12 01:55	26°♐11'10	0°48'19	
greatest brilliancy	8025 Jun 12 02:41	26°♐10'25	-1.3m	
min. Earth dist.	8025 Jun 12 19:12	25°♐54'02	0.68109 AU	
desc. node	8025 Jul 05 14:46	18°♐16'46		
direct	8025 Jul 23 08:14	16°♐17'23		

	8025 Sep 16 01:45	0°♉	
	8025 Nov 12 17:58	0°♒	
	8025 Dec 30 03:07	0°♓	
	8026 Feb 10 23:19	0°♈	
	8026 Mar 23 00:53	0°♉	
	8026 Apr 30 11:49	0°♊	
evening set	8026 May 09 09:18	7°♊01'55	
asc. node	8026 Jun 07 07:20	29°♊56'43	
	8026 Jun 07 09:00	0°♋	
	8026 Jul 15 15:10	0°♌	
conjunction	8026 Jul 19 03:13	2°♌42'32	0°28'52
minimum elong	8026 Jul 19 00:31	2°♌37'18	0°28'42
	8026 Aug 24 02:12	0°♍	
max. Earth dist.	8026 Sep 09 21:19	12°♍22'38	2.42824 AU
morning rise	8026 Sep 23 18:01	22°♍24'09	
	8026 Oct 04 10:12	0°♎	
	8026 Nov 17 02:38	0°♏	
	8027 Jan 02 14:47	0°♐	
	8027 Feb 22 04:55	0°♑	
	8027 Apr 25 13:43	0°♒	
desc. node	8027 May 23 13:37	7°♒45'01	
retrograde	8027 Jun 07 19:19	9°♒03'52	
opposition	8027 Jul 16 18:52	0°♒09'35	-1°54'28
greatest brilliancy	8027 Jul 17 01:26	0°♒03'13	-1.4m
	8027 Jul 17 04:45	30°℞♑	
min. Earth dist.	8027 Jul 21 06:39	28°♑25'10	0.64301 AU
direct	8027 Aug 27 06:27	20°♑07'52	
	8027 Oct 10 02:20	0°♒	
	8027 Dec 06 08:50	0°♓	
	8028 Jan 20 09:43	0°♈	
	8028 Mar 01 03:41	0°♉	
	8028 Apr 08 21:05	0°♊	
asc. node	8028 Apr 24 06:03	12°♊05'43	
	8028 May 16 23:42	0°♋	
	8028 Jun 24 13:31	0°♌	
evening set	8028 Jul 21 00:47	20°♌03'04	
	8028 Aug 03 10:38	0°♍	
	8028 Sep 14 04:43	0°♎	
conjunction	8028 Sep 19 06:07	3°♎32'06	1°06'46
minimum elong	8028 Sep 19 05:47	3°♎31'31	1°06'48
max. Earth dist.	8028 Oct 21 01:46	25°♎19'00	2.56097 AU
	8028 Oct 28 01:27	0°♏	
morning rise	8028 Nov 11 02:56	9°♏19'23	
	8028 Dec 13 00:12	0°♐	
	8029 Jan 30 00:14	0°♑	
	8029 Mar 21 17:58	0°♒	
desc. node	8029 Apr 09 11:15	10°♒24'16	
	8029 May 18 09:49	0°♓	
retrograde	8029 Jul 20 15:26	17°♓22'38	
opposition	8029 Aug 25 19:25	9°♓43'37	-4°42'36
greatest brilliancy	8029 Aug 27 01:53	9°♓15'50	-1.9m
min. Earth dist.	8029 Sep 02 17:24	6°♓51'09	0.54219 AU
direct	8029 Oct 04 08:25	0°♓26'33	
	8029 Dec 22 01:41	0°♈	
	8030 Feb 04 16:22	0°♉	
asc. node	8030 Mar 12 06:34	26°♉25'56	
	8030 Mar 16 23:05	0°♊	
	8030 Apr 25 01:27	0°♋	
	8030 Jun 03 12:33	0°♌	
	8030 Jul 14 07:02	0°♍	
	8030 Aug 25 21:21	0°♎	
evening set	8030 Sep 14 04:42	13°♎09'59	
	8030 Oct 09 09:29	0°♏	
conjunction	8030 Nov 03 08:07	16°♏20'05	0°52'33
minimum elong	8030 Nov 03 09:21	16°♏22'04	0°52'38
max. Earth dist.	8030 Nov 16 19:27	25°♏02'49	2.64827 AU
	8030 Nov 24 12:25	0°♐	
morning rise	8030 Dec 19 11:58	15°♐55'57	
	8031 Jan 10 18:17	0°♑	
desc. node	8031 Feb 25 08:21	28°♑29'46	
	8031 Feb 27 18:31	0°♒	
	8031 Apr 17 16:09	0°♓	
	8031 Jun 07 16:37	0°♈	
	8031 Aug 06 08:34	0°♉	
retrograde	8031 Sep 21 18:04	10°♉51'42	
opposition	8031 Oct 23 02:05	5°♉18'13	-5°37'54
greatest brilliancy	8031 Oct 24 15:47	4°♉50'00	-2.7m
min. Earth dist.	8031 Oct 30 04:44	3°♉11'25	0.40712 AU
	8031 Nov 12 10:23	30°℞♈	
direct	8031 Nov 25 13:57	28°♈47'56	
	8031 Dec 08 16:10	0°♉	
asc. node	8032 Jan 28 08:08	21°♉04'29	
	8032 Feb 12 01:21	0°♊	
	8032 Mar 27 16:26	0°♋	
	8032 May 09 06:47	0°♌	
	8032 Jun 21 07:51	0°♍	
	8032 Aug 04 16:02	0°♎	
	8032 Sep 19 10:28	0°♏	
evening set	8032 Oct 24 21:35	22°♏45'32	
	8032 Nov 05 06:30	0°♐	
conjunction	8032 Dec 09 13:46	21°♐46'47	0°17'27
minimum elong	8032 Dec 09 14:18	21°♐47'36	0°17'36
max. Earth dist.	8032 Dec 08 21:59	21°♐21'45	2.68103 AU
	8032 Dec 22 12:33	0°♑	
desc. node	8033 Jan 12 05:19	13°♑09'56	
morning rise	8033 Jan 22 07:21	19°♑35'58	
	8033 Feb 07 13:18	0°♒	
	8033 Mar 25 22:45	0°♓	
	8033 May 10 13:45	0°♈	
	8033 Jun 24 13:32	0°♉	
	8033 Aug 08 10:51	0°♊	
	8033 Sep 24 08:21	0°♋	
retrograde	8033 Dec 10 13:42	29°♋41'21	
asc. node	8033 Dec 15 07:43	29°♋31'54	
min. Earth dist.	8034 Jan 05 18:44	25°♋21'41	0.38308 AU
opposition	8034 Jan 11 12:11	23°♋42'32	1°58'54
greatest brilliancy	8034 Jan 11 00:15	23°♋51'10	-2.9m
direct	8034 Feb 10 04:15	18°♋30'13	
	8034 Mar 28 04:19	0°♌	
	8034 May 23 21:18	0°♍	
	8034 Jul 12 13:51	0°♎	
	8034 Aug 30 04:59	0°♏	
	8034 Oct 17 14:08	0°♐	
evening set	8034 Nov 30 09:51	27°♐26'49	
desc. node	8034 Nov 30 03:49	27°♐17'17	
	8034 Dec 04 10:50	0°♑	
max. Earth dist.	8034 Dec 31 10:04	17°♑10'45	2.65865 AU
conjunction	8035 Jan 14 00:44	25°♑57'11	-0°23'17
minimum elong	8035 Jan 14 00:03	25°♑56'04	0°23'09
	8035 Jan 20 06:23	0°♒	
morning rise	8035 Feb 27 12:32	25°♒14'15	
	8035 Mar 06 14:45	0°♓	
	8035 Apr 19 07:50	0°♈	
	8035 May 31 11:21	0°♉	
	8035 Jul 11 07:53	0°♊	
	8035 Aug 20 11:37	0°♋	
	8035 Sep 30 01:34	0°♌	
asc. node	8035 Nov 02 05:33	23°♌15'16	
	8035 Nov 12 11:24	0°♍	

	8036 Jan 09 05:48	0°♎	
retrograde	8036 Feb 05 08:09	4°♎50'05	
	8036 Mar 02 11:03	30°℞♍	
min. Earth dist.	8036 Mar 06 05:10	28°♍40'23	0.51097 AU
greatest brilliancy	8036 Mar 12 15:57	26°♍16'01	-2.1m
opposition	8036 Mar 14 03:39	25°♍42'36	5°18'27
direct	8036 Apr 17 15:57	18°♍13'22	
	8036 Jun 05 15:09	0°♎	
	8036 Aug 05 04:01	0°♏	
	8036 Sep 26 10:06	0°♐	
desc. node	8036 Oct 17 04:11	12°♐25'42	
	8036 Nov 14 20:20	0°♑	
	8037 Jan 01 01:18	0°♒	
evening set	8037 Jan 04 23:17	2°♒33'14	
max. Earth dist.	8037 Jan 25 00:04	15°♒47'13	2.58308 AU
	8037 Feb 15 00:50	0°♓	
conjunction	8037 Feb 20 15:55	3°♓51'42	-0°57'32
minimum elong	8037 Feb 20 14:45	3°♓49'41	0°57'28
	8037 Mar 29 20:18	0°♈	
morning rise	8037 Apr 11 08:54	9°♈02'57	
	8037 May 09 18:19	0°♉	
	8037 Jun 18 06:07	0°♊	
	8037 Jul 26 23:35	0°♋	
	8037 Sep 03 19:30	0°♌	
asc. node	8037 Sep 19 04:16	11°♌40'35	
	8037 Oct 13 20:30	0°♍	
	8037 Nov 25 19:31	0°♎	
	8038 Jan 15 04:43	0°♏	
retrograde	8038 Mar 16 17:38	18°♏23'58	
min. Earth dist.	8038 Apr 21 06:08	10°♏14'51	0.62471 AU
opposition	8038 Apr 25 20:11	8°♏25'38	4°02'57
greatest brilliancy	8038 Apr 25 05:02	8°♏40'40	-1.5m
	8038 May 25 07:21	30°℞♎	
direct	8038 Jun 03 06:43	29°♎29'27	
	8038 Jun 12 13:29	0°♏	
	8038 Sep 01 20:45	0°♐	
desc. node	8038 Sep 04 04:53	1°♐12'43	
	8038 Oct 25 15:18	0°♑	
	8038 Dec 13 05:13	0°♒	
	8039 Jan 27 09:31	0°♓	
evening set	8039 Feb 15 21:43	13°♓34'40	
max. Earth dist.	8039 Mar 01 21:09	23°♓31'54	2.46159 AU
	8039 Mar 10 19:47	0°♈	
conjunction	8039 Apr 10 20:03	22°♈58'59	-1°03'25
minimum elong	8039 Apr 10 21:24	23°♈01'30	1°03'28
	8039 Apr 20 02:22	0°♉	
	8039 May 28 21:49	0°♊	
morning rise	8039 Jun 13 12:38	12°♊15'31	
	8039 Jul 06 01:09	0°♋	
asc. node	8039 Aug 07 01:24	25°♋05'37	
	8039 Aug 13 09:04	0°♌	
	8039 Sep 21 19:02	0°♍	
	8039 Nov 02 06:00	0°♎	
	8039 Dec 17 00:54	0°♏	
	8040 Feb 06 10:37	0°♐	
retrograde	8040 Apr 19 11:38	23°♐16'14	
min. Earth dist.	8040 May 29 05:43	13°♐45'24	0.67809 AU
opposition	8040 May 30 00:11	13°♐27'02	1°47'05
greatest brilliancy	8040 May 29 23:21	13°♐27'51	-1.3m
direct	8040 Jul 09 18:39	3°♐44'07	
desc. node	8040 Jul 22 04:51	4°♐37'11	
	8040 Sep 29 14:44	0°♑	
	8040 Nov 21 13:47	0°♒	
	8041 Jan 06 22:33	0°♓	
	8041 Feb 18 12:27	0°♈	
	8041 Mar 30 13:23	0°♉	
evening set	8041 Apr 11 17:41	9°♉23'57	
	8041 May 08 01:06	0°♊	
	8041 Jun 14 22:28	0°♋	
conjunction	8041 Jun 18 21:57	3°♋08'49	-0°03'41
minimum elong	8041 Jun 18 22:23	3°♋09'41	0°03'49
behind sun begin	8041 Jun 17 16:28	2°♋10'35	
behind sun end	8041 Jun 20 04:17	4°♋08'46	
asc. node	8041 Jun 23 23:06	7°♋08'04	
	8041 Jul 23 03:35	0°♌	
max. Earth dist.	8041 Aug 01 21:36	7°♌32'09	2.37664 AU
morning rise	8041 Aug 29 18:54	28°♌42'14	
	8041 Aug 31 12:33	0°♍	
	8041 Oct 11 18:36	0°♎	
	8041 Nov 24 12:40	0°♏	
	8042 Jan 10 13:59	0°♐	
	8042 Mar 04 12:04	0°♑	
retrograde	8042 May 24 05:32	26°♑03'21	
desc. node	8042 Jun 09 03:51	24°♑26'22	
opposition	8042 Jul 02 21:36	16°♑48'59	-0°49'45
greatest brilliancy	8042 Jul 02 23:26	16°♑47'12	-1.4m
min. Earth dist.	8042 Jul 05 22:05	15°♑38'00	0.66595 AU
direct	8042 Aug 13 12:22	6°♑46'19	
	8042 Oct 26 02:26	0°♒	
	8042 Dec 16 02:58	0°♓	
	8043 Jan 28 22:44	0°♈	
	8043 Mar 10 07:19	0°♉	
	8043 Apr 17 20:32	0°♊	
asc. node	8043 May 11 23:33	19°♊04'02	
	8043 May 25 19:30	0°♋	
evening set	8043 Jun 24 16:35	23°♋24'52	
	8043 Jul 03 04:49	0°♌	
	8043 Aug 11 20:31	0°♍	
conjunction	8043 Aug 29 11:13	12°♍54'35	1°00'32
minimum elong	8043 Aug 29 09:18	12°♍51'07	1°00'28
	8043 Sep 22 09:00	0°♎	
max. Earth dist.	8043 Oct 08 23:15	11°♎34'16	2.51316 AU
morning rise	8043 Oct 25 20:25	23°♎06'41	
	8043 Nov 05 02:11	0°♏	
	8043 Dec 21 02:50	0°♐	
	8044 Feb 07 18:14	0°♑	
	8044 Mar 31 18:27	0°♒	
desc. node	8044 Apr 26 01:51	12°♒35'29	
	8044 Jun 15 03:22	0°♓	
retrograde	8044 Jul 02 02:41	1°♓37'09	
	8044 Jul 18 03:39	30°℞♒	
opposition	8044 Aug 08 14:20	23°♒23'26	-3°38'58
greatest brilliancy	8044 Aug 09 09:53	23°♒05'01	-1.7m
min. Earth dist.	8044 Aug 15 06:44	20°♒52'44	0.58867 AU
direct	8044 Sep 18 06:00	13°♒39'07	
	8044 Nov 13 21:51	0°♓	
	8045 Jan 03 11:59	0°♈	
	8045 Feb 14 18:25	0°♉	
	8045 Mar 26 03:55	0°♊	
asc. node	8045 Mar 28 23:59	2°♊11'58	
	8045 May 03 17:10	0°♋	
	8045 Jun 11 16:59	0°♌	
	8045 Jul 22 00:34	0°♍	
evening set	8045 Aug 25 21:06	24°♍53'51	
	8045 Sep 02 04:39	0°♎	
	8045 Oct 16 08:49	0°♏	
conjunction	8045 Oct 18 03:49	1°♏11'26	1°01'46
minimum elong	8045 Oct 18 04:51	1°♏13'09	1°01'50
max. Earth dist.	8045 Nov 07 07:09	14°♏26'40	2.62022 AU

	8045 Dec 01 08:01	0°♐	
morning rise	8045 Dec 05 07:26	2°♐32'53	
	8046 Jan 17 17:51	0°♑	
	8046 Mar 07 11:38	0°♒	
desc. node	8046 Mar 13 22:45	3°♒54'19	
	8046 Apr 27 07:54	0°♓	
	8046 Jun 23 12:35	0°♈	
retrograde	8046 Aug 24 21:54	17°♈21'18	
opposition	8046 Sep 27 06:17	10°♈54'33	-5°53'00
greatest brilliancy	8046 Sep 29 02:14	10°♈18'12	-2.3m
min. Earth dist.	8046 Oct 05 22:01	8°♈03'42	0.45855 AU
direct	8046 Nov 02 18:42	3°♈01'40	
	8047 Jan 13 17:12	0°♉	
asc. node	8047 Feb 13 23:41	20°♉36'21	
	8047 Feb 27 07:15	0°♊	
	8047 Apr 09 08:53	0°♋	
	8047 May 20 03:54	0°♌	
	8047 Jul 01 00:03	0°♍	
	8047 Aug 13 11:09	0°♎	
	8047 Sep 27 14:49	0°♏	
evening set	8047 Oct 10 14:35	8°♏27'28	
	8047 Nov 13 02:03	0°♐	
conjunction	8047 Nov 26 13:16	8°♐35'32	0°32'21
minimum elong	8047 Nov 26 14:11	8°♐37'01	0°32'28
max. Earth dist.	8047 Dec 01 01:23	11°♐27'38	2.67465 AU
	8047 Dec 30 06:10	0°♑	
morning rise	8048 Jan 09 20:35	6°♑43'12	
desc. node	8048 Jan 29 19:50	19°♑22'55	
	8048 Feb 15 13:21	0°♒	
	8048 Apr 02 16:02	0°♓	
	8048 May 19 15:59	0°♈	
	8048 Jul 06 02:58	0°♉	
	8048 Aug 25 05:07	0°♊	
retrograde	8048 Nov 10 08:58	27°♊37'29	
opposition	8048 Dec 10 07:26	22°♊38'10	-1°40'26
greatest brilliancy	8048 Dec 10 09:15	22°♊36'58	-3.1m
min. Earth dist.	8048 Dec 09 23:18	22°♊43'35	0.36614 AU
asc. node	8049 Jan 01 00:13	18°♊08'41	
direct	8049 Jan 08 19:40	17°♊44'31	
	8049 Feb 24 04:49	0°♋	
	8049 Apr 18 22:01	0°♌	
	8049 Jun 05 04:24	0°♍	
	8049 Jul 21 20:29	0°♎	
	8049 Sep 07 00:41	0°♏	
	8049 Oct 24 15:45	0°♐	
evening set	8049 Nov 16 10:38	14°♐20'45	
	8049 Dec 11 04:52	0°♑	
desc. node	8049 Dec 16 18:13	3°♑31'39	
max. Earth dist.	8049 Dec 22 15:24	7°♑16'12	2.67385 AU
conjunction	8049 Dec 31 03:20	12°♑41'31	-0°07'35
minimum elong	8049 Dec 31 03:06	12°♑41'08	0°07'26
behind sun begin	8049 Dec 30 10:32	12°♑14'41	
behind sun end	8049 Dec 31 19:39	13°♑07'36	
	8050 Jan 27 00:59	0°♒	
morning rise	8050 Feb 12 22:43	11°♒00'26	
	8050 Mar 13 16:57	0°♓	
	8050 Apr 27 00:12	0°♈	
	8050 Jun 08 23:12	0°♉	
	8050 Jul 20 19:47	0°♊	
	8050 Aug 31 05:37	0°♋	
	8050 Oct 12 20:51	0°♌	
asc. node	8050 Nov 18 23:31	23°♌16'09	
	8050 Dec 01 17:30	0°♍	
retrograde	8051 Jan 17 02:15	13°♍03'57	
min. Earth dist.	8051 Feb 13 15:09	7°♍49'06	0.45606 AU
greatest brilliancy	8051 Feb 20 12:45	5°♍25'13	-2.4m
opposition	8051 Feb 22 01:38	4°♍52'53	4°57'58
	8051 Mar 10 13:33	30°℞♌	
direct	8051 Mar 26 15:57	28°♌14'17	
	8051 Apr 12 14:27	0°♍	
	8051 Jun 23 21:27	0°♎	
	8051 Aug 15 23:59	0°♏	
	8051 Oct 05 05:54	0°♐	
desc. node	8051 Nov 03 17:48	18°♐04'08	
	8051 Nov 22 21:47	0°♑	
evening set	8051 Dec 22 10:17	18°♑42'36	
	8052 Jan 08 21:35	0°♒	
max. Earth dist.	8052 Jan 15 08:21	4°♒12'48	2.61875 AU
conjunction	8052 Feb 05 20:45	18°♒27'21	-0°46'01
minimum elong	8052 Feb 05 19:34	18°♒25'23	0°45'54
	8052 Feb 22 23:20	0°♓	
morning rise	8052 Mar 23 19:00	20°♓36'40	
	8052 Apr 06 01:49	0°♈	
	8052 May 17 09:14	0°♉	
	8052 Jun 26 07:09	0°♊	
	8052 Aug 04 10:11	0°♋	
	8052 Sep 12 16:01	0°♌	
asc. node	8052 Oct 05 20:31	17°♌18'41	
	8052 Oct 23 08:40	0°♍	
	8052 Dec 07 01:39	0°♎	
	8053 Feb 07 19:08	0°♏	
retrograde	8053 Mar 02 02:16	3°♏11'09	
	8053 Mar 23 07:51	30°℞♎	
min. Earth dist.	8053 Apr 04 13:29	25°♎44'02	0.58659 AU
opposition	8053 Apr 10 14:34	23°♎21'53	4°44'34
greatest brilliancy	8053 Apr 09 15:00	23°♎44'59	-1.7m
direct	8053 May 17 17:12	14°♎53'37	
	8053 Jul 14 14:34	0°♏	
	8053 Sep 12 00:09	0°♐	
desc. node	8053 Sep 20 18:00	4°♐54'18	
	8053 Nov 02 11:54	0°♑	
	8053 Dec 20 09:37	0°♒	
evening set	8054 Jan 29 11:06	26°♒35'23	
	8054 Feb 03 10:51	0°♓	
max. Earth dist.	8054 Feb 13 13:26	6°♓58'43	2.51362 AU
	8054 Mar 18 00:01	0°♈	
conjunction	8054 Mar 20 16:05	1°♈56'11	-1°06'51
minimum elong	8054 Mar 20 15:54	1°♈55'52	1°06'52
	8054 Apr 27 11:45	0°♉	
morning rise	8054 May 16 14:16	14°♉34'35	
	8054 Jun 05 12:34	0°♊	
	8054 Jul 13 20:03	0°♋	
	8054 Aug 21 06:45	0°♌	
asc. node	8054 Aug 23 19:02	1°♌56'21	
	8054 Sep 29 19:32	0°♍	
	8054 Nov 10 13:30	0°♎	
	8054 Dec 26 09:39	0°♏	
	8055 Feb 21 11:07	0°♐	
retrograde	8055 Apr 07 06:11	10°♐26'59	
min. Earth dist.	8055 May 15 12:37	1°♐24'26	0.66500 AU
opposition	8055 May 17 18:53	0°♐30'21	2°42'55
greatest brilliancy	8055 May 17 14:05	0°♐35'08	-1.4m
	8055 May 19 01:25	30°℞♏	
direct	8055 Jun 26 19:45	21°♏02'11	
desc. node	8055 Aug 08 18:03	29°♏55'49	
	8055 Aug 08 22:40	0°♐	
	8055 Oct 11 00:52	0°♑	
	8055 Nov 30 15:31	0°♒	
	8056 Jan 15 09:44	0°♓	
	8056 Feb 26 21:11	0°♈	

evening set	8056 Mar 18 12:34	15°♈15'26	
	8056 Apr 06 23:44	0°♉	
max. Earth dist.	8056 Apr 14 15:06	5°♉52'01	2.38243 AU
	8056 May 15 13:59	0°♊	
conjunction	8056 May 19 21:18	3°♊23'24	-0°35'28
minimum elong	8056 May 20 00:15	3°♊29'14	0°35'34
	8056 Jun 22 12:59	0°♋	
asc. node	8056 Jul 10 17:24	14°♋20'28	
	8056 Jul 30 18:08	0°♌	
morning rise	8056 Jul 31 11:15	0°♌33'13	
	8056 Sep 08 02:00	0°♍	
	8056 Oct 19 07:26	0°♎	
	8056 Dec 02 05:52	0°♏	
	8057 Jan 19 05:21	0°♐	
	8057 Mar 17 19:29	0°♑	
retrograde	8057 May 10 10:26	13°♑28'12	
opposition	8057 Jun 19 14:16	3°♑57'34	0°12'41
greatest brilliancy	8057 Jun 19 14:42	3°♑57'08	-1.3m
min. Earth dist.	8057 Jun 21 03:14	3°♑21'05	0.67852 AU
desc. node	8057 Jun 25 17:18	1°♑33'50	
	8057 Jun 29 22:06	30°℞♐	
direct	8057 Jul 31 01:44	23°♐59'19	
	8057 Sep 03 03:56	0°♑	
	8057 Nov 06 09:18	0°♒	
	8057 Dec 24 18:48	0°♓	
	8058 Feb 05 22:35	0°♈	
	8058 Mar 18 02:30	0°♉	
	8058 Apr 25 14:12	0°♊	
evening set	8058 May 26 00:49	24°♊05'57	
asc. node	8058 May 28 15:30	26°♊10'03	
	8058 Jun 02 11:43	0°♋	
	8058 Jul 10 18:26	0°♌	
conjunction	8058 Aug 04 01:00	18°♌34'50	0°43'40
minimum elong	8058 Aug 03 21:54	18°♌28'59	0°43'32
	8058 Aug 19 06:24	0°♍	
max. Earth dist.	8058 Sep 22 05:34	24°♍45'10	2.45939 AU
	8058 Sep 29 14:51	0°♎	
morning rise	8058 Oct 06 04:21	4°♎37'10	
	8058 Nov 12 06:03	0°♏	
	8058 Dec 28 11:35	0°♐	
	8059 Feb 16 03:04	0°♑	
	8059 Apr 14 08:30	0°♒	
desc. node	8059 May 13 15:39	11°♒25'42	
retrograde	8059 Jun 16 13:27	17°♒17'53	
opposition	8059 Jul 25 02:15	8°♒36'26	-2°32'51
greatest brilliancy	8059 Jul 25 12:47	8°♒26'19	-1.5m
min. Earth dist.	8059 Jul 30 09:18	6°♒34'28	0.62638 AU
	8059 Aug 20 23:49	30°℞♑	
direct	8059 Sep 04 09:44	28°♑38'12	
	8059 Sep 19 10:39	0°♒	
	8059 Nov 29 05:23	0°♓	
	8060 Jan 14 14:10	0°♈	
	8060 Feb 24 18:17	0°♉	
	8060 Apr 03 16:17	0°♊	
asc. node	8060 Apr 14 15:34	8°♊35'58	
	8060 May 11 21:37	0°♋	
	8060 Jun 19 13:45	0°♌	
	8060 Jul 29 13:25	0°♍	
evening set	8060 Aug 03 21:36	3°♍54'38	
	8060 Sep 09 09:47	0°♎	
conjunction	8060 Sep 30 08:08	14°♎28'18	1°06'40
minimum elong	8060 Sep 30 08:29	14°♎28'53	1°06'43
	8060 Oct 23 08:00	0°♏	
max. Earth dist.	8060 Oct 27 17:29	2°♏55'38	2.58434 AU
morning rise	8060 Nov 20 06:01	18°♏23'26	
	8060 Dec 08 05:34	0°♐	
	8061 Jan 24 22:36	0°♑	
	8061 Mar 15 18:10	0°♒	
desc. node	8061 Mar 30 13:40	8°♒33'57	
	8061 May 08 22:15	0°♓	
retrograde	8061 Aug 01 08:49	27°♓45'52	
opposition	8061 Sep 05 15:49	20°♓29'59	-5°14'47
greatest brilliancy	8061 Sep 07 04:27	19°♓57'30	-2.0m
min. Earth dist.	8061 Sep 14 02:13	17°♓31'19	0.51353 AU
direct	8061 Oct 14 08:31	11°♓36'14	
	8061 Dec 11 18:14	0°♈	
	8062 Jan 28 11:55	0°♉	
asc. node	8062 Mar 02 16:39	24°♉00'07	
	8062 Mar 10 17:23	0°♊	
	8062 Apr 19 07:34	0°♋	
	8062 May 29 02:48	0°♌	
	8062 Jul 09 04:00	0°♍	
	8062 Aug 20 23:41	0°♎	
evening set	8062 Sep 24 04:46	23°♎04'37	
	8062 Oct 04 15:54	0°♏	
conjunction	8062 Nov 11 23:59	24°♏56'57	0°45'44
minimum elong	8062 Nov 12 01:10	24°♏58'51	0°45'51
	8062 Nov 19 20:41	0°♐	
max. Earth dist.	8062 Nov 22 03:50	1°♐28'21	2.65999 AU
morning rise	8062 Dec 27 08:30	23°♐52'17	
	8063 Jan 06 01:06	0°♑	
desc. node	8063 Feb 15 10:37	25°♑25'23	
	8063 Feb 22 17:52	0°♒	
	8063 Apr 11 20:43	0°♓	
	8063 May 30 23:44	0°♈	
	8063 Jul 22 12:31	0°♉	
retrograde	8063 Oct 09 10:50	26°♉48'21	
opposition	8063 Nov 08 19:56	21°♉40'15	-4°44'56
greatest brilliancy	8063 Nov 09 21:25	21°♉22'27	-2.9m
min. Earth dist.	8063 Nov 13 23:22	20°♉14'33	0.38462 AU
direct	8063 Dec 10 10:20	15°♉57'26	
asc. node	8064 Jan 18 15:53	25°♉24'45	
	8064 Jan 28 11:16	0°♊	
	8064 Mar 18 20:09	0°♋	
	8064 May 02 07:45	0°♌	
	8064 Jun 15 09:06	0°♍	
	8064 Jul 30 08:21	0°♎	
	8064 Sep 14 12:25	0°♏	
	8064 Oct 31 13:53	0°♐	
evening set	8064 Nov 02 05:35	1°♐02'55	
max. Earth dist.	8064 Dec 13 23:38	27°♐30'22	2.68090 AU
conjunction	8064 Dec 17 10:00	29°♐41'06	0°08'22
minimum elong	8064 Dec 17 10:14	29°♐41'29	0°08'30
behind sun begin	8064 Dec 16 18:23	29°♐16'19	
behind sun end	8064 Dec 18 02:06	0°♑06'39	
	8064 Dec 17 21:55	0°♑	
desc. node	8065 Jan 02 07:57	9°♑48'27	
morning rise	8065 Jan 30 00:57	27°♑32'27	
	8065 Feb 02 20:41	0°♒	
	8065 Mar 20 23:19	0°♓	
	8065 May 05 01:38	0°♈	
	8065 Jun 18 04:23	0°♉	
	8065 Jul 31 15:28	0°♊	
	8065 Sep 13 13:01	0°♋	
	8065 Nov 01 08:07	0°♌	
asc. node	8065 Dec 05 15:51	14°♌16'47	
retrograde	8065 Dec 25 11:52	16°♌59'20	
min. Earth dist.	8066 Jan 20 10:47	12°♌29'50	0.40482 AU
opposition	8066 Jan 27 21:53	10°♌11'03	3°31'15

greatest brilliancy	8066 Jan 26 20:51	10°♌30'37	-2.8m
direct	8066 Feb 27 13:54	4°♌30'08	
	8066 May 14 00:47	0°♍	
	8066 Jul 05 21:48	0°♎	
	8066 Aug 24 17:25	0°♏	
	8066 Oct 12 15:56	0°♐	
desc. node	8066 Nov 20 07:12	24°♐02'03	
	8066 Nov 29 18:47	0°♑	
evening set	8066 Dec 08 08:58	5°♑25'50	
max. Earth dist.	8067 Jan 05 18:17	23°♑35'11	2.64676 AU
	8067 Jan 15 15:48	0°♒	
conjunction	8067 Jan 22 03:07	4°♒13'17	-0°32'05
minimum elong	8067 Jan 22 02:12	4°♒11'48	0°31'58
	8067 Mar 01 21:54	0°♓	
morning rise	8067 Mar 08 06:20	4°♓18'19	
	8067 Apr 14 09:55	0°♈	
	8067 May 26 05:59	0°♉	
	8067 Jul 05 17:45	0°♊	
	8067 Aug 14 10:57	0°♋	
	8067 Sep 23 09:27	0°♌	
asc. node	8067 Oct 23 15:21	21°♌53'06	
	8067 Nov 04 08:42	0°♍	
	8067 Dec 23 12:52	0°♎	
retrograde	8068 Feb 15 04:10	16°♎07'21	
min. Earth dist.	8068 Mar 17 08:31	9°♎29'03	0.53960 AU
greatest brilliancy	8068 Mar 23 09:32	7°♎10'42	-1.9m
opposition	8068 Mar 24 17:38	6°♎40'00	5°12'57
	8068 Apr 15 18:02	30°℞♍	
direct	8068 Apr 29 05:59	28°♍47'21	
	8068 May 13 12:04	0°♎	
	8068 Jul 28 19:22	0°♏	
	8068 Sep 20 20:44	0°♐	
desc. node	8068 Oct 07 07:04	9°♐39'11	
	8068 Nov 09 22:21	0°♑	
	8068 Dec 27 09:07	0°♒	
evening set	8069 Jan 13 14:01	11°♒16'47	
max. Earth dist.	8069 Jan 31 14:00	23°♒19'29	2.56013 AU
	8069 Feb 10 09:26	0°♓	
conjunction	8069 Mar 02 06:27	13°♓45'55	-1°02'32
minimum elong	8069 Mar 02 05:29	13°♓44'13	1°02'29
	8069 Mar 25 03:00	0°♈	
morning rise	8069 Apr 23 02:03	21°♈10'47	
	8069 May 04 21:28	0°♉	
	8069 Jun 13 05:22	0°♊	
	8069 Jul 21 19:05	0°♋	
	8069 Aug 29 10:52	0°♌	
asc. node	8069 Sep 09 12:35	8°♌28'17	
	8069 Oct 08 05:46	0°♍	
	8069 Nov 19 13:46	0°♎	
	8070 Jan 06 11:56	0°♏	
retrograde	8070 Mar 24 17:07	26°♏58'18	
min. Earth dist.	8070 Apr 30 06:40	18°♏28'47	0.64165 AU
opposition	8070 May 04 00:52	16°♏59'04	3°35'11
greatest brilliancy	8070 May 03 13:59	17°♏09'54	-1.5m
direct	8070 Jun 12 02:39	7°♏50'07	
desc. node	8070 Aug 25 07:12	0°♐07'12	
	8070 Aug 25 01:11	0°♐	
	8070 Oct 20 01:16	0°♑	
	8070 Dec 08 06:35	0°♒	
	8071 Jan 22 15:53	0°♓	
evening set	8071 Feb 26 14:46	24°♓33'40	
	8071 Mar 06 03:04	0°♈	
max. Earth dist.	8071 Mar 13 09:09	5°♈18'16	2.43206 AU
	8071 Apr 15 08:23	0°♉	

conjunction	8071 Apr 24 04:43	6°♉46'22	-0°56'48
minimum elong	8071 Apr 24 07:02	6°♉50'49	0°56'53
	8071 May 24 01:56	0°♊	
morning rise	8071 Jun 30 20:12	29°♊45'45	
	8071 Jul 01 03:25	0°♋	
asc. node	8071 Jul 28 09:37	21°♋25'42	
	8071 Aug 08 09:40	0°♌	
	8071 Sep 16 17:53	0°♍	
	8071 Oct 28 01:16	0°♎	
	8071 Dec 11 09:17	0°♏	
	8072 Jan 30 00:44	0°♐	
	8072 Apr 14 08:37	0°♑	
retrograde	8072 Apr 27 01:29	0°♑57'57	
	8072 May 09 06:19	30°℞♐	
opposition	8072 Jun 06 12:21	21°♐14'34	1°12'59
greatest brilliancy	8072 Jun 06 12:43	21°♐14'12	-1.3m
min. Earth dist.	8072 Jun 06 13:47	21°♐13'08	0.68100 AU
desc. node	8072 Jul 12 07:30	11°♐35'29	
direct	8072 Jul 17 14:24	11°♐25'11	
	8072 Sep 21 10:02	0°♑	
	8072 Nov 15 20:31	0°♒	
	8073 Jan 01 20:16	0°♓	
	8073 Feb 13 15:16	0°♈	
	8073 Mar 25 17:33	0°♉	
evening set	8073 Apr 26 20:54	24°♉59'43	
	8073 May 03 05:24	0°♊	
	8073 Jun 10 02:37	0°♋	
asc. node	8073 Jun 14 08:52	3°♋22'18	
conjunction	8073 Jul 06 01:43	20°♋27'16	0°15'28
minimum elong	8073 Jul 06 00:04	20°♋24'03	0°15'18
behind sun begin	8073 Jul 05 14:40	20°♋05'38	
behind sun end	8073 Jul 06 09:29	20°♋42'27	
	8073 Jul 18 07:35	0°♌	
	8073 Aug 26 16:35	0°♍	
max. Earth dist.	8073 Aug 28 00:34	0°♍59'36	2.40352 AU
morning rise	8073 Sep 13 08:31	13°♍02'36	
	8073 Oct 06 22:12	0°♎	
	8073 Nov 19 13:23	0°♏	
	8074 Jan 05 04:29	0°♐	
	8074 Feb 25 11:45	0°♑	
	8074 May 05 07:33	0°♒	
desc. node	8074 May 30 06:52	3°♒53'22	
retrograde	8074 Jun 01 10:05	3°♒55'01	
	8074 Jun 26 09:42	30°℞♑	
opposition	8074 Jul 10 18:12	24°♑51'13	-1°27'16
greatest brilliancy	8074 Jul 10 22:23	24°♑47'09	-1.4m
min. Earth dist.	8074 Jul 14 14:28	23°♑21'25	0.65450 AU
direct	8074 Aug 21 08:38	14°♑48'20	
	8074 Oct 16 21:49	0°♒	
	8074 Dec 09 23:46	0°♓	
	8075 Jan 23 12:40	0°♈	
	8075 Mar 05 03:13	0°♉	
	8075 Apr 12 19:12	0°♊	
asc. node	8075 May 02 07:55	15°♊23'56	
	8075 May 20 20:05	0°♋	
	8075 Jun 28 07:10	0°♌	
evening set	8075 Jul 10 11:56	9°♌20'14	
	8075 Aug 07 00:48	0°♍	
conjunction	8075 Sep 11 04:11	25°♍26'34	1°05'13
minimum elong	8075 Sep 11 03:13	25°♍24'52	1°05'11
	8075 Sep 17 15:02	0°♎	
max. Earth dist.	8075 Oct 16 16:37	20°♎06'17	2.54045 AU
	8075 Oct 31 08:38	0°♏	
morning rise	8075 Nov 04 21:29	3°♏01'38	
	8075 Dec 16 06:35	0°♐	

	8076 Feb 02 11:15	0°♉	
	8076 Mar 24 23:06	0°♒	
desc. node	8076 Apr 16 04:23	11°♒54'15	
	8076 May 25 10:22	0°♓	
retrograde	8076 Jul 12 06:58	10°♓50'06	
opposition	8076 Aug 18 02:32	2°♓54'34	-4°16'06
greatest brilliancy	8076 Aug 19 04:10	2°♓30'50	-1.8m
	8076 Aug 25 23:52	30°℞♒	
min. Earth dist.	8076 Aug 25 12:45	0°♓10'03	0.56397 AU
direct	8076 Sep 27 05:45	23°♒23'11	
	8076 Oct 30 20:08	0°♓	
	8076 Dec 27 04:11	0°♈	
	8077 Feb 08 14:50	0°♉	
asc. node	8077 Mar 19 08:03	29°♉07'43	
	8077 Mar 20 11:17	0°♊	
	8077 Apr 28 07:02	0°♋	
	8077 Jun 06 11:52	0°♌	
	8077 Jul 17 00:08	0°♍	
	8077 Aug 28 08:28	0°♎	
evening set	8077 Sep 06 03:23	6°♎03'23	
	8077 Oct 11 15:43	0°♏	
conjunction	8077 Oct 27 13:00	10°♏28'18	0°56'50
minimum elong	8077 Oct 27 14:11	10°♏30'15	0°56'56
max. Earth dist.	8077 Nov 12 23:16	21°♏10'11	2.63686 AU
	8077 Nov 26 15:53	0°♐	
morning rise	8077 Dec 13 11:53	10°♐45'33	
	8078 Jan 12 22:39	0°♑	
	8078 Mar 02 05:18	0°♒	
desc. node	8078 Mar 04 01:26	1°♒07'46	
	8078 Apr 20 20:06	0°♓	
	8078 Jun 12 19:50	0°♈	
	8078 Aug 30 22:58	0°♉	
retrograde	8078 Sep 08 23:06	0°♉29'28	
	8078 Sep 17 17:32	30°℞♈	
opposition	8078 Oct 11 04:07	24°♈32'08	-5°53'41
greatest brilliancy	8078 Oct 12 22:55	23°♈58'27	-2.5m
min. Earth dist.	8078 Oct 19 06:04	22°♈00'36	0.42907 AU
direct	8078 Nov 15 02:20	17°♈22'38	
	8078 Dec 30 20:51	0°♉	
asc. node	8079 Feb 04 09:34	20°♉27'34	
	8079 Feb 18 19:49	0°♊	
	8079 Apr 02 10:48	0°♋	
	8079 May 14 01:44	0°♌	
	8079 Jun 25 11:11	0°♍	
	8079 Aug 08 08:03	0°♎	
	8079 Sep 22 18:31	0°♏	
evening set	8079 Oct 19 11:07	17°♏14'25	
	8079 Nov 08 09:48	0°♐	
conjunction	8079 Dec 04 14:57	16°♐40'36	0°23'46
minimum elong	8079 Dec 04 15:39	16°♐41'43	0°23'54
max. Earth dist.	8079 Dec 06 04:32	17°♐40'17	2.67932 AU
	8079 Dec 25 14:45	0°♑	
morning rise	8080 Jan 17 13:06	14°♑34'03	
desc. node	8080 Jan 19 22:22	16°♑05'07	
	8080 Feb 10 18:12	0°♒	
	8080 Mar 28 11:03	0°♓	
	8080 May 13 15:35	0°♈	
	8080 Jun 28 13:36	0°♉	
	8080 Aug 14 03:12	0°♊	
	8080 Oct 04 14:42	0°♋	
retrograde	8080 Nov 27 20:37	16°♋15'04	
asc. node	8080 Dec 22 09:43	12°♋33'08	
min. Earth dist.	8080 Dec 25 02:30	11°♋49'32	0.37132 AU
opposition	8080 Dec 28 16:58	10°♋50'08	0°28'56
greatest brilliancy	8080 Dec 28 14:55	10°♋51'32	-3.0m
direct	8081 Jan 26 23:52	5°♋53'18	
	8081 Apr 07 19:38	0°♌	
	8081 May 28 19:32	0°♍	
	8081 Jul 15 22:11	0°♎	
	8081 Sep 01 19:41	0°♏	
	8081 Oct 19 20:00	0°♐	
evening set	8081 Nov 24 10:53	22°♐21'08	
desc. node	8081 Dec 06 20:23	0°♑10'58	
	8081 Dec 06 13:28	0°♑	
max. Earth dist.	8081 Dec 27 19:13	13°♑30'42	2.66656 AU
conjunction	8082 Jan 08 01:02	20°♑43'16	-0°16'50
minimum elong	8082 Jan 08 00:32	20°♑42'28	0°16'41
	8082 Jan 22 09:45	0°♒	
morning rise	8082 Feb 21 03:44	19°♒29'47	
	8082 Mar 08 22:10	0°♓	
	8082 Apr 21 22:07	0°♈	
	8082 Jun 03 10:23	0°♉	
	8082 Jul 14 17:03	0°♊	
	8082 Aug 24 08:15	0°♋	
	8082 Oct 04 14:06	0°♌	
asc. node	8082 Nov 09 07:40	24°♌12'25	
	8082 Nov 18 15:41	0°♍	
retrograde	8083 Jan 28 07:29	26°♍19'21	
min. Earth dist.	8083 Feb 26 02:57	20°♍34'40	0.48657 AU
greatest brilliancy	8083 Mar 04 20:37	18°♍07'55	-2.2m
opposition	8083 Mar 06 10:08	17°♍33'41	5°16'07
direct	8083 Apr 09 02:09	10°♍25'56	
	8083 Jun 14 03:56	0°♎	
	8083 Aug 09 16:33	0°♏	
	8083 Sep 29 23:55	0°♐	
desc. node	8083 Oct 24 20:33	15°♐02'30	
	8083 Nov 18 02:23	0°♑	
evening set	8083 Dec 30 16:04	27°♑01'50	
	8084 Jan 04 05:54	0°♒	
max. Earth dist.	8084 Jan 21 07:51	11°♒12'21	2.60002 AU
conjunction	8084 Feb 14 16:57	27°♒32'46	-0°53'06
minimum elong	8084 Feb 14 15:44	27°♒30'42	0°53'01
	8084 Feb 18 07:30	0°♓	
	8084 Apr 01 07:11	0°♈	
morning rise	8084 Apr 03 00:26	1°♈13'44	
	8084 May 12 10:12	0°♉	
	8084 Jun 21 02:54	0°♊	
	8084 Jul 30 00:34	0°♋	
	8084 Sep 06 23:51	0°♌	
asc. node	8084 Sep 26 06:08	14°♌32'52	
	8084 Oct 17 05:23	0°♍	
	8084 Nov 29 16:17	0°♎	
	8085 Jan 21 16:26	0°♏	
retrograde	8085 Mar 10 14:05	12°♏31'44	
min. Earth dist.	8085 Apr 14 05:22	4°♏40'38	0.60876 AU
opposition	8085 Apr 19 11:17	2°♏36'20	4°21'51
greatest brilliancy	8085 Apr 18 16:35	2°♏54'48	-1.6m
	8085 Apr 26 06:11	30°℞♎	
direct	8085 May 27 08:43	23°♎51'42	
	8085 Jun 30 20:41	0°♏	
	8085 Sep 05 11:43	0°♐	
desc. node	8085 Sep 10 21:06	2°♐54'10	
	8085 Oct 28 05:48	0°♑	
	8085 Dec 15 13:40	0°♒	
	8086 Jan 29 17:53	0°♓	
evening set	8086 Feb 08 03:58	6°♓29'50	
max. Earth dist.	8086 Feb 22 06:34	16°♓23'06	2.48532 AU
	8086 Mar 13 06:44	0°♈	
conjunction	8086 Apr 01 06:22	13°♈55'35	-1°06'04

minimum elong	8086 Apr 01 06:59	13°♈56'42	1°06'06
	8086 Apr 22 16:34	0°♉	
morning rise	8086 May 31 18:33	0°♊07'01	
	8086 May 31 14:58	0°♊	
	8086 Jul 08 20:21	0°♋	
greatest brilliancy	8086 Aug 12 19:50	27°♋22'34	1.2m
asc. node	8086 Aug 14 03:34	28°♋24'10	
	8086 Aug 16 05:01	0°♌	
	8086 Sep 24 15:02	0°♍	
	8086 Nov 05 03:02	0°♎	
	8086 Dec 20 04:21	0°♏	
	8087 Feb 11 02:27	0°♐	
retrograde	8087 Apr 14 20:01	18°♐19'19	
min. Earth dist.	8087 May 23 23:26	9°♐00'25	0.67348 AU
opposition	8087 May 25 09:39	8°♐26'23	2°10'40
greatest brilliancy	8087 May 25 07:22	8°♐28'38	-1.3m
	8087 Jun 21 04:38	30°℞♏	
direct	8087 Jul 04 21:08	28°♏49'26	
	8087 Jul 19 05:57	0°♐	
desc. node	8087 Jul 29 21:09	2°♐10'36	
	8087 Oct 04 09:49	0°♑	
	8087 Nov 25 08:12	0°♒	
	8088 Jan 10 11:58	0°♓	
	8088 Feb 22 02:09	0°♈	
evening set	8088 Mar 31 17:54	28°♈53'29	
	8088 Apr 02 04:40	0°♉	
	8088 May 10 17:55	0°♊	
max. Earth dist.	8088 Jun 02 13:34	18°♊02'23	2.36605 AU
conjunction	8088 Jun 05 12:58	20°♊23'47	-0°18'12
minimum elong	8088 Jun 05 14:53	20°♊27'34	0°18'20
	8088 Jun 17 16:02	0°♋	
asc. node	8088 Jul 01 00:25	10°♋32'50	
	8088 Jul 25 20:37	0°♌	
morning rise	8088 Aug 17 12:00	17°♌25'12	
	8088 Sep 03 04:04	0°♍	
	8088 Oct 14 08:29	0°♎	
	8088 Nov 27 02:14	0°♏	
	8089 Jan 13 09:31	0°♐	
	8089 Mar 08 15:57	0°♑	
retrograde	8089 May 18 05:32	21°♑07'21	
desc. node	8089 Jun 15 20:29	15°♑59'35	
opposition	8089 Jun 27 03:59	11°♑45'17	-0°23'35
greatest brilliancy	8089 Jun 27 04:40	11°♑44'37	-1.3m
min. Earth dist.	8089 Jun 29 12:52	10°♑49'26	0.67291 AU
direct	8089 Aug 07 18:28	1°♑44'00	
	8089 Oct 30 09:36	0°♒	
	8089 Dec 19 06:01	0°♓	
	8090 Jan 31 20:04	0°♈	
	8090 Mar 13 03:28	0°♉	
	8090 Apr 20 16:17	0°♊	
asc. node	8090 May 19 00:43	22°♊25'45	
	8090 May 28 14:24	0°♋	
greatest brilliancy	8090 Jun 07 01:50	7°♋28'41	1.2m
evening set	8090 Jun 11 20:34	11°♋14'24	
	8090 Jul 05 21:45	0°♌	
	8090 Aug 14 10:31	0°♍	
conjunction	8090 Aug 18 21:14	3°♍17'42	0°54'45
minimum elong	8090 Aug 18 18:38	3°♍12'54	0°54'39
	8090 Sep 24 19:51	0°♎	
max. Earth dist.	8090 Oct 02 07:47	5°♎16'25	2.48973 AU
morning rise	8090 Oct 17 16:43	15°♎55'58	
	8090 Nov 07 10:27	0°♏	
	8090 Dec 23 11:28	0°♐	
	8091 Feb 10 10:14	0°♑	
	8091 Apr 05 17:49	0°♒	
desc. node	8091 May 03 18:40	12°♒57'07	
retrograde	8091 Jun 25 18:04	25°♒48'13	
opposition	8091 Aug 02 18:18	17°♒21'22	-3°11'07
greatest brilliancy	8091 Aug 03 09:38	17°♒06'48	-1.6m
min. Earth dist.	8091 Aug 08 20:36	15°♒02'34	0.60675 AU
direct	8091 Sep 12 18:49	7°♒29'32	
	8091 Nov 20 22:39	0°♓	
	8092 Jan 08 09:35	0°♈	
	8092 Feb 19 04:24	0°♉	
	8092 Mar 29 08:42	0°♊	
asc. node	8092 Apr 05 01:39	5°♊13'33	
	8092 May 06 18:03	0°♋	
	8092 Jun 14 13:28	0°♌	
	8092 Jul 24 16:04	0°♍	
evening set	8092 Aug 16 17:04	16°♍39'02	
	8092 Sep 04 15:15	0°♎	
conjunction	8092 Oct 10 17:14	24°♎42'06	1°04'27
minimum elong	8092 Oct 10 18:03	24°♎43'27	1°04'30
	8092 Oct 18 15:11	0°♏	
max. Earth dist.	8092 Nov 03 00:35	10°♏11'28	2.60514 AU
morning rise	8092 Nov 28 23:50	27°♏05'25	
	8092 Dec 03 12:25	0°♐	
	8093 Jan 20 00:06	0°♑	
	8093 Mar 10 02:58	0°♒	
desc. node	8093 Mar 20 15:25	6°♒15'15	
	8093 May 01 02:28	0°♓	
	8093 Jul 02 17:42	0°♈	
retrograde	8093 Aug 14 04:19	8°♈55'30	
opposition	8093 Sep 17 10:00	2°♈05'45	-5°40'11
greatest brilliancy	8093 Sep 19 03:47	1°♈29'56	-2.2m
	8093 Sep 23 12:31	30°℞♓	
min. Earth dist.	8093 Sep 26 02:29	29°♓07'51	0.48333 AU
direct	8093 Oct 25 00:30	23°♓42'16	
	8093 Nov 25 14:38	0°♈	
	8094 Jan 20 04:44	0°♉	
asc. node	8094 Feb 21 01:10	22°♉04'11	
	8094 Mar 03 22:51	0°♊	
	8094 Apr 13 05:55	0°♋	
	8094 May 23 12:23	0°♌	
	8094 Jul 03 22:07	0°♍	
	8094 Aug 16 00:45	0°♎	
	8094 Sep 29 21:49	0°♏	
evening set	8094 Oct 03 17:16	2°♏29'55	
	8094 Nov 15 05:15	0°♐	
conjunction	8094 Nov 20 09:53	3°♐19'27	0°38'07
minimum elong	8094 Nov 20 10:57	3°♐21'08	0°38'15
max. Earth dist.	8094 Nov 27 09:32	7°♐47'06	2.66911 AU
	8095 Jan 01 08:54	0°♑	
morning rise	8095 Jan 04 03:04	1°♑44'42	
desc. node	8095 Feb 05 12:19	22°♑13'15	
	8095 Feb 17 19:48	0°♒	
	8095 Apr 06 08:20	0°♓	
	8095 May 24 03:45	0°♈	
	8095 Jul 12 07:04	0°♉	
	8095 Sep 05 16:28	0°♊	
retrograde	8095 Oct 27 23:39	14°♊07'31	
opposition	8095 Nov 26 18:02	9°♊12'25	-3°12'59
greatest brilliancy	8095 Nov 27 04:46	9°♊05'15	-3.0m
min. Earth dist.	8095 Nov 29 02:26	8°♊34'49	0.37018 AU
direct	8095 Dec 26 22:36	4°♊04'53	
asc. node	8096 Jan 09 01:19	5°♊14'10	
	8096 Mar 07 13:11	0°♋	
	8096 Apr 24 12:35	0°♌	
	8096 Jun 09 01:12	0°♍	
	8096 Jul 24 20:10	0°♎	

	8096 Sep 09 11:56	0°♏	
	8096 Oct 26 20:14	0°♐	
evening set	8096 Nov 10 10:02	9°♐12'10	
	8096 Dec 13 06:56	0°♑	
max. Earth dist.	8096 Dec 19 00:57	3°♑39'09	2.67803 AU
desc. node	8096 Dec 23 10:36	6°♑27'12	
conjunction	8096 Dec 25 06:30	7°♑37'05	-0°00'59
minimum elong	8096 Dec 25 06:26	7°♑36'59	0°00'49
behind sun begin	8096 Dec 24 12:08	7°♑07'51	
behind sun end	8096 Dec 26 00:45	8°♑06'08	
	8097 Jan 29 04:21	0°♒	
morning rise	8097 Feb 06 22:30	5°♒40'05	
	8097 Mar 16 01:27	0°♓	
	8097 Apr 29 17:13	0°♈	
	8097 Jun 12 04:08	0°♉	
	8097 Jul 24 15:53	0°♊	
	8097 Sep 04 22:37	0°♋	
	8097 Oct 19 05:49	0°♌	
asc. node	8097 Nov 26 01:32	21°♌24'01	
	8097 Dec 18 23:11	0°♍	
retrograde	8098 Jan 07 17:07	2°♍43'50	
	8098 Jan 27 04:12	30℞♌	
min. Earth dist.	8098 Feb 03 09:48	27°♌51'39	0.43194 AU
greatest brilliancy	8098 Feb 10 05:48	25°♌35'27	-2.6m
opposition	8098 Feb 11 15:37	25°♌07'05	4°31'27
direct	8098 Mar 15 08:45	18°♌54'07	
	8098 Apr 30 09:26	0°♍	
	8098 Jun 28 13:30	0°♎	
	8098 Aug 19 00:13	0°♏	
	8098 Oct 07 15:24	0°♐	
desc. node	8098 Nov 10 10:11	20°♐50'31	
	8098 Nov 25 01:45	0°♑	
evening set	8098 Dec 16 08:48	13°♑28'21	
max. Earth dist.	8099 Jan 11 05:05	0°♒06'46	2.63222 AU
	8099 Jan 11 00:55	0°♒	
conjunction	8099 Jan 30 10:22	12°♒43'20	-0°40'26
minimum elong	8099 Jan 30 09:17	12°♒41'32	0°40'19
	8099 Feb 25 05:31	0°♓	
morning rise	8099 Mar 17 11:06	13°♓51'16	
	8099 Apr 09 12:57	0°♈	
	8099 May 21 02:35	0°♉	
	8099 Jun 30 06:42	0°♊	
	8099 Aug 08 15:41	0°♋	
	8099 Sep 17 03:27	0°♌	
asc. node	8099 Oct 13 22:30	19°♌47'34	
	8099 Oct 28 05:24	0°♍	
	8099 Dec 13 03:26	0°♎	
retrograde	8100 Feb 24 10:30	26°♎34'31	
min. Earth dist.	8100 Mar 28 21:44	19°♎28'25	0.56664 AU
greatest brilliancy	8100 Apr 03 10:21	17°♎19'52	-1.8m
opposition	8100 Apr 04 13:44	16°♎53'16	4°59'01
direct	8100 May 11 00:46	8°♎39'45	
	8100 Jul 21 07:26	0°♏	
	8100 Sep 16 00:57	0°♐	
desc. node	8100 Sep 28 10:16	7°♐06'12	
	8100 Nov 05 21:52	0°♑	
	8100 Dec 23 15:45	0°♒	
evening set	8101 Jan 23 10:52	20°♒18'20	
	8101 Feb 06 17:55	0°♓	
max. Earth dist.	8101 Feb 08 15:14	1°♓17'38	2.53527 AU
conjunction	8101 Mar 13 09:43	24°♓14'31	-1°05'49
minimum elong	8101 Mar 13 09:07	24°♓13'28	1°05'48
	8101 Mar 21 10:12	0°♈	
	8101 May 01 01:51	0°♉	
morning rise	8101 May 06 20:12	4°♉21'22	
	8101 Jun 09 06:09	0°♊	
	8101 Jul 17 16:18	0°♋	
	8101 Aug 25 04:35	0°♌	
asc. node	8101 Aug 31 20:31	5°♌07'55	
	8101 Oct 03 18:27	0°♍	
	8101 Nov 14 15:46	0°♎	
	8101 Dec 31 01:37	0°♏	