conjunction	10100 Jan 04 00:33	19°♑18'45	0°03'37
minimum elong	10100 Jan 04 00:40	19°♑18'56	0°04'04
behind sun begin	10100 Jan 03 06:25	18°♑49'57	
behind sun end	10100 Jan 04 18:54	19°♑47'55	
max. Earth dist.	10100 Jan 07 16:19	21°♑38'14	2.67775 AU
desc. node	10100 Jan 10 18:56	23°♑36'44	
	10100 Jan 20 20:32	0°♒	
morning rise	10100 Feb 16 22:08	17°♒09'27	
	10100 Mar 09 04:04	0°♓	
	10100 Apr 25 06:56	0°♈	
	10100 Jun 11 02:45	0°♉	
	10100 Jul 27 22:13	0°♊	
	10100 Sep 13 19:37	0°♋	
	10100 Nov 07 13:41	0°♌	
retrograde	10100 Dec 23 01:21	11°♌43'02	
asc. node	10100 Dec 31 04:20	11°♌16'35	
min. Earth dist.	10101 Jan 20 14:57	7°♌03'39	0.36514 AU
opposition	10101 Jan 22 02:57	6°♌39'34	1°42'45
greatest brilliancy	10101 Jan 21 23:07	6°♌42'08	-3.1m
direct	10101 Feb 20 10:14	1°♌48'03	
	10101 May 08 11:56	0°♍	
	10101 Jun 26 18:52	0°♎	
	10101 Aug 13 00:02	0°♏	
	10101 Sep 29 07:57	0°♐	
	10101 Nov 16 01:29	0°♑	
desc. node	10101 Nov 28 18:08	7°♑57'48	
evening set	10101 Dec 25 21:14	25°♑00'52	
	10102 Jan 02 19:02	0°♒	
max. Earth dist.	10102 Jan 30 02:02	17°♒18'15	2.67319 AU
conjunction	10102 Feb 08 05:43	23°♒08'59	-0°35'57
minimum elong	10102 Feb 08 04:47	23°♒07'29	0°35'39
	10102 Feb 18 21:56	0°♓	
morning rise	10102 Mar 23 23:05	21°♓27'37	
	10102 Apr 05 22:13	0°♈	
	10102 May 20 13:17	0°♉	
	10102 Jul 02 18:07	0°♊	
	10102 Aug 13 16:26	0°♋	
	10102 Sep 23 19:48	0°♌	
	10102 Nov 04 07:58	0°♍	
asc. node	10102 Nov 18 03:09	9°♍37'37	
	10102 Dec 19 09:42	0°♎	
retrograde	10103 Feb 26 22:29	25°♎54'44	
min. Earth dist.	10103 Mar 26 20:51	20°♎30'33	0.46578 AU
greatest brilliancy	10103 Apr 02 14:18	18°♎08'07	-2.3m
opposition	10103 Apr 04 07:01	17°♎31'58	5°46'53
direct	10103 May 07 05:45	10°♎44'17	
	10103 Jul 11 07:58	0°♏	
	10103 Sep 05 16:55	0°♐	
desc. node	10103 Oct 16 20:09	23°♐57'24	
	10103 Oct 26 23:28	0°♑	
	10103 Dec 15 06:15	0°♒	
evening set	10104 Jan 30 15:28	29°♒15'05	
	10104 Jan 31 19:24	0°♓	
max. Earth dist.	10104 Feb 22 19:52	14°♓18'44	2.61434 AU
conjunction	10104 Mar 16 01:23	29°♓04'14	-1°03'37
minimum elong	10104 Mar 16 00:31	29°♓02'46	1°03'34
	10104 Mar 17 10:35	0°♈	
	10104 Apr 30 01:25	0°♉	
morning rise	10104 May 02 10:59	1°♉41'24	
	10104 Jun 10 18:52	0°♊	
	10104 Jul 20 22:54	0°♋	
	10104 Aug 29 02:49	0°♌	
asc. node	10104 Oct 04 21:30	28°♌20'04	
	10104 Oct 07 01:41	0°♍	
	10104 Nov 15 23:07	0°♎	
	10104 Dec 28 16:54	0°♏	
	10105 Feb 17 21:50	0°♐	
retrograde	10105 Apr 10 22:00	14°♐37'53	
min. Earth dist.	10105 May 14 20:01	7°♐02'25	0.59431 AU
opposition	10105 May 20 15:11	4°♐45'57	3°40'35
greatest brilliancy	10105 May 19 21:47	5°♐03'01	-1.7m
	10105 Jun 02 21:08	30°℞♏	
direct	10105 Jun 27 02:15	26°♏12'05	
	10105 Jul 23 13:00	0°♐	
desc. node	10105 Sep 03 00:13	15°♐41'52	
	10105 Oct 01 19:00	0°♑	
	10105 Nov 24 04:56	0°♒	
	10106 Jan 12 03:21	0°♓	
	10106 Feb 26 23:35	0°♈	
evening set	10106 Mar 09 21:24	7°♈24'58	
max. Earth dist.	10106 Mar 24 13:43	17°♈33'54	2.50572 AU
	10106 Apr 11 04:19	0°♉	
conjunction	10106 Apr 29 17:01	13°♉23'15	-1°02'53
minimum elong	10106 Apr 29 18:22	13°♉25'43	1°03'09
	10106 May 22 03:48	0°♊	
morning rise	10106 Jun 27 06:18	27°♊30'37	
	10106 Jun 30 11:30	0°♋	
	10106 Aug 07 20:26	0°♌	
asc. node	10106 Aug 22 17:03	11°♌41'04	
	10106 Sep 15 02:10	0°♍	
	10106 Oct 24 02:43	0°♎	
	10106 Dec 03 23:27	0°♏	
	10107 Jan 17 03:20	0°♐	
	10107 Mar 09 09:12	0°♑	
retrograde	10107 May 16 16:15	21°♑14'58	
min. Earth dist.	10107 Jun 24 06:49	12°♑07'48	0.66898 AU
opposition	10107 Jun 26 07:55	11°♑19'00	0°54'24
greatest brilliancy	10107 Jun 26 06:32	11°♑20'22	-1.4m
desc. node	10107 Jul 22 03:14	3°♑06'33	
direct	10107 Aug 05 14:13	1°♑47'49	
	10107 Oct 30 16:02	0°♒	
	10107 Dec 22 18:50	0°♓	
	10108 Feb 07 18:48	0°♈	
	10108 Mar 22 02:09	0°♉	
evening set	10108 Apr 27 23:40	27°♉09'08	
	10108 May 01 18:09	0°♊	
max. Earth dist.	10108 May 29 21:07	21°♊35'29	2.37468 AU
	10108 Jun 09 15:40	0°♋	
conjunction	10108 Jul 01 03:49	16°♋56'01	-0°06'09
minimum elong	10108 Jul 01 04:29	16°♋57'21	0°06'34
behind sun begin	10108 Jun 30 01:03	16°♋03'07	
behind sun end	10108 Jul 02 07:56	17°♋51'36	
asc. node	10108 Jul 09 13:48	23°♋35'42	
	10108 Jul 17 15:52	0°♌	
	10108 Aug 24 16:02	0°♍	
morning rise	10108 Sep 12 17:52	14°♍50'40	
	10108 Oct 02 13:05	0°♎	
	10108 Nov 12 02:35	0°♏	
	10108 Dec 25 02:49	0°♐	
	10109 Feb 09 14:23	0°♑	
	10109 Apr 03 12:22	0°♒	
desc. node	10109 Jun 08 02:42	23°♒22'11	
retrograde	10109 Jun 18 20:27	24°♒03'01	
opposition	10109 Jul 29 01:00	14°♒34'19	-1°43'37
greatest brilliancy	10109 Jul 29 02:44	14°♒32'36	-1.3m
min. Earth dist.	10109 Jul 30 18:55	13°♒53'05	0.67867 AU

direct	10109 Sep 08 14:32	4°♒34'55	
	10109 Nov 26 07:34	0°♓	
	10110 Jan 16 12:57	0°♈	
	10110 Mar 01 22:40	0°♉	
	10110 Apr 11 19:21	0°♊	
	10110 May 20 15:12	0°♋	
asc. node	10110 May 27 11:59	5°♋24'02	
	10110 Jun 27 13:51	0°♌	
evening set	10110 Jul 07 17:52	8°♌03'13	
	10110 Aug 04 15:25	0°♍	
	10110 Sep 12 17:00	0°♎	
conjunction	10110 Sep 15 17:53	2°♎17'02	1°01'49
minimum elong	10110 Sep 15 15:47	2°♎13'05	1°01'47
	10110 Oct 23 11:34	0°♏	
max. Earth dist.	10110 Nov 02 07:26	7°♏00'35	2.46953 AU
morning rise	10110 Nov 16 11:20	16°♏57'31	
	10110 Dec 05 10:23	0°♐	
	10111 Jan 19 20:57	0°♑	
	10111 Mar 09 07:08	0°♒	
desc. node	10111 Apr 25 22:33	26°♒54'22	
	10111 May 01 21:23	0°♓	
retrograde	10111 Jul 26 08:09	28°♓01'06	
opposition	10111 Sep 02 18:52	19°♓22'59	-4°04'35
greatest brilliancy	10111 Sep 03 12:31	19°♓06'04	-1.5m
min. Earth dist.	10111 Sep 08 07:47	17°♓15'47	0.62213 AU
direct	10111 Oct 14 00:19	9°♓26'14	
	10111 Dec 19 01:00	0°♈	
	10112 Feb 06 17:37	0°♉	
	10112 Mar 20 02:02	0°♊	
asc. node	10112 Apr 13 13:56	18°♊29'35	
	10112 Apr 28 11:29	0°♋	
	10112 Jun 05 18:47	0°♌	
	10112 Jul 14 06:00	0°♍	
	10112 Aug 22 19:47	0°♎	
evening set	10112 Sep 14 22:23	16°♎56'58	
	10112 Oct 03 03:44	0°♏	
conjunction	10112 Nov 10 04:51	26°♏23'14	0°56'23
minimum elong	10112 Nov 10 06:18	26°♏25'43	0°56'43
	10112 Nov 15 12:51	0°♐	
max. Earth dist.	10112 Dec 06 00:42	13°♐42'00	2.59231 AU
morning rise	10112 Dec 30 03:47	29°♐29'54	
	10112 Dec 30 22:23	0°♑	
	10113 Feb 16 03:14	0°♒	
desc. node	10113 Mar 12 16:24	15°♒10'28	
	10113 Apr 06 04:19	0°♓	
	10113 May 28 05:33	0°♈	
	10113 Jul 29 21:27	0°♉	
retrograde	10113 Sep 11 03:51	9°♉11'24	
opposition	10113 Oct 16 03:45	2°♉02'06	-5°29'59
greatest brilliancy	10113 Oct 17 20:32	1°♉26'11	-2.1m
	10113 Oct 21 22:14	30°℞♈	
min. Earth dist.	10113 Oct 24 18:36	29°♈00'48	0.50439 AU
direct	10113 Nov 23 12:29	23°♈15'54	
	10113 Dec 26 12:07	0°♉	
	10114 Feb 19 22:15	0°♊	
asc. node	10114 Mar 01 18:18	6°♊35'25	
	10114 Apr 03 14:16	0°♋	
	10114 May 13 13:16	0°♌	
	10114 Jun 22 06:39	0°♍	
	10114 Aug 02 00:13	0°♎	
	10114 Sep 13 10:07	0°♏	
	10114 Oct 27 16:38	0°♐	
evening set	10114 Nov 03 16:18	4°♐37'42	
	10114 Dec 12 14:11	0°♑	

conjunction	10114 Dec 21 17:29	5°♑52'37	0°19'45
minimum elong	10114 Dec 21 18:08	5°♑53'40	0°20'11
max. Earth dist.	10114 Dec 30 21:10	11°♑44'19	2.66449 AU
desc. node	10115 Jan 28 10:01	29°♑53'23	
	10115 Jan 28 14:12	0°♒	
morning rise	10115 Feb 04 13:09	4°♒24'06	
	10115 Mar 17 04:01	0°♓	
	10115 May 04 01:19	0°♈	
	10115 Jun 21 11:44	0°♉	
	10115 Aug 10 17:05	0°♊	
	10115 Oct 08 09:10	0°♋	
retrograde	10115 Nov 21 04:09	10°♋10'37	
opposition	10115 Dec 21 04:58	5°♋08'23	-2°04'05
greatest brilliancy	10115 Dec 21 16:06	5°♋00'45	-3.0m
min. Earth dist.	10115 Dec 25 13:45	3°♋56'46	0.37748 AU
	10116 Jan 13 21:59	30°℞♊	
asc. node	10116 Jan 17 19:51	29°♊42'33	
direct	10116 Jan 21 06:04	29°♊37'40	
	10116 Jan 28 15:12	0°♋	
	10116 Apr 08 10:12	0°♌	
	10116 May 24 15:15	0°♍	
	10116 Jul 08 02:02	0°♎	
	10116 Aug 22 01:20	0°♏	
	10116 Oct 07 02:51	0°♐	
	10116 Nov 23 03:08	0°♑	
evening set	10116 Dec 11 20:11	11°♑50'53	
desc. node	10116 Dec 15 07:17	14°♑02'15	
	10117 Jan 09 12:49	0°♒	
max. Earth dist.	10117 Jan 21 10:27	7°♒32'34	2.68176 AU
conjunction	10117 Jan 25 14:12	10°♒10'53	-0°21'27
minimum elong	10117 Jan 25 13:35	10°♒09'54	0°21'04
	10117 Feb 25 16:06	0°♓	
morning rise	10117 Mar 10 00:05	7°♓55'20	
	10117 Apr 13 00:33	0°♈	
	10117 May 28 07:32	0°♉	
	10117 Jul 11 12:10	0°♊	
	10117 Aug 23 18:29	0°♋	
	10117 Oct 05 19:00	0°♌	
	10117 Nov 19 20:27	0°♍	
asc. node	10117 Dec 04 20:02	8°♍59'43	
	10118 Jan 27 01:02	0°♎	
retrograde	10118 Feb 05 00:39	0°♎35'13	
	10118 Feb 13 21:22	30°℞♍	
min. Earth dist.	10118 Mar 03 01:11	26°♍00'52	0.41287 AU
greatest brilliancy	10118 Mar 09 07:22	24°♍02'01	-2.7m
opposition	10118 Mar 10 20:59	23°♍31'52	5°32'07
direct	10118 Apr 10 20:33	17°♍41'30	
	10118 May 29 09:42	0°♎	
	10118 Jul 26 07:23	0°♏	
	10118 Sep 15 06:55	0°♐	
desc. node	10118 Nov 02 08:20	29°♐08'42	
	10118 Nov 03 17:51	0°♑	
	10118 Dec 22 06:25	0°♒	
evening set	10119 Jan 16 15:04	15°♒58'02	
	10119 Feb 07 14:01	0°♓	
max. Earth dist.	10119 Feb 13 04:46	3°♓37'27	2.64385 AU
conjunction	10119 Mar 02 05:07	14°♓42'09	-0°55'08
minimum elong	10119 Mar 02 04:02	14°♓40'21	0°54'58
	10119 Mar 25 07:39	0°♈	
morning rise	10119 Apr 16 13:11	15°♈01'13	
	10119 May 08 06:28	0°♉	
	10119 Jun 19 11:30	0°♊	
	10119 Jul 30 04:30	0°♋	
	10119 Sep 07 21:23	0°♌	
	10119 Oct 17 10:07	0°♍	

asc. node	10119 Oct 22 17:32	3°♍59'27	
	10119 Nov 27 04:36	0°♎	
	10120 Jan 11 07:26	0°♏	
retrograde	10120 Mar 26 07:33	28°♏00'19	
min. Earth dist.	10120 Apr 26 23:09	21°♏12'15	0.54863 AU
greatest brilliancy	10120 May 02 23:26	18°♏53'59	-1.9m
opposition	10120 May 04 02:55	18°♏27'36	4°41'35
direct	10120 Jun 09 00:43	10°♏27'58	
	10120 Aug 15 08:13	0°♐	
desc. node	10120 Sep 19 11:26	17°♐45'36	
	10120 Oct 11 16:51	0°♑	
	10120 Dec 01 23:06	0°♒	
	10121 Jan 19 05:06	0°♓	
evening set	10121 Feb 21 20:51	21°♓55'59	
	10121 Mar 05 22:04	0°♈	
max. Earth dist.	10121 Mar 11 06:45	3°♈37'43	2.55358 AU
conjunction	10121 Apr 10 20:11	24°♈45'42	-1°08'09
minimum elong	10121 Apr 10 20:22	24°♈46'03	1°08'19
	10121 Apr 18 05:52	0°♉	
	10121 May 29 11:35	0°♊	
morning rise	10121 Jun 02 17:27	3°♊09'50	
	10121 Jul 08 02:16	0°♋	
	10121 Aug 15 17:21	0°♌	
asc. node	10121 Sep 08 11:33	18°♌34'09	
	10121 Sep 23 03:59	0°♍	
	10121 Nov 01 09:14	0°♎	
	10121 Dec 12 14:58	0°♏	
	10122 Jan 27 00:01	0°♐	
	10122 Mar 26 06:26	0°♑	
retrograde	10122 May 03 06:03	7°♑58'30	
	10122 Jun 07 15:13	30°℞♐	
min. Earth dist.	10122 Jun 09 04:40	29°♐23'05	0.64710 AU
opposition	10122 Jun 12 17:22	27°♐58'59	1°58'28
greatest brilliancy	10122 Jun 12 11:46	28°♐04'32	-1.4m
direct	10122 Jul 22 01:40	18°♐46'06	
desc. node	10122 Aug 07 15:05	20°♐19'02	
	10122 Sep 09 04:46	0°♑	
	10122 Nov 09 19:25	0°♒	
	10122 Dec 30 16:55	0°♓	
	10123 Feb 15 02:46	0°♈	
	10123 Mar 30 07:48	0°♉	
evening set	10123 Apr 07 12:24	5°♉54'08	
max. Earth dist.	10123 Apr 22 17:22	17°♉02'07	2.42295 AU
	10123 May 10 01:58	0°♊	
conjunction	10123 Jun 04 10:26	19°♊22'19	-0°35'59
minimum elong	10123 Jun 04 13:00	19°♊27'16	0°36'22
	10123 Jun 18 02:45	0°♋	
	10123 Jul 26 05:36	0°♌	
asc. node	10123 Jul 27 06:09	0°♌48'32	
morning rise	10123 Aug 13 01:34	14°♌05'29	
	10123 Sep 02 07:08	0°♍	
	10123 Oct 11 04:20	0°♎	
	10123 Nov 20 18:20	0°♏	
	10124 Jan 02 23:59	0°♐	
	10124 Feb 19 11:15	0°♑	
	10124 Apr 17 15:07	0°♒	
retrograde	10124 Jun 05 10:33	11°♒36'05	
desc. node	10124 Jun 24 16:50	9°♒12'37	
opposition	10124 Jul 15 23:06	1°♒54'12	-0°44'03
greatest brilliancy	10124 Jul 15 22:55	1°♒54'23	-1.3m
min. Earth dist.	10124 Jul 16 05:24	1°♒47'59	0.68268 AU
	10124 Jul 20 19:22	30°℞♑	
direct	10124 Aug 26 04:38	22°♑02'53	
	10124 Oct 05 07:01	0°♒	
	10124 Dec 07 00:25	0°♓	
	10125 Jan 24 22:00	0°♈	
	10125 Mar 09 17:41	0°♉	
	10125 Apr 19 11:13	0°♊	
	10125 May 28 06:48	0°♋	
evening set	10125 Jun 07 18:22	8°♋15'11	
asc. node	10125 Jun 13 04:42	12°♋32'38	
	10125 Jul 05 05:06	0°♌	
	10125 Aug 12 05:05	0°♍	
conjunction	10125 Aug 18 05:32	4°♍42'03	0°43'49
minimum elong	10125 Aug 18 01:52	4°♍34'54	0°43'33
	10125 Sep 20 03:40	0°♎	
max. Earth dist.	10125 Oct 11 02:14	15°♎38'51	2.41304 AU
morning rise	10125 Oct 25 10:47	26°♎09'04	
	10125 Oct 30 18:40	0°♏	
	10125 Dec 12 15:52	0°♐	
	10126 Jan 27 07:24	0°♑	
	10126 Mar 17 18:21	0°♒	
desc. node	10126 May 12 14:22	28°♒54'44	
	10126 May 15 02:15	0°♓	
retrograde	10126 Jul 11 00:26	14°♓33'09	
opposition	10126 Aug 19 07:35	5°♓32'08	-3°13'00
greatest brilliancy	10126 Aug 19 17:20	5°♓22'40	-1.4m
min. Earth dist.	10126 Aug 23 09:21	3°♓57'16	0.65200 AU
	10126 Sep 03 07:37	30°℞♒	
direct	10126 Sep 29 21:36	25°♒29'33	
	10126 Oct 28 10:18	0°♓	
	10126 Dec 31 14:00	0°♈	
	10127 Feb 16 03:05	0°♉	
	10127 Mar 29 15:36	0°♊	
asc. node	10127 May 01 05:03	24°♊55'14	
	10127 May 07 17:19	0°♋	
	10127 Jun 14 19:36	0°♌	
	10127 Jul 23 01:38	0°♍	
evening set	10127 Aug 22 04:42	23°♍05'31	
	10127 Aug 31 09:09	0°♎	
	10127 Oct 11 10:11	0°♏	
conjunction	10127 Oct 22 16:51	7°♏59'23	1°04'44
minimum elong	10127 Oct 22 17:44	8°♏00'57	1°04'59
	10127 Nov 23 13:32	0°♐	
max. Earth dist.	10127 Nov 25 10:11	1°♐15'40	2.54951 AU
morning rise	10127 Dec 15 05:41	14°♐31'35	
	10128 Jan 07 21:04	0°♑	
	10128 Feb 24 08:50	0°♒	
desc. node	10128 Mar 29 08:01	20°♒32'06	
	10128 Apr 14 13:00	0°♓	
	10128 Jun 09 12:17	0°♈	
retrograde	10128 Aug 21 14:17	21°♈54'56	
opposition	10128 Sep 27 05:08	14°♈04'33	-5°10'03
greatest brilliancy	10128 Sep 28 13:50	13°♈34'24	-1.8m
min. Earth dist.	10128 Oct 04 21:23	11°♈15'14	0.55657 AU
direct	10128 Nov 06 02:55	4°♈37'45	
	10129 Jan 17 05:02	0°♉	
	10129 Mar 04 04:31	0°♊	
asc. node	10129 Mar 18 08:06	10°♊11'26	
	10129 Apr 13 20:27	0°♋	
	10129 May 22 20:37	0°♌	
	10129 Jun 30 21:44	0°♍	
	10129 Aug 10 01:08	0°♎	
	10129 Sep 20 22:16	0°♏	
evening set	10129 Oct 17 03:18	18°♏05'40	
	10129 Nov 03 18:25	0°♐	
conjunction	10129 Dec 06 15:10	21°♐42'46	0°35'21
minimum elong	10129 Dec 06 16:19	21°♐44'39	0°35'47
	10129 Dec 19 09:26	0°♑	

max. Earth dist.	10129 Dec 21 20:50	1°♉35'57	2.64278 AU
morning rise	10130 Jan 21 22:00	21°♉28'24	
	10130 Feb 04 09:11	0°♒	
desc. node	10130 Feb 14 01:21	6°♒05'37	
	10130 Mar 24 08:36	0°♓	
	10130 May 12 08:24	0°♈	
	10130 Jul 02 10:08	0°♉	
	10130 Aug 30 04:07	0°♊	
retrograde	10130 Oct 20 20:40	12°♊57'43	
opposition	10130 Nov 21 17:34	7°♊08'49	-4°32'16
greatest brilliancy	10130 Nov 23 04:26	6°♊41'47	-2.6m
min. Earth dist.	10130 Nov 29 13:28	4°♊44'18	0.41897 AU
direct	10130 Dec 26 01:42	0°♊12'52	
asc. node	10131 Feb 03 12:31	9°♊56'21	
	10131 Mar 12 00:56	0°♋	
	10131 Apr 25 10:31	0°♌	
	10131 Jun 06 10:34	0°♍	
	10131 Jul 18 18:24	0°♎	
	10131 Aug 31 09:30	0°♏	
	10131 Oct 15 13:52	0°♐	
evening set	10131 Nov 28 08:29	28°♐16'39	
	10131 Dec 01 01:09	0°♑	
desc. node	10132 Jan 01 20:52	20°♑15'31	
conjunction	10132 Jan 12 23:10	27°♑18'01	-0°05'54
minimum elong	10132 Jan 12 23:00	27°♑17'46	0°05'29
behind sun begin	10132 Jan 12 05:25	26°♑49'52	
behind sun end	10132 Jan 13 16:36	27°♑45'39	
max. Earth dist.	10132 Jan 13 17:28	27°♑47'01	2.68162 AU
	10132 Jan 17 05:19	0°♒	
morning rise	10132 Feb 25 13:10	24°♒58'03	
	10132 Mar 04 10:50	0°♓	
	10132 Apr 20 06:08	0°♈	
	10132 Jun 05 10:39	0°♉	
	10132 Jul 21 02:29	0°♊	
	10132 Sep 04 17:00	0°♋	
	10132 Oct 22 05:08	0°♌	
asc. node	10132 Dec 21 13:36	28°♌01'09	
	10133 Jan 01 23:37	0°♍	
retrograde	10133 Jan 09 07:08	0°♍22'00	
	10133 Jan 16 14:38	30°℞♌	
min. Earth dist.	10133 Feb 04 18:36	26°♌03'49	0.37418 AU
opposition	10133 Feb 09 08:59	24°♌47'01	3°38'13
greatest brilliancy	10133 Feb 08 15:58	24°♌58'53	-3.0m
direct	10133 Mar 10 16:06	19°♌46'34	
	10133 Apr 22 09:35	0°♍	
	10133 Jun 18 07:32	0°♎	
	10133 Aug 06 14:46	0°♏	
	10133 Sep 23 21:51	0°♐	
	10133 Nov 11 03:26	0°♑	
desc. node	10133 Nov 18 20:12	4°♑47'44	
	10133 Dec 29 02:50	0°♒	
evening set	10134 Jan 02 19:30	2°♒57'22	
max. Earth dist.	10134 Feb 04 05:29	23°♒32'01	2.66508 AU
	10134 Feb 14 07:19	0°♓	
conjunction	10134 Feb 16 02:45	1°♓09'55	-0°43'42
minimum elong	10134 Feb 16 01:41	1°♓08'13	0°43'26
morning rise	10134 Apr 01 05:32	0°♈00'35	
	10134 Apr 01 05:10	0°♈	
	10134 May 15 14:10	0°♉	
	10134 Jun 27 09:43	0°♊	
	10134 Aug 07 19:59	0°♋	
	10134 Sep 17 08:02	0°♌	
	10134 Oct 27 21:08	0°♍	
asc. node	10134 Nov 08 10:30	8°♍22'37	
	10134 Dec 09 13:29	0°♎	
	10135 Jan 31 13:51	0°♏	
retrograde	10135 Mar 09 20:50	8°♏46'11	
min. Earth dist.	10135 Apr 08 02:48	2°♏51'27	0.49637 AU
greatest brilliancy	10135 Apr 14 17:50	0°♏25'40	-2.2m
	10135 Apr 15 21:41	30°℞♎	
opposition	10135 Apr 16 07:04	29°♎51'23	5°31'03
direct	10135 May 20 08:27	22°♎35'13	
	10135 Jun 26 18:16	0°♏	
	10135 Aug 29 15:24	0°♐	
desc. node	10135 Oct 06 23:22	21°♐32'44	
	10135 Oct 21 11:22	0°♑	
	10135 Dec 10 08:29	0°♒	
	10136 Jan 27 03:19	0°♓	
evening set	10136 Feb 07 21:06	7°♓34'47	
max. Earth dist.	10136 Feb 28 20:45	21°♓21'10	2.59489 AU
	10136 Mar 12 19:25	0°♈	
conjunction	10136 Mar 24 23:44	8°♈14'59	-1°06'47
minimum elong	10136 Mar 24 23:08	8°♈13'58	1°06'49
	10136 Apr 25 08:10	0°♉	
morning rise	10136 May 12 23:00	12°♉33'19	
	10136 Jun 05 21:41	0°♊	
	10136 Jul 15 20:56	0°♋	
	10136 Aug 23 19:41	0°♌	
asc. node	10136 Sep 25 06:12	25°♌09'01	
	10136 Oct 01 13:03	0°♍	
	10136 Nov 10 02:20	0°♎	
	10136 Dec 22 01:13	0°♏	
	10137 Feb 07 23:25	0°♐	
retrograde	10137 Apr 19 06:53	23°♐47'12	
min. Earth dist.	10137 May 24 08:22	15°♐48'34	0.61574 AU
opposition	10137 May 29 08:22	13°♐50'07	3°03'27
greatest brilliancy	10137 May 28 19:57	14°♐02'24	-1.6m
direct	10137 Jul 06 13:14	5°♐00'29	
desc. node	10137 Aug 24 03:49	16°♐07'33	
	10137 Sep 24 05:28	0°♑	
	10137 Nov 18 15:59	0°♒	
	10138 Jan 07 05:05	0°♓	
	10138 Feb 22 06:06	0°♈	
evening set	10138 Mar 19 17:11	17°♈27'31	
max. Earth dist.	10138 Apr 02 13:12	27°♈12'15	2.47693 AU
	10138 Apr 06 11:18	0°♉	
conjunction	10138 May 11 15:28	25°♉42'06	-0°55'59
minimum elong	10138 May 11 17:31	25°♉45'54	0°56'20
	10138 May 17 09:20	0°♊	
	10138 Jun 25 14:56	0°♋	
morning rise	10138 Jul 13 01:17	13°♋36'19	
	10138 Aug 02 21:42	0°♌	
asc. node	10138 Aug 13 00:46	7°♌58'46	
greatest brilliancy	10138 Aug 17 13:31	11°♌32'54	1.2m
	10138 Sep 10 01:37	0°♍	
	10138 Oct 19 00:08	0°♎	
	10138 Nov 28 16:33	0°♏	
	10139 Jan 11 08:37	0°♐	
	10139 Mar 01 15:00	0°♑	
retrograde	10139 May 24 05:29	29°♑02'50	
opposition	10139 Jul 03 21:32	19°♑10'54	0°17'32
min. Earth dist.	10139 Jul 02 16:16	19°♑39'57	0.67662 AU
greatest brilliancy	10139 Jul 03 21:21	19°♑11'04	-1.3m
desc. node	10139 Jul 12 06:20	15°♑56'27	
direct	10139 Aug 13 13:38	9°♑31'21	
	10139 Oct 22 19:46	0°♒	
	10139 Dec 17 04:30	0°♓	
	10140 Feb 02 18:30	0°♈	
	10140 Mar 17 06:02	0°♉	
	10140 Apr 26 22:40	0°♊	

evening set	10140 May 11 15:51	11°♊13'56	
	10140 Jun 04 19:32	0°♋	
asc. node	10140 Jun 29 20:30	19°♋44'56	
	10140 Jul 12 18:48	0°♌	
conjunction	10140 Jul 18 07:50	4°♌23'41	0°13'23
minimum elong	10140 Jul 18 06:22	4°♌20'47	0°12'59
behind sun begin	10140 Jul 17 11:49	3°♌44'02	
behind sun end	10140 Jul 19 00:55	4°♌57'33	
max. Earth dist.	10140 Aug 12 04:16	24°♌02'16	2.36632 AU
	10140 Aug 19 18:33	0°♍	
	10140 Sep 27 15:33	0°♎	
morning rise	10140 Sep 29 09:38	1°♎19'39	
	10140 Nov 07 04:31	0°♏	
	10140 Dec 20 02:04	0°♐	
	10141 Feb 04 03:04	0°♑	
	10141 Mar 27 07:25	0°♒	
desc. node	10141 May 29 05:19	27°♒23'39	
	10141 Jun 09 08:13	0°♓	
retrograde	10141 Jun 26 16:20	1°♓42'11	
	10141 Jul 13 02:08	30°℞♒	
opposition	10141 Aug 05 15:04	22°♒22'19	-2°17'23
greatest brilliancy	10141 Aug 05 19:01	22°♒18'27	-1.3m
min. Earth dist.	10141 Aug 08 04:59	21°♒21'39	0.67216 AU
direct	10141 Sep 16 06:53	12°♒20'17	
	10141 Nov 17 21:10	0°♓	
	10142 Jan 10 16:11	0°♈	
	10142 Feb 24 16:54	0°♉	
	10142 Apr 06 18:35	0°♊	
	10142 May 15 16:10	0°♋	
asc. node	10142 May 17 21:18	1°♋44'18	
greatest brilliancy	10142 Jun 09 10:31	19°♋32'13	1.2m
	10142 Jun 22 15:26	0°♌	
evening set	10142 Jul 24 19:21	25°♌21'54	
	10142 Jul 30 17:43	0°♍	
	10142 Sep 07 20:24	0°♎	
conjunction	10142 Sep 30 04:39	16°♎36'07	1°05'56
minimum elong	10142 Sep 30 03:54	16°♎34'45	1°06'01
	10142 Oct 18 16:01	0°♏	
max. Earth dist.	10142 Nov 11 17:12	16°♏59'15	2.49976 AU
morning rise	10142 Nov 27 14:32	27°♏56'10	
	10142 Nov 30 15:15	0°♐	
	10143 Jan 14 23:04	0°♑	
	10143 Mar 03 22:19	0°♒	
desc. node	10143 Apr 16 00:08	25°♒07'26	
	10143 Apr 24 20:54	0°♓	
	10143 Jun 29 09:13	0°♈	
retrograde	10143 Aug 04 15:55	6°♈37'21	
	10143 Sep 06 19:54	30°℞♓	
opposition	10143 Sep 11 13:25	28°♓14'22	-4°31'28
greatest brilliancy	10143 Sep 12 12:17	27°♓52'41	-1.6m
min. Earth dist.	10143 Sep 17 21:42	25°♓50'18	0.60148 AU
direct	10143 Oct 22 10:47	18°♓24'49	
	10143 Dec 08 03:31	0°♈	
	10144 Jan 31 00:58	0°♉	
	10144 Mar 14 06:58	0°♊	
asc. node	10144 Apr 04 00:25	15°♊26'47	
	10144 Apr 23 00:57	0°♋	
	10144 May 31 12:48	0°♌	
	10144 Jul 09 03:33	0°♍	
	10144 Aug 17 20:41	0°♎	
evening set	10144 Sep 27 08:42	29°♎19'29	
	10144 Sep 28 07:38	0°♏	
	10144 Nov 10 19:14	0°♐	
conjunction	10144 Nov 20 06:33	6°♐21'30	0°49'26
minimum elong	10144 Nov 20 08:01	6°♐23'57	0°49'50
max. Earth dist.	10144 Dec 12 03:54	20°♐50'19	2.61246 AU
	10144 Dec 26 05:19	0°♑	
morning rise	10145 Jan 07 16:47	8°♑02'47	
	10145 Feb 11 07:00	0°♒	
desc. node	10145 Mar 02 16:38	12°♒06'02	
	10145 Mar 31 20:27	0°♓	
	10145 May 21 11:40	0°♈	
	10145 Jul 16 15:06	0°♉	
retrograde	10145 Sep 24 08:14	20°♉40'04	
opposition	10145 Oct 28 05:33	13°♉57'44	-5°25'48
greatest brilliancy	10145 Oct 30 00:06	13°♉21'35	-2.3m
min. Earth dist.	10145 Nov 05 23:51	10°♉59'55	0.47343 AU
direct	10145 Dec 04 09:51	5°♉43'59	
	10146 Feb 10 01:23	0°♊	
asc. node	10146 Feb 20 03:15	6°♊11'15	
	10146 Mar 27 06:20	0°♋	
	10146 May 07 04:04	0°♌	
	10146 Jun 16 10:49	0°♍	
	10146 Jul 27 14:31	0°♎	
	10146 Sep 08 08:14	0°♏	
	10146 Oct 22 20:46	0°♐	
evening set	10146 Nov 12 22:54	13°♐50'44	
	10146 Dec 07 21:48	0°♑	
conjunction	10146 Dec 29 23:20	14°♑07'48	0°10'19
minimum elong	10146 Dec 29 23:41	14°♑08'21	0°10'46
behind sun begin	10146 Dec 29 09:32	13°♑45'48	
behind sun end	10146 Dec 30 13:50	14°♑30'54	
max. Earth dist.	10147 Jan 05 01:31	18°♑00'41	2.67281 AU
desc. node	10147 Jan 18 11:19	26°♑32'04	
	10147 Jan 23 22:22	0°♒	
morning rise	10147 Feb 12 05:20	12°♒12'58	
	10147 Mar 12 08:20	0°♓	
	10147 Apr 28 18:42	0°♈	
	10147 Jun 15 05:49	0°♉	
	10147 Aug 02 06:44	0°♊	
	10147 Sep 22 00:45	0°♋	
retrograde	10147 Dec 09 18:22	27°♋59'05	
opposition	10148 Jan 08 11:13	23°♋04'58	0°01'09
asc. node	10148 Jan 08 05:20	23°♋08'53	
greatest brilliancy	10148 Jan 08 11:17	23°♋04'55	-3.1m
min. Earth dist.	10148 Jan 09 17:25	22°♋44'53	0.36614 AU
direct	10148 Feb 07 07:06	18°♋04'40	
	10148 Mar 23 12:28	0°♌	
	10148 May 15 15:35	0°♍	
	10148 Jul 01 05:11	0°♎	
	10148 Aug 16 06:04	0°♏	
	10148 Oct 01 22:35	0°♐	
	10148 Nov 18 07:25	0°♑	
desc. node	10148 Dec 05 09:55	10°♑46'47	
evening set	10148 Dec 19 21:54	19°♑55'05	
	10149 Jan 04 21:10	0°♒	
max. Earth dist.	10149 Jan 26 11:37	13°♒41'22	2.67806 AU
conjunction	10149 Feb 02 09:15	18°♒04'58	-0°30'07
minimum elong	10149 Feb 02 08:26	18°♒03'40	0°29'47
	10149 Feb 21 00:30	0°♓	
morning rise	10149 Mar 17 21:54	16°♓04'42	
	10149 Apr 08 04:44	0°♈	
	10149 May 23 03:16	0°♉	
	10149 Jul 05 18:33	0°♊	
	10149 Aug 17 06:09	0°♋	
	10149 Sep 28 02:07	0°♌	
	10149 Nov 09 16:52	0°♍	
asc. node	10149 Nov 25 05:03	10°♍21'23	
	10149 Dec 28 02:30	0°♎	

retrograde	10150 Feb 17 19:50	15°♎54'19	
min. Earth dist.	10150 Mar 16 19:08	10°♎54'26	0.44122 AU
greatest brilliancy	10150 Mar 23 10:56	8°♎39'16	-2.5m
opposition	10150 Mar 25 04:17	8°♎03'58	5°49'48
direct	10150 Apr 26 04:51	1°♎41'30	
	10150 Jul 17 14:29	0°♏	
	10150 Sep 09 03:11	0°♐	
desc. node	10150 Oct 23 11:24	26°♐20'38	
	10150 Oct 29 12:47	0°♑	
	10150 Dec 17 11:29	0°♒	
evening set	10151 Jan 24 14:18	24°♒00'15	
	10151 Feb 02 22:52	0°♓	
max. Earth dist.	10151 Feb 18 16:03	10°♓10'42	2.62844 AU
conjunction	10151 Mar 10 13:37	23°♓15'59	-1°00'31
minimum elong	10151 Mar 10 12:37	23°♓14'20	1°00'25
	10151 Mar 20 15:54	0°♈	
morning rise	10151 Apr 25 22:30	24°♈45'00	
	10151 May 03 11:10	0°♉	
	10151 Jun 14 10:21	0°♊	
	10151 Jul 24 20:36	0°♋	
	10151 Sep 02 06:06	0°♌	
	10151 Oct 11 10:12	0°♍	
asc. node	10151 Oct 12 23:51	1°♍11'35	
	10151 Nov 20 14:25	0°♎	
	10152 Jan 03 00:27	0°♏	
	10152 Feb 27 07:56	0°♐	
retrograde	10152 Apr 04 09:13	8°♐11'15	
min. Earth dist.	10152 May 07 07:32	0°♐56'06	0.57490 AU
	10152 May 09 17:34	30°℞♏	
opposition	10152 May 13 17:41	28°♏26'17	4°07'22
greatest brilliancy	10152 May 12 20:06	28°♏47'18	-1.8m
direct	10152 Jun 19 13:09	20°♏06'36	
	10152 Aug 03 13:12	0°♐	
desc. node	10152 Sep 09 15:17	16°♐34'39	
	10152 Oct 05 07:36	0°♑	
	10152 Nov 26 18:11	0°♒	
	10153 Jan 14 10:23	0°♓	
	10153 Mar 01 06:23	0°♈	
evening set	10153 Mar 02 19:13	1°♈02'05	
max. Earth dist.	10153 Mar 18 11:14	11°♈43'09	2.52791 AU
	10153 Apr 13 13:45	0°♉	
conjunction	10153 Apr 21 04:58	5°♉27'38	-1°06'06
minimum elong	10153 Apr 21 05:47	5°♉29'06	1°06'20
	10153 May 24 16:53	0°♊	
morning rise	10153 Jun 16 00:19	16°♊49'50	
	10153 Jul 03 04:18	0°♋	
	10153 Aug 10 15:58	0°♌	
asc. node	10153 Aug 29 18:55	15°♌00'01	
	10153 Sep 17 23:20	0°♍	
	10153 Oct 27 00:54	0°♎	
	10153 Dec 06 23:17	0°♏	
	10154 Jan 20 11:03	0°♐	
	10154 Mar 14 11:56	0°♑	
retrograde	10154 May 10 23:43	16°♑08'44	
min. Earth dist.	10154 Jun 17 21:36	7°♑14'52	0.66054 AU
opposition	10154 Jun 20 14:14	6°♑10'38	1°20'51
greatest brilliancy	10154 Jun 20 11:23	6°♑13'27	-1.4m
	10154 Jul 07 22:19	30°℞♐	
desc. node	10154 Jul 28 18:58	26°♐47'55	
direct	10154 Jul 30 11:17	26°♐46'53	
	10154 Aug 23 22:50	0°♑	
	10154 Nov 03 07:13	0°♒	
	10154 Dec 25 10:58	0°♓	
	10155 Feb 10 06:09	0°♈	
	10155 Mar 25 13:59	0°♉	
evening set	10155 Apr 19 05:18	17°♉56'46	
	10155 May 05 08:04	0°♊	
max. Earth dist.	10155 May 09 16:36	3°♊17'46	2.39453 AU
	10155 Jun 13 07:48	0°♋	
conjunction	10155 Jun 19 12:08	4°♋50'25	-0°20'04
minimum elong	10155 Jun 19 14:01	4°♋54'06	0°20'29
asc. node	10155 Jul 17 15:09	27°♋01'35	
	10155 Jul 21 09:16	0°♌	
	10155 Aug 28 09:35	0°♍	
morning rise	10155 Aug 31 01:00	2°♍04'08	
	10155 Oct 06 05:45	0°♎	
	10155 Nov 15 17:48	0°♏	
	10155 Dec 28 18:05	0°♐	
	10156 Feb 13 11:37	0°♑	
	10156 Apr 07 20:34	0°♒	
retrograde	10156 Jun 13 01:34	19°♒13'26	
desc. node	10156 Jun 14 19:01	19°♒12'19	
opposition	10156 Jul 23 10:46	9°♒38'29	-1°19'17
greatest brilliancy	10156 Jul 23 11:21	9°♒37'55	-1.3m
min. Earth dist.	10156 Jul 24 13:05	9°♒12'32	0.68180 AU
	10156 Aug 26 23:05	30°℞♑	
direct	10156 Sep 02 21:39	29°♑42'03	
	10156 Sep 09 24:00	0°♒	
	10156 Nov 30 06:41	0°♓	
	10157 Jan 19 11:41	0°♈	
	10157 Mar 04 16:43	0°♉	
	10157 Apr 14 13:06	0°♊	
	10157 May 23 09:34	0°♋	
asc. node	10157 Jun 03 12:59	8°♋46'23	
evening set	10157 Jun 24 09:31	25°♋17'08	
	10157 Jun 30 08:07	0°♌	
	10157 Aug 07 08:30	0°♍	
conjunction	10157 Sep 03 16:56	21°♍10'00	0°55'49
minimum elong	10157 Sep 03 13:51	21°♍04'06	0°55'41
	10157 Sep 15 07:52	0°♎	
max. Earth dist.	10157 Oct 24 18:17	29°♎07'32	2.44428 AU
	10157 Oct 25 23:24	0°♏	
morning rise	10157 Nov 07 07:51	8°♏49'15	
	10157 Dec 07 19:46	0°♐	
	10158 Jan 22 06:18	0°♑	
	10158 Mar 11 23:43	0°♒	
desc. node	10158 May 02 15:05	28°♒20'27	
	10158 May 05 23:58	0°♓	
retrograde	10158 Jul 19 13:45	22°♓38'13	
opposition	10158 Aug 27 10:58	13°♓49'17	-3°43'34
greatest brilliancy	10158 Aug 28 00:58	13°♓35'47	-1.4m
min. Earth dist.	10158 Sep 01 08:44	11°♓55'51	0.63679 AU
direct	10158 Oct 07 21:50	3°♓48'50	
	10158 Dec 24 01:14	0°♈	
	10159 Feb 10 06:10	0°♉	
	10159 Mar 24 06:11	0°♊	
asc. node	10159 Apr 21 14:24	21°♊31'33	
	10159 May 02 12:37	0°♋	
	10159 Jun 09 17:28	0°♌	
	10159 Jul 18 01:36	0°♍	
	10159 Aug 26 11:32	0°♎	
evening set	10159 Sep 05 14:33	7°♎30'56	
	10159 Oct 06 14:59	0°♏	
conjunction	10159 Nov 03 01:43	19°♏13'29	1°00'33
minimum elong	10159 Nov 03 03:02	19°♏15'46	1°00'53
	10159 Nov 18 20:06	0°♐	
max. Earth dist.	10159 Dec 02 05:26	9°♐00'33	2.57414 AU
morning rise	10159 Dec 24 11:40	23°♐43'07	
	10160 Jan 03 03:14	0°♑	

	10160 Feb 19 09:35	0°♒	
desc. node	10160 Mar 19 09:06	17°♒46'45	
	10160 Apr 08 19:44	0°♓	
	10160 Jun 01 03:35	0°♈	
	10160 Aug 14 08:49	0°♉	
retrograde	10160 Sep 01 20:50	1°♉55'16	
	10160 Sep 19 09:07	30°℞♈	
opposition	10160 Oct 07 14:51	24°♈26'27	-5°24'14
greatest brilliancy	10160 Oct 09 04:34	23°♈52'27	-1.9m
min. Earth dist.	10160 Oct 15 21:13	21°♈28'15	0.52858 AU
direct	10160 Nov 15 18:35	15°♈19'14	
	10161 Jan 06 05:46	0°♉	
	10161 Feb 24 23:48	0°♊	
asc. node	10161 Mar 08 18:41	8°♊11'47	
	10161 Apr 07 15:28	0°♋	
	10161 May 17 02:56	0°♌	
	10161 Jun 25 11:29	0°♍	
	10161 Aug 04 21:10	0°♎	
	10161 Sep 15 23:38	0°♏	
evening set	10161 Oct 27 07:52	28°♏12'43	
	10161 Oct 30 00:05	0°♐	
	10161 Dec 14 17:31	0°♑	
conjunction	10161 Dec 15 08:47	0°♑24'38	0°26'21
minimum elong	10161 Dec 15 09:39	0°♑26'03	0°26'48
max. Earth dist.	10161 Dec 27 05:55	8°♑03'28	2.65584 AU
morning rise	10162 Jan 29 18:32	29°♑24'56	
	10162 Jan 30 16:41	0°♒	
desc. node	10162 Feb 04 02:36	2°♒47'29	
	10162 Mar 19 09:54	0°♓	
	10162 May 06 17:19	0°♈	
	10162 Jun 25 02:48	0°♉	
	10162 Aug 16 20:06	0°♊	
retrograde	10162 Nov 06 22:05	28°♊08'15	
opposition	10162 Dec 07 16:55	22°♊48'09	-3°21'01
greatest brilliancy	10162 Dec 08 15:35	22°♊31'46	-2.8m
min. Earth dist.	10162 Dec 14 00:11	20°♊59'34	0.39339 AU
direct	10163 Jan 09 04:00	16°♊41'33	
asc. node	10163 Jan 24 20:47	18°♊22'29	
	10163 Feb 25 10:10	0°♋	
	10163 Apr 16 13:59	0°♌	
	10163 May 30 10:00	0°♍	
	10163 Jul 12 17:32	0°♎	
	10163 Aug 25 23:52	0°♏	
	10163 Oct 10 14:16	0°♐	
	10163 Nov 26 07:39	0°♑	
evening set	10163 Dec 06 16:50	6°♑36'06	
desc. node	10163 Dec 22 23:07	16°♑55'13	
	10164 Jan 12 14:32	0°♒	
max. Earth dist.	10164 Jan 18 17:50	3°♒53'31	2.68274 AU
conjunction	10164 Jan 20 18:23	5°♒10'28	-0°15'06
minimum elong	10164 Jan 20 17:56	5°♒09'46	0°14'43
behind sun begin	10164 Jan 20 10:46	4°♒58'23	
behind sun end	10164 Jan 21 01:07	5°♒21'08	
	10164 Feb 28 18:47	0°♓	
morning rise	10164 Mar 04 04:42	2°♓49'20	
	10164 Apr 15 08:08	0°♈	
	10164 May 31 00:32	0°♉	
	10164 Jul 14 19:22	0°♊	
	10164 Aug 27 22:45	0°♋	
	10164 Oct 11 09:00	0°♌	
	10164 Nov 29 01:54	0°♍	
asc. node	10164 Dec 11 21:08	6°♍31'29	
retrograde	10165 Jan 25 01:16	18°♍24'45	
min. Earth dist.	10165 Feb 19 20:01	14°♍04'04	0.39282 AU
greatest brilliancy	10165 Feb 25 08:03	12°♍25'39	-2.8m
opposition	10165 Feb 26 14:39	12°♍02'36	4°58'31
direct	10165 Mar 28 18:12	6°♍37'33	
	10165 Jun 07 16:46	0°♎	
	10165 Jul 30 15:19	0°♏	
	10165 Sep 18 06:20	0°♐	
	10165 Nov 06 03:07	0°♑	
desc. node	10165 Nov 08 23:45	1°♑45'54	
	10165 Dec 24 09:50	0°♒	
evening set	10166 Jan 10 16:36	10°♒52'35	
max. Earth dist.	10166 Feb 09 10:35	29°♒50'26	2.65444 AU
	10166 Feb 09 16:32	0°♓	
conjunction	10166 Feb 24 01:52	9°♓18'20	-0°50'41
minimum elong	10166 Feb 24 00:46	9°♓16'33	0°50'29
	10166 Mar 27 12:47	0°♈	
morning rise	10166 Apr 09 18:45	8°♈52'32	
	10166 May 10 17:02	0°♉	
	10166 Jun 22 05:01	0°♊	
	10166 Aug 02 05:54	0°♋	
	10166 Sep 11 06:38	0°♌	
	10166 Oct 21 03:56	0°♍	
asc. node	10166 Oct 29 19:29	6°♍25'03	
	10166 Dec 01 12:31	0°♎	
	10167 Jan 17 12:20	0°♏	
retrograde	10167 Mar 20 01:43	20°♏33'26	
min. Earth dist.	10167 Apr 19 15:14	14°♏08'52	0.52595 AU
greatest brilliancy	10167 Apr 25 23:50	11°♏45'12	-2.0m
opposition	10167 Apr 27 07:48	11°♏14'59	5°05'12
direct	10167 Jun 01 11:12	3°♏33'24	
	10167 Aug 21 13:23	0°♐	
desc. node	10167 Sep 27 02:39	19°♐29'17	
	10167 Oct 15 16:21	0°♑	
	10167 Dec 05 08:05	0°♒	
	10168 Jan 22 10:02	0°♓	
evening set	10168 Feb 16 07:28	16°♓08'22	
max. Earth dist.	10168 Mar 06 04:27	28°♓40'37	2.57300 AU
	10168 Mar 08 03:40	0°♈	
conjunction	10168 Apr 03 08:04	17°♈53'22	-1°08'18
minimum elong	10168 Apr 03 07:53	17°♈53'03	1°08'24
	10168 Apr 20 14:55	0°♉	
morning rise	10168 May 24 06:49	24°♉16'41	
	10168 Jun 01 01:01	0°♊	
	10168 Jul 10 20:13	0°♋	
	10168 Aug 18 14:57	0°♌	
asc. node	10168 Sep 15 14:05	21°♌47'10	
	10168 Sep 26 04:02	0°♍	
	10168 Nov 04 11:31	0°♎	
	10168 Dec 15 21:36	0°♏	
	10169 Jan 30 23:32	0°♐	
	10169 Apr 07 03:30	0°♑	
retrograde	10169 Apr 27 08:55	2°♑31'21	
	10169 May 16 13:11	30°℞♐	
min. Earth dist.	10169 Jun 02 12:14	24°♐11'26	0.63422 AU
opposition	10169 Jun 06 16:25	22°♐32'07	2°25'40
greatest brilliancy	10169 Jun 06 08:12	22°♐40'16	-1.5m
direct	10169 Jul 15 12:59	13°♐28'50	
desc. node	10169 Aug 14 06:38	18°♐06'49	
	10169 Sep 15 06:47	0°♑	
	10169 Nov 12 20:02	0°♒	
	10170 Jan 02 04:18	0°♓	
	10170 Feb 17 11:39	0°♈	
evening set	10170 Mar 30 01:47	28°♈05'03	
	10170 Apr 01 18:13	0°♉	
max. Earth dist.	10170 Apr 12 21:13	8°♉00'50	2.44716 AU
	10170 May 12 15:04	0°♊	

conjunction	10170 May 24 13:40	9°♊02'13	-0°45'54
minimum elong	10170 May 24 16:12	9°♊07'01	0°46'18
	10170 Jun 20 18:39	0°♋	
	10170 Jul 28 23:25	0°♌	
morning rise	10170 Jul 30 02:26	0°♌53'19	
asc. node	10170 Aug 03 07:57	4°♌13'45	
	10170 Sep 05 01:35	0°♍	
	10170 Oct 13 22:29	0°♎	
	10170 Nov 23 11:59	0°♏	
	10171 Jan 05 19:20	0°♐	
	10171 Feb 22 18:36	0°♑	
	10171 Apr 26 00:21	0°♒	
retrograde	10171 May 31 18:50	6°♒45'35	
desc. node	10171 Jul 02 09:10	0°♒28'22	
	10171 Jul 03 15:41	30°℞♑	
opposition	10171 Jul 11 09:42	26°♑58'56	-0°18'49
greatest brilliancy	10171 Jul 11 09:30	26°♑59'08	-1.3m
min. Earth dist.	10171 Jul 11 00:29	27°♑08'03	0.68121 AU
direct	10171 Aug 21 09:49	17°♑12'19	
	10171 Oct 13 05:47	0°♒	
	10171 Dec 11 05:53	0°♓	
	10172 Jan 28 14:53	0°♈	
	10172 Mar 12 08:40	0°♉	
	10172 Apr 22 02:56	0°♊	
evening set	10172 May 26 09:57	26°♊25'00	
	10172 May 30 23:47	0°♋	
asc. node	10172 Jun 20 05:47	15°♋57'57	
	10172 Jul 07 22:38	0°♌	
conjunction	10172 Aug 04 18:17	22°♌01'12	0°31'46
minimum elong	10172 Aug 04 15:05	21°♌54'53	0°31'25
	10172 Aug 14 21:57	0°♍	
	10172 Sep 22 18:51	0°♎	
max. Earth dist.	10172 Sep 25 07:24	1°♎54'34	2.38890 AU
morning rise	10172 Oct 14 14:32	16°♎20'09	
	10172 Nov 02 07:35	0°♏	
	10172 Dec 15 03:02	0°♐	
	10173 Jan 29 20:13	0°♑	
	10173 Mar 20 19:32	0°♒	
desc. node	10173 May 19 07:15	29°♒10'00	
	10173 May 21 11:46	0°♓	
retrograde	10173 Jul 04 18:13	9°♓29'22	
opposition	10173 Aug 13 09:22	0°♓19'31	-2°50'14
greatest brilliancy	10173 Aug 13 16:19	0°♓12'44	-1.4m
	10173 Aug 14 05:23	30°℞♒	
min. Earth dist.	10173 Aug 16 19:34	28°♒59'25	0.66227 AU
direct	10173 Sep 24 01:14	20°♒16'24	
	10173 Nov 06 22:47	0°♓	
	10174 Jan 04 08:06	0°♈	
	10174 Feb 19 05:58	0°♉	
	10174 Apr 01 14:40	0°♊	
asc. node	10174 May 08 06:14	28°♊08'36	
	10174 May 10 15:14	0°♋	
	10174 Jun 17 16:18	0°♌	
	10174 Jul 25 20:06	0°♍	
evening set	10174 Aug 10 03:54	11°♍51'36	
	10174 Sep 03 00:27	0°♎	
conjunction	10174 Oct 13 07:39	29°♎34'44	1°06'20
minimum elong	10174 Oct 13 07:59	29°♎35'21	1°06'31
	10174 Oct 13 21:45	0°♏	
max. Earth dist.	10174 Nov 19 19:43	25°♏51'03	2.52799 AU
	10174 Nov 25 21:38	0°♐	
morning rise	10174 Dec 07 20:46	8°♐04'44	
	10175 Jan 10 03:43	0°♑	
	10175 Feb 26 18:28	0°♒	
desc. node	10175 Apr 06 01:03	22°♒51'26	
	10175 Apr 18 12:33	0°♓	
	10175 Jun 16 02:20	0°♈	
retrograde	10175 Aug 14 13:41	15°♈36'26	
opposition	10175 Sep 20 19:05	7°♈30'39	-4°55'07
greatest brilliancy	10175 Sep 21 23:33	7°♈04'03	-1.7m
min. Earth dist.	10175 Sep 27 22:04	4°♈51'11	0.57765 AU
	10175 Oct 13 09:18	30°℞♓	
direct	10175 Oct 31 05:15	27°♓51'44	
	10175 Nov 18 16:20	0°♈	
	10176 Jan 23 11:50	0°♉	
	10176 Mar 08 02:50	0°♊	
asc. node	10176 Mar 25 08:37	12°♊37'18	
	10176 Apr 17 08:28	0°♋	
	10176 May 26 02:43	0°♌	
	10176 Jul 03 22:15	0°♍	
	10176 Aug 12 19:53	0°♎	
	10176 Sep 23 11:08	0°♏	
evening set	10176 Oct 08 21:17	10°♏45'56	
	10176 Nov 06 02:01	0°♐	
conjunction	10176 Nov 29 18:06	15°♐45'07	0°41'31
minimum elong	10176 Nov 29 19:25	15°♐47'18	0°41'56
max. Earth dist.	10176 Dec 17 20:50	27°♐35'56	2.63030 AU
	10176 Dec 21 13:39	0°♑	
morning rise	10177 Jan 15 21:29	16°♑16'29	
	10177 Feb 06 13:12	0°♒	
desc. node	10177 Feb 20 18:27	8°♒55'43	
	10177 Mar 26 17:30	0°♓	
	10177 May 15 07:53	0°♈	
	10177 Jul 07 01:48	0°♉	
	10177 Sep 14 20:20	0°♊	
retrograde	10177 Oct 08 15:53	3°♊10'27	
	10177 Oct 31 07:01	30°℞♉	
opposition	10177 Nov 10 10:37	26°♉57'00	-5°04'13
greatest brilliancy	10177 Nov 12 02:51	26°♉24'16	-2.5m
min. Earth dist.	10177 Nov 18 22:27	24°♉12'37	0.44262 AU
direct	10177 Dec 16 03:11	19°♉23'20	
	10178 Jan 26 16:28	0°♊	
asc. node	10178 Feb 10 13:06	7°♊30'11	
	10178 Mar 18 19:06	0°♋	
	10178 Apr 30 05:38	0°♌	
	10178 Jun 10 07:29	0°♍	
	10178 Jul 22 00:07	0°♎	
	10178 Sep 03 03:48	0°♏	
	10178 Oct 17 23:35	0°♐	
evening set	10178 Nov 21 20:54	22°♐42'03	
	10178 Dec 03 05:22	0°♑	
conjunction	10179 Jan 07 00:38	22°♑12'10	0°00'50
minimum elong	10179 Jan 07 00:39	22°♑12'12	0°01'17
behind sun begin	10179 Jan 06 06:06	21°♑42'45	
behind sun end	10179 Jan 07 19:13	22°♑41'40	
desc. node	10179 Jan 08 13:20	23°♑10'27	
max. Earth dist.	10179 Jan 10 02:36	24°♑09'38	2.67881 AU
	10179 Jan 19 07:27	0°♒	
morning rise	10179 Feb 19 20:07	19°♒59'24	
	10179 Mar 07 14:38	0°♓	
	10179 Apr 23 16:22	0°♈	
	10179 Jun 09 09:25	0°♉	
	10179 Jul 25 22:53	0°♊	
	10179 Sep 11 05:54	0°♋	
	10179 Nov 02 09:09	0°♌	
retrograde	10179 Dec 27 21:02	16°♌35'18	
asc. node	10179 Dec 29 15:06	16°♌34'04	
min. Earth dist.	10180 Jan 24 21:59	12°♌02'14	0.36607 AU
opposition	10180 Jan 27 01:48	11°♌27'29	2°11'59
greatest brilliancy	10180 Jan 26 19:41	11°♌31'35	-3.1m

direct	10180 Feb 25 06:01	6°♌35'43	
	10180 May 04 02:17	0°♍	
	10180 Jun 23 14:01	0°♎	
	10180 Aug 10 03:40	0°♏	
	10180 Sep 26 15:02	0°♐	
	10180 Nov 13 10:23	0°♑	
desc. node	10180 Nov 25 11:49	7°♑33'20	
evening set	10180 Dec 27 21:21	27°♑53'55	
	10180 Dec 31 05:23	0°♒	
max. Earth dist.	10181 Jan 31 13:57	19°♒52'23	2.67202 AU
conjunction	10181 Feb 10 04:50	26°♒01'21	-0°38'18
minimum elong	10181 Feb 10 03:51	25°♒59'46	0°38'01
	10181 Feb 16 09:37	0°♓	
morning rise	10181 Mar 25 23:36	24°♓24'53	
	10181 Apr 03 10:55	0°♈	
	10181 May 18 02:24	0°♉	
	10181 Jun 30 06:51	0°♊	
	10181 Aug 11 03:51	0°♋	
	10181 Sep 21 04:20	0°♌	
	10181 Nov 01 09:53	0°♍	
asc. node	10181 Nov 15 12:35	9°♍57'41	
	10181 Dec 15 14:47	0°♎	
retrograde	10182 Mar 01 12:57	29°♎48'51	
min. Earth dist.	10182 Mar 29 16:46	24°♎19'40	0.47163 AU
greatest brilliancy	10182 Apr 05 11:09	21°♎55'28	-2.3m
opposition	10182 Apr 07 03:26	21°♎19'29	5°45'10
direct	10182 May 10 07:20	14°♎26'13	
	10182 Jul 06 12:59	0°♏	
	10182 Sep 02 11:28	0°♐	
desc. node	10182 Oct 13 14:28	23°♐45'04	
	10182 Oct 24 03:24	0°♑	
	10182 Dec 12 14:39	0°♒	
	10183 Jan 29 06:49	0°♓	
evening set	10183 Feb 01 16:45	2°♓11'39	
max. Earth dist.	10183 Feb 24 11:05	17°♓00'35	2.61091 AU
	10183 Mar 16 00:24	0°♈	
conjunction	10183 Mar 19 04:55	2°♈08'36	-1°04'42
minimum elong	10183 Mar 19 04:07	2°♈07'15	1°04'41
	10183 Apr 28 17:06	0°♉	
morning rise	10183 May 05 20:48	5°♉02'42	
	10183 Jun 09 11:47	0°♊	
	10183 Jul 19 16:22	0°♋	
	10183 Aug 27 19:57	0°♌	
asc. node	10183 Oct 03 08:17	28°♌10'36	
	10183 Oct 05 17:15	0°♍	
	10183 Nov 14 11:02	0°♎	
	10183 Dec 26 19:59	0°♏	
	10184 Feb 14 13:47	0°♐	
retrograde	10184 Apr 13 01:22	17°♐46'57	
min. Earth dist.	10184 May 17 04:43	10°♐06'35	0.59857 AU
opposition	10184 May 22 19:49	7°♐53'56	3°30'50
greatest brilliancy	10184 May 22 03:41	8°♐09'48	-1.7m
	10184 Jun 18 20:18	30°℞♏	
direct	10184 Jun 29 10:19	29°♏16'40	
	10184 Jul 10 10:45	0°♐	
desc. node	10184 Aug 30 19:04	16°♐13'54	
	10184 Sep 28 06:42	0°♑	
	10184 Nov 21 08:01	0°♒	
	10185 Jan 09 12:48	0°♓	
	10185 Feb 24 12:57	0°♈	
evening set	10185 Mar 12 05:16	10°♈39'38	
max. Earth dist.	10185 Mar 26 13:52	20°♈37'18	2.50039 AU
	10185 Apr 08 20:29	0°♉	
conjunction	10185 May 02 09:45	17°♉01'52	-1°01'26
minimum elong	10185 May 02 11:16	17°♉04'39	1°01'44
	10185 May 19 21:56	0°♊	
	10185 Jun 28 06:51	0°♋	
morning rise	10185 Jun 30 15:43	1°♋50'09	
	10185 Aug 05 16:08	0°♌	
asc. node	10185 Aug 20 02:59	11°♌22'05	
	10185 Sep 12 21:15	0°♍	
	10185 Oct 21 20:02	0°♎	
	10185 Dec 01 13:12	0°♏	
	10186 Jan 14 09:50	0°♐	
	10186 Mar 05 17:15	0°♑	
retrograde	10186 May 18 14:30	24°♑05'40	
min. Earth dist.	10186 Jun 26 09:40	14°♑54'58	0.67064 AU
opposition	10186 Jun 28 06:23	14°♑10'31	0°43'35
greatest brilliancy	10186 Jun 28 05:25	14°♑11'29	-1.4m
desc. node	10186 Jul 18 22:12	7°♑04'16	
direct	10186 Aug 07 14:23	4°♑37'23	
	10186 Oct 27 01:38	0°♒	
	10186 Dec 19 23:36	0°♓	
	10187 Feb 05 06:49	0°♈	
	10187 Mar 20 18:11	0°♉	
	10187 Apr 30 12:33	0°♊	
evening set	10187 May 02 00:21	1°♊07'41	
max. Earth dist.	10187 Jun 07 09:00	29°♊08'31	2.37075 AU
	10187 Jun 08 11:19	0°♋	
conjunction	10187 Jul 05 22:19	21°♋37'57	-0°01'28
minimum elong	10187 Jul 05 22:33	21°♋38'24	0°01'55
behind sun begin	10187 Jul 04 16:49	20°♋39'35	
behind sun end	10187 Jul 07 04:17	22°♋37'13	
asc. node	10187 Jul 07 21:34	23°♋11'27	
	10187 Jul 16 11:52	0°♌	
	10187 Aug 23 11:35	0°♍	
morning rise	10187 Sep 17 14:05	19°♍30'40	
	10187 Oct 01 07:21	0°♎	
	10187 Nov 10 18:39	0°♏	
	10187 Dec 23 15:19	0°♐	
	10188 Feb 07 20:15	0°♑	
	10188 Mar 30 22:56	0°♒	
desc. node	10188 Jun 04 21:35	25°♒23'27	
retrograde	10188 Jun 20 18:36	26°♒50'15	
opposition	10188 Jul 30 22:58	17°♒23'18	-1°53'37
greatest brilliancy	10188 Jul 31 01:09	17°♒21'09	-1.3m
min. Earth dist.	10188 Aug 01 21:19	16°♒37'45	0.67776 AU
direct	10188 Sep 10 13:23	7°♒23'05	
	10188 Nov 22 16:22	0°♓	
	10189 Jan 13 19:46	0°♈	
	10189 Feb 27 13:08	0°♉	
	10189 Apr 09 13:32	0°♊	
	10189 May 18 11:06	0°♋	
asc. node	10189 May 24 21:43	5°♋03'44	
	10189 Jun 25 10:05	0°♌	
evening set	10189 Jul 11 13:33	12°♌47'09	
	10189 Aug 02 10:56	0°♍	
	10189 Sep 10 11:03	0°♎	
conjunction	10189 Sep 19 04:09	6°♎32'35	1°03'14
minimum elong	10189 Sep 19 02:22	6°♎29'16	1°03'15
	10189 Oct 21 03:38	0°♏	
max. Earth dist.	10189 Nov 04 15:14	10°♏19'28	2.47552 AU
morning rise	10189 Nov 19 04:57	20°♏31'09	
	10189 Dec 02 23:59	0°♐	
	10190 Jan 17 07:15	0°♑	
	10190 Mar 06 11:35	0°♒	
desc. node	10190 Apr 22 16:53	26°♒58'55	
	10190 Apr 28 09:21	0°♓	
	10190 Jul 15 12:00	0°♈	

retrograde	10190 Jul 28 12:54	0°♈58'27	
	10190 Aug 10 01:34	30°℞♓	
opposition	10190 Sep 04 21:58	22°♓23'15	-4°12'03
greatest brilliancy	10190 Sep 05 16:50	22°♓05'14	-1.5m
min. Earth dist.	10190 Sep 10 15:24	20°♓12'04	0.61853 AU
direct	10190 Oct 16 02:46	12°♓27'30	
	10190 Dec 15 00:52	0°♈	
	10191 Feb 03 23:18	0°♉	
	10191 Mar 18 16:11	0°♊	
asc. node	10191 Apr 12 00:57	18°♊18'46	
	10191 Apr 27 05:09	0°♋	
	10191 Jun 04 13:41	0°♌	
	10191 Jul 13 00:41	0°♍	
	10191 Aug 21 13:16	0°♎	
evening set	10191 Sep 18 21:28	20°♎45'42	
	10191 Oct 01 19:28	0°♏	
conjunction	10191 Nov 13 16:30	29°♏42'53	0°54'35
minimum elong	10191 Nov 13 17:59	29°♏45'24	0°54'57
	10191 Nov 14 02:36	0°♐	
max. Earth dist.	10191 Dec 08 15:53	16°♐24'46	2.59632 AU
	10191 Dec 29 10:06	0°♑	
morning rise	10192 Jan 02 07:44	2°♑31'37	
	10192 Feb 14 12:27	0°♒	
desc. node	10192 Mar 09 09:35	14°♒48'41	
	10192 Apr 03 09:02	0°♓	
	10192 May 24 22:38	0°♈	
	10192 Jul 24 00:27	0°♉	
retrograde	10192 Sep 14 03:08	12°♉39'31	
opposition	10192 Oct 18 20:57	5°♉35'13	-5°29'23
greatest brilliancy	10192 Oct 20 14:18	4°♉58'58	-2.1m
min. Earth dist.	10192 Oct 27 12:08	2°♉34'19	0.49852 AU
	10192 Nov 04 17:52	30°℞♈	
direct	10192 Nov 26 00:25	26°♈54'18	
	10192 Dec 17 17:25	0°♉	
	10193 Feb 16 14:43	0°♊	
asc. node	10193 Feb 27 03:44	6°♊55'29	
	10193 Mar 31 21:28	0°♋	
	10193 May 11 01:30	0°♌	
	10193 Jun 19 20:40	0°♍	
	10193 Jul 30 14:27	0°♎	
	10193 Sep 10 23:45	0°♏	
	10193 Oct 25 05:17	0°♐	
evening set	10193 Nov 05 23:29	7°♐46'56	
	10193 Dec 10 01:53	0°♑	
conjunction	10193 Dec 23 19:31	8°♑49'52	0°17'01
minimum elong	10193 Dec 23 20:05	8°♑50'47	0°17'29
max. Earth dist.	10194 Jan 01 12:21	14°♑23'49	2.66626 AU
desc. node	10194 Jan 25 03:35	29°♑26'01	
	10194 Jan 26 01:02	0°♒	
morning rise	10194 Feb 06 12:20	7°♒15'39	
	10194 Mar 14 13:41	0°♓	
	10194 May 01 08:34	0°♈	
	10194 Jun 18 13:22	0°♉	
	10194 Aug 07 04:13	0°♊	
	10194 Oct 01 22:26	0°♋	
retrograde	10194 Nov 25 05:03	14°♋48'25	
opposition	10194 Dec 25 01:55	9°♋49'17	-1°36'32
greatest brilliancy	10194 Dec 25 10:02	9°♋43'46	-3.0m
min. Earth dist.	10194 Dec 28 21:59	8°♋46'40	0.37439 AU
asc. node	10195 Jan 15 05:52	5°♋03'29	
direct	10195 Jan 24 22:02	4°♋25'44	
	10195 Apr 05 04:26	0°♌	
	10195 May 22 11:30	0°♍	
	10195 Jul 06 06:32	0°♎	
	10195 Aug 20 09:14	0°♏	
	10195 Oct 05 12:14	0°♐	
	10195 Nov 21 13:18	0°♑	
desc. node	10195 Dec 13 01:29	13°♑36'35	
evening set	10195 Dec 14 21:22	14°♑45'56	
	10196 Jan 07 23:33	0°♒	
max. Earth dist.	10196 Jan 23 19:05	10°♒01'18	2.68119 AU
conjunction	10196 Jan 28 13:32	13°♒03'01	-0°24'04
minimum elong	10196 Jan 28 12:51	13°♒01'56	0°23'41
	10196 Feb 24 03:19	0°♓	
morning rise	10196 Mar 11 23:42	10°♓49'48	
	10196 Apr 10 11:56	0°♈	
	10196 May 25 18:27	0°♉	
	10196 Jul 08 21:39	0°♊	
	10196 Aug 21 00:59	0°♋	
	10196 Oct 02 19:03	0°♌	
	10196 Nov 16 02:04	0°♍	
asc. node	10196 Dec 02 06:41	10°♍03'40	
	10197 Jan 11 22:52	0°♎	
retrograde	10197 Feb 07 23:21	4°♎57'19	
min. Earth dist.	10197 Mar 06 04:55	0°♎18'44	0.41787 AU
	10197 Mar 07 04:48	30°℞♍	
greatest brilliancy	10197 Mar 12 13:00	28°♍16'28	-2.6m
opposition	10197 Mar 14 04:05	27°♍44'44	5°40'02
direct	10197 Apr 14 07:06	21°♍48'33	
	10197 May 22 19:47	0°♎	
	10197 Jul 22 19:49	0°♏	
	10197 Sep 12 08:22	0°♐	
desc. node	10197 Oct 30 02:38	28°♐50'12	
	10197 Nov 01 00:24	0°♑	
	10197 Dec 19 15:54	0°♒	
evening set	10198 Jan 18 14:41	18°♒50'40	
	10198 Feb 05 01:40	0°♓	
max. Earth dist.	10198 Feb 14 18:46	6°♓16'04	2.64102 AU
conjunction	10198 Mar 04 06:09	17°♓40'04	-0°56'48
minimum elong	10198 Mar 04 05:04	17°♓38'18	0°56'40
	10198 Mar 22 20:58	0°♈	
morning rise	10198 Apr 18 18:56	18°♈12'12	
	10198 May 05 20:54	0°♉	
	10198 Jun 17 02:28	0°♊	
	10198 Jul 27 19:26	0°♋	
	10198 Sep 05 11:32	0°♌	
	10198 Oct 14 22:06	0°♍	
asc. node	10198 Oct 20 02:12	3°♍54'03	
	10198 Nov 24 11:12	0°♎	
	10199 Jan 07 21:16	0°♏	
	10199 Mar 15 11:44	0°♐	
retrograde	10199 Mar 29 14:01	1°♐20'56	
	10199 Apr 12 05:22	30°℞♏	
min. Earth dist.	10199 Apr 30 11:21	24°♏27'21	0.55392 AU
greatest brilliancy	10199 May 06 09:29	22°♏10'52	-1.9m
opposition	10199 May 07 11:29	21°♏45'49	4°33'22
direct	10199 Jun 12 13:56	13°♏41'54	
	10199 Aug 11 20:20	0°♐	
desc. node	10199 Sep 17 06:23	17°♐52'35	
	10199 Oct 09 13:56	0°♑	
	10199 Nov 30 05:14	0°♒	
	10200 Jan 17 15:58	0°♓	
evening set	10200 Feb 24 23:29	24°♓57'29	
	10200 Mar 04 12:12	0°♈	
max. Earth dist.	10200 Mar 13 21:42	6°♈21'28	2.54890 AU
conjunction	10200 Apr 14 04:50	28°♈03'58	-1°07'54
minimum elong	10200 Apr 14 05:11	28°♈04'36	1°08'05
	10200 Apr 16 22:23	0°♉	
	10200 May 28 05:36	0°♊	

morning rise	10200 Jun 06 15:15	7°♊01'12	
	10200 Jul 06 20:55	0°♋	
	10200 Aug 14 11:48	0°♌	
asc. node	10200 Sep 06 20:47	18°♌17'17	
	10200 Sep 21 21:17	0°♍	
	10200 Oct 31 00:08	0°♎	
	10200 Dec 11 01:13	0°♏	
	10201 Jan 24 23:19	0°♐	
	10201 Mar 21 18:26	0°♑	
retrograde	10201 May 06 05:54	10°♑55'07	
min. Earth dist.	10201 Jun 12 09:30	2°♑15'29	0.65008 AU
opposition	10201 Jun 15 17:37	0°♑55'51	1°47'45
greatest brilliancy	10201 Jun 15 12:48	1°♑00'38	-1.4m
	10201 Jun 18 02:01	30°℞♐	
direct	10201 Jul 25 04:00	21°♐40'33	
desc. node	10201 Aug 05 10:37	22°♐24'55	
	10201 Sep 04 12:45	0°♑	
	10201 Nov 07 14:56	0°♒	
	10201 Dec 29 00:16	0°♓	
	10202 Feb 13 15:52	0°♈	
	10202 Mar 29 00:34	0°♉	
evening set	10202 Apr 11 02:22	9°♉25'35	
max. Earth dist.	10202 Apr 26 20:50	21°♉01'11	2.41754 AU
	10202 May 08 21:06	0°♊	
conjunction	10202 Jun 08 15:05	23°♊30'59	-0°32'28
minimum elong	10202 Jun 08 17:34	23°♊35'47	0°32'54
	10202 Jun 16 23:08	0°♋	
asc. node	10202 Jul 25 16:44	0°♌28'44	
	10202 Jul 25 02:12	0°♌	
morning rise	10202 Aug 17 22:41	18°♌51'09	
	10202 Sep 01 02:56	0°♍	
	10202 Oct 09 22:18	0°♎	
	10202 Nov 19 09:20	0°♏	
	10203 Jan 01 10:11	0°♐	
	10203 Feb 17 11:38	0°♑	
	10203 Apr 14 21:09	0°♒	
retrograde	10203 Jun 09 08:51	14°♒25'14	
desc. node	10203 Jun 23 11:36	13°♒08'47	
opposition	10203 Jul 19 21:18	4°♒44'44	-0°54'33
greatest brilliancy	10203 Jul 19 21:12	4°♒44'51	-1.3m
min. Earth dist.	10203 Jul 20 08:03	4°♒34'07	0.68287 AU
	10203 Aug 01 10:45	30°℞♑	
direct	10203 Aug 30 03:52	24°♑52'06	
	10203 Sep 30 14:02	0°♒	
	10203 Dec 05 20:30	0°♓	
	10204 Jan 24 07:12	0°♈	
	10204 Mar 08 08:44	0°♉	
	10204 Apr 18 05:28	0°♊	
	10204 May 27 02:45	0°♋	
asc. node	10204 Jun 11 14:20	12°♋11'32	
evening set	10204 Jun 12 07:31	12°♋45'29	
	10204 Jul 04 01:37	0°♌	
	10204 Aug 11 01:11	0°♍	
conjunction	10204 Aug 22 21:34	9°♍14'47	0°47'05
minimum elong	10204 Aug 22 17:56	9°♍07'43	0°46'50
	10204 Sep 18 22:26	0°♎	
max. Earth dist.	10204 Oct 15 06:24	19°♎39'14	2.41883 AU
morning rise	10204 Oct 29 11:22	0°♏00'05	
	10204 Oct 29 11:19	0°♏	
	10204 Dec 11 05:28	0°♐	
	10205 Jan 25 16:32	0°♑	
	10205 Mar 15 18:35	0°♒	
desc. node	10205 May 10 07:55	29°♒23'36	
	10205 May 11 15:46	0°♓	
retrograde	10205 Jul 14 01:37	17°♓25'29	
opposition	10205 Aug 22 07:53	8°♓26'41	-3°21'45
greatest brilliancy	10205 Aug 22 18:35	8°♓16'19	-1.4m
min. Earth dist.	10205 Aug 26 14:05	6°♓47'39	0.64952 AU
	10205 Sep 17 04:25	30°℞♒	
direct	10205 Oct 02 22:07	28°♒24'00	
	10205 Oct 19 08:17	0°♓	
	10205 Dec 29 09:37	0°♈	
	10206 Feb 14 13:32	0°♉	
	10206 Mar 28 07:43	0°♊	
asc. node	10206 Apr 29 15:09	24°♊39'16	
	10206 May 06 11:55	0°♋	
	10206 Jun 13 14:59	0°♌	
	10206 Jul 21 20:39	0°♍	
evening set	10206 Aug 26 12:26	27°♍17'28	
	10206 Aug 30 03:00	0°♎	
	10206 Oct 10 02:25	0°♏	
conjunction	10206 Oct 26 10:20	11°♏33'23	1°03'50
minimum elong	10206 Oct 26 11:23	11°♏35'14	1°04'06
	10206 Nov 22 03:46	0°♐	
max. Earth dist.	10206 Nov 28 02:48	4°♐02'17	2.55440 AU
morning rise	10206 Dec 18 12:51	17°♐40'22	
	10207 Jan 06 08:54	0°♑	
	10207 Feb 22 17:05	0°♒	
desc. node	10207 Mar 28 02:04	20°♒17'18	
	10207 Apr 13 13:56	0°♓	
	10207 Jun 07 13:05	0°♈	
retrograde	10207 Aug 26 04:22	25°♈07'05	
opposition	10207 Oct 01 14:54	17°♈20'40	-5°13'53
greatest brilliancy	10207 Oct 03 00:48	16°♈49'31	-1.8m
min. Earth dist.	10207 Oct 09 09:52	14°♈29'18	0.55156 AU
direct	10207 Nov 10 10:02	7°♈56'45	
	10208 Jan 15 11:40	0°♉	
	10208 Mar 02 11:08	0°♊	
asc. node	10208 Mar 16 19:09	10°♊13'37	
	10208 Apr 12 10:11	0°♋	
	10208 May 21 12:56	0°♌	
	10208 Jun 29 14:34	0°♍	
	10208 Aug 08 17:20	0°♎	
	10208 Sep 19 13:14	0°♏	
evening set	10208 Oct 20 14:43	21°♏25'07	
	10208 Nov 02 07:59	0°♐	
conjunction	10208 Dec 09 19:04	24°♐44'12	0°32'51
minimum elong	10208 Dec 09 20:10	24°♐45'58	0°33'18
	10208 Dec 17 21:41	0°♑	
max. Earth dist.	10208 Dec 24 09:56	4°♑12'24	2.64547 AU
morning rise	10209 Jan 24 21:28	24°♑20'12	
	10209 Feb 02 20:02	0°♒	
desc. node	10209 Feb 11 19:49	5°♒40'21	
	10209 Mar 22 17:15	0°♓	
	10209 May 10 12:19	0°♈	
	10209 Jun 30 01:55	0°♉	
	10209 Aug 25 15:35	0°♊	
retrograde	10209 Oct 25 11:10	17°♊06'20	
opposition	10209 Nov 26 03:48	11°♊23'09	-4°17'20
greatest brilliancy	10209 Nov 27 12:14	10°♊58'23	-2.7m
min. Earth dist.	10209 Dec 03 19:07	9°♊04'24	0.41375 AU
direct	10209 Dec 30 02:18	4°♊36'56	
asc. node	10210 Feb 01 21:59	11°♊56'04	
	10210 Mar 09 00:23	0°♋	
	10210 Apr 23 10:24	0°♌	
	10210 Jun 04 18:10	0°♍	
	10210 Jul 17 05:00	0°♎	
	10210 Aug 29 21:06	0°♏	
	10210 Oct 14 01:34	0°♐	
	10210 Nov 29 12:47	0°♑	

evening set	10210 Dec 01 10:02	1°♉12'18	
desc. node	10210 Dec 30 15:26	19°♉48'25	
conjunction	10211 Jan 15 21:40	0°♒07'26	-0°08'36
minimum elong	10211 Jan 15 21:25	0°♒07'02	0°08'11
behind sun begin	10211 Jan 15 05:17	29°♉41'29	
behind sun end	10211 Jan 16 13:32	0°♒32'35	
	10211 Jan 15 16:58	0°♒	
max. Earth dist.	10211 Jan 16 02:54	0°♒15'44	2.68202 AU
morning rise	10211 Feb 28 10:43	27°♒46'31	
	10211 Mar 03 22:30	0°♓	
	10211 Apr 19 17:17	0°♈	
	10211 Jun 04 19:59	0°♉	
	10211 Jul 20 07:46	0°♊	
	10211 Sep 03 13:51	0°♋	
	10211 Oct 20 03:34	0°♌	
	10211 Dec 17 07:39	0°♍	
asc. node	10211 Dec 20 22:35	1°♍11'27	
retrograde	10212 Jan 15 00:23	5°♍18'27	
min. Earth dist.	10212 Feb 10 05:31	1°♍00'54	0.37716 AU
	10212 Feb 13 20:14	30°℞♌	
greatest brilliancy	10212 Feb 14 11:20	29°♌49'18	-2.9m
opposition	10212 Feb 15 07:27	29°♌35'05	4°01'40
direct	10212 Mar 15 18:47	24°♌30'45	
	10212 Apr 15 01:02	0°♍	
	10212 Jun 15 14:50	0°♎	
	10212 Aug 04 14:45	0°♏	
	10212 Sep 22 03:50	0°♐	
	10212 Nov 09 12:16	0°♑	
desc. node	10212 Nov 16 15:12	4°♑25'41	
	10212 Dec 27 13:31	0°♒	
evening set	10213 Jan 05 18:31	5°♒47'41	
max. Earth dist.	10213 Feb 06 17:25	26°♒05'33	2.66343 AU
	10213 Feb 12 19:33	0°♓	
conjunction	10213 Feb 19 01:27	4°♓01'22	-0°45'49
minimum elong	10213 Feb 19 00:22	3°♓59'37	0°45'34
	10213 Mar 30 18:45	0°♈	
morning rise	10213 Apr 04 06:38	2°♈59'16	
	10213 May 14 04:38	0°♉	
	10213 Jun 26 00:27	0°♊	
	10213 Aug 06 10:07	0°♋	
	10213 Sep 15 20:18	0°♌	
	10213 Oct 26 04:53	0°♍	
asc. node	10213 Nov 06 21:29	8°♍32'25	
	10213 Dec 07 09:23	0°♎	
	10214 Jan 26 18:57	0°♏	
retrograde	10214 Mar 13 09:38	12°♏29'10	
min. Earth dist.	10214 Apr 11 20:19	6°♏29'20	0.50206 AU
greatest brilliancy	10214 Apr 18 11:26	4°♏02'56	-2.1m
opposition	10214 Apr 19 23:35	3°♏29'30	5°26'05
	10214 Apr 30 02:39	30°℞♎	
direct	10214 May 24 07:17	26°♎08'07	
	10214 Jun 19 09:06	0°♏	
	10214 Aug 27 02:44	0°♐	
desc. node	10214 Oct 04 18:03	21°♐26'14	
	10214 Oct 19 13:14	0°♑	
	10214 Dec 08 16:16	0°♒	
	10215 Jan 25 14:39	0°♓	
evening set	10215 Feb 10 22:46	10°♓32'35	
max. Earth dist.	10215 Mar 03 11:47	24°♓03'22	2.59091 AU
	10215 Mar 12 09:20	0°♈	
conjunction	10215 Mar 29 04:32	11°♈23'08	-1°07'25
minimum elong	10215 Mar 29 04:03	11°♈22'17	1°07'29
	10215 Apr 25 00:00	0°♉	
morning rise	10215 May 17 11:54	16°♉02'58	
	10215 Jun 05 14:54	0°♊	
	10215 Jul 15 14:54	0°♋	
	10215 Aug 23 13:40	0°♌	
asc. node	10215 Sep 24 16:33	24°♌55'49	
	10215 Oct 01 05:58	0°♍	
	10215 Nov 09 16:23	0°♎	
	10215 Dec 21 08:38	0°♏	
	10216 Feb 06 10:24	0°♐	
retrograde	10216 Apr 22 09:01	26°♐51'09	
min. Earth dist.	10216 May 27 15:29	18°♐47'53	0.61933 AU
opposition	10216 Jun 01 10:59	16°♐53'38	2°53'07
greatest brilliancy	10216 May 31 23:39	17°♐04'53	-1.6m
direct	10216 Jul 09 18:20	8°♐01'14	
desc. node	10216 Aug 21 22:04	17°♐03'28	
	10216 Sep 21 06:51	0°♑	
	10216 Nov 16 16:38	0°♒	
	10217 Jan 05 13:50	0°♓	
	10217 Feb 20 19:28	0°♈	
evening set	10217 Mar 23 02:19	20°♈46'14	
	10217 Apr 05 03:41	0°♉	
max. Earth dist.	10217 Apr 05 16:20	0°♉22'33	2.47133 AU
conjunction	10217 May 15 11:32	29°♉29'47	-0°53'49
minimum elong	10217 May 15 13:42	29°♉33'51	0°54'10
	10217 May 16 03:40	0°♊	
	10217 Jun 24 10:15	0°♋	
morning rise	10217 Jul 17 16:28	18°♋10'15	
greatest brilliancy	10217 Jul 29 14:10	27°♋32'13	1.2m
	10217 Aug 01 17:11	0°♌	
asc. node	10217 Aug 11 09:49	7°♌38'25	
	10217 Sep 08 20:24	0°♍	
	10217 Oct 17 17:13	0°♎	
	10217 Nov 27 06:33	0°♏	
	10218 Jan 09 16:42	0°♐	
	10218 Feb 27 07:35	0°♑	
	10218 May 09 05:06	0°♒	
retrograde	10218 May 27 04:17	1°♒53'38	
	10218 Jun 13 04:44	30°℞♑	
opposition	10218 Jul 06 19:51	22°♑02'51	0°06'44
min. Earth dist.	10218 Jul 05 19:07	22°♑27'26	0.67770 AU
greatest brilliancy	10218 Jul 06 19:51	22°♑02'51	-1.3m
desc. node	10218 Jul 10 00:56	20°♑46'35	
direct	10218 Aug 16 12:54	12°♑21'45	
	10218 Oct 19 16:04	0°♒	
	10218 Dec 15 06:01	0°♓	
	10219 Feb 01 05:15	0°♈	
	10219 Mar 16 21:42	0°♉	
	10219 Apr 26 17:16	0°♊	
evening set	10219 May 16 19:45	15°♊21'24	
	10219 Jun 04 15:38	0°♋	
asc. node	10219 Jun 29 06:34	19°♋24'20	
	10219 Jul 12 15:17	0°♌	
conjunction	10219 Jul 24 02:38	9°♌05'45	0°17'53
minimum elong	10219 Jul 24 00:41	9°♌01'54	0°17'28
	10219 Aug 19 14:23	0°♍	
max. Earth dist.	10219 Aug 29 13:55	7°♍48'15	2.36920 AU
	10219 Sep 27 09:50	0°♎	
morning rise	10219 Oct 04 21:31	5°♎39'48	
	10219 Nov 06 20:26	0°♏	
	10219 Dec 19 14:35	0°♐	
	10220 Feb 03 09:54	0°♑	
	10220 Mar 25 00:17	0°♒	
desc. node	10220 May 26 23:40	28°♒41'11	
	10220 May 31 08:49	0°♓	
retrograde	10220 Jun 29 16:42	4°♓33'02	
	10220 Jul 26 16:24	30°℞♒	

opposition	10220 Aug 08 14:23	25°♒15'15	-2°27'06
greatest brilliancy	10220 Aug 08 19:00	25°♒10'45	-1.3m
min. Earth dist.	10220 Aug 11 08:51	24°♒10'12	0.67043 AU
direct	10220 Sep 19 06:05	15°♒12'46	
	10220 Nov 14 12:18	0°♓	
	10221 Jan 08 18:29	0°♈	
	10221 Feb 23 04:55	0°♉	
	10221 Apr 05 11:16	0°♊	
	10221 May 14 11:13	0°♋	
asc. node	10221 May 16 07:07	1°♋25'59	
greatest brilliancy	10221 May 23 10:06	7°♋01'51	1.2m
	10221 Jun 21 11:24	0°♌	
evening set	10221 Jul 29 11:23	29°♌56'01	
	10221 Jul 29 13:26	0°♍	
	10221 Sep 06 14:53	0°♎	
conjunction	10221 Oct 04 05:58	20°♎30'12	1°06'19
minimum elong	10221 Oct 04 05:32	20°♎29'23	1°06'27
	10221 Oct 17 08:35	0°♏	
max. Earth dist.	10221 Nov 14 18:02	20°♏02'57	2.50512 AU
	10221 Nov 29 05:22	0°♐	
morning rise	10221 Dec 01 01:53	1°♐15'47	
	10222 Jan 13 10:06	0°♑	
	10222 Mar 02 04:28	0°♒	
desc. node	10222 Apr 13 17:54	25°♒02'20	
	10222 Apr 22 15:19	0°♓	
	10222 Jun 24 02:04	0°♈	
retrograde	10222 Aug 08 00:19	9°♈39'20	
opposition	10222 Sep 14 18:35	1°♈19'45	-4°38'01
greatest brilliancy	10222 Sep 15 18:48	0°♈56'52	-1.6m
	10222 Sep 18 06:48	30°℞♓	
min. Earth dist.	10222 Sep 21 07:04	28°♓52'00	0.59695 AU
direct	10222 Oct 25 14:16	21°♓31'42	
	10222 Dec 03 15:18	0°♈	
	10223 Jan 29 00:34	0°♉	
	10223 Mar 13 17:51	0°♊	
asc. node	10223 Apr 03 08:58	15°♊17'20	
	10223 Apr 22 16:09	0°♋	
	10223 May 31 05:42	0°♌	
	10223 Jul 08 20:45	0°♍	
	10223 Aug 17 13:17	0°♎	
	10223 Sep 27 23:03	0°♏	
evening set	10223 Oct 02 03:21	2°♏56'58	
	10223 Nov 10 09:10	0°♐	
conjunction	10223 Nov 24 14:20	9°♐32'07	0°47'20
minimum elong	10223 Nov 24 15:47	9°♐34'31	0°47'45
max. Earth dist.	10223 Dec 15 14:32	23°♐24'05	2.61614 AU
	10223 Dec 25 17:35	0°♑	
morning rise	10224 Jan 11 17:45	10°♑58'07	
	10224 Feb 10 17:13	0°♒	
desc. node	10224 Feb 29 11:15	11°♒43'31	
	10224 Mar 30 03:15	0°♓	
	10224 May 19 10:31	0°♈	
	10224 Jul 13 09:46	0°♉	
retrograde	10224 Sep 28 10:00	24°♉16'53	
opposition	10224 Nov 01 02:25	17°♉39'32	-5°21'32
greatest brilliancy	10224 Nov 02 20:40	17°♉03'47	-2.3m
min. Earth dist.	10224 Nov 09 19:49	14°♉43'39	0.46751 AU
direct	10224 Dec 07 23:15	9°♉32'25	
	10225 Feb 06 23:28	0°♊	
asc. node	10225 Feb 18 13:05	6°♊50'47	
	10225 Mar 25 07:56	0°♋	
	10225 May 05 13:07	0°♌	
	10225 Jun 14 22:34	0°♍	
	10225 Jul 26 03:01	0°♎	
	10225 Sep 06 20:38	0°♏	
	10225 Oct 21 08:46	0°♐	
evening set	10225 Nov 16 04:47	16°♐56'22	
	10225 Dec 06 09:27	0°♑	
conjunction	10226 Jan 02 00:23	17°♑02'26	0°07'33
minimum elong	10226 Jan 02 00:38	17°♑02'51	0°08'01
behind sun begin	10226 Jan 01 08:06	16°♑36'30	
behind sun end	10226 Jan 02 17:11	17°♑29'11	
max. Earth dist.	10226 Jan 07 14:26	20°♑35'47	2.67435 AU
desc. node	10226 Jan 16 05:47	26°♑05'16	
	10226 Jan 22 09:40	0°♒	
morning rise	10226 Feb 15 03:40	15°♒02'39	
	10226 Mar 10 19:01	0°♓	
	10226 Apr 27 03:46	0°♈	
	10226 Jun 13 11:08	0°♉	
	10226 Jul 31 03:32	0°♊	
	10226 Sep 18 21:02	0°♋	
	10226 Nov 23 14:18	0°♌	
retrograde	10226 Dec 14 15:16	2°♌46'53	
	10227 Jan 05 02:19	30°℞♋	
asc. node	10227 Jan 06 16:04	29°♋37'10	
opposition	10227 Jan 13 10:21	27°♋51'55	0°31'54
greatest brilliancy	10227 Jan 13 10:13	27°♋52'00	-3.1m
min. Earth dist.	10227 Jan 14 00:06	27°♋42'46	0.36521 AU
direct	10227 Feb 12 01:17	22°♋54'49	
	10227 Mar 18 00:03	0°♌	
	10227 May 14 00:16	0°♍	
	10227 Jun 30 05:34	0°♎	
	10227 Aug 15 12:04	0°♏	
	10227 Oct 01 07:02	0°♐	
	10227 Nov 17 17:15	0°♑	
desc. node	10227 Dec 04 03:09	10°♑20'02	
evening set	10227 Dec 23 22:46	22°♑48'48	
	10228 Jan 04 08:06	0°♒	
max. Earth dist.	10228 Jan 29 20:31	16°♒09'57	2.67724 AU
conjunction	10228 Feb 06 08:27	20°♒56'26	-0°32'37
minimum elong	10228 Feb 06 07:35	20°♒55'03	0°32'16
	10228 Feb 20 12:28	0°♓	
morning rise	10228 Mar 20 21:37	18°♓59'13	
	10228 Apr 06 17:22	0°♈	
	10228 May 21 15:57	0°♉	
	10228 Jul 04 06:24	0°♊	
	10228 Aug 15 16:00	0°♋	
	10228 Sep 26 07:57	0°♌	
	10228 Nov 07 13:01	0°♍	
asc. node	10228 Nov 23 14:38	10°♍55'07	
	10228 Dec 24 08:21	0°♎	
retrograde	10229 Feb 21 14:36	20°♎01'01	
min. Earth dist.	10229 Mar 20 18:24	14°♎56'36	0.44693 AU
greatest brilliancy	10229 Mar 27 12:07	12°♎38'37	-2.4m
opposition	10229 Mar 29 05:46	12°♎02'50	5°51'32
direct	10229 Apr 30 11:29	5°♎34'29	
	10229 Jul 14 13:34	0°♏	
	10229 Sep 07 01:15	0°♐	
desc. node	10229 Oct 21 05:22	26°♐04'34	
	10229 Oct 27 18:05	0°♑	
	10229 Dec 15 20:31	0°♒	
evening set	10230 Jan 27 14:51	26°♒54'39	
	10230 Feb 01 10:35	0°♓	
max. Earth dist.	10230 Feb 21 08:48	12°♓53'59	2.62544 AU
conjunction	10230 Mar 13 15:48	26°♓16'27	-1°01'52
minimum elong	10230 Mar 13 14:50	26°♓14'51	1°01'48
	10230 Mar 19 05:50	0°♈	
morning rise	10230 Apr 29 05:48	27°♈59'37	
	10230 May 02 02:47	0°♉	

	10230 Jun 13 03:02	0°♊	
	10230 Jul 23 13:35	0°♋	
	10230 Aug 31 22:31	0°♌	
	10230 Oct 10 00:48	0°♍	
asc. node	10230 Oct 11 10:07	1°♍03'32	
	10230 Nov 19 00:42	0°♎	
	10230 Dec 31 23:37	0°♏	
	10231 Feb 22 18:07	0°♐	
retrograde	10231 Apr 08 14:37	11°♐25'52	
min. Earth dist.	10231 May 11 18:31	4°♐05'00	0.57964 AU
greatest brilliancy	10231 May 17 03:58	1°♐58'49	-1.7m
opposition	10231 May 18 00:11	1°♐39'03	3°58'01
	10231 May 22 07:15	30°℞♏	
direct	10231 Jun 23 22:58	23°♏15'36	
	10231 Jul 30 03:52	0°♐	
desc. node	10231 Sep 08 10:08	16°♐54'35	
	10231 Oct 03 23:32	0°♑	
	10231 Nov 25 22:24	0°♒	
	10232 Jan 13 20:12	0°♓	
	10232 Feb 28 19:51	0°♈	
evening set	10232 Mar 06 01:17	4°♈11'58	
max. Earth dist.	10232 Mar 21 09:13	14°♈41'14	2.52290 AU
	10232 Apr 12 05:53	0°♉	
conjunction	10232 Apr 24 18:27	8°♉57'48	-1°05'11
minimum elong	10232 Apr 24 19:27	8°♉59'36	1°05'28
	10232 May 23 10:58	0°♊	
morning rise	10232 Jun 20 04:28	20°♊56'27	
	10232 Jul 01 23:33	0°♋	
	10232 Aug 09 11:31	0°♌	
asc. node	10232 Aug 28 05:04	14°♌42'01	
	10232 Sep 16 18:11	0°♍	
	10232 Oct 25 17:44	0°♎	
	10232 Dec 05 12:07	0°♏	
	10233 Jan 18 15:24	0°♐	
	10233 Mar 11 09:42	0°♑	
retrograde	10233 May 13 23:03	19°♑01'50	
min. Earth dist.	10233 Jun 21 00:57	10°♑04'15	0.66263 AU
opposition	10233 Jun 23 13:14	9°♑04'14	1°10'01
greatest brilliancy	10233 Jun 23 10:57	9°♑06'31	-1.4m
	10233 Jul 25 22:27	30°℞♐	
desc. node	10233 Jul 26 13:50	29°♐56'29	
direct	10233 Aug 02 11:43	29°♐38'31	
	10233 Aug 10 06:39	0°♑	
	10233 Oct 31 21:10	0°♒	
	10233 Dec 23 16:28	0°♓	
	10234 Feb 08 18:10	0°♈	
	10234 Mar 24 05:45	0°♉	
evening set	10234 Apr 23 02:16	21°♉46'01	
	10234 May 04 02:09	0°♊	
max. Earth dist.	10234 May 15 18:40	8°♊51'53	2.38931 AU
	10234 Jun 12 03:08	0°♋	
conjunction	10234 Jun 24 02:12	9°♋22'32	-0°15'43
minimum elong	10234 Jun 24 03:45	9°♋25'35	0°16'11
behind sun begin	10234 Jun 24 02:14	9°♋22'35	
behind sun end	10234 Jun 24 05:17	9°♋28'35	
asc. node	10234 Jul 15 23:15	26°♋38'37	
	10234 Jul 20 04:59	0°♌	
	10234 Aug 27 04:52	0°♍	
morning rise	10234 Sep 04 23:51	6°♍52'35	
	10234 Oct 04 23:44	0°♎	
	10234 Nov 14 09:26	0°♏	
	10234 Dec 27 05:50	0°♐	
	10235 Feb 11 15:44	0°♑	
	10235 Apr 05 23:41	0°♒	
desc. node	10235 Jun 13 14:00	21°♒56'38	
retrograde	10235 Jun 17 00:02	22°♒00'53	
opposition	10235 Jul 27 08:28	12°♒27'34	-1°29'28
greatest brilliancy	10235 Jul 27 09:21	12°♒26'42	-1.3m
min. Earth dist.	10235 Jul 28 15:07	11°♒57'20	0.68130 AU
direct	10235 Sep 06 19:38	2°♒30'10	
	10235 Nov 28 20:47	0°♓	
	10236 Jan 18 19:20	0°♈	
	10236 Mar 03 07:07	0°♉	
	10236 Apr 13 06:56	0°♊	
	10236 May 22 04:59	0°♋	
asc. node	10236 Jun 01 22:26	8°♋26'20	
evening set	10236 Jun 29 04:14	0°♌00'44	
	10236 Jun 29 03:52	0°♌	
	10236 Aug 06 03:36	0°♍	
conjunction	10236 Sep 08 07:47	25°♍38'32	0°58'05
minimum elong	10236 Sep 08 04:59	25°♍33'11	0°57'59
	10236 Sep 14 01:35	0°♎	
	10236 Oct 24 15:09	0°♏	
max. Earth dist.	10236 Oct 28 10:48	2°♏44'56	2.45046 AU
morning rise	10236 Nov 11 05:06	12°♏32'27	
	10236 Dec 06 08:58	0°♐	
	10237 Jan 20 15:52	0°♑	
	10237 Mar 10 02:32	0°♒	
desc. node	10237 Apr 30 09:52	28°♒34'27	
	10237 May 03 05:28	0°♓	
retrograde	10237 Jul 22 17:23	25°♓32'56	
opposition	10237 Aug 30 12:29	16°♓46'37	-3°51'31
greatest brilliancy	10237 Aug 31 03:36	16°♓32'05	-1.5m
min. Earth dist.	10237 Sep 04 14:25	14°♓49'18	0.63371 AU
direct	10237 Oct 10 22:16	6°♓46'36	
	10237 Dec 21 11:15	0°♈	
	10238 Feb 08 13:55	0°♉	
	10238 Mar 22 21:09	0°♊	
asc. node	10238 Apr 20 01:33	21°♊19'29	
	10238 May 01 06:39	0°♋	
	10238 Jun 08 12:28	0°♌	
	10238 Jul 16 20:16	0°♍	
	10238 Aug 25 04:57	0°♎	
evening set	10238 Sep 09 17:50	11°♎31'05	
	10238 Oct 05 06:35	0°♏	
conjunction	10238 Nov 06 16:24	22°♏40'48	0°59'05
minimum elong	10238 Nov 06 17:49	22°♏43'13	0°59'25
	10238 Nov 17 09:42	0°♐	
max. Earth dist.	10238 Dec 04 22:42	11°♐48'05	2.57857 AU
morning rise	10238 Dec 27 17:18	26°♐49'02	
	10239 Jan 01 14:39	0°♑	
	10239 Feb 17 18:10	0°♒	
desc. node	10239 Mar 18 02:51	17°♒28'15	
	10239 Apr 07 22:56	0°♓	
	10239 May 30 15:37	0°♈	
	10239 Aug 05 20:58	0°♉	
retrograde	10239 Sep 06 15:25	5°♉15'19	
	10239 Oct 05 23:14	30°℞♈	
opposition	10239 Oct 12 04:09	27°♈50'59	-5°25'50
greatest brilliancy	10239 Oct 13 18:45	27°♈16'17	-2.0m
min. Earth dist.	10239 Oct 20 11:33	24°♈52'18	0.52299 AU
direct	10239 Nov 20 02:49	18°♈47'59	
	10240 Jan 03 03:42	0°♉	
	10240 Feb 23 23:28	0°♊	
asc. node	10240 Mar 07 04:32	8°♊22'22	
	10240 Apr 06 01:41	0°♋	
	10240 May 15 16:59	0°♌	
	10240 Jun 24 02:46	0°♍	
	10240 Aug 03 12:19	0°♎	
	10240 Sep 14 13:52	0°♏	

	10240 Oct 28 13:05	0°♐	
evening set	10240 Oct 30 16:51	1°♐26'23	
	10240 Dec 13 05:19	0°♑	
conjunction	10240 Dec 18 11:40	3°♑23'57	0°23'41
minimum elong	10240 Dec 18 12:28	3°♑25'14	0°24'09
max. Earth dist.	10240 Dec 29 19:35	10°♑40'56	2.65800 AU
	10241 Jan 29 03:22	0°♒	
morning rise	10241 Feb 01 17:39	2°♒16'36	
desc. node	10241 Feb 01 20:29	2°♒21'04	
	10241 Mar 17 19:06	0°♓	
	10241 May 04 23:23	0°♈	
	10241 Jun 23 01:25	0°♉	
	10241 Aug 13 20:11	0°♊	
	10241 Oct 22 03:36	0°♋	
retrograde	10241 Nov 11 20:36	2°♋30'52	
	10241 Dec 02 01:20	30°℞♊	
opposition	10241 Dec 12 08:45	27°♊15'54	-2°59'03
greatest brilliancy	10241 Dec 13 04:23	27°♊01'56	-2.9m
min. Earth dist.	10241 Dec 18 07:25	25°♊34'40	0.38899 AU
direct	10242 Jan 13 12:49	21°♊18'24	
asc. node	10242 Jan 23 06:49	21°♊57'51	
	10242 Feb 19 18:20	0°♋	
	10242 Apr 14 01:47	0°♌	
	10242 May 28 12:01	0°♍	
	10242 Jul 11 00:50	0°♎	
	10242 Aug 24 09:21	0°♏	
	10242 Oct 09 00:39	0°♐	
	10242 Nov 24 18:27	0°♑	
evening set	10242 Dec 09 18:13	9°♑31'28	
desc. node	10242 Dec 20 17:26	16°♑28'50	
	10243 Jan 11 01:39	0°♒	
max. Earth dist.	10243 Jan 21 03:40	6°♒23'33	2.68258 AU
conjunction	10243 Jan 23 17:40	8°♒01'51	-0°17'47
minimum elong	10243 Jan 23 17:09	8°♒01'02	0°17'23
	10243 Feb 27 06:10	0°♓	
morning rise	10243 Mar 08 03:40	5°♓41'34	
	10243 Apr 14 19:25	0°♈	
	10243 May 30 10:58	0°♉	
	10243 Jul 14 03:40	0°♊	
	10243 Aug 27 02:40	0°♋	
	10243 Oct 10 02:50	0°♌	
	10243 Nov 26 07:35	0°♍	
asc. node	10243 Dec 11 08:28	8°♍12'24	
retrograde	10244 Jan 30 05:06	22°♍58'54	
min. Earth dist.	10244 Feb 25 02:30	18°♍35'25	0.39701 AU
greatest brilliancy	10244 Mar 01 18:08	16°♍52'29	-2.8m
opposition	10244 Mar 03 03:04	16°♍27'15	5°12'27
direct	10244 Apr 02 10:14	10°♍56'44	
	10244 Jun 04 01:46	0°♎	
	10244 Jul 28 10:07	0°♏	
	10244 Sep 16 10:14	0°♐	
	10244 Nov 04 10:57	0°♑	
desc. node	10244 Nov 06 18:00	1°♑24'43	
	10244 Dec 22 20:04	0°♒	
evening set	10245 Jan 13 16:07	13°♒44'00	
	10245 Feb 08 04:38	0°♓	
max. Earth dist.	10245 Feb 11 23:31	2°♓26'09	2.65202 AU
conjunction	10245 Feb 27 02:24	12°♓13'50	-0°52'35
minimum elong	10245 Feb 27 01:18	12°♓12'01	0°52'23
	10245 Mar 26 02:18	0°♈	
morning rise	10245 Apr 12 23:06	11°♈58'50	
	10245 May 09 07:28	0°♉	
	10245 Jun 20 19:51	0°♊	
	10245 Jul 31 20:33	0°♋	
	10245 Sep 09 20:17	0°♌	
	10245 Oct 19 14:56	0°♍	
asc. node	10245 Oct 28 04:44	6°♍23'35	
	10245 Nov 29 16:37	0°♎	
	10246 Jan 14 15:31	0°♏	
retrograde	10246 Mar 23 10:27	23°♏59'52	
min. Earth dist.	10246 Apr 23 05:43	17°♏29'13	0.53140 AU
greatest brilliancy	10246 Apr 29 12:06	15°♏07'04	-2.0m
opposition	10246 Apr 30 18:38	14°♏38'04	4°58'08
direct	10246 Jun 05 02:50	6°♏51'51	
	10246 Aug 18 15:07	0°♐	
desc. node	10246 Sep 24 21:46	19°♐28'51	
	10246 Oct 13 16:26	0°♑	
	10246 Dec 03 15:33	0°♒	
	10247 Jan 20 21:39	0°♓	
evening set	10247 Feb 19 09:27	19°♓06'54	
	10247 Mar 07 18:12	0°♈	
max. Earth dist.	10247 Mar 09 20:19	1°♈24'13	2.56849 AU
conjunction	10247 Apr 07 15:01	21°♈06'11	-1°08'27
minimum elong	10247 Apr 07 14:57	21°♈06'05	1°08'35
	10247 Apr 20 07:31	0°♉	
morning rise	10247 May 29 00:40	27°♉57'42	
	10247 May 31 18:53	0°♊	
	10247 Jul 10 14:38	0°♋	
	10247 Aug 18 09:08	0°♌	
asc. node	10247 Sep 14 22:39	21°♌29'50	
	10247 Sep 25 21:06	0°♍	
	10247 Nov 04 02:08	0°♎	
	10247 Dec 15 07:06	0°♏	
	10248 Jan 29 19:45	0°♐	
	10248 Mar 30 14:33	0°♑	
retrograde	10248 Apr 30 10:01	5°♑29'53	
	10248 May 29 01:57	30°℞♐	
min. Earth dist.	10248 Jun 05 17:47	27°♐05'35	0.63757 AU
opposition	10248 Jun 09 17:32	25°♐30'29	2°15'00
greatest brilliancy	10248 Jun 09 10:14	25°♐37'45	-1.5m
direct	10248 Jul 18 15:56	16°♐24'48	
desc. node	10248 Aug 12 02:10	19°♐37'35	
	10248 Sep 11 15:07	0°♑	
	10248 Nov 10 18:25	0°♒	
	10248 Dec 31 12:37	0°♓	
	10249 Feb 16 01:10	0°♈	
	10249 Mar 31 11:08	0°♉	
evening set	10249 Apr 02 12:46	1°♉28'36	
max. Earth dist.	10249 Apr 16 11:13	11°♉32'08	2.44164 AU
	10249 May 11 10:12	0°♊	
conjunction	10249 May 28 13:53	12°♊59'39	-0°42'58
minimum elong	10249 May 28 16:26	13°♊04'32	0°43'23
	10249 Jun 19 14:58	0°♋	
	10249 Jul 27 19:53	0°♌	
asc. node	10249 Aug 01 18:17	3°♌53'52	
morning rise	10249 Aug 03 21:54	5°♌35'50	
	10249 Sep 03 21:12	0°♍	
	10249 Oct 12 16:13	0°♎	
	10249 Nov 22 02:38	0°♏	
	10250 Jan 04 04:50	0°♐	
	10250 Feb 20 16:36	0°♑	
	10250 Apr 21 03:00	0°♒	
retrograde	10250 Jun 03 17:53	9°♒35'13	
desc. node	10250 Jun 30 03:42	5°♒06'34	
	10250 Jul 13 21:35	30°℞♑	
opposition	10250 Jul 14 07:56	29°♑49'44	-0°29'31
greatest brilliancy	10250 Jul 14 07:38	29°♑50'02	-1.3m
min. Earth dist.	10250 Jul 14 02:57	29°♑54'40	0.68188 AU
direct	10250 Aug 24 08:32	20°♑01'43	

	10250 Oct 09 02:05	0°♒	
	10250 Dec 09 04:33	0°♓	
	10251 Jan 27 00:44	0°♈	
	10251 Mar 11 23:52	0°♉	
	10251 Apr 21 21:11	0°♊	
	10251 May 30 19:45	0°♋	
evening set	10251 May 31 19:25	0°♋46'22	
asc. node	10251 Jun 19 15:29	15°♋36'48	
	10251 Jul 07 19:11	0°♌	
conjunction	10251 Aug 10 12:56	26°♌41'23	0°35'44
minimum elong	10251 Aug 10 09:29	26°♌34'35	0°35'23
	10251 Aug 14 18:05	0°♍	
	10251 Sep 22 13:38	0°♎	
max. Earth dist.	10251 Oct 02 05:49	7°♎18'27	2.39426 AU
morning rise	10251 Oct 19 20:17	20°♎23'57	
	10251 Nov 02 00:05	0°♏	
	10251 Dec 14 16:16	0°♐	
	10252 Jan 29 04:24	0°♑	
	10252 Mar 18 17:09	0°♒	
desc. node	10252 May 17 00:35	29°♒55'08	
	10252 May 17 05:19	0°♓	
retrograde	10252 Jul 07 19:20	12°♓20'55	
opposition	10252 Aug 16 09:01	3°♓13'12	-2°59'27
greatest brilliancy	10252 Aug 16 16:50	3°♓05'35	-1.4m
min. Earth dist.	10252 Aug 19 23:21	1°♓49'04	0.66017 AU
	10252 Aug 24 17:33	30°℞♒	
direct	10252 Sep 27 00:22	23°♒09'44	
	10252 Nov 02 00:14	0°♓	
	10253 Jan 02 06:54	0°♈	
	10253 Feb 17 17:02	0°♉	
	10253 Mar 31 06:49	0°♊	
asc. node	10253 May 06 15:42	27°♊51'14	
	10253 May 09 09:42	0°♋	
	10253 Jun 16 11:29	0°♌	
	10253 Jul 24 14:54	0°♍	
evening set	10253 Aug 14 16:22	16°♍16'39	
	10253 Sep 01 18:06	0°♎	
	10253 Oct 12 13:41	0°♏	
conjunction	10253 Oct 17 04:47	3°♏18'45	1°05'55
minimum elong	10253 Oct 17 05:21	3°♏19'45	1°06'09
max. Earth dist.	10253 Nov 22 17:18	28°♏48'11	2.53318 AU
	10253 Nov 24 11:25	0°♐	
morning rise	10253 Dec 11 05:51	11°♐19'08	
	10254 Jan 08 14:45	0°♑	
	10254 Feb 25 01:23	0°♒	
desc. node	10254 Apr 03 18:56	22°♒41'03	
	10254 Apr 16 10:36	0°♓	
	10254 Jun 12 13:38	0°♈	
retrograde	10254 Aug 18 01:26	18°♈44'46	
opposition	10254 Sep 24 02:43	10°♈42'35	-5°00'10
greatest brilliancy	10254 Sep 25 08:26	10°♈14'52	-1.7m
min. Earth dist.	10254 Oct 01 08:18	8°♈00'53	0.57296 AU
direct	10254 Nov 03 09:53	1°♈05'49	
	10255 Jan 21 03:34	0°♉	
	10255 Mar 07 11:35	0°♊	
asc. node	10255 Mar 24 19:17	12°♊35'07	
	10255 Apr 16 22:56	0°♋	
	10255 May 25 19:14	0°♌	
	10255 Jul 03 15:00	0°♍	
	10255 Aug 12 11:50	0°♎	
	10255 Sep 23 01:44	0°♏	
evening set	10255 Oct 13 11:41	14°♏13'51	
	10255 Nov 05 15:08	0°♐	
conjunction	10255 Dec 04 00:01	18°♐52'04	0°39'08
minimum elong	10255 Dec 04 01:17	18°♐54'09	0°39'34
max. Earth dist.	10255 Dec 21 08:00	0°♑10'57	2.63342 AU
	10255 Dec 21 01:16	0°♑	
morning rise	10256 Jan 19 22:01	19°♑11'31	
	10256 Feb 05 23:09	0°♒	
desc. node	10256 Feb 19 12:40	8°♒32'06	
	10256 Mar 25 00:42	0°♓	
	10256 May 13 09:05	0°♈	
	10256 Jul 04 10:08	0°♉	
	10256 Sep 06 04:05	0°♊	
retrograde	10256 Oct 13 00:14	7°♊06'47	
opposition	10256 Nov 14 15:20	0°♊58'52	-4°54'18
greatest brilliancy	10256 Nov 16 06:06	0°♊27'43	-2.5m
	10256 Nov 17 16:31	30°℞♉	
min. Earth dist.	10256 Nov 23 00:59	28°♉18'24	0.43702 AU
direct	10256 Dec 19 23:17	23°♉33'59	
	10257 Jan 20 13:54	0°♊	
asc. node	10257 Feb 08 22:42	8°♊46'15	
	10257 Mar 16 09:30	0°♋	
	10257 Apr 28 10:21	0°♌	
	10257 Jun 08 17:15	0°♍	
	10257 Jul 20 11:42	0°♎	
	10257 Sep 01 15:42	0°♏	
	10257 Oct 16 11:13	0°♐	
evening set	10257 Nov 24 23:48	25°♐41'36	
	10257 Dec 01 16:40	0°♑	
desc. node	10258 Jan 06 07:24	22°♑43'16	
conjunction	10258 Jan 10 00:09	25°♑04'10	-0°01'59
minimum elong	10258 Jan 10 00:06	25°♑04'05	0°01'33
behind sun begin	10258 Jan 09 05:34	24°♑34'42	
behind sun end	10258 Jan 10 18:37	25°♑33'29	
max. Earth dist.	10258 Jan 12 15:24	26°♑44'32	2.67964 AU
	10258 Jan 17 18:37	0°♒	
morning rise	10258 Feb 22 18:07	22°♒49'04	
	10258 Mar 06 01:33	0°♓	
	10258 Apr 22 02:19	0°♈	
	10258 Jun 07 16:45	0°♉	
	10258 Jul 24 00:30	0°♊	
	10258 Sep 08 18:33	0°♋	
	10258 Oct 28 23:29	0°♌	
asc. node	10258 Dec 27 23:40	21°♌27'54	
retrograde	10259 Jan 01 21:26	21°♌37'36	
min. Earth dist.	10259 Jan 29 09:15	17°♌09'33	0.36743 AU
opposition	10259 Feb 01 04:15	16°♌24'31	2°41'16
greatest brilliancy	10259 Jan 31 19:29	16°♌30'25	-3.0m
direct	10259 Mar 02 07:45	11°♌31'54	
	10259 May 01 02:44	0°♍	
	10259 Jun 22 06:07	0°♎	
	10259 Aug 09 06:32	0°♏	
	10259 Sep 25 22:13	0°♐	
	10259 Nov 12 19:43	0°♑	
desc. node	10259 Nov 24 06:16	7°♑09'24	
	10259 Dec 30 16:10	0°♒	
evening set	10259 Dec 31 20:42	0°♒44'55	
max. Earth dist.	10260 Feb 03 22:54	22°♒21'06	2.67070 AU
conjunction	10260 Feb 14 03:19	28°♒52'01	-0°40'35
minimum elong	10260 Feb 14 02:18	28°♒50'24	0°40'17
	10260 Feb 15 21:42	0°♓	
morning rise	10260 Mar 28 23:35	27°♓20'50	
	10260 Apr 02 00:05	0°♈	
	10260 May 16 16:13	0°♉	
	10260 Jun 28 20:33	0°♊	
	10260 Aug 09 16:29	0°♋	
	10260 Sep 19 14:18	0°♌	
	10260 Oct 30 13:43	0°♍	

asc. node	10260 Nov 13 23:09	10°♍16'06	
	10260 Dec 13 00:50	0°♎	
	10261 Feb 09 20:26	0°♏	
retrograde	10261 Mar 05 06:03	3°♏44'17	
	10261 Mar 28 00:20	30°℞♎	
min. Earth dist.	10261 Apr 02 14:04	28°♎09'44	0.47748 AU
greatest brilliancy	10261 Apr 09 09:04	25°♎44'11	-2.3m
opposition	10261 Apr 11 00:41	25°♎08'33	5°42'33
direct	10261 May 14 11:26	18°♎09'33	
	10261 Jul 02 03:09	0°♏	
	10261 Aug 31 03:53	0°♐	
desc. node	10261 Oct 11 09:08	23°♐34'21	
	10261 Oct 22 06:54	0°♑	
	10261 Dec 10 23:08	0°♒	
	10262 Jan 27 18:29	0°♓	
evening set	10262 Feb 04 17:27	5°♓06'47	
max. Earth dist.	10262 Feb 27 03:47	19°♓44'21	2.60738 AU
	10262 Mar 14 14:27	0°♈	
conjunction	10262 Mar 22 08:09	5°♈12'09	-1°05'39
minimum elong	10262 Mar 22 07:25	5°♈10'55	1°05'39
	10262 Apr 27 09:01	0°♉	
morning rise	10262 May 09 06:42	8°♉24'13	
	10262 Jun 08 04:59	0°♊	
	10262 Jul 18 10:16	0°♋	
	10262 Aug 26 13:46	0°♌	
asc. node	10262 Oct 01 18:37	27°♌58'25	
	10262 Oct 04 09:48	0°♍	
	10262 Nov 13 00:18	0°♎	
	10262 Dec 25 01:14	0°♏	
	10263 Feb 11 14:18	0°♐	
retrograde	10263 Apr 17 04:55	20°♐55'04	
min. Earth dist.	10263 May 21 13:14	13°♐09'40	0.60262 AU
opposition	10263 May 26 23:57	11°♐00'53	3°20'44
greatest brilliancy	10263 May 26 09:00	11°♐15'38	-1.6m
direct	10263 Jul 03 16:56	2°♐20'36	
desc. node	10263 Aug 29 13:14	16°♐51'14	
	10263 Sep 26 15:33	0°♑	
	10263 Nov 20 10:43	0°♒	
	10264 Jan 08 22:31	0°♓	
	10264 Feb 24 02:50	0°♈	
evening set	10264 Mar 15 12:31	13°♈52'28	
max. Earth dist.	10264 Mar 29 14:33	23°♈40'48	2.49496 AU
	10264 Apr 07 13:12	0°♉	
conjunction	10264 May 06 02:23	20°♉39'51	-0°59'49
minimum elong	10264 May 06 04:05	20°♉42'58	1°00'09
	10264 May 18 16:28	0°♊	
	10264 Jun 27 02:24	0°♋	
morning rise	10264 Jul 05 02:14	6°♋11'57	
	10264 Aug 04 11:53	0°♌	
asc. node	10264 Aug 18 11:47	11°♌00'50	
	10264 Sep 11 16:19	0°♍	
	10264 Oct 20 13:23	0°♎	
	10264 Nov 30 03:14	0°♏	
	10265 Jan 12 17:12	0°♐	
	10265 Mar 03 05:10	0°♑	
retrograde	10265 May 21 13:59	26°♑56'50	
min. Earth dist.	10265 Jun 29 12:15	17°♑42'56	0.67217 AU
opposition	10265 Jul 01 04:52	17°♑02'30	0°32'40
greatest brilliancy	10265 Jul 01 04:14	17°♑03'08	-1.4m
desc. node	10265 Jul 16 16:26	11°♑22'39	
direct	10265 Aug 10 13:38	7°♑27'49	
	10265 Oct 24 07:03	0°♒	
	10265 Dec 18 03:24	0°♓	
	10266 Feb 03 18:42	0°♈	
	10266 Mar 19 10:35	0°♉	
	10266 Apr 29 07:37	0°♊	
evening set	10266 May 06 00:07	5°♊03'43	
	10266 Jun 07 07:45	0°♋	
max. Earth dist.	10266 Jun 19 07:47	9°♋24'59	2.36753 AU
asc. node	10266 Jul 06 07:46	22°♋50'40	
conjunction	10266 Jul 10 14:40	26°♋14'25	0°03'09
minimum elong	10266 Jul 10 14:23	26°♋13'50	0°02'43
behind sun begin	10266 Jul 09 08:31	25°♋14'42	
behind sun end	10266 Jul 11 20:14	27°♋12'58	
	10266 Jul 15 08:33	0°♌	
	10266 Aug 22 07:33	0°♍	
morning rise	10266 Sep 22 06:36	24°♍02'33	
	10266 Sep 30 01:48	0°♎	
	10266 Nov 09 10:43	0°♏	
	10266 Dec 22 03:48	0°♐	
	10267 Feb 06 02:26	0°♑	
	10267 Mar 29 12:03	0°♒	
desc. node	10267 Jun 03 16:12	27°♒11'04	
retrograde	10267 Jun 24 19:13	29°♒39'44	
opposition	10267 Aug 03 21:50	20°♒14'42	-2°03'37
greatest brilliancy	10267 Aug 04 00:32	20°♒12'03	-1.3m
min. Earth dist.	10267 Aug 06 00:15	19°♒25'09	0.67654 AU
direct	10267 Sep 14 11:32	10°♒13'56	
	10267 Nov 20 19:08	0°♓	
	10268 Jan 13 00:24	0°♈	
	10268 Feb 27 02:16	0°♉	
	10268 Apr 08 06:55	0°♊	
	10268 May 17 06:42	0°♋	
asc. node	10268 May 23 08:05	4°♋45'08	
	10268 Jun 24 06:29	0°♌	
evening set	10268 Jul 16 06:41	17°♌25'05	
	10268 Aug 01 06:58	0°♍	
	10268 Sep 09 05:48	0°♎	
conjunction	10268 Sep 23 09:55	10°♎37'51	1°04'21
minimum elong	10268 Sep 23 08:29	10°♎35'11	1°04'23
	10268 Oct 19 20:21	0°♏	
max. Earth dist.	10268 Nov 08 00:26	13°♏39'23	2.48108 AU
morning rise	10268 Nov 22 19:19	23°♏57'56	
	10268 Dec 01 14:07	0°♐	
	10269 Jan 15 18:03	0°♑	
	10269 Mar 04 16:49	0°♒	
desc. node	10269 Apr 20 11:06	27°♒00'27	
	10269 Apr 25 23:57	0°♓	
	10269 Jul 04 11:18	0°♈	
retrograde	10269 Jul 31 19:48	3°♈57'06	
	10269 Aug 26 00:35	30°℞♓	
opposition	10269 Sep 08 01:28	25°♓24'57	-4°19'18
greatest brilliancy	10269 Sep 08 21:35	25°♓05'46	-1.5m
min. Earth dist.	10269 Sep 13 22:33	23°♓10'21	0.61451 AU
direct	10269 Oct 19 04:03	15°♓30'13	
	10269 Dec 11 15:42	0°♈	
	10270 Feb 02 02:21	0°♉	
	10270 Mar 17 04:26	0°♊	
asc. node	10270 Apr 10 09:33	18°♊06'41	
	10270 Apr 25 21:13	0°♋	
	10270 Jun 03 07:16	0°♌	
	10270 Jul 11 18:26	0°♍	
	10270 Aug 20 06:21	0°♎	
evening set	10270 Sep 22 19:25	24°♎31'50	
	10270 Sep 30 11:15	0°♏	
	10270 Nov 12 16:43	0°♐	
conjunction	10270 Nov 17 02:29	2°♐58'50	0°52'43
minimum elong	10270 Nov 17 04:00	3°♐01'23	0°53'06
max. Earth dist.	10270 Dec 11 04:09	19°♐01'58	2.60031 AU

	10270 Dec 27 22:18	0°♉	
morning rise	10271 Jan 05 09:53	5°♉29'44	
	10271 Feb 12 22:15	0°♒	
desc. node	10271 Mar 08 04:19	14°♒28'05	
	10271 Apr 02 14:39	0°♓	
	10271 May 23 18:02	0°♈	
	10271 Jul 20 21:48	0°♉	
retrograde	10271 Sep 19 00:21	16°♉07'07	
opposition	10271 Oct 23 13:28	9°♉07'26	-5°28'07
greatest brilliancy	10271 Oct 25 07:05	8°♉31'05	-2.1m
min. Earth dist.	10271 Nov 01 05:15	6°♉07'02	0.49263 AU
direct	10271 Nov 30 10:26	0°♉32'09	
	10272 Feb 15 03:35	0°♊	
asc. node	10272 Feb 26 13:24	7°♊19'39	
	10272 Mar 30 03:11	0°♋	
	10272 May 09 12:32	0°♌	
	10272 Jun 18 09:32	0°♍	
	10272 Jul 29 03:38	0°♎	
	10272 Sep 09 12:32	0°♏	
	10272 Oct 23 17:24	0°♐	
evening set	10272 Nov 09 06:36	10°♐56'26	
	10272 Dec 08 13:21	0°♑	
conjunction	10272 Dec 26 20:58	11°♑46'17	0°14'18
minimum elong	10272 Dec 26 21:27	11°♑47'04	0°14'45
behind sun begin	10272 Dec 26 14:18	11°♑35'37	
behind sun end	10272 Dec 27 04:37	11°♑58'30	
max. Earth dist.	10273 Jan 04 00:02	16°♑57'52	2.66819 AU
desc. node	10273 Jan 22 22:33	29°♑00'50	
	10273 Jan 24 11:51	0°♒	
morning rise	10273 Feb 09 10:18	10°♒05'27	
	10273 Mar 12 23:30	0°♓	
	10273 Apr 29 16:13	0°♈	
	10273 Jun 16 16:04	0°♉	
	10273 Aug 04 18:36	0°♊	
	10273 Sep 27 11:53	0°♋	
retrograde	10273 Nov 30 01:27	19°♋25'57	
opposition	10273 Dec 29 22:12	14°♋29'00	-1°08'20
greatest brilliancy	10273 Dec 30 03:27	14°♋25'26	-3.0m
min. Earth dist.	10274 Jan 02 03:56	13°♋36'21	0.37176 AU
asc. node	10274 Jan 13 17:13	10°♋49'46	
direct	10274 Jan 29 12:18	9°♋11'42	
	10274 Apr 01 13:43	0°♌	
	10274 May 20 05:40	0°♍	
	10274 Jul 04 10:01	0°♎	
	10274 Aug 18 16:24	0°♏	
	10274 Oct 03 21:00	0°♐	
	10274 Nov 19 23:01	0°♑	
desc. node	10274 Dec 10 19:02	13°♑10'24	
evening set	10274 Dec 17 22:19	17°♑40'54	
	10275 Jan 06 10:09	0°♒	
max. Earth dist.	10275 Jan 26 03:53	12°♒30'19	2.68074 AU
conjunction	10275 Jan 31 12:37	15°♒54'45	-0°26'38
minimum elong	10275 Jan 31 11:53	15°♒53'34	0°26'16
	10275 Feb 22 14:41	0°♓	
morning rise	10275 Mar 15 22:39	13°♓43'06	
	10275 Apr 09 23:41	0°♈	
	10275 May 25 05:53	0°♉	
	10275 Jul 08 07:44	0°♊	
	10275 Aug 20 08:18	0°♋	
	10275 Oct 01 20:35	0°♌	
	10275 Nov 14 12:21	0°♍	
asc. node	10275 Dec 01 16:48	10°♍59'10	
	10276 Jan 05 21:52	0°♎	
retrograde	10276 Feb 12 22:02	9°♎16'16	
min. Earth dist.	10276 Mar 10 06:36	4°♎33'53	0.42315 AU
greatest brilliancy	10276 Mar 16 17:43	2°♎27'46	-2.6m
opposition	10276 Mar 18 09:58	1°♎54'48	5°46'15
	10276 Mar 24 11:52	30°℞♍	
direct	10276 Apr 18 16:57	25°♍52'40	
	10276 May 15 04:27	0°♎	
	10276 Jul 20 05:10	0°♏	
	10276 Sep 10 08:50	0°♐	
desc. node	10276 Oct 27 20:32	28°♐32'00	
	10276 Oct 30 06:26	0°♑	
	10276 Dec 18 01:05	0°♒	
evening set	10277 Jan 21 14:44	21°♒44'06	
	10277 Feb 03 13:15	0°♓	
max. Earth dist.	10277 Feb 17 09:54	8°♓56'26	2.63843 AU
conjunction	10277 Mar 07 07:27	20°♓38'19	-0°58'25
minimum elong	10277 Mar 07 06:24	20°♓36'35	0°58'17
	10277 Mar 21 10:34	0°♈	
morning rise	10277 Apr 22 00:22	21°♈22'10	
	10277 May 04 12:00	0°♉	
	10277 Jun 15 18:25	0°♊	
	10277 Jul 26 11:30	0°♋	
	10277 Sep 04 02:51	0°♌	
	10277 Oct 13 11:13	0°♍	
asc. node	10277 Oct 18 12:06	3°♍48'48	
	10277 Nov 22 19:11	0°♎	
	10278 Jan 05 14:31	0°♏	
	10278 Mar 05 16:13	0°♐	
retrograde	10278 Apr 01 20:52	4°♐41'20	
	10278 Apr 27 14:57	30°℞♏	
min. Earth dist.	10278 May 04 00:09	27°♏41'28	0.55898 AU
opposition	10278 May 10 19:50	25°♏03'24	4°24'50
greatest brilliancy	10278 May 09 19:11	25°♏27'16	-1.8m
direct	10278 Jun 16 01:40	16°♏55'26	
	10278 Aug 07 22:23	0°♐	
desc. node	10278 Sep 15 01:34	18°♐03'16	
	10278 Oct 07 09:22	0°♑	
	10278 Nov 28 10:35	0°♒	
	10279 Jan 16 02:15	0°♓	
evening set	10279 Feb 28 04:10	28°♓03'20	
	10279 Mar 03 01:50	0°♈	
max. Earth dist.	10279 Mar 16 19:45	9°♈18'06	2.54414 AU
	10279 Apr 15 14:33	0°♉	
conjunction	10279 Apr 17 15:29	1°♉26'41	-1°07'28
minimum elong	10279 Apr 17 15:59	1°♉27'34	1°07'41
	10279 May 26 23:35	0°♊	
morning rise	10279 Jun 10 14:10	10°♊55'06	
	10279 Jul 05 16:00	0°♋	
	10279 Aug 13 07:09	0°♌	
asc. node	10279 Sep 05 07:01	18°♌00'08	
	10279 Sep 20 15:50	0°♍	
	10279 Oct 29 16:34	0°♎	
	10279 Dec 09 13:19	0°♏	
	10280 Jan 23 01:28	0°♐	
	10280 Mar 16 23:35	0°♑	
retrograde	10280 May 08 06:08	13°♑50'22	
min. Earth dist.	10280 Jun 14 13:21	5°♑07'00	0.65259 AU
opposition	10280 Jun 17 17:31	3°♑51'08	1°36'54
greatest brilliancy	10280 Jun 17 13:23	3°♑55'15	-1.4m
	10280 Jun 27 20:09	30°℞♐	
direct	10280 Jul 27 05:27	24°♐33'49	
desc. node	10280 Aug 02 05:31	24°♐46'41	
	10280 Aug 28 20:21	0°♑	
	10280 Nov 04 08:46	0°♒	
	10280 Dec 26 06:52	0°♓	
	10281 Feb 11 04:18	0°♈	
	10281 Mar 26 16:32	0°♉	

evening set	10281 Apr 13 19:41	13°♉05'04	
max. Earth dist.	10281 Apr 30 18:38	25°♉36'33	2.41185 AU
	10281 May 06 15:20	0°♊	
conjunction	10281 Jun 12 00:13	27°♊50'37	-0°28'38
minimum elong	10281 Jun 12 02:32	27°♊55'07	0°29'05
	10281 Jun 14 18:42	0°♋	
	10281 Jul 22 22:15	0°♌	
asc. node	10281 Jul 23 01:10	0°♌05'44	
morning rise	10281 Aug 21 22:20	23°♌42'14	
	10281 Aug 29 22:36	0°♍	
	10281 Oct 07 16:41	0°♎	
	10281 Nov 17 01:19	0°♏	
	10281 Dec 29 21:57	0°♐	
	10282 Feb 14 14:41	0°♑	
	10282 Apr 10 14:23	0°♒	
retrograde	10282 Jun 11 07:46	17°♒11'55	
desc. node	10282 Jun 20 06:10	16°♒41'33	
opposition	10282 Jul 21 18:42	7°♒32'45	-1°05'00
greatest brilliancy	10282 Jul 21 18:43	7°♒32'44	-1.3m
min. Earth dist.	10282 Jul 22 09:24	7°♒18'13	0.68281 AU
	10282 Aug 12 19:36	30°℞♑	
direct	10282 Sep 01 01:14	27°♑39'02	
	10282 Sep 21 17:08	0°♒	
	10282 Dec 02 15:15	0°♓	
	10283 Jan 21 16:16	0°♈	
	10283 Mar 06 23:47	0°♉	
	10283 Apr 16 23:39	0°♊	
	10283 May 25 22:27	0°♋	
asc. node	10283 Jun 09 23:01	11°♋49'16	
evening set	10283 Jun 17 00:32	17°♋24'24	
	10283 Jul 02 21:41	0°♌	
	10283 Aug 09 20:42	0°♍	
conjunction	10283 Aug 27 17:13	13°♍54'59	0°50'14
minimum elong	10283 Aug 27 13:38	13°♍48'04	0°50'01
	10283 Sep 17 16:41	0°♎	
max. Earth dist.	10283 Oct 19 11:25	23°♎41'23	2.42507 AU
	10283 Oct 28 03:39	0°♏	
morning rise	10283 Nov 02 13:17	3°♏53'34	
	10283 Dec 09 19:10	0°♐	
	10284 Jan 24 02:16	0°♑	
	10284 Mar 12 20:25	0°♒	
desc. node	10284 May 07 02:50	29°♒47'43	
	10284 May 07 13:10	0°♓	
retrograde	10284 Jul 16 04:43	20°♓17'18	
opposition	10284 Aug 24 08:18	11°♓20'53	-3°30'18
greatest brilliancy	10284 Aug 24 20:00	11°♓09'34	-1.4m
min. Earth dist.	10284 Aug 28 18:13	9°♓38'15	0.64688 AU
direct	10284 Oct 04 20:52	1°♓18'22	
	10284 Dec 26 02:43	0°♈	
	10285 Feb 11 23:25	0°♉	
	10285 Mar 25 23:48	0°♊	
asc. node	10285 Apr 27 01:48	24°♊24'09	
	10285 May 04 06:40	0°♋	
	10285 Jun 11 10:33	0°♌	
	10285 Jul 19 15:43	0°♍	
	10285 Aug 27 20:43	0°♎	
evening set	10285 Aug 29 20:44	1°♎30'01	
	10285 Oct 07 18:17	0°♏	
conjunction	10285 Oct 29 04:24	15°♏08'44	1°02'44
minimum elong	10285 Oct 29 05:35	15°♏10'48	1°03'03
	10285 Nov 19 17:32	0°♐	
max. Earth dist.	10285 Nov 30 01:18	6°♐59'28	2.55924 AU
morning rise	10285 Dec 20 20:12	20°♐50'11	
	10286 Jan 03 20:21	0°♑	
	10286 Feb 20 01:18	0°♒	
desc. node	10286 Mar 24 20:08	20°♒01'39	
	10286 Apr 10 15:41	0°♓	
	10286 Jun 03 18:31	0°♈	
retrograde	10286 Aug 28 19:59	28°♈21'11	
opposition	10286 Oct 04 01:41	20°♈38'46	-5°17'07
greatest brilliancy	10286 Oct 05 12:36	20°♈06'45	-1.9m
min. Earth dist.	10286 Oct 11 22:12	17°♈46'21	0.54629 AU
direct	10286 Nov 12 15:57	11°♈18'21	
	10287 Jan 11 11:04	0°♉	
	10287 Feb 28 15:32	0°♊	
asc. node	10287 Mar 15 05:08	10°♊17'06	
	10287 Apr 10 22:34	0°♋	
	10287 May 20 04:21	0°♌	
	10287 Jun 28 06:46	0°♍	
	10287 Aug 07 09:04	0°♎	
	10287 Sep 18 03:49	0°♏	
evening set	10287 Oct 24 02:12	24°♏45'00	
	10287 Oct 31 21:07	0°♐	
conjunction	10287 Dec 12 23:40	27°♐47'23	0°30'15
minimum elong	10287 Dec 13 00:41	27°♐49'02	0°30'43
	10287 Dec 16 09:25	0°♑	
max. Earth dist.	10287 Dec 26 21:27	6°♑47'09	2.64804 AU
morning rise	10288 Jan 27 21:24	27°♑13'42	
	10288 Feb 01 06:24	0°♒	
desc. node	10288 Feb 09 13:02	5°♒13'46	
	10288 Mar 20 01:41	0°♓	
	10288 May 07 16:44	0°♈	
	10288 Jun 26 20:07	0°♉	
	10288 Aug 20 18:43	0°♊	
retrograde	10288 Oct 29 04:39	21°♊15'34	
opposition	10288 Nov 29 14:22	15°♊38'25	-4°00'58
greatest brilliancy	10288 Nov 30 20:31	15°♊15'45	-2.7m
min. Earth dist.	10288 Dec 07 00:38	13°♊25'15	0.40850 AU
direct	10289 Jan 02 05:32	9°♊01'45	
asc. node	10289 Jan 30 07:31	14°♊13'13	
	10289 Mar 04 14:47	0°♋	
	10289 Apr 20 07:13	0°♌	
	10289 Jun 01 23:42	0°♍	
	10289 Jul 14 13:56	0°♎	
	10289 Aug 27 07:20	0°♏	
	10289 Oct 11 12:08	0°♐	
	10289 Nov 26 23:26	0°♑	
evening set	10289 Dec 03 12:34	4°♑10'51	
desc. node	10289 Dec 27 09:05	19°♑21'24	
	10290 Jan 13 03:41	0°♒	
conjunction	10290 Jan 17 21:45	3°♒00'48	-0°11'21
minimum elong	10290 Jan 17 21:25	3°♒00'17	0°10'56
behind sun begin	10290 Jan 17 07:45	2°♒38'38	
behind sun end	10290 Jan 18 11:05	3°♒21'55	
max. Earth dist.	10290 Jan 17 16:03	2°♒51'47	2.68230 AU
	10290 Mar 01 09:13	0°♓	
morning rise	10290 Mar 02 09:47	0°♓39'09	
	10290 Apr 17 03:35	0°♈	
	10290 Jun 02 04:52	0°♉	
	10290 Jul 17 13:29	0°♊	
	10290 Aug 31 12:53	0°♋	
	10290 Oct 16 09:22	0°♌	
	10290 Dec 08 20:35	0°♍	
asc. node	10290 Dec 18 09:36	3°♍53'24	
retrograde	10291 Jan 18 11:04	10°♍06'05	
min. Earth dist.	10291 Feb 13 14:26	5°♍48'27	0.38017 AU
greatest brilliancy	10291 Feb 18 02:50	4°♍30'57	-2.9m
opposition	10291 Feb 19 01:56	4°♍14'19	4°22'33
	10291 Mar 09 00:44	30°℞♌	

direct	10291 Mar 20 17:23	29°♌05'54	
	10291 Apr 01 10:27	0°♍	
	10291 Jun 12 17:40	0°♎	
	10291 Aug 02 12:58	0°♏	
	10291 Sep 20 08:35	0°♐	
	10291 Nov 07 20:06	0°♑	
desc. node	10291 Nov 14 09:04	4°♑03'32	
	10291 Dec 25 23:17	0°♒	
evening set	10292 Jan 08 18:22	8°♒40'38	
max. Earth dist.	10292 Feb 09 03:30	28°♒37'37	2.66138 AU
	10292 Feb 11 06:51	0°♓	
conjunction	10292 Feb 22 01:40	6°♓56'49	-0°47'54
minimum elong	10292 Feb 22 00:35	6°♓55'03	0°47'40
	10292 Mar 28 07:15	0°♈	
morning rise	10292 Apr 06 09:33	6°♈03'07	
	10292 May 11 17:52	0°♉	
	10292 Jun 23 13:54	0°♊	
	10292 Aug 03 23:11	0°♋	
	10292 Sep 13 08:04	0°♌	
	10292 Oct 23 13:12	0°♍	
asc. node	10292 Nov 04 07:01	8°♍37'48	
	10292 Dec 04 08:13	0°♎	
	10293 Jan 21 21:41	0°♏	
retrograde	10293 Mar 15 21:33	16°♏06'17	
min. Earth dist.	10293 Apr 14 14:02	9°♏59'55	0.50770 AU
greatest brilliancy	10293 Apr 21 03:04	7°♏34'34	-2.1m
opposition	10293 Apr 22 13:59	7°♏02'02	5°20'30
	10293 May 19 06:45	30°℞♎	
direct	10293 May 27 02:32	29°♎35'37	
	10293 Jun 04 03:06	0°♏	
	10293 Aug 23 11:39	0°♐	
desc. node	10293 Oct 01 12:45	21°♐21'12	
	10293 Oct 16 14:23	0°♑	
	10293 Dec 05 23:38	0°♒	
	10294 Jan 23 01:44	0°♓	
evening set	10294 Feb 12 23:53	13°♓29'53	
max. Earth dist.	10294 Mar 05 05:06	26°♓49'35	2.58674 AU
	10294 Mar 09 23:07	0°♈	
conjunction	10294 Mar 31 09:59	14°♈32'46	-1°07'57
minimum elong	10294 Mar 31 09:36	14°♈32'07	1°08'01
	10294 Apr 22 15:42	0°♉	
morning rise	10294 May 20 02:35	19°♉36'50	
	10294 Jun 03 07:48	0°♊	
	10294 Jul 13 08:16	0°♋	
	10294 Aug 21 06:49	0°♌	
asc. node	10294 Sep 22 00:20	24°♌39'17	
	10294 Sep 28 22:00	0°♍	
	10294 Nov 07 05:48	0°♎	
	10294 Dec 18 16:15	0°♏	
	10295 Feb 03 00:54	0°♐	
retrograde	10295 Apr 25 10:43	29°♐53'28	
min. Earth dist.	10295 May 30 21:35	21°♐45'43	0.62312 AU
opposition	10295 Jun 04 13:00	19°♐55'15	2°42'38
greatest brilliancy	10295 Jun 04 02:40	20°♐05'30	-1.5m
direct	10295 Jul 12 22:30	11°♐00'18	
desc. node	10295 Aug 19 17:19	18°♐08'07	
	10295 Sep 18 03:54	0°♑	
	10295 Nov 14 16:46	0°♒	
	10296 Jan 03 22:32	0°♓	
	10296 Feb 19 08:58	0°♈	
evening set	10296 Mar 25 10:56	24°♈03'45	
	10296 Apr 02 20:26	0°♉	
max. Earth dist.	10296 Apr 07 24:00	3°♉40'25	2.46585 AU
	10296 May 13 22:33	0°♊	
conjunction	10296 May 18 07:55	3°♊17'35	-0°51'28
minimum elong	10296 May 18 10:12	3°♊21'53	0°51'52
	10296 Jun 22 06:13	0°♋	
morning rise	10296 Jul 21 08:55	22°♋46'03	
	10296 Jul 30 13:14	0°♌	
asc. node	10296 Aug 08 19:48	7°♌18'47	
	10296 Sep 06 15:34	0°♍	
	10296 Oct 15 10:27	0°♎	
	10296 Nov 24 20:35	0°♏	
	10297 Jan 07 01:04	0°♐	
	10297 Feb 24 02:11	0°♑	
	10297 Apr 29 19:04	0°♒	
retrograde	10297 May 29 03:41	4°♒44'07	
	10297 Jun 25 04:56	30°℞♑	
desc. node	10297 Jul 06 19:31	25°♑40'28	
opposition	10297 Jul 08 18:09	24°♑54'08	-0°04'05
min. Earth dist.	10297 Jul 07 21:04	25°♑15'05	0.67887 AU
greatest brilliancy	10297 Jul 08 18:09	24°♑54'08	-1.3m
direct	10297 Aug 18 11:57	15°♑11'36	
	10297 Oct 15 06:23	0°♒	
	10297 Dec 12 07:04	0°♓	
	10298 Jan 29 16:03	0°♈	
	10298 Mar 14 13:27	0°♉	
	10298 Apr 24 11:58	0°♊	
evening set	10298 May 20 00:31	19°♊30'36	
	10298 Jun 02 11:56	0°♋	
asc. node	10298 Jun 26 16:57	19°♋03'47	
	10298 Jul 10 12:07	0°♌	
conjunction	10298 Jul 27 20:59	13°♌46'08	0°22'16
minimum elong	10298 Jul 27 18:35	13°♌41'23	0°21'52
	10298 Aug 17 10:44	0°♍	
max. Earth dist.	10298 Sep 07 07:26	16°♍16'15	2.37289 AU
	10298 Sep 25 04:44	0°♎	
morning rise	10298 Oct 08 07:58	9°♎55'30	
	10298 Nov 04 12:59	0°♏	
	10298 Dec 17 03:42	0°♐	
	10299 Jan 31 17:33	0°♑	
	10299 Mar 22 19:27	0°♒	
desc. node	10299 May 24 17:26	29°♒46'58	
	10299 May 25 08:32	0°♓	
retrograde	10299 Jul 02 17:54	7°♓23'00	
	10299 Aug 06 16:38	30°℞♒	
opposition	10299 Aug 11 13:32	28°♒07'03	-2°36'41
greatest brilliancy	10299 Aug 11 18:50	28°♒01'52	-1.3m
min. Earth dist.	10299 Aug 14 11:36	26°♒58'25	0.66880 AU
direct	10299 Sep 22 04:23	18°♒04'06	
	10299 Nov 10 19:30	0°♓	
	10300 Jan 06 20:33	0°♈	
	10300 Feb 21 17:17	0°♉	
	10300 Apr 04 04:13	0°♊	
	10300 May 13 06:19	0°♋	
asc. node	10300 May 14 16:28	1°♋06'47	
	10300 Jun 20 07:14	0°♌	
	10300 Jul 28 08:56	0°♍	
evening set	10300 Aug 03 02:59	4°♍29'03	
	10300 Sep 05 09:15	0°♎	
conjunction	10300 Oct 08 07:01	24°♎23'13	1°06'31
minimum elong	10300 Oct 08 06:52	24°♎22'57	1°06'40
	10300 Oct 16 01:13	0°♏	
max. Earth dist.	10300 Nov 17 21:54	23°♏11'21	2.51057 AU
	10300 Nov 27 19:43	0°♐	
morning rise	10300 Dec 04 13:18	4°♐34'58	
	10301 Jan 11 21:30	0°♑	
	10301 Feb 28 11:13	0°♒	
desc. node	10301 Apr 11 12:03	24°♒55'44	

	10301 Apr 20	11:26	0°♓		
	10301 Jun 19	16:17	0°♈		
retrograde	10301 Aug 11	09:19	12°♈41'48		
opposition	10301 Sep 17	23:45	4°♈25'17	-4°44'03	
greatest brilliancy	10301 Sep 19	01:12	4°♈01'15	-1.6m	
min. Earth dist.	10301 Sep 24	14:49	1°♈55'09	0.59278 AU	
	10301 Sep 29	22:42	30°℞♓		
direct	10301 Oct 28	16:20	24°♓38'45		
	10301 Nov 28	00:25	0°♈		
	10302 Jan 26	23:14	0°♉		
	10302 Mar 12	05:18	0°♊		
asc. node	10302 Apr 01	19:26	15°♊10'05		
	10302 Apr 21	08:14	0°♋		
	10302 May 29	23:24	0°♌		
	10302 Jul 07	14:30	0°♍		
	10302 Aug 16	06:08	0°♎		
	10302 Sep 26	14:33	0°♏		
evening set	10302 Oct 05	20:57	6°♏31'52		
	10302 Nov 08	23:05	0°♐		
conjunction	10302 Nov 27	22:22	12°♐42'50	0°45'07	
minimum elong	10302 Nov 27	23:48	12°♐45'13	0°45'34	
max. Earth dist.	10302 Dec 18	02:45	26°♐00'21	2.61963 AU	
	10302 Dec 24	05:53	0°♑		
morning rise	10303 Jan 14	19:22	13°♑54'26		
	10303 Feb 09	03:31	0°♒		
desc. node	10303 Feb 27	05:37	11°♒20'19		
	10303 Mar 29	10:12	0°♓		
	10303 May 18	09:58	0°♈		
	10303 Jul 11	09:09	0°♉		
retrograde	10303 Oct 03	12:15	27°♉59'30		
opposition	10303 Nov 06	01:29	21°♉27'15	-5°15'50	
greatest brilliancy	10303 Nov 07	19:03	20°♉52'25	-2.3m	
min. Earth dist.	10303 Nov 14	18:55	18°♉33'19	0.46180 AU	
direct	10303 Dec 12	15:11	13°♉27'45		
	10304 Feb 04	10:49	0°♊		
asc. node	10304 Feb 17	23:37	7°♊38'32		
	10304 Mar 23	07:44	0°♋		
	10304 May 03	22:09	0°♌		
	10304 Jun 13	10:55	0°♍		
	10304 Jul 24	16:18	0°♎		
	10304 Sep 05	09:43	0°♏		
	10304 Oct 19	21:12	0°♐		
evening set	10304 Nov 19	08:41	19°♐58'03		
	10304 Dec 04	21:16	0°♑		
conjunction	10305 Jan 05	00:17	19°♑54'57	0°04'48	
minimum elong	10305 Jan 05	00:27	19°♑55'13	0°05'15	
behind sun begin	10305 Jan 04	06:29	19°♑26'38		
behind sun end	10305 Jan 05	18:25	20°♑23'48		
max. Earth dist.	10305 Jan 10	02:53	23°♑09'57	2.67557 AU	
desc. node	10305 Jan 13	23:50	25°♑37'40		
	10305 Jan 20	21:02	0°♒		
morning rise	10305 Feb 18	01:22	17°♒51'22		
	10305 Mar 09	05:47	0°♓		
	10305 Apr 25	13:01	0°♈		
	10305 Jun 11	16:46	0°♉		
	10305 Jul 29	01:11	0°♊		
	10305 Sep 15	21:40	0°♋		
	10305 Nov 13	06:56	0°♌		
retrograde	10305 Dec 19	18:52	7°♌45'21		
asc. node	10306 Jan 05	00:59	6°♌05'03		
opposition	10306 Jan 18	13:21	2°♌48'48	1°03'46	
min. Earth dist.	10306 Jan 18	10:44	2°♌50'32	0.36483 AU	
greatest brilliancy	10306 Jan 18	12:20	2°♌49'29	-3.1m	
	10306 Jan 29	22:25	30°℞♋		
direct	10306 Feb 16	22:44	27°♋54'33		
	10306 Mar 06	21:04	0°♌		
	10306 May 11	02:25	0°♍		
	10306 Jun 28	04:02	0°♎		
	10306 Aug 13	17:33	0°♏		
	10306 Sep 29	15:28	0°♐		
	10306 Nov 16	03:09	0°♑		
desc. node	10306 Dec 01	21:52	9°♑55'32		
evening set	10306 Dec 26	21:53	25°♑39'31		
	10307 Jan 02	19:05	0°♒		
max. Earth dist.	10307 Feb 01	04:43	18°♒37'15	2.67625 AU	
conjunction	10307 Feb 09	06:34	23°♒46'03	-0°35'00	
minimum elong	10307 Feb 09	05:39	23°♒44'35	0°34'41	
	10307 Feb 19	00:28	0°♓		
morning rise	10307 Mar 24	20:35	21°♓52'39		
	10307 Apr 06	06:11	0°♈		
	10307 May 21	05:00	0°♉		
	10307 Jul 03	18:52	0°♊		
	10307 Aug 15	02:41	0°♋		
	10307 Sep 25	14:52	0°♌		
	10307 Nov 06	11:10	0°♍		
asc. node	10307 Nov 23	00:44	11°♍25'59		
	10307 Dec 22	00:20	0°♎		
retrograde	10308 Feb 26	11:32	24°♎08'34		
min. Earth dist.	10308 Mar 24	18:25	18°♎59'01	0.45275 AU	
greatest brilliancy	10308 Mar 31	13:42	16°♎38'39	-2.4m	
opposition	10308 Apr 02	07:12	16°♎02'39	5°52'04	
direct	10308 May 04	19:37	9°♎28'09		
	10308 Jul 11	04:48	0°♏		
	10308 Sep 04	21:26	0°♐		
desc. node	10308 Oct 19	00:28	25°♐51'29		
	10308 Oct 25	22:41	0°♑		
	10308 Dec 14	05:14	0°♒		
evening set	10309 Jan 30	14:44	29°♒48'13		
	10309 Jan 30	22:05	0°♓		
max. Earth dist.	10309 Feb 24	00:13	15°♓35'23	2.62234 AU	
conjunction	10309 Mar 16	17:46	29°♓17'03	-1°03'07	
minimum elong	10309 Mar 16	16:53	29°♓15'33	1°03'04	
	10309 Mar 17	19:32	0°♈		
	10309 Apr 30	18:10	0°♉		
morning rise	10309 May 02	13:15	1°♉15'16		
	10309 Jun 11	19:36	0°♊		
	10309 Jul 22	06:42	0°♋		
	10309 Aug 30	15:21	0°♌		
	10309 Oct 08	16:04	0°♍		
asc. node	10309 Oct 09	20:42	0°♍54'45		
	10309 Nov 17	11:59	0°♎		
	10309 Dec 30	00:52	0°♏		
	10310 Feb 18	21:50	0°♐		
retrograde	10310 Apr 11	19:00	14°♐39'48		
min. Earth dist.	10310 May 15	04:10	7°♐13'45	0.58409 AU	
greatest brilliancy	10310 May 20	10:56	5°♐09'41	-1.7m	
opposition	10310 May 21	05:57	4°♐51'02	3°48'26	
	10310 Jun 03	21:02	30°℞♏		
direct	10310 Jun 27	07:25	26°♏24'19		
	10310 Jul 22	23:41	0°♐		
desc. node	10310 Sep 06	04:49	17°♐19'23		
	10310 Oct 01	12:59	0°♑		
	10310 Nov 24	01:57	0°♒		
	10311 Jan 12	05:52	0°♓		
	10311 Feb 27	09:18	0°♈		
evening set	10311 Mar 10	06:52	7°♈21'12		
max. Earth dist.	10311 Mar 25	09:11	17°♈42'50	2.51764 AU	
	10311 Apr 11	21:55	0°♉		
conjunction	10311 Apr 29	07:47	12°♉28'20	-1°04'07	

minimum elong	10311 Apr 29 08:56	12°♉30'26	1°04'24
	10311 May 23 04:46	0°♊	
morning rise	10311 Jun 25 09:24	25°♊05'58	
	10311 Jul 01 18:20	0°♋	
	10311 Aug 09 06:32	0°♌	
asc. node	10311 Aug 27 13:59	14°♌22'31	
	10311 Sep 16 12:36	0°♍	
	10311 Oct 25 10:23	0°♎	
	10311 Dec 05 01:12	0°♏	
	10312 Jan 17 20:47	0°♐	
	10312 Mar 08 13:22	0°♑	
retrograde	10312 May 16 22:45	21°♑55'27	
min. Earth dist.	10312 Jun 24 03:23	12°♑54'54	0.66460 AU
opposition	10312 Jun 26 12:14	11°♑58'15	0°59'05
greatest brilliancy	10312 Jun 26 10:25	12°♑00'03	-1.4m
desc. node	10312 Jul 24 08:04	3°♑27'18	
direct	10312 Aug 05 11:55	2°♑30'58	
	10312 Oct 29 07:53	0°♒	
	10312 Dec 21 21:04	0°♓	
	10313 Feb 07 06:02	0°♈	
	10313 Mar 22 21:47	0°♉	
evening set	10313 Apr 26 21:57	25°♉32'30	
	10313 May 02 20:44	0°♊	
max. Earth dist.	10313 May 21 04:55	13°♊56'11	2.38440 AU
	10313 Jun 10 23:01	0°♋	
conjunction	10313 Jun 28 14:48	13°♋51'10	-0°11'24
minimum elong	10313 Jun 28 15:59	13°♋53'29	0°11'52
behind sun begin	10313 Jun 27 19:50	13°♋13'48	
behind sun end	10313 Jun 29 12:09	14°♋33'12	
asc. node	10313 Jul 14 09:10	26°♋18'21	
	10313 Jul 19 01:07	0°♌	
	10313 Aug 26 00:20	0°♍	
morning rise	10313 Sep 09 20:25	11°♍35'58	
	10313 Oct 03 17:42	0°♎	
	10313 Nov 13 01:01	0°♏	
	10313 Dec 25 17:39	0°♐	
	10314 Feb 09 20:28	0°♑	
	10314 Apr 03 06:48	0°♒	
desc. node	10314 Jun 11 08:32	24°♒23'39	
retrograde	10314 Jun 20 00:28	24°♒50'10	
opposition	10314 Jul 30 06:42	15°♒18'26	-1°39'42
greatest brilliancy	10314 Jul 30 07:54	15°♒17'15	-1.3m
min. Earth dist.	10314 Jul 31 16:48	14°♒44'46	0.68059 AU
direct	10314 Sep 09 17:17	5°♒20'24	
	10314 Nov 26 06:35	0°♓	
	10315 Jan 17 01:25	0°♈	
	10315 Mar 02 20:47	0°♉	
	10315 Apr 13 00:36	0°♊	
	10315 May 22 00:46	0°♋	
asc. node	10315 Jun 01 08:48	8°♋07'08	
	10315 Jun 29 00:22	0°♌	
evening set	10315 Jul 04 21:26	4°♌39'44	
	10315 Aug 05 23:43	0°♍	
conjunction	10315 Sep 13 18:53	29°♍57'14	1°00'00
minimum elong	10315 Sep 13 16:21	29°♍52'27	0°59'57
	10315 Sep 13 20:20	0°♎	
	10315 Oct 24 07:49	0°♏	
max. Earth dist.	10315 Nov 02 05:39	6°♏24'22	2.45618 AU
morning rise	10315 Nov 15 23:30	16°♏08'48	
	10315 Dec 05 22:58	0°♐	
	10316 Jan 20 02:13	0°♑	
	10316 Mar 08 06:27	0°♒	
desc. node	10316 Apr 28 04:18	28°♒44'09	
	10316 Apr 30 14:47	0°♓	
retrograde	10316 Jul 25 23:11	28°♓29'22	
opposition	10316 Sep 02 14:51	19°♓45'45	-3°59'28
greatest brilliancy	10316 Sep 03 07:04	19°♓30'09	-1.5m
min. Earth dist.	10316 Sep 07 19:54	17°♓45'23	0.63015 AU
direct	10316 Oct 13 22:16	9°♓46'29	
	10316 Dec 18 15:31	0°♈	
	10317 Feb 06 19:36	0°♉	
	10317 Mar 21 10:42	0°♊	
asc. node	10317 Apr 18 10:04	21°♊04'34	
	10317 Apr 29 23:41	0°♋	
	10317 Jun 07 06:54	0°♌	
	10317 Jul 15 14:49	0°♍	
	10317 Aug 23 22:41	0°♎	
evening set	10317 Sep 13 19:38	15°♎26'48	
	10317 Oct 03 22:52	0°♏	
conjunction	10317 Nov 10 04:45	26°♏02'16	0°57'30
minimum elong	10317 Nov 10 06:13	26°♏04'47	0°57'53
	10317 Nov 16 00:09	0°♐	
max. Earth dist.	10317 Dec 07 15:36	14°♐33'29	2.58285 AU
morning rise	10317 Dec 30 20:43	29°♐49'49	
	10317 Dec 31 02:58	0°♑	
	10318 Feb 16 03:45	0°♒	
desc. node	10318 Mar 15 21:18	17°♒08'48	
	10318 Apr 06 03:35	0°♓	
	10318 May 28 07:05	0°♈	
	10318 Jul 30 14:40	0°♉	
retrograde	10318 Sep 10 09:44	8°♉35'55	
opposition	10318 Oct 15 17:55	1°♉15'49	-5°26'50
greatest brilliancy	10318 Oct 17 09:09	0°♉40'39	-2.0m
	10318 Oct 19 06:20	30°♑℞	
min. Earth dist.	10318 Oct 24 03:02	28°♈16'31	0.51720 AU
direct	10318 Nov 23 11:01	22°♈17'35	
	10318 Dec 29 04:41	0°♉	
	10319 Feb 21 20:43	0°♊	
asc. node	10319 Mar 06 13:39	8°♊34'40	
	10319 Apr 05 10:35	0°♋	
	10319 May 15 05:54	0°♌	
	10319 Jun 23 17:03	0°♍	
	10319 Aug 03 02:40	0°♎	
	10319 Sep 14 03:39	0°♏	
	10319 Oct 28 02:04	0°♐	
evening set	10319 Nov 04 01:52	4°♐39'47	
	10319 Dec 12 17:26	0°♑	
conjunction	10319 Dec 22 14:18	6°♑22'09	0°21'00
minimum elong	10319 Dec 22 15:01	6°♑23'18	0°21'29
max. Earth dist.	10320 Jan 02 04:49	13°♑10'42	2.66031 AU
	10320 Jan 28 14:33	0°♒	
desc. node	10320 Jan 31 14:52	1°♒54'36	
morning rise	10320 Feb 05 16:06	5°♒06'30	
	10320 Mar 16 04:55	0°♓	
	10320 May 03 06:23	0°♈	
	10320 Jun 21 01:48	0°♉	
	10320 Aug 11 01:51	0°♊	
	10320 Oct 12 04:33	0°♋	
retrograde	10320 Nov 16 16:19	6°♋54'45	
opposition	10320 Dec 17 00:45	1°♋44'00	-2°35'36
greatest brilliancy	10320 Dec 17 17:10	1°♋32'24	-2.9m
min. Earth dist.	10320 Dec 22 12:12	0°♋11'17	0.38500 AU
	10320 Dec 23 04:32	30°♉℞	
direct	10321 Jan 17 22:27	25°♊54'29	
asc. node	10321 Jan 21 17:54	26°♊00'38	
	10321 Feb 11 16:51	0°♋	
	10321 Apr 11 09:38	0°♌	
	10321 May 26 12:37	0°♍	
	10321 Jul 09 07:16	0°♎	
	10321 Aug 22 18:08	0°♏	

	10321 Oct 07 10:29	0°♐	
	10321 Nov 23 04:55	0°♑	
evening set	10321 Dec 12 20:13	12°♑27'59	
desc. node	10321 Dec 18 10:43	16°♑01'06	
	10322 Jan 09 12:43	0°♒	
max. Earth dist.	10322 Jan 23 15:19	8°♒56'24	2.68255 AU
conjunction	10322 Jan 26 17:25	10°♒53'52	-0°20'27
minimum elong	10322 Jan 26 16:49	10°♒52'56	0°20'04
	10322 Feb 25 17:45	0°♓	
morning rise	10322 Mar 11 02:33	8°♓33'36	
	10322 Apr 13 07:01	0°♈	
	10322 May 28 21:44	0°♉	
	10322 Jul 12 12:23	0°♊	
	10322 Aug 25 07:17	0°♋	
	10322 Oct 07 22:39	0°♌	
	10322 Nov 22 23:30	0°♍	
asc. node	10322 Dec 09 18:27	9°♍39'46	
retrograde	10323 Feb 03 08:47	27°♍31'16	
min. Earth dist.	10323 Mar 01 06:49	23°♍05'44	0.40155 AU
greatest brilliancy	10323 Mar 07 03:31	21°♍17'31	-2.7m
opposition	10323 Mar 08 14:42	20°♍50'16	5°24'34
direct	10323 Apr 08 00:39	15°♍14'07	
	10323 May 31 21:57	0°♎	
	10323 Jul 27 02:28	0°♏	
	10323 Sep 15 12:58	0°♐	
	10323 Nov 03 17:58	0°♑	
desc. node	10323 Nov 05 11:27	1°♑03'41	
	10323 Dec 22 05:40	0°♒	
evening set	10324 Jan 17 16:08	16°♒36'58	
	10324 Feb 07 16:19	0°♓	
max. Earth dist.	10324 Feb 15 11:05	5°♓00'19	2.64979 AU
conjunction	10324 Mar 02 03:02	15°♓10'00	-0°54'24
minimum elong	10324 Mar 02 01:56	15°♓08'12	0°54'14
	10324 Mar 24 15:42	0°♈	
morning rise	10324 Apr 16 02:45	15°♈04'22	
	10324 May 07 22:06	0°♉	
	10324 Jun 19 11:02	0°♊	
	10324 Jul 30 11:37	0°♋	
	10324 Sep 08 10:16	0°♌	
	10324 Oct 18 02:17	0°♍	
asc. node	10324 Oct 26 13:58	6°♍21'22	
	10324 Nov 27 21:25	0°♎	
	10325 Jan 11 23:06	0°♏	
retrograde	10325 Mar 26 19:14	27°♏28'38	
min. Earth dist.	10325 Apr 26 21:04	20°♏51'25	0.53683 AU
greatest brilliancy	10325 May 03 00:44	18°♏30'56	-1.9m
opposition	10325 May 04 05:58	18°♏02'58	4°50'28
direct	10325 Jun 08 17:29	10°♏12'21	
	10325 Aug 15 09:44	0°♐	
desc. node	10325 Sep 22 16:26	19°♐31'59	
	10325 Oct 11 14:08	0°♑	
	10325 Dec 01 21:24	0°♒	
	10326 Jan 19 07:55	0°♓	
evening set	10326 Feb 22 12:46	22°♓09'38	
	10326 Mar 06 07:37	0°♈	
max. Earth dist.	10326 Mar 12 18:27	4°♈20'10	2.56414 AU
conjunction	10326 Apr 10 23:20	24°♈23'09	-1°08'28
minimum elong	10326 Apr 10 23:25	24°♈23'18	1°08'37
	10326 Apr 18 23:21	0°♉	
	10326 May 30 12:27	0°♊	
morning rise	10326 Jun 01 19:18	1°♊41'23	
	10326 Jul 09 09:10	0°♋	
	10326 Aug 17 03:46	0°♌	
asc. node	10326 Sep 13 08:39	21°♌14'00	
	10326 Sep 24 14:51	0°♍	
	10326 Nov 02 17:33	0°♎	
	10326 Dec 13 17:35	0°♏	
	10327 Jan 27 18:04	0°♐	
	10327 Mar 26 04:52	0°♑	
retrograde	10327 May 04 10:23	8°♑29'02	
	10327 Jun 09 23:13	30°℞♐	
min. Earth dist.	10327 Jun 09 22:11	0°♑01'02	0.64059 AU
opposition	10327 Jun 13 18:22	28°♐29'17	2°04'14
greatest brilliancy	10327 Jun 13 11:52	28°♐35'45	-1.5m
direct	10327 Jul 22 19:02	19°♐21'27	
desc. node	10327 Aug 10 20:44	21°♐22'03	
	10327 Sep 08 10:59	0°♑	
	10327 Nov 09 14:24	0°♒	
	10327 Dec 30 19:25	0°♓	
	10328 Feb 15 13:19	0°♈	
	10328 Mar 30 02:42	0°♉	
evening set	10328 Apr 06 03:06	5°♉00'50	
max. Earth dist.	10328 Apr 20 16:34	15°♉34'11	2.43589 AU
	10328 May 10 04:03	0°♊	
conjunction	10328 Jun 01 18:15	17°♊07'55	-0°39'44
minimum elong	10328 Jun 01 20:47	17°♊12'48	0°40'10
	10328 Jun 18 10:12	0°♋	
	10328 Jul 26 15:37	0°♌	
asc. node	10328 Jul 31 03:13	3°♌32'32	
morning rise	10328 Aug 08 20:06	10°♌25'08	
	10328 Sep 02 16:32	0°♍	
	10328 Oct 11 10:10	0°♎	
	10328 Nov 20 17:54	0°♏	
	10329 Jan 02 15:22	0°♐	
	10329 Feb 18 16:45	0°♑	
	10329 Apr 17 01:04	0°♒	
retrograde	10329 Jun 06 16:45	12°♒23'37	
desc. node	10329 Jun 27 22:04	9°♒27'58	
opposition	10329 Jul 17 05:22	2°♒39'06	-0°40'06
greatest brilliancy	10329 Jul 17 05:00	2°♒39'28	-1.3m
min. Earth dist.	10329 Jul 17 03:45	2°♒40'43	0.68229 AU
	10329 Jul 23 23:59	30°℞♑	
direct	10329 Aug 27 06:32	22°♑50'01	
	10329 Oct 04 05:16	0°♒	
	10329 Dec 07 01:44	0°♓	
	10330 Jan 25 10:03	0°♈	
	10330 Mar 10 14:40	0°♉	
	10330 Apr 20 14:56	0°♊	
	10330 May 29 14:57	0°♋	
evening set	10330 Jun 05 08:41	5°♋17'06	
asc. node	10330 Jun 18 00:00	15°♋15'04	
	10330 Jul 06 14:44	0°♌	
	10330 Aug 13 13:09	0°♍	
conjunction	10330 Aug 15 10:45	1°♍29'28	0°39'38
minimum elong	10330 Aug 15 07:07	1°♍22'21	0°39'20
	10330 Sep 21 07:28	0°♎	
max. Earth dist.	10330 Oct 07 09:33	12°♎07'51	2.40020 AU
morning rise	10330 Oct 24 02:37	24°♎29'34	
	10330 Oct 31 15:58	0°♏	
	10330 Dec 13 05:24	0°♐	
	10331 Jan 27 13:09	0°♑	
	10331 Mar 17 16:37	0°♒	
	10331 May 14 12:20	0°♓	
desc. node	10331 May 15 19:48	0°♓34'14	
retrograde	10331 Jul 11 21:45	15°♓11'52	
opposition	10331 Aug 20 08:37	6°♓06'08	-3°08'23
greatest brilliancy	10331 Aug 20 17:14	5°♓57'45	-1.4m
min. Earth dist.	10331 Aug 24 02:03	4°♓38'56	0.65801 AU
	10331 Sep 06 02:31	30°℞♒	

direct	10331 Sep 30 22:23	26°♒02'43	
	10331 Oct 27 15:51	0°♓	
	10332 Jan 01 04:08	0°♈	
	10332 Feb 17 03:54	0°♉	
	10332 Mar 29 23:09	0°♊	
asc. node	10332 May 05 02:02	27°♊35'00	
	10332 May 08 04:29	0°♋	
	10332 Jun 15 06:56	0°♌	
	10332 Jul 23 09:50	0°♍	
evening set	10332 Aug 19 05:00	20°♍41'22	
	10332 Aug 31 11:41	0°♎	
	10332 Oct 11 05:22	0°♏	
conjunction	10332 Oct 21 02:36	7°♏03'51	1°05'19
minimum elong	10332 Oct 21 03:22	7°♏05'14	1°05'34
	10332 Nov 23 00:59	0°♐	
max. Earth dist.	10332 Nov 25 21:22	1°♐56'34	2.53843 AU
morning rise	10332 Dec 14 15:19	14°♐34'21	
	10333 Jan 07 01:49	0°♑	
	10333 Feb 23 08:50	0°♒	
desc. node	10333 Apr 01 13:29	22°♒29'32	
	10333 Apr 14 10:20	0°♓	
	10333 Jun 09 09:12	0°♈	
retrograde	10333 Aug 21 13:39	21°♈53'09	
opposition	10333 Sep 27 10:34	13°♈54'23	-5°04'44
greatest brilliancy	10333 Sep 28 17:20	13°♈25'43	-1.7m
min. Earth dist.	10333 Oct 04 18:18	11°♈10'58	0.56821 AU
direct	10333 Nov 06 13:41	4°♈20'20	
	10334 Jan 18 15:39	0°♉	
	10334 Mar 05 19:25	0°♊	
asc. node	10334 Mar 23 05:42	12°♊33'32	
	10334 Apr 15 13:10	0°♋	
	10334 May 24 11:53	0°♌	
	10334 Jul 02 08:07	0°♍	
	10334 Aug 11 04:17	0°♎	
	10334 Sep 21 16:51	0°♏	
evening set	10334 Oct 17 01:53	17°♏40'08	
	10334 Nov 04 04:41	0°♐	
conjunction	10334 Dec 07 06:23	21°♐58'54	0°36'38
minimum elong	10334 Dec 07 07:36	22°♐00'53	0°37'07
	10334 Dec 19 13:15	0°♑	
max. Earth dist.	10334 Dec 23 20:13	2°♑47'01	2.63635 AU
morning rise	10335 Jan 22 22:50	22°♑06'25	
	10335 Feb 04 09:33	0°♒	
desc. node	10335 Feb 17 05:45	8°♒05'45	
	10335 Mar 24 08:43	0°♓	
	10335 May 12 11:58	0°♈	
	10335 Jul 02 23:00	0°♉	
	10335 Sep 01 05:05	0°♊	
retrograde	10335 Oct 18 10:59	11°♊01'58	
opposition	10335 Nov 19 20:14	5°♊00'07	-4°43'13
greatest brilliancy	10335 Nov 21 09:37	4°♊30'31	-2.5m
min. Earth dist.	10335 Nov 28 04:06	2°♊23'09	0.43127 AU
	10335 Dec 06 19:30	30°℞♉	
direct	10335 Dec 24 21:24	27°♉44'18	
	10336 Jan 12 02:40	0°♊	
asc. node	10336 Feb 08 08:30	10°♊12'33	
	10336 Mar 13 20:00	0°♋	
	10336 Apr 26 13:37	0°♌	
	10336 Jun 07 02:12	0°♍	
	10336 Jul 18 22:52	0°♎	
	10336 Aug 31 03:29	0°♏	
	10336 Oct 14 22:54	0°♐	
evening set	10336 Nov 28 02:54	28°♐41'05	
	10336 Nov 30 04:03	0°♑	
desc. node	10337 Jan 04 01:12	22°♑15'35	
conjunction	10337 Jan 13 00:11	27°♑56'52	-0°04'47
minimum elong	10337 Jan 13 00:03	27°♑56'39	0°04'20
behind sun begin	10337 Jan 12 05:59	27°♑27'59	
behind sun end	10337 Jan 13 18:07	28°♑25'17	
max. Earth dist.	10337 Jan 15 04:44	29°♑20'14	2.68034 AU
	10337 Jan 16 05:49	0°♒	
morning rise	10337 Feb 25 16:30	25°♒39'31	
	10337 Mar 04 12:29	0°♓	
	10337 Apr 20 12:28	0°♈	
	10337 Jun 06 00:53	0°♉	
	10337 Jul 22 04:05	0°♊	
	10337 Sep 06 11:51	0°♋	
	10337 Oct 25 07:34	0°♌	
asc. node	10337 Dec 26 10:37	25°♌40'14	
retrograde	10338 Jan 06 15:12	26°♌31'14	
min. Earth dist.	10338 Feb 02 19:46	22°♌06'18	0.36895 AU
opposition	10338 Feb 06 03:13	21°♌12'16	3°08'28
greatest brilliancy	10338 Feb 05 15:41	21°♌20'08	-3.0m
direct	10338 Mar 07 09:22	16°♌18'06	
	10338 Apr 26 12:30	0°♍	
	10338 Jun 19 20:06	0°♎	
	10338 Aug 07 08:36	0°♏	
	10338 Sep 24 04:58	0°♐	
	10338 Nov 11 04:46	0°♑	
desc. node	10338 Nov 22 00:44	6°♑45'58	
	10338 Dec 29 02:47	0°♒	
evening set	10339 Jan 03 20:18	3°♒36'28	
max. Earth dist.	10339 Feb 06 07:44	24°♒49'56	2.66903 AU
	10339 Feb 14 09:33	0°♓	
conjunction	10339 Feb 17 02:59	1°♓44'57	-0°42'49
minimum elong	10339 Feb 17 01:56	1°♓43'16	0°42'32
	10339 Apr 01 12:52	0°♈	
morning rise	10339 Apr 02 01:07	0°♈20'14	
	10339 May 16 05:30	0°♉	
	10339 Jun 28 09:47	0°♊	
	10339 Aug 09 05:01	0°♋	
	10339 Sep 19 00:55	0°♌	
	10339 Oct 29 19:39	0°♍	
asc. node	10339 Nov 13 09:11	10°♍28'47	
	10339 Dec 11 16:54	0°♎	
	10340 Feb 03 16:46	0°♏	
retrograde	10340 Mar 08 20:17	7°♏29'52	
min. Earth dist.	10340 Apr 06 10:07	1°♏48'40	0.48318 AU
	10340 Apr 11 11:21	30°℞♎	
greatest brilliancy	10340 Apr 13 03:35	29°♎23'20	-2.2m
opposition	10340 Apr 14 18:12	28°♎48'16	5°39'02
direct	10340 May 18 09:57	21°♎43'46	
	10340 Jun 26 23:52	0°♏	
	10340 Aug 28 19:18	0°♐	
desc. node	10340 Oct 09 04:00	23°♐24'25	
	10340 Oct 20 10:14	0°♑	
	10340 Dec 09 07:35	0°♒	
	10341 Jan 26 06:11	0°♓	
evening set	10341 Feb 07 17:51	8°♓01'20	
max. Earth dist.	10341 Mar 01 19:48	22°♓26'55	2.60355 AU
	10341 Mar 13 04:32	0°♈	
conjunction	10341 Mar 25 12:20	8°♈17'28	-1°06'30
minimum elong	10341 Mar 25 11:41	8°♈16'23	1°06'32
	10341 Apr 26 00:47	0°♉	
morning rise	10341 May 12 18:39	11°♉50'18	
	10341 Jun 06 21:45	0°♊	
	10341 Jul 17 03:25	0°♋	
	10341 Aug 25 06:37	0°♌	
asc. node	10341 Sep 30 02:28	27°♌43'10	
	10341 Oct 03 01:26	0°♍	

	10341 Nov 11 13:05	0°♎	
	10341 Dec 23 07:11	0°♏	
	10342 Feb 08 21:07	0°♐	
retrograde	10342 Apr 20 06:29	24°♐00'01	
min. Earth dist.	10342 May 24 19:49	16°♐10'09	0.60679 AU
opposition	10342 May 30 02:54	14°♐04'40	3°10'36
greatest brilliancy	10342 May 29 13:03	14°♐18'22	-1.6m
direct	10342 Jul 06 22:42	5°♐21'39	
desc. node	10342 Aug 27 08:50	17°♐35'24	
	10342 Sep 23 21:44	0°♑	
	10342 Nov 18 12:57	0°♒	
	10343 Jan 07 08:05	0°♓	
	10343 Feb 22 16:41	0°♈	
evening set	10343 Mar 19 18:58	17°♈04'05	
max. Earth dist.	10343 Apr 02 19:14	26°♈51'18	2.48954 AU
	10343 Apr 07 06:00	0°♉	
conjunction	10343 May 10 18:51	24°♉17'47	-0°58'04
minimum elong	10343 May 10 20:41	24°♉21'11	0°58'25
	10343 May 18 11:10	0°♊	
	10343 Jun 26 22:02	0°♋	
morning rise	10343 Jul 10 13:42	10°♋36'13	
	10343 Aug 04 07:32	0°♌	
asc. node	10343 Aug 17 21:32	10°♌41'48	
	10343 Sep 11 11:03	0°♍	
greatest brilliancy	10343 Oct 02 04:33	16°♍08'13	1.2m
	10343 Oct 20 06:11	0°♎	
	10343 Nov 29 16:43	0°♏	
	10344 Jan 12 00:26	0°♐	
	10344 Feb 29 19:28	0°♑	
retrograde	10344 May 24 12:56	29°♑48'26	
min. Earth dist.	10344 Jul 02 14:01	20°♑31'54	0.67384 AU
opposition	10344 Jul 04 03:28	19°♑54'36	0°21'50
greatest brilliancy	10344 Jul 04 03:07	19°♑54'57	-1.3m
desc. node	10344 Jul 14 11:29	15°♑57'24	
direct	10344 Aug 13 13:50	10°♑18'31	
	10344 Oct 21 07:53	0°♒	
	10344 Dec 16 06:01	0°♓	
	10345 Feb 02 05:50	0°♈	
	10345 Mar 18 02:21	0°♉	
	10345 Apr 28 02:12	0°♊	
evening set	10345 May 10 00:00	9°♊01'10	
	10345 Jun 06 03:56	0°♋	
max. Earth dist.	10345 Jul 01 08:33	19°♋48'59	2.36529 AU
asc. node	10345 Jul 04 18:29	22°♋31'01	
	10345 Jul 14 05:12	0°♌	
conjunction	10345 Jul 15 07:01	0°♌51'09	0°07'41
minimum elong	10345 Jul 15 06:12	0°♌49'32	0°07'14
behind sun begin	10345 Jul 14 02:39	29°♋54'58	
behind sun end	10345 Jul 16 09:45	1°♌44'07	
	10345 Aug 21 03:38	0°♍	
morning rise	10345 Sep 26 21:56	28°♍31'30	
	10345 Sep 28 20:20	0°♎	
	10345 Nov 08 02:46	0°♏	
	10345 Dec 20 16:12	0°♐	
	10346 Feb 04 08:46	0°♑	
	10346 Mar 27 03:13	0°♒	
desc. node	10346 Jun 01 10:09	28°♒44'52	
	10346 Jun 06 13:38	0°♓	
retrograde	10346 Jun 27 19:43	2°♓29'30	
	10346 Jul 17 14:18	30°♓℞	
opposition	10346 Aug 06 20:17	23°♒06'00	-2°13'25
greatest brilliancy	10346 Aug 06 23:29	23°♒02'52	-1.3m
min. Earth dist.	10346 Aug 09 01:54	22°♒13'15	0.67541 AU
direct	10346 Sep 17 09:36	13°♒04'46	
	10346 Nov 17 16:26	0°♓	

	10347 Jan 11 04:04	0°♈	
	10347 Feb 25 14:53	0°♉	
	10347 Apr 07 23:46	0°♊	
	10347 May 17 01:40	0°♋	
asc. node	10347 May 22 17:13	4°♋25'27	
	10347 Jun 24 02:12	0°♌	
greatest brilliancy	10347 Jul 21 09:17	21°♌35'13	1.2m
evening set	10347 Jul 22 00:38	22°♌05'26	
	10347 Aug 01 02:23	0°♍	
	10347 Sep 09 00:05	0°♎	
conjunction	10347 Sep 28 15:41	14°♎43'21	1°05'14
minimum elong	10347 Sep 28 14:35	14°♎41'17	1°05'19
	10347 Oct 19 12:46	0°♏	
max. Earth dist.	10347 Nov 12 10:32	17°♏01'06	2.48674 AU
morning rise	10347 Nov 27 09:47	27°♏25'04	
	10347 Dec 01 04:02	0°♐	
	10348 Jan 15 04:38	0°♑	
	10348 Mar 02 22:00	0°♒	
desc. node	10348 Apr 18 05:06	27°♒00'10	
	10348 Apr 23 16:01	0°♓	
	10348 Jun 27 17:59	0°♈	
retrograde	10348 Aug 04 02:47	6°♈57'07	
	10348 Sep 07 02:32	30°♓℞	
opposition	10348 Sep 11 04:58	28°♓27'36	-4°26'10
greatest brilliancy	10348 Sep 12 02:10	28°♓07'21	-1.6m
min. Earth dist.	10348 Sep 17 04:37	26°♓10'33	0.61077 AU
direct	10348 Oct 22 04:48	18°♓34'03	
	10348 Dec 07 19:57	0°♈	
	10349 Jan 31 04:33	0°♉	
	10349 Mar 15 16:53	0°♊	
asc. node	10349 Apr 08 19:32	17°♊56'40	
	10349 Apr 24 13:39	0°♋	
	10349 Jun 02 01:04	0°♌	
	10349 Jul 10 12:08	0°♍	
	10349 Aug 18 23:04	0°♎	
evening set	10349 Sep 26 16:29	28°♎16'37	
	10349 Sep 29 02:28	0°♏	
	10349 Nov 11 06:14	0°♐	
conjunction	10349 Nov 20 12:34	6°♐15'31	0°50'43
minimum elong	10349 Nov 20 14:04	6°♐18'03	0°51'08
max. Earth dist.	10349 Dec 13 20:35	21°♐46'50	2.60417 AU
	10349 Dec 26 09:59	0°♑	
morning rise	10350 Jan 08 12:33	8°♑29'27	
	10350 Feb 11 07:37	0°♒	
desc. node	10350 Mar 05 22:24	14°♒06'54	
	10350 Mar 31 20:01	0°♓	
	10350 May 21 13:57	0°♈	
	10350 Jul 17 04:33	0°♉	
retrograde	10350 Sep 22 22:32	19°♉41'02	
opposition	10350 Oct 27 08:33	12°♉46'02	-5°25'37
greatest brilliancy	10350 Oct 29 02:10	12°♉09'57	-2.2m
min. Earth dist.	10350 Nov 05 01:47	9°♉46'04	0.48694 AU
direct	10350 Dec 03 23:32	4°♉17'11	
	10351 Feb 12 11:10	0°♊	
asc. node	10351 Feb 25 00:16	7°♊50'18	
	10351 Mar 29 07:57	0°♋	
	10351 May 08 23:49	0°♌	
	10351 Jun 17 23:02	0°♍	
	10351 Jul 28 17:31	0°♎	
	10351 Sep 09 01:51	0°♏	
	10351 Oct 23 05:50	0°♐	
evening set	10351 Nov 13 12:21	14°♐02'58	
	10351 Dec 08 00:58	0°♑	
conjunction	10351 Dec 30 22:03	14°♑41'46	0°11'31

minimum elong	10351 Dec 30 22:27	14°♑42'24	0°12'01
behind sun begin	10351 Dec 30 09:47	14°♑22'11	
behind sun end	10351 Dec 31 11:07	15°♑02'37	
max. Earth dist.	10352 Jan 07 10:08	19°♑29'12	2.66980 AU
desc. node	10352 Jan 21 15:54	28°♑32'53	
	10352 Jan 23 22:48	0°♒	
morning rise	10352 Feb 13 08:34	12°♒55'37	
	10352 Mar 11 09:30	0°♓	
	10352 Apr 28 00:07	0°♈	
	10352 Jun 14 19:10	0°♉	
	10352 Aug 02 10:19	0°♊	
	10352 Sep 23 13:04	0°♋	
retrograde	10352 Dec 05 03:08	24°♋15'17	
opposition	10353 Jan 03 22:56	19°♋19'54	-0°37'50
greatest brilliancy	10353 Jan 04 01:32	19°♋18'10	-3.0m
min. Earth dist.	10353 Jan 06 12:57	18°♋38'19	0.36970 AU
asc. node	10353 Jan 12 02:01	17°♋12'30	
direct	10353 Feb 03 04:44	14°♋08'39	
	10353 Mar 28 06:01	0°♌	
	10353 May 17 20:33	0°♍	
	10353 Jul 02 12:49	0°♎	
	10353 Aug 16 23:50	0°♏	
	10353 Oct 02 06:24	0°♐	
	10353 Nov 18 09:25	0°♑	
desc. node	10353 Dec 08 13:16	12°♑44'21	
evening set	10353 Dec 20 22:17	20°♑33'05	
	10354 Jan 04 21:22	0°♒	
max. Earth dist.	10354 Jan 28 14:54	15°♒01'47	2.68011 AU
conjunction	10354 Feb 03 11:14	18°♒44'41	-0°29'10
minimum elong	10354 Feb 03 10:26	18°♒43'24	0°28'48
	10354 Feb 21 02:40	0°♓	
morning rise	10354 Mar 18 21:27	16°♓35'17	
	10354 Apr 08 12:11	0°♈	
	10354 May 23 18:12	0°♉	
	10354 Jul 06 18:49	0°♊	
	10354 Aug 18 16:41	0°♋	
	10354 Sep 29 23:27	0°♌	
	10354 Nov 12 01:44	0°♍	
asc. node	10354 Nov 30 01:50	11°♍47'48	
	10354 Dec 31 15:31	0°♎	
retrograde	10355 Feb 16 23:57	13°♎38'38	
min. Earth dist.	10355 Mar 15 09:50	8°♎52'02	0.42874 AU
greatest brilliancy	10355 Mar 22 00:17	6°♎42'04	-2.6m
opposition	10355 Mar 23 17:18	6°♎08'06	5°51'11
	10355 Apr 23 04:54	30°℞♍	
direct	10355 Apr 24 07:04	29°♍59'32	
	10355 Apr 25 09:18	0°♎	
	10355 Jul 18 10:01	0°♏	
	10355 Sep 09 08:24	0°♐	
desc. node	10355 Oct 26 15:27	28°♐15'25	
	10355 Oct 29 12:30	0°♑	
	10355 Dec 17 10:34	0°♒	
evening set	10356 Jan 25 14:14	24°♒36'05	
	10356 Feb 03 01:08	0°♓	
max. Earth dist.	10356 Feb 20 21:46	11°♓31'03	2.63572 AU
conjunction	10356 Mar 10 08:22	23°♓35'29	-0°59'54
minimum elong	10356 Mar 10 07:21	23°♓33'48	0°59'48
	10356 Mar 20 00:25	0°♈	
morning rise	10356 Apr 25 05:33	24°♈31'36	
	10356 May 03 03:25	0°♉	
	10356 Jun 14 10:51	0°♊	
	10356 Jul 25 04:17	0°♋	
	10356 Sep 02 19:07	0°♌	
	10356 Oct 12 01:29	0°♍	
asc. node	10356 Oct 16 22:34	3°♍42'22	
	10356 Nov 21 04:36	0°♎	
	10357 Jan 03 10:48	0°♏	
	10357 Feb 27 14:01	0°♐	
retrograde	10357 Apr 05 02:42	8°♐02'13	
min. Earth dist.	10357 May 07 11:59	0°♐57'03	0.56388 AU
	10357 May 09 23:11	30°℞♏	
greatest brilliancy	10357 May 13 04:59	28°♏44'12	-1.8m
opposition	10357 May 14 04:26	28°♏21'25	4°15'43
direct	10357 Jun 19 13:23	20°♏09'50	
	10357 Aug 03 09:19	0°♐	
desc. node	10357 Sep 12 19:47	18°♐16'37	
	10357 Oct 05 02:58	0°♑	
	10357 Nov 26 15:33	0°♒	
	10358 Jan 14 12:36	0°♓	
	10358 Mar 01 15:39	0°♈	
evening set	10358 Mar 03 08:21	1°♈08'08	
max. Earth dist.	10358 Mar 19 19:19	12°♈17'01	2.53926 AU
	10358 Apr 14 06:50	0°♉	
conjunction	10358 Apr 21 02:09	4°♉49'32	-1°06'52
minimum elong	10358 Apr 21 02:50	4°♉50'44	1°07'07
	10358 May 25 17:33	0°♊	
morning rise	10358 Jun 14 14:11	14°♊51'46	
	10358 Jul 04 10:57	0°♋	
	10358 Aug 12 02:22	0°♌	
asc. node	10358 Sep 03 16:06	17°♌40'48	
	10358 Sep 19 10:25	0°♍	
	10358 Oct 28 09:17	0°♎	
	10358 Dec 08 02:04	0°♏	
	10359 Jan 21 05:08	0°♐	
	10359 Mar 14 15:11	0°♑	
retrograde	10359 May 12 05:25	16°♑45'51	
min. Earth dist.	10359 Jun 18 15:58	7°♑59'39	0.65504 AU
opposition	10359 Jun 21 17:11	6°♑46'42	1°25'56
greatest brilliancy	10359 Jun 21 13:41	6°♑50'11	-1.4m
	10359 Jul 11 09:28	30°℞♐	
direct	10359 Jul 31 07:21	27°♐27'40	
desc. node	10359 Jul 31 23:15	27°♐27'49	
	10359 Aug 21 22:38	0°♑	
	10359 Nov 03 00:11	0°♒	
	10359 Dec 25 12:52	0°♓	
	10360 Feb 10 16:47	0°♈	
	10360 Mar 25 08:55	0°♉	
evening set	10360 Apr 17 12:13	16°♉42'33	
max. Earth dist.	10360 May 05 07:37	29°♉55'20	2.40637 AU
	10360 May 05 10:06	0°♊	
	10360 Jun 13 14:42	0°♋	
conjunction	10360 Jun 16 08:40	2°♋08'30	-0°24'44
minimum elong	10360 Jun 16 10:48	2°♋12'40	0°25'12
asc. node	10360 Jul 21 10:39	29°♋44'29	
	10360 Jul 21 18:30	0°♌	
morning rise	10360 Aug 26 21:17	28°♌31'48	
	10360 Aug 28 18:11	0°♍	
	10360 Oct 06 10:44	0°♎	
	10360 Nov 15 16:53	0°♏	
	10360 Dec 28 09:25	0°♐	
	10361 Feb 12 18:01	0°♑	
	10361 Apr 07 13:12	0°♒	
retrograde	10361 Jun 14 07:25	20°♒01'16	
desc. node	10361 Jun 18 00:32	19°♒56'04	
opposition	10361 Jul 24 16:45	10°♒23'21	-1°15'24
greatest brilliancy	10361 Jul 24 16:54	10°♒23'12	-1.3m
min. Earth dist.	10361 Jul 25 10:24	10°♒05'53	0.68262 AU
direct	10361 Sep 03 23:41	0°♒28'58	
	10361 Nov 30 06:16	0°♓	
	10362 Jan 19 23:46	0°♈	

	10362 Mar 05 14:08	0°♉	
	10362 Apr 15 17:42	0°♊	
	10362 May 24 18:25	0°♋	
asc. node	10362 Jun 08 09:33	11°♋29'53	
evening set	10362 Jun 21 15:15	21°♋58'14	
	10362 Jul 01 18:14	0°♌	
	10362 Aug 08 16:44	0°♍	
conjunction	10362 Sep 01 08:13	18°♍24'41	0°52'59
minimum elong	10362 Sep 01 04:49	18°♍18'08	0°52'50
	10362 Sep 16 11:16	0°♎	
max. Earth dist.	10362 Oct 23 19:40	27°♎48'26	2.43082 AU
	10362 Oct 26 20:07	0°♏	
morning rise	10362 Nov 06 11:50	7°♏40'26	
	10362 Dec 08 08:48	0°♐	
	10363 Jan 22 11:57	0°♑	
	10363 Mar 11 22:39	0°♒	
desc. node	10363 May 05 21:26	0°♓07'57	
	10363 May 05 14:58	0°♓	
retrograde	10363 Jul 20 09:17	23°♓12'34	
opposition	10363 Aug 28 09:52	14°♓18'28	-3°38'42
greatest brilliancy	10363 Aug 28 22:30	14°♓06'14	-1.4m
min. Earth dist.	10363 Sep 01 22:32	12°♓33'08	0.64383 AU
direct	10363 Oct 08 20:33	4°♓16'37	
	10363 Dec 24 14:40	0°♈	
	10364 Feb 11 06:44	0°♉	
	10364 Mar 24 14:02	0°♊	
asc. node	10364 Apr 25 10:40	24°♊08'25	
	10364 May 03 00:07	0°♋	
	10364 Jun 10 05:19	0°♌	
	10364 Jul 18 10:32	0°♍	
	10364 Aug 26 14:36	0°♎	
evening set	10364 Sep 03 02:21	5°♎36'26	
	10364 Oct 06 10:33	0°♏	
conjunction	10364 Nov 01 19:31	18°♏37'39	1°01'31
minimum elong	10364 Nov 01 20:49	18°♏39'55	1°01'51
	10364 Nov 18 07:44	0°♐	
max. Earth dist.	10364 Dec 02 23:01	9°♐54'32	2.56385 AU
morning rise	10364 Dec 24 01:17	23°♐55'27	
	10365 Jan 02 08:11	0°♑	
	10365 Feb 18 10:01	0°♒	
desc. node	10365 Mar 22 14:21	19°♒44'54	
	10365 Apr 08 18:29	0°♓	
	10365 Jun 01 03:51	0°♈	
	10365 Aug 15 13:43	0°♉	
retrograde	10365 Sep 01 10:38	1°♉36'05	
	10365 Sep 17 08:08	30°℞♈	
opposition	10365 Oct 07 12:21	23°♈57'32	-5°19'55
greatest brilliancy	10365 Oct 09 00:08	23°♈24'48	-1.9m
min. Earth dist.	10365 Oct 15 11:28	21°♈03'32	0.54080 AU
direct	10365 Nov 15 22:10	14°♈41'02	
	10366 Jan 08 01:23	0°♉	
	10366 Feb 26 17:28	0°♊	
asc. node	10366 Mar 13 13:52	10°♊21'57	
	10366 Apr 09 09:14	0°♋	
	10366 May 18 18:15	0°♌	
	10366 Jun 26 21:41	0°♍	
	10366 Aug 05 23:53	0°♎	
	10366 Sep 16 17:55	0°♏	
evening set	10366 Oct 27 13:15	28°♏03'59	
	10366 Oct 30 10:10	0°♐	
	10366 Dec 14 21:22	0°♑	
conjunction	10366 Dec 16 03:24	0°♑48'41	0°27'39
minimum elong	10366 Dec 16 04:20	0°♑50'12	0°28'08
max. Earth dist.	10366 Dec 29 06:31	9°♑17'34	2.65066 AU
morning rise	10367 Jan 30 20:16	0°♒05'00	
	10367 Jan 30 17:07	0°♒	
desc. node	10367 Feb 07 07:23	4°♒48'19	
	10367 Mar 19 10:34	0°♓	
	10367 May 06 21:59	0°♈	
	10367 Jun 25 16:27	0°♉	
	10367 Aug 18 08:28	0°♊	
retrograde	10367 Nov 03 21:32	25°♊25'46	
opposition	10367 Dec 05 00:59	19°♊54'01	-3°43'22
greatest brilliancy	10367 Dec 06 04:33	19°♊33'29	-2.7m
min. Earth dist.	10367 Dec 12 03:59	17°♊47'17	0.40348 AU
direct	10368 Jan 07 09:43	13°♊26'01	
asc. node	10368 Jan 29 18:35	16°♊49'49	
	10368 Feb 29 18:04	0°♋	
	10368 Apr 18 01:46	0°♌	
	10368 May 31 04:09	0°♍	
	10368 Jul 12 22:06	0°♎	
	10368 Aug 25 16:57	0°♏	
	10368 Oct 09 22:17	0°♐	
	10368 Nov 25 09:53	0°♑	
evening set	10368 Dec 06 14:55	7°♑09'07	
desc. node	10368 Dec 25 03:04	18°♑54'56	
	10369 Jan 11 14:28	0°♒	
conjunction	10369 Jan 20 21:10	5°♒52'54	-0°14'04
minimum elong	10369 Jan 20 20:46	5°♒52'14	0°13'38
behind sun begin	10369 Jan 20 11:04	5°♒36'53	
behind sun end	10369 Jan 21 06:27	6°♒07'36	
max. Earth dist.	10369 Jan 20 04:14	5°♒26'04	2.68270 AU
	10369 Feb 27 20:13	0°♓	
morning rise	10369 Mar 05 07:48	3°♓29'52	
	10369 Apr 15 14:19	0°♈	
	10369 May 31 14:18	0°♉	
	10369 Jul 15 20:01	0°♊	
	10369 Aug 29 13:28	0°♋	
	10369 Oct 13 19:39	0°♌	
	10369 Dec 03 10:39	0°♍	
asc. node	10369 Dec 16 19:57	6°♍13'22	
retrograde	10370 Jan 22 19:39	14°♍50'25	
min. Earth dist.	10370 Feb 17 21:05	10°♍32'55	0.38362 AU
opposition	10370 Feb 23 18:57	8°♍49'47	4°41'24
greatest brilliancy	10370 Feb 22 16:47	9°♍08'53	-2.9m
direct	10370 Mar 25 11:43	3°♍36'48	
	10370 Jun 09 15:13	0°♎	
	10370 Jul 31 10:00	0°♏	
	10370 Sep 18 12:56	0°♐	
	10370 Nov 06 03:47	0°♑	
desc. node	10370 Nov 12 03:01	3°♑41'45	
	10370 Dec 24 09:10	0°♒	
evening set	10371 Jan 11 18:00	11°♒32'48	
	10371 Feb 09 18:32	0°♓	
max. Earth dist.	10371 Feb 11 12:30	1°♓07'17	2.65949 AU
conjunction	10371 Feb 25 01:30	9°♓50'53	-0°49'55
minimum elong	10371 Feb 25 00:24	9°♓49'05	0°49'41
	10371 Mar 27 20:26	0°♈	
morning rise	10371 Apr 10 11:35	9°♈04'34	
	10371 May 11 08:01	0°♉	
	10371 Jun 23 04:21	0°♊	
	10371 Aug 03 13:12	0°♋	
	10371 Sep 12 20:41	0°♌	
	10371 Oct 22 22:26	0°♍	
asc. node	10371 Nov 03 16:04	8°♍40'28	
	10371 Dec 03 08:54	0°♎	
	10372 Jan 19 12:17	0°♏	
retrograde	10372 Mar 19 07:31	19°♏42'26	
min. Earth dist.	10372 Apr 18 07:19	13°♏29'14	0.51337 AU

greatest brilliancy	10372 Apr 24 18:02	11°♏04'51	-2.1m
opposition	10372 Apr 26 03:47	10°♏33'10	5°14'14
direct	10372 May 30 19:49	3°♏01'54	
	10372 Aug 20 17:01	0°♐	
desc. node	10372 Sep 29 07:30	21°♐18'05	
	10372 Oct 14 14:37	0°♑	
	10372 Dec 04 06:35	0°♒	
	10373 Jan 21 12:38	0°♓	
evening set	10373 Feb 16 01:57	16°♓28'48	
max. Earth dist.	10373 Mar 08 00:46	29°♓39'38	2.58280 AU
	10373 Mar 08 12:58	0°♈	
conjunction	10373 Apr 03 16:15	17°♈43'38	-1°08'19
minimum elong	10373 Apr 03 15:58	17°♈43'10	1°08'26
	10373 Apr 21 07:49	0°♉	
morning rise	10373 May 23 17:26	23°♉10'20	
	10373 Jun 02 01:29	0°♊	
	10373 Jul 12 02:45	0°♋	
	10373 Aug 20 01:17	0°♌	
asc. node	10373 Sep 20 10:40	24°♌25'04	
	10373 Sep 27 15:23	0°♍	
	10373 Nov 05 20:35	0°♎	
	10373 Dec 17 01:27	0°♏	
	10374 Jan 31 18:56	0°♐	
	10374 Apr 06 15:44	0°♑	
retrograde	10374 Apr 28 10:41	2°♑55'00	
	10374 May 18 22:59	30°℞♐	
min. Earth dist.	10374 Jun 03 02:30	24°♐43'33	0.62664 AU
opposition	10374 Jun 07 14:50	22°♐56'01	2°32'01
greatest brilliancy	10374 Jun 07 05:27	23°♐05'20	-1.5m
direct	10374 Jul 16 03:36	13°♐58'39	
desc. node	10374 Aug 17 12:22	19°♐22'21	
	10374 Sep 14 18:32	0°♑	
	10374 Nov 12 15:42	0°♒	
	10375 Jan 02 06:35	0°♓	
	10375 Feb 17 21:51	0°♈	
evening set	10375 Mar 29 22:12	27°♈27'20	
	10375 Apr 02 12:30	0°♉	
max. Earth dist.	10375 Apr 12 19:33	7°♉21'01	2.46021 AU
	10375 May 13 16:50	0°♊	
conjunction	10375 May 23 07:00	7°♊12'06	-0°48'52
minimum elong	10375 May 23 09:23	7°♊16'35	0°49'17
	10375 Jun 22 01:52	0°♋	
morning rise	10375 Jul 27 02:38	27°♋24'47	
	10375 Jul 30 09:25	0°♌	
asc. node	10375 Aug 08 05:31	6°♌58'10	
	10375 Sep 06 11:20	0°♍	
	10375 Oct 15 04:44	0°♎	
	10375 Nov 24 12:03	0°♏	
	10376 Jan 06 11:18	0°♐	
	10376 Feb 23 00:10	0°♑	
	10376 Apr 24 02:12	0°♒	
retrograde	10376 Jun 01 01:48	7°♒32'39	
desc. node	10376 Jul 04 14:14	0°♒29'39	
	10376 Jul 05 21:10	30°℞♑	
opposition	10376 Jul 11 15:53	27°♑43'19	-0°14'47
min. Earth dist.	10376 Jul 10 21:44	28°♑01'22	0.67975 AU
greatest brilliancy	10376 Jul 11 15:40	27°♑43'33	-1.3m
direct	10376 Aug 21 11:17	17°♑59'40	
	10376 Oct 11 12:27	0°♒	
	10376 Dec 10 07:06	0°♓	
	10377 Jan 28 02:23	0°♈	
	10377 Mar 13 04:46	0°♉	
	10377 Apr 23 06:05	0°♊	
evening set	10377 May 24 09:09	23°♊49'08	
	10377 Jun 01 07:30	0°♋	

asc. node	10377 Jun 25 01:12	18°♋40'38	
	10377 Jul 09 08:08	0°♌	
conjunction	10377 Aug 01 19:10	18°♌35'38	0°26'44
minimum elong	10377 Aug 01 16:21	18°♌30'04	0°26'19
	10377 Aug 16 06:20	0°♍	
max. Earth dist.	10377 Sep 17 16:21	25°♍11'43	2.37768 AU
	10377 Sep 23 23:10	0°♎	
morning rise	10377 Oct 12 19:12	14°♎12'36	
	10377 Nov 03 05:29	0°♏	
	10377 Dec 15 17:18	0°♐	
	10378 Jan 30 02:20	0°♑	
	10378 Mar 20 17:14	0°♒	
	10378 May 20 15:04	0°♓	
desc. node	10378 May 22 12:36	0°♓43'18	
retrograde	10378 Jul 05 18:45	10°♓11'37	
opposition	10378 Aug 14 12:03	0°♓57'21	-2°45'57
greatest brilliancy	10378 Aug 14 17:59	0°♓51'32	-1.3m
	10378 Aug 16 22:34	30°℞♒	
min. Earth dist.	10378 Aug 17 12:58	29°♒45'54	0.66711 AU
direct	10378 Sep 25 02:14	20°♒54'20	
	10378 Nov 06 14:05	0°♓	
	10379 Jan 04 21:28	0°♈	
	10379 Feb 20 05:27	0°♉	
	10379 Apr 02 21:13	0°♊	
	10379 May 12 01:31	0°♋	
asc. node	10379 May 13 02:12	0°♋48'13	
	10379 Jun 19 03:03	0°♌	
	10379 Jul 27 04:13	0°♍	
evening set	10379 Aug 07 19:59	9°♍04'47	
	10379 Sep 04 03:12	0°♎	
conjunction	10379 Oct 12 09:23	28°♎19'00	1°06'29
minimum elong	10379 Oct 12 09:30	28°♎19'13	1°06'42
	10379 Oct 14 17:18	0°♏	
max. Earth dist.	10379 Nov 21 05:33	26°♏27'00	2.51619 AU
	10379 Nov 26 09:34	0°♐	
morning rise	10379 Dec 08 01:19	7°♐55'46	
	10380 Jan 10 08:38	0°♑	
	10380 Feb 26 18:09	0°♒	
desc. node	10380 Apr 08 06:46	24°♒48'14	
	10380 Apr 17 09:00	0°♓	
	10380 Jun 14 20:06	0°♈	
retrograde	10380 Aug 13 18:34	15°♈45'36	
opposition	10380 Sep 20 05:26	7°♈32'03	-4°49'38
greatest brilliancy	10380 Sep 21 07:53	7°♈07'05	-1.7m
min. Earth dist.	10380 Sep 26 22:59	4°♈59'52	0.58848 AU
	10380 Oct 12 17:57	30°℞♓	
direct	10380 Oct 30 19:00	27°♓47'43	
	10380 Nov 18 17:42	0°♈	
	10381 Jan 23 18:52	0°♉	
	10381 Mar 09 15:37	0°♊	
asc. node	10381 Mar 30 06:04	15°♊04'38	
	10381 Apr 18 23:47	0°♋	
	10381 May 27 16:55	0°♌	
	10381 Jul 05 08:12	0°♍	
	10381 Aug 13 22:53	0°♎	
	10381 Sep 24 05:46	0°♏	
evening set	10381 Oct 08 14:04	10°♏06'01	
	10381 Nov 06 12:33	0°♐	
conjunction	10381 Nov 30 06:25	15°♐54'15	0°42'48
minimum elong	10381 Nov 30 07:48	15°♐56'32	0°43'15
max. Earth dist.	10381 Dec 19 18:53	28°♐43'54	2.62297 AU
	10381 Dec 21 17:36	0°♑	
morning rise	10382 Jan 16 21:07	16°♑51'51	
	10382 Feb 06 13:22	0°♒	

desc. node	10382 Feb 23 22:31	10°♒55'13	
	10382 Mar 26 17:08	0°♓	
	10382 May 15 10:23	0°♈	
	10382 Jul 07 13:32	0°♉	
	10382 Sep 19 09:28	0°♊	
retrograde	10382 Oct 06 18:01	1°♊44'37	
	10382 Oct 23 10:54	30°℞♉	
opposition	10382 Nov 09 02:02	25°♉18'14	-5°08'59
greatest brilliancy	10382 Nov 10 19:06	24°♉44'15	-2.4m
min. Earth dist.	10382 Nov 17 19:38	22°♉26'09	0.45581 AU
direct	10382 Dec 15 09:40	17°♉26'50	
	10383 Jan 30 06:30	0°♊	
asc. node	10383 Feb 15 09:22	8°♊34'02	
	10383 Mar 21 03:54	0°♋	
	10383 May 02 05:02	0°♌	
	10383 Jun 11 21:45	0°♍	
	10383 Jul 23 04:28	0°♎	
	10383 Sep 03 21:58	0°♏	
	10383 Oct 18 08:56	0°♐	
evening set	10383 Nov 22 13:12	23°♐01'36	
	10383 Dec 03 08:24	0°♑	
conjunction	10384 Jan 08 01:04	22°♑49'59	0°01'59
minimum elong	10384 Jan 08 01:08	22°♑50'04	0°02'28
behind sun begin	10384 Jan 07 06:33	22°♑20'32	
behind sun end	10384 Jan 08 19:43	23°♑19'37	
desc. node	10384 Jan 11 17:01	25°♑09'50	
max. Earth dist.	10384 Jan 12 13:51	25°♑42'56	2.67668 AU
	10384 Jan 19 07:41	0°♒	
morning rise	10384 Feb 20 23:58	20°♒42'47	
	10384 Mar 06 15:53	0°♓	
	10384 Apr 22 21:56	0°♈	
	10384 Jun 08 22:48	0°♉	
	10384 Jul 26 00:43	0°♊	
	10384 Sep 12 04:33	0°♋	
	10384 Nov 05 19:41	0°♌	
retrograde	10384 Dec 23 19:27	12°♌40'00	
asc. node	10385 Jan 02 11:14	12°♌02'49	
opposition	10385 Jan 22 14:16	7°♌41'16	1°34'37
greatest brilliancy	10385 Jan 22 11:54	7°♌42'50	-3.1m
min. Earth dist.	10385 Jan 21 21:29	7°♌52'22	0.36463 AU
direct	10385 Feb 20 21:48	2°♌48'59	
	10385 May 06 21:50	0°♍	
	10385 Jun 25 00:02	0°♎	
	10385 Aug 10 21:27	0°♏	
	10385 Sep 26 22:42	0°♐	
	10385 Nov 13 12:08	0°♑	
desc. node	10385 Nov 28 16:11	9°♑31'52	
evening set	10385 Dec 28 22:18	28°♑33'23	
	10385 Dec 31 05:16	0°♒	
max. Earth dist.	10386 Feb 02 16:18	21°♒11'10	2.67497 AU
conjunction	10386 Feb 11 06:30	26°♒39'53	-0°37'24
minimum elong	10386 Feb 11 05:32	26°♒38'21	0°37'04
	10386 Feb 16 11:38	0°♓	
morning rise	10386 Mar 26 21:33	24°♓51'02	
	10386 Apr 03 18:04	0°♈	
	10386 May 18 17:06	0°♉	
	10386 Jul 01 06:36	0°♊	
	10386 Aug 12 13:12	0°♋	
	10386 Sep 22 22:35	0°♌	
	10386 Nov 03 12:02	0°♍	
asc. node	10386 Nov 20 10:46	11°♍50'45	
	10386 Dec 18 02:16	0°♎	
retrograde	10387 Mar 01 05:25	28°♎08'10	
min. Earth dist.	10387 Mar 28 17:58	22°♎52'07	0.45840 AU
greatest brilliancy	10387 Apr 04 12:33	20°♎30'57	-2.4m
opposition	10387 Apr 06 05:36	19°♎54'56	5°51'27
direct	10387 May 08 23:50	13°♎14'27	
	10387 Jul 07 12:27	0°♏	
	10387 Sep 02 16:18	0°♐	
desc. node	10387 Oct 16 18:51	25°♐38'29	
	10387 Oct 24 02:40	0°♑	
	10387 Dec 12 13:30	0°♒	
	10388 Jan 29 09:12	0°♓	
evening set	10388 Feb 02 14:55	2°♓42'51	
max. Earth dist.	10388 Feb 26 13:03	18°♓13'13	2.61886 AU
	10388 Mar 15 08:49	0°♈	
conjunction	10388 Mar 18 20:55	2°♈20'22	-1°04'15
minimum elong	10388 Mar 18 20:05	2°♈18'58	1°04'13
	10388 Apr 28 08:59	0°♉	
morning rise	10388 May 04 22:44	4°♉35'59	
	10388 Jun 09 11:22	0°♊	
	10388 Jul 19 22:49	0°♋	
	10388 Aug 28 07:11	0°♌	
	10388 Oct 06 06:37	0°♍	
asc. node	10388 Oct 07 04:42	0°♍42'20	
	10388 Nov 14 23:13	0°♎	
	10388 Dec 27 03:42	0°♏	
	10389 Feb 14 13:55	0°♐	
retrograde	10389 Apr 13 21:20	17°♐50'34	
min. Earth dist.	10389 May 17 12:20	10°♐20'03	0.58866 AU
opposition	10389 May 23 10:59	8°♐00'06	3°38'33
greatest brilliancy	10389 May 22 17:08	8°♐17'37	-1.7m
	10389 Jun 20 22:15	30°℞♏	
direct	10389 Jun 29 16:07	29°♏30'22	
	10389 Jul 08 18:49	0°♐	
desc. node	10389 Sep 02 23:37	17°♐48'14	
	10389 Sep 28 00:37	0°♑	
	10389 Nov 21 05:12	0°♒	
	10390 Jan 09 15:34	0°♓	
	10390 Feb 24 23:01	0°♈	
evening set	10390 Mar 12 11:55	10°♈29'05	
max. Earth dist.	10390 Mar 27 11:17	20°♈47'35	2.51243 AU
	10390 Apr 09 14:25	0°♉	
conjunction	10390 May 01 21:25	15°♉59'01	-1°02'52
minimum elong	10390 May 01 22:45	16°♉01'27	1°03'12
	10390 May 20 23:04	0°♊	
morning rise	10390 Jun 28 16:13	29°♊19'00	
	10390 Jun 29 13:30	0°♋	
	10390 Aug 07 01:42	0°♌	
asc. node	10390 Aug 24 23:01	14°♌03'11	
	10390 Sep 14 06:54	0°♍	
	10390 Oct 23 02:46	0°♎	
	10390 Dec 02 14:05	0°♏	
	10391 Jan 15 02:38	0°♐	
	10391 Mar 05 21:34	0°♑	
retrograde	10391 May 19 20:57	24°♑48'32	
min. Earth dist.	10391 Jun 27 05:24	15°♑45'18	0.66676 AU
opposition	10391 Jun 29 11:17	14°♑51'37	0°48'08
greatest brilliancy	10391 Jun 29 09:55	14°♑52'59	-1.4m
desc. node	10391 Jul 22 02:56	7°♑18'51	
direct	10391 Aug 08 13:54	5°♑22'45	
	10391 Oct 26 16:00	0°♒	
	10391 Dec 20 01:16	0°♓	
	10392 Feb 05 17:52	0°♈	
	10392 Mar 20 13:59	0°♉	
evening set	10392 Apr 29 18:06	29°♉19'30	
	10392 Apr 30 15:42	0°♊	
max. Earth dist.	10392 May 26 08:46	19°♊34'22	2.37986 AU
	10392 Jun 08 19:31	0°♋	

conjunction	10392 Jul 02 04:07	18°♋20'06	-0°07'01
minimum elong	10392 Jul 02 04:52	18°♋21'36	0°07'30
behind sun begin	10392 Jul 01 02:26	17°♋29'29	
behind sun end	10392 Jul 03 07:18	19°♋13'45	
asc. node	10392 Jul 11 19:41	25°♋57'46	
	10392 Jul 16 22:02	0°♌	
	10392 Aug 23 20:38	0°♍	
morning rise	10392 Sep 13 16:11	16°♍15'58	
	10392 Oct 01 12:21	0°♎	
	10392 Nov 10 17:03	0°♏	
	10392 Dec 23 05:49	0°♐	
	10393 Feb 07 01:52	0°♑	
	10393 Mar 30 17:26	0°♒	
desc. node	10393 Jun 08 02:34	26°♒32'48	
retrograde	10393 Jun 21 23:58	27°♒39'27	
opposition	10393 Aug 01 05:00	18°♒08'54	-1°49'48
greatest brilliancy	10393 Aug 01 06:32	18°♒07'23	-1.3m
min. Earth dist.	10393 Aug 02 18:09	17°♒32'14	0.67997 AU
direct	10393 Sep 11 16:24	8°♒10'17	
	10393 Nov 22 13:19	0°♓	
	10394 Jan 14 07:12	0°♈	
	10394 Feb 28 10:24	0°♉	
	10394 Apr 10 18:10	0°♊	
	10394 May 19 20:20	0°♋	
asc. node	10394 May 29 18:01	7°♋46'09	
	10394 Jun 26 20:40	0°♌	
evening set	10394 Jul 08 15:09	9°♌19'54	
	10394 Aug 03 19:45	0°♍	
	10394 Sep 11 15:13	0°♎	
conjunction	10394 Sep 17 04:48	4°♎12'57	1°01'41
minimum elong	10394 Sep 17 02:37	4°♎08'50	1°01'40
	10394 Oct 22 00:46	0°♏	
max. Earth dist.	10394 Nov 04 23:33	10°♏01'15	2.46199 AU
morning rise	10394 Nov 18 17:17	19°♏43'14	
	10394 Dec 03 13:17	0°♐	
	10395 Jan 17 12:56	0°♑	
	10395 Mar 06 11:04	0°♒	
desc. node	10395 Apr 25 22:00	28°♒49'42	
	10395 Apr 28 03:05	0°♓	
	10395 Jul 13 03:21	0°♈	
retrograde	10395 Jul 29 04:26	1°♈26'12	
	10395 Aug 13 06:35	30°℞♓	
opposition	10395 Sep 05 17:14	22°♓44'48	-4°07'00
greatest brilliancy	10395 Sep 06 10:27	22°♓28'14	-1.5m
min. Earth dist.	10395 Sep 11 01:05	20°♓41'51	0.62685 AU
direct	10395 Oct 16 22:48	12°♓46'29	
	10395 Dec 15 14:41	0°♈	
	10396 Feb 05 01:00	0°♉	
	10396 Mar 19 00:34	0°♊	
asc. node	10396 Apr 15 19:38	20°♊51'07	
	10396 Apr 27 17:00	0°♋	
	10396 Jun 05 01:26	0°♌	
	10396 Jul 13 09:14	0°♍	
	10396 Aug 21 16:07	0°♎	
evening set	10396 Sep 16 20:36	19°♎20'53	
	10396 Oct 01 14:47	0°♏	
conjunction	10396 Nov 12 17:14	29°♏24'09	0°55'48
minimum elong	10396 Nov 12 18:45	29°♏26'45	0°56'11
	10396 Nov 13 14:16	0°♐	
max. Earth dist.	10396 Dec 09 11:46	17°♐24'41	2.58714 AU
	10396 Dec 28 15:05	0°♑	
morning rise	10397 Jan 02 00:49	2°♑52'00	
	10397 Feb 13 13:13	0°♒	
desc. node	10397 Mar 12 15:14	16°♒48'27	
	10397 Apr 03 08:20	0°♓	
	10397 May 24 23:52	0°♈	
	10397 Jul 24 14:12	0°♉	
retrograde	10397 Sep 13 03:15	12°♉00'07	
opposition	10397 Oct 18 08:46	4°♉44'17	-5°26'52
greatest brilliancy	10397 Oct 20 00:30	4°♉08'54	-2.0m
min. Earth dist.	10397 Oct 26 20:27	1°♉44'07	0.51172 AU
	10397 Nov 01 03:15	30°℞♈	
direct	10397 Nov 25 21:12	25°♈51'15	
	10397 Dec 21 10:47	0°♉	
	10398 Feb 18 15:21	0°♊	
asc. node	10398 Mar 04 00:30	8°♊52'12	
	10398 Apr 02 19:14	0°♋	
	10398 May 12 19:15	0°♌	
	10398 Jun 21 07:55	0°♍	
	10398 Jul 31 17:32	0°♎	
	10398 Sep 11 17:42	0°♏	
	10398 Oct 25 15:03	0°♐	
evening set	10398 Nov 06 09:42	7°♐50'51	
	10398 Dec 10 05:25	0°♑	
conjunction	10398 Dec 24 16:32	9°♑19'50	0°18'16
minimum elong	10398 Dec 24 17:09	9°♑20'50	0°18'46
max. Earth dist.	10399 Jan 03 14:10	15°♑40'53	2.66228 AU
	10399 Jan 26 01:34	0°♒	
desc. node	10399 Jan 28 08:23	1°♒26'58	
morning rise	10399 Feb 07 14:51	7°♒57'13	
	10399 Mar 14 14:34	0°♓	
	10399 May 01 13:13	0°♈	
	10399 Jun 19 02:14	0°♉	
	10399 Aug 08 09:33	0°♊	
	10399 Oct 05 12:08	0°♋	
retrograde	10399 Nov 21 14:00	11°♋30'12	
opposition	10399 Dec 21 20:52	6°♋23'13	-2°09'48
greatest brilliancy	10399 Dec 22 09:42	6°♋14'13	-2.9m
min. Earth dist.	10399 Dec 26 19:25	5°♋00'31	0.38148 AU
asc. node	10400 Jan 20 03:11	0°♋44'07	
direct	10400 Jan 22 09:36	0°♋41'55	
	10400 Apr 07 10:13	0°♌	
	10400 May 23 11:15	0°♍	
	10400 Jul 06 13:18	0°♎	
	10400 Aug 20 03:06	0°♏	
	10400 Oct 04 20:34	0°♐	
	10400 Nov 20 15:31	0°♑	
evening set	10400 Dec 14 20:20	15°♑21'08	
desc. node	10400 Dec 15 05:19	15°♑35'21	
	10401 Jan 06 23:47	0°♒	
max. Earth dist.	10401 Jan 25 03:55	11°♒30'42	2.68234 AU
conjunction	10401 Jan 28 15:36	13°♒43'23	-0°23'03
minimum elong	10401 Jan 28 14:57	13°♒42'21	0°22'40
	10401 Feb 23 05:21	0°♓	
morning rise	10401 Mar 13 00:31	11°♓24'13	
	10401 Apr 10 18:48	0°♈	
	10401 May 26 08:52	0°♉	
	10401 Jul 09 21:34	0°♊	
	10401 Aug 22 12:26	0°♋	
	10401 Oct 04 19:33	0°♌	
	10401 Nov 18 21:13	0°♍	
asc. node	10401 Dec 07 02:57	10°♍57'59	
	10402 Jan 20 03:29	0°♎	
retrograde	10402 Feb 06 16:09	2°♎09'10	
	10402 Feb 24 01:57	30°℞♍	
min. Earth dist.	10402 Mar 04 12:51	27°♍40'56	0.40660 AU
greatest brilliancy	10402 Mar 10 15:04	25°♍47'20	-2.7m
opposition	10402 Mar 12 04:08	25°♍18'17	5°35'06
direct	10402 Apr 11 19:25	19°♍35'57	
	10402 May 25 19:25	0°♎	

	10402 Jul 23 15:25	0°♏	
	10402 Sep 12 14:40	0°♐	
	10402 Nov 01 00:41	0°♑	
desc. node	10402 Nov 02 06:55	0°♑46'15	
	10402 Dec 19 15:11	0°♒	
evening set	10403 Jan 19 15:02	19°♒28'06	
	10403 Feb 05 03:57	0°♓	
max. Earth dist.	10403 Feb 16 20:10	7°♓30'30	2.64745 AU
conjunction	10403 Mar 05 02:47	18°♓04'50	-0°56'07
minimum elong	10403 Mar 05 01:42	18°♓03'04	0°55'57
	10403 Mar 23 05:06	0°♈	
morning rise	10403 Apr 19 05:55	18°♈09'18	
	10403 May 06 12:52	0°♉	
	10403 Jun 18 02:38	0°♊	
	10403 Jul 29 03:19	0°♋	
	10403 Sep 07 01:05	0°♌	
	10403 Oct 16 14:33	0°♍	
asc. node	10403 Oct 25 00:33	6°♍19'53	
	10403 Nov 26 03:33	0°♎	
	10404 Jan 09 10:58	0°♏	
	10404 Mar 17 09:05	0°♐	
retrograde	10404 Mar 29 02:17	0°♐57'21	
	10404 Apr 09 11:04	30°℞♏	
min. Earth dist.	10404 Apr 29 10:43	24°♏14'39	0.54211 AU
opposition	10404 May 06 16:55	21°♏27'57	4°42'17
greatest brilliancy	10404 May 05 12:48	21°♏54'55	-1.9m
direct	10404 Jun 11 08:11	13°♏33'17	
	10404 Aug 10 20:11	0°♐	
desc. node	10404 Sep 19 10:58	19°♐38'09	
	10404 Oct 08 10:18	0°♑	
	10404 Nov 29 02:52	0°♒	
	10405 Jan 16 18:11	0°♓	
evening set	10405 Feb 24 15:37	25°♓11'30	
	10405 Mar 03 21:06	0°♈	
max. Earth dist.	10405 Mar 14 15:02	7°♈13'25	2.55966 AU
conjunction	10405 Apr 13 07:31	27°♈40'08	-1°08'18
minimum elong	10405 Apr 13 07:44	27°♈40'31	1°08'29
	10405 Apr 16 15:11	0°♉	
	10405 May 28 05:56	0°♊	
morning rise	10405 Jun 04 14:41	5°♊27'06	
	10405 Jul 07 03:38	0°♋	
	10405 Aug 14 22:26	0°♌	
asc. node	10405 Sep 10 18:39	20°♌57'51	
	10405 Sep 22 08:48	0°♍	
	10405 Oct 31 09:25	0°♎	
	10405 Dec 11 04:54	0°♏	
	10406 Jan 24 18:26	0°♐	
	10406 Mar 20 20:10	0°♑	
retrograde	10406 May 06 09:18	11°♑27'29	
min. Earth dist.	10406 Jun 12 01:16	2°♑56'39	0.64350 AU
opposition	10406 Jun 15 18:50	1°♑27'33	1°53'18
greatest brilliancy	10406 Jun 15 13:07	1°♑33'15	-1.5m
	10406 Jun 19 11:50	30°℞♐	
direct	10406 Jul 24 22:58	22°♐17'40	
desc. node	10406 Aug 07 14:55	23°♐21'21	
	10406 Sep 02 13:37	0°♑	
	10406 Nov 06 08:56	0°♒	
	10406 Dec 28 02:07	0°♓	
	10407 Feb 13 01:50	0°♈	
	10407 Mar 28 18:48	0°♉	
evening set	10407 Apr 09 16:18	8°♉30'21	
max. Earth dist.	10407 Apr 24 15:40	19°♉24'22	2.43020 AU
	10407 May 08 22:26	0°♊	
conjunction	10407 Jun 05 21:28	21°♊13'44	-0°36'24
minimum elong	10407 Jun 05 23:58	21°♊18'33	0°36'50
	10407 Jun 17 05:47	0°♋	
	10407 Jul 25 11:29	0°♌	
asc. node	10407 Jul 29 12:31	3°♌11'42	
morning rise	10407 Aug 13 17:50	15°♌13'25	
	10407 Sep 01 11:50	0°♍	
	10407 Oct 10 04:01	0°♎	
	10407 Nov 19 09:11	0°♏	
	10408 Jan 01 02:14	0°♐	
	10408 Feb 16 18:10	0°♑	
	10408 Apr 12 10:44	0°♒	
retrograde	10408 Jun 08 15:11	15°♒13'16	
desc. node	10408 Jun 24 16:47	13°♒32'25	
opposition	10408 Jul 19 03:22	5°♒29'43	-0°50'42
greatest brilliancy	10408 Jul 19 02:59	5°♒30'06	-1.3m
min. Earth dist.	10408 Jul 19 04:29	5°♒28'37	0.68262 AU
	10408 Aug 02 23:51	30°℞♑	
direct	10408 Aug 29 06:16	25°♑39'48	
	10408 Sep 27 00:21	0°♒	
	10408 Dec 03 20:34	0°♓	
	10409 Jan 22 18:39	0°♈	
	10409 Mar 08 05:28	0°♉	
	10409 Apr 18 09:14	0°♊	
	10409 May 27 11:05	0°♋	
evening set	10409 Jun 08 19:40	9°♋41'57	
asc. node	10409 Jun 15 10:19	14°♋54'51	
	10409 Jul 04 11:23	0°♌	
	10409 Aug 11 09:16	0°♍	
conjunction	10409 Aug 19 04:41	6°♍07'23	0°43'12
minimum elong	10409 Aug 19 00:57	6°♍00'05	0°42'54
	10409 Sep 19 02:11	0°♎	
max. Earth dist.	10409 Oct 11 14:07	16°♎56'14	2.40573 AU
morning rise	10409 Oct 27 06:01	28°♎27'59	
	10409 Oct 29 08:34	0°♏	
	10409 Dec 10 19:09	0°♐	
	10410 Jan 24 22:37	0°♑	
	10410 Mar 14 17:28	0°♒	
	10410 May 10 03:59	0°♓	
desc. node	10410 May 12 14:25	1°♓06'40	
retrograde	10410 Jul 14 00:19	18°♓04'39	
opposition	10410 Aug 22 08:56	9°♓00'55	-3°17'15
greatest brilliancy	10410 Aug 22 18:21	8°♓51'44	-1.4m
min. Earth dist.	10410 Aug 26 05:15	7°♓30'57	0.65549 AU
	10410 Sep 20 07:03	30°℞♒	
direct	10410 Oct 02 22:05	28°♒57'58	
	10410 Oct 16 03:31	0°♓	
	10410 Dec 28 21:59	0°♈	
	10411 Feb 14 13:10	0°♉	
	10411 Mar 28 14:34	0°♊	
asc. node	10411 May 03 11:22	27°♊17'40	
	10411 May 06 22:55	0°♋	
	10411 Jun 14 02:38	0°♌	
	10411 Jul 22 05:31	0°♍	
evening set	10411 Aug 23 14:56	24°♍58'12	
	10411 Aug 30 06:23	0°♎	
	10411 Oct 09 22:19	0°♏	
conjunction	10411 Oct 24 21:15	10°♏40'33	1°04'32
minimum elong	10411 Oct 24 22:11	10°♏42'14	1°04'50
	10411 Nov 21 15:43	0°♐	
max. Earth dist.	10411 Nov 28 20:42	4°♐54'46	2.54331 AU
morning rise	10411 Dec 17 22:23	17°♐43'30	
	10412 Jan 05 13:58	0°♑	
	10412 Feb 21 17:26	0°♒	
desc. node	10412 Mar 29 07:29	22°♒14'48	
	10412 Apr 11 11:50	0°♓	

	10412 Jun 05 11:03	0°♈	
retrograde	10412 Aug 24 01:05	25°♈02'25	
opposition	10412 Sep 29 18:56	17°♈07'05	-5°08'54
greatest brilliancy	10412 Oct 01 02:43	16°♈37'32	-1.8m
min. Earth dist.	10412 Oct 07 05:49	14°♈21'28	0.56304 AU
direct	10412 Nov 08 18:39	7°♈36'14	
	10413 Jan 14 22:31	0°♉	
	10413 Mar 03 01:18	0°♊	
asc. node	10413 Mar 20 14:10	12°♊31'27	
	10413 Apr 13 01:58	0°♋	
	10413 May 22 03:20	0°♌	
	10413 Jun 30 00:22	0°♍	
	10413 Aug 08 20:17	0°♎	
	10413 Sep 19 07:57	0°♏	
evening set	10413 Oct 19 14:56	21°♏03'36	
	10413 Nov 01 18:35	0°♐	
conjunction	10413 Dec 09 11:05	25°♐01'59	0°34'10
minimum elong	10413 Dec 09 12:14	25°♐03'52	0°34'38
	10413 Dec 17 01:48	0°♑	
max. Earth dist.	10413 Dec 25 08:44	5°♑22'36	2.63930 AU
morning rise	10414 Jan 24 22:14	24°♑58'06	
	10414 Feb 01 20:37	0°♒	
desc. node	10414 Feb 14 00:02	7°♒40'07	
	10414 Mar 21 17:33	0°♓	
	10414 May 09 16:11	0°♈	
	10414 Jun 29 15:06	0°♉	
	10414 Aug 26 11:09	0°♊	
retrograde	10414 Oct 22 00:10	14°♊58'51	
opposition	10414 Nov 23 02:05	9°♊02'55	-4°30'53
greatest brilliancy	10414 Nov 24 13:55	8°♊34'50	-2.6m
min. Earth dist.	10414 Dec 01 05:39	6°♊30'31	0.42556 AU
direct	10414 Dec 27 21:09	1°♊55'32	
asc. node	10415 Feb 05 19:01	11°♊51'38	
	10415 Mar 11 01:24	0°♋	
	10415 Apr 24 14:59	0°♌	
	10415 Jun 05 09:52	0°♍	
	10415 Jul 17 08:59	0°♎	
	10415 Aug 29 14:25	0°♏	
	10415 Oct 13 10:01	0°♐	
	10415 Nov 28 15:11	0°♑	
evening set	10415 Dec 01 06:26	1°♑41'25	
desc. node	10416 Jan 01 19:12	21°♑48'20	
	10416 Jan 14 16:58	0°♒	
conjunction	10416 Jan 16 00:03	0°♒49'18	-0°07'32
minimum elong	10416 Jan 15 23:50	0°♒48'57	0°07'05
behind sun begin	10416 Jan 15 06:58	0°♒22'14	
behind sun end	10416 Jan 16 16:41	1°♒15'40	
max. Earth dist.	10416 Jan 17 14:36	1°♒50'27	2.68117 AU
morning rise	10416 Feb 28 14:34	28°♒29'25	
	10416 Mar 01 23:34	0°♓	
	10416 Apr 17 22:53	0°♈	
	10416 Jun 03 09:26	0°♉	
	10416 Jul 19 08:32	0°♊	
	10416 Sep 03 07:23	0°♋	
	10416 Oct 21 01:15	0°♌	
asc. node	10416 Dec 23 21:02	29°♌20'44	
	10416 Dec 27 00:49	0°♍	
retrograde	10417 Jan 10 05:16	1°♍22'33	
	10417 Jan 24 13:31	30°℞♌	
min. Earth dist.	10417 Feb 06 03:46	27°♌00'52	0.37089 AU
greatest brilliancy	10417 Feb 09 09:52	26°♌07'01	-3.0m
opposition	10417 Feb 10 00:27	25°♌56'55	3°33'51
direct	10417 Mar 11 07:45	21°♌00'22	
	10417 Apr 19 19:19	0°♍	
	10417 Jun 16 06:35	0°♎	
	10417 Aug 04 09:08	0°♏	
	10417 Sep 21 10:43	0°♐	
	10417 Nov 08 13:06	0°♑	
desc. node	10417 Nov 18 18:25	6°♑22'26	
	10417 Dec 26 12:54	0°♒	
evening set	10418 Jan 05 20:40	6°♒29'43	
max. Earth dist.	10418 Feb 07 18:25	27°♒22'01	2.66748 AU
	10418 Feb 11 21:12	0°♓	
conjunction	10418 Feb 19 02:56	4°♓38'41	-0°45'00
minimum elong	10418 Feb 19 01:52	4°♓36'58	0°44'44
	10418 Mar 30 01:41	0°♈	
morning rise	10418 Apr 04 02:26	3°♈19'30	
	10418 May 13 18:57	0°♉	
	10418 Jun 25 23:10	0°♊	
	10418 Aug 06 17:35	0°♋	
	10418 Sep 16 11:31	0°♌	
	10418 Oct 27 01:49	0°♍	
asc. node	10418 Nov 10 17:59	10°♍38'38	
	10418 Dec 08 10:54	0°♎	
	10419 Jan 28 11:02	0°♏	
retrograde	10419 Mar 12 08:55	11°♏16'52	
min. Earth dist.	10419 Apr 10 06:34	5°♏28'42	0.48897 AU
greatest brilliancy	10419 Apr 16 22:03	3°♏03'39	-2.2m
opposition	10419 Apr 18 11:50	2°♏29'03	5°34'39
	10419 Apr 25 14:22	30°℞♎	
direct	10419 May 22 07:24	25°♎19'17	
	10419 Jun 20 04:39	0°♏	
	10419 Aug 26 07:04	0°♐	
desc. node	10419 Oct 06 22:04	23°♐16'23	
	10419 Oct 18 11:45	0°♑	
	10419 Dec 07 14:42	0°♒	
	10420 Jan 24 16:47	0°♓	
evening set	10420 Feb 10 19:14	10°♓59'03	
max. Earth dist.	10420 Mar 03 11:16	25°♓10'01	2.59998 AU
	10420 Mar 10 17:50	0°♈	
conjunction	10420 Mar 27 16:56	11°♈24'47	-1°07'14
minimum elong	10420 Mar 27 16:23	11°♈23'51	1°07'17
	10420 Apr 23 16:13	0°♉	
morning rise	10420 May 15 06:21	15°♉16'43	
	10420 Jun 04 14:37	0°♊	
	10420 Jul 14 20:59	0°♋	
	10420 Aug 23 00:01	0°♌	
asc. node	10420 Sep 27 12:35	27°♌31'13	
	10420 Sep 30 17:36	0°♍	
	10420 Nov 09 02:19	0°♎	
	10420 Dec 20 13:47	0°♏	
	10421 Feb 05 07:28	0°♐	
retrograde	10421 Apr 22 07:23	27°♐07'16	
min. Earth dist.	10421 May 27 02:16	19°♐13'40	0.61082 AU
opposition	10421 Jun 01 06:40	17°♐10'47	3°00'05
greatest brilliancy	10421 May 31 17:53	17°♐23'24	-1.6m
direct	10421 Jul 09 06:34	8°♐24'59	
desc. node	10421 Aug 24 03:14	18°♐27'58	
	10421 Sep 19 22:01	0°♑	
	10421 Nov 15 12:51	0°♒	
	10422 Jan 04 15:56	0°♓	
	10422 Feb 20 05:02	0°♈	
evening set	10422 Mar 22 04:13	20°♈23'07	
	10422 Apr 04 21:29	0°♉	
max. Earth dist.	10422 Apr 05 06:50	0°♉16'31	2.48414 AU
conjunction	10422 May 13 14:01	28°♉03'11	-0°56'03
minimum elong	10422 May 13 16:00	28°♉06'51	0°56'27
	10422 May 16 04:52	0°♊	
	10422 Jun 24 17:09	0°♋	

morning rise	10422 Jul 14	02:44	15°♋04'50	
	10422 Aug 02	03:10	0°♌	
asc. node	10422 Aug 15	07:18	10°♌22'28	
	10422 Sep 09	06:14	0°♍	
greatest brilliancy	10422 Sep 14	10:01	4°♍02'18	1.2m
	10422 Oct 17	23:48	0°♎	
	10422 Nov 27	07:13	0°♏	
	10423 Jan 09	09:00	0°♐	
	10423 Feb 26	12:53	0°♑	
	10423 May 05	23:39	0°♒	
retrograde	10423 May 27	10:35	2°♒39'41	
	10423 Jun 16	12:21	30°℞♑	
min. Earth dist.	10423 Jul 05	15:11	23°♑20'46	0.67517 AU
opposition	10423 Jul 07	01:44	22°♑46'24	0°10'55
greatest brilliancy	10423 Jul 07	01:37	22°♑46'31	-1.3m
desc. node	10423 Jul 12	05:52	20°♑44'23	
direct	10423 Aug 16	14:52	13°♑08'56	
	10423 Oct 18	02:37	0°♒	
	10423 Dec 14	07:03	0°♓	
	10424 Jan 31	15:57	0°♈	
	10424 Mar 15	17:09	0°♉	
	10424 Apr 25	19:46	0°♊	
evening set	10424 May 13	04:50	13°♊10'28	
	10424 Jun 03	23:03	0°♋	
asc. node	10424 Jul 02	02:12	22°♋07'32	
	10424 Jul 12	00:51	0°♌	
conjunction	10424 Jul 19	04:11	5°♌39'38	0°12'23
minimum elong	10424 Jul 19	02:51	5°♌37'00	0°11'56
behind sun begin	10424 Jul 18	05:57	4°♌55'35	
behind sun end	10424 Jul 19	23:44	6°♌18'25	
max. Earth dist.	10424 Jul 22	00:57	7°♌55'59	2.36453 AU
	10424 Aug 18	22:56	0°♍	
	10424 Sep 26	14:30	0°♎	
morning rise	10424 Sep 30	14:06	3°♎02'05	
	10424 Nov 05	18:53	0°♏	
	10424 Dec 18	05:09	0°♐	
	10425 Feb 01	16:15	0°♑	
	10425 Mar 23	21:22	0°♒	
	10425 May 28	21:10	0°♓	
desc. node	10425 May 29	04:59	0°♓05'55	
retrograde	10425 Jun 29	19:07	5°♓18'15	
	10425 Jul 28	22:39	30°℞♒	
opposition	10425 Aug 08	18:23	25°♒56'09	-2°23'04
greatest brilliancy	10425 Aug 08	22:04	25°♒52'32	-1.3m
min. Earth dist.	10425 Aug 11	02:56	25°♒00'34	0.67417 AU
direct	10425 Sep 19	08:28	15°♒54'38	
	10425 Nov 13	06:59	0°♓	
	10426 Jan 08	06:59	0°♈	
	10426 Feb 23	03:26	0°♉	
	10426 Apr 05	16:41	0°♊	
	10426 May 14	20:37	0°♋	
asc. node	10426 May 20	02:19	4°♋05'50	
	10426 Jun 21	21:43	0°♌	
greatest brilliancy	10426 Jul 05	00:18	10°♌23'15	1.2m
evening set	10426 Jul 25	20:28	26°♌49'49	
	10426 Jul 29	21:24	0°♍	
	10426 Sep 06	17:51	0°♎	
conjunction	10426 Oct 01	22:35	18°♎51'11	1°05'54
minimum elong	10426 Oct 01	21:49	18°♎49'47	1°06'01
	10426 Oct 17	04:44	0°♏	
max. Earth dist.	10426 Nov 14	20:26	20°♏22'48	2.49275 AU
	10426 Nov 28	17:46	0°♐	
morning rise	10426 Nov 30	00:44	0°♐53'07	
	10427 Jan 12	15:28	0°♑	
	10427 Mar 01	04:07	0°♒	
desc. node	10427 Apr 15	23:44	26°♒57'33	
	10427 Apr 21	10:40	0°♓	
	10427 Jun 22	14:21	0°♈	
retrograde	10427 Aug 07	09:33	9°♈57'29	
opposition	10427 Sep 14	09:04	1°♈30'30	-4°32'38
greatest brilliancy	10427 Sep 15	07:17	1°♈09'19	-1.6m
	10427 Sep 18	07:54	30°℞♓	
min. Earth dist.	10427 Sep 20	11:40	29°♓11'01	0.60694 AU
direct	10427 Oct 25	07:09	21°♓38'40	
	10427 Dec 03	07:55	0°♈	
	10428 Jan 29	05:06	0°♉	
	10428 Mar 13	04:58	0°♊	
asc. node	10428 Apr 06	06:12	17°♊48'06	
	10428 Apr 22	06:11	0°♋	
	10428 May 30	19:14	0°♌	
	10428 Jul 08	06:18	0°♍	
	10428 Aug 16	16:13	0°♎	
	10428 Sep 26	18:01	0°♏	
evening set	10428 Sep 29	13:20	1°♏59'53	
	10428 Nov 08	19:58	0°♐	
conjunction	10428 Nov 22	22:50	9°♐31'59	0°48'36
minimum elong	10428 Nov 23	00:21	9°♐34'30	0°49'03
max. Earth dist.	10428 Dec 15	16:17	24°♐36'43	2.60802 AU
	10428 Dec 23	21:54	0°♑	
morning rise	10429 Jan 10	15:41	11°♑29'25	
	10429 Feb 08	17:29	0°♒	
desc. node	10429 Mar 02	15:27	13°♒42'51	
	10429 Mar 29	02:26	0°♓	
	10429 May 18	12:12	0°♈	
	10429 Jul 12	21:12	0°♉	
retrograde	10429 Sep 25	22:37	23°♉15'03	
opposition	10429 Oct 30	04:19	16°♉25'27	-5°22'11
greatest brilliancy	10429 Oct 31	22:06	15°♉49'36	-2.2m
min. Earth dist.	10429 Nov 07	23:21	13°♉25'41	0.48097 AU
direct	10429 Dec 06	14:43	8°♉03'20	
	10430 Feb 08	12:20	0°♊	
asc. node	10430 Feb 22	09:56	8°♊24'13	
	10430 Mar 26	10:45	0°♋	
	10430 May 06	10:03	0°♌	
	10430 Jun 15	12:03	0°♍	
	10430 Jul 26	07:18	0°♎	
	10430 Sep 06	15:21	0°♏	
	10430 Oct 20	18:35	0°♐	
evening set	10430 Nov 15	18:39	17°♐09'35	
	10430 Dec 05	12:52	0°♑	
conjunction	10431 Jan 01	23:36	17°♑37'33	0°08'44
minimum elong	10431 Jan 01	23:54	17°♑38'02	0°09'13
behind sun begin	10431 Jan 01	08:13	17°♑12'59	
behind sun end	10431 Jan 02	15:36	18°♑03'04	
max. Earth dist.	10431 Jan 08	19:34	21°♑59'06	2.67127 AU
desc. node	10431 Jan 18	09:10	28°♑04'21	
	10431 Jan 21	10:00	0°♒	
morning rise	10431 Feb 15	07:17	15°♒46'08	
	10431 Mar 09	19:51	0°♓	
	10431 Apr 26	08:47	0°♈	
	10431 Jun 12	23:55	0°♉	
	10431 Jul 31	05:43	0°♊	
	10431 Sep 20	03:18	0°♋	
retrograde	10431 Dec 10	06:54	29°♋01'43	
opposition	10432 Jan 08	22:41	24°♋07'48	-0°07'18
greatest brilliancy	10432 Jan 08	23:12	24°♋07'28	-3.1m
asc. node	10432 Jan 10	11:58	23°♋43'04	
min. Earth dist.	10432 Jan 10	23:24	23°♋35'29	0.36774 AU
direct	10432 Feb 07	21:48	19°♋02'15	
	10432 Mar 21	23:48	0°♌	

	10432 May 14 07:52	0°♍	
	10432 Jun 29 14:02	0°♎	
	10432 Aug 14 06:20	0°♏	
	10432 Sep 29 15:13	0°♐	
	10432 Nov 15 19:25	0°♑	
desc. node	10432 Dec 05 07:59	12°♑19'38	
evening set	10432 Dec 22 22:44	23°♑26'22	
	10433 Jan 02 08:13	0°♒	
max. Earth dist.	10433 Jan 30 04:28	17°♒37'50	2.67931 AU
conjunction	10433 Feb 05 10:31	21°♒36'20	-0°31'39
minimum elong	10433 Feb 05 09:39	21°♒34'59	0°31'19
	10433 Feb 18 14:15	0°♓	
morning rise	10433 Mar 20 21:14	19°♓30'01	
	10433 Apr 06 00:15	0°♈	
	10433 May 21 06:16	0°♉	
	10433 Jul 04 06:03	0°♊	
	10433 Aug 16 01:57	0°♋	
	10433 Sep 27 04:29	0°♌	
	10433 Nov 08 20:10	0°♍	
asc. node	10433 Nov 27 12:15	12°♍28'48	
	10433 Dec 26 12:20	0°♎	
retrograde	10434 Feb 19 22:23	17°♎51'38	
min. Earth dist.	10434 Mar 18 12:44	12°♎59'08	0.43417 AU
greatest brilliancy	10434 Mar 25 03:47	10°♎47'04	-2.5m
opposition	10434 Mar 26 21:04	10°♎12'22	5°54'24
direct	10434 Apr 27 17:07	3°♎57'33	
	10434 Jul 14 10:53	0°♏	
	10434 Sep 06 06:54	0°♐	
desc. node	10434 Oct 23 10:04	27°♐59'24	
	10434 Oct 26 18:00	0°♑	
	10434 Dec 14 19:39	0°♒	
evening set	10435 Jan 27 14:03	27°♒28'59	
	10435 Jan 31 12:41	0°♓	
max. Earth dist.	10435 Feb 22 07:55	14°♓03'26	2.63260 AU
conjunction	10435 Mar 13 10:22	26°♓35'17	-1°01'18
minimum elong	10435 Mar 13 09:24	26°♓33'41	1°01'14
	10435 Mar 18 13:50	0°♈	
morning rise	10435 Apr 28 12:48	27°♈46'01	
	10435 May 01 18:11	0°♉	
	10435 Jun 13 02:25	0°♊	
	10435 Jul 23 20:09	0°♋	
	10435 Sep 01 10:35	0°♌	
	10435 Oct 10 15:25	0°♍	
asc. node	10435 Oct 15 07:17	3°♍33'02	
	10435 Nov 19 14:37	0°♎	
	10436 Jan 01 09:59	0°♏	
	10436 Feb 22 23:40	0°♐	
retrograde	10436 Apr 07 05:46	11°♐17'27	
min. Earth dist.	10436 May 09 21:13	4°♐07'53	0.56877 AU
opposition	10436 May 16 11:03	1°♐34'34	4°06'27
greatest brilliancy	10436 May 15 12:49	1°♐56'10	-1.8m
	10436 May 20 14:11	30°℞♏	
direct	10436 Jun 22 00:19	23°♏19'37	
	10436 Jul 27 23:39	0°♐	
desc. node	10436 Sep 09 14:32	18°♐33'31	
	10436 Oct 01 19:11	0°♑	
	10436 Nov 23 20:06	0°♒	
	10437 Jan 11 22:46	0°♓	
	10437 Feb 27 05:28	0°♈	
evening set	10437 Mar 05 12:06	4°♈12'17	
max. Earth dist.	10437 Mar 21 16:58	15°♈12'40	2.53429 AU
	10437 Apr 11 23:11	0°♉	
conjunction	10437 Apr 23 13:12	8°♉13'22	-1°06'08
minimum elong	10437 Apr 23 14:02	8°♉14'51	1°06'24
	10437 May 23 11:31	0°♊	
morning rise	10437 Jun 17 16:08	18°♊52'57	
	10437 Jul 02 05:41	0°♋	
	10437 Aug 09 21:02	0°♌	
asc. node	10437 Sep 01 01:00	17°♌22'29	
	10437 Sep 17 04:11	0°♍	
	10437 Oct 26 01:05	0°♎	
	10437 Dec 05 14:07	0°♏	
	10438 Jan 18 09:04	0°♐	
	10438 Mar 10 13:57	0°♑	
retrograde	10438 May 14 03:12	19°♑40'26	
min. Earth dist.	10438 Jun 20 18:34	10°♑51'19	0.65766 AU
opposition	10438 Jun 23 16:40	9°♑41'33	1°15'00
greatest brilliancy	10438 Jun 23 13:47	9°♑44'26	-1.4m
desc. node	10438 Jul 28 18:46	0°♑28'38	
direct	10438 Aug 02 10:39	0°♑20'39	
	10438 Oct 30 13:19	0°♒	
	10438 Dec 22 18:07	0°♓	
	10439 Feb 08 04:47	0°♈	
	10439 Mar 24 00:59	0°♉	
evening set	10439 Apr 21 04:16	20°♉19'48	
	10439 May 04 04:46	0°♊	
max. Earth dist.	10439 May 09 14:42	4°♊04'00	2.40115 AU
	10439 Jun 12 10:49	0°♋	
conjunction	10439 Jun 20 17:00	6°♋26'23	-0°20'45
minimum elong	10439 Jun 20 18:53	6°♋30'05	0°21'13
asc. node	10439 Jul 19 21:06	29°♋24'39	
	10439 Jul 20 14:59	0°♌	
	10439 Aug 27 13:58	0°♍	
morning rise	10439 Aug 31 19:16	3°♍19'00	
	10439 Oct 05 04:52	0°♎	
	10439 Nov 14 08:19	0°♏	
	10439 Dec 26 20:42	0°♐	
	10440 Feb 10 21:38	0°♑	
	10440 Apr 03 16:40	0°♒	
desc. node	10440 Jun 14 19:14	22°♒50'17	
retrograde	10440 Jun 16 05:47	22°♒51'03	
opposition	10440 Jul 26 14:55	13°♒14'10	-1°25'42
greatest brilliancy	10440 Jul 26 15:16	13°♒13'49	-1.3m
min. Earth dist.	10440 Jul 27 11:42	12°♒53'37	0.68253 AU
direct	10440 Sep 05 23:45	3°♒19'01	
	10440 Nov 26 18:30	0°♓	
	10441 Jan 17 06:22	0°♈	
	10441 Mar 03 03:49	0°♉	
	10441 Apr 13 11:06	0°♊	
	10441 May 22 13:49	0°♋	
asc. node	10441 Jun 05 19:01	11°♋09'27	
evening set	10441 Jun 25 06:38	26°♋34'15	
	10441 Jun 29 14:25	0°♌	
	10441 Aug 06 12:37	0°♍	
conjunction	10441 Sep 04 22:07	22°♍51'46	0°55'30
minimum elong	10441 Sep 04 18:55	22°♍45'37	0°55'22
	10441 Sep 14 05:58	0°♎	
	10441 Oct 24 12:49	0°♏	
max. Earth dist.	10441 Oct 27 01:50	1°♏50'42	2.43666 AU
morning rise	10441 Nov 09 09:37	11°♏25'10	
	10441 Dec 05 22:41	0°♐	
	10442 Jan 19 21:55	0°♑	
	10442 Mar 09 01:36	0°♒	
	10442 May 01 21:00	0°♓	
desc. node	10442 May 02 14:53	0°♓22'37	
retrograde	10442 Jul 22 12:13	26°♓07'19	
opposition	10442 Aug 30 10:44	17°♓15'11	-3°46'50
greatest brilliancy	10442 Aug 31 00:16	17°♓02'05	-1.4m
min. Earth dist.	10442 Sep 04 02:41	15°♓26'53	0.64098 AU

direct	10442 Oct 10 20:56	7°♓13'57	
	10442 Dec 20 23:39	0°♈	
	10443 Feb 08 13:51	0°♉	
	10443 Mar 23 04:21	0°♊	
asc. node	10443 Apr 23 20:05	23°♊53'45	
	10443 May 01 17:35	0°♋	
	10443 Jun 08 23:56	0°♌	
	10443 Jul 17 05:01	0°♍	
	10443 Aug 25 08:07	0°♎	
evening set	10443 Sep 07 07:46	9°♎42'21	
	10443 Oct 05 02:31	0°♏	
conjunction	10443 Nov 05 10:53	22°♏07'02	1°00'09
minimum elong	10443 Nov 05 12:17	22°♏09'27	1°00'32
	10443 Nov 16 21:45	0°♐	
max. Earth dist.	10443 Dec 05 19:12	12°♐47'12	2.56848 AU
morning rise	10443 Dec 27 06:53	27°♐01'39	
	10443 Dec 31 19:56	0°♑	
	10444 Feb 16 18:42	0°♒	
desc. node	10444 Mar 19 08:11	19°♒27'13	
	10444 Apr 05 21:31	0°♓	
	10444 May 28 15:29	0°♈	
	10444 Aug 04 11:53	0°♉	
retrograde	10444 Sep 04 00:24	4°♉53'18	
	10444 Oct 02 06:13	30°℞♈	
opposition	10444 Oct 09 23:49	27°♈18'33	-5°21'53
greatest brilliancy	10444 Oct 11 12:28	26°♈45'14	-1.9m
min. Earth dist.	10444 Oct 18 02:28	24°♈22'30	0.53559 AU
direct	10444 Nov 18 06:31	18°♈06'05	
	10445 Jan 03 03:51	0°♉	
	10445 Feb 23 18:27	0°♊	
asc. node	10445 Mar 11 00:41	10°♊30'50	
	10445 Apr 06 20:19	0°♋	
	10445 May 16 08:54	0°♌	
	10445 Jun 24 13:20	0°♍	
	10445 Aug 03 15:10	0°♎	
	10445 Sep 14 08:13	0°♏	
	10445 Oct 27 23:15	0°♐	
evening set	10445 Oct 29 23:01	1°♐20'18	
	10445 Dec 12 09:18	0°♑	
conjunction	10445 Dec 18 06:40	3°♑49'09	0°24'59
minimum elong	10445 Dec 18 07:31	3°♑50'32	0°25'29
max. Earth dist.	10445 Dec 30 18:42	11°♑52'56	2.65303 AU
	10446 Jan 28 03:53	0°♒	
morning rise	10446 Feb 01 19:39	2°♒57'06	
desc. node	10446 Feb 04 01:11	4°♒21'50	
	10446 Mar 16 19:36	0°♓	
	10446 May 04 03:27	0°♈	
	10446 Jun 22 13:32	0°♉	
	10446 Aug 14 03:38	0°♊	
retrograde	10446 Nov 07 15:26	29°♊46'14	
opposition	10446 Dec 08 15:44	24°♊19'19	-3°23'18
greatest brilliancy	10446 Dec 09 16:02	24°♊01'22	-2.8m
min. Earth dist.	10446 Dec 15 08:47	22°♊21'06	0.39890 AU
direct	10447 Jan 10 15:43	18°♊00'13	
asc. node	10447 Jan 27 04:14	19°♊53'56	
	10447 Feb 24 00:37	0°♋	
	10447 Apr 15 17:11	0°♌	
	10447 May 29 08:08	0°♍	
	10447 Jul 11 06:46	0°♎	
	10447 Aug 24 03:24	0°♏	
	10447 Oct 08 09:15	0°♐	
	10447 Nov 23 21:00	0°♑	
evening set	10447 Dec 09 16:04	10°♑04'09	
desc. node	10447 Dec 22 21:10	18°♑27'44	
	10448 Jan 10 01:49	0°♒	
conjunction	10448 Jan 23 19:49	8°♒42'51	-0°16'45
minimum elong	10448 Jan 23 19:19	8°♒42'04	0°16'19
max. Earth dist.	10448 Jan 22 15:11	7°♒57'29	2.68288 AU
	10448 Feb 26 07:49	0°♓	
morning rise	10448 Mar 07 05:55	6°♓19'53	
	10448 Apr 13 01:46	0°♈	
	10448 May 29 00:35	0°♉	
	10448 Jul 13 03:25	0°♊	
	10448 Aug 26 15:08	0°♋	
	10448 Oct 10 08:29	0°♌	
	10448 Nov 27 22:47	0°♍	
asc. node	10448 Dec 14 04:04	8°♍17'04	
retrograde	10449 Jan 26 08:46	19°♍40'17	
min. Earth dist.	10449 Feb 21 04:41	15°♍22'49	0.38765 AU
greatest brilliancy	10449 Feb 26 08:52	13°♍51'47	-2.9m
opposition	10449 Feb 27 14:00	13°♍30'18	4°58'47
direct	10449 Mar 29 09:50	8°♍12'11	
	10449 Jun 05 03:50	0°♎	
	10449 Jul 28 05:19	0°♏	
	10449 Sep 15 17:08	0°♐	
	10449 Nov 03 11:52	0°♑	
desc. node	10449 Nov 08 22:06	3°♑21'08	
	10449 Dec 21 19:31	0°♒	
evening set	10450 Jan 13 17:21	14°♒23'35	
	10450 Feb 07 06:40	0°♓	
max. Earth dist.	10450 Feb 12 23:10	3°♓38'49	2.65745 AU
conjunction	10450 Feb 27 01:03	12°♓43'51	-0°51'49
minimum elong	10450 Feb 26 23:57	12°♓42'04	0°51'38
	10450 Mar 25 10:05	0°♈	
morning rise	10450 Apr 12 13:41	12°♈05'36	
	10450 May 08 22:45	0°♉	
	10450 Jun 20 19:36	0°♊	
	10450 Aug 01 04:12	0°♋	
	10450 Sep 10 10:21	0°♌	
	10450 Oct 20 08:49	0°♍	
asc. node	10450 Nov 01 02:15	8°♍43'02	
	10450 Nov 30 11:20	0°♎	
	10451 Jan 15 10:51	0°♏	
retrograde	10451 Mar 22 17:01	23°♏19'53	
min. Earth dist.	10451 Apr 21 23:50	17°♏01'07	0.51897 AU
greatest brilliancy	10451 Apr 28 09:31	14°♏36'49	-2.0m
opposition	10451 Apr 29 18:17	14°♏05'57	5°07'12
direct	10451 Jun 03 14:37	6°♏30'10	
	10451 Aug 17 17:10	0°♐	
desc. node	10451 Sep 27 01:45	21°♐16'44	
	10451 Oct 12 13:40	0°♑	
	10451 Dec 02 13:13	0°♒	
	10452 Jan 19 23:24	0°♓	
evening set	10452 Feb 19 03:56	19°♓27'44	
	10452 Mar 06 02:39	0°♈	
max. Earth dist.	10452 Mar 09 17:13	2°♈24'35	2.57868 AU
conjunction	10452 Apr 05 22:24	20°♈54'55	-1°08'33
minimum elong	10452 Apr 05 22:16	20°♈54'41	1°08'42
	10452 Apr 18 23:43	0°♉	
morning rise	10452 May 26 09:02	26°♉46'04	
	10452 May 30 18:58	0°♊	
	10452 Jul 09 21:11	0°♋	
	10452 Aug 17 19:55	0°♌	
asc. node	10452 Sep 17 20:56	24°♌09'52	
	10452 Sep 25 09:12	0°♍	
	10452 Nov 03 12:01	0°♎	
	10452 Dec 14 11:40	0°♏	
	10453 Jan 28 15:30	0°♐	
	10453 Mar 29 11:05	0°♑	
retrograde	10453 Apr 30 10:38	5°♑57'01	

	10453 May 30 07:43	30℞♐	
min. Earth dist.	10453 Jun 05 07:15	27°♐42'27	0.63006 AU
opposition	10453 Jun 09 16:56	25°♐57'40	2°21'06
greatest brilliancy	10453 Jun 09 08:29	26°♐06'02	-1.5m
direct	10453 Jul 18 09:51	16°♐57'48	
desc. node	10453 Aug 14 05:58	20°♐48'08	
	10453 Sep 09 23:27	0°♑	
	10453 Nov 09 12:53	0°♒	
	10453 Dec 30 14:03	0°♓	
	10454 Feb 15 10:34	0°♈	
	10454 Mar 31 04:34	0°♉	
evening set	10454 Apr 01 09:24	0°♉51'02	
max. Earth dist.	10454 Apr 15 08:34	10°♉50'20	2.45451 AU
	10454 May 11 11:02	0°♊	
conjunction	10454 May 26 06:21	11°♊07'54	-0°46'05
minimum elong	10454 May 26 08:48	11°♊12'32	0°46'33
	10454 Jun 19 21:15	0°♋	
	10454 Jul 28 05:10	0°♌	
morning rise	10454 Jul 30 21:55	2°♌07'38	
asc. node	10454 Aug 05 14:02	6°♌36'04	
	10454 Sep 04 06:36	0°♍	
	10454 Oct 12 22:34	0°♎	
	10454 Nov 22 03:13	0°♏	
	10455 Jan 03 21:33	0°♐	
	10455 Feb 19 23:11	0°♑	
	10455 Apr 19 11:07	0°♒	
retrograde	10455 Jun 03 23:31	10°♒23'12	
desc. node	10455 Jul 02 08:28	5°♒13'48	
opposition	10455 Jul 14 14:05	0°♒34'50	-0°25'35
min. Earth dist.	10455 Jul 13 23:00	0°♒49'48	0.68054 AU
greatest brilliancy	10455 Jul 14 13:41	0°♒35'14	-1.3m
	10455 Jul 16 01:13	30℞♑	
direct	10455 Aug 24 12:05	20°♑50'04	
	10455 Oct 07 03:25	0°♒	
	10455 Dec 08 04:34	0°♓	
	10456 Jan 26 11:38	0°♈	
	10456 Mar 10 19:41	0°♉	
	10456 Apr 21 00:16	0°♊	
evening set	10456 May 27 16:52	28°♊05'52	
	10456 May 30 03:23	0°♋	
asc. node	10456 Jun 22 10:46	18°♋19'24	
	10456 Jul 07 04:30	0°♌	
conjunction	10456 Aug 05 15:07	23°♌19'56	0°30'56
minimum elong	10456 Aug 05 11:56	23°♌13'40	0°30'33
	10456 Aug 14 02:08	0°♍	
	10456 Sep 21 17:32	0°♎	
max. Earth dist.	10456 Sep 23 17:24	1°♎31'19	2.38244 AU
morning rise	10456 Oct 16 04:00	18°♎25'00	
	10456 Oct 31 21:40	0°♏	
	10456 Dec 13 06:26	0°♐	
	10457 Jan 27 10:43	0°♑	
	10457 Mar 17 15:25	0°♒	
	10457 May 15 12:22	0°♓	
desc. node	10457 May 19 06:59	1°♓32'51	
retrograde	10457 Jul 07 19:48	13°♓04'02	
opposition	10457 Aug 16 11:47	3°♓51'34	-2°55'12
greatest brilliancy	10457 Aug 16 18:24	3°♓45'05	-1.3m
min. Earth dist.	10457 Aug 19 16:01	2°♓37'00	0.66510 AU
	10457 Aug 26 13:58	30℞♒	
direct	10457 Sep 27 02:30	23°♒48'45	
	10457 Oct 31 07:56	0°♓	
	10458 Jan 01 18:44	0°♈	
	10458 Feb 17 15:33	0°♉	
	10458 Mar 31 12:52	0°♊	
	10458 May 09 19:56	0°♋	
asc. node	10458 May 10 11:55	0°♋31'09	
	10458 Jun 16 22:36	0°♌	
	10458 Jul 24 23:40	0°♍	
evening set	10458 Aug 11 09:40	13°♍33'01	
	10458 Sep 01 21:31	0°♎	
	10458 Oct 12 09:47	0°♏	
conjunction	10458 Oct 15 08:04	2°♏06'46	1°06'14
minimum elong	10458 Oct 15 08:27	2°♏07'28	1°06'28
max. Earth dist.	10458 Nov 23 05:06	29°♏28'01	2.52145 AU
	10458 Nov 23 23:44	0°♐	
morning rise	10458 Dec 10 11:04	11°♐12'01	
	10459 Jan 07 20:00	0°♑	
	10459 Feb 24 01:28	0°♒	
desc. node	10459 Apr 06 00:22	24°♒37'39	
	10459 Apr 15 07:42	0°♓	
	10459 Jun 11 08:51	0°♈	
retrograde	10459 Aug 17 03:48	18°♈52'09	
opposition	10459 Sep 23 12:11	10°♈41'43	-4°54'59
greatest brilliancy	10459 Sep 24 15:45	10°♈15'47	-1.7m
min. Earth dist.	10459 Sep 30 09:32	8°♈06'39	0.58370 AU
direct	10459 Nov 02 23:27	0°♈59'57	
	10460 Jan 21 09:52	0°♉	
	10460 Mar 06 23:23	0°♊	
asc. node	10460 Mar 27 14:21	14°♊59'03	
	10460 Apr 16 13:19	0°♋	
	10460 May 25 08:47	0°♌	
	10460 Jul 03 00:43	0°♍	
	10460 Aug 11 15:00	0°♎	
	10460 Sep 21 20:50	0°♏	
evening set	10460 Oct 11 05:53	13°♏37'23	
	10460 Nov 04 02:12	0°♐	
conjunction	10460 Dec 02 12:42	19°♐02'00	0°40'27
minimum elong	10460 Dec 02 14:03	19°♐04'13	0°40'56
	10460 Dec 19 05:44	0°♑	
max. Earth dist.	10460 Dec 21 11:02	1°♑26'47	2.62637 AU
morning rise	10461 Jan 18 21:34	19°♑46'28	
	10461 Feb 03 23:45	0°♒	
desc. node	10461 Feb 20 16:46	10°♒31'10	
	10461 Mar 24 00:51	0°♓	
	10461 May 12 12:20	0°♈	
	10461 Jul 03 22:37	0°♉	
	10461 Sep 07 22:24	0°♊	
retrograde	10461 Oct 10 01:18	5°♊29'53	
	10461 Nov 09 11:52	30℞♉	
opposition	10461 Nov 12 02:33	29°♉09'24	-5°01'10
greatest brilliancy	10461 Nov 13 19:02	28°♉36'14	-2.4m
min. Earth dist.	10461 Nov 20 18:45	26°♉19'44	0.44972 AU
direct	10461 Dec 18 05:03	21°♉25'31	
	10462 Jan 24 03:49	0°♊	
asc. node	10462 Feb 12 19:02	9°♊37'00	
	10462 Mar 17 20:58	0°♋	
	10462 Apr 29 10:15	0°♌	
	10462 Jun 09 07:16	0°♍	
	10462 Jul 20 15:34	0°♎	
	10462 Sep 01 09:29	0°♏	
	10462 Oct 15 20:21	0°♐	
evening set	10462 Nov 24 18:11	26°♐05'31	
	10462 Nov 30 19:36	0°♑	
desc. node	10463 Jan 08 11:31	24°♑43'35	
conjunction	10463 Jan 10 01:23	25°♑43'48	-0°00'51
minimum elong	10463 Jan 10 01:21	25°♑43'44	0°00'22
behind sun begin	10463 Jan 09 06:48	25°♑14'16	
behind sun end	10463 Jan 10 19:53	26°♑13'12	
max. Earth dist.	10463 Jan 13 21:44	28°♑10'33	2.67788 AU

	10463 Jan 16 18:39	0°♒	
morning rise	10463 Feb 22 21:51	23°♒32'29	
	10463 Mar 05 02:28	0°♓	
	10463 Apr 21 07:29	0°♈	
	10463 Jun 07 05:46	0°♉	
	10463 Jul 24 01:59	0°♊	
	10463 Sep 09 15:59	0°♋	
	10463 Oct 31 20:39	0°♌	
retrograde	10463 Dec 28 14:51	17°♌32'32	
asc. node	10463 Dec 31 22:04	17°♌28'04	
min. Earth dist.	10464 Jan 26 06:43	12°♌51'16	0.36478 AU
opposition	10464 Jan 27 13:49	12°♌30'31	2°04'30
greatest brilliancy	10464 Jan 27 09:38	12°♌33'19	-3.1m
direct	10464 Feb 25 21:25	7°♌39'03	
	10464 May 02 09:14	0°♍	
	10464 Jun 21 18:12	0°♎	
	10464 Aug 08 00:36	0°♏	
	10464 Sep 24 05:34	0°♐	
	10464 Nov 10 20:59	0°♑	
desc. node	10464 Nov 25 10:02	9°♑07'34	
	10464 Dec 28 15:35	0°♒	
evening set	10464 Dec 30 22:37	1°♒26'38	
max. Earth dist.	10465 Feb 04 04:59	23°♒46'10	2.67387 AU
conjunction	10465 Feb 13 05:43	29°♒32'00	-0°39'43
minimum elong	10465 Feb 13 04:43	29°♒30'24	0°39'25
	10465 Feb 13 23:14	0°♓	
morning rise	10465 Mar 28 21:40	27°♓47'14	
	10465 Apr 01 06:38	0°♈	
	10465 May 16 06:02	0°♉	
	10465 Jun 28 19:11	0°♊	
	10465 Aug 10 00:31	0°♋	
	10465 Sep 20 07:13	0°♌	
	10465 Oct 31 14:29	0°♍	
asc. node	10465 Nov 17 20:01	12°♍10'47	
	10465 Dec 14 09:55	0°♎	
	10466 Feb 14 15:21	0°♏	
retrograde	10466 Mar 03 21:08	2°♏05'54	
	10466 Mar 20 16:14	30°℞♎	
min. Earth dist.	10466 Mar 31 17:21	26°♎42'56	0.46421 AU
greatest brilliancy	10466 Apr 07 10:39	24°♎21'06	-2.3m
opposition	10466 Apr 09 03:17	23°♎45'02	5°49'36
direct	10466 May 12 01:18	16°♎58'46	
	10466 Jul 02 08:08	0°♏	
	10466 Aug 30 09:28	0°♐	
desc. node	10466 Oct 13 12:51	25°♐25'57	
	10466 Oct 21 06:09	0°♑	
	10466 Dec 09 21:39	0°♒	
	10467 Jan 26 20:28	0°♓	
evening set	10467 Feb 04 15:34	5°♓37'48	
max. Earth dist.	10467 Feb 28 00:42	20°♓48'32	2.61563 AU
	10467 Mar 13 22:33	0°♈	
conjunction	10467 Mar 21 23:53	5°♈22'47	-1°05'17
minimum elong	10467 Mar 21 23:07	5°♈21'31	1°05'18
	10467 Apr 27 00:38	0°♉	
morning rise	10467 May 08 07:42	7°♉54'36	
	10467 Jun 08 04:18	0°♊	
	10467 Jul 18 16:16	0°♋	
	10467 Aug 27 00:21	0°♌	
	10467 Oct 04 22:23	0°♍	
asc. node	10467 Oct 05 14:43	0°♍31'24	
	10467 Nov 13 11:38	0°♎	
	10467 Dec 25 08:13	0°♏	
	10468 Feb 11 13:54	0°♐	
retrograde	10468 Apr 15 23:11	21°♐00'51	
min. Earth dist.	10468 May 19 19:54	13°♐26'27	0.59312 AU
opposition	10468 May 25 16:02	11°♐08'58	3°28'26
greatest brilliancy	10468 May 24 23:25	11°♐25'17	-1.7m
direct	10468 Jul 02 01:54	2°♐35'59	
desc. node	10468 Aug 30 18:11	18°♐22'50	
	10468 Sep 24 08:58	0°♑	
	10468 Nov 18 07:22	0°♒	
	10469 Jan 07 00:37	0°♓	
	10469 Feb 22 12:13	0°♈	
evening set	10469 Mar 14 19:11	13°♈41'37	
max. Earth dist.	10469 Mar 29 15:17	23°♈56'28	2.50732 AU
	10469 Apr 07 06:34	0°♉	
conjunction	10469 May 04 12:51	19°♉33'46	-1°01'26
minimum elong	10469 May 04 14:20	19°♉36'29	1°01'47
	10469 May 18 17:20	0°♊	
	10469 Jun 27 09:03	0°♋	
morning rise	10469 Jul 01 23:28	3°♋32'56	
	10469 Aug 04 21:41	0°♌	
asc. node	10469 Aug 22 09:19	13°♌44'26	
	10469 Sep 12 02:20	0°♍	
	10469 Oct 20 20:29	0°♎	
	10469 Nov 30 04:27	0°♏	
	10470 Jan 12 10:22	0°♐	
	10470 Mar 02 10:28	0°♑	
retrograde	10470 May 21 18:29	27°♑40'12	
min. Earth dist.	10470 Jun 29 07:25	18°♑34'13	0.66856 AU
opposition	10470 Jul 01 10:04	17°♑43'52	0°37'12
greatest brilliancy	10470 Jul 01 09:06	17°♑44'49	-1.4m
desc. node	10470 Jul 18 21:55	11°♑29'20	
direct	10470 Aug 10 15:47	8°♑13'15	
	10470 Oct 22 20:21	0°♒	
	10470 Dec 17 04:24	0°♓	
	10471 Feb 03 04:53	0°♈	
	10471 Mar 19 05:16	0°♉	
	10471 Apr 29 09:39	0°♊	
evening set	10471 May 03 18:03	3°♊15'59	
max. Earth dist.	10471 Jun 03 20:27	27°♊04'01	2.37556 AU
	10471 Jun 07 14:59	0°♋	
conjunction	10471 Jul 06 21:12	22°♋58'46	-0°02'25
minimum elong	10471 Jul 06 21:32	22°♋59'24	0°02'54
behind sun begin	10471 Jul 05 16:16	22°♋01'35	
behind sun end	10471 Jul 08 02:48	23°♋57'15	
asc. node	10471 Jul 10 03:43	25°♋34'00	
	10471 Jul 15 18:07	0°♌	
	10471 Aug 22 16:29	0°♍	
morning rise	10471 Sep 18 11:58	20°♍55'49	
	10471 Sep 30 07:04	0°♎	
	10471 Nov 09 09:40	0°♏	
	10471 Dec 21 19:01	0°♐	
	10472 Feb 05 08:54	0°♑	
	10472 Mar 27 08:10	0°♒	
desc. node	10472 Jun 04 21:35	28°♒24'50	
	10472 Jun 15 05:35	0°♓	
retrograde	10472 Jun 23 22:01	0°♓26'55	
	10472 Jul 02 07:50	30°℞♒	
opposition	10472 Aug 03 02:43	20°♒57'39	-1°59'40
greatest brilliancy	10472 Aug 03 04:38	20°♒55'47	-1.3m
min. Earth dist.	10472 Aug 04 19:07	20°♒17'51	0.67921 AU
direct	10472 Sep 13 15:44	10°♒58'28	
	10472 Nov 18 15:50	0°♓	
	10473 Jan 11 12:12	0°♈	
	10473 Feb 25 23:41	0°♉	
	10473 Apr 08 11:25	0°♊	
	10473 May 17 15:27	0°♋	
asc. node	10473 May 27 02:44	7°♋25'13	
	10473 Jun 24 16:20	0°♌	

evening set	10473 Jul 12 11:50	14°♌07'11	
	10473 Aug 01 14:58	0°♍	
	10473 Sep 09 09:15	0°♎	
conjunction	10473 Sep 20 16:25	8°♎32'45	1°03'09
minimum elong	10473 Sep 20 14:34	8°♎29'16	1°03'11
	10473 Oct 19 17:04	0°♏	
max. Earth dist.	10473 Nov 07 12:42	13°♏30'19	2.46828 AU
morning rise	10473 Nov 21 11:40	23°♏19'05	
	10473 Dec 01 03:19	0°♐	
	10474 Jan 14 23:49	0°♑	
	10474 Mar 03 16:30	0°♒	
desc. node	10474 Apr 22 16:41	28°♒53'01	
	10474 Apr 24 18:20	0°♓	
	10474 Jul 02 09:41	0°♈	
retrograde	10474 Jul 31 08:19	4°♈22'43	
	10474 Aug 26 21:23	30°♓	
opposition	10474 Sep 07 19:24	25°♓43'39	-4°14'09
greatest brilliancy	10474 Sep 08 13:36	25°♓26'10	-1.5m
min. Earth dist.	10474 Sep 13 06:45	23°♓37'44	0.62349 AU
direct	10474 Oct 19 00:26	15°♓46'34	
	10474 Dec 11 05:53	0°♈	
	10475 Feb 02 05:00	0°♉	
	10475 Mar 17 13:59	0°♊	
asc. node	10475 Apr 14 06:30	20°♊40'36	
	10475 Apr 26 10:13	0°♋	
	10475 Jun 03 19:59	0°♌	
	10475 Jul 12 03:39	0°♍	
	10475 Aug 20 09:22	0°♎	
evening set	10475 Sep 20 21:45	23°♎15'16	
	10475 Sep 30 06:20	0°♏	
	10475 Nov 12 03:53	0°♐	
conjunction	10475 Nov 16 06:04	2°♐47'13	0°53'56
minimum elong	10475 Nov 16 07:37	2°♐49'50	0°54'21
max. Earth dist.	10475 Dec 12 07:18	20°♐15'38	2.59141 AU
	10475 Dec 27 02:41	0°♑	
morning rise	10476 Jan 05 05:12	5°♑55'25	
	10476 Feb 11 22:25	0°♒	
desc. node	10476 Mar 09 08:45	16°♒27'20	
	10476 Mar 31 13:21	0°♓	
	10476 May 21 18:29	0°♈	
	10476 Jul 19 08:24	0°♉	
retrograde	10476 Sep 15 22:59	15°♉25'53	
opposition	10476 Oct 21 00:31	8°♉14'57	-5°26'06
greatest brilliancy	10476 Oct 22 16:56	7°♉39'17	-2.1m
min. Earth dist.	10476 Oct 29 15:12	5°♉13'33	0.50594 AU
	10476 Nov 19 13:41	30°♈	
direct	10476 Nov 28 09:47	29°♈27'20	
	10476 Dec 07 08:36	0°♉	
	10477 Feb 15 05:43	0°♊	
asc. node	10477 Mar 01 10:28	9°♊12'53	
	10477 Mar 31 02:02	0°♋	
	10477 May 10 07:27	0°♌	
	10477 Jun 18 22:02	0°♍	
	10477 Jul 29 07:51	0°♎	
	10477 Sep 09 07:20	0°♏	
	10477 Oct 23 03:37	0°♐	
evening set	10477 Nov 08 17:32	11°♐02'16	
	10477 Dec 07 16:54	0°♑	
conjunction	10477 Dec 26 18:51	12°♑18'25	0°15'30
minimum elong	10477 Dec 26 19:23	12°♑19'17	0°16'01
max. Earth dist.	10478 Jan 05 02:00	18°♑15'49	2.66414 AU
	10478 Jan 23 12:06	0°♒	
desc. node	10478 Jan 25 01:43	0°♒59'44	
morning rise	10478 Feb 09 13:58	10°♒49'19	
	10478 Mar 11 23:59	0°♓	
	10478 Apr 28 20:20	0°♈	
	10478 Jun 16 04:02	0°♉	
	10478 Aug 04 21:37	0°♊	
	10478 Sep 29 09:36	0°♋	
retrograde	10478 Nov 25 14:32	16°♋05'37	
opposition	10478 Dec 25 17:04	11°♋02'32	-1°42'52
greatest brilliancy	10478 Dec 26 02:38	10°♋55'56	-3.0m
min. Earth dist.	10478 Dec 30 04:19	9°♋48'53	0.37805 AU
asc. node	10479 Jan 17 12:44	5°♋58'28	
direct	10479 Jan 25 19:59	5°♋29'34	
	10479 Apr 04 02:30	0°♌	
	10479 May 21 06:56	0°♍	
	10479 Jul 04 17:33	0°♎	
	10479 Aug 18 10:49	0°♏	
	10479 Oct 03 05:46	0°♐	
	10479 Nov 19 01:24	0°♑	
desc. node	10479 Dec 12 23:30	15°♑10'07	
evening set	10479 Dec 17 21:33	18°♑16'53	
	10480 Jan 05 10:10	0°♒	
max. Earth dist.	10480 Jan 27 16:03	14°♒05'19	2.68197 AU
conjunction	10480 Jan 31 15:03	16°♒36'04	-0°25'40
minimum elong	10480 Jan 31 14:20	16°♒34'55	0°25'16
	10480 Feb 21 16:14	0°♓	
morning rise	10480 Mar 15 00:08	14°♓18'45	
	10480 Apr 08 05:58	0°♈	
	10480 May 23 19:41	0°♉	
	10480 Jul 07 07:03	0°♊	
	10480 Aug 19 18:57	0°♋	
	10480 Oct 01 19:40	0°♌	
	10480 Nov 15 03:33	0°♍	
asc. node	10480 Dec 04 13:28	12°♍04'35	
	10481 Jan 09 03:04	0°♎	
retrograde	10481 Feb 09 19:56	6°♎37'03	
min. Earth dist.	10481 Mar 07 18:13	2°♎04'35	0.41145 AU
greatest brilliancy	10481 Mar 13 23:18	0°♎07'19	-2.7m
	10481 Mar 14 08:28	30°♍	
opposition	10481 Mar 15 13:38	29°♍36'48	5°43'39
direct	10481 Apr 15 11:36	23°♍48'23	
	10481 May 18 07:39	0°♎	
	10481 Jul 20 01:38	0°♏	
	10481 Sep 09 15:18	0°♐	
	10481 Oct 29 06:47	0°♑	
desc. node	10481 Oct 30 01:08	0°♑27'58	
	10481 Dec 17 00:16	0°♒	
evening set	10482 Jan 21 15:22	22°♒21'59	
	10482 Feb 02 15:09	0°♓	
max. Earth dist.	10482 Feb 18 07:31	10°♓04'58	2.64462 AU
conjunction	10482 Mar 07 04:28	21°♓03'47	-0°57'46
minimum elong	10482 Mar 07 03:25	21°♓02'03	0°57'38
	10482 Mar 20 17:55	0°♈	
morning rise	10482 Apr 21 11:44	21°♈20'12	
	10482 May 04 02:50	0°♉	
	10482 Jun 15 17:18	0°♊	
	10482 Jul 26 18:11	0°♋	
	10482 Sep 04 15:26	0°♌	
	10482 Oct 14 03:07	0°♍	
asc. node	10482 Oct 22 09:37	6°♍14'36	
	10482 Nov 23 11:15	0°♎	
	10483 Jan 06 03:59	0°♏	
	10483 Mar 06 11:19	0°♐	
retrograde	10483 Apr 01 07:29	4°♐19'41	
	10483 Apr 26 00:47	30°♏	
min. Earth dist.	10483 May 02 22:06	27°♏32'34	0.54726 AU
greatest brilliancy	10483 May 08 23:22	25°♏13'22	-1.9m

opposition	10483 May 10 02:13	24°♏47'36	4°33'42
direct	10483 Jun 14 22:23	16°♏49'08	
	10483 Aug 06 22:26	0°♐	
desc. node	10483 Sep 17 05:13	19°♐45'38	
	10483 Oct 06 05:45	0°♑	
	10483 Nov 27 08:14	0°♒	
	10484 Jan 15 04:28	0°♓	
evening set	10484 Feb 27 18:32	28°♓13'19	
	10484 Mar 01 10:42	0°♈	
max. Earth dist.	10484 Mar 16 08:17	10°♈00'54	2.55491 AU
	10484 Apr 14 07:06	0°♉	
conjunction	10484 Apr 15 16:34	0°♉58'48	-1°07'59
minimum elong	10484 Apr 15 16:57	0°♉59'29	1°08'13
	10484 May 25 23:22	0°♊	
morning rise	10484 Jun 07 12:41	9°♊18'31	
	10484 Jul 04 21:48	0°♋	
	10484 Aug 12 16:36	0°♌	
asc. node	10484 Sep 08 02:43	20°♌39'03	
	10484 Sep 20 02:09	0°♍	
	10484 Oct 29 00:46	0°♎	
	10484 Dec 08 16:14	0°♏	
	10485 Jan 21 20:17	0°♐	
	10485 Mar 16 03:06	0°♑	
retrograde	10485 May 08 07:51	14°♑24'08	
min. Earth dist.	10485 Jun 14 05:17	5°♑49'51	0.64661 AU
opposition	10485 Jun 17 19:20	4°♑24'23	1°42'21
greatest brilliancy	10485 Jun 17 14:24	4°♑29'17	-1.5m
	10485 Jun 29 13:54	30°℞♐	
direct	10485 Jul 27 03:18	25°♐12'10	
desc. node	10485 Aug 04 10:00	25°♐36'19	
	10485 Aug 26 12:28	0°♑	
	10485 Nov 03 02:11	0°♒	
	10485 Dec 25 08:36	0°♓	
	10486 Feb 10 14:25	0°♈	
	10486 Mar 26 11:10	0°♉	
evening set	10486 Apr 12 05:47	12°♉00'00	
max. Earth dist.	10486 Apr 27 08:56	23°♉03'39	2.42465 AU
	10486 May 06 17:15	0°♊	
conjunction	10486 Jun 09 01:54	25°♊21'18	-0°32'53
minimum elong	10486 Jun 09 04:21	25°♊26'00	0°33'23
	10486 Jun 15 01:57	0°♋	
	10486 Jul 23 07:57	0°♌	
asc. node	10486 Jul 26 22:01	2°♌50'04	
morning rise	10486 Aug 17 17:06	20°♌03'48	
	10486 Aug 30 07:38	0°♍	
	10486 Oct 07 22:11	0°♎	
	10486 Nov 17 00:37	0°♏	
	10486 Dec 29 13:18	0°♐	
	10487 Feb 13 20:31	0°♑	
	10487 Apr 09 04:48	0°♒	
retrograde	10487 Jun 11 12:58	18°♒02'40	
desc. node	10487 Jun 22 11:24	17°♒16'24	
opposition	10487 Jul 22 01:39	8°♒20'13	-1°01'13
greatest brilliancy	10487 Jul 22 01:19	8°♒20'33	-1.3m
min. Earth dist.	10487 Jul 22 06:26	8°♒15'29	0.68302 AU
	10487 Aug 16 18:14	30°℞♑	
direct	10487 Sep 01 06:51	28°♑29'12	
	10487 Sep 17 16:33	0°♒	
	10487 Dec 01 13:38	0°♓	
	10488 Jan 21 02:46	0°♈	
	10488 Mar 05 19:58	0°♉	
	10488 Apr 16 03:16	0°♊	
	10488 May 25 07:04	0°♋	
evening set	10488 Jun 12 08:23	14°♋10'39	
asc. node	10488 Jun 12 19:43	14°♋33'00	
	10488 Jul 02 08:05	0°♌	
	10488 Aug 09 05:38	0°♍	
conjunction	10488 Aug 22 22:37	10°♍44'19	0°46'33
minimum elong	10488 Aug 22 18:53	10°♍37'03	0°46'18
	10488 Sep 16 21:17	0°♎	
max. Earth dist.	10488 Oct 15 18:03	21°♎41'46	2.41135 AU
	10488 Oct 27 01:31	0°♏	
morning rise	10488 Oct 30 08:29	2°♏23'39	
	10488 Dec 08 09:08	0°♐	
	10489 Jan 22 08:19	0°♑	
	10489 Mar 11 19:09	0°♒	
	10489 May 06 02:07	0°♓	
desc. node	10489 May 09 07:34	1°♓31'55	
retrograde	10489 Jul 16 01:41	20°♓57'17	
opposition	10489 Aug 24 09:10	11°♓55'26	-3°25'50
greatest brilliancy	10489 Aug 24 19:25	11°♓45'28	-1.4m
min. Earth dist.	10489 Aug 28 09:23	10°♓21'58	0.65308 AU
direct	10489 Oct 04 22:53	1°♓52'46	
	10489 Dec 25 13:49	0°♈	
	10490 Feb 11 22:07	0°♉	
	10490 Mar 26 05:46	0°♊	
asc. node	10490 Apr 30 20:32	27°♊00'52	
	10490 May 04 16:55	0°♋	
	10490 Jun 11 21:39	0°♌	
	10490 Jul 20 00:25	0°♍	
evening set	10490 Aug 27 00:53	29°♍15'42	
	10490 Aug 28 00:19	0°♎	
	10490 Oct 07 14:40	0°♏	
conjunction	10490 Oct 27 16:09	14°♏18'11	1°03'35
minimum elong	10490 Oct 27 17:17	14°♏20'10	1°03'54
	10490 Nov 19 06:05	0°♐	
max. Earth dist.	10490 Nov 30 15:57	7°♐46'39	2.54833 AU
morning rise	10490 Dec 20 06:13	20°♐54'19	
	10491 Jan 03 01:49	0°♑	
	10491 Feb 19 01:49	0°♒	
desc. node	10491 Mar 27 00:53	21°♒58'58	
	10491 Apr 09 13:33	0°♓	
	10491 Jun 02 16:22	0°♈	
retrograde	10491 Aug 27 12:16	28°♈13'45	
opposition	10491 Oct 03 03:57	20°♈21'55	-5°12'25
greatest brilliancy	10491 Oct 04 12:49	19°♈51'33	-1.8m
min. Earth dist.	10491 Oct 10 19:05	17°♈33'20	0.55818 AU
direct	10491 Nov 12 01:52	10°♈54'07	
	10492 Jan 11 23:40	0°♉	
	10492 Feb 29 06:27	0°♊	
asc. node	10492 Mar 18 00:32	12°♊33'18	
	10492 Apr 10 14:51	0°♋	
	10492 May 19 18:58	0°♌	
	10492 Jun 27 16:37	0°♍	
	10492 Aug 06 12:00	0°♎	
	10492 Sep 16 22:30	0°♏	
evening set	10492 Oct 22 03:29	24°♏26'51	
	10492 Oct 30 07:48	0°♐	
conjunction	10492 Dec 11 16:02	28°♐06'24	0°31'35
minimum elong	10492 Dec 11 17:06	28°♐08'09	0°32'06
	10492 Dec 14 13:43	0°♑	
max. Earth dist.	10492 Dec 27 00:12	8°♑03'56	2.64219 AU
morning rise	10493 Jan 26 22:41	27°♑52'23	
	10493 Jan 30 07:08	0°♒	
desc. node	10493 Feb 10 18:03	7°♒14'47	
	10493 Mar 19 01:55	0°♓	
	10493 May 06 20:05	0°♈	
	10493 Jun 26 07:50	0°♉	
	10493 Aug 21 07:15	0°♊	

retrograde	10493 Oct 25 13:06	19°♊03'59	
opposition	10493 Nov 26 10:28	13°♊13'22	-4°16'34
greatest brilliancy	10493 Nov 27 19:59	12°♊47'19	-2.6m
min. Earth dist.	10493 Dec 04 07:44	10°♊47'09	0.42027 AU
direct	10493 Dec 30 21:34	6°♊14'37	
asc. node	10494 Feb 03 04:49	13°♊47'47	
	10494 Mar 06 23:01	0°♋	
	10494 Apr 21 14:31	0°♌	
	10494 Jun 02 17:11	0°♍	
	10494 Jul 14 19:15	0°♎	
	10494 Aug 27 01:36	0°♏	
	10494 Oct 10 21:14	0°♐	
	10494 Nov 26 02:13	0°♑	
evening set	10494 Dec 03 08:58	4°♑39'58	
desc. node	10494 Dec 29 13:11	21°♑21'19	
	10495 Jan 12 03:56	0°♒	
conjunction	10495 Jan 17 23:11	3°♒40'53	-0°10'17
minimum elong	10495 Jan 17 22:53	3°♒40'24	0°09'48
behind sun begin	10495 Jan 17 08:03	3°♒16'54	
behind sun end	10495 Jan 18 13:42	4°♒03'54	
max. Earth dist.	10495 Jan 18 23:07	4°♒18'49	2.68170 AU
	10495 Feb 28 10:28	0°♓	
morning rise	10495 Mar 02 12:34	1°♓19'37	
	10495 Apr 16 09:13	0°♈	
	10495 Jun 01 17:56	0°♉	
	10495 Jul 17 13:00	0°♊	
	10495 Sep 01 03:29	0°♋	
	10495 Oct 17 23:33	0°♌	
	10495 Dec 14 06:33	0°♍	
asc. node	10495 Dec 22 05:20	2°♍39'00	
retrograde	10496 Jan 14 23:01	6°♍21'55	
min. Earth dist.	10496 Feb 10 12:42	2°♍03'36	0.37350 AU
greatest brilliancy	10496 Feb 14 06:16	1°♍01'19	-3.0m
opposition	10496 Feb 15 00:15	0°♍48'46	3°58'19
	10496 Feb 17 23:05	30°℞♌	
direct	10496 Mar 15 07:03	25°♌49'12	
	10496 Apr 10 10:06	0°♍	
	10496 Jun 12 11:55	0°♎	
	10496 Aug 01 08:16	0°♏	
	10496 Sep 18 16:05	0°♐	
	10496 Nov 05 21:21	0°♑	
desc. node	10496 Nov 15 13:17	6°♑00'56	
	10496 Dec 23 22:58	0°♒	
evening set	10497 Jan 07 19:42	9°♒20'43	
max. Earth dist.	10497 Feb 09 07:27	29°♒57'50	2.66586 AU
	10497 Feb 09 08:48	0°♓	
conjunction	10497 Feb 21 01:34	7°♓30'26	-0°47'05
minimum elong	10497 Feb 21 00:29	7°♓28'41	0°46'50
	10497 Mar 27 14:36	0°♈	
morning rise	10497 Apr 06 03:09	6°♈17'49	
	10497 May 11 08:45	0°♉	
	10497 Jun 23 13:09	0°♊	
	10497 Aug 04 06:55	0°♋	
	10497 Sep 13 22:55	0°♌	
	10497 Oct 24 08:54	0°♍	
asc. node	10497 Nov 08 03:54	10°♍48'37	
	10497 Dec 05 07:00	0°♎	
	10498 Jan 23 03:59	0°♏	
retrograde	10498 Mar 14 20:59	15°♏05'12	
min. Earth dist.	10498 Apr 13 01:40	9°♏11'26	0.49486 AU
greatest brilliancy	10498 Apr 19 16:58	6°♏45'31	-2.2m
opposition	10498 Apr 21 05:57	6°♏11'28	5°29'17
	10498 May 12 17:36	30°℞♎	
direct	10498 May 25 05:54	28°♎56'32	
	10498 Jun 07 10:32	0°♏	
	10498 Aug 22 15:16	0°♐	
desc. node	10498 Oct 03 16:42	23°♐10'54	
	10498 Oct 15 12:27	0°♑	
	10498 Dec 04 21:41	0°♒	
	10499 Jan 22 03:28	0°♓	
evening set	10499 Feb 12 20:12	13°♓55'52	
max. Earth dist.	10499 Mar 06 00:07	27°♓48'39	2.59625 AU
	10499 Mar 09 07:12	0°♈	
conjunction	10499 Mar 30 21:04	14°♈31'28	-1°07'48
minimum elong	10499 Mar 30 20:37	14°♈30'42	1°07'54
	10499 Apr 22 07:42	0°♉	
morning rise	10499 May 18 18:32	18°♉44'13	
	10499 Jun 03 07:38	0°♊	
	10499 Jul 13 14:55	0°♋	
	10499 Aug 21 18:03	0°♌	
asc. node	10499 Sep 25 23:09	27°♌18'24	
	10499 Sep 29 10:39	0°♍	
	10499 Nov 07 16:39	0°♎	
	10499 Dec 18 21:56	0°♏	
	10500 Feb 02 21:59	0°♐	
	10500 Apr 19 15:26	0°♑	
retrograde	10500 Apr 25 08:29	0°♑13'10	
	10500 Apr 30 23:30	30°℞♐	
min. Earth dist.	10500 May 30 08:30	22°♐15'55	0.61467 AU
opposition	10500 Jun 04 09:56	20°♐16'03	2°49'21
greatest brilliancy	10500 Jun 03 22:15	20°♐27'35	-1.6m
direct	10500 Jul 12 14:16	11°♐27'17	
desc. node	10500 Aug 21 21:15	19°♐28'47	
	10500 Sep 16 16:58	0°♑	
	10500 Nov 13 12:05	0°♒	
	10501 Jan 03 00:01	0°♓	
	10501 Feb 18 17:54	0°♈	
evening set	10501 Mar 25 13:16	23°♈40'58	
	10501 Apr 03 13:29	0°♉	
max. Earth dist.	10501 Apr 08 12:06	3°♉29'58	2.47856 AU
	10501 May 14 22:53	0°♊	
conjunction	10501 May 17 09:15	1°♊48'35	-0°53'52
minimum elong	10501 May 17 11:21	1°♊52'30	0°54'17
	10501 Jun 23 12:21	0°♋	
morning rise	10501 Jul 18 16:43	19°♋35'44	
	10501 Jul 31 22:44	0°♌	
asc. node	10501 Aug 13 16:01	10°♌01'11	
greatest brilliancy	10501 Aug 28 13:40	21°♌45'26	1.2m
	10501 Sep 08 01:21	0°♍	
	10501 Oct 16 17:31	0°♎	
	10501 Nov 25 22:05	0°♏	
	10502 Jan 07 18:28	0°♐	
	10502 Feb 24 08:56	0°♑	
	10502 Apr 28 14:29	0°♒	
retrograde	10502 May 30 07:59	5°♒30'30	
	10502 Jun 28 15:04	30°℞♑	
min. Earth dist.	10502 Jul 08 17:09	26°♑08'56	0.67642 AU
opposition	10502 Jul 10 00:07	25°♑38'11	0°00'02
greatest brilliancy	10502 Jul 10 00:11	25°♑38'07	-1.3m
desc. node	10502 Jul 10 00:29	25°♑37'49	
direct	10502 Aug 19 15:55	15°♑59'13	
	10502 Oct 14 13:53	0°♒	
	10502 Dec 12 07:13	0°♓	
	10503 Jan 30 02:12	0°♈	
	10503 Mar 15 08:35	0°♉	
	10503 Apr 25 14:13	0°♊	
evening set	10503 May 18 07:35	17°♊14'37	
	10503 Jun 03 19:05	0°♋	
asc. node	10503 Jul 01 11:44	21°♋45'55	
	10503 Jul 11 21:20	0°♌	

conjunction	10503 Jul 24 22:43	10°♌21'23	0°16'55
minimum elong	10503 Jul 24 20:53	10°♌17'45	0°16'27
max. Earth dist.	10503 Aug 16 02:15	27°♌52'40	2.36549 AU
	10503 Aug 18 18:54	0°♍	
	10503 Sep 26 09:07	0°♎	
morning rise	10503 Oct 06 04:01	7°♎26'58	
	10503 Nov 05 11:20	0°♏	
	10503 Dec 17 18:28	0°♐	
	10504 Feb 01 00:23	0°♑	
	10504 Mar 21 17:29	0°♒	
	10504 May 23 07:11	0°♓	
desc. node	10504 May 26 23:42	1°♓16'35	
retrograde	10504 Jul 02 18:43	8°♓08'30	
	10504 Aug 08 15:40	30°℞♒	
opposition	10504 Aug 11 17:24	28°♒48'04	-2°32'35
greatest brilliancy	10504 Aug 11 21:40	28°♒43'53	-1.3m
min. Earth dist.	10504 Aug 14 05:47	27°♒48'52	0.67272 AU
direct	10504 Sep 22 08:38	18°♒46'18	
	10504 Nov 09 10:17	0°♓	
	10505 Jan 06 07:51	0°♈	
	10505 Feb 21 15:10	0°♉	
	10505 Apr 04 09:26	0°♊	
	10505 May 13 15:58	0°♋	
asc. node	10505 May 18 12:34	3°♋47'36	
greatest brilliancy	10505 Jun 20 07:15	29°♋38'36	1.2m
	10505 Jun 20 18:03	0°♌	
	10505 Jul 28 17:31	0°♍	
evening set	10505 Jul 30 12:35	1°♍24'24	
	10505 Sep 05 12:49	0°♎	
conjunction	10505 Oct 06 01:41	22°♎49'06	1°06'17
minimum elong	10505 Oct 06 01:13	22°♎48'16	1°06'27
	10505 Oct 15 21:51	0°♏	
max. Earth dist.	10505 Nov 17 21:35	23°♏27'08	2.49829 AU
	10505 Nov 27 08:31	0°♐	
morning rise	10505 Dec 03 13:36	4°♐15'31	
	10506 Jan 11 03:16	0°♑	
	10506 Feb 27 11:21	0°♒	
desc. node	10506 Apr 13 17:28	26°♒50'50	
	10506 Apr 19 07:29	0°♓	
	10506 Jun 18 06:55	0°♈	
retrograde	10506 Aug 10 16:14	12°♈59'03	
opposition	10506 Sep 17 13:51	4°♈35'02	-4°38'51
greatest brilliancy	10506 Sep 18 13:13	4°♈12'51	-1.6m
min. Earth dist.	10506 Sep 23 20:53	2°♈11'58	0.60260 AU
	10506 Sep 29 23:30	30°℞♓	
direct	10506 Oct 28 10:48	24°♓45'06	
	10506 Nov 27 14:35	0°♈	
	10507 Jan 27 02:29	0°♉	
	10507 Mar 12 15:17	0°♊	
asc. node	10507 Apr 05 14:54	17°♊38'38	
	10507 Apr 21 21:28	0°♋	
	10507 May 30 12:36	0°♌	
	10507 Jul 08 00:10	0°♍	
	10507 Aug 16 09:34	0°♎	
	10507 Sep 26 10:08	0°♏	
evening set	10507 Oct 04 08:13	5°♏38'02	
	10507 Nov 08 10:28	0°♐	
conjunction	10507 Nov 27 06:45	12°♐42'57	0°46'27
minimum elong	10507 Nov 27 08:13	12°♐45'25	0°46'55
max. Earth dist.	10507 Dec 19 08:14	27°♐19'05	2.61172 AU
	10507 Dec 23 10:35	0°♑	
morning rise	10508 Jan 14 16:53	14°♑25'03	
	10508 Feb 08 04:07	0°♒	
desc. node	10508 Feb 29 09:52	13°♒19'30	
	10508 Mar 27 09:50	0°♓	
	10508 May 16 12:19	0°♈	
	10508 Jul 09 21:01	0°♉	
retrograde	10508 Sep 30 01:08	26°♉49'28	
opposition	10508 Nov 03 00:24	20°♉05'30	-5°18'00
greatest brilliancy	10508 Nov 04 18:23	19°♉29'47	-2.2m
min. Earth dist.	10508 Nov 11 19:57	17°♉06'25	0.47478 AU
direct	10508 Dec 10 06:13	11°♉49'48	
	10509 Feb 05 05:21	0°♊	
asc. node	10509 Feb 20 19:02	9°♊02'51	
	10509 Mar 24 11:15	0°♋	
	10509 May 04 18:43	0°♌	
	10509 Jun 13 23:41	0°♍	
	10509 Jul 24 19:54	0°♎	
	10509 Sep 05 03:59	0°♏	
	10509 Oct 19 06:49	0°♐	
evening set	10509 Nov 19 00:36	20°♐15'43	
	10509 Dec 04 00:36	0°♑	
conjunction	10510 Jan 05 00:17	20°♑31'57	0°05'57
minimum elong	10510 Jan 05 00:30	20°♑32'17	0°06'28
behind sun begin	10510 Jan 04 07:00	20°♑04'23	
behind sun end	10510 Jan 05 17:59	21°♑00'10	
max. Earth dist.	10510 Jan 11 05:10	24°♑29'11	2.67282 AU
desc. node	10510 Jan 16 04:02	27°♑38'17	
	10510 Jan 19 21:14	0°♒	
morning rise	10510 Feb 18 05:16	18°♒35'27	
	10510 Mar 08 06:21	0°♓	
	10510 Apr 24 17:45	0°♈	
	10510 Jun 11 05:22	0°♉	
	10510 Jul 29 03:04	0°♊	
	10510 Sep 17 01:27	0°♋	
	10510 Nov 20 04:25	0°♌	
retrograde	10510 Dec 15 06:35	3°♌48'15	
asc. node	10511 Jan 08 22:51	0°♌12'11	
	10511 Jan 09 17:57	30°℞♋	
opposition	10511 Jan 13 21:48	28°♋54'36	0°23'21
greatest brilliancy	10511 Jan 13 22:03	28°♋54'26	-3.1m
min. Earth dist.	10511 Jan 15 08:46	28°♋31'24	0.36620 AU
direct	10511 Feb 12 17:49	23°♋53'20	
	10511 Mar 15 22:59	0°♌	
	10511 May 12 14:58	0°♍	
	10511 Jun 28 13:28	0°♎	
	10511 Aug 13 11:38	0°♏	
	10511 Sep 28 23:04	0°♐	
	10511 Nov 15 04:39	0°♑	
desc. node	10511 Dec 04 01:30	11°♑54'07	
evening set	10511 Dec 26 23:37	26°♑20'56	
	10512 Jan 01 18:33	0°♒	
max. Earth dist.	10512 Feb 02 16:13	20°♒11'32	2.67862 AU
conjunction	10512 Feb 09 09:45	24°♒28'30	-0°34'07
minimum elong	10512 Feb 09 08:51	24°♒27'03	0°33'45
	10512 Feb 18 01:34	0°♓	
morning rise	10512 Mar 23 21:02	22°♓25'10	
	10512 Apr 04 12:14	0°♈	
	10512 May 19 18:16	0°♉	
	10512 Jul 02 17:16	0°♊	
	10512 Aug 14 11:18	0°♋	
	10512 Sep 25 09:58	0°♌	
	10512 Nov 06 16:36	0°♍	
asc. node	10512 Nov 25 21:51	13°♍04'02	
	10512 Dec 22 22:45	0°♎	
retrograde	10513 Feb 23 17:32	22°♎02'00	
min. Earth dist.	10513 Mar 22 14:51	17°♎03'20	0.43971 AU
greatest brilliancy	10513 Mar 29 05:46	14°♎49'26	-2.5m
opposition	10513 Mar 30 23:19	14°♎14'02	5°56'16
direct	10513 May 01 23:17	7°♎53'07	

	10513 Jul 11 05:08	0°♏	
	10513 Sep 04 03:25	0°♐	
desc. node	10513 Oct 21 03:38	27°♐43'46	
	10513 Oct 24 22:21	0°♑	
	10513 Dec 13 03:53	0°♒	
	10514 Jan 29 23:38	0°♓	
evening set	10514 Jan 30 14:48	0°♓24'12	
max. Earth dist.	10514 Feb 24 19:37	16°♓39'03	2.62961 AU
conjunction	10514 Mar 16 12:32	29°♓36'06	-1°02'37
minimum elong	10514 Mar 16 11:37	29°♓34'34	1°02'34
	10514 Mar 17 02:57	0°♈	
	10514 Apr 30 08:57	0°♉	
morning rise	10514 May 01 19:48	1°♉00'24	
	10514 Jun 11 18:12	0°♊	
	10514 Jul 22 12:16	0°♋	
	10514 Aug 31 02:16	0°♌	
	10514 Oct 09 05:29	0°♍	
asc. node	10514 Oct 13 16:36	3°♍24'33	
	10514 Nov 18 00:50	0°♎	
	10514 Dec 30 10:18	0°♏	
	10515 Feb 19 01:46	0°♐	
retrograde	10515 Apr 11 10:00	14°♐34'20	
min. Earth dist.	10515 May 14 07:07	7°♐20'24	0.57362 AU
opposition	10515 May 20 18:19	4°♐49'35	3°56'42
greatest brilliancy	10515 May 19 21:28	5°♐09'52	-1.8m
	10515 Jun 03 10:25	30°℞♏	
direct	10515 Jun 26 12:48	26°♏30'56	
	10515 Jul 21 15:56	0°♐	
desc. node	10515 Sep 08 08:57	18°♐55'59	
	10515 Sep 30 07:59	0°♑	
	10515 Nov 22 22:49	0°♒	
	10516 Jan 11 07:31	0°♓	
	10516 Feb 26 18:03	0°♈	
evening set	10516 Mar 08 17:45	7°♈21'36	
max. Earth dist.	10516 Mar 24 14:34	18°♈10'13	2.52945 AU
	10516 Apr 10 14:38	0°♉	
conjunction	10516 Apr 27 01:39	11°♉41'32	-1°05'11
minimum elong	10516 Apr 27 02:39	11°♉43'20	1°05'31
	10516 May 22 05:00	0°♊	
morning rise	10516 Jun 21 18:37	22°♊56'14	
	10516 Jul 01 00:24	0°♋	
	10516 Aug 08 16:08	0°♌	
asc. node	10516 Aug 30 10:51	17°♌04'50	
	10516 Sep 15 22:38	0°♍	
	10516 Oct 24 17:41	0°♎	
	10516 Dec 04 03:05	0°♏	
	10517 Jan 16 14:25	0°♐	
	10517 Mar 07 18:26	0°♑	
retrograde	10517 May 17 01:42	22°♑35'29	
min. Earth dist.	10517 Jun 23 22:01	13°♑43'01	0.65999 AU
opposition	10517 Jun 26 16:24	12°♑37'04	1°03'55
greatest brilliancy	10517 Jun 26 14:06	12°♑39'22	-1.4m
desc. node	10517 Jul 26 13:25	3°♑51'24	
direct	10517 Aug 05 13:15	3°♑13'59	
	10517 Oct 27 22:50	0°♒	
	10517 Dec 20 21:47	0°♓	
	10518 Feb 06 15:33	0°♈	
	10518 Mar 22 15:50	0°♉	
evening set	10518 Apr 25 00:41	24°♉07'44	
	10518 May 02 22:13	0°♊	
max. Earth dist.	10518 May 14 22:32	9°♊02'18	2.39581 AU
	10518 Jun 11 05:53	0°♋	
conjunction	10518 Jun 25 06:12	10°♋56'14	-0°16'27
minimum elong	10518 Jun 25 07:47	10°♋59'19	0°16'58
asc. node	10518 Jul 18 05:01	29°♋01'14	
	10518 Jul 19 10:45	0°♌	
	10518 Aug 26 09:32	0°♍	
morning rise	10518 Sep 05 18:27	8°♍08'35	
	10518 Oct 03 23:18	0°♎	
	10518 Nov 13 00:32	0°♏	
	10518 Dec 25 09:09	0°♐	
	10519 Feb 09 03:04	0°♑	
	10519 Apr 02 01:28	0°♒	
desc. node	10519 Jun 13 13:41	25°♒23'31	
retrograde	10519 Jun 20 03:16	25°♒39'11	
opposition	10519 Jul 30 12:40	16°♒03'37	-1°35'54
greatest brilliancy	10519 Jul 30 13:17	16°♒03'01	-1.3m
min. Earth dist.	10519 Jul 31 13:17	15°♒39'20	0.68219 AU
direct	10519 Sep 09 23:23	6°♒07'30	
	10519 Nov 25 03:53	0°♓	
	10520 Jan 16 12:25	0°♈	
	10520 Mar 01 17:15	0°♉	
	10520 Apr 12 04:13	0°♊	
	10520 May 21 08:47	0°♋	
asc. node	10520 Jun 04 03:00	10°♋47'11	
	10520 Jun 28 09:57	0°♌	
evening set	10520 Jun 30 03:17	1°♌21'58	
	10520 Aug 05 07:45	0°♍	
conjunction	10520 Sep 09 14:53	27°♍25'05	0°57'52
minimum elong	10520 Sep 09 11:58	27°♍19'31	0°57'46
	10520 Sep 12 23:59	0°♎	
	10520 Oct 23 05:05	0°♏	
max. Earth dist.	10520 Oct 30 22:21	5°♏35'46	2.44309 AU
morning rise	10520 Nov 13 07:53	15°♏10'43	
	10520 Dec 04 12:35	0°♐	
	10521 Jan 18 08:25	0°♑	
	10521 Mar 07 05:53	0°♒	
	10521 Apr 29 07:26	0°♓	
desc. node	10521 Apr 30 09:23	0°♓33'37	
retrograde	10521 Jul 25 14:22	29°♓01'23	
opposition	10521 Sep 02 11:56	20°♓11'29	-3°54'34
greatest brilliancy	10521 Sep 03 02:28	19°♓57'28	-1.4m
min. Earth dist.	10521 Sep 07 08:02	18°♓19'32	0.63803 AU
direct	10521 Oct 13 22:30	10°♓10'55	
	10521 Dec 18 04:27	0°♈	
	10522 Feb 06 20:30	0°♉	
	10522 Mar 21 18:51	0°♊	
asc. node	10522 Apr 22 06:35	23°♊40'36	
	10522 Apr 30 11:23	0°♋	
	10522 Jun 07 18:51	0°♌	
	10522 Jul 15 23:40	0°♍	
	10522 Aug 24 01:36	0°♎	
evening set	10522 Sep 11 13:48	13°♎48'53	
	10522 Oct 03 18:19	0°♏	
conjunction	10522 Nov 09 03:07	25°♏37'48	0°58'36
minimum elong	10522 Nov 09 04:36	25°♏40'21	0°59'00
	10522 Nov 15 11:37	0°♐	
max. Earth dist.	10522 Dec 08 13:12	15°♐36'19	2.57324 AU
morning rise	10522 Dec 30 13:17	0°♑09'04	
	10522 Dec 30 07:44	0°♑	
	10523 Feb 15 03:49	0°♒	
desc. node	10523 Mar 18 01:46	19°♒07'44	
	10523 Apr 05 01:42	0°♓	
	10523 May 27 06:23	0°♈	
	10523 Jul 30 00:52	0°♉	
retrograde	10523 Sep 08 16:45	8°♉11'31	
opposition	10523 Oct 14 12:32	0°♉41'10	-5°23'08
greatest brilliancy	10523 Oct 16 02:09	0°♉07'12	-1.9m
	10523 Oct 16 10:05	30°℞♈	

min. Earth dist.	10523 Oct 22 18:34	27°♈43'05	0.53016 AU
direct	10523 Nov 22 16:49	21°♈32'49	
	10523 Dec 30 11:09	0°♉	
	10524 Feb 22 17:02	0°♊	
asc. node	10524 Mar 09 10:40	10°♊40'54	
	10524 Apr 05 06:30	0°♋	
	10524 May 14 23:14	0°♌	
	10524 Jun 23 04:57	0°♍	
	10524 Aug 02 06:37	0°♎	
	10524 Sep 12 22:43	0°♏	
	10524 Oct 26 12:28	0°♐	
evening set	10524 Nov 02 09:18	4°♐36'48	
	10524 Dec 10 21:19	0°♑	
conjunction	10524 Dec 21 10:31	6°♑50'19	0°22'15
minimum elong	10524 Dec 21 11:17	6°♑51'33	0°22'46
max. Earth dist.	10525 Jan 02 10:20	14°♑33'37	2.65540 AU
	10525 Jan 26 14:49	0°♒	
desc. node	10525 Feb 01 18:18	3°♒53'53	
morning rise	10525 Feb 04 19:41	5°♒50'03	
	10525 Mar 15 05:05	0°♓	
	10525 May 02 09:59	0°♈	
	10525 Jun 20 12:59	0°♉	
	10525 Aug 11 06:09	0°♊	
	10525 Oct 16 15:15	0°♋	
retrograde	10525 Nov 12 10:03	4°♋06'22	
	10525 Dec 08 21:09	30°℞♊	
opposition	10525 Dec 13 06:35	28°♊44'46	-3°01'55
greatest brilliancy	10525 Dec 14 03:37	28°♊29'28	-2.8m
min. Earth dist.	10525 Dec 19 15:40	26°♊54'15	0.39429 AU
direct	10526 Jan 14 20:13	22°♊35'18	
asc. node	10526 Jan 25 13:20	23°♊23'25	
	10526 Feb 17 22:07	0°♋	
	10526 Apr 13 04:11	0°♌	
	10526 May 27 10:03	0°♍	
	10526 Jul 09 14:10	0°♎	
	10526 Aug 22 13:04	0°♏	
	10526 Oct 06 19:42	0°♐	
	10526 Nov 22 07:44	0°♑	
evening set	10526 Dec 12 18:20	13°♑01'18	
desc. node	10526 Dec 20 15:00	18°♑00'45	
	10527 Jan 08 12:44	0°♒	
max. Earth dist.	10527 Jan 25 00:34	10°♒27'08	2.68291 AU
conjunction	10527 Jan 26 19:24	11°♒35'03	-0°19'27
minimum elong	10527 Jan 26 18:51	11°♒34'10	0°19'00
	10527 Feb 24 18:56	0°♓	
morning rise	10527 Mar 11 04:59	9°♓12'20	
	10527 Apr 12 12:52	0°♈	
	10527 May 28 10:53	0°♉	
	10527 Jul 12 11:37	0°♊	
	10527 Aug 25 18:53	0°♋	
	10527 Oct 09 02:06	0°♌	
	10527 Nov 25 05:42	0°♍	
asc. node	10527 Dec 13 14:42	10°♍02'43	
retrograde	10528 Jan 31 18:54	24°♍21'39	
min. Earth dist.	10528 Feb 26 12:25	20°♍02'23	0.39158 AU
greatest brilliancy	10528 Mar 02 22:14	18°♍26'10	-2.8m
opposition	10528 Mar 04 05:43	18°♍02'36	5°13'52
direct	10528 Apr 03 06:51	12°♍39'25	
	10528 Jun 01 06:12	0°♎	
	10528 Jul 25 22:16	0°♏	
	10528 Sep 13 20:02	0°♐	
	10528 Nov 01 18:57	0°♑	
desc. node	10528 Nov 06 16:12	3°♑00'38	
	10528 Dec 20 05:02	0°♒	
evening set	10529 Jan 16 17:23	17°♒16'32	
	10529 Feb 05 17:58	0°♓	
max. Earth dist.	10529 Feb 15 12:56	6°♓16'36	2.65509 AU
conjunction	10529 Mar 02 01:43	15°♓40'11	-0°53'41
minimum elong	10529 Mar 02 00:38	15°♓38'25	0°53'29
	10529 Mar 23 22:48	0°♈	
morning rise	10529 Apr 15 17:44	15°♈11'49	
	10529 May 07 12:27	0°♉	
	10529 Jun 19 09:49	0°♊	
	10529 Jul 30 18:24	0°♋	
	10529 Sep 08 23:47	0°♌	
	10529 Oct 18 19:52	0°♍	
asc. node	10529 Oct 30 11:52	8°♍42'39	
	10529 Nov 28 16:04	0°♎	
	10530 Jan 12 17:49	0°♏	
retrograde	10530 Mar 26 00:43	26°♏49'55	
min. Earth dist.	10530 Apr 25 13:20	20°♏26'35	0.52442 AU
greatest brilliancy	10530 May 01 22:45	18°♏02'11	-2.0m
opposition	10530 May 03 06:15	17°♏32'28	4°59'41
direct	10530 Jun 07 07:55	9°♏52'18	
	10530 Aug 14 12:33	0°♐	
desc. node	10530 Sep 24 20:07	21°♐17'31	
	10530 Oct 10 11:41	0°♑	
	10530 Nov 30 19:19	0°♒	
	10531 Jan 18 09:48	0°♓	
evening set	10531 Feb 22 05:57	22°♓27'12	
	10531 Mar 05 16:02	0°♈	
max. Earth dist.	10531 Mar 13 06:37	5°♈05'00	2.57422 AU
conjunction	10531 Apr 10 05:28	24°♈08'40	-1°08'39
minimum elong	10531 Apr 10 05:26	24°♈08'38	1°08'50
	10531 Apr 18 15:13	0°♉	
	10531 May 30 11:52	0°♊	
morning rise	10531 May 31 03:13	0°♊28'10	
	10531 Jul 09 14:45	0°♋	
	10531 Aug 17 13:29	0°♌	
asc. node	10531 Sep 17 04:40	23°♌51'55	
	10531 Sep 25 01:55	0°♍	
	10531 Nov 03 02:38	0°♎	
	10531 Dec 13 21:46	0°♏	
	10532 Jan 27 14:00	0°♐	
	10532 Mar 24 06:42	0°♑	
retrograde	10532 May 03 10:09	8°♑56'13	
min. Earth dist.	10532 Jun 08 12:21	0°♑37'42	0.63356 AU
	10532 Jun 10 02:29	30°℞♐	
opposition	10532 Jun 12 18:04	28°♐56'57	2°10'13
greatest brilliancy	10532 Jun 12 10:35	29°♐04'21	-1.5m
direct	10532 Jul 21 14:28	19°♐54'26	
desc. node	10532 Aug 12 01:21	22°♐26'37	
	10532 Sep 05 16:53	0°♑	
	10532 Nov 07 08:52	0°♒	
	10532 Dec 28 21:08	0°♓	
	10533 Feb 13 23:11	0°♈	
	10533 Mar 29 20:43	0°♉	
evening set	10533 Apr 04 20:12	4°♉14'02	
max. Earth dist.	10533 Apr 18 16:05	14°♉09'49	2.44884 AU
	10533 May 10 05:27	0°♊	
conjunction	10533 May 30 06:10	15°♊04'38	-0°43'11
minimum elong	10533 May 30 08:39	15°♊09'22	0°43'39
	10533 Jun 18 16:51	0°♋	
	10533 Jul 27 00:58	0°♌	
asc. node	10533 Aug 03 23:28	6°♌15'48	
morning rise	10533 Aug 04 18:16	6°♌52'55	
	10533 Sep 03 01:40	0°♍	
	10533 Oct 11 15:57	0°♎	
	10533 Nov 20 17:49	0°♏	

	10534 Jan 02 07:27	0°♐	
	10534 Feb 17 23:01	0°♑	
	10534 Apr 15 12:07	0°♒	
retrograde	10534 Jun 06 21:08	13°♒13'21	
desc. node	10534 Jun 30 03:45	9°♒43'21	
opposition	10534 Jul 17 12:25	3°♒26'09	-0°36'16
greatest brilliancy	10534 Jul 17 11:54	3°♒26'40	-1.3m
min. Earth dist.	10534 Jul 17 01:28	3°♒37'00	0.68142 AU
	10534 Jul 26 09:55	30°℞♑	
direct	10534 Aug 27 12:31	23°♑39'59	
	10534 Oct 01 22:13	0°♒	
	10534 Dec 06 00:33	0°♓	
	10535 Jan 24 20:17	0°♈	
	10535 Mar 10 10:13	0°♉	
	10535 Apr 20 18:11	0°♊	
	10535 May 29 23:11	0°♋	
evening set	10535 Jun 02 00:20	2°♋22'44	
asc. node	10535 Jun 21 20:56	17°♋59'16	
	10535 Jul 07 01:00	0°♌	
conjunction	10535 Aug 11 10:11	28°♌01'40	0°34'57
minimum elong	10535 Aug 11 06:44	27°♌54'52	0°34'34
	10535 Aug 13 22:16	0°♍	
	10535 Sep 21 12:17	0°♎	
max. Earth dist.	10535 Oct 01 08:05	7°♎28'49	2.38730 AU
morning rise	10535 Oct 21 11:17	22°♎33'25	
	10535 Oct 31 14:12	0°♏	
	10535 Dec 12 19:48	0°♐	
	10536 Jan 26 19:27	0°♑	
	10536 Mar 15 14:49	0°♒	
	10536 May 11 21:20	0°♓	
desc. node	10536 May 17 00:34	2°♓13'54	
retrograde	10536 Jul 10 19:39	15°♓55'32	
opposition	10536 Aug 19 11:13	6°♓44'51	-3°04'10
greatest brilliancy	10536 Aug 19 18:36	6°♓37'39	-1.3m
min. Earth dist.	10536 Aug 22 19:45	5°♓26'19	0.66321 AU
	10536 Sep 07 09:22	30°℞♒	
direct	10536 Sep 30 03:01	26°♒41'50	
	10536 Oct 24 10:02	0°♓	
	10536 Dec 30 14:45	0°♈	
	10537 Feb 16 01:30	0°♉	
	10537 Mar 30 04:27	0°♊	
asc. node	10537 May 08 21:15	0°♋13'48	
	10537 May 08 14:09	0°♋	
	10537 Jun 15 17:50	0°♌	
	10537 Jul 23 18:48	0°♍	
evening set	10537 Aug 15 23:09	18°♍00'34	
	10537 Aug 31 15:41	0°♎	
	10537 Oct 11 02:22	0°♏	
conjunction	10537 Oct 19 06:41	5°♏53'43	1°05'48
minimum elong	10537 Oct 19 07:17	5°♏54'49	1°06'04
	10537 Nov 22 14:09	0°♐	
max. Earth dist.	10537 Nov 26 00:40	2°♐21'40	2.52672 AU
morning rise	10537 Dec 13 21:16	14°♐28'22	
	10538 Jan 06 07:44	0°♑	
	10538 Feb 22 09:14	0°♒	
desc. node	10538 Apr 03 17:49	24°♒25'20	
	10538 Apr 13 07:30	0°♓	
	10538 Jun 08 04:45	0°♈	
retrograde	10538 Aug 20 12:10	21°♈58'02	
opposition	10538 Sep 26 18:40	13°♈50'53	-4°59'40
greatest brilliancy	10538 Sep 27 23:26	13°♈23'57	-1.7m
min. Earth dist.	10538 Oct 03 20:35	11°♈12'15	0.57920 AU
direct	10538 Nov 06 05:10	4°♈11'16	
	10539 Jan 18 22:39	0°♉	
	10539 Mar 06 07:33	0°♊	

asc. node	10539 Mar 27 00:38	14°♊55'53	
	10539 Apr 16 03:41	0°♋	
	10539 May 25 01:27	0°♌	
	10539 Jul 02 17:47	0°♍	
	10539 Aug 11 07:23	0°♎	
	10539 Sep 21 11:59	0°♏	
evening set	10539 Oct 15 21:10	17°♏07'12	
	10539 Nov 03 15:51	0°♐	
conjunction	10539 Dec 06 19:00	22°♐09'34	0°38'01
minimum elong	10539 Dec 06 20:17	22°♐11'41	0°38'31
	10539 Dec 18 17:54	0°♑	
max. Earth dist.	10539 Dec 25 01:59	4°♑07'37	2.62962 AU
morning rise	10540 Jan 22 22:29	22°♑41'45	
	10540 Feb 03 10:13	0°♒	
desc. node	10540 Feb 19 11:10	10°♒07'08	
	10540 Mar 22 08:41	0°♓	
	10540 May 10 14:40	0°♈	
	10540 Jul 01 09:58	0°♉	
	10540 Sep 01 05:12	0°♊	
retrograde	10540 Oct 14 09:45	9°♊20'47	
opposition	10540 Nov 16 05:13	3°♊05'38	-4°51'44
greatest brilliancy	10540 Nov 17 20:25	2°♊33'41	-2.4m
min. Earth dist.	10540 Nov 24 17:48	0°♊20'02	0.44407 AU
	10540 Nov 25 19:38	30°℞♉	
direct	10540 Dec 22 00:26	25°♉29'23	
	10541 Jan 17 02:29	0°♊	
asc. node	10541 Feb 11 05:16	10°♊50'03	
	10541 Mar 15 11:17	0°♋	
	10541 Apr 27 15:31	0°♌	
	10541 Jun 07 17:38	0°♍	
	10541 Jul 19 03:41	0°♎	
	10541 Aug 30 21:54	0°♏	
	10541 Oct 14 08:24	0°♐	
evening set	10541 Nov 27 21:36	29°♐05'47	
	10541 Nov 29 07:15	0°♑	
desc. node	10542 Jan 06 05:30	24°♑15'52	
conjunction	10542 Jan 13 00:59	28°♑35'46	-0°03'40
minimum elong	10542 Jan 13 00:52	28°♑35'35	0°03'10
behind sun begin	10542 Jan 12 06:29	28°♑06'24	
behind sun end	10542 Jan 13 19:15	29°♑04'46	
	10542 Jan 15 06:01	0°♒	
max. Earth dist.	10542 Jan 16 06:56	0°♒39'34	2.67876 AU
morning rise	10542 Feb 25 20:00	26°♒22'03	
	10542 Mar 03 13:29	0°♓	
	10542 Apr 19 17:28	0°♈	
	10542 Jun 05 13:08	0°♉	
	10542 Jul 22 03:46	0°♊	
	10542 Sep 07 05:12	0°♋	
	10542 Oct 27 14:17	0°♌	
asc. node	10542 Dec 30 06:34	22°♌28'55	
retrograde	10543 Jan 02 11:51	22°♌33'08	
min. Earth dist.	10543 Jan 30 15:50	17°♌58'48	0.36579 AU
opposition	10543 Feb 01 16:03	17°♌26'26	2°34'15
greatest brilliancy	10543 Feb 01 09:21	17°♌30'56	-3.1m
direct	10543 Mar 02 21:27	12°♌34'43	
	10543 Apr 29 07:14	0°♍	
	10543 Jun 20 10:18	0°♎	
	10543 Aug 07 03:44	0°♏	
	10543 Sep 23 13:00	0°♐	
	10543 Nov 10 06:27	0°♑	
desc. node	10543 Nov 24 04:21	8°♑43'08	
	10543 Dec 28 02:25	0°♒	
evening set	10544 Jan 03 21:49	4°♒17'03	
max. Earth dist.	10544 Feb 07 17:41	26°♒20'21	2.67264 AU
	10544 Feb 13 11:18	0°♓	

conjunction	10544 Feb 17 04:09	2°♓22'06	-0°41'58
minimum elong	10544 Feb 17 03:07	2°♓20'27	0°41'39
	10544 Mar 30 19:46	0°♈	
morning rise	10544 Mar 31 21:51	0°♈42'47	
	10544 May 14 19:42	0°♉	
	10544 Jun 27 08:36	0°♊	
	10544 Aug 08 12:39	0°♋	
	10544 Sep 18 16:38	0°♌	
	10544 Oct 29 17:59	0°♍	
asc. node	10544 Nov 16 05:19	12°♍28'43	
	10544 Dec 11 21:12	0°♎	
	10545 Feb 05 05:38	0°♏	
retrograde	10545 Mar 07 12:18	6°♏05'01	
min. Earth dist.	10545 Apr 04 15:20	0°♏36'38	0.47020 AU
	10545 Apr 06 09:22	30°℞♎	
greatest brilliancy	10545 Apr 11 09:17	28°♎12'56	-2.3m
opposition	10545 Apr 13 01:37	27°♎36'56	5°46'43
direct	10545 May 16 04:17	20°♎44'58	
	10545 Jun 27 07:31	0°♏	
	10545 Aug 28 00:22	0°♐	
desc. node	10545 Oct 11 07:40	25°♐15'38	
	10545 Oct 19 09:10	0°♑	
	10545 Dec 08 05:48	0°♒	
	10546 Jan 25 07:45	0°♓	
evening set	10546 Feb 07 16:11	8°♓32'32	
max. Earth dist.	10546 Mar 02 13:22	23°♓25'31	2.61217 AU
	10546 Mar 12 12:13	0°♈	
conjunction	10546 Mar 25 02:40	8°♈25'15	-1°06'12
minimum elong	10546 Mar 25 01:58	8°♈24'05	1°06'13
	10546 Apr 25 16:10	0°♉	
morning rise	10546 May 11 17:03	11°♉14'31	
	10546 Jun 06 21:11	0°♊	
	10546 Jul 17 09:53	0°♋	
	10546 Aug 25 17:54	0°♌	
	10546 Oct 03 14:42	0°♍	
asc. node	10546 Oct 04 01:00	0°♍19'49	
	10546 Nov 12 00:49	0°♎	
	10546 Dec 23 14:02	0°♏	
	10547 Feb 08 19:35	0°♐	
retrograde	10547 Apr 20 02:37	24°♐11'45	
min. Earth dist.	10547 May 24 04:41	16°♐32'56	0.59744 AU
opposition	10547 May 29 21:23	14°♐18'49	3°17'53
greatest brilliancy	10547 May 29 06:02	14°♐33'53	-1.7m
direct	10547 Jul 06 11:37	5°♐42'27	
desc. node	10547 Aug 29 12:25	19°♐04'36	
	10547 Sep 22 13:01	0°♑	
	10547 Nov 17 08:22	0°♒	
	10548 Jan 06 09:09	0°♓	
	10548 Feb 22 01:05	0°♈	
evening set	10548 Mar 18 02:18	16°♈54'32	
max. Earth dist.	10548 Apr 01 14:34	26°♈57'57	2.50194 AU
	10548 Apr 05 22:19	0°♉	
conjunction	10548 May 08 04:36	23°♉10'26	-0°59'48
minimum elong	10548 May 08 06:15	23°♉13'28	1°00'12
	10548 May 17 11:03	0°♊	
	10548 Jun 26 03:56	0°♋	
morning rise	10548 Jul 06 08:24	7°♋51'56	
	10548 Aug 03 16:58	0°♌	
asc. node	10548 Aug 20 17:51	13°♌23'27	
	10548 Sep 10 21:12	0°♍	
	10548 Oct 19 13:50	0°♎	
	10548 Nov 28 18:45	0°♏	
	10549 Jan 10 18:32	0°♐	
	10549 Feb 28 01:59	0°♑	
	10549 May 15 07:14	0°♒	
retrograde	10549 May 24 16:37	0°♒32'55	
	10549 Jun 02 20:12	30°℞♑	
min. Earth dist.	10549 Jul 02 10:31	21°♑23'39	0.67032 AU
opposition	10549 Jul 04 08:58	20°♑37'31	0°26'06
greatest brilliancy	10549 Jul 04 08:24	20°♑38'05	-1.4m
desc. node	10549 Jul 16 15:55	16°♑00'04	
direct	10549 Aug 13 17:01	11°♑05'02	
	10549 Oct 19 18:46	0°♒	
	10549 Dec 15 06:02	0°♓	
	10550 Feb 01 15:22	0°♈	
	10550 Mar 17 20:29	0°♉	
	10550 Apr 28 03:41	0°♊	
evening set	10550 May 07 17:07	7°♊11'06	
	10550 Jun 06 10:32	0°♋	
max. Earth dist.	10550 Jun 11 12:59	3°♋58'37	2.37154 AU
asc. node	10550 Jul 08 12:39	25°♋12'10	
conjunction	10550 Jul 11 13:46	27°♋36'50	0°02'15
minimum elong	10550 Jul 11 13:35	27°♋36'27	0°01'45
behind sun begin	10550 Jul 10 07:51	26°♋37'39	
behind sun end	10550 Jul 12 19:18	28°♋35'15	
	10550 Jul 14 14:06	0°♌	
	10550 Aug 21 11:59	0°♍	
morning rise	10550 Sep 23 07:40	25°♍35'47	
	10550 Sep 29 01:13	0°♎	
	10550 Nov 08 01:37	0°♏	
	10550 Dec 20 07:37	0°♐	
	10551 Feb 03 15:39	0°♑	
	10551 Mar 26 00:12	0°♒	
desc. node	10551 Jun 03 15:48	0°♓04'45	
	10551 Jun 03 08:10	0°♓	
retrograde	10551 Jun 27 20:57	3°♓17'30	
	10551 Jul 20 16:07	30°℞♒	
opposition	10551 Aug 07 01:29	23°♒49'59	-2°09'35
greatest brilliancy	10551 Aug 07 03:52	23°♒47'39	-1.3m
min. Earth dist.	10551 Aug 08 22:13	23°♒06'01	0.67825 AU
direct	10551 Sep 17 15:40	13°♒50'12	
	10551 Nov 16 10:05	0°♓	
	10552 Jan 10 14:45	0°♈	
	10552 Feb 25 11:46	0°♉	
	10552 Apr 07 04:11	0°♊	
	10552 May 16 10:37	0°♋	
asc. node	10552 May 25 12:52	7°♋06'50	
	10552 Jun 23 12:21	0°♌	
evening set	10552 Jul 17 05:56	18°♌48'23	
	10552 Jul 31 10:40	0°♍	
	10552 Sep 08 03:38	0°♎	
conjunction	10552 Sep 25 00:36	12°♎44'46	1°04'18
minimum elong	10552 Sep 24 23:07	12°♎41'59	1°04'21
	10552 Oct 18 09:29	0°♏	
max. Earth dist.	10552 Nov 10 18:52	16°♏46'46	2.47404 AU
morning rise	10552 Nov 25 04:04	26°♏51'10	
	10552 Nov 29 17:14	0°♐	
	10553 Jan 13 10:31	0°♑	
	10553 Mar 01 21:59	0°♒	
desc. node	10553 Apr 20 10:23	28°♒53'20	
	10553 Apr 22 10:59	0°♓	
	10553 Jun 25 23:51	0°♈	
retrograde	10553 Aug 03 13:40	7°♈22'53	
	10553 Sep 07 17:50	30°℞♓	
opposition	10553 Sep 10 23:13	28°♓46'44	-4°21'09
greatest brilliancy	10553 Sep 11 18:36	28°♓28'11	-1.5m
min. Earth dist.	10553 Sep 16 15:22	26°♓36'41	0.61958 AU
direct	10553 Oct 22 03:47	18°♓50'56	
	10553 Dec 07 07:21	0°♈	
	10554 Jan 31 05:40	0°♉	

	10554 Mar 16 01:16	0°♊	
asc. node	10554 Apr 12 15:17	20°♊29'24	
	10554 Apr 25 01:55	0°♋	
	10554 Jun 02 13:33	0°♌	
	10554 Jul 10 21:37	0°♍	
	10554 Aug 19 02:40	0°♎	
evening set	10554 Sep 24 20:26	27°♎04'00	
	10554 Sep 28 22:15	0°♏	
	10554 Nov 10 18:00	0°♐	
conjunction	10554 Nov 19 16:35	6°♐05'12	0°52'00
minimum elong	10554 Nov 19 18:08	6°♐07'50	0°52'27
max. Earth dist.	10554 Dec 14 21:43	22°♐57'15	2.59547 AU
	10554 Dec 25 14:48	0°♑	
morning rise	10555 Jan 08 07:59	8°♑55'22	
	10555 Feb 10 08:09	0°♒	
desc. node	10555 Mar 08 02:34	16°♒05'29	
	10555 Mar 30 19:14	0°♓	
	10555 May 20 15:08	0°♈	
	10555 Jul 16 15:16	0°♉	
retrograde	10555 Sep 20 21:25	18°♉53'22	
opposition	10555 Oct 25 17:14	11°♉47'36	-5°24'37
greatest brilliancy	10555 Oct 27 10:18	11°♉11'34	-2.1m
min. Earth dist.	10555 Nov 03 09:15	8°♉45'49	0.49986 AU
direct	10555 Dec 02 22:10	3°♉05'07	
	10556 Feb 13 15:07	0°♊	
asc. node	10556 Feb 28 18:50	9°♊35'52	
	10556 Mar 29 06:39	0°♋	
	10556 May 08 18:02	0°♌	
	10556 Jun 17 10:50	0°♍	
	10556 Jul 27 21:12	0°♎	
	10556 Sep 07 20:25	0°♏	
	10556 Oct 21 16:05	0°♐	
evening set	10556 Nov 12 01:18	14°♐13'02	
	10556 Dec 06 04:40	0°♑	
conjunction	10556 Dec 29 20:40	15°♑15'26	0°12'44
minimum elong	10556 Dec 29 21:07	15°♑16'09	0°13'15
behind sun begin	10556 Dec 29 10:23	14°♑58'58	
behind sun end	10556 Dec 30 07:50	15°♑33'19	
max. Earth dist.	10557 Jan 07 15:09	20°♑52'05	2.66614 AU
	10557 Jan 21 23:10	0°♒	
desc. node	10557 Jan 22 20:19	0°♒33'37	
morning rise	10557 Feb 12 12:32	13°♒39'46	
	10557 Mar 10 10:03	0°♓	
	10557 Apr 27 04:21	0°♈	
	10557 Jun 14 07:22	0°♉	
	10557 Aug 02 13:16	0°♊	
	10557 Sep 25 04:29	0°♋	
retrograde	10557 Nov 30 16:16	20°♋40'58	
opposition	10557 Dec 30 13:09	15°♋41'18	-1°15'08
greatest brilliancy	10557 Dec 30 19:46	15°♋36'47	-3.0m
min. Earth dist.	10558 Jan 03 13:27	14°♋35'47	0.37485 AU
asc. node	10558 Jan 15 23:16	11°♋39'13	
direct	10558 Jan 30 09:54	10°♋15'46	
	10558 Mar 31 08:57	0°♌	
	10558 May 19 00:20	0°♍	
	10558 Jul 02 20:44	0°♎	
	10558 Aug 16 17:55	0°♏	
	10558 Oct 01 14:38	0°♐	
	10558 Nov 17 11:16	0°♑	
desc. node	10558 Dec 10 16:57	14°♑43'30	
evening set	10558 Dec 20 23:12	21°♑12'44	
	10559 Jan 03 20:50	0°♒	
max. Earth dist.	10559 Jan 30 00:51	16°♒34'05	2.68168 AU
conjunction	10559 Feb 03 14:13	19°♒27'40	-0°28'13
minimum elong	10559 Feb 03 13:27	19°♒26'26	0°27'50
	10559 Feb 20 03:36	0°♓	
morning rise	10559 Mar 18 23:10	17°♓11'42	
	10559 Apr 07 17:41	0°♈	
	10559 May 23 07:07	0°♉	
	10559 Jul 06 17:12	0°♊	
	10559 Aug 19 02:23	0°♋	
	10559 Sep 30 21:33	0°♌	
	10559 Nov 13 14:55	0°♍	
asc. node	10559 Dec 03 23:38	13°♍01'34	
	10560 Jan 03 21:48	0°♎	
retrograde	10560 Feb 14 19:46	11°♎00'49	
min. Earth dist.	10560 Mar 11 23:40	6°♎23'13	0.41646 AU
greatest brilliancy	10560 Mar 18 06:00	4°♎22'56	-2.6m
opposition	10560 Mar 19 21:30	3°♎50'57	5°50'23
	10560 Apr 02 09:40	30°℞♍	
direct	10560 Apr 19 23:57	27°♍56'27	
	10560 May 08 04:10	0°♎	
	10560 Jul 17 08:36	0°♏	
	10560 Sep 07 15:05	0°♐	
desc. node	10560 Oct 27 18:27	0°♑08'54	
	10560 Oct 27 12:35	0°♑	
	10560 Dec 15 09:19	0°♒	
evening set	10561 Jan 24 15:33	25°♒15'09	
	10561 Feb 01 02:37	0°♓	
max. Earth dist.	10561 Feb 20 21:04	12°♓42'17	2.64205 AU
conjunction	10561 Mar 10 05:27	24°♓00'54	-0°59'19
minimum elong	10561 Mar 10 04:26	23°♓59'14	0°59'12
	10561 Mar 19 07:22	0°♈	
morning rise	10561 Apr 24 16:42	24°♈28'40	
	10561 May 02 17:42	0°♉	
	10561 Jun 14 08:57	0°♊	
	10561 Jul 25 09:56	0°♋	
	10561 Sep 03 06:32	0°♌	
	10561 Oct 12 16:19	0°♍	
asc. node	10561 Oct 20 18:32	6°♍07'47	
	10561 Nov 21 19:49	0°♎	
	10562 Jan 03 23:36	0°♏	
	10562 Feb 28 03:23	0°♐	
retrograde	10562 Apr 04 14:00	7°♐41'43	
min. Earth dist.	10562 May 06 10:15	0°♐49'33	0.55252 AU
	10562 May 08 14:17	30°℞♏	
greatest brilliancy	10562 May 12 10:08	28°♏31'30	-1.9m
opposition	10562 May 13 11:30	28°♏07'05	4°24'41
direct	10562 Jun 18 13:12	20°♏04'20	
	10562 Aug 02 10:04	0°♐	
desc. node	10562 Sep 14 23:48	19°♐57'16	
	10562 Oct 03 23:13	0°♑	
	10562 Nov 25 12:44	0°♒	
	10563 Jan 13 14:14	0°♓	
	10563 Mar 01 00:01	0°♈	
evening set	10563 Mar 02 22:36	1°♈17'27	
max. Earth dist.	10563 Mar 20 01:06	12°♈47'59	2.55040 AU
	10563 Apr 13 23:06	0°♉	
conjunction	10563 Apr 20 02:10	4°♉18'42	-1°07'32
minimum elong	10563 Apr 20 02:42	4°♉19'37	1°07'47
	10563 May 25 17:18	0°♊	
morning rise	10563 Jun 12 10:24	13°♊08'59	
	10563 Jul 04 16:50	0°♋	
	10563 Aug 12 11:51	0°♌	
asc. node	10563 Sep 07 12:32	20°♌21'25	
	10563 Sep 19 20:39	0°♍	
	10563 Oct 28 17:15	0°♎	
	10563 Dec 08 04:41	0°♏	
	10564 Jan 20 23:51	0°♐	

	10564 Mar 12 20:01	0°♉	
retrograde	10564 May 11 07:24	17°♉20'35	
min. Earth dist.	10564 Jun 17 09:54	8°♉42'23	0.64941 AU
opposition	10564 Jun 20 19:44	7°♉21'08	1°31'15
greatest brilliancy	10564 Jun 20 15:35	7°♉25'16	-1.4m
	10564 Jul 13 00:11	30°℞♐	
direct	10564 Jul 30 06:12	28°♐06'28	
desc. node	10564 Aug 02 04:58	28°♐09'37	
	10564 Aug 17 16:05	0°♉	
	10564 Oct 31 16:48	0°♒	
	10564 Dec 23 13:52	0°♓	
	10565 Feb 09 02:01	0°♈	
	10565 Mar 25 02:35	0°♉	
evening set	10565 Apr 15 22:28	15°♉37'28	
max. Earth dist.	10565 May 01 13:00	27°♉05'00	2.41900 AU
	10565 May 05 11:11	0°♊	
conjunction	10565 Jun 13 09:24	29°♊36'41	-0°29'08
minimum elong	10565 Jun 13 11:42	29°♊41'08	0°29'38
	10565 Jun 13 21:26	0°♋	
	10565 Jul 22 04:05	0°♌	
asc. node	10565 Jul 25 06:59	2°♌27'58	
morning rise	10565 Aug 22 15:31	24°♌52'39	
	10565 Aug 29 03:32	0°♍	
	10565 Oct 06 16:51	0°♎	
	10565 Nov 15 16:54	0°♏	
	10565 Dec 28 01:32	0°♐	
	10566 Feb 12 00:44	0°♑	
	10566 Apr 06 06:09	0°♒	
retrograde	10566 Jun 14 10:24	20°♒50'35	
desc. node	10566 Jun 20 06:01	20°♒37'45	
opposition	10566 Jul 24 23:28	11°♒09'30	-1°11'39
greatest brilliancy	10566 Jul 24 23:15	11°♒09'44	-1.3m
min. Earth dist.	10566 Jul 25 08:31	11°♒00'34	0.68310 AU
direct	10566 Sep 04 06:13	1°♒17'16	
	10566 Nov 29 04:18	0°♓	
	10567 Jan 19 09:59	0°♈	
	10567 Mar 05 09:44	0°♉	
	10567 Apr 15 20:30	0°♊	
	10567 May 25 02:03	0°♋	
asc. node	10567 Jun 12 03:54	14°♋10'51	
evening set	10567 Jun 18 01:13	18°♋49'45	
	10567 Jul 02 03:41	0°♌	
	10567 Aug 09 00:57	0°♍	
conjunction	10567 Aug 28 18:31	15°♍26'37	0°49'45
minimum elong	10567 Aug 28 14:51	15°♍19'31	0°49'32
	10567 Sep 16 15:32	0°♎	
max. Earth dist.	10567 Oct 21 08:41	26°♎03'03	2.41765 AU
	10567 Oct 26 17:59	0°♏	
morning rise	10567 Nov 04 10:34	6°♏18'50	
	10567 Dec 07 23:06	0°♐	
	10568 Jan 21 18:30	0°♑	
	10568 Mar 09 22:09	0°♒	
	10568 May 03 05:59	0°♓	
desc. node	10568 May 07 02:24	1°♓53'22	
retrograde	10568 Jul 19 02:16	23°♓49'00	
opposition	10568 Aug 27 09:07	14°♓49'19	-3°34'06
greatest brilliancy	10568 Aug 27 20:19	14°♓38'27	-1.4m
min. Earth dist.	10568 Aug 31 13:51	13°♓11'41	0.65063 AU
direct	10568 Oct 07 23:18	4°♓46'44	
	10568 Dec 23 02:36	0°♈	
	10569 Feb 10 06:25	0°♉	
	10569 Mar 24 20:50	0°♊	
asc. node	10569 Apr 29 06:41	26°♊46'03	
	10569 May 03 10:55	0°♋	
	10569 Jun 10 16:36	0°♌	
	10569 Jul 18 19:03	0°♍	
	10569 Aug 26 17:48	0°♎	
evening set	10569 Aug 31 11:23	3°♎34'25	
	10569 Oct 06 06:27	0°♏	
conjunction	10569 Oct 31 11:47	17°♏57'39	1°02'26
minimum elong	10569 Oct 31 13:01	17°♏59'50	1°02'48
	10569 Nov 17 19:54	0°♐	
max. Earth dist.	10569 Dec 03 09:46	10°♐36'53	2.55347 AU
morning rise	10569 Dec 23 14:30	24°♐06'28	
	10570 Jan 01 13:22	0°♑	
	10570 Feb 17 10:16	0°♒	
desc. node	10570 Mar 24 19:06	21°♒43'19	
	10570 Apr 07 16:04	0°♓	
	10570 May 31 01:27	0°♈	
	10570 Aug 15 03:58	0°♉	
retrograde	10570 Aug 31 01:18	1°♉25'58	
	10570 Sep 15 05:03	30°℞♈	
opposition	10570 Oct 06 13:36	23°♈38'10	-5°15'17
greatest brilliancy	10570 Oct 07 23:37	23°♈06'53	-1.8m
min. Earth dist.	10570 Oct 14 08:08	20°♈47'07	0.55312 AU
direct	10570 Nov 15 09:26	14°♈13'28	
	10571 Jan 08 16:14	0°♉	
	10571 Feb 27 09:46	0°♊	
asc. node	10571 Mar 17 11:00	12°♊37'25	
	10571 Apr 10 03:03	0°♋	
	10571 May 19 10:26	0°♌	
	10571 Jun 27 08:56	0°♍	
	10571 Aug 06 03:50	0°♎	
	10571 Sep 16 13:05	0°♏	
evening set	10571 Oct 26 16:00	27°♏49'41	
	10571 Oct 29 20:52	0°♐	
	10571 Dec 14 01:20	0°♑	
conjunction	10571 Dec 15 20:54	1°♑11'00	0°28'56
minimum elong	10571 Dec 15 21:54	1°♑12'37	0°29'27
max. Earth dist.	10571 Dec 30 15:57	10°♑46'08	2.64494 AU
	10572 Jan 29 17:25	0°♒	
morning rise	10572 Jan 30 22:55	0°♒46'50	
desc. node	10572 Feb 09 11:24	6°♒48'37	
	10572 Mar 17 10:21	0°♓	
	10572 May 05 00:42	0°♈	
	10572 Jun 24 02:58	0°♉	
	10572 Aug 17 15:54	0°♊	
retrograde	10572 Oct 30 02:10	23°♊10'55	
opposition	10572 Nov 30 19:48	17°♊26'03	-4°00'48
greatest brilliancy	10572 Dec 02 02:46	17°♊02'15	-2.7m
min. Earth dist.	10572 Dec 08 11:48	15°♊05'55	0.41488 AU
direct	10573 Jan 03 20:53	10°♊36'54	
asc. node	10573 Feb 01 14:00	16°♊01'28	
	10573 Mar 03 10:22	0°♋	
	10573 Apr 19 11:00	0°♌	
	10573 May 31 22:52	0°♍	
	10573 Jul 13 04:32	0°♎	
	10573 Aug 25 12:09	0°♏	
	10573 Oct 09 08:03	0°♐	
	10573 Nov 24 12:55	0°♑	
evening set	10573 Dec 06 11:43	7°♑39'06	
desc. node	10573 Dec 27 06:55	20°♑54'26	
	10574 Jan 10 14:35	0°♒	
conjunction	10574 Jan 20 22:54	6°♒33'51	-0°13'01
minimum elong	10574 Jan 20 22:31	6°♒33'15	0°12'34
behind sun begin	10574 Jan 20 10:58	6°♒14'57	
behind sun end	10574 Jan 21 10:04	6°♒51'33	
max. Earth dist.	10574 Jan 21 08:23	6°♒48'53	2.68208 AU
	10574 Feb 26 21:07	0°♓	

morning rise	10574 Mar 05 11:18	4°♓11'36	
	10574 Apr 14 19:28	0°♈	
	10574 May 31 02:53	0°♉	
	10574 Jul 15 18:50	0°♊	
	10574 Aug 30 02:36	0°♋	
	10574 Oct 15 05:39	0°♌	
	10574 Dec 07 07:16	0°♍	
asc. node	10574 Dec 20 15:45	5°♍27'48	
retrograde	10575 Jan 19 16:12	11°♍13'49	
min. Earth dist.	10575 Feb 14 21:17	6°♍57'07	0.37622 AU
opposition	10575 Feb 19 21:05	5°♍33'11	4°20'24
greatest brilliancy	10575 Feb 19 00:04	5°♍47'58	-2.9m
direct	10575 Mar 21 06:20	0°♍30'18	
	10575 Jun 10 12:24	0°♎	
	10575 Jul 31 05:52	0°♏	
	10575 Sep 17 20:41	0°♐	
	10575 Nov 05 05:06	0°♑	
desc. node	10575 Nov 14 07:19	5°♑38'54	
	10575 Dec 23 08:40	0°♒	
evening set	10576 Jan 11 19:43	12°♒13'37	
	10576 Feb 08 20:02	0°♓	
max. Earth dist.	10576 Feb 12 21:25	2°♓35'41	2.66396 AU
conjunction	10576 Feb 25 01:46	10°♓25'25	-0°49'08
minimum elong	10576 Feb 25 00:41	10°♓23'39	0°48'54
	10576 Mar 26 03:02	0°♈	
morning rise	10576 Apr 09 06:07	9°♈20'56	
	10576 May 09 22:01	0°♉	
	10576 Jun 22 02:44	0°♊	
	10576 Aug 02 20:12	0°♋	
	10576 Sep 12 10:57	0°♌	
	10576 Oct 22 17:45	0°♍	
asc. node	10576 Nov 06 13:50	10°♍54'36	
	10576 Dec 03 07:05	0°♎	
	10577 Jan 19 15:13	0°♏	
retrograde	10577 Mar 18 07:58	18°♏44'39	
min. Earth dist.	10577 Apr 16 18:00	12°♏46'00	0.50049 AU
greatest brilliancy	10577 Apr 23 09:25	10°♏19'25	-2.1m
opposition	10577 Apr 24 21:21	9°♏46'15	5°23'20
direct	10577 May 29 03:20	2°♏26'23	
	10577 Aug 19 21:10	0°♐	
desc. node	10577 Oct 01 11:14	23°♐05'59	
	10577 Oct 13 12:54	0°♑	
	10577 Dec 03 04:44	0°♒	
	10578 Jan 20 14:16	0°♓	
evening set	10578 Feb 15 21:51	16°♓53'28	
	10578 Mar 07 20:37	0°♈	
max. Earth dist.	10578 Mar 08 13:16	0°♈27'38	2.59200 AU
conjunction	10578 Apr 03 02:37	17°♈40'53	-1°08'17
minimum elong	10578 Apr 03 02:17	17°♈40'18	1°08'23
	10578 Apr 20 23:01	0°♉	
morning rise	10578 May 22 09:19	22°♉17'37	
	10578 Jun 02 00:11	0°♊	
	10578 Jul 12 08:06	0°♋	
	10578 Aug 20 11:14	0°♌	
asc. node	10578 Sep 24 06:39	27°♌00'59	
	10578 Sep 28 03:01	0°♍	
	10578 Nov 06 06:49	0°♎	
	10578 Dec 17 06:57	0°♏	
	10579 Jan 31 16:25	0°♐	
	10579 Apr 05 10:41	0°♑	
retrograde	10579 Apr 28 09:49	3°♑15'23	
	10579 May 20 02:41	30°℞♐	
min. Earth dist.	10579 Jun 02 15:21	25°♐13'36	0.61857 AU
opposition	10579 Jun 07 12:28	23°♐17'58	2°38'35
greatest brilliancy	10579 Jun 07 01:56	23°♐28'22	-1.6m
direct	10579 Jul 15 19:52	14°♐26'17	
desc. node	10579 Aug 19 16:34	20°♐38'25	
	10579 Sep 13 06:23	0°♑	
	10579 Nov 11 10:53	0°♒	
	10580 Jan 01 08:09	0°♓	
	10580 Feb 17 07:01	0°♈	
evening set	10580 Mar 27 21:44	26°♈57'21	
	10580 Apr 01 05:52	0°♉	
max. Earth dist.	10580 Apr 10 12:37	6°♉34'28	2.47292 AU
	10580 May 12 17:22	0°♊	
conjunction	10580 May 20 05:14	5°♊35'00	-0°51'31
minimum elong	10580 May 20 07:27	5°♊39'10	0°51'59
	10580 Jun 21 07:56	0°♋	
morning rise	10580 Jul 22 09:19	24°♋11'50	
	10580 Jul 29 18:27	0°♌	
asc. node	10580 Aug 11 00:48	9°♌39'54	
greatest brilliancy	10580 Aug 11 22:08	10°♌21'57	1.2m
	10580 Sep 05 20:20	0°♍	
	10580 Oct 14 10:52	0°♎	
	10580 Nov 23 12:37	0°♏	
	10581 Jan 05 03:59	0°♐	
	10581 Feb 21 06:37	0°♑	
	10581 Apr 22 05:55	0°♒	
retrograde	10581 Jun 01 06:11	8°♒20'40	
desc. node	10581 Jul 06 19:26	0°♒30'54	
	10581 Jul 08 03:05	30°℞♑	
opposition	10581 Jul 11 22:39	28°♑29'28	-0°10'50
min. Earth dist.	10581 Jul 10 20:15	28°♑55'39	0.67780 AU
greatest brilliancy	10581 Jul 11 22:27	28°♑29'40	-1.3m
direct	10581 Aug 21 16:03	18°♑48'49	
	10581 Oct 09 15:33	0°♒	
	10581 Dec 09 06:17	0°♓	
	10582 Jan 27 12:04	0°♈	
	10582 Mar 12 23:48	0°♉	
	10582 Apr 23 08:38	0°♊	
evening set	10582 May 21 10:47	21°♊19'55	
	10582 Jun 01 15:20	0°♋	
asc. node	10582 Jun 28 21:54	21°♋24'51	
	10582 Jul 09 18:13	0°♌	
conjunction	10582 Jul 28 18:02	15°♌03'46	0°21'22
minimum elong	10582 Jul 28 15:43	14°♌59'11	0°20'55
	10582 Aug 16 15:20	0°♍	
max. Earth dist.	10582 Sep 01 12:13	12°♍27'14	2.36793 AU
	10582 Sep 24 04:08	0°♎	
morning rise	10582 Oct 09 17:28	11°♎49'50	
	10582 Nov 03 04:01	0°♏	
	10582 Dec 15 07:50	0°♐	
	10583 Jan 29 08:38	0°♑	
	10583 Mar 19 14:46	0°♒	
	10583 May 18 17:37	0°♓	
desc. node	10583 May 24 17:06	2°♓16'39	
retrograde	10583 Jul 05 18:04	10°♓58'53	
opposition	10583 Aug 14 16:35	1°♓40'18	-2°42'00
greatest brilliancy	10583 Aug 14 21:32	1°♓35'28	-1.3m
min. Earth dist.	10583 Aug 17 09:32	0°♓36'45	0.67128 AU
	10583 Aug 18 23:17	30°℞♒	
direct	10583 Sep 25 08:42	21°♒37'59	
	10583 Nov 04 22:57	0°♓	
	10584 Jan 04 07:17	0°♈	
	10584 Feb 20 02:18	0°♉	
	10584 Apr 02 01:39	0°♊	
	10584 May 11 10:43	0°♋	
asc. node	10584 May 15 21:39	3°♋28'22	
greatest brilliancy	10584 Jun 03 12:54	18°♋06'40	1.2m
	10584 Jun 18 13:45	0°♌	

	10584 Jul 26	13:04	0°♍		
evening set	10584 Aug 03	05:22	6°♍00'47		
	10584 Sep 03	07:21	0°♎		
conjunction	10584 Oct 09	04:32	26°♎46'39	1°06'28	
minimum elong	10584 Oct 09	04:24	26°♎46'25	1°06'39	
	10584 Oct 13	14:37	0°♏		
max. Earth dist.	10584 Nov 19	21:10	26°♏29'14	2.50377 AU	
	10584 Nov 24	22:57	0°♐		
morning rise	10584 Dec 06	02:28	7°♐38'17		
	10585 Jan 08	14:42	0°♑		
	10585 Feb 24	18:21	0°♒		
desc. node	10585 Apr 10	10:37	26°♒42'27		
	10585 Apr 16	04:57	0°♓		
	10585 Jun 13	11:33	0°♈		
retrograde	10585 Aug 12	23:13	16°♈01'36		
opposition	10585 Sep 19	18:58	7°♈40'45	-4°44'37	
greatest brilliancy	10585 Sep 20	19:38	7°♈17'26	-1.6m	
min. Earth dist.	10585 Sep 26	06:28	5°♈13'53	0.59844 AU	
	10585 Oct 12	18:00	30°℞♓		
direct	10585 Oct 30	15:16	27°♓52'17		
	10585 Nov 18	05:28	0°♈		
	10586 Jan 23	21:56	0°♉		
	10586 Mar 10	01:15	0°♊		
asc. node	10586 Apr 03	00:30	17°♊31'14		
	10586 Apr 19	12:37	0°♋		
	10586 May 28	05:40	0°♌		
	10586 Jul 05	17:27	0°♍		
	10586 Aug 14	02:07	0°♎		
	10586 Sep 24	01:21	0°♏		
evening set	10586 Oct 07	03:02	9°♏17'01		
	10586 Nov 06	00:06	0°♐		
conjunction	10586 Nov 29	15:19	15°♐56'10	0°44'10	
minimum elong	10586 Nov 29	16:46	15°♐58'35	0°44'40	
	10586 Dec 20	22:30	0°♑		
max. Earth dist.	10586 Dec 20	21:05	29°♐57'40	2.61539 AU	
morning rise	10587 Jan 16	19:02	17°♑23'31		
	10587 Feb 05	14:01	0°♒		
desc. node	10587 Feb 26	03:42	12°♒56'16		
	10587 Mar 25	16:32	0°♓		
	10587 May 14	12:09	0°♈		
	10587 Jul 06	23:53	0°♉		
	10587 Sep 25	01:02	0°♊		
retrograde	10587 Oct 04	04:41	0°♊29'49		
	10587 Oct 13	01:04	30°℞♉		
opposition	10587 Nov 06	22:15	23°♉50'54	-5°12'20	
greatest brilliancy	10587 Nov 08	15:46	23°♉15'43	-2.3m	
min. Earth dist.	10587 Nov 15	16:05	20°♉54'10	0.46905 AU	
direct	10587 Dec 13	21:34	15°♉41'34		
	10588 Feb 01	10:08	0°♊		
asc. node	10588 Feb 19	05:14	9°♊49'34		
	10588 Mar 21	09:54	0°♋		
	10588 May 02	03:09	0°♌		
	10588 Jun 11	11:29	0°♍		
	10588 Jul 22	08:40	0°♎		
	10588 Sep 02	16:32	0°♏		
	10588 Oct 16	18:44	0°♐		
evening set	10588 Nov 21	05:50	23°♐20'58		
	10588 Dec 01	11:53	0°♑		
conjunction	10589 Jan 07	01:12	23°♑27'18	0°03'09	
minimum elong	10589 Jan 07	01:18	23°♑27'28	0°03'40	
behind sun begin	10589 Jan 06	06:49	22°♑58'02		
behind sun end	10589 Jan 07	19:47	23°♑56'53		
desc. node	10589 Jan 12	21:36	27°♑10'48		
max. Earth dist.	10589 Jan 12	17:43	27°♑04'38	2.67415 AU	
	10589 Jan 17	08:02	0°♒		
morning rise	10589 Feb 20	04:03	21°♒26'50		
	10589 Mar 05	16:30	0°♓		
	10589 Apr 22	02:20	0°♈		
	10589 Jun 08	10:26	0°♉		
	10589 Jul 26	00:23	0°♊		
	10589 Sep 13	02:41	0°♋		
	10589 Nov 10	01:46	0°♌		
retrograde	10589 Dec 19	06:06	8°♌45'19		
asc. node	10590 Jan 06	07:32	6°♌43'33		
opposition	10590 Jan 18	00:10	3°♌50'34	0°55'08	
greatest brilliancy	10590 Jan 18	00:03	3°♌50'39	-3.1m	
min. Earth dist.	10590 Jan 18	18:02	3°♌38'40	0.36537 AU	
	10590 Feb 03	14:56	30°℞♋		
direct	10590 Feb 16	17:05	28°♋52'32		
	10590 Mar 01	14:01	0°♌		
	10590 May 08	15:54	0°♍		
	10590 Jun 25	11:29	0°♎		
	10590 Aug 10	16:45	0°♏		
	10590 Sep 26	07:06	0°♐		
	10590 Nov 12	14:04	0°♑		
desc. node	10590 Nov 30	19:24	11°♑29'03		
evening set	10590 Dec 28	23:18	29°♑13'14		
	10590 Dec 30	04:59	0°♒		
max. Earth dist.	10591 Feb 04	01:58	22°♒41'56	2.67775 AU	
conjunction	10591 Feb 11	08:00	27°♒18'58	-0°36'29	
minimum elong	10591 Feb 11	07:03	27°♒17'27	0°36'09	
	10591 Feb 15	12:58	0°♓		
morning rise	10591 Mar 26	20:21	25°♓19'29		
	10591 Apr 03	00:23	0°♈		
	10591 May 18	06:39	0°♉		
	10591 Jul 01	04:54	0°♊		
	10591 Aug 12	21:02	0°♋		
	10591 Sep 23	15:52	0°♌		
	10591 Nov 04	14:04	0°♍		
asc. node	10591 Nov 24	06:39	13°♍35'45		
	10591 Dec 19	16:43	0°♎		
retrograde	10592 Feb 27	13:08	26°♎15'52		
min. Earth dist.	10592 Mar 25	16:31	21°♎12'04	0.44562 AU	
greatest brilliancy	10592 Apr 01	09:03	18°♎55'12	-2.4m	
opposition	10592 Apr 03	02:59	18°♎19'12	5°56'43	
direct	10592 May 05	07:27	11°♎52'11		
	10592 Jul 06	14:00	0°♏		
	10592 Aug 31	22:14	0°♐		
desc. node	10592 Oct 17	22:31	27°♐30'52		
	10592 Oct 22	02:19	0°♑		
	10592 Dec 10	12:09	0°♒		
	10593 Jan 27	10:41	0°♓		
evening set	10593 Feb 01	14:36	3°♓17'32		
max. Earth dist.	10593 Feb 26	10:04	19°♓18'47	2.62659 AU	
	10593 Mar 14	16:14	0°♈		
conjunction	10593 Mar 18	13:53	2°♈35'22	-1°03'48	
minimum elong	10593 Mar 18	13:01	2°♈33'56	1°03'47	
	10593 Apr 28	00:02	0°♉		
morning rise	10593 May 04	02:34	4°♉14'13		
	10593 Jun 09	10:30	0°♊		
	10593 Jul 20	05:09	0°♋		
	10593 Aug 28	18:52	0°♌		
	10593 Oct 06	20:33	0°♍		
asc. node	10593 Oct 11	02:44	3°♍15'38		
	10593 Nov 15	12:12	0°♎		
	10593 Dec 27	12:30	0°♏		
	10594 Feb 14	15:35	0°♐		
retrograde	10594 Apr 13	15:27	17°♐51'11		
min. Earth dist.	10594 May 16	18:09	10°♐32'04	0.57843 AU	

greatest brilliancy	10594 May 22	06:04	8°♐23'39	-1.7m	
opposition	10594 May 23	01:32	8°♐04'40	3°46'37	
	10594 Jun 22	04:55	30℞♏		
direct	10594 Jun 29	00:15	29°♏42'08		
	10594 Jul 05	23:37	0°♐		
desc. node	10594 Sep 05	03:34	19°♐23'38		
	10594 Sep 26	18:16	0°♑		
	10594 Nov 20	01:17	0°♒		
	10595 Jan 08	16:33	0°♓		
	10595 Feb 24	07:03	0°♈		
evening set	10595 Mar 11	23:05	10°♈29'42		
max. Earth dist.	10595 Mar 27	10:01	21°♈03'29	2.52440 AU	
	10595 Apr 09	06:26	0°♉		
conjunction	10595 Apr 30	14:10	15°♉09'38	-1°04'06	
minimum elong	10595 Apr 30	15:19	15°♉11'43	1°04'26	
	10595 May 20	22:44	0°♊		
morning rise	10595 Jun 25	22:07	27°♊01'39		
	10595 Jun 29	19:21	0°♋		
	10595 Aug 07	11:30	0°♌		
asc. node	10595 Aug 28	19:54	16°♌44'50		
	10595 Sep 14	17:32	0°♍		
	10595 Oct 23	10:59	0°♎		
	10595 Dec 02	16:59	0°♏		
	10596 Jan 14	21:15	0°♐		
	10596 Mar 04	03:58	0°♑		
retrograde	10596 May 19	00:44	25°♑29'31		
min. Earth dist.	10596 Jun 26	01:53	16°♑33'17	0.66219 AU	
opposition	10596 Jun 28	15:47	15°♑31'45	0°52'47	
greatest brilliancy	10596 Jun 28	14:02	15°♑33'30	-1.4m	
desc. node	10596 Jul 23	07:26	7°♑35'28		
direct	10596 Aug 07	14:35	6°♑06'34		
	10596 Oct 24	05:25	0°♒		
	10596 Dec 18	01:24	0°♓		
	10597 Feb 04	02:57	0°♈		
	10597 Mar 20	07:36	0°♉		
evening set	10597 Apr 27	19:51	27°♉52'04		
	10597 Apr 30	16:36	0°♊		
max. Earth dist.	10597 May 19	20:27	14°♊26'43	2.39053 AU	
	10597 Jun 09	01:40	0°♋		
conjunction	10597 Jun 28	18:00	15°♋22'37	-0°12'09	
minimum elong	10597 Jun 28	19:14	15°♋25'01	0°12'39	
behind sun begin	10597 Jun 28	01:00	14°♋49'12		
behind sun end	10597 Jun 29	13:28	16°♋00'51		
asc. node	10597 Jul 15	14:11	28°♋39'24		
	10597 Jul 17	06:58	0°♌		
	10597 Aug 24	05:18	0°♍		
morning rise	10597 Sep 09	16:30	12°♍55'12		
	10597 Oct 01	17:47	0°♎		
	10597 Nov 10	16:49	0°♏		
	10597 Dec 22	21:55	0°♐		
	10598 Feb 06	09:22	0°♑		
	10598 Mar 29	13:41	0°♒		
desc. node	10598 Jun 10	08:03	27°♒39'32		
retrograde	10598 Jun 22	02:06	28°♒28'20		
opposition	10598 Aug 01	11:12	18°♒54'28	-1°46'03	
greatest brilliancy	10598 Aug 01	12:08	18°♒53'33	-1.3m	
min. Earth dist.	10598 Aug 02	16:20	18°♒25'46	0.68169 AU	
direct	10598 Sep 11	22:37	8°♒57'27		
	10598 Nov 21	08:36	0°♓		
	10599 Jan 13	17:24	0°♈		
	10599 Feb 28	06:36	0°♉		
	10599 Apr 10	21:49	0°♊		
	10599 May 20	04:37	0°♋		
asc. node	10599 Jun 02	13:24	10°♋27'48		
	10599 Jun 27	06:34	0°♌		
evening set	10599 Jul 04	19:59	5°♌59'52		
	10599 Aug 04	03:59	0°♍		
	10599 Sep 11	18:56	0°♎		
conjunction	10599 Sep 14	03:12	1°♎47'21	0°59'50	
minimum elong	10599 Sep 14	00:34	1°♎42'19	0°59'47	
	10599 Oct 21	22:04	0°♏		
max. Earth dist.	10599 Nov 03	13:00	9°♏08'38	2.44894 AU	
morning rise	10599 Nov 17	03:49	18°♏50'34		
	10599 Dec 03	03:00	0°♐		
	10600 Jan 16	19:24	0°♑		
	10600 Mar 05	11:01	0°♒		
	10600 Apr 26	20:44	0°♓		
desc. node	10600 Apr 28	03:41	0°♓40'59		
	10600 Jul 09	23:36	0°♈		
retrograde	10600 Jul 28	18:16	1°♈57'38		
	10600 Aug 15	11:33	30°℞♓		
opposition	10600 Sep 05	14:15	23°♓10'29	-4°02'11	
greatest brilliancy	10600 Sep 06	05:54	22°♓55'25	-1.5m	
min. Earth dist.	10600 Sep 10	15:06	21°♓14'13	0.63466 AU	
direct	10600 Oct 17	00:17	13°♓10'35		
	10600 Dec 15	01:27	0°♈		
	10601 Feb 05	00:42	0°♉		
	10601 Mar 20	07:57	0°♊		
asc. node	10601 Apr 20	15:39	23°♊26'30		
	10601 Apr 29	04:26	0°♋		
	10601 Jun 06	13:37	0°♌		
	10601 Jul 14	18:42	0°♍		
	10601 Aug 22	19:55	0°♎		
evening set	10601 Sep 15	16:10	17°♎46'16		
	10601 Oct 02	11:08	0°♏		
conjunction	10601 Nov 12	16:12	29°♏01'05	0°56'58	
minimum elong	10601 Nov 12	17:44	29°♏03'43	0°57'24	
	10601 Nov 14	02:30	0°♐		
max. Earth dist.	10601 Dec 11	03:42	18°♐18'00	2.57757 AU	
	10601 Dec 28	20:25	0°♑		
morning rise	10602 Jan 02	17:30	3°♑11'27		