direct	10100 Feb 06 04:03	18°♊29'19	
	10100 May 08 17:09	0°♋	
evening set	10100 Jun 12 10:23	7°♋58'26	
max. Earth dist.	10100 Jun 24 11:07	10°♋52'12	5.98505 AU
conjunction	10100 Jun 25 10:35	11°♋06'22	-0°43'43
minimum elong	10100 Jun 25 10:36	11°♋06'22	0°44'09
morning rise	10100 Jul 08 12:08	14°♋15'21	
	10100 Sep 21 21:04	0°♌	
retrograde	10100 Nov 16 07:56	4°♌37'58	
	10101 Jan 12 10:02	30℞♋	
opposition	10101 Jan 14 22:27	29°♋39'54	-1°00'23
min. Earth dist.	10101 Jan 15 02:51	29°♋38'26	3.93045 AU
direct	10101 Mar 14 13:47	24°♋44'56	
	10101 May 11 11:57	0°♌	
evening set	10101 Jul 19 09:16	14°♌51'09	
	10101 Jul 19 23:47	15°♌	
conjunction	10101 Aug 01 16:16	18°♌06'19	-0°32'03
minimum elong	10101 Aug 01 16:18	18°♌06'20	0°32'21
max. Earth dist.	10101 Aug 02 05:30	18°♌14'26	5.90125 AU
morning rise	10101 Aug 15 01:38	21°♌22'49	
	10101 Sep 20 23:55	0°♍	
retrograde	10101 Dec 25 06:56	12°♍18'32	
opposition	10102 Feb 22 14:32	7°♍17'07	-0°31'02
min. Earth dist.	10102 Feb 21 17:01	7°♍24'23	3.90116 AU
direct	10102 Apr 21 12:08	2°♍22'14	
evening set	10102 Aug 26 14:30	22°♍29'33	
conjunction	10102 Sep 09 03:39	25°♍46'20	-0°07'11
minimum elong	10102 Sep 09 03:39	25°♍46'19	0°07'15
behind sun begin	10102 Sep 08 19:58	25°♍41'42	
behind sun end	10102 Sep 09 11:19	25°♍50'57	
max. Earth dist.	10102 Sep 11 01:53	26°♍14'21	5.92929 AU
morning rise	10102 Sep 22 19:07	29°♍04'07	
	10102 Sep 26 16:25	0°♎	
asc. node	10102 Dec 21 03:38	16°♎49'15	
retrograde	10103 Jan 31 20:28	19°♎34'29	
min. Earth dist.	10103 Mar 30 17:44	14°♎43'10	3.98345 AU
opposition	10103 Apr 01 06:39	14°♎30'36	0°10'41
direct	10103 May 29 10:17	9°♎33'58	
evening set	10103 Oct 03 09:02	29°♎05'49	
	10103 Oct 07 05:49	0°♏	
conjunction	10103 Oct 17 00:29	2°♏17'31	0°20'00
minimum elong	10103 Oct 17 00:28	2°♏17'30	0°20'12
max. Earth dist.	10103 Oct 19 13:55	2°♏53'32	6.05691 AU
morning rise	10103 Oct 30 16:50	5°♏29'24	
	10103 Dec 13 00:42	15°♏	
retrograde	10104 Mar 06 20:01	24°♏51'48	
min. Earth dist.	10104 May 04 00:19	20°♏00'46	4.14165 AU
opposition	10104 May 05 14:01	19°♏48'03	0°45'56
	10104 Jun 23 08:12	15℞♏	
direct	10104 Jul 03 18:27	14°♏49'12	
	10104 Jul 14 05:18	15°♏	
	10104 Oct 22 14:40	0°♐	
evening set	10104 Nov 07 06:14	3°♐27'50	
conjunction	10104 Nov 20 19:20	6°♐30'43	0°38'41
minimum elong	10104 Nov 20 19:19	6°♐30'43	0°39'05
max. Earth dist.	10104 Nov 22 22:35	6°♐59'35	6.23072 AU
morning rise	10104 Dec 04 08:19	9°♐33'09	
retrograde	10105 Apr 08 01:38	27°♐39'40	
min. Earth dist.	10105 Jun 06 04:57	22°♐47'07	4.31481 AU
opposition	10105 Jun 07 07:39	22°♐38'15	1°03'21
direct	10105 Aug 06 19:37	17°♐37'42	
	10105 Nov 14 22:41	0°♑	
evening set	10105 Dec 10 18:22	5°♑27'04	
conjunction	10105 Dec 24 03:05	8°♑21'29	0°44'16
minimum elong	10105 Dec 24 03:05	8°♑21'29	0°44'43
max. Earth dist.	10105 Dec 25 06:10	8°♑36'15	6.38969 AU
morning rise	10106 Jan 06 10:17	11°♑14'58	
retrograde	10106 May 08 11:13	28°♑22'38	
opposition	10106 Jul 08 03:10	23°♑24'34	1°01'21
min. Earth dist.	10106 Jul 07 18:53	23°♑27'16	4.44832 AU
direct	10106 Sep 07 20:22	18°♑23'15	
	10106 Dec 14 19:24	0°♒	
evening set	10107 Jan 11 06:40	5°♒40'00	
conjunction	10107 Jan 24 10:12	8°♒28'33	0°37'13
minimum elong	10107 Jan 24 10:13	8°♒28'33	0°37'34
max. Earth dist.	10107 Jan 24 06:11	8°♒26'24	6.48835 AU
morning rise	10107 Feb 06 11:57	11°♒16'07	
	10107 Feb 24 08:19	15°♒	
retrograde	10107 Jun 07 01:20	27°♒52'50	
opposition	10107 Aug 07 00:19	22°♒57'37	0°43'23
min. Earth dist.	10107 Aug 07 12:29	22°♒53'42	4.50717 AU
direct	10107 Oct 08 12:38	17°♒56'06	
	10108 Jan 17 06:09	0°♓	
evening set	10108 Feb 10 14:31	5°♓02'17	
max. Earth dist.	10108 Feb 22 07:44	7°♓32'27	6.50333 AU
conjunction	10108 Feb 23 13:51	7°♓48'35	0°20'32
minimum elong	10108 Feb 23 13:52	7°♓48'36	0°20'45
morning rise	10108 Mar 07 10:58	10°♓33'57	
retrograde	10108 Jul 05 21:51	27°♓10'38	
opposition	10108 Sep 05 00:37	22°♓17'10	0°14'30
min. Earth dist.	10108 Sep 06 05:12	22°♓08'02	4.47804 AU
direct	10108 Nov 06 16:53	17°♓15'59	
	10109 Feb 18 01:41	0°♈	
desc. node	10109 Feb 23 22:00	1°♈12'34	
evening set	10109 Mar 11 18:04	4°♈34'59	
max. Earth dist.	10109 Mar 22 12:11	6°♈55'24	6.43149 AU
conjunction	10109 Mar 24 14:08	7°♈22'41	-0°01'42
minimum elong	10109 Mar 24 14:08	7°♈22'41	0°01'44
behind sun begin	10109 Mar 24 06:10	7°♈18'21	
behind sun end	10109 Mar 24 22:07	7°♈27'01	
morning rise	10109 Apr 06 08:35	10°♈09'48	
retrograde	10109 Aug 06 06:44	27°♈17'35	
opposition	10109 Oct 06 05:34	22°♈24'34	-0°19'10
min. Earth dist.	10109 Oct 07 21:24	22°♈11'50	4.36729 AU
direct	10109 Dec 07 11:57	17°♈24'17	
	10110 Mar 18 08:35	0°♉	
evening set	10110 Apr 11 17:22	5°♉18'05	
max. Earth dist.	10110 Apr 22 02:44	7°♉38'17	6.28927 AU
conjunction	10110 Apr 24 12:11	8°♉10'43	-0°24'08
minimum elong	10110 Apr 24 12:10	8°♉10'42	0°24'22
morning rise	10110 May 07 06:13	11°♉03'15	
	10110 May 25 02:17	15°♉	
retrograde	10110 Sep 08 21:28	29°♉10'29	
opposition	10110 Nov 08 12:36	24°♉16'41	-0°49'28
min. Earth dist.	10110 Nov 10 02:29	24°♉04'27	4.20233 AU
direct	10111 Jan 08 16:09	19°♉18'04	
	10111 Apr 08 05:00	0°♊	
evening set	10111 May 14 10:54	8°♊02'45	
max. Earth dist.	10111 May 25 09:03	10°♊36'05	6.11460 AU

conjunction	10111 May 27 07:14	11°♊03'12	-0°40'16
minimum elong	10111 May 27 07:14	11°♊03'11	0°40'40
morning rise	10111 Jun 09 03:51	14°♊04'10	
	10111 Aug 28 10:07	0°♋	
retrograde	10111 Oct 15 08:33	3°♋28'02	
	10111 Dec 03 01:41	30°℞♊	
opposition	10111 Dec 14 09:22	28°♊32'25	-1°05'36
min. Earth dist.	10111 Dec 15 10:06	28°♊24'18	4.03167 AU
direct	10112 Feb 12 03:37	23°♊35'59	
	10112 Apr 17 14:31	0°♋	
evening set	10112 Jun 17 12:49	13°♋13'28	
conjunction	10112 Jun 30 13:56	16°♋22'50	-0°43'04
minimum elong	10112 Jun 30 13:56	16°♋22'51	0°43'31
max. Earth dist.	10112 Jun 29 18:30	16°♋11'04	5.96369 AU
morning rise	10112 Jul 13 16:43	19°♋33'21	
	10112 Aug 28 15:46	0°♌	
retrograde	10112 Nov 21 20:27	10°♌05'07	
opposition	10113 Jan 20 10:02	5°♌06'34	-0°57'35
min. Earth dist.	10113 Jan 20 09:29	5°♌06'45	3.91654 AU
direct	10113 Mar 19 20:31	0°♌11'46	
	10113 Jul 02 08:39	15°♌	
evening set	10113 Jul 24 19:10	20°♌21'36	
conjunction	10113 Aug 07 03:10	23°♌37'31	-0°29'04
minimum elong	10113 Aug 07 03:11	23°♌37'31	0°29'22
max. Earth dist.	10113 Aug 07 22:01	23°♌49'04	5.89627 AU
morning rise	10113 Aug 20 13:40	26°♌54'45	
	10113 Sep 02 09:08	0°♍	
retrograde	10113 Dec 30 18:39	17°♍51'00	
min. Earth dist.	10114 Feb 27 01:42	12°♍57'23	3.90570 AU
opposition	10114 Feb 28 02:26	12°♍49'00	-0°25'20
direct	10114 Apr 27 00:05	7°♍53'55	
evening set	10114 Sep 01 01:46	27°♍58'00	
	10114 Sep 09 12:22	0°♎	
conjunction	10114 Sep 14 15:39	1°♎14'26	-0°03'09
minimum elong	10114 Sep 14 15:39	1°♎14'26	0°03'10
behind sun begin	10114 Sep 14 07:19	1°♎09'25	
behind sun end	10114 Sep 14 24:00	1°♎19'27	
max. Earth dist.	10114 Sep 16 19:29	1°♎45'43	5.94284 AU
morning rise	10114 Sep 28 07:26	4°♎31'41	
asc. node	10114 Oct 29 07:23	11°♎42'07	
retrograde	10115 Feb 06 01:11	24°♎53'34	
min. Earth dist.	10115 Apr 04 21:38	20°♎02'22	4.00413 AU
opposition	10115 Apr 06 11:30	19°♎49'29	0°16'32
direct	10115 Jun 03 18:12	14°♎52'30	
	10115 Sep 19 22:10	0°♏	
evening set	10115 Oct 08 15:01	4°♏16'25	
conjunction	10115 Oct 22 06:12	7°♏26'51	0°23'22
minimum elong	10115 Oct 22 06:11	7°♏26'50	0°23'37
max. Earth dist.	10115 Oct 24 19:15	8°♏02'25	6.08226 AU
morning rise	10115 Nov 04 22:24	10°♏37'25	
	10115 Nov 24 05:42	15°♏	
retrograde	10116 Mar 11 12:09	29°♏47'48	
min. Earth dist.	10116 May 08 19:38	24°♏56'48	4.16893 AU
opposition	10116 May 10 08:58	24°♏44'12	0°49'36
direct	10116 Jul 08 17:26	19°♏45'01	
	10116 Oct 04 09:49	0°♐	
evening set	10116 Nov 12 03:10	8°♐15'08	
conjunction	10116 Nov 25 15:46	11°♐16'36	0°40'17
minimum elong	10116 Nov 25 15:45	11°♐16'36	0°40'41
max. Earth dist.	10116 Nov 27 16:11	11°♐43'44	6.25763 AU
morning rise	10116 Dec 09 03:52	14°♐17'31	
	10117 Mar 05 08:29	0°♑	
retrograde	10117 Apr 12 11:34	2°♑13'36	
	10117 May 20 10:06	30°℞♐	
opposition	10117 Jun 11 18:17	27°♐12'38	1°04'09
min. Earth dist.	10117 Jun 10 18:30	27°♐20'31	4.33907 AU
direct	10117 Aug 11 11:30	22°♐11'57	
	10117 Oct 27 00:59	0°♑	
evening set	10117 Dec 15 07:07	9°♑54'51	
conjunction	10117 Dec 28 15:00	12°♑48'09	0°43'57
minimum elong	10117 Dec 28 15:01	12°♑48'09	0°44'23
max. Earth dist.	10117 Dec 29 13:09	13°♑00'10	6.40948 AU
morning rise	10118 Jan 10 21:30	15°♑40'33	
	10118 Mar 31 02:28	0°♒	
retrograde	10118 May 12 15:00	2°♒41'40	
	10118 Jun 24 06:15	30°℞♑	
opposition	10118 Jul 12 08:29	27°♑44'01	0°59'38
min. Earth dist.	10118 Jul 12 03:09	27°♑45'46	4.46262 AU
direct	10118 Sep 12 04:33	22°♑42'37	
	10118 Nov 26 01:03	0°♒	
evening set	10119 Jan 15 13:46	9°♒56'16	
conjunction	10119 Jan 28 16:48	12°♒44'18	0°35'20
minimum elong	10119 Jan 28 16:49	12°♒44'18	0°35'41
max. Earth dist.	10119 Jan 28 09:43	12°♒40'31	6.49631 AU
	10119 Feb 08 06:50	15°♒	
morning rise	10119 Feb 10 17:40	15°♒31'16	
	10119 May 04 15:12	0°♓	
retrograde	10119 Jun 11 04:10	2°♓06'02	
	10119 Jul 18 19:18	30°℞♒	
opposition	10119 Aug 11 04:25	27°♒11'11	0°39'48
min. Earth dist.	10119 Aug 11 18:56	27°♒06'31	4.50844 AU
direct	10119 Oct 12 17:45	22°♒09'43	
	10119 Dec 30 01:48	0°♓	
evening set	10120 Feb 14 19:36	9°♓16'23	
max. Earth dist.	10120 Feb 26 07:20	11°♓43'55	6.49772 AU
conjunction	10120 Feb 27 18:16	12°♓02'40	0°17'37
minimum elong	10120 Feb 27 18:16	12°♓02'41	0°17'47
morning rise	10120 Mar 11 15:04	14°♓48'07	
	10120 Jun 09 02:15	0°♈	
retrograde	10120 Jul 10 06:19	1°♈27'39	
	10120 Aug 10 10:00	30°℞♓	
opposition	10120 Sep 09 07:37	26°♓34'21	0°09'51
min. Earth dist.	10120 Sep 10 15:11	26°♓24'16	4.46583 AU
direct	10120 Nov 11 00:02	21°♓33'13	
desc. node	10121 Jan 02 09:57	25°♓22'19	
	10121 Jan 31 03:01	0°♈	
evening set	10121 Mar 16 00:44	8°♈56'21	
max. Earth dist.	10121 Mar 26 16:33	11°♈16'04	6.41347 AU
conjunction	10121 Mar 28 20:38	11°♈44'38	-0°05'02
minimum elong	10121 Mar 28 20:39	11°♈44'38	0°05'05
behind sun begin	10121 Mar 28 12:54	11°♈40'25	
behind sun end	10121 Mar 29 04:24	11°♈48'52	
morning rise	10121 Apr 10 14:52	14°♈32'22	
	10121 Jul 07 08:31	0°♉	
retrograde	10121 Aug 10 19:57	1°♉47'34	
	10121 Sep 14 12:06	30°℞♈	
opposition	10121 Oct 10 18:38	26°♈54'32	-0°23'54
min. Earth dist.	10121 Oct 12 10:11	26°♈41'53	4.34458 AU
direct	10121 Dec 11 20:36	21°♈54'28	
	10122 Feb 27 17:52	0°♉	
evening set	10122 Apr 16 05:32	9°♉55'30	
max. Earth dist.	10122 Apr 26 16:11	12°♉17'15	6.26358 AU
conjunction	10122 Apr 29 00:24	12°♉49'11	-0°26'58
minimum elong	10122 Apr 29 00:23	12°♉49'10	0°27'15

	10122 May 08	14:49	15°♉	
morning rise	10122 May 11	18:36	15°♉42'51	
	10122 Jul 23	15:28	0°♊	
retrograde	10122 Sep 13	23:20	4°♊01'03	
	10122 Nov 06	14:23	30°℞♉	
opposition	10122 Nov 13	10:55	29°♉07'09	-0°52'53
min. Earth dist.	10122 Nov 15	00:30	28°♉54'59	4.17545 AU
direct	10123 Jan 13	10:31	24°♉08'53	
	10123 Mar 17	23:55	0°♊	
evening set	10123 May 19	07:00	13°♊02'07	
max. Earth dist.	10123 May 30	07:59	15°♊38'00	6.08901 AU
conjunction	10123 Jun 01	03:51	16°♊03'54	-0°41'37
minimum elong	10123 Jun 01	03:51	16°♊03'54	0°42'01
morning rise	10123 Jun 14	01:16	19°♊06'20	
	10123 Aug 02	17:33	0°♋	
retrograde	10123 Oct 20	16:48	8°♋41'40	
opposition	10123 Dec 19	16:44	3°♋45'44	-1°06'04
min. Earth dist.	10123 Dec 20	13:07	3°♋39'01	4.01009 AU
	10124 Jan 21	08:10	30°℞♊	
direct	10124 Feb 17	04:25	28°♊49'42	
	10124 Mar 14	23:31	0°♋	
evening set	10124 Jun 22	17:32	18°♋33'45	
conjunction	10124 Jul 05	19:29	21°♋44'15	-0°42'05
minimum elong	10124 Jul 05	19:30	21°♋44'16	0°42'30
max. Earth dist.	10124 Jul 05	05:55	21°♋36'00	5.94845 AU
morning rise	10124 Jul 18	23:18	24°♋55'57	
	10124 Aug 09	08:02	0°♌	
	10124 Nov 08	18:25	15°♌	
retrograde	10124 Nov 27	10:11	15°♌34'13	
	10124 Dec 16	00:36	15°℞♌	
opposition	10125 Jan 25	22:15	10°♌35'11	-0°54'15
min. Earth dist.	10125 Jan 25	17:57	10°♌36'37	3.90956 AU
direct	10125 Mar 25	06:51	5°♌40'29	
	10125 Jun 12	18:33	15°♌	
evening set	10125 Jul 30	04:58	25°♌51'12	
conjunction	10125 Aug 12	14:02	29°♌07'28	-0°25'53
minimum elong	10125 Aug 12	14:03	29°♌07'29	0°26'09
max. Earth dist.	10125 Aug 13	15:57	29°♌23'21	5.89843 AU
	10125 Aug 16	03:47	0°♍	
morning rise	10125 Aug 26	01:19	2°♍25'00	
retrograde	10126 Jan 05	04:24	23°♍18'29	
min. Earth dist.	10126 Mar 04	08:33	18°♍25'20	3.91688 AU
opposition	10126 Mar 05	11:51	18°♍16'05	-0°19'33
direct	10126 May 02	09:26	13°♍20'51	
	10126 Aug 23	09:07	0°♎	
evening set	10126 Sep 06	10:23	3°♎19'31	
asc. node	10126 Sep 07	07:53	3°♎32'21	
conjunction	10126 Sep 20	00:32	6°♎35'12	0°00'54
minimum elong	10126 Sep 20	00:31	6°♎35'11	0°00'55
behind sun begin	10126 Sep 19	16:08	6°♎30'10	
behind sun end	10126 Sep 20	08:55	6°♎40'12	
max. Earth dist.	10126 Sep 22	06:22	7°♎07'31	5.96147 AU
morning rise	10126 Oct 03	16:45	9°♎51'40	
	10127 Feb 05	03:01	0°♏	
retrograde	10127 Feb 10	23:26	0°♏03'26	
	10127 Feb 16	19:43	30°℞♎	
min. Earth dist.	10127 Apr 09	21:01	25°♎12'35	4.02804 AU
opposition	10127 Apr 11	12:13	24°♎59'16	0°21'59
direct	10127 Jun 08	21:50	20°♎01'56	
	10127 Sep 01	08:27	0°♏	
evening set	10127 Oct 13	16:40	9°♏17'19	
conjunction	10127 Oct 27	07:38	12°♏26'24	0°26'25
minimum elong	10127 Oct 27	07:37	12°♏26'24	0°26'42
max. Earth dist.	10127 Oct 29	19:24	13°♏01'01	6.10909 AU
	10127 Nov 07	09:30	15°♏	
morning rise	10127 Nov 09	23:18	15°♏35'29	
	10128 Jan 20	18:01	0°♐	
retrograde	10128 Mar 16	02:31	4°♐34'06	
	10128 May 11	08:58	30°℞♏	
opposition	10128 May 14	23:52	29°♏30'48	0°52'46
min. Earth dist.	10128 May 13	13:00	29°♏42'32	4.19592 AU
direct	10128 Jul 13	13:48	24°♏31'21	
	10128 Sep 13	03:23	0°♐	
evening set	10128 Nov 16	20:12	12°♐53'30	
conjunction	10128 Nov 30	08:12	15°♐53'40	0°41'35
minimum elong	10128 Nov 30	08:11	15°♐53'39	0°42'01
max. Earth dist.	10128 Dec 02	05:35	16°♐18'57	6.28253 AU
morning rise	10128 Dec 13	19:32	18°♐53'12	
	10129 Feb 06	17:55	0°♑	
retrograde	10129 Apr 16	15:55	6°♑39'56	
min. Earth dist.	10129 Jun 15	03:32	1°♑46'39	4.36021 AU
opposition	10129 Jun 16	01:19	1°♑39'26	1°04'34
	10129 Jun 28	20:26	30°℞♐	
direct	10129 Aug 15	21:36	26°♐38'36	
	10129 Oct 03	04:25	0°♑	
evening set	10129 Dec 19	16:49	14°♑16'20	
conjunction	10130 Jan 02	00:02	17°♑08'45	0°43'25
minimum elong	10130 Jan 02	00:03	17°♑08'45	0°43'51
max. Earth dist.	10130 Jan 02	17:33	17°♑18'13	6.42545 AU
morning rise	10130 Jan 15	05:41	20°♑00'12	
	10130 Mar 06	13:11	0°♒	
retrograde	10130 May 16	18:20	6°♒56'16	
opposition	10130 Jul 16	11:56	1°♒59'06	0°57'41
min. Earth dist.	10130 Jul 16	10:11	1°♒59'41	4.47258 AU
	10130 Aug 01	05:10	30°℞♑	
direct	10130 Sep 16	11:38	26°♑57'40	
	10130 Nov 01	21:48	0°♒	
evening set	10131 Jan 19	19:10	14°♒09'34	
	10131 Jan 23	18:02	15°♒	
conjunction	10131 Feb 01	21:30	16°♒57'13	0°33'19
minimum elong	10131 Feb 01	21:31	16°♒57'14	0°33'40
max. Earth dist.	10131 Feb 01	09:02	16°♒50'33	6.49956 AU
morning rise	10131 Feb 14	21:53	19°♒43'52	
	10131 Apr 08	13:18	0°♓	
retrograde	10131 Jun 15	08:07	6°♓18'14	
opposition	10131 Aug 15	07:58	1°♓23'38	0°36'07
min. Earth dist.	10131 Aug 16	01:16	1°♓18'05	4.50514 AU
	10131 Aug 26	07:59	30°℞♒	
direct	10131 Oct 16	22:02	26°♒22'09	
	10131 Dec 07	05:22	0°♓	
evening set	10132 Feb 19	00:16	13°♓30'37	
max. Earth dist.	10132 Mar 01	09:59	15°♓57'23	6.48819 AU
conjunction	10132 Mar 02	22:40	16°♓17'07	0°14'40
minimum elong	10132 Mar 02	22:40	16°♓17'08	0°14'48
behind sun begin	10132 Mar 02	19:29	16°♓15'25	
behind sun end	10132 Mar 03	01:52	16°♓18'50	
morning rise	10132 Mar 15	18:53	19°♓02'45	
	10132 May 11	02:02	0°♈	
retrograde	10132 Jul 14	13:16	5°♈46'12	
opposition	10132 Sep 13	14:48	0°♈53'01	0°05'12
min. Earth dist.	10132 Sep 14	23:27	0°♈42'35	4.45080 AU
	10132 Sep 20	13:38	30°℞♓	
desc. node	10132 Nov 12	13:23	25°♓52'40	
direct	10132 Nov 15	04:59	25°♓52'01	
	10133 Jan 08	20:19	0°♈	

evening set	10133 Mar 20	08:12	13°♈20'00		
max. Earth dist.	10133 Mar 30	22:00	15°♈39'18	6.39395 AU	
conjunction	10133 Apr 02	03:45	16°♈08'55	-0°08'16	
minimum elong	10133 Apr 02	03:44	16°♈08'54	0°08'21	
behind sun begin	10133 Apr 01	20:42	16°♈05'03		
behind sun end	10133 Apr 02	10:46	16°♈12'45		
morning rise	10133 Apr 14	21:57	18°♈57'22		
	10133 Jun 08	23:34	0°♉		
retrograde	10133 Aug 15	12:51	6°♉20'22		
opposition	10133 Oct 15	09:03	1°♉27'16	-0°28'29	
min. Earth dist.	10133 Oct 17	01:32	1°♉14'17	4.32174 AU	
	10133 Oct 26	20:57	30°℞♈		
direct	10133 Dec 16	08:40	26°♈27'22		
	10134 Feb 03	20:17	0°♉		
evening set	10134 Apr 20	18:17	14°♉35'18		
	10134 Apr 22	13:55	15°♉		
max. Earth dist.	10134 May 01	06:05	16°♉58'28	6.23922 AU	
conjunction	10134 May 03	13:21	17°♉30'01	-0°29'37	
minimum elong	10134 May 03	13:19	17°♉30'00	0°29'56	
morning rise	10134 May 16	07:46	20°♉24'46		
	10134 Jun 30	03:10	0°♊		
retrograde	10134 Sep 18	22:24	8°♊53'11		
opposition	10134 Nov 18	09:41	3°♊59'01	-0°55'56	
min. Earth dist.	10134 Nov 19	20:39	3°♊47'41	4.15150 AU	
	10134 Dec 24	04:31	30°℞♉		
direct	10135 Jan 18	03:32	29°♉01'04		
	10135 Feb 12	02:39	0°♊		
evening set	10135 May 24	03:21	18°♊01'30		
max. Earth dist.	10135 Jun 04	08:36	20°♊40'40	6.06745 AU	
conjunction	10135 Jun 06	00:37	21°♊04'25	-0°42'38	
minimum elong	10135 Jun 06	00:36	21°♊04'25	0°43'04	
morning rise	10135 Jun 18	22:43	24°♊08'06		
	10135 Jul 14	09:57	0°♋		
retrograde	10135 Oct 26	01:09	13°♋53'02		
opposition	10135 Dec 24	23:06	8°♋56'40	-1°05'58	
min. Earth dist.	10135 Dec 25	16:49	8°♋50'49	3.99280 AU	
direct	10136 Feb 22	07:55	4°♋00'50		
evening set	10136 Jun 27	20:51	23°♋49'40		
conjunction	10136 Jul 10	23:51	27°♋01'09	-0°40'45	
minimum elong	10136 Jul 10	23:51	27°♋01'09	0°41'09	
max. Earth dist.	10136 Jul 10	16:17	26°♋56'33	5.93713 AU	
	10136 Jul 23	05:45	0°♌		
morning rise	10136 Jul 24	04:35	0°♌13'50		
	10136 Sep 30	14:54	15°♌		
retrograde	10136 Dec 02	21:10	20°♌56'38		
opposition	10137 Jan 31	07:44	15°♌57'08	-0°50'28	
min. Earth dist.	10137 Jan 31	00:05	15°♌59'41	3.90566 AU	
	10137 Feb 07	11:12	15°℞♌		
direct	10137 Mar 30	13:16	11°♌02'29		
	10137 May 19	03:26	15°♌		
	10137 Jul 30	11:39	0°♍		
evening set	10137 Aug 04	12:20	1°♍13'08		
conjunction	10137 Aug 17	22:06	4°♍29'37	-0°22'31	
minimum elong	10137 Aug 17	22:07	4°♍29'38	0°22'45	
max. Earth dist.	10137 Aug 19	03:17	4°♍47'28	5.90208 AU	
morning rise	10137 Aug 31	10:27	7°♍47'23		
retrograde	10138 Jan 10	09:07	28°♍37'37		
min. Earth dist.	10138 Mar 09	11:41	23°♍45'08	3.92772 AU	
opposition	10138 Mar 10	17:59	23°♍34'51	-0°13'42	
direct	10138 May 07	15:49	18°♍39'22		
asc. node	10138 Jul 17	14:05	26°♍13'08		
	10138 Aug 05	06:25	0°♎		
evening set	10138 Sep 11	16:29	8°♎33'16		
conjunction	10138 Sep 25	07:04	11°♎48'19	0°04'50	
minimum elong	10138 Sep 25	07:03	11°♎48'19	0°04'53	
behind sun begin	10138 Sep 24	22:53	11°♎43'27		
behind sun end	10138 Sep 25	15:12	11°♎53'10		
max. Earth dist.	10138 Sep 27	14:47	12°♎21'39	5.97839 AU	
morning rise	10138 Oct 08	23:23	15°♎04'01		
	10138 Dec 19	13:48	0°♏		
retrograde	10139 Feb 15	21:56	5°♏06'49		
min. Earth dist.	10139 Apr 14	20:21	0°♏15'39	4.04890 AU	
opposition	10139 Apr 16	10:40	0°♏02'38	0°27'13	
	10139 Apr 16	18:26	30°℞♎		
direct	10139 Jun 14	00:26	25°♎05'00		
	10139 Aug 09	20:14	0°♏		
evening set	10139 Oct 18	16:59	14°♏13'25		
	10139 Oct 22	02:10	15°♏		
conjunction	10139 Nov 01	07:48	17°♏21'23	0°29'16	
minimum elong	10139 Nov 01	07:47	17°♏21'22	0°29'34	
max. Earth dist.	10139 Nov 03	19:22	17°♏55'41	6.13195 AU	
morning rise	10139 Nov 14	23:03	20°♏29'14		
	10139 Dec 29	04:48	0°♐		
retrograde	10140 Mar 20	14:16	9°♐17'42		
min. Earth dist.	10140 May 18	03:39	4°♐26'15	4.21869 AU	
opposition	10140 May 19	13:53	4°♐14'45	0°55'35	
	10140 Jun 26	20:03	30°℞♏		
direct	10140 Jul 18	06:43	29°♏15'07		
	10140 Aug 09	00:05	0°♐		
evening set	10140 Nov 21	13:08	17°♐30'57		
conjunction	10140 Dec 05	00:28	20°♐29'59	0°42'37	
minimum elong	10140 Dec 05	00:28	20°♐29'59	0°43'03	
max. Earth dist.	10140 Dec 06	17:19	20°♐52'39	6.30341 AU	
morning rise	10140 Dec 18	11:10	23°♐28'23		
	10141 Jan 18	05:20	0°♑		
retrograde	10141 Apr 20	23:57	11°♑07'22		
opposition	10141 Jun 20	09:29	6°♑07'23	1°04'38	
min. Earth dist.	10141 Jun 19	15:06	6°♑13'27	4.37770 AU	
direct	10141 Aug 20	10:35	1°♑06'29		
evening set	10141 Dec 24	03:31	18°♑40'09		
conjunction	10142 Jan 06	10:09	21°♑31'50	0°42'38	
minimum elong	10142 Jan 06	10:10	21°♑31'50	0°43'03	
max. Earth dist.	10142 Jan 07	00:18	21°♑39'28	6.43841 AU	
morning rise	10142 Jan 19	15:02	24°♑22'31		
	10142 Feb 15	16:04	0°♒		
retrograde	10142 May 20	21:42	11°♒14'30		
opposition	10142 Jul 20	16:58	6°♒17'47	0°55'23	
min. Earth dist.	10142 Jul 20	16:57	6°♒17'48	4.48062 AU	
direct	10142 Sep 20	18:10	1°♒16'26		
	10143 Jan 07	13:50	15°♒		
evening set	10143 Jan 24	02:17	18°♒27'05		
conjunction	10143 Feb 06	04:03	21°♒14'25	0°31'06	
minimum elong	10143 Feb 06	04:04	21°♒14'25	0°31'24	
max. Earth dist.	10143 Feb 05	12:48	21°♒06'16	6.50247 AU	
morning rise	10143 Feb 19	03:43	24°♒00'44		
	10143 Mar 20	07:06	0°♓		
retrograde	10143 Jun 19	13:33	10°♓34'45		
opposition	10143 Aug 19	13:32	5°♓40'33	0°32'10	
min. Earth dist.	10143 Aug 20	09:07	5°♓34'16	4.50305 AU	
direct	10143 Oct 21	04:43	0°♓39'15		
evening set	10144 Feb 23	06:23	17°♓48'54		
max. Earth dist.	10144 Mar 05	12:02	20°♓13'49	6.48143 AU	
conjunction	10144 Mar 07	04:10	20°♓35'28	0°11'35	

minimum elong	10144 Mar 07	04:10	20°♓35'28	0°11'41	
behind sun begin	10144 Mar 06	22:30	20°♓32'25		
behind sun end	10144 Mar 07	09:49	20°♓38'30		
morning rise	10144 Mar 20	00:06	23°♓21'13		
	10144 Apr 21	04:52	0°♈		
retrograde	10144 Jul 18	22:49	10°♈07'50		
opposition	10144 Sep 17	23:39	5°♈14'45	0°00'28	
min. Earth dist.	10144 Sep 19	09:30	5°♈03'55	4.43992 AU	
desc. node	10144 Sep 23	07:03	4°♈34'08		
direct	10144 Nov 19	12:53	0°♈13'55		
evening set	10145 Mar 24	15:42	17°♈45'07		
max. Earth dist.	10145 Apr 04	05:59	20°♈05'06	6.37987 AU	
conjunction	10145 Apr 06	11:07	20°♈34'29	-0°11'27	
minimum elong	10145 Apr 06	11:06	20°♈34'28	0°11'35	
behind sun begin	10145 Apr 06	05:22	20°♈31'19		
behind sun end	10145 Apr 06	16:50	20°♈37'38		
morning rise	10145 Apr 19	04:57	23°♈23'23		
	10145 May 20	07:52	0°♉		
retrograde	10145 Aug 20	02:20	10°♉52'24		
opposition	10145 Oct 19	22:54	5°♉59'14	-0°32'50	
min. Earth dist.	10145 Oct 21	14:37	5°♉46'30	4.30539 AU	
direct	10145 Dec 20	19:06	0°♉59'39		
	10146 Apr 06	08:56	15°♉		
evening set	10146 Apr 25	05:47	19°♉12'13		
max. Earth dist.	10146 May 05	18:19	21°♉36'26	6.22178 AU	
conjunction	10146 May 08	00:41	22°♉07'37	-0°32'02	
minimum elong	10146 May 08	00:40	22°♉07'36	0°32'21	
morning rise	10146 May 20	19:22	25°♉03'11		
	10146 Jun 11	22:34	0°♊		
retrograde	10146 Sep 23	19:59	13°♊39'33		
opposition	10146 Nov 23	05:56	8°♊45'07	-0°58'28	
min. Earth dist.	10146 Nov 24	15:43	8°♊34'08	4.13410 AU	
direct	10147 Jan 22	21:01	3°♊47'24		
evening set	10147 May 28	19:55	22°♊52'44		
max. Earth dist.	10147 Jun 09	05:21	25°♊34'55	6.05168 AU	
conjunction	10147 Jun 10	17:47	25°♊56'36	-0°43'18	
minimum elong	10147 Jun 10	17:47	25°♊56'36	0°43'45	
morning rise	10147 Jun 23	16:25	29°♊01'14		
	10147 Jun 27	19:59	0°♋		
retrograde	10147 Oct 31	04:13	18°♋53'39		
opposition	10147 Dec 30	00:40	13°♋56'56	-1°05'21	
min. Earth dist.	10147 Dec 30	15:46	13°♋51'57	3.98027 AU	
direct	10148 Feb 27	05:22	9°♋01'20		
evening set	10148 Jul 02	19:10	28°♋53'26		
	10148 Jul 07	08:46	0°♌		
conjunction	10148 Jul 15	22:48	2°♌05'39	-0°39'09	
minimum elong	10148 Jul 15	22:49	2°♌05'40	0°39'32	
max. Earth dist.	10148 Jul 15	17:55	2°♌02'41	5.92893 AU	
morning rise	10148 Jul 29	04:39	5°♌19'11		
	10148 Sep 09	04:48	15°♌		
retrograde	10148 Dec 07	23:55	26°♌05'31		
opposition	10149 Feb 05	11:01	21°♌05'32	-0°46'29	
min. Earth dist.	10149 Feb 05	00:04	21°♌09'13	3.90282 AU	
direct	10149 Apr 04	14:02	16°♌10'49		
	10149 Jul 13	17:40	0°♍		
evening set	10149 Aug 09	14:05	6°♍21'31		
conjunction	10149 Aug 23	00:48	9°♍38'17	-0°19'10	
minimum elong	10149 Aug 23	00:49	9°♍38'17	0°19'21	
max. Earth dist.	10149 Aug 24	10:15	9°♍58'42	5.90503 AU	
morning rise	10149 Sep 05	13:49	12°♍56'14		
	10149 Nov 27	10:50	0°♎		
retrograde	10150 Jan 15	10:49	3°♎43'51		
	10150 Mar 05	22:35	30°℞♍		
min. Earth dist.	10150 Mar 14	11:42	28°♍51'15	3.93603 AU	
opposition	10150 Mar 15	18:28	28°♍40'47	-0°08'03	
direct	10150 May 12	17:55	23°♍45'02		
asc. node	10150 May 29	23:17	24°♍15'40		
	10150 Jul 15	13:00	0°♎		
evening set	10150 Sep 16	17:45	13°♎35'35		
conjunction	10150 Sep 30	08:45	16°♎50'12	0°08'29	
minimum elong	10150 Sep 30	08:45	16°♎50'11	0°08'35	
behind sun begin	10150 Sep 30	01:28	16°♎45'53		
behind sun end	10150 Sep 30	16:01	16°♎54'30		
max. Earth dist.	10150 Oct 02	18:32	17°♎24'37	5.99117 AU	
morning rise	10150 Oct 14	01:21	20°♎05'23		
	10150 Nov 27	12:33	0°♏		
retrograde	10151 Feb 20	15:21	10°♏01'01		
min. Earth dist.	10151 Apr 19	14:02	5°♏10'09	4.06488 AU	
opposition	10151 Apr 21	05:08	4°♏56'53	0°31'59	
	10151 Jun 15	15:41	30°℞♎		
direct	10151 Jun 18	20:10	29°♎58'58		
	10151 Jun 22	00:54	0°♏		
	10151 Oct 05	15:25	15°♏		
evening set	10151 Oct 23	14:11	19°♏02'22		
conjunction	10151 Nov 06	04:41	22°♏09'25	0°31'48	
minimum elong	10151 Nov 06	04:39	22°♏09'24	0°32'07	
max. Earth dist.	10151 Nov 08	13:32	22°♏42'01	6.14963 AU	
morning rise	10151 Nov 19	19:41	25°♏16'19		
	10151 Dec 11	01:22	0°♐		
retrograde	10152 Mar 25	01:48	13°♐56'42		
min. Earth dist.	10152 May 22	17:59	9°♐04'48	4.23649 AU	
opposition	10152 May 24	02:07	8°♐54'01	0°57'57	
direct	10152 Jul 22	23:32	3°♐54'07		
evening set	10152 Nov 26	04:34	22°♐05'07		
conjunction	10152 Dec 09	15:33	25°♐03'17	0°43'20	
minimum elong	10152 Dec 09	15:32	25°♐03'17	0°43'46	
max. Earth dist.	10152 Dec 11	07:06	25°♐25'08	6.32010 AU	
morning rise	10152 Dec 23	01:25	28°♐00'40		
	10153 Jan 01	04:55	0°♑		
retrograde	10153 Apr 25	05:07	15°♑33'01		
opposition	10153 Jun 24	16:45	10°♑33'26	1°04'17	
min. Earth dist.	10153 Jun 23	23:25	10°♑39'08	4.39214 AU	
direct	10153 Aug 24	20:44	5°♑32'25		
evening set	10153 Dec 28	13:44	23°♑02'35		
conjunction	10154 Jan 10	19:36	25°♑53'32	0°41'34	
minimum elong	10154 Jan 10	19:36	25°♑53'33	0°42'00	
max. Earth dist.	10154 Jan 11	05:20	25°♑58'47	6.44957 AU	
morning rise	10154 Jan 23	23:50	28°♑43'31		
	10154 Jan 29	23:34	0°♒		
	10154 May 06	15:57	15°♒		
retrograde	10154 May 25	02:38	15°♒31'40		
	10154 Jun 12	09:59	15°℞♒		
opposition	10154 Jul 24	22:06	10°♒35'16	0°52'46	
min. Earth dist.	10154 Jul 25	01:14	10°♒34'15	4.48771 AU	
direct	10154 Sep 25	03:03	5°♒33'49		
	10154 Dec 21	03:04	15°♒		
evening set	10155 Jan 28	08:38	22°♒42'56		
conjunction	10155 Feb 10	09:49	25°♒29'56	0°28'41	
minimum elong	10155 Feb 10	09:50	25°♒29'57	0°28'58	
max. Earth dist.	10155 Feb 09	15:22	25°♒20'05	6.50472 AU	
morning rise	10155 Feb 23	08:53	28°♒15'56		
	10155 Mar 03	14:04	0°♓		
retrograde	10155 Jun 23	17:20	14°♓49'37		
opposition	10155 Aug 23	18:45	9°♓55'30	0°28'01	

min. Earth dist.	10155 Aug 24	15:45	9°♓48'46	4.50017 AU
direct	10155 Oct 25	10:02	4°♓54'11	
evening set	10156 Feb 27	11:45	22°♓04'59	
max. Earth dist.	10156 Mar 09	15:55	24°♓29'22	6.47331 AU
conjunction	10156 Mar 11	09:08	24°♓51'39	0°08'25
minimum elong	10156 Mar 11	09:08	24°♓51'39	0°08'31
behind sun begin	10156 Mar 11	02:09	24°♓47'54	
behind sun end	10156 Mar 11	16:06	24°♓55'24	
morning rise	10156 Mar 24	04:30	27°♓37'31	
	10156 Apr 04	08:09	0°♈	
retrograde	10156 Jul 23	07:11	14°♈27'39	
desc. node	10156 Aug 03	17:14	14°♈15'29	
opposition	10156 Sep 22	08:02	9°♈34'37	-0°04'19
min. Earth dist.	10156 Sep 23	19:35	9°♈23'16	4.42669 AU
direct	10156 Nov 23	20:38	4°♈33'55	
evening set	10157 Mar 28	23:12	22°♈09'10	
max. Earth dist.	10157 Apr 08	10:39	24°♈28'14	6.36216 AU
conjunction	10157 Apr 10	18:14	24°♈59'05	-0°14'37
minimum elong	10157 Apr 10	18:13	24°♈59'05	0°14'47
behind sun begin	10157 Apr 10	14:54	24°♈57'14	
behind sun end	10157 Apr 10	21:33	25°♈00'55	
morning rise	10157 Apr 23	12:09	27°♈48'40	
	10157 May 03	11:43	0°♉	
	10157 Aug 08	07:55	15°♉	
retrograde	10157 Aug 24	18:15	15°♉25'14	
	10157 Sep 10	03:58	15°℞♉	
opposition	10157 Oct 24	13:38	10°♉31'55	-0°37'06
min. Earth dist.	10157 Oct 26	05:28	10°♉19'07	4.28406 AU
direct	10157 Dec 25	06:51	5°♉32'30	
	10158 Mar 19	15:13	15°♉	
evening set	10158 Apr 29	18:15	23°♉51'37	
max. Earth dist.	10158 May 10	09:05	26°♉17'51	6.19850 AU
conjunction	10158 May 12	13:30	26°♉48'04	-0°34'18
minimum elong	10158 May 12	13:29	26°♉48'03	0°34'39
morning rise	10158 May 25	08:22	29°♉44'43	
	10158 May 26	11:03	0°♊	
retrograde	10158 Sep 28	20:18	18°♊31'25	
opposition	10158 Nov 28	04:47	13°♊36'47	-1°00'45
min. Earth dist.	10158 Nov 29	13:01	13°♊26'18	4.11068 AU
direct	10159 Jan 27	15:04	8°♊39'25	
evening set	10159 Jun 02	16:17	27°♊52'08	
	10159 Jun 11	14:56	0°♋	
max. Earth dist.	10159 Jun 14	04:19	0°♋36'42	6.03015 AU
conjunction	10159 Jun 15	14:39	0°♋57'13	-0°43'42
minimum elong	10159 Jun 15	14:39	0°♋57'13	0°44'09
morning rise	10159 Jun 28	14:16	4°♋03'14	
retrograde	10159 Nov 05	11:40	24°♋05'33	
opposition	10160 Jan 04	06:49	19°♋08'26	-1°04'14
min. Earth dist.	10160 Jan 04	18:20	19°♋04'37	3.96277 AU
direct	10160 Mar 03	07:06	14°♋13'01	
	10160 Jun 20	12:28	0°♌	
evening set	10160 Jul 07	23:08	4°♌10'30	
conjunction	10160 Jul 21	03:57	7°♌23'48	-0°37'10
minimum elong	10160 Jul 21	03:58	7°♌23'48	0°37'33
max. Earth dist.	10160 Jul 21	05:27	7°♌24'43	5.91744 AU
morning rise	10160 Aug 03	10:45	10°♌38'22	
	10160 Aug 21	16:17	15°♌	
	10160 Nov 13	02:42	0°♍	
retrograde	10160 Dec 13	11:34	1°♍29'17	
	10161 Jan 12	17:54	30°℞♌	
opposition	10161 Feb 10	20:27	26°♌28'54	-0°41'54
min. Earth dist.	10161 Feb 10	07:10	26°♌33'22	3.89874 AU
direct	10161 Apr 09	22:04	21°♌34'12	
	10161 Jun 23	21:23	0°♍	
evening set	10161 Aug 14	22:26	11°♍45'16	
conjunction	10161 Aug 28	10:01	15°♍02'17	-0°15'27
minimum elong	10161 Aug 28	10:02	15°♍02'18	0°15'36
behind sun begin	10161 Aug 28	08:11	15°♍01'10	
behind sun end	10161 Aug 28	11:53	15°♍03'25	
max. Earth dist.	10161 Aug 30	00:05	15°♍25'29	5.90875 AU
morning rise	10161 Sep 10	23:57	18°♍20'28	
	10161 Nov 01	19:03	0°♎	
retrograde	10162 Jan 20	16:43	9°♎04'31	
min. Earth dist.	10162 Mar 19	14:50	4°♎12'41	3.94735 AU
opposition	10162 Mar 21	00:33	4°♎01'13	-0°02'03
asc. node	10162 Apr 09	00:01	1°♎33'46	
	10162 Apr 24	21:21	30°℞♍	
direct	10162 May 17	23:38	29°♍05'17	
	10162 Jun 10	05:00	0°♎	
evening set	10162 Sep 22	00:52	18°♎51'12	
conjunction	10162 Oct 05	15:59	22°♎05'04	0°12'16
minimum elong	10162 Oct 05	15:58	22°♎05'04	0°12'25
behind sun begin	10162 Oct 05	10:34	22°♎01'52	
behind sun end	10162 Oct 05	21:22	22°♎08'15	
max. Earth dist.	10162 Oct 08	02:12	22°♎39'37	6.00892 AU
morning rise	10162 Oct 19	08:46	25°♎19'26	
	10162 Nov 08	15:15	0°♏	
	10163 Feb 18	00:25	15°♏	
retrograde	10163 Feb 25	11:57	15°♏05'39	
	10163 Mar 04	23:41	15°℞♏	
min. Earth dist.	10163 Apr 24	12:39	10°♏14'44	4.08713 AU
opposition	10163 Apr 26	03:30	10°♏01'33	0°36'45
direct	10163 Jun 23	22:43	5°♏03'21	
	10163 Sep 17	01:02	15°♏	
evening set	10163 Oct 28	14:42	23°♏59'21	
conjunction	10163 Nov 11	05:00	27°♏05'10	0°34'13
minimum elong	10163 Nov 11	04:59	27°♏05'09	0°34'35
max. Earth dist.	10163 Nov 13	14:10	27°♏37'46	6.17465 AU
morning rise	10163 Nov 24	19:15	0°♐10'39	
	10163 Nov 24	00:24	0°♐	
retrograde	10164 Mar 29	13:46	18°♐40'09	
min. Earth dist.	10164 May 27	08:36	13°♐48'18	4.26197 AU
opposition	10164 May 28	15:50	13°♐37'52	1°00'01
direct	10164 Jul 27	17:47	8°♐37'48	
evening set	10164 Nov 30	20:39	26°♐41'23	
conjunction	10164 Dec 14	06:45	29°♐38'14	0°43'50
minimum elong	10164 Dec 14	06:44	29°♐38'14	0°44'17
	10164 Dec 15	22:20	0°♑	
max. Earth dist.	10164 Dec 15	17:38	29°♐57'25	6.34394 AU
morning rise	10164 Dec 27	15:58	2°♑34'19	
retrograde	10165 Apr 29	10:44	19°♑58'00	
opposition	10165 Jun 28	23:45	14°♑58'49	1°03'36
min. Earth dist.	10165 Jun 28	09:32	15°♑03'29	4.41263 AU
direct	10165 Aug 29	08:47	9°♑57'38	
evening set	10166 Jan 01	22:15	27°♑22'30	
	10166 Jan 14	04:07	0°♒	
conjunction	10166 Jan 15	03:32	0°♒12'34	0°40'21
minimum elong	10166 Jan 15	03:32	0°♒12'35	0°40'45
max. Earth dist.	10166 Jan 15	10:29	0°♒16'19	6.46523 AU
morning rise	10166 Jan 28	06:47	3°♒01'36	
	10166 Apr 01	07:28	15°♒	
retrograde	10166 May 29	03:05	19°♒44'53	
	10166 Jul 27	14:36	15°℞♒	
opposition	10166 Jul 29	01:09	14°♒48'51	0°49'58

min. Earth dist.	10166 Jul 29	06:13	14°♒47'12	4.49763 AU	
direct	10166 Sep 29	08:07	9°♒47'21		
	10166 Nov 30	16:20	15°♒		
evening set	10167 Feb 01	12:49	26°♒54'22		
conjunction	10167 Feb 14	13:17	29°♒40'58	0°26'12	
minimum elong	10167 Feb 14	13:17	29°♒40'58	0°26'28	
max. Earth dist.	10167 Feb 13	14:23	29°♒28'43	6.50810 AU	
	10167 Feb 16	00:53	0°♓		
morning rise	10167 Feb 27	11:45	2°♓26'37		
retrograde	10167 Jun 27	20:43	18°♓59'57		
opposition	10167 Aug 27	21:58	14°♓06'04	0°23'51	
min. Earth dist.	10167 Aug 28	22:34	13°♓58'12	4.49668 AU	
direct	10167 Oct 29	15:28	9°♓04'42		
evening set	10168 Mar 02	14:54	26°♓17'03		
max. Earth dist.	10168 Mar 13	14:30	28°♓39'21	6.46294 AU	
conjunction	10168 Mar 15	11:52	29°♓03'56	0°05'18	
minimum elong	10168 Mar 15	11:52	29°♓03'56	0°05'21	
behind sun begin	10168 Mar 15	04:09	28°♓59'47		
behind sun end	10168 Mar 15	19:34	29°♓08'05		
	10168 Mar 19	19:21	0°♈		
morning rise	10168 Mar 28	06:59	1°♈50'05		
desc. node	10168 Jun 14	17:45	16°♈02'30		
retrograde	10168 Jul 27	14:05	18°♈44'49		
opposition	10168 Sep 26	15:11	13°♈51'43	-0°09'00	
min. Earth dist.	10168 Sep 28	03:47	13°♈40'01	4.40994 AU	
direct	10168 Nov 28	01:33	8°♈51'03		
evening set	10169 Apr 02	05:27	26°♈31'37		
max. Earth dist.	10169 Apr 12	16:53	28°♈51'19	6.34013 AU	
conjunction	10169 Apr 15	00:29	29°♈22'20	-0°17'41	
minimum elong	10169 Apr 15	00:29	29°♈22'20	0°17'52	
	10169 Apr 17	19:57	0°♉		
morning rise	10169 Apr 27	18:15	2°♉12'46		
	10169 Jul 01	11:50	15°♉		
retrograde	10169 Aug 29	10:32	19°♉58'30		
opposition	10169 Oct 29	04:21	15°♉05'05	-0°41'10	
	10169 Oct 29	20:09	15°℞♉		
min. Earth dist.	10169 Oct 30	20:47	14°♉52'05	4.25803 AU	
direct	10169 Dec 29	18:06	10°♉05'52		
	10170 Feb 26	03:11	15°♉		
evening set	10170 May 04	07:37	28°♉33'16		
	10170 May 10	14:01	0°♊		
max. Earth dist.	10170 May 14	22:21	1°♊00'26	6.17047 AU	
conjunction	10170 May 17	03:03	1°♊30'59	-0°36'22	
minimum elong	10170 May 17	03:02	1°♊30'59	0°36'46	
morning rise	10170 May 29	22:36	4°♊29'04		
retrograde	10170 Oct 03	22:55	23°♊28'00		
opposition	10170 Dec 03	05:17	18°♊33'02	-1°02'40	
min. Earth dist.	10170 Dec 04	10:56	18°♊23'21	4.08287 AU	
direct	10171 Feb 01	10:06	13°♊35'53		
	10171 May 26	01:43	0°♋		
evening set	10171 Jun 07	14:52	2°♋57'39		
max. Earth dist.	10171 Jun 19	09:21	5°♋46'54	6.00529 AU	
conjunction	10171 Jun 20	14:14	6°♋04'16	-0°43'48	
minimum elong	10171 Jun 20	14:14	6°♋04'16	0°44'15	
morning rise	10171 Jul 03	14:42	9°♋11'49		
retrograde	10171 Nov 11	00:22	29°♋25'11		
opposition	10172 Jan 09	16:15	24°♋27'39	-1°02'37	
min. Earth dist.	10172 Jan 10	00:57	24°♋24'46	3.94358 AU	
direct	10172 Mar 08	12:03	19°♋32'28		
	10172 Jun 01	18:30	0°♌		
evening set	10172 Jul 13	06:36	9°♌35'39		
conjunction	10172 Jul 26	12:26	12°♌50'01	-0°34'51	
minimum elong	10172 Jul 26	12:27	12°♌50'02	0°35'12	
max. Earth dist.	10172 Jul 26	19:07	12°♌54'07	5.90588 AU	
	10172 Aug 04	08:46	15°♌		
morning rise	10172 Aug 08	20:33	16°♌05'43		
	10172 Oct 10	22:37	0°♍		
retrograde	10172 Dec 19	00:15	7°♍00'29		
opposition	10173 Feb 16	08:34	1°♍59'35	-0°36'53	
min. Earth dist.	10173 Feb 15	14:34	2°♍05'40	3.89656 AU	
	10173 Mar 03	14:03	30°℞♌		
direct	10173 Apr 15	07:21	27°♌04'50		
	10173 May 27	11:03	0°♍		
evening set	10173 Aug 20	09:57	17°♍15'14		
conjunction	10173 Sep 02	22:14	20°♍32'14	-0°11'34	
minimum elong	10173 Sep 02	22:15	20°♍32'15	0°11'41	
behind sun begin	10173 Sep 02	16:22	20°♍28'41		
behind sun end	10173 Sep 03	04:08	20°♍35'49		
max. Earth dist.	10173 Sep 04	16:23	20°♍57'53	5.91603 AU	
morning rise	10173 Sep 16	12:56	23°♍50'21		
	10173 Oct 12	18:03	0°♎		
retrograde	10174 Jan 25	22:45	14°♎28'45		
asc. node	10174 Feb 16	13:47	13°♎41'55		
min. Earth dist.	10174 Mar 24	20:32	9°♎37'08	3.96298 AU	
opposition	10174 Mar 26	07:57	9°♎25'04	0°04'02	
direct	10174 May 23	09:21	4°♎28'46		
evening set	10174 Sep 27	08:56	24°♎08'10		
conjunction	10174 Oct 11	00:19	27°♎21'03	0°15'59	
minimum elong	10174 Oct 11	00:19	27°♎21'03	0°16'09	
max. Earth dist.	10174 Oct 13	13:29	27°♎57'08	6.03118 AU	
	10174 Oct 22	06:20	0°♏		
morning rise	10174 Oct 24	16:51	0°♏34'14		
	10175 Jan 02	14:56	15°♏		
retrograde	10175 Mar 02	09:14	20°♏09'07		
min. Earth dist.	10175 Apr 29	11:07	15°♏18'11	4.11323 AU	
opposition	10175 May 01	01:44	15°♏05'08	0°41'12	
	10175 May 01	16:54	15°℞♏		
direct	10175 Jun 29	01:08	10°♏06'38		
	10175 Aug 25	06:07	15°♏		
evening set	10175 Nov 02	14:44	28°♏53'58		
	10175 Nov 07	11:36	0°♐		
conjunction	10175 Nov 16	04:22	1°♐58'20	0°36'24	
minimum elong	10175 Nov 16	04:21	1°♐58'19	0°36'47	
max. Earth dist.	10175 Nov 18	10:33	2°♐29'02	6.20192 AU	
morning rise	10175 Nov 29	18:07	5°♐02'21		
retrograde	10176 Apr 03	00:22	23°♐20'38		
min. Earth dist.	10176 May 31	23:34	18°♐28'28	4.28801 AU	
opposition	10176 Jun 02	04:49	18°♐18'42	1°01'40	
direct	10176 Aug 01	11:30	13°♐18'25		
	10176 Nov 29	17:51	0°♑		
evening set	10176 Dec 05	11:52	1°♑14'46		
conjunction	10176 Dec 18	21:23	4°♑10'25	0°44'05	
minimum elong	10176 Dec 18	21:23	4°♑10'25	0°44'32	
max. Earth dist.	10176 Dec 20	05:16	4°♑27'53	6.36687 AU	
morning rise	10177 Jan 01	05:33	7°♑05'12		
retrograde	10177 May 03	15:48	24°♑20'54		
opposition	10177 Jul 03	06:17	19°♑22'16	1°02'35	
min. Earth dist.	10177 Jul 02	18:41	19°♑26'04	4.43090 AU	
direct	10177 Sep 02	19:10	14°♑21'04		
	10177 Dec 29	06:44	0°♒		
evening set	10178 Jan 06	06:57	1°♒41'39		
conjunction	10178 Jan 19	11:21	4°♒30'57	0°38'53	
minimum elong	10178 Jan 19	11:21	4°♒30'58	0°39'17	

max. Earth dist.	10178 Jan 19 12:20	4°♒31'29	6.47755 AU
morning rise	10178 Feb 01 14:01	7°♒19'17	
	10178 Mar 11 11:37	15°♒	
retrograde	10178 Jun 02 07:15	23°♒59'06	
opposition	10178 Aug 02 05:19	19°♒03'28	0°46'53
min. Earth dist.	10178 Aug 02 14:13	19°♒00'36	4.50344 AU
	10178 Sep 08 03:08	15°℞♒	
direct	10178 Oct 03 15:14	14°♒01'57	
	10178 Oct 29 07:51	15°♒	
	10179 Jan 31 08:43	0°♓	
evening set	10179 Feb 05 17:55	1°♓08'15	
conjunction	10179 Feb 18 17:58	3°♓54'42	0°23'32
minimum elong	10179 Feb 18 17:58	3°♓54'43	0°23'47
max. Earth dist.	10179 Feb 17 16:03	3°♓40'51	6.50700 AU
morning rise	10179 Mar 03 15:46	6°♓40'11	
retrograde	10179 Jul 02 00:42	23°♓14'50	
opposition	10179 Sep 01 03:20	18°♓21'10	0°19'27
min. Earth dist.	10179 Sep 02 05:23	18°♓12'50	4.48886 AU
direct	10179 Nov 02 19:46	13°♓19'55	
	10180 Mar 04 03:04	0°♈	
evening set	10180 Mar 06 20:39	0°♈35'14	
max. Earth dist.	10180 Mar 17 17:39	2°♈56'38	6.44886 AU
conjunction	10180 Mar 19 17:11	3°♈22'28	0°02'03
minimum elong	10180 Mar 19 17:11	3°♈22'29	0°02'03
behind sun begin	10180 Mar 19 09:12	3°♈18'10	
behind sun end	10180 Mar 20 01:10	3°♈26'48	
morning rise	10180 Apr 01 12:00	6°♈09'04	
desc. node	10180 Apr 23 11:22	10°♈48'10	
retrograde	10180 Aug 01 02:10	23°♈09'42	
opposition	10180 Oct 01 01:44	18°♈16'43	-0°13'47
min. Earth dist.	10180 Oct 02 16:34	18°♈04'18	4.39028 AU
direct	10180 Dec 02 10:56	13°♈16'13	
	10181 Apr 01 21:21	0°♉	
evening set	10181 Apr 06 15:18	1°♉03'05	
max. Earth dist.	10181 Apr 17 00:44	3°♉22'28	6.31625 AU
conjunction	10181 Apr 19 10:14	3°♉54'43	-0°20'44
minimum elong	10181 Apr 19 10:13	3°♉54'42	0°20'57
morning rise	10181 May 02 04:13	6°♉46'09	
	10181 Jun 09 20:42	15°♉	
retrograde	10181 Sep 03 06:27	24°♉41'54	
opposition	10181 Nov 02 23:11	19°♉48'21	-0°45'07
min. Earth dist.	10181 Nov 04 14:12	19°♉35'47	4.23154 AU
	10181 Dec 23 18:30	15°℞♉	
direct	10182 Jan 03 07:49	14°♉49'25	
	10182 Jan 13 21:38	15°♉	
	10182 Apr 24 00:28	0°♊	
evening set	10182 May 09 00:39	3°♊25'16	
max. Earth dist.	10182 May 19 19:28	5°♊55'40	6.14367 AU
conjunction	10182 May 21 20:33	6°♊24'18	-0°38'16
minimum elong	10182 May 21 20:32	6°♊24'17	0°38'40
morning rise	10182 Jun 03 16:30	9°♊23'44	
retrograde	10182 Oct 09 06:58	28°♊34'33	
opposition	10182 Dec 08 09:51	23°♊39'22	-1°04'11
min. Earth dist.	10182 Dec 09 13:44	23°♊30'15	4.05816 AU
direct	10183 Feb 06 09:56	18°♊42'38	
	10183 May 07 22:14	0°♋	
evening set	10183 Jun 12 16:56	8°♋12'07	
conjunction	10183 Jun 25 17:01	11°♋20'01	-0°43'34
minimum elong	10183 Jun 25 17:01	11°♋20'01	0°44'01
max. Earth dist.	10183 Jun 24 15:59	11°♋04'55	5.98521 AU
morning rise	10183 Jul 08 18:36	14°♋28'59	
	10183 Sep 20 16:48	0°♌	
retrograde	10183 Nov 16 11:47	4°♌51'06	
	10184 Jan 14 06:46	30°℞♋	
opposition	10184 Jan 15 03:23	29°♋53'08	-1°00'26
min. Earth dist.	10184 Jan 15 07:01	29°♋51'56	3.93073 AU
direct	10184 Mar 13 18:17	24°♋58'12	
	10184 May 09 09:49	0°♌	
evening set	10184 Jul 18 15:33	15°♌04'32	
	10184 Jul 18 08:05	15°♌	
conjunction	10184 Jul 31 22:19	18°♌19'35	-0°32'14
minimum elong	10184 Jul 31 22:20	18°♌19'35	0°32'34
max. Earth dist.	10184 Aug 01 10:56	18°♌27'18	5.90174 AU
morning rise	10184 Aug 14 07:27	21°♌35'57	
	10184 Sep 19 05:52	0°♍	
retrograde	10184 Dec 24 11:36	12°♍31'10	
opposition	10185 Feb 21 19:51	7°♍29'44	-0°31'35
min. Earth dist.	10185 Feb 20 22:45	7°♍36'53	3.90167 AU
direct	10185 Apr 20 18:53	2°♍34'50	
evening set	10185 Aug 25 19:44	22°♍41'41	
conjunction	10185 Sep 08 08:48	25°♍58'21	-0°07'40
minimum elong	10185 Sep 08 08:48	25°♍58'21	0°07'44
behind sun begin	10185 Sep 08 01:15	25°♍53'48	
behind sun end	10185 Sep 08 16:20	26°♍02'54	
max. Earth dist.	10185 Sep 10 08:36	26°♍27'19	5.92984 AU
morning rise	10185 Sep 21 23:52	29°♍15'57	
	10185 Sep 25 01:22	0°♎	
asc. node	10185 Dec 27 22:32	17°♎53'31	
retrograde	10186 Jan 31 02:30	19°♎46'03	
min. Earth dist.	10186 Mar 29 23:34	14°♎54'36	3.98375 AU
opposition	10186 Mar 31 12:12	14°♎42'09	0°09'52
direct	10186 May 28 16:09	9°♎45'34	
evening set	10186 Oct 02 13:35	29°♎16'51	
	10186 Oct 05 15:27	0°♏	
conjunction	10186 Oct 16 04:44	2°♏28'28	0°19'26
minimum elong	10186 Oct 16 04:43	2°♏28'27	0°19'39
max. Earth dist.	10186 Oct 18 17:23	3°♏04'00	6.05649 AU
morning rise	10186 Oct 29 21:09	5°♏40'21	
	10186 Dec 11 06:58	15°♏	
retrograde	10187 Mar 07 00:24	25°♏03'13	
min. Earth dist.	10187 May 04 05:29	20°♏12'16	4.14045 AU
opposition	10187 May 05 19:41	19°♏59'21	0°45'10
direct	10187 Jul 03 23:18	15°♏00'30	
	10187 Oct 21 22:23	0°♐	
evening set	10187 Nov 07 10:40	3°♐39'15	
conjunction	10187 Nov 20 23:51	6°♐42'13	0°38'15
minimum elong	10187 Nov 20 23:50	6°♐42'13	0°38'39
max. Earth dist.	10187 Nov 23 03:16	7°♐11'12	6.22878 AU
morning rise	10187 Dec 04 12:45	9°♐44'43	
retrograde	10188 Apr 07 09:16	27°♐52'24	
min. Earth dist.	10188 Jun 05 11:54	22°♐59'40	4.31222 AU
opposition	10188 Jun 06 14:13	22°♐50'56	1°02'53
direct	10188 Aug 06 02:01	17°♐50'27	
	10188 Nov 13 02:09	0°♑	
evening set	10188 Dec 09 23:34	5°♑40'21	
conjunction	10188 Dec 23 08:20	8°♑34'55	0°44'04
minimum elong	10188 Dec 23 08:20	8°♑34'55	0°44'32
max. Earth dist.	10188 Dec 24 11:12	8°♑49'34	6.38656 AU
morning rise	10189 Jan 05 15:50	11°♑28'37	
retrograde	10189 May 07 18:32	28°♑37'43	
opposition	10189 Jul 07 10:28	23°♑39'30	1°01'17
min. Earth dist.	10189 Jul 07 01:50	23°♑42'19	4.44506 AU
direct	10189 Sep 07 02:11	18°♑38'10	
	10189 Dec 12 18:13	0°♒	

evening set	10190 Jan 10 13:07	5°♒55'46	
conjunction	10190 Jan 23 17:01	8°♒44'33	0°37'17
minimum elong	10190 Jan 23 17:02	8°♒44'33	0°37'39
max. Earth dist.	10190 Jan 23 14:51	8°♒43'23	6.48535 AU
morning rise	10190 Feb 05 18:49	11°♒32'17	
	10190 Feb 22 07:31	15°♒	
retrograde	10190 Jun 06 09:05	28°♒10'06	
opposition	10190 Aug 06 08:12	23°♒14'51	0°43'39
min. Earth dist.	10190 Aug 06 19:30	23°♒11'13	4.50466 AU
direct	10190 Oct 07 19:19	18°♒13'22	
	10191 Jan 15 02:01	0°♓	
evening set	10191 Feb 09 22:26	5°♓20'17	
conjunction	10191 Feb 22 21:48	8°♓06'43	0°20'49
minimum elong	10191 Feb 22 21:49	8°♓06'44	0°21'02
max. Earth dist.	10191 Feb 21 14:58	7°♓50'11	6.50156 AU
morning rise	10191 Mar 07 19:17	10°♓52'15	
retrograde	10191 Jul 06 07:56	27°♓29'29	
opposition	10191 Sep 05 09:02	22°♓36'00	0°15'01
min. Earth dist.	10191 Sep 06 14:01	22°♓26'44	4.47722 AU
direct	10191 Nov 07 01:45	17°♓34'47	
	10192 Feb 16 20:39	0°♈	
desc. node	10192 Mar 02 11:20	3°♈02'49	
evening set	10192 Mar 11 02:32	4°♈54'05	
max. Earth dist.	10192 Mar 21 21:29	7°♈14'53	6.43185 AU
conjunction	10192 Mar 23 22:53	7°♈41'51	-0°01'16
minimum elong	10192 Mar 23 22:55	7°♈41'52	0°01'18
behind sun begin	10192 Mar 23 14:55	7°♈37'32	
behind sun end	10192 Mar 24 06:54	7°♈46'12	
morning rise	10192 Apr 05 17:28	10°♈29'02	
retrograde	10192 Aug 05 13:52	27°♈36'28	
opposition	10192 Oct 05 13:28	22°♈43'27	-0°18'30
min. Earth dist.	10192 Oct 07 03:54	22°♈31'10	4.36906 AU
direct	10192 Dec 06 18:38	17°♈43'10	
	10193 Mar 16 05:26	0°♉	
evening set	10193 Apr 11 02:06	5°♉36'35	
max. Earth dist.	10193 Apr 21 12:51	7°♉57'28	6.29241 AU
conjunction	10193 Apr 23 20:59	8°♉29'08	-0°23'39
minimum elong	10193 Apr 23 20:58	8°♉29'07	0°23'55
morning rise	10193 May 06 15:01	11°♉21'34	
	10193 May 23 01:38	15°♉	
retrograde	10193 Sep 08 05:41	29°♉27'15	
opposition	10193 Nov 07 19:26	24°♉33'34	-0°48'47
min. Earth dist.	10193 Nov 09 10:14	24°♉21'02	4.20670 AU
direct	10194 Jan 08 00:44	19°♉34'55	
	10194 Apr 06 05:18	0°♊	
evening set	10194 May 13 18:36	8°♊18'20	
max. Earth dist.	10194 May 24 15:41	10°♊50'52	6.11991 AU
conjunction	10194 May 26 14:51	11°♊18'31	-0°39'53
minimum elong	10194 May 26 14:51	11°♊18'31	0°40'18
morning rise	10194 Jun 08 11:27	14°♊19'14	
	10194 Aug 26 02:19	0°♋	
retrograde	10194 Oct 14 11:50	3°♋40'29	
	10194 Dec 03 22:33	30°℞♊	
opposition	10194 Dec 13 14:14	28°♊44'57	-1°05'10
min. Earth dist.	10194 Dec 14 14:10	28°♊37'06	4.03769 AU
direct	10195 Feb 11 08:15	23°♊48'31	
	10195 Apr 16 17:32	0°♋	
evening set	10195 Jun 17 18:27	13°♋24'02	
conjunction	10195 Jun 30 19:18	16°♋33'01	-0°42'58
minimum elong	10195 Jun 30 19:19	16°♋33'01	0°43'26
max. Earth dist.	10195 Jun 29 23:41	16°♋21'07	5.96984 AU
morning rise	10195 Jul 13 21:48	19°♋43'07	
	10195 Aug 28 03:30	0°♌	
retrograde	10195 Nov 21 23:04	10°♌12'02	
opposition	10196 Jan 20 12:54	5°♌13'35	-0°57'43
min. Earth dist.	10196 Jan 20 13:28	5°♌13'24	3.92204 AU
direct	10196 Mar 19 01:49	0°♌18'45	
	10196 Jul 01 02:20	15°♌	
evening set	10196 Jul 23 22:10	20°♌26'42	
conjunction	10196 Aug 06 05:59	23°♌42'17	-0°29'23
minimum elong	10196 Aug 06 06:00	23°♌42'17	0°29'41
max. Earth dist.	10196 Aug 07 00:54	23°♌53'52	5.90059 AU
morning rise	10196 Aug 19 16:00	26°♌59'07	
	10196 Sep 01 04:25	0°♍	
retrograde	10196 Dec 29 20:25	17°♍53'37	
min. Earth dist.	10197 Feb 26 04:11	12°♍59'49	3.90839 AU
opposition	10197 Feb 27 03:56	12°♍51'48	-0°26'05
direct	10197 Apr 26 01:42	7°♍56'48	
evening set	10197 Aug 31 03:00	28°♍00'04	
	10197 Sep 08 10:05	0°♎	
conjunction	10197 Sep 13 16:25	1°♎16'18	-0°03'46
minimum elong	10197 Sep 13 16:26	1°♎16'18	0°03'47
behind sun begin	10197 Sep 13 08:09	1°♎11'19	
behind sun end	10197 Sep 14 00:43	1°♎21'17	
max. Earth dist.	10197 Sep 15 18:02	1°♎46'14	5.94339 AU
morning rise	10197 Sep 27 08:07	4°♎33'27	
asc. node	10197 Nov 06 16:07	13°♎44'51	
retrograde	10198 Feb 05 01:36	24°♎55'45	
min. Earth dist.	10198 Apr 03 23:08	20°♎04'41	4.00259 AU
opposition	10198 Apr 05 13:11	19°♎51'45	0°15'32
direct	10198 Jun 02 19:18	14°♎54'50	
	10198 Sep 18 18:12	0°♏	
evening set	10198 Oct 07 15:55	4°♏19'26	
conjunction	10198 Oct 21 07:05	7°♏29'59	0°22'43
minimum elong	10198 Oct 21 07:04	7°♏29'59	0°22'58
max. Earth dist.	10198 Oct 23 19:19	8°♏05'07	6.07882 AU
morning rise	10198 Nov 03 23:09	10°♏40'41	
	10198 Nov 23 00:02	15°♏	
retrograde	10199 Mar 11 17:10	29°♏53'16	
min. Earth dist.	10199 May 09 00:07	25°♏01'53	4.16384 AU
opposition	10199 May 10 12:19	24°♏49'41	0°48'48
direct	10199 Jul 08 20:43	19°♏50'35	
	10199 Oct 03 23:04	0°♐	
evening set	10199 Nov 12 05:34	8°♐22'24	
conjunction	10199 Nov 25 18:16	11°♐24'12	0°39'51
minimum elong	10199 Nov 25 18:15	11°♐24'12	0°40'16
max. Earth dist.	10199 Nov 27 19:20	11°♐51'43	6.25123 AU
morning rise	10199 Dec 09 06:33	14°♐25'28	
	10200 Mar 04 00:44	0°♑	
retrograde	10200 Apr 12 16:13	2°♑24'23	
	10200 May 22 06:22	30°℞♐	
opposition	10200 Jun 11 23:35	27°♐23'21	1°03'45
min. Earth dist.	10200 Jun 10 22:48	27°♐31'35	4.33209 AU
direct	10200 Aug 11 14:11	22°♐22'45	
	10200 Oct 26 02:54	0°♑	
evening set	10200 Dec 15 11:48	10°♑07'47	
conjunction	10200 Dec 28 19:55	13°♑01'27	0°43'47
minimum elong	10200 Dec 28 19:55	13°♑01'27	0°44'15
max. Earth dist.	10200 Dec 29 18:43	13°♑13'51	6.40255 AU
morning rise	10201 Jan 11 02:36	15°♑54'13	
	10201 Mar 29 05:42	0°♒	
retrograde	10201 May 12 24:00	2°♒57'57	
	10201 Jun 26 21:28	30°℞♑	

opposition	10201 Jul 12 15:55	28°♑00'17	0°59'37
min. Earth dist.	10201 Jul 12 10:29	28°♑02'03	4.45628 AU
direct	10201 Sep 12 11:16	22°♑58'59	
	10201 Nov 24 15:25	0°♒	
evening set	10202 Jan 15 20:52	10°♒14'26	
conjunction	10202 Jan 29 00:04	13°♒02'46	0°35'25
minimum elong	10202 Jan 29 00:05	13°♒02'46	0°35'48
max. Earth dist.	10202 Jan 28 17:06	12°♒59'02	6.49112 AU
	10202 Feb 07 03:20	15°♒	
morning rise	10202 Feb 11 01:21	15°♒50'04	
	10202 May 01 23:15	0°♓	
retrograde	10202 Jun 11 14:14	2°♓26'32	
	10202 Jul 22 08:15	30°℞♒	
opposition	10202 Aug 11 13:12	27°♒31'37	0°40'06
min. Earth dist.	10202 Aug 12 02:50	27°♒27'14	4.50508 AU
direct	10202 Oct 13 01:15	22°♒30'12	
	10202 Dec 28 10:11	0°♓	
evening set	10203 Feb 15 04:18	9°♓37'45	
max. Earth dist.	10203 Feb 26 19:20	12°♓07'01	6.49692 AU
conjunction	10203 Feb 28 03:20	12°♓24'12	0°17'55
minimum elong	10203 Feb 28 03:20	12°♓24'12	0°18'06
morning rise	10203 Mar 13 00:08	15°♓09'43	
	10203 Jun 06 17:06	0°♈	
retrograde	10203 Jul 11 14:37	1°♈49'14	
	10203 Aug 15 14:42	30°℞♓	
opposition	10203 Sep 10 16:31	26°♓55'56	0°10'25
min. Earth dist.	10203 Sep 11 22:16	26°♓46'26	4.46809 AU
direct	10203 Nov 12 07:44	21°♓54'56	
desc. node	10204 Jan 11 06:05	26°♓48'04	
	10204 Jan 30 12:53	0°♈	
evening set	10204 Mar 16 09:42	9°♈17'05	
max. Earth dist.	10204 Mar 27 02:39	11°♈37'18	6.41901 AU
conjunction	10204 Mar 29 05:33	12°♈05'11	-0°04'33
minimum elong	10204 Mar 29 05:32	12°♈05'11	0°04'36
behind sun begin	10204 Mar 28 21:44	12°♈00'56	
behind sun end	10204 Mar 29 13:21	12°♈09'26	
morning rise	10204 Apr 10 23:56	14°♈52'45	
	10204 Jul 04 17:42	0°♉	
retrograde	10204 Aug 11 03:57	2°♉05'33	
	10204 Sep 17 18:20	30°℞♈	
opposition	10204 Oct 11 01:55	27°♈12'31	-0°23'07
min. Earth dist.	10204 Oct 12 17:22	26°♈59'53	4.35329 AU
direct	10204 Dec 12 05:44	22°♈12'25	
	10205 Feb 26 12:59	0°♉	
evening set	10205 Apr 16 12:25	10°♉10'18	
max. Earth dist.	10205 Apr 26 23:46	12°♉32'03	6.27499 AU
conjunction	10205 Apr 29 07:19	13°♉03'31	-0°26'24
minimum elong	10205 Apr 29 07:18	13°♉03'30	0°26'42
	10205 May 07 21:01	15°♉	
morning rise	10205 May 12 01:23	15°♉56'40	
	10205 Jul 22 15:43	0°♊	
retrograde	10205 Sep 13 23:50	4°♊09'55	
	10205 Nov 07 21:17	30°℞♉	
opposition	10205 Nov 13 14:03	29°♉15'59	-0°52'02
min. Earth dist.	10205 Nov 15 02:37	29°♉04'10	4.18890 AU
direct	10206 Jan 13 14:31	24°♉17'38	
	10206 Mar 17 10:52	0°♊	
evening set	10206 May 19 09:58	13°♊06'00	
max. Earth dist.	10206 May 30 10:26	15°♊41'06	6.10319 AU
conjunction	10206 Jun 01 06:28	16°♊07'01	-0°41'10
minimum elong	10206 Jun 01 06:28	16°♊07'01	0°41'35
morning rise	10206 Jun 14 03:33	19°♊08'40	
	10206 Aug 02 19:38	0°♋	
retrograde	10206 Oct 20 14:06	8°♋37'47	
opposition	10206 Dec 19 14:55	3°♋41'52	-1°05'36
min. Earth dist.	10206 Dec 20 13:03	3°♋34'36	4.02338 AU
	10207 Jan 20 12:41	30°℞♊	
direct	10207 Feb 17 06:33	28°♊45'38	
	10207 Mar 16 19:57	0°♋	
evening set	10207 Jun 23 15:21	18°♋24'53	
conjunction	10207 Jul 06 17:04	21°♋34'42	-0°42'04
minimum elong	10207 Jul 06 17:04	21°♋34'43	0°42'30
max. Earth dist.	10207 Jul 06 01:55	21°♋25'32	5.95942 AU
morning rise	10207 Jul 19 20:22	24°♋45'40	
	10207 Aug 11 00:18	0°♌	
	10207 Nov 14 03:39	15°♌	
retrograde	10207 Nov 28 03:44	15°♌19'15	
	10207 Dec 12 01:52	15°℞♌	
opposition	10208 Jan 26 16:18	10°♌20'23	-0°54'38
min. Earth dist.	10208 Jan 26 13:59	10°♌21'09	3.91684 AU
direct	10208 Mar 25 01:57	5°♌25'36	
	10208 Jun 13 20:45	15°♌	
evening set	10208 Jul 29 23:23	25°♌34'15	
conjunction	10208 Aug 12 07:54	28°♌50'11	-0°26'26
minimum elong	10208 Aug 12 07:56	28°♌50'12	0°26'42
max. Earth dist.	10208 Aug 13 05:08	29°♌03'11	5.90101 AU
	10208 Aug 17 01:57	0°♍	
morning rise	10208 Aug 25 19:00	2°♍07'27	
retrograde	10209 Jan 04 20:47	23°♍00'42	
min. Earth dist.	10209 Mar 04 03:08	18°♍07'25	3.91445 AU
opposition	10209 Mar 05 05:26	17°♍58'30	-0°20'41
direct	10209 May 02 02:53	13°♍03'16	
	10209 Aug 24 06:48	0°♎	
evening set	10209 Sep 06 04:26	3°♎03'43	
conjunction	10209 Sep 19 18:31	6°♎19'40	0°00'02
minimum elong	10209 Sep 19 18:32	6°♎19'40	0°00'03
behind sun begin	10209 Sep 19 11:04	6°♎15'12	
behind sun end	10209 Sep 20 01:59	6°♎24'08	
asc. node	10209 Sep 19 07:40	6°♎13'09	
max. Earth dist.	10209 Sep 21 22:23	6°♎50'53	5.95457 AU
morning rise	10209 Oct 03 10:31	9°♎36'26	
retrograde	10210 Feb 10 22:29	29°♎52'23	
min. Earth dist.	10210 Apr 09 19:54	25°♎01'01	4.01747 AU
opposition	10210 Apr 11 09:18	24°♎48'18	0°20'46
direct	10210 Jun 08 18:36	19°♎51'06	
	10210 Sep 01 22:14	0°♏	
evening set	10210 Oct 13 14:00	9°♏10'44	
conjunction	10210 Oct 27 05:10	12°♏20'31	0°25'41
minimum elong	10210 Oct 27 05:09	12°♏20'30	0°25'58
max. Earth dist.	10210 Oct 29 17:35	12°♏55'35	6.09603 AU
	10210 Nov 07 16:27	15°♏	
morning rise	10210 Nov 09 21:03	15°♏30'18	
	10211 Jan 20 21:11	0°♐	
retrograde	10211 Mar 17 04:34	4°♐34'38	
	10211 May 12 12:15	30°℞♏	
min. Earth dist.	10211 May 14 13:29	29°♏43'27	4.18187 AU
opposition	10211 May 16 01:32	29°♏31'19	0°51'57
direct	10211 Jul 14 12:10	24°♏32'00	
	10211 Sep 13 22:45	0°♐	
evening set	10211 Nov 17 22:17	12°♐58'53	
conjunction	10211 Dec 01 10:28	15°♐59'44	0°41'07
minimum elong	10211 Dec 01 10:27	15°♐59'43	0°41'34
max. Earth dist.	10211 Dec 03 07:50	16°♐25'04	6.26873 AU
morning rise	10211 Dec 14 22:12	19°♐00'01	

	10212 Feb	06	23:51	0°♉	
retrograde	10212 Apr	17	00:25	6°♉51'49	
min. Earth dist.	10212 Jun	15	09:44	1°♉58'28	4.34773 AU
opposition	10212 Jun	16	07:39	1°♉51'12	1°04'11
	10212 Jun	30	16:15	30°℞♐	
direct	10212 Aug	16	02:49	26°♐50'27	
	10212 Oct	01	17:53	0°♉	
evening set	10212 Dec	19	22:50	14°♉31'42	
conjunction	10213 Jan	02	06:25	17°♉24'39	0°43'15
minimum elong	10213 Jan	02	06:25	17°♉24'40	0°43'41
max. Earth dist.	10213 Jan	03	02:40	17°♉35'38	6.41523 AU
morning rise	10213 Jan	15	12:23	20°♉16'39	
	10213 Mar	05	03:20	0°♒	
retrograde	10213 May	17	03:05	7°♒15'55	
opposition	10213 Jul	16	20:54	2°♒18'34	0°57'38
min. Earth dist.	10213 Jul	16	16:47	2°♒19'55	4.46533 AU
	10213 Aug	04	08:42	30°℞♉	
direct	10213 Sep	16	18:01	27°♉17'13	
	10213 Oct	30	11:27	0°♒	
evening set	10214 Jan	20	03:51	14°♒30'48	
	10214 Jan	22	10:48	15°♒	
conjunction	10214 Feb	02	06:26	17°♒18'42	0°33'23
minimum elong	10214 Feb	02	06:27	17°♒18'42	0°33'44
max. Earth dist.	10214 Feb	01	20:45	17°♒13'31	6.49589 AU
morning rise	10214 Feb	15	06:58	20°♒05'34	
	10214 Apr	06	17:59	0°♓	
retrograde	10214 Jun	15	18:22	6°♓40'44	
opposition	10214 Aug	15	17:47	1°♓46'05	0°36'21
min. Earth dist.	10214 Aug	16	09:52	1°♓40'55	4.50509 AU
	10214 Aug	29	19:34	30°℞♒	
direct	10214 Oct	17	07:40	26°♒44'43	
	10214 Dec	04	16:55	0°♓	
evening set	10215 Feb	19	09:37	13°♓52'42	
max. Earth dist.	10215 Mar	02	19:57	16°♓19'44	6.49179 AU
conjunction	10215 Mar	04	07:59	16°♓39'06	0°14'56
minimum elong	10215 Mar	04	08:00	16°♓39'07	0°15'04
behind sun begin	10215 Mar	04	05:10	16°♓37'36	
behind sun end	10215 Mar	04	10:50	16°♓40'38	
morning rise	10215 Mar	17	04:28	19°♓24'40	
	10215 May	10	07:53	0°♈	
retrograde	10215 Jul	15	22:07	6°♈06'35	
opposition	10215 Sep	14	23:27	1°♈13'20	0°05'45
min. Earth dist.	10215 Sep	16	07:02	1°♈03'14	4.45783 AU
	10215 Sep	24	15:15	30°℞♓	
direct	10215 Nov	16	14:02	26°♓12'22	
desc. node	10215 Nov	20	21:06	26°♓14'02	
	10216 Jan	07	19:35	0°♈	
evening set	10216 Mar	20	15:51	13°♈37'45	
max. Earth dist.	10216 Mar	31	08:16	15°♈58'07	6.40404 AU
conjunction	10216 Apr	02	11:35	16°♈26'20	-0°07'47
minimum elong	10216 Apr	02	11:34	16°♈26'19	0°07'52
behind sun begin	10216 Apr	02	04:24	16°♈22'24	
behind sun end	10216 Apr	02	18:44	16°♈30'15	
morning rise	10216 Apr	15	05:36	19°♈14'22	
	10216 Jun	07	19:19	0°♉	
retrograde	10216 Aug	15	16:12	6°♉33'29	
opposition	10216 Oct	15	14:08	1°♉40'24	-0°27'39
min. Earth dist.	10216 Oct	17	05:33	1°♉27'47	4.33431 AU
	10216 Oct	28	21:44	30°℞♈	
direct	10216 Dec	16	14:25	26°♈40'32	
	10217 Feb	02	13:08	0°♉	
evening set	10217 Apr	20	22:55	14°♉44'13	
	10217 Apr	22	02:54	15°♉	
max. Earth dist.	10217 May	01	10:06	17°♉06'37	6.25320 AU
conjunction	10217 May	03	17:41	17°♉38'17	-0°29'02
minimum elong	10217 May	03	17:40	17°♉38'16	0°29'22
morning rise	10217 May	16	12:02	20°♉32'25	
	10217 Jun	29	19:26	0°♊	
retrograde	10217 Sep	18	22:02	8°♊55'17	
opposition	10217 Nov	18	10:01	4°♊01'09	-0°55'04
min. Earth dist.	10217 Nov	19	22:03	3°♊49'28	4.16566 AU
	10217 Dec	24	16:34	30°℞♉	
direct	10218 Jan	18	07:00	29°♉03'03	
	10218 Feb	11	19:35	0°♊	
evening set	10218 May	24	03:19	17°♊58'42	
max. Earth dist.	10218 Jun	04	07:22	20°♊36'39	6.08058 AU
conjunction	10218 Jun	06	00:28	21°♊00'58	-0°42'13
minimum elong	10218 Jun	06	00:27	21°♊00'57	0°42'40
morning rise	10218 Jun	18	22:08	24°♊03'53	
	10218 Jul	14	18:51	0°♋	
retrograde	10218 Oct	25	19:33	13°♋43'16	
opposition	10218 Dec	24	18:35	8°♋47'04	-1°05'37
min. Earth dist.	10218 Dec	25	13:51	8°♋40'44	4.00363 AU
direct	10219 Feb	22	05:01	3°♋51'08	
evening set	10219 Jun	28	16:42	23°♋36'32	
conjunction	10219 Jul	11	19:11	26°♋47'28	-0°40'49
minimum elong	10219 Jul	11	19:12	26°♋47'29	0°41'14
max. Earth dist.	10219 Jul	11	07:27	26°♋40'20	5.94436 AU
morning rise	10219 Jul	24	23:42	29°♋59'41	
	10219 Jul	25	00:14	0°♌	
	10219 Oct	02	22:21	15°♌	
retrograde	10219 Dec	03	12:40	20°♌39'50	
opposition	10220 Feb	01	00:41	15°♌40'29	-0°51'01
min. Earth dist.	10220 Jan	31	18:32	15°♌42'33	3.90824 AU
	10220 Feb	06	01:52	15°℞♌	
direct	10220 Mar	30	06:59	10°♌45'44	
	10220 May	20	18:00	15°♌	
	10220 Jul	31	09:11	0°♍	
evening set	10220 Aug	04	06:11	0°♍56'26	
conjunction	10220 Aug	17	15:49	4°♍12'55	-0°23'08
minimum elong	10220 Aug	17	15:51	4°♍12'56	0°23'22
max. Earth dist.	10220 Aug	18	19:09	4°♍29'39	5.89993 AU
morning rise	10220 Aug	31	03:43	7°♍30'39	
retrograde	10221 Jan	10	05:30	28°♍22'53	
min. Earth dist.	10221 Mar	09	08:45	23°♍29'47	3.92103 AU
opposition	10221 Mar	10	12:36	23°♍20'19	-0°14'51
direct	10221 May	07	10:57	18°♍24'55	
asc. node	10221 Jul	29	00:24	28°♍18'23	
	10221 Aug	06	01:01	0°♎	
evening set	10221 Sep	11	11:55	8°♎22'08	
conjunction	10221 Sep	25	02:30	11°♎37'41	0°04'01
minimum elong	10221 Sep	25	02:28	11°♎37'40	0°04'04
behind sun begin	10221 Sep	24	18:12	11°♎32'44	
behind sun end	10221 Sep	25	10:44	11°♎42'36	
max. Earth dist.	10221 Sep	27	09:36	12°♎10'43	5.96810 AU
morning rise	10221 Oct	08	18:51	14°♎53'55	
	10221 Dec	20	03:35	0°♏	
retrograde	10222 Feb	15	21:29	5°♏01'51	
min. Earth dist.	10222 Apr	14	18:34	0°♏11'01	4.03663 AU
opposition	10222 Apr	16	09:39	29°♎57'45	0°26'06
	10222 Apr	16	03:02	30°℞♎	
direct	10222 Jun	13	20:19	25°♎00'17	
	10222 Aug	10	03:18	0°♏	
evening set	10222 Oct	18	16:34	14°♏13'15	
	10222 Oct	22	01:50	15°♏	

conjunction	10222 Nov 01 07:26	17°♏21'51	0°28'36
minimum elong	10222 Nov 01 07:25	17°♏21'50	0°28'55
max. Earth dist.	10222 Nov 03 18:13	17°♏55'49	6.11909 AU
morning rise	10222 Nov 14 23:02	20°♏30'25	
	10222 Dec 28 22:40	0°♐	
retrograde	10223 Mar 21 19:13	9°♐24'06	
min. Earth dist.	10223 May 19 07:20	4°♐32'32	4.20661 AU
opposition	10223 May 20 17:40	4°♐20'59	0°54'52
	10223 Jun 29 12:20	30°℞♏	
direct	10223 Jul 19 09:38	29°♏21'24	
	10223 Aug 08 10:30	0°♐	
evening set	10223 Nov 22 16:36	17°♐40'43	
conjunction	10223 Dec 06 04:19	20°♐40'18	0°42'13
minimum elong	10223 Dec 06 04:19	20°♐40'17	0°42'41
max. Earth dist.	10223 Dec 08 00:36	21°♐04'54	6.29328 AU
morning rise	10223 Dec 19 15:08	23°♐39'11	
	10224 Jan 18 10:18	0°♑	
retrograde	10224 Apr 21 06:01	11°♑21'26	
opposition	10224 Jun 20 16:14	6°♑21'13	1°04'18
min. Earth dist.	10224 Jun 19 19:28	6°♑28'04	4.37020 AU
direct	10224 Aug 20 15:19	1°♑20'21	
evening set	10224 Dec 24 09:33	18°♑55'28	
conjunction	10225 Jan 06 16:14	21°♑47'21	0°42'30
minimum elong	10225 Jan 06 16:14	21°♑47'21	0°42'57
max. Earth dist.	10225 Jan 07 07:27	21°♑55'34	6.43397 AU
morning rise	10225 Jan 19 21:26	24°♑38'17	
	10225 Feb 14 14:28	0°♒	
retrograde	10225 May 21 06:13	11°♒31'17	
opposition	10225 Jul 21 00:48	6°♒34'20	0°55'25
min. Earth dist.	10225 Jul 21 00:24	6°♒34'28	4.47910 AU
direct	10225 Sep 21 02:42	1°♒32'52	
	10226 Jan 06 12:48	15°♒	
evening set	10226 Jan 24 08:53	18°♒43'08	
conjunction	10226 Feb 06 10:51	21°♒30'28	0°31'14
minimum elong	10226 Feb 06 10:52	21°♒30'29	0°31'33
max. Earth dist.	10226 Feb 05 21:08	21°♒23'09	6.50360 AU
morning rise	10226 Feb 19 10:42	24°♒16'47	
	10226 Mar 19 05:47	0°♓	
retrograde	10226 Jun 19 19:10	10°♓50'01	
opposition	10226 Aug 19 20:20	5°♓55'33	0°32'33
min. Earth dist.	10226 Aug 20 14:29	5°♓49'43	4.50632 AU
direct	10226 Oct 21 10:55	0°♓54'07	
evening set	10227 Feb 23 12:20	18°♓02'17	
max. Earth dist.	10227 Mar 06 20:08	20°♓28'08	6.48632 AU
conjunction	10227 Mar 08 10:18	20°♓48'41	0°11'58
minimum elong	10227 Mar 08 10:18	20°♓48'41	0°12'05
behind sun begin	10227 Mar 08 04:52	20°♓45'47	
behind sun end	10227 Mar 08 15:44	20°♓51'36	
morning rise	10227 Mar 21 06:12	23°♓34'15	
	10227 Apr 21 09:22	0°♈	
retrograde	10227 Jul 20 03:10	10°♈18'58	
opposition	10227 Sep 19 04:35	5°♈25'47	0°01'10
min. Earth dist.	10227 Sep 20 14:33	5°♈14'57	4.44574 AU
desc. node	10227 Oct 02 15:55	3°♈44'32	
direct	10227 Nov 20 19:01	0°♈24'53	
evening set	10228 Mar 24 20:25	17°♈54'10	
max. Earth dist.	10228 Apr 04 08:57	20°♈13'03	6.38593 AU
conjunction	10228 Apr 06 15:45	20°♈43'18	-0°10'54
minimum elong	10228 Apr 06 15:45	20°♈43'17	0°11'02
behind sun begin	10228 Apr 06 09:44	20°♈39'59	
behind sun end	10228 Apr 06 21:45	20°♈46'35	
morning rise	10228 Apr 19 09:50	23°♈32'00	
	10228 May 19 20:48	0°♉	
retrograde	10228 Aug 20 05:02	10°♉58'44	
opposition	10228 Oct 20 01:29	6°♉05'30	-0°31'59
min. Earth dist.	10228 Oct 21 17:47	5°♉52'34	4.31108 AU
direct	10228 Dec 20 22:57	1°♉05'43	
	10229 Apr 06 03:09	15°♉	
evening set	10229 Apr 25 08:56	19°♉16'48	
max. Earth dist.	10229 May 05 21:27	21°♉40'46	6.22664 AU
conjunction	10229 May 08 04:04	22°♉12'02	-0°31'29
minimum elong	10229 May 08 04:03	22°♉12'01	0°31'50
morning rise	10229 May 20 22:35	25°♉07'22	
	10229 Jun 11 18:45	0°♊	
retrograde	10229 Sep 23 20:21	13°♊41'37	
opposition	10229 Nov 23 06:34	8°♊47'18	-0°57'47
min. Earth dist.	10229 Nov 24 17:23	8°♊36'01	4.13773 AU
direct	10230 Jan 22 22:17	3°♊49'31	
evening set	10230 May 28 22:10	22°♊54'14	
max. Earth dist.	10230 Jun 09 04:36	25°♊34'37	6.05367 AU
conjunction	10230 Jun 10 19:49	25°♊57'57	-0°42'59
minimum elong	10230 Jun 10 19:48	25°♊57'57	0°43'27
morning rise	10230 Jun 23 18:30	29°♊02'29	
	10230 Jun 27 19:59	0°♋	
retrograde	10230 Oct 31 03:51	18°♋53'59	
opposition	10230 Dec 30 00:43	13°♋57'24	-1°05'11
min. Earth dist.	10230 Dec 30 16:26	13°♋52'12	3.98031 AU
direct	10231 Feb 27 06:13	9°♋01'41	
evening set	10231 Jul 03 20:57	28°♋54'34	
	10231 Jul 08 08:42	0°♌	
conjunction	10231 Jul 17 00:39	2°♌06'51	-0°39'14
minimum elong	10231 Jul 17 00:40	2°♌06'52	0°39'38
max. Earth dist.	10231 Jul 16 19:47	2°♌03'53	5.92722 AU
morning rise	10231 Jul 30 06:11	5°♌20'23	
	10231 Sep 10 03:29	15°♌	
retrograde	10231 Dec 09 02:39	26°♌07'32	
opposition	10232 Feb 06 12:11	21°♌07'44	-0°46'55
min. Earth dist.	10232 Feb 06 03:00	21°♌10'49	3.89945 AU
direct	10232 Apr 04 16:00	16°♌13'05	
	10232 Jul 13 13:55	0°♍	
evening set	10232 Aug 09 16:43	6°♍25'38	
conjunction	10232 Aug 23 03:16	9°♍42'34	-0°19'35
minimum elong	10232 Aug 23 03:16	9°♍42'34	0°19'46
max. Earth dist.	10232 Aug 24 11:53	10°♍02'30	5.90035 AU
morning rise	10232 Sep 05 16:13	13°♍00'43	
	10232 Nov 26 20:40	0°♎	
retrograde	10233 Jan 15 14:22	3°♎50'29	
	10233 Mar 06 22:35	30°℞♍	
opposition	10233 Mar 15 21:52	28°♍47'33	-0°08'49
min. Earth dist.	10233 Mar 14 14:14	28°♍58'17	3.93076 AU
direct	10233 May 12 19:41	23°♍51'56	
asc. node	10233 Jun 06 14:31	24°♍54'19	
	10233 Jul 14 23:17	0°♎	
evening set	10233 Sep 16 21:40	13°♎44'32	
conjunction	10233 Sep 30 12:28	16°♎59'20	0°07'56
minimum elong	10233 Sep 30 12:27	16°♎59'20	0°08'03
behind sun begin	10233 Sep 30 05:01	16°♎54'55	
behind sun end	10233 Sep 30 19:54	17°♎03'45	
max. Earth dist.	10233 Oct 02 21:09	17°♎33'11	5.98581 AU
morning rise	10233 Oct 14 05:06	20°♎14'47	
	10233 Nov 26 20:02	0°♏	
retrograde	10234 Feb 20 20:53	10°♏12'55	
min. Earth dist.	10234 Apr 19 19:54	5°♏21'59	4.05989 AU
opposition	10234 Apr 21 11:00	5°♏08'42	0°31'14

direct	10234 Jun 19 01:58	0°♏10'53	
	10234 Oct 04 21:02	15°♏	
evening set	10234 Oct 23 19:21	19°♏15'40	
conjunction	10234 Nov 06 10:01	22°♏22'56	0°31'19
minimum elong	10234 Nov 06 10:00	22°♏22'56	0°31'40
max. Earth dist.	10234 Nov 08 21:20	22°♏56'59	6.14558 AU
morning rise	10234 Nov 20 00:54	25°♏30'01	
	10234 Dec 10 04:57	0°♐	
retrograde	10235 Mar 26 08:57	14°♐12'01	
min. Earth dist.	10235 May 23 23:58	9°♐20'28	4.23358 AU
opposition	10235 May 25 09:21	9°♐09'17	0°57'23
direct	10235 Jul 24 05:49	4°♐09'31	
evening set	10235 Nov 27 10:42	22°♐20'56	
conjunction	10235 Dec 10 21:32	25°♐19'09	0°43'02
minimum elong	10235 Dec 10 21:32	25°♐19'09	0°43'30
max. Earth dist.	10235 Dec 12 12:49	25°♐40'52	6.31837 AU
morning rise	10235 Dec 24 07:41	28°♐16'40	
	10236 Jan 01 05:24	0°♑	
retrograde	10236 Apr 25 12:59	15°♑49'45	
min. Earth dist.	10236 Jun 24 07:05	10°♑55'45	4.39162 AU
opposition	10236 Jun 25 00:30	10°♑50'01	1°04'02
direct	10236 Aug 25 04:44	5°♑49'00	
evening set	10236 Dec 28 19:47	23°♑18'48	
conjunction	10237 Jan 11 01:55	26°♑09'47	0°41'31
minimum elong	10237 Jan 11 01:56	26°♑09'48	0°41'58
max. Earth dist.	10237 Jan 11 14:03	26°♑16'19	6.45025 AU
morning rise	10237 Jan 24 06:09	28°♑59'46	
	10237 Jan 28 23:15	0°♒	
	10237 May 02 16:06	15°♒	
retrograde	10237 May 25 08:15	15°♒47'47	
	10237 Jun 16 23:37	15°℞♒	
opposition	10237 Jul 25 05:11	10°♒51'16	0°52'52
min. Earth dist.	10237 Jul 25 06:52	10°♒50'44	4.48940 AU
direct	10237 Sep 25 09:05	5°♒49'50	
	10237 Dec 19 23:38	15°♒	
evening set	10238 Jan 28 14:44	22°♒58'08	
conjunction	10238 Feb 10 15:57	25°♒45'04	0°28'53
minimum elong	10238 Feb 10 15:58	25°♒45'05	0°29'10
max. Earth dist.	10238 Feb 09 21:31	25°♒35'14	6.50721 AU
morning rise	10238 Feb 23 15:12	28°♒31'02	
	10238 Mar 02 15:45	0°♓	
retrograde	10238 Jun 24 00:01	15°♓03'56	
opposition	10238 Aug 24 00:52	10°♓09'47	0°28'29
min. Earth dist.	10238 Aug 24 22:39	10°♓02'48	4.50311 AU
direct	10238 Oct 25 17:46	5°♓08'23	
evening set	10239 Feb 27 17:21	22°♓18'14	
max. Earth dist.	10239 Mar 10 20:36	24°♓42'02	6.47637 AU
conjunction	10239 Mar 12 14:51	25°♓04'50	0°08'50
minimum elong	10239 Mar 12 14:52	25°♓04'50	0°08'56
behind sun begin	10239 Mar 12 08:01	25°♓01'10	
behind sun end	10239 Mar 12 21:42	25°♓08'31	
morning rise	10239 Mar 25 10:27	27°♓50'39	
	10239 Apr 04 13:18	0°♈	
retrograde	10239 Jul 24 11:17	14°♈39'43	
desc. node	10239 Aug 13 01:41	14°♈04'15	
opposition	10239 Sep 23 12:50	9°♈46'35	-0°03'36
min. Earth dist.	10239 Sep 24 23:53	9°♈35'23	4.42970 AU
direct	10239 Nov 25 01:12	4°♈45'45	
evening set	10240 Mar 29 04:16	22°♈20'15	
max. Earth dist.	10240 Apr 08 16:46	24°♈39'44	6.36487 AU
conjunction	10240 Apr 10 23:33	25°♈10'08	-0°14'05
minimum elong	10240 Apr 10 23:32	25°♈10'08	0°14'16
behind sun begin	10240 Apr 10 19:40	25°♈07'59	
behind sun end	10240 Apr 11 03:25	25°♈12'16	
morning rise	10240 Apr 23 17:25	27°♈59'38	
	10240 May 02 21:05	0°♉	
	10240 Aug 05 12:09	15°♉	
retrograde	10240 Aug 24 22:02	15°♉35'02	
	10240 Sep 13 07:22	15°℞♉	
opposition	10240 Oct 24 17:14	10°♉41'46	-0°36'19
min. Earth dist.	10240 Oct 26 10:02	10°♉28'40	4.28625 AU
direct	10240 Dec 25 11:25	5°♉42'15	
	10241 Mar 19 00:09	15°♉	
evening set	10241 Apr 29 23:12	24°♉01'06	
max. Earth dist.	10241 May 10 11:38	26°♉25'58	6.19990 AU
conjunction	10241 May 12 18:22	26°♉57'30	-0°33'49
minimum elong	10241 May 12 18:21	26°♉57'29	0°34'11
morning rise	10241 May 25 13:27	29°♉54'09	
	10241 May 25 23:41	0°♊	
retrograde	10241 Sep 28 23:19	18°♊40'01	
opposition	10241 Nov 28 07:44	13°♊45'26	-1°00'11
min. Earth dist.	10241 Nov 29 16:03	13°♊34'55	4.11122 AU
direct	10242 Jan 27 18:28	8°♊47'56	
evening set	10242 Jun 02 21:06	28°♊01'04	
	10242 Jun 11 04:53	0°♋	
max. Earth dist.	10242 Jun 14 09:52	0°♋46'01	6.03006 AU
conjunction	10242 Jun 15 19:35	1°♋06'11	-0°43'28
minimum elong	10242 Jun 15 19:35	1°♋06'11	0°43'56
morning rise	10242 Jun 28 18:57	4°♋12'08	
retrograde	10242 Nov 05 16:20	24°♋14'07	
opposition	10243 Jan 04 10:12	19°♋17'09	-1°04'09
min. Earth dist.	10243 Jan 04 23:00	19°♋12'55	3.96232 AU
direct	10243 Mar 04 11:12	14°♋21'44	
	10243 Jun 21 01:37	0°♌	
evening set	10243 Jul 09 04:01	4°♌19'43	
conjunction	10243 Jul 22 08:36	7°♌32'58	-0°37'17
minimum elong	10243 Jul 22 08:38	7°♌32'59	0°37'42
max. Earth dist.	10243 Jul 22 08:42	7°♌33'02	5.91677 AU
morning rise	10243 Aug 04 15:23	10°♌47'32	
	10243 Aug 22 05:08	15°♌	
	10243 Nov 12 17:23	0°♍	
retrograde	10243 Dec 14 14:42	1°♍38'17	
	10244 Jan 15 11:07	30°℞♌	
min. Earth dist.	10244 Feb 11 10:10	26°♌42'43	3.89821 AU
opposition	10244 Feb 12 00:16	26°♌37'58	-0°42'22
direct	10244 Apr 10 01:18	21°♌43'17	
	10244 Jun 23 07:35	0°♍	
evening set	10244 Aug 15 03:03	11°♍54'32	
conjunction	10244 Aug 28 14:19	15°♍11'25	-0°15'53
minimum elong	10244 Aug 28 14:20	15°♍11'26	0°16'03
max. Earth dist.	10244 Aug 30 03:34	15°♍34'08	5.90837 AU
morning rise	10244 Sep 11 04:02	18°♍29'29	
	10244 Nov 01 04:43	0°♎	
retrograde	10245 Jan 20 20:20	9°♎13'35	
min. Earth dist.	10245 Mar 19 19:46	4°♎21'33	3.94692 AU
opposition	10245 Mar 21 05:03	4°♎10'14	-0°02'52
asc. node	10245 Apr 16 22:41	0°♎52'17	
	10245 Apr 27 02:35	30°℞♍	
direct	10245 May 18 05:11	29°♍14'17	
	10245 Jun 08 08:49	0°♎	
evening set	10245 Sep 22 04:36	18°♎59'54	
conjunction	10245 Oct 05 19:41	22°♎13'43	0°11'41
minimum elong	10245 Oct 05 19:41	22°♎13'43	0°11'50

behind sun begin	10245 Oct	05	13:54	22°♎10'18	
behind sun end	10245 Oct	06	01:27	22°♎17'08	
max. Earth dist.	10245 Oct	08	07:34	22°♎49'15	6.00842 AU
morning rise	10245 Oct	19	12:08	25°♎28'00	
	10245 Nov	08	03:25	0°♏	
	10246 Feb	13	14:05	15°♏	
retrograde	10246 Feb	25	17:13	15°♏14'36	
	10246 Mar	09	18:31	15°℞♏	
min. Earth dist.	10246 Apr	24	17:27	10°♏23'41	4.08630 AU
opposition	10246 Apr	26	08:27	10°♏10'28	0°35'55
direct	10246 Jun	24	03:18	5°♏12'20	
	10246 Sep	16	11:09	15°♏	
evening set	10246 Oct	28	18:21	24°♏08'11	
conjunction	10246 Nov	11	08:26	27°♏14'00	0°33'43
minimum elong	10246 Nov	11	08:25	27°♏13'59	0°34'05
max. Earth dist.	10246 Nov	13	16:39	27°♏46'04	6.17315 AU
	10246 Nov	23	12:14	0°♐	
morning rise	10246 Nov	24	22:53	0°♐19'36	
retrograde	10247 Mar	30	18:32	18°♐50'06	
opposition	10247 May	29	21:18	13°♐47'42	0°59'26
min. Earth dist.	10247 May	28	13:58	13°♐58'10	4.25987 AU
direct	10247 Jul	28	22:35	8°♐47'39	
evening set	10247 Dec	02	00:39	26°♐51'37	
conjunction	10247 Dec	15	10:58	29°♐48'38	0°43'34
minimum elong	10247 Dec	15	10:58	29°♐48'38	0°44'01
	10247 Dec	16	07:37	0°♑	
max. Earth dist.	10247 Dec	16	23:13	0°♑08'35	6.34146 AU
morning rise	10247 Dec	28	20:08	2°♑44'51	
retrograde	10248 Apr	29	17:05	20°♑09'49	
opposition	10248 Jun	29	05:57	15°♑10'37	1°03'25
min. Earth dist.	10248 Jun	28	15:11	15°♑15'28	4.40993 AU
direct	10248 Aug	29	13:58	10°♑09'32	
evening set	10249 Jan	02	03:25	27°♑35'03	
	10249 Jan	13	09:41	0°♒	
conjunction	10249 Jan	15	08:42	0°♒25'17	0°40'20
minimum elong	10249 Jan	15	08:43	0°♒25'17	0°40'46
max. Earth dist.	10249 Jan	15	14:43	0°♒28'31	6.46249 AU
morning rise	10249 Jan	28	12:22	3°♒14'33	
	10249 Mar	31	01:43	15°♒	
retrograde	10249 May	29	11:11	19°♒59'02	
opposition	10249 Jul	29	08:02	15°♒02'57	0°50'09
	10249 Jul	29	17:08	15°℞♒	
min. Earth dist.	10249 Jul	29	13:34	15°♒01'09	4.49511 AU
direct	10249 Sep	29	14:55	10°♒01'27	
	10249 Nov	29	08:16	15°♒	
evening set	10250 Feb	01	19:05	27°♒09'13	
conjunction	10250 Feb	14	19:55	29°♒56'01	0°26'27
minimum elong	10250 Feb	14	19:56	29°♒56'02	0°26'43
max. Earth dist.	10250 Feb	13	22:28	29°♒44'33	6.50609 AU
	10250 Feb	15	03:22	0°♓	
morning rise	10250 Feb	27	18:31	2°♓41'50	
retrograde	10250 Jun	28	03:01	19°♓15'55	
opposition	10250 Aug	28	05:03	14°♓22'00	0°24'20
min. Earth dist.	10250 Aug	29	04:15	14°♓14'35	4.49546 AU
direct	10250 Oct	29	20:53	9°♓20'43	
evening set	10251 Mar	03	22:13	26°♓33'33	
max. Earth dist.	10251 Mar	14	22:51	28°♓56'25	6.46276 AU
conjunction	10251 Mar	16	19:17	29°♓20'30	0°05'43
minimum elong	10251 Mar	16	19:18	29°♓20'30	0°05'46
behind sun begin	10251 Mar	16	11:40	29°♓16'23	
behind sun end	10251 Mar	17	02:56	29°♓24'37	
	10251 Mar	19	20:10	0°♈	
morning rise	10251 Mar	29	14:35	2°♈06'44	
desc. node	10251 Jun	23	16:29	17°♈09'59	
retrograde	10251 Jul	28	22:13	19°♈01'27	
opposition	10251 Sep	27	22:18	14°♈08'27	-0°08'18
min. Earth dist.	10251 Sep	29	11:26	13°♈56'35	4.41088 AU
direct	10251 Nov	29	09:38	9°♈07'49	
evening set	10252 Apr	02	13:03	26°♈48'15	
max. Earth dist.	10252 Apr	12	23:41	29°♈07'28	6.34225 AU
conjunction	10252 Apr	15	08:11	29°♈38'58	-0°17'11
minimum elong	10252 Apr	15	08:10	29°♈38'57	0°17'23
	10252 Apr	16	21:54	0°♉	
morning rise	10252 Apr	28	02:10	2°♉29'23	
	10252 Jun	30	02:27	15°♉	
retrograde	10252 Aug	29	16:03	20°♉14'05	
opposition	10252 Oct	29	10:26	15°♉20'43	-0°40'26
min. Earth dist.	10252 Oct	31	01:49	15°♉08'02	4.26139 AU
	10252 Nov	01	02:50	15°℞♉	
direct	10252 Dec	29	23:59	10°♉21'29	
	10253 Feb	24	17:52	15°♉	
evening set	10253 May	04	14:39	28°♉48'03	
	10253 May	09	19:40	0°♊	
max. Earth dist.	10253 May	15	07:02	1°♊15'58	6.17493 AU
conjunction	10253 May	17	10:12	1°♊45'37	-0°35'56
minimum elong	10253 May	17	10:11	1°♊45'36	0°36'20
morning rise	10253 May	30	05:32	4°♊43'28	
retrograde	10253 Oct	04	04:37	23°♊40'12	
opposition	10253 Dec	03	09:56	18°♊45'24	-1°02'08
min. Earth dist.	10253 Dec	04	16:36	18°♊35'24	4.08818 AU
direct	10254 Feb	01	16:21	13°♊48'16	
	10254 May	25	12:21	0°♋	
evening set	10254 Jun	07	20:19	3°♋08'19	
conjunction	10254 Jun	20	19:24	6°♋14'36	-0°43'36
minimum elong	10254 Jun	20	19:24	6°♋14'36	0°44'03
max. Earth dist.	10254 Jun	19	12:57	5°♋56'19	6.01096 AU
morning rise	10254 Jul	03	19:47	9°♋21'50	
retrograde	10254 Nov	11	00:57	29°♋32'23	
opposition	10255 Jan	09	18:49	24°♋34'57	-1°02'34
min. Earth dist.	10255 Jan	10	02:53	24°♋32'17	3.94920 AU
direct	10255 Mar	09	14:43	19°♋39'47	
	10255 Jun	02	10:09	0°♌	
evening set	10255 Jul	14	09:42	9°♌41'03	
conjunction	10255 Jul	27	15:13	12°♌55'02	-0°35'03
minimum elong	10255 Jul	27	15:14	12°♌55'03	0°35'24
max. Earth dist.	10255 Jul	27	20:59	12°♌58'34	5.91088 AU
	10255 Aug	05	03:30	15°♌	
morning rise	10255 Aug	09	22:57	16°♌10'19	
	10255 Oct	11	17:03	0°♍	
retrograde	10255 Dec	20	00:48	7°♍02'55	
opposition	10256 Feb	17	09:38	2°♍02'07	-0°37'29
min. Earth dist.	10256 Feb	16	16:53	2°♍07'46	3.90016 AU
	10256 Mar	03	23:35	30°℞♌	
direct	10256 Apr	15	10:36	27°♌07'21	
	10256 May	27	05:44	0°♍	
evening set	10256 Aug	20	10:47	17°♍16'30	
conjunction	10256 Sep	02	22:54	20°♍33'18	-0°12'08
minimum elong	10256 Sep	02	22:55	20°♍33'18	0°12'15
behind sun begin	10256 Sep	02	17:23	20°♍29'57	
behind sun end	10256 Sep	03	04:28	20°♍36'40	
max. Earth dist.	10256 Sep	04	17:27	20°♍59'11	5.91795 AU
morning rise	10256 Sep	16	13:09	23°♍51'09	
	10256 Oct	12	17:00	0°♎	
retrograde	10257 Jan	25	23:58	14°♎29'10	

asc. node	10257 Feb 25 21:16	12°♎55'21	
min. Earth dist.	10257 Mar 24 22:07	9°♎37'24	3.96303 AU
opposition	10257 Mar 26 08:51	9°♎25'36	0°03'02
direct	10257 May 23 10:11	4°♎29'25	
evening set	10257 Sep 27 08:58	24°♎08'46	
conjunction	10257 Oct 11 00:01	27°♎21'37	0°15'18
minimum elong	10257 Oct 10 24:00	27°♎21'37	0°15'28
behind sun begin	10257 Oct 10 22:06	27°♎20'30	
behind sun end	10257 Oct 11 01:54	27°♎22'44	
max. Earth dist.	10257 Oct 13 11:31	27°♎56'44	6.02914 AU
	10257 Oct 22 05:00	0°♏	
morning rise	10257 Oct 24 16:36	0°♏34'54	
	10258 Jan 02 11:16	15°♏	
retrograde	10258 Mar 02 10:08	20°♏11'19	
min. Earth dist.	10258 Apr 29 12:46	15°♏20'25	4.10945 AU
opposition	10258 May 01 03:35	15°♏07'17	0°40'17
	10258 May 02 01:06	15°℞♏	
direct	10258 Jun 29 02:07	10°♏08'49	
	10258 Aug 25 00:48	15°♏	
evening set	10258 Nov 02 15:32	28°♏57'22	
	10258 Nov 07 06:19	0°♐	
conjunction	10258 Nov 16 05:20	2°♐01'59	0°35'52
minimum elong	10258 Nov 16 05:18	2°♐01'59	0°36'16
max. Earth dist.	10258 Nov 18 11:37	2°♐32'48	6.19678 AU
morning rise	10258 Nov 29 19:02	5°♐06'15	
retrograde	10259 Apr 04 05:44	23°♐27'02	
min. Earth dist.	10259 Jun 02 03:45	18°♐34'40	4.28188 AU
opposition	10259 Jun 03 08:34	18°♐25'04	1°01'08
direct	10259 Aug 02 14:35	13°♐24'50	
	10259 Nov 30 05:43	0°♑	
evening set	10259 Dec 06 14:42	1°♑22'58	
conjunction	10259 Dec 20 00:18	4°♑18'57	0°43'50
minimum elong	10259 Dec 20 00:18	4°♑18'57	0°44'19
max. Earth dist.	10259 Dec 21 08:05	4°♑36'23	6.36012 AU
morning rise	10260 Jan 02 08:50	7°♑14'08	
retrograde	10260 May 03 21:48	24°♑32'28	
opposition	10260 Jul 03 11:58	19°♑33'41	1°02'28
min. Earth dist.	10260 Jul 02 23:49	19°♑37'40	4.42424 AU
direct	10260 Sep 02 22:49	14°♑32'29	
	10260 Dec 28 10:43	0°♒	
evening set	10261 Jan 06 11:55	1°♒54'55	
conjunction	10261 Jan 19 16:43	4°♒44'35	0°38'55
minimum elong	10261 Jan 19 16:44	4°♒44'35	0°39'20
max. Earth dist.	10261 Jan 19 19:59	4°♒46'20	6.47160 AU
morning rise	10261 Feb 01 19:30	7°♒33'12	
	10261 Mar 10 10:24	15°♒	
retrograde	10261 Jun 02 14:41	24°♒15'03	
opposition	10261 Aug 02 12:32	19°♒19'22	0°47'07
min. Earth dist.	10261 Aug 02 20:10	19°♒16'54	4.49873 AU
	10261 Sep 12 06:04	15°℞♒	
direct	10261 Oct 03 20:49	14°♒17'57	
	10261 Oct 25 16:04	15°♒	
	10262 Jan 30 07:08	0°♓	
evening set	10262 Feb 06 01:11	1°♓25'32	
max. Earth dist.	10262 Feb 17 23:21	3°♓58'17	6.50410 AU
conjunction	10262 Feb 19 01:17	4°♓12'10	0°23'48
minimum elong	10262 Feb 19 01:18	4°♓12'11	0°24'03
morning rise	10262 Mar 03 23:29	6°♓57'53	
retrograde	10262 Jul 02 10:27	23°♓33'18	
opposition	10262 Sep 01 11:25	18°♓39'37	0°19'58
min. Earth dist.	10262 Sep 02 13:15	18°♓31'21	4.48831 AU
direct	10262 Nov 03 04:06	13°♓38'24	
	10263 Mar 04 00:36	0°♈	
evening set	10263 Mar 08 04:42	0°♈53'43	
max. Earth dist.	10263 Mar 19 03:40	3°♈16'05	6.45119 AU
conjunction	10263 Mar 21 01:31	3°♈40'59	0°02'29
minimum elong	10263 Mar 21 01:30	3°♈40'59	0°02'30
behind sun begin	10263 Mar 20 17:31	3°♈36'40	
behind sun end	10263 Mar 21 09:29	3°♈45'17	
morning rise	10263 Apr 02 20:23	6°♈27'31	
desc. node	10263 May 02 15:06	12°♈41'01	
retrograde	10263 Aug 02 08:10	23°♈26'57	
opposition	10263 Oct 02 08:57	18°♈33'56	-0°13'03
min. Earth dist.	10263 Oct 03 21:36	18°♈22'14	4.39590 AU
direct	10263 Dec 03 17:13	13°♈33'31	
	10264 Apr 01 00:32	0°♉	
evening set	10264 Apr 06 22:31	1°♉18'20	
max. Earth dist.	10264 Apr 17 10:16	3°♉38'43	6.32502 AU
conjunction	10264 Apr 19 17:27	4°♉09'38	-0°20'12
minimum elong	10264 Apr 19 17:26	4°♉09'37	0°20'25
morning rise	10264 May 02 11:21	7°♉00'42	
	10264 Jun 09 00:32	15°♉	
retrograde	10264 Sep 03 11:12	24°♉52'42	
opposition	10264 Nov 03 03:38	19°♉59'11	-0°44'17
min. Earth dist.	10264 Nov 04 19:04	19°♉46'29	4.24303 AU
direct	10265 Jan 03 14:51	15°♉00'12	
	10265 Apr 23 15:35	0°♊	
evening set	10265 May 09 04:49	3°♊31'54	
max. Earth dist.	10265 May 19 22:35	6°♊01'16	6.15692 AU
conjunction	10265 May 22 00:30	6°♊30'17	-0°37'46
minimum elong	10265 May 22 00:29	6°♊30'17	0°38'12
morning rise	10265 Jun 03 20:18	9°♊29'04	
retrograde	10265 Oct 09 03:42	28°♊33'59	
opposition	10265 Dec 08 09:20	23°♊38'49	-1°03'34
min. Earth dist.	10265 Dec 09 12:40	23°♊29'53	4.07212 AU
direct	10266 Feb 06 10:39	18°♊41'57	
	10266 May 08 05:18	0°♋	
evening set	10266 Jun 12 16:16	8°♋06'24	
conjunction	10266 Jun 25 15:58	11°♋13'31	-0°43'24
minimum elong	10266 Jun 25 15:58	11°♋13'31	0°43'52
max. Earth dist.	10266 Jun 24 14:11	10°♋57'59	5.99836 AU
morning rise	10266 Jul 08 17:02	14°♋21'39	
	10266 Sep 21 17:57	0°♌	
retrograde	10266 Nov 16 05:58	4°♌38'06	
	10267 Jan 12 10:48	30°℞♋	
opposition	10267 Jan 14 22:15	29°♋40'14	-1°00'32
min. Earth dist.	10267 Jan 15 04:11	29°♋38'16	3.94131 AU
direct	10267 Mar 14 16:32	24°♋45'09	
	10267 May 11 16:01	0°♌	
evening set	10267 Jul 19 10:08	14°♌47'56	
	10267 Jul 20 05:58	15°♌	
conjunction	10267 Aug 01 16:37	18°♌02'28	-0°32'38
minimum elong	10267 Aug 01 16:38	18°♌02'29	0°32'58
max. Earth dist.	10267 Aug 02 03:17	18°♌09'00	5.90858 AU
morning rise	10267 Aug 15 01:15	21°♌18'18	
	10267 Sep 21 09:03	0°♍	
retrograde	10267 Dec 25 04:31	12°♍11'11	
opposition	10268 Feb 22 12:25	7°♍10'01	-0°32'34
min. Earth dist.	10268 Feb 21 17:15	7°♍16'29	3.90394 AU
direct	10268 Apr 20 11:28	2°♍15'10	
evening set	10268 Aug 25 12:33	22°♍22'02	
conjunction	10268 Sep 08 01:09	25°♍38'40	-0°08'29
minimum elong	10268 Sep 08 01:10	25°♍38'40	0°08'33

behind sun begin	10268 Sep	07	17:53	25°♍34'17	
behind sun end	10268 Sep	08	08:27	25°♍43'04	
max. Earth dist.	10268 Sep	09	20:50	26°♍05'10	5.92716 AU
morning rise	10268 Sep	21	16:10	28°♍56'21	
	10268 Sep	26	02:21	0°♎	
asc. node	10269 Jan	08	23:29	18°♎41'27	
retrograde	10269 Jan	30	20:06	19°♎28'52	
min. Earth dist.	10269 Mar	29	18:25	14°♎37'23	3.97666 AU
opposition	10269 Mar	31	06:23	14°♎25'09	0°08'34
direct	10269 May	28	09:09	9°♎28'41	
evening set	10269 Oct	02	07:58	29°♎03'16	
	10269 Oct	06	08:51	0°♏	
conjunction	10269 Oct	15	23:16	2°♏15'25	0°18'37
minimum elong	10269 Oct	15	23:15	2°♏15'25	0°18'49
max. Earth dist.	10269 Oct	18	10:57	2°♏50'30	6.04601 AU
morning rise	10269 Oct	29	15:40	5°♏27'51	
	10269 Dec	11	23:12	15°♏	
retrograde	10270 Mar	07	01:40	24°♏56'01	
min. Earth dist.	10270 May	04	05:12	20°♏04'46	4.12772 AU
opposition	10270 May	05	18:18	19°♏52'14	0°44'10
	10270 Jun	25	19:27	15°℞♏	
direct	10270 Jul	03	20:51	14°♏53'31	
	10270 Jul	11	22:04	15°♏	
	10270 Oct	22	02:39	0°♐	
evening set	10270 Nov	07	09:19	3°♐36'52	
conjunction	10270 Nov	20	22:46	6°♐40'34	0°37'42
minimum elong	10270 Nov	20	22:45	6°♐40'33	0°38'06
max. Earth dist.	10270 Nov	23	03:09	7°♐10'10	6.21498 AU
morning rise	10270 Dec	04	12:03	9°♐43'50	
retrograde	10271 Apr	08	12:31	27°♐56'59	
opposition	10271 Jun	07	17:15	22°♐55'24	1°02'23
min. Earth dist.	10271 Jun	06	13:30	23°♐04'39	4.29870 AU
direct	10271 Aug	07	01:41	17°♐55'03	
	10271 Nov	13	13:53	0°♑	
evening set	10271 Dec	11	02:42	5°♑49'07	
conjunction	10271 Dec	24	11:46	8°♑44'18	0°43'49
minimum elong	10271 Dec	24	11:46	8°♑44'18	0°44'18
max. Earth dist.	10271 Dec	25	16:14	8°♑59'52	6.37451 AU
morning rise	10272 Jan	06	19:34	11°♑38'38	
retrograde	10272 May	08	03:10	28°♑51'46	
opposition	10272 Jul	07	17:12	23°♑53'28	1°01'10
min. Earth dist.	10272 Jul	07	07:45	23°♑56'33	4.43524 AU
direct	10272 Sep	07	07:38	18°♑52'16	
	10272 Dec	11	15:58	0°♒	
evening set	10273 Jan	10	19:35	6°♒12'24	
conjunction	10273 Jan	23	23:42	9°♒01'34	0°37'18
minimum elong	10273 Jan	23	23:43	9°♒01'34	0°37'41
max. Earth dist.	10273 Jan	23	22:42	9°♒01'02	6.47843 AU
morning rise	10273 Feb	06	01:57	11°♒49'42	
	10273 Feb	21	04:14	15°♒	
retrograde	10273 Jun	06	18:32	28°♒29'27	
opposition	10273 Aug	06	16:33	23°♒34'03	0°43'51
min. Earth dist.	10273 Aug	07	02:22	23°♒30'53	4.50108 AU
direct	10273 Oct	08	02:15	18°♒32'36	
	10274 Jan	13	17:49	0°♓	
evening set	10274 Feb	10	06:25	5°♓40'08	
max. Earth dist.	10274 Feb	22	02:49	8°♓12'01	6.50169 AU
conjunction	10274 Feb	23	06:09	8°♓26'40	0°21'03
minimum elong	10274 Feb	23	06:10	8°♓26'41	0°21'16
morning rise	10274 Mar	08	03:38	11°♓12'15	
retrograde	10274 Jul	06	15:07	27°♓48'58	
opposition	10274 Sep	05	17:02	22°♓55'26	0°15'30
min. Earth dist.	10274 Sep	06	20:03	22°♓46'48	4.48103 AU
direct	10274 Nov	07	08:47	17°♓54'19	
	10275 Feb	15	16:00	0°♈	
desc. node	10275 Mar	11	05:48	4°♈56'41	
evening set	10275 Mar	12	10:10	5°♈12'00	
max. Earth dist.	10275 Mar	23	06:08	7°♈33'10	6.43912 AU
conjunction	10275 Mar	25	06:27	7°♈59'31	-0°00'50
minimum elong	10275 Mar	25	06:27	7°♈59'31	0°00'52
behind sun begin	10275 Mar	24	22:28	7°♈55'11	
behind sun end	10275 Mar	25	14:25	8°♈03'50	
morning rise	10275 Apr	07	01:09	10°♈46'25	
retrograde	10275 Aug	06	20:06	27°♈50'57	
opposition	10275 Oct	06	19:13	22°♈57'55	-0°17'44
min. Earth dist.	10275 Oct	08	09:39	22°♈45'37	4.37931 AU
direct	10275 Dec	08	02:17	17°♈57'36	
	10276 Mar	15	11:39	0°♉	
evening set	10276 Apr	11	07:06	5°♉47'24	
max. Earth dist.	10276 Apr	21	18:15	8°♉08'05	6.30494 AU
conjunction	10276 Apr	24	02:02	8°♉39'27	-0°23'05
minimum elong	10276 Apr	24	02:01	8°♉39'27	0°23'21
morning rise	10276 May	06	19:56	11°♉31'20	
	10276 May	22	13:46	15°♉	
retrograde	10276 Sep	08	04:26	29°♉31'54	
opposition	10276 Nov	07	20:35	24°♉38'12	-0°47'54
min. Earth dist.	10276 Nov	09	10:31	24°♉25'58	4.22073 AU
direct	10277 Jan	08	02:39	19°♉39'29	
	10277 Apr	06	03:26	0°♊	
evening set	10277 May	13	19:39	8°♊18'05	
max. Earth dist.	10277 May	24	16:06	10°♊49'46	6.13415 AU
conjunction	10277 May	26	15:38	11°♊17'33	-0°39'23
minimum elong	10277 May	26	15:37	11°♊17'32	0°39'49
morning rise	10277 Jun	08	11:55	14°♊17'31	
	10277 Aug	26	18:05	0°♋	
retrograde	10277 Oct	14	07:31	3°♋32'44	
	10277 Dec	02	17:53	30°℞♊	
opposition	10277 Dec	13	10:29	28°♊37'16	-1°04'37
min. Earth dist.	10277 Dec	14	12:26	28°♊28'46	4.05067 AU
direct	10278 Feb	11	08:18	23°♊40'38	
	10278 Apr	17	12:31	0°♋	
evening set	10278 Jun	17	14:36	13°♋11'41	
conjunction	10278 Jun	30	15:13	16°♋20'02	-0°42'53
minimum elong	10278 Jun	30	15:13	16°♋20'02	0°43'21
max. Earth dist.	10278 Jun	29	17:35	16°♋06'58	5.98033 AU
morning rise	10278 Jul	13	17:15	19°♋29'27	
	10278 Aug	29	04:31	0°♌	
retrograde	10278 Nov	21	14:53	9°♌53'55	
opposition	10279 Jan	20	05:18	4°♌55'39	-0°58'00
min. Earth dist.	10279 Jan	20	07:38	4°♌54'52	3.92886 AU
direct	10279 Mar	19	19:06	0°♌00'42	
	10279 Jul	03	05:19	15°♌	
evening set	10279 Jul	24	15:16	20°♌06'51	
conjunction	10279 Aug	06	22:34	23°♌22'06	-0°29'52
minimum elong	10279 Aug	06	22:35	23°♌22'06	0°30'11
max. Earth dist.	10279 Aug	07	12:53	23°♌30'51	5.90286 AU
morning rise	10279 Aug	20	08:23	26°♌38'42	
	10279 Sep	03	07:09	0°♍	
retrograde	10279 Dec	30	11:10	17°♍32'58	
opposition	10280 Feb	27	19:55	12°♍31'20	-0°27'11
min. Earth dist.	10280 Feb	26	21:23	12°♍38'57	3.90573 AU
direct	10280 Apr	25	17:55	7°♍36'19	
evening set	10280 Aug	30	19:53	27°♍41'31	
	10280 Sep	09	09:23	0°♎	

conjunction	10280 Sep 13 09:18	0°♎58'02	-0°04'36
minimum elong	10280 Sep 13 09:18	0°♎58'02	0°04'37
behind sun begin	10280 Sep 13 01:07	0°♎53'06	
behind sun end	10280 Sep 13 17:30	1°♎02'58	
max. Earth dist.	10280 Sep 15 09:19	1°♎27'05	5.93643 AU
morning rise	10280 Sep 27 00:43	4°♎15'28	
asc. node	10280 Nov 18 17:20	15°♎59'02	
retrograde	10281 Feb 04 23:17	24°♎41'51	
min. Earth dist.	10281 Apr 03 20:26	19°♎50'20	3.99224 AU
opposition	10281 Apr 05 08:50	19°♎37'58	0°14'17
direct	10281 Jun 02 14:36	14°♎41'11	
	10281 Sep 19 08:26	0°♏	
evening set	10281 Oct 07 11:57	4°♏09'56	
conjunction	10281 Oct 21 03:15	7°♏21'09	0°21'57
minimum elong	10281 Oct 21 03:13	7°♏21'08	0°22'13
max. Earth dist.	10281 Oct 23 16:13	7°♏56'48	6.06640 AU
morning rise	10281 Nov 03 19:32	10°♏32'32	
	10281 Nov 23 09:44	15°♏	
retrograde	10282 Mar 11 17:29	29°♏50'34	
min. Earth dist.	10282 May 08 22:57	24°♏59'39	4.15106 AU
opposition	10282 May 10 12:37	24°♏46'56	0°47'55
direct	10282 Jul 08 17:55	19°♏47'58	
	10282 Oct 03 23:21	0°♐	
evening set	10282 Nov 12 06:06	8°♐23'56	
conjunction	10282 Nov 25 18:56	11°♐26'19	0°39'22
minimum elong	10282 Nov 25 18:55	11°♐26'19	0°39'48
max. Earth dist.	10282 Nov 27 20:26	11°♐54'09	6.23942 AU
morning rise	10282 Dec 09 07:32	14°♐28'13	
	10283 Mar 03 06:39	0°♑	
retrograde	10283 Apr 12 22:12	2°♑31'22	
	10283 May 23 11:00	30°℞♐	
min. Earth dist.	10283 Jun 11 02:47	27°♐38'30	4.32223 AU
opposition	10283 Jun 12 03:53	27°♐30'09	1°03'20
direct	10283 Aug 11 17:55	22°♐29'36	
	10283 Oct 25 11:55	0°♑	
evening set	10283 Dec 15 15:28	10°♑17'03	
conjunction	10283 Dec 28 23:51	13°♑11'06	0°43'37
minimum elong	10283 Dec 28 23:51	13°♑11'07	0°44'05
max. Earth dist.	10283 Dec 30 01:37	13°♑25'08	6.39538 AU
morning rise	10284 Jan 11 06:45	16°♑04'15	
	10284 Mar 26 22:28	0°♒	
retrograde	10284 May 12 05:10	3°♒10'02	
	10284 Jun 27 19:22	30°℞♑	
opposition	10284 Jul 11 21:58	28°♑12'05	0°59'36
min. Earth dist.	10284 Jul 11 14:12	28°♑14'37	4.45217 AU
direct	10284 Sep 11 15:21	23°♑10'47	
	10284 Nov 22 15:56	0°♒	
evening set	10285 Jan 15 01:57	10°♒26'41	
conjunction	10285 Jan 28 05:21	13°♒15'06	0°35'32
minimum elong	10285 Jan 28 05:22	13°♒15'06	0°35'55
max. Earth dist.	10285 Jan 28 00:47	13°♒12'39	6.49021 AU
	10285 Feb 05 09:27	15°♒	
morning rise	10285 Feb 10 06:45	16°♒02'29	
	10285 Apr 29 10:23	0°♓	
retrograde	10285 Jun 10 20:09	2°♓38'49	
	10285 Jul 23 09:52	30°℞♒	
opposition	10285 Aug 10 19:06	27°♒43'44	0°40'27
min. Earth dist.	10285 Aug 11 08:00	27°♒39'36	4.50691 AU
direct	10285 Oct 12 07:32	22°♒42'17	
	10285 Dec 26 12:26	0°♓	
evening set	10286 Feb 14 09:19	9°♓48'42	
max. Earth dist.	10286 Feb 26 00:03	12°♓17'41	6.50092 AU

conjunction	10286 Feb 27 08:20	12°♓35'00	0°18'17
minimum elong	10286 Feb 27 08:20	12°♓35'00	0°18'28
morning rise	10286 Mar 12 05:25	15°♓20'26	
	10286 Jun 04 09:18	0°♈	
retrograde	10286 Jul 10 18:59	1°♈58'19	
	10286 Aug 16 06:45	30°℞♓	
opposition	10286 Sep 09 20:43	27°♓04'53	0°11'06
min. Earth dist.	10286 Sep 11 02:16	26°♓55'26	4.47361 AU
direct	10286 Nov 11 12:26	22°♓03'44	
desc. node	10287 Jan 19 15:50	28°♓23'50	
	10287 Jan 28 23:08	0°♈	
evening set	10287 Mar 16 13:18	9°♈24'02	
max. Earth dist.	10287 Mar 27 07:40	11°♈44'44	6.42540 AU
conjunction	10287 Mar 29 09:24	12°♈11'56	-0°04'00
minimum elong	10287 Mar 29 09:24	12°♈11'56	0°04'03
behind sun begin	10287 Mar 29 01:32	12°♈07'39	
behind sun end	10287 Mar 29 17:16	12°♈16'13	
morning rise	10287 Apr 11 03:41	14°♈59'14	
	10287 Jul 04 03:31	0°♉	
retrograde	10287 Aug 11 04:31	2°♉09'38	
	10287 Sep 18 11:37	30°℞♈	
opposition	10287 Oct 11 03:33	27°♈16'35	-0°22'13
min. Earth dist.	10287 Oct 12 18:44	27°♈04'04	4.35998 AU
direct	10287 Dec 12 07:26	22°♈16'25	
	10288 Feb 26 08:19	0°♉	
evening set	10288 Apr 15 14:31	10°♉12'24	
max. Earth dist.	10288 Apr 26 00:29	12°♉33'13	6.28120 AU
conjunction	10288 Apr 28 09:19	13°♉05'22	-0°25'48
minimum elong	10288 Apr 28 09:18	13°♉05'21	0°26'07
	10288 May 06 20:03	15°♉	
morning rise	10288 May 11 03:29	15°♉58'17	
	10288 Jul 21 16:52	0°♊	
retrograde	10288 Sep 13 00:02	4°♊09'07	
	10288 Nov 06 18:18	30°℞♉	
opposition	10288 Nov 12 13:25	29°♉15'15	-0°51'14
min. Earth dist.	10288 Nov 14 03:35	29°♉02'54	4.19393 AU
direct	10289 Jan 12 15:47	24°♉16'44	
	10289 Mar 16 14:26	0°♊	
evening set	10289 May 18 10:31	13°♊04'01	
max. Earth dist.	10289 May 29 09:39	15°♊38'11	6.10662 AU
conjunction	10289 May 31 07:07	16°♊04'55	-0°40'45
minimum elong	10289 May 31 07:06	16°♊04'55	0°41'12
morning rise	10289 Jun 13 04:01	19°♊06'22	
	10289 Aug 02 01:53	0°♋	
retrograde	10289 Oct 19 11:44	8°♋33'53	
opposition	10289 Dec 18 12:52	3°♋38'10	-1°05'15
min. Earth dist.	10289 Dec 19 11:58	3°♋30'35	4.02494 AU
	10290 Jan 18 17:59	30°℞♊	
direct	10290 Feb 16 04:37	28°♊41'53	
	10290 Mar 16 11:52	0°♋	
evening set	10290 Jun 22 15:18	18°♋21'25	
conjunction	10290 Jul 05 16:42	21°♋31'11	-0°42'03
minimum elong	10290 Jul 05 16:43	21°♋31'11	0°42'30
max. Earth dist.	10290 Jul 04 22:46	21°♋20'18	5.95887 AU
morning rise	10290 Jul 18 19:58	24°♋42'08	
	10290 Aug 10 05:46	0°♌	
	10290 Nov 14 08:35	15°♌	
retrograde	10290 Nov 27 01:58	15°♌16'03	
	10290 Dec 09 19:01	15°℞♌	
opposition	10291 Jan 25 14:48	10°♌17'19	-0°54'58
min. Earth dist.	10291 Jan 25 13:07	10°♌17'53	3.91412 AU
direct	10291 Mar 25 00:48	5°♌22'30	
	10291 Jun 14 01:00	15°♌	

evening set	10291 Jul	29	23:37	25°♌32'58	
conjunction	10291 Aug	12	08:10	28°♌49'06	-0°26'49
minimum elong	10291 Aug	12	08:11	28°♌49'06	0°27'07
max. Earth dist.	10291 Aug	13	05:43	29°♌02'18	5.89663 AU
	10291 Aug	17	03:49	0°♍	
morning rise	10291 Aug	25	18:56	2°♍06'29	
retrograde	10292 Jan	04	23:24	23°♍01'53	
min. Earth dist.	10292 Mar	03	05:19	18°♍08'18	3.90880 AU
opposition	10292 Mar	04	06:18	17°♍59'49	-0°21'30
direct	10292 May	01	04:09	13°♍04'42	
	10292 Aug	23	02:32	0°♎	
evening set	10292 Sep	05	06:08	3°♎07'30	
conjunction	10292 Sep	18	20:04	6°♎23'43	-0°00'34
minimum elong	10292 Sep	18	20:05	6°♎23'44	0°00'34
behind sun begin	10292 Sep	18	11:42	6°♎18'42	
behind sun end	10292 Sep	19	04:28	6°♎28'45	
max. Earth dist.	10292 Sep	21	00:17	6°♎55'11	5.94825 AU
asc. node	10292 Sep	26	23:01	8°♎21'04	
morning rise	10292 Oct	02	12:04	9°♎40'47	
retrograde	10293 Feb	10	01:50	29°♎59'31	
min. Earth dist.	10293 Apr	08	22:03	25°♎08'39	4.01134 AU
opposition	10293 Apr	10	12:51	24°♎55'28	0°19'54
direct	10293 Jun	07	19:57	19°♎58'24	
	10293 Aug	31	09:01	0°♏	
evening set	10293 Oct	12	17:25	9°♏19'56	
conjunction	10293 Oct	26	08:27	12°♏29'56	0°25'08
minimum elong	10293 Oct	26	08:26	12°♏29'55	0°25'26
max. Earth dist.	10293 Oct	28	20:28	13°♏04'50	6.09060 AU
	10293 Nov	06	03:07	15°♏	
morning rise	10293 Nov	09	00:27	15°♏40'00	
	10294 Jan	18	20:11	0°♐	
retrograde	10294 Mar	16	10:30	4°♐46'35	
	10294 May	13	05:11	30°℞♏	
min. Earth dist.	10294 May	13	19:17	29°♏55'15	4.17749 AU
opposition	10294 May	15	07:18	29°♏43'06	0°51'17
direct	10294 Jul	13	18:01	24°♏43'50	
	10294 Sep	11	21:17	0°♐	
evening set	10294 Nov	17	02:50	13°♐11'33	
conjunction	10294 Nov	30	15:13	16°♐12'35	0°40'46
minimum elong	10294 Nov	30	15:12	16°♐12'35	0°41'14
max. Earth dist.	10294 Dec	02	15:24	16°♐39'31	6.26574 AU
morning rise	10294 Dec	14	02:56	19°♐13'00	
	10295 Feb	04	22:09	0°♑	
retrograde	10295 Apr	17	05:36	7°♑05'51	
opposition	10295 Jun	16	14:11	2°♑05'05	1°03'51
min. Earth dist.	10295 Jun	15	14:25	2°♑12'57	4.34621 AU
	10295 Jul	02	20:48	30°℞♐	
direct	10295 Aug	16	08:05	27°♐04'25	
	10295 Sep	30	03:07	0°♑	
evening set	10295 Dec	20	03:57	14°♑45'26	
conjunction	10296 Jan	02	11:28	17°♑38'23	0°43'08
minimum elong	10296 Jan	02	11:28	17°♑38'23	0°43'35
max. Earth dist.	10296 Jan	03	07:46	17°♑49'23	6.41521 AU
morning rise	10296 Jan	15	17:38	20°♑30'25	
	10296 Mar	03	01:33	0°♒	
retrograde	10296 May	16	09:57	7°♒29'44	
opposition	10296 Jul	16	03:23	2°♒32'14	0°57'40
min. Earth dist.	10296 Jul	15	23:30	2°♒33'29	4.46659 AU
	10296 Aug	05	15:13	30°℞♑	
direct	10296 Sep	16	01:31	27°♑30'51	
	10296 Oct	27	18:09	0°♒	
evening set	10297 Jan	19	08:43	14°♒43'29	
	10297 Jan	20	15:50	15°♒	
conjunction	10297 Feb	01	11:29	17°♒31'20	0°33'33
minimum elong	10297 Feb	01	11:30	17°♒31'21	0°33'54
max. Earth dist.	10297 Feb	01	02:42	17°♒26'38	6.49823 AU
morning rise	10297 Feb	14	12:11	20°♒18'10	
	10297 Apr	04	18:53	0°♓	
retrograde	10297 Jun	14	22:23	6°♓52'33	
opposition	10297 Aug	14	22:59	1°♓57'43	0°36'46
min. Earth dist.	10297 Aug	15	14:03	1°♓52'53	4.50828 AU
	10297 Aug	30	16:02	30°℞♒	
direct	10297 Oct	16	12:09	26°♒56'15	
	10297 Dec	02	09:31	0°♓	
evening set	10298 Feb	18	14:02	14°♓03'03	
max. Earth dist.	10298 Mar	02	01:59	16°♓30'45	6.49557 AU
conjunction	10298 Mar	03	12:37	16°♓49'22	0°15'21
minimum elong	10298 Mar	03	12:38	16°♓49'22	0°15'29
behind sun begin	10298 Mar	03	10:29	16°♓48'13	
behind sun end	10298 Mar	03	14:47	16°♓50'31	
morning rise	10298 Mar	16	09:07	19°♓34'47	
	10298 May	08	13:44	0°♈	
retrograde	10298 Jul	15	01:37	6°♈15'22	
opposition	10298 Sep	14	03:15	1°♈22'04	0°06'28
min. Earth dist.	10298 Sep	15	11:10	1°♈11'52	4.46180 AU
	10298 Sep	24	23:26	30°℞♓	
direct	10298 Nov	15	18:57	26°♓21'01	
desc. node	10298 Nov	29	00:59	26°♓36'46	
	10299 Jan	05	22:36	0°♈	
evening set	10299 Mar	20	19:38	13°♈45'11	
max. Earth dist.	10299 Mar	31	10:09	16°♈04'26	6.40779 AU
conjunction	10299 Apr	02	15:19	16°♈33'37	-0°07'13
minimum elong	10299 Apr	02	15:19	16°♈33'37	0°07'19
behind sun begin	10299 Apr	02	08:00	16°♈29'37	
behind sun end	10299 Apr	02	22:37	16°♈37'37	
morning rise	10299 Apr	15	09:37	19°♈21'34	
	10299 Jun	07	08:04	0°♉	
retrograde	10299 Aug	15	18:54	6°♉39'16	
opposition	10299 Oct	15	16:29	1°♉46'07	-0°26'47
min. Earth dist.	10299 Oct	17	08:29	1°♉33'17	4.33749 AU
	10299 Oct	29	18:53	30°℞♈	
direct	10299 Dec	16	17:45	26°♈46'03	
	10300 Feb	01	23:22	0°♉	
evening set	10300 Apr	21	01:59	14°♉49'02	
	10300 Apr	21	21:26	15°♉	
max. Earth dist.	10300 May	01	13:17	17°♉11'22	6.25559 AU
conjunction	10300 May	03	21:02	17°♉43'05	-0°28'29
minimum elong	10300 May	03	21:01	17°♉43'04	0°28'49
morning rise	10300 May	16	15:17	20°♉37'06	
	10300 Jun	29	13:48	0°♊	
retrograde	10300 Sep	18	22:58	8°♊58'44	
opposition	10300 Nov	18	11:07	4°♊04'41	-0°54'22
min. Earth dist.	10300 Nov	19	23:51	3°♊52'48	4.16713 AU
	10300 Dec	25	12:53	30°℞♉	
direct	10301 Jan	18	08:21	29°♉06'31	
	10301 Feb	11	03:15	0°♊	
evening set	10301 May	24	06:22	18°♊02'17	
max. Earth dist.	10301 Jun	04	08:01	20°♊38'52	6.08094 AU
conjunction	10301 Jun	06	03:21	21°♊04'30	-0°41'53
minimum elong	10301 Jun	06	03:20	21°♊04'30	0°42'21
morning rise	10301 Jun	19	01:07	24°♊07'25	
	10301 Jul	14	15:24	0°♋	
retrograde	10301 Oct	25	20:47	13°♋46'25	
opposition	10301 Dec	24	19:47	8°♋50'18	-1°05'23

min. Earth dist.	10301 Dec 25	15:25	8°♋43'50	4.00290 AU	
direct	10302 Feb 22	06:59	3°♋54'17		
evening set	10302 Jun 28	19:40	23°♋40'33		
conjunction	10302 Jul 11	22:13	26°♋51'33	-0°40'51	
minimum elong	10302 Jul 11	22:14	26°♋51'34	0°41'17	
max. Earth dist.	10302 Jul 11	11:14	26°♋44'52	5.94299 AU	
	10302 Jul 24	20:15	0°♌		
morning rise	10302 Jul 25	02:25	0°♌03'44		
	10302 Oct 02	14:39	15°♌		
retrograde	10302 Dec 03	16:13	20°♌44'15		
opposition	10303 Feb 01	02:56	15°♌45'03	-0°51'23	
min. Earth dist.	10303 Jan 31	21:56	15°♌46'43	3.90658 AU	
	10303 Feb 06	17:53	15°℞♌		
direct	10303 Mar 31	09:59	10°♌50'21		
	10303 May 21	08:26	15°♌		
	10303 Aug 01	03:40	0°♍		
evening set	10303 Aug 05	09:32	1°♍01'51		
conjunction	10303 Aug 18	18:54	4°♍18'20	-0°23'31	
minimum elong	10303 Aug 18	18:55	4°♍18'20	0°23'45	
max. Earth dist.	10303 Aug 19	21:34	4°♍34'39	5.89817 AU	
morning rise	10303 Sep 01	06:44	7°♍36'05		
retrograde	10304 Jan 11	07:51	28°♍28'48		
min. Earth dist.	10304 Mar 09	10:48	23°♍36'07	3.91951 AU	
opposition	10304 Mar 10	15:44	23°♍26'19	-0°15'39	
direct	10304 May 07	13:08	18°♍30'58		
	10304 Aug 05	16:39	0°♎		
asc. node	10304 Aug 06	15:43	0°♎12'26		
evening set	10304 Sep 11	15:05	8°♎28'31		
conjunction	10304 Sep 25	05:21	11°♎44'00	0°03'26	
minimum elong	10304 Sep 25	05:20	11°♎43'59	0°03'29	
behind sun begin	10304 Sep 24	21:01	11°♎39'01		
behind sun end	10304 Sep 25	13:39	11°♎48'57		
max. Earth dist.	10304 Sep 27	11:30	12°♎16'29	5.96678 AU	
morning rise	10304 Oct 08	21:34	15°♎00'13		
	10304 Dec 19	13:37	0°♏		
retrograde	10305 Feb 16	00:54	5°♏08'52		
min. Earth dist.	10305 Apr 14	23:03	0°♏17'49	4.03532 AU	
opposition	10305 Apr 16	13:46	0°♏04'40	0°25'12	
	10305 Apr 17	03:28	30°℞♎		
direct	10305 Jun 14	01:08	25°♎07'13		
	10305 Aug 09	13:22	0°♏		
evening set	10305 Oct 18	19:14	14°♏20'09		
	10305 Oct 21	16:28	15°♏		
conjunction	10305 Nov 01	10:10	17°♏28'49	0°28'02	
minimum elong	10305 Nov 01	10:09	17°♏28'48	0°28'21	
max. Earth dist.	10305 Nov 03	22:50	18°♏03'52	6.11770 AU	
morning rise	10305 Nov 15	01:34	20°♏37'24		
	10305 Dec 28	10:42	0°♐		
retrograde	10306 Mar 21	23:31	9°♐31'59		
min. Earth dist.	10306 May 19	11:10	4°♐40'38	4.20501 AU	
opposition	10306 May 20	22:17	4°♐28'51	0°54'10	
	10306 Jul 01	20:57	30°℞♏		
direct	10306 Jul 19	13:07	29°♏29'22		
	10306 Aug 06	09:34	0°♐		
evening set	10306 Nov 22	19:46	17°♐48'52		
conjunction	10306 Dec 06	07:19	20°♐48'31	0°41'51	
minimum elong	10306 Dec 06	07:19	20°♐48'31	0°42'20	
max. Earth dist.	10306 Dec 08	02:28	21°♐12'30	6.29126 AU	
morning rise	10306 Dec 19	18:24	23°♐47'33		
	10307 Jan 17	20:44	0°♑		
retrograde	10307 Apr 22	11:33	11°♑31'01		
opposition	10307 Jun 21	21:25	6°♑30'44	1°04'00	
min. Earth dist.	10307 Jun 21	01:06	6°♑37'26	4.36793 AU	
direct	10307 Aug 21	20:28	1°♑29'53		
evening set	10307 Dec 25	13:14	19°♑05'32		
conjunction	10308 Jan 07	20:13	21°♑57'35	0°42'26	
minimum elong	10308 Jan 07	20:14	21°♑57'36	0°42'54	
max. Earth dist.	10308 Jan 08	13:18	22°♑06'49	6.43163 AU	
morning rise	10308 Jan 21	01:27	24°♑48'40		
	10308 Feb 14	21:31	0°♒		
retrograde	10308 May 21	10:53	11°♒42'51		
opposition	10308 Jul 21	06:23	6°♒45'51	0°55'31	
min. Earth dist.	10308 Jul 21	04:44	6°♒46'23	4.47693 AU	
direct	10308 Sep 21	06:29	1°♒44'29		
	10309 Jan 05	17:47	15°♒		
evening set	10309 Jan 24	13:44	18°♒55'21		
conjunction	10309 Feb 06	15:48	21°♒42'49	0°31'26	
minimum elong	10309 Feb 06	15:49	21°♒42'50	0°31'46	
max. Earth dist.	10309 Feb 06	02:02	21°♒35'28	6.50181 AU	
morning rise	10309 Feb 19	15:57	24°♒29'19		
	10309 Mar 18	09:23	0°♓		
retrograde	10309 Jun 20	02:24	11°♓03'21		
opposition	10309 Aug 20	02:20	6°♓08'54	0°33'00	
min. Earth dist.	10309 Aug 20	21:05	6°♓02'53	4.50504 AU	
direct	10309 Oct 21	17:43	1°♓07'30		
evening set	10310 Feb 23	18:09	18°♓16'09		
max. Earth dist.	10310 Mar 07	01:41	20°♓41'53	6.48569 AU	
conjunction	10310 Mar 08	16:18	21°♓02'40	0°12'22	
minimum elong	10310 Mar 08	16:19	21°♓02'40	0°12'29	
behind sun begin	10310 Mar 08	11:08	20°♓59'54		
behind sun end	10310 Mar 08	21:31	21°♓05'27		
morning rise	10310 Mar 21	12:29	23°♓48'22		
	10310 Apr 20	10:47	0°♈		
retrograde	10310 Jul 20	08:50	10°♈33'16		
opposition	10310 Sep 19	10:24	5°♈40'04	0°01'51	
min. Earth dist.	10310 Sep 20	19:22	5°♈29'32	4.44603 AU	
desc. node	10310 Oct 10	22:19	3°♈03'36		
direct	10310 Nov 21	00:00	0°♈39'10		
evening set	10311 Mar 26	02:43	18°♈08'33		
max. Earth dist.	10311 Apr 05	17:16	20°♈28'26	6.38731 AU	
conjunction	10311 Apr 07	22:19	20°♈57'43	-0°10'23	
minimum elong	10311 Apr 07	22:18	20°♈57'43	0°10'31	
behind sun begin	10311 Apr 07	16:04	20°♈54'17		
behind sun end	10311 Apr 08	04:33	21°♈01'08		
morning rise	10311 Apr 20	16:21	23°♈46'25		
	10311 May 19	23:06	0°♉		
retrograde	10311 Aug 21	10:21	11°♉12'24		
opposition	10311 Oct 21	06:45	6°♉19'16	-0°31'12	
min. Earth dist.	10311 Oct 22	23:10	6°♉06'18	4.31365 AU	
direct	10311 Dec 22	04:51	1°♉19'31		
	10312 Apr 05	08:29	15°♉		
evening set	10312 Apr 25	15:09	19°♉29'58		
max. Earth dist.	10312 May 06	02:24	21°♉53'10	6.23020 AU	
conjunction	10312 May 08	10:11	22°♉25'04	-0°31'00	
minimum elong	10312 May 08	10:10	22°♉25'04	0°31'20	
morning rise	10312 May 21	04:54	25°♉20'19		
	10312 Jun 11	01:37	0°♊		
retrograde	10312 Sep 23	23:53	13°♊52'48		
opposition	10312 Nov 23	10:28	8°♊58'31	-0°57'08	
min. Earth dist.	10312 Nov 24	20:53	8°♊47'21	4.14214 AU	
direct	10313 Jan 23	03:14	4°♊00'38		
evening set	10313 May 29	03:06	23°♊04'04		
max. Earth dist.	10313 Jun 09	10:47	25°♊44'57	6.05870 AU	

conjunction	10313 Jun 11 00:49	26°♊07'33	-0°42'41
minimum elong	10313 Jun 11 00:48	26°♊07'33	0°43'10
morning rise	10313 Jun 23 23:09	29°♊11'46	
	10313 Jun 27 08:59	0°♋	
retrograde	10313 Oct 31 06:41	19°♋00'40	
opposition	10313 Dec 30 03:01	14°♋04'12	-1°04'57
min. Earth dist.	10313 Dec 30 19:51	13°♋58'38	3.98561 AU
direct	10314 Feb 27 09:50	9°♋08'28	
evening set	10314 Jul 03 23:57	28°♋59'30	
	10314 Jul 08 03:39	0°♌	
conjunction	10314 Jul 17 03:16	2°♌11'24	-0°39'18
minimum elong	10314 Jul 17 03:17	2°♌11'25	0°39'44
max. Earth dist.	10314 Jul 16 20:25	2°♌07'14	5.93220 AU
morning rise	10314 Jul 30 08:40	5°♌24'35	
	10314 Sep 09 23:07	15°♌	
retrograde	10314 Dec 09 01:34	26°♌09'14	
opposition	10315 Feb 06 12:43	21°♌09'32	-0°47'21
min. Earth dist.	10315 Feb 06 03:08	21°♌12'45	3.90365 AU
direct	10315 Apr 05 16:48	16°♌14'51	
	10315 Jul 14 13:47	0°♍	
evening set	10315 Aug 10 17:30	6°♍25'54	
conjunction	10315 Aug 24 03:42	9°♍42'32	-0°20'04
minimum elong	10315 Aug 24 03:43	9°♍42'32	0°20'16
max. Earth dist.	10315 Aug 25 10:52	10°♍01'35	5.90330 AU
morning rise	10315 Sep 06 16:18	13°♍00'22	
	10315 Nov 27 23:25	0°♎	
retrograde	10316 Jan 16 13:47	3°♎49'08	
	10316 Mar 06 18:32	30°℞♍	
opposition	10316 Mar 15 21:53	28°♍46'14	-0°09'47
min. Earth dist.	10316 Mar 14 15:33	28°♍56'33	3.93191 AU
direct	10316 May 12 21:08	23°♍50'37	
asc. node	10316 Jun 16 05:29	25°♍48'26	
	10316 Jul 15 02:53	0°♎	
evening set	10316 Sep 16 20:56	13°♎42'43	
conjunction	10316 Sep 30 11:40	16°♎57'29	0°07'14
minimum elong	10316 Sep 30 11:39	16°♎57'28	0°07'21
behind sun begin	10316 Sep 30 04:00	16°♎52'56	
behind sun end	10316 Sep 30 19:18	17°♎02'01	
max. Earth dist.	10316 Oct 02 21:09	17°♎31'47	5.98519 AU
morning rise	10316 Oct 14 03:57	20°♎12'50	
	10316 Nov 26 22:26	0°♏	
retrograde	10317 Feb 20 22:00	10°♏11'47	
min. Earth dist.	10317 Apr 19 20:46	5°♏20'49	4.05760 AU
opposition	10317 Apr 21 11:43	5°♏07'36	0°30'13
direct	10317 Jun 19 01:58	0°♏09'52	
	10317 Oct 04 21:41	15°♏	
evening set	10317 Oct 23 18:58	19°♏15'16	
conjunction	10317 Nov 06 09:27	22°♏22'40	0°30'42
minimum elong	10317 Nov 06 09:26	22°♏22'39	0°31'03
max. Earth dist.	10317 Nov 08 19:16	22°♏55'53	6.14164 AU
morning rise	10317 Nov 20 00:34	25°♏29'59	
	10317 Dec 10 04:08	0°♐	
retrograde	10318 Mar 26 10:48	14°♐14'06	
min. Earth dist.	10318 May 24 02:12	9°♐22'24	4.22843 AU
opposition	10318 May 25 11:29	9°♐11'14	0°56'42
direct	10318 Jul 24 07:04	4°♐11'27	
evening set	10318 Nov 27 11:44	22°♐24'22	
conjunction	10318 Dec 10 22:53	25°♐22'55	0°42'42
minimum elong	10318 Dec 10 22:53	25°♐22'55	0°43'10
max. Earth dist.	10318 Dec 12 15:28	25°♐45'23	6.31249 AU
morning rise	10318 Dec 24 09:04	28°♐20'44	
	10318 Dec 31 23:06	0°♑	
retrograde	10319 Apr 26 17:37	15°♑56'16	
min. Earth dist.	10319 Jun 25 10:30	11°♑02'23	4.38542 AU
opposition	10319 Jun 26 04:30	10°♑56'27	1°03'48
direct	10319 Aug 26 07:13	5°♑55'31	
evening set	10319 Dec 29 23:02	23°♑27'01	
conjunction	10320 Jan 12 05:14	26°♑18'19	0°41'29
minimum elong	10320 Jan 12 05:14	26°♑18'19	0°41'56
max. Earth dist.	10320 Jan 12 16:37	26°♑24'27	6.44413 AU
morning rise	10320 Jan 25 09:55	29°♑08'40	
	10320 Jan 29 10:06	0°♒	
	10320 Apr 30 09:01	15°♒	
retrograde	10320 May 25 15:25	15°♒58'55	
	10320 Jun 19 18:44	15°℞♒	
opposition	10320 Jul 25 10:54	11°♒02'18	0°53'03
min. Earth dist.	10320 Jul 25 12:46	11°♒01'42	4.48391 AU
direct	10320 Sep 25 14:12	6°♒00'52	
	10320 Dec 19 02:41	15°♒	
evening set	10321 Jan 28 19:58	23°♒10'43	
conjunction	10321 Feb 10 21:38	25°♒57'57	0°29'07
minimum elong	10321 Feb 10 21:38	25°♒57'58	0°29'24
max. Earth dist.	10321 Feb 10 05:17	25°♒49'13	6.50294 AU
morning rise	10321 Feb 23 21:03	28°♒44'11	
	10321 Mar 01 20:27	0°♓	
retrograde	10321 Jun 24 06:01	15°♓18'26	
opposition	10321 Aug 24 07:25	10°♓24'14	0°28'57
min. Earth dist.	10321 Aug 25 03:21	10°♓17'51	4.50062 AU
direct	10321 Oct 25 22:18	5°♓22'57	
evening set	10322 Feb 28 00:15	22°♓33'33	
max. Earth dist.	10322 Mar 11 05:16	24°♓58'18	6.47623 AU
conjunction	10322 Mar 12 21:54	25°♓20'14	0°09'15
minimum elong	10322 Mar 12 21:55	25°♓20'15	0°09'20
behind sun begin	10322 Mar 12 15:13	25°♓16'39	
behind sun end	10322 Mar 13 04:37	25°♓23'51	
morning rise	10322 Mar 25 17:41	28°♓06'09	
	10322 Apr 03 15:16	0°♈	
retrograde	10322 Jul 24 18:57	14°♈55'02	
desc. node	10322 Aug 21 05:01	13°♈46'28	
opposition	10322 Sep 23 19:35	10°♈01'59	-0°02'54
min. Earth dist.	10322 Sep 25 06:26	9°♈50'51	4.43230 AU
direct	10322 Nov 25 08:55	5°♈01'17	
evening set	10323 Mar 30 11:06	22°♈34'51	
max. Earth dist.	10323 Apr 09 23:53	24°♈54'21	6.37044 AU
conjunction	10323 Apr 12 06:26	25°♈24'34	-0°13'34
minimum elong	10323 Apr 12 06:25	25°♈24'33	0°13'45
behind sun begin	10323 Apr 12 02:05	25°♈22'10	
behind sun end	10323 Apr 12 10:45	25°♈26'57	
morning rise	10323 Apr 25 00:28	28°♈13'54	
	10323 May 03 02:05	0°♉	
	10323 Aug 03 14:22	15°♉	
retrograde	10323 Aug 26 01:48	15°♉46'54	
	10323 Sep 17 14:25	15°℞♉	
opposition	10323 Oct 25 22:06	10°♉53'39	-0°35'30
min. Earth dist.	10323 Oct 27 13:12	10°♉41'06	4.29486 AU
direct	10323 Dec 26 16:37	5°♉54'10	
	10324 Mar 18 07:56	15°♉	
evening set	10324 Apr 30 04:04	24°♉10'02	
max. Earth dist.	10324 May 10 18:48	26°♉35'48	6.21111 AU
conjunction	10324 May 12 23:17	27°♉05'58	-0°33'18
minimum elong	10324 May 12 23:16	27°♉05'57	0°33'41
morning rise	10324 May 25 18:03	0°♊02'03	
	10324 May 25 14:28	0°♊	
retrograde	10324 Sep 29 00:12	18°♊42'59	

opposition	10324 Nov 28	08:41	13°♊48'31	-0°59'28	
min. Earth dist.	10324 Nov 29	17:50	13°♊37'45	4.12425 AU	
direct	10325 Jan 27	22:03	8°♊50'59		
evening set	10325 Jun 02	21:56	27°♊59'25		
	10325 Jun 11	09:00	0°♋		
max. Earth dist.	10325 Jun 14	08:17	0°♋42'29	6.04356 AU	
conjunction	10325 Jun 15	20:00	1°♋03'46	-0°43'11	
minimum elong	10325 Jun 15	19:59	1°♋03'46	0°43'40	
morning rise	10325 Jun 28	19:09	4°♋08'59		
retrograde	10325 Nov 05	09:36	24°♋04'56		
opposition	10326 Jan 04	06:10	19°♋08'03	-1°04'01	
min. Earth dist.	10326 Jan 04	18:58	19°♋03'49	3.97485 AU	
direct	10326 Mar 04	08:21	14°♋12'33		
	10326 Jun 21	19:39	0°♌		
evening set	10326 Jul 08	23:46	4°♌06'07		
conjunction	10326 Jul 22	03:56	7°♌18'40	-0°37'30	
minimum elong	10326 Jul 22	03:57	7°♌18'41	0°37'56	
max. Earth dist.	10326 Jul 22	02:16	7°♌17'40	5.92692 AU	
morning rise	10326 Aug 04	10:08	10°♌32'30		
	10326 Aug 23	02:28	15°♌		
	10326 Nov 15	16:30	0°♍		
retrograde	10326 Dec 14	06:46	1°♍19'19		
	10327 Jan 11	18:44	30°℞♌		
opposition	10327 Feb 11	16:50	26°♌19'11	-0°43'07	
min. Earth dist.	10327 Feb 11	05:15	26°♌23'04	3.90445 AU	
direct	10327 Apr 10	20:36	21°♌24'27		
	10327 Jun 25	16:25	0°♍		
evening set	10327 Aug 15	19:23	11°♍34'01		
conjunction	10327 Aug 29	06:25	14°♍50'42	-0°16'38	
minimum elong	10327 Aug 29	06:26	14°♍50'42	0°16'48	
max. Earth dist.	10327 Aug 30	18:03	15°♍12'25	5.91008 AU	
morning rise	10327 Sep 11	19:40	18°♍08'31		
	10327 Nov 03	14:28	0°♎		
retrograde	10328 Jan 21	13:27	8°♎52'59		
opposition	10328 Mar 20	21:30	3°♎49'53	-0°04'10	
min. Earth dist.	10328 Mar 19	13:41	4°♎00'41	3.94407 AU	
	10328 Apr 22	10:39	30°℞♍		
asc. node	10328 Apr 29	00:34	29°♍30'45		
direct	10328 May 17	20:50	28°♍54'06		
	10328 Jun 12	09:23	0°♎		
evening set	10328 Sep 21	21:07	18°♎41'33		
conjunction	10328 Oct 05	11:56	21°♎55'38	0°10'48	
minimum elong	10328 Oct 05	11:55	21°♎55'37	0°10'57	
behind sun begin	10328 Oct 05	05:39	21°♎51'55		
behind sun end	10328 Oct 05	18:11	21°♎59'20		
max. Earth dist.	10328 Oct 07	20:46	22°♎29'25	6.00125 AU	
morning rise	10328 Oct 19	04:31	25°♎10'17		
	10328 Nov 09	02:10	0°♏		
	10329 Feb 22	06:14	15°♏		
retrograde	10329 Feb 25	12:47	15°♏01'05		
	10329 Feb 28	19:25	15°℞♏		
min. Earth dist.	10329 Apr 24	13:24	10°♏10'08	4.07593 AU	
opposition	10329 Apr 26	04:05	9°♏57'01	0°34'45	
direct	10329 Jun 23	21:21	4°♏59'00		
	10329 Sep 17	04:44	15°♏		
evening set	10329 Oct 28	13:52	23°♏58'51		
conjunction	10329 Nov 11	04:16	27°♏05'21	0°33'03	
minimum elong	10329 Nov 11	04:15	27°♏05'20	0°33'27	
max. Earth dist.	10329 Nov 13	12:50	27°♏37'43	6.16078 AU	
	10329 Nov 23	22:22	0°♐		
morning rise	10329 Nov 24	18:49	0°♐11'35		
retrograde	10330 Mar 30	21:19	18°♐47'30		
opposition	10330 May 29	21:27	13°♐45'04	0°58'47	
min. Earth dist.	10330 May 28	14:16	13°♐55'30	4.24669 AU	
direct	10330 Jul 28	21:03	8°♐45'09		
evening set	10330 Dec 02	00:46	26°♐53'23		
conjunction	10330 Dec 15	11:17	29°♐51'03	0°43'15	
minimum elong	10330 Dec 15	11:17	29°♐51'02	0°43'44	
	10330 Dec 16	03:31	0°♑		
max. Earth dist.	10330 Dec 17	00:06	0°♑11'21	6.32848 AU	
morning rise	10330 Dec 28	20:56	2°♑47'58		
retrograde	10331 Apr 30	21:56	20°♑17'33		
opposition	10331 Jun 30	09:56	15°♑18'10	1°03'15	
min. Earth dist.	10331 Jun 29	18:04	15°♑23'23	4.39829 AU	
direct	10331 Aug 30	15:23	10°♑17'07		
evening set	10332 Jan 03	07:15	27°♑45'52		
	10332 Jan 13	17:03	0°♒		
conjunction	10332 Jan 16	12:59	0°♒36'36	0°40'19	
minimum elong	10332 Jan 16	13:00	0°♒36'37	0°40'46	
max. Earth dist.	10332 Jan 16	22:14	0°♒41'35	6.45318 AU	
morning rise	10332 Jan 29	16:48	3°♒26'19		
	10332 Mar 29	20:11	15°♒		
retrograde	10332 May 29	18:01	20°♒13'36		
opposition	10332 Jul 29	14:29	15°♒17'23	0°50'19	
min. Earth dist.	10332 Jul 29	18:08	15°♒16'12	4.48868 AU	
	10332 Jul 31	20:15	15°℞♒		
direct	10332 Sep 29	19:29	10°♒15'58		
	10332 Nov 27	21:24	15°♒		
evening set	10333 Feb 02	01:28	27°♒25'09		
max. Earth dist.	10333 Feb 14	05:40	0°♓01'04	6.50299 AU	
	10333 Feb 14	03:40	0°♓		
conjunction	10333 Feb 15	02:22	0°♓12'09	0°26'39	
minimum elong	10333 Feb 15	02:23	0°♓12'09	0°26'56	
morning rise	10333 Feb 28	01:23	2°♓58'11		
retrograde	10333 Jun 28	11:33	19°♓32'48		
opposition	10333 Aug 28	12:12	14°♓38'47	0°24'47	
min. Earth dist.	10333 Aug 29	10:50	14°♓31'32	4.49583 AU	
direct	10333 Oct 30	04:26	9°♓37'28		
evening set	10334 Mar 04	05:02	26°♓49'43		
max. Earth dist.	10334 Mar 15	07:59	29°♓13'40	6.46666 AU	
conjunction	10334 Mar 17	02:23	29°♓36'36	0°06'07	
minimum elong	10334 Mar 17	02:22	29°♓36'36	0°06'10	
behind sun begin	10334 Mar 16	18:48	29°♓32'31		
behind sun end	10334 Mar 17	09:56	29°♓40'40		
	10334 Mar 18	21:36	0°♈		
morning rise	10334 Mar 29	21:41	2°♈22'42		
desc. node	10334 Jul 01	15:45	18°♈06'47		
retrograde	10334 Jul 29	02:15	19°♈15'31		
opposition	10334 Sep 28	03:52	14°♈22'26	-0°07'36	
min. Earth dist.	10334 Sep 29	14:52	14°♈11'15	4.41823 AU	
direct	10334 Nov 29	14:39	9°♈21'48		
evening set	10335 Apr 03	18:25	26°♈59'32		
max. Earth dist.	10335 Apr 14	07:08	29°♈19'34	6.35257 AU	
conjunction	10335 Apr 16	13:30	29°♈49'49	-0°16'38	
minimum elong	10335 Apr 16	13:29	29°♈49'49	0°16'50	
	10335 Apr 17	07:47	0°♉		
morning rise	10335 Apr 29	07:23	2°♉39'48		
	10335 Jun 30	10:51	15°♉		
retrograde	10335 Aug 30	18:22	20°♉20'14		
opposition	10335 Oct 30	12:39	15°♉26'52	-0°39'34	
min. Earth dist.	10335 Nov 01	04:42	15°♉14'00	4.27397 AU	
	10335 Nov 03	00:18	15°℞♉		
direct	10335 Dec 31	04:55	10°♉27'32		
	10336 Feb 25	07:53	15°♉		

evening set	10336 May 04 16:34	28°♉49'41	
	10336 May 09 19:04	0°♊	
max. Earth dist.	10336 May 15 07:26	1°♊16'18	6.18871 AU
conjunction	10336 May 17 11:54	1°♊46'36	-0°35'24
minimum elong	10336 May 17 11:53	1°♊46'35	0°35'49
morning rise	10336 May 30 07:09	4°♊43'47	
retrograde	10336 Oct 03 23:00	23°♊34'34	
opposition	10336 Dec 03 07:00	18°♊39'46	-1°01'26
min. Earth dist.	10336 Dec 04 13:24	18°♊29'52	4.10206 AU
direct	10337 Feb 01 14:45	13°♊42'28	
	10337 May 26 02:57	0°♋	
evening set	10337 Jun 07 17:34	2°♋57'43	
max. Earth dist.	10337 Jun 19 09:06	5°♋44'33	6.02362 AU
conjunction	10337 Jun 20 16:20	6°♋03'15	-0°43'22
minimum elong	10337 Jun 20 16:20	6°♋03'15	0°43'51
morning rise	10337 Jul 03 16:12	9°♋09'42	
retrograde	10337 Nov 10 17:17	29°♋14'47	
opposition	10338 Jan 09 11:29	24°♋17'28	-1°02'36
min. Earth dist.	10338 Jan 09 22:08	24°♋13'56	3.95909 AU
direct	10338 Mar 09 10:57	19°♋22'07	
	10338 Jun 03 16:44	0°♌	
evening set	10338 Jul 14 02:37	9°♌20'10	
conjunction	10338 Jul 27 07:50	12°♌33'41	-0°35'23
minimum elong	10338 Jul 27 07:51	12°♌33'41	0°35'46
max. Earth dist.	10338 Jul 27 11:14	12°♌35'46	5.91701 AU
	10338 Aug 06 07:24	15°♌	
morning rise	10338 Aug 09 15:06	15°♌48'29	
	10338 Oct 13 11:39	0°♍	
retrograde	10338 Dec 19 15:30	6°♍38'50	
min. Earth dist.	10339 Feb 16 09:14	1°♍43'20	3.90181 AU
opposition	10339 Feb 17 00:16	1°♍38'16	-0°38'25
	10339 Mar 01 09:53	30°℞♌	
direct	10339 Apr 16 01:09	26°♌43'30	
	10339 May 30 20:40	0°♍	
evening set	10339 Aug 21 02:12	16°♍52'55	
conjunction	10339 Sep 03 13:53	20°♍09'43	-0°12'56
minimum elong	10339 Sep 03 13:54	20°♍09'43	0°13'04
behind sun begin	10339 Sep 03 08:55	20°♍06'42	
behind sun end	10339 Sep 03 18:52	20°♍12'44	
max. Earth dist.	10339 Sep 05 04:05	20°♍32'58	5.91482 AU
morning rise	10339 Sep 17 04:03	23°♍27'40	
	10339 Oct 15 00:41	0°♎	
retrograde	10340 Jan 26 15:58	14°♎08'06	
asc. node	10340 Mar 10 00:09	11°♎11'36	
min. Earth dist.	10340 Mar 24 15:25	9°♎16'15	3.95562 AU
opposition	10340 Mar 26 01:22	9°♎04'42	0°01'42
direct	10340 May 23 01:52	4°♎08'37	
evening set	10340 Sep 27 02:02	23°♎51'25	
conjunction	10340 Oct 10 17:13	27°♎04'48	0°14'26
minimum elong	10340 Oct 10 17:12	27°♎04'48	0°14'37
behind sun begin	10340 Oct 10 13:50	27°♎02'49	
behind sun end	10340 Oct 10 20:34	27°♎06'47	
max. Earth dist.	10340 Oct 13 04:15	27°♎39'45	6.01862 AU
	10340 Oct 23 01:59	0°♏	
morning rise	10340 Oct 24 09:42	0°♏18'36	
	10341 Jan 03 14:24	15°♏	
retrograde	10341 Mar 02 09:45	20°♏00'17	
min. Earth dist.	10341 Apr 29 10:45	15°♏09'12	4.09717 AU
	10341 Apr 30 13:57	15°℞♏	
opposition	10341 May 01 00:46	14°♏56'20	0°39'13
direct	10341 Jun 28 22:16	9°♏58'04	
	10341 Aug 25 21:18	15°♏	
evening set	10341 Nov 02 12:46	28°♏50'57	
	10341 Nov 07 14:27	0°♐	
conjunction	10341 Nov 16 02:45	1°♐56'14	0°35'17
minimum elong	10341 Nov 16 02:44	1°♐56'14	0°35'41
max. Earth dist.	10341 Nov 18 10:19	2°♐27'52	6.18414 AU
morning rise	10341 Nov 29 16:49	5°♐01'12	
retrograde	10342 Apr 04 06:57	23°♐26'58	
min. Earth dist.	10342 Jun 02 03:20	18°♐35'06	4.27034 AU
opposition	10342 Jun 03 09:55	18°♐24'53	1°00'35
direct	10342 Aug 02 12:59	13°♐24'46	
	10342 Nov 30 01:04	0°♑	
evening set	10342 Dec 06 15:52	1°♑26'16	
conjunction	10342 Dec 20 01:44	4°♑22'44	0°43'35
minimum elong	10342 Dec 20 01:44	4°♑22'44	0°44'05
max. Earth dist.	10342 Dec 21 11:29	4°♑41'17	6.35082 AU
morning rise	10343 Jan 02 10:29	7°♑18'24	
retrograde	10343 May 05 03:28	24°♑39'46	
opposition	10343 Jul 04 16:16	19°♑40'51	1°02'22
min. Earth dist.	10343 Jul 04 03:08	19°♑45'09	4.41768 AU
direct	10343 Sep 04 02:21	14°♑39'44	
	10343 Dec 28 21:57	0°♒	
evening set	10344 Jan 07 15:16	2°♒03'28	
conjunction	10344 Jan 20 20:11	4°♒53'19	0°38'59
minimum elong	10344 Jan 20 20:12	4°♒53'20	0°39'24
max. Earth dist.	10344 Jan 21 00:48	4°♒55'48	6.46815 AU
morning rise	10344 Feb 02 23:21	7°♒42'11	
	10344 Mar 09 18:43	15°♒	
retrograde	10344 Jun 02 19:53	24°♒24'51	
opposition	10344 Aug 02 17:23	19°♒28'56	0°47'25
min. Earth dist.	10344 Aug 02 23:38	19°♒26'55	4.49838 AU
	10344 Sep 15 01:59	15°℞♒	
direct	10344 Oct 04 00:45	14°♒27'28	
	10344 Oct 23 03:59	15°♒	
	10345 Jan 29 17:37	0°♓	
evening set	10345 Feb 06 04:54	1°♓34'31	
max. Earth dist.	10345 Feb 18 06:21	4°♓08'51	6.50669 AU
conjunction	10345 Feb 19 05:20	4°♓21'09	0°24'09
minimum elong	10345 Feb 19 05:20	4°♓21'09	0°24'24
morning rise	10345 Mar 04 03:31	7°♓06'46	
retrograde	10345 Jul 02 12:47	23°♓40'59	
opposition	10345 Sep 01 14:49	18°♓47'11	0°20'38
min. Earth dist.	10345 Sep 02 15:19	18°♓39'21	4.49322 AU
direct	10345 Nov 03 06:59	13°♓45'57	
	10346 Mar 03 16:34	0°♈	
evening set	10346 Mar 08 07:36	0°♈59'27	
max. Earth dist.	10346 Mar 19 06:19	3°♈21'29	6.45767 AU
conjunction	10346 Mar 21 04:21	3°♈46'28	0°03'04
minimum elong	10346 Mar 21 04:20	3°♈46'28	0°03'04
behind sun begin	10346 Mar 20 20:24	3°♈42'10	
behind sun end	10346 Mar 21 12:17	3°♈50'45	
morning rise	10346 Apr 02 23:25	6°♈32'48	
desc. node	10346 May 13 01:22	14°♈44'54	
retrograde	10346 Aug 02 10:07	23°♈29'49	
opposition	10346 Oct 02 10:09	18°♈36'47	-0°12'08
min. Earth dist.	10346 Oct 03 23:45	18°♈24'45	4.40311 AU
direct	10346 Dec 03 20:09	13°♈36'12	
	10347 Apr 02 00:25	0°♉	
evening set	10347 Apr 07 23:26	1°♉18'48	
max. Earth dist.	10347 Apr 18 10:25	3°♉38'30	6.33222 AU
conjunction	10347 Apr 20 18:30	4°♉09'51	-0°19'32
minimum elong	10347 Apr 20 18:29	4°♉09'50	0°19'46

morning rise	10347 May 03 12:24	7°♉00'38	
	10347 Jun 10 03:22	15°♉	
retrograde	10347 Sep 04 08:13	24°♉49'50	
opposition	10347 Nov 04 01:52	19°♉56'20	-0°43'21
min. Earth dist.	10347 Nov 05 17:07	19°♉43'41	4.24961 AU
	10347 Dec 30 02:57	15°℞♉	
direct	10348 Jan 04 12:56	14°♉57'13	
	10348 Jan 09 23:19	15°♉	
	10348 Apr 23 22:45	0°♊	
evening set	10348 May 09 04:05	3°♊27'14	
max. Earth dist.	10348 May 19 20:51	5°♊55'49	6.16217 AU
conjunction	10348 May 21 23:42	6°♊25'22	-0°37'15
minimum elong	10348 May 21 23:42	6°♊25'22	0°37'42
morning rise	10348 Jun 03 19:24	9°♊23'53	
retrograde	10348 Oct 09 01:07	28°♊26'35	
opposition	10348 Dec 08 05:40	23°♊31'33	-1°03'02
min. Earth dist.	10348 Dec 09 11:16	23°♊21'52	4.07534 AU
direct	10349 Feb 06 09:07	18°♊34'31	
	10349 May 08 17:40	0°♋	
evening set	10349 Jun 12 14:14	7°♋58'36	
max. Earth dist.	10349 Jun 24 10:03	10°♋48'53	5.99926 AU
conjunction	10349 Jun 25 13:54	11°♋05'39	-0°43'16
minimum elong	10349 Jun 25 13:54	11°♋05'39	0°43'46
morning rise	10349 Jul 08 14:48	14°♋13'40	
	10349 Sep 22 12:41	0°♌	
retrograde	10349 Nov 16 02:27	4°♌29'37	
	10350 Jan 11 05:50	30°℞♋	
opposition	10350 Jan 14 18:23	29°♋31'58	-1°00'44
min. Earth dist.	10350 Jan 15 01:11	29°♋29'42	3.93987 AU
direct	10350 Mar 14 12:16	24°♋36'50	
	10350 May 12 08:27	0°♌	
evening set	10350 Jul 19 08:12	14°♌40'59	
	10350 Jul 20 15:27	15°♌	
conjunction	10350 Aug 01 14:23	17°♌55'35	-0°32'58
minimum elong	10350 Aug 01 14:24	17°♌55'36	0°33'19
max. Earth dist.	10350 Aug 01 22:20	18°♌00'27	5.90486 AU
morning rise	10350 Aug 14 22:59	21°♌11'33	
	10350 Sep 21 18:00	0°♍	
retrograde	10350 Dec 25 01:51	12°♍06'18	
opposition	10351 Feb 22 10:31	7°♍05'13	-0°33'22
min. Earth dist.	10351 Feb 21 15:36	7°♍11'37	3.89826 AU
direct	10351 Apr 21 09:21	2°♍10'22	
evening set	10351 Aug 26 11:55	22°♍19'50	
conjunction	10351 Sep 09 00:35	25°♍36'47	-0°09'06
minimum elong	10351 Sep 09 00:35	25°♍36'47	0°09'10
behind sun begin	10351 Sep 08 17:31	25°♍32'31	
behind sun end	10351 Sep 09 07:39	25°♍41'04	
max. Earth dist.	10351 Sep 10 20:52	26°♍03'42	5.92036 AU
morning rise	10351 Sep 22 15:18	28°♍54'43	
	10351 Sep 27 04:04	0°♎	
asc. node	10352 Jan 19 05:05	19°♎14'06	
retrograde	10352 Jan 31 23:10	19°♎30'22	
min. Earth dist.	10352 Mar 29 20:25	14°♎38'42	3.96942 AU
opposition	10352 Mar 31 07:44	14°♎26'41	0°07'36
direct	10352 May 28 10:37	9°♎30'18	
evening set	10352 Oct 02 09:23	29°♎07'18	
	10352 Oct 06 03:11	0°♏	
conjunction	10352 Oct 16 00:36	2°♏19'45	0°18'00
minimum elong	10352 Oct 16 00:35	2°♏19'45	0°18'13
max. Earth dist.	10352 Oct 18 13:38	2°♏55'41	6.03900 AU
morning rise	10352 Oct 29 17:05	5°♏32'32	
	10352 Dec 11 13:24	15°♏	

retrograde	10353 Mar 07 04:40	25°♏03'31	
min. Earth dist.	10353 May 04 07:23	20°♏12'45	4.12174 AU
opposition	10353 May 05 22:18	19°♏59'36	0°43'24
direct	10353 Jul 03 22:39	15°♏00'58	
	10353 Oct 21 14:03	0°♐	
evening set	10353 Nov 07 12:27	3°♐45'42	
conjunction	10353 Nov 21 01:53	6°♐49'35	0°37'16
minimum elong	10353 Nov 21 01:52	6°♐49'35	0°37'41
max. Earth dist.	10353 Nov 23 06:48	7°♐19'32	6.21046 AU
morning rise	10353 Dec 04 15:18	9°♐53'05	
retrograde	10354 Apr 08 18:48	28°♐07'53	
opposition	10354 Jun 07 22:52	23°♐06'06	1°01'57
min. Earth dist.	10354 Jun 06 19:03	23°♐15'23	4.29578 AU
direct	10354 Aug 07 07:36	18°♐05'45	
	10354 Nov 12 20:37	0°♑	
evening set	10354 Dec 11 06:40	5°♑59'57	
conjunction	10354 Dec 24 15:52	8°♑55'13	0°43'39
minimum elong	10354 Dec 24 15:52	8°♑55'13	0°44'09
max. Earth dist.	10354 Dec 25 22:37	9°♑12'02	6.37327 AU
morning rise	10355 Jan 06 23:46	11°♑49'38	
retrograde	10355 May 09 07:12	29°♑03'07	
opposition	10355 Jul 08 22:47	24°♑04'35	1°01'08
min. Earth dist.	10355 Jul 08 11:34	24°♑08'15	4.43568 AU
direct	10355 Sep 08 11:56	19°♑03'22	
	10355 Dec 11 22:27	0°♒	
evening set	10356 Jan 11 23:36	6°♒22'41	
conjunction	10356 Jan 25 03:48	9°♒11'47	0°37'24
minimum elong	10356 Jan 25 03:49	9°♒11'47	0°37'48
max. Earth dist.	10356 Jan 25 04:21	9°♒12'04	6.48051 AU
morning rise	10356 Feb 07 06:07	11°♒59'52	
	10356 Feb 21 13:02	15°♒	
retrograde	10356 Jun 06 23:08	28°♒38'55	
opposition	10356 Aug 06 21:19	23°♒43'23	0°44'12
min. Earth dist.	10356 Aug 07 06:54	23°♒40'17	4.50441 AU
direct	10356 Oct 08 07:36	18°♒41'54	
	10357 Jan 13 04:29	0°♓	
evening set	10357 Feb 10 09:54	5°♓48'00	
max. Earth dist.	10357 Feb 22 05:29	8°♓19'20	6.50588 AU
conjunction	10357 Feb 23 09:39	8°♓34'24	0°21'26
minimum elong	10357 Feb 23 09:39	8°♓34'25	0°21'40
morning rise	10357 Mar 08 07:26	11°♓19'54	
retrograde	10357 Jul 06 18:25	27°♓55'13	
opposition	10357 Sep 05 20:07	23°♓01'33	0°16'13
min. Earth dist.	10357 Sep 06 23:16	22°♓52'52	4.48570 AU
direct	10357 Nov 07 12:16	18°♓00'17	
	10358 Feb 15 08:50	0°♈	
evening set	10358 Mar 12 12:42	5°♈16'29	
desc. node	10358 Mar 21 14:05	7°♈14'16	
max. Earth dist.	10358 Mar 23 09:51	7°♈38'05	6.44391 AU
conjunction	10358 Mar 25 09:16	8°♈03'54	-0°00'14
minimum elong	10358 Mar 25 09:16	8°♈03'53	0°00'15
behind sun begin	10358 Mar 25 01:20	7°♈59'36	
behind sun end	10358 Mar 25 17:11	8°♈08'11	
morning rise	10358 Apr 07 03:54	10°♈50'37	
retrograde	10358 Aug 06 20:16	27°♈53'24	
opposition	10358 Oct 06 20:21	23°♈00'21	-0°16'49
min. Earth dist.	10358 Oct 08 10:35	22°♈48'07	4.38389 AU
direct	10358 Dec 08 03:18	17°♈59'56	
	10359 Mar 16 10:28	0°♉	
evening set	10359 Apr 12 08:51	5°♉48'33	
max. Earth dist.	10359 Apr 22 18:43	8°♉08'25	6.30882 AU

conjunction	10359 Apr 25 03:44	8°♉40'28	-0°22'28
minimum elong	10359 Apr 25 03:43	8°♉40'27	0°22'44
morning rise	10359 May 07 21:48	11°♉32'13	
	10359 May 23 14:16	15°♉	
retrograde	10359 Sep 09 05:16	29°♉31'15	
opposition	10359 Nov 08 20:16	24°♉37'35	-0°47'03
min. Earth dist.	10359 Nov 10 11:46	24°♉24'51	4.22343 AU
direct	10360 Jan 09 03:58	19°♉38'42	
	10360 Apr 06 06:13	0°♊	
evening set	10360 May 13 20:41	8°♊17'01	
max. Earth dist.	10360 May 24 15:56	10°♊47'55	6.13549 AU
conjunction	10360 May 26 16:49	11°♊16'29	-0°38'57
minimum elong	10360 May 26 16:49	11°♊16'28	0°39'23
morning rise	10360 Jun 08 13:03	14°♊16'23	
	10360 Aug 26 23:26	0°♋	
retrograde	10360 Oct 14 06:10	3°♋30'48	
	10360 Dec 02 11:18	30°℞♊	
opposition	10360 Dec 13 09:27	28°♊35'30	-1°04'13
min. Earth dist.	10360 Dec 14 11:56	28°♊26'50	4.05063 AU
direct	10361 Feb 11 06:54	23°♊38'52	
	10361 Apr 17 16:26	0°♋	
evening set	10361 Jun 17 15:49	13°♋10'46	
conjunction	10361 Jun 30 16:12	16°♋19'07	-0°42'48
minimum elong	10361 Jun 30 16:12	16°♋19'07	0°43'18
max. Earth dist.	10361 Jun 29 16:31	16°♋04'49	5.97897 AU
morning rise	10361 Jul 13 18:13	19°♋28'34	
	10361 Aug 29 06:24	0°♌	
retrograde	10361 Nov 21 14:48	9°♌53'34	
opposition	10362 Jan 20 05:15	4°♌55'27	-0°58'14
min. Earth dist.	10362 Jan 20 07:59	4°♌54'32	3.92639 AU
direct	10362 Mar 19 19:47	0°♌00'31	
	10362 Jul 03 05:09	15°♌	
evening set	10362 Jul 24 16:50	20°♌08'09	
conjunction	10362 Aug 07 00:11	23°♌23'32	-0°30'12
minimum elong	10362 Aug 07 00:13	23°♌23'32	0°30'32
max. Earth dist.	10362 Aug 07 15:39	23°♌33'00	5.89996 AU
morning rise	10362 Aug 20 09:40	26°♌40'10	
	10362 Sep 03 05:46	0°♍	
retrograde	10362 Dec 30 14:12	17°♍35'39	
opposition	10363 Feb 27 21:34	12°♍34'08	-0°27'56
min. Earth dist.	10363 Feb 26 23:55	12°♍41'27	3.90278 AU
direct	10363 Apr 26 20:00	7°♍39'13	
evening set	10363 Aug 31 22:05	27°♍45'31	
	10363 Sep 10 04:41	0°♎	
conjunction	10363 Sep 14 11:15	1°♎02'05	-0°05'12
minimum elong	10363 Sep 14 11:15	1°♎02'06	0°05'13
behind sun begin	10363 Sep 14 03:09	0°♎57'12	
behind sun end	10363 Sep 14 19:21	1°♎06'59	
max. Earth dist.	10363 Sep 16 11:24	1°♎31'13	5.93362 AU
morning rise	10363 Sep 28 02:36	4°♎19'37	
asc. node	10363 Nov 28 21:09	17°♎46'33	
retrograde	10364 Feb 06 01:28	24°♎47'06	
min. Earth dist.	10364 Apr 03 22:01	19°♎56'04	3.98987 AU
opposition	10364 Apr 05 11:47	19°♎43'13	0°13'20
direct	10364 Jun 02 16:11	14°♎46'33	
	10364 Sep 19 00:42	0°♏	
evening set	10364 Oct 07 14:10	4°♏15'42	
conjunction	10364 Oct 21 05:15	7°♏26'56	0°21'19
minimum elong	10364 Oct 21 05:14	7°♏26'55	0°21'36
max. Earth dist.	10364 Oct 23 17:31	8°♏02'12	6.06441 AU
morning rise	10364 Nov 03 21:29	10°♏38'21	
	10364 Nov 23 00:53	15°♏	
retrograde	10365 Mar 11 21:23	29°♏57'30	
min. Earth dist.	10365 May 09 03:23	25°♏06'18	4.14921 AU
opposition	10365 May 10 16:35	24°♏53'44	0°47'07
direct	10365 Jul 08 22:18	19°♏54'49	
	10365 Oct 03 12:06	0°♐	
evening set	10365 Nov 12 08:22	8°♐30'54	
conjunction	10365 Nov 25 21:22	11°♐33'24	0°38'55
minimum elong	10365 Nov 25 21:21	11°♐33'24	0°39'22
max. Earth dist.	10365 Nov 28 00:48	12°♐02'20	6.23761 AU
morning rise	10365 Dec 09 09:55	14°♐35'24	
	10366 Mar 02 07:13	0°♑	
retrograde	10366 Apr 13 01:21	2°♑39'33	
	10366 May 24 19:39	30°℞♐	
min. Earth dist.	10366 Jun 11 05:46	27°♐47'01	4.32042 AU
opposition	10366 Jun 12 08:09	27°♐38'15	1°02'53
direct	10366 Aug 11 20:35	22°♐37'48	
	10366 Oct 24 20:17	0°♑	
evening set	10366 Dec 15 18:26	10°♑25'30	
conjunction	10366 Dec 29 02:48	13°♑19'40	0°43'27
minimum elong	10366 Dec 29 02:48	13°♑19'40	0°43'56
max. Earth dist.	10366 Dec 30 03:47	13°♑33'15	6.39357 AU
morning rise	10367 Jan 11 09:58	16°♑12'57	
	10367 Mar 26 21:24	0°♒	
retrograde	10367 May 13 10:58	3°♒19'45	
	10367 Jun 30 07:37	30°℞♑	
opposition	10367 Jul 13 02:50	28°♑21'43	0°59'36
min. Earth dist.	10367 Jul 12 19:42	28°♑24'03	4.45042 AU
direct	10367 Sep 12 20:40	23°♑20'26	
	10367 Nov 22 20:05	0°♒	
evening set	10368 Jan 16 05:31	10°♒36'40	
conjunction	10368 Jan 29 09:10	13°♒25'14	0°35'40
minimum elong	10368 Jan 29 09:10	13°♒25'14	0°36'03
max. Earth dist.	10368 Jan 29 05:17	13°♒23'10	6.48863 AU
	10368 Feb 05 18:17	15°♒	
morning rise	10368 Feb 11 10:48	16°♒12'47	
	10368 Apr 28 03:12	0°♓	
retrograde	10368 Jun 11 00:27	2°♓49'53	
	10368 Jul 25 05:12	30°℞♒	
opposition	10368 Aug 10 24:00	27°♒54'41	0°40'50
min. Earth dist.	10368 Aug 11 11:52	27°♒50'51	4.50574 AU
direct	10368 Oct 12 10:50	22°♒53'14	
	10368 Dec 25 14:46	0°♓	
evening set	10369 Feb 14 13:49	9°♓59'59	
max. Earth dist.	10369 Feb 26 06:23	12°♓29'55	6.50038 AU
conjunction	10369 Feb 27 13:08	12°♓46'24	0°18'40
minimum elong	10369 Feb 27 13:09	12°♓46'25	0°18'50
morning rise	10369 Mar 12 10:19	15°♓31'55	
	10369 Jun 02 18:39	0°♈	
retrograde	10369 Jul 11 00:08	2°♈09'58	
	10369 Aug 18 08:57	30°℞♓	
opposition	10369 Sep 10 01:26	27°♓16'32	0°11'46
min. Earth dist.	10369 Sep 11 07:00	27°♓07'05	4.47378 AU
direct	10369 Nov 11 17:34	22°♓15'25	
desc. node	10370 Jan 28 17:00	0°♈06'52	
	10370 Jan 28 01:34	0°♈	
evening set	10370 Mar 16 18:31	9°♈35'45	
max. Earth dist.	10370 Mar 27 11:43	11°♈55'51	6.42634 AU
conjunction	10370 Mar 29 14:38	12°♈23'41	-0°03'28
minimum elong	10370 Mar 29 14:38	12°♈23'41	0°03'32
behind sun begin	10370 Mar 29 06:43	12°♈19'23	
behind sun end	10370 Mar 29 22:33	12°♈28'00	
morning rise	10370 Apr 11 09:15	15°♈11'03	

	10370 Jul	02	15:52	0°♉	
retrograde	10370 Aug	11	09:41	2°♉20'56	
	10370 Sep	20	10:08	30°℞♈	
opposition	10370 Oct	11	07:57	27°♈27'51	-0°21'24
min. Earth dist.	10370 Oct	12	23:04	27°♈15'19	4.36176 AU
direct	10370 Dec	12	12:22	22°♈27'36	
	10371 Feb	25	12:34	0°♉	
evening set	10371 Apr	16	19:32	10°♉23'11	
max. Earth dist.	10371 Apr	27	06:44	12°♉44'32	6.28390 AU
conjunction	10371 Apr	29	14:37	13°♉16'07	-0°25'16
minimum elong	10371 Apr	29	14:36	13°♉16'07	0°25'35
	10371 May	07	06:24	15°♉	
morning rise	10371 May	12	08:43	16°♉08'56	
	10371 Jul	21	19:06	0°♊	
retrograde	10371 Sep	14	02:34	4°♊18'17	
	10371 Nov	09	02:17	30°℞♉	
opposition	10371 Nov	13	16:37	29°♉24'28	-0°50'29
min. Earth dist.	10371 Nov	15	06:32	29°♉12'13	4.19762 AU
direct	10372 Jan	13	19:13	24°♉25'56	
	10372 Mar	15	21:14	0°♊	
evening set	10372 May	18	15:02	13°♊12'12	
max. Earth dist.	10372 May	29	12:54	15°♊45'31	6.11092 AU
conjunction	10372 May	31	11:26	16°♊12'52	-0°40'22
minimum elong	10372 May	31	11:25	16°♊12'51	0°40'49
morning rise	10372 Jun	13	08:23	19°♊14'07	
	10372 Aug	01	15:35	0°♋	
retrograde	10372 Oct	19	13:11	8°♋39'21	
opposition	10372 Dec	18	14:36	3°♋43'40	-1°04'53
min. Earth dist.	10372 Dec	19	13:53	3°♋36'01	4.02954 AU
	10373 Jan	19	21:13	30°℞♊	
direct	10373 Feb	16	08:05	28°♊47'15	
	10373 Mar	15	14:58	0°♋	
evening set	10373 Jun	22	18:03	18°♋25'19	
conjunction	10373 Jul	05	19:26	21°♋34'48	-0°42'00
minimum elong	10373 Jul	05	19:27	21°♋34'49	0°42'28
max. Earth dist.	10373 Jul	05	02:14	21°♋24'23	5.96349 AU
morning rise	10373 Jul	18	22:16	24°♋45'23	
	10373 Aug	10	03:01	0°♌	
	10373 Nov	14	00:17	15°♌	
retrograde	10373 Nov	27	02:47	15°♌16'51	
	10373 Dec	10	02:57	15°℞♌	
opposition	10374 Jan	25	15:13	10°♌18'14	-0°55'13
min. Earth dist.	10374 Jan	25	14:48	10°♌18'23	3.91836 AU
direct	10374 Mar	25	02:27	5°♌23'24	
	10374 Jun	14	01:57	15°♌	
evening set	10374 Jul	30	00:23	25°♌32'18	
conjunction	10374 Aug	12	08:31	28°♌48'06	-0°27'12
minimum elong	10374 Aug	12	08:32	28°♌48'06	0°27'30
max. Earth dist.	10374 Aug	13	04:12	29°♌00'09	5.89989 AU
	10374 Aug	17	05:56	0°♍	
morning rise	10374 Aug	25	19:07	2°♍05'12	
retrograde	10375 Jan	04	21:25	22°♍59'06	
min. Earth dist.	10375 Mar	04	04:18	18°♍05'44	3.91081 AU
opposition	10375 Mar	05	05:42	17°♍57'08	-0°22'21
direct	10375 May	02	03:18	13°♍02'00	
	10375 Aug	24	07:33	0°♎	
evening set	10375 Sep	06	05:21	3°♎04'05	
conjunction	10375 Sep	19	18:58	6°♎20'07	-0°01'16
minimum elong	10375 Sep	19	18:59	6°♎20'08	0°01'16
behind sun begin	10375 Sep	19	10:35	6°♎15'06	
behind sun end	10375 Sep	20	03:22	6°♎25'10	
max. Earth dist.	10375 Sep	21	21:26	6°♎50'33	5.94873 AU
morning rise	10375 Oct	03	10:41	9°♎37'02	
asc. node	10375 Oct	08	00:38	10°♎42'29	
retrograde	10376 Feb	11	01:15	29°♎56'06	
min. Earth dist.	10376 Apr	08	23:02	25°♎04'51	4.01012 AU
opposition	10376 Apr	10	12:41	24°♎52'02	0°18'50
direct	10376 Jun	07	20:44	19°♎55'00	
	10376 Aug	31	14:41	0°♏	
evening set	10376 Oct	12	16:04	9°♏16'48	
conjunction	10376 Oct	26	07:10	12°♏26'54	0°24'28
minimum elong	10376 Oct	26	07:09	12°♏26'53	0°24'46
max. Earth dist.	10376 Oct	28	20:23	13°♏02'31	6.08789 AU
	10376 Nov	06	06:49	15°♏	
morning rise	10376 Nov	08	22:59	15°♏37'04	
	10377 Jan	19	00:30	0°♐	
retrograde	10377 Mar	16	11:30	4°♐45'18	
	10377 May	13	02:18	30°℞♏	
min. Earth dist.	10377 May	13	19:44	29°♏54'08	4.17359 AU
opposition	10377 May	15	08:18	29°♏41'49	0°50'28
direct	10377 Jul	13	17:27	24°♏42'39	
	10377 Sep	11	23:27	0°♐	
evening set	10377 Nov	17	02:42	13°♐11'28	
conjunction	10377 Nov	30	14:59	16°♐12'43	0°40'20
minimum elong	10377 Nov	30	14:59	16°♐12'43	0°40'48
max. Earth dist.	10377 Dec	02	13:46	16°♐38'53	6.26079 AU
morning rise	10377 Dec	14	03:02	19°♐13'27	
	10378 Feb	04	19:27	0°♑	
retrograde	10378 Apr	17	08:59	7°♑08'37	
opposition	10378 Jun	16	16:49	2°♑07'44	1°03'29
min. Earth dist.	10378 Jun	15	17:38	2°♑15'26	4.34063 AU
	10378 Jul	03	08:02	30°℞♐	
direct	10378 Aug	16	10:19	27°♐07'04	
	10378 Sep	29	18:41	0°♑	
evening set	10378 Dec	20	05:29	14°♑49'42	
conjunction	10379 Jan	02	13:23	17°♑43'00	0°43'01
minimum elong	10379 Jan	02	13:23	17°♑43'00	0°43'30
max. Earth dist.	10379 Jan	03	11:36	17°♑55'03	6.40944 AU
morning rise	10379 Jan	15	19:38	20°♑35'21	
	10379 Mar	03	14:58	0°♒	
retrograde	10379 May	17	13:32	7°♒36'53	
opposition	10379 Jul	17	07:28	2°♒39'19	0°57'45
min. Earth dist.	10379 Jul	17	02:15	2°♒41'01	4.46109 AU
	10379 Aug	07	20:46	30°℞♑	
direct	10379 Sep	17	03:21	27°♑38'02	
	10379 Oct	27	18:39	0°♒	
evening set	10380 Jan	20	12:25	14°♒52'16	
	10380 Jan	21	02:59	15°♒	
conjunction	10380 Feb	02	15:19	17°♒40'23	0°33'43
minimum elong	10380 Feb	02	15:20	17°♒40'24	0°34'05
max. Earth dist.	10380 Feb	02	06:43	17°♒35'47	6.49347 AU
morning rise	10380 Feb	15	16:23	20°♒27'32	
	10380 Apr	03	23:52	0°♓	
retrograde	10380 Jun	15	05:24	7°♓03'36	
opposition	10380 Aug	15	04:24	2°♓08'48	0°37'12
min. Earth dist.	10380 Aug	15	19:44	2°♓03'52	4.50463 AU
	10380 Sep	01	10:56	30°℞♒	
direct	10380 Oct	16	17:53	27°♒07'25	
	10380 Dec	01	00:27	0°♓	
evening set	10381 Feb	18	19:25	14°♓15'21	
max. Earth dist.	10381 Mar	02	07:55	16°♓43'26	6.49350 AU
conjunction	10381 Mar	03	18:16	17°♓01'52	0°15'44
minimum elong	10381 Mar	03	18:16	17°♓01'53	0°15'53
behind sun begin	10381 Mar	03	17:07	17°♓01'16	

behind sun end	10381 Mar 03 19:26	17°♓02'30	
morning rise	10381 Mar 16 15:04	19°♓47'31	
	10381 May 07 12:51	0°♈	
retrograde	10381 Jul 15 07:26	6°♈28'42	
opposition	10381 Sep 14 09:00	1°♈35'25	0°07'09
min. Earth dist.	10381 Sep 15 15:22	1°♈25'42	4.46186 AU
	10381 Sep 27 00:59	30°℞♓	
direct	10381 Nov 15 23:30	26°♓34'28	
desc. node	10381 Dec 07 12:45	27°♓15'38	
	10382 Jan 04 11:13	0°♈	
evening set	10382 Mar 21 01:48	13°♈58'44	
max. Earth dist.	10382 Mar 31 19:15	16°♈19'28	6.41047 AU
conjunction	10382 Apr 02 21:44	16°♈47'10	-0°06'43
minimum elong	10382 Apr 02 21:44	16°♈47'10	0°06'48
behind sun begin	10382 Apr 02 14:19	16°♈43'07	
behind sun end	10382 Apr 03 05:10	16°♈51'14	
morning rise	10382 Apr 15 16:00	19°♈35'03	
	10382 Jun 06 08:17	0°♉	
retrograde	10382 Aug 15 23:36	6°♉51'30	
opposition	10382 Oct 15 21:26	1°♉58'28	-0°25'59
min. Earth dist.	10382 Oct 17 12:47	1°♉45'53	4.34311 AU
	10382 Oct 31 17:40	30°℞♈	
direct	10382 Dec 16 23:21	26°♈58'34	
	10383 Jan 31 14:34	0°♉	
evening set	10383 Apr 21 07:21	14°♉59'42	
	10383 Apr 21 07:54	15°♉	
max. Earth dist.	10383 May 01 18:20	17°♉21'39	6.26397 AU
conjunction	10383 May 04 02:14	17°♉53'23	-0°27'57
minimum elong	10383 May 04 02:13	17°♉53'23	0°28'17
morning rise	10383 May 16 20:36	20°♉47'06	
	10383 Jun 29 00:42	0°♊	
retrograde	10383 Sep 19 00:01	9°♊05'04	
opposition	10383 Nov 18 13:11	4°♊11'04	-0°53'36
min. Earth dist.	10383 Nov 20 01:07	3°♊59'26	4.17791 AU
	10383 Dec 27 03:39	30°℞♉	
direct	10384 Jan 18 12:21	29°♉12'51	
	10384 Feb 09 20:01	0°♊	
evening set	10384 May 23 08:30	18°♊04'49	
max. Earth dist.	10384 Jun 03 11:32	20°♊41'44	6.09332 AU
conjunction	10384 Jun 05 05:26	21°♊06'27	-0°41'30
minimum elong	10384 Jun 05 05:25	21°♊06'26	0°41'59
morning rise	10384 Jun 18 02:44	24°♊08'40	
	10384 Jul 13 16:36	0°♋	
retrograde	10384 Oct 24 17:57	13°♋41'59	
opposition	10384 Dec 23 17:24	8°♋46'01	-1°05'03
min. Earth dist.	10384 Dec 24 14:13	8°♋39'10	4.01576 AU
direct	10385 Feb 21 07:01	3°♋49'57	
evening set	10385 Jun 27 17:11	23°♋31'30	
conjunction	10385 Jul 10 19:09	26°♋41'43	-0°40'54
minimum elong	10385 Jul 10 19:10	26°♋41'43	0°41'21
max. Earth dist.	10385 Jul 10 05:10	26°♋33'14	5.95476 AU
morning rise	10385 Jul 23 23:02	29°♋53'09	
	10385 Jul 24 10:24	0°♌	
	10385 Oct 02 18:37	15°♌	
retrograde	10385 Dec 02 06:45	20°♌28'29	
opposition	10386 Jan 30 20:11	15°♌29'26	-0°51'52
min. Earth dist.	10386 Jan 30 15:37	15°♌30'57	3.91581 AU
	10386 Feb 03 12:19	15°℞♌	
direct	10386 Mar 30 04:22	10°♌34'40	
	10386 May 21 21:41	15°♌	
	10386 Aug 01 03:34	0°♍	
evening set	10386 Aug 04 02:38	0°♍43'07	
conjunction	10386 Aug 17 11:36	3°♍59'06	-0°24'08
minimum elong	10386 Aug 17 11:37	3°♍59'07	0°24'23
max. Earth dist.	10386 Aug 18 11:38	4°♍13'49	5.90381 AU
morning rise	10386 Aug 30 22:53	7°♍16'22	
retrograde	10387 Jan 09 23:39	28°♍07'31	
min. Earth dist.	10387 Mar 09 05:04	23°♍14'09	3.92067 AU
opposition	10387 Mar 10 07:28	23°♍05'12	-0°16'52
direct	10387 May 07 06:44	18°♍09'53	
	10387 Aug 06 23:34	0°♎	
asc. node	10387 Aug 19 06:25	2°♎44'13	
evening set	10387 Sep 11 06:34	8°♎07'39	
conjunction	10387 Sep 24 20:43	11°♎23'12	0°02'32
minimum elong	10387 Sep 24 20:44	11°♎23'13	0°02'35
behind sun begin	10387 Sep 24 12:21	11°♎18'12	
behind sun end	10387 Sep 25 05:06	11°♎28'13	
max. Earth dist.	10387 Sep 27 02:09	11°♎55'17	5.96355 AU
morning rise	10387 Oct 08 12:40	14°♎39'30	
	10387 Dec 21 05:35	0°♏	
retrograde	10388 Feb 15 19:21	4°♏50'41	
	10388 Apr 13 16:04	30°℞♎	
min. Earth dist.	10388 Apr 13 17:21	29°♎59'34	4.02831 AU
opposition	10388 Apr 15 07:23	29°♎46'39	0°23'55
direct	10388 Jun 12 17:08	24°♎49'23	
	10388 Aug 10 01:08	0°♏	
evening set	10388 Oct 17 12:38	14°♏05'12	
	10388 Oct 21 11:33	15°♏	
conjunction	10388 Oct 31 03:27	17°♏14'19	0°27'16
minimum elong	10388 Oct 31 03:26	17°♏14'18	0°27'36
max. Earth dist.	10388 Nov 02 13:55	17°♏48'11	6.10760 AU
morning rise	10388 Nov 13 19:10	20°♏23'29	
	10388 Dec 28 05:27	0°♐	
retrograde	10389 Mar 20 21:33	9°♐22'55	
min. Earth dist.	10389 May 18 08:52	4°♐31'26	4.19307 AU
opposition	10389 May 19 19:45	4°♐19'42	0°53'21
	10389 Jun 28 05:57	30°℞♏	
direct	10389 Jul 18 09:08	29°♏20'17	
	10389 Aug 07 16:28	0°♐	
evening set	10389 Nov 21 16:59	17°♐43'47	
conjunction	10389 Dec 05 04:59	20°♐44'07	0°41'27
minimum elong	10389 Dec 05 04:59	20°♐44'06	0°41'56
max. Earth dist.	10389 Dec 07 01:51	21°♐09'07	6.27871 AU
morning rise	10389 Dec 18 16:13	23°♐43'47	
	10390 Jan 16 23:53	0°♑	
retrograde	10390 Apr 21 14:21	11°♑31'59	
opposition	10390 Jun 20 22:52	6°♑31'36	1°03'43
min. Earth dist.	10390 Jun 20 01:33	6°♑38'39	4.35580 AU
direct	10390 Aug 20 19:39	1°♑30'51	
evening set	10390 Dec 24 14:44	19°♑10'00	
conjunction	10391 Jan 06 21:52	22°♑02'35	0°42'21
minimum elong	10391 Jan 06 21:52	22°♑02'35	0°42'50
max. Earth dist.	10391 Jan 07 15:01	22°♑11'52	6.42081 AU
morning rise	10391 Jan 20 03:37	24°♑54'15	
	10391 Feb 13 11:16	0°♒	
retrograde	10391 May 21 17:09	11°♒51'54	
opposition	10391 Jul 21 11:01	6°♒54'42	0°55'38
min. Earth dist.	10391 Jul 21 08:54	6°♒55'23	4.46823 AU
direct	10391 Sep 21 10:12	1°♒53'18	
	10392 Jan 05 01:04	15°♒	
evening set	10392 Jan 24 18:00	19°♒06'19	
conjunction	10392 Feb 06 20:31	21°♒54'09	0°31'37
minimum elong	10392 Feb 06 20:32	21°♒54'10	0°31'57
max. Earth dist.	10392 Feb 06 09:52	21°♒48'27	6.49593 AU

morning rise	10392 Feb	19	20:50	24°♒40'58	
	10392 Mar	16	14:08	0°♓	
retrograde	10392 Jun	19	07:25	11°♓16'29	
opposition	10392 Aug	19	08:11	6°♓21'52	0°33'25
min. Earth dist.	10392 Aug	20	00:30	6°♓16'38	4.50239 AU
direct	10392 Oct	20	21:39	1°♓20'30	
evening set	10393 Feb	23	00:02	18°♓29'29	
max. Earth dist.	10393 Mar	06	09:45	20°♓56'21	6.48652 AU
conjunction	10393 Mar	07	22:18	21°♓16'02	0°12'45
minimum elong	10393 Mar	07	22:19	21°♓16'02	0°12'52
behind sun begin	10393 Mar	07	17:23	21°♓13'23	
behind sun end	10393 Mar	08	03:15	21°♓18'41	
morning rise	10393 Mar	20	18:40	24°♓01'45	
	10393 Apr	18	14:08	0°♈	
retrograde	10393 Jul	19	14:45	10°♈45'49	
opposition	10393 Sep	18	15:51	5°♈52'35	0°02'31
min. Earth dist.	10393 Sep	20	00:28	5°♈42'10	4.45027 AU
desc. node	10393 Oct	18	00:51	2°♈28'22	
direct	10393 Nov	20	06:48	0°♈51'40	
evening set	10394 Mar	25	08:00	18°♈19'21	
max. Earth dist.	10394 Apr	04	22:48	20°♈39'10	6.39472 AU
conjunction	10394 Apr	07	03:37	21°♈08'15	-0°09'52
minimum elong	10394 Apr	07	03:36	21°♈08'14	0°10'01
behind sun begin	10394 Apr	06	21:08	21°♈04'42	
behind sun end	10394 Apr	07	10:03	21°♈11'47	
morning rise	10394 Apr	19	21:47	23°♈56'41	
	10394 May	18	09:38	0°♉	
retrograde	10394 Aug	20	11:55	11°♉19'30	
opposition	10394 Oct	20	09:39	6°♉26'18	-0°30'22
min. Earth dist.	10394 Oct	22	00:35	6°♉13'49	4.32389 AU
direct	10394 Dec	21	08:27	1°♉26'29	
	10395 Apr	05	03:30	15°♉	
evening set	10395 Apr	25	17:45	19°♉33'19	
max. Earth dist.	10395 May	06	07:00	21°♉57'13	6.24256 AU
conjunction	10395 May	08	12:48	22°♉27'54	-0°30'26
minimum elong	10395 May	08	12:47	22°♉27'54	0°30'48
morning rise	10395 May	21	07:13	25°♉22'32	
	10395 Jun	11	01:21	0°♊	
retrograde	10395 Sep	23	22:07	13°♊49'46	
opposition	10395 Nov	23	09:05	8°♊55'34	-0°56'22
min. Earth dist.	10395 Nov	24	20:30	8°♊44'06	4.15568 AU
direct	10396 Jan	23	04:28	3°♊57'36	
evening set	10396 May	28	01:40	22°♊56'18	
max. Earth dist.	10396 Jun	08	06:30	25°♊35'05	6.07207 AU
conjunction	10396 Jun	09	22:58	25°♊59'03	-0°42'21
minimum elong	10396 Jun	09	22:57	25°♊59'02	0°42'51
morning rise	10396 Jun	22	21:07	29°♊02'32	
	10396 Jun	26	22:53	0°♋	
retrograde	10396 Oct	29	21:46	18°♋45'33	
opposition	10396 Dec	28	20:34	13°♋49'10	-1°04'45
min. Earth dist.	10396 Dec	29	13:41	13°♋43'31	3.99753 AU
direct	10397 Feb	26	04:49	8°♋53'18	
evening set	10397 Jul	02	17:46	28°♋40'20	
	10397 Jul	08	05:17	0°♌	
conjunction	10397 Jul	15	20:43	1°♌51'37	-0°39'28
minimum elong	10397 Jul	15	20:44	1°♌51'38	0°39'55
max. Earth dist.	10397 Jul	15	12:24	1°♌46'33	5.94146 AU
morning rise	10397 Jul	29	01:31	5°♌04'07	
	10397 Sep	10	08:55	15°♌	
retrograde	10397 Dec	07	16:06	25°♌45'08	
opposition	10398 Feb	05	03:20	20°♌45'37	-0°48'03
min. Earth dist.	10398 Feb	04	20:28	20°♌47'55	3.90895 AU
direct	10398 Apr	04	09:59	15°♌50'52	
	10398 Jul	15	00:35	0°♍	
evening set	10398 Aug	09	08:13	6°♍00'38	
conjunction	10398 Aug	22	18:10	9°♍17'04	-0°20'47
minimum elong	10398 Aug	22	18:11	9°♍17'05	0°21'00
max. Earth dist.	10398 Aug	23	23:23	9°♍34'56	5.90412 AU
morning rise	10398 Sep	05	06:23	12°♍34'44	
	10398 Nov	29	13:18	0°♎	
retrograde	10399 Jan	15	05:19	3°♎24'09	
	10399 Mar	03	05:03	30°℞♍	
min. Earth dist.	10399 Mar	14	07:38	28°♍31'23	3.92829 AU
opposition	10399 Mar	15	12:43	28°♍21'31	-0°11'06
direct	10399 May	12	10:52	23°♍26'02	
asc. node	10399 Jun	28	21:03	27°♍03'20	
	10399 Jul	16	23:49	0°♎	
evening set	10399 Sep	16	12:11	13°♎20'19	
conjunction	10399 Sep	30	02:37	16°♎35'23	0°06'20
minimum elong	10399 Sep	30	02:35	16°♎35'22	0°06'27
behind sun begin	10399 Sep	29	18:43	16°♎30'41	
behind sun end	10399 Sep	30	10:28	16°♎40'03	
max. Earth dist.	10399 Oct	02	08:56	17°♎07'52	5.97745 AU
morning rise	10399 Oct	13	19:00	19°♎51'08	
	10399 Nov	28	05:19	0°♏	
retrograde	10400 Feb	20	16:19	9°♏54'30	
min. Earth dist.	10400 Apr	18	15:25	5°♏03'34	4.04694 AU
opposition	10400 Apr	20	06:03	4°♏50'27	0°29'00
	10400 Jun	09	11:03	30°℞♎	
direct	10400 Jun	17	18:44	29°♎52'54	
	10400 Jun	26	03:24	0°♏	
	10400 Oct	04	16:37	15°♏	
evening set	10400 Oct	22	13:16	19°♏02'26	
conjunction	10400 Nov	05	04:03	22°♏10'30	0°30'00
minimum elong	10400 Nov	05	04:02	22°♏10'29	0°30'22
max. Earth dist.	10400 Nov	07	14:55	22°♏44'26	6.12953 AU
morning rise	10400 Nov	18	19:12	25°♏18'27	
	10400 Dec	09	18:28	0°♐	
retrograde	10401 Mar	25	12:09	14°♐07'56	
min. Earth dist.	10401 May	23	00:53	9°♐16'22	4.21627 AU
opposition	10401 May	24	10:27	9°♐05'06	0°56'00
direct	10401 Jul	23	04:22	4°♐05'32	
evening set	10401 Nov	26	10:19	22°♐22'15	
conjunction	10401 Dec	09	21:36	25°♐21'22	0°42'22
minimum elong	10401 Dec	09	21:36	25°♐21'21	0°42'51
max. Earth dist.	10401 Dec	11	15:19	25°♐44'30	6.30146 AU
morning rise	10401 Dec	23	08:15	28°♐19'49	
	10401 Dec	30	23:28	0°♑	
retrograde	10402 Apr	25	20:18	15°♑59'18	
min. Earth dist.	10402 Jun	24	11:23	11°♑05'44	4.37658 AU
opposition	10402 Jun	25	06:48	10°♑59'20	1°03'37
direct	10402 Aug	25	07:25	5°♑58'28	
evening set	10402 Dec	29	00:32	23°♑32'08	
conjunction	10403 Jan	11	07:05	26°♑23'46	0°41'30
minimum elong	10403 Jan	11	07:06	26°♑23'46	0°41'58
max. Earth dist.	10403 Jan	11	22:04	26°♑31'51	6.43832 AU
morning rise	10403 Jan	24	11:51	29°♑14'25	
	10403 Jan	28	01:11	0°♒	
	10403 Apr	28	23:10	15°♒	
retrograde	10403 May	25	18:57	16°♒06'20	
	10403 Jun	21	12:19	15°℞♒	
opposition	10403 Jul	25	14:39	11°♒09'35	0°53'17
min. Earth dist.	10403 Jul	25	14:31	11°♒09'38	4.48131 AU
direct	10403 Sep	25	16:36	6°♒08'13	

	10403 Dec 18 13:01	15°♒	
evening set	10404 Jan 28 22:43	23°♒18'06	
max. Earth dist.	10404 Feb 10 08:38	25°♒56'57	6.50357 AU
conjunction	10404 Feb 11 00:22	26°♒05'22	0°29'25
minimum elong	10404 Feb 11 00:23	26°♒05'22	0°29'43
morning rise	10404 Feb 24 00:09	28°♒51'39	
	10404 Feb 29 09:24	0°♓	
retrograde	10404 Jun 23 09:58	15°♓25'20	
opposition	10404 Aug 23 10:35	10°♓30'59	0°29'35
min. Earth dist.	10404 Aug 24 06:13	10°♓24'41	4.50408 AU
direct	10404 Oct 25 02:18	5°♓29'35	
evening set	10405 Feb 27 02:20	22°♓38'36	
max. Earth dist.	10405 Mar 10 08:57	25°♓03'58	6.48200 AU
conjunction	10405 Mar 12 00:14	25°♓25'08	0°09'48
minimum elong	10405 Mar 12 00:14	25°♓25'08	0°09'54
behind sun begin	10405 Mar 11 17:45	25°♓21'39	
behind sun end	10405 Mar 12 06:44	25°♓28'37	
morning rise	10405 Mar 24 20:03	28°♓10'51	
	10405 Apr 02 09:04	0°♈	
retrograde	10405 Jul 23 18:02	14°♈57'26	
desc. node	10405 Aug 31 01:27	12°♈48'12	
opposition	10405 Sep 22 20:19	10°♈04'15	-0°01'58
min. Earth dist.	10405 Sep 24 05:52	9°♈53'32	4.43965 AU
direct	10405 Nov 24 09:19	5°♈03'25	
evening set	10406 Mar 29 11:33	22°♈34'32	
max. Earth dist.	10406 Apr 09 01:06	24°♈54'10	6.37853 AU
conjunction	10406 Apr 11 06:54	25°♈23'56	-0°12'52
minimum elong	10406 Apr 11 06:53	25°♈23'55	0°13'03
behind sun begin	10406 Apr 11 02:02	25°♈21'15	
behind sun end	10406 Apr 11 11:44	25°♈26'35	
morning rise	10406 Apr 24 00:54	28°♈12'55	
	10406 May 02 04:46	0°♉	
	10406 Aug 03 11:43	15°♉	
retrograde	10406 Aug 25 00:09	15°♉42'48	
	10406 Sep 15 11:07	15°℞♉	
opposition	10406 Oct 24 20:00	10°♉49'33	-0°34'28
min. Earth dist.	10406 Oct 26 12:40	10°♉36'30	4.30277 AU
direct	10406 Dec 25 16:46	5°♉49'53	
	10407 Mar 18 17:52	15°♉	
evening set	10407 Apr 30 02:22	24°♉03'22	
max. Earth dist.	10407 May 10 14:27	26°♉27'25	6.21801 AU
conjunction	10407 May 12 21:32	26°♉59'00	-0°32'41
minimum elong	10407 May 12 21:31	26°♉58'59	0°33'04
morning rise	10407 May 25 16:23	29°♉54'48	
	10407 May 26 01:30	0°♊	
retrograde	10407 Sep 28 17:55	18°♊32'48	
opposition	10407 Nov 28 03:41	13°♊38'20	-0°58'45
min. Earth dist.	10407 Nov 29 13:08	13°♊27'28	4.12944 AU
direct	10408 Jan 27 17:21	8°♊40'34	
evening set	10408 Jun 01 18:32	27°♊47'54	
	10408 Jun 11 01:10	0°♋	
max. Earth dist.	10408 Jun 13 03:54	0°♋30'13	6.04651 AU
conjunction	10408 Jun 14 16:34	0°♋52'05	-0°42'55
minimum elong	10408 Jun 14 16:34	0°♋52'05	0°43'25
morning rise	10408 Jun 27 15:27	3°♋57'03	
retrograde	10408 Nov 04 04:53	23°♋51'39	
opposition	10409 Jan 03 00:20	18°♋54'55	-1°04'00
min. Earth dist.	10409 Jan 03 15:38	18°♋49'51	3.97501 AU
direct	10409 Mar 03 04:42	13°♋59'16	
	10409 Jun 21 13:17	0°♌	
evening set	10409 Jul 07 19:47	3°♌53'33	
conjunction	10409 Jul 20 23:50	7°♌06'11	-0°37'45
minimum elong	10409 Jul 20 23:51	7°♌06'11	0°38'11
max. Earth dist.	10409 Jul 20 20:16	7°♌04'00	5.92432 AU
morning rise	10409 Aug 03 05:53	10°♌20'03	
	10409 Aug 22 19:12	15°♌	
	10409 Nov 16 16:41	0°♍	
retrograde	10409 Dec 13 02:56	1°♍08'02	
	10410 Jan 08 10:33	30°℞♌	
opposition	10410 Feb 10 12:21	26°♌08'04	-0°43'51
min. Earth dist.	10410 Feb 10 01:17	26°♌11'47	3.89945 AU
direct	10410 Apr 09 14:59	21°♌13'21	
	10410 Jun 25 09:17	0°♍	
evening set	10410 Aug 14 16:44	11°♍25'27	
conjunction	10410 Aug 28 03:30	14°♍42'22	-0°17'15
minimum elong	10410 Aug 28 03:31	14°♍42'22	0°17'25
max. Earth dist.	10410 Aug 29 12:35	15°♍02'35	5.90315 AU
morning rise	10410 Sep 10 16:47	18°♍00'30	
	10410 Nov 03 01:00	0°♎	
retrograde	10411 Jan 20 11:39	8°♎48'11	
opposition	10411 Mar 20 20:13	3°♎45'07	-0°05'13
min. Earth dist.	10411 Mar 19 12:16	3°♎55'59	3.93594 AU
	10411 Apr 21 10:38	30°℞♍	
asc. node	10411 May 08 21:01	28°♍57'41	
direct	10411 May 17 19:02	28°♍49'20	
	10411 Jun 13 05:08	0°♎	
evening set	10411 Sep 21 20:37	18°♎39'53	
conjunction	10411 Oct 05 11:34	21°♎54'22	0°10'07
minimum elong	10411 Oct 05 11:33	21°♎54'22	0°10'16
behind sun begin	10411 Oct 05 04:57	21°♎50'27	
behind sun end	10411 Oct 05 18:09	21°♎58'17	
max. Earth dist.	10411 Oct 07 21:42	22°♎29'00	5.99298 AU
morning rise	10411 Oct 19 03:58	25°♎09'23	
	10411 Nov 09 02:12	0°♏	
	10412 Feb 19 15:08	15°♏	
retrograde	10412 Feb 25 16:48	15°♏03'41	
	10412 Mar 02 17:42	15°℞♏	
min. Earth dist.	10412 Apr 23 15:45	10°♏12'40	4.06825 AU
opposition	10412 Apr 25 06:27	9°♏59'33	0°33'51
direct	10412 Jun 22 23:23	5°♏01'37	
	10412 Sep 15 22:46	15°♏	
evening set	10412 Oct 27 15:39	24°♏03'35	
conjunction	10412 Nov 10 06:02	27°♏10'22	0°32'32
minimum elong	10412 Nov 10 06:01	27°♏10'22	0°32'56
max. Earth dist.	10412 Nov 12 16:15	27°♏43'43	6.15427 AU
	10412 Nov 22 14:56	0°♐	
morning rise	10412 Nov 23 20:47	0°♐16'58	
retrograde	10413 Mar 30 00:29	18°♐55'14	
min. Earth dist.	10413 May 27 16:54	14°♐03'40	4.24191 AU
opposition	10413 May 29 01:54	13°♐52'36	0°58'14
direct	10413 Jul 27 23:39	8°♐52'43	
evening set	10413 Dec 01 04:03	27°♐01'46	
conjunction	10413 Dec 14 14:42	29°♐59'34	0°42'59
minimum elong	10413 Dec 14 14:41	29°♐59'34	0°43'29
	10413 Dec 14 15:28	0°♑	
max. Earth dist.	10413 Dec 16 05:10	0°♑20'49	6.32578 AU
morning rise	10413 Dec 28 00:24	2°♑56'38	
retrograde	10414 Apr 30 03:41	20°♑27'02	
opposition	10414 Jun 29 15:07	15°♑27'30	1°03'06
min. Earth dist.	10414 Jun 28 22:41	15°♑32'54	4.39757 AU
direct	10414 Aug 29 20:40	10°♑26'29	
evening set	10415 Jan 02 10:55	27°♑54'45	
	10415 Jan 12 04:13	0°♒	

conjunction	10415 Jan 15 16:39	0°♒45'28	0°40'22
minimum elong	10415 Jan 15 16:40	0°♒45'28	0°40'49
max. Earth dist.	10415 Jan 16 02:30	0°♒50'46	6.45431 AU
morning rise	10415 Jan 28 20:44	3°♒35'12	
	10415 Mar 29 02:22	15°♒	
retrograde	10415 May 29 22:22	20°♒22'04	
opposition	10415 Jul 29 19:01	15°♒25'39	0°50'36
min. Earth dist.	10415 Jul 29 21:50	15°♒24'44	4.49151 AU
	10415 Aug 02 02:18	15°℞♒	
direct	10415 Sep 29 23:32	10°♒24'11	
	10415 Nov 27 03:24	15°♒	
evening set	10416 Feb 02 04:23	27°♒32'03	
	10416 Feb 13 18:09	0°♓	
max. Earth dist.	10416 Feb 14 11:08	0°♓09'05	6.50729 AU
conjunction	10416 Feb 15 05:35	0°♓18'57	0°26'59
minimum elong	10416 Feb 15 05:36	0°♓18'57	0°27'17
morning rise	10416 Feb 28 04:33	3°♓04'50	
retrograde	10416 Jun 27 13:11	19°♓38'03	
opposition	10416 Aug 27 14:57	14°♓43'57	0°25'27
min. Earth dist.	10416 Aug 28 12:40	14°♓37'00	4.50117 AU
direct	10416 Oct 29 06:45	9°♓42'37	
evening set	10417 Mar 03 07:08	26°♓53'08	
max. Earth dist.	10417 Mar 14 09:18	29°♓16'30	6.47252 AU
conjunction	10417 Mar 16 04:27	29°♓39'49	0°06'42
minimum elong	10417 Mar 16 04:26	29°♓39'49	0°06'44
behind sun begin	10417 Mar 15 20:59	29°♓35'49	
behind sun end	10417 Mar 16 11:53	29°♓43'49	
	10417 Mar 17 17:46	0°♈	
morning rise	10417 Mar 28 24:00	2°♈25'46	
desc. node	10417 Jul 11 11:56	18°♈50'58	
retrograde	10417 Jul 28 03:53	19°♈16'36	
opposition	10417 Sep 27 04:34	14°♈23'30	-0°06'39
min. Earth dist.	10417 Sep 28 16:47	14°♈11'56	4.42406 AU
direct	10417 Nov 28 16:57	9°♈22'44	
evening set	10418 Apr 02 19:07	26°♈58'54	
max. Earth dist.	10418 Apr 13 06:53	29°♈18'12	6.35788 AU
conjunction	10418 Apr 15 14:23	29°♈49'02	-0°15'58
minimum elong	10418 Apr 15 14:23	29°♈49'02	0°16'10
	10418 Apr 16 10:07	0°♉	
morning rise	10418 Apr 28 08:19	2°♉38'50	
	10418 Jun 29 16:35	15°♉	
retrograde	10418 Aug 29 15:57	20°♉17'16	
opposition	10418 Oct 29 11:09	15°♉23'56	-0°38'36
min. Earth dist.	10418 Oct 31 03:00	15°♉11'07	4.27840 AU
	10418 Nov 01 13:39	15°℞♉	
direct	10418 Dec 30 02:57	10°♉24'29	
	10419 Feb 24 16:00	15°♉	
evening set	10419 May 04 16:15	28°♉45'47	
	10419 May 10 01:40	0°♊	
max. Earth dist.	10419 May 15 06:25	1°♊11'52	6.19177 AU
conjunction	10419 May 17 11:37	1°♊42'35	-0°34'51
minimum elong	10419 May 17 11:36	1°♊42'34	0°35'16
morning rise	10419 May 30 06:50	4°♊39'39	
retrograde	10419 Oct 03 22:02	23°♊29'11	
opposition	10419 Dec 03 04:25	18°♊34'31	-1°00'51
min. Earth dist.	10419 Dec 04 12:59	18°♊23'54	4.10331 AU
direct	10420 Feb 01 13:45	13°♊37'06	
	10420 May 25 10:51	0°♋	
evening set	10420 Jun 06 16:54	2°♋52'49	
max. Earth dist.	10420 Jun 18 06:20	5°♋38'25	6.02297 AU
conjunction	10420 Jun 19 15:41	5°♋58'24	-0°43'11
minimum elong	10420 Jun 19 15:41	5°♋58'23	0°43'41
morning rise	10420 Jul 02 15:31	9°♋04'51	
retrograde	10420 Nov 09 15:05	29°♋10'01	
opposition	10421 Jan 08 09:09	24°♋12'58	-1°02'40
min. Earth dist.	10421 Jan 08 20:12	24°♋09'18	3.95682 AU
direct	10421 Mar 08 07:52	19°♋17'39	
	10421 Jun 02 22:48	0°♌	
evening set	10421 Jul 13 02:36	9°♌17'25	
conjunction	10421 Jul 26 07:33	12°♌31'02	-0°35'38
minimum elong	10421 Jul 26 07:34	12°♌31'03	0°36'02
max. Earth dist.	10421 Jul 26 09:09	12°♌32'01	5.91347 AU
	10421 Aug 05 11:13	15°♌	
morning rise	10421 Aug 08 14:46	15°♌45'58	
	10421 Oct 12 14:45	0°♍	
retrograde	10421 Dec 18 14:57	6°♍37'56	
opposition	10422 Feb 15 23:59	1°♍37'29	-0°39'07
min. Earth dist.	10422 Feb 15 09:03	1°♍42'31	3.89749 AU
	10422 Feb 28 07:13	30°℞♌	
direct	10422 Apr 15 00:57	26°♌42'46	
	10422 May 29 21:49	0°♍	
evening set	10422 Aug 20 03:03	16°♍54'07	
conjunction	10422 Sep 02 14:47	20°♍11'06	-0°13'30
minimum elong	10422 Sep 02 14:48	20°♍11'07	0°13'39
behind sun begin	10422 Sep 02 10:19	20°♍08'23	
behind sun end	10422 Sep 02 19:18	20°♍13'51	
max. Earth dist.	10422 Sep 04 06:26	20°♍35'16	5.91050 AU
morning rise	10422 Sep 16 04:39	23°♍29'10	
	10422 Oct 13 21:46	0°♎	
retrograde	10423 Jan 25 19:15	14°♎11'27	
asc. node	10423 Mar 19 07:50	10°♎03'21	
min. Earth dist.	10423 Mar 24 17:47	9°♎19'29	3.95167 AU
opposition	10423 Mar 26 03:20	9°♎08'05	0°00'43
direct	10423 May 23 04:06	4°♎12'06	
evening set	10423 Sep 27 03:45	23°♎55'57	
conjunction	10423 Oct 10 18:43	27°♎09'25	0°13'47
minimum elong	10423 Oct 10 18:42	27°♎09'25	0°13'58
behind sun begin	10423 Oct 10 14:36	27°♎07'00	
behind sun end	10423 Oct 10 22:49	27°♎11'51	
max. Earth dist.	10423 Oct 13 06:34	27°♎44'52	6.01518 AU
	10423 Oct 22 19:27	0°♏	
morning rise	10423 Oct 24 11:13	0°♏23'22	
	10424 Jan 03 02:04	15°♏	
retrograde	10424 Mar 01 11:45	20°♏06'24	
min. Earth dist.	10424 Apr 28 12:27	15°♏15'44	4.09444 AU
opposition	10424 Apr 30 04:01	15°♏02'19	0°38'20
	10424 Apr 30 10:53	15°℞♏	
direct	10424 Jun 27 23:53	10°♏04'06	
	10424 Aug 24 08:16	15°♏	
evening set	10424 Nov 01 14:46	28°♏57'18	
	10424 Nov 06 05:18	0°♐	
conjunction	10424 Nov 15 04:40	2°♐02'38	0°34'45
minimum elong	10424 Nov 15 04:39	2°♐02'37	0°35'11
max. Earth dist.	10424 Nov 17 12:14	2°♐34'17	6.18202 AU
morning rise	10424 Nov 28 18:45	5°♐07'41	
retrograde	10425 Apr 03 11:38	23°♐34'29	
min. Earth dist.	10425 Jun 01 07:52	18°♐42'18	4.26855 AU
opposition	10425 Jun 02 14:00	18°♐32'14	1°00'01
direct	10425 Aug 01 17:22	13°♐32'08	
	10425 Nov 28 13:53	0°♑	
evening set	10425 Dec 05 18:12	1°♑33'38	
conjunction	10425 Dec 19 04:12	4°♑30'13	0°43'20
minimum elong	10425 Dec 19 04:12	4°♑30'13	0°43'51
max. Earth dist.	10425 Dec 20 15:20	4°♑49'31	6.34921 AU

morning rise	10426 Jan 01	13:05	7°♑25'59		
retrograde	10426 May 04	06:30	24°♑48'09		
opposition	10426 Jul 03	20:28	19°♑49'04	1°02'14	
min. Earth dist.	10426 Jul 03	06:07	19°♑53'47	4.41628 AU	
direct	10426 Sep 03	04:57	14°♑47'58		
	10426 Dec 27	09:02	0°♒		
evening set	10427 Jan 06	18:13	2°♒11'46		
conjunction	10427 Jan 19	23:17	5°♒01'43	0°39'03	
minimum elong	10427 Jan 19	23:18	5°♒01'44	0°39'28	
max. Earth dist.	10427 Jan 20	04:42	5°♒04'38	6.46709 AU	
morning rise	10427 Feb 02	02:33	7°♒50'41		
	10427 Mar 09	04:04	15°♒		
retrograde	10427 Jun 03	00:47	24°♒33'53		
opposition	10427 Aug 02	21:48	19°♒37'54	0°47'43	
min. Earth dist.	10427 Aug 03	04:07	19°♒35'52	4.49764 AU	
	10427 Sep 18	01:50	15°℞♒		
direct	10427 Oct 04	05:12	14°♒36'27		
	10427 Oct 20	10:35	15°♒		
	10428 Jan 29	04:01	0°♓		
evening set	10428 Feb 06	08:32	1°♓43'32		
max. Earth dist.	10428 Feb 18	09:12	4°♓17'28	6.50631 AU	
conjunction	10428 Feb 19	09:04	4°♓30'13	0°24'29	
minimum elong	10428 Feb 19	09:04	4°♓30'14	0°24'44	
morning rise	10428 Mar 03	07:38	7°♓15'59		
retrograde	10428 Jul 01	17:47	23°♓50'21		
opposition	10428 Aug 31	18:59	18°♓56'27	0°21'15	
min. Earth dist.	10428 Sep 01	19:29	18°♓48'36	4.49333 AU	
direct	10428 Nov 02	10:45	13°♓55'06		
	10429 Mar 02	03:29	0°♈		
evening set	10429 Mar 07	11:43	1°♈08'37		
max. Earth dist.	10429 Mar 18	12:12	3°♈31'30	6.45842 AU	
conjunction	10429 Mar 20	08:51	3°♈55'43	0°03'35	
minimum elong	10429 Mar 20	08:51	3°♈55'43	0°03'35	
behind sun begin	10429 Mar 20	00:56	3°♈51'27		
behind sun end	10429 Mar 20	16:46	3°♈59'59		
morning rise	10429 Apr 02	03:57	6°♈42'04		
desc. node	10429 May 21	14:16	16°♈35'29		
retrograde	10429 Aug 01	13:09	23°♈38'37		
opposition	10429 Oct 01	13:43	18°♈45'34	-0°11'18	
min. Earth dist.	10429 Oct 03	02:33	18°♈33'48	4.40460 AU	
direct	10429 Dec 02	23:03	13°♈44'59		
	10430 Mar 31	13:15	0°♉		
evening set	10430 Apr 07	03:53	1°♉27'16		
max. Earth dist.	10430 Apr 17	14:33	3°♉46'45	6.33444 AU	
conjunction	10430 Apr 19	22:56	4°♉18'15	-0°18'58	
minimum elong	10430 Apr 19	22:56	4°♉18'15	0°19'12	
morning rise	10430 May 02	17:01	7°♉09'00		
	10430 Jun 08	15:36	15°♉		
retrograde	10430 Sep 03	12:11	24°♉57'04		
opposition	10430 Nov 03	04:46	20°♉03'35	-0°42'32	
min. Earth dist.	10430 Nov 04	20:47	19°♉50'41	4.25246 AU	
direct	10431 Jan 03	17:22	15°♉04'22		
	10431 Apr 23	14:48	0°♊		
evening set	10431 May 09	07:58	3°♊33'40		
max. Earth dist.	10431 May 20	00:31	6°♊01'58	6.16560 AU	
conjunction	10431 May 22	03:44	6°♊31'42	-0°36'47	
minimum elong	10431 May 22	03:43	6°♊31'41	0°37'14	
morning rise	10431 Jun 03	23:22	9°♊30'03		
retrograde	10431 Oct 09	01:25	28°♊30'47		
opposition	10431 Dec 08	07:02	23°♊35'50	-1°02'31	
min. Earth dist.	10431 Dec 09	12:16	23°♊26'18	4.07931 AU	
direct	10432 Feb 06	10:33	18°♊38'47		
	10432 May 07	13:43	0°♋		
evening set	10432 Jun 11	17:08	8°♋01'46		
max. Earth dist.	10432 Jun 23	11:33	10°♋51'07	6.00336 AU	
conjunction	10432 Jun 24	16:31	11°♋08'32	-0°43'06	
minimum elong	10432 Jun 24	16:31	11°♋08'32	0°43'36	
morning rise	10432 Jul 07	17:17	14°♋16'17		
	10432 Sep 21	10:56	0°♌		
retrograde	10432 Nov 15	01:59	4°♌30'04		
	10433 Jan 10	07:38	30°℞♋		
opposition	10433 Jan 13	18:34	29°♋32'29	-1°00'47	
min. Earth dist.	10433 Jan 14	01:53	29°♋30'03	3.94364 AU	
direct	10433 Mar 13	14:22	24°♋37'17		
	10433 May 11	09:35	0°♌		
evening set	10433 Jul 18	09:05	14°♌40'11		
	10433 Jul 19	17:38	15°♌		
conjunction	10433 Jul 31	15:09	17°♌54'33	-0°33'14	
minimum elong	10433 Jul 31	15:10	17°♌54'33	0°33'35	
max. Earth dist.	10433 Jul 31	23:50	17°♌59'52	5.90809 AU	
morning rise	10433 Aug 13	23:15	21°♌10'10		
	10433 Sep 20	21:28	0°♍		
retrograde	10433 Dec 24	01:52	12°♍03'23		
opposition	10434 Feb 21	09:57	7°♍02'26	-0°34'04	
min. Earth dist.	10434 Feb 20	16:16	7°♍08'24	3.90060 AU	
direct	10434 Apr 20	09:50	2°♍07'39		
evening set	10434 Aug 25	11:22	22°♍16'17		
conjunction	10434 Sep 07	23:36	25°♍33'01	-0°09'43	
minimum elong	10434 Sep 07	23:37	25°♍33'01	0°09'47	
behind sun begin	10434 Sep 07	16:48	25°♍28'54		
behind sun end	10434 Sep 08	06:26	25°♍37'09		
max. Earth dist.	10434 Sep 09	18:32	25°♍59'05	5.92139 AU	
morning rise	10434 Sep 21	14:12	28°♍50'49		
	10434 Sep 26	09:27	0°♎		
asc. node	10435 Jan 28	00:49	19°♎25'27		
retrograde	10435 Jan 30	21:12	19°♎26'16		
min. Earth dist.	10435 Mar 29	19:04	14°♎34'53	3.96913 AU	
opposition	10435 Mar 31	07:01	14°♎22'40	0°06'33	
direct	10435 May 28	09:04	9°♎26'23		
evening set	10435 Oct 02	08:03	29°♎03'27		
	10435 Oct 06	08:23	0°♏		
conjunction	10435 Oct 15	23:03	2°♏15'53	0°17'17	
minimum elong	10435 Oct 15	23:02	2°♏15'53	0°17'31	
max. Earth dist.	10435 Oct 18	10:34	2°♏50'58	6.03736 AU	
morning rise	10435 Oct 29	15:23	5°♏28'41		
	10435 Dec 11	18:35	15°♏		
retrograde	10436 Mar 06	05:26	25°♏01'03		
min. Earth dist.	10436 May 03	08:48	20°♏09'56	4.11884 AU	
opposition	10436 May 04	22:45	19°♏57'05	0°42'28	
	10436 Jun 29	04:30	15°℞♏		
direct	10436 Jul 02	23:31	14°♏58'33		
	10436 Jul 06	18:38	15°♏		
	10436 Oct 20	16:27	0°♐		
evening set	10436 Nov 06	11:25	3°♐44'04		
conjunction	10436 Nov 20	01:00	6°♐48'10	0°36'44	
minimum elong	10436 Nov 20	00:59	6°♐48'09	0°37'10	
max. Earth dist.	10436 Nov 22	07:22	7°♐18'57	6.20653 AU	
morning rise	10436 Dec 03	14:24	9°♐51'52		
retrograde	10437 Apr 07	19:47	28°♐08'42		
min. Earth dist.	10437 Jun 05	19:35	23°♐16'32	4.29119 AU	
opposition	10437 Jun 07	00:32	23°♐06'53	1°01'26	
direct	10437 Aug 06	07:04	18°♐06'39		
	10437 Nov 11	17:42	0°♑		
evening set	10437 Dec 10	07:21	6°♑02'11		

conjunction	10437 Dec 23 16:34	8°♑57'42	0°43'26
minimum elong	10437 Dec 23 16:34	8°♑57'42	0°43'57
max. Earth dist.	10437 Dec 24 22:24	9°♑14'01	6.36827 AU
morning rise	10438 Jan 06 00:45	11°♑52'24	
retrograde	10438 May 08 11:49	29°♑08'03	
opposition	10438 Jul 08 01:58	24°♑09'27	1°01'05
min. Earth dist.	10438 Jul 07 15:25	24°♑12'54	4.43060 AU
direct	10438 Sep 07 15:04	19°♑08'17	
	10438 Dec 10 12:32	0°♒	
evening set	10439 Jan 11 01:57	6°♒29'05	
conjunction	10439 Jan 24 06:27	9°♒18'28	0°37'30
minimum elong	10439 Jan 24 06:28	9°♒18'29	0°37'56
max. Earth dist.	10439 Jan 24 07:52	9°♒19'14	6.47565 AU
morning rise	10439 Feb 06 09:01	12°♒06'52	
	10439 Feb 20 02:05	15°♒	
retrograde	10439 Jun 07 03:09	28°♒47'44	
opposition	10439 Aug 07 01:34	23°♒52'07	0°44'33
min. Earth dist.	10439 Aug 07 09:57	23°♒49'24	4.50026 AU
direct	10439 Oct 08 09:38	18°♒50'42	
	10440 Jan 12 12:24	0°♓	
evening set	10440 Feb 10 13:58	5°♓58'05	
max. Earth dist.	10440 Feb 22 11:47	8°♓30'40	6.50289 AU
conjunction	10440 Feb 23 14:02	8°♓44'44	0°21'47
minimum elong	10440 Feb 23 14:02	8°♓44'44	0°22'01
morning rise	10440 Mar 07 11:58	11°♓30'26	
retrograde	10440 Jul 06 00:08	28°♓06'45	
opposition	10440 Sep 05 01:04	23°♓13'08	0°16'51
min. Earth dist.	10440 Sep 06 03:46	23°♓04'36	4.48423 AU
direct	10440 Nov 06 17:04	18°♓12'00	
	10441 Feb 13 13:45	0°♈	
evening set	10441 Mar 11 18:09	5°♈28'48	
max. Earth dist.	10441 Mar 22 14:54	7°♈50'13	6.44431 AU
conjunction	10441 Mar 24 14:45	8°♈16'16	0°00'18
minimum elong	10441 Mar 24 14:45	8°♈16'16	0°00'16
behind sun begin	10441 Mar 24 06:48	8°♈11'58	
behind sun end	10441 Mar 24 22:41	8°♈20'34	
desc. node	10441 Mar 29 16:11	9°♈22'22	
morning rise	10441 Apr 06 09:44	11°♈03'06	
retrograde	10441 Aug 06 02:05	28°♈05'31	
opposition	10441 Oct 06 01:07	23°♈12'31	-0°16'01
min. Earth dist.	10441 Oct 07 14:43	23°♈00'30	4.38658 AU
direct	10441 Dec 07 08:25	18°♈12'10	
	10442 Mar 14 16:40	0°♉	
evening set	10442 Apr 11 14:07	6°♉00'01	
max. Earth dist.	10442 Apr 22 02:10	8°♉20'53	6.31410 AU
conjunction	10442 Apr 24 09:14	8°♉51'48	-0°21'55
minimum elong	10442 Apr 24 09:13	8°♉51'47	0°22'12
morning rise	10442 May 07 03:10	11°♉43'21	
	10442 May 21 23:43	15°♉	
retrograde	10442 Sep 08 07:01	29°♉39'53	
opposition	10442 Nov 07 23:14	24°♉46'19	-0°46'16
min. Earth dist.	10442 Nov 09 13:41	24°♉33'57	4.23148 AU
direct	10443 Jan 08 07:13	19°♉47'31	
	10443 Apr 05 19:30	0°♊	
evening set	10443 May 14 00:09	8°♊23'01	
max. Earth dist.	10443 May 24 19:02	10°♊53'25	6.14571 AU
conjunction	10443 May 26 20:00	11°♊21'59	-0°38'30
minimum elong	10443 May 26 20:00	11°♊21'58	0°38'58
morning rise	10443 Jun 08 16:11	14°♊21'23	
	10443 Aug 26 19:55	0°♋	
retrograde	10443 Oct 14 04:35	3°♋31'06	
	10443 Dec 02 11:30	30°℞♊	
opposition	10443 Dec 13 08:53	28°♊35'50	-1°03'43
min. Earth dist.	10443 Dec 14 11:28	28°♊27'08	4.06220 AU
direct	10444 Feb 11 09:12	23°♊39'03	
	10444 Apr 16 19:46	0°♋	
evening set	10444 Jun 16 15:12	13°♋06'40	
conjunction	10444 Jun 29 15:24	16°♋14'20	-0°42'43
minimum elong	10444 Jun 29 15:25	16°♋14'21	0°43'14
max. Earth dist.	10444 Jun 28 16:10	16°♋00'20	5.99082 AU
morning rise	10444 Jul 12 16:51	19°♋23'01	
	10444 Aug 28 19:34	0°♌	
retrograde	10444 Nov 20 09:24	9°♌42'27	
opposition	10445 Jan 19 00:22	4°♌44'28	-0°58'28
min. Earth dist.	10445 Jan 19 04:43	4°♌43'01	3.93719 AU
	10445 Mar 08 12:46	30°℞♋	
direct	10445 Mar 18 16:48	29°♋49'27	
	10445 Mar 28 20:40	0°♌	
	10445 Jul 03 00:47	15°♌	
evening set	10445 Jul 23 11:42	19°♌53'06	
conjunction	10445 Aug 05 18:25	23°♌07'49	-0°30'39
minimum elong	10445 Aug 05 18:26	23°♌07'49	0°31'00
max. Earth dist.	10445 Aug 06 06:26	23°♌15'10	5.90823 AU
morning rise	10445 Aug 19 03:34	26°♌23'51	
	10445 Sep 03 03:41	0°♍	
retrograde	10445 Dec 29 04:35	17°♍16'02	
opposition	10446 Feb 26 13:49	12°♍14'39	-0°28'59
min. Earth dist.	10446 Feb 25 16:45	12°♍21'47	3.90751 AU
direct	10446 Apr 25 12:45	7°♍19'43	
evening set	10446 Aug 30 13:59	27°♍24'42	
	10446 Sep 10 07:02	0°♎	
conjunction	10446 Sep 13 02:51	0°♎41'04	-0°06'02
minimum elong	10446 Sep 13 02:50	0°♎41'04	0°06'04
behind sun begin	10446 Sep 12 18:54	0°♎36'17	
behind sun end	10446 Sep 13 10:46	0°♎45'51	
max. Earth dist.	10446 Sep 15 00:13	1°♎08'33	5.93432 AU
morning rise	10446 Sep 26 17:50	3°♎58'24	
asc. node	10446 Dec 10 08:57	19°♎36'49	
retrograde	10447 Feb 04 18:35	24°♎26'45	
min. Earth dist.	10447 Apr 03 16:58	19°♎35'05	3.98642 AU
opposition	10447 Apr 05 04:36	19°♎22'58	0°12'00
direct	10447 Jun 02 09:42	14°♎26'21	
	10447 Sep 20 02:30	0°♏	
evening set	10447 Oct 07 06:18	3°♏57'09	
conjunction	10447 Oct 20 21:27	7°♏08'41	0°20'30
minimum elong	10447 Oct 20 21:26	7°♏08'41	0°20'46
max. Earth dist.	10447 Oct 23 09:54	7°♏44'08	6.05738 AU
morning rise	10447 Nov 03 13:36	10°♏20'27	
	10447 Nov 24 00:23	15°♏	
retrograde	10448 Mar 10 17:37	29°♏43'23	
min. Earth dist.	10448 May 07 22:46	24°♏52'20	4.13966 AU
opposition	10448 May 09 12:17	24°♏39'40	0°46'07
direct	10448 Jul 07 15:32	19°♏40'54	
	10448 Oct 03 07:11	0°♐	
evening set	10448 Nov 11 03:36	8°♐20'18	
conjunction	10448 Nov 24 16:37	11°♐23'20	0°38'24
minimum elong	10448 Nov 24 16:37	11°♐23'19	0°38'52
max. Earth dist.	10448 Nov 26 18:36	11°♐51'31	6.22640 AU
morning rise	10448 Dec 08 05:37	14°♐25'57	
	10449 Mar 02 00:38	0°♑	
retrograde	10449 Apr 12 02:19	2°♑34'48	
	10449 May 23 02:37	30°℞♐	
min. Earth dist.	10449 Jun 10 05:42	27°♐42'01	4.30867 AU
opposition	10449 Jun 11 07:41	27°♐33'22	1°02'28

direct	10449 Aug 10 19:01	22°♐32'55	
	10449 Oct 24 02:01	0°♑	
evening set	10449 Dec 14 17:29	10°♑24'12	
conjunction	10449 Dec 28 02:21	13°♑18'58	0°43'18
minimum elong	10449 Dec 28 02:21	13°♑18'58	0°43'48
max. Earth dist.	10449 Dec 29 05:52	13°♑33'59	6.38231 AU
morning rise	10450 Jan 10 09:44	16°♑12'50	
	10450 Mar 25 14:48	0°♒	
retrograde	10450 May 12 13:34	3°♒23'29	
	10450 Jun 29 22:36	30°℞♑	
opposition	10450 Jul 12 05:32	28°♑25'19	0°59'39
min. Earth dist.	10450 Jul 11 20:31	28°♑28'16	4.44052 AU
direct	10450 Sep 11 20:33	23°♑24'06	
	10450 Nov 21 10:26	0°♒	
evening set	10451 Jan 15 08:05	10°♒42'59	
conjunction	10451 Jan 28 11:54	13°♒31'56	0°35'49
minimum elong	10451 Jan 28 11:55	13°♒31'56	0°36'13
max. Earth dist.	10451 Jan 28 09:03	13°♒30'24	6.48089 AU
	10451 Feb 04 08:13	15°♒	
morning rise	10451 Feb 10 13:56	16°♒19'54	
	10451 Apr 27 02:31	0°♓	
retrograde	10451 Jun 11 06:51	2°♓59'18	
	10451 Jul 26 18:04	30°℞♒	
opposition	10451 Aug 11 04:53	28°♒04'00	0°41'13
min. Earth dist.	10451 Aug 11 16:22	28°♒00'18	4.50062 AU
direct	10451 Oct 12 15:54	23°♒02'35	
	10451 Dec 24 19:27	0°♓	
evening set	10452 Feb 14 18:25	10°♓10'27	
conjunction	10452 Feb 27 17:59	12°♓57'04	0°19'01
minimum elong	10452 Feb 27 18:00	12°♓57'04	0°19'12
max. Earth dist.	10452 Feb 26 12:27	12°♓41'14	6.49828 AU
morning rise	10452 Mar 11 15:29	15°♓42'46	
	10452 May 31 08:05	0°♈	
retrograde	10452 Jul 10 04:52	2°♈21'05	
	10452 Aug 19 07:19	30°℞♓	
opposition	10452 Sep 09 06:28	27°♓27'32	0°12'24
min. Earth dist.	10452 Sep 10 10:04	27°♓18'42	4.47494 AU
direct	10452 Nov 10 21:34	22°♓26'25	
	10453 Jan 26 06:00	0°♈	
desc. node	10453 Feb 05 10:58	1°♈51'46	
evening set	10453 Mar 15 23:30	9°♈46'08	
max. Earth dist.	10453 Mar 26 19:53	12°♈07'45	6.43081 AU
conjunction	10453 Mar 28 19:52	12°♈33'58	-0°02'58
minimum elong	10453 Mar 28 19:52	12°♈33'58	0°03'01
behind sun begin	10453 Mar 28 11:55	12°♈29'39	
behind sun end	10453 Mar 29 03:49	12°♈38'17	
morning rise	10453 Apr 10 14:27	15°♈21'11	
	10453 Jun 30 14:11	0°♉	
retrograde	10453 Aug 10 12:31	2°♉29'00	
	10453 Sep 20 19:17	30°℞♈	
opposition	10453 Oct 10 11:27	27°♈35'58	-0°20'36
min. Earth dist.	10453 Oct 12 01:52	27°♈23'41	4.36934 AU
direct	10453 Dec 11 16:47	22°♈35'47	
	10454 Feb 24 00:32	0°♉	
evening set	10454 Apr 15 23:00	10°♉28'42	
max. Earth dist.	10454 Apr 26 09:42	12°♉49'31	6.29402 AU
conjunction	10454 Apr 28 17:53	13°♉21'12	-0°24'42
minimum elong	10454 Apr 28 17:52	13°♉21'12	0°25'02
	10454 May 06 01:08	15°♉	
morning rise	10454 May 11 12:05	16°♉13'37	
	10454 Jul 20 15:50	0°♊	
retrograde	10454 Sep 13 01:43	4°♊18'46	
	10454 Nov 08 03:56	30°℞♉	
opposition	10454 Nov 12 16:43	29°♉24'58	-0°49'40
min. Earth dist.	10454 Nov 14 06:11	29°♉12'52	4.20958 AU
direct	10455 Jan 12 21:26	24°♉26'21	
	10455 Mar 16 00:09	0°♊	
evening set	10455 May 18 14:56	13°♊08'29	
max. Earth dist.	10455 May 29 13:42	15°♊41'50	6.12381 AU
conjunction	10455 May 31 11:19	16°♊08'33	-0°39'57
minimum elong	10455 May 31 11:18	16°♊08'33	0°40'25
morning rise	10455 Jun 13 07:50	19°♊09'06	
	10455 Aug 02 05:40	0°♋	
retrograde	10455 Oct 19 07:55	8°♋28'41	
opposition	10455 Dec 18 09:54	3°♋33'09	-1°04'28
min. Earth dist.	10455 Dec 19 10:30	3°♋25'06	4.04223 AU
	10456 Jan 17 17:39	30°℞♊	
direct	10456 Feb 16 05:38	28°♊36'42	
	10456 Mar 16 12:44	0°♋	
evening set	10456 Jun 21 13:35	18°♋10'25	
conjunction	10456 Jul 04 14:24	21°♋19'10	-0°42'00
minimum elong	10456 Jul 04 14:25	21°♋19'11	0°42'30
max. Earth dist.	10456 Jul 03 17:53	21°♋06'46	5.97455 AU
morning rise	10456 Jul 17 16:59	24°♋29'05	
	10456 Aug 10 03:28	0°♌	
retrograde	10456 Nov 25 15:37	14°♌55'50	
opposition	10457 Jan 24 06:30	9°♌57'23	-0°55'39
min. Earth dist.	10457 Jan 24 06:43	9°♌57'19	3.92650 AU
direct	10457 Mar 23 18:48	5°♌02'29	
	10457 Jun 14 13:04	15°♌	
evening set	10457 Jul 28 15:52	25°♌08'56	
conjunction	10457 Aug 10 23:39	28°♌24'20	-0°27'47
minimum elong	10457 Aug 10 23:40	28°♌24'21	0°28'06
max. Earth dist.	10457 Aug 11 17:10	28°♌35'03	5.90433 AU
	10457 Aug 17 11:58	0°♍	
morning rise	10457 Aug 24 09:42	1°♍41'00	
retrograde	10458 Jan 03 12:17	22°♍33'54	
opposition	10458 Mar 03 20:05	17°♍32'08	-0°23'34
min. Earth dist.	10458 Mar 02 21:17	17°♍39'51	3.91080 AU
direct	10458 Apr 30 19:30	12°♍37'04	
	10458 Aug 24 15:24	0°♎	
evening set	10458 Sep 04 19:45	2°♎39'55	
conjunction	10458 Sep 18 09:16	5°♎56'07	-0°02'12
minimum elong	10458 Sep 18 09:16	5°♎56'06	0°02'11
behind sun begin	10458 Sep 18 00:53	5°♎51'04	
behind sun end	10458 Sep 18 17:39	6°♎01'09	
max. Earth dist.	10458 Sep 20 10:52	6°♎26'02	5.94441 AU
morning rise	10458 Oct 02 00:44	9°♎13'10	
asc. node	10458 Oct 20 03:11	13°♎28'54	
retrograde	10459 Feb 09 18:33	29°♎35'13	
min. Earth dist.	10459 Apr 08 16:02	24°♎43'59	4.00224 AU
opposition	10459 Apr 10 05:13	24°♎31'21	0°17'30
direct	10459 Jun 07 11:16	19°♎34'32	
	10459 Sep 01 19:32	0°♏	
evening set	10459 Oct 12 08:47	8°♏59'44	
conjunction	10459 Oct 25 23:44	12°♏10'19	0°23'40
minimum elong	10459 Oct 25 23:43	12°♏10'18	0°23'58
max. Earth dist.	10459 Oct 28 10:54	12°♏44'50	6.07729 AU
	10459 Nov 07 03:23	15°♏	
morning rise	10459 Nov 08 15:50	15°♏21'05	
	10460 Jan 20 03:44	0°♐	
retrograde	10460 Mar 15 08:50	4°♐34'27	
	10460 May 10 14:55	30°℞♏	
min. Earth dist.	10460 May 12 16:36	29°♏43'16	4.16174 AU

opposition	10460 May 14 05:07	29°♏30'57	0°49'35
direct	10460 Jul 12 12:54	24°♏31'57	
	10460 Sep 11 18:36	0°♐	
evening set	10460 Nov 15 23:04	13°♐04'45	
conjunction	10460 Nov 29 11:48	16°♐06'39	0°39'53
minimum elong	10460 Nov 29 11:47	16°♐06'38	0°40'23
max. Earth dist.	10460 Dec 01 13:01	16°♐34'16	6.24916 AU
morning rise	10460 Dec 12 23:57	19°♐07'59	
	10461 Feb 04 00:37	0°♑	
retrograde	10461 Apr 16 10:43	7°♑07'39	
opposition	10461 Jun 15 17:29	2°♑06'42	1°03'10
min. Earth dist.	10461 Jun 14 16:49	2°♑14'53	4.33041 AU
	10461 Jul 02 04:50	30°℞♐	
direct	10461 Aug 15 08:52	27°♐06'12	
	10461 Sep 28 19:15	0°♑	
evening set	10461 Dec 19 05:43	14°♑51'35	
conjunction	10462 Jan 01 13:41	17°♑45'16	0°42'57
minimum elong	10462 Jan 01 13:41	17°♑45'16	0°43'27
max. Earth dist.	10462 Jan 02 12:35	17°♑57'43	6.40152 AU
morning rise	10462 Jan 14 20:25	20°♑38'05	
	10462 Mar 02 07:31	0°♒	
retrograde	10462 May 16 17:31	7°♒42'06	
opposition	10462 Jul 16 10:23	2°♒44'20	0°57'55
min. Earth dist.	10462 Jul 16 04:25	2°♒46'17	4.45609 AU
	10462 Aug 07 17:43	30°℞♑	
direct	10462 Sep 16 05:55	27°♑43'02	
	10462 Oct 26 01:21	0°♒	
evening set	10463 Jan 19 14:18	14°♒58'04	
	10463 Jan 19 17:57	15°♒	
conjunction	10463 Feb 01 17:34	17°♒46'21	0°33'58
minimum elong	10463 Feb 01 17:35	17°♒46'22	0°34'21
max. Earth dist.	10463 Feb 01 12:23	17°♒43'35	6.49179 AU
morning rise	10463 Feb 14 18:42	20°♒33'36	
	10463 Apr 03 12:18	0°♓	
retrograde	10463 Jun 15 06:44	7°♓09'48	
opposition	10463 Aug 15 07:14	2°♓14'47	0°37'46
min. Earth dist.	10463 Aug 15 20:11	2°♓10'37	4.50625 AU
	10463 Sep 02 10:37	30°℞♒	
direct	10463 Oct 16 19:25	27°♒13'22	
	10463 Nov 30 07:25	0°♓	
evening set	10464 Feb 18 21:23	14°♓20'07	
max. Earth dist.	10464 Mar 01 11:33	16°♓48'55	6.49812 AU
conjunction	10464 Mar 02 20:17	17°♓06'29	0°16'15
minimum elong	10464 Mar 02 20:18	17°♓06'30	0°16'25
morning rise	10464 Mar 15 17:15	19°♓51'59	
	10464 May 06 06:29	0°♈	
retrograde	10464 Jul 14 08:29	6°♈31'12	
opposition	10464 Sep 13 10:05	1°♈37'46	0°08'03
min. Earth dist.	10464 Sep 14 16:40	1°♈28'00	4.46876 AU
	10464 Sep 26 09:38	30°℞♓	
direct	10464 Nov 15 02:28	26°♓36'41	
desc. node	10464 Dec 18 03:40	28°♓11'49	
	10465 Jan 03 06:57	0°♈	
evening set	10465 Mar 20 02:15	13°♈58'25	
max. Earth dist.	10465 Mar 30 18:50	16°♈18'25	6.41878 AU
conjunction	10465 Apr 01 22:12	16°♈46'32	-0°06'00
minimum elong	10465 Apr 01 22:12	16°♈46'32	0°06'06
behind sun begin	10465 Apr 01 14:37	16°♈42'25	
behind sun end	10465 Apr 02 05:47	16°♈50'40	
morning rise	10465 Apr 14 16:37	19°♈34'07	
	10465 Jun 05 14:21	0°♉	
retrograde	10465 Aug 14 20:19	6°♉47'16	
opposition	10465 Oct 14 19:18	1°♉54'06	-0°24'53
min. Earth dist.	10465 Oct 16 10:15	1°♉41'37	4.35196 AU
	10465 Oct 30 00:54	30°℞♈	
direct	10465 Dec 15 22:09	26°♈53'57	
	10466 Jan 31 05:26	0°♉	
evening set	10466 Apr 20 05:21	14°♉52'16	
	10466 Apr 20 19:08	15°♉	
max. Earth dist.	10466 Apr 30 16:59	17°♉14'15	6.27248 AU
conjunction	10466 May 03 00:22	17°♉45'37	-0°27'15
minimum elong	10466 May 03 00:21	17°♉45'37	0°27'36
morning rise	10466 May 15 18:31	20°♉38'55	
	10466 Jun 28 18:08	0°♊	
retrograde	10466 Sep 17 18:58	8°♊53'21	
opposition	10466 Nov 17 07:56	3°♊59'23	-0°52'42
min. Earth dist.	10466 Nov 18 21:43	3°♊47'11	4.18518 AU
	10466 Dec 23 05:52	30°℞♉	
direct	10467 Jan 17 08:57	29°♉00'57	
	10467 Feb 11 09:43	0°♊	
evening set	10467 May 23 04:25	17°♊50'55	
max. Earth dist.	10467 Jun 03 03:46	20°♊25'32	6.09847 AU
conjunction	10467 Jun 05 01:08	20°♊52'15	-0°41'05
minimum elong	10467 Jun 05 01:07	20°♊52'15	0°41'36
morning rise	10467 Jun 17 22:30	23°♊54'13	
	10467 Jul 14 15:20	0°♋	
retrograde	10467 Oct 24 09:34	13°♋25'14	
opposition	10467 Dec 23 10:02	8°♋29'19	-1°04'47
min. Earth dist.	10467 Dec 24 07:39	8°♋22'13	4.01809 AU
direct	10468 Feb 21 00:06	3°♋33'02	
evening set	10468 Jun 26 11:52	23°♋14'39	
conjunction	10468 Jul 09 13:47	26°♋24'50	-0°41'01
minimum elong	10468 Jul 09 13:47	26°♋24'50	0°41'29
max. Earth dist.	10468 Jul 08 22:44	26°♋15'42	5.95411 AU
morning rise	10468 Jul 22 17:19	29°♋36'10	
	10468 Jul 24 08:52	0°♌	
	10468 Oct 03 05:20	15°♌	
retrograde	10468 Dec 01 01:44	20°♌11'54	
opposition	10469 Jan 29 13:39	15°♌13'00	-0°52'28
min. Earth dist.	10469 Jan 29 11:27	15°♌13'44	3.91200 AU
	10469 Jan 31 04:31	15°℞♌	
direct	10469 Mar 28 23:12	10°♌18'11	
	10469 May 22 08:38	15°♌	
	10469 Jul 31 22:30	0°♍	
evening set	10469 Aug 02 21:59	0°♍28'53	
conjunction	10469 Aug 16 06:52	3°♍45'08	-0°24'43
minimum elong	10469 Aug 16 06:53	3°♍45'09	0°24'59
max. Earth dist.	10469 Aug 17 05:47	3°♍59'11	5.89735 AU
morning rise	10469 Aug 29 18:03	7°♍02'40	
retrograde	10470 Jan 08 21:06	27°♍56'53	
min. Earth dist.	10470 Mar 08 01:30	23°♍03'40	3.91239 AU
opposition	10470 Mar 09 03:56	22°♍54'42	-0°17'58
direct	10470 May 06 01:19	17°♍59'28	
	10470 Aug 06 12:08	0°♎	
asc. node	10470 Aug 29 04:11	5°♎09'38	
evening set	10470 Sep 10 04:27	8°♎00'46	
conjunction	10470 Sep 23 18:24	11°♎16'43	0°01'46
minimum elong	10470 Sep 23 18:25	11°♎16'43	0°01'50
behind sun begin	10470 Sep 23 10:01	11°♎11'41	
behind sun end	10470 Sep 24 02:48	11°♎21'45	
max. Earth dist.	10470 Sep 25 22:13	11°♎47'54	5.95422 AU
morning rise	10470 Oct 07 10:30	14°♎33'30	
	10470 Dec 20 12:31	0°♏	
retrograde	10471 Feb 14 19:38	4°♏48'48	

	10471 Apr 13	10:55	30°℞♎		
min. Earth dist.	10471 Apr 13	17:21	29°♎57'49	4.01891 AU	
opposition	10471 Apr 15	07:50	29°♎44'44	0°22'53	
direct	10471 Jun 12	16:38	24°♎47'32		
	10471 Aug 10	03:27	0°♏		
evening set	10471 Oct 17	13:07	14°♏06'26		
	10471 Oct 21	09:46	15°♏		
conjunction	10471 Oct 31	04:09	17°♏15'59	0°26'40	
minimum elong	10471 Oct 31	04:08	17°♏15'59	0°27'00	
max. Earth dist.	10471 Nov 02	16:58	17°♏51'17	6.09921 AU	
morning rise	10471 Nov 13	19:46	20°♏25'32		
	10471 Dec 27	23:40	0°♐		
retrograde	10472 Mar 20	02:34	9°♐28'15		
min. Earth dist.	10472 May 17	11:44	4°♐36'57	4.18628 AU	
opposition	10472 May 18	23:25	4°♐24'57	0°52'40	
	10472 Jun 28	18:30	30°℞♏		
direct	10472 Jul 17	11:58	29°♏25'39		
	10472 Aug 05	08:05	0°♐		
evening set	10472 Nov 20	19:40	17°♐50'42		
conjunction	10472 Dec 04	07:39	20°♐51'15	0°41'06	
minimum elong	10472 Dec 04	07:38	20°♐51'15	0°41'36	
max. Earth dist.	10472 Dec 06	05:43	21°♐16'57	6.27391 AU	
morning rise	10472 Dec 17	19:12	23°♐51'14		
	10473 Jan 15	11:37	0°♑		
retrograde	10473 Apr 20	18:45	11°♑41'03		
min. Earth dist.	10473 Jun 19	05:14	6°♑47'55	4.35322 AU	
opposition	10473 Jun 20	03:47	6°♑40'27	1°03'27	
direct	10473 Aug 19	23:34	1°♑39'43		
evening set	10473 Dec 23	18:12	19°♑18'59		
conjunction	10474 Jan 06	01:35	22°♑11'39	0°42'19	
minimum elong	10474 Jan 06	01:35	22°♑11'39	0°42'48	
max. Earth dist.	10474 Jan 06	21:43	22°♑22'33	6.42067 AU	
morning rise	10474 Jan 19	07:18	25°♑03'20		
	10474 Feb 11	21:06	0°♒		
retrograde	10474 May 20	21:10	12°♒00'57		
opposition	10474 Jul 20	15:45	7°♒03'40	0°55'48	
min. Earth dist.	10474 Jul 20	12:08	7°♒04'50	4.47022 AU	
direct	10474 Sep 20	14:17	2°♒02'21		
	10475 Jan 03	12:15	15°♒		
evening set	10475 Jan 23	21:14	19°♒14'11		
conjunction	10475 Feb 05	23:40	22°♒01'53	0°31'53	
minimum elong	10475 Feb 05	23:41	22°♒01'53	0°32'13	
max. Earth dist.	10475 Feb 05	12:49	21°♒56'05	6.49979 AU	
morning rise	10475 Feb 19	00:16	24°♒48'36		
	10475 Mar 16	02:50	0°♓		
retrograde	10475 Jun 19	11:20	11°♓22'55		
opposition	10475 Aug 19	11:32	6°♓28'12	0°34'00	
min. Earth dist.	10475 Aug 20	04:04	6°♓22'54	4.50772 AU	
direct	10475 Oct 21	02:00	1°♓26'46		
evening set	10476 Feb 23	02:01	18°♓33'53		
max. Earth dist.	10476 Mar 05	12:49	21°♓01'04	6.49290 AU	
conjunction	10476 Mar 07	00:32	21°♓20'15	0°13'17	
minimum elong	10476 Mar 07	00:33	21°♓20'16	0°13'24	
behind sun begin	10476 Mar 06	20:01	21°♓17'50		
behind sun end	10476 Mar 07	05:05	21°♓22'41		
morning rise	10476 Mar 19	20:56	24°♓05'46		
	10476 Apr 17	09:24	0°♈		
retrograde	10476 Jul 18	14:00	10°♈47'43		
opposition	10476 Sep 17	16:36	5°♈54'26	0°03'27	
min. Earth dist.	10476 Sep 19	00:16	5°♈44'19	4.45721 AU	
desc. node	10476 Oct 28	05:55	1°♈37'07		
direct	10476 Nov 19	07:07	0°♈53'27		
evening set	10477 Mar 24	08:38	18°♈19'07		
max. Earth dist.	10477 Apr 03	23:47	20°♈38'53	6.40162 AU	
conjunction	10477 Apr 06	04:19	21°♈07'47	-0°09'10	
minimum elong	10477 Apr 06	04:18	21°♈07'46	0°09'19	
behind sun begin	10477 Apr 05	21:35	21°♈04'06		
behind sun end	10477 Apr 06	11:00	21°♈11'27		
morning rise	10477 Apr 18	22:29	23°♈55'57		
	10477 May 17	12:58	0°♉		
retrograde	10477 Aug 19	10:56	11°♉16'18		
opposition	10477 Oct 19	08:04	6°♉23'11	-0°29'19	
min. Earth dist.	10477 Oct 21	00:41	6°♉10'10	4.33008 AU	
direct	10477 Dec 20	08:53	1°♉23'14		
	10478 Apr 04	10:48	15°♉		
evening set	10478 Apr 24	16:46	19°♉28'29		
max. Earth dist.	10478 May 05	03:17	21°♉50'41	6.24743 AU	
conjunction	10478 May 07	11:48	22°♉22'53	-0°29'47	
minimum elong	10478 May 07	11:47	22°♉22'52	0°30'10	
morning rise	10478 May 20	06:21	25°♉17'20		
	10478 Jun 10	10:38	0°♊		
retrograde	10478 Sep 22	17:45	13°♊42'36		
opposition	10478 Nov 22	05:26	8°♊48'27	-0°55'34	
min. Earth dist.	10478 Nov 23	17:06	8°♊36'53	4.15878 AU	
direct	10479 Jan 22	00:52	3°♊50'18		
evening set	10479 May 27	23:49	22°♊48'47		
max. Earth dist.	10479 Jun 08	04:01	25°♊27'06	6.07309 AU	
conjunction	10479 Jun 09	21:10	25°♊51'29	-0°42'01	
minimum elong	10479 Jun 09	21:10	25°♊51'29	0°42'32	
morning rise	10479 Jun 22	19:07	28°♊54'52		
	10479 Jun 27	10:02	0°♋		
retrograde	10479 Oct 29	19:28	18°♋37'21		
opposition	10479 Dec 28	16:36	13°♋41'09	-1°04'36	
min. Earth dist.	10479 Dec 29	12:08	13°♋34'43	3.99620 AU	
direct	10480 Feb 26	02:23	8°♋45'13		
evening set	10480 Jul 01	16:07	28°♋33'41		
	10480 Jul 07	14:24	0°♌		
conjunction	10480 Jul 14	18:59	1°♌45'06	-0°39'37	
minimum elong	10480 Jul 14	18:59	1°♌45'06	0°40'05	
max. Earth dist.	10480 Jul 14	08:40	1°♌38'49	5.93801 AU	
morning rise	10480 Jul 27	23:42	4°♌57'43		
	10480 Sep 09	18:02	15°♌		
retrograde	10480 Dec 06	14:20	25°♌40'07		
opposition	10481 Feb 04	01:03	20°♌40'49	-0°48'39	
min. Earth dist.	10481 Feb 03	18:10	20°♌43'07	3.90405 AU	
direct	10481 Apr 03	06:33	15°♌46'08		
	10481 Jul 14	05:15	0°♍		
evening set	10481 Aug 08	07:54	5°♍58'20		
conjunction	10481 Aug 21	17:35	9°♍14'58	-0°21'19	
minimum elong	10481 Aug 21	17:36	9°♍14'58	0°21'32	
max. Earth dist.	10481 Aug 22	21:09	9°♍31'50	5.89841 AU	
morning rise	10481 Sep 04	05:47	12°♍32'52		
	10481 Nov 28	13:09	0°♎		
retrograde	10482 Jan 14	05:01	3°♎24'46		
	10482 Mar 02	07:44	30°℞♍		
min. Earth dist.	10482 Mar 13	07:56	28°♍32'06	3.92243 AU	
opposition	10482 Mar 14	13:18	28°♍22'08	-0°12'05	
direct	10482 May 11	11:24	23°♍26'41		
asc. node	10482 Jul 07	18:17	28°♍35'40		
	10482 Jul 15	21:35	0°♎		
evening set	10482 Sep 15	13:17	13°♎22'59		
conjunction	10482 Sep 29	03:46	16°♎38'16	0°05'39	
minimum elong	10482 Sep 29	03:45	16°♎38'16	0°05'46	

behind sun begin	10482	Sep	28	19:44	16°♎33'29	
behind sun end	10482	Sep	29	11:45	16°♎43'02	
max. Earth dist.	10482	Oct	01	11:55	17°♎11'54	5.97222 AU
morning rise	10482	Oct	12	19:52	19°♎54'11	
	10482	Nov	26	22:45	0°♏	
retrograde	10483	Feb	19	20:22	9°♏59'34	
min. Earth dist.	10483	Apr	18	18:13	5°♏08'34	4.04264 AU
opposition	10483	Apr	20	08:57	4°♏55'26	0°28'01
	10483	Jun	13	08:59	30°℞♎	
direct	10483	Jun	17	21:55	29°♎57'55	
	10483	Jun	22	10:38	0°♏	
	10483	Oct	04	08:29	15°♏	
evening set	10483	Oct	22	15:21	19°♏08'14	
conjunction	10483	Nov	05	05:57	22°♏16'24	0°29'25
minimum elong	10483	Nov	05	05:56	22°♏16'23	0°29'48
max. Earth dist.	10483	Nov	07	17:47	22°♏50'54	6.12612 AU
morning rise	10483	Nov	18	21:13	25°♏24'30	
	10483	Dec	09	09:03	0°♐	
retrograde	10484	Mar	24	14:31	14°♐15'12	
min. Earth dist.	10484	May	22	03:29	9°♐23'52	4.21380 AU
opposition	10484	May	23	14:25	9°♐12'08	0°55'18
direct	10484	Jul	22	06:58	4°♐12'31	
evening set	10484	Nov	25	12:43	22°♐29'19	
conjunction	10484	Dec	09	00:07	25°♐28'30	0°42'01
minimum elong	10484	Dec	09	00:06	25°♐28'30	0°42'31
max. Earth dist.	10484	Dec	10	18:48	25°♐52'12	6.29981 AU
morning rise	10484	Dec	22	10:44	28°♐27'01	
	10484	Dec	29	12:45	0°♑	
retrograde	10485	Apr	25	01:18	16°♑07'13	
opposition	10485	Jun	24	11:13	11°♑07'06	1°03'20
min. Earth dist.	10485	Jun	23	15:45	11°♑13'31	4.37546 AU
direct	10485	Aug	24	11:51	6°♑06'13	
evening set	10485	Dec	28	03:27	23°♑39'43	
conjunction	10486	Jan	10	10:02	26°♑31'25	0°41'27
minimum elong	10486	Jan	10	10:03	26°♑31'25	0°41'57
max. Earth dist.	10486	Jan	11	00:50	26°♑39'24	6.43751 AU
morning rise	10486	Jan	23	15:05	29°♑22'10	
	10486	Jan	26	13:51	0°♒	
	10486	Apr	26	11:48	15°♒	
retrograde	10486	May	24	23:24	16°♒14'30	
	10486	Jun	22	08:04	15°℞♒	
opposition	10486	Jul	24	18:58	11°♒17'34	0°53'28
min. Earth dist.	10486	Jul	24	18:28	11°♒17'44	4.48087 AU
direct	10486	Sep	24	20:05	6°♒16'09	
	10486	Dec	16	23:07	15°♒	
evening set	10487	Jan	28	01:56	23°♒25'55	
conjunction	10487	Feb	10	03:55	26°♒13'15	0°29'40
minimum elong	10487	Feb	10	03:56	26°♒13'15	0°30'00
max. Earth dist.	10487	Feb	09	14:03	26°♒05'50	6.50360 AU
morning rise	10487	Feb	23	03:43	28°♒59'34	
	10487	Feb	27	21:59	0°♓	
retrograde	10487	Jun	23	13:24	15°♓33'20	
opposition	10487	Aug	23	14:31	10°♓38'54	0°30'08
min. Earth dist.	10487	Aug	24	09:21	10°♓32'52	4.50460 AU
direct	10487	Oct	25	05:12	5°♓37'31	
evening set	10488	Feb	27	06:05	22°♓46'21	
max. Earth dist.	10488	Mar	09	12:08	25°♓11'23	6.48298 AU
conjunction	10488	Mar	11	04:02	25°♓32'53	0°10'17
minimum elong	10488	Mar	11	04:02	25°♓32'53	0°10'23
behind sun begin	10488	Mar	10	21:45	25°♓29'31	
behind sun end	10488	Mar	11	10:19	25°♓36'16	
morning rise	10488	Mar	24	00:11	28°♓18'40	
	10488	Mar	31	22:28	0°♈	
retrograde	10488	Jul	22	22:57	15°♈04'52	
desc. node	10488	Sep	08	11:24	11°♈52'57	
opposition	10488	Sep	21	23:47	10°♈11'41	-0°01'09
min. Earth dist.	10488	Sep	23	10:14	10°♈00'41	4.44106 AU
direct	10488	Nov	23	13:43	5°♈10'46	
evening set	10489	Mar	28	15:25	22°♈41'39	
max. Earth dist.	10489	Apr	08	04:50	25°♈01'07	6.38039 AU
conjunction	10489	Apr	10	11:01	25°♈31'04	-0°12'17
minimum elong	10489	Apr	10	11:00	25°♈31'03	0°12'28
behind sun begin	10489	Apr	10	05:46	25°♈28'11	
behind sun end	10489	Apr	10	16:14	25°♈33'56	
morning rise	10489	Apr	23	05:07	28°♈20'02	
	10489	Apr	30	19:56	0°♉	
	10489	Aug	01	02:13	15°♉	
retrograde	10489	Aug	24	01:53	15°♉48'59	
	10489	Sep	16	02:50	15°℞♉	
opposition	10489	Oct	23	22:29	10°♉55'46	-0°33'36
min. Earth dist.	10489	Oct	25	14:13	10°♉43'01	4.30522 AU
direct	10489	Dec	24	18:26	5°♉56'03	
	10490	Mar	17	08:56	15°♉	
evening set	10490	Apr	29	06:04	24°♉09'06	
max. Earth dist.	10490	May	09	18:49	26°♉33'25	6.22094 AU
conjunction	10490	May	12	01:16	27°♉04'38	-0°32'09
minimum elong	10490	May	12	01:15	27°♉04'38	0°32'33
morning rise	10490	May	24	20:05	0°♊00'19	
	10490	May	24	19:31	0°♊	
retrograde	10490	Sep	27	20:48	18°♊36'51	
opposition	10490	Nov	27	05:17	13°♊42'30	-0°58'06
min. Earth dist.	10490	Nov	28	16:02	13°♊31'13	4.13269 AU
direct	10491	Jan	26	20:37	8°♊44'41	
evening set	10491	Jun	01	21:24	27°♊51'16	
	10491	Jun	10	22:29	0°♋	
max. Earth dist.	10491	Jun	13	05:26	0°♋32'42	6.04984 AU
conjunction	10491	Jun	14	19:23	0°♋55'18	-0°42'38
minimum elong	10491	Jun	14	19:23	0°♋55'17	0°43'09
morning rise	10491	Jun	27	18:12	4°♋00'05	
retrograde	10491	Nov	04	04:03	23°♋52'48	
opposition	10492	Jan	03	00:36	18°♋56'13	-1°03'52
min. Earth dist.	10492	Jan	03	15:39	18°♋51'15	3.97833 AU
direct	10492	Mar	02	04:48	14°♋00'35	
	10492	Jun	20	13:49	0°♌	
evening set	10492	Jul	06	21:23	3°♌54'02	
conjunction	10492	Jul	20	01:05	7°♌06'23	-0°37'52
minimum elong	10492	Jul	20	01:06	7°♌06'24	0°38'19
max. Earth dist.	10492	Jul	19	20:16	7°♌03'27	5.92726 AU
morning rise	10492	Aug	02	06:53	10°♌20'01	
	10492	Aug	21	20:25	15°♌	
	10492	Nov	15	22:41	0°♍	
retrograde	10492	Dec	12	01:57	1°♍06'36	
	10493	Jan	07	03:17	30°℞♌	
opposition	10493	Feb	09	12:02	26°♌06'44	-0°44'23
min. Earth dist.	10493	Feb	09	01:34	26°♌10'15	3.90159 AU
direct	10493	Apr	08	16:12	21°♌12'02	
	10493	Jun	24	12:49	0°♍	
evening set	10493	Aug	13	16:39	11°♍23'29	
conjunction	10493	Aug	27	03:19	14°♍40'15	-0°17'46
minimum elong	10493	Aug	27	03:20	14°♍40'15	0°17'57
max. Earth dist.	10493	Aug	28	13:18	15°♍01'01	5.90447 AU
morning rise	10493	Sep	09	16:08	17°♍58'09	
	10493	Nov	02	05:16	0°♎	
retrograde	10494	Jan	19	12:09	8°♎45'32	

opposition	10494 Mar 19 19:57	3°♎42'35	-0°06'12
min. Earth dist.	10494 Mar 18 12:55	3°♎53'07	3.93622 AU
	10494 Apr 19 23:22	30°℞♍	
direct	10494 May 16 19:11	28°♍46'57	
asc. node	10494 May 17 12:14	28°♍47'00	
	10494 Jun 12 16:02	0°♎	
evening set	10494 Sep 20 19:47	18°♎37'20	
conjunction	10494 Oct 04 10:24	21°♎51'46	0°09'25
minimum elong	10494 Oct 04 10:23	21°♎51'45	0°09'34
behind sun begin	10494 Oct 04 03:29	21°♎47'40	
behind sun end	10494 Oct 04 17:17	21°♎55'51	
max. Earth dist.	10494 Oct 06 19:47	22°♎25'56	5.99200 AU
morning rise	10494 Oct 18 02:46	25°♎06'47	
	10494 Nov 08 05:23	0°♏	
	10495 Feb 20 05:07	15°♏	
retrograde	10495 Feb 24 16:02	15°♏01'59	
	10495 Mar 01 02:37	15°℞♏	
min. Earth dist.	10495 Apr 23 15:11	10°♏11'19	4.06623 AU
opposition	10495 Apr 25 06:46	9°♏57'53	0°32'51
direct	10495 Jun 22 22:18	5°♏00'04	
	10495 Sep 16 00:46	15°♏	
evening set	10495 Oct 27 14:44	24°♏02'32	
conjunction	10495 Nov 10 05:03	27°♏09'26	0°31'56
minimum elong	10495 Nov 10 05:01	27°♏09'25	0°32'21
max. Earth dist.	10495 Nov 12 14:39	27°♏42'28	6.15139 AU
	10495 Nov 22 15:21	0°♐	
morning rise	10495 Nov 23 19:46	0°♐16'09	
retrograde	10496 Mar 29 03:10	18°♐56'13	
min. Earth dist.	10496 May 26 19:16	14°♐04'21	4.23830 AU
opposition	10496 May 28 03:34	13°♐53'31	0°57'34
direct	10496 Jul 27 01:14	8°♐53'44	
evening set	10496 Nov 30 04:05	27°♐03'40	
conjunction	10496 Dec 13 14:54	0°♑01'43	0°42'41
minimum elong	10496 Dec 13 14:53	0°♑01'42	0°43'11
	10496 Dec 13 11:48	0°♑	
max. Earth dist.	10496 Dec 15 06:27	0°♑23'34	6.32162 AU
morning rise	10496 Dec 27 00:47	2°♑59'02	
retrograde	10497 Apr 29 05:38	20°♑31'21	
opposition	10497 Jun 28 17:43	15°♑31'41	1°02'54
min. Earth dist.	10497 Jun 28 00:10	15°♑37'28	4.39322 AU
direct	10497 Aug 28 21:02	10°♑30'44	
evening set	10498 Jan 01 12:33	28°♑00'10	
	10498 Jan 10 19:40	0°♒	
conjunction	10498 Jan 14 18:30	0°♒51'07	0°40'23
minimum elong	10498 Jan 14 18:31	0°♒51'08	0°40'51
max. Earth dist.	10498 Jan 15 05:03	0°♒56'48	6.45010 AU
morning rise	10498 Jan 27 22:45	3°♒41'06	
	10498 Mar 27 11:51	15°♒	
retrograde	10498 May 29 03:16	20°♒29'38	
opposition	10498 Jul 28 22:50	15°♒33'11	0°50'50
min. Earth dist.	10498 Jul 29 01:38	15°♒32'16	4.48761 AU
	10498 Aug 02 05:30	15°℞♒	
direct	10498 Sep 29 02:48	10°♒31'47	
	10498 Nov 25 08:18	15°♒	
evening set	10499 Feb 01 07:36	27°♒40'41	
	10499 Feb 12 04:57	0°♓	
conjunction	10499 Feb 14 08:55	0°♓27'48	0°27'17
minimum elong	10499 Feb 14 08:56	0°♓27'48	0°27'35
max. Earth dist.	10499 Feb 13 13:55	0°♓17'38	6.50396 AU
morning rise	10499 Feb 27 08:19	3°♓13'57	
retrograde	10499 Jun 27 18:51	19°♓48'21	
opposition	10499 Aug 27 19:29	14°♓54'10	0°26'02
min. Earth dist.	10499 Aug 28 16:52	14°♓47'19	4.49878 AU
direct	10499 Oct 29 10:11	9°♓52'50	
evening set	10500 Mar 03 11:38	27°♓04'07	
max. Earth dist.	10500 Mar 14 16:11	29°♓28'43	6.47149 AU
conjunction	10500 Mar 16 09:21	29°♓50'58	0°07'10
minimum elong	10500 Mar 16 09:21	29°♓50'58	0°07'13
behind sun begin	10500 Mar 16 02:00	29°♓47'01	
behind sun end	10500 Mar 16 16:41	29°♓54'55	
	10500 Mar 17 02:04	0°♈	
morning rise	10500 Mar 29 04:58	2°♈37'01	
desc. node	10500 Jul 20 11:50	19°♈22'17	
retrograde	10500 Jul 28 08:04	19°♈28'00	
opposition	10500 Sep 27 09:02	14°♈34'57	-0°05'53
min. Earth dist.	10500 Sep 28 19:56	14°♈23'48	4.42481 AU
direct	10500 Nov 28 20:16	9°♈34'17	
evening set	10501 Apr 03 00:26	27°♈10'19	
max. Earth dist.	10501 Apr 13 12:44	29°♈29'52	6.36069 AU
conjunction	10501 Apr 15 19:41	0°♉00'23	-0°15'25
minimum elong	10501 Apr 15 19:41	0°♉00'23	0°15'38
behind sun begin	10501 Apr 15 17:35	29°♈59'14	
behind sun end	10501 Apr 15 21:46	0°♉01'32	
	10501 Apr 15 18:59	0°♉	
morning rise	10501 Apr 28 13:49	2°♉50'08	
	10501 Jun 28 19:23	15°♉	
retrograde	10501 Aug 29 20:49	20°♉27'11	
opposition	10501 Oct 29 15:00	15°♉33'53	-0°37'48
min. Earth dist.	10501 Oct 31 06:56	15°♉21'03	4.28346 AU
	10501 Nov 03 00:34	15°℞♉	
direct	10501 Dec 30 08:18	10°♉34'27	
	10502 Feb 23 18:49	15°♉	
evening set	10502 May 04 20:28	28°♉54'00	
	10502 May 09 15:47	0°♊	
max. Earth dist.	10502 May 15 11:17	1°♊20'12	6.19909 AU
conjunction	10502 May 17 15:55	1°♊50'31	-0°34'22
minimum elong	10502 May 17 15:54	1°♊50'30	0°34'48
morning rise	10502 May 30 11:01	4°♊47'14	
retrograde	10502 Oct 03 21:12	23°♊33'13	
opposition	10502 Dec 03 05:34	18°♊38'35	-1°00'15
min. Earth dist.	10502 Dec 04 13:02	18°♊28'21	4.11274 AU
direct	10503 Feb 01 15:27	13°♊41'09	
	10503 May 26 10:40	0°♋	
evening set	10503 Jun 07 18:29	2°♋53'22	
max. Earth dist.	10503 Jun 19 07:14	5°♋38'13	6.03361 AU
conjunction	10503 Jun 20 16:54	5°♋58'20	-0°42'58
minimum elong	10503 Jun 20 16:54	5°♋58'20	0°43'29
morning rise	10503 Jul 03 16:27	9°♋04'10	
retrograde	10503 Nov 10 11:14	29°♋04'15	
opposition	10504 Jan 09 06:30	24°♋07'12	-1°02'39
min. Earth dist.	10504 Jan 09 18:22	24°♋03'16	3.96749 AU
direct	10504 Mar 08 08:22	19°♋11'43	
	10504 Jun 03 12:20	0°♌	
evening set	10504 Jul 12 23:43	9°♌07'25	
conjunction	10504 Jul 26 04:24	12°♌20'23	-0°35'55
minimum elong	10504 Jul 26 04:25	12°♌20'24	0°36'20
max. Earth dist.	10504 Jul 26 05:49	12°♌21'15	5.92302 AU
	10504 Aug 06 02:01	15°♌	
morning rise	10504 Aug 08 10:59	15°♌34'35	
	10504 Oct 13 17:07	0°♍	
retrograde	10504 Dec 18 08:43	6°♍22'19	
opposition	10505 Feb 15 18:03	1°♍22'00	-0°39'55
min. Earth dist.	10505 Feb 15 04:56	1°♍26'25	3.90469 AU
	10505 Feb 26 01:04	30°℞♌	

direct	10505 Apr 14 20:35	26°♌27'15	
	10505 May 31 14:37	0°♍	
evening set	10505 Aug 19 20:33	16°♍36'03	
conjunction	10505 Sep 02 07:44	19°♍52'37	-0°14'15
minimum elong	10505 Sep 02 07:44	19°♍52'38	0°14'24
behind sun begin	10505 Sep 02 03:59	19°♍50'21	
behind sun end	10505 Sep 02 11:30	19°♍54'54	
max. Earth dist.	10505 Sep 03 20:15	20°♍14'51	5.91428 AU
morning rise	10505 Sep 15 21:22	23°♍10'21	
	10505 Oct 15 00:19	0°♎	
retrograde	10506 Jan 25 10:50	13°♎51'47	
min. Earth dist.	10506 Mar 24 11:09	8°♎59'50	3.95172 AU
opposition	10506 Mar 25 20:22	8°♎48'34	-0°00'34
asc. node	10506 Mar 31 05:14	8°♎04'59	
direct	10506 May 22 20:37	3°♎52'36	
evening set	10506 Sep 26 20:14	23°♎36'52	
conjunction	10506 Oct 10 11:02	26°♎50'26	0°12'55
minimum elong	10506 Oct 10 11:01	26°♎50'25	0°13'06
behind sun begin	10506 Oct 10 06:08	26°♎47'32	
behind sun end	10506 Oct 10 15:54	26°♎53'18	
max. Earth dist.	10506 Oct 12 20:30	27°♎24'31	6.01158 AU
	10506 Oct 23 19:43	0°♏	
morning rise	10506 Oct 24 03:21	0°♏04'29	
	10507 Jan 04 14:41	15°♏	
retrograde	10507 Mar 02 07:45	19°♏50'11	
min. Earth dist.	10507 Apr 29 09:07	14°♏59'01	4.08769 AU
	10507 Apr 29 06:12	15°℞♏	
opposition	10507 Apr 30 23:04	14°♏46'09	0°37'12
direct	10507 Jun 28 18:58	9°♏48'01	
	10507 Aug 26 17:10	15°♏	
evening set	10507 Nov 02 08:58	28°♏43'45	
	10507 Nov 07 23:00	0°♐	
conjunction	10507 Nov 15 23:04	1°♐49'34	0°34'08
minimum elong	10507 Nov 15 23:03	1°♐49'33	0°34'34
max. Earth dist.	10507 Nov 18 07:30	2°♐21'46	6.17290 AU
morning rise	10507 Nov 29 13:16	4°♐55'07	
retrograde	10508 Apr 03 09:50	23°♐26'06	
min. Earth dist.	10508 Jun 01 04:59	18°♐34'15	4.25821 AU
opposition	10508 Jun 02 12:12	18°♐23'49	0°59'26
direct	10508 Aug 01 12:29	13°♐23'51	
	10508 Nov 28 21:06	0°♑	
evening set	10508 Dec 05 15:57	1°♑28'41	
conjunction	10508 Dec 19 02:07	4°♑25'48	0°43'05
minimum elong	10508 Dec 19 02:07	4°♑25'48	0°43'37
max. Earth dist.	10508 Dec 20 12:43	4°♑44'51	6.33853 AU
morning rise	10509 Jan 01 11:25	7°♑22'10	
retrograde	10509 May 04 10:08	24°♑48'24	
opposition	10509 Jul 03 22:04	19°♑49'13	1°02'12
min. Earth dist.	10509 Jul 03 08:01	19°♑53'49	4.40612 AU
direct	10509 Sep 03 05:46	14°♑48'10	
	10509 Dec 27 04:47	0°♒	
evening set	10510 Jan 06 19:24	2°♒14'55	
conjunction	10510 Jan 20 00:51	5°♒05'22	0°39'08
minimum elong	10510 Jan 20 00:52	5°♒05'22	0°39'34
max. Earth dist.	10510 Jan 20 07:59	5°♒09'12	6.45820 AU
morning rise	10510 Feb 02 04:27	7°♒54'48	
	10510 Mar 08 19:38	15°♒	
retrograde	10510 Jun 03 04:30	24°♒40'53	
opposition	10510 Aug 03 01:35	19°♒44'46	0°48'03
min. Earth dist.	10510 Aug 03 06:07	19°♒43'18	4.49076 AU
	10510 Sep 20 18:58	15°℞♒	
direct	10510 Oct 04 06:24	14°♒43'23	

	10510 Oct 17 21:35	15°♒	
	10511 Jan 28 15:10	0°♓	
evening set	10511 Feb 06 12:15	1°♓52'16	
conjunction	10511 Feb 19 13:06	4°♓39'15	0°24'48
minimum elong	10511 Feb 19 13:07	4°♓39'15	0°25'04
max. Earth dist.	10511 Feb 18 15:59	4°♓27'57	6.50208 AU
morning rise	10511 Mar 04 11:50	7°♓25'16	
retrograde	10511 Jul 02 23:11	24°♓00'44	
opposition	10511 Sep 01 23:47	19°♓06'48	0°21'51
min. Earth dist.	10511 Sep 02 23:17	18°♓59'17	4.49201 AU
direct	10511 Nov 03 15:21	14°♓05'35	
	10512 Mar 01 12:18	0°♈	
evening set	10512 Mar 07 16:36	1°♈19'16	
max. Earth dist.	10512 Mar 18 17:14	3°♈42'14	6.46010 AU
conjunction	10512 Mar 20 13:45	4°♈06'22	0°04'04
minimum elong	10512 Mar 20 13:45	4°♈06'22	0°04'04
behind sun begin	10512 Mar 20 05:53	4°♈02'07	
behind sun end	10512 Mar 20 21:38	4°♈10'37	
morning rise	10512 Apr 02 09:13	6°♈52'45	
desc. node	10512 May 30 15:09	18°♈14'30	
retrograde	10512 Aug 01 18:03	23°♈48'21	
opposition	10512 Oct 01 17:44	18°♈55'16	-0°10'31
min. Earth dist.	10512 Oct 03 05:47	18°♈43'44	4.40927 AU
direct	10512 Dec 03 03:36	13°♈54'41	
	10513 Mar 31 02:14	0°♉	
evening set	10513 Apr 07 07:55	1°♉35'23	
max. Earth dist.	10513 Apr 17 20:46	3°♉55'47	6.34189 AU
conjunction	10513 Apr 20 03:11	4°♉26'08	-0°18'24
minimum elong	10513 Apr 20 03:10	4°♉26'08	0°18'39
morning rise	10513 May 02 21:07	7°♉16'34	
	10513 Jun 08 06:10	15°♉	
retrograde	10513 Sep 03 12:05	25°♉01'25	
opposition	10513 Nov 03 06:06	20°♉08'00	-0°41'42
min. Earth dist.	10513 Nov 04 21:11	19°♉55'26	4.26240 AU
direct	10514 Jan 03 18:58	15°♉08'50	
	10514 Apr 23 13:21	0°♊	
evening set	10514 May 09 09:35	3°♊34'46	
max. Earth dist.	10514 May 20 01:34	6°♊02'25	6.17716 AU
conjunction	10514 May 22 05:04	6°♊32'15	-0°36'18
minimum elong	10514 May 22 05:03	6°♊32'14	0°36'46
morning rise	10514 Jun 04 00:38	9°♊30'03	
retrograde	10514 Oct 08 21:54	28°♊25'49	
opposition	10514 Dec 08 04:22	23°♊30'55	-1°01'57
min. Earth dist.	10514 Dec 09 10:15	23°♊21'11	4.09145 AU
direct	10515 Feb 06 10:55	18°♊33'44	
	10515 May 09 02:00	0°♋	
evening set	10515 Jun 12 14:32	7°♋52'32	
max. Earth dist.	10515 Jun 24 08:35	10°♋41'09	6.01500 AU
conjunction	10515 Jun 25 13:47	10°♋58'40	-0°42'58
minimum elong	10515 Jun 25 13:47	10°♋58'40	0°43'29
morning rise	10515 Jul 08 14:04	14°♋05'42	
	10515 Sep 23 19:22	0°♌	
retrograde	10515 Nov 15 18:42	4°♌14'16	
	10516 Jan 09 01:01	30°℞♋	
opposition	10516 Jan 14 11:37	29°♋16'53	-1°00'56
min. Earth dist.	10516 Jan 14 20:36	29°♋13'54	3.95358 AU
direct	10516 Mar 13 09:05	24°♋21'38	
	10516 May 12 19:20	0°♌	
evening set	10516 Jul 18 02:28	14°♌21'14	
	10516 Jul 20 18:11	15°♌	
conjunction	10516 Jul 31 07:55	17°♌35'01	-0°33'38

minimum elong	10516 Jul 31 07:56	17°♌35'02	0°34'01
max. Earth dist.	10516 Jul 31 12:40	17°♌37'55	5.91510 AU
morning rise	10516 Aug 13 15:44	20°♌50'08	
	10516 Sep 22 04:14	0°♍	
retrograde	10516 Dec 23 14:48	11°♍40'42	
min. Earth dist.	10517 Feb 20 07:48	6°♍45'39	3.90380 AU
opposition	10517 Feb 21 00:44	6°♍39'56	-0°35'05
direct	10517 Apr 20 01:06	1°♍45'08	
evening set	10517 Aug 25 02:20	21°♍53'13	
conjunction	10517 Sep 07 14:21	25°♍09'51	-0°10'33
minimum elong	10517 Sep 07 14:22	25°♍09'52	0°10'38
behind sun begin	10517 Sep 07 07:56	25°♍05'58	
behind sun end	10517 Sep 07 20:48	25°♍13'45	
max. Earth dist.	10517 Sep 09 06:59	25°♍34'33	5.92057 AU
morning rise	10517 Sep 21 04:33	28°♍27'33	
	10517 Sep 27 14:44	0°♎	
retrograde	10518 Jan 30 14:16	19°♎04'29	
asc. node	10518 Feb 09 15:59	18°♎54'08	
opposition	10518 Mar 30 22:57	14°♎01'02	0°05'11
min. Earth dist.	10518 Mar 29 13:13	14°♎12'30	3.96427 AU
direct	10518 May 28 01:38	9°♎04'48	
evening set	10518 Oct 01 23:55	28°♎44'12	
	10518 Oct 07 08:40	0°♏	
conjunction	10518 Oct 15 14:59	1°♏57'03	0°16'25
minimum elong	10518 Oct 15 14:58	1°♏57'03	0°16'39
max. Earth dist.	10518 Oct 18 02:38	2°♏32'16	6.02916 AU
morning rise	10518 Oct 29 07:17	5°♏10'15	
	10518 Dec 12 20:35	15°♏	
retrograde	10519 Mar 07 01:20	24°♏46'50	
min. Earth dist.	10519 May 04 03:38	19°♏55'59	4.10850 AU
opposition	10519 May 05 18:07	19°♏42'58	0°41'25
	10519 Jun 21 07:51	15°℞♏	
direct	10519 Jul 03 16:05	14°♏44'38	
	10519 Jul 16 03:21	15°♏	
	10519 Oct 22 07:21	0°♐	
evening set	10519 Nov 07 06:38	3°♐33'50	
conjunction	10519 Nov 20 20:14	6°♐38'29	0°36'11
minimum elong	10519 Nov 20 20:13	6°♐38'28	0°36'38
max. Earth dist.	10519 Nov 23 01:34	7°♐08'45	6.19516 AU
morning rise	10519 Dec 04 10:01	9°♐42'49	
retrograde	10520 Apr 07 20:31	28°♐04'24	
min. Earth dist.	10520 Jun 05 19:06	23°♐12'07	4.28016 AU
opposition	10520 Jun 07 00:01	23°♐02'28	1°00'58
direct	10520 Aug 06 05:43	18°♐02'19	
	10520 Nov 11 20:22	0°♑	
evening set	10520 Dec 10 06:13	6°♑01'02	
conjunction	10520 Dec 23 15:54	8°♑57'05	0°43'16
minimum elong	10520 Dec 23 15:54	8°♑57'05	0°43'48
max. Earth dist.	10520 Dec 25 00:57	9°♑15'13	6.35884 AU
morning rise	10521 Jan 06 00:15	11°♑52'17	
retrograde	10521 May 08 13:25	29°♑11'03	
opposition	10521 Jul 08 04:05	24°♑12'18	1°01'08
min. Earth dist.	10521 Jul 07 15:15	24°♑16'30	4.42363 AU
direct	10521 Sep 07 14:50	19°♑11'13	
	10521 Dec 10 05:42	0°♒	
evening set	10522 Jan 11 03:35	6°♒33'30	
conjunction	10522 Jan 24 08:11	9°♒23'06	0°37'41
minimum elong	10522 Jan 24 08:12	9°♒23'07	0°38'07
max. Earth dist.	10522 Jan 24 11:00	9°♒24'37	6.47181 AU
morning rise	10522 Feb 06 11:04	12°♒11'44	
	10522 Feb 19 18:32	15°♒	
retrograde	10522 Jun 07 07:11	28°♒53'28	
opposition	10522 Aug 07 04:46	23°♒57'41	0°45'02
min. Earth dist.	10522 Aug 07 12:34	23°♒55'10	4.49969 AU
direct	10522 Oct 08 13:46	18°♒56'15	
	10523 Jan 12 03:51	0°♓	
evening set	10523 Feb 10 16:03	6°♓03'02	
conjunction	10523 Feb 23 16:17	8°♓49'38	0°22'15
minimum elong	10523 Feb 23 16:18	8°♓49'39	0°22'29
max. Earth dist.	10523 Feb 22 15:25	8°♓36'20	6.50556 AU
morning rise	10523 Mar 08 14:27	11°♓35'18	
retrograde	10523 Jul 07 00:52	28°♓10'17	
opposition	10523 Sep 06 02:53	23°♓16'26	0°17'42
min. Earth dist.	10523 Sep 07 03:51	23°♓08'26	4.48984 AU
direct	10523 Nov 07 18:38	18°♓15'10	
	10524 Feb 14 11:39	0°♈	
evening set	10524 Mar 11 19:10	5°♈29'43	
max. Earth dist.	10524 Mar 22 18:18	7°♈52'07	6.45227 AU
conjunction	10524 Mar 24 15:58	8°♈16'55	0°01'00
minimum elong	10524 Mar 24 15:58	8°♈16'55	0°00'58
behind sun begin	10524 Mar 24 07:59	8°♈12'36	
behind sun end	10524 Mar 24 23:57	8°♈21'14	
morning rise	10524 Apr 06 10:52	11°♈03'25	
desc. node	10524 Apr 11 02:33	12°♈03'31	
retrograde	10524 Aug 05 23:48	28°♈02'39	
opposition	10524 Oct 05 23:57	23°♈09'34	-0°14'55
min. Earth dist.	10524 Oct 07 13:37	22°♈57'32	4.39599 AU
direct	10524 Dec 07 08:42	18°♈09'04	
	10525 Mar 15 01:56	0°♉	
evening set	10525 Apr 11 12:54	5°♉53'48	
max. Earth dist.	10525 Apr 21 23:02	8°♉13'19	6.32386 AU
conjunction	10525 Apr 24 07:51	8°♉45'09	-0°21'10
minimum elong	10525 Apr 24 07:50	8°♉45'08	0°21'28
morning rise	10525 May 07 01:55	11°♉36'18	
	10525 May 22 12:13	15°♉	
retrograde	10525 Sep 08 02:01	29°♉28'58	
opposition	10525 Nov 07 18:37	24°♉35'21	-0°45'13
min. Earth dist.	10525 Nov 09 09:51	24°♉22'42	4.24050 AU
direct	10526 Jan 08 04:45	19°♉36'16	
	10526 Apr 06 17:01	0°♊	
evening set	10526 May 13 20:00	8°♊09'05	
max. Earth dist.	10526 May 24 14:23	10°♊38'52	6.15312 AU
conjunction	10526 May 26 15:59	11°♊07'44	-0°37'57
minimum elong	10526 May 26 15:58	11°♊07'43	0°38'26
morning rise	10526 Jun 08 11:52	14°♊06'44	
	10526 Aug 28 16:39	0°♋	
retrograde	10526 Oct 13 21:11	3°♋13'15	
	10526 Nov 29 18:23	30°℞♊	
opposition	10526 Dec 13 01:19	28°♊18'07	-1°03'12
min. Earth dist.	10526 Dec 14 05:51	28°♊08'48	4.06717 AU
direct	10527 Feb 11 02:48	23°♊21'10	
	10527 Apr 19 07:00	0°♋	
evening set	10527 Jun 17 09:24	12°♋47'52	
max. Earth dist.	10527 Jun 29 06:04	15°♋38'57	5.99261 AU
conjunction	10527 Jun 30 09:17	15°♋55'21	-0°42'40
minimum elong	10527 Jun 30 09:17	15°♋55'21	0°43'11
morning rise	10527 Jul 13 10:42	19°♋03'53	
	10527 Aug 31 03:28	0°♌	
retrograde	10527 Nov 21 00:26	9°♌22'38	
opposition	10528 Jan 19 16:08	4°♌24'48	-0°58'50
min. Earth dist.	10528 Jan 19 21:20	4°♌23'04	3.93542 AU
	10528 Mar 01 02:39	30°℞♋	
direct	10528 Mar 18 08:42	29°♋29'41	
	10528 Apr 04 15:18	0°♌	

	10528 Jul	04	02:20	15°♌	
evening set	10528 Jul	23	05:42	19°♌35'06	
conjunction	10528 Aug	05	12:22	22°♌50'00	-0°31'08
minimum elong	10528 Aug	05	12:23	22°♌50'00	0°31'30
max. Earth dist.	10528 Aug	05	23:11	22°♌56'37	5.90324 AU
morning rise	10528 Aug	18	21:11	26°♌06'10	
	10528 Sep	04	02:44	0°♍	
retrograde	10528 Dec	29	00:52	17°♍01'02	
opposition	10529 Feb	26	08:23	11°♍59'50	-0°30'02
min. Earth dist.	10529 Feb	25	13:15	12°♍06'18	3.89966 AU
direct	10529 Apr	25	07:51	7°♍04'57	
evening set	10529 Aug	30	10:03	27°♍13'35	
	10529 Sep	10	20:46	0°♎	
conjunction	10529 Sep	12	22:54	0°♎30'25	-0°06'48
minimum elong	10529 Sep	12	22:54	0°♎30'26	0°06'51
behind sun begin	10529 Sep	12	15:08	0°♎25'44	
behind sun end	10529 Sep	13	06:41	0°♎35'07	
max. Earth dist.	10529 Sep	14	20:34	0°♎58'07	5.92454 AU
morning rise	10529 Sep	26	13:52	3°♎48'15	
asc. node	10529 Dec	21	16:28	21°♎10'01	
retrograde	10530 Feb	04	18:10	24°♎21'07	
min. Earth dist.	10530 Apr	03	14:56	19°♎29'48	3.97594 AU
opposition	10530 Apr	05	03:18	19°♎17'26	0°10'51
direct	10530 Jun	02	06:03	14°♎20'59	
	10530 Sep	20	05:38	0°♏	
evening set	10530 Oct	07	05:49	3°♏55'40	
conjunction	10530 Oct	20	20:51	7°♏07'41	0°19'47
minimum elong	10530 Oct	20	20:50	7°♏07'40	0°20'05
max. Earth dist.	10530 Oct	23	08:41	7°♏42'51	6.04709 AU
morning rise	10530 Nov	03	13:13	10°♏20'00	
	10530 Nov	23	23:30	15°♏	
retrograde	10531 Mar	11	20:26	29°♏47'10	
min. Earth dist.	10531 May	09	00:55	24°♏56'12	4.13052 AU
opposition	10531 May	10	14:59	24°♏43'20	0°45'18
direct	10531 Jul	08	17:29	19°♏44'39	
	10531 Oct	03	22:35	0°♐	
evening set	10531 Nov	12	05:42	8°♐26'38	
conjunction	10531 Nov	25	19:00	11°♐30'03	0°37'57
minimum elong	10531 Nov	25	18:59	11°♐30'03	0°38'26
max. Earth dist.	10531 Nov	28	00:16	12°♐00'08	6.21929 AU
morning rise	10531 Dec	09	07:58	14°♐33'01	
	10532 Feb	29	22:08	0°♑	
retrograde	10532 Apr	12	07:25	2°♑44'21	
	10532 May	24	16:22	30°℞♐	
min. Earth dist.	10532 Jun	10	08:58	27°♐52'02	4.30396 AU
opposition	10532 Jun	11	12:40	27°♐42'49	1°02'04
direct	10532 Aug	10	22:44	22°♐42'30	
	10532 Oct	23	07:14	0°♑	
evening set	10532 Dec	14	21:17	10°♑34'30	
conjunction	10532 Dec	28	06:05	13°♑29'22	0°43'10
minimum elong	10532 Dec	28	06:05	13°♑29'22	0°43'41
max. Earth dist.	10532 Dec	29	10:13	13°♑44'44	6.38017 AU
morning rise	10533 Jan	10	13:48	16°♑23'25	
	10533 Mar	24	10:20	0°♒	
retrograde	10533 May	12	19:19	3°♒34'41	
	10533 Jul	01	15:28	30°℞♑	
opposition	10533 Jul	12	10:59	28°♑36'21	0°59'41
min. Earth dist.	10533 Jul	12	01:30	28°♑39'27	4.44086 AU
direct	10533 Sep	12	02:29	23°♑35'08	
	10533 Nov	20	12:32	0°♒	
evening set	10534 Jan	15	11:51	10°♒53'13	
conjunction	10534 Jan	28	15:55	13°♒42'08	0°35'59
minimum elong	10534 Jan	28	15:56	13°♒42'09	0°36'24
max. Earth dist.	10534 Jan	28	15:56	13°♒42'08	6.48366 AU
	10534 Feb	03	17:15	15°♒	
morning rise	10534 Feb	10	17:55	16°♒30'01	
	10534 Apr	26	00:55	0°♓	
retrograde	10534 Jun	11	09:07	3°♓08'25	
	10534 Jul	28	04:47	30°℞♒	
opposition	10534 Aug	11	09:02	28°♒12'59	0°41'41
min. Earth dist.	10534 Aug	11	18:37	28°♒09'54	4.50547 AU
direct	10534 Oct	12	19:15	23°♒11'36	
	10534 Dec	24	03:18	0°♓	
evening set	10535 Feb	14	21:15	10°♓17'32	
conjunction	10535 Feb	27	20:49	13°♓03'54	0°19'30
minimum elong	10535 Feb	27	20:49	13°♓03'55	0°19'41
max. Earth dist.	10535 Feb	26	16:08	12°♓48'33	6.50485 AU
morning rise	10535 Mar	12	18:25	15°♓49'23	
	10535 May	31	17:05	0°♈	
retrograde	10535 Jul	11	06:43	2°♈25'31	
	10535 Aug	21	01:22	30°℞♓	
opposition	10535 Sep	10	08:25	27°♓31'55	0°13'16
min. Earth dist.	10535 Sep	11	12:37	27°♓22'54	4.48258 AU
direct	10535 Nov	12	01:25	22°♓30'44	
	10536 Jan	27	00:07	0°♈	
desc. node	10536 Feb	18	09:47	4°♈13'33	
evening set	10536 Mar	16	00:35	9°♈47'57	
max. Earth dist.	10536 Mar	26	19:45	12°♈08'41	6.43886 AU
conjunction	10536 Mar	28	20:58	12°♈35'30	-0°02'16
minimum elong	10536 Mar	28	20:59	12°♈35'31	0°02'20
behind sun begin	10536 Mar	28	13:01	12°♈31'11	
behind sun end	10536 Mar	29	04:58	12°♈39'50	
morning rise	10536 Apr	10	15:44	15°♈22'27	
	10536 Jun	30	17:55	0°♉	
retrograde	10536 Aug	10	10:29	2°♉27'26	
	10536 Sep	20	12:03	30°℞♈	
opposition	10536 Oct	10	10:22	27°♈34'19	-0°19'31
min. Earth dist.	10536 Oct	12	00:40	27°♈22'04	4.37716 AU
direct	10536 Dec	11	16:29	22°♈33'57	
	10537 Feb	24	06:15	0°♉	
evening set	10537 Apr	15	22:06	10°♉24'37	
max. Earth dist.	10537 Apr	26	09:15	12°♉45'24	6.30096 AU
conjunction	10537 Apr	28	17:09	13°♉16'52	-0°23'59
minimum elong	10537 Apr	28	17:08	13°♉16'51	0°24'19
	10537 May	06	08:18	15°♉	
morning rise	10537 May	11	11:10	16°♉08'57	
	10537 Jul	21	07:48	0°♊	
retrograde	10537 Sep	12	22:07	4°♊11'21	
	10537 Nov	07	01:08	30°℞♉	
opposition	10537 Nov	12	13:04	29°♉17'38	-0°48'43
min. Earth dist.	10537 Nov	14	04:19	29°♉04'58	4.21499 AU
direct	10538 Jan	12	19:22	24°♉18'50	
	10538 Mar	16	17:02	0°♊	
evening set	10538 May	18	12:36	12°♊59'43	
max. Earth dist.	10538 May	29	07:49	15°♊30'55	6.12705 AU
conjunction	10538 May	31	08:49	15°♊59'36	-0°39'28
minimum elong	10538 May	31	08:48	15°♊59'35	0°39'57
morning rise	10538 Jun	13	05:27	19°♊00'00	
	10538 Aug	02	23:13	0°♋	
retrograde	10538 Oct	19	02:24	8°♋18'08	
opposition	10538 Dec	18	04:51	3°♋22'40	-1°04'05
min. Earth dist.	10538 Dec	19	06:14	3°♋14'21	4.04280 AU
	10539 Jan	15	15:07	30°℞♊	
direct	10539 Feb	16	00:56	28°♊26'00	

	10539 Mar 19 05:40	0°♋	
evening set	10539 Jun 22 10:46	18°♋00'28	
conjunction	10539 Jul 05 11:40	21°♋09'19	-0°42'00
minimum elong	10539 Jul 05 11:40	21°♋09'19	0°42'31
max. Earth dist.	10539 Jul 04 14:29	20°♋56'30	5.97251 AU
morning rise	10539 Jul 18 13:57	24°♋19'13	
	10539 Aug 11 17:19	0°♌	
retrograde	10539 Nov 26 13:35	14°♌46'51	
opposition	10540 Jan 25 02:43	9°♌48'35	-0°56'04
min. Earth dist.	10540 Jan 25 05:05	9°♌47'48	3.92195 AU
direct	10540 Mar 23 16:08	4°♌53'40	
	10540 Jun 15 01:20	15°♌	
evening set	10540 Jul 28 14:12	25°♌02'35	
conjunction	10540 Aug 10 21:52	28°♌18'14	-0°28'15
minimum elong	10540 Aug 10 21:54	28°♌18'15	0°28'34
max. Earth dist.	10540 Aug 11 14:18	28°♌28'18	5.89796 AU
	10540 Aug 17 19:57	0°♍	
morning rise	10540 Aug 24 07:52	1°♍35'11	
retrograde	10541 Jan 03 12:03	22°♍30'51	
opposition	10541 Mar 03 19:17	17°♍29'12	-0°24'31
min. Earth dist.	10541 Mar 02 19:51	17°♍37'07	3.90363 AU
direct	10541 Apr 30 16:54	12°♍34'13	
	10541 Aug 24 16:21	0°♎	
evening set	10541 Sep 04 20:17	2°♎39'54	
conjunction	10541 Sep 18 09:35	5°♎56'22	-0°02'53
minimum elong	10541 Sep 18 09:35	5°♎56'22	0°02'53
behind sun begin	10541 Sep 18 01:14	5°♎51'20	
behind sun end	10541 Sep 18 17:56	6°♎01'23	
max. Earth dist.	10541 Sep 20 10:01	6°♎25'39	5.93725 AU
morning rise	10541 Oct 02 01:07	9°♎13'45	
asc. node	10541 Oct 30 11:52	15°♎51'01	
retrograde	10542 Feb 09 20:22	29°♎38'44	
min. Earth dist.	10542 Apr 08 17:54	24°♎47'34	3.99576 AU
opposition	10542 Apr 10 07:33	24°♎34'45	0°16'29
direct	10542 Jun 07 13:26	19°♎37'56	
	10542 Sep 01 13:03	0°♏	
evening set	10542 Oct 12 10:51	9°♏04'54	
conjunction	10542 Oct 26 01:57	12°♏15'44	0°23'01
minimum elong	10542 Oct 26 01:56	12°♏15'43	0°23'21
max. Earth dist.	10542 Oct 28 15:35	12°♏51'44	6.07211 AU
	10542 Nov 06 19:48	15°♏	
morning rise	10542 Nov 08 17:51	15°♏26'40	
	10543 Jan 19 12:37	0°♐	
retrograde	10543 Mar 16 13:59	4°♐41'54	
	10543 May 12 16:54	30°℞♏	
min. Earth dist.	10543 May 13 20:16	29°♏50'47	4.15793 AU
opposition	10543 May 15 09:30	29°♏38'15	0°48'47
direct	10543 Jul 13 16:56	24°♏39'16	
	10543 Sep 12 03:30	0°♐	
evening set	10543 Nov 17 02:01	13°♐12'27	
conjunction	10543 Nov 30 14:36	16°♐14'25	0°39'27
minimum elong	10543 Nov 30 14:35	16°♐14'25	0°39'58
max. Earth dist.	10543 Dec 02 16:21	16°♐42'20	6.24652 AU
morning rise	10543 Dec 14 02:59	19°♐15'54	
	10544 Feb 04 09:13	0°♑	
retrograde	10544 Apr 16 14:49	7°♑16'32	
opposition	10544 Jun 15 22:26	2°♑15'20	1°02'45
min. Earth dist.	10544 Jun 14 21:02	2°♑23'46	4.32880 AU
	10544 Jul 03 14:53	30°℞♐	
direct	10544 Aug 15 13:06	27°♐14'46	
	10544 Sep 27 18:48	0°♑	
evening set	10544 Dec 19 08:55	15°♑00'01	
conjunction	10545 Jan 01 17:08	17°♑53'46	0°42'48
minimum elong	10545 Jan 01 17:08	17°♑53'46	0°43'19
max. Earth dist.	10545 Jan 02 18:09	18°♑07'23	6.40083 AU
morning rise	10545 Jan 14 23:49	20°♑46'37	
	10545 Mar 01 16:01	0°♒	
retrograde	10545 May 16 21:49	7°♒50'59	
opposition	10545 Jul 16 15:09	2°♒53'07	0°57'56
min. Earth dist.	10545 Jul 16 08:16	2°♒55'22	4.45604 AU
	10545 Aug 09 07:06	30°℞♑	
direct	10545 Sep 16 09:52	27°♑51'52	
	10545 Oct 24 20:53	0°♒	
evening set	10546 Jan 19 17:56	15°♒06'34	
	10546 Jan 19 05:34	15°♒	
conjunction	10546 Feb 01 21:10	17°♒54'52	0°34'08
minimum elong	10546 Feb 01 21:11	17°♒54'52	0°34'32
max. Earth dist.	10546 Feb 01 15:03	17°♒51'35	6.49221 AU
morning rise	10546 Feb 14 22:39	20°♒42'11	
	10546 Apr 02 20:47	0°♓	
retrograde	10546 Jun 15 12:22	7°♓18'26	
opposition	10546 Aug 15 11:48	2°♓23'20	0°38'12
min. Earth dist.	10546 Aug 16 01:15	2°♓19'00	4.50708 AU
	10546 Sep 03 21:04	30°℞♒	
direct	10546 Oct 17 00:22	27°♒21'53	
	10546 Nov 29 05:58	0°♓	
evening set	10547 Feb 19 00:58	14°♓28'18	
max. Earth dist.	10547 Mar 02 16:16	16°♓57'36	6.49935 AU
conjunction	10547 Mar 04 00:12	17°♓14'43	0°16'40
minimum elong	10547 Mar 04 00:12	17°♓14'44	0°16'50
morning rise	10547 Mar 16 21:16	20°♓00'14	
	10547 May 06 15:40	0°♈	
retrograde	10547 Jul 15 11:14	6°♈39'09	
opposition	10547 Sep 14 13:44	1°♈45'41	0°08'48
min. Earth dist.	10547 Sep 15 19:13	1°♈36'16	4.47043 AU
	10547 Sep 28 15:51	30°℞♓	
direct	10547 Nov 16 04:51	26°♓44'35	
desc. node	10547 Dec 28 18:11	29°♓18'47	
	10548 Jan 03 10:07	0°♈	
evening set	10548 Mar 20 06:09	14°♈06'02	
max. Earth dist.	10548 Mar 30 23:38	16°♈26'26	6.42085 AU
conjunction	10548 Apr 02 02:17	16°♈54'09	-0°05'26
minimum elong	10548 Apr 02 02:15	16°♈54'09	0°05'33
behind sun begin	10548 Apr 01 18:35	16°♈49'58	
behind sun end	10548 Apr 02 09:56	16°♈58'19	
morning rise	10548 Apr 14 20:47	19°♈41'42	
	10548 Jun 05 01:43	0°♉	
retrograde	10548 Aug 15 00:09	6°♉54'03	
opposition	10548 Oct 14 22:10	2°♉01'00	-0°24'01
min. Earth dist.	10548 Oct 16 14:11	1°♉48'11	4.35433 AU
	10548 Oct 31 02:56	30°℞♈	
direct	10548 Dec 16 02:20	27°♈00'50	
	10549 Jan 30 11:01	0°♉	
evening set	10549 Apr 20 09:08	14°♉58'46	
	10549 Apr 20 11:20	15°♉	
max. Earth dist.	10549 Apr 30 19:05	17°♉19'45	6.27504 AU
conjunction	10549 May 03 04:10	17°♉52'04	-0°26'41
minimum elong	10549 May 03 04:09	17°♉52'04	0°27'02
morning rise	10549 May 15 22:31	20°♉45'20	
	10549 Jun 28 09:25	0°♊	
retrograde	10549 Sep 17 20:14	8°♊58'34	
opposition	10549 Nov 17 09:46	4°♊04'41	-0°51'57
min. Earth dist.	10549 Nov 18 22:55	3°♊52'39	4.18795 AU
	10549 Dec 24 12:13	30°℞♉	
direct	10550 Jan 17 10:39	29°♉06'11	

	10550 Feb 10	08:41	0°♊		
evening set	10550 May 23	07:31	17°♊55'42		
max. Earth dist.	10550 Jun 03	07:46	20°♊30'42	6.10132 AU	
conjunction	10550 Jun 05	04:20	20°♊56'56	-0°40'43	
minimum elong	10550 Jun 05	04:19	20°♊56'56	0°41'14	
morning rise	10550 Jun 18	01:30	23°♊58'44		
	10550 Jul 14	10:29	0°♋		
retrograde	10550 Oct 24	11:54	13°♋28'16		
opposition	10550 Dec 23	11:00	8°♋32'31	-1°04'28	
min. Earth dist.	10550 Dec 24	10:07	8°♋24'55	4.02083 AU	
direct	10551 Feb 21	02:34	3°♋36'13		
evening set	10551 Jun 27	14:07	23°♋17'17		
conjunction	10551 Jul 10	15:49	26°♋27'18	-0°41'00	
minimum elong	10551 Jul 10	15:50	26°♋27'18	0°41'29	
max. Earth dist.	10551 Jul 09	23:14	26°♋17'14	5.95645 AU	
morning rise	10551 Jul 23	19:14	29°♋38'26		
	10551 Jul 25	07:00	0°♌		
	10551 Oct 04	02:51	15°♌		
retrograde	10551 Dec 02	01:07	20°♌12'49		
opposition	10552 Jan 30	13:46	15°♌14'06	-0°52'47	
min. Earth dist.	10552 Jan 30	11:15	15°♌14'56	3.91389 AU	
	10552 Feb 01	07:59	15°℞♌		
direct	10552 Mar 28	22:59	10°♌19'19		
	10552 May 22	07:17	15°♌		
	10552 Jul 31	22:20	0°♍		
evening set	10552 Aug 02	23:03	0°♍29'37		
conjunction	10552 Aug 16	07:33	3°♍45'39	-0°25'07	
minimum elong	10552 Aug 16	07:34	3°♍45'40	0°25'23	
max. Earth dist.	10552 Aug 17	04:55	3°♍58'45	5.89854 AU	
morning rise	10552 Aug 29	18:29	7°♍03'00		
retrograde	10553 Jan 08	20:10	27°♍56'51		
min. Earth dist.	10553 Mar 08	02:15	23°♍03'33	3.91265 AU	
opposition	10553 Mar 09	04:15	22°♍54'44	-0°18'49	
direct	10553 May 06	02:30	17°♍59'33		
	10553 Aug 06	12:30	0°♎		
asc. node	10553 Sep 07	20:34	7°♎27'18		
evening set	10553 Sep 10	04:25	8°♎00'43		
conjunction	10553 Sep 23	18:20	11°♎16'38	0°01'06	
minimum elong	10553 Sep 23	18:21	11°♎16'38	0°01'09	
behind sun begin	10553 Sep 23	09:57	11°♎11'36		
behind sun end	10553 Sep 24	02:44	11°♎21'40		
max. Earth dist.	10553 Sep 25	23:11	11°♎48'27	5.95367 AU	
morning rise	10553 Oct 07	10:03	14°♎33'19		
	10553 Dec 20	11:53	0°♏		
retrograde	10554 Feb 14	21:28	4°♏49'15		
	10554 Apr 13	13:21	30°℞♎		
min. Earth dist.	10554 Apr 13	18:51	29°♎58'08	4.01754 AU	
opposition	10554 Apr 15	08:51	29°♎45'14	0°21'52	
direct	10554 Jun 12	17:57	24°♎48'09		
	10554 Aug 10	02:21	0°♏		
evening set	10554 Oct 17	13:05	14°♏07'17		
	10554 Oct 21	08:10	15°♏		
conjunction	10554 Oct 31	03:52	17°♏16'52	0°26'01	
minimum elong	10554 Oct 31	03:51	17°♏16'51	0°26'22	
max. Earth dist.	10554 Nov 02	16:20	17°♏51'58	6.09691 AU	
morning rise	10554 Nov 13	19:35	20°♏26'31		
	10554 Dec 27	20:39	0°♐		
retrograde	10555 Mar 21	03:17	9°♐30'35		
min. Earth dist.	10555 May 18	12:47	4°♐39'29	4.18341 AU	
opposition	10555 May 20	01:18	4°♐27'12	0°51'54	
	10555 Jun 30	12:01	30°℞♏		
direct	10555 Jul 18	12:28	29°♏27'57		
	10555 Aug 05	17:18	0°♐		
evening set	10555 Nov 21	20:06	17°♐53'36		
conjunction	10555 Dec 05	08:12	20°♐54'19	0°40'42	
minimum elong	10555 Dec 05	08:11	20°♐54'19	0°41'13	
max. Earth dist.	10555 Dec 07	06:50	21°♐20'22	6.27071 AU	
morning rise	10555 Dec 18	19:44	23°♐54'27		
	10556 Jan 16	05:22	0°♑		
retrograde	10556 Apr 20	22:46	11°♑45'52		
min. Earth dist.	10556 Jun 19	08:21	6°♑52'36	4.34979 AU	
opposition	10556 Jun 20	06:48	6°♑45'10	1°03'07	
direct	10556 Aug 20	02:02	1°♑44'29		
evening set	10556 Dec 23	19:51	19°♑24'29		
conjunction	10557 Jan 06	03:20	22°♑17'20	0°42'13	
minimum elong	10557 Jan 06	03:20	22°♑17'20	0°42'44	
max. Earth dist.	10557 Jan 06	23:12	22°♑28'06	6.41707 AU	
morning rise	10557 Jan 19	09:25	25°♑09'17		
	10557 Feb 11	11:10	0°♒		
retrograde	10557 May 21	01:28	12°♒08'21		
opposition	10557 Jul 20	19:31	7°♒10'53	0°55'55	
min. Earth dist.	10557 Jul 20	15:34	7°♒12'10	4.46674 AU	
direct	10557 Sep 20	16:41	2°♒09'31		
	10558 Jan 02	23:41	15°♒		
evening set	10558 Jan 24	00:09	19°♒22'12		
conjunction	10558 Feb 06	02:58	22°♒10'07	0°32'06	
minimum elong	10558 Feb 06	02:59	22°♒10'08	0°32'27	
max. Earth dist.	10558 Feb 05	18:02	22°♒05'21	6.49674 AU	
morning rise	10558 Feb 19	03:38	24°♒57'01		
	10558 Mar 15	13:01	0°♓		
retrograde	10558 Jun 19	15:35	11°♓32'23		
opposition	10558 Aug 19	15:54	6°♓37'36	0°34'29	
min. Earth dist.	10558 Aug 20	07:29	6°♓32'35	4.50529 AU	
direct	10558 Oct 21	04:52	1°♓36'12		
evening set	10559 Feb 23	06:20	18°♓43'58		
max. Earth dist.	10559 Mar 06	16:54	21°♓11'06	6.49132 AU	
conjunction	10559 Mar 08	04:57	21°♓30'28	0°13'43	
minimum elong	10559 Mar 08	04:57	21°♓30'29	0°13'51	
behind sun begin	10559 Mar 08	00:47	21°♓28'15		
behind sun end	10559 Mar 08	09:07	21°♓32'42		
morning rise	10559 Mar 21	01:43	24°♓16'10		
	10559 Apr 17	17:04	0°♈		
retrograde	10559 Jul 19	20:23	10°♈58'31		
opposition	10559 Sep 18	21:16	6°♈05'14	0°04'10	
min. Earth dist.	10559 Sep 20	05:27	5°♈54'56	4.45671 AU	
desc. node	10559 Nov 07	02:29	1°♈20'27		
direct	10559 Nov 20	12:14	1°♈04'12		
evening set	10560 Mar 24	13:42	18°♈30'08		
max. Earth dist.	10560 Apr 04	05:30	20°♈50'13	6.40252 AU	
conjunction	10560 Apr 06	09:40	21°♈18'53	-0°08'38	
minimum elong	10560 Apr 06	09:39	21°♈18'52	0°08'47	
behind sun begin	10560 Apr 06	02:45	21°♈15'06		
behind sun end	10560 Apr 06	16:33	21°♈22'39		
morning rise	10560 Apr 19	04:00	24°♈07'05		
	10560 May 16	20:44	0°♉		
retrograde	10560 Aug 19	14:22	11°♉26'47		
opposition	10560 Oct 19	12:11	6°♉33'41	-0°28'31	
min. Earth dist.	10560 Oct 21	03:15	6°♉21'09	4.33281 AU	
direct	10560 Dec 20	11:58	1°♉33'46		
	10561 Apr 03	21:12	15°♉		
evening set	10561 Apr 24	21:51	19°♉38'15		
max. Earth dist.	10561 May 05	10:01	22°♉01'13	6.25218 AU	
conjunction	10561 May 07	16:56	22°♉32'29	-0°29'17	

minimum elong	10561 May 07 16:55	22°♉32'28	0°29'39	
morning rise	10561 May 20 11:24	25°♉26'44		
	10561 Jun 09 22:53	0°♊		
retrograde	10561 Sep 22 21:16	13°♊49'40		
opposition	10561 Nov 22 08:13	8°♊55'36	-0°54'54	
min. Earth dist.	10561 Nov 23 20:28	8°♊43'51	4.16554 AU	
direct	10562 Jan 22 05:38	3°♊57'27		
evening set	10562 May 28 03:07	22°♊53'30		
max. Earth dist.	10562 Jun 08 06:32	25°♊31'05	6.08148 AU	
conjunction	10562 Jun 10 00:20	25°♊55'47	-0°41'42	
minimum elong	10562 Jun 10 00:20	25°♊55'47	0°42'14	
morning rise	10562 Jun 22 22:11	28°♊58'44		
	10562 Jun 27 06:37	0°♋		
retrograde	10562 Oct 29 16:49	18°♋37'01		
opposition	10562 Dec 28 16:11	13°♋40'53	-1°04'23	
min. Earth dist.	10562 Dec 29 10:59	13°♋34'41	4.00571 AU	
direct	10563 Feb 26 02:43	8°♋44'53		
evening set	10563 Jul 02 16:06	28°♋29'49		
	10563 Jul 08 21:07	0°♌		
conjunction	10563 Jul 15 18:32	1°♌40'35	-0°39'43	
minimum elong	10563 Jul 15 18:33	1°♌40'35	0°40'12	
max. Earth dist.	10563 Jul 15 07:16	1°♌33'43	5.94756 AU	
morning rise	10563 Jul 28 22:51	4°♌52'33		
	10563 Sep 11 05:35	15°♌		
retrograde	10563 Dec 07 09:27	25°♌30'32		
opposition	10564 Feb 04 21:24	20°♌31'17	-0°49'10	
min. Earth dist.	10564 Feb 04 15:49	20°♌33'10	3.91228 AU	
direct	10564 Apr 03 05:48	15°♌36'31		
	10564 Jul 14 22:16	0°♍		
evening set	10564 Aug 08 03:45	5°♍45'40		
conjunction	10564 Aug 21 13:10	9°♍01'50	-0°21'55	
minimum elong	10564 Aug 21 13:11	9°♍01'50	0°22'08	
max. Earth dist.	10564 Aug 22 16:32	9°♍18'34	5.90441 AU	
morning rise	10564 Sep 04 00:46	12°♍19'12		
	10564 Nov 30 04:36	0°♎		
retrograde	10565 Jan 13 23:58	3°♎09'01		
	10565 Feb 28 00:41	30°℞♍		
min. Earth dist.	10565 Mar 13 04:08	28°♍15'58	3.92541 AU	
opposition	10565 Mar 14 07:54	28°♍06'33	-0°13'14	
direct	10565 May 11 06:38	23°♍11'11		
	10565 Jul 17 03:22	0°♎		
asc. node	10565 Jul 19 13:11	0°♎26'43		
evening set	10565 Sep 15 07:12	13°♎06'43		
conjunction	10565 Sep 28 21:16	16°♎21'52	0°04'49	
minimum elong	10565 Sep 28 21:16	16°♎21'52	0°04'56	
behind sun begin	10565 Sep 28 13:07	16°♎17'00		
behind sun end	10565 Sep 29 05:25	16°♎26'44		
max. Earth dist.	10565 Oct 01 02:49	16°♎53'57	5.97169 AU	
morning rise	10565 Oct 12 13:21	19°♎37'47		
	10565 Nov 27 23:59	0°♏		
retrograde	10566 Feb 19 14:35	9°♏44'25		
min. Earth dist.	10566 Apr 18 13:20	4°♏53'33	4.03889 AU	
opposition	10566 Apr 20 04:05	4°♏40'24	0°26'50	
	10566 Jun 04 18:26	30°℞♎		
direct	10566 Jun 17 15:40	29°♎43'00		
	10566 Jun 30 14:56	0°♏		
	10566 Oct 05 03:32	15°♏		
evening set	10566 Oct 22 09:51	18°♏55'01		
conjunction	10566 Nov 05 00:29	22°♏03'29	0°28'43	
minimum elong	10566 Nov 05 00:28	22°♏03'28	0°29'07	
max. Earth dist.	10566 Nov 07 11:00	22°♏37'17	6.11969 AU	
morning rise	10566 Nov 18 15:43	25°♏11'54		
	10566 Dec 10 01:43	0°♐		
retrograde	10567 Mar 25 14:15	14°♐06'08		
min. Earth dist.	10567 May 23 02:27	9°♐14'30	4.20545 AU	
opposition	10567 May 24 12:22	9°♐03'06	0°54'34	
direct	10567 Jul 23 04:17	4°♐03'38		
evening set	10567 Nov 26 09:45	22°♐23'16		
conjunction	10567 Dec 09 21:22	25°♐22'58	0°41'40	
minimum elong	10567 Dec 09 21:22	25°♐22'57	0°42'11	
max. Earth dist.	10567 Dec 11 16:58	25°♐47'12	6.29029 AU	
morning rise	10567 Dec 23 08:19	28°♐22'01		
	10567 Dec 30 19:05	0°♑		
retrograde	10568 Apr 25 02:09	16°♑06'11		
opposition	10568 Jun 24 12:01	11°♑05'57	1°03'09	
min. Earth dist.	10568 Jun 23 15:18	11°♑12'48	4.36578 AU	
direct	10568 Aug 24 09:34	6°♑05'12		
evening set	10568 Dec 28 03:55	23°♑41'40		
conjunction	10569 Jan 10 10:49	26°♑33'51	0°41'27	
minimum elong	10569 Jan 10 10:49	26°♑33'51	0°41'58	
max. Earth dist.	10569 Jan 11 02:46	26°♑42'29	6.42854 AU	
morning rise	10569 Jan 23 16:07	29°♑25'04		
	10569 Jan 26 09:21	0°♒		
	10569 Apr 25 12:40	15°♒		
retrograde	10569 May 25 04:26	16°♒20'32		
	10569 Jun 23 15:50	15°℞♒		
opposition	10569 Jul 24 22:18	11°♒23'34	0°53'42	
min. Earth dist.	10569 Jul 24 21:23	11°♒23'52	4.47321 AU	
direct	10569 Sep 24 22:21	6°♒22'15		
	10569 Dec 16 09:43	15°♒		
evening set	10570 Jan 28 05:13	23°♒34'10		
conjunction	10570 Feb 10 07:22	26°♒21'50	0°29'57	
minimum elong	10570 Feb 10 07:23	26°♒21'50	0°30'16	
max. Earth dist.	10570 Feb 09 17:44	26°♒14'33	6.49778 AU	
morning rise	10570 Feb 23 07:37	29°♒08'31		
	10570 Feb 27 08:46	0°♓		
retrograde	10570 Jun 23 19:24	15°♓44'02		
opposition	10570 Aug 23 19:21	10°♓49'31	0°30'40	
min. Earth dist.	10570 Aug 24 13:17	10°♓43'45	4.50113 AU	
direct	10570 Oct 25 08:40	5°♓48'09		
evening set	10571 Feb 27 10:46	22°♓57'49		
max. Earth dist.	10571 Mar 10 20:02	25°♓24'33	6.48225 AU	
conjunction	10571 Mar 12 09:07	25°♓44'32	0°10'44	
minimum elong	10571 Mar 12 09:07	25°♓44'32	0°10'49	
behind sun begin	10571 Mar 12 03:02	25°♓41'16		
behind sun end	10571 Mar 12 15:13	25°♓47'48		
morning rise	10571 Mar 25 05:19	28°♓30'23		
	10571 Apr 01 05:31	0°♈		
retrograde	10571 Jul 24 02:59	15°♈16'29		
desc. node	10571 Sep 18 05:40	11°♈01'05		
opposition	10571 Sep 23 04:23	10°♈23'17	-0°00'25	
min. Earth dist.	10571 Sep 24 13:04	10°♈12'50	4.44325 AU	
direct	10571 Nov 24 17:13	5°♈22'26		
evening set	10572 Mar 28 20:26	22°♈52'31		
max. Earth dist.	10572 Apr 08 10:36	25°♈12'17	6.38535 AU	
conjunction	10572 Apr 10 15:58	25°♈41'46	-0°11'44	
minimum elong	10572 Apr 10 15:58	25°♈41'45	0°11'56	
behind sun begin	10572 Apr 10 10:25	25°♈38'43		
behind sun end	10572 Apr 10 21:31	25°♈44'48		
morning rise	10572 Apr 23 10:14	28°♈30'35		
	10572 Apr 30 05:53	0°♉		
	10572 Jul 30 06:30	15°♉		
retrograde	10572 Aug 24 05:51	15°♉57'18		
	10572 Sep 18 03:26	15°℞♉		

opposition	10572 Oct 24 01:28	11°♉04'06	-0°32'47
min. Earth dist.	10572 Oct 25 17:23	10°♉51'18	4.31266 AU
direct	10572 Dec 24 23:13	6°♉04'22	
	10573 Mar 16 21:40	15°♉	
evening set	10573 Apr 29 09:14	24°♉14'53	
max. Earth dist.	10573 May 09 22:11	26°♉38'59	6.23039 AU
conjunction	10573 May 12 04:28	27°♉10'02	-0°31'38
minimum elong	10573 May 12 04:27	27°♉10'01	0°32'03
morning rise	10573 May 24 23:09	0°♊05'16	
	10573 May 24 13:53	0°♊	
retrograde	10573 Sep 27 18:16	18°♊37'34	
opposition	10573 Nov 27 04:48	13°♊43'15	-0°57'25
min. Earth dist.	10573 Nov 28 14:40	13°♊32'16	4.14363 AU
direct	10574 Jan 26 20:36	8°♊45'24	
evening set	10574 Jun 01 21:15	27°♊48'09	
	10574 Jun 11 04:09	0°♋	
max. Earth dist.	10574 Jun 13 04:27	0°♋28'42	6.06120 AU
conjunction	10574 Jun 14 18:55	0°♋51'33	-0°42'22
minimum elong	10574 Jun 14 18:55	0°♋51'33	0°42'54
morning rise	10574 Jun 27 17:27	3°♋55'41	
retrograde	10574 Nov 03 22:49	23°♋43'18	
opposition	10575 Jan 02 20:04	18°♋46'46	-1°03'46
min. Earth dist.	10575 Jan 03 12:31	18°♋41'20	3.98884 AU
direct	10575 Mar 03 03:36	13°♋50'58	
	10575 Jun 22 07:24	0°♌	
evening set	10575 Jul 07 17:01	3°♌40'45	
conjunction	10575 Jul 20 20:29	6°♌52'32	-0°38'06
minimum elong	10575 Jul 20 20:30	6°♌52'32	0°38'34
max. Earth dist.	10575 Jul 20 14:42	6°♌49'01	5.93589 AU
morning rise	10575 Aug 03 01:43	10°♌05'30	
	10575 Aug 23 17:10	15°♌	
	10575 Nov 20 12:26	0°♍	
retrograde	10575 Dec 12 18:13	0°♍48'18	
	10576 Jan 03 20:21	30°℞♌	
opposition	10576 Feb 10 04:28	25°♌48'37	-0°45'08
min. Earth dist.	10576 Feb 09 19:50	25°♌51'31	3.90735 AU
direct	10576 Apr 08 09:37	20°♌53'54	
	10576 Jun 25 19:51	0°♍	
evening set	10576 Aug 13 09:18	11°♍03'36	
conjunction	10576 Aug 26 19:23	14°♍20'02	-0°18'30
minimum elong	10576 Aug 26 19:24	14°♍20'03	0°18'42
max. Earth dist.	10576 Aug 28 01:44	14°♍38'34	5.90654 AU
morning rise	10576 Sep 09 08:01	17°♍37'42	
	10576 Nov 03 15:12	0°♎	
retrograde	10577 Jan 19 03:06	8°♎24'54	
min. Earth dist.	10577 Mar 18 05:36	3°♎32'27	3.93444 AU
opposition	10577 Mar 19 12:07	3°♎22'05	-0°07'30
	10577 Apr 15 23:22	30°℞♍	
direct	10577 May 16 11:01	28°♍26'27	
asc. node	10577 May 29 20:50	28°♍45'01	
	10577 Jun 15 23:43	0°♎	
evening set	10577 Sep 20 11:57	18°♎18'01	
conjunction	10577 Oct 04 02:30	21°♎32'38	0°08'32
minimum elong	10577 Oct 04 02:29	21°♎32'38	0°08'41
behind sun begin	10577 Oct 03 19:15	21°♎28'20	
behind sun end	10577 Oct 04 09:42	21°♎36'56	
max. Earth dist.	10577 Oct 06 09:58	22°♎05'46	5.98669 AU
morning rise	10577 Oct 17 18:40	24°♎47'52	
	10577 Nov 09 06:02	0°♏	
retrograde	10578 Feb 24 12:13	14°♏46'20	
min. Earth dist.	10578 Apr 23 11:42	9°♏55'09	4.05798 AU
opposition	10578 Apr 25 01:41	9°♏42'16	0°31'41
direct	10578 Jun 22 17:04	4°♏44'33	
	10578 Sep 16 22:39	15°♏	
evening set	10578 Oct 27 09:18	23°♏50'08	
conjunction	10578 Nov 09 23:46	26°♏57'32	0°31'16
minimum elong	10578 Nov 09 23:45	26°♏57'32	0°31'42
max. Earth dist.	10578 Nov 12 10:21	27°♏31'12	6.14117 AU
morning rise	10578 Nov 23 14:37	0°♐04'48	
	10578 Nov 23 06:11	0°♐	
retrograde	10579 Mar 30 01:39	18°♐49'22	
min. Earth dist.	10579 May 27 16:29	13°♐57'56	4.22749 AU
opposition	10579 May 29 02:08	13°♐46'38	0°56'56
direct	10579 Jul 27 20:42	8°♐47'01	
evening set	10579 Dec 01 02:21	27°♐00'19	
conjunction	10579 Dec 14 13:18	29°♐58'52	0°42'24
minimum elong	10579 Dec 14 13:17	29°♐58'52	0°42'56
	10579 Dec 14 15:20	0°♑	
max. Earth dist.	10579 Dec 16 04:59	0°♑20'51	6.31143 AU
morning rise	10579 Dec 27 23:33	2°♑56'45	
retrograde	10580 Apr 29 09:19	20°♑32'50	
opposition	10580 Jun 28 19:44	15°♑33'03	1°02'49
min. Earth dist.	10580 Jun 28 02:00	15°♑38'54	4.38467 AU
direct	10580 Aug 28 22:35	10°♑32'10	
evening set	10581 Jan 01 13:50	28°♑03'45	
	10581 Jan 10 14:02	0°♒	
conjunction	10581 Jan 14 20:07	0°♒55'03	0°40'28
minimum elong	10581 Jan 14 20:07	0°♒55'04	0°40'57
max. Earth dist.	10581 Jan 15 09:10	1°♒02'06	6.44408 AU
morning rise	10581 Jan 28 00:39	3°♒45'23	
	10581 Mar 27 01:03	15°♒	
retrograde	10581 May 29 05:54	20°♒35'40	
opposition	10581 Jul 29 02:17	15°♒39'00	0°51'13
min. Earth dist.	10581 Jul 29 02:55	15°♒38'48	4.48467 AU
	10581 Aug 03 02:59	15°℞♒	
direct	10581 Sep 29 04:19	10°♒37'39	
	10581 Nov 24 18:02	15°♒	
evening set	10582 Feb 01 10:17	27°♒46'48	
	10582 Feb 11 20:20	0°♓	
conjunction	10582 Feb 14 11:49	0°♓33'57	0°27'40
minimum elong	10582 Feb 14 11:50	0°♓33'57	0°27'59
max. Earth dist.	10582 Feb 13 19:52	0°♓25'25	6.50451 AU
morning rise	10582 Feb 27 11:16	3°♓20'07	
retrograde	10582 Jun 27 21:37	19°♓53'56	
opposition	10582 Aug 27 22:32	14°♓59'39	0°26'46
min. Earth dist.	10582 Aug 28 18:50	14°♓53'09	4.50262 AU
direct	10582 Oct 29 13:55	9°♓58'21	
evening set	10583 Mar 03 13:49	27°♓07'51	
max. Earth dist.	10583 Mar 14 18:15	29°♓32'14	6.47822 AU
conjunction	10583 Mar 16 11:28	29°♓54'28	0°07'48
minimum elong	10583 Mar 16 11:28	29°♓54'28	0°07'51
behind sun begin	10583 Mar 16 04:18	29°♓50'37	
behind sun end	10583 Mar 16 18:39	29°♓58'19	
	10583 Mar 16 21:45	0°♈	
morning rise	10583 Mar 29 07:22	2°♈40'19	
retrograde	10583 Jul 28 08:49	19°♈28'39	
desc. node	10583 Aug 01 14:02	19°♈26'59	
opposition	10583 Sep 27 09:35	14°♈35'28	-0°04'50
min. Earth dist.	10583 Sep 28 20:11	14°♈24'24	4.43373 AU
direct	10583 Nov 28 22:10	9°♈34'38	
evening set	10584 Apr 02 00:19	27°♈07'38	
max. Earth dist.	10584 Apr 12 13:45	29°♈27'24	6.37091 AU
conjunction	10584 Apr 14 19:47	29°♈57'20	-0°14'39

minimum elong	10584 Apr 14	19:46	29°♈57'20	0°14'52	
behind sun begin	10584 Apr 14	16:33	29°♈55'33		
behind sun end	10584 Apr 14	23:00	29°♈59'06		
	10584 Apr 15	00:37	0°♉		
morning rise	10584 Apr 27	13:44	2°♉46'38		
	10584 Jun 28	08:59	15°♉		
retrograde	10584 Aug 28	15:52	20°♉19'39		
opposition	10584 Oct 28	11:42	15°♉26'21	-0°36'40	
min. Earth dist.	10584 Oct 30	03:35	15°♉13'33	4.29398 AU	
	10584 Oct 31	21:52	15°℞♉		
direct	10584 Dec 29	05:33	10°♉26'47		
	10585 Feb 23	15:21	15°♉		
evening set	10585 May 03	17:32	28°♉43'04		
	10585 May 09	08:11	0°♊		
max. Earth dist.	10585 May 14	06:25	1°♊07'53	6.20870 AU	
conjunction	10585 May 16	12:45	1°♊39'07	-0°33'42	
minimum elong	10585 May 16	12:44	1°♊39'07	0°34'09	
morning rise	10585 May 29	07:49	4°♊35'24		
retrograde	10585 Oct 02	14:36	23°♊17'32		
opposition	10585 Dec 01	22:50	18°♊22'58	-0°59'30	
min. Earth dist.	10585 Dec 03	08:11	18°♊12'07	4.12022 AU	
direct	10586 Jan 31	11:22	13°♊25'18		
	10586 May 26	11:25	0°♋		
evening set	10586 Jun 06	12:47	2°♋35'37		
max. Earth dist.	10586 Jun 17	23:45	5°♋19'10	6.03823 AU	
conjunction	10586 Jun 19	11:14	5°♋40'20	-0°42'44	
minimum elong	10586 Jun 19	11:13	5°♋40'20	0°43'15	
morning rise	10586 Jul 02	10:29	8°♋45'51		
retrograde	10586 Nov 09	03:12	28°♋44'01		
opposition	10587 Jan 07	21:53	23°♋47'12	-1°02'44	
min. Earth dist.	10587 Jan 08	11:46	23°♋42'36	3.96859 AU	
direct	10587 Mar 08	00:12	18°♋51'38		
	10587 Jun 04	18:27	0°♌		
evening set	10587 Jul 12	17:16	8°♌48'04		
conjunction	10587 Jul 25	21:35	12°♌01'03	-0°36'16	
minimum elong	10587 Jul 25	21:37	12°♌01'03	0°36'41	
max. Earth dist.	10587 Jul 25	18:49	11°♌59'21	5.92032 AU	
	10587 Aug 07	02:54	15°♌		
morning rise	10587 Aug 08	04:09	15°♌15'20		
	10587 Oct 15	04:03	0°♍		
retrograde	10587 Dec 18	00:59	6°♍04'41		
opposition	10588 Feb 15	10:58	1°♍04'34	-0°40'51	
min. Earth dist.	10588 Feb 14	22:28	1°♍08'47	3.89833 AU	
	10588 Feb 23	12:35	30°℞♌		
direct	10588 Apr 13	12:52	26°♌09'50		
	10588 Jun 01	06:34	0°♍		
evening set	10588 Aug 18	15:23	16°♍22'03		
conjunction	10588 Sep 01	02:35	19°♍39'03	-0°15'00	
minimum elong	10588 Sep 01	02:36	19°♍39'03	0°15'09	
behind sun begin	10588 Aug 31	23:49	19°♍37'22		
behind sun end	10588 Sep 01	05:22	19°♍40'44		
max. Earth dist.	10588 Sep 02	14:19	20°♍00'52	5.90517 AU	
morning rise	10588 Sep 14	16:00	22°♍57'10		
	10588 Oct 14	16:35	0°♎		
retrograde	10589 Jan 24	10:22	13°♎43'12		
min. Earth dist.	10589 Mar 23	09:45	8°♎50'56	3.94074 AU	
opposition	10589 Mar 24	17:39	8°♎40'05	-0°01'47	
asc. node	10589 Apr 10	13:03	6°♎28'10		
direct	10589 May 21	17:54	3°♎44'15		
evening set	10589 Sep 25	18:30	23°♎32'52		
conjunction	10589 Oct 09	09:25	26°♎47'03	0°12'09	
minimum elong	10589 Oct 09	09:25	26°♎47'02	0°12'21	
behind sun begin	10589 Oct 09	03:58	26°♎43'49		
behind sun end	10589 Oct 09	14:51	26°♎50'16		
max. Earth dist.	10589 Oct 11	20:22	27°♎22'06	5.99993 AU	
	10589 Oct 22	22:55	0°♏		
morning rise	10589 Oct 23	01:49	0°♏01'42		
	10590 Jan 03	13:09	15°♏		
retrograde	10590 Mar 01	09:50	19°♏52'18		
min. Earth dist.	10590 Apr 28	09:18	15°♏01'38	4.07665 AU	
	10590 Apr 28	14:06	15°℞♏		
opposition	10590 Apr 30	00:45	14°♏48'15	0°36'15	
direct	10590 Jun 27	17:47	9°♏50'17		
	10590 Aug 25	09:54	15°♏		
evening set	10590 Nov 01	10:53	28°♏49'31		
	10590 Nov 06	14:32	0°♐		
conjunction	10590 Nov 15	00:56	1°♐55'46	0°33'35	
minimum elong	10590 Nov 15	00:55	1°♐55'46	0°34'03	
max. Earth dist.	10590 Nov 17	09:31	2°♐28'08	6.16335 AU	
morning rise	10590 Nov 28	15:24	5°♐01'50		
retrograde	10591 Apr 03	15:32	23°♐36'20		
min. Earth dist.	10591 Jun 01	09:39	18°♐44'26	4.25084 AU	
opposition	10591 Jun 02	17:19	18°♐33'50	0°58'53	
direct	10591 Aug 01	17:29	13°♐33'55		
	10591 Nov 28	03:47	0°♑		
evening set	10591 Dec 05	19:52	1°♑40'20		
conjunction	10591 Dec 19	06:19	4°♑37'43	0°42'51	
minimum elong	10591 Dec 19	06:19	4°♑37'43	0°43'24	
max. Earth dist.	10591 Dec 20	20:35	4°♑58'48	6.33389 AU	
morning rise	10592 Jan 01	15:40	7°♑34'19		
retrograde	10592 May 03	14:54	25°♑01'55		
min. Earth dist.	10592 Jul 02	11:53	20°♑07'54	4.40433 AU	
opposition	10592 Jul 03	04:14	20°♑02'32	1°02'04	
direct	10592 Sep 02	10:25	15°♑01'33		
	10592 Dec 25	08:29	0°♒		
evening set	10593 Jan 06	00:19	2°♒28'01		
conjunction	10593 Jan 19	05:43	5°♒18'25	0°39'12	
minimum elong	10593 Jan 19	05:44	5°♒18'26	0°39'39	
max. Earth dist.	10593 Jan 19	13:55	5°♒22'50	6.45930 AU	
morning rise	10593 Feb 01	09:32	8°♒07'52		
	10593 Mar 06	21:58	15°♒		
retrograde	10593 Jun 02	10:26	24°♒53'21		
opposition	10593 Aug 02	07:16	19°♒57'05	0°48'21	
min. Earth dist.	10593 Aug 02	11:35	19°♒55'41	4.49440 AU	
	10593 Sep 26	15:57	15°℞♒		
direct	10593 Oct 03	13:39	14°♒55'41		
	10593 Oct 10	11:08	15°♒		
	10594 Jan 26	22:47	0°♓		
evening set	10594 Feb 05	16:19	2°♓02'48		
conjunction	10594 Feb 18	17:15	4°♓49'35	0°25'10	
minimum elong	10594 Feb 18	17:16	4°♓49'35	0°25'27	
max. Earth dist.	10594 Feb 17	21:01	4°♓38'46	6.50789 AU	
morning rise	10594 Mar 03	16:07	7°♓35'24		
retrograde	10594 Jul 02	01:20	24°♓08'50		
opposition	10594 Sep 01	03:18	19°♓14'43	0°22'35	
min. Earth dist.	10594 Sep 02	01:29	19°♓07'37	4.49958 AU	
direct	10594 Nov 02	18:52	14°♓13'24		
	10595 Mar 01	04:32	0°♈		
evening set	10595 Mar 07	18:51	1°♈24'24		
max. Earth dist.	10595 Mar 18	21:22	3°♈48'01	6.46888 AU	
conjunction	10595 Mar 20	16:11	4°♈11'11	0°04'41	
minimum elong	10595 Mar 20	16:11	4°♈11'12	0°04'41	
behind sun begin	10595 Mar 20	08:23	4°♈07'00		
behind sun end	10595 Mar 20	23:59	4°♈15'23		

morning rise	10595 Apr 02	11:33	6°♈57'14		
desc. node	10595 Jun 11	11:16	20°♈02'36		
retrograde	10595 Aug 01	17:18	23°♈49'43		
opposition	10595 Oct 01	18:11	18°♈56'35	-0°09'29	
min. Earth dist.	10595 Oct 03	06:32	18°♈44'59	4.41853 AU	
direct	10595 Dec 03	05:26	13°♈55'53		
	10596 Mar 30	05:10	0°♉		
evening set	10596 Apr 06	08:08	1°♉33'40		
max. Earth dist.	10596 Apr 16	18:49	3°♉52'38	6.35076 AU	
conjunction	10596 Apr 19	03:16	4°♉24'03	-0°17'40	
minimum elong	10596 Apr 19	03:15	4°♉24'02	0°17'55	
morning rise	10596 May 01	21:22	7°♉14'09		
	10596 Jun 07	13:17	15°♉		
retrograde	10596 Sep 02	09:13	24°♉55'38		
opposition	10596 Nov 02	03:22	20°♉02'10	-0°40'38	
min. Earth dist.	10596 Nov 03	19:29	19°♉49'16	4.27004 AU	
direct	10597 Jan 02	18:23	15°♉02'45		
	10597 Apr 23	01:37	0°♊		
evening set	10597 May 08	07:28	3°♊26'32		
max. Earth dist.	10597 May 18	22:49	5°♊53'33	6.18292 AU	
conjunction	10597 May 21	03:07	6°♊23'47	-0°35'43	
minimum elong	10597 May 21	03:06	6°♊23'47	0°36'11	
morning rise	10597 Jun 02	22:27	9°♊21'17		
retrograde	10597 Oct 07	17:00	28°♊14'34		
opposition	10597 Dec 06	23:23	23°♊19'47	-1°01'20	
min. Earth dist.	10597 Dec 08	06:59	23°♊09'29	4.09474 AU	
direct	10598 Feb 05	06:40	18°♊22'25		
	10598 May 08	20:22	0°♋		
evening set	10598 Jun 11	11:23	7°♋40'51		
max. Earth dist.	10598 Jun 23	01:35	10°♋27'13	6.01530 AU	
conjunction	10598 Jun 24	10:24	10°♋46'54	-0°42'47	
minimum elong	10598 Jun 24	10:24	10°♋46'54	0°43'20	
morning rise	10598 Jul 07	10:45	13°♋53'55		
	10598 Sep 23	23:33	0°♌		
retrograde	10598 Nov 14	13:19	4°♌02'22		
	10599 Jan 06	08:06	30°℞♋		
opposition	10599 Jan 13	06:34	29°♋05'05	-1°01'07	
min. Earth dist.	10599 Jan 13	16:25	29°♋01'49	3.95065 AU	
direct	10599 Mar 13	04:08	24°♋09'42		
	10599 May 13	18:03	0°♌		
evening set	10599 Jul 17	23:47	14°♌11'28		
	10599 Jul 21	07:28	15°♌		
conjunction	10599 Jul 31	05:17	17°♌25'29	-0°33'59	
minimum elong	10599 Jul 31	05:19	17°♌25'30	0°34'23	
max. Earth dist.	10599 Jul 31	09:34	17°♌28'07	5.90951 AU	
morning rise	10599 Aug 13	12:48	20°♌40'46		
	10599 Sep 22	17:05	0°♍		
retrograde	10599 Dec 23	14:37	11°♍34'02		
opposition	10600 Feb 20	22:35	6°♍33'26	-0°35'57	
min. Earth dist.	10600 Feb 20	07:18	6°♍38'36	3.89618 AU	
direct	10600 Apr 19	23:20	1°♍38'42		
evening set	10600 Aug 25	01:53	21°♍50'11		
conjunction	10600 Sep 07	13:51	25°♍07'14	-0°11'13	
minimum elong	10600 Sep 07	13:51	25°♍07'14	0°11'18	
behind sun begin	10600 Sep 07	07:45	25°♍03'32		
behind sun end	10600 Sep 07	19:57	25°♍10'56		
max. Earth dist.	10600 Sep 09	06:48	25°♍32'10	5.91198 AU	
morning rise	10600 Sep 21	04:03	28°♍25'21		
	10600 Sep 27	17:31	0°♎		
retrograde	10601 Jan 30	16:14	19°♎06'00		
asc. node	10601 Feb 19	19:03	18°♎25'19		
min. Earth dist.	10601 Mar 29	13:39	14°♎14'26	3.95591 AU	
opposition	10601 Mar 31	00:34	14°♎02'34	0°04'08	
direct	10601 May 28	01:09	9°♎06'28		
evening set	10601 Oct 02	02:06	28°♎48'44		
	10601 Oct 07	02:59	0°♏		
conjunction	10601 Oct 15	17:01	2°♏01'53	0°15'44	
minimum elong	10601 Oct 15	17:00	2°♏01'52	0°15'59	
max. Earth dist.	10601 Oct 18	04:19	2°♏36'57	6.02174 AU	
morning rise	10601 Oct 29	09:28	5°♏15'28		
	10601 Dec 12	10:16	15°♏		