direct	1100 Jan 24 j 18:30	5°♊49'00	
evening set	1100 May 30 j 10:09	24°♊35'47	
conjunction	1100 Jun 13 j 04:09	27°♊42'10	-0°04'21
minimum elong	1100 Jun 13 j 04:09	27°♊42'09	0°04'21
behind sun begin	1100 Jun 12 j 19:56	27°♊37'32	
behind sun end	1100 Jun 13 j 12:21	27°♊46'47	
max. Earth dist.	1100 Jun 14 j 22:00	28°♊05'50	6.19885 AU
	1100 Jun 23 j 08:18	0°♋	
morning rise	1100 Jun 26 j 22:06	0°♋48'11	
asc. node	1100 Jul 26 j 14:15	7°♋14'41	
retrograde	1100 Oct 30 j 04:23	19°♋08'55	
opposition	1100 Dec 28 j 21:11	14°♋07'11	0°22'07
min. Earth dist.	1100 Dec 28 j 01:39	14°♋13'45	4.26815 AU
direct	1101 Feb 27 j 01:09	9°♋05'13	
evening set	1101 Jul 03 j 22:49	27°♋16'09	
	1101 Jul 16 j 09:16	0°♌	
conjunction	1101 Jul 17 j 12:17	0°♌14'52	0°33'00
minimum elong	1101 Jul 17 j 12:15	0°♌14'51	0°33'00
max. Earth dist.	1101 Jul 18 j 06:31	0°♌24'54	6.33222 AU
morning rise	1101 Jul 30 j 23:42	3°♌12'24	
	1101 Sep 28 j 17:35	15°♌	
retrograde	1101 Nov 30 j 04:08	20°♌36'35	
opposition	1102 Jan 29 j 04:53	15°♌38'39	1°09'32
min. Earth dist.	1102 Jan 29 j 01:47	15°♌39'41	4.38460 AU
	1102 Feb 03 j 02:24	15℞♌	
direct	1102 Mar 31 j 15:07	10°♌35'39	
	1102 May 26 j 22:28	15°♌	
evening set	1102 Aug 05 j 15:02	28°♌20'24	
	1102 Aug 13 j 07:28	0°♍	
conjunction	1102 Aug 18 j 20:44	1°♍12'15	0°59'15
minimum elong	1102 Aug 18 j 20:42	1°♍12'14	0°59'14
max. Earth dist.	1102 Aug 18 j 09:49	1°♍06'20	6.42273 AU
morning rise	1102 Aug 31 j 23:44	4°♍02'41	
retrograde	1102 Dec 30 j 10:23	20°♍54'36	
opposition	1103 Feb 28 j 18:29	16°♍00'04	1°35'54
min. Earth dist.	1103 Mar 01 j 10:20	15°♍54'56	4.44455 AU
direct	1103 May 02 j 04:44	10°♍57'10	
evening set	1103 Sep 05 j 21:49	28°♍30'32	
	1103 Sep 12 j 19:32	0°♎	
max. Earth dist.	1103 Sep 17 j 10:10	0°♎59'58	6.44683 AU
conjunction	1103 Sep 18 j 20:15	1°♎18'27	1°08'39
minimum elong	1103 Sep 18 j 20:15	1°♎18'27	1°08'39
morning rise	1103 Oct 01 j 15:47	4°♎05'02	
retrograde	1104 Jan 29 j 19:18	20°♎52'44	
opposition	1104 Mar 30 j 12:04	16°♎00'19	1°36'25
min. Earth dist.	1104 Mar 31 j 17:16	15°♎50'58	4.43262 AU
direct	1104 Jun 01 j 06:02	10°♎58'35	
evening set	1104 Oct 05 j 13:24	28°♎36'51	
	1104 Oct 11 j 21:10	0°♏	
max. Earth dist.	1104 Oct 16 j 07:44	0°♏58'39	6.39911 AU
conjunction	1104 Oct 18 j 06:48	1°♏24'36	0°59'26
minimum elong	1104 Oct 18 j 06:50	1°♏24'37	0°59'26
morning rise	1104 Oct 30 j 21:55	4°♏11'25	
	1104 Dec 23 j 17:22	15°♏	
retrograde	1105 Mar 01 j 09:11	21°♏23'01	
opposition	1105 May 01 j 06:50	16°♏31'12	1°10'38
min. Earth dist.	1105 May 02 j 19:06	16°♏19'40	4.35183 AU
	1105 May 13 j 09:53	15℞♏	
direct	1105 Jul 02 j 17:40	11°♏31'30	
	1105 Aug 21 j 03:28	15°♏	

evening set	1105 Nov 05 j 11:32	29°♏30'24	
	1105 Nov 07 j 16:14	0°♐	
max. Earth dist.	1105 Nov 16 j 01:37	1°♐53'41	6.29134 AU
conjunction	1105 Nov 18 j 03:03	2°♐21'39	0°33'14
minimum elong	1105 Nov 18 j 03:04	2°♐21'40	0°33'15
morning rise	1105 Nov 30 j 17:41	5°♐12'40	
retrograde	1106 Apr 03 j 21:21	23°♐13'31	
opposition	1106 Jun 03 j 19:15	18°♐20'38	0°22'44
min. Earth dist.	1106 Jun 05 j 02:56	18°♐10'30	4.22310 AU
direct	1106 Aug 04 j 06:27	13°♐23'26	
desc. node	1106 Nov 08 j 11:05	25°♐24'43	
	1106 Nov 29 j 05:05	0°♑	
evening set	1106 Dec 07 j 13:53	1°♑55'25	
max. Earth dist.	1106 Dec 18 j 20:10	4°♑32'40	6.15284 AU
conjunction	1106 Dec 20 j 06:52	4°♑52'55	-0°04'14
minimum elong	1106 Dec 20 j 06:51	4°♑52'55	0°04'14
behind sun begin	1106 Dec 19 j 22:58	4°♑48'20	
behind sun end	1106 Dec 20 j 14:44	4°♑57'29	
morning rise	1107 Jan 02 j 00:08	7°♑50'54	
retrograde	1107 May 09 j 17:38	26°♑57'31	
opposition	1107 Jul 09 j 09:12	22°♑02'07	-0°35'45
min. Earth dist.	1107 Jul 10 j 01:58	21°♑56'41	4.08495 AU
direct	1107 Sep 07 j 10:59	17°♑07'25	
	1107 Dec 14 j 09:43	0°♒	
evening set	1108 Jan 10 j 13:16	6°♒16'04	
conjunction	1108 Jan 23 j 10:13	9°♒20'41	-0°41'47
minimum elong	1108 Jan 23 j 10:11	9°♒20'39	0°41'46
max. Earth dist.	1108 Jan 23 j 00:41	9°♒14'58	6.02757 AU
morning rise	1108 Feb 05 j 09:23	12°♒26'37	
	1108 Feb 16 j 05:19	15°♒	
	1108 May 05 j 06:16	0°♓	
retrograde	1108 Jun 15 j 07:46	2°♓35'20	
	1108 Jul 26 j 15:53	30℞♒	
opposition	1108 Aug 14 j 14:39	27°♒36'05	-1°24'33
min. Earth dist.	1108 Aug 14 j 08:30	27°♒38'08	3.98508 AU
direct	1108 Oct 12 j 06:54	22°♒42'37	
	1108 Dec 20 j 20:22	0°♓	
evening set	1109 Feb 14 j 12:58	12°♓17'46	
conjunction	1109 Feb 27 j 16:51	15°♓28'22	-1°05'03
minimum elong	1109 Feb 27 j 16:50	15°♓28'21	1°05'02
max. Earth dist.	1109 Feb 28 j 16:50	15°♓42'52	5.96198 AU
morning rise	1109 Mar 12 j 23:38	18°♓40'37	
	1109 May 02 j 13:26	0°♈	
retrograde	1109 Jul 23 j 10:56	9°♈18'48	
min. Earth dist.	1109 Sep 20 j 06:07	4°♈24'06	3.96237 AU
opposition	1109 Sep 21 j 06:51	4°♈15'46	-1°41'31
	1109 Oct 29 j 20:56	30℞♓	
direct	1109 Nov 18 j 06:04	29°♓21'25	
	1109 Dec 07 j 13:48	0°♈	
evening set	1110 Mar 23 j 20:23	18°♈59'36	
conjunction	1110 Apr 06 j 08:11	22°♈12'52	-1°03'08
minimum elong	1110 Apr 06 j 08:13	22°♈12'53	1°03'08
max. Earth dist.	1110 Apr 08 j 08:58	22°♈42'01	5.98321 AU
morning rise	1110 Apr 19 j 22:56	25°♈27'33	
	1110 May 09 j 11:00	0°♉	
	1110 Aug 07 j 20:30	15°♉	
retrograde	1110 Aug 29 j 08:02	15°♉45'13	
	1110 Sep 19 j 15:08	15℞♉	
min. Earth dist.	1110 Oct 26 j 11:46	10°♉51'58	4.02579 AU
opposition	1110 Oct 27 j 22:26	10°♉40'09	-1°18'19

direct	1110 Dec 24 j 23:38	5°♉43'13	
	1111 Mar 15 j 12:13	15°♉	
evening set	1111 Apr 30 j 03:57	24°♉59'27	
conjunction	1111 May 13 j 21:22	28°♉10'45	-0°37'06
minimum elong	1111 May 13 j 21:25	28°♉10'46	0°37'06
max. Earth dist.	1111 May 16 j 02:31	28°♉41'39	6.08240 AU
	1111 May 21 j 17:31	0°♊	
morning rise	1111 May 27 j 16:31	1°♊22'37	
retrograde	1111 Oct 03 j 00:38	20°♊41'48	
min. Earth dist.	1111 Nov 30 j 08:21	15°♊47'51	4.14899 AU
opposition	1111 Dec 01 j 14:44	15°♊37'30	-0°27'22
direct	1112 Jan 29 j 15:10	10°♊37'32	
evening set	1112 Jun 04 j 06:25	29°♊18'32	
asc. node	1112 Jun 06 j 07:48	29°♊46'11	
	1112 Jun 07 j 08:26	0°♋	
conjunction	1112 Jun 18 j 00:12	2°♋23'52	0°01'11
minimum elong	1112 Jun 18 j 00:11	2°♋23'52	0°01'12
behind sun begin	1112 Jun 17 j 15:50	2°♋19'11	
behind sun end	1112 Jun 18 j 08:33	2°♋28'33	
max. Earth dist.	1112 Jun 19 j 16:08	2°♋46'21	6.21953 AU
morning rise	1112 Jul 01 j 17:21	5°♋28'40	
retrograde	1112 Nov 03 j 11:58	23°♋40'23	
opposition	1113 Jan 02 j 06:00	18°♋39'14	0°29'33
min. Earth dist.	1113 Jan 01 j 12:14	18°♋45'11	4.28666 AU
direct	1113 Mar 03 j 13:48	13°♋37'07	
	1113 Jun 30 j 13:06	0°♌	
evening set	1113 Jul 08 j 12:53	1°♌43'54	
conjunction	1113 Jul 22 j 01:15	4°♌41'35	0°37'26
minimum elong	1113 Jul 22 j 01:12	4°♌41'33	0°37'26
max. Earth dist.	1113 Jul 22 j 13:38	4°♌48'22	6.34712 AU
morning rise	1113 Aug 04 j 11:43	7°♌38'05	
	1113 Sep 08 j 18:40	15°♌	
retrograde	1113 Dec 04 j 09:39	24°♌56'48	
opposition	1114 Feb 02 j 10:22	19°♌59'26	1°14'33
min. Earth dist.	1114 Feb 02 j 10:56	19°♌59'14	4.39511 AU
	1114 Mar 29 j 19:12	15°℞♌	
direct	1114 Apr 05 j 01:17	14°♌56'22	
	1114 Apr 11 j 07:00	15°♌	
	1114 Jul 28 j 12:29	0°♍	
evening set	1114 Aug 09 j 23:56	2°♍39'23	
conjunction	1114 Aug 23 j 04:46	5°♍30'38	1°01'36
minimum elong	1114 Aug 23 j 04:44	5°♍30'37	1°01'35
max. Earth dist.	1114 Aug 22 j 15:01	5°♍23'11	6.42803 AU
morning rise	1114 Sep 05 j 06:34	8°♍20'25	
retrograde	1115 Jan 03 j 13:46	25°♍11'00	
opposition	1115 Mar 04 j 23:51	20°♍16'53	1°37'32
min. Earth dist.	1115 Mar 05 j 17:01	20°♍11'20	4.44470 AU
direct	1115 May 06 j 10:41	15°♍14'09	
	1115 Aug 28 j 00:33	0°♎	
evening set	1115 Sep 10 j 04:28	2°♎48'12	
max. Earth dist.	1115 Sep 21 j 13:22	5°♎16'04	6.44183 AU
conjunction	1115 Sep 23 j 02:00	5°♎35'59	1°08'27
minimum elong	1115 Sep 23 j 02:00	5°♎35'59	1°08'27
morning rise	1115 Oct 05 j 20:48	8°♎22'29	
retrograde	1116 Feb 03 j 03:52	25°♎12'46	
opposition	1116 Apr 03 j 20:38	20°♎20'36	1°34'19
min. Earth dist.	1116 Apr 05 j 03:57	20°♎10'36	4.42289 AU
direct	1116 Jun 05 j 15:17	15°♎19'09	
	1116 Sep 25 j 23:14	0°♏	
evening set	1116 Oct 09 j 20:27	3°♏00'12	
max. Earth dist.	1116 Oct 20 j 12:46	5°♏21'25	6.38538 AU
conjunction	1116 Oct 22 j 13:26	5°♏48'20	0°56'40
minimum elong	1116 Oct 22 j 13:28	5°♏48'21	0°56'40
morning rise	1116 Nov 04 j 04:22	8°♏35'37	
	1116 Dec 04 j 07:25	15°♏	
retrograde	1117 Mar 05 j 22:30	25°♏53'13	
opposition	1117 May 05 j 20:49	21°♏01'20	1°05'01
min. Earth dist.	1117 May 07 j 08:14	20°♏50'03	4.33505 AU
direct	1117 Jul 07 j 04:28	16°♏01'58	
	1117 Oct 22 j 09:55	0°♐	
evening set	1117 Nov 09 j 21:33	4°♐05'10	
max. Earth dist.	1117 Nov 20 j 14:40	6°♐30'44	6.27295 AU
conjunction	1117 Nov 22 j 13:11	6°♐57'11	0°28'26
minimum elong	1117 Nov 22 j 13:13	6°♐57'12	0°28'27
morning rise	1117 Dec 05 j 03:53	9°♐49'01	
retrograde	1118 Apr 08 j 19:12	27°♐58'13	
opposition	1118 Jun 08 j 16:10	23°♐05'06	0°14'45
min. Earth dist.	1118 Jun 09 j 22:37	22°♐55'21	4.20429 AU
direct	1118 Aug 08 j 23:34	18°♐08'19	
desc. node	1118 Sep 18 j 02:03	20°♐34'28	
	1118 Nov 12 j 02:43	0°♑	
evening set	1118 Dec 12 j 05:11	6°♑44'56	
conjunction	1118 Dec 24 j 22:22	9°♑43'17	-0°09'48
minimum elong	1118 Dec 24 j 22:21	9°♑43'17	0°09'48
behind sun begin	1118 Dec 24 j 15:45	9°♑39'26	
behind sun end	1118 Dec 25 j 04:57	9°♑47'08	
max. Earth dist.	1118 Dec 23 j 13:40	9°♑24'08	6.13511 AU
morning rise	1119 Jan 06 j 16:25	12°♑42'19	
	1119 Apr 09 j 01:23	0°♒	
retrograde	1119 May 14 j 20:17	1°♒57'38	
	1119 Jun 19 j 20:17	30°℞♑	
opposition	1119 Jul 14 j 11:52	27°♑01'40	-0°43'42
min. Earth dist.	1119 Jul 15 j 00:52	26°♑57'27	4.06980 AU
direct	1119 Sep 12 j 08:13	22°♑07'12	
	1119 Nov 25 j 00:39	0°♒	
evening set	1120 Jan 15 j 10:43	11°♒19'37	
conjunction	1120 Jan 28 j 08:33	14°♒25'04	-0°46'13
minimum elong	1120 Jan 28 j 08:30	14°♒25'02	0°46'13
max. Earth dist.	1120 Jan 28 j 04:46	14°♒22'48	6.01630 AU
	1120 Jan 30 j 18:44	15°♒	
morning rise	1120 Feb 10 j 08:26	17°♒31'51	
	1120 Apr 07 j 08:57	0°♓	
retrograde	1120 Jun 20 j 15:23	7°♓46'12	
opposition	1120 Aug 19 j 20:04	2°♓46'23	-1°29'12
min. Earth dist.	1120 Aug 19 j 11:57	2°♓49'05	3.97893 AU
	1120 Sep 11 j 02:29	30°℞♒	
direct	1120 Oct 17 j 10:13	27°♒52'53	
	1120 Nov 22 j 06:28	0°♓	
evening set	1121 Feb 19 j 15:24	17°♓29'10	
conjunction	1121 Mar 04 j 20:15	20°♓40'15	-1°06'24
minimum elong	1121 Mar 04 j 20:14	20°♓40'14	1°06'23
max. Earth dist.	1121 Mar 05 j 23:46	20°♓56'52	5.96129 AU
morning rise	1121 Mar 18 j 04:15	23°♓53'02	
	1121 Apr 13 j 08:39	0°♈	
retrograde	1121 Jul 28 j 14:49	14°♈30'39	
min. Earth dist.	1121 Sep 25 j 06:48	9°♈36'27	3.96755 AU
opposition	1121 Sep 26 j 10:10	9°♈27'12	-1°40'35
direct	1121 Nov 23 j 07:28	4°♈32'33	
evening set	1122 Mar 29 j 00:15	24°♈08'35	
conjunction	1122 Apr 11 j 12:56	27°♈21'47	-1°00'47
minimum elong	1122 Apr 11 j 12:59	27°♈21'48	1°00'46
max. Earth dist.	1122 Apr 13 j 14:17	27°♈51'11	5.99355 AU
	1122 Apr 22 j 15:07	0°♉	

morning rise	1122 Apr 25 j 04:35	0°♉36'20	
	1122 Jul 02 j 14:08	15°♉	
retrograde	1122 Sep 03 j 05:24	20°♉47'33	
min. Earth dist.	1122 Oct 31 j 09:47	15°♉54'03	4.03997 AU
opposition	1122 Nov 01 j 20:00	15°♉42'22	-1°12'27
	1122 Nov 07 j 00:39	15°℞♉	
direct	1122 Dec 30 j 00:10	10°♉44'57	
	1123 Feb 20 j 04:00	15°♉	
evening set	1123 May 05 j 05:15	29°♉56'51	
	1123 May 05 j 10:42	0°♊	
conjunction	1123 May 18 j 23:13	3°♊07'35	-0°32'12
minimum elong	1123 May 18 j 23:15	3°♊07'37	0°32'12
max. Earth dist.	1123 May 21 j 04:35	3°♊38'29	6.09931 AU
morning rise	1123 Jun 01 j 18:20	6°♊18'42	
retrograde	1123 Oct 07 j 15:40	25°♊28'49	
min. Earth dist.	1123 Dec 05 j 00:17	20°♊34'46	4.16682 AU
opposition	1123 Dec 06 j 05:24	20°♊24'53	-0°19'21
direct	1124 Feb 03 j 09:38	15°♊24'32	
asc. node	1124 Apr 16 j 17:45	22°♊57'52	
	1124 May 21 j 19:56	0°♋	
evening set	1124 Jun 09 j 02:45	4°♋01'00	
conjunction	1124 Jun 22 j 19:56	7°♋05'23	0°06'38
minimum elong	1124 Jun 22 j 19:56	7°♋05'23	0°06'37
behind sun begin	1124 Jun 22 j 12:09	7°♋01'02	
behind sun end	1124 Jun 23 j 03:42	7°♋09'43	
max. Earth dist.	1124 Jun 24 j 07:11	7°♋25'09	6.23672 AU
morning rise	1124 Jul 06 j 12:37	10°♋09'11	
retrograde	1124 Nov 07 j 20:57	28°♋13'08	
opposition	1125 Jan 06 j 15:31	23°♋12'27	0°36'49
min. Earth dist.	1125 Jan 06 j 00:27	23°♋17'29	4.30185 AU
direct	1125 Mar 08 j 03:55	18°♋10'04	
	1125 Jun 13 j 14:53	0°♌	
evening set	1125 Jul 13 j 03:23	6°♌13'35	
conjunction	1125 Jul 26 j 14:58	9°♌10'24	0°41'41
minimum elong	1125 Jul 26 j 14:56	9°♌10'23	0°41'41
max. Earth dist.	1125 Jul 27 j 00:57	9°♌15'52	6.35925 AU
morning rise	1125 Aug 09 j 00:09	12°♌05'55	
	1125 Aug 22 j 12:12	15°♌	
retrograde	1125 Dec 08 j 15:11	29°♌19'59	
opposition	1126 Feb 06 j 17:15	24°♌23'09	1°19'14
min. Earth dist.	1126 Feb 06 j 19:32	24°♌22'24	4.40357 AU
direct	1126 Apr 09 j 10:35	19°♌20'07	
	1126 Jul 11 j 09:33	0°♍	
evening set	1126 Aug 14 j 10:22	7°♍01'43	
conjunction	1126 Aug 27 j 13:58	9°♍52'22	1°03'39
minimum elong	1126 Aug 27 j 13:56	9°♍52'21	1°03'39
max. Earth dist.	1126 Aug 26 j 19:38	9°♍42'25	6.43218 AU
morning rise	1126 Sep 09 j 14:51	12°♍41'34	
retrograde	1127 Jan 07 j 21:17	29°♍31'02	
opposition	1127 Mar 09 j 07:09	24°♍37'19	1°38'41
min. Earth dist.	1127 Mar 10 j 03:06	24°♍30'52	4.44469 AU
direct	1127 May 10 j 20:31	19°♍34'43	
	1127 Aug 10 j 21:46	0°♎	
evening set	1127 Sep 14 j 12:22	7°♎09'09	
max. Earth dist.	1127 Sep 25 j 19:35	9°♎36'18	6.43781 AU
conjunction	1127 Sep 27 j 09:14	9°♎56'48	1°07'54
minimum elong	1127 Sep 27 j 09:15	9°♎56'49	1°07'54
morning rise	1127 Oct 10 j 03:12	12°♎43'10	
retrograde	1128 Feb 07 j 11:56	29°♎35'35	
opposition	1128 Apr 08 j 06:41	24°♎43'33	1°31'42
min. Earth dist.	1128 Apr 09 j 13:44	24°♎33'39	4.41544 AU
direct	1128 Jun 09 j 23:44	19°♎42'26	
	1128 Sep 08 j 19:18	0°♏	
evening set	1128 Oct 14 j 04:08	7°♏25'09	
max. Earth dist.	1128 Oct 24 j 20:42	9°♏46'54	6.37523 AU
conjunction	1128 Oct 26 j 20:39	10°♏13'30	0°53'37
minimum elong	1128 Oct 26 j 20:41	10°♏13'31	0°53'36
morning rise	1128 Nov 08 j 11:17	13°♏01'05	
	1128 Nov 17 j 12:23	15°♏	
	1129 Feb 22 j 15:36	0°♐	
retrograde	1129 Mar 10 j 13:20	0°♐23'30	
	1129 Mar 26 j 10:13	30°℞♏	
opposition	1129 May 10 j 11:32	25°♏31'35	0°59'04
min. Earth dist.	1129 May 11 j 23:17	25°♏20'13	4.32266 AU
direct	1129 Jul 11 j 17:54	20°♏32'37	
	1129 Oct 04 j 19:29	0°♐	
evening set	1129 Nov 14 j 07:13	8°♐38'21	
max. Earth dist.	1129 Nov 25 j 00:51	11°♐04'43	6.25942 AU
conjunction	1129 Nov 26 j 22:47	11°♐30'54	0°23'33
minimum elong	1129 Nov 26 j 22:48	11°♐30'55	0°23'33
morning rise	1129 Dec 09 j 13:45	14°♐23'24	
	1130 Mar 02 j 10:43	0°♑	
retrograde	1130 Apr 13 j 13:48	2°♑39'18	
	1130 May 26 j 07:52	30°℞♐	
opposition	1130 Jun 13 j 11:41	27°♐45'51	0°06'50
min. Earth dist.	1130 Jun 14 j 15:22	27°♐36'58	4.19048 AU
desc. node	1130 Jul 30 j 06:28	23°♐08'55	
direct	1130 Aug 13 j 14:27	22°♐49'25	
	1130 Oct 23 j 22:21	0°♑	
evening set	1130 Dec 16 j 18:46	11°♑29'06	
max. Earth dist.	1130 Dec 28 j 07:55	14°♑11'25	6.12230 AU
conjunction	1130 Dec 29 j 12:23	14°♑28'09	-0°15'09
minimum elong	1130 Dec 29 j 12:22	14°♑28'08	0°15'08
behind sun begin	1130 Dec 29 j 09:20	14°♑26'22	
behind sun end	1130 Dec 29 j 15:25	14°♑29'55	
morning rise	1131 Jan 11 j 06:50	17°♑27'56	
	1131 Mar 11 j 06:51	0°♒	
retrograde	1131 May 19 j 21:51	6°♒50'11	
opposition	1131 Jul 19 j 11:44	1°♒53'48	-0°51'05
min. Earth dist.	1131 Jul 19 j 23:12	1°♒50'04	4.05898 AU
	1131 Aug 03 j 10:28	30°℞♑	
direct	1131 Sep 17 j 05:06	26°♑59'34	
	1131 Oct 30 j 21:29	0°♒	
	1132 Jan 14 j 23:56	15°♒	
evening set	1132 Jan 20 j 05:09	16°♒14'26	
conjunction	1132 Feb 02 j 03:38	19°♒20'32	-0°50'08
minimum elong	1132 Feb 02 j 03:36	19°♒20'31	0°50'08
max. Earth dist.	1132 Feb 02 j 02:39	19°♒19'57	6.00836 AU
morning rise	1132 Feb 15 j 04:34	22°♒28'06	
	1132 Mar 18 j 21:40	0°♓	
retrograde	1132 Jun 25 j 16:59	12°♓46'47	
opposition	1132 Aug 24 j 21:11	7°♓46'31	-1°32'58
min. Earth dist.	1132 Aug 24 j 09:55	7°♓50'16	3.97498 AU
direct	1132 Oct 22 j 07:28	2°♓53'00	
evening set	1133 Feb 24 j 14:08	22°♓30'06	
conjunction	1133 Mar 09 j 19:58	25°♓41'38	-1°07'11
minimum elong	1133 Mar 09 j 19:58	25°♓41'37	1°07'11
max. Earth dist.	1133 Mar 11 j 01:54	25°♓59'41	5.96155 AU
morning rise	1133 Mar 23 j 05:01	28°♓54'52	
	1133 Mar 27 j 18:12	0°♈	
retrograde	1133 Aug 02 j 14:27	19°♈31'52	
min. Earth dist.	1133 Sep 30 j 04:57	14°♈37'35	3.97200 AU
opposition	1133 Oct 01 j 08:59	14°♈28'05	-1°38'57
direct	1133 Nov 28 j 06:26	9°♈33'08	

evening set	1134 Apr 03 j 00:31	29°♈07'50	
	1134 Apr 06 j 16:39	0°♉	
conjunction	1134 Apr 16 j 14:21	2°♉21'09	-0°58'04
minimum elong	1134 Apr 16 j 14:23	2°♉21'10	0°58'04
max. Earth dist.	1134 Apr 18 j 17:56	2°♉51'48	6.00196 AU
morning rise	1134 Apr 30 j 06:42	5°♉35'40	
	1134 Jun 11 j 08:16	15°♉	
retrograde	1134 Sep 08 j 01:03	25°♉41'21	
min. Earth dist.	1134 Nov 05 j 04:09	20°♉47'50	4.05142 AU
opposition	1134 Nov 06 j 13:58	20°♉36'18	-1°06'19
direct	1135 Jan 03 j 19:47	15°♉38'33	
	1135 Apr 18 j 21:57	0°♊	
evening set	1135 May 10 j 03:57	4°♊47'35	
conjunction	1135 May 23 j 22:08	7°♊57'51	-0°27'15
minimum elong	1135 May 23 j 22:10	7°♊57'53	0°27'14
max. Earth dist.	1135 May 26 j 00:40	8°♊27'00	6.11279 AU
morning rise	1135 Jun 06 j 17:33	11°♊08'26	
	1135 Oct 01 j 13:55	0°♋	
retrograde	1135 Oct 12 j 04:00	0°♋11'10	
	1135 Oct 22 j 17:08	30°℞♊	
opposition	1135 Dec 10 j 18:03	25°♊07'35	-0°11'29
min. Earth dist.	1135 Dec 09 j 14:08	25°♊17'04	4.18105 AU
direct	1136 Feb 08 j 01:39	20°♊06'54	
asc. node	1136 Feb 27 j 06:45	20°♊42'49	
	1136 May 03 j 23:21	0°♋	
evening set	1136 Jun 13 j 21:19	8°♋40'14	
conjunction	1136 Jun 27 j 14:12	11°♋43'51	0°11'52
minimum elong	1136 Jun 27 j 14:11	11°♋43'50	0°11'52
behind sun begin	1136 Jun 27 j 08:31	11°♋40'41	
behind sun end	1136 Jun 27 j 19:50	11°♋46'59	
max. Earth dist.	1136 Jun 28 j 23:20	12°♋02'23	6.25087 AU
morning rise	1136 Jul 11 j 06:01	14°♋46'42	
	1136 Oct 01 j 00:44	0°♌	
retrograde	1136 Nov 12 j 05:47	2°♌44'04	
	1136 Dec 24 j 08:33	30°℞♋	
min. Earth dist.	1137 Jan 10 j 11:03	27°♋48'16	4.31480 AU
opposition	1137 Jan 11 j 00:05	27°♋43'55	0°43'43
direct	1137 Mar 12 j 16:13	22°♋41'25	
	1137 May 25 j 10:08	0°♌	
evening set	1137 Jul 17 j 17:17	10°♌42'17	
conjunction	1137 Jul 31 j 03:46	13°♌38'15	0°45'37
minimum elong	1137 Jul 31 j 03:44	13°♌38'13	0°45'37
max. Earth dist.	1137 Jul 31 j 09:20	13°♌41'17	6.36995 AU
	1137 Aug 06 j 09:23	15°♌	
morning rise	1137 Aug 13 j 12:00	16°♌32'54	
	1137 Oct 23 j 21:36	0°♍	
retrograde	1137 Dec 12 j 21:10	3°♍42'40	
	1138 Feb 01 j 12:05	30°℞♌	
opposition	1138 Feb 10 j 23:44	28°♌46'14	1°23'23
min. Earth dist.	1138 Feb 11 j 04:22	28°♌44'42	4.41151 AU
direct	1138 Apr 13 j 20:11	23°♌43'08	
	1138 Jun 21 j 13:33	0°♍	
evening set	1138 Aug 18 j 19:37	11°♍23'07	
conjunction	1138 Aug 31 j 22:22	14°♍13'11	1°05'19
minimum elong	1138 Aug 31 j 22:20	14°♍13'10	1°05'20
max. Earth dist.	1138 Aug 31 j 02:46	14°♍02'34	6.43665 AU
morning rise	1138 Sep 13 j 22:00	17°♍01'46	
	1138 Nov 21 j 23:38	0°♎	
retrograde	1139 Jan 12 j 01:57	3°♎49'52	
	1139 Mar 05 j 06:39	30°℞♍	
opposition	1139 Mar 13 j 13:45	28°♍56'24	1°39'16
min. Earth dist.	1139 Mar 14 j 10:43	28°♍49'39	4.44532 AU
direct	1139 May 15 j 03:53	23°♍53'56	
	1139 Jul 22 j 02:39	0°♎	
evening set	1139 Sep 18 j 18:57	11°♎28'09	
max. Earth dist.	1139 Sep 29 j 22:27	13°♎53'32	6.43417 AU
conjunction	1139 Oct 01 j 14:53	14°♎15'35	1°06'58
minimum elong	1139 Oct 01 j 14:53	14°♎15'36	1°06'57
morning rise	1139 Oct 14 j 08:17	17°♎01'51	
	1139 Dec 21 j 20:13	0°♏	
retrograde	1140 Feb 11 j 21:13	3°♏56'16	
	1140 Apr 05 j 07:54	30°℞♎	
opposition	1140 Apr 12 j 15:52	29°♎04'18	1°28'34
min. Earth dist.	1140 Apr 14 j 00:53	28°♎53'46	4.40744 AU
direct	1140 Jun 14 j 09:22	24°♎03'20	
	1140 Aug 19 j 21:59	0°♏	
evening set	1140 Oct 18 j 10:26	11°♏47'48	
max. Earth dist.	1140 Oct 29 j 02:18	14°♏09'34	6.36326 AU
conjunction	1140 Oct 31 j 02:44	14°♏36'30	0°50'14
minimum elong	1140 Oct 31 j 02:46	14°♏36'31	0°50'15
	1140 Nov 01 j 20:58	15°♏	
morning rise	1140 Nov 12 j 17:07	17°♏24'29	
	1141 Jan 15 j 18:08	0°♐	
retrograde	1141 Mar 15 j 01:48	4°♐52'25	
opposition	1141 May 15 j 01:14	0°♐00'18	0°52'45
	1141 May 15 j 02:11	30°℞♏	
min. Earth dist.	1141 May 16 j 11:47	29°♏49'18	4.30730 AU
direct	1141 Jul 16 j 03:41	25°♏01'37	
	1141 Sep 13 j 15:11	0°♐	
evening set	1141 Nov 18 j 16:25	13°♐11'06	
max. Earth dist.	1141 Nov 29 j 11:53	15°♐39'06	6.24184 AU
conjunction	1141 Dec 01 j 08:03	16°♐04'23	0°18'29
minimum elong	1141 Dec 01 j 08:04	16°♐04'24	0°18'29
morning rise	1141 Dec 13 j 23:17	18°♐57'43	
	1142 Feb 04 j 12:33	0°♑	
retrograde	1142 Apr 18 j 11:42	7°♑22'03	
desc. node	1142 Jun 09 j 18:42	3°♑33'32	
opposition	1142 Jun 18 j 07:58	2°♑28'15	-0°01'16
min. Earth dist.	1142 Jun 19 j 11:04	2°♑19'33	4.17166 AU
	1142 Jul 08 j 11:39	30°℞♐	
direct	1142 Aug 18 j 07:21	27°♐32'05	
	1142 Sep 27 j 10:26	0°♑	
evening set	1142 Dec 21 j 09:32	16°♑16'42	
max. Earth dist.	1143 Jan 02 j 01:22	19°♑01'16	6.10389 AU
conjunction	1143 Jan 03 j 03:39	19°♑16'45	-0°20'31
minimum elong	1143 Jan 03 j 03:37	19°♑16'45	0°20'31
morning rise	1143 Jan 15 j 22:54	22°♑17'39	
	1143 Feb 19 j 03:01	0°♒	
retrograde	1143 May 24 j 23:57	11°♒48'59	
opposition	1143 Jul 24 j 13:45	6°♒52'05	-0°58'21
min. Earth dist.	1143 Jul 24 j 21:40	6°♒49'30	4.04281 AU
direct	1143 Sep 22 j 01:30	1°♒58'02	
	1143 Dec 29 j 01:35	15°♒	
evening set	1144 Jan 25 j 03:11	21°♒17'29	
conjunction	1144 Feb 07 j 02:32	24°♒24'33	-0°53'51
minimum elong	1144 Feb 07 j 02:30	24°♒24'31	0°53'50
max. Earth dist.	1144 Feb 07 j 05:37	24°♒26'24	5.99582 AU
morning rise	1144 Feb 20 j 04:29	27°♒33'07	
	1144 Mar 01 j 12:10	0°♓	
retrograde	1144 Jul 01 j 00:07	17°♓57'47	
opposition	1144 Aug 30 j 02:13	12°♓56'56	-1°36'13
min. Earth dist.	1144 Aug 29 j 12:46	13°♓01'25	3.96752 AU
direct	1144 Oct 27 j 10:13	8°♓03'18	
evening set	1145 Mar 01 j 17:50	27°♓42'28	

	1145 Mar 11 j 06:22	0°♈	
conjunction	1145 Mar 15 j 00:59	0°♈54'39	-1°07'30
minimum elong	1145 Mar 15 j 00:59	0°♈54'39	1°07'30
max. Earth dist.	1145 Mar 16 j 11:53	1°♈15'42	5.95991 AU
morning rise	1145 Mar 28 j 11:09	4°♈08'29	
retrograde	1145 Aug 07 j 19:54	24°♈44'50	
min. Earth dist.	1145 Oct 05 j 06:57	19°♈50'47	3.97666 AU
opposition	1145 Oct 06 j 12:30	19°♈40'46	-1°36'29
direct	1145 Dec 03 j 09:08	14°♈45'34	
	1146 Mar 20 j 16:48	0°♉	
evening set	1146 Apr 08 j 06:07	4°♉18'36	
conjunction	1146 Apr 21 j 20:43	7°♉31'50	-0°54'47
minimum elong	1146 Apr 21 j 20:45	7°♉31'52	0°54'48
max. Earth dist.	1146 Apr 24 j 00:44	8°♉02'38	6.01243 AU
morning rise	1146 May 05 j 14:02	10°♉46'14	
	1146 May 23 j 21:25	15°♉	
	1146 Aug 22 j 13:19	0°♊	
retrograde	1146 Sep 12 j 22:24	0°♊44'59	
	1146 Oct 04 j 04:18	30°℞♉	
min. Earth dist.	1146 Nov 10 j 01:18	25°♉51'45	4.06671 AU
opposition	1146 Nov 11 j 11:50	25°♉39'58	-0°59'27
direct	1147 Jan 08 j 20:10	20°♉41'48	
	1147 Mar 31 j 02:26	0°♊	
evening set	1147 May 15 j 06:28	9°♊46'15	
conjunction	1147 May 29 j 00:56	12°♊55'47	-0°21'56
minimum elong	1147 May 29 j 00:57	12°♊55'47	0°21'56
max. Earth dist.	1147 May 31 j 03:08	13°♊24'37	6.13200 AU
morning rise	1147 Jun 11 j 20:04	16°♊05'22	
	1147 Aug 19 j 21:58	0°♋	
retrograde	1147 Oct 16 j 19:14	4°♋58'12	
min. Earth dist.	1147 Dec 14 j 06:50	0°♋03'51	4.20219 AU
	1147 Dec 14 j 18:13	30°℞♊	
opposition	1147 Dec 15 j 08:55	29°♊55'01	-0°03'22
asc. node	1148 Jan 07 j 11:04	27°♊00'06	
direct	1148 Feb 12 j 21:33	24°♊54'03	
	1148 Apr 12 j 02:16	0°♋	
evening set	1148 Jun 18 j 17:20	13°♋21'34	
conjunction	1148 Jul 02 j 09:28	16°♋23'57	0°17'06
minimum elong	1148 Jul 02 j 09:26	16°♋23'56	0°17'06
max. Earth dist.	1148 Jul 03 j 15:35	16°♋40'43	6.27228 AU
morning rise	1148 Jul 16 j 00:26	19°♋25'30	
	1148 Sep 05 j 18:16	0°♌	
retrograde	1148 Nov 16 j 12:06	7°♌13'46	
opposition	1149 Jan 15 j 08:38	2°♌14'06	0°50'19
min. Earth dist.	1149 Jan 14 j 21:14	2°♌17'54	4.33483 AU
	1149 Feb 01 j 19:09	30°℞♋	
direct	1149 Mar 17 j 04:38	27°♋11'26	
	1149 Apr 30 j 01:57	0°♌	
	1149 Jul 21 j 16:20	15°♌	
evening set	1149 Jul 22 j 05:37	15°♌07'11	
conjunction	1149 Aug 04 j 15:02	18°♌01'59	0°49'15
minimum elong	1149 Aug 04 j 14:59	18°♌01'58	0°49'14
max. Earth dist.	1149 Aug 04 j 17:34	18°♌03'22	6.38708 AU
morning rise	1149 Aug 17 j 21:53	20°♌55'24	
	1149 Oct 01 j 13:31	0°♍	
retrograde	1149 Dec 17 j 00:33	7°♍59'11	
opposition	1150 Feb 15 j 04:24	3°♍03'15	1°26'57
min. Earth dist.	1150 Feb 15 j 11:42	3°♍00'52	4.42453 AU
	1150 Mar 12 j 09:21	30°℞♌	
direct	1150 Apr 18 j 04:49	28°♌00'12	
	1150 May 25 j 09:31	0°♍	
evening set	1150 Aug 23 j 02:00	15°♍37'02	
max. Earth dist.	1150 Sep 04 j 03:07	18°♍13'07	6.44430 AU
conjunction	1150 Sep 05 j 03:31	18°♍26'20	1°06'35
minimum elong	1150 Sep 05 j 03:30	18°♍26'19	1°06'35
morning rise	1150 Sep 18 j 02:14	21°♍14'13	
	1150 Oct 31 j 08:32	0°♎	
retrograde	1151 Jan 16 j 04:44	8°♎00'27	
opposition	1151 Mar 17 j 17:28	3°♎07'16	1°39'16
min. Earth dist.	1151 Mar 18 j 17:09	2°♎59'38	4.44723 AU
	1151 Apr 12 j 23:41	30°℞♍	
direct	1151 May 19 j 09:19	28°♍04'53	
	1151 Jun 25 j 00:33	0°♎	
evening set	1151 Sep 22 j 21:59	15°♎38'49	
max. Earth dist.	1151 Oct 03 j 23:36	18°♎03'20	6.43004 AU
conjunction	1151 Oct 05 j 17:23	18°♎26'09	1°05'41
minimum elong	1151 Oct 05 j 17:24	18°♎26'10	1°05'40
morning rise	1151 Oct 18 j 10:00	21°♎12'19	
	1151 Nov 30 j 09:49	0°♏	
retrograde	1152 Feb 16 j 01:55	8°♏09'22	
opposition	1152 Apr 16 j 22:04	3°♏17'30	1°25'03
min. Earth dist.	1152 Apr 18 j 07:52	3°♏06'44	4.39739 AU
	1152 May 15 j 04:11	30°℞♎	
direct	1152 Jun 18 j 13:47	28°♎16'49	
	1152 Jul 23 j 00:34	0°♏	
	1152 Oct 17 j 17:46	15°♏	
evening set	1152 Oct 22 j 14:01	16°♏04'02	
max. Earth dist.	1152 Nov 02 j 03:42	18°♏25'10	6.34789 AU
conjunction	1152 Nov 04 j 05:55	18°♏53'13	0°46'41
minimum elong	1152 Nov 04 j 05:57	18°♏53'14	0°46'41
morning rise	1152 Nov 16 j 20:22	21°♏41'50	
	1152 Dec 26 j 04:35	0°♐	
retrograde	1153 Mar 19 j 15:34	9°♐16'57	
opposition	1153 May 19 j 13:28	4°♐24'43	0°46'16
min. Earth dist.	1153 May 21 j 01:00	4°♐13'23	4.28723 AU
	1153 Jul 01 j 08:57	30°℞♏	
direct	1153 Jul 20 j 13:27	29°♏26'18	
	1153 Aug 08 j 16:59	0°♐	
evening set	1153 Nov 23 j 00:23	17°♐41'28	
max. Earth dist.	1153 Dec 03 j 21:03	20°♐10'53	6.21877 AU
conjunction	1153 Dec 05 j 16:22	20°♐35'48	0°13'24
minimum elong	1153 Dec 05 j 16:22	20°♐35'49	0°13'24
behind sun begin	1153 Dec 05 j 11:42	20°♐33'08	
behind sun end	1153 Dec 05 j 21:03	20°♐38'30	
morning rise	1153 Dec 18 j 08:01	23°♐30'18	
	1154 Jan 16 j 15:00	0°♑	
desc. node	1154 Apr 21 j 04:38	12°♑04'49	
retrograde	1154 Apr 23 j 08:01	12°♑05'15	
opposition	1154 Jun 23 j 03:59	7°♑11'08	-0°09'18
min. Earth dist.	1154 Jun 24 j 04:37	7°♑03'13	4.14731 AU
direct	1154 Aug 22 j 21:13	2°♑15'21	
evening set	1154 Dec 26 j 01:29	21°♑07'16	
conjunction	1155 Jan 07 j 20:13	24°♑08'36	-0°25'44
minimum elong	1155 Jan 07 j 20:11	24°♑08'35	0°25'44
max. Earth dist.	1155 Jan 06 j 21:08	23°♑54'56	6.08043 AU
morning rise	1155 Jan 20 j 16:22	27°♑10'55	
	1155 Feb 01 j 18:09	0°♒	
	1155 Apr 25 j 06:20	15°♒	
retrograde	1155 May 30 j 06:55	16°♒53'27	
	1155 Jul 04 j 09:41	15°℞♒	
opposition	1155 Jul 29 j 17:44	11°♒56'02	-1°05'14
min. Earth dist.	1155 Jul 29 j 23:02	11°♒54'18	4.02239 AU
direct	1155 Sep 27 j 01:10	7°♒02'09	
	1155 Dec 09 j 12:59	15°♒	

evening set	1156 Jan 30 j 03:51	26°♒27'51	
conjunction	1156 Feb 12 j 04:24	29°♒36'06	-0°57'09
minimum elong	1156 Feb 12 j 04:22	29°♒36'05	0°57'08
max. Earth dist.	1156 Feb 12 j 13:12	29°♒41'25	5.98050 AU
	1156 Feb 13 j 19:59	0°♓	
morning rise	1156 Feb 25 j 07:30	2°♓45'54	
retrograde	1156 Jul 06 j 10:28	23°♓17'10	
opposition	1156 Sep 04 j 10:08	18°♓15'48	-1°38'41
min. Earth dist.	1156 Sep 03 j 17:29	18°♓21'22	3.95932 AU
direct	1156 Nov 01 j 14:02	13°♓22'07	
	1157 Feb 22 j 04:09	0°♈	
evening set	1157 Mar 07 j 01:08	3°♈03'25	
conjunction	1157 Mar 20 j 09:18	6°♈16'08	-1°07'14
minimum elong	1157 Mar 20 j 09:18	6°♈16'09	1°07'13
max. Earth dist.	1157 Mar 21 j 23:15	6°♈39'01	5.95933 AU
morning rise	1157 Apr 02 j 20:49	9°♈30'32	
	1157 Aug 05 j 23:02	0°♉	
retrograde	1157 Aug 13 j 01:18	0°♉05'02	
	1157 Aug 20 j 03:33	30°℞♈	
min. Earth dist.	1157 Oct 10 j 09:50	25°♈11'29	3.98378 AU
opposition	1157 Oct 11 j 17:58	25°♈00'33	-1°33'07
direct	1157 Dec 08 j 14:52	20°♈04'55	
	1158 Mar 01 j 15:39	0°♉	
evening set	1158 Apr 13 j 14:03	9°♉35'06	
conjunction	1158 Apr 27 j 05:37	12°♉48'05	-0°51'00
minimum elong	1158 Apr 27 j 05:40	12°♉48'06	0°51'00
max. Earth dist.	1158 Apr 29 j 12:02	13°♉20'11	6.02643 AU
	1158 May 06 j 13:32	15°♉	
morning rise	1158 May 10 j 23:24	16°♉02'02	
	1158 Jul 16 j 18:25	0°♊	
retrograde	1158 Sep 17 j 22:03	5°♊51'56	
min. Earth dist.	1158 Nov 15 j 01:01	0°♊58'21	4.08549 AU
opposition	1158 Nov 16 j 10:34	0°♊46'55	-0°52'03
	1158 Nov 22 j 04:41	30°℞♉	
direct	1159 Jan 13 j 23:03	25°♉48'15	
	1159 Mar 07 j 03:23	0°♊	
evening set	1159 May 20 j 09:39	14°♊46'48	
conjunction	1159 Jun 03 j 04:05	17°♊55'20	-0°16'24
minimum elong	1159 Jun 03 j 04:06	17°♊55'21	0°16'25
max. Earth dist.	1159 Jun 05 j 04:55	18°♊23'14	6.15358 AU
morning rise	1159 Jun 16 j 22:59	21°♊03'49	
	1159 Jul 28 j 13:25	0°♋	
retrograde	1159 Oct 21 j 07:49	9°♋45'57	
asc. node	1159 Nov 16 j 15:02	8°♋38'09	
opposition	1159 Dec 19 j 23:44	4°♋43'08	0°04'50
min. Earth dist.	1159 Dec 18 j 22:32	4°♋51'39	4.22430 AU
	1160 Feb 04 j 02:36	30°℞♊	
direct	1160 Feb 17 j 15:59	29°♊41'48	
	1160 Mar 02 j 09:39	0°♋	
evening set	1160 Jun 23 j 13:16	18°♋03'23	
conjunction	1160 Jul 07 j 04:32	21°♋04'32	0°22'17
minimum elong	1160 Jul 07 j 04:31	21°♋04'31	0°22'18
max. Earth dist.	1160 Jul 08 j 06:19	21°♋18'50	6.29309 AU
morning rise	1160 Jul 20 j 18:28	24°♋04'44	
	1160 Aug 17 j 12:02	0°♌	
retrograde	1160 Nov 20 j 20:42	11°♌44'33	
opposition	1161 Jan 19 j 17:41	6°♌45'24	0°56'44
min. Earth dist.	1161 Jan 19 j 09:44	6°♌48'03	4.35271 AU
direct	1161 Mar 21 j 19:33	1°♌42'35	
	1161 Jul 05 j 04:21	15°♌	
evening set	1161 Jul 26 j 18:41	19°♌34'07	
conjunction	1161 Aug 09 j 03:00	22°♌27'54	0°52'41
minimum elong	1161 Aug 09 j 02:57	22°♌27'53	0°52'41
max. Earth dist.	1161 Aug 09 j 01:22	22°♌27'01	6.40058 AU
morning rise	1161 Aug 22 j 08:38	25°♌20'17	
	1161 Sep 13 j 10:11	0°♍	
retrograde	1161 Dec 21 j 04:22	12°♍19'29	
opposition	1162 Feb 19 j 10:34	7°♍23'56	1°30'12
min. Earth dist.	1162 Feb 19 j 20:04	7°♍20'51	4.43312 AU
direct	1162 Apr 22 j 13:29	2°♍20'53	
evening set	1162 Aug 27 j 10:14	19°♍56'02	
max. Earth dist.	1162 Sep 08 j 07:55	22°♍30'15	6.44733 AU
conjunction	1162 Sep 09 j 10:49	22°♍44'49	1°07'34
minimum elong	1162 Sep 09 j 10:48	22°♍44'49	1°07'33
morning rise	1162 Sep 22 j 08:24	25°♍32'11	
	1162 Oct 13 j 12:29	0°♎	
retrograde	1163 Jan 20 j 10:34	12°♎18'06	
opposition	1163 Mar 22 j 00:29	7°♎25'12	1°38'51
min. Earth dist.	1163 Mar 23 j 02:20	7°♎16'54	4.44462 AU
direct	1163 May 23 j 17:48	2°♎23'02	
evening set	1163 Sep 27 j 04:27	19°♎57'53	
max. Earth dist.	1163 Oct 08 j 01:44	22°♎20'27	6.42182 AU
conjunction	1163 Oct 09 j 23:03	22°♎45'15	1°04'03
minimum elong	1163 Oct 09 j 23:04	22°♎45'16	1°04'03
morning rise	1163 Oct 22 j 15:19	25°♎31'35	
	1163 Nov 12 j 14:24	0°♏	
retrograde	1164 Feb 20 j 13:08	12°♏32'37	
opposition	1164 Apr 21 j 09:02	7°♏40'47	1°20'58
min. Earth dist.	1164 Apr 22 j 20:09	7°♏29'35	4.38406 AU
direct	1164 Jun 22 j 23:48	2°♏40'19	
	1164 Oct 01 j 08:05	15°♏	
evening set	1164 Oct 26 j 22:01	20°♏31'08	
max. Earth dist.	1164 Nov 06 j 12:33	22°♏53'16	6.33057 AU
conjunction	1164 Nov 08 j 13:55	23°♏20'57	0°42'43
minimum elong	1164 Nov 08 j 13:57	23°♏20'58	0°42'43
morning rise	1164 Nov 21 j 04:12	26°♏10'15	
	1164 Dec 08 j 14:42	0°♐	
retrograde	1165 Mar 24 j 08:14	13°♐53'05	
opposition	1165 May 24 j 06:46	9°♐00'44	0°39'10
min. Earth dist.	1165 May 25 j 17:10	8°♐49'46	4.26704 AU
direct	1165 Jul 25 j 02:17	4°♐02'44	
evening set	1165 Nov 27 j 13:19	22°♐23'22	
max. Earth dist.	1165 Dec 08 j 11:36	24°♐54'30	6.19741 AU
conjunction	1165 Dec 10 j 05:26	25°♐18'41	0°07'58
minimum elong	1165 Dec 10 j 05:25	25°♐18'41	0°07'59
behind sun begin	1165 Dec 09 j 22:16	25°♐14'34	
behind sun end	1165 Dec 10 j 12:35	25°♐22'48	
morning rise	1165 Dec 22 j 21:39	28°♐14'18	
	1165 Dec 30 j 14:34	0°♑	
desc. node	1166 Feb 28 j 14:14	11°♑59'07	
retrograde	1166 Apr 28 j 10:49	16°♑59'23	
opposition	1166 Jun 28 j 05:08	12°♑04'55	-0°17'40
min. Earth dist.	1166 Jun 29 j 03:41	11°♑57'38	4.12645 AU
direct	1166 Aug 27 j 18:13	7°♑09'28	
evening set	1166 Dec 30 j 21:19	26°♑07'10	
conjunction	1167 Jan 12 j 16:49	29°♑09'36	-0°30'59
minimum elong	1167 Jan 12 j 16:47	29°♑09'35	0°30'59
max. Earth dist.	1167 Jan 11 j 22:52	28°♑58'56	6.06225 AU
	1167 Jan 16 j 05:31	0°♒	
morning rise	1167 Jan 25 j 13:44	2°♒13'04	
	1167 Mar 25 j 23:05	15°♒	
retrograde	1167 Jun 04 j 15:39	22°♒04'29	
opposition	1167 Aug 04 j 00:35	17°♒06'36	-1°11'51

min. Earth dist.	1167 Aug 04 j 02:25	17°♒06'00	4.00912 AU
	1167 Aug 20 j 15:07	15°℞♒	
direct	1167 Oct 02 j 02:46	12°♒12'58	
	1167 Nov 12 j 17:45	15°♒	
	1168 Jan 28 j 03:51	0°♓	
evening set	1168 Feb 04 j 06:51	1°♓42'06	
conjunction	1168 Feb 17 j 08:11	4°♓51'05	-1°00'06
minimum elong	1168 Feb 17 j 08:09	4°♓51'03	1°00'06
max. Earth dist.	1168 Feb 17 j 20:48	4°♓58'42	5.97329 AU
morning rise	1168 Mar 01 j 12:32	8°♓01'43	
retrograde	1168 Jul 11 j 17:32	28°♓35'55	
opposition	1168 Sep 09 j 17:29	23°♓34'00	-1°40'23
min. Earth dist.	1168 Sep 08 j 21:09	23°♓40'49	3.95930 AU
direct	1168 Nov 06 j 19:07	18°♓40'10	
	1169 Feb 04 j 00:03	0°♈	
evening set	1169 Mar 12 j 07:21	8°♈20'38	
conjunction	1169 Mar 25 j 16:44	11°♈33'33	-1°06'27
minimum elong	1169 Mar 25 j 16:45	11°♈33'33	1°06'27
max. Earth dist.	1169 Mar 27 j 11:25	11°♈59'12	5.96644 AU
morning rise	1169 Apr 08 j 05:07	14°♈48'01	
	1169 Jun 19 j 13:51	0°♉	
retrograde	1169 Aug 18 j 05:35	5°♉17'36	
opposition	1169 Oct 16 j 20:35	0°♉12'54	-1°29'06
min. Earth dist.	1169 Oct 15 j 12:13	0°♉23'55	3.99709 AU
	1169 Oct 18 j 10:29	30°℞♈	
direct	1169 Dec 13 j 19:43	25°♈16'53	
	1170 Feb 06 j 14:40	0°♉	
evening set	1170 Apr 18 j 18:29	14°♉42'16	
	1170 Apr 20 j 00:49	15°♉	
conjunction	1170 May 02 j 10:39	17°♉54'43	-0°46'57
minimum elong	1170 May 02 j 10:42	17°♉54'44	0°46'57
max. Earth dist.	1170 May 04 j 17:47	18°♉27'05	6.04449 AU
morning rise	1170 May 16 j 04:58	21°♉08'01	
	1170 Jun 25 j 04:56	0°♊	
retrograde	1170 Sep 22 j 15:09	10°♊48'05	
min. Earth dist.	1170 Nov 19 j 19:24	5°♊54'43	4.10627 AU
opposition	1170 Nov 21 j 05:01	5°♊43'16	-0°44'32
direct	1171 Jan 18 j 19:56	0°♊44'13	
evening set	1171 May 25 j 08:35	19°♊36'45	
conjunction	1171 Jun 08 j 02:47	22°♊44'14	-0°10'59
minimum elong	1171 Jun 08 j 02:48	22°♊44'14	0°10'59
behind sun begin	1171 Jun 07 j 20:36	22°♊40'44	
behind sun end	1171 Jun 08 j 08:59	22°♊47'45	
max. Earth dist.	1171 Jun 09 j 23:49	23°♊09'51	6.17528 AU
morning rise	1171 Jun 21 j 21:19	25°♊51'34	
	1171 Jul 10 j 13:45	0°♋	
asc. node	1171 Sep 27 j 04:33	13°♋05'31	
retrograde	1171 Oct 25 j 18:48	14°♋23'48	
opposition	1171 Dec 24 j 10:48	9°♋21'28	0°12'40
min. Earth dist.	1171 Dec 23 j 12:50	9°♋28'52	4.24477 AU
direct	1172 Feb 22 j 08:52	4°♋19'52	
evening set	1172 Jun 28 j 05:18	22°♋36'27	
conjunction	1172 Jul 11 j 19:54	25°♋36'33	0°27'11
minimum elong	1172 Jul 11 j 19:52	25°♋36'32	0°27'10
max. Earth dist.	1172 Jul 12 j 18:38	25°♋49'06	6.31080 AU
morning rise	1172 Jul 25 j 08:44	28°♋35'35	
	1172 Jul 31 j 19:31	0°♌	
	1172 Oct 29 j 04:38	15°♌	
retrograde	1172 Nov 25 j 00:43	16°♌08'30	
	1172 Dec 21 j 18:22	15°℞♌	
opposition	1173 Jan 23 j 23:58	11°♌09'56	1°02'38
min. Earth dist.	1173 Jan 23 j 17:51	11°♌11'58	4.36656 AU
direct	1173 Mar 26 j 04:47	6°♌07'03	
	1173 Jun 17 j 07:23	15°♌	
evening set	1173 Jul 31 j 05:03	23°♌55'51	
conjunction	1173 Aug 13 j 12:13	26°♌48'50	0°55'44
minimum elong	1173 Aug 13 j 12:10	26°♌48'49	0°55'45
max. Earth dist.	1173 Aug 13 j 05:51	26°♌45'23	6.40953 AU
morning rise	1173 Aug 26 j 16:47	29°♌40'25	
	1173 Aug 28 j 05:08	0°♍	
retrograde	1173 Dec 25 j 09:27	16°♍36'51	
opposition	1174 Feb 23 j 15:48	11°♍41'48	1°32'56
min. Earth dist.	1174 Feb 24 j 04:40	11°♍37'38	4.43686 AU
direct	1174 Apr 26 j 22:24	6°♍38'51	
evening set	1174 Aug 31 j 17:16	24°♍13'47	
max. Earth dist.	1174 Sep 12 j 10:27	26°♍45'45	6.44546 AU
conjunction	1174 Sep 13 j 16:58	27°♍02'17	1°08'10
minimum elong	1174 Sep 13 j 16:58	27°♍02'17	1°08'09
morning rise	1174 Sep 26 j 13:44	29°♍49'24	
	1174 Sep 27 j 09:25	0°♎	
retrograde	1175 Jan 24 j 16:31	16°♎36'41	
opposition	1175 Mar 26 j 07:38	11°♎44'00	1°37'54
min. Earth dist.	1175 Mar 27 j 10:43	11°♎35'19	4.43763 AU
direct	1175 May 28 j 00:47	6°♎42'01	
evening set	1175 Oct 01 j 11:03	24°♎19'05	
max. Earth dist.	1175 Oct 12 j 07:53	26°♎41'48	6.41032 AU
conjunction	1175 Oct 14 j 05:14	27°♎06'43	1°02'02
minimum elong	1175 Oct 14 j 05:15	27°♎06'44	1°02'02
morning rise	1175 Oct 26 j 20:56	29°♎53'19	
	1175 Oct 27 j 09:11	0°♏	
	1176 Jan 19 j 16:35	15°♏	
retrograde	1176 Feb 25 j 00:27	16°♏59'22	
	1176 Apr 01 j 15:41	15°℞♏	
opposition	1176 Apr 25 j 21:13	12°♏07'35	1°16'23
min. Earth dist.	1176 Apr 27 j 08:47	11°♏56'16	4.36876 AU
direct	1176 Jun 27 j 10:19	7°♏07'31	
	1176 Sep 12 j 17:36	15°♏	
evening set	1176 Oct 31 j 06:58	25°♏02'13	
max. Earth dist.	1176 Nov 10 j 20:47	27°♏24'37	6.31270 AU
conjunction	1176 Nov 12 j 22:37	27°♏52'41	0°38'27
minimum elong	1176 Nov 12 j 22:39	27°♏52'42	0°38'26
	1176 Nov 22 j 08:53	0°♐	
morning rise	1176 Nov 25 j 13:10	0°♐42'47	
retrograde	1177 Mar 29 j 03:38	18°♐33'34	
opposition	1177 May 29 j 01:49	13°♐40'57	0°31'44
min. Earth dist.	1177 May 30 j 10:48	13°♐30'25	4.24767 AU
direct	1177 Jul 29 j 18:05	8°♐43'18	
evening set	1177 Dec 02 j 03:03	27°♐08'44	
max. Earth dist.	1177 Dec 13 j 05:51	29°♐43'04	6.17838 AU
conjunction	1177 Dec 14 j 19:34	0°♑04'58	0°02'28
minimum elong	1177 Dec 14 j 19:35	0°♑04'59	0°02'27
behind sun begin	1177 Dec 14 j 11:36	0°♑00'22	
behind sun end	1177 Dec 15 j 03:34	0°♑09'35	
	1177 Dec 14 j 10:58	0°♑	
morning rise	1177 Dec 27 j 12:09	3°♑01'34	
desc. node	1178 Jan 08 j 01:30	5°♑40'12	
retrograde	1178 May 03 j 13:22	21°♑55'35	
opposition	1178 Jul 03 j 06:41	17°♑00'43	-0°25'58
min. Earth dist.	1178 Jul 04 j 02:39	16°♑54'16	4.10927 AU
direct	1178 Sep 01 j 14:55	12°♑05'36	
	1178 Dec 30 j 22:58	0°♒	
evening set	1179 Jan 04 j 17:28	1°♒07'31	
conjunction	1179 Jan 17 j 13:26	4°♒10'47	-0°36'00

minimum elong	1179 Jan 17 j 13:24	4°♒10'46	0°35'59
max. Earth dist.	1179 Jan 16 j 22:31	4°♒01'54	6.04828 AU
morning rise	1179 Jan 30 j 11:20	7°♒15'15	
	1179 Mar 05 j 10:07	15°♒	
retrograde	1179 Jun 09 j 21:19	27°♒13'38	
opposition	1179 Aug 09 j 06:07	22°♒15'06	-1°17'50
min. Earth dist.	1179 Aug 09 j 04:04	22°♒15'46	3.99975 AU
direct	1179 Oct 07 j 03:57	17°♒21'30	
	1180 Jan 10 j 19:20	0°♓	
evening set	1180 Feb 09 j 08:22	6°♓52'40	
conjunction	1180 Feb 22 j 10:51	10°♓02'17	-1°02'33
minimum elong	1180 Feb 22 j 10:49	10°♓02'16	1°02'33
max. Earth dist.	1180 Feb 23 j 05:14	10°♓13'24	5.96932 AU
morning rise	1180 Mar 06 j 16:05	13°♓13'31	
	1180 May 27 j 20:05	0°♈	
retrograde	1180 Jul 17 j 00:52	3°♈49'15	
	1180 Sep 05 j 18:42	30°℞♓	
opposition	1180 Sep 14 j 22:37	28°♓46'48	-1°41'14
min. Earth dist.	1180 Sep 14 j 00:54	28°♓54'07	3.96128 AU
direct	1180 Nov 11 j 23:38	23°♓52'46	
	1181 Jan 13 j 19:29	0°♈	
evening set	1181 Mar 17 j 11:37	13°♈31'50	
conjunction	1181 Mar 30 j 21:58	16°♈44'52	-1°05'10
minimum elong	1181 Mar 30 j 22:00	16°♈44'53	1°05'11
max. Earth dist.	1181 Apr 01 j 18:57	17°♈11'50	5.97395 AU
morning rise	1181 Apr 13 j 11:27	19°♈59'26	
	1181 May 28 j 00:35	0°♉	
retrograde	1181 Aug 23 j 05:10	10°♉23'52	
min. Earth dist.	1181 Oct 20 j 10:31	5°♉30'31	4.00947 AU
opposition	1181 Oct 21 j 20:23	5°♉18'59	-1°24'30
direct	1181 Dec 18 j 19:38	0°♉22'34	
	1182 Apr 03 j 04:53	15°♉	
evening set	1182 Apr 23 j 21:19	19°♉43'57	
conjunction	1182 May 07 j 14:02	22°♉55'55	-0°42'38
minimum elong	1182 May 07 j 14:05	22°♉55'57	0°42'38
max. Earth dist.	1182 May 09 j 19:36	23°♉27'15	6.06053 AU
morning rise	1182 May 21 j 08:46	26°♉08'39	
	1182 Jun 07 j 06:00	0°♊	
retrograde	1182 Sep 27 j 08:06	15°♊39'53	
opposition	1182 Nov 25 j 21:53	10°♊35'14	-0°36'51
min. Earth dist.	1182 Nov 24 j 14:11	10°♊46'02	4.12407 AU
direct	1183 Jan 23 j 17:16	5°♊35'45	
evening set	1183 May 30 j 06:29	24°♊23'29	
conjunction	1183 Jun 13 j 00:41	27°♊30'09	-0°05'32
minimum elong	1183 Jun 13 j 00:41	27°♊30'09	0°05'32
behind sun begin	1183 Jun 12 j 16:39	27°♊25'37	
behind sun end	1183 Jun 13 j 08:43	27°♊34'40	
max. Earth dist.	1183 Jun 14 j 20:17	27°♊54'50	6.19349 AU
	1183 Jun 24 j 01:48	0°♋	
morning rise	1183 Jun 26 j 18:38	0°♋36'27	
asc. node	1183 Aug 07 j 15:00	9°♋30'32	
retrograde	1183 Oct 30 j 04:32	19°♋00'07	
opposition	1183 Dec 28 j 21:34	13°♋58'17	0°20'24
min. Earth dist.	1183 Dec 28 j 01:01	14°♋05'12	4.26177 AU
direct	1184 Feb 26 j 23:11	8°♋56'28	
evening set	1184 Jul 02 j 21:35	27°♋09'14	
	1184 Jul 15 j 20:04	0°♌	
conjunction	1184 Jul 16 j 11:11	0°♌08'20	0°31'55
minimum elong	1184 Jul 16 j 11:09	0°♌08'19	0°31'55
max. Earth dist.	1184 Jul 17 j 04:32	0°♌17'53	6.32520 AU
morning rise	1184 Jul 29 j 23:08	3°♌06'21	
	1184 Sep 28 j 04:58	15°♌	
retrograde	1184 Nov 29 j 08:07	20°♌33'34	
opposition	1185 Jan 28 j 07:17	15°♌35'32	1°08'13
min. Earth dist.	1185 Jan 28 j 04:35	15°♌36'25	4.37750 AU
	1185 Feb 01 j 19:03	15°℞♌	
direct	1185 Mar 30 j 16:57	10°♌32'34	
	1185 May 26 j 06:11	15°♌	
evening set	1185 Aug 04 j 16:23	28°♌19'26	
	1185 Aug 12 j 10:25	0°♍	
conjunction	1185 Aug 17 j 22:40	1°♍11'45	0°58'32
minimum elong	1185 Aug 17 j 22:38	1°♍11'44	0°58'32
max. Earth dist.	1185 Aug 17 j 13:43	1°♍06'54	6.41618 AU
morning rise	1185 Aug 31 j 01:59	4°♍02'37	
retrograde	1185 Dec 29 j 14:02	20°♍56'55	
opposition	1186 Feb 27 j 22:22	16°♍02'18	1°35'14
min. Earth dist.	1186 Feb 28 j 12:26	15°♍57'45	4.43921 AU
direct	1186 May 01 j 06:01	10°♍59'30	
evening set	1186 Sep 05 j 01:46	28°♍34'32	
	1186 Sep 11 j 16:00	0°♎	
max. Earth dist.	1186 Sep 16 j 15:32	1°♎04'52	6.44343 AU
conjunction	1186 Sep 18 j 00:30	1°♎22'45	1°08'25
minimum elong	1186 Sep 18 j 00:29	1°♎22'45	1°08'25
morning rise	1186 Sep 30 j 20:26	4°♎09'38	
retrograde	1187 Jan 29 j 01:23	20°♎58'19	
opposition	1187 Mar 30 j 16:46	16°♎05'57	1°36'26
min. Earth dist.	1187 Mar 31 j 21:51	15°♎56'39	4.43157 AU
direct	1187 Jun 01 j 11:09	11°♎04'17	
evening set	1187 Oct 05 j 18:44	28°♎42'58	
	1187 Oct 11 j 15:23	0°♏	
max. Earth dist.	1187 Oct 16 j 13:37	1°♏05'02	6.40079 AU
conjunction	1187 Oct 18 j 12:22	1°♏30'46	0°59'42
minimum elong	1187 Oct 18 j 12:23	1°♏30'47	0°59'42
morning rise	1187 Oct 31 j 03:45	4°♏17'37	
	1187 Dec 23 j 09:39	15°♏	
retrograde	1188 Feb 29 j 12:39	21°♏28'08	
opposition	1188 Apr 30 j 10:36	16°♏36'19	1°11'21
min. Earth dist.	1188 May 01 j 21:25	16°♏25'14	4.35652 AU
	1188 May 13 j 06:41	15°℞♏	
direct	1188 Jul 01 j 21:24	11°♏36'36	
	1188 Aug 19 j 17:07	15°♏	
evening set	1188 Nov 04 j 16:19	29°♏34'06	
	1188 Nov 06 j 14:32	0°♐	
max. Earth dist.	1188 Nov 15 j 08:50	1°♐58'28	6.29891 AU
conjunction	1188 Nov 17 j 07:56	2°♐25'05	0°34'00
minimum elong	1188 Nov 17 j 07:58	2°♐25'06	0°34'00
morning rise	1188 Nov 29 j 22:22	5°♐15'44	
retrograde	1189 Apr 02 j 22:19	23°♐13'04	
opposition	1189 Jun 02 j 20:28	18°♐20'18	0°24'10
min. Earth dist.	1189 Jun 04 j 04:28	18°♐10'05	4.23316 AU
direct	1189 Aug 03 j 09:45	13°♐23'03	
desc. node	1189 Nov 18 j 22:07	27°♐50'10	
	1189 Nov 28 j 13:10	0°♑	
evening set	1189 Dec 06 j 16:01	1°♑51'43	
max. Earth dist.	1189 Dec 17 j 20:21	4°♑27'30	6.16433 AU
conjunction	1189 Dec 19 j 08:39	4°♑48'37	-0°03'05
minimum elong	1189 Dec 19 j 08:38	4°♑48'37	0°03'05
behind sun begin	1189 Dec 19 j 00:40	4°♑44'00	
behind sun end	1189 Dec 19 j 16:36	4°♑53'14	
morning rise	1190 Jan 01 j 01:50	7°♑46'02	
retrograde	1190 May 08 j 12:43	26°♑47'23	
opposition	1190 Jul 08 j 06:11	21°♑52'02	-0°33'52
min. Earth dist.	1190 Jul 08 j 22:55	21°♑46'37	4.09678 AU
direct	1190 Sep 06 j 09:39	16°♑57'11	

	1190 Dec 14 j 07:23	0°♒	
evening set	1191 Jan 09 j 11:03	6°♒01'56	
conjunction	1191 Jan 22 j 07:46	9°♒05'54	-0°40'36
minimum elong	1191 Jan 22 j 07:44	9°♒05'53	0°40'35
max. Earth dist.	1191 Jan 21 j 22:05	9°♒00'07	6.03850 AU
morning rise	1191 Feb 04 j 06:17	12°♒11'06	
	1191 Feb 16 j 05:35	15°♒	
	1191 May 07 j 19:30	0°♓	
retrograde	1191 Jun 15 j 01:03	2°♓14'56	
	1191 Jul 23 j 08:31	30°℞♒	
opposition	1191 Aug 14 j 08:04	27°♒15'54	-1°23'01
min. Earth dist.	1191 Aug 14 j 04:25	27°♒17'06	3.99375 AU
direct	1191 Oct 12 j 03:30	22°♒22'22	
	1191 Dec 22 j 12:28	0°♓	
evening set	1192 Feb 14 j 06:42	11°♓54'42	
conjunction	1192 Feb 27 j 10:00	15°♓04'48	-1°04'25
minimum elong	1192 Feb 27 j 09:59	15°♓04'48	1°04'25
max. Earth dist.	1192 Feb 28 j 07:01	15°♓17'30	5.96745 AU
morning rise	1192 Mar 11 j 16:26	18°♓16'37	
	1192 May 03 j 08:12	0°♈	
retrograde	1192 Jul 22 j 01:42	8°♈52'53	
opposition	1192 Sep 19 j 22:51	3°♈50'04	-1°41'16
min. Earth dist.	1192 Sep 18 j 22:37	3°♈58'14	3.96409 AU
	1192 Oct 22 j 19:36	30°℞♓	
direct	1192 Nov 16 j 21:43	28°♓55'47	
	1192 Dec 12 j 00:29	0°♈	
evening set	1193 Mar 22 j 12:09	18°♈33'46	
conjunction	1193 Apr 04 j 23:31	21°♈46'57	-1°03'28
minimum elong	1193 Apr 04 j 23:33	21°♈46'58	1°03'28
max. Earth dist.	1193 Apr 06 j 21:20	22°♈14'21	5.98106 AU
morning rise	1193 Apr 18 j 13:57	25°♈01'35	
	1193 May 09 j 23:14	0°♉	
	1193 Aug 13 j 09:24	15°♉	
retrograde	1193 Aug 28 j 01:26	15°♉21'24	
	1193 Sep 11 j 15:48	15°℞♉	
min. Earth dist.	1193 Oct 25 j 06:52	10°♉27'46	4.01996 AU
opposition	1193 Oct 26 j 16:11	10°♉16'24	-1°19'30
direct	1193 Dec 23 j 17:33	5°♉19'34	
	1194 Mar 16 j 02:20	15°♉	
evening set	1194 Apr 28 j 20:38	24°♉38'02	
conjunction	1194 May 12 j 14:06	27°♉49'42	-0°38'10
minimum elong	1194 May 12 j 14:09	27°♉49'44	0°38'11
max. Earth dist.	1194 May 14 j 20:12	28°♉21'13	6.07371 AU
	1194 May 21 j 22:03	0°♊	
morning rise	1194 May 26 j 09:04	1°♊01'57	
retrograde	1194 Oct 01 j 22:55	20°♊25'40	
min. Earth dist.	1194 Nov 29 j 05:11	15°♊31'51	4.13856 AU
opposition	1194 Nov 30 j 12:02	15°♊21'22	-0°29'14
direct	1195 Jan 28 j 10:17	10°♊21'33	
evening set	1195 Jun 04 j 02:29	29°♊05'52	
	1195 Jun 08 j 02:48	0°♋	
conjunction	1195 Jun 17 j 20:16	2°♋11'44	-0°00'09
minimum elong	1195 Jun 17 j 20:18	2°♋11'45	0°00'09
behind sun begin	1195 Jun 17 j 12:02	2°♋07'07	
behind sun end	1195 Jun 18 j 04:34	2°♋16'23	
max. Earth dist.	1195 Jun 19 j 11:39	2°♋33'57	6.20819 AU
asc. node	1195 Jun 19 j 06:19	2°♋30'57	
morning rise	1195 Jul 01 j 13:58	5°♋17'13	
retrograde	1195 Nov 03 j 13:52	23°♋33'44	
opposition	1196 Jan 02 j 06:59	18°♋32'21	0°27'48
min. Earth dist.	1196 Jan 01 j 12:50	18°♋38'27	4.27551 AU
direct	1196 Mar 02 j 13:07	13°♋30'14	

	1196 Jun 29 j 20:16	0°♌	
evening set	1196 Jul 07 j 12:42	1°♌40'11	
conjunction	1196 Jul 21 j 01:39	4°♌38'28	0°36'22
minimum elong	1196 Jul 21 j 01:37	4°♌38'27	0°36'22
max. Earth dist.	1196 Jul 21 j 17:05	4°♌46'57	6.33718 AU
morning rise	1196 Aug 03 j 12:25	7°♌35'32	
	1196 Sep 07 j 22:53	15°♌	
retrograde	1196 Dec 03 j 13:40	24°♌57'40	
opposition	1197 Feb 01 j 14:01	20°♌00'07	1°13'19
min. Earth dist.	1197 Feb 01 j 12:43	20°♌00'33	4.38701 AU
	1197 Mar 29 j 12:29	15°℞♌	
direct	1197 Apr 04 j 02:19	14°♌57'07	
	1197 Apr 09 j 16:29	15°♌	
	1197 Jul 27 j 10:35	0°♍	
evening set	1197 Aug 09 j 03:01	2°♍42'06	
conjunction	1197 Aug 22 j 08:04	5°♍33'42	1°00'56
minimum elong	1197 Aug 22 j 08:02	5°♍33'41	1°00'55
max. Earth dist.	1197 Aug 21 j 18:45	5°♍26'29	6.42239 AU
morning rise	1197 Sep 04 j 10:27	8°♍23'53	
retrograde	1198 Jan 02 j 20:28	25°♍16'01	
opposition	1198 Mar 04 j 04:53	20°♍21'44	1°36'56
min. Earth dist.	1198 Mar 04 j 21:43	20°♍16'16	4.44180 AU
direct	1198 May 05 j 15:38	15°♍18'56	
	1198 Aug 26 j 19:12	0°♎	
evening set	1198 Sep 09 j 09:00	2°♎53'24	
max. Earth dist.	1198 Sep 20 j 20:39	5°♎22'40	6.44195 AU
conjunction	1198 Sep 22 j 07:00	5°♎41'20	1°08'17
minimum elong	1198 Sep 22 j 07:00	5°♎41'20	1°08'17
morning rise	1198 Oct 05 j 02:00	8°♎27'55	
retrograde	1199 Feb 02 j 07:13	25°♎17'37	
opposition	1199 Apr 04 j 00:51	20°♎25'19	1°34'24
min. Earth dist.	1199 Apr 05 j 06:11	20°♎15'56	4.42601 AU
direct	1199 Jun 05 j 18:20	15°♎23'48	
	1199 Sep 25 j 20:47	0°♏	
evening set	1199 Oct 10 j 01:06	3°♏03'42	
max. Earth dist.	1199 Oct 20 j 19:02	5°♏25'36	6.39130 AU
conjunction	1199 Oct 22 j 18:11	5°♏51'38	0°57'02
minimum elong	1199 Oct 22 j 18:13	5°♏51'39	0°57'01
morning rise	1199 Nov 04 j 09:12	8°♏38'43	
	1199 Dec 04 j 07:20	15°♏	
retrograde	1200 Mar 05 j 01:08	25°♏53'38	
opposition	1200 May 04 j 22:57	21°♏01'47	1°05'54
min. Earth dist.	1200 May 06 j 10:52	20°♏50'21	4.34325 AU
direct	1200 Jul 06 j 08:45	16°♏02'19	
	1200 Oct 21 j 15:50	0°♐	
evening set	1200 Nov 09 j 00:20	4°♐02'53	
max. Earth dist.	1200 Nov 19 j 16:15	6°♐27'29	6.28276 AU
conjunction	1200 Nov 21 j 15:54	6°♐54'30	0°29'20
minimum elong	1200 Nov 21 j 15:55	6°♐54'31	0°29'20
morning rise	1200 Dec 04 j 06:36	9°♐45'54	
retrograde	1201 Apr 07 j 16:10	27°♐50'52	
opposition	1201 Jun 07 j 14:41	22°♐57'45	0°16'25
min. Earth dist.	1201 Jun 08 j 20:36	22°♐48'11	4.21502 AU
direct	1201 Aug 07 j 23:09	18°♐00'48	
desc. node	1201 Sep 29 j 09:19	22°♐03'02	
	1201 Nov 11 j 20:48	0°♑	
evening set	1201 Dec 11 j 04:54	6°♑34'09	
conjunction	1201 Dec 23 j 21:58	9°♑31'59	-0°08'32
minimum elong	1201 Dec 23 j 21:58	9°♑31'59	0°08'32
behind sun begin	1201 Dec 23 j 14:57	9°♑27'54	
behind sun end	1201 Dec 24 j 04:59	9°♑36'04	

max. Earth dist.	1201 Dec 22 j 13:21	9°♉12'55	6.14580 AU
morning rise	1202 Jan 05 j 15:36	12°♉30'24	
	1202 Apr 10 j 12:17	0°♒	
retrograde	1202 May 13 j 15:29	1°♒40'55	
	1202 Jun 15 j 19:56	30°℞♉	
opposition	1202 Jul 13 j 06:41	26°♉45'09	-0°41'42
min. Earth dist.	1202 Jul 13 j 22:01	26°♉40'10	4.07931 AU
direct	1202 Sep 11 j 06:11	21°♉50'33	
	1202 Nov 25 j 10:34	0°♒	
evening set	1203 Jan 14 j 06:52	11°♒00'10	
conjunction	1203 Jan 27 j 04:16	14°♒05'08	-0°45'01
minimum elong	1203 Jan 27 j 04:13	14°♒05'06	0°45'02
max. Earth dist.	1203 Jan 26 j 21:14	14°♒00'55	6.02362 AU
	1203 Jan 30 j 23:51	15°♒	
morning rise	1203 Feb 09 j 03:53	17°♒11'26	
	1203 Apr 09 j 03:01	0°♓	
retrograde	1203 Jun 20 j 06:17	7°♓22'32	
opposition	1203 Aug 19 j 12:30	2°♓22'59	-1°27'47
min. Earth dist.	1203 Aug 19 j 05:07	2°♓25'26	3.98325 AU
	1203 Sep 07 j 07:57	30°℞♒	
direct	1203 Oct 17 j 03:03	27°♒29'29	
	1203 Nov 25 j 08:08	0°♓	
evening set	1204 Feb 19 j 08:52	17°♓04'52	
conjunction	1204 Mar 03 j 13:18	20°♓15'43	-1°05'53
minimum elong	1204 Mar 03 j 13:17	20°♓15'43	1°05'52
max. Earth dist.	1204 Mar 04 j 14:16	20°♓30'48	5.96221 AU
morning rise	1204 Mar 16 j 20:51	23°♓28'17	
	1204 Apr 13 j 21:08	0°♈	
retrograde	1204 Jul 27 j 07:56	14°♈06'18	
min. Earth dist.	1204 Sep 24 j 01:40	9°♈11'43	3.96475 AU
opposition	1204 Sep 25 j 03:18	9°♈03'03	-1°40'34
direct	1204 Nov 22 j 01:35	4°♈08'31	
evening set	1205 Mar 27 j 17:29	23°♈46'07	
conjunction	1205 Apr 10 j 06:03	26°♈59'32	-1°01'12
minimum elong	1205 Apr 10 j 06:05	26°♈59'33	1°01'11
max. Earth dist.	1205 Apr 12 j 07:36	27°♈29'06	5.98767 AU
	1205 Apr 22 j 21:15	0°♉	
morning rise	1205 Apr 23 j 21:21	0°♉14'16	
	1205 Jul 03 j 07:53	15°♉	
retrograde	1205 Sep 02 j 02:37	20°♉29'00	
min. Earth dist.	1205 Oct 30 j 06:02	15°♉35'37	4.03197 AU
opposition	1205 Oct 31 j 16:05	15°♉24'01	-1°13'42
	1205 Nov 03 j 14:38	15°℞♉	
direct	1205 Dec 28 j 18:29	10°♉26'53	
	1206 Feb 20 j 20:45	15°♉	
evening set	1206 May 04 j 00:47	29°♉41'46	
	1206 May 05 j 08:22	0°♊	
conjunction	1206 May 17 j 18:31	2°♊52'53	-0°33'16
minimum elong	1206 May 17 j 18:33	2°♊52'54	0°33'16
max. Earth dist.	1206 May 19 j 23:01	3°♊23'20	6.09015 AU
morning rise	1206 May 31 j 13:51	6°♊04'29	
retrograde	1206 Oct 06 j 15:17	25°♊19'04	
min. Earth dist.	1206 Dec 03 j 22:58	20°♊25'19	4.15789 AU
opposition	1206 Dec 05 j 05:08	20°♊15'03	-0°21'09
direct	1207 Feb 02 j 07:37	15°♊14'54	
asc. node	1207 Apr 29 j 06:34	25°♊12'43	
	1207 May 22 j 08:14	0°♋	
evening set	1207 Jun 09 j 00:55	3°♋53'53	
conjunction	1207 Jun 22 j 18:25	6°♋58'42	0°05'24
minimum elong	1207 Jun 22 j 18:25	6°♋58'42	0°05'23
behind sun begin	1207 Jun 22 j 10:23	6°♋54'13	
behind sun end	1207 Jun 23 j 02:28	7°♋03'12	
max. Earth dist.	1207 Jun 24 j 08:30	7°♋20'06	6.22918 AU
morning rise	1207 Jul 06 j 11:12	10°♋02'55	
retrograde	1207 Nov 08 j 00:05	28°♋09'57	
opposition	1208 Jan 06 j 17:44	23°♋09'07	0°35'06
min. Earth dist.	1208 Jan 06 j 01:21	23°♋14'36	4.29632 AU
direct	1208 Mar 07 j 04:33	18°♋06'53	
	1208 Jun 12 j 20:15	0°♌	
evening set	1208 Jul 12 j 03:50	6°♌11'23	
conjunction	1208 Jul 25 j 15:34	9°♌08'25	0°40'36
minimum elong	1208 Jul 25 j 15:32	9°♌08'24	0°40'37
max. Earth dist.	1208 Jul 26 j 02:24	9°♌14'21	6.35607 AU
morning rise	1208 Aug 08 j 01:15	12°♌04'14	
	1208 Aug 21 j 16:14	15°♌	
retrograde	1208 Dec 07 j 18:20	29°♌19'19	
opposition	1209 Feb 05 j 20:00	24°♌22'14	1°17'55
min. Earth dist.	1209 Feb 05 j 21:24	24°♌21'46	4.40280 AU
direct	1209 Apr 08 j 12:31	19°♌19'08	
	1209 Jul 10 j 13:12	0°♍	
evening set	1209 Aug 13 j 11:22	7°♍00'14	
conjunction	1209 Aug 26 j 15:25	9°♍50'56	1°02'58
minimum elong	1209 Aug 26 j 15:23	9°♍50'55	1°02'57
max. Earth dist.	1209 Aug 26 j 00:01	9°♍42'36	6.43381 AU
morning rise	1209 Sep 08 j 16:24	12°♍40'09	
retrograde	1210 Jan 06 j 22:00	29°♍28'51	
opposition	1210 Mar 08 j 08:40	24°♍34'55	1°38'01
min. Earth dist.	1210 Mar 09 j 03:13	24°♍28'56	4.44817 AU
direct	1210 May 09 j 21:05	19°♍32'15	
	1210 Aug 10 j 05:27	0°♎	
evening set	1210 Sep 13 j 13:04	7°♎05'12	
max. Earth dist.	1210 Sep 24 j 19:44	9°♎31'54	6.44253 AU
conjunction	1210 Sep 26 j 10:01	9°♎52'43	1°07'46
minimum elong	1210 Sep 26 j 10:02	9°♎52'43	1°07'46
morning rise	1210 Oct 09 j 04:23	12°♎39'01	
retrograde	1211 Feb 06 j 12:36	29°♎29'34	
opposition	1211 Apr 08 j 06:10	24°♎37'26	1°31'56
min. Earth dist.	1211 Apr 09 j 14:19	24°♎27'10	4.42061 AU
direct	1211 Jun 10 j 00:38	19°♎36'04	
	1211 Sep 09 j 09:52	0°♏	
evening set	1211 Oct 14 j 03:55	7°♏17'21	
max. Earth dist.	1211 Oct 24 j 19:58	9°♏38'35	6.38015 AU
conjunction	1211 Oct 26 j 20:43	10°♏05'35	0°54'07
minimum elong	1211 Oct 26 j 20:45	10°♏05'36	0°54'08
morning rise	1211 Nov 08 j 11:25	12°♏53'00	
	1211 Nov 18 j 03:42	15°♏	
	1212 Feb 26 j 12:02	0°♐	
retrograde	1212 Mar 09 j 09:47	0°♐13'19	
	1212 Mar 21 j 08:25	30°℞♏	
opposition	1212 May 09 j 08:36	25°♏21'21	1°00'15
min. Earth dist.	1212 May 10 j 20:11	25°♏10'02	4.32691 AU
direct	1212 Jul 10 j 14:37	20°♏22'09	
	1212 Oct 04 j 16:27	0°♐	
evening set	1212 Nov 13 j 06:18	8°♐27'12	
max. Earth dist.	1212 Nov 23 j 23:03	10°♐52'55	6.26246 AU
conjunction	1212 Nov 25 j 21:54	11°♐19'37	0°24'37
minimum elong	1212 Nov 25 j 21:55	11°♐19'38	0°24'38
morning rise	1212 Dec 08 j 12:49	14°♐11'57	
	1213 Mar 03 j 03:15	0°♑	
retrograde	1213 Apr 12 j 11:20	2°♑26'18	
	1213 May 23 j 05:25	30°℞♐	
opposition	1213 Jun 12 j 07:38	27°♐32'56	0°08'42
min. Earth dist.	1213 Jun 13 j 13:39	27°♐23'19	4.19190 AU
desc. node	1213 Aug 11 j 00:30	22°♐36'29	

direct	1213 Aug 12 j 12:22	22°♐36'16	
	1213 Oct 24 j 00:48	0°♑	
evening set	1213 Dec 15 j 17:25	11°♑16'21	
max. Earth dist.	1213 Dec 27 j 03:48	13°♑57'04	6.12188 AU
conjunction	1213 Dec 28 j 11:02	14°♑15'25	-0°13'51
minimum elong	1213 Dec 28 j 11:01	14°♑15'24	0°13'50
behind sun begin	1213 Dec 28 j 06:39	14°♑12'51	
behind sun end	1213 Dec 28 j 15:23	14°♑17'58	
morning rise	1214 Jan 10 j 05:30	17°♑15'12	
	1214 Mar 11 j 10:01	0°♒	
retrograde	1214 May 18 j 17:00	6°♒37'00	
opposition	1214 Jul 18 j 07:38	1°♒40'46	-0°49'14
min. Earth dist.	1214 Jul 18 j 19:26	1°♒36'55	4.05677 AU
	1214 Jul 31 j 11:37	30°℞♑	
direct	1214 Sep 16 j 00:43	26°♑46'24	
	1214 Oct 31 j 10:01	0°♒	
	1215 Jan 14 j 18:25	15°♒	
evening set	1215 Jan 19 j 04:10	16°♒02'55	
conjunction	1215 Feb 01 j 02:31	19°♒09'08	-0°49'06
minimum elong	1215 Feb 01 j 02:28	19°♒09'07	0°49'06
max. Earth dist.	1215 Feb 01 j 00:13	19°♒07'45	6.00454 AU
morning rise	1215 Feb 14 j 03:12	22°♒16'47	
	1215 Mar 19 j 16:12	0°♓	
retrograde	1215 Jun 25 j 15:54	12°♓36'45	
opposition	1215 Aug 24 j 19:13	7°♓36'36	-1°31'53
min. Earth dist.	1215 Aug 24 j 09:13	7°♓39'56	3.96974 AU
direct	1215 Oct 22 j 06:45	2°♓43'03	
evening set	1216 Feb 24 j 14:02	22°♓22'25	
conjunction	1216 Mar 08 j 19:48	25°♓34'10	-1°06'47
minimum elong	1216 Mar 08 j 19:47	25°♓34'10	1°06'47
max. Earth dist.	1216 Mar 10 j 02:32	25°♓52'46	5.95561 AU
morning rise	1216 Mar 22 j 04:35	28°♓47'36	
	1216 Mar 27 j 05:45	0°♈	
retrograde	1216 Aug 01 j 16:17	19°♈26'57	
min. Earth dist.	1216 Sep 29 j 05:50	14°♈32'47	3.96606 AU
opposition	1216 Sep 30 j 09:59	14°♈23'15	-1°38'57
direct	1216 Nov 27 j 06:35	9°♈28'27	
evening set	1217 Apr 02 j 01:55	29°♈05'04	
	1217 Apr 05 j 22:34	0°♉	
conjunction	1217 Apr 15 j 15:22	2°♉18'30	-0°58'21
minimum elong	1217 Apr 15 j 15:25	2°♉18'32	0°58'21
max. Earth dist.	1217 Apr 17 j 18:21	2°♉48'50	5.99643 AU
morning rise	1217 Apr 29 j 07:45	5°♉33'15	
	1217 Jun 10 j 12:20	15°♉	
retrograde	1217 Sep 07 j 03:18	25°♉41'17	
min. Earth dist.	1217 Nov 04 j 06:17	20°♉48'06	4.04686 AU
opposition	1217 Nov 05 j 17:24	20°♉36'07	-1°07'11
direct	1218 Jan 02 j 22:30	15°♉38'27	
	1218 Apr 17 j 23:15	0°♊	
evening set	1218 May 09 j 06:04	4°♊48'20	
conjunction	1218 May 23 j 00:15	7°♊58'43	-0°28'02
minimum elong	1218 May 23 j 00:17	7°♊58'44	0°28'01
max. Earth dist.	1218 May 25 j 05:02	8°♊29'12	6.10971 AU
morning rise	1218 Jun 05 j 19:26	11°♊09'21	
	1218 Sep 29 j 16:23	0°♋	
retrograde	1218 Oct 11 j 09:23	0°♋13'32	
	1218 Oct 22 j 23:21	30°℞♊	
opposition	1218 Dec 09 j 22:58	25°♊09'48	-0°12'51
min. Earth dist.	1218 Dec 08 j 18:34	25°♊19'26	4.17952 AU
direct	1219 Feb 07 j 06:23	20°♊09'14	
asc. node	1219 Mar 08 j 04:31	21°♊29'10	
	1219 May 03 j 21:59	0°♋	
evening set	1219 Jun 13 j 23:43	8°♋42'05	
conjunction	1219 Jun 27 j 16:33	11°♋45'41	0°10'52
minimum elong	1219 Jun 27 j 16:32	11°♋45'41	0°10'52
behind sun begin	1219 Jun 27 j 10:19	11°♋42'13	
behind sun end	1219 Jun 27 j 22:46	11°♋49'09	
max. Earth dist.	1219 Jun 29 j 03:08	12°♋05'01	6.25083 AU
morning rise	1219 Jul 11 j 08:35	14°♋48'36	
	1219 Sep 30 j 21:31	0°♌	
retrograde	1219 Nov 12 j 08:55	2°♌46'13	
	1219 Dec 24 j 19:49	30°℞♋	
opposition	1220 Jan 11 j 04:39	27°♋45'51	0°42'16
min. Earth dist.	1220 Jan 10 j 14:14	27°♋50'40	4.31617 AU
direct	1220 Mar 11 j 19:28	22°♋43'22	
	1220 May 24 j 09:30	0°♌	
evening set	1220 Jul 16 j 19:21	10°♌43'02	
conjunction	1220 Jul 30 j 06:04	13°♌38'57	0°44'41
minimum elong	1220 Jul 30 j 06:02	13°♌38'56	0°44'41
max. Earth dist.	1220 Jul 30 j 13:25	13°♌42'58	6.37264 AU
	1220 Aug 05 j 10:26	15°♌	
morning rise	1220 Aug 12 j 14:25	16°♌33'33	
	1220 Oct 22 j 23:59	0°♍	
retrograde	1220 Dec 12 j 00:38	3°♍42'40	
	1221 Jan 31 j 15:08	30°℞♌	
opposition	1221 Feb 10 j 03:12	28°♌46'07	1°22'13
min. Earth dist.	1221 Feb 10 j 07:25	28°♌44'44	4.41501 AU
direct	1221 Apr 12 j 23:39	23°♌43'04	
	1221 Jun 20 j 17:16	0°♍	
evening set	1221 Aug 17 j 21:07	11°♍21'29	
conjunction	1221 Aug 30 j 23:58	14°♍11'28	1°04'44
minimum elong	1221 Aug 30 j 23:57	14°♍11'28	1°04'44
max. Earth dist.	1221 Aug 30 j 03:35	14°♍00'27	6.44059 AU
morning rise	1221 Sep 13 j 00:02	17°♍00'02	
	1221 Nov 21 j 08:56	0°♎	
retrograde	1222 Jan 11 j 04:05	3°♎47'04	
	1222 Mar 03 j 23:09	30°℞♍	
opposition	1222 Mar 12 j 15:31	28°♍53'28	1°38'45
min. Earth dist.	1222 Mar 13 j 12:46	28°♍46'37	4.44935 AU
direct	1222 May 14 j 05:40	23°♍50'53	
	1222 Jul 21 j 12:05	0°♎	
evening set	1222 Sep 17 j 19:50	11°♎23'55	
max. Earth dist.	1222 Sep 29 j 00:38	13°♎49'47	6.43798 AU
conjunction	1222 Sep 30 j 16:11	14°♎11'20	1°06'55
minimum elong	1222 Sep 30 j 16:11	14°♎11'21	1°06'54
morning rise	1222 Oct 13 j 09:39	16°♎57'31	
	1222 Dec 21 j 12:18	0°♏	
retrograde	1223 Feb 10 j 20:29	3°♏50'41	
	1223 Apr 04 j 13:55	30°℞♎	
opposition	1223 Apr 12 j 15:36	28°♎58'43	1°28'56
min. Earth dist.	1223 Apr 14 j 00:22	28°♎48'16	4.41069 AU
direct	1223 Jun 14 j 08:26	23°♎57'40	
	1223 Aug 20 j 12:41	0°♏	
evening set	1223 Oct 18 j 11:18	11°♏41'41	
max. Earth dist.	1223 Oct 29 j 01:21	14°♏02'23	6.36557 AU
conjunction	1223 Oct 31 j 03:38	14°♏30'20	0°50'48
minimum elong	1223 Oct 31 j 03:40	14°♏30'21	0°50'49
	1223 Nov 02 j 08:58	15°♏	
morning rise	1223 Nov 12 j 18:17	17°♏18'19	
	1224 Jan 16 j 12:29	0°♐	
retrograde	1224 Mar 14 j 02:36	4°♐45'18	
	1224 May 13 j 02:57	30°℞♏	
opposition	1224 May 14 j 00:00	29°♏53'17	0°53'58
min. Earth dist.	1224 May 15 j 12:22	29°♏41'42	4.30837 AU

direct	1224 Jul 15 j 03:49	24°♏54'25	
	1224 Sep 13 j 09:14	0°♐	
evening set	1224 Nov 17 j 17:16	13°♐04'28	
max. Earth dist.	1224 Nov 28 j 11:26	15°♐31'41	6.24160 AU
conjunction	1224 Nov 30 j 09:07	15°♐57'50	0°19'31
minimum elong	1224 Nov 30 j 09:08	15°♐57'50	0°19'30
morning rise	1224 Dec 13 j 00:21	18°♐51'12	
	1225 Feb 04 j 03:56	0°♑	
retrograde	1225 Apr 17 j 09:58	7°♑15'15	
opposition	1225 Jun 17 j 06:28	2°♑21'37	0°00'27
min. Earth dist.	1225 Jun 18 j 09:39	2°♑12'53	4.17032 AU
desc. node	1225 Jun 20 j 08:01	1°♑58'01	
	1225 Jul 06 j 10:30	30°℞♐	
direct	1225 Aug 17 j 05:05	27°♐25'25	
	1225 Sep 27 j 08:07	0°♑	
evening set	1225 Dec 20 j 11:10	16°♑11'30	
max. Earth dist.	1226 Jan 01 j 01:50	18°♑55'29	6.10161 AU
conjunction	1226 Jan 02 j 05:14	19°♑11'39	-0°19'22
minimum elong	1226 Jan 02 j 05:13	19°♑11'39	0°19'22
morning rise	1226 Jan 15 j 00:26	22°♑12'38	
	1226 Feb 18 j 13:27	0°♒	
retrograde	1226 May 24 j 01:05	11°♒44'28	
opposition	1226 Jul 23 j 13:25	6°♒47'46	-0°56'46
min. Earth dist.	1226 Jul 23 j 22:30	6°♒44'48	4.03982 AU
direct	1226 Sep 21 j 02:39	1°♒53'41	
	1226 Dec 28 j 09:06	15°♒	
evening set	1227 Jan 24 j 05:24	21°♒14'52	
conjunction	1227 Feb 06 j 04:44	24°♒22'03	-0°52'58
minimum elong	1227 Feb 06 j 04:42	24°♒22'01	0°52'58
max. Earth dist.	1227 Feb 06 j 08:03	24°♒24'02	5.99275 AU
morning rise	1227 Feb 19 j 06:27	27°♒30'41	
	1227 Mar 01 j 18:00	0°♓	
retrograde	1227 Jul 01 j 02:10	17°♓56'05	
opposition	1227 Aug 30 j 03:38	12°♓55'25	-1°35'19
min. Earth dist.	1227 Aug 29 j 14:08	12°♓59'55	3.96491 AU
direct	1227 Oct 27 j 11:00	8°♓01'55	
evening set	1228 Feb 29 j 20:20	27°♓41'58	
	1228 Mar 10 j 09:29	0°♈	
conjunction	1228 Mar 14 j 03:02	0°♈54'05	-1°07'12
minimum elong	1228 Mar 14 j 03:02	0°♈54'05	1°07'12
max. Earth dist.	1228 Mar 15 j 12:48	1°♈14'28	5.95792 AU
morning rise	1228 Mar 27 j 13:05	4°♈07'54	
retrograde	1228 Aug 06 j 20:57	24°♈44'51	
min. Earth dist.	1228 Oct 04 j 08:38	19°♈51'07	3.97536 AU
opposition	1228 Oct 05 j 15:11	19°♈40'44	-1°36'33
direct	1228 Dec 02 j 11:58	14°♈45'34	
	1229 Mar 19 j 19:10	0°♉	
evening set	1229 Apr 07 j 08:00	4°♉18'28	
conjunction	1229 Apr 20 j 22:26	7°♉31'36	-0°55'09
minimum elong	1229 Apr 20 j 22:28	7°♉31'38	0°55'09
max. Earth dist.	1229 Apr 23 j 04:01	8°♉03'22	6.01175 AU
morning rise	1229 May 04 j 15:18	10°♉45'52	
	1229 May 22 j 23:17	15°♉	
	1229 Aug 21 j 14:56	0°♊	
retrograde	1229 Sep 12 j 02:15	0°♊45'03	
	1229 Oct 03 j 07:01	30°℞♉	
min. Earth dist.	1229 Nov 09 j 05:07	25°♉51'33	4.06627 AU
opposition	1229 Nov 10 j 15:11	25°♉39'56	-1°00'24
direct	1230 Jan 08 j 00:08	20°♉41'50	
	1230 Mar 30 j 04:56	0°♊	
evening set	1230 May 14 j 07:36	9°♊45'38	
conjunction	1230 May 28 j 01:49	12°♊55'05	-0°22'47
minimum elong	1230 May 28 j 01:51	12°♊55'05	0°22'47
max. Earth dist.	1230 May 30 j 04:52	13°♊24'24	6.13132 AU
morning rise	1230 Jun 10 j 20:56	16°♊04'40	
	1230 Aug 19 j 00:10	0°♋	
retrograde	1230 Oct 15 j 20:51	4°♋58'16	
min. Earth dist.	1230 Dec 13 j 09:04	0°♋04'10	4.20124 AU
	1230 Dec 13 j 21:21	30°℞♊	
opposition	1230 Dec 14 j 12:23	29°♊54'55	-0°04'47
asc. node	1231 Jan 16 j 13:24	26°♊02'13	
direct	1231 Feb 11 j 23:12	24°♊54'00	
	1231 Apr 12 j 04:32	0°♋	
evening set	1231 Jun 18 j 18:19	13°♋21'11	
conjunction	1231 Jul 02 j 10:30	16°♋23'39	0°16'05
minimum elong	1231 Jul 02 j 10:29	16°♋23'38	0°16'06
max. Earth dist.	1231 Jul 03 j 16:39	16°♋40'27	6.27094 AU
morning rise	1231 Jul 16 j 01:37	19°♋25'19	
	1231 Sep 05 j 19:26	0°♌	
retrograde	1231 Nov 16 j 16:44	7°♌14'42	
opposition	1232 Jan 15 j 12:30	2°♌14'53	0°48'56
min. Earth dist.	1232 Jan 15 j 01:38	2°♌18'30	4.33307 AU
	1232 Feb 02 j 01:09	30°℞♋	
direct	1232 Mar 16 j 08:46	27°♋12'14	
	1232 Apr 29 j 01:35	0°♌	
	1232 Jul 20 j 16:24	15°♌	
evening set	1232 Jul 21 j 07:27	15°♌08'08	
conjunction	1232 Aug 03 j 17:09	18°♌03'08	0°48'24
minimum elong	1232 Aug 03 j 17:07	18°♌03'07	0°48'24
max. Earth dist.	1232 Aug 03 j 20:09	18°♌04'46	6.38495 AU
morning rise	1232 Aug 17 j 00:23	20°♌56'47	
	1232 Sep 30 j 12:38	0°♍	
retrograde	1232 Dec 16 j 03:47	8°♍01'39	
opposition	1233 Feb 14 j 08:24	3°♍05'32	1°26'00
min. Earth dist.	1233 Feb 14 j 14:55	3°♍03'24	4.42232 AU
	1233 Mar 11 j 21:56	30°℞♌	
direct	1233 Apr 17 j 07:15	28°♌02'27	
	1233 May 24 j 03:08	0°♍	
evening set	1233 Aug 22 j 05:09	15°♍39'50	
max. Earth dist.	1233 Sep 03 j 08:01	18°♍16'52	6.44238 AU
conjunction	1233 Sep 04 j 07:04	18°♍29'21	1°06'07
minimum elong	1233 Sep 04 j 07:03	18°♍29'21	1°06'08
morning rise	1233 Sep 17 j 06:00	21°♍17'26	
	1233 Oct 30 j 05:04	0°♎	
retrograde	1234 Jan 15 j 09:26	8°♎04'22	
opposition	1234 Mar 16 j 21:42	3°♎11'07	1°38'57
min. Earth dist.	1234 Mar 17 j 21:09	3°♎03'34	4.44575 AU
	1234 Apr 12 j 18:57	30°℞♍	
direct	1234 May 18 j 13:18	28°♍08'44	
	1234 Jun 23 j 12:44	0°♎	
evening set	1234 Sep 22 j 02:31	15°♎43'12	
max. Earth dist.	1234 Oct 03 j 03:01	18°♎07'10	6.42914 AU
conjunction	1234 Oct 04 j 22:05	18°♎30'41	1°05'42
minimum elong	1234 Oct 04 j 22:05	18°♎30'41	1°05'42
morning rise	1234 Oct 17 j 15:10	21°♎17'01	
	1234 Nov 29 j 04:41	0°♏	
retrograde	1235 Feb 15 j 07:29	8°♏14'09	
opposition	1235 Apr 17 j 02:11	3°♏22'14	1°25'25
min. Earth dist.	1235 Apr 18 j 12:13	3°♏11'22	4.39727 AU
	1235 May 16 j 03:56	30°℞♎	
direct	1235 Jun 18 j 18:14	28°♎21'25	
	1235 Jul 22 j 09:15	0°♏	
	1235 Oct 17 j 14:00	15°♏	
evening set	1235 Oct 22 j 19:20	16°♏09'01	

max. Earth dist.	1235 Nov 02 j 10:29	18°♏30'51	6.34874 AU
conjunction	1235 Nov 04 j 11:37	18°♏58'16	0°47'10
minimum elong	1235 Nov 04 j 11:39	18°♏58'18	0°47'10
morning rise	1235 Nov 17 j 02:02	21°♏46'53	
	1235 Dec 26 j 00:16	0°♐	
retrograde	1236 Mar 18 j 18:29	9°♐21'08	
opposition	1236 May 18 j 16:56	4°♐28'59	0°47'16
min. Earth dist.	1236 May 20 j 03:56	4°♐17'50	4.28924 AU
	1236 Jul 01 j 18:54	30°℞♏	
direct	1236 Jul 19 j 16:36	29°♏30'32	
	1236 Aug 06 j 15:36	0°♐	
evening set	1236 Nov 22 j 05:53	17°♐45'27	
max. Earth dist.	1236 Dec 03 j 01:49	20°♐14'23	6.22180 AU
conjunction	1236 Dec 04 j 21:44	20°♐39'39	0°14'14
minimum elong	1236 Dec 04 j 21:45	20°♐39'40	0°14'14
behind sun begin	1236 Dec 04 j 17:46	20°♐37'22	
behind sun end	1236 Dec 05 j 01:45	20°♐41'57	
morning rise	1236 Dec 17 j 13:28	23°♐34'01	
	1237 Jan 15 j 13:58	0°♑	
retrograde	1237 Apr 22 j 11:19	12°♑07'11	
desc. node	1237 Apr 29 j 15:11	12°♑02'18	
opposition	1237 Jun 22 j 06:33	7°♑13'09	-0°07'53
min. Earth dist.	1237 Jun 23 j 07:50	7°♑05'01	4.15121 AU
direct	1237 Aug 22 j 01:46	2°♑17'15	
evening set	1237 Dec 25 j 05:44	21°♑08'11	
max. Earth dist.	1238 Jan 06 j 01:44	23°♑55'51	6.08498 AU
conjunction	1238 Jan 07 j 00:28	24°♑09'18	-0°24'46
minimum elong	1238 Jan 07 j 00:26	24°♑09'17	0°24'46
morning rise	1238 Jan 19 j 20:20	27°♑11'19	
	1238 Jan 31 j 21:44	0°♒	
	1238 Apr 24 j 15:06	15°♒	
retrograde	1238 May 29 j 07:37	16°♒51'13	
	1238 Jul 03 j 02:04	15°℞♒	
opposition	1238 Jul 28 j 18:45	11°♒53'59	-1°03'50
min. Earth dist.	1238 Jul 29 j 00:27	11°♒52'07	4.02735 AU
direct	1238 Sep 26 j 02:56	7°♒00'07	
	1238 Dec 08 j 21:15	15°♒	
evening set	1239 Jan 29 j 06:09	26°♒24'14	
conjunction	1239 Feb 11 j 06:12	29°♒32'06	-0°56'24
minimum elong	1239 Feb 11 j 06:09	29°♒32'04	0°56'23
max. Earth dist.	1239 Feb 11 j 13:00	29°♒36'12	5.98527 AU
	1239 Feb 13 j 04:27	0°♓	
morning rise	1239 Feb 24 j 09:04	2°♓41'32	
retrograde	1239 Jul 06 j 08:04	23°♓10'28	
opposition	1239 Sep 04 j 09:53	18°♓09'12	-1°37'56
min. Earth dist.	1239 Sep 03 j 17:04	18°♓14'49	3.96334 AU
direct	1239 Nov 01 j 14:50	13°♓15'33	
	1240 Feb 22 j 17:30	0°♈	
evening set	1240 Mar 06 j 00:44	2°♈55'20	
conjunction	1240 Mar 19 j 08:40	6°♈07'46	-1°07'05
minimum elong	1240 Mar 19 j 08:41	6°♈07'46	1°07'04
max. Earth dist.	1240 Mar 20 j 23:06	6°♈30'55	5.96237 AU
morning rise	1240 Apr 01 j 19:36	9°♈21'48	
retrograde	1240 Aug 12 j 01:11	29°♈55'24	
min. Earth dist.	1240 Oct 09 j 10:36	25°♈01'30	3.98534 AU
opposition	1240 Oct 10 j 17:25	24°♈51'02	-1°33'27
direct	1240 Dec 07 j 15:43	19°♈55'31	
	1241 Mar 01 j 09:39	0°♉	
evening set	1241 Apr 12 j 12:08	9°♉24'56	
conjunction	1241 Apr 26 j 03:19	12°♉37'46	-0°51'35
minimum elong	1241 Apr 26 j 03:21	12°♉37'47	0°51'35
max. Earth dist.	1241 Apr 28 j 09:20	13°♉09'38	6.02622 AU
	1241 May 06 j 04:48	15°♉	
morning rise	1241 May 09 j 20:56	15°♉51'38	
	1241 Jul 16 j 16:00	0°♊	
retrograde	1241 Sep 16 j 20:34	5°♊42'27	
min. Earth dist.	1241 Nov 14 j 00:05	0°♊49'11	4.08365 AU
opposition	1241 Nov 15 j 10:25	0°♊37'28	-0°53'20
	1241 Nov 20 j 00:42	30°℞♉	
direct	1242 Jan 12 j 21:14	25°♉38'58	
	1242 Mar 07 j 02:59	0°♊	
evening set	1242 May 19 j 07:31	14°♊37'53	
conjunction	1242 Jun 02 j 01:48	17°♊46'31	-0°17'27
minimum elong	1242 Jun 02 j 01:49	17°♊46'32	0°17'27
max. Earth dist.	1242 Jun 04 j 01:40	18°♊13'54	6.15018 AU
morning rise	1242 Jun 15 j 20:44	20°♊55'11	
	1242 Jul 28 j 03:38	0°♋	
retrograde	1242 Oct 20 j 09:59	9°♋39'40	
asc. node	1242 Nov 26 j 22:33	7°♋25'28	
min. Earth dist.	1242 Dec 18 j 00:44	4°♋45'00	4.21960 AU
opposition	1242 Dec 19 j 01:06	4°♋36'45	0°03'12
	1243 Jan 31 j 22:31	30°℞♊	
direct	1243 Feb 16 j 17:10	29°♊35'33	
	1243 Mar 04 j 14:17	0°♋	
evening set	1243 Jun 23 j 12:25	17°♋58'23	
conjunction	1243 Jul 07 j 04:03	20°♋59'53	0°21'12
minimum elong	1243 Jul 07 j 04:02	20°♋59'52	0°21'12
max. Earth dist.	1243 Jul 08 j 07:26	21°♋15'05	6.28743 AU
morning rise	1243 Jul 20 j 18:12	24°♋00'28	
	1243 Aug 17 j 19:17	0°♌	
retrograde	1243 Nov 20 j 22:39	11°♌42'58	
opposition	1244 Jan 19 j 20:25	6°♌43'43	0°55'20
min. Earth dist.	1244 Jan 19 j 11:10	6°♌46'47	4.34659 AU
direct	1244 Mar 20 j 19:39	1°♌40'59	
	1244 Jul 04 j 06:15	15°♌	
evening set	1244 Jul 25 j 20:22	19°♌34'21	
conjunction	1244 Aug 08 j 04:57	22°♌28'31	0°51'52
minimum elong	1244 Aug 08 j 04:55	22°♌28'30	0°51'52
max. Earth dist.	1244 Aug 08 j 03:23	22°♌27'40	6.39450 AU
morning rise	1244 Aug 21 j 11:05	25°♌21'20	
	1244 Sep 12 j 09:50	0°♍	
retrograde	1244 Dec 20 j 10:26	12°♍22'55	
opposition	1245 Feb 18 j 15:00	7°♍27'20	1°29'21
min. Earth dist.	1245 Feb 19 j 00:44	7°♍24'09	4.42749 AU
direct	1245 Apr 21 j 17:38	2°♍24'20	
evening set	1245 Aug 26 j 14:12	20°♍01'12	
conjunction	1245 Sep 08 j 15:12	22°♍50'21	1°07'11
minimum elong	1245 Sep 08 j 15:11	22°♍50'20	1°07'10
max. Earth dist.	1245 Sep 07 j 12:44	22°♍36'00	6.44267 AU
morning rise	1245 Sep 21 j 13:15	25°♍38'04	
	1245 Oct 12 j 05:28	0°♎	
retrograde	1246 Jan 19 j 16:18	12°♎25'32	
opposition	1246 Mar 21 j 05:50	7°♎32'34	1°38'38
min. Earth dist.	1246 Mar 22 j 06:24	7°♎24'40	4.44157 AU
direct	1246 May 22 j 21:38	2°♎30'25	
evening set	1246 Sep 26 j 10:18	20°♎06'19	
max. Earth dist.	1246 Oct 07 j 10:19	22°♎30'20	6.42099 AU
conjunction	1246 Oct 09 j 05:18	22°♎53'53	1°04'08
minimum elong	1246 Oct 09 j 05:20	22°♎53'54	1°04'08
morning rise	1246 Oct 21 j 21:42	25°♎40'20	
	1246 Nov 11 j 03:57	0°♏	
retrograde	1247 Feb 19 j 18:21	12°♏41'14	
opposition	1247 Apr 21 j 14:14	7°♏49'27	1°21'25

min. Earth dist.	1247 Apr 23 j 00:40	7°♏38'30	4.38582 AU
direct	1247 Jun 23 j 05:15	2°♏49'03	
	1247 Sep 30 j 21:50	15°♏	
evening set	1247 Oct 27 j 04:25	20°♏39'24	
max. Earth dist.	1247 Nov 06 j 18:36	23°♏01'15	6.33498 AU
conjunction	1247 Nov 08 j 20:17	23°♏29'05	0°43'16
minimum elong	1247 Nov 08 j 20:19	23°♏29'06	0°43'15
morning rise	1247 Nov 21 j 10:49	26°♏18'16	
	1247 Dec 08 j 06:45	0°♐	
retrograde	1248 Mar 23 j 12:02	13°♐58'51	
opposition	1248 May 23 j 10:32	9°♐06'30	0°40'17
min. Earth dist.	1248 May 24 j 20:25	8°♐55'41	4.27402 AU
direct	1248 Jul 24 j 07:46	4°♐08'24	
evening set	1248 Nov 26 j 17:59	22°♐26'44	
max. Earth dist.	1248 Dec 07 j 17:53	24°♐58'27	6.20656 AU
conjunction	1248 Dec 09 j 10:09	25°♐21'40	0°08'56
minimum elong	1248 Dec 09 j 10:10	25°♐21'41	0°08'56
behind sun begin	1248 Dec 09 j 03:18	25°♐17'44	
behind sun end	1248 Dec 09 j 17:02	25°♐25'37	
morning rise	1248 Dec 22 j 02:04	28°♐16'48	
	1248 Dec 29 j 14:58	0°♑	
desc. node	1249 Mar 10 j 03:56	13°♑30'34	
retrograde	1249 Apr 27 j 10:26	16°♑57'28	
opposition	1249 Jun 27 j 05:37	12°♑03'06	-0°16'00
min. Earth dist.	1249 Jun 28 j 04:30	11°♑55'43	4.13710 AU
direct	1249 Aug 26 j 20:29	7°♑07'33	
evening set	1249 Dec 29 j 22:45	26°♑01'35	
conjunction	1250 Jan 11 j 17:47	29°♑03'23	-0°29'50
minimum elong	1250 Jan 11 j 17:45	29°♑03'22	0°29'51
max. Earth dist.	1250 Jan 10 j 21:42	28°♑51'27	6.07312 AU
	1250 Jan 15 j 17:11	0°♒	
morning rise	1250 Jan 24 j 14:29	2°♒06'13	
	1250 Mar 25 j 19:45	15°♒	
retrograde	1250 Jun 03 j 10:13	21°♒52'31	
opposition	1250 Aug 02 j 21:10	16°♒54'42	-1°10'12
min. Earth dist.	1250 Aug 02 j 23:31	16°♒53'56	4.01891 AU
	1250 Aug 17 j 20:34	15°℞♒	
direct	1250 Oct 01 j 01:18	12°♒00'55	
	1250 Nov 13 j 06:58	15°♒	
	1251 Jan 28 j 02:37	0°♓	
evening set	1251 Feb 03 j 03:57	1°♓26'44	
conjunction	1251 Feb 16 j 05:01	4°♓35'11	-0°59'17
minimum elong	1251 Feb 16 j 04:59	4°♓35'10	0°59'17
max. Earth dist.	1251 Feb 16 j 17:09	4°♓42'30	5.98104 AU
morning rise	1251 Mar 01 j 08:40	7°♓45'11	
retrograde	1251 Jul 11 j 12:20	28°♓16'11	
opposition	1251 Sep 09 j 12:01	23°♓14'26	-1°39'40
min. Earth dist.	1251 Sep 08 j 17:59	23°♓20'29	3.96397 AU
direct	1251 Nov 06 j 15:49	18°♓20'37	
	1252 Feb 05 j 08:55	0°♈	
evening set	1252 Mar 11 j 01:32	7°♈59'36	
conjunction	1252 Mar 24 j 10:24	11°♈12'14	-1°06'27
minimum elong	1252 Mar 24 j 10:24	11°♈12'15	1°06'27
max. Earth dist.	1252 Mar 26 j 02:29	11°♈36'20	5.96754 AU
morning rise	1252 Apr 06 j 22:30	14°♈26'31	
	1252 Jun 20 j 12:32	0°♉	
retrograde	1252 Aug 16 j 23:11	4°♉56'29	
min. Earth dist.	1252 Oct 14 j 06:58	0°♉02'55	3.99467 AU
	1252 Oct 14 j 15:32	30°℞♈	
opposition	1252 Oct 15 j 15:21	29°♈51'54	-1°29'48
direct	1252 Dec 12 j 13:08	24°♈56'00	
	1253 Feb 07 j 12:46	0°♉	
evening set	1253 Apr 17 j 12:31	14°♉22'29	
	1253 Apr 20 j 04:35	15°♉	
conjunction	1253 May 01 j 04:24	17°♉35'04	-0°47'47
minimum elong	1253 May 01 j 04:27	17°♉35'06	0°47'46
max. Earth dist.	1253 May 03 j 09:24	18°♉06'15	6.03885 AU
morning rise	1253 May 14 j 22:33	20°♉48'35	
	1253 Jun 25 j 10:45	0°♊	
retrograde	1253 Sep 21 j 13:11	10°♊32'09	
min. Earth dist.	1253 Nov 18 j 17:57	5°♊38'24	4.09809 AU
opposition	1253 Nov 20 j 02:30	5°♊27'17	-0°46'10
direct	1254 Jan 17 j 17:09	0°♊28'22	
evening set	1254 May 24 j 04:42	19°♊23'36	
conjunction	1254 Jun 06 j 23:07	22°♊31'35	-0°12'11
minimum elong	1254 Jun 06 j 23:08	22°♊31'36	0°12'12
behind sun begin	1254 Jun 06 j 17:40	22°♊28'29	
behind sun end	1254 Jun 07 j 04:37	22°♊34'42	
max. Earth dist.	1254 Jun 08 j 21:57	22°♊58'16	6.16547 AU
morning rise	1254 Jun 20 j 17:42	25°♊39'25	
	1254 Jul 10 j 07:35	0°♋	
asc. node	1254 Oct 08 j 13:42	13°♋50'12	
retrograde	1254 Oct 24 j 19:47	14°♋16'08	
opposition	1254 Dec 23 j 11:38	9°♋13'42	0°10'54
min. Earth dist.	1254 Dec 22 j 12:20	9°♋21'33	4.23445 AU
direct	1255 Feb 21 j 06:52	4°♋12'14	
evening set	1255 Jun 28 j 05:02	22°♋31'52	
conjunction	1255 Jul 11 j 19:48	25°♋32'29	0°26'03
minimum elong	1255 Jul 11 j 19:46	25°♋32'28	0°26'02
max. Earth dist.	1255 Jul 12 j 18:20	25°♋44'58	6.30077 AU
morning rise	1255 Jul 25 j 09:12	28°♋32'09	
	1255 Aug 01 j 01:59	0°♌	
	1255 Oct 29 j 07:48	15°♌	
retrograde	1255 Nov 25 j 06:16	16°♌08'54	
	1255 Dec 22 j 00:19	15°℞♌	
opposition	1256 Jan 24 j 03:50	11°♌10'08	1°01'15
min. Earth dist.	1256 Jan 23 j 21:40	11°♌12'11	4.35759 AU
direct	1256 Mar 25 j 07:54	6°♌07'16	
	1256 Jun 16 j 06:37	15°♌	
evening set	1256 Jul 30 j 08:01	23°♌58'29	
conjunction	1256 Aug 12 j 15:44	26°♌51'56	0°54'57
minimum elong	1256 Aug 12 j 15:42	26°♌51'55	0°54'58
max. Earth dist.	1256 Aug 12 j 12:04	26°♌49'57	6.40235 AU
morning rise	1256 Aug 25 j 20:37	29°♌43'57	
	1256 Aug 27 j 02:21	0°♍	
retrograde	1256 Dec 24 j 14:26	16°♍42'38	
opposition	1257 Feb 22 j 21:14	11°♍47'25	1°32'09
min. Earth dist.	1257 Feb 23 j 07:57	11°♍43'56	4.43196 AU
direct	1257 Apr 26 j 01:28	6°♍44'29	
evening set	1257 Aug 30 j 22:33	24°♍20'35	
conjunction	1257 Sep 12 j 22:29	27°♍09'17	1°07'50
minimum elong	1257 Sep 12 j 22:28	27°♍09'17	1°07'49
max. Earth dist.	1257 Sep 11 j 17:27	26°♍53'33	6.44331 AU
morning rise	1257 Sep 25 j 19:36	29°♍56'36	
	1257 Sep 26 j 01:54	0°♎	
retrograde	1258 Jan 23 j 23:17	16°♎44'13	
opposition	1258 Mar 25 j 13:23	11°♎51'29	1°37'45
min. Earth dist.	1258 Mar 26 j 16:15	11°♎42'52	4.43822 AU
direct	1258 May 27 j 07:13	6°♎49'29	
evening set	1258 Sep 30 j 16:55	24°♎26'10	
max. Earth dist.	1258 Oct 11 j 14:13	26°♎49'02	6.41358 AU
conjunction	1258 Oct 13 j 11:18	27°♎13'46	1°02'11
minimum elong	1258 Oct 13 j 11:19	27°♎13'47	1°02'12

morning rise	1258 Oct 26 j 03:16	0°♏00'20	
	1258 Oct 26 j 02:40	0°♏	
	1259 Jan 18 j 00:45	15°♏	
retrograde	1259 Feb 24 j 04:10	17°♏04'45	
	1259 Apr 02 j 16:28	15°℞♏	
opposition	1259 Apr 26 j 01:22	12°♏12'54	1°16'57
min. Earth dist.	1259 Apr 27 j 11:48	12°♏01'56	4.37452 AU
direct	1259 Jun 27 j 14:38	7°♏12'44	
	1259 Sep 12 j 12:32	15°♏	
evening set	1259 Oct 31 j 11:52	25°♏05'42	
max. Earth dist.	1259 Nov 11 j 03:39	27°♏28'54	6.32054 AU
conjunction	1259 Nov 13 j 03:40	27°♏55'53	0°39'07
minimum elong	1259 Nov 13 j 03:42	27°♏55'54	0°39'07
	1259 Nov 22 j 08:30	0°♐	
morning rise	1259 Nov 25 j 18:00	0°♐45'37	
retrograde	1260 Mar 28 j 04:33	18°♐32'57	
opposition	1260 May 28 j 03:10	13°♐40'27	0°33'03
min. Earth dist.	1260 May 29 j 12:45	13°♐29'45	4.25705 AU
direct	1260 Jul 28 j 21:27	8°♐42'44	
evening set	1260 Dec 01 j 05:34	27°♐05'19	
max. Earth dist.	1260 Dec 12 j 06:03	29°♐38'02	6.18836 AU
conjunction	1260 Dec 13 j 21:47	0°♑01'03	0°03'34
minimum elong	1260 Dec 13 j 21:48	0°♑01'04	0°03'34
behind sun begin	1260 Dec 13 j 13:53	29°♐56'30	
behind sun end	1260 Dec 14 j 05:44	0°♑05'38	
	1260 Dec 13 j 19:53	0°♑	
morning rise	1260 Dec 26 j 14:19	2°♑57'10	
desc. node	1261 Jan 18 j 12:43	8°♑07'15	
retrograde	1261 May 02 j 09:49	21°♑46'46	
opposition	1261 Jul 02 j 04:23	16°♑51'58	-0°24'07
min. Earth dist.	1261 Jul 03 j 00:40	16°♑45'25	4.11894 AU
direct	1261 Aug 31 j 14:18	11°♑56'42	
	1261 Dec 30 j 17:47	0°♒	
evening set	1262 Jan 03 j 16:27	0°♒55'45	
conjunction	1262 Jan 16 j 12:17	3°♒58'33	-0°34'48
minimum elong	1262 Jan 16 j 12:15	3°♒58'32	0°34'47
max. Earth dist.	1262 Jan 15 j 21:04	3°♒49'30	6.05673 AU
morning rise	1262 Jan 29 j 09:39	7°♒02'27	
	1262 Mar 05 j 09:53	15°♒	
retrograde	1262 Jun 08 j 16:36	26°♒57'01	
opposition	1262 Aug 08 j 01:02	21°♒58'44	-1°16'13
min. Earth dist.	1262 Aug 08 j 01:31	21°♒58'34	4.00594 AU
direct	1262 Oct 06 j 01:26	17°♒05'06	
	1263 Jan 10 j 23:19	0°♓	
evening set	1263 Feb 08 j 04:23	6°♓34'36	
conjunction	1263 Feb 21 j 06:21	9°♓43'53	-1°01'48
minimum elong	1263 Feb 21 j 06:19	9°♓43'52	1°01'48
max. Earth dist.	1263 Feb 21 j 21:29	9°♓53'01	5.97253 AU
morning rise	1263 Mar 06 j 11:19	12°♓54'49	
	1263 May 29 j 22:20	0°♈	
retrograde	1263 Jul 16 j 18:04	3°♈29'27	
	1263 Sep 03 j 00:21	30°℞♓	
opposition	1263 Sep 14 j 16:54	28°♓27'16	-1°40'44
min. Earth dist.	1263 Sep 13 j 19:33	28°♓34'26	3.96114 AU
direct	1263 Nov 11 j 17:36	23°♓33'18	
	1264 Jan 15 j 09:56	0°♈	
evening set	1264 Mar 16 j 06:23	13°♈12'59	
conjunction	1264 Mar 29 j 16:25	16°♈26'02	-1°05'17
minimum elong	1264 Mar 29 j 16:26	16°♈26'03	1°05'17
max. Earth dist.	1264 Mar 31 j 11:11	16°♈51'43	5.97058 AU
morning rise	1264 Apr 12 j 05:33	19°♈40'38	
	1264 May 28 j 05:55	0°♉	
retrograde	1264 Aug 22 j 01:45	10°♉07'34	
min. Earth dist.	1264 Oct 19 j 08:17	5°♉13'55	4.00320 AU
opposition	1264 Oct 20 j 16:54	5°♉02'47	-1°25'20
direct	1264 Dec 17 j 16:17	0°♉06'32	
	1265 Apr 03 j 02:10	15°♉	
evening set	1265 Apr 22 j 17:25	19°♉30'27	
conjunction	1265 May 06 j 10:09	22°♉42'48	-0°43'29
minimum elong	1265 May 06 j 10:12	22°♉42'49	0°43'28
max. Earth dist.	1265 May 08 j 17:00	23°♉14'56	6.05235 AU
morning rise	1265 May 20 j 04:43	25°♉55'53	
	1265 Jun 06 j 23:57	0°♊	
retrograde	1265 Sep 26 j 08:52	15°♊31'17	
opposition	1265 Nov 24 j 21:56	10°♊26'43	-0°38'26
min. Earth dist.	1265 Nov 23 j 13:17	10°♊37'50	4.11526 AU
direct	1266 Jan 22 j 15:09	5°♊27'30	
evening set	1266 May 29 j 05:27	24°♊17'56	
conjunction	1266 Jun 11 j 23:33	27°♊24'59	-0°06'41
minimum elong	1266 Jun 11 j 23:34	27°♊24'59	0°06'40
behind sun begin	1266 Jun 11 j 15:46	27°♊20'35	
behind sun end	1266 Jun 12 j 07:22	27°♊29'23	
max. Earth dist.	1266 Jun 13 j 19:11	27°♊49'43	6.18509 AU
	1266 Jun 23 j 09:26	0°♋	
morning rise	1266 Jun 25 j 17:53	0°♋31'47	
asc. node	1266 Aug 18 j 09:12	11°♋39'44	
retrograde	1266 Oct 29 j 08:03	18°♋59'04	
min. Earth dist.	1266 Dec 27 j 03:17	14°♋04'15	4.25483 AU
opposition	1266 Dec 28 j 00:39	13°♋57'03	0°18'44
direct	1267 Feb 26 j 01:18	8°♋55'19	
evening set	1267 Jul 02 j 22:52	27°♋09'35	
	1267 Jul 15 j 20:33	0°♌	
conjunction	1267 Jul 16 j 12:54	0°♌09'01	0°30'50
minimum elong	1267 Jul 16 j 12:52	0°♌09'00	0°30'49
max. Earth dist.	1267 Jul 17 j 09:50	0°♌20'33	6.32057 AU
morning rise	1267 Jul 30 j 00:59	3°♌07'20	
	1267 Sep 28 j 02:57	15°♌	
retrograde	1267 Nov 29 j 11:51	20°♌36'06	
opposition	1268 Jan 28 j 11:24	15°♌37'52	1°06'49
min. Earth dist.	1268 Jan 28 j 06:39	15°♌39'26	4.37539 AU
	1268 Feb 02 j 06:19	15°℞♌	
direct	1268 Mar 29 j 19:18	10°♌34'56	
	1268 May 25 j 02:20	15°♌	
evening set	1268 Aug 03 j 19:02	28°♌21'37	
	1268 Aug 11 j 09:01	0°♍	
conjunction	1268 Aug 17 j 01:23	1°♍14'00	0°57'44
minimum elong	1268 Aug 17 j 01:21	1°♍13'58	0°57'44
max. Earth dist.	1268 Aug 16 j 16:49	1°♍09'20	6.41670 AU
morning rise	1268 Aug 30 j 05:10	4°♍04'57	
retrograde	1268 Dec 28 j 18:33	20°♍58'50	
opposition	1269 Feb 27 j 02:02	16°♍04'00	1°34'21
min. Earth dist.	1269 Feb 27 j 16:03	15°♍59'27	4.44198 AU
direct	1269 Apr 30 j 10:26	11°♍01'03	
evening set	1269 Sep 04 j 03:52	28°♍34'33	
	1269 Sep 10 j 18:18	0°♎	
max. Earth dist.	1269 Sep 15 j 19:37	1°♎05'42	6.44804 AU
conjunction	1269 Sep 17 j 02:58	1°♎22'41	1°08'05
minimum elong	1269 Sep 17 j 02:58	1°♎22'41	1°08'05
morning rise	1269 Sep 29 j 23:02	4°♎09'27	
retrograde	1270 Jan 28 j 01:25	20°♎56'17	
opposition	1270 Mar 29 j 18:08	16°♎03'42	1°36'19
min. Earth dist.	1270 Mar 30 j 22:00	15°♎54'46	4.43738 AU
direct	1270 May 31 j 11:49	11°♎01'49	
evening set	1270 Oct 04 j 19:57	28°♎38'35	

	1270 Oct 11 j 00:52	0°♏	
max. Earth dist.	1270 Oct 15 j 15:02	1°♏00'31	6.40705 AU
conjunction	1270 Oct 17 j 13:41	1°♏26'10	0°59'58
minimum elong	1270 Oct 17 j 13:43	1°♏26'11	0°59'58
morning rise	1270 Oct 30 j 05:11	4°♏12'48	
	1270 Dec 23 j 00:57	15°♏	
retrograde	1271 Feb 28 j 12:11	21°♏20'48	
opposition	1271 Apr 30 j 09:23	16°♏28'58	1°12'11
min. Earth dist.	1271 May 01 j 21:47	16°♏17'23	4.36240 AU
	1271 May 12 j 04:54	15°℞♏	
direct	1271 Jul 01 j 22:10	11°♏28'59	
	1271 Aug 20 j 16:42	15°♏	
evening set	1271 Nov 04 j 16:17	29°♏25'03	
	1271 Nov 07 j 06:41	0°♐	
max. Earth dist.	1271 Nov 15 j 06:06	1°♐47'44	6.30364 AU
conjunction	1271 Nov 17 j 07:57	2°♐15'51	0°34'52
minimum elong	1271 Nov 17 j 07:59	2°♐15'52	0°34'53
morning rise	1271 Nov 29 j 22:31	5°♐06'20	
retrograde	1272 Apr 01 j 18:43	23°♐01'33	
opposition	1272 Jun 01 j 17:13	18°♐08'46	0°25'48
min. Earth dist.	1272 Jun 03 j 01:37	17°♐58'24	4.23630 AU
direct	1272 Aug 02 j 06:44	13°♐11'15	
	1272 Nov 28 j 09:15	0°♑	
desc. node	1272 Nov 30 j 07:08	0°♑26'12	
evening set	1272 Dec 05 j 15:06	1°♑39'43	
max. Earth dist.	1272 Dec 16 j 18:51	4°♑15'02	6.16553 AU
conjunction	1272 Dec 18 j 07:51	4°♑36'35	-0°01'50
minimum elong	1272 Dec 18 j 07:50	4°♑36'34	0°01'50
behind sun begin	1272 Dec 17 j 23:50	4°♑31'56	
behind sun end	1272 Dec 18 j 15:51	4°♑41'12	
morning rise	1272 Dec 31 j 00:49	7°♑33'52	
retrograde	1273 May 07 j 10:42	26°♑34'20	
opposition	1273 Jul 07 j 02:33	21°♑39'09	-0°31'59
min. Earth dist.	1273 Jul 07 j 21:45	21°♑32'56	4.09574 AU
direct	1273 Sep 05 j 07:38	16°♑44'08	
	1273 Dec 14 j 04:17	0°♒	
evening set	1274 Jan 08 j 10:20	5°♒50'11	
conjunction	1274 Jan 21 j 06:53	8°♒54'16	-0°39'27
minimum elong	1274 Jan 21 j 06:50	8°♒54'14	0°39'27
max. Earth dist.	1274 Jan 20 j 17:59	8°♒46'33	6.03521 AU
morning rise	1274 Feb 03 j 05:25	11°♒59'35	
	1274 Feb 16 j 00:09	15°♒	
	1274 May 08 j 08:21	0°♓	
retrograde	1274 Jun 13 j 22:22	2°♓04'21	
	1274 Jul 20 j 15:36	30°℞♒	
opposition	1274 Aug 13 j 05:47	27°♒05'31	-1°21'40
min. Earth dist.	1274 Aug 13 j 02:12	27°♒06'42	3.98852 AU
direct	1274 Oct 11 j 00:23	22°♒11'57	
	1274 Dec 22 j 07:39	0°♓	
evening set	1275 Feb 13 j 07:01	11°♓46'54	
conjunction	1275 Feb 26 j 10:12	14°♓57'16	-1°03'48
minimum elong	1275 Feb 26 j 10:11	14°♓57'15	1°03'48
max. Earth dist.	1275 Feb 27 j 06:28	15°♓09'31	5.96087 AU
morning rise	1275 Mar 11 j 16:22	18°♓09'17	
	1275 May 03 j 20:21	0°♈	
retrograde	1275 Jul 22 j 03:50	8°♈48'24	
min. Earth dist.	1275 Sep 19 j 00:37	3°♈53'33	3.95665 AU
opposition	1275 Sep 20 j 00:00	3°♈45'40	-1°40'56
	1275 Oct 21 j 23:37	30°℞♓	
direct	1275 Nov 16 j 23:25	28°♓51'27	
	1275 Dec 12 j 21:07	0°♈	
evening set	1276 Mar 21 j 14:09	18°♈32'12	
conjunction	1276 Apr 04 j 01:29	21°♈45'42	-1°03'31
minimum elong	1276 Apr 04 j 01:31	21°♈45'43	1°03'31
max. Earth dist.	1276 Apr 06 j 01:09	22°♈14'16	5.97367 AU
morning rise	1276 Apr 17 j 15:43	25°♈00'37	
	1276 May 09 j 01:46	0°♉	
	1276 Aug 11 j 19:31	15°♉	
retrograde	1276 Aug 27 j 06:32	15°♉23'36	
	1276 Sep 11 j 14:30	15°℞♉	
min. Earth dist.	1276 Oct 24 j 10:22	10°♉30'17	4.01345 AU
opposition	1276 Oct 25 j 20:36	10°♉18'37	-1°20'03
direct	1276 Dec 22 j 20:21	5°♉21'58	
	1277 Mar 14 j 23:29	15°♉	
evening set	1277 Apr 28 j 00:32	24°♉42'14	
conjunction	1277 May 11 j 17:41	27°♉54'04	-0°38'45
minimum elong	1277 May 11 j 17:44	27°♉54'05	0°38'45
max. Earth dist.	1277 May 13 j 23:47	28°♉25'37	6.06844 AU
	1277 May 20 j 17:54	0°♊	
morning rise	1277 May 25 j 12:46	1°♊06'34	
retrograde	1277 Oct 01 j 04:25	20°♊32'31	
min. Earth dist.	1277 Nov 28 j 10:23	15°♊38'58	4.13501 AU
opposition	1277 Nov 29 j 18:28	15°♊28'03	-0°30'19
direct	1278 Jan 27 j 16:11	10°♊28'20	
evening set	1278 Jun 03 j 06:55	29°♊12'58	
	1278 Jun 06 j 18:36	0°♋	
conjunction	1278 Jun 17 j 00:52	2°♋18'57	-0°01'01
minimum elong	1278 Jun 17 j 00:51	2°♋18'56	0°01'01
behind sun begin	1278 Jun 16 j 16:29	2°♋14'14	
behind sun end	1278 Jun 17 j 09:13	2°♋23'38	
max. Earth dist.	1278 Jun 18 j 19:11	2°♋42'51	6.20669 AU
asc. node	1278 Jun 27 j 02:09	4°♋35'00	
morning rise	1278 Jun 30 j 18:23	5°♋24'27	
retrograde	1278 Nov 02 j 20:52	23°♋41'43	
opposition	1279 Jan 01 j 13:55	18°♋40'12	0°26'30
min. Earth dist.	1278 Dec 31 j 18:34	18°♋46'41	4.27597 AU
direct	1279 Mar 02 j 19:21	13°♋38'14	
	1279 Jun 29 j 11:40	0°♌	
evening set	1279 Jul 07 j 17:04	1°♌47'06	
conjunction	1279 Jul 21 j 05:58	4°♌45'19	0°35'28
minimum elong	1279 Jul 21 j 05:56	4°♌45'18	0°35'29
max. Earth dist.	1279 Jul 21 j 21:45	4°♌53'59	6.33932 AU
morning rise	1279 Aug 03 j 17:04	7°♌42'24	
	1279 Sep 07 j 14:03	15°♌	
retrograde	1279 Dec 03 j 19:19	25°♌04'03	
opposition	1280 Feb 01 j 19:54	20°♌06'19	1°12'07
min. Earth dist.	1280 Feb 01 j 18:11	20°♌06'53	4.39053 AU
direct	1280 Apr 03 j 07:59	15°♌03'17	
	1280 Jul 26 j 05:18	0°♍	
evening set	1280 Aug 08 j 06:33	2°♍46'35	
conjunction	1280 Aug 21 j 11:56	5°♍38'07	1°00'16
minimum elong	1280 Aug 21 j 11:54	5°♍38'06	1°00'15
max. Earth dist.	1280 Aug 21 j 00:55	5°♍32'08	6.42704 AU
morning rise	1280 Sep 03 j 14:21	8°♍28'10	
retrograde	1281 Jan 01 j 23:24	25°♍18'58	
opposition	1281 Mar 03 j 08:48	20°♍24'35	1°36'12
min. Earth dist.	1281 Mar 04 j 00:39	20°♍19'28	4.44706 AU
direct	1281 May 04 j 18:49	15°♍21'48	
	1281 Aug 25 j 19:19	0°♎	
evening set	1281 Sep 08 j 11:43	2°♎54'28	
max. Earth dist.	1281 Sep 19 j 22:19	5°♎23'00	6.44736 AU
conjunction	1281 Sep 21 j 09:45	5°♎42'14	1°08'02
minimum elong	1281 Sep 21 j 09:45	5°♎42'14	1°08'03
morning rise	1281 Oct 04 j 05:07	8°♎28'44	

retrograde	1282 Feb 01 j 10:18	25°♎16'45	
opposition	1282 Apr 03 j 02:42	20°♎24'26	1°34'26
min. Earth dist.	1282 Apr 04 j 09:22	20°♎14'37	4.43103 AU
direct	1282 Jun 04 j 21:27	15°♎22'45	
	1282 Sep 25 j 02:34	0°♏	
evening set	1282 Oct 09 j 02:56	3°♏01'25	
max. Earth dist.	1282 Oct 19 j 20:15	5°♏22'47	6.39546 AU
conjunction	1282 Oct 21 j 20:20	5°♏49'18	0°57'22
minimum elong	1282 Oct 21 j 20:21	5°♏49'19	0°57'21
morning rise	1282 Nov 03 j 11:27	8°♏36'17	
	1282 Dec 03 j 15:13	15°♏	
retrograde	1283 Mar 05 j 00:32	25°♏49'40	
opposition	1283 May 04 j 22:44	20°♏57'50	1°06'48
min. Earth dist.	1283 May 06 j 10:34	20°♏46'25	4.34627 AU
direct	1283 Jul 06 j 07:47	15°♏58'12	
	1283 Oct 22 j 01:17	0°♐	
evening set	1283 Nov 09 j 02:00	3°♐58'36	
max. Earth dist.	1283 Nov 19 j 17:06	6°♐22'39	6.28430 AU
conjunction	1283 Nov 21 j 17:38	6°♐50'10	0°30'12
minimum elong	1283 Nov 21 j 17:40	6°♐50'11	0°30'12
morning rise	1283 Dec 04 j 08:20	9°♐41'31	
retrograde	1284 Apr 06 j 17:20	27°♐45'40	
opposition	1284 Jun 06 j 13:54	22°♐52'43	0°17'58
min. Earth dist.	1284 Jun 07 j 22:03	22°♐42'25	4.21486 AU
direct	1284 Aug 06 j 23:47	17°♐55'37	
desc. node	1284 Oct 09 j 12:32	23°♐42'03	
	1284 Nov 11 j 06:48	0°♑	
evening set	1284 Dec 10 j 06:47	6°♑29'59	
conjunction	1284 Dec 22 j 23:53	9°♑27'55	-0°07'25
minimum elong	1284 Dec 22 j 23:53	9°♑27'55	0°07'25
behind sun begin	1284 Dec 22 j 16:33	9°♑23'38	
behind sun end	1284 Dec 23 j 07:13	9°♑32'11	
max. Earth dist.	1284 Dec 21 j 12:40	9°♑07'19	6.14398 AU
morning rise	1285 Jan 04 j 17:36	12°♑26'26	
	1285 Apr 10 j 04:25	0°♒	
retrograde	1285 May 12 j 14:39	1°♒37'13	
	1285 Jun 14 j 04:40	30°℞♑	
opposition	1285 Jul 12 j 06:24	26°♑41'37	-0°40'04
min. Earth dist.	1285 Jul 12 j 21:42	26°♑36'39	4.07615 AU
direct	1285 Sep 10 j 05:16	21°♑46'58	
	1285 Nov 24 j 18:12	0°♒	
evening set	1286 Jan 13 j 09:41	10°♒58'36	
conjunction	1286 Jan 26 j 07:04	14°♒03'43	-0°44'03
minimum elong	1286 Jan 26 j 07:01	14°♒03'42	0°44'03
max. Earth dist.	1286 Jan 25 j 23:32	13°♒59'12	6.01960 AU
	1286 Jan 30 j 04:52	15°♒	
morning rise	1286 Feb 08 j 06:30	17°♒10'09	
	1286 Apr 08 j 06:33	0°♓	
retrograde	1286 Jun 19 j 09:29	7°♓22'31	
opposition	1286 Aug 18 j 14:24	2°♓23'06	-1°26'41
min. Earth dist.	1286 Aug 18 j 08:01	2°♓25'13	3.97878 AU
	1286 Sep 06 j 10:21	30°℞♒	
direct	1286 Oct 16 j 06:22	27°♒29'37	
	1286 Nov 24 j 09:35	0°♓	
evening set	1287 Feb 18 j 12:32	17°♓06'50	
conjunction	1287 Mar 03 j 16:53	20°♓17'50	-1°05'24
minimum elong	1287 Mar 03 j 16:52	20°♓17'50	1°05'23
max. Earth dist.	1287 Mar 04 j 18:45	20°♓33'29	5.95802 AU
morning rise	1287 Mar 17 j 00:12	23°♓30'30	
	1287 Apr 13 j 19:43	0°♈	
retrograde	1287 Jul 27 j 12:03	14°♈09'51	
min. Earth dist.	1287 Sep 24 j 05:12	9°♈15'29	3.96140 AU
opposition	1287 Sep 25 j 07:23	9°♈06'38	-1°40'19
direct	1287 Nov 22 j 04:54	4°♈12'13	
evening set	1288 Mar 26 j 21:42	23°♈50'33	
conjunction	1288 Apr 09 j 09:51	27°♈03'54	-1°01'19
minimum elong	1288 Apr 09 j 09:53	27°♈03'55	1°01'17
max. Earth dist.	1288 Apr 11 j 10:44	27°♈33'06	5.98522 AU
	1288 Apr 21 j 17:33	0°♉	
morning rise	1288 Apr 23 j 01:05	0°♉18'40	
	1288 Jul 01 j 23:38	15°♉	
retrograde	1288 Sep 01 j 06:22	20°♉34'15	
min. Earth dist.	1288 Oct 29 j 10:20	15°♉41'02	4.03037 AU
opposition	1288 Oct 30 j 21:20	15°♉29'06	-1°14'17
	1288 Nov 03 j 10:49	15°℞♉	
direct	1288 Dec 27 j 23:57	10°♉31'57	
	1289 Feb 19 j 12:32	15°♉	
evening set	1289 May 03 j 04:31	29°♉46'33	
	1289 May 04 j 03:48	0°♊	
conjunction	1289 May 16 j 22:13	2°♊57'38	-0°33'53
minimum elong	1289 May 16 j 22:15	2°♊57'39	0°33'53
max. Earth dist.	1289 May 19 j 04:30	3°♊29'08	6.08926 AU
morning rise	1289 May 30 j 17:13	6°♊09'09	
retrograde	1289 Oct 05 j 21:29	25°♊24'20	
min. Earth dist.	1289 Dec 03 j 04:51	20°♊30'24	4.15729 AU
opposition	1289 Dec 04 j 11:00	20°♊20'10	-0°22'18
direct	1290 Feb 01 j 13:27	15°♊20'03	
asc. node	1290 May 07 j 06:02	27°♊04'03	
	1290 May 21 j 03:12	0°♋	
evening set	1290 Jun 08 j 04:18	3°♋58'24	
conjunction	1290 Jun 21 j 21:41	7°♋03'12	0°04'31
minimum elong	1290 Jun 21 j 21:42	7°♋03'13	0°04'31
behind sun begin	1290 Jun 21 j 13:31	6°♋58'38	
behind sun end	1290 Jun 22 j 05:52	7°♋07'47	
max. Earth dist.	1290 Jun 23 j 12:05	7°♋24'47	6.22845 AU
morning rise	1290 Jul 05 j 14:40	10°♋07'30	
retrograde	1290 Nov 07 j 04:37	28°♋15'17	
opposition	1291 Jan 05 j 23:32	23°♋14'14	0°33'48
min. Earth dist.	1291 Jan 05 j 06:22	23°♋19'59	4.29544 AU
direct	1291 Mar 07 j 08:53	18°♋11'59	
	1291 Jun 12 j 14:14	0°♌	
evening set	1291 Jul 12 j 07:29	6°♌16'16	
conjunction	1291 Jul 25 j 19:30	9°♌13'26	0°39'46
minimum elong	1291 Jul 25 j 19:28	9°♌13'25	0°39'46
max. Earth dist.	1291 Jul 26 j 07:29	9°♌20'00	6.35508 AU
morning rise	1291 Aug 08 j 05:20	12°♌09'22	
	1291 Aug 21 j 10:43	15°♌	
retrograde	1291 Dec 08 j 00:40	29°♌25'12	
opposition	1292 Feb 06 j 01:48	24°♌28'00	1°16'53
min. Earth dist.	1292 Feb 06 j 03:05	24°♌27'35	4.40164 AU
direct	1292 Apr 07 j 17:47	19°♌24'57	
	1292 Jul 09 j 05:38	0°♍	
evening set	1292 Aug 12 j 16:00	7°♍06'12	
conjunction	1292 Aug 25 j 20:14	9°♍57'03	1°02'25
minimum elong	1292 Aug 25 j 20:12	9°♍57'02	1°02'25
max. Earth dist.	1292 Aug 25 j 03:54	9°♍48'12	6.43253 AU
morning rise	1292 Sep 07 j 21:43	12°♍46'30	
retrograde	1293 Jan 06 j 04:48	29°♍35'50	
opposition	1293 Mar 07 j 14:36	24°♍41'48	1°37'31
min. Earth dist.	1293 Mar 08 j 09:18	24°♍35'45	4.44697 AU
direct	1293 May 09 j 02:24	19°♍39'03	
	1293 Aug 08 j 19:59	0°♎	
evening set	1293 Sep 12 j 18:33	7°♎12'26	
max. Earth dist.	1293 Sep 24 j 03:12	9°♎40'08	6.44167 AU

conjunction	1293 Sep 25 j 16:00	10°♎00'09	1°07'38
minimum elong	1293 Sep 25 j 16:00	10°♎00'09	1°07'37
morning rise	1293 Oct 08 j 10:29	12°♎46'34	
retrograde	1294 Feb 05 j 17:55	29°♎37'22	
opposition	1294 Apr 07 j 11:42	24°♎45'13	1°32'03
min. Earth dist.	1294 Apr 08 j 18:56	24°♎35'14	4.42029 AU
direct	1294 Jun 09 j 04:50	19°♎43'50	
	1294 Sep 07 j 23:27	0°♏	
evening set	1294 Oct 13 j 10:33	7°♏25'34	
max. Earth dist.	1294 Oct 24 j 01:55	9°♏46'27	6.38046 AU
conjunction	1294 Oct 26 j 03:25	10°♏13'51	0°54'25
minimum elong	1294 Oct 26 j 03:27	10°♏13'52	0°54'25
morning rise	1294 Nov 07 j 18:25	13°♏01'22	
	1294 Nov 16 j 19:20	15°♏	
	1295 Feb 22 j 14:01	0°♐	
retrograde	1295 Mar 09 j 17:01	0°♐21'16	
	1295 Mar 24 j 18:16	30°℞♏	
opposition	1295 May 09 j 13:51	25°♏29'23	1°00'59
min. Earth dist.	1295 May 11 j 02:23	25°♏17'45	4.32789 AU
direct	1295 Jul 10 j 21:02	20°♏30'05	
	1295 Oct 04 j 06:19	0°♐	
evening set	1295 Nov 13 j 13:11	8°♐35'20	
max. Earth dist.	1295 Nov 24 j 05:48	11°♐00'54	6.26418 AU
conjunction	1295 Nov 26 j 04:58	11°♐27'46	0°25'18
minimum elong	1295 Nov 26 j 05:00	11°♐27'46	0°25'17
morning rise	1295 Dec 08 j 19:54	14°♐20'03	
	1296 Mar 01 j 08:41	0°♑	
retrograde	1296 Apr 11 j 14:59	2°♑33'12	
	1296 May 23 j 11:14	30°℞♐	
opposition	1296 Jun 11 j 12:05	27°♐39'56	0°09'53
min. Earth dist.	1296 Jun 12 j 17:17	27°♐30'35	4.19454 AU
direct	1296 Aug 11 j 16:10	22°♐43'16	
desc. node	1296 Aug 18 j 15:42	22°♐47'51	
	1296 Oct 22 j 15:53	0°♑	
evening set	1296 Dec 14 j 23:51	11°♑22'56	
max. Earth dist.	1296 Dec 26 j 10:10	14°♑03'31	6.12523 AU
conjunction	1296 Dec 27 j 17:20	14°♑21'50	-0°12'59
minimum elong	1296 Dec 27 j 17:20	14°♑21'50	0°12'58
behind sun begin	1296 Dec 27 j 12:20	14°♑18'54	
behind sun end	1296 Dec 27 j 22:20	14°♑24'45	
morning rise	1297 Jan 09 j 11:40	17°♑21'25	
	1297 Mar 10 j 03:31	0°♒	
retrograde	1297 May 17 j 21:15	6°♒41'22	
opposition	1297 Jul 17 j 11:13	1°♒45'15	-0°47'54
min. Earth dist.	1297 Jul 18 j 00:01	1°♒41'05	4.06053 AU
	1297 Jul 31 j 05:55	30°℞♑	
direct	1297 Sep 15 j 06:34	26°♑50'51	
	1297 Oct 30 j 02:03	0°♒	
	1298 Jan 13 j 17:33	15°♒	
evening set	1298 Jan 18 j 09:07	16°♒06'21	
conjunction	1298 Jan 31 j 07:19	19°♒12'20	-0°48'19
minimum elong	1298 Jan 31 j 07:17	19°♒12'19	0°48'19
max. Earth dist.	1298 Jan 31 j 04:51	19°♒10'51	6.00847 AU
morning rise	1298 Feb 13 j 07:42	22°♒19'41	
	1298 Mar 18 j 15:56	0°♓	
retrograde	1298 Jun 24 j 18:05	12°♓37'27	
opposition	1298 Aug 23 j 21:38	7°♓37'31	-1°30'56
min. Earth dist.	1298 Aug 23 j 11:47	7°♓40'47	3.97358 AU
direct	1298 Oct 21 j 09:19	2°♓44'04	
evening set	1299 Feb 23 j 16:59	22°♓22'06	
conjunction	1299 Mar 08 j 22:12	25°♓33'30	-1°06'26
minimum elong	1299 Mar 08 j 22:12	25°♓33'30	1°06'27
max. Earth dist.	1299 Mar 10 j 02:51	25°♓50'49	5.95885 AU
morning rise	1299 Mar 22 j 06:43	28°♓46'37	
	1299 Mar 27 j 09:35	0°♈	
retrograde	1299 Aug 01 j 16:12	19°♈24'43	
min. Earth dist.	1299 Sep 29 j 07:33	14°♈30'41	3.96829 AU
opposition	1299 Sep 30 j 11:51	14°♈21'06	-1°38'54
direct	1299 Nov 27 j 09:05	9°♈26'22	
evening set	1300 Apr 01 j 02:49	29°♈02'01	
	1300 Apr 05 j 04:39	0°♉	
conjunction	1300 Apr 14 j 16:05	2°♉15'17	-0°58'40
minimum elong	1300 Apr 14 j 16:07	2°♉15'18	0°58'39
max. Earth dist.	1300 Apr 16 j 19:50	2°♉46'04	5.99753 AU
morning rise	1300 Apr 28 j 07:57	5°♉29'48	
	1300 Jun 09 j 19:23	15°♉	
retrograde	1300 Sep 06 j 06:22	25°♉38'05	
min. Earth dist.	1300 Nov 03 j 09:27	20°♉44'36	4.04660 AU
opposition	1300 Nov 04 j 19:34	20°♉32'58	-1°08'06
direct	1301 Jan 02 j 01:17	15°♉35'26	
	1301 Apr 17 j 05:34	0°♊	
evening set	1301 May 08 j 06:21	4°♊45'06	
conjunction	1301 May 22 j 00:16	7°♊55'28	-0°28'52
minimum elong	1301 May 22 j 00:18	7°♊55'29	0°28'51
max. Earth dist.	1301 May 24 j 04:57	8°♊25'54	6.10790 AU
morning rise	1301 Jun 04 j 19:27	11°♊06'11	
	1301 Sep 29 j 12:09	0°♋	
retrograde	1301 Oct 10 j 10:47	0°♋11'54	
	1301 Oct 21 j 08:33	30°℞♊	
min. Earth dist.	1301 Dec 07 j 20:29	25°♊18'01	4.17651 AU
opposition	1301 Dec 09 j 01:46	25°♊08'05	-0°14'16
direct	1302 Feb 06 j 07:14	20°♊07'38	
asc. node	1302 Mar 17 j 12:04	22°♊30'42	
	1302 May 03 j 01:37	0°♋	
evening set	1302 Jun 13 j 00:30	8°♋41'10	
conjunction	1302 Jun 26 j 17:25	11°♋44'58	0°09'51
minimum elong	1302 Jun 26 j 17:25	11°♋44'58	0°09'51
behind sun begin	1302 Jun 26 j 10:43	11°♋41'14	
behind sun end	1302 Jun 27 j 00:07	11°♋48'42	
max. Earth dist.	1302 Jun 28 j 03:56	12°♋04'18	6.24683 AU
morning rise	1302 Jul 10 j 09:36	14°♋48'08	
	1302 Sep 29 j 20:14	0°♌	
retrograde	1302 Nov 11 j 14:20	2°♌47'59	
	1302 Dec 24 j 05:39	30°℞♋	
opposition	1303 Jan 10 j 08:50	27°♋47'30	0°40'52
min. Earth dist.	1303 Jan 09 j 18:59	27°♋52'07	4.31142 AU
direct	1303 Mar 11 j 23:20	22°♋45'05	
	1303 May 24 j 06:48	0°♌	
evening set	1303 Jul 16 j 21:50	10°♌45'59	
conjunction	1303 Jul 30 j 08:54	13°♌42'15	0°43'50
minimum elong	1303 Jul 30 j 08:51	13°♌42'14	0°43'49
max. Earth dist.	1303 Jul 30 j 16:45	13°♌46'33	6.36739 AU
	1303 Aug 05 j 07:08	15°♌	
morning rise	1303 Aug 12 j 17:39	16°♌37'14	
	1303 Oct 22 j 13:40	0°♍	
retrograde	1303 Dec 12 j 05:29	3°♍48'32	
	1304 Feb 01 j 14:47	30°℞♌	
opposition	1304 Feb 10 j 08:28	28°♌51'49	1°21'15
min. Earth dist.	1304 Feb 10 j 11:52	28°♌50'42	4.40973 AU
direct	1304 Apr 12 j 02:53	23°♌48'45	
	1304 Jun 19 j 05:55	0°♍	
evening set	1304 Aug 17 j 01:52	11°♍28'46	
max. Earth dist.	1304 Aug 29 j 10:16	14°♍08'52	6.43583 AU
conjunction	1304 Aug 30 j 05:09	14°♍19'06	1°04'14

minimum elong	1304 Aug 30 j 05:07	14°♍19'05	1°04'14
morning rise	1304 Sep 12 j 05:28	17°♍07'59	
	1304 Nov 19 j 13:26	0°♎	
retrograde	1305 Jan 10 j 11:15	3°♎56'37	
	1305 Mar 04 j 11:52	30°℞♍	
opposition	1305 Mar 11 j 21:55	29°♍02'59	1°38'21
min. Earth dist.	1305 Mar 12 j 18:41	28°♍56'17	4.44548 AU
direct	1305 May 13 j 11:23	24°♍00'28	
	1305 Jul 19 j 17:20	0°♎	
evening set	1305 Sep 17 j 02:38	11°♎34'43	
max. Earth dist.	1305 Sep 28 j 06:59	14°♎00'27	6.43546 AU
conjunction	1305 Sep 29 j 23:11	14°♎22'21	1°06'51
minimum elong	1305 Sep 29 j 23:11	14°♎22'22	1°06'50
morning rise	1305 Oct 12 j 17:08	17°♎08'47	
	1305 Dec 19 j 10:49	0°♏	
retrograde	1306 Feb 10 j 04:55	4°♏02'32	
	1306 Apr 05 j 10:37	30°℞♎	
opposition	1306 Apr 11 j 22:28	29°♎10'31	1°29'08
min. Earth dist.	1306 Apr 13 j 06:58	29°♎00'08	4.41000 AU
direct	1306 Jun 13 j 15:25	24°♎09'24	
	1306 Aug 18 j 14:17	0°♏	
evening set	1306 Oct 17 j 19:08	11°♏53'47	
max. Earth dist.	1306 Oct 28 j 11:32	14°♏15'40	6.36715 AU
conjunction	1306 Oct 30 j 11:49	14°♏42'30	0°51'09
minimum elong	1306 Oct 30 j 11:51	14°♏42'31	0°51'10
	1306 Oct 31 j 19:19	15°♏	
morning rise	1306 Nov 12 j 02:27	17°♏30'27	
	1307 Jan 14 j 14:29	0°♐	
retrograde	1307 Mar 14 j 07:38	4°♐56'12	
opposition	1307 May 14 j 06:01	0°♐04'13	0°54'46
	1307 May 14 j 19:17	30°℞♏	
min. Earth dist.	1307 May 15 j 17:12	29°♏53'01	4.31250 AU
direct	1307 Jul 15 j 09:41	25°♏05'22	
	1307 Sep 12 j 12:54	0°♐	
evening set	1307 Nov 18 j 00:47	13°♐14'08	
max. Earth dist.	1307 Nov 28 j 18:54	15°♐41'10	6.24806 AU
conjunction	1307 Nov 30 j 16:26	16°♐07'12	0°20'15
minimum elong	1307 Nov 30 j 16:28	16°♐07'12	0°20'15
morning rise	1307 Dec 13 j 07:42	19°♐00'16	
	1308 Feb 03 j 17:40	0°♑	
retrograde	1308 Apr 16 j 14:04	7°♑21'04	
opposition	1308 Jun 16 j 10:26	2°♑27'27	0°01'48
min. Earth dist.	1308 Jun 17 j 14:04	2°♑18'35	4.17867 AU
desc. node	1308 Jun 28 j 19:54	0°♑53'35	
	1308 Jul 06 j 11:39	30°℞♐	
direct	1308 Aug 16 j 11:53	27°♐31'06	
	1308 Sep 25 j 19:37	0°♑	
evening set	1308 Dec 19 j 16:02	16°♑14'19	
max. Earth dist.	1308 Dec 31 j 06:55	18°♑58'02	6.11115 AU
conjunction	1309 Jan 01 j 10:02	19°♑13'59	-0°18'21
minimum elong	1309 Jan 01 j 10:00	19°♑13'58	0°18'21
morning rise	1309 Jan 14 j 04:52	22°♑14'25	
	1309 Feb 17 j 16:29	0°♒	
retrograde	1309 May 23 j 00:17	11°♒41'27	
opposition	1309 Jul 22 j 13:49	6°♒44'52	-0°55'11
min. Earth dist.	1309 Jul 22 j 23:22	6°♒41'45	4.04965 AU
direct	1309 Sep 20 j 04:28	1°♒50'42	
	1309 Dec 27 j 20:28	15°♒	
evening set	1310 Jan 23 j 06:39	21°♒08'28	
conjunction	1310 Feb 05 j 05:27	24°♒15'02	-0°52'04
minimum elong	1310 Feb 05 j 05:25	24°♒15'00	0°52'04
max. Earth dist.	1310 Feb 05 j 06:11	24°♒15'28	6.00158 AU
morning rise	1310 Feb 18 j 06:50	27°♒23'05	
	1310 Mar 01 j 07:47	0°♓	
retrograde	1310 Jun 29 j 21:28	17°♓44'28	
opposition	1310 Aug 29 j 01:10	12°♓43'55	-1°34'18
min. Earth dist.	1310 Aug 28 j 12:24	12°♓48'10	3.97152 AU
direct	1310 Oct 26 j 10:25	7°♓50'20	
evening set	1311 Feb 28 j 17:49	27°♓28'11	
	1311 Mar 11 j 06:03	0°♈	
conjunction	1311 Mar 14 j 00:14	0°♈39'57	-1°06'55
minimum elong	1311 Mar 14 j 00:14	0°♈39'57	1°06'55
max. Earth dist.	1311 Mar 15 j 09:27	0°♈59'59	5.96179 AU
morning rise	1311 Mar 27 j 09:38	3°♈53'20	
retrograde	1311 Aug 06 j 18:31	24°♈29'16	
min. Earth dist.	1311 Oct 04 j 07:31	19°♈35'03	3.97596 AU
opposition	1311 Oct 05 j 12:11	19°♈25'21	-1°36'45
direct	1311 Dec 02 j 10:07	14°♈30'17	
	1312 Mar 19 j 18:27	0°♉	
evening set	1312 Apr 06 j 04:14	4°♉03'10	
conjunction	1312 Apr 19 j 18:16	7°♉16'17	-0°55'40
minimum elong	1312 Apr 19 j 18:18	7°♉16'18	0°55'40
max. Earth dist.	1312 Apr 21 j 22:05	7°♉47'00	6.00904 AU
morning rise	1312 May 03 j 11:01	10°♉30'36	
	1312 May 22 j 21:32	15°♉	
	1312 Aug 23 j 23:50	0°♊	
retrograde	1312 Sep 10 j 23:44	0°♊31'59	
	1312 Sep 28 j 20:57	30°℞♉	
min. Earth dist.	1312 Nov 08 j 03:06	25°♉38'42	4.06079 AU
opposition	1312 Nov 09 j 13:37	25°♉26'56	-1°01'41
direct	1313 Jan 06 j 20:40	20°♉28'59	
	1313 Mar 30 j 02:31	0°♊	
evening set	1313 May 13 j 05:03	9°♊34'50	
conjunction	1313 May 26 j 23:13	12°♊44'36	-0°23'50
minimum elong	1313 May 26 j 23:15	12°♊44'37	0°23'50
max. Earth dist.	1313 May 29 j 01:15	13°♊13'24	6.12370 AU
morning rise	1313 Jun 09 j 18:23	15°♊54'35	
	1313 Aug 18 j 18:32	0°♋	
retrograde	1313 Oct 14 j 23:55	4°♋52'11	
min. Earth dist.	1313 Dec 12 j 11:27	29°♊57'46	4.19230 AU
	1313 Dec 12 j 04:52	30°℞♊	
opposition	1313 Dec 13 j 14:01	29°♊48'46	-0°06'26
asc. node	1314 Jan 27 j 01:08	25°♊10'09	
direct	1314 Feb 11 j 00:06	24°♊48'00	
	1314 Apr 11 j 17:42	0°♋	
evening set	1314 Jun 17 j 18:28	13°♋17'58	
conjunction	1314 Jul 01 j 11:00	16°♋20'58	0°14'59
minimum elong	1314 Jul 01 j 10:59	16°♋20'57	0°15'00
behind sun begin	1314 Jul 01 j 08:21	16°♋19'30	
behind sun end	1314 Jul 01 j 13:36	16°♋22'25	
max. Earth dist.	1314 Jul 02 j 19:08	16°♋38'54	6.26151 AU
morning rise	1314 Jul 15 j 02:24	19°♋23'11	
	1314 Sep 04 j 21:52	0°♌	
retrograde	1314 Nov 15 j 20:35	7°♌16'29	
opposition	1315 Jan 14 j 16:52	2°♌16'31	0°47'31
min. Earth dist.	1315 Jan 14 j 04:17	2°♌20'43	4.32408 AU
	1315 Feb 01 j 10:56	30°℞♋	
direct	1315 Mar 16 j 10:07	27°♋13'59	
	1315 Apr 28 j 21:01	0°♌	
	1315 Jul 20 j 11:59	15°♌	
evening set	1315 Jul 21 j 11:04	15°♌12'30	
conjunction	1315 Aug 03 j 21:04	18°♌07'57	0°47'33
minimum elong	1315 Aug 03 j 21:01	18°♌07'56	0°47'33
max. Earth dist.	1315 Aug 04 j 00:50	18°♌10'01	6.37717 AU

morning rise	1315 Aug 17 j 04:45	21°♌02'05	
	1315 Sep 30 j 03:27	0°♍	
retrograde	1315 Dec 16 j 11:57	8°♍09'41	
opposition	1316 Feb 14 j 14:55	3°♍13'28	1°25'04
min. Earth dist.	1316 Feb 14 j 21:13	3°♍11'24	4.41620 AU
	1316 Mar 12 j 11:22	30°℞♌	
direct	1316 Apr 16 j 13:20	28°♌10'26	
	1316 May 21 j 23:49	0°♍	
evening set	1316 Aug 21 j 11:13	15°♍49'26	
conjunction	1316 Sep 03 j 13:31	18°♍39'16	1°05'39
minimum elong	1316 Sep 03 j 13:30	18°♍39'15	1°05'40
max. Earth dist.	1316 Sep 02 j 15:31	18°♍27'21	6.43836 AU
morning rise	1316 Sep 16 j 12:51	21°♍27'39	
	1316 Oct 28 j 12:54	0°♎	
retrograde	1317 Jan 14 j 16:48	8°♎15'43	
opposition	1317 Mar 16 j 04:57	3°♎22'19	1°38'35
min. Earth dist.	1317 Mar 17 j 02:51	3°♎15'16	4.44416 AU
	1317 Apr 14 j 00:17	30°℞♍	
direct	1317 May 17 j 19:14	28°♍19'56	
	1317 Jun 20 j 20:33	0°♎	
evening set	1317 Sep 21 j 09:43	15°♎54'42	
max. Earth dist.	1317 Oct 02 j 13:06	18°♎20'08	6.43022 AU
conjunction	1317 Oct 04 j 05:37	18°♎42'16	1°05'40
minimum elong	1317 Oct 04 j 05:37	18°♎42'16	1°05'40
morning rise	1317 Oct 16 j 22:48	21°♎28'38	
	1317 Nov 27 j 11:57	0°♏	
retrograde	1318 Feb 14 j 13:39	8°♏24'59	
opposition	1318 Apr 16 j 08:38	3°♏33'04	1°25'41
min. Earth dist.	1318 Apr 17 j 17:59	3°♏22'26	4.40089 AU
	1318 May 17 j 09:58	30°℞♎	
direct	1318 Jun 18 j 01:04	28°♎32'16	
	1318 Jul 19 j 17:17	0°♏	
	1318 Oct 16 j 03:09	15°♏	
evening set	1318 Oct 22 j 02:24	16°♏18'43	
max. Earth dist.	1318 Nov 01 j 16:50	18°♏40'02	6.35452 AU
conjunction	1318 Nov 03 j 18:37	19°♏07'46	0°47'36
minimum elong	1318 Nov 03 j 18:39	19°♏07'47	0°47'36
morning rise	1318 Nov 16 j 09:16	21°♏56'12	
	1318 Dec 24 j 13:42	0°♐	
retrograde	1319 Mar 18 j 22:50	9°♐27'52	
opposition	1319 May 18 j 21:10	4°♐35'43	0°48'13
min. Earth dist.	1319 May 20 j 08:08	4°♐24'34	4.29680 AU
	1319 Jul 04 j 04:19	30°℞♏	
direct	1319 Jul 19 j 22:41	29°♏37'09	
	1319 Aug 04 j 16:58	0°♐	
evening set	1319 Nov 22 j 11:00	17°♐49'46	
max. Earth dist.	1319 Dec 03 j 07:55	20°♐18'57	6.23055 AU
conjunction	1319 Dec 05 j 02:57	20°♐43'38	0°15'06
minimum elong	1319 Dec 05 j 02:57	20°♐43'38	0°15'07
behind sun begin	1319 Dec 04 j 23:54	20°♐41'54	
behind sun end	1319 Dec 05 j 06:01	20°♐45'23	
morning rise	1319 Dec 17 j 18:21	23°♐37'32	
	1320 Jan 15 j 13:38	0°♑	
retrograde	1320 Apr 21 j 11:22	12°♑06'45	
desc. node	1320 May 09 j 01:22	11°♑37'52	
opposition	1320 Jun 21 j 07:39	7°♑12'51	-0°06'19
min. Earth dist.	1320 Jun 22 j 09:28	7°♑04'33	4.16051 AU
direct	1320 Aug 21 j 04:25	2°♑16'52	
evening set	1320 Dec 24 j 08:00	21°♑04'54	
max. Earth dist.	1321 Jan 05 j 01:17	23°♑50'42	6.09379 AU
conjunction	1321 Jan 06 j 02:20	24°♑05'30	-0°23'39
minimum elong	1321 Jan 06 j 02:19	24°♑05'29	0°23'39
morning rise	1321 Jan 18 j 22:04	27°♑07'02	
	1321 Jan 31 j 07:22	0°♒	
	1321 Apr 24 j 20:32	15°♒	
retrograde	1321 May 28 j 04:30	16°♒42'57	
	1321 Jun 30 j 14:21	15°℞♒	
opposition	1321 Jul 27 j 16:45	11°♒45'49	-1°02'11
min. Earth dist.	1321 Jul 27 j 23:17	11°♒43'40	4.03463 AU
direct	1321 Sep 25 j 02:39	6°♒51'47	
	1321 Dec 08 j 16:01	15°♒	
evening set	1322 Jan 28 j 05:07	26°♒13'45	
conjunction	1322 Feb 10 j 05:00	29°♒21'15	-0°55'31
minimum elong	1322 Feb 10 j 04:58	29°♒21'14	0°55'31
max. Earth dist.	1322 Feb 10 j 11:18	29°♒25'03	5.99035 AU
	1322 Feb 12 j 21:17	0°♓	
morning rise	1322 Feb 23 j 07:18	2°♓30'15	
retrograde	1322 Jul 05 j 05:24	22°♓57'02	
opposition	1322 Sep 03 j 06:36	17°♓55'59	-1°37'04
min. Earth dist.	1322 Sep 02 j 16:00	18°♓00'52	3.96549 AU
direct	1322 Oct 31 j 13:12	13°♓02'22	
	1323 Feb 22 j 13:48	0°♈	
evening set	1323 Mar 05 j 21:54	2°♈41'46	
conjunction	1323 Mar 19 j 05:20	5°♈54'03	-1°06'54
minimum elong	1323 Mar 19 j 05:20	5°♈54'03	1°06'53
max. Earth dist.	1323 Mar 20 j 17:01	6°♈15'33	5.96129 AU
morning rise	1323 Apr 01 j 16:04	9°♈08'01	
retrograde	1323 Aug 11 j 22:08	29°♈42'45	
min. Earth dist.	1323 Oct 09 j 08:10	24°♈49'04	3.98127 AU
opposition	1323 Oct 10 j 15:12	24°♈38'32	-1°33'50
direct	1323 Dec 07 j 12:03	19°♈43'08	
	1324 Mar 01 j 05:37	0°♉	
evening set	1324 Apr 11 j 09:41	9°♉14'17	
conjunction	1324 Apr 25 j 00:40	12°♉27'21	-0°52'10
minimum elong	1324 Apr 25 j 00:42	12°♉27'22	0°52'10
max. Earth dist.	1324 Apr 27 j 05:16	12°♉58'27	6.01970 AU
	1324 May 05 j 19:25	15°♉	
morning rise	1324 May 08 j 18:07	15°♉41'28	
	1324 Jul 16 j 09:33	0°♊	
retrograde	1324 Sep 15 j 22:10	5°♊36'01	
min. Earth dist.	1324 Nov 13 j 01:50	0°♊42'28	4.07550 AU
opposition	1324 Nov 14 j 11:24	0°♊31'01	-0°54'36
	1324 Nov 18 j 06:29	30°℞♉	
direct	1325 Jan 11 j 21:51	25°♉32'41	
	1325 Mar 06 j 17:38	0°♊	
evening set	1325 May 18 j 07:25	14°♊34'18	
conjunction	1325 Jun 01 j 01:50	17°♊43'22	-0°18'27
minimum elong	1325 Jun 01 j 01:51	17°♊43'23	0°18'27
max. Earth dist.	1325 Jun 03 j 04:03	18°♊12'08	6.14155 AU
morning rise	1325 Jun 14 j 20:47	20°♊52'27	
	1325 Jul 27 j 06:58	0°♋	
retrograde	1325 Oct 19 j 13:46	9°♋40'48	
asc. node	1325 Dec 06 j 15:43	6°♋10'09	
min. Earth dist.	1325 Dec 17 j 02:57	4°♋46'40	4.21178 AU
opposition	1325 Dec 18 j 05:11	4°♋37'48	0°01'40
	1326 Jan 31 j 10:58	30°℞♊	
direct	1326 Feb 15 j 18:50	29°♊36'47	
	1326 Mar 03 j 06:55	0°♋	
evening set	1326 Jun 22 j 15:05	18°♋01'33	
conjunction	1326 Jul 06 j 06:45	21°♋03'22	0°20'10
minimum elong	1326 Jul 06 j 06:43	21°♋03'22	0°20'10
max. Earth dist.	1326 Jul 07 j 10:47	21°♋18'57	6.28133 AU
morning rise	1326 Jul 19 j 21:19	24°♋04'21	
	1326 Aug 16 j 14:00	0°♌	

retrograde	1326 Nov 20 j 05:36	11°♌49'09	
opposition	1327 Jan 19 j 02:27	6°♌49'41	0°53'57
min. Earth dist.	1327 Jan 18 j 16:42	6°♌52'55	4.34279 AU
direct	1327 Mar 21 j 01:40	1°♌46'58	
	1327 Jul 03 j 22:12	15°♌	
evening set	1327 Jul 26 j 00:29	19°♌40'39	
conjunction	1327 Aug 08 j 09:30	22°♌35'00	0°51'02
minimum elong	1327 Aug 08 j 09:28	22°♌34'58	0°51'02
max. Earth dist.	1327 Aug 08 j 11:06	22°♌35'52	6.39342 AU
morning rise	1327 Aug 21 j 15:49	25°♌27'57	
	1327 Sep 12 j 01:52	0°♍	
retrograde	1327 Dec 20 j 14:49	12°♍29'40	
opposition	1328 Feb 18 j 20:47	7°♍33'50	1°28'21
min. Earth dist.	1328 Feb 19 j 04:19	7°♍31'23	4.42903 AU
direct	1328 Apr 20 j 21:59	2°♍30'49	
evening set	1328 Aug 25 j 18:35	20°♍06'26	
conjunction	1328 Sep 07 j 19:42	22°♍55'29	1°06'42
minimum elong	1328 Sep 07 j 19:41	22°♍55'28	1°06'41
max. Earth dist.	1328 Sep 06 j 18:23	22°♍41'46	6.44672 AU
morning rise	1328 Sep 20 j 17:59	25°♍43'07	
	1328 Oct 11 j 00:57	0°♎	
retrograde	1329 Jan 18 j 20:37	12°♎28'57	
opposition	1329 Mar 20 j 09:59	7°♎35'49	1°38'15
min. Earth dist.	1329 Mar 21 j 10:47	7°♎27'51	4.44741 AU
direct	1329 May 22 j 03:17	2°♎33'32	
evening set	1329 Sep 25 j 13:30	20°♎07'13	
max. Earth dist.	1329 Oct 06 j 13:00	22°♎30'43	6.42790 AU
conjunction	1329 Oct 08 j 08:40	22°♎54'34	1°04'10
minimum elong	1329 Oct 08 j 08:41	22°♎54'35	1°04'10
morning rise	1329 Oct 21 j 01:17	25°♎40'48	
	1329 Nov 10 j 07:34	0°♏	
retrograde	1330 Feb 18 j 18:53	12°♏39'05	
opposition	1330 Apr 20 j 15:27	7°♏47'09	1°21'52
min. Earth dist.	1330 Apr 22 j 01:43	7°♏36'13	4.39299 AU
direct	1330 Jun 22 j 06:57	2°♏46'29	
	1330 Sep 30 j 07:14	15°♏	
evening set	1330 Oct 26 j 06:05	20°♏34'50	
max. Earth dist.	1330 Nov 05 j 20:44	22°♏56'39	6.34162 AU
conjunction	1330 Nov 07 j 22:09	23°♏24'17	0°43'54
minimum elong	1330 Nov 07 j 22:11	23°♏24'18	0°43'53
morning rise	1330 Nov 20 j 12:33	26°♏13'10	
	1330 Dec 07 j 18:45	0°♐	
retrograde	1331 Mar 23 j 10:33	13°♐51'03	
opposition	1331 May 23 j 09:03	8°♐58'47	0°41'36
min. Earth dist.	1331 May 24 j 20:33	8°♐47'28	4.27937 AU
direct	1331 Jul 24 j 07:53	4°♐00'29	
evening set	1331 Nov 26 j 18:25	22°♐17'48	
max. Earth dist.	1331 Dec 07 j 14:44	24°♐47'22	6.20991 AU
conjunction	1331 Dec 09 j 10:26	25°♐12'33	0°10'01
minimum elong	1331 Dec 09 j 10:26	25°♐12'34	0°10'02
behind sun begin	1331 Dec 09 j 03:58	25°♐08'51	
behind sun end	1331 Dec 09 j 16:55	25°♐16'17	
morning rise	1331 Dec 22 j 02:27	28°♐07'32	
	1331 Dec 30 j 07:45	0°♑	
desc. node	1332 Mar 20 j 22:11	14°♑45'53	
retrograde	1332 Apr 26 j 07:43	16°♑46'40	
opposition	1332 Jun 26 j 02:48	11°♑52'23	-0°14'13
min. Earth dist.	1332 Jun 27 j 02:49	11°♑44'38	4.13797 AU
direct	1332 Aug 25 j 18:31	6°♑56'37	
evening set	1332 Dec 28 j 22:37	25°♑51'24	
conjunction	1333 Jan 10 j 17:47	28°♑53'16	-0°28'40
minimum elong	1333 Jan 10 j 17:45	28°♑53'15	0°28'40
max. Earth dist.	1333 Jan 09 j 20:50	28°♑40'50	6.07148 AU
	1333 Jan 15 j 10:07	0°♒	
morning rise	1333 Jan 23 j 14:12	1°♒56'06	
	1333 Mar 25 j 17:08	15°♒	
retrograde	1333 Jun 02 j 10:08	21°♒42'49	
opposition	1333 Aug 01 j 19:10	16°♒45'15	-1°08'41
min. Earth dist.	1333 Aug 01 j 23:51	16°♒43'43	4.01470 AU
	1333 Aug 15 j 11:10	15°℞♒	
direct	1333 Sep 30 j 00:11	11°♒51'25	
	1333 Nov 13 j 09:51	15°♒	
	1334 Jan 27 j 15:28	0°♓	
evening set	1334 Feb 02 j 04:47	1°♓19'43	
conjunction	1334 Feb 15 j 05:37	4°♓28'24	-0°58'30
minimum elong	1334 Feb 15 j 05:35	4°♓28'23	0°58'30
max. Earth dist.	1334 Feb 15 j 14:56	4°♓34'02	5.97461 AU
morning rise	1334 Feb 28 j 09:19	7°♓38'42	
retrograde	1334 Jul 10 j 13:03	28°♓12'21	
opposition	1334 Sep 08 j 12:54	23°♓10'48	-1°39'02
min. Earth dist.	1334 Sep 07 j 18:25	23°♓16'59	3.95597 AU
direct	1334 Nov 05 j 15:20	18°♓17'04	
	1335 Feb 04 j 13:53	0°♈	
evening set	1335 Mar 11 j 04:14	7°♈59'27	
conjunction	1335 Mar 24 j 13:01	11°♈12'27	-1°06'17
minimum elong	1335 Mar 24 j 13:02	11°♈12'28	1°06'17
max. Earth dist.	1335 Mar 26 j 05:00	11°♈36'34	5.95888 AU
morning rise	1335 Apr 07 j 00:55	14°♈27'05	
	1335 Jun 20 j 07:40	0°♉	
retrograde	1335 Aug 17 j 04:53	5°♉00'59	
opposition	1335 Oct 15 j 20:19	29°♈56'24	-1°30'03
min. Earth dist.	1335 Oct 14 j 12:15	0°♉07'19	3.98611 AU
	1335 Oct 15 j 09:45	30°℞♈	
direct	1335 Dec 12 j 18:05	25°♈00'38	
	1336 Feb 07 j 04:04	0°♉	
evening set	1336 Apr 16 j 17:36	14°♉29'58	
	1336 Apr 18 j 20:46	15°♉	
conjunction	1336 Apr 30 j 09:32	17°♉42'55	-0°48'09
minimum elong	1336 Apr 30 j 09:34	17°♉42'56	0°48'08
max. Earth dist.	1336 May 02 j 17:06	18°♉15'39	6.03130 AU
morning rise	1336 May 14 j 03:34	20°♉56'46	
	1336 Jun 23 j 21:52	0°♊	
retrograde	1336 Sep 20 j 21:09	10°♊43'23	
min. Earth dist.	1336 Nov 18 j 00:10	5°♊50'08	4.09229 AU
opposition	1336 Nov 19 j 10:22	5°♊38'29	-0°46'59
direct	1337 Jan 16 j 23:04	0°♊39'44	
evening set	1337 May 23 j 11:33	19°♊36'15	
conjunction	1337 Jun 06 j 05:46	22°♊44'22	-0°12'51
minimum elong	1337 Jun 06 j 05:47	22°♊44'23	0°12'51
behind sun begin	1337 Jun 06 j 00:47	22°♊41'32	
behind sun end	1337 Jun 06 j 10:47	22°♊47'13	
max. Earth dist.	1337 Jun 08 j 05:00	23°♊11'18	6.16170 AU
morning rise	1337 Jun 20 j 00:33	25°♊52'25	
	1337 Jul 08 j 14:01	0°♋	
asc. node	1337 Oct 15 j 04:24	14°♋22'31	
retrograde	1337 Oct 24 j 04:41	14°♋30'37	
opposition	1337 Dec 22 j 20:52	9°♋27'58	0°09'50
min. Earth dist.	1337 Dec 21 j 20:46	9°♋36'07	4.23292 AU
direct	1338 Feb 20 j 16:10	4°♋26'33	
evening set	1338 Jun 27 j 11:56	22°♋45'45	
conjunction	1338 Jul 11 j 02:58	25°♋46'24	0°25'17
minimum elong	1338 Jul 11 j 02:56	25°♋46'23	0°25'16
max. Earth dist.	1338 Jul 12 j 04:53	26°♋00'45	6.30158 AU

morning rise	1338 Jul 24 j 16:19	28°♋46'02	
	1338 Jul 30 j 07:37	0°♌	
	1338 Oct 26 j 00:26	15°♌	
retrograde	1338 Nov 24 j 13:53	16°♌22'34	
	1338 Dec 23 j 23:27	15°℞♌	
opposition	1339 Jan 23 j 12:26	11°♌23'39	1°00'09
min. Earth dist.	1339 Jan 23 j 04:29	11°♌26'17	4.36044 AU
direct	1339 Mar 25 j 15:32	6°♌20'51	
	1339 Jun 15 j 09:49	15°♌	
evening set	1339 Jul 30 j 14:32	24°♌10'24	
conjunction	1339 Aug 12 j 22:13	27°♌03'42	0°54'17
minimum elong	1339 Aug 12 j 22:10	27°♌03'41	0°54'17
max. Earth dist.	1339 Aug 12 j 18:18	27°♌01'35	6.40689 AU
morning rise	1339 Aug 26 j 03:26	29°♌55'38	
	1339 Aug 26 j 11:32	0°♍	
retrograde	1339 Dec 24 j 21:51	16°♍52'52	
opposition	1340 Feb 23 j 04:09	11°♍57'32	1°31'18
min. Earth dist.	1340 Feb 23 j 15:18	11°♍53'54	4.43764 AU
direct	1340 Apr 25 j 09:33	6°♍54'30	
evening set	1340 Aug 30 j 03:40	24°♍28'26	
max. Earth dist.	1340 Sep 10 j 23:59	27°♍01'52	6.44968 AU
conjunction	1340 Sep 12 j 03:55	27°♍16'59	1°07'27
minimum elong	1340 Sep 12 j 03:55	27°♍16'59	1°07'27
	1340 Sep 24 j 17:28	0°♎	
morning rise	1340 Sep 25 j 01:07	0°♎04'07	
retrograde	1341 Jan 23 j 02:13	16°♎49'41	
opposition	1341 Mar 24 j 17:45	11°♎56'49	1°37'29
min. Earth dist.	1341 Mar 25 j 19:43	11°♎48'30	4.44479 AU
direct	1341 May 26 j 10:54	6°♎54'42	
evening set	1341 Sep 29 j 20:47	24°♎29'24	
max. Earth dist.	1341 Oct 10 j 17:58	26°♎51'58	6.41980 AU
conjunction	1341 Oct 12 j 15:16	27°♎16'48	1°02'18
minimum elong	1341 Oct 12 j 15:18	27°♎16'49	1°02'19
morning rise	1341 Oct 25 j 07:23	0°♏03'10	
	1341 Oct 25 j 01:34	0°♏	
	1342 Jan 16 j 23:57	15°♏	
retrograde	1342 Feb 23 j 06:55	17°♏05'26	
	1342 Apr 01 j 21:23	15°℞♏	
opposition	1342 Apr 25 j 03:22	12°♏13'36	1°17'29
min. Earth dist.	1342 Apr 26 j 15:26	12°♏02'07	4.37978 AU
direct	1342 Jun 26 j 18:22	7°♏13'13	
	1342 Sep 11 j 15:17	15°♏	
evening set	1342 Oct 30 j 14:49	25°♏05'03	
max. Earth dist.	1342 Nov 10 j 03:50	27°♏26'35	6.32425 AU
conjunction	1342 Nov 12 j 06:41	27°♏55'08	0°39'46
minimum elong	1342 Nov 12 j 06:43	27°♏55'09	0°39'46
	1342 Nov 21 j 13:12	0°♐	
morning rise	1342 Nov 24 j 21:13	0°♐44'45	
retrograde	1343 Mar 28 j 04:51	18°♐30'31	
opposition	1343 May 28 j 03:21	13°♐38'02	0°34'20
min. Earth dist.	1343 May 29 j 13:25	13°♐27'09	4.25893 AU
direct	1343 Jul 28 j 21:36	8°♐40'03	
evening set	1343 Dec 01 j 08:10	27°♐02'57	
max. Earth dist.	1343 Dec 12 j 08:13	29°♐35'21	6.18825 AU
conjunction	1343 Dec 14 j 00:34	29°♐58'44	0°04'35
minimum elong	1343 Dec 14 j 00:34	29°♐58'44	0°04'35
behind sun begin	1343 Dec 13 j 16:45	29°♐54'13	
behind sun end	1343 Dec 14 j 08:23	0°♑03'14	
	1343 Dec 14 j 02:50	0°♑	
morning rise	1343 Dec 26 j 16:55	2°♑54'48	
desc. node	1344 Jan 29 j 01:26	10°♑18'34	
retrograde	1344 May 01 j 11:57	21°♑44'06	
opposition	1344 Jul 01 j 04:46	16°♑49'29	-0°22'32
min. Earth dist.	1344 Jul 02 j 03:15	16°♑42'13	4.11682 AU
direct	1344 Aug 30 j 15:42	11°♑54'05	
	1344 Dec 29 j 22:48	0°♒	
evening set	1345 Jan 02 j 19:45	0°♒54'49	
conjunction	1345 Jan 15 j 15:29	3°♒57'47	-0°33'48
minimum elong	1345 Jan 15 j 15:27	3°♒57'46	0°33'47
max. Earth dist.	1345 Jan 14 j 21:21	3°♒46'59	6.05283 AU
morning rise	1345 Jan 28 j 12:59	7°♒01'52	
	1345 Mar 04 j 13:16	15°♒	
retrograde	1345 Jun 07 j 18:05	26°♒57'37	
opposition	1345 Aug 07 j 03:02	21°♒59'29	-1°14'59
min. Earth dist.	1345 Aug 07 j 03:14	21°♒59'25	4.00081 AU
direct	1345 Oct 05 j 02:37	17°♒05'50	
	1346 Jan 09 j 23:13	0°♓	
evening set	1346 Feb 07 j 09:01	6°♓37'49	
conjunction	1346 Feb 20 j 10:56	9°♓47'20	-1°01'10
minimum elong	1346 Feb 20 j 10:54	9°♓47'19	1°01'10
max. Earth dist.	1346 Feb 21 j 02:09	9°♓56'32	5.96693 AU
morning rise	1346 Mar 05 j 15:39	12°♓58'27	
	1346 May 28 j 11:35	0°♈	
retrograde	1346 Jul 16 j 00:05	3°♈35'10	
	1346 Sep 02 j 23:07	30°℞♓	
opposition	1346 Sep 13 j 21:50	28°♓33'02	-1°40'14
min. Earth dist.	1346 Sep 13 j 01:11	28°♓39'58	3.95566 AU
direct	1346 Nov 10 j 23:30	23°♓39'06	
	1347 Jan 14 j 01:09	0°♈	
evening set	1347 Mar 16 j 12:11	13°♈20'37	
conjunction	1347 Mar 29 j 22:07	16°♈33'49	-1°05'11
minimum elong	1347 Mar 29 j 22:08	16°♈33'50	1°05'12
max. Earth dist.	1347 Mar 31 j 18:45	17°♈00'39	5.96592 AU
morning rise	1347 Apr 12 j 11:03	19°♈48'33	
	1347 May 27 j 18:34	0°♉	
retrograde	1347 Aug 22 j 08:56	10°♉17'07	
min. Earth dist.	1347 Oct 19 j 14:24	5°♉23'45	3.99980 AU
opposition	1347 Oct 21 j 00:03	5°♉12'18	-1°25'36
direct	1347 Dec 17 j 22:18	0°♉16'08	
	1348 Apr 01 j 14:54	15°♉	
evening set	1348 Apr 21 j 23:49	19°♉40'31	
conjunction	1348 May 05 j 16:12	22°♉52'50	-0°43'52
minimum elong	1348 May 05 j 16:15	22°♉52'51	0°43'52
max. Earth dist.	1348 May 07 j 22:39	23°♉24'45	6.05009 AU
morning rise	1348 May 19 j 10:48	26°♉05'59	
	1348 Jun 05 j 11:42	0°♊	
retrograde	1348 Sep 25 j 15:41	15°♊42'17	
min. Earth dist.	1348 Nov 22 j 20:43	10°♊48'51	4.11391 AU
opposition	1348 Nov 24 j 06:00	10°♊37'30	-0°39'17
direct	1349 Jan 21 j 23:24	5°♊38'15	
evening set	1349 May 28 j 11:27	24°♊28'18	
conjunction	1349 Jun 11 j 05:39	27°♊35'22	-0°07'23
minimum elong	1349 Jun 11 j 05:39	27°♊35'22	0°07'22
behind sun begin	1349 Jun 10 j 22:02	27°♊31'04	
behind sun end	1349 Jun 11 j 13:15	27°♊39'39	
max. Earth dist.	1349 Jun 13 j 03:21	28°♊01'18	6.18444 AU
	1349 Jun 21 j 20:58	0°♋	
morning rise	1349 Jun 24 j 23:45	0°♋42'07	
asc. node	1349 Aug 25 j 03:44	13°♋08'40	
retrograde	1349 Oct 28 j 16:20	19°♋09'58	
min. Earth dist.	1349 Dec 26 j 10:58	14°♋15'12	4.25450 AU
opposition	1349 Dec 27 j 08:53	14°♋07'50	0°17'37
direct	1350 Feb 25 j 08:51	9°♋06'09	
evening set	1350 Jul 02 j 04:50	27°♋19'53	

	1350 Jul 14 j 07:46	0°♌	
conjunction	1350 Jul 15 j 18:50	0°♌19'21	0°30'04
minimum elong	1350 Jul 15 j 18:48	0°♌19'20	0°30'03
max. Earth dist.	1350 Jul 16 j 15:09	0°♌30'33	6.32022 AU
morning rise	1350 Jul 29 j 07:18	3°♌17'47	
	1350 Sep 26 j 07:37	15°♌	
retrograde	1350 Nov 28 j 19:59	20°♌47'08	
opposition	1351 Jan 27 j 19:24	15°♌48'44	1°05'48
min. Earth dist.	1351 Jan 27 j 14:44	15°♌50'17	4.37496 AU
	1351 Feb 02 j 23:21	15°℞♌	
direct	1351 Mar 30 j 02:43	10°♌45'47	
	1351 May 24 j 02:46	15°♌	
evening set	1351 Aug 04 j 01:18	28°♌32'21	
	1351 Aug 10 j 19:36	0°♍	
conjunction	1351 Aug 17 j 08:06	1°♍24'53	0°57'08
minimum elong	1351 Aug 17 j 08:04	1°♍24'52	0°57'08
max. Earth dist.	1351 Aug 17 j 01:17	1°♍21'11	6.41626 AU
morning rise	1351 Aug 30 j 12:00	4°♍15'57	
retrograde	1351 Dec 29 j 01:53	21°♍10'18	
opposition	1352 Feb 27 j 09:42	16°♍15'26	1°33'43
min. Earth dist.	1352 Feb 27 j 22:53	16°♍11'09	4.44149 AU
direct	1352 Apr 29 j 16:40	11°♍12'31	
evening set	1352 Sep 03 j 11:06	28°♍46'14	
	1352 Sep 09 j 03:55	0°♎	
max. Earth dist.	1352 Sep 15 j 01:58	1°♎16'56	6.44761 AU
conjunction	1352 Sep 16 j 10:18	1°♎34'28	1°07'50
minimum elong	1352 Sep 16 j 10:18	1°♎34'28	1°07'50
morning rise	1352 Sep 29 j 06:48	4°♎21'24	
retrograde	1353 Jan 27 j 10:44	21°♎08'30	
opposition	1353 Mar 29 j 01:44	16°♎15'56	1°36'13
min. Earth dist.	1353 Mar 30 j 06:30	16°♎06'43	4.43709 AU
direct	1353 May 30 j 19:57	11°♎14'01	
evening set	1353 Oct 04 j 03:50	28°♎51'10	
	1353 Oct 09 j 09:49	0°♏	
max. Earth dist.	1353 Oct 14 j 23:18	1°♏13'15	6.40703 AU
conjunction	1353 Oct 16 j 21:57	1°♏38'54	1°00'06
minimum elong	1353 Oct 16 j 21:58	1°♏38'55	1°00'06
morning rise	1353 Oct 29 j 13:37	4°♏25'37	
	1353 Dec 21 j 03:32	15°♏	
retrograde	1354 Feb 27 j 18:57	21°♏33'28	
opposition	1354 Apr 29 j 16:22	16°♏41'41	1°12'39
min. Earth dist.	1354 May 01 j 03:48	16°♏30'24	4.36288 AU
	1354 May 13 j 06:10	15°℞♏	
direct	1354 Jul 01 j 03:46	11°♏41'40	
	1354 Aug 18 j 09:27	15°♏	
evening set	1354 Nov 04 j 00:54	29°♏38'08	
	1354 Nov 05 j 16:00	0°♐	
max. Earth dist.	1354 Nov 14 j 15:18	2°♐01'06	6.30467 AU
conjunction	1354 Nov 16 j 16:41	2°♐28'57	0°35'22
minimum elong	1354 Nov 16 j 16:42	2°♐28'58	0°35'22
morning rise	1354 Nov 29 j 07:16	5°♐19'26	
retrograde	1355 Apr 02 j 03:08	23°♐13'53	
opposition	1355 Jun 01 j 23:52	18°♐21'16	0°26'45
min. Earth dist.	1355 Jun 03 j 09:28	18°♐10'31	4.23788 AU
direct	1355 Aug 02 j 14:42	13°♐23'43	
	1355 Nov 27 j 19:49	0°♑	
evening set	1355 Dec 05 j 23:35	1°♑52'10	
desc. node	1355 Dec 08 j 00:50	2°♑20'38	
max. Earth dist.	1355 Dec 17 j 01:56	4°♑26'39	6.16762 AU
conjunction	1355 Dec 18 j 16:16	4°♑48'57	-0°01'05
minimum elong	1355 Dec 18 j 16:16	4°♑48'57	0°01'05
behind sun begin	1355 Dec 18 j 08:15	4°♑44'19	
behind sun end	1355 Dec 19 j 00:16	4°♑53'35	
morning rise	1355 Dec 31 j 09:16	7°♑46'09	
retrograde	1356 May 06 j 15:24	26°♑45'15	
opposition	1356 Jul 06 j 08:24	21°♑50'11	-0°30'48
min. Earth dist.	1356 Jul 07 j 02:47	21°♑44'13	4.09841 AU
direct	1356 Sep 04 j 13:13	16°♑55'10	
	1356 Dec 12 j 16:40	0°♒	
evening set	1357 Jan 07 j 18:00	6°♒00'41	
conjunction	1357 Jan 20 j 14:26	9°♒04'35	-0°38'42
minimum elong	1357 Jan 20 j 14:23	9°♒04'34	0°38'41
max. Earth dist.	1357 Jan 20 j 01:51	8°♒57'04	6.03829 AU
morning rise	1357 Feb 02 j 12:39	12°♒09'39	
	1357 Feb 14 j 14:17	15°♒	
	1357 May 06 j 07:07	0°♓	
retrograde	1357 Jun 13 j 04:03	2°♓12'39	
	1357 Jul 21 j 03:30	30°℞♒	
opposition	1357 Aug 12 j 10:54	27°♒13'57	-1°20'40
min. Earth dist.	1357 Aug 12 j 08:29	27°♒14'45	3.99162 AU
direct	1357 Oct 10 j 07:55	22°♒20'24	
	1357 Dec 20 j 21:09	0°♓	
evening set	1358 Feb 12 j 12:59	11°♓54'20	
conjunction	1358 Feb 25 j 15:55	15°♓04'26	-1°03'20
minimum elong	1358 Feb 25 j 15:53	15°♓04'26	1°03'19
max. Earth dist.	1358 Feb 26 j 12:04	15°♓16'37	5.96377 AU
morning rise	1358 Mar 10 j 21:45	18°♓16'11	
	1358 May 02 j 12:28	0°♈	
retrograde	1358 Jul 21 j 07:40	8°♈53'47	
min. Earth dist.	1358 Sep 18 j 05:03	3°♈59'05	3.95917 AU
opposition	1358 Sep 19 j 04:31	3°♈51'11	-1°40'35
	1358 Oct 22 j 07:39	30°℞♓	
direct	1358 Nov 16 j 03:41	28°♓57'06	
	1358 Dec 11 j 00:03	0°♈	
evening set	1359 Mar 21 j 18:20	18°♈36'45	
conjunction	1359 Apr 04 j 05:08	21°♈49'57	-1°03'35
minimum elong	1359 Apr 04 j 05:10	21°♈49'58	1°03'35
max. Earth dist.	1359 Apr 06 j 02:58	22°♈17'25	5.97538 AU
morning rise	1359 Apr 17 j 19:09	25°♈04'40	
	1359 May 08 j 22:05	0°♉	
	1359 Aug 10 j 19:08	15°♉	
retrograde	1359 Aug 27 j 09:20	15°♉27'19	
	1359 Sep 12 j 22:19	15°℞♉	
min. Earth dist.	1359 Oct 24 j 14:43	10°♉34'01	4.01412 AU
opposition	1359 Oct 26 j 01:03	10°♉22'19	-1°20'35
direct	1359 Dec 23 j 01:25	5°♉25'44	
	1360 Mar 13 j 20:23	15°♉	
evening set	1360 Apr 27 j 03:28	24°♉45'24	
conjunction	1360 May 10 j 20:33	27°♉57'10	-0°39'21
minimum elong	1360 May 10 j 20:35	27°♉57'11	0°39'21
max. Earth dist.	1360 May 13 j 03:41	28°♉29'21	6.06809 AU
	1360 May 19 j 15:16	0°♊	
morning rise	1360 May 24 j 15:14	1°♊09'33	
retrograde	1360 Sep 30 j 10:12	20°♊36'20	
opposition	1360 Nov 28 j 23:26	15°♊31'50	-0°31'28
min. Earth dist.	1360 Nov 27 j 15:50	15°♊42'35	4.13359 AU
direct	1361 Jan 26 j 20:59	10°♊32'14	
evening set	1361 Jun 02 j 09:55	29°♊16'55	
	1361 Jun 05 j 14:30	0°♋	
conjunction	1361 Jun 16 j 03:45	2°♋22'58	-0°01'55
minimum elong	1361 Jun 16 j 03:43	2°♋22'58	0°01'55
behind sun begin	1361 Jun 15 j 19:21	2°♋18'15	
behind sun end	1361 Jun 16 j 12:06	2°♋27'40	

max. Earth dist.	1361 Jun 17 j 21:42	2°♋46'41	6.20409 AU
morning rise	1361 Jun 29 j 21:27	5°♋28'39	
asc. node	1361 Jul 05 j 06:51	6°♋40'51	
retrograde	1361 Nov 02 j 01:41	23°♋47'32	
opposition	1361 Dec 31 j 19:40	18°♋45'51	0°25'12
min. Earth dist.	1361 Dec 30 j 23:46	18°♋52'32	4.27256 AU
direct	1362 Mar 01 j 23:21	13°♋43'53	
	1362 Jun 28 j 03:51	0°♌	
evening set	1362 Jul 06 j 20:59	1°♌53'30	
conjunction	1362 Jul 20 j 10:12	4°♌51'59	0°34'38
minimum elong	1362 Jul 20 j 10:10	4°♌51'58	0°34'39
max. Earth dist.	1362 Jul 21 j 03:04	5°♌01'16	6.33539 AU
morning rise	1362 Aug 02 j 21:28	7°♌49'19	
	1362 Sep 06 j 03:46	15°♌	
retrograde	1362 Dec 03 j 02:59	25°♌12'47	
opposition	1363 Feb 01 j 02:41	20°♌14'56	1°11'05
min. Earth dist.	1363 Feb 01 j 00:48	20°♌15'33	4.38626 AU
direct	1363 Apr 03 j 13:49	15°♌11'55	
	1363 Jul 25 j 16:42	0°♍	
evening set	1363 Aug 08 j 12:26	2°♍56'22	
conjunction	1363 Aug 21 j 18:03	5°♍48'11	0°59'42
minimum elong	1363 Aug 21 j 18:01	5°♍48'10	0°59'41
max. Earth dist.	1363 Aug 21 j 06:13	5°♍41'46	6.42265 AU
morning rise	1363 Sep 03 j 20:59	8°♍38'35	
retrograde	1364 Jan 02 j 08:12	25°♍30'58	
opposition	1364 Mar 02 j 16:31	20°♍36'27	1°35'39
min. Earth dist.	1364 Mar 03 j 08:24	20°♍31'18	4.44296 AU
direct	1364 May 04 j 01:37	15°♍33'35	
	1364 Aug 24 j 02:16	0°♎	
evening set	1364 Sep 07 j 19:26	3°♎07'33	
max. Earth dist.	1364 Sep 19 j 08:23	5°♎37'24	6.44405 AU
conjunction	1364 Sep 20 j 17:57	5°♎55'37	1°07'50
minimum elong	1364 Sep 20 j 17:57	5°♎55'37	1°07'51
morning rise	1364 Oct 03 j 13:27	8°♎42'20	
retrograde	1365 Jan 31 j 18:29	25°♎31'18	
opposition	1365 Apr 02 j 11:01	20°♎38'56	1°34'25
min. Earth dist.	1365 Apr 03 j 16:21	20°♎29'33	4.42898 AU
direct	1365 Jun 04 j 04:07	15°♎37'18	
	1365 Sep 23 j 06:47	0°♏	
evening set	1365 Oct 08 j 12:12	3°♏16'45	
max. Earth dist.	1365 Oct 19 j 05:34	5°♏38'11	6.39505 AU
conjunction	1365 Oct 21 j 05:41	6°♏04'44	0°57'32
minimum elong	1365 Oct 21 j 05:43	6°♏04'45	0°57'32
morning rise	1365 Nov 02 j 21:08	8°♏51'49	
	1365 Dec 01 j 18:10	15°♏	
retrograde	1366 Mar 04 j 10:41	26°♏04'57	
opposition	1366 May 04 j 07:05	21°♏13'08	1°07'19
min. Earth dist.	1366 May 05 j 19:16	21°♏01'36	4.34781 AU
direct	1366 Jul 05 j 17:16	16°♏13'27	
	1366 Oct 20 j 06:37	0°♐	
evening set	1366 Nov 08 j 11:31	4°♐13'32	
max. Earth dist.	1366 Nov 19 j 03:19	6°♐37'50	6.28795 AU
conjunction	1366 Nov 21 j 03:19	7°♐05'01	0°30'44
minimum elong	1366 Nov 21 j 03:20	7°♐05'02	0°30'44
morning rise	1366 Dec 03 j 18:00	9°♐56'13	
retrograde	1367 Apr 06 j 22:46	27°♐58'16	
opposition	1367 Jun 06 j 20:43	23°♐05'21	0°19'00
min. Earth dist.	1367 Jun 08 j 03:31	22°♐55'30	4.22075 AU
direct	1367 Aug 07 j 06:22	18°♐08'13	
desc. node	1367 Oct 17 j 21:16	25°♐17'41	
	1367 Nov 10 j 17:33	0°♑	
evening set	1367 Dec 10 j 14:57	6°♑40'41	
max. Earth dist.	1367 Dec 21 j 21:21	9°♑18'04	6.15163 AU
conjunction	1367 Dec 23 j 07:53	9°♑38'14	-0°06'36
minimum elong	1367 Dec 23 j 07:52	9°♑38'14	0°06'35
behind sun begin	1367 Dec 23 j 00:21	9°♑33'52	
behind sun end	1367 Dec 23 j 15:23	9°♑42'36	
morning rise	1368 Jan 05 j 01:21	12°♑36'19	
	1368 Apr 08 j 06:42	0°♒	
retrograde	1368 May 11 j 19:06	1°♒43'21	
	1368 Jun 14 j 10:15	30°℞♑	
opposition	1368 Jul 11 j 10:48	26°♑47'48	-0°38'42
min. Earth dist.	1368 Jul 12 j 03:07	26°♑42'30	4.08481 AU
direct	1368 Sep 09 j 12:39	21°♑53'02	
	1368 Nov 23 j 13:56	0°♒	
evening set	1369 Jan 12 j 14:38	11°♒01'36	
conjunction	1369 Jan 25 j 11:46	14°♒06'13	-0°43'10
minimum elong	1369 Jan 25 j 11:44	14°♒06'12	0°43'11
max. Earth dist.	1369 Jan 25 j 03:33	14°♒01'18	6.02831 AU
	1369 Jan 29 j 05:36	15°♒	
morning rise	1369 Feb 07 j 10:52	17°♒12'06	
	1369 Apr 07 j 10:10	0°♓	
retrograde	1369 Jun 18 j 09:32	7°♓20'15	
opposition	1369 Aug 17 j 15:37	2°♓21'01	-1°25'31
min. Earth dist.	1369 Aug 17 j 09:46	2°♓22'57	3.98658 AU
	1369 Sep 05 j 04:46	30°℞♒	
direct	1369 Oct 15 j 08:23	27°♒27'31	
	1369 Nov 23 j 20:36	0°♓	
evening set	1370 Feb 17 j 14:00	17°♓02'04	
conjunction	1370 Mar 02 j 17:46	20°♓12'34	-1°04'54
minimum elong	1370 Mar 02 j 17:45	20°♓12'33	1°04'54
max. Earth dist.	1370 Mar 03 j 16:41	20°♓26'25	5.96383 AU
morning rise	1370 Mar 16 j 00:43	23°♓24'46	
	1370 Apr 13 j 07:11	0°♈	
retrograde	1370 Jul 26 j 09:50	14°♈02'00	
min. Earth dist.	1370 Sep 23 j 05:39	9°♈07'31	3.96441 AU
opposition	1370 Sep 24 j 07:02	8°♈58'56	-1°40'05
direct	1370 Nov 21 j 05:39	4°♈04'34	
evening set	1371 Mar 26 j 20:38	23°♈42'01	
conjunction	1371 Apr 09 j 08:35	26°♈55'14	-1°01'32
minimum elong	1371 Apr 09 j 08:37	26°♈55'16	1°01'32
max. Earth dist.	1371 Apr 11 j 09:25	27°♈24'25	5.98536 AU
morning rise	1371 Apr 22 j 23:19	0°♉09'51	
	1371 Apr 22 j 06:41	0°♉	
	1371 Jul 02 j 18:32	15°♉	
retrograde	1371 Sep 01 j 08:03	20°♉26'28	
opposition	1371 Oct 30 j 21:49	15°♉21'28	-1°15'09
min. Earth dist.	1371 Oct 29 j 12:13	15°♉32'55	4.02765 AU
	1371 Nov 02 j 12:50	15°℞♉	
direct	1371 Dec 28 j 00:39	10°♉24'30	
	1372 Feb 20 j 06:58	15°♉	
evening set	1372 May 02 j 03:45	29°♉40'12	
	1372 May 03 j 13:59	0°♊	
conjunction	1372 May 15 j 21:13	2°♊51'27	-0°34'43
minimum elong	1372 May 15 j 21:15	2°♊51'28	0°34'42
max. Earth dist.	1372 May 18 j 02:37	3°♊22'29	6.08392 AU
morning rise	1372 May 29 j 16:19	6°♊03'15	
retrograde	1372 Oct 04 j 23:19	25°♊21'39	
min. Earth dist.	1372 Dec 02 j 06:42	20°♊27'58	4.15016 AU
opposition	1372 Dec 03 j 13:34	20°♊17'28	-0°23'45
direct	1373 Jan 31 j 13:43	15°♊17'31	
asc. node	1373 May 16 j 16:58	29°♊14'24	
	1373 May 20 j 05:40	0°♋	
evening set	1373 Jun 07 j 05:32	3°♋58'15	

conjunction	1373 Jun 20 j 23:05	7°♋03'28	0°03'30
minimum elong	1373 Jun 20 j 23:06	7°♋03'29	0°03'29
behind sun begin	1373 Jun 20 j 14:49	6°♋58'50	
behind sun end	1373 Jun 21 j 07:23	7°♋08'07	
max. Earth dist.	1373 Jun 22 j 13:44	7°♋25'14	6.22031 AU
morning rise	1373 Jul 04 j 16:14	10°♋08'14	
retrograde	1373 Nov 06 j 11:52	28°♋19'48	
opposition	1374 Jan 05 j 05:00	23°♋18'40	0°32'24
min. Earth dist.	1374 Jan 04 j 12:06	23°♋24'21	4.28704 AU
direct	1374 Mar 06 j 13:20	18°♋16'34	
	1374 Jun 11 j 05:50	0°♌	
evening set	1374 Jul 11 j 11:39	6°♌23'17	
conjunction	1374 Jul 25 j 00:01	9°♌20'56	0°38'54
minimum elong	1374 Jul 24 j 23:59	9°♌20'55	0°38'54
max. Earth dist.	1374 Jul 25 j 13:09	9°♌28'08	6.34711 AU
morning rise	1374 Aug 07 j 10:18	12°♌17'23	
	1374 Aug 20 j 00:03	15°♌	
retrograde	1374 Dec 07 j 07:54	29°♌36'14	
opposition	1375 Feb 05 j 09:16	24°♌38'52	1°15'52
min. Earth dist.	1375 Feb 05 j 09:11	24°♌38'54	4.39478 AU
direct	1375 Apr 07 j 22:51	19°♌35'51	
	1375 Jul 08 j 10:59	0°♍	
evening set	1375 Aug 12 j 22:53	7°♍19'00	
conjunction	1375 Aug 26 j 03:33	10°♍10'13	1°01'51
minimum elong	1375 Aug 26 j 03:31	10°♍10'12	1°01'51
max. Earth dist.	1375 Aug 25 j 13:23	10°♍02'32	6.42745 AU
morning rise	1375 Sep 08 j 05:18	13°♍00'00	
retrograde	1376 Jan 06 j 14:08	29°♍50'54	
opposition	1376 Mar 06 j 23:16	24°♍56'48	1°36'59
min. Earth dist.	1376 Mar 07 j 17:02	24°♍51'03	4.44388 AU
direct	1376 May 08 j 10:17	19°♍54'07	
	1376 Aug 06 j 19:54	0°♎	
evening set	1376 Sep 12 j 03:08	7°♎28'11	
max. Earth dist.	1376 Sep 23 j 11:46	9°♎55'57	6.44081 AU
conjunction	1376 Sep 25 j 00:43	10°♎16'02	1°07'27
minimum elong	1376 Sep 25 j 00:43	10°♎16'03	1°07'26
morning rise	1376 Oct 07 j 19:38	13°♎02'37	
retrograde	1377 Feb 05 j 03:48	29°♎53'23	
opposition	1377 Apr 06 j 20:21	25°♎01'08	1°32'03
min. Earth dist.	1377 Apr 08 j 03:08	24°♎51'17	4.42174 AU
direct	1377 Jun 08 j 13:45	19°♎59'41	
	1377 Sep 05 j 23:59	0°♏	
evening set	1377 Oct 12 j 19:19	7°♏40'50	
max. Earth dist.	1377 Oct 23 j 13:02	10°♏02'49	6.38420 AU
conjunction	1377 Oct 25 j 12:32	10°♏29'05	0°54'39
minimum elong	1377 Oct 25 j 12:34	10°♏29'06	0°54'39
morning rise	1377 Nov 07 j 03:30	13°♏16'28	
	1377 Nov 15 j 00:51	15°♏	
	1378 Feb 17 j 16:35	0°♐	
retrograde	1378 Mar 08 j 22:38	0°♐34'30	
	1378 Mar 28 j 05:55	30°℞♏	
opposition	1378 May 08 j 20:41	25°♏42'36	1°01'36
min. Earth dist.	1378 May 10 j 08:11	25°♏31'18	4.33374 AU
direct	1378 Jul 10 j 03:47	20°♏43'16	
	1378 Oct 02 j 12:45	0°♐	
evening set	1378 Nov 12 j 21:02	8°♐46'41	
max. Earth dist.	1378 Nov 23 j 13:10	11°♐11'47	6.27158 AU
conjunction	1378 Nov 25 j 12:39	11°♐38'47	0°25'57
minimum elong	1378 Nov 25 j 12:41	11°♐38'48	0°25'56
morning rise	1378 Dec 08 j 03:37	14°♐30'45	
	1379 Feb 28 j 11:35	0°♑	
retrograde	1379 Apr 11 j 19:39	2°♑40'33	
	1379 May 24 j 17:19	30°℞♐	
opposition	1379 Jun 11 j 16:29	27°♐47'20	0°11'07
min. Earth dist.	1379 Jun 12 j 22:37	27°♐37'40	4.20280 AU
direct	1379 Aug 11 j 23:30	22°♐50'29	
desc. node	1379 Aug 27 j 23:25	23°♐14'41	
	1379 Oct 22 j 07:51	0°♑	
evening set	1379 Dec 15 j 05:05	11°♑27'30	
conjunction	1379 Dec 27 j 22:31	14°♑26'00	-0°12'01
minimum elong	1379 Dec 27 j 22:31	14°♑25'59	0°12'01
behind sun begin	1379 Dec 27 j 16:55	14°♑22'44	
behind sun end	1379 Dec 28 j 04:06	14°♑29'15	
max. Earth dist.	1379 Dec 26 j 14:58	14°♑07'31	6.13367 AU
morning rise	1380 Jan 09 j 16:34	17°♑25'06	
	1380 Mar 09 j 03:39	0°♒	
retrograde	1380 May 16 j 21:28	6°♒41'01	
opposition	1380 Jul 16 j 12:31	1°♒45'02	-0°46'22
min. Earth dist.	1380 Jul 17 j 01:52	1°♒40'41	4.06842 AU
	1380 Jul 30 j 06:54	30°℞♑	
direct	1380 Sep 14 j 08:57	26°♑50'32	
	1380 Oct 29 j 07:40	0°♒	
	1381 Jan 13 j 00:33	15°♒	
evening set	1381 Jan 17 j 11:33	16°♒03'31	
conjunction	1381 Jan 30 j 09:19	19°♒09'02	-0°47'23
minimum elong	1381 Jan 30 j 09:17	19°♒09'01	0°47'23
max. Earth dist.	1381 Jan 30 j 04:17	19°♒06'01	6.01484 AU
morning rise	1381 Feb 12 j 09:27	22°♒15'57	
	1381 Mar 18 j 01:40	0°♓	
retrograde	1381 Jun 23 j 15:51	12°♓30'50	
opposition	1381 Aug 22 j 20:49	7°♓30'59	-1°29'50
min. Earth dist.	1381 Aug 22 j 12:03	7°♓33'53	3.97748 AU
direct	1381 Oct 20 j 10:10	2°♓37'25	
evening set	1382 Feb 22 j 16:50	22°♓14'24	
conjunction	1382 Mar 07 j 21:53	25°♓25'37	-1°06'01
minimum elong	1382 Mar 07 j 21:52	25°♓25'37	1°06'02
max. Earth dist.	1382 Mar 09 j 02:04	25°♓42'39	5.96002 AU
morning rise	1382 Mar 21 j 05:52	28°♓38'29	
	1382 Mar 26 j 22:25	0°♈	
retrograde	1382 Jul 31 j 16:47	19°♈16'30	
min. Earth dist.	1382 Sep 28 j 08:54	14°♈22'02	3.96645 AU
opposition	1382 Sep 29 j 11:28	14°♈13'03	-1°38'51
direct	1382 Nov 26 j 09:27	9°♈18'23	
evening set	1383 Apr 01 j 02:16	28°♈54'56	
	1383 Apr 05 j 15:51	0°♉	
conjunction	1383 Apr 14 j 15:10	2°♉08'17	-0°58'58
minimum elong	1383 Apr 14 j 15:12	2°♉08'18	0°58'58
max. Earth dist.	1383 Apr 16 j 17:02	2°♉37'59	5.99283 AU
morning rise	1383 Apr 28 j 07:00	5°♉22'58	
	1383 Jun 10 j 06:00	15°♉	
retrograde	1383 Sep 06 j 07:18	25°♉34'04	
min. Earth dist.	1383 Nov 03 j 10:35	20°♉40'52	4.03979 AU
opposition	1383 Nov 04 j 21:25	20°♉28'59	-1°09'02
direct	1384 Jan 02 j 01:06	15°♉31'36	
	1384 Apr 16 j 10:27	0°♊	
evening set	1384 May 07 j 07:40	4°♊43'45	
conjunction	1384 May 21 j 01:34	7°♊54'29	-0°29'40
minimum elong	1384 May 21 j 01:36	7°♊54'30	0°29'39
max. Earth dist.	1384 May 23 j 05:57	8°♊24'49	6.09985 AU
morning rise	1384 Jun 03 j 20:45	11°♊05'35	
	1384 Sep 27 j 07:48	0°♋	
retrograde	1384 Oct 09 j 17:19	0°♋15'14	
	1384 Oct 22 j 00:10	30°℞♊	
min. Earth dist.	1384 Dec 07 j 02:02	25°♊21'11	4.16827 AU

opposition	1384 Dec 08 j 06:58	25°♊11'22	-0°15'36
direct	1385 Feb 05 j 11:51	20°♊11'05	
asc. node	1385 Mar 26 j 02:27	23°♊46'18	
	1385 May 01 j 19:42	0°♋	
evening set	1385 Jun 12 j 04:29	8°♋47'00	
conjunction	1385 Jun 25 j 21:38	11°♋51'14	0°08'56
minimum elong	1385 Jun 25 j 21:38	11°♋51'14	0°08'56
behind sun begin	1385 Jun 25 j 14:33	11°♋47'17	
behind sun end	1385 Jun 26 j 04:43	11°♋55'11	
max. Earth dist.	1385 Jun 27 j 10:50	12°♋12'05	6.23948 AU
morning rise	1385 Jul 09 j 14:01	14°♋54'49	
	1385 Sep 27 j 21:50	0°♌	
retrograde	1385 Nov 10 j 20:47	2°♌57'34	
	1385 Dec 24 j 20:58	30°℞♋	
opposition	1386 Jan 09 j 16:19	27°♋56'56	0°39'35
min. Earth dist.	1386 Jan 09 j 00:13	28°♋02'19	4.30599 AU
direct	1386 Mar 11 j 04:21	22°♋54'39	
	1386 May 22 j 13:39	0°♌	
evening set	1386 Jul 16 j 03:56	10°♌56'36	
conjunction	1386 Jul 29 j 15:10	13°♌53'04	0°43'01
minimum elong	1386 Jul 29 j 15:08	13°♌53'03	0°43'00
max. Earth dist.	1386 Jul 30 j 00:34	13°♌58'13	6.36458 AU
	1386 Aug 03 j 17:30	15°♌	
morning rise	1386 Aug 12 j 00:16	16°♌48'18	
	1386 Oct 20 j 11:53	0°♍	
retrograde	1386 Dec 11 j 14:32	4°♍00'28	
	1387 Feb 02 j 11:41	30°℞♌	
opposition	1387 Feb 09 j 16:42	29°♌03'36	1°20'13
min. Earth dist.	1387 Feb 09 j 19:31	29°♌02'41	4.40964 AU
direct	1387 Apr 12 j 11:28	24°♌00'34	
	1387 Jun 18 j 08:13	0°♍	
evening set	1387 Aug 17 j 08:33	11°♍39'52	
conjunction	1387 Aug 30 j 12:05	14°♍30'12	1°03'41
minimum elong	1387 Aug 30 j 12:03	14°♍30'11	1°03'41
max. Earth dist.	1387 Aug 29 j 18:35	14°♍20'44	6.43843 AU
morning rise	1387 Sep 12 j 12:41	17°♍19'05	
	1387 Nov 18 j 15:32	0°♎	
retrograde	1388 Jan 10 j 17:14	4°♎06'36	
	1388 Mar 05 j 01:47	30°℞♍	
opposition	1388 Mar 11 j 04:44	29°♍12'46	1°37'46
min. Earth dist.	1388 Mar 12 j 00:05	29°♍06'31	4.45048 AU
direct	1388 May 12 j 17:48	24°♍10'10	
	1388 Jul 18 j 00:50	0°♎	
evening set	1388 Sep 16 j 08:24	11°♎42'25	
max. Earth dist.	1388 Sep 27 j 14:57	14°♎09'04	6.44243 AU
conjunction	1388 Sep 29 j 05:10	14°♎29'51	1°06'42
minimum elong	1388 Sep 29 j 05:10	14°♎29'52	1°06'41
morning rise	1388 Oct 11 j 23:08	17°♎16'03	
	1388 Dec 18 j 00:55	0°♏	
retrograde	1389 Feb 09 j 08:15	4°♏07'12	
	1389 Apr 05 j 05:19	30°℞♎	
opposition	1389 Apr 11 j 02:38	29°♎15'06	1°29'14
min. Earth dist.	1389 Apr 12 j 11:06	29°♎04'45	4.41809 AU
direct	1389 Jun 12 j 20:36	24°♎13'53	
	1389 Aug 17 j 09:42	0°♏	
evening set	1389 Oct 16 j 23:09	11°♏55'44	
max. Earth dist.	1389 Oct 27 j 13:32	14°♏16'16	6.37535 AU
conjunction	1389 Oct 29 j 15:47	14°♏44'08	0°51'33
minimum elong	1389 Oct 29 j 15:49	14°♏44'09	0°51'33
	1389 Oct 30 j 20:24	15°♏	
morning rise	1389 Nov 11 j 06:39	17°♏31'49	
	1390 Jan 13 j 19:12	0°♐	

retrograde	1390 Mar 13 j 08:58	4°♐54'30	
opposition	1390 May 13 j 06:59	0°♐02'29	0°55'43
	1390 May 13 j 14:47	30°℞♏	
min. Earth dist.	1390 May 14 j 19:20	29°♏50'54	4.31990 AU
direct	1390 Jul 14 j 12:29	25°♏03'22	
	1390 Sep 11 j 21:31	0°♐	
evening set	1390 Nov 17 j 02:49	13°♐10'22	
max. Earth dist.	1390 Nov 27 j 20:21	15°♐36'47	6.25386 AU
conjunction	1390 Nov 29 j 18:40	16°♐03'13	0°21'10
minimum elong	1390 Nov 29 j 18:41	16°♐03'14	0°21'09
morning rise	1390 Dec 12 j 09:43	18°♐56'00	
	1391 Feb 03 j 07:06	0°♑	
retrograde	1391 Apr 16 j 12:09	7°♑14'22	
opposition	1391 Jun 16 j 09:01	2°♑20'55	0°03'24
min. Earth dist.	1391 Jun 17 j 14:07	2°♑11'35	4.18228 AU
	1391 Jul 05 j 10:45	30°℞♐	
desc. node	1391 Jul 09 j 20:41	29°♐31'11	
direct	1391 Aug 16 j 11:19	27°♐24'24	
	1391 Sep 26 j 18:44	0°♑	
evening set	1391 Dec 19 j 17:05	16°♑07'24	
max. Earth dist.	1391 Dec 31 j 04:23	18°♑49'02	6.11203 AU
conjunction	1392 Jan 01 j 10:52	19°♑06'59	-0°17'14
minimum elong	1392 Jan 01 j 10:50	19°♑06'58	0°17'13
morning rise	1392 Jan 14 j 05:44	22°♑07'21	
	1392 Feb 18 j 06:41	0°♒	
retrograde	1392 May 21 j 23:17	11°♒33'57	
opposition	1392 Jul 21 j 12:13	6°♒37'31	-0°53'35
min. Earth dist.	1392 Jul 21 j 23:17	6°♒33'54	4.04742 AU
direct	1392 Sep 19 j 03:43	1°♒43'11	
	1392 Dec 27 j 08:23	15°♒	
evening set	1393 Jan 22 j 07:44	21°♒02'51	
conjunction	1393 Feb 04 j 06:39	24°♒09'39	-0°51'10
minimum elong	1393 Feb 04 j 06:37	24°♒09'38	0°51'09
max. Earth dist.	1393 Feb 04 j 06:44	24°♒09'42	5.99658 AU
morning rise	1393 Feb 17 j 07:46	27°♒17'52	
	1393 Feb 28 j 17:18	0°♓	
retrograde	1393 Jun 29 j 00:09	17°♓41'22	
opposition	1393 Aug 28 j 01:58	12°♓41'03	-1°33'24
min. Earth dist.	1393 Aug 27 j 15:02	12°♓44'42	3.96411 AU
direct	1393 Oct 25 j 11:12	7°♓47'32	
evening set	1394 Feb 27 j 20:55	27°♓28'51	
	1394 Mar 10 j 07:22	0°♈	
conjunction	1394 Mar 13 j 03:05	0°♈40'58	-1°06'34
minimum elong	1394 Mar 13 j 03:05	0°♈40'58	1°06'34
max. Earth dist.	1394 Mar 14 j 10:21	0°♈59'52	5.95265 AU
morning rise	1394 Mar 26 j 12:34	3°♈54'48	
retrograde	1394 Aug 05 j 23:20	24°♈34'45	
min. Earth dist.	1394 Oct 03 j 11:15	19°♈40'59	3.96614 AU
opposition	1394 Oct 04 j 16:59	19°♈30'55	-1°36'45
direct	1394 Dec 01 j 13:05	14°♈35'58	
	1395 Mar 19 j 09:03	0°♉	
evening set	1395 Apr 06 j 10:02	4°♉12'31	
conjunction	1395 Apr 20 j 00:04	7°♉26'03	-0°55'51
minimum elong	1395 Apr 20 j 00:06	7°♉26'05	0°55'51
max. Earth dist.	1395 Apr 22 j 04:24	7°♉57'11	5.99960 AU
morning rise	1395 May 03 j 16:44	10°♉40'48	
	1395 May 22 j 08:05	15°♉	
	1395 Aug 20 j 16:20	0°♊	
retrograde	1395 Sep 11 j 09:18	0°♊46'15	
	1395 Oct 02 j 21:27	30°℞♉	
min. Earth dist.	1395 Nov 08 j 11:55	25°♉52'53	4.05251 AU
opposition	1395 Nov 09 j 22:29	25°♉41'05	-1°02'16

direct	1396 Jan 07 j 05:14	20°♉43'14	
	1396 Mar 28 j 03:19	0°♊	
evening set	1396 May 12 j 13:21	9°♊51'25	
conjunction	1396 May 26 j 07:38	13°♊01'30	-0°24'19
minimum elong	1396 May 26 j 07:39	13°♊01'31	0°24'19
max. Earth dist.	1396 May 28 j 12:48	13°♊32'08	6.11733 AU
morning rise	1396 Jun 09 j 02:47	16°♊11'47	
	1396 Aug 16 j 04:20	0°♋	
retrograde	1396 Oct 14 j 10:00	5°♋11'40	
min. Earth dist.	1396 Dec 11 j 20:14	0°♋17'52	4.18833 AU
opposition	1396 Dec 13 j 01:02	0°♋08'06	-0°07'17
	1396 Dec 14 j 00:59	30°℞♊	
asc. node	1397 Feb 01 j 12:13	25°♊15'19	
direct	1397 Feb 10 j 09:25	25°♊07'27	
	1397 Apr 09 j 01:15	0°♋	
evening set	1397 Jun 17 j 03:59	13°♋37'46	
conjunction	1397 Jun 30 j 20:23	16°♋40'49	0°14'21
minimum elong	1397 Jun 30 j 20:22	16°♋40'48	0°14'22
behind sun begin	1397 Jun 30 j 16:51	16°♋38'51	
behind sun end	1397 Jun 30 j 23:54	16°♋42'46	
max. Earth dist.	1397 Jul 02 j 05:16	16°♋59'10	6.26014 AU
morning rise	1397 Jul 14 j 12:01	19°♋43'08	
	1397 Sep 02 j 10:55	0°♌	
retrograde	1397 Nov 15 j 08:12	7°♌36'51	
opposition	1398 Jan 14 j 04:19	2°♌36'40	0°46'34
min. Earth dist.	1398 Jan 13 j 15:19	2°♌41'00	4.32516 AU
	1398 Feb 03 j 19:56	30°℞♋	
direct	1398 Mar 15 j 22:26	27°♋34'08	
	1398 Apr 25 j 10:51	0°♌	
	1398 Jul 18 j 10:15	15°♌	
evening set	1398 Jul 20 j 20:09	15°♌31'18	
conjunction	1398 Aug 03 j 06:25	18°♌26'41	0°46'55
minimum elong	1398 Aug 03 j 06:22	18°♌26'40	0°46'55
max. Earth dist.	1398 Aug 03 j 12:58	18°♌30'16	6.38057 AU
morning rise	1398 Aug 16 j 14:08	21°♌20'43	
	1398 Sep 27 j 21:53	0°♍	
retrograde	1398 Dec 15 j 19:52	8°♍27'04	
opposition	1399 Feb 14 j 00:43	3°♍30'40	1°24'13
min. Earth dist.	1399 Feb 14 j 05:13	3°♍29'12	4.42147 AU
	1399 Mar 15 j 20:51	30°℞♌	
direct	1399 Apr 16 j 22:23	28°♌27'36	
	1399 May 19 j 09:49	0°♍	
evening set	1399 Aug 21 j 19:17	16°♍04'19	
conjunction	1399 Sep 03 j 21:37	18°♍53'55	1°05'13
minimum elong	1399 Sep 03 j 21:36	18°♍53'54	1°05'12
max. Earth dist.	1399 Sep 03 j 00:04	18°♍42'15	6.44510 AU
morning rise	1399 Sep 16 j 21:09	21°♍42'06	
	1399 Oct 27 j 15:56	0°♎	
retrograde	1400 Jan 15 j 00:17	8°♎27'53	
opposition	1400 Mar 15 j 12:30	3°♎34'24	1°38'07
min. Earth dist.	1400 Mar 16 j 11:01	3°♎27'10	4.45163 AU
	1400 Apr 15 j 12:25	30°℞♍	
direct	1400 May 17 j 04:32	28°♍31'54	
	1400 Jun 18 j 01:07	0°♎	
evening set	1400 Sep 20 j 16:00	16°♎04'05	
max. Earth dist.	1400 Oct 01 j 18:31	18°♎28'47	6.43779 AU
conjunction	1400 Oct 03 j 12:01	18°♎51'24	1°05'36
minimum elong	1400 Oct 03 j 12:02	18°♎51'24	1°05'36
morning rise	1400 Oct 16 j 05:24	21°♎37'32	
	1400 Nov 26 j 01:31	0°♏	
retrograde	1401 Feb 13 j 17:28	8°♏31'19	
opposition	1401 Apr 15 j 13:15	3°♏39'17	1°25'54
min. Earth dist.	1401 Apr 16 j 22:36	3°♏28'38	4.40801 AU
	1401 May 17 j 18:36	30°℞♎	
direct	1401 Jun 17 j 06:08	28°♎38'14	
	1401 Jul 17 j 20:01	0°♏	
	1401 Oct 15 j 00:18	15°♏	
evening set	1401 Oct 21 j 07:12	16°♏22'45	
max. Earth dist.	1401 Oct 31 j 21:57	18°♏43'57	6.36061 AU
conjunction	1401 Nov 02 j 23:37	19°♏11'36	0°48'02
minimum elong	1401 Nov 02 j 23:39	19°♏11'37	0°48'02
morning rise	1401 Nov 15 j 14:10	21°♏59'46	
	1401 Dec 23 j 12:52	0°♐	
retrograde	1402 Mar 18 j 00:56	9°♐29'06	
opposition	1402 May 17 j 23:16	4°♐37'01	0°49'12
min. Earth dist.	1402 May 19 j 11:48	4°♐25'23	4.30128 AU
	1402 Jul 03 j 15:48	30°℞♏	
direct	1402 Jul 19 j 02:09	29°♏38'14	
	1402 Aug 03 j 11:45	0°♐	
evening set	1402 Nov 21 j 14:56	17°♐50'09	
max. Earth dist.	1402 Dec 02 j 08:19	20°♐17'15	6.23287 AU
conjunction	1402 Dec 04 j 06:46	20°♐43'54	0°15'58
minimum elong	1402 Dec 04 j 06:47	20°♐43'54	0°15'58
behind sun begin	1402 Dec 04 j 05:12	20°♐43'00	
behind sun end	1402 Dec 04 j 08:22	20°♐44'48	
morning rise	1402 Dec 16 j 22:20	23°♐37'43	
	1403 Jan 14 j 17:38	0°♑	
retrograde	1403 Apr 21 j 13:01	12°♑05'50	
desc. node	1403 May 18 j 22:31	10°♑56'52	
opposition	1403 Jun 21 j 08:48	7°♑12'00	-0°04'52
min. Earth dist.	1403 Jun 22 j 11:45	7°♑03'20	4.16037 AU
direct	1403 Aug 21 j 06:15	2°♑15'47	
evening set	1403 Dec 24 j 11:47	21°♑04'54	
max. Earth dist.	1404 Jan 05 j 04:36	23°♑50'27	6.09134 AU
conjunction	1404 Jan 06 j 06:17	24°♑05'38	-0°22'39
minimum elong	1404 Jan 06 j 06:16	24°♑05'37	0°22'40
morning rise	1404 Jan 19 j 01:47	27°♑07'13	
	1404 Jan 31 j 10:40	0°♒	
	1404 Apr 23 j 20:29	15°♒	
retrograde	1404 May 27 j 08:41	16°♒43'52	
	1404 Jun 29 j 21:16	15°℞♒	
opposition	1404 Jul 26 j 19:05	11°♒46'58	-1°00'52
min. Earth dist.	1404 Jul 27 j 03:34	11°♒44'11	4.03012 AU
direct	1404 Sep 24 j 05:31	6°♒52'55	
	1404 Dec 07 j 15:48	15°♒	
evening set	1405 Jan 27 j 10:19	26°♒17'24	
conjunction	1405 Feb 09 j 09:59	29°♒25'08	-0°54'47
minimum elong	1405 Feb 09 j 09:57	29°♒25'06	0°54'47
max. Earth dist.	1405 Feb 09 j 13:46	29°♒27'25	5.98431 AU
	1405 Feb 11 j 19:46	0°♓	
morning rise	1405 Feb 22 j 12:22	2°♓34'24	
retrograde	1405 Jul 04 j 09:58	23°♓03'28	
opposition	1405 Sep 02 j 11:31	18°♓02'34	-1°36'22
min. Earth dist.	1405 Sep 01 j 20:14	18°♓07'41	3.95877 AU
direct	1405 Oct 30 j 17:00	13°♓09'00	
	1406 Feb 21 j 05:08	0°♈	
evening set	1406 Mar 05 j 04:46	2°♈51'13	
conjunction	1406 Mar 18 j 12:08	6°♈03'46	-1°06'39
minimum elong	1406 Mar 18 j 12:09	6°♈03'46	1°06'38
max. Earth dist.	1406 Mar 20 j 00:28	6°♈25'43	5.95481 AU
morning rise	1406 Mar 31 j 22:37	9°♈17'58	
retrograde	1406 Aug 11 j 07:03	29°♈55'21	
opposition	1406 Oct 09 j 23:26	24°♈51'06	-1°33'52
min. Earth dist.	1406 Oct 08 j 16:40	25°♈01'33	3.97559 AU

direct	1406 Dec 06 j 20:51	19°♈55'47	
	1407 Feb 28 j 11:34	0°♉	
evening set	1407 Apr 11 j 17:46	9°♉28'31	
conjunction	1407 Apr 25 j 08:40	12°♉41'44	-0°52'22
minimum elong	1407 Apr 25 j 08:43	12°♉41'45	0°52'22
max. Earth dist.	1407 Apr 27 j 15:41	13°♉14'16	6.01533 AU
	1407 May 05 j 02:43	15°♉	
morning rise	1407 May 09 j 01:58	15°♉56'00	
	1407 Jul 15 j 04:29	0°♊	
retrograde	1407 Sep 16 j 07:41	5°♊52'09	
min. Earth dist.	1407 Nov 13 j 10:16	0°♊59'00	4.07269 AU
opposition	1407 Nov 14 j 21:20	0°♊47'03	-0°55'11
	1407 Nov 20 j 16:04	30°℞♉	
direct	1408 Jan 12 j 06:13	25°♉48'48	
	1408 Mar 04 j 07:52	0°♊	
evening set	1408 May 17 j 16:05	14°♊50'36	
conjunction	1408 May 31 j 10:13	17°♊59'39	-0°18'58
minimum elong	1408 May 31 j 10:14	17°♊59'40	0°18'58
max. Earth dist.	1408 Jun 02 j 12:03	18°♊28'13	6.13994 AU
morning rise	1408 Jun 14 j 05:16	21°♊08'48	
	1408 Jul 25 j 05:57	0°♋	
retrograde	1408 Oct 18 j 23:40	9°♋57'53	
asc. node	1408 Dec 12 j 07:40	5°♋37'51	
opposition	1408 Dec 17 j 15:37	4°♋54'42	0°00'46
min. Earth dist.	1408 Dec 16 j 13:15	5°♋03'37	4.21104 AU
	1409 Feb 07 j 05:43	30°℞♊	
direct	1409 Feb 15 j 05:41	29°♊53'40	
	1409 Feb 23 j 06:05	0°♋	
evening set	1409 Jun 21 j 23:20	18°♋17'58	
conjunction	1409 Jul 05 j 15:12	21°♋19'50	0°19'31
minimum elong	1409 Jul 05 j 15:11	21°♋19'49	0°19'30
max. Earth dist.	1409 Jul 06 j 21:32	21°♋36'42	6.28119 AU
morning rise	1409 Jul 19 j 05:41	24°♋20'49	
	1409 Aug 14 j 14:22	0°♌	
retrograde	1409 Nov 19 j 15:02	12°♌06'01	
opposition	1410 Jan 18 j 12:35	7°♌06'26	0°53'01
min. Earth dist.	1410 Jan 18 j 01:43	7°♌10'03	4.34296 AU
direct	1410 Mar 20 j 10:33	2°♌03'47	
	1410 Jul 01 j 22:34	15°♌	
evening set	1410 Jul 25 j 08:54	19°♌57'02	
conjunction	1410 Aug 07 j 17:56	22°♌51'25	0°50'26
minimum elong	1410 Aug 07 j 17:54	22°♌51'24	0°50'27
max. Earth dist.	1410 Aug 07 j 18:30	22°♌51'44	6.39364 AU
morning rise	1410 Aug 21 j 00:39	25°♌44'29	
	1410 Sep 10 j 02:36	0°♍	
retrograde	1410 Dec 20 j 01:43	12°♍46'30	
opposition	1411 Feb 18 j 06:36	7°♍50'37	1°27'39
min. Earth dist.	1411 Feb 18 j 14:56	7°♍47'54	4.42919 AU
direct	1411 Apr 21 j 08:18	2°♍47'33	
evening set	1411 Aug 26 j 03:21	20°♍23'06	
max. Earth dist.	1411 Sep 07 j 04:30	22°♍59'06	6.44679 AU
conjunction	1411 Sep 08 j 04:52	23°♍12'17	1°06'22
minimum elong	1411 Sep 08 j 04:51	23°♍12'16	1°06'21
morning rise	1411 Sep 21 j 03:18	26°♍00'00	
	1411 Oct 10 j 01:36	0°♎	
retrograde	1412 Jan 19 j 05:07	12°♎46'00	
opposition	1412 Mar 19 j 19:14	7°♎52'50	1°37'59
min. Earth dist.	1412 Mar 20 j 19:02	7°♎45'11	4.44751 AU
direct	1412 May 21 j 11:02	2°♎50'32	
evening set	1412 Sep 24 j 23:00	20°♎24'27	
max. Earth dist.	1412 Oct 05 j 22:56	22°♎48'09	6.42815 AU
conjunction	1412 Oct 07 j 18:20	23°♎11'52	1°04'10
minimum elong	1412 Oct 07 j 18:21	23°♎11'53	1°04'10
morning rise	1412 Oct 20 j 11:10	25°♎58'11	
	1412 Nov 08 j 08:01	0°♏	
retrograde	1413 Feb 18 j 05:03	12°♏56'21	
opposition	1413 Apr 20 j 00:25	8°♏04'30	1°22'06
min. Earth dist.	1413 Apr 21 j 11:37	7°♏53'17	4.39342 AU
direct	1413 Jun 21 j 16:53	3°♏03'47	
	1413 Sep 28 j 06:49	15°♏	
evening set	1413 Oct 25 j 16:06	20°♏52'25	
max. Earth dist.	1413 Nov 05 j 05:20	23°♏13'27	6.34222 AU
conjunction	1413 Nov 07 j 08:18	23°♏41'56	0°44'14
minimum elong	1413 Nov 07 j 08:20	23°♏41'57	0°44'13
morning rise	1413 Nov 19 j 22:57	26°♏30'53	
	1413 Dec 05 j 20:14	0°♐	
retrograde	1414 Mar 22 j 19:06	14°♐08'15	
opposition	1414 May 22 j 17:27	9°♐16'01	0°42'18
min. Earth dist.	1414 May 24 j 04:25	9°♐04'52	4.28031 AU
direct	1414 Jul 23 j 15:48	4°♐17'37	
evening set	1414 Nov 26 j 04:38	22°♐35'12	
max. Earth dist.	1414 Dec 07 j 02:04	25°♐05'18	6.21124 AU
conjunction	1414 Dec 08 j 20:48	25°♐29'56	0°10'37
minimum elong	1414 Dec 08 j 20:49	25°♐29'56	0°10'37
behind sun begin	1414 Dec 08 j 14:35	25°♐26'22	
behind sun end	1414 Dec 09 j 03:03	25°♐33'31	
morning rise	1414 Dec 21 j 12:39	28°♐24'49	
	1414 Dec 28 j 11:34	0°♑	
desc. node	1415 Mar 27 j 19:39	15°♑40'42	
retrograde	1415 Apr 26 j 16:57	17°♑02'55	
opposition	1415 Jun 26 j 10:52	12°♑08'47	-0°13'13
min. Earth dist.	1415 Jun 27 j 11:58	12°♑00'42	4.13974 AU
direct	1415 Aug 26 j 03:36	7°♑13'00	
evening set	1415 Dec 29 j 08:28	26°♑07'33	
max. Earth dist.	1416 Jan 10 j 04:44	28°♑55'49	6.07356 AU
conjunction	1416 Jan 11 j 03:25	29°♑09'17	-0°27'59
minimum elong	1416 Jan 11 j 03:23	29°♑09'16	0°27'59
	1416 Jan 14 j 16:51	0°♒	
morning rise	1416 Jan 23 j 23:52	2°♒12'01	
	1416 Mar 23 j 15:58	15°♒	
retrograde	1416 Jun 01 j 15:46	21°♒57'16	
opposition	1416 Aug 01 j 02:34	16°♒59'47	-1°07'42
min. Earth dist.	1416 Aug 01 j 06:31	16°♒58'29	4.01705 AU
	1416 Aug 16 j 19:11	15°℞♒	
direct	1416 Sep 29 j 07:43	12°♒05'56	
	1416 Nov 10 j 22:52	15°♒	
	1417 Jan 26 j 00:46	0°♓	
evening set	1417 Feb 01 j 13:27	1°♓33'35	
conjunction	1417 Feb 14 j 14:08	4°♓42'04	-0°57'58
minimum elong	1417 Feb 14 j 14:06	4°♓42'02	0°57'58
max. Earth dist.	1417 Feb 14 j 23:51	4°♓47'55	5.97709 AU
morning rise	1417 Feb 27 j 17:26	7°♓52'05	
retrograde	1417 Jul 09 j 20:35	28°♓24'21	
opposition	1417 Sep 07 j 20:00	23°♓22'53	-1°38'29
min. Earth dist.	1417 Sep 07 j 02:42	23°♓28'40	3.95819 AU
direct	1417 Nov 05 j 00:36	18°♓29'09	
	1418 Feb 03 j 00:16	0°♈	
evening set	1418 Mar 10 j 11:16	8°♈10'32	
conjunction	1418 Mar 23 j 19:45	11°♈23'19	-1°06'10
minimum elong	1418 Mar 23 j 19:46	11°♈23'19	1°06'10
max. Earth dist.	1418 Mar 25 j 12:14	11°♈47'42	5.96070 AU
morning rise	1418 Apr 06 j 07:20	14°♈37'42	
	1418 Jun 18 j 12:32	0°♉	

retrograde	1418 Aug 16 j 11:02	5°♉10'50	
min. Earth dist.	1418 Oct 13 j 18:46	0°♉17'21	3.98744 AU
opposition	1418 Oct 15 j 03:14	0°♉06'19	-1°30'15
	1418 Oct 15 j 21:50	30°℞♈	
direct	1418 Dec 12 j 00:23	25°♈10'39	
	1419 Feb 05 j 10:33	0°♉	
evening set	1419 Apr 16 j 23:23	14°♉39'07	
	1419 Apr 18 j 11:00	15°♉	
conjunction	1419 Apr 30 j 14:52	17°♉51'51	-0°48'31
minimum elong	1419 Apr 30 j 14:55	17°♉51'53	0°48'30
max. Earth dist.	1419 May 02 j 20:52	18°♉23'40	6.03183 AU
morning rise	1419 May 14 j 08:50	21°♉05'36	
	1419 Jun 23 j 09:50	0°♊	
retrograde	1419 Sep 21 j 03:05	10°♊52'32	
min. Earth dist.	1419 Nov 18 j 07:19	5°♊59'11	4.09192 AU
opposition	1419 Nov 19 j 17:27	5°♊47'32	-0°47'51
direct	1420 Jan 17 j 06:42	0°♊48'49	
evening set	1420 May 22 j 16:40	19°♊45'00	
conjunction	1420 Jun 05 j 10:59	22°♊53'09	-0°13'34
minimum elong	1420 Jun 05 j 11:00	22°♊53'10	0°13'34
behind sun begin	1420 Jun 05 j 06:36	22°♊50'40	
behind sun end	1420 Jun 05 j 15:24	22°♊55'40	
max. Earth dist.	1420 Jun 07 j 11:36	23°♊20'54	6.16052 AU
morning rise	1420 Jun 19 j 05:34	26°♊01'12	
	1420 Jul 07 j 02:50	0°♋	
asc. node	1420 Oct 22 j 07:48	14°♋40'21	
retrograde	1420 Oct 23 j 12:44	14°♋40'29	
min. Earth dist.	1420 Dec 21 j 04:12	9°♋45'59	4.23096 AU
opposition	1420 Dec 22 j 04:33	9°♋37'46	0°08'41
direct	1421 Feb 19 j 22:55	4°♋36'27	
evening set	1421 Jun 26 j 17:37	22°♋55'49	
conjunction	1421 Jul 10 j 08:36	25°♋56'36	0°24'30
minimum elong	1421 Jul 10 j 08:34	25°♋56'35	0°24'30
max. Earth dist.	1421 Jul 11 j 09:36	26°♋10'26	6.29882 AU
morning rise	1421 Jul 23 j 22:20	28°♋56'28	
	1421 Jul 28 j 18:24	0°♌	
	1421 Oct 23 j 05:35	15°♌	
retrograde	1421 Nov 23 j 22:33	16°♌34'31	
	1421 Dec 25 j 11:10	15°℞♌	
opposition	1422 Jan 22 j 20:50	11°♌35'26	0°59'08
min. Earth dist.	1422 Jan 22 j 13:01	11°♌38'01	4.35716 AU
direct	1422 Mar 24 j 22:59	6°♌32'35	
	1422 Jun 13 j 14:09	15°♌	
evening set	1422 Jul 29 j 21:22	24°♌22'55	
conjunction	1422 Aug 12 j 05:32	27°♌16'30	0°53'40
minimum elong	1422 Aug 12 j 05:29	27°♌16'29	0°53'40
max. Earth dist.	1422 Aug 12 j 03:23	27°♌15'21	6.40339 AU
	1422 Aug 24 j 18:50	0°♍	
morning rise	1422 Aug 25 j 10:55	0°♍08'41	
retrograde	1422 Dec 24 j 06:46	17°♍07'22	
opposition	1423 Feb 22 j 13:06	12°♍11'56	1°30'39
min. Earth dist.	1423 Feb 22 j 23:20	12°♍08'36	4.43411 AU
direct	1423 Apr 25 j 16:42	7°♍08'56	
evening set	1423 Aug 30 j 12:27	24°♍43'59	
max. Earth dist.	1423 Sep 11 j 08:04	27°♍17'09	6.44640 AU
conjunction	1423 Sep 12 j 12:51	27°♍32'45	1°07'09
minimum elong	1423 Sep 12 j 12:50	27°♍32'45	1°07'09
	1423 Sep 23 j 21:05	0°♎	
morning rise	1423 Sep 25 j 10:32	0°♎20'10	
retrograde	1424 Jan 23 j 13:58	17°♎06'52	
opposition	1424 Mar 24 j 03:37	12°♎14'00	1°37'18
min. Earth dist.	1424 Mar 25 j 06:10	12°♎05'28	4.44206 AU
direct	1424 May 25 j 20:56	7°♎11'51	
evening set	1424 Sep 29 j 06:54	24°♎47'33	
max. Earth dist.	1424 Oct 10 j 05:12	27°♎10'45	6.41803 AU
conjunction	1424 Oct 12 j 01:47	27°♎35'10	1°02'21
minimum elong	1424 Oct 12 j 01:49	27°♎35'11	1°02'20
	1424 Oct 23 j 02:17	0°♏	
morning rise	1424 Oct 24 j 18:05	0°♏21'42	
	1425 Jan 13 j 14:59	15°♏	
retrograde	1425 Feb 22 j 16:36	17°♏24'23	
	1425 Apr 04 j 06:42	15°℞♏	
opposition	1425 Apr 24 j 13:18	12°♏32'34	1°17'47
min. Earth dist.	1425 Apr 25 j 23:51	12°♏21'33	4.37950 AU
direct	1425 Jun 26 j 02:41	7°♏32'13	
	1425 Sep 09 j 06:56	15°♏	
evening set	1425 Oct 30 j 01:59	25°♏24'26	
max. Earth dist.	1425 Nov 09 j 16:26	27°♏46'42	6.32579 AU
conjunction	1425 Nov 11 j 17:58	28°♏14'30	0°40'08
minimum elong	1425 Nov 11 j 18:00	28°♏14'31	0°40'07
	1425 Nov 19 j 13:54	0°♐	
morning rise	1425 Nov 24 j 08:33	1°♐04'06	
retrograde	1426 Mar 27 j 15:40	18°♐48'50	
opposition	1426 May 27 j 12:47	13°♐56'29	0°35'05
min. Earth dist.	1426 May 28 j 23:24	13°♐45'26	4.26243 AU
direct	1426 Jul 28 j 08:28	8°♐58'31	
evening set	1426 Nov 30 j 18:49	27°♐20'26	
max. Earth dist.	1426 Dec 11 j 18:08	29°♐52'16	6.19357 AU
	1426 Dec 12 j 07:29	0°♑	
conjunction	1426 Dec 13 j 11:08	0°♑15'59	0°05'13
minimum elong	1426 Dec 13 j 11:08	0°♑15'59	0°05'13
behind sun begin	1426 Dec 13 j 03:24	0°♑11'32	
behind sun end	1426 Dec 13 j 18:52	0°♑20'27	
morning rise	1426 Dec 26 j 03:29	3°♑11'49	
desc. node	1427 Feb 04 j 09:31	11°♑59'46	
retrograde	1427 May 01 j 17:53	21°♑58'22	
opposition	1427 Jul 01 j 12:16	17°♑03'49	-0°21'24
min. Earth dist.	1427 Jul 02 j 09:35	16°♑56'56	4.12378 AU
direct	1427 Aug 30 j 23:21	12°♑08'24	
	1427 Dec 29 j 10:35	0°♒	
evening set	1428 Jan 03 j 04:06	1°♒06'46	
conjunction	1428 Jan 15 j 23:40	4°♒09'18	-0°33'00
minimum elong	1428 Jan 15 j 23:38	4°♒09'17	0°33'00
max. Earth dist.	1428 Jan 15 j 06:15	3°♒58'56	6.06074 AU
morning rise	1428 Jan 28 j 20:45	7°♒12'53	
	1428 Mar 03 j 02:06	15°♒	
retrograde	1428 Jun 06 j 23:00	27°♒04'53	
opposition	1428 Aug 06 j 08:00	22°♒06'51	-1°13'49
min. Earth dist.	1428 Aug 06 j 09:38	22°♒06'19	4.00864 AU
direct	1428 Oct 04 j 10:31	17°♒13'08	
	1429 Jan 08 j 19:06	0°♓	
evening set	1429 Feb 06 j 14:06	6°♓42'21	
conjunction	1429 Feb 19 j 15:39	9°♓51'22	-1°00'34
minimum elong	1429 Feb 19 j 15:37	9°♓51'21	1°00'35
max. Earth dist.	1429 Feb 20 j 05:41	9°♓59'51	5.97372 AU
morning rise	1429 Mar 04 j 20:00	13°♓02'00	
	1429 May 27 j 10:41	0°♈	
retrograde	1429 Jul 15 j 01:51	3°♈35'45	
	1429 Sep 02 j 03:52	30°℞♓	
min. Earth dist.	1429 Sep 12 j 04:15	28°♓40'36	3.96062 AU
opposition	1429 Sep 13 j 00:28	28°♓33'49	-1°39'41
direct	1429 Nov 10 j 02:12	23°♓39'58	
	1430 Jan 13 j 03:52	0°♈	
evening set	1430 Mar 15 j 14:29	13°♈19'52	

conjunction	1430 Mar 28 j 23:51	16°♈32'44	-1°05'10
minimum elong	1430 Mar 28 j 23:52	16°♈32'44	1°05'10
max. Earth dist.	1430 Mar 30 j 17:35	16°♈57'48	5.96836 AU
morning rise	1430 Apr 11 j 12:30	19°♈47'12	
	1430 May 26 j 22:46	0°♉	
retrograde	1430 Aug 21 j 10:01	10°♉15'36	
min. Earth dist.	1430 Oct 18 j 17:31	5°♉22'07	3.99945 AU
opposition	1430 Oct 20 j 02:30	5°♉10'53	-1°26'04
direct	1430 Dec 17 j 01:09	0°♉14'49	
	1431 Apr 01 j 18:28	15°♉	
evening set	1431 Apr 22 j 01:01	19°♉39'28	
conjunction	1431 May 05 j 17:23	22°♉51'52	-0°44'27
minimum elong	1431 May 05 j 17:25	22°♉51'53	0°44'28
max. Earth dist.	1431 May 08 j 00:22	23°♉24'07	6.04721 AU
morning rise	1431 May 19 j 11:38	26°♉05'03	
	1431 Jun 05 j 13:53	0°♊	
retrograde	1431 Sep 25 j 21:17	15°♊43'40	
min. Earth dist.	1431 Nov 23 j 01:28	10°♊50'03	4.10894 AU
opposition	1431 Nov 24 j 10:04	10°♊38'57	-0°40'28
direct	1432 Jan 22 j 02:45	5°♊39'53	
evening set	1432 May 27 j 14:11	24°♊31'38	
conjunction	1432 Jun 10 j 08:17	27°♊38'59	-0°08'16
minimum elong	1432 Jun 10 j 08:18	27°♊38'59	0°08'16
behind sun begin	1432 Jun 10 j 00:57	27°♊34'50	
behind sun end	1432 Jun 10 j 15:38	27°♊43'08	
max. Earth dist.	1432 Jun 12 j 05:22	28°♊04'36	6.17774 AU
	1432 Jun 20 j 16:55	0°♋	
morning rise	1432 Jun 24 j 02:41	0°♋46'09	
asc. node	1432 Sep 02 j 14:29	14°♋43'37	
retrograde	1432 Oct 27 j 22:21	19°♋17'20	
opposition	1432 Dec 26 j 15:09	14°♋15'05	0°16'18
min. Earth dist.	1432 Dec 25 j 16:38	14°♋22'40	4.24701 AU
direct	1433 Feb 24 j 12:56	9°♋13'29	
evening set	1433 Jul 01 j 09:56	27°♋29'29	
	1433 Jul 12 j 19:06	0°♌	
conjunction	1433 Jul 15 j 00:17	0°♌29'24	0°29'13
minimum elong	1433 Jul 15 j 00:15	0°♌29'23	0°29'12
max. Earth dist.	1433 Jul 15 j 22:12	0°♌41'31	6.31271 AU
morning rise	1433 Jul 28 j 12:55	3°♌28'16	
	1433 Sep 24 j 08:55	15°♌	
retrograde	1433 Nov 28 j 05:55	21°♌00'37	
opposition	1434 Jan 27 j 03:57	16°♌02'08	1°04'45
min. Earth dist.	1434 Jan 26 j 22:43	16°♌03'51	4.36804 AU
	1434 Feb 04 j 01:04	15°℞♌	
direct	1434 Mar 29 j 09:46	10°♌59'15	
	1434 May 21 j 18:06	15°♌	
evening set	1434 Aug 03 j 09:06	28°♌47'42	
	1434 Aug 08 j 22:50	0°♍	
conjunction	1434 Aug 16 j 16:08	1°♍40'35	0°56'32
minimum elong	1434 Aug 16 j 16:06	1°♍40'34	0°56'31
max. Earth dist.	1434 Aug 16 j 09:21	1°♍36'55	6.41040 AU
morning rise	1434 Aug 29 j 20:34	4°♍32'05	
retrograde	1434 Dec 28 j 12:53	21°♍28'20	
opposition	1435 Feb 26 j 19:38	16°♍33'18	1°33'04
min. Earth dist.	1435 Feb 27 j 08:18	16°♍29'11	4.43717 AU
direct	1435 Apr 30 j 01:30	11°♍30'20	
evening set	1435 Sep 03 j 20:45	29°♍05'09	
	1435 Sep 08 j 02:36	0°♎	
conjunction	1435 Sep 16 j 20:26	1°♎53'37	1°07'32
minimum elong	1435 Sep 16 j 20:25	1°♎53'37	1°07'32
max. Earth dist.	1435 Sep 15 j 14:41	1°♎37'29	6.44528 AU
morning rise	1435 Sep 29 j 17:03	4°♎40'43	
retrograde	1436 Jan 27 j 20:29	21°♎28'15	
opposition	1436 Mar 28 j 11:54	16°♎35'35	1°36'02
min. Earth dist.	1436 Mar 29 j 15:02	16°♎26'53	4.43691 AU
direct	1436 May 30 j 04:39	11°♎33'40	
evening set	1436 Oct 03 j 14:25	29°♎10'41	
	1436 Oct 07 j 08:48	0°♏	
max. Earth dist.	1436 Oct 14 j 10:05	1°♏32'51	6.40907 AU
conjunction	1436 Oct 16 j 08:33	1°♏58'23	1°00'10
minimum elong	1436 Oct 16 j 08:34	1°♏58'24	1°00'09
morning rise	1436 Oct 29 j 00:30	4°♏45'06	
	1436 Dec 18 j 18:31	15°♏	
retrograde	1437 Feb 27 j 05:44	21°♏51'45	
opposition	1437 Apr 29 j 01:41	16°♏59'54	1°12'59
min. Earth dist.	1437 Apr 30 j 13:31	16°♏48'29	4.36694 AU
	1437 May 15 j 04:51	15°℞♏	
direct	1437 Jun 30 j 14:34	11°♏59'46	
	1437 Aug 15 j 10:41	15°♏	
evening set	1437 Nov 03 j 10:45	29°♏54'54	
	1437 Nov 03 j 19:53	0°♐	
max. Earth dist.	1437 Nov 14 j 01:36	2°♐17'53	6.31047 AU
conjunction	1437 Nov 16 j 02:42	2°♐45'32	0°35'48
minimum elong	1437 Nov 16 j 02:44	2°♐45'33	0°35'49
morning rise	1437 Nov 28 j 17:16	5°♐35'46	
retrograde	1438 Apr 01 j 08:28	23°♐27'26	
opposition	1438 Jun 01 j 06:48	18°♐34'47	0°27'40
min. Earth dist.	1438 Jun 02 j 15:26	18°♐24'22	4.24509 AU
direct	1438 Aug 01 j 21:36	13°♐37'09	
	1438 Nov 26 j 07:50	0°♑	
evening set	1438 Dec 05 j 07:43	2°♑03'20	
desc. node	1438 Dec 15 j 07:57	4°♑22'21	
max. Earth dist.	1438 Dec 16 j 10:03	4°♑37'31	6.17557 AU
conjunction	1438 Dec 18 j 00:15	4°♑59'43	-0°00'16
minimum elong	1438 Dec 18 j 00:15	4°♑59'42	0°00'17
behind sun begin	1438 Dec 17 j 16:18	4°♑55'07	
behind sun end	1438 Dec 18 j 08:11	5°♑04'18	
morning rise	1438 Dec 30 j 17:02	7°♑56'29	
retrograde	1439 May 06 j 19:58	26°♑51'51	
opposition	1439 Jul 06 j 12:45	21°♑56'50	-0°29'28
min. Earth dist.	1439 Jul 07 j 08:42	21°♑50'23	4.10626 AU
direct	1439 Sep 04 j 20:39	17°♑01'40	
	1439 Dec 12 j 13:40	0°♒	
evening set	1440 Jan 07 j 23:15	6°♒04'38	
conjunction	1440 Jan 20 j 19:29	9°♒08'06	-0°37'48
minimum elong	1440 Jan 20 j 19:27	9°♒08'05	0°37'48
max. Earth dist.	1440 Jan 20 j 05:31	8°♒59'47	6.04531 AU
morning rise	1440 Feb 02 j 17:27	12°♒12'44	
	1440 Feb 14 j 14:10	15°♒	
	1440 May 05 j 08:38	0°♓	
retrograde	1440 Jun 12 j 04:49	2°♓12'20	
	1440 Jul 20 j 04:20	30°℞♒	
opposition	1440 Aug 11 j 12:42	27°♒13'46	-1°19'27
min. Earth dist.	1440 Aug 11 j 10:53	27°♒14'22	3.99704 AU
direct	1440 Oct 09 j 10:14	22°♒20'08	
	1440 Dec 20 j 02:32	0°♓	
evening set	1441 Feb 11 j 15:45	11°♓52'29	
conjunction	1441 Feb 24 j 18:14	15°♓02'16	-1°02'46
minimum elong	1441 Feb 24 j 18:13	15°♓02'15	1°02'45
max. Earth dist.	1441 Feb 25 j 11:28	15°♓12'41	5.96687 AU
morning rise	1441 Mar 09 j 23:47	18°♓13'42	
	1441 May 01 j 20:13	0°♈	
retrograde	1441 Jul 20 j 07:36	8°♈50'12	
min. Earth dist.	1441 Sep 17 j 07:18	3°♈55'16	3.95933 AU

opposition	1441 Sep 18 j 05:45	3°♈47'43	-1°40'11
	1441 Oct 20 j 16:26	30°℞♓	
direct	1441 Nov 15 j 06:01	28°♓53'37	
	1441 Dec 10 j 18:40	0°♈	
evening set	1442 Mar 20 j 19:41	18°♈33'33	
conjunction	1442 Apr 03 j 06:23	21°♈46'46	-1°03'39
minimum elong	1442 Apr 03 j 06:24	21°♈46'47	1°03'39
max. Earth dist.	1442 Apr 05 j 04:12	22°♈14'15	5.97278 AU
morning rise	1442 Apr 16 j 19:57	25°♈01'28	
	1442 May 08 j 04:06	0°♉	
	1442 Aug 10 j 07:36	15°♉	
retrograde	1442 Aug 26 j 13:45	15°♉26'01	
	1442 Sep 11 j 15:44	15°℞♉	
min. Earth dist.	1442 Oct 23 j 18:55	10°♉32'26	4.00902 AU
opposition	1442 Oct 25 j 04:04	10°♉21'09	-1°21'10
direct	1442 Dec 22 j 04:20	5°♉24'43	
	1443 Mar 13 j 22:57	15°♉	
evening set	1443 Apr 27 j 06:02	24°♉46'23	
conjunction	1443 May 10 j 22:54	27°♉58'26	-0°39'57
minimum elong	1443 May 10 j 22:57	27°♉58'27	0°39'57
max. Earth dist.	1443 May 13 j 05:10	28°♉30'08	6.06098 AU
	1443 May 19 j 15:11	0°♊	
morning rise	1443 May 24 j 17:45	1°♊11'12	
retrograde	1443 Sep 30 j 15:22	20°♊41'39	
min. Earth dist.	1443 Nov 27 j 20:38	15°♊48'15	4.12553 AU
opposition	1443 Nov 29 j 05:14	15°♊37'09	-0°32'36
direct	1444 Jan 27 j 00:35	10°♊37'42	
evening set	1444 Jun 01 j 15:03	29°♊25'07	
	1444 Jun 04 j 04:59	0°♋	
conjunction	1444 Jun 15 j 09:02	2°♋31'36	-0°02'45
minimum elong	1444 Jun 15 j 09:02	2°♋31'36	0°02'45
behind sun begin	1444 Jun 15 j 00:41	2°♋26'53	
behind sun end	1444 Jun 15 j 17:22	2°♋36'18	
max. Earth dist.	1444 Jun 17 j 03:57	2°♋55'54	6.19618 AU
morning rise	1444 Jun 29 j 02:52	5°♋37'43	
asc. node	1444 Jul 12 j 21:14	8°♋40'54	
retrograde	1444 Nov 01 j 12:13	24°♋00'04	
min. Earth dist.	1444 Dec 30 j 08:21	19°♋05'07	4.26574 AU
opposition	1444 Dec 31 j 04:31	18°♋58'20	0°24'02
direct	1445 Mar 01 j 07:22	13°♋56'34	
	1445 Jun 26 j 08:55	0°♌	
evening set	1445 Jul 06 j 04:32	2°♌07'55	
conjunction	1445 Jul 19 j 17:58	5°♌06'44	0°33'52
minimum elong	1445 Jul 19 j 17:56	5°♌06'42	0°33'53
max. Earth dist.	1445 Jul 20 j 12:54	5°♌17'09	6.33054 AU
morning rise	1445 Aug 02 j 05:34	8°♌04'24	
	1445 Sep 04 j 04:27	15°♌	
retrograde	1445 Dec 02 j 12:13	25°♌29'37	
opposition	1446 Jan 31 j 12:47	20°♌31'36	1°10'06
min. Earth dist.	1446 Jan 31 j 08:59	20°♌32'51	4.38401 AU
direct	1446 Apr 02 j 22:05	15°♌28'41	
	1446 Jul 23 j 17:15	0°♍	
evening set	1446 Aug 07 j 21:14	3°♍13'14	
conjunction	1446 Aug 21 j 03:08	6°♍05'07	0°59'06
minimum elong	1446 Aug 21 j 03:06	6°♍05'06	0°59'06
max. Earth dist.	1446 Aug 20 j 18:01	6°♍00'11	6.42346 AU
morning rise	1446 Sep 03 j 06:13	8°♍55'34	
retrograde	1447 Jan 01 j 17:36	25°♍47'29	
opposition	1447 Mar 03 j 02:01	20°♍52'53	1°34'58
min. Earth dist.	1447 Mar 03 j 16:47	20°♍48'06	4.44655 AU
direct	1447 May 04 j 11:05	15°♍50'04	
	1447 Aug 23 j 05:32	0°♎	
evening set	1447 Sep 08 j 03:52	3°♎22'24	
max. Earth dist.	1447 Sep 19 j 16:38	5°♎51'58	6.45009 AU
conjunction	1447 Sep 21 j 02:25	6°♎10'17	1°07'33
minimum elong	1447 Sep 21 j 02:25	6°♎10'17	1°07'34
morning rise	1447 Oct 03 j 22:14	8°♎56'51	
retrograde	1448 Feb 01 j 02:17	25°♎43'34	
opposition	1448 Apr 01 j 18:21	20°♎51'06	1°34'16
min. Earth dist.	1448 Apr 02 j 23:34	20°♎41'44	4.43684 AU
direct	1448 Jun 03 j 12:30	15°♎49'19	
	1448 Sep 21 j 18:47	0°♏	
evening set	1448 Oct 07 j 18:40	3°♏26'06	
max. Earth dist.	1448 Oct 18 j 13:32	5°♏48'00	6.40400 AU
conjunction	1448 Oct 20 j 12:24	6°♏13'48	0°57'43
minimum elong	1448 Oct 20 j 12:26	6°♏13'49	0°57'42
morning rise	1448 Nov 02 j 03:44	9°♏00'32	
	1448 Nov 30 j 09:09	15°♏	
retrograde	1449 Mar 03 j 12:59	26°♏10'20	
opposition	1449 May 03 j 10:51	21°♏18'28	1°07'55
min. Earth dist.	1449 May 04 j 22:52	21°♏07'01	4.35696 AU
direct	1449 Jul 04 j 21:21	16°♏18'39	
	1449 Oct 19 j 05:07	0°♐	
evening set	1449 Nov 07 j 15:54	4°♐16'08	
max. Earth dist.	1449 Nov 18 j 05:43	6°♐39'05	6.29619 AU
conjunction	1449 Nov 20 j 07:33	7°♐07'16	0°31'25
minimum elong	1449 Nov 20 j 07:35	7°♐07'16	0°31'25
morning rise	1449 Dec 02 j 22:17	9°♐58'07	
retrograde	1450 Apr 06 j 00:21	27°♐56'57	
opposition	1450 Jun 05 j 21:23	23°♐04'05	0°20'20
min. Earth dist.	1450 Jun 07 j 06:26	22°♐53'31	4.22710 AU
direct	1450 Aug 06 j 09:49	18°♐06'42	
desc. node	1450 Oct 27 j 05:44	27°♐11'21	
	1450 Nov 10 j 00:25	0°♑	
evening set	1450 Dec 09 j 17:17	6°♑37'52	
max. Earth dist.	1450 Dec 20 j 21:35	9°♑13'51	6.15541 AU
conjunction	1450 Dec 22 j 10:16	9°♑35'15	-0°05'34
minimum elong	1450 Dec 22 j 10:16	9°♑35'15	0°05'33
behind sun begin	1450 Dec 22 j 02:33	9°♑30'47	
behind sun end	1450 Dec 22 j 17:58	9°♑39'43	
morning rise	1451 Jan 04 j 03:34	12°♑33'07	
	1451 Apr 09 j 02:09	0°♒	
retrograde	1451 May 11 j 17:57	1°♒38'24	
	1451 Jun 13 j 13:19	30°℞♑	
opposition	1451 Jul 11 j 09:58	26°♑43'02	-0°37'06
min. Earth dist.	1451 Jul 12 j 03:38	26°♑37'19	4.08559 AU
direct	1451 Sep 09 j 12:02	21°♑48'08	
	1451 Nov 24 j 00:53	0°♒	
evening set	1452 Jan 12 j 16:24	10°♒57'28	
conjunction	1452 Jan 25 j 13:20	14°♒02'08	-0°42'12
minimum elong	1452 Jan 25 j 13:18	14°♒02'07	0°42'13
max. Earth dist.	1452 Jan 25 j 02:01	13°♒55'22	6.02588 AU
	1452 Jan 29 j 13:54	15°♒	
morning rise	1452 Feb 07 j 12:21	17°♒08'05	
	1452 Apr 06 j 18:59	0°♓	
retrograde	1452 Jun 17 j 10:41	7°♓17'19	
opposition	1452 Aug 16 j 16:05	2°♓18'13	-1°24'24
min. Earth dist.	1452 Aug 16 j 11:40	2°♓19'41	3.98084 AU
	1452 Sep 03 j 19:43	30°℞♒	
direct	1452 Oct 14 j 09:18	27°♒24'37	
	1452 Nov 23 j 06:04	0°♓	
evening set	1453 Feb 16 j 16:55	17°♓02'11	
conjunction	1453 Mar 01 j 20:46	20°♓13'04	-1°04'24

minimum elong	1453 Mar 01 j 20:45	20°♓13'04	1°04'24
max. Earth dist.	1453 Mar 02 j 19:36	20°♓26'54	5.95557 AU
morning rise	1453 Mar 15 j 03:28	23°♓25'35	
	1453 Apr 12 j 06:52	0°♈	
retrograde	1453 Jul 25 j 16:11	14°♈06'30	
min. Earth dist.	1453 Sep 22 j 10:59	9°♈11'48	3.95443 AU
opposition	1453 Sep 23 j 11:19	9°♈03'35	-1°39'51
direct	1453 Nov 20 j 09:21	4°♈09'19	
evening set	1454 Mar 26 j 02:30	23°♈50'45	
conjunction	1454 Apr 08 j 14:15	27°♈04'25	-1°01'34
minimum elong	1454 Apr 08 j 14:17	27°♈04'27	1°01'34
max. Earth dist.	1454 Apr 10 j 14:09	27°♈33'06	5.97459 AU
	1454 Apr 20 j 20:11	0°♉	
morning rise	1454 Apr 22 j 05:07	0°♉19'34	
	1454 Jun 30 j 18:31	15°♉	
retrograde	1454 Aug 31 j 16:23	20°♉40'46	
min. Earth dist.	1454 Oct 28 j 19:19	15°♉47'43	4.01734 AU
opposition	1454 Oct 30 j 06:31	15°♉35'42	-1°15'34
	1454 Nov 03 j 15:31	15°℞♉	
direct	1454 Dec 27 j 07:05	10°♉38'49	
	1455 Feb 17 j 23:50	15°♉	
evening set	1455 May 02 j 12:42	29°♉57'51	
	1455 May 02 j 16:25	0°♊	
conjunction	1455 May 16 j 06:14	3°♊09'31	-0°35'04
minimum elong	1455 May 16 j 06:16	3°♊09'33	0°35'04
max. Earth dist.	1455 May 18 j 12:55	3°♊41'23	6.07506 AU
morning rise	1455 May 30 j 01:20	6°♊21'44	
retrograde	1455 Oct 05 j 12:26	25°♊43'34	
min. Earth dist.	1455 Dec 02 j 18:35	20°♊49'48	4.14337 AU
opposition	1455 Dec 04 j 01:46	20°♊39'12	-0°24'25
direct	1456 Feb 01 j 01:40	15°♊39'18	
	1456 May 17 j 22:15	0°♋	
asc. node	1456 May 21 j 06:17	0°♋43'20	
evening set	1456 Jun 06 j 16:40	4°♋21'28	
conjunction	1456 Jun 20 j 10:20	7°♋26'55	0°03'00
minimum elong	1456 Jun 20 j 10:19	7°♋26'55	0°02'59
behind sun begin	1456 Jun 20 j 02:00	7°♋22'15	
behind sun end	1456 Jun 20 j 18:39	7°♋31'35	
max. Earth dist.	1456 Jun 22 j 04:08	7°♋50'28	6.21606 AU
morning rise	1456 Jul 04 j 03:32	10°♋31'52	
retrograde	1456 Nov 05 j 23:22	28°♋44'41	
opposition	1457 Jan 04 j 18:17	23°♋43'20	0°31'38
min. Earth dist.	1457 Jan 03 j 23:00	23°♋49'48	4.28559 AU
direct	1457 Mar 06 j 01:06	18°♋41'16	
	1457 Jun 08 j 16:57	0°♌	
evening set	1457 Jul 10 j 23:15	6°♌47'26	
conjunction	1457 Jul 24 j 11:36	9°♌45'02	0°38'21
minimum elong	1457 Jul 24 j 11:34	9°♌45'00	0°38'21
max. Earth dist.	1457 Jul 25 j 02:12	9°♌53'02	6.34852 AU
morning rise	1457 Aug 06 j 22:02	12°♌41'27	
	1457 Aug 17 j 14:48	15°♌	
retrograde	1457 Dec 06 j 20:45	29°♌59'38	
opposition	1458 Feb 04 j 21:59	25°♌02'05	1°15'05
min. Earth dist.	1458 Feb 04 j 21:33	25°♌02'14	4.39863 AU
direct	1458 Apr 07 j 12:41	19°♌59'04	
	1458 Jul 06 j 00:13	0°♍	
evening set	1458 Aug 12 j 09:30	7°♍40'08	
conjunction	1458 Aug 25 j 14:19	10°♍31'10	1°01'24
minimum elong	1458 Aug 25 j 14:17	10°♍31'09	1°01'24
max. Earth dist.	1458 Aug 25 j 01:15	10°♍24'06	6.43333 AU
morning rise	1458 Sep 07 j 16:14	13°♍20'46	
	1458 Dec 26 j 22:41	0°♎	

retrograde	1459 Jan 05 j 23:10	0°♎09'37	
	1459 Jan 15 j 23:31	30°℞♍	
opposition	1459 Mar 07 j 09:40	25°♍15'19	1°36'25
min. Earth dist.	1459 Mar 08 j 02:22	25°♍09'55	4.45126 AU
direct	1459 May 08 j 20:43	20°♍12'33	
	1459 Aug 05 j 17:48	0°♎	
evening set	1459 Sep 12 j 12:06	7°♎43'56	
max. Earth dist.	1459 Sep 23 j 22:20	10°♎12'13	6.44919 AU
conjunction	1459 Sep 25 j 09:50	10°♎31'30	1°07'15
minimum elong	1459 Sep 25 j 09:51	10°♎31'30	1°07'14
morning rise	1459 Oct 08 j 04:43	13°♎17'46	
	1460 Jan 28 j 15:35	0°♏	
retrograde	1460 Feb 05 j 10:13	0°♏05'41	
	1460 Feb 13 j 04:24	30°℞♎	
opposition	1460 Apr 06 j 03:48	25°♎13'23	1°32'00
min. Earth dist.	1460 Apr 07 j 10:50	25°♎03'29	4.43036 AU
direct	1460 Jun 07 j 22:25	20°♎11'51	
	1460 Sep 04 j 09:14	0°♏	
evening set	1460 Oct 12 j 02:23	7°♏50'21	
max. Earth dist.	1460 Oct 22 j 17:54	10°♏10'53	6.39231 AU
conjunction	1460 Oct 24 j 19:31	10°♏38'17	0°54'53
minimum elong	1460 Oct 24 j 19:33	10°♏38'17	0°54'53
morning rise	1460 Nov 06 j 10:42	13°♏25'24	
	1460 Nov 13 j 15:55	15°♏	
	1461 Feb 15 j 05:09	0°♐	
retrograde	1461 Mar 08 j 03:27	0°♐40'35	
	1461 Mar 29 j 01:40	30°℞♏	
opposition	1461 May 08 j 01:09	25°♏48'40	1°02'16
min. Earth dist.	1461 May 09 j 13:54	25°♏36'57	4.34063 AU
direct	1461 Jul 09 j 09:56	20°♏49'05	
	1461 Oct 01 j 07:54	0°♐	
evening set	1461 Nov 12 j 02:20	8°♐50'53	
max. Earth dist.	1461 Nov 22 j 17:53	11°♐15'24	6.27664 AU
conjunction	1461 Nov 24 j 18:10	11°♐42'49	0°26'38
minimum elong	1461 Nov 24 j 18:12	11°♐42'50	0°26'37
morning rise	1461 Dec 07 j 08:58	14°♐34'33	
	1462 Feb 27 j 08:20	0°♑	
retrograde	1462 Apr 10 j 21:29	2°♑42'18	
	1462 May 24 j 02:26	30°℞♐	
opposition	1462 Jun 10 j 18:48	27°♐49'13	0°12'23
min. Earth dist.	1462 Jun 12 j 02:16	27°♐39'08	4.20560 AU
direct	1462 Aug 11 j 02:22	22°♐52'14	
desc. node	1462 Sep 05 j 07:03	23°♐51'19	
	1462 Oct 21 j 08:20	0°♑	
evening set	1462 Dec 14 j 09:47	11°♑29'18	
max. Earth dist.	1462 Dec 25 j 16:21	14°♑07'24	6.13382 AU
conjunction	1462 Dec 27 j 03:03	14°♑27'45	-0°11'05
minimum elong	1462 Dec 27 j 03:02	14°♑27'44	0°11'05
behind sun begin	1462 Dec 26 j 20:58	14°♑24'12	
behind sun end	1462 Dec 27 j 09:05	14°♑31'16	
morning rise	1463 Jan 08 j 21:07	17°♑26'50	
	1463 Mar 09 j 03:59	0°♒	
retrograde	1463 May 17 j 00:43	6°♒42'39	
opposition	1463 Jul 16 j 14:59	1°♒46'50	-0°45'00
min. Earth dist.	1463 Jul 17 j 05:49	1°♒42'00	4.06573 AU
	1463 Jul 30 j 15:21	30°℞♑	
direct	1463 Sep 14 j 12:20	26°♑52'13	
	1463 Oct 29 j 05:15	0°♒	
	1464 Jan 12 j 23:33	15°♒	
evening set	1464 Jan 17 j 16:39	16°♒07'14	
conjunction	1464 Jan 30 j 14:34	19°♒13'01	-0°46'35
minimum elong	1464 Jan 30 j 14:32	19°♒13'00	0°46'35

max. Earth dist.	1464 Jan 30 j 09:07	19°♒09'44	6.00988 AU
morning rise	1464 Feb 12 j 14:29	22°♒20'06	
	1464 Mar 16 j 21:47	0°♓	
retrograde	1464 Jun 22 j 22:29	12°♓37'02	
opposition	1464 Aug 22 j 01:37	7°♓37'26	-1°28'58
min. Earth dist.	1464 Aug 21 j 18:15	7°♓39'53	3.97085 AU
direct	1464 Oct 19 j 14:43	2°♓43'59	
evening set	1465 Feb 21 j 23:57	22°♓24'06	
conjunction	1465 Mar 07 j 04:46	25°♓35'37	-1°05'38
minimum elong	1465 Mar 07 j 04:45	25°♓35'37	1°05'39
max. Earth dist.	1465 Mar 08 j 07:15	25°♓51'39	5.95250 AU
morning rise	1465 Mar 20 j 12:50	28°♓48'51	
	1465 Mar 25 j 11:41	0°♈	
retrograde	1465 Jul 31 j 00:32	19°♈30'00	
opposition	1465 Sep 28 j 19:37	14°♈26'39	-1°38'41
min. Earth dist.	1465 Sep 27 j 15:48	14°♈36'04	3.95905 AU
direct	1465 Nov 25 j 16:16	9°♈32'07	
evening set	1466 Mar 31 j 11:13	29°♈11'18	
	1466 Apr 03 j 21:10	0°♉	
conjunction	1466 Apr 14 j 00:03	2°♉24'55	-0°59'02
minimum elong	1466 Apr 14 j 00:06	2°♉24'56	0°59'01
max. Earth dist.	1466 Apr 16 j 02:57	2°♉55'18	5.98642 AU
morning rise	1466 Apr 27 j 15:41	5°♉39'50	
	1466 Jun 08 j 04:14	15°♉	
retrograde	1466 Sep 05 j 18:50	25°♉53'37	
min. Earth dist.	1466 Nov 02 j 21:40	21°♉00'20	4.03478 AU
opposition	1466 Nov 04 j 08:31	20°♉48'26	-1°09'24
direct	1467 Jan 01 j 12:28	15°♉51'08	
	1467 Apr 15 j 07:43	0°♊	
evening set	1467 May 07 j 17:46	5°♊04'19	
conjunction	1467 May 21 j 11:39	8°♊15'11	-0°30'03
minimum elong	1467 May 21 j 11:41	8°♊15'12	0°30'02
max. Earth dist.	1467 May 23 j 18:37	8°♊47'01	6.09646 AU
morning rise	1467 Jun 04 j 06:46	11°♊26'25	
	1467 Sep 20 j 16:33	0°♋	
retrograde	1467 Oct 10 j 04:07	0°♋37'16	
	1467 Oct 29 j 12:33	30°℞♊	
opposition	1467 Dec 08 j 19:01	25°♊33'14	-0°16'19
min. Earth dist.	1467 Dec 07 j 12:17	25°♊43'40	4.16643 AU
direct	1468 Feb 05 j 22:22	20°♊33'01	
asc. node	1468 Mar 30 j 22:18	24°♊54'09	
	1468 Apr 29 j 09:33	0°♋	
evening set	1468 Jun 11 j 14:55	9°♋08'45	
conjunction	1468 Jun 25 j 07:55	12°♋12'58	0°08'23
minimum elong	1468 Jun 25 j 07:54	12°♋12'57	0°08'23
behind sun begin	1468 Jun 25 j 00:38	12°♋08'54	
behind sun end	1468 Jun 25 j 15:10	12°♋17'00	
max. Earth dist.	1468 Jun 26 j 20:48	12°♋33'38	6.23880 AU
morning rise	1468 Jul 09 j 00:26	15°♋16'35	
	1468 Sep 24 j 12:53	0°♌	
retrograde	1468 Nov 10 j 09:12	3°♌19'47	
	1468 Dec 27 j 08:17	30°℞♋	
opposition	1469 Jan 09 j 04:33	28°♋18'58	0°38'45
min. Earth dist.	1469 Jan 08 j 12:45	28°♋24'15	4.30602 AU
direct	1469 Mar 10 j 17:21	23°♋16'40	
	1469 May 19 j 21:26	0°♌	
evening set	1469 Jul 15 j 13:56	11°♌17'58	
conjunction	1469 Jul 29 j 01:26	14°♌14'30	0°42'28
minimum elong	1469 Jul 29 j 01:24	14°♌14'29	0°42'27
max. Earth dist.	1469 Jul 29 j 12:39	14°♌20'38	6.36501 AU
	1469 Aug 01 j 12:37	15°♌	
morning rise	1469 Aug 11 j 10:35	17°♌09'45	
	1469 Oct 17 j 11:30	0°♍	
retrograde	1469 Dec 11 j 00:42	4°♍22'05	
	1470 Feb 04 j 17:40	30°℞♌	
opposition	1470 Feb 09 j 04:16	29°♌25'04	1°19'30
min. Earth dist.	1470 Feb 09 j 05:48	29°♌24'34	4.41027 AU
direct	1470 Apr 11 j 21:41	24°♌22'03	
	1470 Jun 15 j 13:10	0°♍	
evening set	1470 Aug 16 j 18:56	12°♍00'55	
conjunction	1470 Aug 29 j 22:34	14°♍51'17	1°03'17
minimum elong	1470 Aug 29 j 22:33	14°♍51'16	1°03'17
max. Earth dist.	1470 Aug 29 j 04:50	14°♍41'41	6.43917 AU
morning rise	1470 Sep 11 j 23:27	17°♍40'14	
	1470 Nov 15 j 16:50	0°♎	
retrograde	1471 Jan 10 j 05:05	4°♎27'43	
	1471 Mar 08 j 06:38	30°℞♍	
opposition	1471 Mar 11 j 15:49	29°♍33'51	1°37'22
min. Earth dist.	1471 Mar 12 j 11:59	29°♍27'20	4.45113 AU
direct	1471 May 13 j 05:49	24°♍31'12	
	1471 Jul 16 j 06:12	0°♎	
evening set	1471 Sep 16 j 19:08	12°♎03'18	
max. Earth dist.	1471 Sep 28 j 01:05	14°♎29'35	6.44295 AU
conjunction	1471 Sep 29 j 16:08	14°♎50'49	1°06'35
minimum elong	1471 Sep 29 j 16:08	14°♎50'49	1°06'34
morning rise	1471 Oct 12 j 10:23	17°♎37'05	
	1471 Dec 16 j 02:54	0°♏	
retrograde	1472 Feb 09 j 18:38	4°♏28'05	
	1472 Apr 07 j 09:47	30°℞♎	
opposition	1472 Apr 10 j 13:12	29°♎35'56	1°29'17
min. Earth dist.	1472 Apr 11 j 21:17	29°♎25'41	4.41862 AU
direct	1472 Jun 12 j 06:38	24°♎34'36	
	1472 Aug 14 j 15:50	0°♏	
evening set	1472 Oct 16 j 10:16	12°♏16'35	
max. Earth dist.	1472 Oct 27 j 02:04	14°♏37'48	6.37599 AU
	1472 Oct 28 j 18:06	15°♏	
conjunction	1472 Oct 29 j 03:12	15°♏05'02	0°51'44
minimum elong	1472 Oct 29 j 03:13	15°♏05'03	0°51'45
morning rise	1472 Nov 10 j 18:04	17°♏52'43	
	1473 Jan 11 j 01:46	0°♐	
retrograde	1473 Mar 12 j 19:12	5°♐14'57	
opposition	1473 May 12 j 17:03	0°♐23'01	0°56'13
min. Earth dist.	1473 May 14 j 05:53	0°♐11'17	4.32073 AU
	1473 May 15 j 17:23	30°℞♏	
direct	1473 Jul 13 j 23:12	25°♏23'50	
	1473 Sep 09 j 02:21	0°♐	
evening set	1473 Nov 16 j 14:26	13°♐30'59	
max. Earth dist.	1473 Nov 27 j 06:04	15°♐56'21	6.25479 AU
conjunction	1473 Nov 29 j 06:13	16°♐23'49	0°21'37
minimum elong	1473 Nov 29 j 06:14	16°♐23'50	0°21'37
morning rise	1473 Dec 11 j 21:28	19°♐16'37	
	1474 Jan 31 j 21:48	0°♑	
retrograde	1474 Apr 15 j 22:14	7°♑34'11	
opposition	1474 Jun 15 j 18:36	2°♑40'46	0°04'14
min. Earth dist.	1474 Jun 16 j 23:44	2°♑31'25	4.18338 AU
	1474 Jul 07 j 20:38	30°℞♐	
desc. node	1474 Jul 15 j 02:40	29°♐16'25	
direct	1474 Aug 15 j 21:30	27°♐44'07	
	1474 Sep 23 j 09:30	0°♑	
evening set	1474 Dec 19 j 04:26	16°♑27'11	
conjunction	1474 Dec 31 j 22:20	19°♑26'43	-0°16'37
minimum elong	1474 Dec 31 j 22:19	19°♑26'43	0°16'37
max. Earth dist.	1474 Dec 30 j 16:43	19°♑09'17	6.11339 AU
morning rise	1475 Jan 13 j 16:57	22°♑26'57	

	1475 Feb 16 j 05:07	0°♒	
retrograde	1475 May 22 j 09:28	11°♒52'25	
opposition	1475 Jul 21 j 21:37	6°♒56'07	-0°52'40
min. Earth dist.	1475 Jul 22 j 09:36	6°♒52'13	4.04911 AU
direct	1475 Sep 19 j 13:54	2°♒01'47	
	1475 Dec 26 j 10:20	15°♒	
evening set	1476 Jan 22 j 18:31	21°♒21'02	
conjunction	1476 Feb 04 j 17:06	24°♒27'39	-0°50'37
minimum elong	1476 Feb 04 j 17:04	24°♒27'38	0°50'37
max. Earth dist.	1476 Feb 04 j 15:22	24°♒26'37	5.99838 AU
morning rise	1476 Feb 17 j 18:12	27°♒35'44	
	1476 Feb 27 j 21:17	0°♓	
retrograde	1476 Jun 28 j 07:32	17°♓57'59	
opposition	1476 Aug 27 j 10:55	12°♓57'44	-1°32'45
min. Earth dist.	1476 Aug 26 j 23:15	13°♓01'37	3.96592 AU
direct	1476 Oct 24 j 20:18	8°♓04'12	
evening set	1477 Feb 27 j 06:24	27°♓44'50	
	1477 Mar 08 j 14:34	0°♈	
conjunction	1477 Mar 12 j 12:23	0°♈56'45	-1°06'19
minimum elong	1477 Mar 12 j 12:23	0°♈56'45	1°06'19
max. Earth dist.	1477 Mar 13 j 20:06	1°♈15'56	5.95440 AU
morning rise	1477 Mar 25 j 21:25	4°♈10'20	
retrograde	1477 Aug 05 j 08:26	24°♈49'30	
min. Earth dist.	1477 Oct 02 j 21:13	19°♈55'26	3.96750 AU
opposition	1477 Oct 04 j 01:57	19°♈45'41	-1°36'42
direct	1477 Nov 30 j 23:37	14°♈50'48	
	1478 Mar 17 j 16:38	0°♉	
evening set	1478 Apr 05 j 18:09	4°♉26'29	
conjunction	1478 Apr 19 j 07:55	7°♉39'52	-0°56'02
minimum elong	1478 Apr 19 j 07:57	7°♉39'53	0°56'03
max. Earth dist.	1478 Apr 21 j 13:13	8°♉11'32	6.00049 AU
morning rise	1478 May 03 j 00:19	10°♉54'27	
	1478 May 20 j 15:43	15°♉	
	1478 Aug 16 j 23:04	0°♊	
retrograde	1478 Sep 10 j 17:33	0°♊59'49	
	1478 Oct 05 j 06:36	30°℞♉	
min. Earth dist.	1478 Nov 07 j 20:09	26°♉06'43	4.05294 AU
opposition	1478 Nov 09 j 07:30	25°♉54'40	-1°02'51
direct	1479 Jan 06 j 13:01	20°♉56'56	
	1479 Mar 27 j 08:05	0°♊	
evening set	1479 May 12 j 20:45	10°♊04'31	
conjunction	1479 May 26 j 14:44	13°♊14'31	-0°24'52
minimum elong	1479 May 26 j 14:45	13°♊14'32	0°24'53
max. Earth dist.	1479 May 28 j 18:30	13°♊44'22	6.11705 AU
morning rise	1479 Jun 09 j 09:56	16°♊24'48	
	1479 Aug 15 j 02:41	0°♋	
retrograde	1479 Oct 14 j 18:58	5°♋25'27	
min. Earth dist.	1479 Dec 12 j 06:01	0°♋31'24	4.18732 AU
opposition	1479 Dec 13 j 10:23	0°♋21'47	-0°08'15
	1479 Dec 16 j 02:40	30°℞♊	
asc. node	1480 Feb 08 j 19:13	25°♊21'33	
direct	1480 Feb 10 j 19:07	25°♊21'09	
	1480 Apr 06 j 21:37	0°♋	
evening set	1480 Jun 16 j 11:16	13°♋51'25	
conjunction	1480 Jun 30 j 03:54	16°♋54'35	0°13'39
minimum elong	1480 Jun 30 j 03:53	16°♋54'34	0°13'40
behind sun begin	1480 Jun 29 j 23:36	16°♋52'11	
behind sun end	1480 Jun 30 j 08:10	16°♋56'57	
max. Earth dist.	1480 Jul 01 j 14:32	17°♋13'55	6.25850 AU
morning rise	1480 Jul 13 j 19:27	19°♋56'59	
	1480 Aug 31 j 11:26	0°♌	
retrograde	1480 Nov 14 j 17:32	7°♌51'52	
opposition	1481 Jan 13 j 14:01	2°♌51'37	0°45'35
min. Earth dist.	1481 Jan 13 j 00:09	2°♌56'14	4.32302 AU
	1481 Feb 05 j 11:21	30°℞♋	
direct	1481 Mar 15 j 06:32	27°♋49'10	
	1481 Apr 22 j 13:12	0°♌	
	1481 Jul 16 j 13:49	15°♌	
evening set	1481 Jul 20 j 04:20	15°♌46'45	
conjunction	1481 Aug 02 j 14:39	18°♌42'18	0°46'19
minimum elong	1481 Aug 02 j 14:37	18°♌42'17	0°46'18
max. Earth dist.	1481 Aug 02 j 20:04	18°♌45'16	6.37797 AU
morning rise	1481 Aug 15 j 22:50	21°♌36'36	
	1481 Sep 25 j 19:53	0°♍	
retrograde	1481 Dec 15 j 07:32	8°♍44'16	
opposition	1482 Feb 13 j 11:01	3°♍47'46	1°23'29
min. Earth dist.	1482 Feb 13 j 16:17	3°♍46'03	4.41858 AU
	1482 Mar 18 j 11:52	30°℞♌	
direct	1482 Apr 16 j 08:43	28°♌44'41	
	1482 May 15 j 12:32	0°♍	
evening set	1482 Aug 21 j 04:41	16°♍22'17	
max. Earth dist.	1482 Sep 02 j 11:07	19°♍01'08	6.44214 AU
conjunction	1482 Sep 03 j 07:30	19°♍12'10	1°04'50
minimum elong	1482 Sep 03 j 07:28	19°♍12'09	1°04'50
morning rise	1482 Sep 16 j 07:14	22°♍00'35	
	1482 Oct 25 j 09:51	0°♎	
retrograde	1483 Jan 14 j 10:28	8°♎47'32	
opposition	1483 Mar 15 j 23:08	3°♎54'01	1°37'48
min. Earth dist.	1483 Mar 16 j 20:31	3°♎47'08	4.44888 AU
	1483 Apr 19 j 19:15	30°℞♍	
direct	1483 May 17 j 13:14	28°♍51'33	
	1483 Jun 14 j 13:22	0°♎	
evening set	1483 Sep 21 j 03:04	16°♎24'50	
max. Earth dist.	1483 Oct 02 j 06:16	18°♎49'59	6.43561 AU
conjunction	1483 Oct 03 j 23:17	19°♎12'20	1°05'32
minimum elong	1483 Oct 03 j 23:18	19°♎12'21	1°05'31
morning rise	1483 Oct 16 j 16:55	21°♎58'40	
	1483 Nov 24 j 15:38	0°♏	
retrograde	1484 Feb 14 j 06:03	8°♏53'08	
opposition	1484 Apr 15 j 00:27	4°♏01'12	1°26'01
min. Earth dist.	1484 Apr 16 j 10:20	3°♏50'24	4.40667 AU
	1484 May 21 j 18:22	30°℞♎	
direct	1484 Jun 16 j 17:57	29°♎00'13	
	1484 Jul 12 j 17:51	0°♏	
	1484 Oct 12 j 18:43	15°♏	
evening set	1484 Oct 20 j 19:20	16°♏45'28	
max. Earth dist.	1484 Oct 31 j 09:31	19°♏06'23	6.36046 AU
conjunction	1484 Nov 02 j 11:56	19°♏34'26	0°48'16
minimum elong	1484 Nov 02 j 11:58	19°♏34'27	0°48'15
morning rise	1484 Nov 15 j 02:45	22°♏22'43	
	1484 Dec 21 j 02:30	0°♐	
retrograde	1485 Mar 17 j 11:56	9°♐51'48	
opposition	1485 May 17 j 10:14	4°♐59'46	0°49'44
min. Earth dist.	1485 May 18 j 21:37	4°♐48'29	4.30274 AU
direct	1485 Jul 18 j 12:31	0°♐00'59	
evening set	1485 Nov 21 j 03:19	18°♐12'47	
max. Earth dist.	1485 Dec 01 j 22:40	20°♐40'52	6.23613 AU
conjunction	1485 Dec 03 j 19:18	21°♐06'27	0°16'27
minimum elong	1485 Dec 03 j 19:19	21°♐06'28	0°16'28
morning rise	1485 Dec 16 j 10:42	24°♐00'07	
	1486 Jan 12 j 12:13	0°♑	
retrograde	1486 Apr 20 j 23:43	12°♑26'23	
desc. node	1486 May 24 j 11:19	10°♑44'52	
opposition	1486 Jun 20 j 18:46	7°♑32'43	-0°03'57

min. Earth dist.	1486 Jun 21 j 22:12	7°♑23'54	4.16543 AU
direct	1486 Aug 20 j 17:31	2°♑36'32	
evening set	1486 Dec 23 j 22:52	21°♑24'01	
conjunction	1487 Jan 05 j 17:05	24°♑24'23	-0°21'59
minimum elong	1487 Jan 05 j 17:04	24°♑24'23	0°21'59
max. Earth dist.	1487 Jan 04 j 14:05	24°♑08'27	6.09773 AU
morning rise	1487 Jan 18 j 12:32	27°♑25'38	
	1487 Jan 29 j 13:42	0°♒	
	1487 Apr 21 j 16:15	15°♒	
retrograde	1487 May 27 j 14:06	16°♒59'02	
	1487 Jul 02 j 16:48	15°℞♒	
opposition	1487 Jul 27 j 02:49	12°♒02'11	-0°59'46
min. Earth dist.	1487 Jul 27 j 10:29	11°♒59'40	4.03730 AU
direct	1487 Sep 24 j 13:57	7°♒08'06	
	1487 Dec 06 j 19:33	15°♒	
evening set	1488 Jan 27 j 18:34	26°♒30'00	
conjunction	1488 Feb 09 j 18:03	29°♒37'17	-0°54'09
minimum elong	1488 Feb 09 j 18:01	29°♒37'16	0°54'09
max. Earth dist.	1488 Feb 09 j 22:03	29°♒39'42	5.99150 AU
	1488 Feb 11 j 07:43	0°♓	
morning rise	1488 Feb 22 j 19:55	2°♓46'03	
retrograde	1488 Jul 03 j 15:33	23°♓11'47	
opposition	1488 Sep 01 j 16:59	18°♓11'00	-1°35'37
min. Earth dist.	1488 Sep 01 j 03:27	18°♓15'31	3.96483 AU
direct	1488 Oct 30 j 01:19	13°♓17'25	
	1489 Feb 19 j 23:32	0°♈	
evening set	1489 Mar 04 j 09:58	2°♈57'26	
conjunction	1489 Mar 17 j 16:58	6°♈09'37	-1°06'26
minimum elong	1489 Mar 17 j 16:58	6°♈09'37	1°06'25
max. Earth dist.	1489 Mar 19 j 04:16	6°♈30'55	5.95899 AU
morning rise	1489 Mar 31 j 03:05	9°♈23'27	
retrograde	1489 Aug 10 j 10:28	29°♈59'24	
min. Earth dist.	1489 Oct 07 j 21:15	25°♈05'39	3.97750 AU
opposition	1489 Oct 09 j 03:48	24°♈55'18	-1°33'58
direct	1489 Dec 06 j 00:34	20°♈00'06	
	1490 Feb 27 j 08:00	0°♉	
evening set	1490 Apr 10 j 21:16	9°♉32'14	
conjunction	1490 Apr 24 j 11:44	12°♉45'18	-0°52'43
minimum elong	1490 Apr 24 j 11:47	12°♉45'19	0°52'43
max. Earth dist.	1490 Apr 26 j 16:13	13°♉16'22	6.01470 AU
	1490 May 03 j 23:40	15°♉	
morning rise	1490 May 08 j 04:54	15°♉59'32	
	1490 Jul 13 j 21:57	0°♊	
retrograde	1490 Sep 15 j 12:10	5°♊56'56	
min. Earth dist.	1490 Nov 12 j 16:07	1°♊03'35	4.06967 AU
opposition	1490 Nov 14 j 02:32	0°♊51'51	-0°56'05
	1490 Nov 20 j 11:25	30°℞♉	
direct	1491 Jan 11 j 11:47	25°♉53'41	
	1491 Mar 03 j 22:28	0°♊	
evening set	1491 May 17 j 19:55	14°♊56'30	
conjunction	1491 May 31 j 14:13	18°♊05'48	-0°19'43
minimum elong	1491 May 31 j 14:14	18°♊05'49	0°19'43
max. Earth dist.	1491 Jun 02 j 17:06	18°♊35'01	6.13507 AU
morning rise	1491 Jun 14 j 09:07	21°♊15'10	
	1491 Jul 24 j 19:45	0°♋	
retrograde	1491 Oct 19 j 07:51	10°♋06'58	
opposition	1491 Dec 17 j 22:42	5°♋03'45	-0°00'26
min. Earth dist.	1491 Dec 16 j 20:11	5°♋12'43	4.20492 AU
asc. node	1491 Dec 20 j 22:55	4°♋39'22	
direct	1492 Feb 15 j 11:17	0°♋02'51	
evening set	1492 Jun 21 j 05:22	18°♋29'02	

conjunction	1492 Jul 04 j 21:15	21°♋31'14	0°18'42
minimum elong	1492 Jul 04 j 21:14	21°♋31'13	0°18'42
max. Earth dist.	1492 Jul 06 j 02:45	21°♋47'39	6.27430 AU
morning rise	1492 Jul 18 j 12:10	24°♋32'39	
	1492 Aug 12 j 20:59	0°♌	
retrograde	1492 Nov 19 j 01:04	12°♌20'47	
opposition	1493 Jan 17 j 21:54	7°♌21'02	0°51'58
min. Earth dist.	1493 Jan 17 j 10:54	7°♌24'42	4.33608 AU
direct	1493 Mar 19 j 18:28	2°♌18'24	
	1493 Jun 29 j 23:19	15°♌	
evening set	1493 Jul 24 j 17:10	20°♌13'32	
conjunction	1493 Aug 07 j 02:42	23°♌08'20	0°49'48
minimum elong	1493 Aug 07 j 02:39	23°♌08'18	0°49'48
max. Earth dist.	1493 Aug 07 j 05:43	23°♌09'59	6.38748 AU
morning rise	1493 Aug 20 j 09:35	26°♌01'45	
	1493 Sep 08 j 01:45	0°♍	
retrograde	1493 Dec 19 j 12:42	13°♍05'54	
opposition	1494 Feb 17 j 17:24	8°♍09'54	1°26'56
min. Earth dist.	1494 Feb 18 j 00:19	8°♍07'38	4.42419 AU
direct	1494 Apr 20 j 17:06	3°♍06'52	
evening set	1494 Aug 25 j 14:01	20°♍43'42	
conjunction	1494 Sep 07 j 15:40	23°♍33'06	1°05'59
minimum elong	1494 Sep 07 j 15:39	23°♍33'05	1°05'58
max. Earth dist.	1494 Sep 06 j 15:09	23°♍19'49	6.44336 AU
morning rise	1494 Sep 20 j 14:35	26°♍21'07	
	1494 Oct 07 j 19:47	0°♎	
retrograde	1495 Jan 18 j 18:24	13°♎07'58	
opposition	1495 Mar 20 j 06:50	8°♎14'43	1°37'39
min. Earth dist.	1495 Mar 21 j 06:48	8°♎07'00	4.44586 AU
direct	1495 May 21 j 23:00	3°♎12'20	
evening set	1495 Sep 25 j 10:42	20°♎46'35	
max. Earth dist.	1495 Oct 06 j 12:17	23°♎11'07	6.42848 AU
conjunction	1495 Oct 08 j 06:23	23°♎34'07	1°04'05
minimum elong	1495 Oct 08 j 06:24	23°♎34'07	1°04'06
morning rise	1495 Oct 20 j 23:20	26°♎20'28	
	1495 Nov 07 j 01:48	0°♏	
retrograde	1496 Feb 18 j 15:21	13°♏18'04	
opposition	1496 Apr 19 j 11:29	8°♏26'07	1°22'13
min. Earth dist.	1496 Apr 20 j 20:59	8°♏15'26	4.39586 AU
direct	1496 Jun 21 j 02:42	3°♏25'22	
	1496 Sep 26 j 01:01	15°♏	
evening set	1496 Oct 25 j 03:45	21°♏13'10	
max. Earth dist.	1496 Nov 04 j 18:20	23°♏34'47	6.34662 AU
conjunction	1496 Nov 06 j 20:01	24°♏02'32	0°44'30
minimum elong	1496 Nov 06 j 20:03	24°♏02'33	0°44'29
morning rise	1496 Nov 19 j 10:41	26°♏51'18	
	1496 Dec 03 j 18:32	0°♐	
retrograde	1497 Mar 22 j 05:32	14°♐26'34	
opposition	1497 May 22 j 02:54	9°♐34'22	0°42'56
min. Earth dist.	1497 May 23 j 14:38	9°♐22'58	4.28632 AU
direct	1497 Jul 23 j 03:10	4°♐35'52	
evening set	1497 Nov 25 j 14:57	22°♐51'34	
max. Earth dist.	1497 Dec 06 j 11:04	25°♐20'43	6.21830 AU
conjunction	1497 Dec 08 j 07:01	25°♐46'00	0°11'13
minimum elong	1497 Dec 08 j 07:02	25°♐46'00	0°11'14
behind sun begin	1497 Dec 08 j 01:04	25°♐42'35	
behind sun end	1497 Dec 08 j 12:59	25°♐49'24	
morning rise	1497 Dec 20 j 22:51	28°♐40'33	
	1497 Dec 26 j 18:13	0°♑	
desc. node	1498 Apr 03 j 06:59	16°♑27'31	
retrograde	1498 Apr 25 j 22:04	17°♑15'18	
opposition	1498 Jun 25 j 17:32	12°♑21'12	-0°12'05

min. Earth dist.	1498 Jun 26 j 18:00	12°♑13'19	4.14737 AU
direct	1498 Aug 25 j 10:42	7°♑25'19	
evening set	1498 Dec 28 j 16:16	26°♑17'29	
conjunction	1499 Jan 10 j 11:04	29°♑18'48	-0°27'10
minimum elong	1499 Jan 10 j 11:02	29°♑18'47	0°27'10
max. Earth dist.	1499 Jan 09 j 12:32	29°♑05'27	6.08101 AU
	1499 Jan 13 j 08:32	0°♒	
morning rise	1499 Jan 23 j 07:07	2°♒21'03	
	1499 Mar 23 j 06:09	15°♒	
retrograde	1499 Jun 01 j 20:27	22°♒02'52	
opposition	1499 Aug 01 j 06:54	17°♒05'30	-1°06'28
min. Earth dist.	1499 Aug 01 j 12:45	17°♒03'35	4.02342 AU
	1499 Aug 17 j 18:49	15°℞♒	
direct	1499 Sep 29 j 14:46	12°♒11'33	
	1499 Nov 10 j 12:12	15°♒	
	1500 Jan 25 j 23:33	0°♓	
evening set	1500 Feb 01 j 18:27	1°♓37'12	
conjunction	1500 Feb 14 j 18:51	4°♓45'21	-0°57'18
minimum elong	1500 Feb 14 j 18:49	4°♓45'19	0°57'18
max. Earth dist.	1500 Feb 15 j 02:40	4°♓50'04	5.98167 AU
morning rise	1500 Feb 27 j 21:53	7°♓55'02	
retrograde	1500 Jul 08 j 22:48	28°♓25'17	
opposition	1500 Sep 06 j 22:51	23°♓24'00	-1°37'49
min. Earth dist.	1500 Sep 06 j 06:02	23°♓29'38	3.96044 AU
direct	1500 Nov 04 j 03:14	18°♓30'19	
	1501 Feb 02 j 02:16	0°♈	
evening set	1501 Mar 09 j 14:35	8°♈11'18	
conjunction	1501 Mar 22 j 22:38	11°♈23'56	-1°06'01
minimum elong	1501 Mar 22 j 22:39	11°♈23'56	1°06'01
max. Earth dist.	1501 Mar 24 j 12:12	11°♈46'34	5.96021 AU
morning rise	1501 Apr 05 j 09:58	14°♈38'13	
	1501 Jun 17 j 12:33	0°♉	
retrograde	1501 Aug 15 j 13:56	5°♉12'17	
min. Earth dist.	1501 Oct 12 j 23:19	0°♉18'37	3.98413 AU
opposition	1501 Oct 14 j 06:56	0°♉07'52	-1°30'31
	1501 Oct 15 j 06:05	30°℞♈	
direct	1501 Dec 11 j 04:18	25°♈12'18	
	1502 Feb 04 j 09:14	0°♉	
evening set	1502 Apr 16 j 02:42	14°♉42'15	
	1502 Apr 17 j 08:57	15°♉	
conjunction	1502 Apr 29 j 18:13	17°♉55'13	-0°48'57
minimum elong	1502 Apr 29 j 18:16	17°♉55'15	0°48'56
max. Earth dist.	1502 May 02 j 01:01	18°♉27'34	6.02624 AU
morning rise	1502 May 13 j 11:54	21°♉09'10	
	1502 Jun 22 j 04:23	0°♊	
retrograde	1502 Sep 20 j 11:15	10°♊59'21	
opposition	1502 Nov 18 j 23:50	5°♊54'27	-0°48'46
min. Earth dist.	1502 Nov 17 j 14:08	6°♊05'56	4.08474 AU
direct	1503 Jan 16 j 12:03	0°♊55'56	
evening set	1503 May 22 j 22:22	19°♊54'41	
conjunction	1503 Jun 05 j 16:36	23°♊03'13	-0°14'17
minimum elong	1503 Jun 05 j 16:37	23°♊03'14	0°14'16
behind sun begin	1503 Jun 05 j 12:58	23°♊01'09	
behind sun end	1503 Jun 05 j 20:17	23°♊05'19	
max. Earth dist.	1503 Jun 07 j 16:59	23°♊30'53	6.15243 AU
morning rise	1503 Jun 19 j 11:30	26°♊11'46	
	1503 Jul 06 j 12:32	0°♋	
retrograde	1503 Oct 23 j 21:51	14°♋54'48	
asc. node	1503 Oct 30 j 04:30	14°♋50'51	
opposition	1503 Dec 22 j 13:48	9°♋52'02	0°07'37
min. Earth dist.	1503 Dec 21 j 12:28	10°♋00'36	4.22310 AU
direct	1504 Feb 20 j 06:05	4°♋50'52	
evening set	1504 Jun 26 j 01:57	23°♋12'38	
conjunction	1504 Jul 09 j 17:15	26°♋13'48	0°23'47
minimum elong	1504 Jul 09 j 17:13	26°♋13'47	0°23'46
max. Earth dist.	1504 Jul 10 j 20:40	26°♋29'01	6.29235 AU
morning rise	1504 Jul 23 j 07:04	29°♋14'02	
	1504 Jul 26 j 18:53	0°♌	
	1504 Oct 19 j 09:24	15°♌	
retrograde	1504 Nov 23 j 11:10	16°♌54'37	
	1504 Dec 28 j 07:28	15°℞♌	
opposition	1505 Jan 22 j 08:15	11°♌55'29	0°58'11
min. Earth dist.	1505 Jan 21 j 23:17	11°♌58'27	4.35281 AU
direct	1505 Mar 24 j 09:09	6°♌52'50	
	1505 Jun 11 j 02:26	15°♌	
evening set	1505 Jul 29 j 07:36	24°♌43'57	
conjunction	1505 Aug 11 j 15:52	27°♌37'42	0°53'05
minimum elong	1505 Aug 11 j 15:50	27°♌37'41	0°53'05
max. Earth dist.	1505 Aug 11 j 14:47	27°♌37'07	6.40175 AU
	1505 Aug 22 j 14:01	0°♍	
morning rise	1505 Aug 24 j 21:40	0°♍30'05	
retrograde	1505 Dec 23 j 18:43	17°♍29'12	
opposition	1506 Feb 22 j 00:44	12°♍33'37	1°29'56
min. Earth dist.	1506 Feb 22 j 09:55	12°♍30'37	4.43539 AU
direct	1506 Apr 25 j 03:48	7°♍30'38	
evening set	1506 Aug 29 j 22:47	25°♍04'41	
conjunction	1506 Sep 11 j 23:32	27°♍53'24	1°06'47
minimum elong	1506 Sep 11 j 23:31	27°♍53'24	1°06'47
max. Earth dist.	1506 Sep 10 j 21:49	27°♍39'29	6.45070 AU
	1506 Sep 21 j 17:38	0°♎	
morning rise	1506 Sep 24 j 21:12	0°♎40'41	
retrograde	1507 Jan 22 j 22:33	17°♎25'39	
opposition	1507 Mar 24 j 13:26	12°♎32'41	1°36'58
min. Earth dist.	1507 Mar 25 j 14:20	12°♎24'41	4.44890 AU
direct	1507 May 26 j 06:06	7°♎30'32	
evening set	1507 Sep 29 j 16:00	25°♎03'42	
max. Earth dist.	1507 Oct 10 j 13:57	27°♎26'27	6.42683 AU
conjunction	1507 Oct 12 j 10:46	27°♎50'58	1°02'21
minimum elong	1507 Oct 12 j 10:48	27°♎50'59	1°02'21
	1507 Oct 22 j 06:56	0°♏	
morning rise	1507 Oct 25 j 03:15	0°♏37'11	
	1508 Jan 12 j 02:42	15°♏	
retrograde	1508 Feb 23 j 00:14	17°♏36'35	
	1508 Apr 05 j 09:09	15°℞♏	
opposition	1508 Apr 23 j 20:09	12°♏44'42	1°18'04
min. Earth dist.	1508 Apr 25 j 07:38	12°♏33'23	4.38931 AU
direct	1508 Jun 25 j 11:44	7°♏44'09	
	1508 Sep 07 j 13:54	15°♏	
evening set	1508 Oct 29 j 08:29	25°♏33'13	
max. Earth dist.	1508 Nov 08 j 22:13	27°♏54'43	6.33562 AU
conjunction	1508 Nov 11 j 00:35	28°♏22'55	0°40'37
minimum elong	1508 Nov 11 j 00:37	28°♏22'56	0°40'36
	1508 Nov 18 j 05:58	0°♐	
morning rise	1508 Nov 23 j 15:05	1°♐12'05	
retrograde	1509 Mar 26 j 16:54	18°♐52'58	
opposition	1509 May 26 j 15:39	14°♐00'34	0°36'07
min. Earth dist.	1509 May 28 j 02:21	13°♐49'30	4.27136 AU
direct	1509 Jul 27 j 11:34	9°♐02'22	
evening set	1509 Nov 29 j 22:57	27°♐21'54	
max. Earth dist.	1509 Dec 10 j 20:43	29°♐52'35	6.20057 AU
	1509 Dec 11 j 09:33	0°♑	
conjunction	1509 Dec 12 j 15:09	0°♑17'06	0°06'07
minimum elong	1509 Dec 12 j 15:09	0°♑17'06	0°06'07

behind sun begin	1509 Dec 12 j 07:34	0°♑12'45	
behind sun end	1509 Dec 12 j 22:44	0°♑21'28	
morning rise	1509 Dec 25 j 07:20	3°♑12'34	
desc. node	1510 Feb 13 j 05:05	13°♑52'07	
retrograde	1510 Apr 30 j 19:15	21°♑56'12	
opposition	1510 Jun 30 j 12:45	17°♑01'45	-0°19'53
min. Earth dist.	1510 Jul 01 j 12:50	16°♑53'58	4.12787 AU
direct	1510 Aug 30 j 02:40	12°♑06'05	
	1510 Dec 28 j 17:55	0°♒	
evening set	1511 Jan 02 j 06:30	1°♒03'53	
max. Earth dist.	1511 Jan 14 j 05:35	3°♒54'12	6.06151 AU
conjunction	1511 Jan 15 j 01:58	4°♒06'20	-0°32'01
minimum elong	1511 Jan 15 j 01:56	4°♒06'19	0°32'00
morning rise	1511 Jan 27 j 22:56	7°♒09'49	
	1511 Mar 03 j 09:55	15°♒	
retrograde	1511 Jun 06 j 23:13	27°♒01'21	
opposition	1511 Aug 06 j 08:15	22°♒03'30	-1°12'31
min. Earth dist.	1511 Aug 06 j 10:57	22°♒02'37	4.00590 AU
direct	1511 Oct 04 j 10:20	17°♒09'41	
	1512 Jan 09 j 01:34	0°♓	
evening set	1512 Feb 06 j 16:54	6°♓40'51	
conjunction	1512 Feb 19 j 18:16	9°♓50'05	-0°59'56
minimum elong	1512 Feb 19 j 18:14	9°♓50'04	0°59'56
max. Earth dist.	1512 Feb 20 j 05:24	9°♓56'50	5.96771 AU
morning rise	1512 Mar 03 j 22:32	13°♓00'57	
	1512 May 26 j 10:40	0°♈	
retrograde	1512 Jul 14 j 05:04	3°♈37'30	
	1512 Sep 01 j 12:54	30°℞♓	
min. Earth dist.	1512 Sep 11 j 08:25	28°♓42'06	3.95167 AU
opposition	1512 Sep 12 j 03:34	28°♓35'40	-1°39'13
direct	1512 Nov 09 j 05:22	23°♓41'47	
	1513 Jan 12 j 00:59	0°♈	
evening set	1513 Mar 14 j 19:29	13°♈25'36	
conjunction	1513 Mar 28 j 04:59	16°♈38'59	-1°05'04
minimum elong	1513 Mar 28 j 05:00	16°♈38'59	1°05'04
max. Earth dist.	1513 Mar 29 j 23:29	17°♈04'35	5.95764 AU
morning rise	1513 Apr 10 j 17:25	19°♈53'54	
	1513 May 25 j 11:22	0°♉	
retrograde	1513 Aug 20 j 20:00	10°♉27'05	
min. Earth dist.	1513 Oct 18 j 01:41	5°♉33'32	3.98809 AU
opposition	1513 Oct 19 j 10:22	5°♉22'24	-1°26'20
direct	1513 Dec 16 j 08:06	0°♉26'28	
	1514 Mar 31 j 00:29	15°♉	
evening set	1514 Apr 21 j 09:34	19°♉55'05	
conjunction	1514 May 05 j 01:48	23°♉07'58	-0°44'44
minimum elong	1514 May 05 j 01:50	23°♉08'00	0°44'44
max. Earth dist.	1514 May 07 j 09:03	23°♉40'28	6.03621 AU
morning rise	1514 May 18 j 20:18	26°♉21'45	
	1514 Jun 03 j 15:48	0°♊	
retrograde	1514 Sep 25 j 08:27	16°♊04'47	
min. Earth dist.	1514 Nov 22 j 11:34	11°♊11'38	4.09945 AU
opposition	1514 Nov 23 j 22:00	10°♊59'54	-0°41'03
direct	1515 Jan 21 j 12:36	6°♊00'53	
evening set	1515 May 28 j 01:46	24°♊55'18	
conjunction	1515 Jun 10 j 20:01	28°♊03'00	-0°08'42
minimum elong	1515 Jun 10 j 20:02	28°♊03'00	0°08'41
behind sun begin	1515 Jun 10 j 12:50	27°♊58'55	
behind sun end	1515 Jun 11 j 03:14	28°♊07'05	
max. Earth dist.	1515 Jun 12 j 19:13	28°♊29'52	6.17061 AU
	1515 Jun 19 j 09:47	0°♋	
morning rise	1515 Jun 24 j 14:27	1°♋10'31	
asc. node	1515 Sep 07 j 15:12	15°♋49'23	
retrograde	1515 Oct 28 j 13:48	19°♋44'08	
min. Earth dist.	1515 Dec 26 j 06:21	14°♋49'31	4.24257 AU
opposition	1515 Dec 27 j 05:33	14°♋41'42	0°15'39
direct	1516 Feb 25 j 03:08	9°♋40'11	
evening set	1516 Jun 30 j 22:57	27°♋56'41	
	1516 Jul 10 j 06:46	0°♌	
conjunction	1516 Jul 14 j 13:23	0°♌56'42	0°28'44
minimum elong	1516 Jul 14 j 13:21	0°♌56'41	0°28'44
max. Earth dist.	1516 Jul 15 j 13:37	1°♌10'05	6.31118 AU
morning rise	1516 Jul 28 j 02:12	3°♌55'40	
	1516 Sep 21 j 05:08	15°♌	
retrograde	1516 Nov 27 j 18:48	21°♌28'19	
opposition	1517 Jan 26 j 18:31	16°♌29'35	1°04'04
min. Earth dist.	1517 Jan 26 j 11:20	16°♌31'57	4.36941 AU
	1517 Feb 07 j 05:33	15°℞♌	
direct	1517 Mar 28 j 23:16	11°♌26'43	
	1517 May 17 j 23:29	15°♌	
evening set	1517 Aug 02 j 21:48	29°♌13'52	
	1517 Aug 06 j 11:21	0°♍	
conjunction	1517 Aug 16 j 04:58	2°♍06'38	0°56'05
minimum elong	1517 Aug 16 j 04:56	2°♍06'37	0°56'05
max. Earth dist.	1517 Aug 16 j 00:39	2°♍04'17	6.41460 AU
morning rise	1517 Aug 29 j 09:27	4°♍57'58	
retrograde	1517 Dec 28 j 01:19	21°♍52'42	
opposition	1518 Feb 26 j 08:38	16°♍57'33	1°32'29
min. Earth dist.	1518 Feb 26 j 20:28	16°♍53'43	4.44359 AU
direct	1518 Apr 29 j 15:00	11°♍54'38	
evening set	1518 Sep 03 j 08:08	29°♍26'53	
	1518 Sep 05 j 21:46	0°♎	
max. Earth dist.	1518 Sep 15 j 01:26	1°♎58'39	6.45333 AU
conjunction	1518 Sep 16 j 07:47	2°♎15'04	1°07'15
minimum elong	1518 Sep 16 j 07:46	2°♎15'04	1°07'16
morning rise	1518 Sep 29 j 04:39	5°♎01'55	
retrograde	1519 Jan 27 j 06:49	21°♎46'45	
opposition	1519 Mar 28 j 22:04	16°♎54'00	1°35'48
min. Earth dist.	1519 Mar 30 j 01:23	16°♎45'14	4.44593 AU
direct	1519 May 30 j 16:00	11°♎51'58	
evening set	1519 Oct 03 j 23:34	29°♎26'06	
	1519 Oct 06 j 13:54	0°♏	
max. Earth dist.	1519 Oct 14 j 20:27	1°♏48'33	6.41842 AU
conjunction	1519 Oct 16 j 17:55	2°♏13'29	1°00'14
minimum elong	1519 Oct 16 j 17:57	2°♏13'30	1°00'14
morning rise	1519 Oct 29 j 09:44	4°♏59'50	
	1519 Dec 17 j 21:22	15°♏	
retrograde	1520 Feb 27 j 11:05	22°♏03'18	
opposition	1520 Apr 28 j 08:29	17°♏11'27	1°13'22
min. Earth dist.	1520 Apr 29 j 20:14	17°♏00'04	4.37594 AU
	1520 May 16 j 03:58	15°℞♏	
direct	1520 Jun 29 j 21:32	12°♏11'14	
	1520 Aug 13 j 06:26	15°♏	
evening set	1520 Nov 02 j 17:51	0°♐03'53	
	1520 Nov 02 j 10:52	0°♐	
max. Earth dist.	1520 Nov 13 j 06:42	2°♐25'32	6.31824 AU
conjunction	1520 Nov 15 j 09:39	2°♐54'12	0°36'19
minimum elong	1520 Nov 15 j 09:41	2°♐54'13	0°36'20
morning rise	1520 Nov 28 j 00:19	5°♐44'08	
retrograde	1521 Mar 31 j 13:35	23°♐33'00	
opposition	1521 May 31 j 10:47	18°♐40'27	0°28'43
min. Earth dist.	1521 Jun 01 j 21:38	18°♐29'18	4.25086 AU
direct	1521 Aug 01 j 03:56	13°♐42'35	
	1521 Nov 25 j 05:22	0°♑	
evening set	1521 Dec 04 j 13:06	2°♑07'43	

max. Earth dist.	1521 Dec 15 j 13:25	4°♉40'35	6.17878 AU
conjunction	1521 Dec 17 j 05:45	5°♉04'00	0°00'37
minimum elong	1521 Dec 17 j 05:44	5°♉03'59	0°00'36
behind sun begin	1521 Dec 16 j 21:44	4°♉59'23	
behind sun end	1521 Dec 17 j 13:43	5°♉08'36	
desc. node	1521 Dec 23 j 06:49	6°♉28'12	
morning rise	1521 Dec 29 j 22:24	8°♉00'35	
retrograde	1522 May 05 j 22:04	26°♉54'36	
opposition	1522 Jul 05 j 15:19	21°♉59'48	-0°28'06
min. Earth dist.	1522 Jul 06 j 12:25	21°♉52'59	4.10665 AU
direct	1522 Sep 03 j 23:08	17°♉04'32	
	1522 Dec 11 j 12:13	0°♒	
evening set	1523 Jan 07 j 04:26	6°♒08'31	
max. Earth dist.	1523 Jan 19 j 07:55	9°♒02'10	6.04280 AU
conjunction	1523 Jan 20 j 00:30	9°♒12'04	-0°36'57
minimum elong	1523 Jan 20 j 00:28	9°♒12'03	0°36'57
morning rise	1523 Feb 01 j 22:25	12°♒16'47	
	1523 Feb 13 j 11:55	15°♒	
	1523 May 04 j 19:40	0°♓	
retrograde	1523 Jun 12 j 10:01	2°♓17'35	
	1523 Jul 21 j 03:56	30°℞♒	
opposition	1523 Aug 11 j 16:43	27°♒19'13	-1°18'25
min. Earth dist.	1523 Aug 11 j 16:17	27°♒19'22	3.99177 AU
direct	1523 Oct 09 j 14:47	22°♒25'34	
	1523 Dec 19 j 18:12	0°♓	
evening set	1524 Feb 11 j 22:04	12°♓00'46	
conjunction	1524 Feb 25 j 00:42	15°♓10'55	-1°02'16
minimum elong	1524 Feb 25 j 00:40	15°♓10'54	1°02'15
max. Earth dist.	1524 Feb 25 j 18:14	15°♓21'32	5.95977 AU
morning rise	1524 Mar 09 j 06:03	18°♓22'40	
	1524 Apr 30 j 05:21	0°♈	
retrograde	1524 Jul 19 j 16:45	9°♈02'18	
opposition	1524 Sep 17 j 13:07	4°♈00'00	-1°39'51
min. Earth dist.	1524 Sep 16 j 15:23	4°♈07'19	3.95132 AU
	1524 Oct 22 j 13:20	30°℞♓	
direct	1524 Nov 14 j 12:33	29°♓06'03	
	1524 Dec 07 j 11:28	0°♈	
evening set	1525 Mar 20 j 04:30	18°♈49'13	
conjunction	1525 Apr 02 j 14:57	22°♈02'45	-1°03'36
minimum elong	1525 Apr 02 j 14:58	22°♈02'46	1°03'35
max. Earth dist.	1525 Apr 04 j 11:57	22°♈29'48	5.96474 AU
morning rise	1525 Apr 16 j 04:38	25°♈17'51	
	1525 May 06 j 06:55	0°♉	
	1525 Aug 04 j 10:02	15°♉	
retrograde	1525 Aug 25 j 23:59	15°♉45'43	
	1525 Sep 16 j 10:36	15°℞♉	
min. Earth dist.	1525 Oct 23 j 04:01	10°♉52'41	4.00194 AU
opposition	1525 Oct 24 j 14:50	10°♉40'49	-1°21'25
direct	1525 Dec 21 j 13:31	5°♉44'29	
	1526 Mar 11 j 15:56	15°♉	
evening set	1526 Apr 26 j 16:40	25°♉08'12	
conjunction	1526 May 10 j 09:32	28°♉20'28	-0°40'14
minimum elong	1526 May 10 j 09:35	28°♉20'30	0°40'14
max. Earth dist.	1526 May 12 j 17:14	28°♉53'05	6.05552 AU
	1526 May 17 j 11:40	0°♊	
morning rise	1526 May 24 j 04:16	1°♊33'27	
retrograde	1526 Sep 30 j 04:59	21°♊06'01	
min. Earth dist.	1526 Nov 27 j 09:35	16°♊12'27	4.12179 AU
opposition	1526 Nov 28 j 18:17	16°♊01'19	-0°33'11
direct	1527 Jan 26 j 13:43	11°♊01'54	
evening set	1527 Jun 02 j 02:34	29°♊49'40	
	1527 Jun 02 j 20:55	0°♋	
conjunction	1527 Jun 15 j 20:33	2°♋56'13	-0°03'13
minimum elong	1527 Jun 15 j 20:35	2°♋56'14	0°03'13
behind sun begin	1527 Jun 15 j 12:15	2°♋51'33	
behind sun end	1527 Jun 16 j 04:54	3°♋00'55	
max. Earth dist.	1527 Jun 17 j 17:52	3°♋21'52	6.19405 AU
morning rise	1527 Jun 29 j 14:28	6°♋02'27	
asc. node	1527 Jul 18 j 05:52	10°♋09'13	
retrograde	1527 Nov 01 j 23:39	24°♋25'28	
opposition	1527 Dec 31 j 17:53	19°♋23'30	0°23'17
min. Earth dist.	1527 Dec 30 j 19:59	19°♋30'52	4.26496 AU
direct	1528 Feb 29 j 19:24	14°♋21'44	
	1528 Jun 23 j 22:34	0°♌	
evening set	1528 Jul 05 j 16:04	2°♌32'31	
conjunction	1528 Jul 19 j 05:31	5°♌31'18	0°33'21
minimum elong	1528 Jul 19 j 05:29	5°♌31'17	0°33'21
max. Earth dist.	1528 Jul 20 j 00:43	5°♌41'52	6.33074 AU
morning rise	1528 Aug 01 j 17:16	8°♌29'00	
	1528 Sep 01 j 14:58	15°♌	
retrograde	1528 Dec 02 j 01:45	25°♌54'17	
opposition	1529 Jan 31 j 01:54	20°♌56'06	1°09'23
min. Earth dist.	1529 Jan 30 j 22:27	20°♌57'14	4.38472 AU
direct	1529 Apr 02 j 11:59	15°♌53'09	
	1529 Jul 21 j 06:50	0°♍	
evening set	1529 Aug 07 j 08:34	3°♍36'56	
conjunction	1529 Aug 20 j 14:42	6°♍28'52	0°58'41
minimum elong	1529 Aug 20 j 14:40	6°♍28'51	0°58'40
max. Earth dist.	1529 Aug 20 j 05:55	6°♍24'07	6.42437 AU
morning rise	1529 Sep 02 j 18:02	9°♍19'22	
retrograde	1530 Jan 01 j 05:08	26°♍11'08	
opposition	1530 Mar 02 j 14:16	21°♍16'22	1°34'29
min. Earth dist.	1530 Mar 03 j 04:22	21°♍11'47	4.44754 AU
direct	1530 May 03 j 22:35	16°♍13'28	
	1530 Aug 20 j 20:36	0°♎	
evening set	1530 Sep 07 j 15:26	3°♎45'23	
max. Earth dist.	1530 Sep 19 j 05:33	6°♎15'35	6.45114 AU
conjunction	1530 Sep 20 j 14:16	6°♎33'19	1°07'22
minimum elong	1530 Sep 20 j 14:16	6°♎33'19	1°07'21
morning rise	1530 Oct 03 j 10:12	9°♎19'55	
retrograde	1531 Jan 31 j 13:42	26°♎06'18	
opposition	1531 Apr 02 j 05:57	21°♎13'47	1°34'10
min. Earth dist.	1531 Apr 03 j 11:20	21°♎04'23	4.43781 AU
direct	1531 Jun 04 j 00:21	16°♎11'59	
	1531 Sep 20 j 11:34	0°♏	
evening set	1531 Oct 08 j 06:36	3°♏48'36	
max. Earth dist.	1531 Oct 18 j 23:53	6°♏09'38	6.40485 AU
conjunction	1531 Oct 21 j 00:23	6°♏36'19	0°57'48
minimum elong	1531 Oct 21 j 00:24	6°♏36'20	0°57'48
morning rise	1531 Nov 02 j 16:03	9°♏23'07	
	1531 Nov 29 j 01:16	15°♏	
retrograde	1532 Mar 03 j 00:59	26°♏32'30	
opposition	1532 May 02 j 22:01	21°♏40'37	1°08'15
min. Earth dist.	1532 May 04 j 10:31	21°♏28'59	4.35773 AU
direct	1532 Jul 04 j 09:13	16°♏40'39	
	1532 Oct 16 j 23:37	0°♐	
evening set	1532 Nov 07 j 04:04	4°♐38'16	
max. Earth dist.	1532 Nov 17 j 18:44	7°♐01'35	6.29699 AU
conjunction	1532 Nov 19 j 20:02	7°♐29'26	0°31'47
minimum elong	1532 Nov 19 j 20:04	7°♐29'27	0°31'47
morning rise	1532 Dec 02 j 10:42	10°♐20'17	
retrograde	1533 Apr 05 j 10:21	28°♐18'24	
opposition	1533 Jun 05 j 07:53	23°♐25'38	0°21'02
min. Earth dist.	1533 Jun 06 j 16:57	23°♐15'04	4.22807 AU

direct	1533 Aug 05 j 20:19	18°♐28'12	
desc. node	1533 Nov 01 j 03:03	28°♐37'16	
	1533 Nov 07 j 19:34	0°♑	
evening set	1533 Dec 09 j 05:45	6°♑59'31	
max. Earth dist.	1533 Dec 20 j 08:34	9°♑34'40	6.15645 AU
conjunction	1533 Dec 21 j 22:34	9°♑56'50	-0°05'01
minimum elong	1533 Dec 21 j 22:34	9°♑56'50	0°05'01
behind sun begin	1533 Dec 21 j 14:47	9°♑52'19	
behind sun end	1533 Dec 22 j 06:21	10°♑01'21	
morning rise	1534 Jan 03 j 15:57	12°♑54'40	
	1534 Apr 05 j 03:43	0°♒	
retrograde	1534 May 11 j 04:47	1°♒59'06	
	1534 Jun 16 j 11:18	30°℞♑	
opposition	1534 Jul 10 j 20:22	27°♑03'49	-0°36'14
min. Earth dist.	1534 Jul 11 j 14:27	26°♑57'57	4.08666 AU
direct	1534 Sep 08 j 23:43	22°♑08'50	
	1534 Nov 21 j 17:24	0°♒	
evening set	1535 Jan 12 j 04:17	11°♒18'08	
conjunction	1535 Jan 25 j 01:16	14°♒22'43	-0°41'39
minimum elong	1535 Jan 25 j 01:14	14°♒22'42	0°41'40
max. Earth dist.	1535 Jan 24 j 14:43	14°♒16'24	6.02712 AU
	1535 Jan 27 j 15:29	15°♒	
morning rise	1535 Feb 07 j 00:00	17°♒28'31	
	1535 Apr 05 j 10:37	0°♓	
retrograde	1535 Jun 17 j 21:31	7°♓36'47	
opposition	1535 Aug 17 j 02:26	2°♓37'49	-1°23'41
min. Earth dist.	1535 Aug 16 j 22:43	2°♓39'03	3.98226 AU
	1535 Sep 07 j 03:08	30°℞♒	
direct	1535 Oct 14 j 20:14	27°♒44'17	
	1535 Nov 21 j 00:32	0°♓	
evening set	1536 Feb 17 j 04:10	17°♓21'26	
conjunction	1536 Mar 01 j 07:37	20°♓32'07	-1°04'04
minimum elong	1536 Mar 01 j 07:36	20°♓32'06	1°04'04
max. Earth dist.	1536 Mar 02 j 04:46	20°♓44'56	5.95694 AU
morning rise	1536 Mar 14 j 14:15	23°♓44'30	
	1536 Apr 10 j 08:06	0°♈	
retrograde	1536 Jul 25 j 00:38	14°♈24'34	
opposition	1536 Sep 22 j 21:23	9°♈21'45	-1°39'36
min. Earth dist.	1536 Sep 21 j 20:14	9°♈30'14	3.95567 AU
direct	1536 Nov 19 j 19:24	4°♈27'32	
evening set	1537 Mar 25 j 12:26	24°♈08'23	
conjunction	1537 Apr 07 j 23:59	27°♈21'54	-1°01'37
minimum elong	1537 Apr 08 j 00:01	27°♈21'55	1°01'36
max. Earth dist.	1537 Apr 10 j 00:12	27°♈50'47	5.97568 AU
	1537 Apr 19 j 00:27	0°♉	
morning rise	1537 Apr 21 j 14:26	0°♉36'50	
	1537 Jun 28 j 11:07	15°♉	
retrograde	1537 Aug 31 j 02:47	20°♉57'55	
min. Earth dist.	1537 Oct 28 j 06:31	16°♉04'35	4.01803 AU
opposition	1537 Oct 29 j 16:54	15°♉52'51	-1°15'55
	1537 Nov 05 j 04:47	15°℞♉	
direct	1537 Dec 26 j 18:35	10°♉56'05	
	1538 Feb 15 j 12:11	15°♉	
	1538 Apr 30 j 20:34	0°♊	
evening set	1538 May 01 j 21:32	0°♊14'28	
conjunction	1538 May 15 j 14:54	3°♊26'03	-0°35'29
minimum elong	1538 May 15 j 14:57	3°♊26'05	0°35'29
max. Earth dist.	1538 May 17 j 22:46	3°♊58'35	6.07526 AU
morning rise	1538 May 29 j 09:51	6°♊38'13	
retrograde	1538 Oct 04 j 21:39	26°♊00'29	
min. Earth dist.	1538 Dec 02 j 03:51	21°♊07'04	4.14316 AU
opposition	1538 Dec 03 j 12:09	20°♊56'06	-0°25'13
direct	1539 Jan 31 j 10:28	15°♊56'20	
	1539 May 16 j 23:55	0°♋	
asc. node	1539 May 28 j 00:20	2°♋24'08	
evening set	1539 Jun 07 j 01:22	4°♋38'14	
conjunction	1539 Jun 20 j 18:52	7°♋43'40	0°02'22
minimum elong	1539 Jun 20 j 18:52	7°♋43'40	0°02'21
behind sun begin	1539 Jun 20 j 10:31	7°♋38'59	
behind sun end	1539 Jun 21 j 03:13	7°♋48'21	
max. Earth dist.	1539 Jun 22 j 11:30	8°♋06'34	6.21528 AU
morning rise	1539 Jul 04 j 12:13	10°♋48'42	
retrograde	1539 Nov 06 j 10:36	29°♋02'27	
min. Earth dist.	1540 Jan 04 j 10:28	24°♋07'15	4.28426 AU
opposition	1540 Jan 05 j 05:02	24°♋01'01	0°30'42
direct	1540 Mar 05 j 12:18	18°♋59'00	
	1540 Jun 06 j 14:14	0°♌	
evening set	1540 Jul 10 j 08:11	7°♌05'21	
conjunction	1540 Jul 23 j 20:50	10°♌03'06	0°37'44
minimum elong	1540 Jul 23 j 20:48	10°♌03'05	0°37'44
max. Earth dist.	1540 Jul 24 j 12:52	10°♌11'54	6.34669 AU
morning rise	1540 Aug 06 j 07:21	12°♌59'41	
	1540 Aug 15 j 13:59	15°♌	
	1540 Nov 22 j 06:44	0°♍	
retrograde	1540 Dec 06 j 06:44	0°♍18'58	
	1540 Dec 20 j 06:50	30°℞♌	
opposition	1541 Feb 04 j 08:56	25°♌21'21	1°14'19
min. Earth dist.	1541 Feb 04 j 07:22	25°♌21'52	4.39648 AU
direct	1541 Apr 06 j 21:47	20°♌18'23	
	1541 Jul 03 j 16:35	0°♍	
evening set	1541 Aug 11 j 19:32	8°♍00'04	
max. Earth dist.	1541 Aug 24 j 11:03	10°♍44'00	6.43102 AU
conjunction	1541 Aug 25 j 00:30	10°♍51'17	1°00'58
minimum elong	1541 Aug 25 j 00:28	10°♍51'16	1°00'58
morning rise	1541 Sep 07 j 02:47	13°♍41'06	
	1541 Dec 18 j 08:34	0°♎	
retrograde	1542 Jan 05 j 11:51	0°♎31'01	
	1542 Jan 23 j 12:49	30°℞♍	
opposition	1542 Mar 06 j 21:06	25°♍36'43	1°36'00
min. Earth dist.	1542 Mar 07 j 14:35	25°♍31'03	4.44885 AU
direct	1542 May 08 j 08:37	20°♍33'56	
	1542 Aug 03 j 06:19	0°♎	
evening set	1542 Sep 11 j 23:29	8°♎06'14	
max. Earth dist.	1542 Sep 23 j 09:30	10°♎34'29	6.44684 AU
conjunction	1542 Sep 24 j 21:31	10°♎54'01	1°07'05
minimum elong	1542 Sep 24 j 21:31	10°♎54'02	1°07'05
morning rise	1542 Oct 07 j 16:43	13°♎40'31	
	1543 Jan 18 j 06:42	0°♏	
retrograde	1543 Feb 04 j 22:02	0°♏29'14	
	1543 Feb 22 j 14:11	30°℞♎	
opposition	1543 Apr 06 j 15:31	25°♎36'55	1°31'59
min. Earth dist.	1543 Apr 07 j 21:55	25°♎27'12	4.42843 AU
direct	1543 Jun 08 j 09:07	20°♎35'22	
	1543 Sep 02 j 18:47	0°♏	
evening set	1543 Oct 12 j 15:01	8°♏14'50	
max. Earth dist.	1543 Oct 23 j 08:24	10°♏36'23	6.39119 AU
conjunction	1543 Oct 25 j 08:27	11°♏02'55	0°55'00
minimum elong	1543 Oct 25 j 08:29	11°♏02'56	0°55'01
morning rise	1543 Nov 06 j 23:40	13°♏50'08	
	1543 Nov 12 j 07:25	15°♏	
	1544 Feb 09 j 23:34	0°♐	
retrograde	1544 Mar 07 j 15:42	1°♐05'28	
	1544 Apr 03 j 09:51	30°℞♏	
opposition	1544 May 07 j 13:05	26°♏13'40	1°02'38

min. Earth dist.	1544 May 09 j 01:48	26°♏01'59	4.34072 AU
direct	1544 Jul 08 j 22:19	21°♏14'08	
	1544 Sep 28 j 15:36	0°♐	
evening set	1544 Nov 11 j 15:42	9°♐16'15	
max. Earth dist.	1544 Nov 22 j 06:12	11°♐40'11	6.27810 AU
conjunction	1544 Nov 24 j 07:30	12°♐08'10	0°27'01
minimum elong	1544 Nov 24 j 07:31	12°♐08'11	0°27'00
morning rise	1544 Dec 06 j 22:31	14°♐59'54	
	1545 Feb 23 j 14:32	0°♑	
retrograde	1545 Apr 10 j 09:07	3°♑06'36	
	1545 May 27 j 01:18	30°℞♐	
opposition	1545 Jun 10 j 06:09	28°♐13'34	0°13'07
min. Earth dist.	1545 Jun 11 j 13:07	28°♐03'39	4.20867 AU
direct	1545 Aug 10 j 14:31	23°♐16'32	
desc. node	1545 Sep 10 j 08:07	24°♐43'39	
	1545 Oct 18 j 14:54	0°♑	
evening set	1545 Dec 13 j 22:28	11°♑52'47	
max. Earth dist.	1545 Dec 25 j 06:37	14°♑31'36	6.13846 AU
conjunction	1545 Dec 26 j 15:48	14°♑51'02	-0°10'31
minimum elong	1545 Dec 26 j 15:48	14°♑51'01	0°10'30
behind sun begin	1545 Dec 26 j 09:29	14°♑47'20	
behind sun end	1545 Dec 26 j 22:07	14°♑54'42	
morning rise	1546 Jan 08 j 09:35	17°♑49'50	
	1546 Mar 06 j 14:47	0°♒	
retrograde	1546 May 16 j 10:42	7°♒03'01	
opposition	1546 Jul 16 j 00:46	2°♒07'19	-0°44'01
min. Earth dist.	1546 Jul 16 j 16:07	2°♒02'19	4.07176 AU
	1546 Aug 01 j 22:01	30°℞♑	
direct	1546 Sep 13 j 23:16	27°♑12'40	
	1546 Oct 26 j 02:37	0°♒	
	1547 Jan 11 j 03:07	15°♒	
evening set	1547 Jan 17 j 03:20	16°♒25'31	
conjunction	1547 Jan 30 j 00:49	19°♒30'50	-0°45'58
minimum elong	1547 Jan 30 j 00:47	19°♒30'49	0°45'57
max. Earth dist.	1547 Jan 29 j 17:36	19°♒26'30	6.01652 AU
morning rise	1547 Feb 12 j 00:36	22°♒37'31	
	1547 Mar 16 j 01:12	0°♓	
retrograde	1547 Jun 23 j 03:35	12°♓51'02	
opposition	1547 Aug 22 j 09:06	7°♓51'29	-1°28'06
min. Earth dist.	1547 Aug 22 j 01:21	7°♓54'03	3.97731 AU
direct	1547 Oct 19 j 23:13	2°♓57'56	
evening set	1548 Feb 22 j 07:30	22°♓35'38	
conjunction	1548 Mar 06 j 12:04	25°♓46'44	-1°05'17
minimum elong	1548 Mar 06 j 12:03	25°♓46'43	1°05'17
max. Earth dist.	1548 Mar 07 j 14:26	26°♓02'41	5.95800 AU
morning rise	1548 Mar 19 j 19:36	28°♓59'29	
	1548 Mar 24 j 00:47	0°♈	
retrograde	1548 Jul 30 j 06:48	19°♈38'23	
min. Earth dist.	1548 Sep 26 j 23:37	14°♈43'55	3.96265 AU
opposition	1548 Sep 28 j 01:38	14°♈35'07	-1°38'30
direct	1548 Nov 25 j 00:20	9°♈40'35	
evening set	1549 Mar 30 j 16:27	29°♈18'24	
	1549 Apr 02 j 14:25	0°♉	
conjunction	1549 Apr 13 j 04:57	2°♉31'48	-0°59'11
minimum elong	1549 Apr 13 j 04:59	2°♉31'49	0°59'11
max. Earth dist.	1549 Apr 15 j 07:22	3°♉01'53	5.98774 AU
morning rise	1549 Apr 26 j 20:17	5°♉46'32	
	1549 Jun 06 j 19:59	15°♉	
retrograde	1549 Sep 05 j 00:08	26°♉00'25	
min. Earth dist.	1549 Nov 02 j 03:29	21°♉07'16	4.03387 AU
opposition	1549 Nov 03 j 14:32	20°♉55'19	-1°10'02
direct	1549 Dec 31 j 17:06	15°♉58'08	
	1550 Apr 13 j 23:48	0°♊	
evening set	1550 May 06 j 22:38	5°♊11'37	
conjunction	1550 May 20 j 16:15	8°♊22'31	-0°30'39
minimum elong	1550 May 20 j 16:17	8°♊22'32	0°30'39
max. Earth dist.	1550 May 22 j 21:09	8°♊53'11	6.09340 AU
morning rise	1550 Jun 03 j 11:26	11°♊33'53	
	1550 Sep 17 j 14:23	0°♋	
retrograde	1550 Oct 09 j 11:49	0°♋46'53	
	1550 Oct 31 j 05:10	30°℞♊	
min. Earth dist.	1550 Dec 06 j 20:33	25°♊52'59	4.16167 AU
opposition	1550 Dec 08 j 02:33	25°♊42'48	-0°17'23
direct	1551 Feb 05 j 05:56	20°♊42'37	
asc. node	1551 Apr 08 j 00:43	26°♊17'22	
	1551 Apr 28 j 18:26	0°♋	
evening set	1551 Jun 11 j 21:04	9°♋19'50	
conjunction	1551 Jun 25 j 14:23	12°♋24'23	0°07'37
minimum elong	1551 Jun 25 j 14:22	12°♋24'23	0°07'37
behind sun begin	1551 Jun 25 j 06:51	12°♋20'11	
behind sun end	1551 Jun 25 j 21:53	12°♋28'35	
max. Earth dist.	1551 Jun 27 j 04:55	12°♋46'01	6.23293 AU
morning rise	1551 Jul 09 j 06:56	15°♋28'20	
	1551 Sep 23 j 04:20	0°♌	
retrograde	1551 Nov 10 j 18:55	3°♌34'14	
	1551 Dec 29 j 15:27	30°℞♋	
opposition	1552 Jan 09 j 14:01	28°♋33'21	0°37'42
min. Earth dist.	1552 Jan 08 j 21:13	28°♋38'59	4.29969 AU
direct	1552 Mar 10 j 00:41	23°♋31'10	
	1552 May 17 j 17:48	0°♌	
evening set	1552 Jul 14 j 22:30	11°♌34'16	
conjunction	1552 Jul 28 j 10:05	14°♌31'08	0°41'48
minimum elong	1552 Jul 28 j 10:02	14°♌31'07	0°41'47
max. Earth dist.	1552 Jul 28 j 20:36	14°♌36'54	6.35878 AU
	1552 Jul 30 j 14:47	15°♌	
morning rise	1552 Aug 10 j 19:43	17°♌26'48	
	1552 Oct 14 j 19:57	0°♍	
retrograde	1552 Dec 10 j 13:36	4°♍41'31	
	1553 Feb 06 j 16:03	30°℞♌	
opposition	1553 Feb 08 j 15:36	29°♌44'23	1°18'43
min. Earth dist.	1553 Feb 08 j 17:27	29°♌43'47	4.40470 AU
direct	1553 Apr 11 j 08:42	24°♌41'20	
	1553 Jun 12 j 20:28	0°♍	
evening set	1553 Aug 16 j 05:31	12°♍21'42	
conjunction	1553 Aug 29 j 09:39	15°♍12'24	1°02'51
minimum elong	1553 Aug 29 j 09:37	15°♍12'24	1°02'51
max. Earth dist.	1553 Aug 28 j 18:00	15°♍03'56	6.43479 AU
morning rise	1553 Sep 11 j 10:45	18°♍01'38	
	1553 Nov 12 j 17:36	0°♎	
retrograde	1554 Jan 09 j 16:36	4°♎50'28	
	1554 Mar 10 j 17:02	30°℞♍	
opposition	1554 Mar 11 j 03:53	29°♍56'30	1°36'56
min. Earth dist.	1554 Mar 11 j 22:20	29°♍50'32	4.44831 AU
direct	1554 May 12 j 15:53	24°♍53'51	
	1554 Jul 13 j 06:01	0°♎	
evening set	1554 Sep 16 j 07:25	12°♎26'44	
max. Earth dist.	1554 Sep 27 j 14:37	14°♎53'42	6.44202 AU
conjunction	1554 Sep 29 j 04:35	15°♎14'22	1°06'25
minimum elong	1554 Sep 29 j 04:35	15°♎14'22	1°06'24
morning rise	1554 Oct 11 j 23:06	18°♎00'46	
	1554 Dec 13 j 00:55	0°♏	
retrograde	1555 Feb 09 j 07:52	4°♏51'46	
opposition	1555 Apr 11 j 01:27	29°♎59'37	1°29'15
	1555 Apr 11 j 00:15	30°℞♎	

min. Earth dist.	1555 Apr 12 j 09:39	29°♎49'20	4.41957 AU
direct	1555 Jun 12 j 19:50	24°♎58'18	
	1555 Aug 12 j 14:57	0°♏	
evening set	1555 Oct 16 j 22:50	12°♏39'55	
	1555 Oct 27 j 12:42	15°♏	
max. Earth dist.	1555 Oct 27 j 14:21	15°♏00'55	6.37881 AU
conjunction	1555 Oct 29 j 15:51	15°♏28'20	0°51'53
minimum elong	1555 Oct 29 j 15:53	15°♏28'21	0°51'53
morning rise	1555 Nov 11 j 06:55	18°♏15'58	
	1556 Jan 09 j 06:19	0°♐	
retrograde	1556 Mar 12 j 05:39	5°♐36'48	
opposition	1556 May 12 j 04:02	0°♐44'50	0°56'38
min. Earth dist.	1556 May 13 j 15:42	0°♐33'28	4.32536 AU
	1556 May 18 j 01:13	30℞♏	
direct	1556 Jul 13 j 10:02	25°♏45'35	
	1556 Sep 06 j 03:46	0°♐	
evening set	1556 Nov 16 j 02:08	13°♐51'21	
max. Earth dist.	1556 Nov 26 j 19:24	16°♐17'24	6.26093 AU
conjunction	1556 Nov 28 j 18:01	16°♐43'58	0°22'05
minimum elong	1556 Nov 28 j 18:03	16°♐43'59	0°22'05
morning rise	1556 Dec 11 j 09:04	19°♐36'28	
	1557 Jan 29 j 16:21	0°♑	
retrograde	1557 Apr 15 j 07:15	7°♑51'12	
opposition	1557 Jun 15 j 03:19	2°♑57'54	0°05'09
min. Earth dist.	1557 Jun 16 j 09:18	2°♑48'18	4.19055 AU
	1557 Jul 09 j 23:00	30℞♐	
desc. node	1557 Jul 21 j 01:05	29°♐00'26	
direct	1557 Aug 15 j 07:58	28°♐01'13	
	1557 Sep 20 j 06:25	0°♑	
evening set	1557 Dec 18 j 14:11	16°♑42'05	
max. Earth dist.	1557 Dec 30 j 00:08	19°♑22'36	6.12083 AU
conjunction	1557 Dec 31 j 07:48	19°♑41'13	-0°15'54
minimum elong	1557 Dec 31 j 07:46	19°♑41'12	0°15'54
behind sun begin	1557 Dec 31 j 06:01	19°♑40'10	
behind sun end	1557 Dec 31 j 09:32	19°♑42'14	
morning rise	1558 Jan 13 j 02:21	22°♑41'04	
	1558 Feb 14 j 13:20	0°♒	
retrograde	1558 May 21 j 13:43	12°♒03'06	
opposition	1558 Jul 21 j 03:41	7°♒06'52	-0°51'29
min. Earth dist.	1558 Jul 21 j 15:24	7°♒03'03	4.05611 AU
direct	1558 Sep 18 j 20:44	2°♒12'28	
	1558 Dec 25 j 00:57	15°♒	
evening set	1559 Jan 22 j 01:20	21°♒29'32	
conjunction	1559 Feb 03 j 23:46	24°♒35'46	-0°49'55
minimum elong	1559 Feb 03 j 23:44	24°♒35'45	0°49'55
max. Earth dist.	1559 Feb 03 j 21:52	24°♒34'38	6.00430 AU
morning rise	1559 Feb 17 j 00:22	27°♒43'24	
	1559 Feb 26 j 14:48	0°♓	
retrograde	1559 Jun 28 j 12:21	18°♓03'07	
opposition	1559 Aug 27 j 15:19	13°♓03'02	-1°31'53
min. Earth dist.	1559 Aug 27 j 05:42	13°♓06'14	3.96986 AU
direct	1559 Oct 25 j 03:07	8°♓09'30	
evening set	1560 Feb 27 j 11:04	27°♓49'00	
	1560 Mar 07 j 12:17	0°♈	
conjunction	1560 Mar 11 j 16:42	1°♈00'42	-1°06'01
minimum elong	1560 Mar 11 j 16:42	1°♈00'42	1°06'00
max. Earth dist.	1560 Mar 12 j 22:41	1°♈18'49	5.95586 AU
morning rise	1560 Mar 25 j 01:29	4°♈14'06	
retrograde	1560 Aug 04 j 12:02	24°♈53'01	
min. Earth dist.	1560 Oct 02 j 01:38	19°♈59'02	3.96635 AU
opposition	1560 Oct 03 j 06:05	19°♈49'24	-1°36'40
direct	1560 Nov 30 j 02:47	14°♈54'37	
	1561 Mar 16 j 13:12	0°♉	
evening set	1561 Apr 04 j 22:14	4°♉31'04	
conjunction	1561 Apr 18 j 11:38	7°♉44'29	-0°56'17
minimum elong	1561 Apr 18 j 11:41	7°♉44'31	0°56'18
max. Earth dist.	1561 Apr 20 j 14:28	8°♉14'45	5.99670 AU
morning rise	1561 May 02 j 03:55	10°♉59'12	
	1561 May 19 j 10:22	15°♉	
	1561 Aug 14 j 17:29	0°♊	
retrograde	1561 Sep 09 j 23:24	1°♊07'06	
	1561 Oct 06 j 00:45	30℞♉	
min. Earth dist.	1561 Nov 07 j 03:00	26°♉13'50	4.04692 AU
opposition	1561 Nov 08 j 13:41	26°♉01'59	-1°03'35
direct	1562 Jan 05 j 19:08	21°♉04'23	
	1562 Mar 25 j 20:06	0°♊	
evening set	1562 May 12 j 02:05	10°♊14'10	
conjunction	1562 May 25 j 20:14	13°♊24'33	-0°25'30
minimum elong	1562 May 25 j 20:16	13°♊24'34	0°25'30
max. Earth dist.	1562 May 28 j 01:32	13°♊55'20	6.10959 AU
morning rise	1562 Jun 08 j 15:20	16°♊35'11	
	1562 Aug 13 j 02:31	0°♋	
retrograde	1562 Oct 14 j 05:26	5°♋39'33	
opposition	1562 Dec 12 j 19:27	0°♋35'54	-0°09'16
min. Earth dist.	1562 Dec 11 j 14:35	0°♋45'41	4.17934 AU
	1562 Dec 17 j 05:40	30℞♊	
direct	1563 Feb 10 j 02:26	25°♊35'28	
asc. node	1563 Feb 15 j 06:22	25°♊38'07	
	1563 Apr 05 j 13:25	0°♋	
evening set	1563 Jun 16 j 19:34	14°♋08'17	
conjunction	1563 Jun 30 j 12:12	17°♋11'50	0°12'58
minimum elong	1563 Jun 30 j 12:11	17°♋11'49	0°12'59
behind sun begin	1563 Jun 30 j 07:19	17°♋09'06	
behind sun end	1563 Jun 30 j 17:04	17°♋14'32	
max. Earth dist.	1563 Jul 01 j 22:43	17°♋31'08	6.25079 AU
morning rise	1563 Jul 14 j 04:11	20°♋14'44	
	1563 Aug 30 j 03:14	0°♌	
retrograde	1563 Nov 15 j 05:47	8°♌12'45	
min. Earth dist.	1564 Jan 13 j 11:03	3°♌17'16	4.31664 AU
opposition	1564 Jan 14 j 01:37	3°♌12'24	0°44'40
	1564 Feb 09 j 05:58	30℞♋	
direct	1564 Mar 14 j 16:48	28°♋10'03	
	1564 Apr 18 j 14:28	0°♌	
	1564 Jul 14 j 06:44	15°♌	
evening set	1564 Jul 19 j 14:53	16°♌09'15	
conjunction	1564 Aug 02 j 01:36	19°♌05'06	0°45'43
minimum elong	1564 Aug 02 j 01:33	19°♌05'05	0°45'43
max. Earth dist.	1564 Aug 02 j 10:27	19°♌09'56	6.37395 AU
morning rise	1564 Aug 15 j 09:51	21°♌59'37	
	1564 Sep 23 j 05:30	0°♍	
retrograde	1564 Dec 14 j 20:00	9°♍08'35	
opposition	1565 Feb 12 j 23:42	4°♍12'00	1°22'46
min. Earth dist.	1565 Feb 13 j 02:54	4°♍10'57	4.41737 AU
	1565 Mar 23 j 05:11	30℞♌	
direct	1565 Apr 15 j 19:46	29°♌09'02	
	1565 May 09 j 17:07	0°♍	
evening set	1565 Aug 20 j 16:20	16°♍46'21	
conjunction	1565 Sep 02 j 19:10	19°♍36'12	1°04'26
minimum elong	1565 Sep 02 j 19:09	19°♍36'11	1°04'26
max. Earth dist.	1565 Sep 01 j 23:30	19°♍25'33	6.44404 AU
morning rise	1565 Sep 15 j 19:18	22°♍24'39	
	1565 Oct 22 j 19:36	0°♎	
retrograde	1566 Jan 13 j 23:13	9°♎10'40	
opposition	1566 Mar 15 j 11:03	4°♎17'00	1°37'22

min. Earth dist.	1566 Mar 16 j 08:10	4°♎10'12	4.45371 AU
	1566 Apr 24 j 12:22	30°℞♍	
direct	1566 May 17 j 02:11	29°♍14'28	
	1566 Jun 08 j 19:03	0°♎	
evening set	1566 Sep 20 j 13:52	16°♎45'42	
max. Earth dist.	1566 Oct 01 j 19:00	19°♎11'35	6.44306 AU
conjunction	1566 Oct 03 j 10:19	19°♎32'58	1°05'25
minimum elong	1566 Oct 03 j 10:20	19°♎32'59	1°05'25
morning rise	1566 Oct 16 j 03:57	22°♎19'01	
	1566 Nov 22 j 09:48	0°♏	
retrograde	1567 Feb 13 j 13:27	9°♏10'35	
opposition	1567 Apr 15 j 09:32	4°♏18'30	1°26'04
min. Earth dist.	1567 Apr 16 j 17:53	4°♏08'11	4.41616 AU
	1567 May 26 j 07:20	30°℞♎	
direct	1567 Jun 17 j 02:45	29°♎17'23	
	1567 Jul 09 j 01:49	0°♏	
	1567 Oct 12 j 01:07	15°♏	
evening set	1567 Oct 21 j 04:01	16°♏59'23	
max. Earth dist.	1567 Oct 31 j 18:45	19°♏20'15	6.37112 AU
conjunction	1567 Nov 02 j 20:33	19°♏47'54	0°48'34
minimum elong	1567 Nov 02 j 20:35	19°♏47'55	0°48'34
morning rise	1567 Nov 15 j 11:17	22°♏35'43	
	1567 Dec 20 j 11:09	0°♐	
retrograde	1568 Mar 16 j 17:45	10°♐00'42	
opposition	1568 May 16 j 15:38	5°♐08'38	0°50'29
min. Earth dist.	1568 May 18 j 04:34	4°♐56'52	4.31347 AU
direct	1568 Jul 17 j 20:33	0°♐09'37	
evening set	1568 Nov 20 j 09:01	18°♐18'07	
max. Earth dist.	1568 Dec 01 j 01:38	20°♐44'19	6.24573 AU
conjunction	1568 Dec 03 j 00:54	21°♐11'20	0°17'13
minimum elong	1568 Dec 03 j 00:55	21°♐11'20	0°17'14
morning rise	1568 Dec 15 j 16:17	24°♐04'34	
	1569 Jan 11 j 10:57	0°♑	
retrograde	1569 Apr 19 j 23:54	12°♑26'54	
desc. node	1569 Jun 01 j 23:32	9°♑45'38	
opposition	1569 Jun 19 j 20:21	7°♑33'13	-0°02'34
min. Earth dist.	1569 Jun 21 j 00:24	7°♑24'13	4.17292 AU
direct	1569 Aug 19 j 19:45	2°♑36'46	
evening set	1569 Dec 23 j 02:04	21°♑22'26	
conjunction	1570 Jan 04 j 20:13	24°♑22'33	-0°21'00
minimum elong	1570 Jan 04 j 20:12	24°♑22'32	0°21'00
max. Earth dist.	1570 Jan 03 j 15:53	24°♑05'49	6.10232 AU
morning rise	1570 Jan 17 j 15:20	27°♑23'27	
	1570 Jan 28 j 20:38	0°♒	
	1570 Apr 21 j 08:08	15°♒	
retrograde	1570 May 26 j 15:29	16°♒54'55	
	1570 Jul 01 j 01:15	15°℞♒	
opposition	1570 Jul 26 j 02:59	11°♒58'13	-0°58'22
min. Earth dist.	1570 Jul 26 j 13:38	11°♒54'45	4.03821 AU
direct	1570 Sep 23 j 16:23	7°♒03'58	
	1570 Dec 06 j 05:45	15°♒	
evening set	1571 Jan 26 j 20:48	26°♒26'28	
conjunction	1571 Feb 08 j 20:06	29°♒33'49	-0°53'23
minimum elong	1571 Feb 08 j 20:04	29°♒33'48	0°53'23
max. Earth dist.	1571 Feb 08 j 21:00	29°♒34'21	5.98867 AU
	1571 Feb 10 j 15:32	0°♓	
morning rise	1571 Feb 21 j 21:55	2°♓42'39	
retrograde	1571 Jul 03 j 17:24	23°♓09'44	
opposition	1571 Sep 01 j 18:33	18°♓09'10	-1°34'54
min. Earth dist.	1571 Sep 01 j 05:41	18°♓13'27	3.95847 AU
direct	1571 Oct 30 j 01:35	13°♓15'33	
	1572 Feb 20 j 01:34	0°♈	
evening set	1572 Mar 03 j 13:43	2°♈58'48	
conjunction	1572 Mar 16 j 20:33	6°♈11'22	-1°06'11
minimum elong	1572 Mar 16 j 20:33	6°♈11'22	1°06'11
max. Earth dist.	1572 Mar 18 j 05:20	6°♈31'12	5.94976 AU
morning rise	1572 Mar 30 j 06:38	9°♈25'37	
	1572 Aug 01 j 23:05	0°♉	
retrograde	1572 Aug 09 j 16:43	0°♉06'00	
	1572 Aug 17 j 10:15	30°℞♈	
min. Earth dist.	1572 Oct 07 j 03:37	25°♈12'09	3.96621 AU
opposition	1572 Oct 08 j 09:35	25°♈01'58	-1°34'06
direct	1572 Dec 05 j 05:50	20°♈06'50	
	1573 Feb 25 j 20:45	0°♉	
evening set	1573 Apr 10 j 04:10	9°♉43'23	
conjunction	1573 Apr 23 j 18:50	12°♉57'04	-0°52'57
minimum elong	1573 Apr 23 j 18:52	12°♉57'05	0°52'56
max. Earth dist.	1573 Apr 26 j 01:12	13°♉29'21	6.00273 AU
	1573 May 02 j 10:07	15°♉	
morning rise	1573 May 07 j 11:53	16°♉11'51	
	1573 Jul 11 j 17:56	0°♊	
retrograde	1573 Sep 15 j 00:56	6°♊14'27	
min. Earth dist.	1573 Nov 12 j 02:21	1°♊21'14	4.05826 AU
opposition	1573 Nov 13 j 13:13	1°♊09'21	-0°56'38
	1573 Nov 22 j 02:28	30°℞♉	
direct	1574 Jan 10 j 20:56	26°♉11'20	
	1574 Mar 01 j 05:27	0°♊	
evening set	1574 May 17 j 06:41	15°♊17'48	
conjunction	1574 May 31 j 00:57	18°♊27'34	-0°20'07
minimum elong	1574 May 31 j 00:58	18°♊27'35	0°20'08
max. Earth dist.	1574 Jun 02 j 04:44	18°♊57'21	6.12512 AU
morning rise	1574 Jun 13 j 20:12	21°♊37'30	
	1574 Jul 22 j 07:57	0°♋	
retrograde	1574 Oct 18 j 21:26	10°♋33'02	
min. Earth dist.	1574 Dec 16 j 08:34	5°♋39'10	4.19728 AU
opposition	1574 Dec 17 j 12:43	5°♋29'38	-0°01'04
asc. node	1574 Dec 24 j 21:49	4°♋30'06	
direct	1575 Feb 14 j 23:39	0°♋28'46	
evening set	1575 Jun 21 j 18:35	18°♋56'48	
conjunction	1575 Jul 05 j 10:44	21°♋59'17	0°18'16
minimum elong	1575 Jul 05 j 10:42	21°♋59'16	0°18'16
max. Earth dist.	1575 Jul 06 j 19:17	22°♋17'26	6.26966 AU
morning rise	1575 Jul 19 j 01:40	25°♋00'56	
	1575 Aug 11 j 03:37	0°♌	
retrograde	1575 Nov 19 j 17:14	12°♌50'29	
opposition	1576 Jan 18 j 13:22	7°♌50'37	0°51'20
min. Earth dist.	1576 Jan 18 j 01:01	7°♌54'43	4.33447 AU
direct	1576 Mar 19 j 09:17	2°♌48'05	
	1576 Jun 27 j 03:15	15°♌	
evening set	1576 Jul 24 j 07:04	20°♌42'51	
conjunction	1576 Aug 06 j 16:35	23°♌37'37	0°49'23
minimum elong	1576 Aug 06 j 16:32	23°♌37'36	0°49'23
max. Earth dist.	1576 Aug 06 j 20:45	23°♌39'53	6.38889 AU
morning rise	1576 Aug 19 j 23:46	26°♌31'04	
	1576 Sep 05 j 07:51	0°♍	
retrograde	1576 Dec 19 j 03:07	13°♍34'35	
opposition	1577 Feb 17 j 08:07	8°♍38'24	1°26'22
min. Earth dist.	1577 Feb 17 j 14:02	8°♍36'28	4.42838 AU
direct	1577 Apr 20 j 07:42	3°♍35'22	
evening set	1577 Aug 25 j 02:51	21°♍10'15	
max. Earth dist.	1577 Sep 06 j 07:03	23°♍47'42	6.45008 AU
conjunction	1577 Sep 07 j 04:47	23°♍59'27	1°05'40
minimum elong	1577 Sep 07 j 04:46	23°♍59'26	1°05'39

morning rise	1577 Sep 20 j 03:38	26°♍47'13	
	1577 Oct 05 j 07:25	0°♎	
retrograde	1578 Jan 18 j 05:05	13°♎31'44	
opposition	1578 Mar 19 j 18:55	8°♎38'26	1°37'18
min. Earth dist.	1578 Mar 20 j 17:31	8°♎31'10	4.45444 AU
direct	1578 May 21 j 10:36	3°♎36'05	
evening set	1578 Sep 24 j 21:44	21°♎07'24	
max. Earth dist.	1578 Oct 05 j 22:28	23°♎31'12	6.43823 AU
conjunction	1578 Oct 07 j 17:18	23°♎54'33	1°04'03
minimum elong	1578 Oct 07 j 17:19	23°♎54'33	1°04'03
morning rise	1578 Oct 20 j 10:27	26°♎40'35	
	1578 Nov 04 j 23:23	0°♏	
retrograde	1579 Feb 18 j 01:09	13°♏34'53	
opposition	1579 Apr 19 j 20:27	8°♏42'57	1°22'23
min. Earth dist.	1579 Apr 21 j 07:03	8°♏31'55	4.40595 AU
direct	1579 Jun 21 j 13:43	3°♏42'03	
	1579 Sep 25 j 04:37	15°♏	
evening set	1579 Oct 25 j 12:07	21°♏26'48	
max. Earth dist.	1579 Nov 05 j 01:59	23°♏47'40	6.35625 AU
conjunction	1579 Nov 07 j 04:30	24°♏15'49	0°44'52
minimum elong	1579 Nov 07 j 04:32	24°♏15'50	0°44'51
morning rise	1579 Nov 19 j 19:06	27°♏04'12	
	1579 Dec 03 j 03:52	0°♐	
retrograde	1580 Mar 21 j 09:24	14°♐36'02	
opposition	1580 May 21 j 08:11	9°♐43'51	0°43'46
min. Earth dist.	1580 May 22 j 19:57	9°♐32'26	4.29481 AU
direct	1580 Jul 22 j 08:17	4°♐45'12	
evening set	1580 Nov 24 j 21:13	22°♐58'45	
max. Earth dist.	1580 Dec 05 j 15:57	25°♐26'52	6.22482 AU
conjunction	1580 Dec 07 j 13:13	25°♐52'53	0°11'59
minimum elong	1580 Dec 07 j 13:13	25°♐52'53	0°11'59
behind sun begin	1580 Dec 07 j 07:39	25°♐49'42	
behind sun end	1580 Dec 07 j 18:47	25°♐56'04	
morning rise	1580 Dec 20 j 04:55	28°♐47'08	
	1580 Dec 25 j 12:58	0°♑	
desc. node	1581 Apr 11 j 03:22	17°♑01'07	
retrograde	1581 Apr 25 j 02:17	17°♑19'22	
opposition	1581 Jun 24 j 20:29	12°♑25'24	-0°10'47
min. Earth dist.	1581 Jun 25 j 23:42	12°♑16'39	4.15112 AU
direct	1581 Aug 24 j 16:10	7°♑29'19	
evening set	1581 Dec 27 j 21:12	26°♑21'12	
conjunction	1582 Jan 09 j 15:57	29°♑22'28	-0°26'17
minimum elong	1582 Jan 09 j 15:56	29°♑22'27	0°26'17
max. Earth dist.	1582 Jan 08 j 14:25	29°♑07'20	6.08167 AU
	1582 Jan 12 j 07:18	0°♒	
morning rise	1582 Jan 22 j 11:56	2°♒24'38	
	1582 Mar 22 j 02:49	15°♒	
retrograde	1582 May 31 j 23:08	22°♒06'08	
opposition	1582 Jul 31 j 09:44	17°♒09'00	-1°05'16
min. Earth dist.	1582 Jul 31 j 16:25	17°♒06'49	4.02094 AU
	1582 Aug 17 j 09:45	15°℞♒	
direct	1582 Sep 28 j 17:04	12°♒15'01	
	1582 Nov 19 04:46	15°♒	
	1583 Feb 03 19:57	0°♓	
evening set	1583 Feb 10 23:48	1°♓42'35	
conjunction	1583 Feb 24 00:03	4°♓50'56	-0°56'40
minimum elong	1583 Feb 24 00:01	4°♓50'55	0°56'41
max. Earth dist.	1583 Feb 24 05:40	4°♓54'20	5.97644 AU
morning rise	1583 Mar 09 03:00	8°♓00'50	
retrograde	1583 Jul 19 04:50	28°♓33'36	
opposition	1583 Sep 17 04:24	23°♓32'27	-1°37'18
min. Earth dist.	1583 Sep 16 12:33	23°♓37'45	3.95296 AU
direct	1583 Nov 14 08:56	18°♓38'47	
	1584 Feb 11 13:55	0°♈	
evening set	1584 Mar 18 21:58	8°♈23'07	
conjunction	1584 Apr 01 06:07	11°♈36'10	-1°05'52
minimum elong	1584 Apr 01 06:07	11°♈36'10	1°05'52
max. Earth dist.	1584 Apr 02 20:46	11°♈59'31	5.95170 AU
morning rise	1584 Apr 14 17:14	14°♈50'48	
	1584 Jun 25 07:47	0°♉	
retrograde	1584 Aug 25 01:01	5°♉28'31	
min. Earth dist.	1584 Oct 22 08:44	0°♉34'55	3.97569 AU
opposition	1584 Oct 23 16:19	0°♉24'11	-1°30'40
	1584 Oct 26 15:36	30°℞♈	
direct	1584 Dec 20 13:01	25°♈28'44	
	1585 Feb 11 22:59	0°♉	
evening set	1585 Apr 25 12:42	15°♉01'31	
	1585 Apr 25 10:07	15°♉	
conjunction	1585 May 09 03:58	18°♉14'47	-0°49'10
minimum elong	1585 May 09 04:01	18°♉14'49	0°49'09
max. Earth dist.	1585 May 11 10:50	18°♉47'13	6.01861 AU
morning rise	1585 May 22 21:48	21°♉29'07	
	1585 Jun 29 21:59	0°♊	
retrograde	1585 Sep 29 22:24	11°♊22'14	
min. Earth dist.	1585 Nov 27 00:45	6°♊29'14	4.07870 AU
opposition	1585 Nov 28 12:10	6°♊17'09	-0°49'18
direct	1586 Jan 25 22:57	1°♊18'38	
evening set	1586 Jun 01 09:49	20°♊18'40	
conjunction	1586 Jun 15 04:08	23°♊27'23	-0°14'42
minimum elong	1586 Jun 15 04:09	23°♊27'24	0°14'42
behind sun begin	1586 Jun 15 01:02	23°♊25'38	
behind sun end	1586 Jun 15 07:15	23°♊29'10	
max. Earth dist.	1586 Jun 17 06:21	23°♊56'08	6.14835 AU
morning rise	1586 Jun 28 22:57	26°♊36'05	
	1586 Jul 14 03:24	0°♋	
retrograde	1586 Nov 02 12:14	15°♋20'29	
asc. node	1586 Nov 13 12:33	15°♋08'18	
min. Earth dist.	1586 Dec 31 01:58	10°♋26'08	4.22078 AU
opposition	1587 Jan 01 03:34	10°♋17'29	0°06'55
direct	1587 Mar 01 19:57	5°♋16'18	
evening set	1587 Jul 06 14:00	23°♋37'52	
conjunction	1587 Jul 20 05:19	26°♋39'05	0°23'17
minimum elong	1587 Jul 20 05:17	26°♋39'04	0°23'16
max. Earth dist.	1587 Jul 21 10:04	26°♋55'01	6.29140 AU
morning rise	1587 Aug 02 19:19	29°♋39'22	
	1587 Aug 04 08:51	0°♌	
	1587 Oct 26 00:57	15°♌	
retrograde	1587 Dec 03 22:57	17°♌20'11	
	1588 Jan 11 19:16	15°℞♌	
opposition	1588 Feb 01 21:46	12°♌20'47	0°57'28
min. Earth dist.	1588 Feb 01 11:36	12°♌24'10	4.35290 AU
direct	1588 Apr 02 21:41	7°♌18'03	
	1588 Jun 18 06:52	15°♌	
evening set	1588 Aug 07 19:31	25°♌08'31	
conjunction	1588 Aug 21 03:57	28°♌02'16	0°52'38
minimum elong	1588 Aug 21 03:55	28°♌02'15	0°52'38
max. Earth dist.	1588 Aug 21 04:06	28°♌02'21	6.40262 AU
	1588 Aug 30 04:44	0°♍	
morning rise	1588 Sep 03 09:50	0°♍54'39	
retrograde	1589 Jan 02 07:40	17°♍53'32	
opposition	1589 Mar 03 13:40	12°♍57'50	1°29'23
min. Earth dist.	1589 Mar 03 22:42	12°♍54'53	4.43662 AU
direct	1589 May 04 16:45	7°♍54'49	
evening set	1589 Sep 08 10:43	25°♍28'13	

max. Earth dist.	1589 Sep 20 08:37	28°♍02'23	6.45199 AU
conjunction	1589 Sep 21 11:34	28°♍16'57	1°06'31
minimum elong	1589 Sep 21 11:34	28°♍16'57	1°06'31
	1589 Sep 29 10:15	0°♎	
morning rise	1589 Oct 04 09:38	1°♎04'18	
retrograde	1590 Feb 01 11:35	17°♎48'53	
opposition	1590 Apr 03 01:34	12°♎55'49	1°36'45
min. Earth dist.	1590 Apr 04 02:53	12°♎47'41	4.45014 AU
direct	1590 Jun 04 18:28	7°♎53'33	
evening set	1590 Oct 09 04:04	25°♎26'28	
max. Earth dist.	1590 Oct 20 03:26	27°♎49'53	6.42801 AU
conjunction	1590 Oct 21 23:12	28°♎13'48	1°02'21
minimum elong	1590 Oct 21 23:14	28°♎13'49	1°02'21
	1590 Oct 30 01:30	0°♏	
morning rise	1590 Nov 03 15:41	1°♏00'01	
	1591 Jan 18 13:36	15°♏	
retrograde	1591 Mar 04 10:57	17°♏58'55	
	1591 Apr 19 02:52	15°℞♏	
opposition	1591 May 04 07:29	13°♏07'02	1°18'17
min. Earth dist.	1591 May 05 18:33	12°♏55'52	4.39046 AU
direct	1591 Jul 05 22:18	8°♏06'28	
	1591 Sep 15 22:38	15°♏	
evening set	1591 Nov 08 20:58	25°♏55'34	
max. Earth dist.	1591 Nov 19 09:45	28°♏16'32	6.33668 AU
conjunction	1591 Nov 21 13:03	28°♏45'15	0°40'54
minimum elong	1591 Nov 21 13:05	28°♏45'16	0°40'54
	1591 Nov 27 02:33	0°♐	
morning rise	1591 Dec 04 03:46	1°♐34'28	
retrograde	1592 Apr 05 05:27	19°♐14'44	
opposition	1592 Jun 05 02:35	14°♐22'25	0°36'44
min. Earth dist.	1592 Jun 06 14:31	14°♐10'57	4.27229 AU
direct	1592 Aug 05 23:56	9°♐24'07	
evening set	1592 Dec 09 11:23	27°♐43'53	
	1592 Dec 19 08:01	0°♑	
max. Earth dist.	1592 Dec 20 08:48	0°♑14'18	6.20142 AU
conjunction	1592 Dec 22 03:47	0°♑39'08	0°06'37
minimum elong	1592 Dec 22 03:47	0°♑39'07	0°06'37
behind sun begin	1592 Dec 21 20:17	0°♑34'49	
behind sun end	1592 Dec 22 11:16	0°♑43'26	
morning rise	1593 Jan 03 19:55	3°♑34'33	
desc. node	1593 Feb 28 02:27	15°♑12'59	
retrograde	1593 May 10 04:51	22°♑17'23	
opposition	1593 Jul 09 23:06	17°♑23'05	-0°19'03
min. Earth dist.	1593 Jul 10 22:59	17°♑15'23	4.12882 AU
direct	1593 Sep 08 12:38	12°♑27'26	
	1594 Jan 05 17:23	0°♒	
evening set	1594 Jan 11 18:55	1°♒25'28	
conjunction	1594 Jan 24 14:13	4°♒27'49	-0°31'27
minimum elong	1594 Jan 24 14:11	4°♒27'48	0°31'26
max. Earth dist.	1594 Jan 23 17:04	4°♒15'15	6.06249 AU
morning rise	1594 Feb 06 11:04	7°♒31'13	
	1594 Mar 11 06:19	15°♒	
retrograde	1594 Jun 16 10:05	27°♒22'00	
opposition	1594 Aug 15 18:42	22°♒24'17	-1°11'45
min. Earth dist.	1594 Aug 15 22:01	22°♒23'11	4.00681 AU
direct	1594 Oct 13 22:18	17°♒30'27	
	1595 Jan 16 23:48	0°♓	
evening set	1595 Feb 16 04:29	7°♓01'35	
conjunction	1595 Mar 01 05:50	10°♓10'44	-0°59'31
minimum elong	1595 Mar 01 05:49	10°♓10'43	0°59'31
max. Earth dist.	1595 Mar 01 17:56	10°♓18'03	5.96870 AU
morning rise	1595 Mar 14 09:47	13°♓21'27	
	1595 Jun 03 12:52	0°♈	
retrograde	1595 Jul 24 16:03	3°♈57'18	
	1595 Sep 14 12:32	30°℞♓	
opposition	1595 Sep 22 14:04	28°♓55'38	-1°38'49
min. Earth dist.	1595 Sep 21 19:24	29°♓01'53	3.95272 AU
direct	1595 Nov 19 16:02	24°♓01'53	
	1596 Jan 20 15:02	0°♈	
evening set	1596 Mar 24 06:19	13°♈45'19	
conjunction	1596 Apr 06 15:22	16°♈58'30	-1°04'59
minimum elong	1596 Apr 06 15:23	16°♈58'31	1°04'59
max. Earth dist.	1596 Apr 08 08:21	17°♈23'11	5.95852 AU
morning rise	1596 Apr 20 03:44	20°♈13'19	
	1596 Jun 02 08:02	0°♉	
retrograde	1596 Aug 30 05:07	10°♉46'11	
min. Earth dist.	1596 Oct 27 11:17	5°♉53'02	3.98877 AU
opposition	1596 Oct 28 20:56	5°♉41'35	-1°26'31
direct	1596 Dec 25 18:23	0°♉45'45	
	1597 Apr 08 00:43	15°♉	
evening set	1597 Apr 30 19:12	20°♉13'52	
conjunction	1597 May 14 11:16	23°♉26'38	-0°45'02
minimum elong	1597 May 14 11:19	23°♉26'40	0°45'02
max. Earth dist.	1597 May 16 18:51	23°♉59'20	6.03671 AU
morning rise	1597 May 28 05:27	26°♉40'17	
	1597 Jun 11 16:15	0°♊	
retrograde	1597 Oct 04 19:48	16°♊23'40	
min. Earth dist.	1597 Dec 01 23:14	11°♊30'16	4.09960 AU
opposition	1597 Dec 03 08:58	11°♊18'46	-0°41'43
direct	1598 Jan 31 00:07	6°♊19'53	
evening set	1598 Jun 06 10:52	25°♊13'48	
conjunction	1598 Jun 20 05:05	28°♊21'31	-0°09'16
minimum elong	1598 Jun 20 05:05	28°♊21'31	0°09'15
behind sun begin	1598 Jun 19 22:05	28°♊17'33	
behind sun end	1598 Jun 20 12:04	28°♊25'29	
max. Earth dist.	1598 Jun 22 05:22	28°♊49'00	6.17031 AU
	1598 Jun 27 10:15	0°♋	
morning rise	1598 Jul 03 23:30	1°♋29'02	
asc. node	1598 Sep 23 04:49	16°♋58'36	
retrograde	1598 Nov 06 23:08	20°♋03'20	
opposition	1599 Jan 05 16:30	15°♋00'49	0°14'45
min. Earth dist.	1599 Jan 04 16:07	15°♋09'02	4.24190 AU
direct	1599 Mar 06 12:27	9°♋59'24	
evening set	1599 Jul 11 08:17	28°♋15'49	
	1599 Jul 19 05:27	0°♌	
conjunction	1599 Jul 24 22:44	1°♌15'53	0°28'07
minimum elong	1599 Jul 24 22:42	1°♌15'52	0°28'07
max. Earth dist.	1599 Jul 25 22:31	1°♌29'02	6.31015 AU
morning rise	1599 Aug 07 11:44	4°♌14'59	
	1599 Sep 29 17:26	15°♌	
retrograde	1599 Dec 08 07:01	21°♌48'30	
opposition	1600 Feb 06 05:54	16°♌49'42	1°03'15
min. Earth dist.	1600 Feb 05 23:20	16°♌51'52	4.36797 AU
	1600 Feb 20 09:11	15°℞♌	
direct	1600 Apr 07 10:55	11°♌46'53	
	1600 May 24 19:17	15°♌	
evening set	1600 Aug 12 07:36	29°♌34'14	
	1600 Aug 14 07:25	0°♍	
conjunction	1600 Aug 25 15:03	2°♍27'10	0°55'36
minimum elong	1600 Aug 25 15:01	2°♍27'09	0°55'35
max. Earth dist.	1600 Aug 25 11:01	2°♍24'58	6.41278 AU
morning rise	1600 Sep 07 19:48	5°♍18'42	
retrograde	1601 Jan 06 12:19	22°♍14'22	

opposition	1601 Mar 07 20:05	17°♍19'06	1°31'57
min. Earth dist.	1601 Mar 08 07:13	17°♍15'28	4.44158 AU
direct	1601 May 09 01:08	12°♍16'08	
evening set	1601 Sep 12 19:08	29°♍49'01	
	1601 Sep 13 15:35	0°♎	
conjunction	1601 Sep 25 19:07	2°♎37'25	1°07'01
minimum elong	1601 Sep 25 19:06	2°♎37'25	1°07'01
max. Earth dist.	1601 Sep 24 13:49	2°♎21'33	6.45136 AU
morning rise	1601 Oct 08 16:10	5°♎24'26	