	1100 Jan 05 j 14:06	0°♏	
retrograde	1100 Feb 02 j 08:49	0°♏39'33	
	1100 Mar 01 j 13:17	30°℞♎	
opposition	1100 Apr 11 j 05:00	27°♎21'23	2°44'52
min. Earth dist.	1100 Apr 11 j 06:07	27°♎21'11	8.88744 AU
direct	1100 Jun 21 j 05:41	23°♎58'24	
	1100 Sep 21 j 23:48	0°♏	
evening set	1100 Oct 03 j 09:05	1°♏18'08	
conjunction	1100 Oct 20 j 04:21	3°♏17'25	2°11'05
minimum elong	1100 Oct 20 j 04:22	3°♏17'25	2°11'05
max. Earth dist.	1100 Oct 20 j 02:09	3°♏16'46	10.92711 AU
morning rise	1100 Nov 05 j 20:03	5°♏15'42	
retrograde	1101 Feb 13 j 04:51	12°♏17'09	
opposition	1101 Apr 23 j 11:52	8°♏59'38	2°34'34
min. Earth dist.	1101 Apr 23 j 14:30	8°♏59'09	8.96535 AU
direct	1101 Jul 03 j 17:05	5°♏37'52	
evening set	1101 Oct 15 j 03:28	12°♏51'20	
conjunction	1101 Oct 31 j 20:27	14°♏49'15	2°00'16
minimum elong	1101 Oct 31 j 20:29	14°♏49'16	2°00'16
max. Earth dist.	1101 Oct 31 j 16:33	14°♏48'06	10.99602 AU
	1101 Nov 02 j 08:46	15°♏	
morning rise	1101 Nov 17 j 10:41	16°♏46'21	
retrograde	1102 Feb 24 j 22:41	23°♏45'07	
opposition	1102 May 05 j 16:00	20°♏27'58	2°18'15
min. Earth dist.	1102 May 05 j 19:15	20°♏27'21	9.02432 AU
direct	1102 Jul 15 j 22:50	17°♏07'19	
evening set	1102 Oct 26 j 16:36	24°♏15'33	
conjunction	1102 Nov 12 j 08:10	26°♏12'32	1°44'48
minimum elong	1102 Nov 12 j 08:12	26°♏12'32	1°44'47
max. Earth dist.	1102 Nov 12 j 03:53	26°♏11'16	11.04491 AU
morning rise	1102 Nov 28 j 21:31	28°♏08'55	
	1102 Dec 15 j 10:26	0°♐	
retrograde	1103 Mar 08 j 16:37	5°♐06'25	
opposition	1103 May 17 j 18:18	1°♐49'23	1°56'42
min. Earth dist.	1103 May 17 j 21:47	1°♐48'44	9.06216 AU
	1103 Jun 12 j 22:36	30°℞♏	
direct	1103 Jul 28 j 00:48	28°♏29'42	
	1103 Sep 09 j 20:12	0°♐	
evening set	1103 Nov 07 j 02:02	5°♐33'51	
conjunction	1103 Nov 23 j 16:46	7°♐30'21	1°25'20
minimum elong	1103 Nov 23 j 16:49	7°♐30'22	1°25'19
max. Earth dist.	1103 Nov 23 j 12:16	7°♐29'01	11.07200 AU
morning rise	1103 Dec 10 j 05:55	9°♐26'27	
retrograde	1104 Mar 19 j 11:50	16°♐24'11	
opposition	1104 May 28 j 20:07	13°♐07'01	1°30'46
min. Earth dist.	1104 May 29 j 00:22	13°♐06'14	9.07764 AU
direct	1104 Aug 07 j 22:20	9°♐48'06	
evening set	1104 Nov 17 j 09:22	16°♐49'27	
conjunction	1104 Dec 03 j 23:42	18°♐45'51	1°02'37
minimum elong	1104 Dec 03 j 23:43	18°♐45'52	1°02'37
max. Earth dist.	1104 Dec 03 j 17:58	18°♐44'10	11.07637 AU
morning rise	1104 Dec 20 j 13:26	20°♐42'07	
retrograde	1105 Mar 31 j 06:44	27°♐41'36	
opposition	1105 Jun 09 j 22:10	24°♐24'01	1°01'22
min. Earth dist.	1105 Jun 10 j 03:41	24°♐23'00	9.07015 AU
direct	1105 Aug 19 j 18:30	21°♐05'35	
evening set	1105 Nov 28 j 16:28	28°♐05'37	
	1105 Dec 14 j 23:05	0°♑	
conjunction	1105 Dec 15 j 06:52	0°♑02'17	0°37'26
minimum elong	1105 Dec 15 j 06:53	0°♑02'18	0°37'27
max. Earth dist.	1105 Dec 14 j 24:00	0°♑00'16	11.05758 AU
morning rise	1105 Dec 31 j 21:41	1°♑59'06	
retrograde	1106 Apr 12 j 05:42	9°♑01'52	
opposition	1106 Jun 22 j 01:06	5°♑43'35	0°29'29
min. Earth dist.	1106 Jun 22 j 07:03	5°♑42'29	9.03946 AU
direct	1106 Aug 31 j 15:17	2°♑25'24	
evening set	1106 Dec 10 j 00:49	9°♑25'35	
conjunction	1106 Dec 26 j 15:50	11°♑22'56	0°10'41
minimum elong	1106 Dec 26 j 15:51	11°♑22'57	0°10'41
behind sun begin	1106 Dec 26 j 10:25	11°♑21'21	
behind sun end	1106 Dec 26 j 21:17	11°♑24'32	
max. Earth dist.	1106 Dec 26 j 09:07	11°♑20'58	11.01558 AU
morning rise	1107 Jan 12 j 07:56	13°♑20'40	
retrograde	1107 Apr 24 j 08:52	20°♑28'17	
desc. node	1107 May 21 j 23:52	19°♑52'24	
opposition	1107 Jul 04 j 06:25	17°♑09'03	-0°03'52
min. Earth dist.	1107 Jul 04 j 12:03	17°♑08'00	8.98590 AU
direct	1107 Sep 12 j 11:02	13°♑50'54	
evening set	1107 Dec 21 j 12:08	20°♑52'49	
conjunction	1108 Jan 07 j 04:07	22°♑51'13	-0°16'51
minimum elong	1108 Jan 07 j 04:06	22°♑51'12	0°16'51
max. Earth dist.	1108 Jan 06 j 21:36	22°♑49'17	10.95118 AU
morning rise	1108 Jan 23 j 21:49	24°♑50'12	
	1108 Mar 15 j 06:37	0°♒	
retrograde	1108 May 05 j 18:24	2°♒04'15	
	1108 Jun 28 j 03:36	30°℞♑	
opposition	1108 Jul 15 j 15:01	28°♑43'51	-0°37'32
min. Earth dist.	1108 Jul 15 j 20:22	28°♑42'52	8.91111 AU
direct	1108 Sep 23 j 09:01	25°♑25'28	
	1108 Dec 09 j 19:30	0°♒	
evening set	1109 Jan 01 j 04:24	2°♒30'44	
conjunction	1109 Jan 17 j 21:32	4°♒30'31	-0°44'00
minimum elong	1109 Jan 17 j 21:30	4°♒30'30	0°43'59
max. Earth dist.	1109 Jan 17 j 14:21	4°♒28'21	10.86696 AU
morning rise	1109 Feb 03 j 17:22	6°♒31'08	
retrograde	1109 May 18 j 10:18	13°♒52'52	
opposition	1109 Jul 28 j 03:40	10°♒31'10	-1°10'18
min. Earth dist.	1109 Jul 28 j 09:17	10°♒30'07	8.81844 AU
direct	1109 Oct 05 j 08:49	7°♒12'16	
evening set	1110 Jan 13 j 02:54	14°♒22'22	
	1110 Jan 18 j 08:48	15°♒	
conjunction	1110 Jan 29 j 21:37	16°♒23'50	-1°09'46
minimum elong	1110 Jan 29 j 21:34	16°♒23'49	1°09'45
max. Earth dist.	1110 Jan 29 j 14:29	16°♒21'40	10.76678 AU
morning rise	1110 Feb 15 j 19:52	18°♒26'22	
retrograde	1110 May 31 j 06:46	25°♒56'53	
opposition	1110 Aug 09 j 21:15	22°♒33'42	-1°40'46
min. Earth dist.	1110 Aug 10 j 02:33	22°♒32'41	8.71210 AU
direct	1110 Oct 17 j 14:01	19°♒14'02	
evening set	1111 Jan 25 j 08:51	26°♒30'18	
conjunction	1111 Feb 11 j 05:41	28°♒33'44	-1°32'57
minimum elong	1111 Feb 11 j 05:38	28°♒33'44	1°32'57
max. Earth dist.	1111 Feb 11 j 00:03	28°♒32'01	10.65505 AU
	1111 Feb 22 j 23:23	0°♓	
morning rise	1111 Feb 28 j 06:31	0°♓38'26	
retrograde	1111 Jun 13 j 12:36	8°♓18'30	
opposition	1111 Aug 22 j 20:17	4°♓53'45	-2°07'26
min. Earth dist.	1111 Aug 23 j 00:17	4°♓52'58	8.59681 AU
direct	1111 Oct 30 j 01:51	1°♓33'08	

evening set	1112 Feb 06 j 23:44	8°♓56'38	
conjunction	1112 Feb 23 j 23:13	11°♓02'20	-1°52'20
minimum elong	1112 Feb 23 j 23:11	11°♓02'19	1°52'20
max. Earth dist.	1112 Feb 23 j 19:36	11°♓01'13	10.53683 AU
morning rise	1112 Mar 12 j 02:58	13°♓09'26	
retrograde	1112 Jun 26 j 03:06	20°♓59'17	
opposition	1112 Sep 04 j 00:58	17°♓33'00	-2°28'44
min. Earth dist.	1112 Sep 04 j 03:07	17°♓32'34	8.47783 AU
direct	1112 Nov 10 j 17:36	14°♓11'17	
evening set	1113 Feb 19 j 00:23	21°♓42'53	
conjunction	1113 Mar 08 j 02:59	23°♓51'04	-2°06'40
minimum elong	1113 Mar 08 j 02:58	23°♓51'04	2°06'40
max. Earth dist.	1113 Mar 08 j 00:39	23°♓50'20	10.41768 AU
morning rise	1113 Mar 25 j 10:10	26°♓00'45	
	1113 Apr 29 j 09:12	0°♈	
retrograde	1113 Jul 10 j 00:40	4°♈00'06	
opposition	1113 Sep 17 j 11:36	0°♈32'24	-2°43'08
min. Earth dist.	1113 Sep 17 j 12:25	0°♈32'15	8.36075 AU
	1113 Sep 24 j 07:58	30°℞♓	
direct	1113 Nov 23 j 16:27	27°♓09'29	
	1114 Jan 20 j 02:46	0°♈	
evening set	1114 Mar 04 j 11:11	4°♈49'41	
conjunction	1114 Mar 21 j 17:25	7°♈00'29	-2°14'48
minimum elong	1114 Mar 21 j 17:24	7°♈00'29	2°14'48
max. Earth dist.	1114 Mar 21 j 16:13	7°♈00'07	10.30346 AU
morning rise	1114 Apr 08 j 04:28	9°♈12'49	
retrograde	1114 Jul 24 j 04:02	17°♈20'47	
opposition	1114 Oct 01 j 03:56	13°♈51'56	-2°49'15
min. Earth dist.	1114 Oct 01 j 03:45	13°♈51'58	8.25153 AU
direct	1114 Dec 06 j 23:53	10°♈27'43	
evening set	1115 Mar 18 j 08:08	18°♈16'31	
conjunction	1115 Apr 04 j 18:39	20°♈30'01	-2°15'49
minimum elong	1115 Apr 04 j 18:40	20°♈30'01	2°15'49
max. Earth dist.	1115 Apr 04 j 18:50	20°♈30'05	10.20029 AU
morning rise	1115 Apr 22 j 09:54	22°♈45'01	
	1115 Jul 04 j 15:07	0°♉	
retrograde	1115 Aug 07 j 13:30	1°♉00'00	
	1115 Sep 10 j 16:16	30°℞♈	
opposition	1115 Oct 15 j 01:23	27°♈30'15	-2°46'05
min. Earth dist.	1115 Oct 15 j 00:16	27°♈30'29	8.15619 AU
direct	1115 Dec 20 j 14:22	24°♈04'45	
	1116 Mar 15 j 04:05	0°♉	
evening set	1116 Mar 31 j 14:41	2°♉01'37	
conjunction	1116 Apr 18 j 05:56	4°♉17'44	-2°09'09
minimum elong	1116 Apr 18 j 05:58	4°♉17'45	2°09'09
max. Earth dist.	1116 Apr 18 j 08:05	4°♉18'26	10.11401 AU
morning rise	1116 May 06 j 01:25	6°♉35'12	
retrograde	1116 Aug 21 j 02:58	14°♉55'03	
opposition	1116 Oct 28 j 02:56	11°♉24'44	-2°33'11
min. Earth dist.	1116 Oct 28 j 00:32	11°♉25'14	8.08022 AU
direct	1117 Jan 02 j 12:12	7°♉58'02	
	1117 Apr 07 j 01:07	15°♉	
evening set	1117 Apr 15 j 05:48	16°♉01'58	
conjunction	1117 May 03 j 01:46	18°♉20'23	-1°54'48
minimum elong	1117 May 03 j 01:49	18°♉20'24	1°54'48
max. Earth dist.	1117 May 03 j 06:04	18°♉21'47	10.04972 AU
morning rise	1117 May 21 j 01:04	20°♉39'53	
retrograde	1117 Sep 04 j 18:21	29°♉01'58	
opposition	1117 Nov 11 j 07:19	25°♉31'31	-2°10'51
min. Earth dist.	1117 Nov 11 j 03:19	25°♉32'21	8.02834 AU
direct	1118 Jan 16 j 16:31	22°♉03'45	
	1118 Apr 28 j 10:11	0°♊	
evening set	1118 Apr 30 j 03:36	0°♊13'13	
conjunction	1118 May 18 j 03:45	2°♊33'24	-1°33'21
minimum elong	1118 May 18 j 03:49	2°♊33'25	1°33'21
max. Earth dist.	1118 May 18 j 09:57	2°♊35'26	10.01169 AU
morning rise	1118 Jun 05 j 06:06	4°♊54'20	
retrograde	1118 Sep 19 j 09:27	13°♊15'53	
opposition	1118 Nov 25 j 13:13	9°♊45'41	-1°40'17
min. Earth dist.	1118 Nov 25 j 07:50	9°♊46'48	8.00415 AU
direct	1119 Jan 31 j 01:00	6°♊17'04	
evening set	1119 May 15 j 05:47	14°♊30'10	
conjunction	1119 Jun 02 j 09:04	16°♊51'23	-1°06'04
minimum elong	1119 Jun 02 j 09:07	16°♊51'24	1°06'05
max. Earth dist.	1119 Jun 02 j 16:40	16°♊53'52	10.00256 AU
morning rise	1119 Jun 20 j 13:17	19°♊12'55	
retrograde	1119 Oct 03 j 22:54	27°♊31'13	
opposition	1119 Dec 09 j 19:02	24°♊01'42	-1°03'26
min. Earth dist.	1119 Dec 09 j 12:50	24°♊02'59	8.00938 AU
direct	1120 Feb 14 j 12:03	20°♊32'27	
evening set	1120 May 29 j 09:55	28°♊47'09	
	1120 Jun 07 j 20:15	0°♋	
conjunction	1120 Jun 16 j 14:45	1°♋08'28	-0°34'46
minimum elong	1120 Jun 16 j 14:47	1°♋08'29	0°34'47
max. Earth dist.	1120 Jun 16 j 22:55	1°♋11'08	10.02299 AU
morning rise	1120 Jul 04 j 19:12	3°♋29'40	
retrograde	1120 Oct 17 j 08:21	11°♋42'21	
opposition	1120 Dec 22 j 23:05	8°♋13'52	-0°22'52
min. Earth dist.	1120 Dec 22 j 16:55	8°♋15'08	8.04392 AU
direct	1121 Feb 28 j 00:36	4°♋44'19	
evening set	1121 Jun 13 j 12:49	12°♋58'27	
conjunction	1121 Jul 01 j 17:23	15°♋18'55	-0°01'36
minimum elong	1121 Jul 01 j 17:24	15°♋18'55	0°01'36
behind sun begin	1121 Jul 01 j 10:01	15°♋16'33	
behind sun end	1121 Jul 02 j 00:46	15°♋21'17	
max. Earth dist.	1121 Jul 02 j 01:19	15°♋21'27	10.07180 AU
morning rise	1121 Jul 19 j 20:24	17°♋38'51	
asc. node	1121 Jul 19 j 09:01	17°♋35'14	
retrograde	1121 Oct 31 j 11:37	25°♋44'07	
opposition	1122 Jan 06 j 00:11	22°♋16'55	0°18'36
min. Earth dist.	1122 Jan 05 j 18:19	22°♋18'07	8.10570 AU
direct	1122 Mar 14 j 13:00	18°♋47'23	
evening set	1122 Jun 28 j 11:29	26°♋58'53	
conjunction	1122 Jul 16 j 14:05	29°♋17'36	0°31'21
minimum elong	1122 Jul 16 j 14:04	29°♋17'35	0°31'21
max. Earth dist.	1122 Jul 16 j 21:24	29°♋19'57	10.14587 AU
	1122 Jul 22 j 02:06	0°♌	
morning rise	1122 Aug 03 j 14:05	1°♌35'27	
retrograde	1122 Nov 14 j 06:26	9°♌32'06	
opposition	1123 Jan 19 j 20:57	6°♌06'22	0°58'15
min. Earth dist.	1123 Jan 19 j 15:23	6°♌07'30	8.19074 AU
direct	1123 Mar 28 j 23:41	2°♌37'10	
evening set	1123 Jul 13 j 03:41	10°♌44'10	
conjunction	1123 Jul 31 j 02:54	13°♌00'27	1°01'54
minimum elong	1123 Jul 31 j 02:51	13°♌00'26	1°01'53
max. Earth dist.	1123 Jul 31 j 09:22	13°♌02'31	10.24045 AU
	1123 Aug 15 j 20:40	15°♌	
morning rise	1123 Aug 17 j 22:34	15°♌15'35	
retrograde	1123 Nov 27 j 17:34	23°♌03'01	
opposition	1124 Feb 02 j 12:26	19°♌38'48	1°33'43
min. Earth dist.	1124 Feb 02 j 07:05	19°♌39'52	8.29367 AU
direct	1124 Apr 11 j 04:56	16°♌10'13	

evening set	1124 Jul 26 j 11:13	24°♌11'11	
conjunction	1124 Aug 13 j 06:00	26°♌24'34	1°28'25
minimum elong	1124 Aug 13 j 05:57	26°♌24'33	1°28'25
max. Earth dist.	1124 Aug 13 j 11:45	26°♌26'23	10.34975 AU
morning rise	1124 Aug 30 j 20:30	28°♌36'36	
	1124 Sep 11 j 08:16	0°♍	
retrograde	1124 Dec 09 j 21:59	6°♍14'45	
opposition	1125 Feb 14 j 22:24	2°♍52'00	2°03'15
min. Earth dist.	1125 Feb 14 j 17:22	2°♍53'00	8.40825 AU
	1125 Mar 29 j 15:48	30°℞♌	
direct	1125 Apr 25 j 03:55	29°♌24'18	
	1125 May 21 j 14:07	0°♍	
evening set	1125 Aug 09 j 08:29	7°♍18'02	
conjunction	1125 Aug 26 j 22:20	9°♍28'21	1°49'44
minimum elong	1125 Aug 26 j 22:17	9°♍28'20	1°49'44
max. Earth dist.	1125 Aug 27 j 03:28	9°♍29'57	10.46731 AU
morning rise	1125 Sep 13 j 07:21	11°♍37'13	
retrograde	1125 Dec 22 j 18:21	19°♍06'25	
opposition	1126 Feb 28 j 02:29	15°♍45'03	2°25'42
min. Earth dist.	1126 Feb 27 j 22:48	15°♍45'47	8.52781 AU
direct	1126 May 08 j 20:17	12°♍18'21	
evening set	1126 Aug 22 j 19:13	20°♍04'16	
conjunction	1126 Sep 09 j 04:00	22°♍11'32	2°05'07
minimum elong	1126 Sep 09 j 03:58	22°♍11'32	2°05'07
max. Earth dist.	1126 Sep 09 j 07:22	22°♍12'34	10.58635 AU
morning rise	1126 Sep 26 j 07:51	24°♍17'22	
	1126 Nov 21 j 16:43	0°♎	
retrograde	1127 Jan 04 j 07:02	1°♎38'20	
	1127 Feb 18 j 01:41	30°℞♍	
opposition	1127 Mar 13 j 00:41	28°♍18'15	2°40'29
min. Earth dist.	1127 Mar 12 j 23:07	28°♍18'33	8.64543 AU
direct	1127 May 22 j 06:02	24°♍52'38	
	1127 Aug 13 j 20:04	0°♎	
evening set	1127 Sep 04 j 19:26	2°♎30'37	
conjunction	1127 Sep 21 j 23:25	4°♎35'06	2°14'13
minimum elong	1127 Sep 21 j 23:24	4°♎35'06	2°14'13
max. Earth dist.	1127 Sep 22 j 00:03	4°♎35'18	10.70021 AU
morning rise	1127 Oct 08 j 22:46	6°♎38'12	
retrograde	1128 Jan 16 j 13:40	13°♎52'03	
opposition	1128 Mar 24 j 17:47	10°♎33'05	2°47'32
min. Earth dist.	1128 Mar 24 j 18:14	10°♎33'00	8.75490 AU
direct	1128 Jun 03 j 08:21	7°♎08'41	
evening set	1128 Sep 16 j 09:35	14°♎38'57	
conjunction	1128 Oct 03 j 09:24	16°♎41'01	2°17'05
minimum elong	1128 Oct 03 j 09:24	16°♎41'01	2°17'06
max. Earth dist.	1128 Oct 03 j 07:36	16°♎40'28	10.80361 AU
morning rise	1128 Oct 20 j 05:05	18°♎41'50	
retrograde	1129 Jan 27 j 14:29	25°♎49'52	
opposition	1129 Apr 06 j 06:18	22°♎31'45	2°47'04
min. Earth dist.	1129 Apr 06 j 07:40	22°♎31'30	8.85179 AU
direct	1129 Jun 16 j 04:52	19°♎08'33	
evening set	1129 Sep 28 j 14:57	26°♎31'37	
conjunction	1129 Oct 15 j 11:32	28°♎31'42	2°14'00
minimum elong	1129 Oct 15 j 11:33	28°♎31'42	2°14'00
max. Earth dist.	1129 Oct 15 j 08:44	28°♎30'52	10.89298 AU
	1129 Oct 27 j 19:54	0°♏	
morning rise	1129 Nov 01 j 04:18	0°♏30'42	
retrograde	1130 Feb 08 j 13:48	7°♏34'10	
opposition	1130 Apr 18 j 14:51	4°♏16'40	2°39'37
min. Earth dist.	1130 Apr 18 j 17:03	4°♏16'15	8.93296 AU
direct	1130 Jun 28 j 19:17	0°♏54'35	
evening set	1130 Oct 10 j 12:49	8°♏11'07	
conjunction	1130 Oct 27 j 06:57	10°♏09'41	2°05'23
minimum elong	1130 Oct 27 j 06:58	10°♏09'42	2°05'23
max. Earth dist.	1130 Oct 27 j 03:24	10°♏08'38	10.96538 AU
morning rise	1130 Nov 12 j 21:39	12°♏07'20	
	1130 Dec 09 j 01:59	15°♏	
retrograde	1131 Feb 20 j 09:23	19°♏07'32	
opposition	1131 Apr 30 j 20:34	15°♏50'22	2°25'48
min. Earth dist.	1131 May 01 j 00:07	15°♏49'42	8.99575 AU
	1131 May 12 j 06:13	15°℞♏	
direct	1131 Jul 11 j 01:53	12°♏29'17	
	1131 Sep 06 j 10:52	15°♏	
evening set	1131 Oct 22 j 04:36	19°♏40'10	
conjunction	1131 Nov 07 j 20:49	21°♏37'39	1°51'50
minimum elong	1131 Nov 07 j 20:51	21°♏37'39	1°51'50
max. Earth dist.	1131 Nov 07 j 15:48	21°♏36'10	11.01841 AU
morning rise	1131 Nov 24 j 10:26	23°♏34'25	
	1132 Feb 06 j 11:08	0°♐	
retrograde	1132 Mar 03 j 02:30	0°♐32'47	
	1132 Mar 29 j 03:59	30°℞♏	
opposition	1132 May 12 j 00:12	27°♏15'39	2°06'23
min. Earth dist.	1132 May 12 j 05:21	27°♏14'42	9.03820 AU
direct	1132 Jul 22 j 06:08	23°♏55'23	
	1132 Oct 23 j 14:25	0°♐	
evening set	1132 Nov 01 j 15:52	1°♐01'45	
conjunction	1132 Nov 18 j 06:51	2°♐58'33	1°33'59
minimum elong	1132 Nov 18 j 06:54	2°♐58'33	1°33'59
max. Earth dist.	1132 Nov 18 j 00:19	2°♐56'37	11.05047 AU
morning rise	1132 Dec 04 j 20:14	4°♐54'54	
retrograde	1133 Mar 14 j 20:39	11°♐52'53	
opposition	1133 May 24 j 02:26	8°♐35'31	1°42'13
min. Earth dist.	1133 May 24 j 08:05	8°♐34'29	9.05902 AU
direct	1133 Aug 03 j 07:05	5°♐15'53	
evening set	1133 Nov 13 j 00:04	12°♐18'56	
conjunction	1133 Nov 29 j 14:38	14°♐15'31	1°12'33
minimum elong	1133 Nov 29 j 14:40	14°♐15'31	1°12'33
max. Earth dist.	1133 Nov 29 j 08:03	14°♐13'34	11.06049 AU
morning rise	1133 Dec 16 j 04:15	16°♐11'52	
retrograde	1134 Mar 26 j 15:13	23°♐11'01	
opposition	1134 Jun 05 j 04:20	19°♐53'09	1°14'10
min. Earth dist.	1134 Jun 05 j 09:46	19°♐52'09	9.05746 AU
direct	1134 Aug 15 j 04:42	16°♐33'59	
evening set	1134 Nov 24 j 07:14	23°♐35'07	
conjunction	1134 Dec 10 j 21:48	25°♐31'51	0°48'18
minimum elong	1134 Dec 10 j 21:50	25°♐31'51	0°48'18
max. Earth dist.	1134 Dec 10 j 15:33	25°♐30'00	11.04803 AU
morning rise	1134 Dec 27 j 12:04	27°♐28'35	
	1135 Jan 19 j 09:51	0°♑	
retrograde	1135 Apr 07 j 14:03	4°♑30'26	
opposition	1135 Jun 17 j 07:03	1°♑11'53	0°43'11
min. Earth dist.	1135 Jun 17 j 12:32	1°♑10'52	9.03364 AU
	1135 Jul 03 j 21:45	30°℞♐	
direct	1135 Aug 27 j 01:04	27°♐53'01	
	1135 Oct 17 j 20:42	0°♑	
evening set	1135 Dec 05 j 15:06	4°♑53'40	
conjunction	1135 Dec 22 j 05:55	6°♑50'56	0°22'05
minimum elong	1135 Dec 22 j 05:55	6°♑50'56	0°22'05
max. Earth dist.	1135 Dec 21 j 22:54	6°♑48'52	11.01367 AU
morning rise	1136 Jan 07 j 21:27	8°♑48'28	
retrograde	1136 Apr 18 j 15:12	15°♑54'32	
opposition	1136 Jun 28 j 11:41	12°♑35'06	0°10'17

min. Earth dist.	1136 Jun 28 j 17:43	12°♑33'58	8.98852 AU
direct	1136 Sep 06 j 19:38	9°♑16'18	
desc. node	1136 Oct 21 j 20:34	10°♑54'14	
evening set	1136 Dec 16 j 01:10	16°♑18'03	
conjunction	1137 Jan 01 j 16:41	18°♑16'11	-0°05'19
minimum elong	1137 Jan 01 j 16:41	18°♑16'11	0°05'20
behind sun begin	1137 Jan 01 j 09:55	18°♑14'12	
behind sun end	1137 Jan 01 j 23:26	18°♑18'10	
max. Earth dist.	1137 Jan 01 j 09:16	18°♑14'00	10.95859 AU
morning rise	1137 Jan 18 j 09:55	20°♑14'50	
retrograde	1137 Apr 30 j 20:36	27°♑26'39	
opposition	1137 Jul 10 j 19:02	24°♑06'09	-0°23'27
min. Earth dist.	1137 Jul 11 j 01:04	24°♑05'01	8.92356 AU
direct	1137 Sep 18 j 17:58	20°♑47'13	
evening set	1137 Dec 27 j 15:19	27°♑51'36	
conjunction	1138 Jan 13 j 08:00	29°♑50'58	-0°32'43
minimum elong	1138 Jan 13 j 07:59	29°♑50'57	0°32'43
max. Earth dist.	1138 Jan 13 j 01:28	29°♑49'01	10.88451 AU
	1138 Jan 14 j 14:06	0°♒	
morning rise	1138 Jan 30 j 03:01	1°♒51'03	
retrograde	1138 May 13 j 09:39	9°♒09'58	
opposition	1138 Jul 23 j 05:56	5°♒48'15	-0°56'47
min. Earth dist.	1138 Jul 23 j 10:55	5°♒47'19	8.84099 AU
direct	1138 Sep 30 j 17:54	2°♒29'02	
evening set	1139 Jan 08 j 11:06	9°♒37'31	
conjunction	1139 Jan 25 j 05:17	11°♒38'24	-0°59'13
minimum elong	1139 Jan 25 j 05:14	11°♒38'24	0°59'13
max. Earth dist.	1139 Jan 25 j 00:01	11°♒36'49	10.79413 AU
morning rise	1139 Feb 11 j 02:22	13°♒40'15	
	1139 Feb 22 j 12:43	15°♒	
retrograde	1139 May 26 j 05:26	21°♒07'27	
opposition	1139 Aug 04 j 21:39	17°♒44'25	-1°28'25
min. Earth dist.	1139 Aug 05 j 01:20	17°♒43'43	8.74398 AU
	1139 Sep 16 j 08:33	15°℞♒	
direct	1139 Oct 12 j 20:21	14°♒24'44	
	1139 Nov 07 j 22:35	15°♒	
evening set	1140 Jan 20 j 13:58	21°♒38'42	
conjunction	1140 Feb 06 j 09:55	23°♒41'25	-1°23'38
minimum elong	1140 Feb 06 j 09:52	23°♒41'24	1°23'38
max. Earth dist.	1140 Feb 06 j 05:12	23°♒39'58	10.69113 AU
morning rise	1140 Feb 23 j 09:32	25°♒45'17	
	1140 Apr 02 j 07:32	0°♓	
retrograde	1140 Jun 07 j 08:58	3°♓21'41	
opposition	1140 Aug 16 j 18:39	29°♒57'18	-1°56'51
	1140 Aug 16 j 04:34	30°℞♒	
min. Earth dist.	1140 Aug 16 j 21:37	29°♒56'44	8.63654 AU
direct	1140 Oct 24 j 04:17	26°♒36'54	
	1140 Dec 27 j 09:41	0°♓	
evening set	1141 Feb 01 j 01:23	3°♓57'37	
conjunction	1141 Feb 17 j 23:34	6°♓02'26	-1°44'45
minimum elong	1141 Feb 17 j 23:32	6°♓02'25	1°44'44
max. Earth dist.	1141 Feb 17 j 19:22	6°♓01'08	10.57990 AU
morning rise	1141 Mar 07 j 02:09	8°♓08'36	
retrograde	1141 Jun 20 j 19:37	15°♓54'36	
opposition	1141 Aug 29 j 21:15	12°♓28'55	-2°20'33
min. Earth dist.	1141 Aug 29 j 23:41	12°♓28'26	8.52342 AU
direct	1141 Nov 05 j 17:54	9°♓07'40	
evening set	1142 Feb 13 j 22:10	16°♓36'07	
conjunction	1142 Mar 02 j 23:14	18°♓43'16	-2°01'19
minimum elong	1142 Mar 02 j 23:12	18°♓43'15	2°01'18
max. Earth dist.	1142 Mar 02 j 20:41	18°♓42'28	10.46556 AU
morning rise	1142 Mar 20 j 05:02	20°♓51'53	
retrograde	1142 Jul 04 j 13:24	28°♓47'31	
opposition	1142 Sep 12 j 05:53	25°♓20'34	-2°37'57
min. Earth dist.	1142 Sep 12 j 07:05	25°♓20'20	8.41000 AU
direct	1142 Nov 18 j 15:27	21°♓58'22	
evening set	1143 Feb 27 j 04:50	29°♓35'07	
	1143 Mar 02 j 12:51	0°♈	
conjunction	1143 Mar 16 j 09:28	1°♈44'48	-2°12'07
minimum elong	1143 Mar 16 j 09:27	1°♈44'48	2°12'07
max. Earth dist.	1143 Mar 16 j 09:21	1°♈44'46	10.35374 AU
morning rise	1143 Apr 02 j 18:50	3°♈56'00	
retrograde	1143 Jul 18 j 14:36	12°♈00'37	
opposition	1143 Sep 25 j 20:19	8°♈32'33	-2°47'36
min. Earth dist.	1143 Sep 25 j 19:39	8°♈32'41	8.30199 AU
direct	1143 Dec 01 j 20:17	5°♈09'19	
evening set	1144 Mar 11 j 21:58	12°♈54'30	
conjunction	1144 Mar 29 j 06:44	15°♈06'50	-2°16'09
minimum elong	1144 Mar 29 j 06:44	15°♈06'50	2°16'09
max. Earth dist.	1144 Mar 29 j 08:45	15°♈07'28	10.25031 AU
morning rise	1144 Apr 15 j 20:01	17°♈20'38	
retrograde	1144 Jul 31 j 23:19	25°♈32'48	
opposition	1144 Oct 08 j 15:52	22°♈03'52	-2°48'18
min. Earth dist.	1144 Oct 08 j 13:33	22°♈04'20	8.20504 AU
direct	1144 Dec 14 j 06:48	18°♈39'29	
evening set	1145 Mar 26 j 01:00	26°♈32'47	
conjunction	1145 Apr 12 j 14:15	28°♈47'43	-2°12'40
minimum elong	1145 Apr 12 j 14:17	28°♈47'43	2°12'40
max. Earth dist.	1145 Apr 12 j 17:42	28°♈48'49	10.16078 AU
	1145 Apr 21 j 22:45	0°♉	
morning rise	1145 Apr 30 j 07:43	1°♉04'01	
retrograde	1145 Aug 15 j 12:13	9°♉21'45	
opposition	1145 Oct 22 j 15:58	5°♉52'12	-2°39'24
min. Earth dist.	1145 Oct 22 j 12:34	5°♉52'54	8.12424 AU
direct	1145 Dec 28 j 01:22	2°♉26'38	
evening set	1146 Apr 09 j 12:42	10°♉27'14	
conjunction	1146 Apr 27 j 06:31	12°♉44'32	-2°01'27
minimum elong	1146 Apr 27 j 06:34	12°♉44'33	2°01'28
max. Earth dist.	1146 Apr 27 j 10:39	12°♉45'52	10.08980 AU
	1146 May 14 j 18:33	15°♉	
morning rise	1146 May 15 j 04:05	15°♉03'02	
retrograde	1146 Aug 30 j 03:09	23°♉23'58	
opposition	1146 Nov 05 j 19:25	19°♉54'09	-2°20'53
min. Earth dist.	1146 Nov 05 j 15:43	19°♉54'54	8.06367 AU
direct	1147 Jan 11 j 03:02	16°♉27'27	
evening set	1147 Apr 24 j 07:51	24°♉34'11	
conjunction	1147 May 12 j 06:04	26°♉53'29	-1°42'50
minimum elong	1147 May 12 j 06:07	26°♉53'30	1°42'51
max. Earth dist.	1147 May 12 j 10:38	26°♉54'58	10.04102 AU
morning rise	1147 May 30 j 07:13	29°♉13'42	
	1147 Jun 05 j 09:31	0°♊	
retrograde	1147 Sep 13 j 18:21	7°♊35'15	
opposition	1147 Nov 20 j 00:45	4°♊05'33	-1°53'34
min. Earth dist.	1147 Nov 19 j 20:52	4°♊06'22	8.02693 AU
direct	1148 Jan 25 j 10:09	0°♊37'53	
evening set	1148 May 08 j 08:28	8°♊49'11	
conjunction	1148 May 26 j 10:20	11°♊09'53	-1°17'49
minimum elong	1148 May 26 j 10:24	11°♊09'54	1°17'50
max. Earth dist.	1148 May 26 j 15:36	11°♊11'36	10.01795 AU
morning rise	1148 Jun 13 j 14:00	13°♊31'06	
retrograde	1148 Sep 27 j 08:06	21°♊50'37	
opposition	1148 Dec 03 j 06:43	18°♊21'24	-1°19'06

min. Earth dist.	1148 Dec 03 j 02:16	18°♊22'19	8.01740 AU
direct	1149 Feb 07 j 20:45	14°♊52'55	
evening set	1149 May 23 j 11:57	23°♊06'49	
conjunction	1149 Jun 10 j 16:08	25°♊28'03	-0°47'58
minimum elong	1149 Jun 10 j 16:11	25°♊28'04	0°47'59
max. Earth dist.	1149 Jun 10 j 22:20	25°♊30'04	10.02320 AU
morning rise	1149 Jun 28 j 20:45	27°♊49'22	
	1149 Jul 16 j 10:24	0°♋	
retrograde	1149 Oct 11 j 18:52	6°♋04'21	
opposition	1149 Dec 17 j 11:36	2°♋35'52	-0°39'48
min. Earth dist.	1149 Dec 17 j 06:17	2°♋36'58	8.03673 AU
	1150 Jan 22 j 01:57	30°℞♊	
direct	1150 Feb 22 j 09:44	29°♊06'50	
	1150 Mar 25 j 14:17	0°♋	
evening set	1150 Jun 07 j 15:28	7°♋21'07	
conjunction	1150 Jun 25 j 20:20	9°♋41'56	-0°15'20
minimum elong	1150 Jun 25 j 20:21	9°♋41'57	0°15'21
behind sun begin	1150 Jun 25 j 18:39	9°♋41'24	
behind sun end	1150 Jun 25 j 22:02	9°♋42'29	
max. Earth dist.	1150 Jun 26 j 03:27	9°♋44'14	10.05713 AU
morning rise	1150 Jul 14 j 00:09	12°♋02'25	
retrograde	1150 Oct 26 j 00:09	20°♋10'45	
asc. node	1150 Dec 17 j 04:27	17°♋52'58	
opposition	1150 Dec 31 j 13:48	16°♋43'15	0°01'35
min. Earth dist.	1150 Dec 31 j 07:48	16°♋44'29	8.08410 AU
direct	1151 Mar 08 j 22:32	13°♋13'56	
evening set	1151 Jun 22 j 16:04	21°♋26'28	
conjunction	1151 Jul 10 j 19:50	23°♋45'56	0°17'57
minimum elong	1151 Jul 10 j 19:49	23°♋45'56	0°17'57
max. Earth dist.	1151 Jul 11 j 03:23	23°♋48'21	10.11761 AU
morning rise	1151 Jul 28 j 21:11	26°♋04'40	
	1151 Aug 31 j 06:38	0°♌	
retrograde	1151 Nov 08 j 22:39	4°♌04'51	
opposition	1152 Jan 14 j 12:14	0°♌38'33	0°42'14
min. Earth dist.	1152 Jan 14 j 06:23	0°♌39'45	8.15634 AU
	1152 Jan 22 j 09:59	30°℞♋	
direct	1152 Mar 22 j 09:23	27°♋09'14	
	1152 May 19 j 17:48	0°♌	
evening set	1152 Jul 06 j 11:03	5°♌18'01	
conjunction	1152 Jul 24 j 11:57	7°♌35'21	0°49'39
minimum elong	1152 Jul 24 j 11:55	7°♌35'21	0°49'38
max. Earth dist.	1152 Jul 24 j 19:02	7°♌37'37	10.20056 AU
morning rise	1152 Aug 11 j 09:23	9°♌51'37	
	1152 Sep 26 j 16:08	15°♌	
retrograde	1152 Nov 21 j 13:31	17°♌42'47	
	1153 Jan 18 j 11:56	15°℞♌	
opposition	1153 Jan 27 j 05:46	14°♌17'48	1°19'39
min. Earth dist.	1153 Jan 27 j 00:44	14°♌18'50	8.24881 AU
direct	1153 Apr 05 j 15:40	10°♌48'47	
	1153 Jun 17 j 08:43	15°♌	
evening set	1153 Jul 20 j 22:00	18°♌52'09	
conjunction	1153 Aug 07 j 18:46	21°♌06'48	1°17'59
minimum elong	1153 Aug 07 j 18:43	21°♌06'47	1°17'59
max. Earth dist.	1153 Aug 08 j 00:39	21°♌08'39	10.30082 AU
morning rise	1153 Aug 25 j 11:25	23°♌20'07	
	1153 Oct 31 j 23:57	0°♍	
retrograde	1153 Dec 04 j 20:29	1°♍01'59	
	1154 Jan 08 j 02:15	30°℞♌	
opposition	1154 Feb 09 j 17:44	27°♌38'21	1°51'48
min. Earth dist.	1154 Feb 09 j 13:53	27°♌39'08	8.35585 AU
direct	1154 Apr 19 j 17:19	24°♌09'54	
	1154 Jul 17 j 04:33	0°♍	
evening set	1154 Aug 03 j 23:14	2°♍06'35	
conjunction	1154 Aug 21 j 15:10	4°♍18'14	1°41'34
minimum elong	1154 Aug 21 j 15:07	4°♍18'13	1°41'34
max. Earth dist.	1154 Aug 21 j 19:15	4°♍19'30	10.41244 AU
morning rise	1154 Sep 08 j 02:38	6°♍28'27	
retrograde	1154 Dec 17 j 18:10	14°♍01'11	
opposition	1155 Feb 22 j 23:48	10°♍38'53	2°17'17
min. Earth dist.	1155 Feb 22 j 20:49	10°♍39'28	8.47120 AU
direct	1155 May 03 j 13:30	7°♍11'15	
evening set	1155 Aug 17 j 14:05	15°♍00'25	
conjunction	1155 Sep 04 j 00:56	17°♍08'59	1°59'28
minimum elong	1155 Sep 04 j 00:53	17°♍08'58	1°59'28
max. Earth dist.	1155 Sep 04 j 03:30	17°♍09'46	10.52922 AU
morning rise	1155 Sep 21 j 07:09	19°♍16'07	
retrograde	1155 Dec 30 j 08:31	26°♍40'21	
opposition	1156 Mar 06 j 23:58	23°♍19'16	2°35'18
min. Earth dist.	1156 Mar 06 j 21:30	23°♍19'45	8.58871 AU
direct	1156 May 16 j 02:49	19°♍52'40	
evening set	1156 Aug 29 j 18:10	27°♍33'54	
conjunction	1156 Sep 16 j 00:13	29°♍39'33	2°11'12
minimum elong	1156 Sep 16 j 00:12	29°♍39'33	2°11'12
max. Earth dist.	1156 Sep 16 j 02:02	29°♍40'06	10.64535 AU
	1156 Sep 18 j 19:06	0°♎	
morning rise	1156 Oct 03 j 01:31	1°♎43'48	
retrograde	1157 Jan 10 j 18:39	9°♎00'24	
opposition	1157 Mar 19 j 18:46	5°♎40'28	2°45'35
min. Earth dist.	1157 Mar 19 j 17:03	5°♎40'47	8.70276 AU
direct	1157 May 29 j 06:55	2°♎15'03	
evening set	1157 Sep 11 j 11:50	9°♎48'16	
conjunction	1157 Sep 28 j 13:35	11°♎51'20	2°16'41
minimum elong	1157 Sep 28 j 13:34	11°♎51'20	2°16'41
max. Earth dist.	1157 Sep 28 j 14:33	11°♎51'38	10.75550 AU
morning rise	1157 Oct 15 j 10:41	13°♎53'04	
retrograde	1158 Jan 22 j 21:31	21°♎03'07	
opposition	1158 Apr 01 j 08:33	17°♎44'10	2°48'14
min. Earth dist.	1158 Apr 01 j 08:28	17°♎44'11	8.80827 AU
direct	1158 Jun 11 j 04:25	14°♎20'01	
evening set	1158 Sep 23 j 20:20	21°♎45'38	
conjunction	1158 Oct 10 j 18:19	23°♎46'28	2°16'04
minimum elong	1158 Oct 10 j 18:19	23°♎46'28	2°16'04
max. Earth dist.	1158 Oct 10 j 17:26	23°♎46'12	10.85492 AU
morning rise	1158 Oct 27 j 12:11	25°♎46'08	
	1158 Dec 06 j 11:21	0°♏	
retrograde	1159 Feb 03 j 20:01	2°♏50'50	
	1159 Apr 07 j 16:48	30°℞♎	
opposition	1159 Apr 13 j 18:00	29°♎32'44	2°43'40
min. Earth dist.	1159 Apr 13 j 19:39	29°♎32'25	8.90085 AU
direct	1159 Jun 23 j 20:12	26°♎09'50	
	1159 Sep 03 j 18:28	0°♏	
evening set	1159 Oct 05 j 20:40	3°♏28'29	
conjunction	1159 Oct 22 j 15:37	5°♏27'32	2°09'45
minimum elong	1159 Oct 22 j 15:39	5°♏27'32	2°09'44
max. Earth dist.	1159 Oct 22 j 12:43	5°♏26'40	10.93967 AU
morning rise	1159 Nov 08 j 07:13	7°♏25'36	
retrograde	1160 Feb 15 j 15:03	14°♏26'20	
opposition	1160 Apr 25 j 00:08	11°♏08'50	2°32'28
min. Earth dist.	1160 Apr 25 j 02:37	11°♏08'22	8.97690 AU
direct	1160 Jul 05 j 05:51	7°♏47'10	
evening set	1160 Oct 16 j 14:00	14°♏59'39	
	1160 Oct 16 j 15:14	15°♏	

conjunction	1160 Nov 02 j 06:53	16°♏57'22	1°58'15
minimum elong	1160 Nov 02 j 06:55	16°♏57'23	1°58'14
max. Earth dist.	1160 Nov 02 j 03:14	16°♏56'18	11.00652 AU
morning rise	1160 Nov 18 j 20:58	18°♏54'19	
retrograde	1161 Feb 26 j 09:13	25°♏52'32	
opposition	1161 May 07 j 03:40	22°♏35'22	2°15'22
min. Earth dist.	1161 May 07 j 06:26	22°♏34'52	9.03355 AU
direct	1161 Jul 17 j 11:36	19°♏14'49	
evening set	1161 Oct 28 j 02:19	26°♏22'12	
conjunction	1161 Nov 13 j 17:53	28°♏19'04	1°42'10
minimum elong	1161 Nov 13 j 17:55	28°♏19'05	1°42'10
max. Earth dist.	1161 Nov 13 j 14:04	28°♏17'56	11.05294 AU
	1161 Nov 28 j 02:05	0°♐	
morning rise	1161 Nov 30 j 07:09	0°♐15'20	
retrograde	1162 Mar 10 j 03:50	7°♐12'27	
opposition	1162 May 19 j 05:30	3°♐55'25	1°53'10
min. Earth dist.	1162 May 19 j 09:16	3°♐54'43	9.06881 AU
direct	1162 Jul 29 j 11:30	0°♐35'49	
evening set	1162 Nov 08 j 11:16	7°♐39'18	
conjunction	1162 Nov 25 j 01:55	9°♐35'43	1°22'13
minimum elong	1162 Nov 25 j 01:58	9°♐35'44	1°22'14
max. Earth dist.	1162 Nov 24 j 20:46	9°♐34'12	11.07734 AU
morning rise	1162 Dec 11 j 15:12	11°♐31'48	
retrograde	1163 Mar 21 j 20:43	18°♐29'19	
opposition	1163 May 31 j 06:58	15°♐12'08	1°26'44
min. Earth dist.	1163 May 31 j 12:02	15°♐11'12	9.08154 AU
direct	1163 Aug 10 j 08:13	11°♐53'16	
evening set	1163 Nov 19 j 18:15	18°♐54'12	
conjunction	1163 Dec 06 j 08:31	20°♐50'34	0°59'09
minimum elong	1163 Dec 06 j 08:33	20°♐50'34	0°59'10
max. Earth dist.	1163 Dec 06 j 02:04	20°♐48'40	11.07892 AU
morning rise	1163 Dec 22 j 22:26	22°♐46'49	
retrograde	1164 Apr 01 j 16:47	29°♐46'21	
opposition	1164 Jun 11 j 08:48	26°♐28'43	0°56'58
min. Earth dist.	1164 Jun 11 j 14:32	26°♐27'40	9.07128 AU
direct	1164 Aug 21 j 05:44	23°♐10'20	
	1164 Nov 28 j 13:55	0°♑	
evening set	1164 Nov 30 j 01:08	0°♑10'08	
conjunction	1164 Dec 16 j 15:38	2°♑06'50	0°33'45
minimum elong	1164 Dec 16 j 15:40	2°♑06'50	0°33'45
max. Earth dist.	1164 Dec 16 j 09:12	2°♑04'56	11.05744 AU
morning rise	1165 Jan 02 j 06:32	4°♑03'41	
retrograde	1165 Apr 13 j 15:54	11°♑06'41	
opposition	1165 Jun 23 j 11:43	7°♑48'20	0°24'52
min. Earth dist.	1165 Jun 23 j 17:06	7°♑47'21	9.03807 AU
direct	1165 Sep 02 j 00:56	4°♑30'13	
evening set	1165 Dec 11 j 09:32	11°♑30'21	
conjunction	1165 Dec 28 j 00:43	13°♑27'46	0°06'54
minimum elong	1165 Dec 28 j 00:43	13°♑27'46	0°06'54
behind sun begin	1165 Dec 27 j 18:13	13°♑25'52	
behind sun end	1165 Dec 28 j 07:12	13°♑29'40	
max. Earth dist.	1165 Dec 27 j 18:26	13°♑25'56	11.01308 AU
morning rise	1166 Jan 13 j 16:53	15°♑25'33	
desc. node	1166 Apr 01 j 02:27	22°♑03'56	
retrograde	1166 Apr 25 j 20:21	22°♑33'35	
opposition	1166 Jul 05 j 17:04	19°♑14'17	-0°08'31
min. Earth dist.	1166 Jul 05 j 22:29	19°♑13'17	8.98239 AU
direct	1166 Sep 13 j 21:02	15°♑56'09	
evening set	1166 Dec 22 j 21:14	22°♑58'12	
conjunction	1167 Jan 08 j 13:12	24°♑56'40	-0°20'37
minimum elong	1167 Jan 08 j 13:12	24°♑56'40	0°20'37
max. Earth dist.	1167 Jan 08 j 06:07	24°♑54'34	10.94670 AU
morning rise	1167 Jan 25 j 07:08	26°♑55'46	
	1167 Feb 22 j 05:39	0°♒	
retrograde	1167 May 08 j 05:46	4°♒10'18	
opposition	1167 Jul 18 j 01:53	0°♒49'53	-0°42'05
min. Earth dist.	1167 Jul 18 j 07:50	0°♒48'46	8.90566 AU
	1167 Jul 29 j 08:08	30°℞♑	
direct	1167 Sep 25 j 17:45	27°♑31'29	
	1167 Nov 20 j 04:54	0°♒	
evening set	1168 Jan 03 j 13:53	4°♒37'04	
conjunction	1168 Jan 20 j 07:03	6°♒36'56	-0°47'35
minimum elong	1168 Jan 20 j 07:01	6°♒36'55	0°47'35
max. Earth dist.	1168 Jan 19 j 23:14	6°♒34'35	10.86053 AU
morning rise	1168 Feb 06 j 03:07	8°♒37'41	
	1168 Apr 14 j 14:03	15°♒	
retrograde	1168 May 19 j 20:15	16°♒00'07	
	1168 Jun 24 j 17:53	15°℞♒	
opposition	1168 Jul 29 j 14:55	12°♒38'21	-1°14'33
min. Earth dist.	1168 Jul 29 j 21:05	12°♒37'11	8.81101 AU
direct	1168 Oct 06 j 18:59	9°♒19'26	
	1169 Jan 01 j 15:05	15°♒	
evening set	1169 Jan 14 j 12:55	16°♒30'03	
conjunction	1169 Jan 31 j 07:51	18°♒31'40	-1°13'02
minimum elong	1169 Jan 31 j 07:49	18°♒31'39	1°13'01
max. Earth dist.	1169 Jan 31 j 01:01	18°♒29'35	10.75830 AU
morning rise	1169 Feb 17 j 06:16	20°♒34'22	
retrograde	1169 Jun 01 j 19:18	28°♒05'47	
opposition	1169 Aug 11 j 08:57	24°♒42'30	-1°44'32
min. Earth dist.	1169 Aug 11 j 14:06	24°♒41'32	8.70268 AU
direct	1169 Oct 19 j 01:53	21°♒22'49	
evening set	1170 Jan 26 j 19:50	28°♒39'46	
	1170 Feb 06 j 19:37	0°♓	
conjunction	1170 Feb 12 j 16:56	0°♓43'26	-1°35'44
minimum elong	1170 Feb 12 j 16:53	0°♓43'25	1°35'44
max. Earth dist.	1170 Feb 12 j 11:40	0°♓41'49	10.64463 AU
morning rise	1170 Mar 01 j 17:53	2°♓48'20	
retrograde	1170 Jun 15 j 03:00	10°♓29'23	
opposition	1170 Aug 24 j 08:29	7°♓04'34	-2°10'31
min. Earth dist.	1170 Aug 24 j 12:04	7°♓03'52	8.58564 AU
direct	1170 Oct 31 j 11:50	3°♓43'56	
evening set	1171 Feb 08 j 11:47	11°♓08'18	
conjunction	1171 Feb 25 j 11:29	13°♓14'14	-1°54'29
minimum elong	1171 Feb 25 j 11:26	13°♓14'13	1°54'29
max. Earth dist.	1171 Feb 25 j 07:29	13°♓12'59	10.52494 AU
morning rise	1171 Mar 14 j 15:29	15°♓21'35	
retrograde	1171 Jun 28 j 17:28	23°♓12'30	
opposition	1171 Sep 06 j 14:02	19°♓46'08	-2°30'57
min. Earth dist.	1171 Sep 06 j 16:13	19°♓45'43	8.46547 AU
direct	1171 Nov 13 j 05:00	16°♓24'22	
evening set	1172 Feb 21 j 13:32	23°♓56'58	
conjunction	1172 Mar 09 j 16:21	26°♓05'25	-2°08'02
minimum elong	1172 Mar 09 j 16:20	26°♓05'25	2°08'01
max. Earth dist.	1172 Mar 09 j 13:13	26°♓04'26	10.40502 AU
morning rise	1172 Mar 26 j 23:58	28°♓15'23	
	1172 Apr 10 j 11:34	0°♈	
retrograde	1172 Jul 11 j 15:25	6°♈15'49	
opposition	1172 Sep 19 j 01:33	2°♈48'03	-2°44'19
min. Earth dist.	1172 Sep 19 j 02:54	2°♈47'47	8.34798 AU
	1172 Oct 30 j 17:02	30°℞♓	
direct	1172 Nov 25 j 05:37	29°♓25'02	
	1172 Dec 20 j 11:40	0°♈	
evening set	1173 Mar 06 j 01:35	7°♈06'17	

conjunction	1173 Mar 23 j 08:13	9°♈17'24	-2°15'15
minimum elong	1173 Mar 23 j 08:13	9°♈17'24	2°15'14
max. Earth dist.	1173 Mar 23 j 06:32	9°♈16'52	10.29081 AU
morning rise	1173 Apr 09 j 19:45	11°♈30'04	
retrograde	1173 Jul 25 j 20:19	19°♈38'59	
opposition	1173 Oct 02 j 18:35	16°♈10'04	-2°49'14
min. Earth dist.	1173 Oct 02 j 18:54	16°♈10'00	8.23917 AU
direct	1173 Dec 08 j 13:19	12°♈45'43	
evening set	1174 Mar 19 j 23:44	20°♈35'35	
conjunction	1174 Apr 06 j 10:47	22°♈49'25	-2°15'15
minimum elong	1174 Apr 06 j 10:48	22°♈49'25	2°15'15
max. Earth dist.	1174 Apr 06 j 11:15	22°♈49'34	10.18845 AU
morning rise	1174 Apr 24 j 02:28	25°♈04'43	
	1174 Jun 06 j 08:22	0°♉	
retrograde	1174 Aug 09 j 06:06	3°♉20'31	
	1174 Oct 14 j 18:55	30°℞♈	
opposition	1174 Oct 16 j 16:44	29°♈50'42	-2°44'47
min. Earth dist.	1174 Oct 16 j 15:32	29°♈50'56	8.14505 AU
direct	1174 Dec 22 j 05:38	26°♈25'04	
	1175 Feb 24 j 16:02	0°♉	
evening set	1175 Apr 03 j 07:20	4°♉22'55	
conjunction	1175 Apr 20 j 23:11	6°♉39'21	-2°07'34
minimum elong	1175 Apr 20 j 23:13	6°♉39'22	2°07'33
max. Earth dist.	1175 Apr 21 j 02:11	6°♉40'19	10.10378 AU
morning rise	1175 May 08 j 19:01	8°♉57'05	
	1175 Jul 03 j 00:31	15°♉	
retrograde	1175 Aug 23 j 19:40	17°♉17'31	
	1175 Oct 15 j 16:14	15°℞♉	
opposition	1175 Oct 30 j 18:54	13°♉47'09	-2°30'35
min. Earth dist.	1175 Oct 30 j 15:52	13°♉47'46	8.07107 AU
direct	1176 Jan 05 j 04:35	10°♉20'20	
	1176 Mar 19 j 15:24	15°♉	
evening set	1176 Apr 16 j 23:30	18°♉25'04	
conjunction	1176 May 04 j 20:02	20°♉43'46	-1°52'13
minimum elong	1176 May 04 j 20:05	20°♉43'47	1°52'13
max. Earth dist.	1176 May 05 j 01:06	20°♉45'25	10.04187 AU
morning rise	1176 May 22 j 19:39	23°♉03'30	
	1176 Jul 28 j 07:17	0°♊	
retrograde	1176 Sep 06 j 11:30	1°♊25'51	
	1176 Oct 17 j 00:37	30°℞♉	
opposition	1176 Nov 12 j 23:41	27°♉55'22	-2°07'06
min. Earth dist.	1176 Nov 12 j 19:08	27°♉56'18	8.02183 AU
direct	1177 Jan 18 j 08:39	24°♉27'29	
	1177 Apr 10 j 14:30	0°♊	
evening set	1177 May 01 j 22:11	2°♊37'34	
conjunction	1177 May 19 j 22:43	4°♊57'58	-1°29'55
minimum elong	1177 May 19 j 22:47	4°♊57'59	1°29'55
max. Earth dist.	1177 May 20 j 05:13	5°♊00'05	10.00671 AU
morning rise	1177 Jun 07 j 01:20	7°♊19'03	
retrograde	1177 Sep 21 j 03:39	15°♊40'32	
opposition	1177 Nov 27 j 05:54	12°♊10'20	-1°35'34
min. Earth dist.	1177 Nov 27 j 00:26	12°♊11'28	8.00066 AU
direct	1178 Feb 01 j 16:47	8°♊41'35	
evening set	1178 May 17 j 00:47	16°♊55'05	
conjunction	1178 Jun 04 j 04:14	19°♊16'23	-1°02'00
minimum elong	1178 Jun 04 j 04:17	19°♊16'24	1°02'01
max. Earth dist.	1178 Jun 04 j 11:37	19°♊18'48	10.00076 AU
morning rise	1178 Jun 22 j 08:35	21°♊37'59	
retrograde	1178 Oct 05 j 17:21	29°♊55'56	
opposition	1178 Dec 11 j 11:48	26°♊26'26	-0°58'05
min. Earth dist.	1178 Dec 11 j 05:59	26°♊27'38	8.00918 AU
direct	1179 Feb 16 j 05:18	22°♊57'04	
	1179 May 22 j 16:06	0°♋	
evening set	1179 Jun 01 j 04:58	1°♋11'55	
conjunction	1179 Jun 19 j 09:47	3°♋33'13	-0°30'19
minimum elong	1179 Jun 19 j 09:48	3°♋33'13	0°30'20
max. Earth dist.	1179 Jun 19 j 17:22	3°♋35'41	10.02448 AU
morning rise	1179 Jul 07 j 14:16	5°♋54'22	
retrograde	1179 Oct 20 j 01:12	14°♋06'26	
opposition	1179 Dec 25 j 15:40	10°♋38'00	-0°17'14
min. Earth dist.	1179 Dec 25 j 09:55	10°♋39'11	8.04698 AU
direct	1180 Mar 01 j 19:05	7°♋08'21	
asc. node	1180 May 30 j 16:22	13°♋26'30	
evening set	1180 Jun 15 j 07:37	15°♋22'24	
conjunction	1180 Jul 03 j 12:02	17°♋42'44	0°03'02
minimum elong	1180 Jul 03 j 12:02	17°♋42'44	0°03'01
behind sun begin	1180 Jul 03 j 04:42	17°♋40'23	
behind sun end	1180 Jul 03 j 19:22	17°♋45'05	
max. Earth dist.	1180 Jul 03 j 19:24	17°♋45'05	10.07637 AU
morning rise	1180 Jul 21 j 14:53	20°♋02'31	
retrograde	1180 Nov 02 j 02:32	28°♋07'00	
opposition	1181 Jan 07 j 16:21	24°♋39'53	0°24'08
min. Earth dist.	1181 Jan 07 j 10:28	24°♋41'05	8.11167 AU
direct	1181 Mar 16 j 07:43	21°♋10'18	
evening set	1181 Jun 30 j 05:41	29°♋21'28	
	1181 Jul 05 j 07:41	0°♌	
conjunction	1181 Jul 18 j 07:59	1°♌39'58	0°35'40
minimum elong	1181 Jul 18 j 07:57	1°♌39'57	0°35'39
max. Earth dist.	1181 Jul 18 j 15:16	1°♌42'18	10.15311 AU
morning rise	1181 Aug 05 j 07:35	3°♌57'33	
retrograde	1181 Nov 15 j 21:02	11°♌53'22	
opposition	1182 Jan 21 j 12:35	8°♌27'43	1°03'20
min. Earth dist.	1182 Jan 21 j 06:27	8°♌28'58	8.19917 AU
direct	1182 Mar 30 j 16:35	4°♌58'32	
evening set	1182 Jul 14 j 20:56	13°♌04'58	
	1182 Jul 30 j 01:46	15°♌	
conjunction	1182 Aug 01 j 19:46	15°♌21'00	1°05'44
minimum elong	1182 Aug 01 j 19:44	15°♌20'59	1°05'44
max. Earth dist.	1182 Aug 02 j 02:52	15°♌23'15	10.24991 AU
morning rise	1182 Aug 19 j 14:52	17°♌35'49	
retrograde	1182 Nov 29 j 08:52	25°♌22'22	
opposition	1183 Feb 04 j 03:25	21°♌58'14	1°38'05
min. Earth dist.	1183 Feb 03 j 21:31	21°♌59'25	8.30405 AU
direct	1183 Apr 13 j 20:35	18°♌29'43	
evening set	1183 Jul 29 j 03:26	26°♌29'59	
conjunction	1183 Aug 15 j 21:48	28°♌43'06	1°31'37
minimum elong	1183 Aug 15 j 21:44	28°♌43'05	1°31'36
max. Earth dist.	1183 Aug 16 j 04:20	28°♌45'09	10.36088 AU
	1183 Aug 26 j 02:53	0°♍	
morning rise	1183 Sep 02 j 11:38	0°♍54'48	
retrograde	1183 Dec 12 j 11:50	8°♍32'03	
opposition	1184 Feb 17 j 12:47	5°♍09'26	2°06'42
min. Earth dist.	1184 Feb 17 j 07:48	5°♍10'26	8.42006 AU
direct	1184 Apr 26 j 19:24	1°♍41'49	
evening set	1184 Aug 10 j 23:44	9°♍34'49	
conjunction	1184 Aug 28 j 13:01	11°♍44'48	1°52'08
minimum elong	1184 Aug 28 j 12:58	11°♍44'47	1°52'08
max. Earth dist.	1184 Aug 28 j 18:24	11°♍46'29	10.47965 AU
morning rise	1184 Sep 14 j 21:26	13°♍53'20	
retrograde	1184 Dec 24 j 07:04	21°♍21'40	
opposition	1185 Mar 01 j 16:18	18°♍00'29	2°28'06
min. Earth dist.	1185 Mar 01 j 13:03	18°♍01'07	8.54073 AU
direct	1185 May 10 j 11:23	14°♍33'54	

evening set	1185 Aug 24 j 09:19	22°♍18'59	
conjunction	1185 Sep 10 j 17:29	24°♍25'55	2°06'39
minimum elong	1185 Sep 10 j 17:27	24°♍25'55	2°06'39
max. Earth dist.	1185 Sep 10 j 20:31	24°♍26'51	10.59974 AU
morning rise	1185 Sep 27 j 20:53	26°♍31'25	
	1185 Oct 28 j 19:58	0°♎	
retrograde	1186 Jan 05 j 19:24	3°♎51'33	
opposition	1186 Mar 14 j 13:53	0°♎31'37	2°41'49
min. Earth dist.	1186 Mar 14 j 12:22	0°♎31'55	8.65943 AU
	1186 Mar 21 j 09:52	30°℞♍	
direct	1186 May 23 j 19:40	27°♍06'11	
	1186 Jul 23 j 23:00	0°♎	
evening set	1186 Sep 06 j 08:15	4°♎43'10	
conjunction	1186 Sep 23 j 11:44	6°♎47'20	2°14'53
minimum elong	1186 Sep 23 j 11:43	6°♎47'20	2°14'54
max. Earth dist.	1186 Sep 23 j 12:12	6°♎47'28	10.71464 AU
morning rise	1186 Oct 10 j 10:46	8°♎50'09	
retrograde	1187 Jan 17 j 23:41	16°♎03'07	
opposition	1187 Mar 27 j 06:11	12°♎44'16	2°47'47
min. Earth dist.	1187 Mar 27 j 06:00	12°♎44'18	8.76965 AU
direct	1187 Jun 05 j 22:38	9°♎20'01	
evening set	1187 Sep 18 j 21:14	16°♎49'13	
conjunction	1187 Oct 05 j 20:45	18°♎50'59	2°16'55
minimum elong	1187 Oct 05 j 20:44	18°♎50'59	2°16'55
max. Earth dist.	1187 Oct 05 j 19:30	18°♎50'37	10.81841 AU
morning rise	1187 Oct 22 j 16:03	20°♎51'32	
retrograde	1188 Jan 30 j 01:33	27°♎58'43	
opposition	1188 Apr 07 j 17:55	24°♎40'43	2°46'19
min. Earth dist.	1188 Apr 07 j 18:44	24°♎40'34	8.86632 AU
direct	1188 Jun 17 j 18:05	21°♎17'42	
evening set	1188 Sep 30 j 01:29	28°♎39'41	
	1188 Oct 11 j 09:25	0°♏	
conjunction	1188 Oct 16 j 21:51	0°♏39'31	2°13'01
minimum elong	1188 Oct 16 j 21:52	0°♏39'31	2°13'01
max. Earth dist.	1188 Oct 16 j 19:42	0°♏38'53	10.90705 AU
morning rise	1188 Nov 02 j 14:16	2°♏38'16	
retrograde	1189 Feb 10 j 00:09	9°♏40'59	
opposition	1189 Apr 20 j 01:59	6°♏23'35	2°37'56
min. Earth dist.	1189 Apr 20 j 04:25	6°♏23'08	8.94633 AU
direct	1189 Jun 30 j 05:13	3°♏01'43	
evening set	1189 Oct 11 j 22:20	10°♏17'14	
conjunction	1189 Oct 28 j 16:13	12°♏15'35	2°03'42
minimum elong	1189 Oct 28 j 16:14	12°♏15'36	2°03'41
max. Earth dist.	1189 Oct 28 j 12:18	12°♏14'26	10.97791 AU
morning rise	1189 Nov 14 j 06:49	14°♏13'04	
	1189 Nov 21 j 02:16	15°♏	
retrograde	1190 Feb 21 j 18:00	21°♏12'40	
opposition	1190 May 02 j 07:08	17°♏55'36	2°23'18
min. Earth dist.	1190 May 02 j 11:22	17°♏54'49	9.00729 AU
	1190 Jun 19 j 10:02	15°℞♏	
direct	1190 Jul 12 j 12:58	14°♏34'40	
	1190 Aug 04 j 12:02	15°♏	
evening set	1190 Oct 23 j 13:24	21°♏44'44	
conjunction	1190 Nov 09 j 05:26	23°♏42'02	1°49'31
minimum elong	1190 Nov 09 j 05:28	23°♏42'03	1°49'31
max. Earth dist.	1190 Nov 08 j 23:34	23°♏40'18	11.02884 AU
morning rise	1190 Nov 25 j 19:07	25°♏38'41	
	1191 Jan 06 j 23:53	0°♐	
retrograde	1191 Mar 05 j 11:38	2°♐36'36	
	1191 May 05 j 05:39	30°℞♏	
opposition	1191 May 14 j 10:10	29°♏19'34	2°03'13
min. Earth dist.	1191 May 14 j 15:27	29°♏18'35	9.04735 AU
direct	1191 Jul 24 j 16:52	25°♏59'26	
	1191 Oct 06 j 11:24	0°♐	
evening set	1191 Nov 04 j 00:03	3°♐05'06	
conjunction	1191 Nov 20 j 15:03	5°♐01'48	1°31'09
minimum elong	1191 Nov 20 j 15:06	5°♐01'49	1°31'09
max. Earth dist.	1191 Nov 20 j 08:37	4°♐59'54	11.05832 AU
morning rise	1191 Dec 07 j 04:26	6°♐58'04	
retrograde	1192 Mar 16 j 05:00	13°♐55'49	
opposition	1192 May 25 j 12:08	10°♐38'29	1°38'29
min. Earth dist.	1192 May 25 j 17:23	10°♐37'31	9.06535 AU
direct	1192 Aug 04 j 16:33	7°♐19'00	
evening set	1192 Nov 14 j 07:52	14°♐21'30	
conjunction	1192 Nov 30 j 22:30	16°♐18'01	1°09'19
minimum elong	1192 Nov 30 j 22:33	16°♐18'02	1°09'19
max. Earth dist.	1192 Nov 30 j 16:17	16°♐16'11	11.06538 AU
morning rise	1192 Dec 17 j 12:07	18°♐14'19	
retrograde	1193 Mar 28 j 01:35	25°♐13'24	
opposition	1193 Jun 06 j 13:58	21°♐55'34	1°10'02
min. Earth dist.	1193 Jun 06 j 19:28	21°♐54'33	9.06076 AU
direct	1193 Aug 16 j 14:10	18°♐36'30	
evening set	1193 Nov 25 j 14:59	25°♐37'15	
conjunction	1193 Dec 12 j 05:32	27°♐33'59	0°44'48
minimum elong	1193 Dec 12 j 05:34	27°♐33'59	0°44'48
max. Earth dist.	1193 Dec 11 j 22:36	27°♐31'56	11.04985 AU
morning rise	1193 Dec 28 j 19:59	29°♐30'44	
	1194 Jan 02 j 02:03	0°♑	
retrograde	1194 Apr 08 j 22:43	6°♑32'39	
opposition	1194 Jun 18 j 16:35	3°♑14'05	0°38'46
min. Earth dist.	1194 Jun 18 j 22:58	3°♑12'54	9.03386 AU
	1194 Aug 18 j 12:34	30°℞♐	
direct	1194 Aug 28 j 08:47	29°♐55'15	
	1194 Sep 07 j 05:12	0°♑	
evening set	1194 Dec 06 j 22:54	6°♑55'46	
conjunction	1194 Dec 23 j 13:44	8°♑53'03	0°18'25
minimum elong	1194 Dec 23 j 13:44	8°♑53'03	0°18'25
max. Earth dist.	1194 Dec 23 j 05:50	8°♑50'43	11.01239 AU
morning rise	1195 Jan 09 j 05:30	10°♑50'38	
retrograde	1195 Apr 20 j 23:28	17°♑56'59	
opposition	1195 Jun 30 j 21:18	14°♑37'29	0°05'45
min. Earth dist.	1195 Jul 01 j 03:54	14°♑36'15	8.98565 AU
desc. node	1195 Sep 03 j 08:30	11°♑20'24	
direct	1195 Sep 09 j 05:24	11°♑18'40	
evening set	1195 Dec 18 j 09:06	18°♑20'28	
conjunction	1196 Jan 04 j 00:46	20°♑18'41	-0°09'00
minimum elong	1196 Jan 04 j 00:45	20°♑18'41	0°09'01
behind sun begin	1196 Jan 03 j 18:46	20°♑16'55	
behind sun end	1196 Jan 04 j 06:45	20°♑20'27	
max. Earth dist.	1196 Jan 03 j 17:30	20°♑16'32	10.95423 AU
morning rise	1196 Jan 20 j 18:06	22°♑17'25	
retrograde	1196 May 02 j 07:01	29°♑29'44	
opposition	1196 Jul 12 j 04:51	26°♑09'06	-0°27'57
min. Earth dist.	1196 Jul 12 j 10:38	26°♑08'01	8.91774 AU
direct	1196 Sep 20 j 03:16	22°♑50'09	
evening set	1196 Dec 28 j 23:40	29°♑54'45	
	1196 Dec 29 j 17:32	0°♒	
conjunction	1197 Jan 14 j 16:31	1°♒54'13	-0°36'19
minimum elong	1197 Jan 14 j 16:30	1°♒54'13	0°36'19
max. Earth dist.	1197 Jan 14 j 10:21	1°♒52'22	10.87726 AU
morning rise	1197 Jan 31 j 11:39	3°♒54'27	
retrograde	1197 May 14 j 20:07	11°♒14'02	

opposition	1197 Jul 24 j 16:02	7°♒52'09	-1°01'05
min. Earth dist.	1197 Jul 24 j 20:45	7°♒51'16	8.83244 AU
direct	1197 Oct 02 j 02:32	4°♒32'52	
evening set	1198 Jan 09 j 20:05	11°♒41'49	
conjunction	1198 Jan 26 j 14:20	13°♒42'51	-1°02'34
minimum elong	1198 Jan 26 j 14:18	13°♒42'50	1°02'33
max. Earth dist.	1198 Jan 26 j 08:25	13°♒41'03	10.78430 AU
	1198 Feb 06 j 05:29	15°♒	
morning rise	1198 Feb 12 j 11:39	15°♒44'52	
retrograde	1198 May 27 j 16:55	23°♒12'54	
opposition	1198 Aug 06 j 08:09	19°♒49'42	-1°32'19
min. Earth dist.	1198 Aug 06 j 12:22	19°♒48'54	8.73301 AU
direct	1198 Oct 14 j 05:45	16°♒29'53	
evening set	1199 Jan 21 j 23:41	23°♒44'31	
conjunction	1199 Feb 07 j 19:42	25°♒47'26	-1°26'35
minimum elong	1199 Feb 07 j 19:39	25°♒47'25	1°26'34
max. Earth dist.	1199 Feb 07 j 14:06	25°♒45'43	10.67911 AU
morning rise	1199 Feb 24 j 19:38	27°♒51'32	
	1199 Mar 15 j 06:48	0°♓	
retrograde	1199 Jun 09 j 20:45	5°♓28'53	
opposition	1199 Aug 19 j 05:45	2°♓04'20	-2°00'11
min. Earth dist.	1199 Aug 19 j 09:28	2°♓03'37	8.62362 AU
	1199 Sep 17 j 07:43	30°℞♒	
direct	1199 Oct 26 j 13:33	28°♒43'48	
	1199 Dec 03 j 21:04	0°♓	
evening set	1200 Feb 03 j 11:52	6°♓05'22	
conjunction	1200 Feb 20 j 10:18	8°♓10'25	-1°47'09
minimum elong	1200 Feb 20 j 10:16	8°♓10'24	1°47'08
max. Earth dist.	1200 Feb 20 j 06:03	8°♓09'06	10.56619 AU
morning rise	1200 Mar 08 j 13:08	10°♓16'49	
retrograde	1200 Jun 22 j 07:01	18°♓03'56	
opposition	1200 Aug 31 j 08:59	14°♓38'03	-2°23'08
min. Earth dist.	1200 Aug 31 j 11:39	14°♓37'32	8.50913 AU
direct	1200 Nov 07 j 05:29	11°♓16'38	
evening set	1201 Feb 15 j 09:39	18°♓46'06	
conjunction	1201 Mar 04 j 11:08	20°♓53'33	-2°03'00
minimum elong	1201 Mar 04 j 11:07	20°♓53'32	2°03'00
max. Earth dist.	1201 Mar 04 j 09:11	20°♓52'56	10.45073 AU
morning rise	1201 Mar 21 j 17:10	23°♓02'27	
	1201 Jun 01 j 19:47	0°♈	
retrograde	1201 Jul 06 j 02:42	0°♈59'15	
	1201 Aug 09 j 18:36	30°℞♓	
opposition	1201 Sep 13 j 18:16	27°♓32'06	-2°39'35
min. Earth dist.	1201 Sep 13 j 19:03	27°♓31'57	8.39492 AU
direct	1201 Nov 20 j 03:21	24°♓09'44	
	1202 Feb 13 j 21:53	0°♈	
evening set	1202 Feb 28 j 17:33	1°♈47'35	
conjunction	1202 Mar 17 j 22:36	3°♈57'36	-2°12'58
minimum elong	1202 Mar 17 j 22:35	3°♈57'36	2°12'58
max. Earth dist.	1202 Mar 17 j 22:46	3°♈57'39	10.33847 AU
morning rise	1202 Apr 04 j 08:13	6°♈09'08	
retrograde	1202 Jul 20 j 06:23	14°♈14'52	
opposition	1202 Sep 27 j 09:27	10°♈46'39	-2°48'07
min. Earth dist.	1202 Sep 27 j 08:19	10°♈46'53	8.28686 AU
direct	1202 Dec 03 j 07:09	7°♈23'15	
evening set	1203 Mar 14 j 11:54	15°♈09'36	
conjunction	1203 Mar 31 j 21:01	17°♈22'16	-2°16'03
minimum elong	1203 Mar 31 j 21:02	17°♈22'16	2°16'03
max. Earth dist.	1203 Mar 31 j 22:47	17°♈22'50	10.23554 AU
morning rise	1203 Apr 18 j 10:44	19°♈36'26	
retrograde	1203 Aug 03 j 15:39	27°♈49'38	
opposition	1203 Oct 11 j 05:54	24°♈20'35	-2°47'36
min. Earth dist.	1203 Oct 11 j 03:31	24°♈21'04	8.19094 AU
direct	1203 Dec 16 j 19:36	20°♈56'02	
evening set	1204 Mar 27 j 16:07	28°♈50'32	
	1204 Apr 05 j 17:48	0°♉	
conjunction	1204 Apr 14 j 05:45	1°♉05'47	-2°11'34
minimum elong	1204 Apr 14 j 05:48	1°♉05'48	2°11'34
max. Earth dist.	1204 Apr 14 j 08:44	1°♉06'45	10.14769 AU
morning rise	1204 May 01 j 23:46	3°♉22'26	
retrograde	1204 Aug 17 j 04:01	11°♉41'00	
opposition	1204 Oct 24 j 06:47	8°♉11'25	-2°37'26
min. Earth dist.	1204 Oct 24 j 03:39	8°♉12'03	8.11241 AU
direct	1204 Dec 29 j 16:05	4°♉45'42	
evening set	1205 Apr 11 j 05:03	12°♉47'22	
conjunction	1205 Apr 28 j 23:19	15°♉04'59	-1°59'21
minimum elong	1205 Apr 28 j 23:22	15°♉05'00	1°59'21
	1205 Apr 28 j 08:00	15°♉	
max. Earth dist.	1205 Apr 29 j 03:19	15°♉06'17	10.07966 AU
morning rise	1205 May 16 j 21:23	17°♉23'46	
retrograde	1205 Aug 31 j 18:48	25°♉45'10	
opposition	1205 Nov 07 j 10:43	22°♉15'21	-2°17'42
min. Earth dist.	1205 Nov 07 j 07:08	22°♉16'06	8.05542 AU
direct	1206 Jan 12 j 18:37	18°♉48'32	
evening set	1206 Apr 26 j 01:01	26°♉56'02	
conjunction	1206 May 13 j 23:41	29°♉15'34	-1°39'50
minimum elong	1206 May 13 j 23:44	29°♉15'35	1°39'50
max. Earth dist.	1206 May 14 j 04:44	29°♉17'13	10.03488 AU
	1206 May 19 j 15:59	0°♊	
morning rise	1206 Jun 01 j 01:10	1°♊35'58	
retrograde	1206 Sep 15 j 10:22	9°♊57'36	
opposition	1206 Nov 21 j 16:23	6°♊27'55	-1°49'21
min. Earth dist.	1206 Nov 21 j 12:08	6°♊28'47	8.02278 AU
direct	1207 Jan 27 j 01:54	3°♊00'08	
evening set	1207 May 11 j 02:03	11°♊11'53	
conjunction	1207 May 29 j 04:19	13°♊32'43	-1°14'05
minimum elong	1207 May 29 j 04:22	13°♊32'44	1°14'05
max. Earth dist.	1207 May 29 j 10:24	13°♊34'42	10.01574 AU
morning rise	1207 Jun 16 j 08:08	15°♊54'01	
retrograde	1207 Sep 30 j 00:48	24°♊13'18	
opposition	1207 Dec 05 j 22:24	20°♊44'07	-1°14'06
min. Earth dist.	1207 Dec 05 j 17:17	20°♊45'11	8.01687 AU
direct	1208 Feb 10 j 13:19	17°♊15'35	
evening set	1208 May 25 j 05:54	25°♊29'43	
conjunction	1208 Jun 12 j 10:20	27°♊50'59	-0°43'45
minimum elong	1208 Jun 12 j 10:22	27°♊51'00	0°43'45
max. Earth dist.	1208 Jun 12 j 17:21	27°♊53'16	10.02431 AU
	1208 Jun 29 j 00:24	0°♋	
morning rise	1208 Jun 30 j 14:52	0°♋12'17	
retrograde	1208 Oct 13 j 11:04	8°♋26'48	
opposition	1208 Dec 19 j 03:10	4°♋58'25	-0°34'22
min. Earth dist.	1208 Dec 18 j 21:20	4°♋59'38	8.03928 AU
direct	1209 Feb 24 j 02:26	1°♋29'23	
evening set	1209 Jun 09 j 09:29	9°♋43'43	
conjunction	1209 Jun 27 j 14:21	12°♋04'27	-0°10'55
minimum elong	1209 Jun 27 j 14:21	12°♋04'28	0°10'56
behind sun begin	1209 Jun 27 j 08:52	12°♋02'42	
behind sun end	1209 Jun 27 j 19:50	12°♋06'13	
max. Earth dist.	1209 Jun 27 j 22:02	12°♋06'56	10.06109 AU
morning rise	1209 Jul 15 j 17:54	14°♋24'48	
retrograde	1209 Oct 27 j 15:54	22°♋32'32	
asc. node	1209 Oct 29 j 11:09	22°♋32'21	

opposition	1210 Jan 02 j 05:22	19°♋05'11	0°07'05
min. Earth dist.	1210 Jan 01 j 23:18	19°♋06'26	8.08934 AU
direct	1210 Mar 10 j 14:48	15°♋35'54	
evening set	1210 Jun 24 j 09:45	23°♋48'15	
conjunction	1210 Jul 12 j 13:15	26°♋07'34	0°22'18
minimum elong	1210 Jul 12 j 13:14	26°♋07'34	0°22'18
max. Earth dist.	1210 Jul 12 j 20:53	26°♋10'01	10.12408 AU
morning rise	1210 Jul 30 j 14:14	28°♋26'05	
	1210 Aug 12 j 06:18	0°♌	
retrograde	1210 Nov 10 j 14:14	6°♌25'35	
opposition	1211 Jan 16 j 03:36	2°♌59'27	0°47'28
min. Earth dist.	1211 Jan 15 j 22:10	3°♌00'33	8.16398 AU
	1211 Mar 01 j 10:35	30°℞♋	
direct	1211 Mar 25 j 00:57	29°♋30'11	
	1211 Apr 17 j 16:30	0°♌	
evening set	1211 Jul 09 j 04:18	7°♌38'38	
conjunction	1211 Jul 27 j 04:45	9°♌55'44	0°53'40
minimum elong	1211 Jul 27 j 04:43	9°♌55'43	0°53'39
max. Earth dist.	1211 Jul 27 j 11:17	9°♌57'49	10.20921 AU
morning rise	1211 Aug 14 j 01:47	12°♌11'44	
	1211 Sep 06 j 13:02	15°♌	
retrograde	1211 Nov 24 j 04:48	20°♌02'07	
opposition	1212 Jan 29 j 20:44	16°♌37'19	1°24'18
min. Earth dist.	1212 Jan 29 j 16:09	16°♌38'14	8.25844 AU
	1212 Feb 19 j 18:01	15°℞♌	
direct	1212 Apr 07 j 07:37	13°♌08'22	
	1212 May 24 j 08:23	15°♌	
evening set	1212 Jul 22 j 14:35	21°♌11'16	
conjunction	1212 Aug 09 j 10:49	23°♌25'37	1°21'26
minimum elong	1212 Aug 09 j 10:46	23°♌25'36	1°21'26
max. Earth dist.	1212 Aug 09 j 15:59	23°♌27'15	10.31120 AU
morning rise	1212 Aug 27 j 03:00	25°♌38'40	
	1212 Oct 04 j 17:28	0°♍	
retrograde	1212 Dec 06 j 09:24	3°♍19'42	
	1213 Feb 10 j 13:34	30°℞♌	
opposition	1213 Feb 11 j 08:19	29°♌56'15	1°55'38
min. Earth dist.	1213 Feb 11 j 04:21	29°♌57'03	8.36696 AU
direct	1213 Apr 21 j 10:17	26°♌27'55	
	1213 Jun 27 j 05:25	0°♍	
evening set	1213 Aug 05 j 14:51	4°♍23'58	
conjunction	1213 Aug 23 j 06:14	6°♍35'17	1°44'18
minimum elong	1213 Aug 23 j 06:11	6°♍35'16	1°44'18
max. Earth dist.	1213 Aug 23 j 10:13	6°♍36'32	10.42407 AU
morning rise	1213 Sep 09 j 17:11	8°♍45'12	
retrograde	1213 Dec 19 j 06:54	16°♍17'09	
opposition	1214 Feb 24 j 13:53	12°♍55'00	2°20'09
min. Earth dist.	1214 Feb 24 j 10:15	12°♍55'43	8.48329 AU
direct	1214 May 05 j 05:31	9°♍27'31	
evening set	1214 Aug 19 j 04:38	17°♍15'55	
conjunction	1214 Sep 05 j 15:04	19°♍24'10	2°01'23
minimum elong	1214 Sep 05 j 15:01	19°♍24'09	2°01'23
max. Earth dist.	1214 Sep 05 j 18:17	19°♍25'10	10.54160 AU
morning rise	1214 Sep 22 j 20:42	21°♍30'58	
retrograde	1214 Dec 31 j 22:18	28°♍54'26	
opposition	1215 Mar 09 j 13:27	25°♍33'29	2°37'07
min. Earth dist.	1215 Mar 09 j 10:40	25°♍34'02	8.60124 AU
direct	1215 May 18 j 16:24	22°♍07'03	
evening set	1215 Sep 01 j 07:43	29°♍47'25	
	1215 Sep 03 j 01:46	0°♎	
conjunction	1215 Sep 18 j 13:22	1°♎52'47	2°12'15
minimum elong	1215 Sep 18 j 13:20	1°♎52'47	2°12'15
max. Earth dist.	1215 Sep 18 j 15:46	1°♎53'31	10.65789 AU
morning rise	1215 Oct 05 j 14:08	3°♎56'44	
retrograde	1216 Jan 13 j 06:20	11°♎12'34	
opposition	1216 Mar 21 j 07:45	7°♎52'45	2°46'19
min. Earth dist.	1216 Mar 21 j 06:27	7°♎53'00	8.71521 AU
direct	1216 May 30 j 20:17	4°♎27'29	
evening set	1216 Sep 13 j 00:25	11°♎59'50	
conjunction	1216 Sep 30 j 01:41	14°♎02'37	2°16'52
minimum elong	1216 Sep 30 j 01:40	14°♎02'36	2°16'52
max. Earth dist.	1216 Sep 30 j 02:23	14°♎02'49	10.76772 AU
morning rise	1216 Oct 16 j 22:25	16°♎04'05	
retrograde	1217 Jan 24 j 08:38	23°♎13'25	
opposition	1217 Apr 02 j 21:03	19°♎54'35	2°47'55
min. Earth dist.	1217 Apr 02 j 21:28	19°♎54'30	8.82024 AU
direct	1217 Jun 12 j 17:57	16°♎30'33	
evening set	1217 Sep 25 j 07:51	23°♎55'15	
conjunction	1217 Oct 12 j 05:25	25°♎55'51	2°15'26
minimum elong	1217 Oct 12 j 05:26	25°♎55'51	2°15'26
max. Earth dist.	1217 Oct 12 j 03:56	25°♎55'24	10.86649 AU
morning rise	1217 Oct 28 j 23:08	27°♎55'18	
	1217 Nov 16 j 07:42	0°♏	
retrograde	1218 Feb 05 j 06:07	4°♏59'22	
opposition	1218 Apr 15 j 05:49	1°♏41'19	2°42'22
min. Earth dist.	1218 Apr 15 j 07:16	1°♏41'02	8.91196 AU
	1218 May 08 j 18:07	30°℞♎	
direct	1218 Jun 25 j 08:42	28°♎18'32	
	1218 Aug 10 j 20:53	0°♏	
evening set	1218 Oct 07 j 07:09	5°♏36'17	
conjunction	1218 Oct 24 j 01:57	7°♏35'09	2°08'21
minimum elong	1218 Oct 24 j 01:58	7°♏35'09	2°08'21
max. Earth dist.	1218 Oct 23 j 23:17	7°♏34'21	10.95021 AU
morning rise	1218 Nov 09 j 17:24	9°♏33'03	
	1219 Jan 04 j 15:05	15°♏	
retrograde	1219 Feb 17 j 01:08	16°♏33'13	
	1219 Apr 02 j 22:13	15°℞♏	
opposition	1219 Apr 27 j 11:19	13°♏15'44	2°30'19
min. Earth dist.	1219 Apr 27 j 13:14	13°♏15'23	8.98669 AU
direct	1219 Jul 07 j 18:31	9°♏54'11	
	1219 Sep 30 j 04:26	15°♏	
evening set	1219 Oct 18 j 23:41	17°♏05'50	
conjunction	1219 Nov 04 j 16:31	19°♏03'25	1°56'11
minimum elong	1219 Nov 04 j 16:33	19°♏03'26	1°56'10
max. Earth dist.	1219 Nov 04 j 13:31	19°♏02'32	11.01558 AU
morning rise	1219 Nov 21 j 06:25	21°♏00'13	
retrograde	1220 Feb 28 j 20:01	27°♏57'58	
opposition	1220 May 08 j 14:25	24°♏40'51	2°12'28
min. Earth dist.	1220 May 08 j 17:10	24°♏40'20	9.04173 AU
direct	1220 Jul 18 j 21:51	21°♏20'24	
evening set	1220 Oct 29 j 11:20	28°♏27'01	
	1220 Nov 11 j 18:01	0°♐	
conjunction	1220 Nov 15 j 02:46	0°♐23'47	1°39'32
minimum elong	1220 Nov 15 j 02:49	0°♐23'47	1°39'33
max. Earth dist.	1220 Nov 14 j 22:45	0°♐22'36	11.06030 AU
morning rise	1220 Dec 01 j 16:03	2°♐19'58	
retrograde	1221 Mar 11 j 12:08	9°♐16'44	
opposition	1221 May 20 j 15:56	5°♐59'42	1°49'39
min. Earth dist.	1221 May 20 j 20:18	5°♐58'54	9.07524 AU
direct	1221 Jul 30 j 20:52	2°♐40'10	
evening set	1221 Nov 09 j 19:38	9°♐43'03	
conjunction	1221 Nov 26 j 10:13	11°♐39'23	1°19'08
minimum elong	1221 Nov 26 j 10:15	11°♐39'24	1°19'09

max. Earth dist.	1221 Nov 26 j 04:24	11°♐37'40	11.08287 AU
morning rise	1221 Dec 12 j 23:41	13°♐35'24	
retrograde	1222 Mar 23 j 06:02	20°♐32'45	
opposition	1222 Jun 01 j 16:56	17°♐15'32	1°22'44
min. Earth dist.	1222 Jun 01 j 22:11	17°♐14'34	9.08604 AU
direct	1222 Aug 11 j 19:13	13°♐56'43	
evening set	1222 Nov 21 j 02:13	20°♐57'11	
conjunction	1222 Dec 07 j 16:34	22°♐53'30	0°55'44
minimum elong	1222 Dec 07 j 16:35	22°♐53'31	0°55'44
max. Earth dist.	1222 Dec 07 j 10:21	22°♐51'41	11.08243 AU
morning rise	1222 Dec 24 j 06:34	24°♐49'45	
	1223 Feb 15 j 00:41	0°♑	
retrograde	1223 Apr 04 j 01:31	1°♑49'13	
	1223 May 23 j 22:59	30°℞♐	
opposition	1223 Jun 13 j 18:23	28°♐31'32	0°52'39
min. Earth dist.	1223 Jun 13 j 23:33	28°♐30'36	9.07370 AU
direct	1223 Aug 23 j 14:37	25°♐13'14	
	1223 Nov 12 j 09:55	0°♑	
evening set	1223 Dec 02 j 08:52	2°♑12'41	
conjunction	1223 Dec 18 j 23:30	4°♑09'23	0°30'07
minimum elong	1223 Dec 18 j 23:31	4°♑09'23	0°30'07
max. Earth dist.	1223 Dec 18 j 17:42	4°♑07'40	11.05887 AU
morning rise	1224 Jan 04 j 14:25	6°♑06'14	
retrograde	1224 Apr 15 j 01:30	13°♑09'22	
opposition	1224 Jun 24 j 21:19	9°♑50'58	0°20'22
min. Earth dist.	1224 Jun 25 j 02:19	9°♑50'02	9.03854 AU
direct	1224 Sep 03 j 10:08	6°♑32'54	
evening set	1224 Dec 12 j 17:16	13°♑32'50	
conjunction	1224 Dec 29 j 08:27	15°♑30'16	0°03'12
minimum elong	1224 Dec 29 j 08:27	15°♑30'16	0°03'12
behind sun begin	1224 Dec 29 j 01:30	15°♑28'14	
behind sun end	1224 Dec 29 j 15:24	15°♑32'18	
max. Earth dist.	1224 Dec 29 j 01:55	15°♑28'21	11.01274 AU
morning rise	1225 Jan 15 j 00:48	17°♑28'06	
desc. node	1225 Feb 10 j 12:54	20°♑22'18	
retrograde	1225 Apr 27 j 06:25	24°♑36'20	
opposition	1225 Jul 07 j 02:42	21°♑17'00	-0°13'03
min. Earth dist.	1225 Jul 07 j 08:28	21°♑15'56	8.98133 AU
direct	1225 Sep 15 j 05:01	17°♑58'54	
evening set	1225 Dec 24 j 05:11	25°♑00'53	
conjunction	1226 Jan 09 j 21:08	26°♑59'23	-0°24'15
minimum elong	1226 Jan 09 j 21:08	26°♑59'22	0°24'16
max. Earth dist.	1226 Jan 09 j 13:33	26°♑57'07	10.94505 AU
morning rise	1226 Jan 26 j 15:19	28°♑58'32	
	1226 Feb 04 j 12:52	0°♒	
retrograde	1226 May 09 j 13:43	6°♒13'23	
opposition	1226 Jul 19 j 11:27	2°♒52'53	-0°46'27
min. Earth dist.	1226 Jul 19 j 17:49	2°♒51'41	8.90342 AU
	1226 Sep 04 j 09:29	30°℞♑	
direct	1226 Sep 27 j 02:40	29°♑34'28	
	1226 Oct 19 j 13:56	0°♒	
evening set	1227 Jan 04 j 22:02	6°♒40'08	
conjunction	1227 Jan 21 j 15:20	8°♒40'03	-0°51'02
minimum elong	1227 Jan 21 j 15:18	8°♒40'03	0°51'02
max. Earth dist.	1227 Jan 21 j 07:53	8°♒37'49	10.85763 AU
morning rise	1227 Feb 07 j 11:31	10°♒40'52	
	1227 Mar 20 j 01:43	15°♒	
retrograde	1227 May 22 j 06:07	18°♒03'44	
	1227 Jul 28 j 00:09	15°℞♒	
opposition	1227 Aug 01 j 00:36	14°♒41'52	-1°18'35
min. Earth dist.	1227 Aug 01 j 06:31	14°♒40'45	8.80742 AU
direct	1227 Oct 09 j 05:07	11°♒22'57	
	1227 Dec 15 j 14:02	15°♒	
evening set	1228 Jan 16 j 21:25	18°♒33'45	
conjunction	1228 Feb 02 j 16:32	20°♒35'27	-1°16'07
minimum elong	1228 Feb 02 j 16:29	20°♒35'26	1°16'06
max. Earth dist.	1228 Feb 02 j 10:17	20°♒33'33	10.75388 AU
morning rise	1228 Feb 19 j 14:59	22°♒38'15	
	1228 May 19 j 22:39	0°♓	
retrograde	1228 Jun 03 j 06:43	0°♓10'12	
	1228 Jun 17 j 15:25	30°℞♒	
opposition	1228 Aug 12 j 18:51	26°♒46'51	-1°48'03
min. Earth dist.	1228 Aug 12 j 23:29	26°♒45'58	8.69753 AU
direct	1228 Oct 20 j 10:03	23°♒27'11	
	1229 Jan 21 j 23:48	0°♓	
evening set	1229 Jan 28 j 05:01	0°♓44'29	
conjunction	1229 Feb 14 j 02:15	2°♓48'15	-1°38'20
minimum elong	1229 Feb 14 j 02:13	2°♓48'14	1°38'19
max. Earth dist.	1229 Feb 13 j 20:40	2°♓46'32	10.63866 AU
morning rise	1229 Mar 03 j 03:24	4°♓53'17	
retrograde	1229 Jun 16 j 13:44	12°♓34'58	
opposition	1229 Aug 25 j 18:40	9°♓10'05	-2°13'22
min. Earth dist.	1229 Aug 25 j 22:21	9°♓09'22	8.57898 AU
direct	1229 Nov 01 j 20:49	5°♓49'25	
evening set	1230 Feb 09 j 21:43	13°♓14'20	
conjunction	1230 Feb 26 j 21:30	15°♓20'26	-1°56'26
minimum elong	1230 Feb 26 j 21:28	15°♓20'25	1°56'26
max. Earth dist.	1230 Feb 26 j 16:28	15°♓18'52	10.51759 AU
morning rise	1230 Mar 16 j 01:51	17°♓27'57	
retrograde	1230 Jun 30 j 05:05	25°♓19'33	
opposition	1230 Sep 08 j 00:42	21°♓53'10	-2°32'56
min. Earth dist.	1230 Sep 08 j 03:37	21°♓52'36	8.45755 AU
direct	1230 Nov 14 j 14:37	18°♓31'20	
evening set	1231 Feb 23 j 00:10	26°♓04'36	
conjunction	1231 Mar 12 j 03:15	28°♓13'15	-2°09'13
minimum elong	1231 Mar 12 j 03:13	28°♓13'15	2°09'13
max. Earth dist.	1231 Mar 11 j 23:34	28°♓12'05	10.39665 AU
	1231 Mar 26 j 07:33	0°♈	
morning rise	1231 Mar 29 j 11:12	0°♈23'26	
retrograde	1231 Jul 14 j 03:40	8°♈24'35	
opposition	1231 Sep 21 j 12:45	4°♈56'47	-2°45'17
min. Earth dist.	1231 Sep 21 j 14:43	4°♈56'24	8.33927 AU
direct	1231 Nov 27 j 15:47	1°♈33'41	
evening set	1232 Mar 07 j 13:05	9°♈15'42	
conjunction	1232 Mar 24 j 20:09	11°♈27'04	-2°15'34
minimum elong	1232 Mar 24 j 20:09	11°♈27'03	2°15'34
max. Earth dist.	1232 Mar 24 j 18:44	11°♈26'36	10.28193 AU
morning rise	1232 Apr 11 j 08:01	13°♈39'57	
retrograde	1232 Jul 27 j 08:29	21°♈49'35	
opposition	1232 Oct 04 j 06:16	18°♈20'36	-2°49'05
min. Earth dist.	1232 Oct 04 j 06:36	18°♈20'32	8.23025 AU
direct	1232 Dec 10 j 01:17	14°♈56'11	
evening set	1233 Mar 21 j 12:15	22°♈46'52	
conjunction	1233 Apr 07 j 23:50	25°♈00'58	-2°14'38
minimum elong	1233 Apr 07 j 23:51	25°♈00'58	2°14'38
max. Earth dist.	1233 Apr 08 j 00:50	25°♈01'18	10.17963 AU
morning rise	1233 Apr 25 j 15:49	27°♈16'30	
	1233 May 18 j 03:55	0°♉	
retrograde	1233 Aug 10 j 18:50	5°♉32'55	
opposition	1233 Oct 18 j 04:56	2°♉03'04	-2°43'26
min. Earth dist.	1233 Oct 18 j 03:20	2°♉03'23	8.13647 AU
	1233 Nov 14 j 05:48	30°℞♈	
direct	1233 Dec 23 j 17:40	28°♈37'22	

	1234 Jan 31 j 12:03	0°♉	
evening set	1234 Apr 04 j 20:49	6°♉36'00	
conjunction	1234 Apr 22 j 13:07	8°♉52'42	-2°05'59
minimum elong	1234 Apr 22 j 13:10	8°♉52'43	2°05'59
max. Earth dist.	1234 Apr 22 j 16:26	8°♉53'47	10.09563 AU
morning rise	1234 May 10 j 09:16	11°♉10'41	
	1234 Jun 11 j 11:49	15°♉	
retrograde	1234 Aug 25 j 10:03	19°♉31'35	
opposition	1234 Nov 01 j 07:38	16°♉01'12	-2°28'04
min. Earth dist.	1234 Nov 01 j 04:17	16°♉01'53	8.06348 AU
	1234 Nov 13 j 22:12	15°℞♉	
direct	1235 Jan 06 j 16:05	12°♉34'18	
	1235 Feb 27 j 20:09	15°♉	
evening set	1235 Apr 19 j 13:50	20°♉39'46	
conjunction	1235 May 07 j 10:44	22°♉58'42	-1°49'44
minimum elong	1235 May 07 j 10:48	22°♉58'43	1°49'45
max. Earth dist.	1235 May 07 j 15:38	23°♉00'18	10.03507 AU
morning rise	1235 May 25 j 10:43	25°♉18'40	
	1235 Jul 04 j 14:42	0°♊	
retrograde	1235 Sep 09 j 02:56	3°♊41'17	
opposition	1235 Nov 15 j 12:55	0°♊10'48	-2°03'30
min. Earth dist.	1235 Nov 15 j 08:32	0°♊11'43	8.01585 AU
	1235 Nov 17 j 17:10	30°℞♉	
direct	1236 Jan 20 j 20:52	26°♉42'48	
	1236 Mar 22 j 08:00	0°♊	
evening set	1236 May 03 j 13:15	4°♊53'33	
conjunction	1236 May 21 j 14:05	7°♊14'07	-1°26'40
minimum elong	1236 May 21 j 14:09	7°♊14'08	1°26'40
max. Earth dist.	1236 May 21 j 19:55	7°♊16'02	10.00179 AU
morning rise	1236 Jun 08 j 17:02	9°♊35'23	
retrograde	1236 Sep 22 j 18:55	17°♊56'54	
opposition	1236 Nov 28 j 19:26	14°♊26'44	-1°31'07
min. Earth dist.	1236 Nov 28 j 14:33	14°♊27'45	7.99674 AU
direct	1237 Feb 03 j 07:04	10°♊57'52	
evening set	1237 May 18 j 16:24	19°♊11'54	
conjunction	1237 Jun 05 j 19:59	21°♊33'18	-0°58'10
minimum elong	1237 Jun 05 j 20:02	21°♊33'19	0°58'11
max. Earth dist.	1237 Jun 06 j 02:37	21°♊35'28	9.99800 AU
morning rise	1237 Jun 24 j 00:31	23°♊54'59	
	1237 Aug 18 j 05:28	0°♋	
retrograde	1237 Oct 07 j 07:01	2°♋12'45	
	1237 Nov 27 j 06:42	30°℞♊	
opposition	1237 Dec 13 j 01:27	28°♊43'19	-0°53'03
min. Earth dist.	1237 Dec 12 j 20:05	28°♊44'26	8.00756 AU
direct	1238 Feb 17 j 20:31	25°♊13'51	
	1238 May 04 j 22:48	0°♋	
evening set	1238 Jun 02 j 20:42	3°♋29'01	
conjunction	1238 Jun 21 j 01:32	5°♋50'20	-0°26'10
minimum elong	1238 Jun 21 j 01:33	5°♋50'20	0°26'11
max. Earth dist.	1238 Jun 21 j 08:43	5°♋52'40	10.02407 AU
morning rise	1238 Jul 09 j 06:01	8°♋11'28	
retrograde	1238 Oct 21 j 14:04	16°♋23'13	
opposition	1238 Dec 27 j 05:17	12°♋54'50	-0°11'58
min. Earth dist.	1238 Dec 26 j 23:26	12°♋56'02	8.04776 AU
direct	1239 Mar 04 j 09:54	9°♋25'06	
asc. node	1239 Apr 15 j 05:10	10°♋58'12	
evening set	1239 Jun 17 j 23:12	17°♋39'15	
conjunction	1239 Jul 06 j 03:34	19°♋59'32	0°07'14
minimum elong	1239 Jul 06 j 03:33	19°♋59'31	0°07'14
behind sun begin	1239 Jul 05 j 20:49	19°♋57'22	
behind sun end	1239 Jul 06 j 10:17	20°♋01'41	
max. Earth dist.	1239 Jul 06 j 11:04	20°♋01'56	10.07832 AU
morning rise	1239 Jul 24 j 06:12	22°♋19'12	
	1239 Oct 15 j 07:50	0°♌	
retrograde	1239 Nov 04 j 15:54	0°♌23'14	
	1239 Nov 25 j 02:35	30°℞♋	
opposition	1240 Jan 10 j 05:44	26°♋56'09	0°29'18
min. Earth dist.	1240 Jan 09 j 23:17	26°♋57'28	8.11471 AU
direct	1240 Mar 17 j 21:49	23°♋26'31	
	1240 Jun 18 j 15:56	0°♌	
evening set	1240 Jul 01 j 21:02	1°♌37'35	
conjunction	1240 Jul 19 j 23:09	3°♌55'57	0°39'40
minimum elong	1240 Jul 19 j 23:07	3°♌55'57	0°39'40
max. Earth dist.	1240 Jul 20 j 07:03	3°♌58'30	10.15717 AU
morning rise	1240 Aug 06 j 22:17	6°♌13'22	
retrograde	1240 Nov 17 j 10:44	14°♌08'37	
opposition	1241 Jan 23 j 01:40	10°♌43'00	1°08'04
min. Earth dist.	1241 Jan 22 j 19:04	10°♌44'21	8.20418 AU
direct	1241 Apr 01 j 06:24	7°♌13'49	
	1241 Jul 13 j 19:12	15°♌	
evening set	1241 Jul 16 j 11:45	15°♌20'00	
conjunction	1241 Aug 03 j 10:14	17°♌35'49	1°09'18
minimum elong	1241 Aug 03 j 10:11	17°♌35'48	1°09'18
max. Earth dist.	1241 Aug 03 j 18:02	17°♌38'17	10.25581 AU
morning rise	1241 Aug 21 j 04:44	19°♌50'24	
retrograde	1241 Nov 30 j 21:12	27°♌36'20	
opposition	1242 Feb 05 j 16:18	24°♌12'17	1°42'09
min. Earth dist.	1242 Feb 05 j 10:25	24°♌13'28	8.31080 AU
direct	1242 Apr 15 j 10:37	20°♌43'47	
evening set	1242 Jul 30 j 17:28	28°♌43'39	
	1242 Aug 09 j 23:16	0°♍	
conjunction	1242 Aug 17 j 11:20	0°♍56'30	1°34'33
minimum elong	1242 Aug 17 j 11:17	0°♍56'29	1°34'34
max. Earth dist.	1242 Aug 17 j 18:06	0°♍58'37	10.36836 AU
morning rise	1242 Sep 04 j 00:38	3°♍07'57	
retrograde	1242 Dec 13 j 23:56	10°♍44'34	
opposition	1243 Feb 19 j 01:16	7°♍22'03	2°09'53
min. Earth dist.	1243 Feb 18 j 20:46	7°♍22'57	8.42828 AU
direct	1243 Apr 29 j 08:26	3°♍54'28	
evening set	1243 Aug 13 j 13:03	11°♍46'57	
conjunction	1243 Aug 31 j 01:45	13°♍56'41	1°54'20
minimum elong	1243 Aug 31 j 01:42	13°♍56'40	1°54'21
max. Earth dist.	1243 Aug 31 j 06:37	13°♍58'12	10.48841 AU
morning rise	1243 Sep 17 j 09:44	16°♍04'57	
retrograde	1243 Dec 26 j 18:23	23°♍32'37	
opposition	1244 Mar 03 j 04:17	20°♍11'33	2°30'18
min. Earth dist.	1244 Mar 03 j 01:12	20°♍12'09	8.55013 AU
direct	1244 May 11 j 24:00	16°♍45'04	
evening set	1244 Aug 25 j 21:43	24°♍29'31	
conjunction	1244 Sep 12 j 05:21	26°♍36'12	2°08'02
minimum elong	1244 Sep 12 j 05:19	26°♍36'12	2°08'03
max. Earth dist.	1244 Sep 12 j 08:02	26°♍37'02	10.60966 AU
morning rise	1244 Sep 29 j 08:23	28°♍41'28	
	1244 Oct 10 j 10:37	0°♎	
retrograde	1245 Jan 07 j 04:39	6°♎00'56	
opposition	1245 Mar 16 j 01:29	2°♎41'07	2°42'58
min. Earth dist.	1245 Mar 15 j 23:16	2°♎41'32	8.66994 AU
	1245 Apr 25 j 04:44	30°℞♍	
direct	1245 May 25 j 09:16	29°♍15'48	
	1245 Jun 24 j 08:24	0°♎	
evening set	1245 Sep 07 j 19:32	6°♎52'02	
conjunction	1245 Sep 24 j 22:40	8°♎55'56	2°15'26

minimum elong	1245 Sep 24 j 22:39	8°♎55'56	2°15'26
max. Earth dist.	1245 Sep 24 j 23:54	8°♎56'19	10.72577 AU
morning rise	1245 Oct 11 j 21:18	10°♎58'30	
retrograde	1246 Jan 19 j 10:32	18°♎10'50	
opposition	1246 Mar 28 j 17:16	14°♎52'03	2°47'55
min. Earth dist.	1246 Mar 28 j 16:09	14°♎52'16	8.78135 AU
direct	1246 Jun 07 j 11:02	11°♎27'58	
evening set	1246 Sep 20 j 07:31	18°♎56'13	
conjunction	1246 Oct 07 j 06:49	20°♎57'46	2°16'39
minimum elong	1246 Oct 07 j 06:49	20°♎57'46	2°16'38
max. Earth dist.	1246 Oct 07 j 06:40	20°♎57'43	10.83064 AU
morning rise	1246 Oct 24 j 01:44	22°♎58'03	
	1247 Jan 22 j 03:59	0°♏	
retrograde	1247 Jan 31 j 11:34	0°♏04'30	
	1247 Feb 09 j 19:03	30°℞♎	
opposition	1247 Apr 10 j 04:21	26°♎46'34	2°45'29
min. Earth dist.	1247 Apr 10 j 05:02	26°♎46'26	8.87883 AU
direct	1247 Jun 20 j 03:48	23°♎23'42	
	1247 Sep 26 j 00:07	0°♏	
evening set	1247 Oct 02 j 10:51	0°♏44'41	
conjunction	1247 Oct 19 j 06:55	2°♏44'18	2°12'00
minimum elong	1247 Oct 19 j 06:56	2°♏44'18	2°11'59
max. Earth dist.	1247 Oct 19 j 04:55	2°♏43'42	10.91967 AU
morning rise	1247 Nov 04 j 23:09	4°♏42'50	
retrograde	1248 Feb 12 j 07:44	11°♏44'50	
opposition	1248 Apr 21 j 11:55	8°♏27'31	2°36'13
min. Earth dist.	1248 Apr 21 j 14:46	8°♏26'59	8.95881 AU
direct	1248 Jul 01 j 15:42	5°♏05'47	
evening set	1248 Oct 13 j 06:46	12°♏20'20	
conjunction	1248 Oct 30 j 00:21	14°♏18'29	2°02'00
minimum elong	1248 Oct 30 j 00:23	14°♏18'30	2°01'59
max. Earth dist.	1248 Oct 29 j 19:56	14°♏17'10	10.99010 AU
	1248 Nov 04 j 20:34	15°♏	
morning rise	1248 Nov 15 j 14:57	16°♏15'47	
retrograde	1249 Feb 23 j 02:14	23°♏14'46	
opposition	1249 May 03 j 16:29	19°♏57'46	2°20'49
min. Earth dist.	1249 May 03 j 20:42	19°♏56'59	9.01899 AU
direct	1249 Jul 13 j 23:11	16°♏37'00	
evening set	1249 Oct 24 j 21:00	23°♏46'09	
conjunction	1249 Nov 10 j 12:58	25°♏43'18	1°47'14
minimum elong	1249 Nov 10 j 13:00	25°♏43'19	1°47'13
max. Earth dist.	1249 Nov 10 j 07:15	25°♏41'37	11.03996 AU
morning rise	1249 Nov 27 j 02:38	27°♏39'48	
	1249 Dec 18 j 05:16	0°♐	
retrograde	1250 Mar 06 j 18:53	4°♐37'12	
opposition	1250 May 15 j 18:52	1°♐20'13	2°00'05
min. Earth dist.	1250 May 15 j 23:31	1°♐19'22	9.05764 AU
	1250 Jun 03 j 10:09	30°℞♏	
direct	1250 Jul 26 j 01:49	28°♏00'16	
	1250 Sep 14 j 20:27	0°♐	
evening set	1250 Nov 05 j 07:03	5°♐05'08	
conjunction	1250 Nov 21 j 22:07	7°♐01'43	1°28'23
minimum elong	1250 Nov 21 j 22:10	7°♐01'44	1°28'23
max. Earth dist.	1250 Nov 21 j 16:21	7°♐00'01	11.06775 AU
morning rise	1250 Dec 08 j 11:26	8°♐57'52	
retrograde	1251 Mar 18 j 13:36	15°♐55'14	
opposition	1251 May 27 j 20:29	12°♐37'58	1°34'51
min. Earth dist.	1251 May 28 j 01:35	12°♐37'01	9.07371 AU
direct	1251 Aug 07 j 01:16	9°♐18'38	
evening set	1251 Nov 16 j 14:31	16°♐20'28	
conjunction	1251 Dec 03 j 05:06	18°♐16'54	1°06'11
minimum elong	1251 Dec 03 j 05:08	18°♐16'55	1°06'11
max. Earth dist.	1251 Dec 02 j 22:33	18°♐14'59	11.07272 AU
morning rise	1251 Dec 19 j 18:46	20°♐13'08	
retrograde	1252 Mar 29 j 08:34	27°♐11'57	
opposition	1252 Jun 07 j 22:07	23°♐54'10	1°06'01
min. Earth dist.	1252 Jun 08 j 04:16	23°♐53'02	9.06693 AU
direct	1252 Aug 17 j 20:32	20°♐35'14	
evening set	1252 Nov 26 j 21:20	27°♐35'29	
conjunction	1252 Dec 13 j 11:50	29°♐32'08	0°41'25
minimum elong	1252 Dec 13 j 11:51	29°♐32'09	0°41'25
max. Earth dist.	1252 Dec 13 j 04:04	29°♐29'51	11.05492 AU
	1252 Dec 17 j 10:20	0°♑	
morning rise	1252 Dec 30 j 02:29	1°♑28'52	
retrograde	1253 Apr 10 j 05:15	8°♑30'41	
opposition	1253 Jun 20 j 00:29	5°♑12'08	0°34'32
min. Earth dist.	1253 Jun 20 j 07:24	5°♑10'52	9.03769 AU
direct	1253 Aug 29 j 16:58	1°♑53'22	
evening set	1253 Dec 08 j 05:01	8°♑53'34	
conjunction	1253 Dec 24 j 19:57	10°♑50'50	0°14'55
minimum elong	1253 Dec 24 j 19:58	10°♑50'50	0°14'55
behind sun begin	1253 Dec 24 j 17:05	10°♑49'59	
behind sun end	1253 Dec 24 j 22:51	10°♑51'41	
max. Earth dist.	1253 Dec 24 j 12:07	10°♑48'31	11.01498 AU
morning rise	1254 Jan 10 j 11:52	12°♑48'24	
retrograde	1254 Apr 22 j 07:25	19°♑54'49	
opposition	1254 Jul 02 j 04:55	16°♑35'17	0°01'26
min. Earth dist.	1254 Jul 02 j 11:20	16°♑34'06	8.98691 AU
desc. node	1254 Jul 18 j 07:50	15°♑25'08	
direct	1254 Sep 10 j 13:14	13°♑16'32	
evening set	1254 Dec 19 j 15:14	20°♑18'10	
conjunction	1255 Jan 05 j 07:03	22°♑16'23	-0°12'30
minimum elong	1255 Jan 05 j 07:02	22°♑16'23	0°12'30
behind sun begin	1255 Jan 05 j 02:25	22°♑15'01	
behind sun end	1255 Jan 05 j 11:39	22°♑17'44	
max. Earth dist.	1255 Jan 05 j 00:10	22°♑14'21	10.95414 AU
morning rise	1255 Jan 22 j 00:24	24°♑15'09	
	1255 Mar 22 j 16:52	0°♒	
retrograde	1255 May 04 j 14:33	1°♒27'41	
	1255 Jun 17 j 15:30	30°℞♑	
opposition	1255 Jul 14 j 12:25	28°♑06'59	-0°32'11
min. Earth dist.	1255 Jul 14 j 17:57	28°♑05'57	8.91634 AU
direct	1255 Sep 22 j 09:49	24°♑48'04	
	1255 Dec 14 j 18:05	0°♒	
evening set	1255 Dec 31 j 06:00	1°♒52'41	
conjunction	1256 Jan 16 j 22:53	3°♒52'12	-0°39'40
minimum elong	1256 Jan 16 j 22:51	3°♒52'12	0°39'40
max. Earth dist.	1256 Jan 16 j 16:13	3°♒50'12	10.87457 AU
morning rise	1256 Feb 02 j 18:08	5°♒52'29	
retrograde	1256 May 16 j 04:53	13°♒12'27	
opposition	1256 Jul 25 j 23:50	9°♒50'31	-1°05'05
min. Earth dist.	1256 Jul 26 j 05:01	9°♒49'32	8.82852 AU
direct	1256 Oct 03 j 09:11	6°♒31'11	
evening set	1257 Jan 11 j 02:43	13°♒40'19	
	1257 Jan 22 j 04:15	15°♒	
conjunction	1257 Jan 27 j 20:59	15°♒41'27	-1°05'39
minimum elong	1257 Jan 27 j 20:57	15°♒41'26	1°05'39
max. Earth dist.	1257 Jan 27 j 14:03	15°♒39'20	10.77920 AU
morning rise	1257 Feb 13 j 18:35	17°♒43'35	
retrograde	1257 May 29 j 00:54	25°♒12'07	
opposition	1257 Aug 07 j 16:08	21°♒48'51	-1°35'55
min. Earth dist.	1257 Aug 07 j 21:15	21°♒47'52	8.72676 AU
direct	1257 Oct 15 j 12:10	18°♒28'56	

evening set	1258 Jan 23 j 06:46	25°♒44'00	
conjunction	1258 Feb 09 j 02:56	27°♒47'01	-1°29'16
minimum elong	1258 Feb 09 j 02:54	27°♒47'00	1°29'16
max. Earth dist.	1258 Feb 08 j 21:06	27°♒45'13	10.67171 AU
morning rise	1258 Feb 26 j 03:04	29°♒51'15	
	1258 Feb 27 j 08:16	0°♓	
retrograde	1258 Jun 11 j 03:54	7°♓29'17	
opposition	1258 Aug 20 j 13:55	4°♓04'36	-2°03'12
min. Earth dist.	1258 Aug 20 j 18:00	4°♓03'49	8.61520 AU
direct	1258 Oct 27 j 22:08	0°♓43'57	
evening set	1259 Feb 04 j 19:31	8°♓06'06	
conjunction	1259 Feb 21 j 18:14	10°♓11'20	-1°49'17
minimum elong	1259 Feb 21 j 18:11	10°♓11'19	1°49'17
max. Earth dist.	1259 Feb 21 j 14:22	10°♓10'08	10.55672 AU
morning rise	1259 Mar 10 j 21:10	12°♓17'55	
retrograde	1259 Jun 24 j 17:01	20°♓05'51	
opposition	1259 Sep 02 j 17:36	16°♓39'48	-2°25'25
min. Earth dist.	1259 Sep 02 j 19:57	16°♓39'21	8.49884 AU
direct	1259 Nov 09 j 13:19	13°♓18'17	
evening set	1260 Feb 17 j 18:02	20°♓48'25	
conjunction	1260 Mar 05 j 19:48	22°♓56'06	-2°04'28
minimum elong	1260 Mar 05 j 19:46	22°♓56'05	2°04'28
max. Earth dist.	1260 Mar 05 j 17:53	22°♓55'30	10.43961 AU
morning rise	1260 Mar 23 j 02:02	25°♓05'14	
	1260 May 06 j 17:13	0°♈	
retrograde	1260 Jul 07 j 14:01	3°♈02'55	
	1260 Sep 09 j 23:33	30°℞♓	
opposition	1260 Sep 15 j 03:24	29°♓35'37	-2°40'58
min. Earth dist.	1260 Sep 15 j 03:55	29°♓35'31	8.38320 AU
direct	1260 Nov 21 j 10:29	26°♓13'06	
	1261 Jan 27 j 13:54	0°♈	
evening set	1261 Mar 02 j 02:57	3°♈51'49	
conjunction	1261 Mar 19 j 08:15	6°♈02'05	-2°13'39
minimum elong	1261 Mar 19 j 08:14	6°♈02'05	2°13'39
max. Earth dist.	1261 Mar 19 j 07:39	6°♈01'54	10.32624 AU
morning rise	1261 Apr 05 j 18:15	8°♈13'53	
retrograde	1261 Jul 21 j 17:24	16°♈20'30	
opposition	1261 Sep 28 j 19:05	12°♈52'09	-2°48'29
min. Earth dist.	1261 Sep 28 j 18:20	12°♈52'18	8.27433 AU
direct	1261 Dec 04 j 16:00	9°♈28'34	
evening set	1262 Mar 15 j 22:13	17°♈15'55	
conjunction	1262 Apr 02 j 07:38	19°♈28'52	-2°15'51
minimum elong	1262 Apr 02 j 07:39	19°♈28'53	2°15'52
max. Earth dist.	1262 Apr 02 j 08:27	19°♈29'08	10.22293 AU
morning rise	1262 Apr 19 j 21:49	21°♈43'20	
retrograde	1262 Aug 05 j 02:25	29°♈57'24	
opposition	1262 Oct 12 j 16:15	26°♈28'14	-2°46'50
min. Earth dist.	1262 Oct 12 j 14:31	26°♈28'35	8.17841 AU
direct	1262 Dec 18 j 05:39	23°♈03'31	
	1263 Mar 22 j 06:36	0°♉	
evening set	1263 Mar 30 j 03:20	0°♉59'01	
conjunction	1263 Apr 16 j 17:24	3°♉14'36	-2°10'27
minimum elong	1263 Apr 16 j 17:26	3°♉14'37	2°10'27
max. Earth dist.	1263 Apr 16 j 19:59	3°♉15'26	10.13559 AU
morning rise	1263 May 04 j 11:53	5°♉31'34	
retrograde	1263 Aug 19 j 16:02	13°♉50'54	
opposition	1263 Oct 26 j 17:48	10°♉21'15	-2°35'30
min. Earth dist.	1263 Oct 26 j 15:00	10°♉21'49	8.10092 AU
direct	1264 Jan 01 j 02:24	6°♉55'23	
evening set	1264 Apr 12 j 17:21	14°♉58'02	
	1264 Apr 12 j 23:30	15°♉	
conjunction	1264 Apr 30 j 12:09	17°♉15'58	-1°57'20
minimum elong	1264 Apr 30 j 12:13	17°♉15'59	1°57'20
max. Earth dist.	1264 Apr 30 j 16:34	17°♉17'24	10.06920 AU
morning rise	1264 May 18 j 10:37	19°♉35'03	
retrograde	1264 Sep 02 j 07:39	27°♉57'01	
opposition	1264 Nov 08 j 22:16	24°♉27'09	-2°14'41
min. Earth dist.	1264 Nov 08 j 18:20	24°♉27'58	8.04622 AU
direct	1265 Jan 14 j 06:08	21°♉00'13	
evening set	1265 Apr 27 j 14:19	29°♉08'33	
	1265 May 04 j 06:14	0°♊	
conjunction	1265 May 15 j 13:29	1°♊28'20	-1°37'00
minimum elong	1265 May 15 j 13:33	1°♊28'21	1°37'00
max. Earth dist.	1265 May 15 j 19:36	1°♊30'20	10.02732 AU
morning rise	1265 Jun 02 j 15:13	3°♊48'57	
retrograde	1265 Sep 16 j 23:23	12°♊10'49	
opposition	1265 Nov 23 j 04:25	8°♊41'06	-1°45'23
min. Earth dist.	1265 Nov 22 j 23:18	8°♊42'09	8.01695 AU
direct	1266 Jan 28 j 14:41	5°♊13'13	
evening set	1266 May 12 j 15:57	13°♊25'31	
conjunction	1266 May 30 j 18:33	15°♊46'29	-1°10'36
minimum elong	1266 May 30 j 18:36	15°♊46'30	1°10'36
max. Earth dist.	1266 May 31 j 01:42	15°♊48'49	10.01170 AU
morning rise	1266 Jun 17 j 22:26	18°♊07'54	
retrograde	1266 Oct 01 j 13:29	26°♊27'07	
opposition	1266 Dec 07 j 10:41	22°♊57'56	-1°09'27
min. Earth dist.	1266 Dec 07 j 04:58	22°♊59'07	8.01441 AU
direct	1267 Feb 12 j 02:06	19°♊29'19	
evening set	1267 May 27 j 20:11	27°♊43'45	
	1267 Jun 14 j 09:10	0°♋	
conjunction	1267 Jun 15 j 00:46	0°♋05'05	-0°39'50
minimum elong	1267 Jun 15 j 00:48	0°♋05'06	0°39'50
max. Earth dist.	1267 Jun 15 j 08:17	0°♋07'32	10.02339 AU
morning rise	1267 Jul 03 j 05:17	2°♋26'24	
retrograde	1267 Oct 16 j 00:05	10°♋40'38	
opposition	1267 Dec 21 j 15:33	7°♋12'19	-0°29'20
min. Earth dist.	1267 Dec 21 j 09:44	7°♋13'31	8.03966 AU
direct	1268 Feb 26 j 14:18	3°♋43'13	
evening set	1268 Jun 10 j 24:00	11°♋57'42	
conjunction	1268 Jun 29 j 04:47	14°♋18'26	-0°06'50
minimum elong	1268 Jun 29 j 04:46	14°♋18'26	0°06'51
behind sun begin	1268 Jun 28 j 21:57	14°♋16'14	
behind sun end	1268 Jun 29 j 11:36	14°♋20'37	
max. Earth dist.	1268 Jun 29 j 12:16	14°♋20'50	10.06274 AU
morning rise	1268 Jul 17 j 08:11	16°♋38'42	
asc. node	1268 Sep 14 j 08:07	22°♋57'48	
retrograde	1268 Oct 29 j 05:30	24°♋46'01	
opposition	1269 Jan 03 j 17:50	21°♋18'47	0°12'11
min. Earth dist.	1269 Jan 03 j 12:17	21°♋19'55	8.09213 AU
direct	1269 Mar 12 j 03:17	17°♋49'28	
evening set	1269 Jun 26 j 00:09	26°♋01'50	
conjunction	1269 Jul 14 j 03:19	28°♋21'02	0°26'19
minimum elong	1269 Jul 14 j 03:18	28°♋21'02	0°26'18
max. Earth dist.	1269 Jul 14 j 10:17	28°♋23'17	10.12795 AU
	1269 Jul 26 j 23:39	0°♌	
morning rise	1269 Aug 01 j 04:02	0°♌39'26	
retrograde	1269 Nov 12 j 02:50	8°♌38'25	
opposition	1270 Jan 17 j 15:59	5°♌12'25	0°52'17
min. Earth dist.	1270 Jan 17 j 10:55	5°♌13'27	8.16893 AU
direct	1270 Mar 26 j 14:37	1°♌43'11	
evening set	1270 Jul 10 j 18:18	9°♌51'30	
conjunction	1270 Jul 28 j 18:20	12°♌08'25	0°57'21

minimum elong	1270 Jul 28 j 18:18	12°♌08'24	0°57'20
max. Earth dist.	1270 Jul 29 j 00:18	12°♌10'19	10.21510 AU
morning rise	1270 Aug 15 j 15:03	14°♌24'15	
	1270 Aug 20 j 10:21	15°♌	
retrograde	1270 Nov 25 j 15:27	22°♌14'04	
opposition	1271 Jan 31 j 08:52	18°♌49'26	1°28'34
min. Earth dist.	1271 Jan 31 j 04:05	18°♌50'24	8.26525 AU
direct	1271 Apr 09 j 22:10	15°♌20'34	
evening set	1271 Jul 25 j 04:06	23°♌23'11	
conjunction	1271 Aug 11 j 23:54	25°♌37'18	1°24'36
minimum elong	1271 Aug 11 j 23:51	25°♌37'17	1°24'36
max. Earth dist.	1271 Aug 12 j 05:06	25°♌38'56	10.31877 AU
morning rise	1271 Aug 29 j 15:39	27°♌50'07	
	1271 Sep 16 j 17:50	0°♍	
retrograde	1271 Dec 08 j 20:36	5°♍30'36	
opposition	1272 Feb 13 j 20:10	2°♍07'18	1°59'08
min. Earth dist.	1272 Feb 13 j 15:35	2°♍08'12	8.37523 AU
	1272 Mar 13 j 11:59	30°℞♌	
direct	1272 Apr 22 j 23:13	28°♌39'06	
	1272 Jun 02 j 01:14	0°♍	
evening set	1272 Aug 07 j 03:45	6°♍34'43	
conjunction	1272 Aug 24 j 18:44	8°♍45'47	1°46'47
minimum elong	1272 Aug 24 j 18:41	8°♍45'46	1°46'47
max. Earth dist.	1272 Aug 24 j 23:24	8°♍47'15	10.43290 AU
morning rise	1272 Sep 11 j 05:04	10°♍55'26	
retrograde	1272 Dec 20 j 18:54	18°♍26'49	
opposition	1273 Feb 26 j 01:30	15°♍04'49	2°22'44
min. Earth dist.	1273 Feb 25 j 21:28	15°♍05'36	8.49260 AU
direct	1273 May 06 j 17:05	11°♍37'30	
evening set	1273 Aug 20 j 16:47	19°♍25'19	
conjunction	1273 Sep 07 j 02:47	21°♍33'21	2°03'06
minimum elong	1273 Sep 07 j 02:44	21°♍33'20	2°03'06
max. Earth dist.	1273 Sep 07 j 06:45	21°♍34'34	10.55129 AU
morning rise	1273 Sep 24 j 07:50	23°♍39'54	
	1273 Nov 28 j 21:03	0°♎	
retrograde	1274 Jan 02 j 08:49	1°♎02'46	
	1274 Feb 06 j 10:49	30°℞♍	
opposition	1274 Mar 11 j 00:47	27°♍41'59	2°38'42
min. Earth dist.	1274 Mar 10 j 22:16	27°♍42'28	8.61125 AU
direct	1274 May 20 j 04:08	24°♍15'42	
	1274 Aug 17 j 04:59	0°♎	
evening set	1274 Sep 02 j 19:04	1°♎55'25	
conjunction	1274 Sep 20 j 00:14	4°♎00'33	2°13'09
minimum elong	1274 Sep 20 j 00:13	4°♎00'32	2°13'10
max. Earth dist.	1274 Sep 20 j 02:29	4°♎01'14	10.66805 AU
morning rise	1274 Oct 07 j 00:37	6°♎04'16	
retrograde	1275 Jan 14 j 16:24	13°♎19'31	
opposition	1275 Mar 23 j 18:39	9°♎59'50	2°46'53
min. Earth dist.	1275 Mar 23 j 17:50	10°♎00'00	8.72547 AU
direct	1275 Jun 02 j 08:10	6°♎34'43	
evening set	1275 Sep 15 j 10:59	14°♎06'21	
conjunction	1275 Oct 02 j 11:47	16°♎08'55	2°16'57
minimum elong	1275 Oct 02 j 11:46	16°♎08'55	2°16'57
max. Earth dist.	1275 Oct 02 j 11:52	16°♎08'56	10.77787 AU
morning rise	1275 Oct 19 j 08:18	18°♎10'11	
retrograde	1276 Jan 26 j 17:22	25°♎18'57	
opposition	1276 Apr 04 j 07:27	22°♎00'12	2°47'31
min. Earth dist.	1276 Apr 04 j 07:44	22°♎00'09	8.83025 AU
direct	1276 Jun 14 j 04:51	18°♎36'18	
evening set	1276 Sep 26 j 17:28	26°♎00'16	
conjunction	1276 Oct 13 j 14:46	28°♎00'40	2°14'44
minimum elong	1276 Oct 13 j 14:46	28°♎00'41	2°14'44
max. Earth dist.	1276 Oct 13 j 13:23	28°♎00'15	10.87623 AU
morning rise	1276 Oct 30 j 08:15	29°♎59'57	
	1276 Oct 30 j 08:26	0°♏	
retrograde	1277 Feb 06 j 14:40	7°♏03'30	
opposition	1277 Apr 16 j 15:47	3°♏45'30	2°41'03
min. Earth dist.	1277 Apr 16 j 16:30	3°♏45'22	8.92132 AU
direct	1277 Jun 26 j 20:09	0°♏22'51	
evening set	1277 Oct 08 j 15:47	7°♏39'50	
conjunction	1277 Oct 25 j 10:31	9°♏38'32	2°06'57
minimum elong	1277 Oct 25 j 10:32	9°♏38'32	2°06'56
max. Earth dist.	1277 Oct 25 j 08:42	9°♏38'00	10.95915 AU
morning rise	1277 Nov 11 j 01:44	11°♏36'16	
	1277 Dec 12 j 11:49	15°♏	
retrograde	1278 Feb 18 j 11:04	18°♏36'00	
opposition	1278 Apr 28 j 20:48	15°♏18'33	2°28'11
min. Earth dist.	1278 Apr 28 j 22:32	15°♏18'13	8.99506 AU
	1278 May 03 j 00:27	15°℞♏	
direct	1278 Jul 09 j 04:03	11°♏57'07	
	1278 Sep 10 j 18:45	15°♏	
evening set	1278 Oct 20 j 07:41	19°♏08'01	
conjunction	1278 Nov 06 j 00:24	21°♏05'28	1°54'09
minimum elong	1278 Nov 06 j 00:26	21°♏05'29	1°54'08
max. Earth dist.	1278 Nov 05 j 21:27	21°♏04'36	11.02338 AU
morning rise	1278 Nov 22 j 14:14	23°♏02'10	
retrograde	1279 Mar 02 j 03:05	29°♏59'29	
opposition	1279 May 10 j 23:25	26°♏42'23	2°09'38
min. Earth dist.	1279 May 11 j 02:44	26°♏41'46	9.04886 AU
direct	1279 Jul 21 j 05:48	23°♏22'00	
	1279 Oct 27 j 16:48	0°♐	
evening set	1279 Oct 31 j 18:44	0°♐28'00	
conjunction	1279 Nov 17 j 10:00	2°♐24'38	1°36'59
minimum elong	1279 Nov 17 j 10:03	2°♐24'38	1°36'59
max. Earth dist.	1279 Nov 17 j 05:15	2°♐23'14	11.06677 AU
morning rise	1279 Dec 03 j 23:24	4°♐20'45	
retrograde	1280 Mar 12 j 19:38	11°♐17'13	
opposition	1280 May 22 j 00:37	8°♐00'11	1°46'15
min. Earth dist.	1280 May 22 j 05:11	7°♐59'20	9.08094 AU
direct	1280 Aug 01 j 06:36	4°♐40'41	
evening set	1280 Nov 11 j 02:23	11°♐43'00	
conjunction	1280 Nov 27 j 16:59	13°♐39'15	1°16'10
minimum elong	1280 Nov 27 j 17:01	13°♐39'16	1°16'11
max. Earth dist.	1280 Nov 27 j 11:18	13°♐37'35	11.08784 AU
morning rise	1280 Dec 14 j 06:31	15°♐35'14	
retrograde	1281 Mar 24 j 13:15	22°♐32'23	
opposition	1281 Jun 03 j 01:13	19°♐15'07	1°18'54
min. Earth dist.	1281 Jun 03 j 05:53	19°♐14'15	9.09013 AU
direct	1281 Aug 13 j 03:19	15°♐56'21	
evening set	1281 Nov 22 j 08:37	22°♐56'20	
conjunction	1281 Dec 08 j 23:07	24°♐52'37	0°52'28
minimum elong	1281 Dec 08 j 23:08	24°♐52'37	0°52'28
max. Earth dist.	1281 Dec 08 j 17:35	24°♐51'00	11.08569 AU
morning rise	1281 Dec 25 j 13:07	26°♐48'50	
	1282 Jan 24 j 04:04	0°♑	
retrograde	1282 Apr 05 j 09:38	3°♑48'13	
opposition	1282 Jun 15 j 02:18	0°♑30'30	0°48'31
min. Earth dist.	1282 Jun 15 j 07:03	0°♑29'37	9.07605 AU
	1282 Jun 22 j 00:58	30°℞♐	
direct	1282 Aug 24 j 22:41	27°♐12'13	
	1282 Oct 24 j 04:31	0°♑	
evening set	1282 Dec 03 j 15:10	4°♑11'20	

conjunction	1282 Dec 20 j 05:50	6°♑08'01	0°26'40
minimum elong	1282 Dec 20 j 05:51	6°♑08'01	0°26'40
max. Earth dist.	1282 Dec 19 j 23:53	6°♑06'16	11.06042 AU
morning rise	1283 Jan 05 j 20:51	8°♑04'52	
retrograde	1283 Apr 17 j 09:37	15°♑08'00	
opposition	1283 Jun 27 j 05:12	11°♑49'34	0°16'05
min. Earth dist.	1283 Jun 27 j 10:34	11°♑48'35	9.03925 AU
direct	1283 Sep 05 j 16:40	8°♑31'32	
evening set	1283 Dec 14 j 23:31	15°♑31'15	
desc. node	1283 Dec 26 j 11:41	16°♑52'15	
conjunction	1283 Dec 31 j 14:39	17°♑28'40	-0°00'23
minimum elong	1283 Dec 31 j 14:39	17°♑28'40	0°00'24
behind sun begin	1283 Dec 31 j 07:42	17°♑26'38	
behind sun end	1283 Dec 31 j 21:36	17°♑30'42	
max. Earth dist.	1283 Dec 31 j 07:30	17°♑26'35	11.01281 AU
morning rise	1284 Jan 17 j 07:13	19°♑26'32	
retrograde	1284 Apr 28 j 12:07	26°♑34'56	
opposition	1284 Jul 08 j 10:36	23°♑15'32	-0°17'19
min. Earth dist.	1284 Jul 08 j 16:45	23°♑14'24	8.98079 AU
direct	1284 Sep 16 j 11:54	19°♑57'26	
evening set	1284 Dec 25 j 11:29	26°♑59'21	
conjunction	1285 Jan 11 j 03:34	28°♑57'52	-0°27'41
minimum elong	1285 Jan 11 j 03:33	28°♑57'51	0°27'42
max. Earth dist.	1285 Jan 10 j 20:20	28°♑55'43	10.94406 AU
	1285 Jan 19 j 20:09	0°♒	
morning rise	1285 Jan 27 j 21:53	0°♒57'03	
retrograde	1285 May 10 j 21:51	8°♒12'09	
opposition	1285 Jul 20 j 19:11	4°♒51'33	-0°50'33
min. Earth dist.	1285 Jul 21 j 01:13	4°♒50'26	8.90206 AU
direct	1285 Sep 28 j 11:11	1°♒33'09	
evening set	1286 Jan 06 j 04:33	8°♒38'47	
conjunction	1286 Jan 22 j 22:02	10°♒38'45	-0°54'15
minimum elong	1286 Jan 22 j 22:00	10°♒38'45	0°54'15
max. Earth dist.	1286 Jan 22 j 15:26	10°♒36'46	10.85586 AU
morning rise	1286 Feb 08 j 18:15	12°♒39'37	
	1286 Mar 01 j 10:10	15°♒	
retrograde	1286 May 23 j 14:38	20°♒02'45	
opposition	1286 Aug 02 j 08:19	16°♒40'48	-1°22'21
min. Earth dist.	1286 Aug 02 j 13:33	16°♒39'49	8.80530 AU
	1286 Aug 25 j 17:07	15°℞♒	
direct	1286 Oct 10 j 11:31	13°♒21'53	
	1286 Nov 23 j 16:20	15°♒	
evening set	1287 Jan 18 j 04:15	20°♒32'47	
conjunction	1287 Feb 03 j 23:26	22°♒34'31	-1°18'59
minimum elong	1287 Feb 03 j 23:23	22°♒34'31	1°18'58
max. Earth dist.	1287 Feb 03 j 17:07	22°♒32'36	10.75125 AU
morning rise	1287 Feb 20 j 21:59	24°♒37'22	
	1287 Apr 14 j 06:48	0°♓	
retrograde	1287 Jun 05 j 14:41	2°♓09'41	
	1287 Jul 29 j 14:44	30°℞♒	
opposition	1287 Aug 15 j 02:46	28°♒46'16	-1°51'18
min. Earth dist.	1287 Aug 15 j 07:22	28°♒45'24	8.69446 AU
direct	1287 Oct 22 j 16:53	25°♒26'35	
	1288 Jan 06 j 15:33	0°♓	
evening set	1288 Jan 30 j 12:17	2°♓44'08	
conjunction	1288 Feb 16 j 09:33	4°♓47'58	-1°40'43
minimum elong	1288 Feb 16 j 09:30	4°♓47'57	1°40'42
max. Earth dist.	1288 Feb 16 j 03:12	4°♓46'01	10.63509 AU
morning rise	1288 Mar 04 j 10:58	6°♓53'06	
retrograde	1288 Jun 17 j 22:56	14°♓35'13	
opposition	1288 Aug 27 j 02:52	11°♓10'18	-2°15'56
min. Earth dist.	1288 Aug 27 j 07:10	11°♓09'28	8.57495 AU
direct	1288 Nov 03 j 03:54	7°♓49'36	
evening set	1289 Feb 11 j 05:30	15°♓14'54	
conjunction	1289 Feb 28 j 05:29	17°♓21'06	-1°58'12
minimum elong	1289 Feb 28 j 05:27	17°♓21'05	1°58'12
max. Earth dist.	1289 Feb 28 j 00:00	17°♓19'24	10.51310 AU
morning rise	1289 Mar 17 j 10:07	19°♓28'45	
retrograde	1289 Jul 01 j 13:56	27°♓20'50	
opposition	1289 Sep 09 j 09:08	23°♓54'26	-2°34'42
min. Earth dist.	1289 Sep 09 j 12:38	23°♓53'45	8.45266 AU
direct	1289 Nov 15 j 22:18	20°♓32'34	
evening set	1290 Feb 24 j 08:33	28°♓06'20	
	1290 Mar 11 j 11:59	0°♈	
conjunction	1290 Mar 13 j 11:57	0°♈15'08	-2°10'15
minimum elong	1290 Mar 13 j 11:56	0°♈15'07	2°10'15
max. Earth dist.	1290 Mar 13 j 08:37	0°♈14'05	10.39138 AU
morning rise	1290 Mar 30 j 20:06	2°♈25'26	
retrograde	1290 Jul 15 j 12:17	10°♈27'08	
opposition	1290 Sep 22 j 21:30	6°♈59'19	-2°46'04
min. Earth dist.	1290 Sep 22 j 23:23	6°♈58'57	8.33380 AU
direct	1290 Nov 29 j 00:54	3°♈36'12	
evening set	1291 Mar 09 j 22:08	11°♈18'46	
conjunction	1291 Mar 27 j 05:36	13°♈30'19	-2°15'47
minimum elong	1291 Mar 27 j 05:36	13°♈30'19	2°15'47
max. Earth dist.	1291 Mar 27 j 04:46	13°♈30'03	10.27629 AU
morning rise	1291 Apr 13 j 17:39	15°♈43'22	
retrograde	1291 Jul 29 j 18:18	23°♈53'31	
opposition	1291 Oct 06 j 15:24	20°♈24'31	-2°48'49
min. Earth dist.	1291 Oct 06 j 15:15	20°♈24'33	8.22463 AU
direct	1291 Dec 12 j 09:52	17°♈00'06	
evening set	1292 Mar 22 j 22:04	24°♈51'20	
conjunction	1292 Apr 09 j 10:02	27°♈05'38	-2°13'58
minimum elong	1292 Apr 09 j 10:03	27°♈05'39	2°13'59
max. Earth dist.	1292 Apr 09 j 11:07	27°♈05'59	10.17411 AU
morning rise	1292 Apr 27 j 02:19	29°♈21'22	
	1292 May 02 j 05:45	0°♉	
retrograde	1292 Aug 12 j 06:43	7°♉38'11	
opposition	1292 Oct 19 j 14:26	4°♉08'20	-2°42'04
min. Earth dist.	1292 Oct 19 j 12:38	4°♉08'42	8.13117 AU
direct	1292 Dec 25 j 01:19	0°♉42'37	
evening set	1293 Apr 06 j 07:27	8°♉41'51	
conjunction	1293 Apr 24 j 00:04	10°♉58'44	-2°04'26
minimum elong	1293 Apr 24 j 00:07	10°♉58'45	2°04'27
max. Earth dist.	1293 Apr 24 j 02:47	10°♉59'36	10.09071 AU
morning rise	1293 May 11 j 20:34	13°♉16'53	
	1293 May 25 j 16:11	15°♉	
retrograde	1293 Aug 26 j 21:59	21°♉38'02	
opposition	1293 Nov 02 j 17:25	18°♉07'42	-2°25'38
min. Earth dist.	1293 Nov 02 j 14:26	18°♉08'19	8.05899 AU
	1293 Dec 20 j 14:20	15°℞♉	
direct	1294 Jan 08 j 01:26	14°♉40'44	
	1294 Jan 26 j 12:10	15°♉	
evening set	1294 Apr 21 j 01:01	22°♉46'47	
conjunction	1294 May 08 j 22:10	25°♉05'52	-1°47'23
minimum elong	1294 May 08 j 22:13	25°♉05'53	1°47'23
max. Earth dist.	1294 May 09 j 02:09	25°♉07'10	10.03124 AU
morning rise	1294 May 26 j 22:31	27°♉25'59	
	1294 Jun 16 j 18:26	0°♊	
retrograde	1294 Sep 10 j 13:46	5°♊48'41	
opposition	1294 Nov 16 j 22:59	2°♊18'17	-2°00'07
min. Earth dist.	1294 Nov 16 j 19:17	2°♊19'03	8.01267 AU
	1294 Dec 17 j 11:41	30°℞♉	

direct	1295 Jan 22 j 07:42	28°♉50'14	
	1295 Feb 26 j 19:29	0°♊	
evening set	1295 May 06 j 00:48	7°♊01'25	
conjunction	1295 May 24 j 01:53	9°♊22'07	-1°23'37
minimum elong	1295 May 24 j 01:57	9°♊22'08	1°23'38
max. Earth dist.	1295 May 24 j 07:01	9°♊23'48	9.99945 AU
morning rise	1295 Jun 11 j 05:09	11°♊43'29	
retrograde	1295 Sep 25 j 04:41	20°♊04'55	
opposition	1295 Dec 01 j 05:35	16°♊34'50	-1°26'59
min. Earth dist.	1295 Dec 01 j 01:08	16°♊35'46	7.99515 AU
direct	1296 Feb 05 j 18:20	13°♊05'55	
evening set	1296 May 20 j 04:19	21°♊20'15	
conjunction	1296 Jun 07 j 08:07	23°♊41'44	-0°54'38
minimum elong	1296 Jun 07 j 08:09	23°♊41'45	0°54'38
max. Earth dist.	1296 Jun 07 j 14:30	23°♊43'49	9.99728 AU
morning rise	1296 Jun 25 j 12:46	26°♊03'27	
	1296 Jul 28 j 12:24	0°♋	
retrograde	1296 Oct 08 j 16:46	4°♋20'58	
opposition	1296 Dec 14 j 11:31	0°♋51'36	-0°48'26
min. Earth dist.	1296 Dec 14 j 06:04	0°♋52'44	8.00764 AU
	1296 Dec 24 j 22:46	30°℞♊	
direct	1297 Feb 19 j 06:59	27°♊22'05	
	1297 Apr 15 j 05:34	0°♋	
evening set	1297 Jun 04 j 08:41	5°♋37'25	
conjunction	1297 Jun 22 j 13:37	7°♋58'44	-0°22'22
minimum elong	1297 Jun 22 j 13:38	7°♋58'44	0°22'22
max. Earth dist.	1297 Jun 22 j 21:05	8°♋01'10	10.02500 AU
morning rise	1297 Jul 10 j 17:59	10°♋19'50	
retrograde	1297 Oct 23 j 00:50	18°♋31'13	
opposition	1297 Dec 28 j 15:18	15°♋02'52	-0°07'10
min. Earth dist.	1297 Dec 28 j 08:57	15°♋04'11	8.04946 AU
asc. node	1298 Mar 03 j 23:28	11°♋33'19	
direct	1298 Mar 05 j 20:33	11°♋33'07	
evening set	1298 Jun 19 j 10:57	19°♋47'14	
conjunction	1298 Jul 07 j 15:16	22°♋07'27	0°11'03
minimum elong	1298 Jul 07 j 15:15	22°♋07'27	0°11'03
behind sun begin	1298 Jul 07 j 09:50	22°♋05'43	
behind sun end	1298 Jul 07 j 20:41	22°♋09'11	
max. Earth dist.	1298 Jul 07 j 23:28	22°♋10'05	10.08079 AU
morning rise	1298 Jul 25 j 17:35	24°♋27'01	
	1298 Sep 13 j 16:13	0°♌	
retrograde	1298 Nov 06 j 02:09	2°♌30'36	
	1298 Dec 31 j 01:07	30°℞♋	
opposition	1299 Jan 11 j 15:35	29°♋03'33	0°33'57
min. Earth dist.	1299 Jan 11 j 08:48	29°♋04'56	8.11788 AU
direct	1299 Mar 20 j 08:39	25°♋33'53	
	1299 Jun 02 j 12:31	0°♌	
evening set	1299 Jul 04 j 08:32	3°♌44'49	
conjunction	1299 Jul 22 j 10:27	6°♌03'03	0°43'17
minimum elong	1299 Jul 22 j 10:25	6°♌03'02	0°43'16
max. Earth dist.	1299 Jul 22 j 18:49	6°♌05'44	10.16099 AU
morning rise	1299 Aug 09 j 09:09	8°♌20'18	
	1299 Oct 13 j 17:11	15°♌	
retrograde	1299 Nov 19 j 20:02	16°♌15'02	
	1299 Dec 27 j 10:29	15°℞♌	
opposition	1300 Jan 25 j 11:17	12°♌49'28	1°12'19
min. Earth dist.	1300 Jan 25 j 04:58	12°♌50'45	8.20860 AU
direct	1300 Apr 02 j 17:05	9°♌20'14	
	1300 Jun 27 j 15:23	15°♌	
evening set	1300 Jul 17 j 22:49	17°♌26'11	
conjunction	1300 Aug 04 j 20:53	19°♌41'48	1°12'30
minimum elong	1300 Aug 04 j 20:50	19°♌41'48	1°12'30
max. Earth dist.	1300 Aug 05 j 04:31	19°♌44'14	10.26071 AU
morning rise	1300 Aug 22 j 14:57	21°♌56'11	
retrograde	1300 Dec 02 j 06:30	29°♌41'36	
opposition	1301 Feb 07 j 01:45	26°♌17'36	1°45'45
min. Earth dist.	1301 Feb 06 j 20:26	26°♌18'40	8.31621 AU
direct	1301 Apr 16 j 20:15	22°♌49'05	
	1301 Jul 25 j 12:08	0°♍	
evening set	1301 Aug 01 j 03:48	0°♍48'35	
conjunction	1301 Aug 18 j 21:08	3°♍01'14	1°37'10
minimum elong	1301 Aug 18 j 21:05	3°♍01'13	1°37'10
max. Earth dist.	1301 Aug 19 j 03:14	3°♍03'09	10.37410 AU
morning rise	1301 Sep 05 j 10:03	5°♍12'29	
retrograde	1301 Dec 15 j 08:32	12°♍48'34	
opposition	1302 Feb 20 j 10:23	9°♍26'07	2°12'41
min. Earth dist.	1302 Feb 20 j 06:07	9°♍26'57	8.43444 AU
direct	1302 Apr 30 j 18:20	5°♍58'33	
evening set	1302 Aug 14 j 22:38	13°♍50'36	
conjunction	1302 Sep 01 j 10:52	16°♍00'07	1°56'16
minimum elong	1302 Sep 01 j 10:49	16°♍00'06	1°56'16
max. Earth dist.	1302 Sep 01 j 15:12	16°♍01'28	10.49482 AU
morning rise	1302 Sep 18 j 18:31	18°♍08'12	
retrograde	1302 Dec 28 j 01:07	25°♍35'23	
opposition	1303 Mar 05 j 12:58	22°♍14'21	2°32'12
min. Earth dist.	1303 Mar 05 j 09:24	22°♍15'03	8.55681 AU
direct	1303 May 14 j 10:47	18°♍47'55	
evening set	1303 Aug 28 j 06:36	26°♍31'53	
conjunction	1303 Sep 14 j 13:54	28°♍38'22	2°09'12
minimum elong	1303 Sep 14 j 13:52	28°♍38'22	2°09'13
max. Earth dist.	1303 Sep 14 j 16:58	28°♍39'19	10.61654 AU
	1303 Sep 25 j 16:46	0°♎	
morning rise	1303 Oct 01 j 16:32	0°♎43'26	
retrograde	1304 Jan 09 j 12:38	8°♎02'29	
opposition	1304 Mar 17 j 09:55	4°♎42'42	2°43'56
min. Earth dist.	1304 Mar 17 j 06:59	4°♎43'16	8.67702 AU
direct	1304 May 26 j 18:59	1°♎17'30	
evening set	1304 Sep 09 j 03:42	8°♎53'10	
conjunction	1304 Sep 26 j 06:34	10°♎56'54	2°15'50
minimum elong	1304 Sep 26 j 06:33	10°♎56'53	2°15'50
max. Earth dist.	1304 Sep 26 j 08:51	10°♎57'35	10.73316 AU
morning rise	1304 Oct 13 j 04:46	12°♎59'16	
retrograde	1305 Jan 20 j 18:41	20°♎11'10	
opposition	1305 Mar 30 j 01:30	16°♎52'27	2°47'56
min. Earth dist.	1305 Mar 30 j 00:09	16°♎52'42	8.78910 AU
direct	1305 Jun 08 j 18:11	13°♎28'29	
evening set	1305 Sep 21 j 15:04	20°♎56'06	
conjunction	1305 Oct 08 j 14:04	22°♎57'27	2°16'18
minimum elong	1305 Oct 08 j 14:04	22°♎57'27	2°16'18
max. Earth dist.	1305 Oct 08 j 14:26	22°♎57'34	10.83888 AU
morning rise	1305 Oct 25 j 08:44	24°♎57'36	
	1305 Dec 13 j 20:07	0°♏	
retrograde	1306 Feb 01 j 17:45	2°♏03'32	
	1306 Mar 25 j 16:10	30°℞♎	
opposition	1306 Apr 11 j 12:14	28°♎45'41	2°44'36
min. Earth dist.	1306 Apr 11 j 13:14	28°♎45'29	8.88750 AU
direct	1306 Jun 21 j 12:12	25°♎22'54	
	1306 Sep 09 j 05:11	0°♏	
evening set	1306 Oct 03 j 17:45	2°♏43'11	
conjunction	1306 Oct 20 j 13:31	4°♏42'37	2°10'57
minimum elong	1306 Oct 20 j 13:32	4°♏42'37	2°10'57
max. Earth dist.	1306 Oct 20 j 11:07	4°♏41'54	10.92867 AU

morning rise	1306 Nov 06 j 05:41	6°♏41'00	
retrograde	1307 Feb 13 j 14:01	13°♏42'29	
opposition	1307 Apr 23 j 19:19	10°♏25'14	2°34'31
min. Earth dist.	1307 Apr 23 j 22:06	10°♏24'43	8.96793 AU
direct	1307 Jul 04 j 00:08	7°♏03'36	
evening set	1307 Oct 15 j 12:59	14°♏17'26	
	1307 Oct 21 j 14:57	15°♏	
conjunction	1307 Nov 01 j 06:24	16°♏15'26	2°00'19
minimum elong	1307 Nov 01 j 06:26	16°♏15'26	2°00'19
max. Earth dist.	1307 Nov 01 j 02:10	16°♏14'11	10.99922 AU
morning rise	1307 Nov 17 j 20:55	18°♏12'35	
retrograde	1308 Feb 25 j 07:32	25°♏11'07	
opposition	1308 May 04 j 23:29	21°♏54'11	2°18'24
min. Earth dist.	1308 May 05 j 02:56	21°♏53'32	9.02787 AU
direct	1308 Jul 15 j 06:33	18°♏33'34	
evening set	1308 Oct 26 j 02:33	25°♏42'00	
conjunction	1308 Nov 11 j 18:30	27°♏39'02	1°45'01
minimum elong	1308 Nov 11 j 18:33	27°♏39'03	1°45'01
max. Earth dist.	1308 Nov 11 j 13:45	27°♏37'38	11.04859 AU
morning rise	1308 Nov 28 j 08:03	29°♏35'25	
	1308 Dec 01 j 21:43	0°♐	
retrograde	1309 Mar 08 j 01:57	6°♐32'28	
opposition	1309 May 17 j 01:32	3°♐15'33	1°57'04
min. Earth dist.	1309 May 17 j 05:42	3°♐14'47	9.06583 AU
	1309 Jul 17 j 22:36	30°℞♏	
direct	1309 Jul 27 j 08:51	29°♏55'46	
	1309 Aug 05 j 16:59	0°♐	
evening set	1309 Nov 06 j 12:08	7°♐00'00	
conjunction	1309 Nov 23 j 03:11	8°♐56'30	1°25'43
minimum elong	1309 Nov 23 j 03:13	8°♐56'30	1°25'44
max. Earth dist.	1309 Nov 22 j 21:36	8°♐54'51	11.07551 AU
morning rise	1309 Dec 09 j 16:30	10°♐52'34	
retrograde	1310 Mar 19 j 19:15	17°♐49'37	
opposition	1310 May 29 j 02:50	14°♐32'27	1°31'22
min. Earth dist.	1310 May 29 j 08:22	14°♐31'26	9.08089 AU
direct	1310 Aug 08 j 06:07	11°♐13'16	
evening set	1310 Nov 17 j 19:19	18°♐14'35	
conjunction	1310 Dec 04 j 09:48	20°♐10'56	1°03'11
minimum elong	1310 Dec 04 j 09:50	20°♐10'57	1°03'12
max. Earth dist.	1310 Dec 04 j 02:34	20°♐08'48	11.07933 AU
morning rise	1310 Dec 20 j 23:37	22°♐07'08	
retrograde	1311 Mar 31 j 13:10	29°♐05'45	
opposition	1311 Jun 10 j 04:11	25°♐48'02	1°02'12
min. Earth dist.	1311 Jun 10 j 10:44	25°♐46'50	9.07285 AU
direct	1311 Aug 20 j 02:50	22°♐29'14	
evening set	1311 Nov 29 j 01:48	29°♐29'04	
	1311 Dec 03 j 12:35	0°♑	
conjunction	1311 Dec 15 j 16:19	1°♑25'40	0°38'12
minimum elong	1311 Dec 15 j 16:20	1°♑25'41	0°38'12
max. Earth dist.	1311 Dec 15 j 08:36	1°♑23'24	11.06017 AU
morning rise	1312 Jan 01 j 07:04	3°♑22'22	
retrograde	1312 Apr 11 j 10:59	10°♑24'07	
opposition	1312 Jun 21 j 06:23	7°♑05'36	0°30'31
min. Earth dist.	1312 Jun 21 j 12:53	7°♑04'24	9.04215 AU
direct	1312 Aug 30 j 22:47	3°♑46'58	
evening set	1312 Dec 09 j 09:14	10°♑46'48	
conjunction	1312 Dec 26 j 00:19	12°♑44'03	0°11'37
minimum elong	1312 Dec 26 j 00:20	12°♑44'03	0°11'36
behind sun begin	1312 Dec 25 j 19:17	12°♑42'34	
behind sun end	1312 Dec 26 j 05:23	12°♑45'31	
max. Earth dist.	1312 Dec 25 j 17:15	12°♑41'58	11.01865 AU

morning rise	1313 Jan 11 j 16:14	14°♑41'36	
retrograde	1313 Apr 23 j 12:47	21°♑48'02	
desc. node	1313 Jun 03 j 21:36	20°♑30'22	
opposition	1313 Jul 03 j 10:35	18°♑28'31	-0°02'37
min. Earth dist.	1313 Jul 03 j 16:26	18°♑27'26	8.98974 AU
direct	1313 Sep 11 j 18:09	15°♑09'51	
evening set	1313 Dec 20 j 19:33	22°♑11'16	
conjunction	1314 Jan 06 j 11:22	24°♑09'28	-0°15'46
minimum elong	1314 Jan 06 j 11:21	24°♑09'28	0°15'47
behind sun begin	1314 Jan 06 j 09:38	24°♑08'58	
behind sun end	1314 Jan 06 j 13:04	24°♑09'58	
max. Earth dist.	1314 Jan 06 j 04:19	24°♑07'23	10.95611 AU
morning rise	1314 Jan 23 j 04:48	26°♑08'14	
	1314 Feb 28 j 09:11	0°♒	
retrograde	1314 May 05 j 21:04	3°♒20'50	
opposition	1314 Jul 15 j 17:57	0°♒00'10	-0°36'08
	1314 Jul 15 j 18:49	30°℞♑	
min. Earth dist.	1314 Jul 15 j 23:46	29°♑59'05	8.91747 AU
direct	1314 Sep 23 j 14:48	26°♑41'17	
	1314 Nov 27 j 12:13	0°♒	
evening set	1315 Jan 01 j 10:23	3°♒45'48	
conjunction	1315 Jan 18 j 03:12	5°♒45'18	-0°42'48
minimum elong	1315 Jan 18 j 03:10	5°♒45'18	0°42'49
max. Earth dist.	1315 Jan 17 j 19:41	5°♒43'03	10.87489 AU
morning rise	1315 Feb 03 j 22:39	7°♒45'38	
	1315 May 07 j 13:44	15°♒	
retrograde	1315 May 18 j 09:36	15°♒05'45	
	1315 May 29 j 06:24	15°℞♒	
opposition	1315 Jul 28 j 05:24	11°♒43'47	-1°08'46
min. Earth dist.	1315 Jul 28 j 11:17	11°♒42'41	8.82804 AU
direct	1315 Oct 05 j 13:10	8°♒24'28	
	1316 Jan 08 j 12:53	15°♒	
evening set	1316 Jan 13 j 07:07	15°♒33'37	
conjunction	1316 Jan 30 j 01:28	17°♒34'45	-1°08'31
minimum elong	1316 Jan 30 j 01:26	17°♒34'44	1°08'31
max. Earth dist.	1316 Jan 29 j 18:25	17°♒32'37	10.77792 AU
morning rise	1316 Feb 15 j 23:12	19°♒36'55	
retrograde	1316 May 30 j 05:16	27°♒05'45	
opposition	1316 Aug 08 j 21:38	23°♒42'23	-1°39'11
min. Earth dist.	1316 Aug 09 j 02:57	23°♒41'22	8.72471 AU
direct	1316 Oct 16 j 18:20	20°♒22'27	
evening set	1317 Jan 24 j 11:26	27°♒37'37	
conjunction	1317 Feb 10 j 07:50	29°♒40'42	-1°31'43
minimum elong	1317 Feb 10 j 07:47	29°♒40'42	1°31'42
max. Earth dist.	1317 Feb 10 j 02:28	29°♒39'04	10.66883 AU
	1317 Feb 12 j 22:44	0°♓	
morning rise	1317 Feb 27 j 07:59	1°♓45'00	
retrograde	1317 Jun 12 j 10:30	9°♓23'21	
opposition	1317 Aug 21 j 19:14	5°♓58'35	-2°05'55
min. Earth dist.	1317 Aug 21 j 22:59	5°♓57'51	8.61160 AU
direct	1317 Oct 29 j 03:22	2°♓37'53	
evening set	1318 Feb 06 j 00:34	10°♓00'15	
conjunction	1318 Feb 22 j 23:26	12°♓05'34	-1°51'13
minimum elong	1318 Feb 22 j 23:24	12°♓05'33	1°51'12
max. Earth dist.	1318 Feb 22 j 19:34	12°♓04'21	10.55230 AU
morning rise	1318 Mar 12 j 02:27	14°♓12'14	
retrograde	1318 Jun 25 j 23:54	22°♓00'32	
opposition	1318 Sep 03 j 23:03	18°♓34'23	-2°27'25
min. Earth dist.	1318 Sep 04 j 01:13	18°♓33'57	8.49376 AU
direct	1318 Nov 10 j 17:05	15°♓12'46	
evening set	1319 Feb 18 j 23:26	22°♓43'16	

conjunction	1319 Mar 08 j 01:17	24°♓51'02	-2°05'46
minimum elong	1319 Mar 08 j 01:16	24°♓51'02	2°05'45
max. Earth dist.	1319 Mar 07 j 22:31	24°♓50'10	10.43386 AU
morning rise	1319 Mar 25 j 07:46	27°♓00'17	
	1319 Apr 19 j 22:11	0°♈	
retrograde	1319 Jul 09 j 20:00	4°♈58'23	
opposition	1319 Sep 17 j 09:06	1°♈30'58	-2°42'08
min. Earth dist.	1319 Sep 17 j 10:05	1°♈30'47	8.37689 AU
	1319 Oct 07 j 06:46	30°♓℞	
direct	1319 Nov 23 j 15:48	28°♓08'20	
	1320 Jan 08 j 14:00	0°♈	
evening set	1320 Mar 03 j 08:50	5°♈47'30	
conjunction	1320 Mar 20 j 14:19	7°♈57'55	-2°14'13
minimum elong	1320 Mar 20 j 14:19	7°♈57'55	2°14'13
max. Earth dist.	1320 Mar 20 j 12:38	7°♈57'23	10.31948 AU
morning rise	1320 Apr 07 j 00:42	10°♈09'53	
retrograde	1320 Jul 22 j 23:37	18°♈16'55	
opposition	1320 Sep 30 j 01:00	14°♈48'28	-2°48'42
min. Earth dist.	1320 Sep 30 j 01:10	14°♈48'26	8.26711 AU
direct	1320 Dec 05 j 21:42	11°♈24'42	
evening set	1321 Mar 17 j 04:39	19°♈12'37	
conjunction	1321 Apr 03 j 14:25	21°♈25'46	-2°15'37
minimum elong	1321 Apr 03 j 14:26	21°♈25'46	2°15'37
max. Earth dist.	1321 Apr 03 j 14:45	21°♈25'52	10.21543 AU
morning rise	1321 Apr 21 j 04:57	23°♈40'25	
	1321 Jun 19 j 19:09	0°♉	
retrograde	1321 Aug 06 j 09:25	1°♉54'54	
	1321 Sep 23 j 17:57	30°♓℞	
opposition	1321 Oct 13 j 22:29	28°♈25'39	-2°46'03
min. Earth dist.	1321 Oct 13 j 21:16	28°♈25'53	8.17065 AU
direct	1321 Dec 19 j 11:25	25°♈00'46	
	1322 Mar 07 j 01:12	0°♉	
evening set	1322 Mar 31 j 10:17	2°♉56'53	
conjunction	1322 Apr 18 j 00:48	5°♉12'41	-2°09'24
minimum elong	1322 Apr 18 j 00:50	5°♉12'41	2°09'24
max. Earth dist.	1322 Apr 18 j 03:38	5°♉13'36	10.12779 AU
morning rise	1322 May 05 j 19:34	7°♉29'51	
	1322 Jul 21 j 09:20	15°♉	
retrograde	1322 Aug 20 j 23:17	15°♉49'37	
	1322 Sep 20 j 16:12	15°♓℞	
opposition	1322 Oct 28 j 00:24	12°♉19'52	-2°33'43
min. Earth dist.	1322 Oct 27 j 21:27	12°♉20'28	8.09320 AU
direct	1323 Jan 02 j 09:36	8°♉53'53	
	1323 Mar 30 j 07:38	15°♉	
evening set	1323 Apr 15 j 00:58	16°♉57'11	
conjunction	1323 May 02 j 20:16	19°♉15'20	-1°55'29
minimum elong	1323 May 02 j 20:19	19°♉15'21	1°55'29
max. Earth dist.	1323 May 03 j 01:23	19°♉17'00	10.06184 AU
morning rise	1323 May 20 j 18:59	21°♉34'37	
retrograde	1323 Sep 04 j 15:02	29°♉56'57	
opposition	1323 Nov 11 j 05:14	26°♉27'02	-2°11'56
min. Earth dist.	1323 Nov 11 j 00:44	26°♉27'58	8.03938 AU
direct	1324 Jan 16 j 13:21	23°♉00'00	
	1324 Apr 19 j 20:09	0°♊	
evening set	1324 Apr 28 j 22:44	1°♊08'58	
conjunction	1324 May 16 j 22:18	3°♊28'57	-1°34'26
minimum elong	1324 May 16 j 22:22	3°♊28'59	1°34'27
max. Earth dist.	1324 May 17 j 05:02	3°♊31'09	10.02136 AU
morning rise	1324 Jun 04 j 00:13	5°♊49'44	
retrograde	1324 Sep 18 j 07:31	14°♊11'48	
opposition	1324 Nov 24 j 11:48	10°♊42'04	-1°41'50
min. Earth dist.	1324 Nov 24 j 06:17	10°♊43'13	8.01202 AU
direct	1325 Jan 29 j 21:34	7°♊14'06	
evening set	1325 May 14 j 00:59	15°♊26'52	
conjunction	1325 Jun 01 j 03:46	17°♊47'58	-1°07'29
minimum elong	1325 Jun 01 j 03:49	17°♊47'59	1°07'29
max. Earth dist.	1325 Jun 01 j 11:06	17°♊50'22	10.00807 AU
morning rise	1325 Jun 19 j 07:45	20°♊09'28	
retrograde	1325 Oct 02 j 22:16	28°♊28'39	
opposition	1325 Dec 08 j 18:20	24°♊59'27	-1°05'19
min. Earth dist.	1325 Dec 08 j 12:45	25°♊00'37	8.01200 AU
direct	1326 Feb 13 j 08:55	21°♊30'45	
evening set	1326 May 29 j 05:27	29°♊45'28	
	1326 May 31 j 02:53	0°♋	
conjunction	1326 Jun 16 j 10:02	2°♋06'50	-0°36'22
minimum elong	1326 Jun 16 j 10:04	2°♋06'51	0°36'23
max. Earth dist.	1326 Jun 16 j 17:07	2°♋09'09	10.02212 AU
morning rise	1326 Jul 04 j 14:35	4°♋28'11	
retrograde	1326 Oct 17 j 09:10	12°♋42'13	
opposition	1326 Dec 22 j 23:19	9°♋13'56	-0°24'53
min. Earth dist.	1326 Dec 22 j 18:04	9°♋15'02	8.03933 AU
direct	1327 Feb 27 j 22:35	5°♋44'46	
evening set	1327 Jun 13 j 09:23	13°♋59'28	
conjunction	1327 Jul 01 j 14:01	16°♋20'10	-0°03'15
minimum elong	1327 Jul 01 j 14:01	16°♋20'10	0°03'16
behind sun begin	1327 Jul 01 j 06:42	16°♋17'49	
behind sun end	1327 Jul 01 j 21:21	16°♋22'31	
max. Earth dist.	1327 Jul 01 j 20:41	16°♋22'18	10.06320 AU
morning rise	1327 Jul 19 j 17:24	18°♋40'26	
asc. node	1327 Aug 06 j 17:58	20°♋53'34	
retrograde	1327 Oct 31 j 13:10	26°♋47'29	
opposition	1328 Jan 06 j 01:36	23°♋20'20	0°16'38
min. Earth dist.	1328 Jan 05 j 20:31	23°♋21'23	8.09328 AU
direct	1328 Mar 13 j 12:45	19°♋51'01	
evening set	1328 Jun 27 j 09:35	28°♋03'33	
	1328 Jul 12 j 14:09	0°♌	
conjunction	1328 Jul 15 j 12:31	0°♌22'40	0°29'50
minimum elong	1328 Jul 15 j 12:30	0°♌22'39	0°29'49
max. Earth dist.	1328 Jul 15 j 18:49	0°♌24'41	10.12966 AU
morning rise	1328 Aug 02 j 13:03	2°♌40'58	
retrograde	1328 Nov 13 j 09:32	10°♌39'43	
opposition	1329 Jan 18 j 23:45	7°♌13'51	0°56'30
min. Earth dist.	1329 Jan 18 j 18:34	7°♌14'54	8.17119 AU
direct	1329 Mar 27 j 23:57	3°♌44'39	
evening set	1329 Jul 12 j 03:33	11°♌53'02	
conjunction	1329 Jul 30 j 03:20	14°♌09'51	1°00'34
minimum elong	1329 Jul 30 j 03:17	14°♌09'50	1°00'34
max. Earth dist.	1329 Jul 30 j 09:20	14°♌11'46	10.21783 AU
	1329 Aug 05 j 16:36	15°♌	
morning rise	1329 Aug 16 j 23:40	16°♌25'32	
retrograde	1329 Nov 26 j 23:08	24°♌15'11	
opposition	1330 Feb 01 j 16:40	20°♌50'38	1°32'18
min. Earth dist.	1330 Feb 01 j 11:18	20°♌51'43	8.26847 AU
direct	1330 Apr 11 j 06:16	17°♌21'53	
evening set	1330 Jul 26 j 13:03	25°♌24'28	
conjunction	1330 Aug 13 j 08:37	27°♌38'28	1°27'21
minimum elong	1330 Aug 13 j 08:34	27°♌38'27	1°27'21
max. Earth dist.	1330 Aug 13 j 14:29	27°♌40'19	10.32240 AU
morning rise	1330 Aug 30 j 23:52	29°♌51'08	
	1330 Sep 01 j 04:39	0°♍	
retrograde	1330 Dec 10 j 05:22	7°♍31'25	
opposition	1331 Feb 15 j 03:59	4°♍08'14	2°02'11
min. Earth dist.	1331 Feb 14 j 23:06	4°♍09'13	8.37925 AU

direct	1331 Apr 25 j 06:41	0°♍40'09	
evening set	1331 Aug 09 j 12:33	8°♍35'41	
conjunction	1331 Aug 27 j 03:12	10°♍46'37	1°48'56
minimum elong	1331 Aug 27 j 03:09	10°♍46'36	1°48'57
max. Earth dist.	1331 Aug 27 j 08:26	10°♍48'15	10.43724 AU
morning rise	1331 Sep 13 j 13:01	12°♍56'07	
retrograde	1331 Dec 23 j 02:24	20°♍27'17	
opposition	1332 Feb 28 j 09:22	17°♍05'25	2°24'58
min. Earth dist.	1332 Feb 28 j 05:40	17°♍06'09	8.49729 AU
direct	1332 May 08 j 01:23	13°♍38'14	
evening set	1332 Aug 22 j 01:15	21°♍25'54	
conjunction	1332 Sep 08 j 10:47	23°♍33'45	2°04'33
minimum elong	1332 Sep 08 j 10:45	23°♍33'44	2°04'34
max. Earth dist.	1332 Sep 08 j 14:37	23°♍34'56	10.55624 AU
morning rise	1332 Sep 25 j 15:27	25°♍40'09	
	1332 Nov 04 j 05:15	0°♎	
retrograde	1333 Jan 03 j 16:22	3°♎02'48	
	1333 Mar 08 j 12:55	30°℞♍	
opposition	1333 Mar 12 j 08:44	29°♍42'10	2°40'02
min. Earth dist.	1333 Mar 12 j 06:40	29°♍42'34	8.61653 AU
direct	1333 May 21 j 12:19	26°♍16'00	
	1333 Jul 30 j 11:41	0°♎	
evening set	1333 Sep 04 j 02:56	3°♎55'26	
conjunction	1333 Sep 21 j 07:40	6°♎00'25	2°13'52
minimum elong	1333 Sep 21 j 07:39	6°♎00'25	2°13'53
max. Earth dist.	1333 Sep 21 j 09:19	6°♎00'56	10.67350 AU
morning rise	1333 Oct 08 j 07:51	8°♎04'01	
retrograde	1334 Jan 15 j 23:00	15°♎19'02	
opposition	1334 Mar 25 j 02:24	11°♎59'27	2°47'18
min. Earth dist.	1334 Mar 25 j 01:21	11°♎59'39	8.73110 AU
direct	1334 Jun 03 j 16:05	8°♎34'27	
evening set	1334 Sep 16 j 18:18	16°♎05'43	
conjunction	1334 Oct 03 j 18:50	18°♎08'08	2°16'56
minimum elong	1334 Oct 03 j 18:50	18°♎08'08	2°16'56
max. Earth dist.	1334 Oct 03 j 19:01	18°♎08'11	10.78359 AU
morning rise	1334 Oct 20 j 15:09	20°♎09'18	
retrograde	1335 Jan 27 j 23:44	27°♎17'49	
opposition	1335 Apr 06 j 14:55	23°♎59'07	2°47'02
min. Earth dist.	1335 Apr 06 j 14:27	23°♎59'13	8.83595 AU
direct	1335 Jun 16 j 14:06	20°♎35'21	
evening set	1335 Sep 29 j 00:14	27°♎58'51	
conjunction	1335 Oct 15 j 21:25	29°♎59'08	2°14'00
minimum elong	1335 Oct 15 j 21:26	29°♎59'08	2°14'00
max. Earth dist.	1335 Oct 15 j 20:57	29°♎59'00	10.88194 AU
	1335 Oct 16 j 00:19	0°♏	
morning rise	1335 Nov 01 j 14:38	1°♏58'17	
retrograde	1336 Feb 08 j 22:39	9°♏01'36	
opposition	1336 Apr 17 j 23:12	5°♏43'37	2°39'44
min. Earth dist.	1336 Apr 17 j 23:31	5°♏43'34	8.92689 AU
direct	1336 Jun 28 j 03:19	2°♏21'05	
evening set	1336 Oct 09 j 21:59	9°♏37'30	
conjunction	1336 Oct 26 j 16:33	11°♏36'07	2°05'34
minimum elong	1336 Oct 26 j 16:35	11°♏36'07	2°05'33
max. Earth dist.	1336 Oct 26 j 15:16	11°♏35'44	10.96466 AU
morning rise	1336 Nov 12 j 07:38	13°♏33'46	
	1336 Nov 24 j 23:14	15°♏	
retrograde	1337 Feb 19 j 16:36	20°♏33'12	
opposition	1337 Apr 30 j 04:02	17°♏15'46	2°26'06
min. Earth dist.	1337 Apr 30 j 06:03	17°♏15'23	9.00044 AU
	1337 Jun 02 j 13:52	15°℞♏	
direct	1337 Jul 10 j 10:03	13°♏54'24	
	1337 Aug 16 j 16:04	15°♏	
evening set	1337 Oct 21 j 13:27	21°♏04'45	
conjunction	1337 Nov 07 j 05:58	23°♏02'06	1°52'11
minimum elong	1337 Nov 07 j 06:00	23°♏02'07	1°52'10
max. Earth dist.	1337 Nov 07 j 02:36	23°♏01'06	11.02863 AU
morning rise	1337 Nov 23 j 19:52	24°♏58'44	
	1338 Jan 13 j 09:06	0°♐	
retrograde	1338 Mar 03 j 08:57	1°♐55'47	
	1338 Apr 23 j 08:44	30°℞♏	
opposition	1338 May 12 j 06:13	28°♏38'40	2°06'55
min. Earth dist.	1338 May 12 j 09:41	28°♏38'01	9.05390 AU
direct	1338 Jul 22 j 13:51	25°♏18'19	
	1338 Oct 11 j 05:32	0°♐	
evening set	1338 Nov 01 j 23:59	2°♐23'46	
conjunction	1338 Nov 18 j 15:12	4°♐20'20	1°34'32
minimum elong	1338 Nov 18 j 15:15	4°♐20'20	1°34'32
max. Earth dist.	1338 Nov 18 j 10:29	4°♐18'57	11.07161 AU
morning rise	1338 Dec 05 j 04:40	6°♐16'23	
retrograde	1339 Mar 15 j 00:53	13°♐12'36	
opposition	1339 May 24 j 07:03	9°♐55'31	1°43'00
min. Earth dist.	1339 May 24 j 10:56	9°♐54'48	9.08543 AU
direct	1339 Aug 03 j 13:01	6°♐36'05	
evening set	1339 Nov 13 j 07:11	13°♐37'50	
conjunction	1339 Nov 29 j 21:51	15°♐34'02	1°13'21
minimum elong	1339 Nov 29 j 21:53	15°♐34'02	1°13'21
max. Earth dist.	1339 Nov 29 j 17:10	15°♐32'39	11.09204 AU
morning rise	1339 Dec 16 j 11:20	17°♐29'57	
retrograde	1340 Mar 25 j 18:44	24°♐26'55	
opposition	1340 Jun 04 j 07:23	21°♐09'35	1°15'15
min. Earth dist.	1340 Jun 04 j 11:21	21°♐08'51	9.09391 AU
direct	1340 Aug 14 j 09:44	17°♐50'51	
evening set	1340 Nov 23 j 13:08	24°♐50'20	
conjunction	1340 Dec 10 j 03:39	26°♐46'34	0°49'22
minimum elong	1340 Dec 10 j 03:40	26°♐46'35	0°49'22
max. Earth dist.	1340 Dec 09 j 22:26	26°♐45'03	11.08916 AU
morning rise	1340 Dec 26 j 17:43	28°♐42'45	
	1341 Jan 07 j 03:49	0°♑	
retrograde	1341 Apr 06 j 15:39	5°♑41'58	
opposition	1341 Jun 16 j 08:10	2°♑24'11	0°44'37
min. Earth dist.	1341 Jun 16 j 13:05	2°♑23'17	9.07912 AU
	1341 Jul 22 j 23:47	30°℞♐	
direct	1341 Aug 26 j 03:38	29°♐05'56	
	1341 Sep 28 j 14:57	0°♑	
evening set	1341 Dec 04 j 19:29	6°♑04'37	
conjunction	1341 Dec 21 j 10:05	8°♑01'15	0°23'25
minimum elong	1341 Dec 21 j 10:06	8°♑01'15	0°23'25
max. Earth dist.	1341 Dec 21 j 03:34	7°♑59'21	11.06315 AU
morning rise	1342 Jan 07 j 01:19	9°♑58'06	
retrograde	1342 Apr 18 j 13:12	17°♑01'07	
opposition	1342 Jun 28 j 10:47	13°♑42'38	0°12'05
min. Earth dist.	1342 Jun 28 j 16:37	13°♑41'33	9.04160 AU
direct	1342 Sep 06 j 21:36	10°♑24'35	
desc. node	1342 Nov 12 j 11:10	13°♑48'21	
evening set	1342 Dec 16 j 03:37	17°♑24'00	
conjunction	1343 Jan 01 j 18:46	19°♑21'23	-0°03'43
minimum elong	1343 Jan 01 j 18:47	19°♑21'23	0°03'43
behind sun begin	1343 Jan 01 j 11:52	19°♑19'22	
behind sun end	1343 Jan 02 j 01:41	19°♑23'24	
max. Earth dist.	1343 Jan 01 j 11:49	19°♑19'21	11.01483 AU
morning rise	1343 Jan 18 j 11:28	21°♑19'14	
retrograde	1343 Apr 30 j 17:09	28°♑27'37	

opposition	1343 Jul 10 j 15:56	25°♓08'09	-0°21'17
min. Earth dist.	1343 Jul 10 j 21:44	25°♓07'05	8.98250 AU
direct	1343 Sep 18 j 18:19	21°♓50'04	
evening set	1343 Dec 27 j 15:27	28°♓51'43	
	1344 Jan 06 j 07:08	0°♒	
conjunction	1344 Jan 13 j 07:41	0°♒50'14	-0°30'52
minimum elong	1344 Jan 13 j 07:40	0°♒50'13	0°30'52
max. Earth dist.	1344 Jan 13 j 01:27	0°♒48'22	10.94553 AU
morning rise	1344 Jan 30 j 02:00	2°♒49'25	
retrograde	1344 May 12 j 03:18	10°♒04'32	
opposition	1344 Jul 22 j 00:22	6°♒43'53	-0°54'20
min. Earth dist.	1344 Jul 22 j 05:33	6°♒42'55	8.90345 AU
direct	1344 Sep 29 j 15:19	3°♒25'31	
evening set	1345 Jan 07 j 08:36	10°♒30'58	
conjunction	1345 Jan 24 j 02:08	12°♒30'55	-0°57'12
minimum elong	1345 Jan 24 j 02:06	12°♒30'54	0°57'12
max. Earth dist.	1345 Jan 23 j 19:54	12°♒29'02	10.85715 AU
morning rise	1345 Feb 09 j 22:26	14°♒31'45	
	1345 Feb 13 j 22:56	15°♒	
retrograde	1345 May 24 j 19:52	21°♒54'55	
opposition	1345 Aug 03 j 13:20	18°♒32'56	-1°25'46
min. Earth dist.	1345 Aug 03 j 18:19	18°♒32'00	8.80660 AU
direct	1345 Oct 11 j 15:56	15°♒14'01	
evening set	1346 Jan 19 j 08:27	22°♒24'48	
conjunction	1346 Feb 05 j 03:34	24°♒26'32	-1°21'35
minimum elong	1346 Feb 05 j 03:32	24°♒26'31	1°21'34
max. Earth dist.	1346 Feb 04 j 20:37	24°♒24'25	10.75241 AU
morning rise	1346 Feb 22 j 02:19	26°♒29'23	
	1346 Mar 25 j 16:55	0°♓	
retrograde	1346 Jun 06 j 20:03	4°♓01'43	
opposition	1346 Aug 16 j 07:40	0°♓38'19	-1°54'13
min. Earth dist.	1346 Aug 16 j 12:51	0°♓37'20	8.69545 AU
	1346 Aug 24 j 17:41	30°℞♒	
direct	1346 Oct 23 j 20:53	27°♒18'38	
	1346 Dec 19 j 19:58	0°♓	
evening set	1347 Jan 31 j 16:32	4°♓36'08	
conjunction	1347 Feb 17 j 13:51	6°♓39'58	-1°42'50
minimum elong	1347 Feb 17 j 13:48	6°♓39'58	1°42'49
max. Earth dist.	1347 Feb 17 j 07:13	6°♓37'56	10.63578 AU
morning rise	1347 Mar 06 j 15:25	8°♓45'08	
retrograde	1347 Jun 20 j 03:10	16°♓27'21	
opposition	1347 Aug 29 j 07:45	13°♓02'27	-2°18'12
min. Earth dist.	1347 Aug 29 j 12:31	13°♓01'32	8.57532 AU
direct	1347 Nov 05 j 08:18	9°♓41'46	
evening set	1348 Feb 13 j 09:53	17°♓07'08	
conjunction	1348 Mar 01 j 10:06	19°♓13'23	-1°59'44
minimum elong	1348 Mar 01 j 10:04	19°♓13'22	1°59'44
max. Earth dist.	1348 Mar 01 j 05:04	19°♓11'49	10.51302 AU
morning rise	1348 Mar 18 j 14:49	21°♓21'03	
retrograde	1348 Jul 02 j 18:17	29°♓13'21	
opposition	1348 Sep 10 j 13:57	25°♓46'57	-2°36'10
min. Earth dist.	1348 Sep 10 j 17:20	25°♓46'17	8.45218 AU
direct	1348 Nov 17 j 03:49	22°♓25'08	
evening set	1349 Feb 25 j 13:22	29°♓59'04	
	1349 Feb 25 j 16:22	0°♈	
conjunction	1349 Mar 14 j 17:02	2°♈07'57	-2°11'06
minimum elong	1349 Mar 14 j 17:01	2°♈07'57	2°11'06
max. Earth dist.	1349 Mar 14 j 14:05	2°♈07'01	10.39038 AU
morning rise	1349 Apr 01 j 01:15	4°♈18'19	
retrograde	1349 Jul 16 j 18:31	12°♈20'13	
opposition	1349 Sep 24 j 02:14	8°♈52'27	-2°46'40
min. Earth dist.	1349 Sep 24 j 03:44	8°♈52'09	8.33241 AU
direct	1349 Nov 30 j 04:39	5°♈29'22	
evening set	1350 Mar 11 j 03:21	13°♈12'12	
conjunction	1350 Mar 28 j 11:01	15°♈23'50	-2°15'53
minimum elong	1350 Mar 28 j 11:02	15°♈23'50	2°15'54
max. Earth dist.	1350 Mar 28 j 09:48	15°♈23'27	10.27450 AU
morning rise	1350 Apr 14 j 23:16	17°♈36'59	
retrograde	1350 Jul 31 j 01:23	25°♈47'21	
opposition	1350 Oct 07 j 20:23	22°♈18'25	-2°48'28
min. Earth dist.	1350 Oct 07 j 20:15	22°♈18'27	8.22254 AU
direct	1350 Dec 13 j 13:16	18°♈54'01	
evening set	1351 Mar 25 j 03:39	26°♈45'36	
conjunction	1351 Apr 11 j 15:48	29°♈00'00	-2°13'18
minimum elong	1351 Apr 11 j 15:50	29°♈00'01	2°13'18
max. Earth dist.	1351 Apr 11 j 15:56	29°♈00'03	10.17183 AU
	1351 Apr 19 j 10:15	0°♉	
morning rise	1351 Apr 29 j 08:25	1°♉15'52	
retrograde	1351 Aug 14 j 13:06	9°♉32'51	
opposition	1351 Oct 21 j 19:36	6°♉03'05	-2°40'45
min. Earth dist.	1351 Oct 21 j 18:26	6°♉03'19	8.12871 AU
direct	1351 Dec 27 j 06:37	2°♉37'21	
evening set	1352 Apr 07 j 13:34	10°♉36'59	
conjunction	1352 Apr 25 j 06:26	12°♉54'01	-2°03'00
minimum elong	1352 Apr 25 j 06:29	12°♉54'02	2°03'00
max. Earth dist.	1352 Apr 25 j 08:03	12°♉54'32	10.08827 AU
	1352 May 11 j 12:42	15°♉	
morning rise	1352 May 13 j 03:20	15°♉12'18	
retrograde	1352 Aug 28 j 03:19	23°♉33'32	
opposition	1352 Nov 03 j 22:43	20°♉03'18	-2°23'23
min. Earth dist.	1352 Nov 03 j 20:35	20°♉03'44	8.05651 AU
direct	1353 Jan 09 j 07:07	16°♉36'18	
evening set	1353 Apr 22 j 07:32	24°♉42'45	
conjunction	1353 May 10 j 05:00	27°♉02'00	-1°45'14
minimum elong	1353 May 10 j 05:04	27°♉02'01	1°45'14
max. Earth dist.	1353 May 10 j 08:17	27°♉03'04	10.02893 AU
morning rise	1353 May 28 j 05:40	29°♉22'13	
	1353 Jun 02 j 04:40	0°♊	
retrograde	1353 Sep 11 j 19:25	7°♊44'57	
opposition	1353 Nov 18 j 04:28	4°♊14'38	-1°57'03
min. Earth dist.	1353 Nov 18 j 01:13	4°♊15'18	8.01049 AU
direct	1354 Jan 23 j 13:20	0°♊46'33	
evening set	1354 May 07 j 07:34	8°♊58'05	
conjunction	1354 May 25 j 08:58	11°♊18'55	-1°20'53
minimum elong	1354 May 25 j 09:02	11°♊18'56	1°20'53
max. Earth dist.	1354 May 25 j 14:06	11°♊20'35	9.99758 AU
morning rise	1354 Jun 12 j 12:24	13°♊40'22	
retrograde	1354 Sep 26 j 10:53	22°♊01'45	
opposition	1354 Dec 02 j 11:11	18°♊31'44	-1°23'17
min. Earth dist.	1354 Dec 02 j 06:36	18°♊32'41	7.99355 AU
direct	1355 Feb 07 j 00:08	15°♊02'47	
evening set	1355 May 22 j 11:25	23°♊17'25	
conjunction	1355 Jun 09 j 15:29	25°♊38'58	-0°51'29
minimum elong	1355 Jun 09 j 15:32	25°♊38'59	0°51'29
max. Earth dist.	1355 Jun 09 j 22:18	25°♊41'12	9.99608 AU
morning rise	1355 Jun 27 j 20:10	28°♊00'45	
	1355 Jul 13 j 18:43	0°♋	
retrograde	1355 Oct 10 j 23:23	6°♋18'07	
opposition	1355 Dec 16 j 17:07	2°♋48'47	-0°44'20
min. Earth dist.	1355 Dec 16 j 11:18	2°♋49'59	8.00677 AU
	1356 Jan 25 j 07:34	30°℞♊	
direct	1356 Feb 21 j 13:22	29°♊19'14	

	1356 Mar 19 j 16:56	0°♋	
evening set	1356 Jun 05 j 16:01	7°♋34'48	
conjunction	1356 Jun 23 j 21:04	9°♋56'08	-0°18'59
minimum elong	1356 Jun 23 j 21:05	9°♋56'09	0°19'00
max. Earth dist.	1356 Jun 24 j 05:00	9°♋58'43	10.02454 AU
morning rise	1356 Jul 12 j 01:17	12°♋17'14	
retrograde	1356 Oct 24 j 06:54	20°♋28'25	
opposition	1356 Dec 29 j 21:03	17°♋00'06	-0°02'56
min. Earth dist.	1356 Dec 29 j 14:34	17°♋01'26	8.04938 AU
asc. node	1357 Jan 25 j 12:48	14°♋56'42	
direct	1357 Mar 07 j 02:56	13°♋30'17	
evening set	1357 Jun 20 j 18:14	21°♋44'32	
conjunction	1357 Jul 08 j 22:27	24°♋04'42	0°14'26
minimum elong	1357 Jul 08 j 22:26	24°♋04'42	0°14'25
behind sun begin	1357 Jul 08 j 19:22	24°♋03'43	
behind sun end	1357 Jul 09 j 01:30	24°♋05'41	
max. Earth dist.	1357 Jul 09 j 06:51	24°♋07'25	10.08111 AU
morning rise	1357 Jul 27 j 00:30	26°♋24'12	
	1357 Aug 26 j 05:26	0°♌	
retrograde	1357 Nov 07 j 08:12	4°♌27'33	
opposition	1358 Jan 12 j 21:23	1°♌00'31	0°38'05
min. Earth dist.	1358 Jan 12 j 15:00	1°♌01'50	8.11864 AU
	1358 Jan 25 j 08:40	30°℞♋	
direct	1358 Mar 21 j 14:16	27°♋30'47	
	1358 May 14 j 17:39	0°♌	
evening set	1358 Jul 05 j 15:40	5°♌41'44	
conjunction	1358 Jul 23 j 17:18	7°♌59'54	0°46'28
minimum elong	1358 Jul 23 j 17:16	7°♌59'53	0°46'27
max. Earth dist.	1358 Jul 24 j 01:15	8°♌02'26	10.16213 AU
morning rise	1358 Aug 10 j 15:45	10°♌17'02	
	1358 Sep 21 j 03:52	15°♌	
retrograde	1358 Nov 21 j 02:16	18°♌11'28	
	1359 Jan 23 j 19:41	15°℞♌	
opposition	1359 Jan 26 j 17:00	14°♌45'55	1°16'04
min. Earth dist.	1359 Jan 26 j 11:23	14°♌47'04	8.21018 AU
direct	1359 Apr 04 j 22:47	11°♌16'36	
	1359 Jun 11 j 21:30	15°♌	
evening set	1359 Jul 20 j 05:43	19°♌22'30	
conjunction	1359 Aug 07 j 03:23	21°♌38'01	1°15'18
minimum elong	1359 Aug 07 j 03:20	21°♌38'00	1°15'18
max. Earth dist.	1359 Aug 07 j 10:07	21°♌40'09	10.26259 AU
morning rise	1359 Aug 24 j 21:12	23°♌52'16	
	1359 Oct 22 j 19:11	0°♍	
retrograde	1359 Dec 04 j 11:40	1°♍37'22	
	1360 Jan 17 j 00:24	30°℞♌	
opposition	1360 Feb 09 j 07:22	28°♌13'22	1°48'56
min. Earth dist.	1360 Feb 09 j 02:19	28°♌14'23	8.31847 AU
direct	1360 Apr 18 j 03:05	24°♌44'48	
	1360 Jul 10 j 04:28	0°♍	
evening set	1360 Aug 02 j 10:17	2°♍44'10	
conjunction	1360 Aug 20 j 03:11	4°♍56'39	1°39'27
minimum elong	1360 Aug 20 j 03:08	4°♍56'38	1°39'27
max. Earth dist.	1360 Aug 20 j 08:46	4°♍58'24	10.37660 AU
morning rise	1360 Sep 06 j 15:48	7°♍07'46	
retrograde	1360 Dec 16 j 12:00	14°♍43'35	
opposition	1361 Feb 21 j 15:51	11°♍21'07	2°15'09
min. Earth dist.	1361 Feb 21 j 11:07	11°♍22'03	8.43725 AU
direct	1361 May 02 j 02:06	7°♍53'32	
evening set	1361 Aug 16 j 04:32	15°♍45'22	
conjunction	1361 Sep 02 j 16:29	17°♍54'44	1°57'56
minimum elong	1361 Sep 02 j 16:26	17°♍54'43	1°57'56
max. Earth dist.	1361 Sep 02 j 21:13	17°♍56'12	10.49787 AU
morning rise	1361 Sep 19 j 23:46	20°♍02'40	
retrograde	1361 Dec 29 j 06:33	27°♍29'37	
opposition	1362 Mar 06 j 18:16	24°♍08'33	2°33'51
min. Earth dist.	1362 Mar 06 j 14:02	24°♍09'23	8.56008 AU
direct	1362 May 15 j 16:28	20°♍42'09	
evening set	1362 Aug 29 j 12:02	28°♍25'49	
	1362 Sep 11 j 10:09	0°♎	
conjunction	1362 Sep 15 j 19:08	0°♎32'11	2°10'12
minimum elong	1362 Sep 15 j 19:06	0°♎32'11	2°10'12
max. Earth dist.	1362 Sep 15 j 23:08	0°♎33'25	10.62005 AU
morning rise	1362 Oct 02 j 21:21	2°♎37'07	
retrograde	1363 Jan 10 j 18:07	9°♎55'55	
opposition	1363 Mar 19 j 15:08	6°♎36'09	2°44'43
min. Earth dist.	1363 Mar 19 j 12:10	6°♎36'43	8.68074 AU
direct	1363 May 28 j 23:24	3°♎11'00	
evening set	1363 Sep 11 j 08:48	10°♎46'20	
conjunction	1363 Sep 28 j 11:23	12°♎49'57	2°16'08
minimum elong	1363 Sep 28 j 11:22	12°♎49'57	2°16'08
max. Earth dist.	1363 Sep 28 j 14:02	12°♎50'45	10.73716 AU
morning rise	1363 Oct 15 j 09:17	14°♎52'13	
retrograde	1364 Jan 22 j 22:30	22°♎03'52	
opposition	1364 Mar 31 j 06:42	18°♎45'12	2°47'52
min. Earth dist.	1364 Mar 31 j 05:40	18°♎45'24	8.79347 AU
direct	1364 Jun 09 j 23:57	15°♎21'18	
evening set	1364 Sep 22 j 19:43	22°♎48'32	
conjunction	1364 Oct 09 j 18:22	24°♎49'46	2°15'55
minimum elong	1364 Oct 09 j 18:22	24°♎49'46	2°15'55
max. Earth dist.	1364 Oct 09 j 18:32	24°♎49'49	10.84371 AU
morning rise	1364 Oct 26 j 12:56	26°♎49'49	
	1364 Nov 24 j 06:32	0°♏	
retrograde	1365 Feb 02 j 21:59	3°♏55'31	
opposition	1365 Apr 12 j 17:18	0°♏37'41	2°43'43
min. Earth dist.	1365 Apr 12 j 18:05	0°♏37'32	8.89290 AU
	1365 Apr 21 j 02:20	30°℞♎	
direct	1365 Jun 22 j 17:34	27°♎15'00	
	1365 Aug 21 j 19:14	0°♏	
evening set	1365 Oct 04 j 21:47	4°♏34'47	
conjunction	1365 Oct 21 j 17:23	6°♏34'07	2°09'56
minimum elong	1365 Oct 21 j 17:24	6°♏34'07	2°09'56
max. Earth dist.	1365 Oct 21 j 15:13	6°♏33'28	10.93461 AU
morning rise	1365 Nov 07 j 09:31	8°♏32'25	
	1366 Jan 20 j 00:13	15°♏	
retrograde	1366 Feb 14 j 17:13	15°♏33'36	
	1366 Mar 12 j 21:08	15°℞♏	
opposition	1366 Apr 25 j 00:01	12°♏16'21	2°32'53
min. Earth dist.	1366 Apr 25 j 01:50	12°♏16'01	8.97424 AU
direct	1366 Jul 05 j 05:24	8°♏54'50	
	1366 Oct 06 j 17:11	15°♏	
evening set	1366 Oct 16 j 16:30	16°♏08'07	
conjunction	1366 Nov 02 j 09:55	18°♏06'01	1°58'44
minimum elong	1366 Nov 02 j 09:57	18°♏06'01	1°58'43
max. Earth dist.	1366 Nov 02 j 06:46	18°♏05'05	11.00581 AU
morning rise	1366 Nov 19 j 00:18	20°♏03'04	
retrograde	1367 Feb 26 j 12:20	27°♏01'19	
opposition	1367 May 07 j 03:52	23°♏44'25	2°16'08
min. Earth dist.	1367 May 07 j 06:40	23°♏43'54	9.03447 AU
direct	1367 Jul 17 j 11:43	20°♏23'57	
evening set	1367 Oct 28 j 05:40	27°♏31'50	
conjunction	1367 Nov 13 j 21:35	29°♏28'46	1°42'56
minimum elong	1367 Nov 13 j 21:37	29°♏28'47	1°42'56

max. Earth dist.	1367 Nov 13 j 17:22	29°♏27'32	11.05519 AU
	1367 Nov 18 j 07:36	0°♐	
morning rise	1367 Nov 30 j 11:03	1°♐25'05	
retrograde	1368 Mar 09 j 05:23	8°♐21'52	
opposition	1368 May 18 j 05:51	5°♐05'02	1°54'15
min. Earth dist.	1368 May 18 j 10:11	5°♐04'14	9.07226 AU
direct	1368 Jul 28 j 11:13	1°♐45'24	
evening set	1368 Nov 07 j 14:51	8°♐49'07	
conjunction	1368 Nov 24 j 05:46	10°♐45'32	1°23'14
minimum elong	1368 Nov 24 j 05:49	10°♐45'32	1°23'15
max. Earth dist.	1368 Nov 23 j 23:44	10°♐43'45	11.08175 AU
morning rise	1368 Dec 10 j 19:13	12°♐41'34	
retrograde	1369 Mar 20 j 21:44	19°♐38'25	
opposition	1369 May 30 j 06:52	16°♐21'20	1°28'07
min. Earth dist.	1369 May 30 j 12:44	16°♐20'16	9.08683 AU
direct	1369 Aug 09 j 10:18	13°♐02'17	
evening set	1369 Nov 18 j 21:47	20°♐03'12	
conjunction	1369 Dec 05 j 12:15	21°♐59'30	1°00'24
minimum elong	1369 Dec 05 j 12:17	21°♐59'30	1°00'24
max. Earth dist.	1369 Dec 05 j 04:59	21°♐57'21	11.08491 AU
morning rise	1369 Dec 22 j 02:11	23°♐55'38	
	1370 Feb 27 j 05:53	0°♑	
retrograde	1370 Apr 01 j 16:45	0°♑54'08	
	1370 May 05 j 20:28	30°℞♐	
opposition	1370 Jun 11 j 07:50	27°♐36'30	0°58'39
min. Earth dist.	1370 Jun 11 j 13:58	27°♐35'22	9.07794 AU
direct	1370 Aug 21 j 07:01	24°♐17'51	
	1370 Nov 18 j 18:11	0°♑	
evening set	1370 Nov 30 j 04:01	1°♑17'19	
conjunction	1370 Dec 16 j 18:40	3°♑13'53	0°35'13
minimum elong	1370 Dec 16 j 18:41	3°♑13'53	0°35'13
max. Earth dist.	1370 Dec 16 j 11:43	3°♑11'50	11.06475 AU
morning rise	1371 Jan 02 j 09:23	5°♑10'33	
retrograde	1371 Apr 13 j 14:11	12°♑12'15	
opposition	1371 Jun 23 j 09:55	8°♑53'47	0°26'49
min. Earth dist.	1371 Jun 23 j 15:44	8°♑52'43	9.04613 AU
direct	1371 Sep 02 j 01:45	5°♑35'18	
evening set	1371 Dec 11 j 11:23	12°♑34'50	
conjunction	1371 Dec 28 j 02:30	14°♑32'03	0°08'34
minimum elong	1371 Dec 28 j 02:30	14°♑32'03	0°08'33
behind sun begin	1371 Dec 27 j 20:23	14°♑30'16	
behind sun end	1371 Dec 28 j 08:37	14°♑33'50	
max. Earth dist.	1371 Dec 27 j 19:38	14°♑30'02	11.02206 AU
morning rise	1372 Jan 13 j 18:27	16°♑29'35	
desc. node	1372 Apr 23 j 19:48	23°♑35'59	
retrograde	1372 Apr 24 j 17:07	23°♑36'02	
opposition	1372 Jul 04 j 14:04	20°♑16'33	-0°06'22
min. Earth dist.	1372 Jul 04 j 19:59	20°♑15'27	8.99255 AU
direct	1372 Sep 12 j 20:58	16°♑58'00	
evening set	1372 Dec 21 j 21:45	23°♑59'10	
conjunction	1373 Jan 07 j 13:31	25°♑57'21	-0°18'47
minimum elong	1373 Jan 07 j 13:30	25°♑57'21	0°18'48
max. Earth dist.	1373 Jan 07 j 05:42	25°♑55'02	10.95837 AU
morning rise	1373 Jan 24 j 07:08	27°♑56'07	
	1373 Feb 11 j 15:25	0°♒	
retrograde	1373 May 06 j 23:22	5°♒08'45	
opposition	1373 Jul 16 j 21:11	1°♒48'06	-0°39'45
min. Earth dist.	1373 Jul 17 j 03:41	1°♒46'53	8.91912 AU
	1373 Aug 11 j 09:59	30°℞♑	
direct	1373 Sep 24 j 16:30	28°♑29'16	
	1373 Nov 06 j 14:56	0°♒	
evening set	1374 Jan 02 j 12:34	5°♒33'40	
conjunction	1374 Jan 19 j 05:26	7°♒33'10	-0°45'40
minimum elong	1374 Jan 19 j 05:24	7°♒33'09	0°45'40
max. Earth dist.	1374 Jan 18 j 21:44	7°♒30'51	10.87595 AU
morning rise	1374 Feb 05 j 01:00	9°♒33'29	
	1374 Mar 31 j 11:39	15°♒	
retrograde	1374 May 19 j 11:45	16°♒53'43	
	1374 Jul 09 j 02:24	15°℞♒	
opposition	1374 Jul 29 j 08:30	13°♒31'43	-1°12'08
min. Earth dist.	1374 Jul 29 j 14:34	13°♒30'35	8.82850 AU
direct	1374 Oct 06 j 17:17	10°♒12'24	
	1374 Dec 24 j 15:56	15°♒	
evening set	1375 Jan 14 j 09:18	17°♒21'30	
conjunction	1375 Jan 31 j 03:48	19°♒22'40	-1°11'06
minimum elong	1375 Jan 31 j 03:45	19°♒22'39	1°11'05
max. Earth dist.	1375 Jan 30 j 21:26	19°♒20'44	10.77775 AU
morning rise	1375 Feb 17 j 01:30	21°♒24'50	
retrograde	1375 Jun 01 j 09:23	28°♒53'49	
opposition	1375 Aug 11 j 00:38	25°♒30'24	-1°42'09
min. Earth dist.	1375 Aug 11 j 05:26	25°♒29'29	8.72400 AU
direct	1375 Oct 18 j 20:57	22°♒10'27	
evening set	1376 Jan 26 j 13:49	29°♒25'37	
	1376 Jan 31 j 07:49	0°♓	
conjunction	1376 Feb 12 j 10:20	1°♓28'44	-1°33'55
minimum elong	1376 Feb 12 j 10:17	1°♓28'43	1°33'54
max. Earth dist.	1376 Feb 12 j 05:10	1°♓27'09	10.66751 AU
morning rise	1376 Feb 29 j 10:32	3°♓33'03	
retrograde	1376 Jun 13 j 14:09	11°♓11'35	
opposition	1376 Aug 22 j 22:11	7°♓46'44	-2°08'20
min. Earth dist.	1376 Aug 23 j 01:40	7°♓46'03	8.60979 AU
direct	1376 Oct 30 j 04:53	4°♓25'59	
evening set	1377 Feb 07 j 03:14	11°♓48'28	
conjunction	1377 Feb 24 j 02:08	13°♓53'48	-1°52'55
minimum elong	1377 Feb 24 j 02:06	13°♓53'48	1°52'54
max. Earth dist.	1377 Feb 23 j 21:28	13°♓52'22	10.54995 AU
morning rise	1377 Mar 13 j 05:21	16°♓00'31	
retrograde	1377 Jun 27 j 02:44	23°♓49'01	
opposition	1377 Sep 05 j 02:00	20°♓22'46	-2°29'10
min. Earth dist.	1377 Sep 05 j 04:41	20°♓22'15	8.49092 AU
direct	1377 Nov 11 j 20:05	17°♓01'04	
evening set	1378 Feb 20 j 02:18	24°♓31'44	
conjunction	1378 Mar 09 j 04:13	26°♓39'35	-2°06'52
minimum elong	1378 Mar 09 j 04:12	26°♓39'35	2°06'51
max. Earth dist.	1378 Mar 09 j 00:34	26°♓38'26	10.43058 AU
morning rise	1378 Mar 26 j 10:57	28°♓48'55	
	1378 Apr 05 j 05:36	0°♈	
retrograde	1378 Jul 10 j 23:41	6°♈47'12	
opposition	1378 Sep 18 j 12:07	3°♈19'43	-2°43'06
min. Earth dist.	1378 Sep 18 j 13:55	3°♈19'21	8.37320 AU
	1378 Nov 17 j 07:33	30°℞♓	
direct	1378 Nov 24 j 18:13	29°♓56'56	
	1378 Dec 02 j 04:59	0°♈	
evening set	1379 Mar 05 j 11:54	7°♈36'21	
conjunction	1379 Mar 22 j 17:38	9°♈46'52	-2°14'39
minimum elong	1379 Mar 22 j 17:37	9°♈46'52	2°14'39
max. Earth dist.	1379 Mar 22 j 15:48	9°♈46'17	10.31546 AU
morning rise	1379 Apr 09 j 04:14	11°♈58'56	
retrograde	1379 Jul 25 j 02:58	20°♈06'10	
opposition	1379 Oct 02 j 04:06	16°♈37'37	-2°48'48
min. Earth dist.	1379 Oct 02 j 04:39	16°♈37'30	8.26279 AU
direct	1379 Dec 08 j 00:54	13°♈13'43	
evening set	1380 Mar 18 j 08:04	21°♈01'56	

conjunction	1380 Apr 04 j 18:13	23°♈15'13	-2°15'20
minimum elong	1380 Apr 04 j 18:14	23°♈15'13	2°15'20
max. Earth dist.	1380 Apr 04 j 18:58	23°♈15'27	10.21085 AU
morning rise	1380 Apr 22 j 08:56	25°♈29'59	
	1380 May 31 j 10:28	0°♉	
retrograde	1380 Aug 07 j 12:25	3°♉44'40	
opposition	1380 Oct 15 j 01:37	0°♉15'18	-2°45'15
min. Earth dist.	1380 Oct 15 j 00:13	0°♉15'35	8.16589 AU
	1380 Oct 18 j 05:17	30°℞♈	
direct	1380 Dec 20 j 15:31	26°♈50'18	
	1381 Feb 18 j 20:52	0°♉	
evening set	1381 Apr 01 j 14:10	4°♉46'47	
conjunction	1381 Apr 19 j 05:02	7°♉02'44	-2°08'22
minimum elong	1381 Apr 19 j 05:05	7°♉02'45	2°08'23
max. Earth dist.	1381 Apr 19 j 08:16	7°♉03'47	10.12292 AU
morning rise	1381 May 06 j 23:57	9°♉20'01	
	1381 Jun 26 j 20:50	15°♉	
retrograde	1381 Aug 22 j 02:38	17°♉39'59	
	1381 Oct 18 j 21:30	15°℞♉	
opposition	1381 Oct 29 j 03:39	14°♉10'09	-2°32'00
min. Earth dist.	1381 Oct 29 j 00:20	14°♉10'49	8.08834 AU
direct	1382 Jan 03 j 12:36	10°♉44'04	
	1382 Mar 15 j 09:45	15°♉	
evening set	1382 Apr 16 j 05:17	18°♉47'45	
conjunction	1382 May 04 j 00:52	21°♉06'04	-1°53'46
minimum elong	1382 May 04 j 00:55	21°♉06'05	1°53'46
max. Earth dist.	1382 May 04 j 06:01	21°♉07'45	10.05717 AU
morning rise	1382 May 21 j 23:45	23°♉25'29	
	1382 Jul 22 j 10:31	0°♊	
retrograde	1382 Sep 05 j 20:09	1°♊47'59	
	1382 Oct 21 j 19:02	30°℞♉	
opposition	1382 Nov 12 j 08:48	28°♉18'02	-2°09'24
min. Earth dist.	1382 Nov 12 j 04:12	28°♉18'59	8.03503 AU
direct	1383 Jan 17 j 15:32	24°♉50'55	
	1383 Apr 06 j 13:16	0°♊	
evening set	1383 May 01 j 03:30	3°♊00'18	
conjunction	1383 May 19 j 03:16	5°♊20'26	-1°32'06
minimum elong	1383 May 19 j 03:20	5°♊20'27	1°32'07
max. Earth dist.	1383 May 19 j 09:36	5°♊22'30	10.01761 AU
morning rise	1383 Jun 06 j 05:26	7°♊41'20	
retrograde	1383 Sep 20 j 13:12	16°♊03'28	
opposition	1383 Nov 26 j 15:36	12°♊33'45	-1°38'36
min. Earth dist.	1383 Nov 26 j 10:26	12°♊34'49	8.00903 AU
direct	1384 Feb 01 j 00:58	9°♊05'42	
evening set	1384 May 15 j 06:16	17°♊18'52	
conjunction	1384 Jun 02 j 09:08	19°♊40'02	-1°04'40
minimum elong	1384 Jun 02 j 09:11	19°♊40'03	1°04'41
max. Earth dist.	1384 Jun 02 j 15:47	19°♊42'13	10.00613 AU
morning rise	1384 Jun 20 j 13:19	22°♊01'37	
	1384 Sep 14 j 20:07	0°♋	
retrograde	1384 Oct 04 j 03:00	0°♋20'39	
	1384 Oct 23 j 08:51	30°℞♊	
opposition	1384 Dec 09 j 22:15	26°♊51'32	-1°01'36
min. Earth dist.	1384 Dec 09 j 17:11	26°♊52'35	8.01119 AU
direct	1385 Feb 14 j 14:00	23°♊22'45	
	1385 May 17 j 10:22	0°♋	
evening set	1385 May 30 j 10:52	1°♋37'41	
conjunction	1385 Jun 17 j 15:26	3°♋59'03	-0°33'16
minimum elong	1385 Jun 17 j 15:27	3°♋59'04	0°33'17
max. Earth dist.	1385 Jun 17 j 21:53	4°♋01'09	10.02244 AU
morning rise	1385 Jul 05 j 20:03	6°♋20'24	
retrograde	1385 Oct 18 j 12:15	14°♋34'08	
opposition	1385 Dec 24 j 03:14	11°♋05'55	-0°20'57
min. Earth dist.	1385 Dec 23 j 22:11	11°♋06'58	8.04059 AU
direct	1386 Mar 01 j 04:11	7°♋36'43	
evening set	1386 Jun 14 j 14:35	15°♋51'28	
conjunction	1386 Jul 02 j 19:11	18°♋12'08	-0°00'00
minimum elong	1386 Jul 02 j 19:11	18°♋12'07	0°00'01
behind sun begin	1386 Jul 02 j 15:05	18°♋10'50	
behind sun end	1386 Jul 02 j 23:18	18°♋13'25	
asc. node	1386 Jul 02 j 19:20	18°♋12'10	
max. Earth dist.	1386 Jul 03 j 01:34	18°♋14'10	10.06517 AU
morning rise	1386 Jul 20 j 22:31	20°♋32'19	
retrograde	1386 Nov 01 j 16:05	28°♋39'04	
opposition	1387 Jan 07 j 05:22	25°♋12'00	0°20'34
min. Earth dist.	1387 Jan 07 j 00:03	25°♋13'05	8.09576 AU
direct	1387 Mar 15 j 17:02	21°♋42'41	
evening set	1387 Jun 29 j 14:43	29°♋55'13	
	1387 Jun 30 j 05:52	0°♌	
conjunction	1387 Jul 17 j 17:34	2°♌14'17	0°32'54
minimum elong	1387 Jul 17 j 17:33	2°♌14'16	0°32'53
max. Earth dist.	1387 Jul 18 j 00:02	2°♌16'21	10.13247 AU
morning rise	1387 Aug 04 j 17:51	4°♌32'29	
retrograde	1387 Nov 15 j 13:50	12°♌30'57	
opposition	1388 Jan 21 j 03:21	9°♌05'10	1°00'10
min. Earth dist.	1388 Jan 20 j 21:44	9°♌06'19	8.17422 AU
direct	1388 Mar 29 j 03:37	5°♌36'03	
evening set	1388 Jul 13 j 08:30	13°♌44'25	
	1388 Jul 23 j 08:14	15°♌	
conjunction	1388 Jul 31 j 08:06	16°♌01'09	1°03'21
minimum elong	1388 Jul 31 j 08:04	16°♌01'08	1°03'21
max. Earth dist.	1388 Jul 31 j 14:41	16°♌03'15	10.22097 AU
morning rise	1388 Aug 18 j 04:01	18°♌16'43	
retrograde	1388 Nov 28 j 03:30	26°♌06'09	
opposition	1389 Feb 02 j 20:24	22°♌41'43	1°35'30
min. Earth dist.	1389 Feb 02 j 14:57	22°♌42'49	8.27172 AU
direct	1389 Apr 12 j 10:04	19°♌13'03	
evening set	1389 Jul 27 j 17:40	27°♌15'36	
conjunction	1389 Aug 14 j 12:57	29°♌29'29	1°29'42
minimum elong	1389 Aug 14 j 12:54	29°♌29'28	1°29'42
max. Earth dist.	1389 Aug 14 j 19:10	29°♌31'27	10.32565 AU
	1389 Aug 18 j 13:36	0°♍	
morning rise	1389 Sep 01 j 03:47	1°♍42'02	
retrograde	1389 Dec 11 j 08:47	9°♍22'11	
opposition	1390 Feb 16 j 07:47	5°♍59'07	2°04'46
min. Earth dist.	1390 Feb 16 j 03:24	6°♍00'00	8.38257 AU
direct	1390 Apr 26 j 10:58	2°♍31'08	
evening set	1390 Aug 10 j 17:00	10°♍26'37	
conjunction	1390 Aug 28 j 07:15	12°♍37'26	1°50'45
minimum elong	1390 Aug 28 j 07:12	12°♍37'25	1°50'45
max. Earth dist.	1390 Aug 28 j 12:02	12°♍38'56	10.44049 AU
morning rise	1390 Sep 14 j 16:46	14°♍46'49	
retrograde	1390 Dec 24 j 06:33	22°♍17'52	
opposition	1391 Mar 01 j 13:07	18°♍56'08	2°26'49
min. Earth dist.	1391 Mar 01 j 10:04	18°♍56'44	8.50057 AU
direct	1391 May 10 j 04:46	15°♍29'02	
evening set	1391 Aug 24 j 05:28	23°♍16'38	
conjunction	1391 Sep 10 j 14:36	25°♍24'23	2°05'45
minimum elong	1391 Sep 10 j 14:33	25°♍24'23	2°05'45
max. Earth dist.	1391 Sep 10 j 17:34	25°♍25'18	10.55939 AU
morning rise	1391 Sep 27 j 19:04	27°♍30'42	
	1391 Oct 19 j 06:44	0°♎	
retrograde	1392 Jan 05 j 19:13	4°♎53'15	

opposition	1392 Mar 13 j 12:34	1°♎32'42	2°41'06
min. Earth dist.	1392 Mar 13 j 10:27	1°♎33'07	8.61963 AU
	1392 Apr 03 j 03:48	30°℞♍	
direct	1392 May 22 j 16:38	28°♍06'39	
	1392 Jul 10 j 07:04	0°♎	
evening set	1392 Sep 05 j 06:44	5°♎45'58	
conjunction	1392 Sep 22 j 11:11	7°♎50'51	2°14'25
minimum elong	1392 Sep 22 j 11:10	7°♎50'50	2°14'25
max. Earth dist.	1392 Sep 22 j 12:42	7°♎51'18	10.67647 AU
morning rise	1392 Oct 09 j 11:09	9°♎54'22	
retrograde	1393 Jan 17 j 01:35	17°♎09'20	
opposition	1393 Mar 26 j 06:15	13°♎49'48	2°47'34
min. Earth dist.	1393 Mar 26 j 04:31	13°♎50'08	8.73392 AU
direct	1393 Jun 04 j 21:30	10°♎24'55	
evening set	1393 Sep 17 j 21:45	17°♎55'59	
conjunction	1393 Oct 04 j 22:12	19°♎58'20	2°16'49
minimum elong	1393 Oct 04 j 22:11	19°♎58'20	2°16'49
max. Earth dist.	1393 Oct 04 j 23:08	19°♎58'37	10.78628 AU
morning rise	1393 Oct 21 j 18:16	21°♎59'25	
retrograde	1394 Jan 29 j 04:49	29°♎07'52	
opposition	1394 Apr 07 j 18:44	25°♎49'13	2°46'30
min. Earth dist.	1394 Apr 07 j 17:57	25°♎49'22	8.83841 AU
direct	1394 Jun 17 j 17:30	22°♎25'33	
evening set	1394 Sep 30 j 03:27	29°♎48'47	
	1394 Oct 01 j 17:43	0°♏	
conjunction	1394 Oct 17 j 00:32	1°♏49'01	2°13'16
minimum elong	1394 Oct 17 j 00:33	1°♏49'02	2°13'15
max. Earth dist.	1394 Oct 17 j 00:34	1°♏49'02	10.88422 AU
morning rise	1394 Nov 02 j 17:34	3°♏48'08	
retrograde	1395 Feb 10 j 01:24	10°♏51'20	
opposition	1395 Apr 20 j 03:05	7°♏33'23	2°38'27
min. Earth dist.	1395 Apr 20 j 03:51	7°♏33'15	8.92895 AU
direct	1395 Jun 30 j 06:03	4°♏10'54	
evening set	1395 Oct 12 j 01:01	11°♏27'03	
conjunction	1395 Oct 28 j 19:22	13°♏25'36	2°04'14
minimum elong	1395 Oct 28 j 19:24	13°♏25'37	2°04'13
max. Earth dist.	1395 Oct 28 j 17:37	13°♏25'05	10.96655 AU
	1395 Nov 11 j 02:50	15°♏	
morning rise	1395 Nov 14 j 10:27	15°♏23'14	
retrograde	1396 Feb 21 j 19:16	22°♏22'37	
opposition	1396 May 01 j 07:56	19°♏05'09	2°24'09
min. Earth dist.	1396 May 01 j 10:13	19°♏04'44	9.00216 AU
direct	1396 Jul 11 j 14:51	15°♏43'48	
evening set	1396 Oct 22 j 16:08	22°♏53'51	
conjunction	1396 Nov 08 j 08:34	24°♏51'10	1°50'20
minimum elong	1396 Nov 08 j 08:37	24°♏51'11	1°50'20
max. Earth dist.	1396 Nov 08 j 05:06	24°♏50'09	11.03024 AU
morning rise	1396 Nov 24 j 22:34	26°♏47'47	
	1396 Dec 24 j 14:53	0°♐	
retrograde	1397 Mar 04 j 11:41	3°♐44'47	
opposition	1397 May 13 j 09:57	0°♐27'35	2°04'22
min. Earth dist.	1397 May 13 j 12:49	0°♐27'04	9.05531 AU
	1397 May 19 j 15:39	30°℞♏	
direct	1397 Jul 23 j 17:40	27°♏07'16	
	1397 Sep 23 j 10:42	0°♐	
evening set	1397 Nov 03 j 02:23	4°♐12'23	
conjunction	1397 Nov 19 j 17:43	6°♐08'56	1°32'15
minimum elong	1397 Nov 19 j 17:45	6°♐08'57	1°32'15
max. Earth dist.	1397 Nov 19 j 13:52	6°♐07'48	11.07289 AU
morning rise	1397 Dec 06 j 07:09	8°♐04'59	
retrograde	1398 Mar 16 j 04:18	15°♐01'10	
opposition	1398 May 25 j 10:38	11°♐43'59	1°39'58
min. Earth dist.	1398 May 25 j 13:46	11°♐43'24	9.08646 AU
direct	1398 Aug 04 j 17:05	8°♐24'34	
evening set	1398 Nov 14 j 09:27	15°♐26'01	
conjunction	1398 Dec 01 j 00:10	17°♐22'12	1°10'42
minimum elong	1398 Dec 01 j 00:13	17°♐22'12	1°10'43
max. Earth dist.	1398 Nov 30 j 20:04	17°♐21'00	11.09294 AU
morning rise	1398 Dec 17 j 13:39	19°♐18'06	
retrograde	1399 Mar 27 j 22:41	26°♐15'02	
opposition	1399 Jun 06 j 10:59	22°♐57'38	1°11'52
min. Earth dist.	1399 Jun 06 j 14:58	22°♐56'55	9.09464 AU
direct	1399 Aug 16 j 12:34	19°♐38'55	
evening set	1399 Nov 25 j 15:19	26°♐38'06	
conjunction	1399 Dec 12 j 05:45	28°♐34'19	0°46'29
minimum elong	1399 Dec 12 j 05:46	28°♐34'20	0°46'30
max. Earth dist.	1399 Dec 12 j 00:11	28°♐32'41	11.08983 AU
	1399 Dec 24 j 10:25	0°♑	
morning rise	1399 Dec 28 j 20:00	0°♑30'31	
retrograde	1400 Apr 07 j 17:03	7°♑29'44	
opposition	1400 Jun 17 j 11:46	4°♑11'52	0°41'00
min. Earth dist.	1400 Jun 17 j 16:58	4°♑10'55	9.07970 AU
direct	1400 Aug 27 j 06:09	0°♑53'36	
evening set	1400 Dec 05 j 21:27	7°♑52'04	
conjunction	1400 Dec 22 j 12:06	9°♑48'41	0°20'25
minimum elong	1400 Dec 22 j 12:07	9°♑48'41	0°20'24
max. Earth dist.	1400 Dec 22 j 05:42	9°♑46'48	11.06369 AU
morning rise	1401 Jan 08 j 03:30	11°♑45'32	
retrograde	1401 Apr 19 j 16:22	18°♑48'36	
opposition	1401 Jun 29 j 14:09	15°♑30'02	0°08'22
min. Earth dist.	1401 Jun 29 j 19:35	15°♑29'02	9.04207 AU
direct	1401 Sep 08 j 01:49	12°♑11'58	
desc. node	1401 Oct 02 j 11:57	12°♑41'25	
evening set	1401 Dec 17 j 05:34	19°♑11'12	
conjunction	1402 Jan 02 j 20:52	21°♑08'35	-0°06'44
minimum elong	1402 Jan 02 j 20:52	21°♑08'35	0°06'45
behind sun begin	1402 Jan 02 j 14:21	21°♑06'41	
behind sun end	1402 Jan 03 j 03:23	21°♑10'30	
max. Earth dist.	1402 Jan 02 j 14:58	21°♑06'52	11.01522 AU
morning rise	1402 Jan 19 j 13:34	23°♑06'26	
	1402 Apr 14 j 08:47	0°♒	
retrograde	1402 May 01 j 20:22	0°♒14'54	
	1402 May 19 j 11:37	30°℞♑	
opposition	1402 Jul 11 j 19:05	26°♑55'22	-0°24'58
min. Earth dist.	1402 Jul 11 j 23:53	26°♑54'28	8.98291 AU
direct	1402 Sep 19 j 20:44	23°♑37'18	
	1402 Dec 23 j 03:12	0°♒	
evening set	1402 Dec 28 j 17:27	0°♒38'49	
conjunction	1403 Jan 14 j 09:44	2°♒37'19	-0°33'48
minimum elong	1403 Jan 14 j 09:42	2°♒37'18	0°33'49
max. Earth dist.	1403 Jan 14 j 04:02	2°♒35'37	10.94599 AU
morning rise	1403 Jan 31 j 04:03	4°♒36'29	
retrograde	1403 May 14 j 06:34	11°♒51'44	
opposition	1403 Jul 24 j 03:33	8°♒31'02	-0°57'49
min. Earth dist.	1403 Jul 24 j 08:16	8°♒30'09	8.90414 AU
direct	1403 Oct 01 j 17:51	5°♒12'42	
evening set	1404 Jan 09 j 10:41	12°♒18'02	
conjunction	1404 Jan 26 j 04:09	14°♒17'58	-0°59'55
minimum elong	1404 Jan 26 j 04:07	14°♒17'57	0°59'55
max. Earth dist.	1404 Jan 25 j 21:41	14°♒16'01	10.85815 AU
	1404 Jan 31 j 23:59	15°♒	
morning rise	1404 Feb 12 j 00:37	16°♒18'49	

retrograde	1404 May 25 j 23:19	23°♒42'03	
opposition	1404 Aug 04 j 16:26	20°♒20'04	-1°28'54
min. Earth dist.	1404 Aug 04 j 21:36	20°♒19'05	8.80805 AU
direct	1404 Oct 12 j 17:36	17°♒01'10	
evening set	1405 Jan 20 j 10:38	24°♒11'50	
conjunction	1405 Feb 06 j 05:45	26°♒13'32	-1°23'57
minimum elong	1405 Feb 06 j 05:43	26°♒13'31	1°23'57
max. Earth dist.	1405 Feb 05 j 22:51	26°♒11'26	10.75426 AU
morning rise	1405 Feb 23 j 04:38	28°♒16'22	
	1405 Mar 10 j 01:58	0°♓	
retrograde	1405 Jun 07 j 21:32	5°♓48'42	
opposition	1405 Aug 17 j 10:24	2°♓25'18	-1°56'52
min. Earth dist.	1405 Aug 17 j 15:45	2°♓24'17	8.69770 AU
	1405 Sep 21 j 23:40	30°℞♒	
direct	1405 Oct 24 j 23:39	29°♒05'38	
	1405 Nov 26 j 07:51	0°♓	
evening set	1406 Feb 01 j 18:41	6°♓23'03	
conjunction	1406 Feb 18 j 16:08	8°♓26'52	-1°44'45
minimum elong	1406 Feb 18 j 16:06	8°♓26'51	1°44'44
max. Earth dist.	1406 Feb 18 j 10:18	8°♓25'04	10.63819 AU
morning rise	1406 Mar 07 j 17:42	10°♓31'59	
retrograde	1406 Jun 21 j 05:11	18°♓14'12	
opposition	1406 Aug 30 j 10:16	14°♓49'19	-2°20'13
min. Earth dist.	1406 Aug 30 j 14:34	14°♓48'29	8.57789 AU
direct	1406 Nov 06 j 11:48	11°♓28'42	
evening set	1407 Feb 14 j 12:02	18°♓53'57	
conjunction	1407 Mar 03 j 12:24	21°♓00'12	-2°01'05
minimum elong	1407 Mar 03 j 12:22	21°♓00'11	2°01'05
max. Earth dist.	1407 Mar 03 j 08:00	20°♓58'50	10.51553 AU
morning rise	1407 Mar 20 j 17:07	23°♓07'52	
	1407 May 31 j 05:17	0°♈	
retrograde	1407 Jul 04 j 22:26	1°♈00'07	
	1407 Aug 08 j 22:52	30°℞♓	
opposition	1407 Sep 12 j 16:16	27°♓33'46	-2°37'27
min. Earth dist.	1407 Sep 12 j 19:03	27°♓33'13	8.45471 AU
direct	1407 Nov 19 j 04:44	24°♓12'02	
	1408 Feb 12 j 23:30	0°♈	
evening set	1408 Feb 27 j 15:43	1°♈45'54	
conjunction	1408 Mar 15 j 19:29	3°♈54'47	-2°11'50
minimum elong	1408 Mar 15 j 19:28	3°♈54'46	2°11'49
max. Earth dist.	1408 Mar 15 j 16:13	3°♈53'45	10.39277 AU
morning rise	1408 Apr 02 j 03:51	6°♈05'09	
retrograde	1408 Jul 17 j 21:47	14°♈06'57	
opposition	1408 Sep 25 j 04:20	10°♈39'16	-2°47'08
min. Earth dist.	1408 Sep 25 j 05:52	10°♈38'58	8.33469 AU
direct	1408 Dec 01 j 05:55	7°♈16'15	
evening set	1409 Mar 12 j 05:50	14°♈59'06	
conjunction	1409 Mar 29 j 13:35	17°♈10'44	-2°15'55
minimum elong	1409 Mar 29 j 13:35	17°♈10'45	2°15'55
max. Earth dist.	1409 Mar 29 j 11:17	17°♈10'01	10.27665 AU
morning rise	1409 Apr 16 j 02:05	19°♈23'54	
retrograde	1409 Aug 01 j 03:29	27°♈34'07	
opposition	1409 Oct 08 j 22:24	24°♈05'18	-2°48'03
min. Earth dist.	1409 Oct 08 j 22:59	24°♈05'11	8.22450 AU
direct	1409 Dec 14 j 15:36	20°♈40'56	
evening set	1410 Mar 26 j 06:05	28°♈32'32	
	1410 Apr 06 j 16:29	0°♉	
conjunction	1410 Apr 12 j 18:24	0°♉46'59	-2°12'38
minimum elong	1410 Apr 12 j 18:26	0°♉46'59	2°12'38
max. Earth dist.	1410 Apr 12 j 17:41	0°♉46'45	10.17371 AU
morning rise	1410 Apr 30 j 11:18	3°♉02'53	
retrograde	1410 Aug 15 j 14:39	11°♉19'42	
opposition	1410 Oct 22 j 21:32	7°♉50'02	-2°39'28
min. Earth dist.	1410 Oct 22 j 21:09	7°♉50'07	8.13041 AU
direct	1410 Dec 28 j 08:43	4°♉24'19	
evening set	1411 Apr 09 j 16:04	12°♉23'58	
conjunction	1411 Apr 27 j 09:15	14°♉41'03	-2°01'39
minimum elong	1411 Apr 27 j 09:18	14°♉41'04	2°01'40
max. Earth dist.	1411 Apr 27 j 10:34	14°♉41'28	10.08992 AU
	1411 Apr 29 j 19:37	15°♉	
morning rise	1411 May 15 j 06:23	16°♉59'23	
retrograde	1411 Aug 30 j 05:34	25°♉20'23	
opposition	1411 Nov 06 j 00:28	21°♉50'15	-2°21'19
min. Earth dist.	1411 Nov 05 j 22:42	21°♉50'37	8.05800 AU
direct	1412 Jan 11 j 08:55	18°♉23'16	
evening set	1412 Apr 23 j 10:12	26°♉29'45	
conjunction	1412 May 11 j 08:01	28°♉49'03	-1°43'17
minimum elong	1412 May 11 j 08:04	28°♉49'04	1°43'18
max. Earth dist.	1412 May 11 j 11:30	28°♉50'11	10.03035 AU
	1412 May 20 j 09:43	0°♊	
morning rise	1412 May 29 j 08:48	1°♊09'19	
retrograde	1412 Sep 12 j 21:39	9°♊31'47	
opposition	1412 Nov 19 j 06:06	6°♊01'32	-1°54'18
min. Earth dist.	1412 Nov 19 j 02:43	6°♊02'15	8.01173 AU
direct	1413 Jan 24 j 15:51	2°♊33'28	
evening set	1413 May 08 j 10:17	10°♊45'03	
conjunction	1413 May 26 j 11:57	13°♊05'54	-1°18'27
minimum elong	1413 May 26 j 12:01	13°♊05'55	1°18'28
max. Earth dist.	1413 May 26 j 17:32	13°♊07'44	9.99876 AU
morning rise	1413 Jun 13 j 15:23	15°♊27'22	
retrograde	1413 Sep 27 j 12:41	23°♊48'31	
opposition	1413 Dec 03 j 12:46	20°♊18'33	-1°20'00
min. Earth dist.	1413 Dec 03 j 07:53	20°♊19'34	7.99460 AU
direct	1414 Feb 08 j 02:26	16°♊49'35	
evening set	1414 May 23 j 14:13	25°♊04'16	
conjunction	1414 Jun 10 j 18:26	27°♊25'51	-0°48'42
minimum elong	1414 Jun 10 j 18:28	27°♊25'51	0°48'43
max. Earth dist.	1414 Jun 11 j 01:25	27°♊28'08	9.99711 AU
morning rise	1414 Jun 28 j 23:03	29°♊47'35	
	1414 Jun 30 j 13:58	0°♋	
retrograde	1414 Oct 12 j 01:08	8°♋04'43	
opposition	1414 Dec 17 j 18:42	4°♋35'26	-0°40'44
min. Earth dist.	1414 Dec 17 j 13:05	4°♋36'36	8.00769 AU
direct	1415 Feb 22 j 14:57	1°♋05'51	
evening set	1415 Jun 07 j 18:56	9°♋21'27	
conjunction	1415 Jun 25 j 23:57	11°♋42'47	-0°16'03
minimum elong	1415 Jun 25 j 23:58	11°♋42'47	0°16'04
max. Earth dist.	1415 Jun 26 j 07:26	11°♋45'13	10.02541 AU
morning rise	1415 Jul 14 j 04:05	14°♋03'50	
retrograde	1415 Oct 26 j 09:07	22°♋14'45	
asc. node	1415 Dec 25 j 03:11	19°♋20'07	
opposition	1415 Dec 31 j 22:37	18°♋46'29	0°00'45
min. Earth dist.	1415 Dec 31 j 16:55	18°♋47'39	8.05015 AU
direct	1416 Mar 08 j 03:51	15°♋16'36	
evening set	1416 Jun 21 j 21:12	23°♋30'55	
conjunction	1416 Jul 10 j 01:10	25°♋51'03	0°17'21
minimum elong	1416 Jul 10 j 01:10	25°♋51'02	0°17'20
max. Earth dist.	1416 Jul 10 j 08:35	25°♋53'26	10.08176 AU
morning rise	1416 Jul 28 j 03:06	28°♋10'29	
	1416 Aug 11 j 21:34	0°♌	
retrograde	1416 Nov 08 j 10:39	6°♌13'35	
opposition	1417 Jan 13 j 22:59	2°♌46'35	0°41'37

min. Earth dist.	1417 Jan 13 j 17:27	2°♌47'43	8.11924 AU
	1417 Feb 22 j 05:39	30°℞♋	
direct	1417 Mar 22 j 16:28	29°♋16'46	
	1417 Apr 20 j 03:09	0°♌	
evening set	1417 Jul 06 j 18:25	7°♌27'46	
conjunction	1417 Jul 24 j 19:45	9°♌45'51	0°49'12
minimum elong	1417 Jul 24 j 19:43	9°♌45'50	0°49'11
max. Earth dist.	1417 Jul 25 j 02:36	9°♌48'02	10.16260 AU
morning rise	1417 Aug 11 j 18:03	12°♌02'55	
	1417 Sep 05 j 09:34	15°♌	
retrograde	1417 Nov 22 j 02:58	19°♌57'09	
opposition	1418 Jan 27 j 18:32	16°♌31'36	1°19'17
min. Earth dist.	1418 Jan 27 j 13:16	16°♌32'41	8.21063 AU
	1418 Feb 16 j 05:34	15°℞♌	
direct	1418 Apr 06 j 02:07	13°♌02'13	
	1418 May 24 j 05:39	15°♌	
evening set	1418 Jul 21 j 08:13	21°♌08'09	
conjunction	1418 Aug 08 j 05:38	23°♌23'34	1°17'42
minimum elong	1418 Aug 08 j 05:35	23°♌23'33	1°17'42
max. Earth dist.	1418 Aug 08 j 11:42	23°♌25'30	10.26288 AU
morning rise	1418 Aug 25 j 23:14	25°♌37'45	
	1418 Oct 03 j 11:16	0°♍	
retrograde	1418 Dec 05 j 11:47	3°♍22'43	
opposition	1419 Feb 10 j 08:49	29°♌58'41	1°51'38
min. Earth dist.	1419 Feb 10 j 03:28	29°♌59'46	8.31869 AU
	1419 Feb 10 j 02:17	30°℞♌	
direct	1419 Apr 20 j 06:21	26°♌30'04	
	1419 Jun 25 j 10:58	0°♍	
evening set	1419 Aug 04 j 12:36	4°♍29'27	
conjunction	1419 Aug 22 j 05:19	6°♍41'52	1°41'24
minimum elong	1419 Aug 22 j 05:16	6°♍41'51	1°41'24
max. Earth dist.	1419 Aug 22 j 11:05	6°♍43'40	10.37666 AU
morning rise	1419 Sep 08 j 17:34	8°♍52'53	
retrograde	1419 Dec 18 j 14:03	16°♍28'38	
opposition	1420 Feb 23 j 17:20	13°♍06'07	2°17'13
min. Earth dist.	1420 Feb 23 j 12:12	13°♍07'08	8.43721 AU
direct	1420 May 03 j 03:22	9°♍38'32	
evening set	1420 Aug 17 j 06:36	17°♍30'20	
conjunction	1420 Sep 03 j 18:20	19°♍39'39	1°59'19
minimum elong	1420 Sep 03 j 18:18	19°♍39'38	1°59'20
max. Earth dist.	1420 Sep 03 j 23:43	19°♍41'19	10.49772 AU
morning rise	1420 Sep 21 j 01:13	21°♍47'30	
retrograde	1420 Dec 30 j 08:27	29°♍14'26	
opposition	1421 Mar 07 j 19:56	25°♍53'21	2°35'13
min. Earth dist.	1421 Mar 07 j 15:48	25°♍54'10	8.55991 AU
direct	1421 May 16 j 17:32	22°♍26'56	
	1421 Aug 29 j 02:27	0°♎	
evening set	1421 Aug 30 j 13:50	0°♎10'36	
conjunction	1421 Sep 16 j 20:40	2°♎16'55	2°11'00
minimum elong	1421 Sep 16 j 20:39	2°♎16'54	2°11'00
max. Earth dist.	1421 Sep 17 j 00:53	2°♎18'12	10.61984 AU
morning rise	1421 Oct 03 j 22:39	4°♎21'47	
retrograde	1422 Jan 11 j 19:13	11°♎40'37	
opposition	1422 Mar 20 j 16:54	8°♎20'52	2°45'20
min. Earth dist.	1422 Mar 20 j 14:31	8°♎21'19	8.68060 AU
direct	1422 May 30 j 01:26	4°♎55'42	
evening set	1422 Sep 12 j 10:29	12°♎31'03	
conjunction	1422 Sep 29 j 12:46	14°♎34'37	2°16'19
minimum elong	1422 Sep 29 j 12:45	14°♎34'36	2°16'19
max. Earth dist.	1422 Sep 29 j 14:49	14°♎35'14	10.73708 AU
morning rise	1422 Oct 16 j 10:35	16°♎36'51	

retrograde	1423 Jan 23 j 23:54	23°♎48'33	
opposition	1423 Apr 02 j 08:30	20°♎29'54	2°47'43
min. Earth dist.	1423 Apr 02 j 07:30	20°♎30'05	8.79359 AU
direct	1423 Jun 12 j 01:52	17°♎06'03	
evening set	1423 Sep 24 j 21:11	24°♎33'15	
conjunction	1423 Oct 11 j 19:39	26°♎34'27	2°15'29
minimum elong	1423 Oct 11 j 19:39	26°♎34'27	2°15'29
max. Earth dist.	1423 Oct 11 j 19:45	26°♎34'29	10.84413 AU
morning rise	1423 Oct 28 j 14:10	28°♎34'29	
	1423 Nov 09 j 23:22	0°♏	
retrograde	1424 Feb 04 j 22:33	5°♏40'15	
opposition	1424 Apr 13 j 19:16	2°♏22'26	2°42'50
min. Earth dist.	1424 Apr 13 j 19:07	2°♏22'27	8.89369 AU
	1424 May 18 j 20:31	30°℞♎	
direct	1424 Jun 23 j 20:02	28°♎59'50	
	1424 Jul 29 j 07:23	0°♏	
evening set	1424 Oct 05 j 22:53	6°♏19'29	
conjunction	1424 Oct 22 j 18:29	8°♏18'46	2°08'56
minimum elong	1424 Oct 22 j 18:30	8°♏18'47	2°08'55
max. Earth dist.	1424 Oct 22 j 17:29	8°♏18'28	10.93598 AU
morning rise	1424 Nov 08 j 10:30	10°♏17'03	
	1424 Dec 24 j 11:14	15°♏	
retrograde	1425 Feb 15 j 19:49	17°♏18'16	
	1425 Apr 12 j 17:17	15°℞♏	
opposition	1425 Apr 26 j 02:00	14°♏01'03	2°31'20
min. Earth dist.	1425 Apr 26 j 02:53	14°♏00'53	8.97611 AU
direct	1425 Jul 06 j 07:46	10°♏39'38	
	1425 Sep 21 j 10:35	15°♏	
evening set	1425 Oct 17 j 17:27	17°♏52'38	
conjunction	1425 Nov 03 j 10:52	19°♏50'31	1°57'12
minimum elong	1425 Nov 03 j 10:54	19°♏50'32	1°57'11
max. Earth dist.	1425 Nov 03 j 08:41	19°♏49'52	11.00826 AU
morning rise	1425 Nov 20 j 01:10	21°♏47'33	
retrograde	1426 Feb 27 j 13:59	28°♏45'42	
opposition	1426 May 08 j 05:46	25°♏28'51	2°13'58
min. Earth dist.	1426 May 08 j 08:33	25°♏28'20	9.03732 AU
direct	1426 Jul 18 j 11:57	22°♏08'29	
evening set	1426 Oct 29 j 06:27	29°♏16'04	
	1426 Nov 04 j 13:48	0°♐	
conjunction	1426 Nov 14 j 22:15	1°♐12'58	1°40'57
minimum elong	1426 Nov 14 j 22:17	1°♐12'59	1°40'57
max. Earth dist.	1426 Nov 14 j 17:53	1°♐11'41	11.05842 AU
morning rise	1426 Dec 01 j 11:49	3°♐09'16	
retrograde	1427 Mar 11 j 05:57	10°♐05'59	
opposition	1427 May 20 j 07:44	6°♐49'12	1°51'35
min. Earth dist.	1427 May 20 j 12:14	6°♐48'22	9.07572 AU
direct	1427 Jul 30 j 13:21	3°♐29'40	
evening set	1427 Nov 09 j 15:22	10°♐33'05	
conjunction	1427 Nov 26 j 06:13	12°♐29'28	1°20'54
minimum elong	1427 Nov 26 j 06:16	12°♐29'28	1°20'54
max. Earth dist.	1427 Nov 26 j 00:12	12°♐27'41	11.08544 AU
morning rise	1427 Dec 12 j 19:48	14°♐25'28	
retrograde	1428 Mar 21 j 23:07	21°♐22'17	
opposition	1428 May 31 j 08:37	18°♐05'15	1°25'04
min. Earth dist.	1428 May 31 j 13:53	18°♐04'17	9.09059 AU
direct	1428 Aug 10 j 12:10	14°♐46'20	
evening set	1428 Nov 19 j 22:07	21°♐46'55	
conjunction	1428 Dec 06 j 12:43	23°♐43'11	0°57'47
minimum elong	1428 Dec 06 j 12:45	23°♐43'12	0°57'48
max. Earth dist.	1428 Dec 06 j 06:27	23°♐41'21	11.08876 AU
morning rise	1428 Dec 23 j 02:39	25°♐39'19	

	1429 Feb 03 j 10:49	0°♉	
retrograde	1429 Apr 02 j 17:34	2°♉37'46	
	1429 Jun 03 j 07:09	30°℞♐	
opposition	1429 Jun 12 j 09:20	29°♐20'10	0°55'20
min. Earth dist.	1429 Jun 12 j 14:33	29°♐19'13	9.08174 AU
direct	1429 Aug 22 j 08:00	26°♐01'39	
	1429 Nov 03 j 07:37	0°♉	
evening set	1429 Dec 01 j 04:20	3°♉00'51	
conjunction	1429 Dec 17 j 19:03	4°♉57'23	0°32'26
minimum elong	1429 Dec 17 j 19:04	4°♉57'23	0°32'26
max. Earth dist.	1429 Dec 17 j 12:39	4°♉55'30	11.06851 AU
morning rise	1430 Jan 03 j 09:47	6°♉54'00	
retrograde	1430 Apr 14 j 16:48	13°♉55'40	
opposition	1430 Jun 24 j 11:22	10°♉37'16	0°23'21
min. Earth dist.	1430 Jun 24 j 17:02	10°♉36'13	9.04976 AU
direct	1430 Sep 03 j 03:00	7°♉18'53	
evening set	1430 Dec 12 j 11:40	14°♉18'08	
conjunction	1430 Dec 29 j 02:42	16°♉15'19	0°05'44
minimum elong	1430 Dec 29 j 02:42	16°♉15'19	0°05'43
behind sun begin	1430 Dec 28 j 20:00	16°♉13'21	
behind sun end	1430 Dec 29 j 09:23	16°♉17'16	
max. Earth dist.	1430 Dec 28 j 19:23	16°♉13'10	11.02564 AU
morning rise	1431 Jan 14 j 18:47	18°♉12'50	
desc. node	1431 Mar 17 j 14:22	24°♉02'29	
retrograde	1431 Apr 26 j 17:14	25°♉19'12	
opposition	1431 Jul 06 j 15:30	21°♉59'47	-0°09'50
min. Earth dist.	1431 Jul 06 j 21:53	21°♉58'36	8.99600 AU
direct	1431 Sep 14 j 20:44	18°♉41'18	
evening set	1431 Dec 23 j 21:56	25°♉42'13	
conjunction	1432 Jan 09 j 13:42	27°♉40'21	-0°21'35
minimum elong	1432 Jan 09 j 13:41	27°♉40'21	0°21'35
max. Earth dist.	1432 Jan 09 j 05:53	27°♉38'02	10.96173 AU
morning rise	1432 Jan 26 j 07:29	29°♉39'06	
	1432 Jan 29 j 07:33	0°♒	
retrograde	1432 May 07 j 23:17	6°♒51'42	
opposition	1432 Jul 17 j 22:24	3°♒31'02	-0°43'06
min. Earth dist.	1432 Jul 18 j 04:51	3°♒29'50	8.92234 AU
direct	1432 Sep 25 j 18:34	0°♒12'14	
evening set	1433 Jan 03 j 12:40	7°♒16'24	
conjunction	1433 Jan 20 j 05:40	9°♒15'52	-0°48'18
minimum elong	1433 Jan 20 j 05:38	9°♒15'51	0°48'18
max. Earth dist.	1433 Jan 19 j 22:48	9°♒13'48	10.87895 AU
morning rise	1433 Feb 06 j 01:14	11°♒16'09	
	1433 Mar 12 j 11:29	15°♒	
retrograde	1433 May 20 j 13:44	18°♒36'19	
opposition	1433 Jul 30 j 09:23	15°♒14'18	-1°15'12
min. Earth dist.	1433 Jul 30 j 14:48	15°♒13'16	8.83131 AU
	1433 Aug 02 j 13:25	15°℞♒	
direct	1433 Oct 07 j 18:12	11°♒55'01	
	1433 Dec 08 j 16:05	15°♒	
evening set	1434 Jan 15 j 09:25	19°♒03'52	
conjunction	1434 Feb 01 j 03:58	21°♒04'59	-1°13'27
minimum elong	1434 Feb 01 j 03:55	21°♒04'58	1°13'27
max. Earth dist.	1434 Jan 31 j 22:02	21°♒03'11	10.78025 AU
morning rise	1434 Feb 18 j 01:38	23°♒07'07	
	1434 May 06 j 07:38	0°♓	
retrograde	1434 Jun 02 j 10:03	0°♓36'02	
	1434 Jun 29 j 18:33	30°℞♒	
opposition	1434 Aug 12 j 01:19	27°♒12'34	-1°44'49
min. Earth dist.	1434 Aug 12 j 05:41	27°♒11'44	8.72631 AU
direct	1434 Oct 19 j 20:43	23°♒52'38	
	1435 Jan 18 j 00:49	0°♓	
evening set	1435 Jan 27 j 13:55	1°♓07'36	
conjunction	1435 Feb 13 j 10:21	3°♓10'40	-1°35'53
minimum elong	1435 Feb 13 j 10:18	3°♓10'39	1°35'52
max. Earth dist.	1435 Feb 13 j 04:36	3°♓08'54	10.66955 AU
morning rise	1435 Mar 02 j 10:40	5°♓14'57	
retrograde	1435 Jun 15 j 14:39	12°♓53'24	
opposition	1435 Aug 24 j 22:44	9°♓28'30	-2°10'29
min. Earth dist.	1435 Aug 25 j 02:37	9°♓27'45	8.61162 AU
direct	1435 Nov 01 j 05:16	6°♓07'42	
evening set	1436 Feb 09 j 03:16	13°♓30'00	
conjunction	1436 Feb 26 j 02:11	15°♓35'19	-1°54'24
minimum elong	1436 Feb 26 j 02:08	15°♓35'19	1°54'24
max. Earth dist.	1436 Feb 25 j 20:51	15°♓33'40	10.55152 AU
morning rise	1436 Mar 14 j 05:36	17°♓42'02	
retrograde	1436 Jun 28 j 03:15	25°♓30'24	
opposition	1436 Sep 06 j 02:17	22°♓04'07	-2°30'40
min. Earth dist.	1436 Sep 06 j 05:42	22°♓03'27	8.49221 AU
direct	1436 Nov 12 j 19:54	18°♓42'20	
evening set	1437 Feb 21 j 02:18	26°♓12'54	
conjunction	1437 Mar 10 j 04:22	28°♓20'43	-2°07'48
minimum elong	1437 Mar 10 j 04:21	28°♓20'42	2°07'48
max. Earth dist.	1437 Mar 10 j 00:45	28°♓19'35	10.43150 AU
	1437 Mar 23 j 09:54	0°♈	
morning rise	1437 Mar 27 j 11:11	0°♈30'02	
retrograde	1437 Jul 11 j 22:39	8°♈28'12	
opposition	1437 Sep 19 j 12:03	5°♈00'39	-2°43'53
min. Earth dist.	1437 Sep 19 j 14:07	5°♈00'14	8.37378 AU
direct	1437 Nov 25 j 19:03	1°♈37'48	
evening set	1438 Mar 06 j 11:51	9°♈17'09	
conjunction	1438 Mar 23 j 17:49	11°♈27'41	-2°14'58
minimum elong	1438 Mar 23 j 17:48	11°♈27'41	2°14'59
max. Earth dist.	1438 Mar 23 j 16:30	11°♈27'16	10.31561 AU
morning rise	1438 Apr 10 j 04:26	13°♈39'44	
retrograde	1438 Jul 26 j 02:08	21°♈46'54	
opposition	1438 Oct 03 j 03:51	18°♈18'15	-2°48'48
min. Earth dist.	1438 Oct 03 j 04:04	18°♈18'13	8.26259 AU
direct	1438 Dec 09 j 01:20	14°♈54'18	
evening set	1439 Mar 20 j 08:00	22°♈42'28	
conjunction	1439 Apr 06 j 18:24	24°♈55'48	-2°15'01
minimum elong	1439 Apr 06 j 18:25	24°♈55'49	2°15'02
max. Earth dist.	1439 Apr 06 j 19:19	24°♈56'06	10.21022 AU
morning rise	1439 Apr 24 j 09:12	27°♈10'36	
	1439 May 17 j 19:47	0°♉	
retrograde	1439 Aug 09 j 12:46	5°♉25'13	
opposition	1439 Oct 17 j 01:12	1°♉55'47	-2°44'27
min. Earth dist.	1439 Oct 16 j 23:31	1°♉56'08	8.16486 AU
	1439 Nov 11 j 08:42	30°℞♈	
direct	1439 Dec 22 j 14:21	28°♈30'43	
	1440 Feb 01 j 00:58	0°♉	
evening set	1440 Apr 02 j 14:20	6°♉27'15	
conjunction	1440 Apr 20 j 05:23	8°♉43'16	-2°07'25
minimum elong	1440 Apr 20 j 05:25	8°♉43'17	2°07'26
max. Earth dist.	1440 Apr 20 j 07:58	8°♉44'06	10.12152 AU
morning rise	1440 May 08 j 00:28	11°♉00'37	
	1440 Jun 10 j 18:25	15°♉	
retrograde	1440 Aug 23 j 03:51	19°♉20'30	
opposition	1440 Oct 30 j 03:06	15°♉50'38	-2°30'27
min. Earth dist.	1440 Oct 30 j 00:09	15°♉51'14	8.08656 AU
	1440 Nov 09 j 13:11	15°℞♉	
direct	1441 Jan 04 j 11:01	12°♉24'28	
	1441 Feb 27 j 12:48	15°♉	

evening set	1441 Apr 17 j 05:35	20°♉28'21	
conjunction	1441 May 05 j 01:16	22°♉46'44	-1°52'13
minimum elong	1441 May 05 j 01:20	22°♉46'45	1°52'13
max. Earth dist.	1441 May 05 j 05:18	22°♉48'03	10.05518 AU
morning rise	1441 May 23 j 00:25	25°♉06'14	
	1441 Jul 04 j 07:29	0°♊	
retrograde	1441 Sep 06 j 20:50	3°♊28'42	
opposition	1441 Nov 13 j 08:21	29°♉58'46	-2°07'08
min. Earth dist.	1441 Nov 13 j 04:31	29°♉59'33	8.03282 AU
	1441 Nov 13 j 02:22	30°℞♉	
direct	1442 Jan 18 j 15:39	26°♉31'34	
	1442 Mar 22 j 23:23	0°♊	
evening set	1442 May 02 j 03:53	4°♊41'14	
conjunction	1442 May 20 j 03:46	7°♊01'27	-1°30'03
minimum elong	1442 May 20 j 03:50	7°♊01'28	1°30'03
max. Earth dist.	1442 May 20 j 09:02	7°♊03'10	10.01544 AU
morning rise	1442 Jun 07 j 06:12	9°♊22'27	
retrograde	1442 Sep 21 j 12:35	17°♊44'35	
opposition	1442 Nov 27 j 15:15	14°♊14'56	-1°35'46
min. Earth dist.	1442 Nov 27 j 10:47	14°♊15'51	8.00693 AU
direct	1443 Feb 02 j 01:31	10°♊46'51	
evening set	1443 May 17 j 06:58	19°♊00'20	
conjunction	1443 Jun 04 j 09:59	21°♊21'35	-1°02'13
minimum elong	1443 Jun 04 j 10:02	21°♊21'36	1°02'13
max. Earth dist.	1443 Jun 04 j 16:05	21°♊23'35	10.00442 AU
morning rise	1443 Jun 22 j 14:20	23°♊43'14	
	1443 Aug 19 j 03:18	0°♋	
retrograde	1443 Oct 06 j 02:07	2°♋02'14	
	1443 Nov 23 j 21:08	30°℞♊	
opposition	1443 Dec 11 j 21:56	28°♊33'11	-0°58'22
min. Earth dist.	1443 Dec 11 j 16:58	28°♊34'13	8.00999 AU
direct	1444 Feb 16 j 14:21	25°♊04'24	
	1444 May 04 j 00:30	0°♋	
evening set	1444 May 31 j 11:48	3°♋19'34	
conjunction	1444 Jun 18 j 16:29	5°♋40'59	-0°30'35
minimum elong	1444 Jun 18 j 16:30	5°♋40'59	0°30'35
max. Earth dist.	1444 Jun 18 j 23:09	5°♋43'09	10.02196 AU
morning rise	1444 Jul 06 j 21:05	8°♋02'19	
retrograde	1444 Oct 19 j 11:59	16°♋15'57	
opposition	1444 Dec 25 j 03:00	12°♋47'46	-0°17'31
min. Earth dist.	1444 Dec 24 j 21:28	12°♋48'55	8.04075 AU
direct	1445 Mar 02 j 04:02	9°♋18'34	
asc. node	1445 Jun 02 j 12:42	15°♋55'30	
evening set	1445 Jun 15 j 15:26	17°♋33'24	
conjunction	1445 Jul 03 j 20:04	19°♋54'03	0°02'49
minimum elong	1445 Jul 03 j 20:04	19°♋54'03	0°02'49
behind sun begin	1445 Jul 03 j 12:44	19°♋51'41	
behind sun end	1445 Jul 04 j 03:25	19°♋56'24	
max. Earth dist.	1445 Jul 04 j 03:05	19°♋56'18	10.06587 AU
morning rise	1445 Jul 21 j 23:12	22°♋14'12	
	1445 Oct 14 j 10:51	0°♌	
retrograde	1445 Nov 02 j 16:45	0°♌20'47	
	1445 Nov 21 j 23:56	30°℞♋	
opposition	1446 Jan 08 j 05:07	26°♋53'46	0°23'57
min. Earth dist.	1446 Jan 07 j 23:22	26°♋54'56	8.09675 AU
direct	1446 Mar 16 j 17:06	23°♋24'28	
	1446 Jun 17 j 13:12	0°♌	
evening set	1446 Jun 30 j 15:34	1°♌37'04	
conjunction	1446 Jul 18 j 18:22	3°♌56'05	0°35'33
minimum elong	1446 Jul 18 j 18:21	3°♌56'04	0°35'32
max. Earth dist.	1446 Jul 19 j 01:20	3°♌58'19	10.13360 AU
morning rise	1446 Aug 05 j 18:21	6°♌14'13	
retrograde	1446 Nov 16 j 13:53	14°♌12'34	
opposition	1447 Jan 22 j 03:08	10°♌46'51	1°03'19
min. Earth dist.	1447 Jan 21 j 21:37	10°♌47'59	8.17536 AU
direct	1447 Mar 31 j 03:46	7°♌17'45	
	1447 Jul 11 j 20:57	15°♌	
evening set	1447 Jul 15 j 09:23	15°♌26'15	
conjunction	1447 Aug 02 j 08:48	17°♌42'54	1°05'45
minimum elong	1447 Aug 02 j 08:45	17°♌42'53	1°05'44
max. Earth dist.	1447 Aug 02 j 15:22	17°♌45'00	10.22200 AU
morning rise	1447 Aug 20 j 04:24	19°♌58'24	
retrograde	1447 Nov 30 j 03:41	27°♌47'46	
opposition	1448 Feb 04 j 20:22	24°♌23'27	1°38'15
min. Earth dist.	1448 Feb 04 j 15:39	24°♌24'24	8.27264 AU
direct	1448 Apr 13 j 09:54	20°♌54'49	
evening set	1448 Jul 28 j 18:30	28°♌57'29	
	1448 Aug 06 j 03:07	0°♍	
conjunction	1448 Aug 15 j 13:25	1°♍11'19	1°31'43
minimum elong	1448 Aug 15 j 13:22	1°♍11'18	1°31'43
max. Earth dist.	1448 Aug 15 j 18:55	1°♍13'03	10.32636 AU
morning rise	1448 Sep 02 j 04:00	3°♍23'46	
retrograde	1448 Dec 12 j 09:21	11°♍03'56	
opposition	1449 Feb 17 j 07:56	7°♍40'58	2°06'58
min. Earth dist.	1449 Feb 17 j 04:13	7°♍41'43	8.38321 AU
direct	1449 Apr 27 j 10:39	4°♍13'02	
evening set	1449 Aug 11 j 17:42	12°♍08'39	
conjunction	1449 Aug 29 j 07:36	14°♍19'24	1°52'17
minimum elong	1449 Aug 29 j 07:33	14°♍19'23	1°52'17
max. Earth dist.	1449 Aug 29 j 11:27	14°♍20'36	10.44092 AU
morning rise	1449 Sep 15 j 16:58	16°♍28'44	
retrograde	1449 Dec 25 j 05:44	23°♍59'50	
opposition	1450 Mar 02 j 13:20	20°♍38'11	2°28'23
min. Earth dist.	1450 Mar 02 j 10:16	20°♍38'47	8.50091 AU
direct	1450 May 11 j 05:53	17°♍11'08	
evening set	1450 Aug 25 j 06:04	24°♍58'51	
conjunction	1450 Sep 11 j 14:59	27°♍06'33	2°06'44
minimum elong	1450 Sep 11 j 14:57	27°♍06'33	2°06'45
max. Earth dist.	1450 Sep 11 j 17:42	27°♍07'23	10.55954 AU
morning rise	1450 Sep 28 j 19:17	29°♍12'50	
	1450 Oct 05 j 09:04	0°♎	
retrograde	1451 Jan 06 j 18:59	6°♎35'29	
opposition	1451 Mar 15 j 12:57	3°♎15'00	2°41'59
min. Earth dist.	1451 Mar 15 j 10:15	3°♎15'31	8.61961 AU
	1451 May 09 j 21:45	30°℞♍	
direct	1451 May 24 j 18:24	29°♍49'01	
	1451 Jun 08 j 12:12	0°♎	
evening set	1451 Sep 07 j 07:17	7°♎28'23	
conjunction	1451 Sep 24 j 11:38	9°♎33'14	2°14'50
minimum elong	1451 Sep 24 j 11:36	9°♎33'14	2°14'50
max. Earth dist.	1451 Sep 24 j 13:49	9°♎33'54	10.67630 AU
morning rise	1451 Oct 11 j 11:18	11°♎36'42	
retrograde	1452 Jan 19 j 03:24	18°♎51'48	
opposition	1452 Mar 27 j 06:55	15°♎32'18	2°47'43
min. Earth dist.	1452 Mar 27 j 04:56	15°♎32'41	8.73358 AU
direct	1452 Jun 05 j 21:28	12°♎07'30	
evening set	1452 Sep 18 j 22:13	19°♎38'33	
conjunction	1452 Oct 05 j 22:33	21°♎40'53	2°16'38
minimum elong	1452 Oct 05 j 22:33	21°♎40'53	2°16'38
max. Earth dist.	1452 Oct 06 j 00:05	21°♎41'21	10.78585 AU
morning rise	1452 Oct 22 j 18:25	23°♎41'57	
	1452 Dec 29 j 20:47	0°♏	

retrograde	1453 Jan 30 j 05:00	0°♏50'30	
	1453 Mar 03 j 02:02	30°℞♎	
opposition	1453 Apr 08 j 19:39	27°♎31'52	2°45'56
min. Earth dist.	1453 Apr 08 j 19:18	27°♎31'56	8.83788 AU
direct	1453 Jun 18 j 17:09	24°♎08'14	
	1453 Sep 17 j 20:05	0°♏	
evening set	1453 Oct 01 j 03:54	1°♏31'26	
conjunction	1453 Oct 18 j 00:48	3°♏31'39	2°12'31
minimum elong	1453 Oct 18 j 00:49	3°♏31'40	2°12'30
max. Earth dist.	1453 Oct 18 j 00:26	3°♏31'33	10.88360 AU
morning rise	1453 Nov 03 j 17:51	5°♏30'47	
retrograde	1454 Feb 11 j 01:54	12°♏34'04	
opposition	1454 Apr 21 j 04:08	9°♏16'06	2°37'13
min. Earth dist.	1454 Apr 21 j 05:16	9°♏15'54	8.92825 AU
direct	1454 Jul 01 j 07:53	5°♏53'37	
evening set	1454 Oct 13 j 01:23	13°♏09'42	
	1454 Oct 28 j 15:50	15°♏	
conjunction	1454 Oct 29 j 19:37	15°♏08'15	2°02'57
minimum elong	1454 Oct 29 j 19:39	15°♏08'15	2°02'57
max. Earth dist.	1454 Oct 29 j 17:30	15°♏07'37	10.96578 AU
morning rise	1454 Nov 15 j 10:47	17°♏05'53	
retrograde	1455 Feb 22 j 19:36	24°♏05'20	
opposition	1455 May 03 j 09:02	20°♏47'49	2°22'17
min. Earth dist.	1455 May 03 j 10:49	20°♏47'30	9.00128 AU
direct	1455 Jul 13 j 16:03	17°♏26'29	
evening set	1455 Oct 24 j 16:21	24°♏36'24	
conjunction	1455 Nov 10 j 08:50	26°♏33'44	1°48'35
minimum elong	1455 Nov 10 j 08:53	26°♏33'45	1°48'35
max. Earth dist.	1455 Nov 10 j 06:09	26°♏32'56	11.02933 AU
morning rise	1455 Nov 26 j 22:47	28°♏30'21	
	1455 Dec 10 j 04:33	0°♐	
retrograde	1456 Mar 05 j 12:29	5°♐27'27	
opposition	1456 May 14 j 11:12	2°♐10'10	2°01'59
min. Earth dist.	1456 May 14 j 13:14	2°♐09'48	9.05430 AU
	1456 Jun 15 j 10:41	30°℞♏	
direct	1456 Jul 24 j 19:18	28°♏49'51	
	1456 Sep 01 j 07:14	0°♐	
evening set	1456 Nov 04 j 02:27	5°♐54'48	
conjunction	1456 Nov 20 j 17:52	7°♐51'22	1°30'06
minimum elong	1456 Nov 20 j 17:54	7°♐51'23	1°30'07
max. Earth dist.	1456 Nov 20 j 14:49	7°♐50'28	11.07187 AU
morning rise	1456 Dec 07 j 07:18	9°♐47'26	
retrograde	1457 Mar 17 j 06:05	16°♐43'41	
opposition	1457 May 26 j 11:55	13°♐26'26	1°37'09
min. Earth dist.	1457 May 26 j 14:58	13°♐25'53	9.08538 AU
direct	1457 Aug 05 j 17:22	10°♐07'00	
evening set	1457 Nov 15 j 09:34	17°♐08'17	
conjunction	1457 Dec 02 j 00:14	19°♐04'30	1°08'15
minimum elong	1457 Dec 02 j 00:16	19°♐04'30	1°08'16
max. Earth dist.	1457 Dec 01 j 19:49	19°♐03'12	11.09186 AU
morning rise	1457 Dec 18 j 13:52	21°♐00'26	
retrograde	1458 Mar 28 j 22:14	27°♐57'26	
opposition	1458 Jun 07 j 12:14	24°♐39'58	1°08'43
min. Earth dist.	1458 Jun 07 j 16:37	24°♐39'10	9.09353 AU
direct	1458 Aug 17 j 12:51	21°♐21'12	
evening set	1458 Nov 26 j 15:20	28°♐20'18	
	1458 Dec 10 j 21:32	0°♑	
conjunction	1458 Dec 13 j 05:46	0°♑16'31	0°43'49
minimum elong	1458 Dec 13 j 05:48	0°♑16'32	0°43'49
max. Earth dist.	1458 Dec 13 j 00:04	0°♑14'51	11.08875 AU
morning rise	1458 Dec 29 j 20:11	2°♑12'45	
retrograde	1459 Apr 09 j 18:01	9°♑12'05	
opposition	1459 Jun 19 j 13:02	5°♑54'09	0°37'39
min. Earth dist.	1459 Jun 19 j 17:51	5°♑53'15	9.07861 AU
direct	1459 Aug 29 j 08:24	2°♑35'51	
evening set	1459 Dec 07 j 21:20	9°♑34'11	
conjunction	1459 Dec 24 j 12:08	11°♑30'50	0°17'37
minimum elong	1459 Dec 24 j 12:09	11°♑30'51	0°17'37
max. Earth dist.	1459 Dec 24 j 06:41	11°♑29'15	11.06261 AU
morning rise	1460 Jan 10 j 03:34	13°♑27'43	
retrograde	1460 Apr 20 j 17:16	20°♑30'57	
opposition	1460 Jun 30 j 15:20	17°♑12'17	0°04'56
min. Earth dist.	1460 Jun 30 j 19:49	17°♑11'27	9.04098 AU
desc. node	1460 Aug 25 j 15:31	14°♑04'24	
direct	1460 Sep 09 j 02:10	13°♑54'14	
evening set	1460 Dec 18 j 05:35	20°♑53'23	
conjunction	1461 Jan 03 j 20:59	22°♑50'48	-0°09'31
minimum elong	1461 Jan 03 j 21:00	22°♑50'48	0°09'32
behind sun begin	1461 Jan 03 j 15:10	22°♑49'05	
behind sun end	1461 Jan 04 j 02:49	22°♑52'30	
max. Earth dist.	1461 Jan 03 j 15:45	22°♑49'16	11.01416 AU
morning rise	1461 Jan 20 j 13:43	24°♑48'40	
	1461 Mar 13 j 20:33	0°♒	
retrograde	1461 May 02 j 21:59	1°♒57'17	
	1461 Jun 23 j 17:54	30°℞♑	
opposition	1461 Jul 12 j 20:10	28°♑37'42	-0°28'20
min. Earth dist.	1461 Jul 13 j 00:33	28°♑36'53	8.98192 AU
direct	1461 Sep 20 j 21:21	25°♑19'39	
	1461 Dec 08 j 16:27	0°♒	
evening set	1461 Dec 29 j 17:38	2°♒21'08	
conjunction	1462 Jan 15 j 09:51	4°♒19'38	-0°36'30
minimum elong	1462 Jan 15 j 09:50	4°♒19'38	0°36'30
max. Earth dist.	1462 Jan 15 j 03:48	4°♒17'50	10.94514 AU
morning rise	1462 Feb 01 j 04:21	6°♒18'51	
retrograde	1462 May 15 j 08:07	13°♒34'14	
opposition	1462 Jul 25 j 04:44	10°♒13'32	-1°01'00
min. Earth dist.	1462 Jul 25 j 09:42	10°♒12'36	8.90351 AU
direct	1462 Oct 02 j 17:41	6°♒55'13	
evening set	1463 Jan 10 j 10:51	14°♒00'32	
	1463 Jan 18 j 19:03	15°♒	
conjunction	1463 Jan 27 j 04:19	16°♒00'28	-1°02'24
minimum elong	1463 Jan 27 j 04:17	16°♒00'27	1°02'24
max. Earth dist.	1463 Jan 26 j 21:55	15°♒58'32	10.85788 AU
morning rise	1463 Feb 13 j 00:57	18°♒01'21	
retrograde	1463 May 27 j 22:43	25°♒24'45	
opposition	1463 Aug 06 j 17:35	22°♒02'44	-1°31'46
min. Earth dist.	1463 Aug 06 j 22:45	22°♒01'46	8.80824 AU
direct	1463 Oct 14 j 18:37	18°♒43'52	
evening set	1464 Jan 22 j 10:55	25°♒54'31	
conjunction	1464 Feb 08 j 06:12	27°♒56'13	-1°26'07
minimum elong	1464 Feb 08 j 06:09	27°♒56'12	1°26'06
max. Earth dist.	1464 Feb 08 j 00:22	27°♒54'27	10.75497 AU
morning rise	1464 Feb 25 j 05:06	29°♒59'03	
	1464 Feb 25 j 08:18	0°♓	
retrograde	1464 Jun 08 j 22:48	7°♓31'29	
opposition	1464 Aug 18 j 11:18	4°♓08'03	-1°59'15
min. Earth dist.	1464 Aug 18 j 15:55	4°♓07'10	8.69902 AU
direct	1464 Oct 26 j 01:07	0°♓48'26	
evening set	1465 Feb 02 j 19:04	8°♓05'45	
conjunction	1465 Feb 19 j 16:40	10°♓09'34	-1°46'28
minimum elong	1465 Feb 19 j 16:37	10°♓09'33	1°46'27
max. Earth dist.	1465 Feb 19 j 11:43	10°♓08'02	10.63988 AU

morning rise	1465 Mar 08 j 18:13	12°♓14'40	
retrograde	1465 Jun 22 j 07:18	19°♓56'52	
opposition	1465 Aug 31 j 10:57	16°♓31'59	-2°22'00
min. Earth dist.	1465 Aug 31 j 14:26	16°♓31'18	8.58000 AU
direct	1465 Nov 07 j 11:11	13°♓11'26	
evening set	1466 Feb 15 j 12:29	20°♓36'35	
conjunction	1466 Mar 04 j 12:51	22°♓42'48	-2°02'17
minimum elong	1466 Mar 04 j 12:49	22°♓42'47	2°02'16
max. Earth dist.	1466 Mar 04 j 08:18	22°♓41'23	10.51783 AU
morning rise	1466 Mar 21 j 17:39	24°♓50'27	
	1466 May 08 j 15:10	0°♈	
retrograde	1466 Jul 05 j 23:08	2°♈42'38	
	1466 Sep 04 j 08:12	30°℞♓	
opposition	1466 Sep 13 j 16:50	29°♓16'19	-2°38'32
min. Earth dist.	1466 Sep 13 j 19:33	29°♓15'47	8.45722 AU
direct	1466 Nov 20 j 04:42	25°♓54'38	
	1467 Jan 29 j 14:29	0°♈	
evening set	1467 Feb 28 j 16:10	3°♈28'25	
conjunction	1467 Mar 17 j 19:57	5°♈37'17	-2°12'25
minimum elong	1467 Mar 17 j 19:56	5°♈37'17	2°12'25
max. Earth dist.	1467 Mar 17 j 15:58	5°♈36'02	10.39542 AU
morning rise	1467 Apr 04 j 04:34	7°♈47'39	
retrograde	1467 Jul 19 j 22:07	15°♈49'19	
opposition	1467 Sep 27 j 04:44	12°♈21'42	-2°47'27
min. Earth dist.	1467 Sep 27 j 06:52	12°♈21'17	8.33741 AU
direct	1467 Dec 03 j 06:16	8°♈58'43	
evening set	1468 Mar 13 j 06:19	16°♈41'29	
conjunction	1468 Mar 30 j 14:14	18°♈53'09	-2°15'52
minimum elong	1468 Mar 30 j 14:14	18°♈53'09	2°15'52
max. Earth dist.	1468 Mar 30 j 11:28	18°♈52'16	10.27944 AU
morning rise	1468 Apr 17 j 02:59	21°♈06'19	
retrograde	1468 Aug 02 j 04:03	29°♈16'19	
opposition	1468 Oct 09 j 22:35	25°♈47'36	-2°47'34
min. Earth dist.	1468 Oct 09 j 23:47	25°♈47'21	8.22727 AU
direct	1468 Dec 15 j 15:38	22°♈23'15	
	1469 Mar 25 j 07:31	0°♉	
evening set	1469 Mar 27 j 06:34	0°♉14'47	
conjunction	1469 Apr 13 j 19:08	2°♉29'14	-2°11'56
minimum elong	1469 Apr 13 j 19:10	2°♉29'14	2°11'56
max. Earth dist.	1469 Apr 13 j 18:38	2°♉29'04	10.17650 AU
morning rise	1469 May 01 j 12:10	4°♉45'07	
retrograde	1469 Aug 16 j 14:54	13°♉01'41	
opposition	1469 Oct 23 j 21:30	9°♉32'06	-2°38'12
min. Earth dist.	1469 Oct 23 j 21:08	9°♉32'11	8.13318 AU
direct	1469 Dec 29 j 09:13	6°♉06'26	
evening set	1470 Apr 10 j 16:32	14°♉06'00	
	1470 Apr 17 j 17:22	15°♉	
conjunction	1470 Apr 28 j 10:00	16°♉23'05	-2°00'20
minimum elong	1470 Apr 28 j 10:03	16°♉23'06	2°00'21
max. Earth dist.	1470 Apr 28 j 11:54	16°♉23'42	10.09270 AU
morning rise	1470 May 16 j 07:13	18°♉41'24	
retrograde	1470 Aug 31 j 05:16	27°♉02'07	
opposition	1470 Nov 07 j 00:15	23°♉32'02	-2°19'18
min. Earth dist.	1470 Nov 06 j 22:05	23°♉32'29	8.06076 AU
direct	1471 Jan 12 j 09:47	20°♉05'07	
evening set	1471 Apr 25 j 10:43	28°♉11'28	
	1471 May 09 j 10:24	0°♊	
conjunction	1471 May 13 j 08:47	0°♊30'47	-1°41'26
minimum elong	1471 May 13 j 08:51	0°♊30'48	1°41'26
max. Earth dist.	1471 May 13 j 12:38	0°♊32'02	10.03314 AU
morning rise	1471 May 31 j 09:38	2°♊51'01	
retrograde	1471 Sep 14 j 21:10	11°♊13'10	
opposition	1471 Nov 21 j 05:42	7°♊42'59	-1°51'41
min. Earth dist.	1471 Nov 21 j 02:05	7°♊43'43	8.01447 AU
direct	1472 Jan 26 j 15:12	4°♊14'56	
evening set	1472 May 09 j 10:55	12°♊26'24	
conjunction	1472 May 27 j 12:42	14°♊47'15	-1°16'10
minimum elong	1472 May 27 j 12:45	14°♊47'17	1°16'10
max. Earth dist.	1472 May 27 j 18:04	14°♊49'01	10.00149 AU
morning rise	1472 Jun 14 j 16:08	17°♊08'40	
retrograde	1472 Sep 28 j 13:06	25°♊29'26	
opposition	1472 Dec 04 j 12:12	21°♊59'33	-1°16'57
min. Earth dist.	1472 Dec 04 j 07:39	22°♊00'30	7.99728 AU
direct	1473 Feb 09 j 01:05	18°♊30'35	
evening set	1473 May 24 j 14:44	26°♊45'09	
conjunction	1473 Jun 11 j 18:54	29°♊06'42	-0°46'08
minimum elong	1473 Jun 11 j 18:57	29°♊06'43	0°46'09
max. Earth dist.	1473 Jun 12 j 01:06	29°♊08'44	9.99979 AU
	1473 Jun 18 j 14:09	0°♋	
morning rise	1473 Jun 29 j 23:33	1°♋28'24	
retrograde	1473 Oct 13 j 01:38	9°♋45'08	
opposition	1473 Dec 18 j 18:03	6°♋15'56	-0°37'26
min. Earth dist.	1473 Dec 18 j 13:16	6°♋16'55	8.01033 AU
direct	1474 Feb 23 j 14:11	2°♋46'19	
evening set	1474 Jun 08 j 19:16	11°♋01'50	
conjunction	1474 Jun 27 j 00:10	13°♋23'06	-0°13'22
minimum elong	1474 Jun 27 j 00:11	13°♋23'06	0°13'23
behind sun begin	1474 Jun 26 j 20:09	13°♋21'48	
behind sun end	1474 Jun 27 j 04:12	13°♋24'24	
max. Earth dist.	1474 Jun 27 j 06:28	13°♋25'08	10.02799 AU
morning rise	1474 Jul 15 j 04:19	15°♋44'06	
retrograde	1474 Oct 27 j 08:39	23°♋54'38	
asc. node	1474 Nov 25 j 13:36	23°♋07'42	
opposition	1475 Jan 01 j 21:47	20°♋26'26	0°04'06
min. Earth dist.	1475 Jan 01 j 16:53	20°♋27'26	8.05262 AU
direct	1475 Mar 10 j 04:31	16°♋56'30	
evening set	1475 Jun 23 j 21:27	25°♋10'46	
conjunction	1475 Jul 12 j 01:15	27°♋30'48	0°19'59
minimum elong	1475 Jul 12 j 01:14	27°♋30'48	0°19'59
max. Earth dist.	1475 Jul 12 j 07:35	27°♋32'50	10.08405 AU
morning rise	1475 Jul 30 j 03:06	29°♋50'10	
	1475 Jul 31 j 10:13	0°♌	
retrograde	1475 Nov 10 j 08:11	7°♌52'56	
opposition	1476 Jan 15 j 21:57	4°♌25'58	0°44'49
min. Earth dist.	1476 Jan 15 j 16:43	4°♌27'03	8.12136 AU
direct	1476 Mar 23 j 17:22	0°♌56'08	
evening set	1476 Jul 07 j 18:25	9°♌07'04	
conjunction	1476 Jul 25 j 19:34	11°♌25'03	0°51'39
minimum elong	1476 Jul 25 j 19:32	11°♌25'02	0°51'38
max. Earth dist.	1476 Jul 26 j 01:56	11°♌27'06	10.16444 AU
morning rise	1476 Aug 12 j 17:40	13°♌42'01	
	1476 Aug 23 j 06:09	15°♌	
retrograde	1476 Nov 23 j 01:14	21°♌36'03	
opposition	1477 Jan 28 j 17:27	18°♌10'30	1°22'08
min. Earth dist.	1477 Jan 28 j 11:50	18°♌11'38	8.21224 AU
	1477 Mar 19 j 04:16	15°℞♌	
direct	1477 Apr 07 j 01:37	14°♌41'05	
	1477 Apr 25 j 21:44	15°♌	
evening set	1477 Jul 22 j 07:49	22°♌46'55	
conjunction	1477 Aug 09 j 05:07	25°♌02'16	1°19'49
minimum elong	1477 Aug 09 j 05:03	25°♌02'15	1°19'49
max. Earth dist.	1477 Aug 09 j 11:29	25°♌04'18	10.26417 AU

morning rise	1477 Aug 26 j 22:23	27°♌16'21	
	1477 Sep 18 j 20:34	0°♍	
retrograde	1477 Dec 06 j 11:17	5°♍01'11	
opposition	1478 Feb 11 j 07:40	1°♍37'08	1°54'00
min. Earth dist.	1478 Feb 11 j 02:02	1°♍38'15	8.31966 AU
	1478 Mar 04 j 07:34	30°℞♌	
direct	1478 Apr 21 j 04:51	28°♌08'29	
	1478 Jun 07 j 10:26	0°♍	
evening set	1478 Aug 05 j 12:05	6°♍07'49	
conjunction	1478 Aug 23 j 04:38	8°♍20'10	1°43'05
minimum elong	1478 Aug 23 j 04:35	8°♍20'09	1°43'05
max. Earth dist.	1478 Aug 23 j 10:52	8°♍22'08	10.37727 AU
morning rise	1478 Sep 09 j 16:31	10°♍31'06	
retrograde	1478 Dec 19 j 13:02	18°♍06'46	
opposition	1479 Feb 24 j 16:10	14°♍44'15	2°19'01
min. Earth dist.	1479 Feb 24 j 11:27	14°♍45'11	8.43749 AU
direct	1479 May 05 j 02:11	11°♍16'38	
evening set	1479 Aug 19 j 05:56	19°♍08'27	
conjunction	1479 Sep 05 j 17:25	21°♍17'42	2°00'31
minimum elong	1479 Sep 05 j 17:22	21°♍17'41	2°00'31
max. Earth dist.	1479 Sep 05 j 22:36	21°♍19'18	10.49763 AU
morning rise	1479 Sep 23 j 00:00	23°♍25'29	
	1479 Nov 30 j 22:18	0°♎	
retrograde	1480 Jan 01 j 07:08	0°♎52'25	
	1480 Feb 02 j 02:28	30°℞♍	
opposition	1480 Mar 08 j 18:56	27°♍31'21	2°36'21
min. Earth dist.	1480 Mar 08 j 15:32	27°♍32'01	8.55956 AU
direct	1480 May 17 j 16:46	24°♍04'55	
	1480 Aug 16 j 01:19	0°♎	
evening set	1480 Aug 31 j 12:53	1°♎48'36	
conjunction	1480 Sep 17 j 19:24	3°♎54'52	2°11'38
minimum elong	1480 Sep 17 j 19:22	3°♎54'52	2°11'39
max. Earth dist.	1480 Sep 17 j 22:49	3°♎55'55	10.61915 AU
morning rise	1480 Oct 04 j 21:16	5°♎59'43	
retrograde	1481 Jan 12 j 17:51	13°♎18'37	
opposition	1481 Mar 21 j 15:56	9°♎58'52	2°45'47
min. Earth dist.	1481 Mar 21 j 13:47	9°♎59'17	8.67972 AU
direct	1481 May 31 j 00:17	6°♎33'43	
evening set	1481 Sep 13 j 09:20	14°♎09'06	
conjunction	1481 Sep 30 j 11:25	16°♎12'39	2°16'24
minimum elong	1481 Sep 30 j 11:25	16°♎12'39	2°16'24
max. Earth dist.	1481 Sep 30 j 12:59	16°♎13'08	10.73596 AU
morning rise	1481 Oct 17 j 09:12	18°♎14'54	
retrograde	1482 Jan 24 j 21:37	25°♎26'44	
opposition	1482 Apr 03 j 07:28	22°♎08'04	2°47'29
min. Earth dist.	1482 Apr 03 j 05:55	22°♎08'22	8.79230 AU
direct	1482 Jun 13 j 01:41	18°♎44'15	
evening set	1482 Sep 25 j 19:53	26°♎11'31	
conjunction	1482 Oct 12 j 18:20	28°♎12'43	2°15'01
minimum elong	1482 Oct 12 j 18:21	28°♎12'44	2°15'01
max. Earth dist.	1482 Oct 12 j 19:06	28°♎12'57	10.84278 AU
	1482 Oct 27 j 17:25	0°♏	
morning rise	1482 Oct 29 j 12:44	0°♏12'45	
retrograde	1483 Feb 05 j 22:53	7°♏18'43	
opposition	1483 Apr 15 j 18:28	4°♏00'54	2°41'57
min. Earth dist.	1483 Apr 15 j 17:41	4°♏01'03	8.89229 AU
direct	1483 Jun 25 j 19:49	0°♏38'23	
evening set	1483 Oct 07 j 21:32	7°♏58'01	
conjunction	1483 Oct 24 j 17:07	9°♏57'21	2°07'57
minimum elong	1483 Oct 24 j 17:09	9°♏57'21	2°07'56
max. Earth dist.	1483 Oct 24 j 17:01	9°♏57'19	10.93480 AU
morning rise	1483 Nov 10 j 09:00	11°♏55'38	
	1483 Dec 08 j 09:54	15°♏	
retrograde	1484 Feb 17 j 19:09	18°♏57'00	
opposition	1484 Apr 27 j 01:28	15°♏39'47	2°29'50
min. Earth dist.	1484 Apr 27 j 02:21	15°♏39'37	8.97521 AU
	1484 May 06 j 00:08	15°℞♏	
direct	1484 Jul 07 j 05:11	12°♏18'26	
	1484 Sep 04 j 18:29	15°♏	
evening set	1484 Oct 18 j 16:05	19°♏31'24	
conjunction	1484 Nov 04 j 09:25	21°♏29'17	1°55'45
minimum elong	1484 Nov 04 j 09:27	21°♏29'17	1°55'44
max. Earth dist.	1484 Nov 04 j 07:13	21°♏28'38	11.00781 AU
morning rise	1484 Nov 20 j 23:48	23°♏26'21	
	1485 Feb 06 j 08:54	0°♐	
retrograde	1485 Feb 28 j 12:04	0°♐24'35	
	1485 Mar 22 j 22:41	30°℞♏	
opposition	1485 May 09 j 05:16	27°♏07'45	2°11'56
min. Earth dist.	1485 May 09 j 08:20	27°♏07'11	9.03727 AU
direct	1485 Jul 19 j 11:31	23°♏47'24	
	1485 Oct 22 j 03:50	0°♐	
evening set	1485 Oct 30 j 05:02	0°♐54'55	
conjunction	1485 Nov 15 j 20:46	2°♐51'49	1°39'05
minimum elong	1485 Nov 15 j 20:49	2°♐51'49	1°39'05
max. Earth dist.	1485 Nov 15 j 16:14	2°♐50'28	11.05874 AU
morning rise	1485 Dec 02 j 10:29	4°♐48'08	
retrograde	1486 Mar 12 j 05:19	11°♐44'54	
opposition	1486 May 21 j 07:12	8°♐28'07	1°49'06
min. Earth dist.	1486 May 21 j 11:15	8°♐27'22	9.07624 AU
direct	1486 Jul 31 j 13:25	5°♐08'39	
evening set	1486 Nov 10 j 13:51	12°♐11'56	
conjunction	1486 Nov 27 j 04:48	14°♐08'20	1°18'42
minimum elong	1486 Nov 27 j 04:51	14°♐08'20	1°18'42
max. Earth dist.	1486 Nov 26 j 23:38	14°♐06'48	11.08615 AU
morning rise	1486 Dec 13 j 18:22	16°♐04'21	
retrograde	1487 Mar 23 j 22:09	23°♐01'15	
opposition	1487 Jun 02 j 08:11	19°♐44'13	1°22'13
min. Earth dist.	1487 Jun 02 j 12:28	19°♐43'25	9.09137 AU
direct	1487 Aug 12 j 11:25	16°♐25'23	
evening set	1487 Nov 21 j 20:37	23°♐25'51	
conjunction	1487 Dec 08 j 11:19	25°♐22'07	0°55'20
minimum elong	1487 Dec 08 j 11:21	25°♐22'08	0°55'21
max. Earth dist.	1487 Dec 08 j 05:55	25°♐20'32	11.08967 AU
morning rise	1487 Dec 25 j 01:15	27°♐18'15	
	1488 Jan 18 j 18:09	0°♑	
retrograde	1488 Apr 03 j 18:19	4°♑16'48	
opposition	1488 Jun 13 j 09:01	0°♑59'14	0°52'14
min. Earth dist.	1488 Jun 13 j 13:58	0°♑58'20	9.08271 AU
	1488 Jun 27 j 00:30	30°℞♐	
direct	1488 Aug 23 j 07:19	27°♐40'48	
	1488 Oct 16 j 22:28	0°♑	
evening set	1488 Dec 02 j 02:57	4°♑39'51	
conjunction	1488 Dec 18 j 17:38	6°♑36'23	0°29'50
minimum elong	1488 Dec 18 j 17:39	6°♑36'24	0°29'50
max. Earth dist.	1488 Dec 18 j 10:57	6°♑34'26	11.06959 AU
morning rise	1489 Jan 04 j 08:32	8°♑33'03	
retrograde	1489 Apr 15 j 15:21	15°♑34'45	
opposition	1489 Jun 25 j 11:05	12°♑16'23	0°20'07
min. Earth dist.	1489 Jun 25 j 17:09	12°♑15'16	9.05091 AU
direct	1489 Sep 04 j 00:52	8°♑58'05	
evening set	1489 Dec 13 j 10:22	15°♑57'15	
conjunction	1489 Dec 30 j 01:24	17°♑54'24	0°03'04

minimum elong	1489 Dec 30 j 01:22	17°♑54'24	0°03'04
behind sun begin	1489 Dec 29 j 18:26	17°♑52'22	
behind sun end	1489 Dec 30 j 08:19	17°♑56'25	
max. Earth dist.	1489 Dec 29 j 17:54	17°♑52'12	11.02687 AU
morning rise	1490 Jan 15 j 17:38	19°♑51'55	
desc. node	1490 Feb 09 j 15:22	22°♑36'01	
retrograde	1490 Apr 27 j 16:14	26°♑58'23	
opposition	1490 Jul 07 j 15:10	23°♑38'58	-0°13'05
min. Earth dist.	1490 Jul 07 j 21:29	23°♑37'47	8.99729 AU
direct	1490 Sep 15 j 21:18	20°♑20'32	
evening set	1490 Dec 24 j 20:38	27°♑21'21	
conjunction	1491 Jan 10 j 12:31	29°♑19'29	-0°24'12
minimum elong	1491 Jan 10 j 12:30	29°♑19'29	0°24'12
max. Earth dist.	1491 Jan 10 j 05:38	29°♑17'26	10.96308 AU
	1491 Jan 16 j 04:43	0°♒	
morning rise	1491 Jan 27 j 06:17	1°♒18'13	
retrograde	1491 May 09 j 23:44	8°♒30'53	
opposition	1491 Jul 19 j 22:05	5°♒10'12	-0°46'13
min. Earth dist.	1491 Jul 20 j 03:39	5°♒09'10	8.92379 AU
direct	1491 Sep 27 j 18:05	1°♒51'28	
evening set	1492 Jan 05 j 11:25	8°♒55'28	
conjunction	1492 Jan 22 j 04:31	10°♒54'55	-0°50'46
minimum elong	1492 Jan 22 j 04:30	10°♒54'54	0°50'46
max. Earth dist.	1492 Jan 21 j 22:22	10°♒53'04	10.88043 AU
morning rise	1492 Feb 08 j 00:06	12°♒55'11	
	1492 Feb 26 j 08:03	15°♒	
retrograde	1492 May 21 j 13:07	20°♒15'23	
opposition	1492 Jul 31 j 08:59	16°♒53'20	-1°18'04
min. Earth dist.	1492 Jul 31 j 13:49	16°♒52'26	8.83292 AU
	1492 Aug 27 j 01:23	15°℞♒	
direct	1492 Oct 08 j 16:42	13°♒34'06	
	1492 Nov 19 j 01:36	15°♒	
evening set	1493 Jan 16 j 08:23	20°♒42'49	
conjunction	1493 Feb 02 j 02:53	22°♒43'54	-1°15'39
minimum elong	1493 Feb 02 j 02:50	22°♒43'53	1°15'38
max. Earth dist.	1493 Feb 01 j 20:35	22°♒41'59	10.78193 AU
morning rise	1493 Feb 19 j 00:40	24°♒46'01	
	1493 Apr 10 j 21:50	0°♓	
retrograde	1493 Jun 03 j 10:05	2°♓14'53	
	1493 Jul 28 j 16:51	30°℞♒	
opposition	1493 Aug 13 j 00:47	28°♒51'25	-1°47'18
min. Earth dist.	1493 Aug 13 j 05:25	28°♒50'32	8.72814 AU
direct	1493 Oct 20 j 19:45	25°♒31'28	
	1494 Jan 04 j 05:07	0°♓	
evening set	1494 Jan 28 j 12:54	2°♓46'18	
conjunction	1494 Feb 14 j 09:17	4°♓49'19	-1°37'43
minimum elong	1494 Feb 14 j 09:15	4°♓49'18	1°37'42
max. Earth dist.	1494 Feb 14 j 03:06	4°♓47'25	10.67150 AU
morning rise	1494 Mar 03 j 09:46	6°♓53'35	
retrograde	1494 Jun 16 j 13:40	14°♓31'56	
opposition	1494 Aug 25 j 22:07	11°♓07'02	-2°12'26
min. Earth dist.	1494 Aug 26 j 02:28	11°♓06'11	8.61372 AU
direct	1494 Nov 02 j 04:07	7°♓46'12	
evening set	1495 Feb 10 j 02:05	15°♓08'21	
conjunction	1495 Feb 27 j 01:07	17°♓13'38	-1°55'46
minimum elong	1495 Feb 27 j 01:05	17°♓13'38	1°55'46
max. Earth dist.	1495 Feb 26 j 20:17	17°♓12'08	10.55371 AU
morning rise	1495 Mar 16 j 04:36	19°♓20'19	
retrograde	1495 Jun 30 j 01:03	27°♓08'34	
opposition	1495 Sep 08 j 01:23	23°♓42'14	-2°32'00
min. Earth dist.	1495 Sep 08 j 04:40	23°♓41'35	8.49451 AU
direct	1495 Nov 14 j 20:00	20°♓20'26	
evening set	1496 Feb 23 j 01:09	27°♓50'49	
conjunction	1496 Mar 11 j 03:26	29°♓58'38	-2°08'38
minimum elong	1496 Mar 11 j 03:25	29°♓58'37	2°08'38
max. Earth dist.	1496 Mar 11 j 00:32	29°♓57'43	10.43378 AU
	1496 Mar 11 j 07:49	0°♈	
morning rise	1496 Mar 28 j 10:14	2°♈07'54	
retrograde	1496 Jul 12 j 21:21	10°♈05'53	
opposition	1496 Sep 20 j 10:40	6°♈38'17	-2°44'32
min. Earth dist.	1496 Sep 20 j 12:13	6°♈37'58	8.37611 AU
direct	1496 Nov 26 j 18:02	3°♈15'25	
evening set	1497 Mar 07 j 10:36	10°♈54'34	
conjunction	1497 Mar 24 j 16:43	13°♈05'05	-2°15'13
minimum elong	1497 Mar 24 j 16:42	13°♈05'05	2°15'13
max. Earth dist.	1497 Mar 24 j 15:33	13°♈04'43	10.31784 AU
morning rise	1497 Apr 11 j 03:22	15°♈17'07	
retrograde	1497 Jul 27 j 02:06	23°♈24'01	
opposition	1497 Oct 04 j 02:11	19°♈55'21	-2°48'43
min. Earth dist.	1497 Oct 04 j 02:05	19°♈55'23	8.26476 AU
direct	1497 Dec 09 j 22:31	16°♈31'22	
evening set	1498 Mar 21 j 06:32	24°♈19'21	
conjunction	1498 Apr 07 j 17:00	26°♈32'40	-2°14'39
minimum elong	1498 Apr 07 j 17:01	26°♈32'40	2°14'40
max. Earth dist.	1498 Apr 07 j 17:14	26°♈32'44	10.21229 AU
morning rise	1498 Apr 25 j 07:59	28°♈47'27	
	1498 May 05 j 02:21	0°♉	
retrograde	1498 Aug 10 j 11:44	7°♉01'46	
opposition	1498 Oct 17 j 23:15	3°♉32'20	-2°43'38
min. Earth dist.	1498 Oct 17 j 21:57	3°♉32'36	8.16678 AU
direct	1498 Dec 23 j 12:15	0°♉07'12	
evening set	1499 Apr 04 j 12:42	8°♉03'37	
conjunction	1499 Apr 22 j 03:51	10°♉19'37	-2°06'29
minimum elong	1499 Apr 22 j 03:54	10°♉19'38	2°06'29
max. Earth dist.	1499 Apr 22 j 05:17	10°♉20'05	10.12334 AU
morning rise	1499 May 09 j 23:13	12°♉36'58	
	1499 May 29 j 09:52	15°♉	
retrograde	1499 Aug 25 j 01:22	20°♉56'31	
opposition	1499 Nov 01 j 00:49	17°♉26'41	-2°28'55
min. Earth dist.	1499 Oct 31 j 22:45	17°♉27'06	8.08813 AU
	1499 Dec 04 j 07:39	15°℞♉	
direct	1500 Jan 06 j 09:44	14°♉00'26	
	1500 Feb 08 j 03:17	15°♉	
evening set	1500 Apr 18 j 03:48	22°♉04'15	
conjunction	1500 May 05 j 23:39	24°♉22'39	-1°50'45
minimum elong	1500 May 05 j 23:43	24°♉22'40	1°50'45
max. Earth dist.	1500 May 06 j 02:46	24°♉23'40	10.05661 AU
morning rise	1500 May 23 j 23:02	26°♉42'09	
	1500 Jun 20 j 04:27	0°♊	
retrograde	1500 Sep 07 j 17:20	5°♊04'19	
opposition	1500 Nov 14 j 05:49	1°♊34'25	-2°05'00
min. Earth dist.	1500 Nov 14 j 02:39	1°♊35'04	8.03396 AU
	1500 Dec 04 j 01:50	30°℞♉	
direct	1501 Jan 19 j 13:34	28°♉07'11	
	1501 Mar 06 j 03:48	0°♊	
evening set	1501 May 03 j 01:52	6°♊16'47	
conjunction	1501 May 21 j 01:57	8°♊37'02	-1°28'08
minimum elong	1501 May 21 j 02:00	8°♊37'03	1°28'08
max. Earth dist.	1501 May 21 j 06:56	8°♊38'40	10.01645 AU
morning rise	1501 Jun 08 j 04:31	10°♊58'03	
retrograde	1501 Sep 22 j 09:51	19°♊19'58	
opposition	1501 Nov 28 j 12:31	15°♊50'21	-1°33'09
min. Earth dist.	1501 Nov 28 j 08:08	15°♊51'15	8.00777 AU

direct	1502 Feb 02 j 22:58	12°♊22'15	
evening set	1502 May 18 j 04:55	20°♊35'45	
conjunction	1502 Jun 05 j 08:09	22°♊57'02	-0°59'59
minimum elong	1502 Jun 05 j 08:12	22°♊57'03	0°59'59
max. Earth dist.	1502 Jun 05 j 14:40	22°♊59'10	10.00529 AU
morning rise	1502 Jun 23 j 12:32	25°♊18'41	
	1502 Aug 02 j 15:01	0°♋	
retrograde	1502 Oct 06 j 23:51	3°♋37'31	
opposition	1502 Dec 12 j 19:04	0°♋08'31	-0°55'26
min. Earth dist.	1502 Dec 12 j 13:36	0°♋09'39	8.01093 AU
	1502 Dec 14 j 12:14	30°℞♊	
direct	1503 Feb 17 j 11:55	26°♊39'45	
	1503 Apr 20 j 21:01	0°♋	
evening set	1503 Jun 02 j 09:51	4°♋54'58	
conjunction	1503 Jun 20 j 14:40	7°♋16'22	-0°28'09
minimum elong	1503 Jun 20 j 14:42	7°♋16'22	0°28'09
max. Earth dist.	1503 Jun 20 j 22:09	7°♋18'48	10.02320 AU
morning rise	1503 Jul 08 j 19:09	9°♋37'41	
retrograde	1503 Oct 21 j 09:30	17°♋51'06	
opposition	1503 Dec 27 j 00:07	14°♋22'58	-0°14'27
min. Earth dist.	1503 Dec 26 j 18:09	14°♋24'12	8.04233 AU
direct	1504 Mar 03 j 01:48	10°♋53'47	
asc. node	1504 May 06 j 12:51	14°♋24'01	
evening set	1504 Jun 16 j 13:27	19°♋08'34	
conjunction	1504 Jul 04 j 18:02	21°♋29'09	0°05'16
minimum elong	1504 Jul 04 j 18:02	21°♋29'09	0°05'16
behind sun begin	1504 Jul 04 j 10:55	21°♋26'52	
behind sun end	1504 Jul 05 j 01:09	21°♋31'26	
max. Earth dist.	1504 Jul 05 j 01:32	21°♋31'34	10.06781 AU
morning rise	1504 Jul 22 j 20:56	23°♋49'13	
	1504 Sep 18 j 03:37	0°♌	
retrograde	1504 Nov 03 j 13:34	1°♌55'33	
	1504 Dec 20 j 20:44	30°℞♋	
opposition	1505 Jan 09 j 02:10	28°♋28'34	0°26'57
min. Earth dist.	1505 Jan 08 j 20:39	28°♋29'42	8.09890 AU
direct	1505 Mar 17 j 14:17	24°♋59'16	
	1505 Jun 04 j 20:55	0°♌	
evening set	1505 Jul 01 j 13:22	3°♌11'47	
conjunction	1505 Jul 19 j 15:58	5°♌30'43	0°37'52
minimum elong	1505 Jul 19 j 15:56	5°♌30'42	0°37'51
max. Earth dist.	1505 Jul 19 j 22:38	5°♌32'52	10.13573 AU
morning rise	1505 Aug 06 j 15:45	7°♌48'46	
	1505 Oct 19 j 07:38	15°♌	
retrograde	1505 Nov 17 j 11:21	15°♌46'53	
	1505 Dec 16 j 19:12	15°℞♌	
opposition	1506 Jan 23 j 00:06	12°♌21'14	1°06'04
min. Earth dist.	1506 Jan 22 j 19:24	12°♌22'12	8.17733 AU
direct	1506 Mar 31 j 23:58	8°♌52'07	
	1506 Jun 29 j 17:58	15°♌	
evening set	1506 Jul 16 j 07:03	17°♌00'35	
conjunction	1506 Aug 03 j 06:10	19°♌17'11	1°07'49
minimum elong	1506 Aug 03 j 06:07	19°♌17'10	1°07'49
max. Earth dist.	1506 Aug 03 j 11:41	19°♌18'56	10.22355 AU
morning rise	1506 Aug 21 j 01:38	21°♌32'36	
retrograde	1506 Dec 01 j 00:59	29°♌21'51	
opposition	1507 Feb 05 j 17:18	25°♌57'35	1°40'37
min. Earth dist.	1507 Feb 05 j 13:23	25°♌58'23	8.27379 AU
direct	1507 Apr 15 j 07:08	22°♌28'57	
	1507 Jul 26 j 08:49	0°♍	
evening set	1507 Jul 30 j 16:07	0°♍31'42	
conjunction	1507 Aug 17 j 10:43	2°♍45'28	1°33'26
minimum elong	1507 Aug 17 j 10:39	2°♍45'27	1°33'26
max. Earth dist.	1507 Aug 17 j 15:03	2°♍46'50	10.32691 AU
morning rise	1507 Sep 04 j 01:09	4°♍57'53	
retrograde	1507 Dec 14 j 05:14	12°♍38'03	
opposition	1508 Feb 19 j 04:58	9°♍15'09	2°08'51
min. Earth dist.	1508 Feb 19 j 01:19	9°♍15'53	8.38327 AU
direct	1508 Apr 28 j 09:16	5°♍47'15	
evening set	1508 Aug 12 j 15:14	13°♍42'59	
conjunction	1508 Aug 30 j 04:55	15°♍53'42	1°53'34
minimum elong	1508 Aug 30 j 04:52	15°♍53'41	1°53'34
max. Earth dist.	1508 Aug 30 j 08:27	15°♍54'48	10.44039 AU
morning rise	1508 Sep 16 j 14:04	18°♍03'00	
retrograde	1508 Dec 26 j 02:22	25°♍34'15	
opposition	1509 Mar 03 j 10:35	22°♍12'37	2°29'42
min. Earth dist.	1509 Mar 03 j 07:07	22°♍13'18	8.49987 AU
direct	1509 May 12 j 04:15	18°♍45'38	
evening set	1509 Aug 26 j 03:35	26°♍33'30	
conjunction	1509 Sep 12 j 12:26	28°♍41'12	2°07'32
minimum elong	1509 Sep 12 j 12:24	28°♍41'12	2°07'33
max. Earth dist.	1509 Sep 12 j 15:36	28°♍42'11	10.55797 AU
	1509 Sep 23 j 04:22	0°♎	
morning rise	1509 Sep 29 j 16:27	0°♎47'28	
retrograde	1510 Jan 07 j 18:02	8°♎10'21	
opposition	1510 Mar 16 j 10:31	4°♎49'52	2°42'40
min. Earth dist.	1510 Mar 16 j 07:45	4°♎50'24	8.61752 AU
direct	1510 May 25 j 14:34	1°♎23'57	
evening set	1510 Sep 08 j 05:05	9°♎03'31	
conjunction	1510 Sep 25 j 09:18	11°♎08'24	2°15'06
minimum elong	1510 Sep 25 j 09:17	11°♎08'23	2°15'07
max. Earth dist.	1510 Sep 25 j 11:48	11°♎09'09	10.67374 AU
morning rise	1510 Oct 12 j 08:45	13°♎11'53	
retrograde	1511 Jan 20 j 01:08	20°♎27'13	
opposition	1511 Mar 29 j 04:55	17°♎07'45	2°47'45
min. Earth dist.	1511 Mar 29 j 03:35	17°♎08'01	8.73062 AU
direct	1511 Jun 07 j 18:43	13°♎42'58	
evening set	1511 Sep 20 j 20:14	21°♎14'15	
conjunction	1511 Oct 07 j 20:21	23°♎16'37	2°16'23
minimum elong	1511 Oct 07 j 20:21	23°♎16'37	2°16'24
max. Earth dist.	1511 Oct 07 j 21:17	23°♎16'54	10.78251 AU
morning rise	1511 Oct 24 j 16:10	25°♎17'44	
	1511 Dec 08 j 16:10	0°♏	
retrograde	1512 Feb 01 j 02:54	2°♏26'35	
	1512 Mar 29 j 04:34	30°℞♎	
opposition	1512 Apr 09 j 18:08	29°♎07'58	2°45'20
min. Earth dist.	1512 Apr 09 j 18:15	29°♎07'57	8.83427 AU
direct	1512 Jun 19 j 16:03	25°♎44'20	
	1512 Sep 03 j 16:33	0°♏	
evening set	1512 Oct 02 j 01:55	3°♏07'45	
conjunction	1512 Oct 18 j 22:41	5°♏08'01	2°11'45
minimum elong	1512 Oct 18 j 22:42	5°♏08'01	2°11'44
max. Earth dist.	1512 Oct 18 j 21:45	5°♏07'44	10.87974 AU
morning rise	1512 Nov 04 j 15:49	7°♏07'12	
retrograde	1513 Feb 11 j 23:53	14°♏10'49	
opposition	1513 Apr 22 j 02:51	10°♏52'49	2°36'00
min. Earth dist.	1513 Apr 22 j 03:37	10°♏52'40	8.92414 AU
direct	1513 Jul 02 j 06:16	7°♏30'21	
evening set	1513 Oct 13 j 23:31	14°♏46'37	
	1513 Oct 15 j 21:32	15°♏	
conjunction	1513 Oct 30 j 17:49	16°♏45'13	2°01'42
minimum elong	1513 Oct 30 j 17:50	16°♏45'14	2°01'41
max. Earth dist.	1513 Oct 30 j 16:10	16°♏44'44	10.96148 AU

morning rise	1513 Nov 16 j 08:57	18°♏42'56	
retrograde	1514 Feb 23 j 18:40	25°♏42'43	
opposition	1514 May 04 j 07:58	22°♏25'09	2°20'30
min. Earth dist.	1514 May 04 j 08:59	22°♏24'57	8.99677 AU
direct	1514 Jul 14 j 15:30	19°♏03'48	
evening set	1514 Oct 25 j 14:38	26°♏13'53	
conjunction	1514 Nov 11 j 07:13	28°♏11'17	1°46'54
minimum elong	1514 Nov 11 j 07:15	28°♏11'18	1°46'54
max. Earth dist.	1514 Nov 11 j 05:23	28°♏10'45	11.02475 AU
	1514 Nov 26 j 17:31	0°♐	
morning rise	1514 Nov 27 j 21:07	0°♐07'59	
retrograde	1515 Mar 07 j 12:49	7°♐05'24	
opposition	1515 May 16 j 10:36	3°♐48'04	1°59'41
min. Earth dist.	1515 May 16 j 12:33	3°♐47'42	9.04962 AU
direct	1515 Jul 26 j 17:42	0°♐27'45	
evening set	1515 Nov 06 j 00:52	7°♐32'48	
conjunction	1515 Nov 22 j 16:15	9°♐29'27	1°28'03
minimum elong	1515 Nov 22 j 16:18	9°♐29'27	1°28'03
max. Earth dist.	1515 Nov 22 j 13:06	9°♐28'31	11.06725 AU
morning rise	1515 Dec 09 j 05:48	11°♐25'36	
retrograde	1516 Mar 18 j 04:17	18°♐22'10	
opposition	1516 May 27 j 11:37	15°♐04'51	1°34'27
min. Earth dist.	1516 May 27 j 14:58	15°♐04'14	9.08084 AU
direct	1516 Aug 06 j 15:43	11°♐45'23	
evening set	1516 Nov 16 j 08:10	18°♐46'49	
conjunction	1516 Dec 02 j 22:49	20°♐43'05	1°05'54
minimum elong	1516 Dec 02 j 22:51	20°♐43'05	1°05'54
max. Earth dist.	1516 Dec 02 j 18:09	20°♐41'42	11.08749 AU
morning rise	1516 Dec 19 j 12:40	22°♐39'07	
retrograde	1517 Mar 29 j 21:50	29°♐36'25	
opposition	1517 Jun 08 j 11:56	26°♐18'52	1°05'43
min. Earth dist.	1517 Jun 08 j 16:04	26°♐18'07	9.08930 AU
direct	1517 Aug 18 j 13:13	23°♐00'05	
evening set	1517 Nov 27 j 14:02	29°♐59'17	
	1517 Nov 27 j 16:33	0°♑	
conjunction	1517 Dec 14 j 04:37	1°♑55'35	0°41'15
minimum elong	1517 Dec 14 j 04:38	1°♑55'35	0°41'15
max. Earth dist.	1517 Dec 13 j 23:46	1°♑54'10	11.08473 AU
morning rise	1517 Dec 30 j 19:04	3°♑51'53	
retrograde	1518 Apr 10 j 17:38	10°♑51'31	
opposition	1518 Jun 20 j 12:53	7°♑33'29	0°34'26
min. Earth dist.	1518 Jun 20 j 16:40	7°♑32'47	9.07475 AU
direct	1518 Aug 30 j 07:38	4°♑15'11	
evening set	1518 Dec 08 j 20:11	11°♑13'37	
conjunction	1518 Dec 25 j 11:05	13°♑10'19	0°14'57
minimum elong	1518 Dec 25 j 11:06	13°♑10'19	0°14'57
behind sun begin	1518 Dec 25 j 08:15	13°♑09'29	
behind sun end	1518 Dec 25 j 13:56	13°♑11'09	
max. Earth dist.	1518 Dec 25 j 06:34	13°♑09'00	11.05901 AU
morning rise	1519 Jan 11 j 02:31	15°♑07'15	
retrograde	1519 Apr 22 j 18:11	22°♑10'47	
opposition	1519 Jul 02 j 15:23	18°♑52'02	0°01'39
min. Earth dist.	1519 Jul 02 j 19:16	18°♑51'19	9.03769 AU
desc. node	1519 Jul 21 j 09:31	17°♑31'27	
direct	1519 Sep 11 j 01:57	15°♑33'59	
evening set	1519 Dec 20 j 04:39	22°♑33'11	
conjunction	1520 Jan 05 j 20:03	24°♑30'39	-0°12'11
minimum elong	1520 Jan 05 j 20:03	24°♑30'39	0°12'12
behind sun begin	1520 Jan 05 j 15:17	24°♑29'15	
behind sun end	1520 Jan 06 j 00:50	24°♑32'03	
max. Earth dist.	1520 Jan 05 j 14:43	24°♑29'05	11.01125 AU
morning rise	1520 Jan 22 j 12:57	26°♑28'35	
	1520 Feb 24 j 08:39	0°♒	
retrograde	1520 May 03 j 22:06	3°♒37'25	
opposition	1520 Jul 13 j 20:16	0°♒17'47	-0°31'34
min. Earth dist.	1520 Jul 14 j 00:52	0°♒16'56	8.97944 AU
	1520 Jul 17 j 20:16	30°℞♑	
direct	1520 Sep 21 j 19:37	26°♑59'43	
	1520 Nov 22 j 16:37	0°♒	
evening set	1520 Dec 30 j 16:50	4°♒01'16	
conjunction	1521 Jan 16 j 09:04	5°♒59'48	-0°39'04
minimum elong	1521 Jan 16 j 09:03	5°♒59'48	0°39'04
max. Earth dist.	1521 Jan 16 j 02:57	5°♒57'59	10.94314 AU
morning rise	1521 Feb 02 j 03:46	7°♒59'04	
	1521 Apr 28 j 23:20	15°♒	
retrograde	1521 May 16 j 06:27	15°♒14'39	
	1521 Jun 02 j 18:12	15°℞♒	
opposition	1521 Jul 26 j 04:47	11°♒53'53	-1°04'02
min. Earth dist.	1521 Jul 26 j 09:45	11°♒52'58	8.90203 AU
direct	1521 Oct 03 j 17:38	8°♒35'33	
	1522 Jan 05 j 13:40	15°♒	
evening set	1522 Jan 11 j 10:06	15°♒40'56	
conjunction	1522 Jan 28 j 03:42	17°♒40'53	-1°04'45
minimum elong	1522 Jan 28 j 03:40	17°♒40'53	1°04'44
max. Earth dist.	1522 Jan 27 j 22:19	17°♒39'16	10.85696 AU
morning rise	1522 Feb 14 j 00:20	19°♒41'47	
retrograde	1522 May 28 j 23:24	27°♒05'21	
opposition	1522 Aug 07 j 17:34	23°♒43'17	-1°34'28
min. Earth dist.	1522 Aug 07 j 21:50	23°♒42'29	8.80807 AU
direct	1522 Oct 15 j 19:33	20°♒24'27	
evening set	1523 Jan 23 j 10:16	27°♒35'03	
conjunction	1523 Feb 09 j 05:40	29°♒36'45	-1°28'08
minimum elong	1523 Feb 09 j 05:38	29°♒36'45	1°28'07
max. Earth dist.	1523 Feb 09 j 01:03	29°♒35'21	10.75553 AU
	1523 Feb 12 j 10:07	0°♓	
morning rise	1523 Feb 26 j 04:34	1°♓39'36	
retrograde	1523 Jun 10 j 23:36	9°♓12'03	
opposition	1523 Aug 20 j 11:11	5°♓48'35	-2°01'29
min. Earth dist.	1523 Aug 20 j 14:45	5°♓47'55	8.70057 AU
direct	1523 Oct 27 j 23:33	2°♓29'00	
evening set	1524 Feb 04 j 18:33	9°♓46'12	
conjunction	1524 Feb 21 j 16:09	11°♓49'58	-1°48'03
minimum elong	1524 Feb 21 j 16:06	11°♓49'57	1°48'03
max. Earth dist.	1524 Feb 21 j 11:24	11°♓48'30	10.64228 AU
morning rise	1524 Mar 09 j 17:49	13°♓55'02	
retrograde	1524 Jun 23 j 06:48	21°♓37'05	
opposition	1524 Sep 01 j 10:37	18°♓12'12	-2°23'39
min. Earth dist.	1524 Sep 01 j 13:53	18°♓11'34	8.58328 AU
direct	1524 Nov 08 j 10:34	14°♓51'40	
evening set	1525 Feb 16 j 11:55	22°♓16'37	
conjunction	1525 Mar 05 j 12:16	24°♓22'46	-2°03'21
minimum elong	1525 Mar 05 j 12:14	24°♓22'46	2°03'21
max. Earth dist.	1525 Mar 05 j 07:15	24°♓21'13	10.52176 AU
morning rise	1525 Mar 22 j 17:15	26°♓30'22	
	1525 Apr 22 j 06:52	0°♈	
retrograde	1525 Jul 06 j 22:24	4°♈22'16	
opposition	1525 Sep 14 j 16:14	0°♈56'01	-2°39'30
min. Earth dist.	1525 Sep 14 j 19:25	0°♈55'23	8.46171 AU
	1525 Sep 26 j 17:52	30°℞♓	
direct	1525 Nov 21 j 04:11	27°♓34'20	
	1526 Jan 13 j 06:20	0°♈	
evening set	1526 Mar 01 j 15:24	5°♈07'51	

conjunction	1526 Mar 18 j 19:18	7°♈16'39	-2°12'54
minimum elong	1526 Mar 18 j 19:17	7°♈16'39	2°12'55
max. Earth dist.	1526 Mar 18 j 15:18	7°♈15'24	10.40034 AU
morning rise	1526 Apr 05 j 04:03	9°♈26'59	
retrograde	1526 Jul 20 j 21:25	17°♈28'17	
opposition	1526 Sep 28 j 03:52	14°♈00'43	-2°47'39
min. Earth dist.	1526 Sep 28 j 06:17	14°♈00'15	8.34266 AU
direct	1526 Dec 04 j 05:13	10°♈37'46	
evening set	1527 Mar 15 j 05:20	18°♈20'13	
conjunction	1527 Apr 01 j 13:30	20°♈31'49	-2°15'45
minimum elong	1527 Apr 01 j 13:30	20°♈31'49	2°15'46
max. Earth dist.	1527 Apr 01 j 11:21	20°♈31'08	10.28489 AU
morning rise	1527 Apr 19 j 02:19	22°♈44'56	
	1527 Jul 02 j 14:57	0°♉	
retrograde	1527 Aug 04 j 02:01	0°♉54'31	
	1527 Sep 05 j 18:37	30°℞♈	
opposition	1527 Oct 11 j 21:16	27°♈25'50	-2°47'00
min. Earth dist.	1527 Oct 11 j 22:16	27°♈25'38	8.23286 AU
direct	1527 Dec 17 j 15:28	24°♈01'34	
	1528 Mar 12 j 22:07	0°♉	
evening set	1528 Mar 28 j 05:31	1°♉52'44	
conjunction	1528 Apr 14 j 18:20	4°♉07'09	-2°11'12
minimum elong	1528 Apr 14 j 18:22	4°♉07'10	2°11'13
max. Earth dist.	1528 Apr 14 j 18:27	4°♉07'11	10.18209 AU
morning rise	1528 May 02 j 11:23	6°♉22'58	
retrograde	1528 Aug 17 j 12:40	14°♉39'02	
opposition	1528 Oct 24 j 19:41	11°♉09'32	-2°36'54
min. Earth dist.	1528 Oct 24 j 18:50	11°♉09'42	8.13876 AU
direct	1528 Dec 30 j 08:01	7°♉43'56	
	1529 Apr 05 j 22:18	15°♉	
evening set	1529 Apr 11 j 15:15	15°♉43'07	
conjunction	1529 Apr 29 j 08:53	18°♉00'10	-1°59'03
minimum elong	1529 Apr 29 j 08:56	18°♉00'11	1°59'04
max. Earth dist.	1529 Apr 29 j 10:48	18°♉00'47	10.09821 AU
morning rise	1529 May 17 j 06:08	20°♉18'25	
retrograde	1529 Sep 01 j 03:34	28°♉38'37	
opposition	1529 Nov 07 j 22:08	25°♉08'37	-2°17'22
min. Earth dist.	1529 Nov 07 j 19:53	25°♉09'05	8.06614 AU
direct	1530 Jan 13 j 06:47	21°♉41'44	
evening set	1530 Apr 26 j 09:10	29°♉47'45	
	1530 Apr 27 j 23:29	0°♊	
conjunction	1530 May 14 j 07:18	2°♊07'00	-1°39'40
minimum elong	1530 May 14 j 07:22	2°♊07'01	1°39'40
max. Earth dist.	1530 May 14 j 10:29	2°♊08'03	10.03841 AU
morning rise	1530 Jun 01 j 08:16	4°♊27'12	
retrograde	1530 Sep 15 j 20:12	12°♊48'48	
opposition	1530 Nov 22 j 03:16	9°♊18'43	-1°49'13
min. Earth dist.	1530 Nov 22 j 00:13	9°♊19'21	8.01951 AU
direct	1531 Jan 27 j 12:15	5°♊50'41	
evening set	1531 May 11 j 09:14	14°♊01'53	
conjunction	1531 May 29 j 11:01	16°♊22'40	-1°14'02
minimum elong	1531 May 29 j 11:04	16°♊22'41	1°14'02
max. Earth dist.	1531 May 29 j 15:10	16°♊24'01	10.00634 AU
morning rise	1531 Jun 16 j 14:36	18°♊44'02	
retrograde	1531 Sep 30 j 11:02	27°♊04'15	
opposition	1531 Dec 06 j 09:25	23°♊34'29	-1°14'07
min. Earth dist.	1531 Dec 06 j 05:50	23°♊35'14	8.00180 AU
direct	1532 Feb 10 j 23:23	20°♊05'32	
evening set	1532 May 25 j 12:50	28°♊19'55	
	1532 Jun 07 j 10:12	0°♋	
conjunction	1532 Jun 12 j 16:57	0°♋41'23	-0°43'46
minimum elong	1532 Jun 12 j 16:59	0°♋41'24	0°43'47
max. Earth dist.	1532 Jun 12 j 21:50	0°♋42'58	10.00403 AU
morning rise	1532 Jun 30 j 21:41	3°♋03'01	
retrograde	1532 Oct 13 j 21:55	11°♋19'17	
opposition	1532 Dec 19 j 15:03	7°♋50'12	-0°34'24
min. Earth dist.	1532 Dec 19 j 10:59	7°♋51'02	8.01420 AU
direct	1533 Feb 24 j 12:47	4°♋20'36	
evening set	1533 Jun 09 j 16:59	12°♋35'57	
conjunction	1533 Jun 27 j 21:50	14°♋57'09	-0°10'56
minimum elong	1533 Jun 27 j 21:51	14°♋57'09	0°10'56
behind sun begin	1533 Jun 27 j 16:22	14°♋55'23	
behind sun end	1533 Jun 28 j 03:20	14°♋58'55	
max. Earth dist.	1533 Jun 28 j 03:22	14°♋58'56	10.03148 AU
morning rise	1533 Jul 16 j 01:59	17°♋18'04	
retrograde	1533 Oct 28 j 04:13	25°♋28'16	
asc. node	1533 Oct 29 j 18:22	25°♋28'08	
opposition	1534 Jan 02 j 18:33	22°♋00'08	0°07'08
min. Earth dist.	1534 Jan 02 j 13:46	22°♋01'08	8.05568 AU
direct	1534 Mar 11 j 02:21	18°♋30'14	
evening set	1534 Jun 24 j 19:00	26°♋44'23	
conjunction	1534 Jul 12 j 22:48	29°♋04'22	0°22'22
minimum elong	1534 Jul 12 j 22:47	29°♋04'22	0°22'22
max. Earth dist.	1534 Jul 13 j 04:58	29°♋06'21	10.08664 AU
	1534 Jul 20 j 02:57	0°♌	
morning rise	1534 Jul 31 j 00:31	1°♌23'38	
retrograde	1534 Nov 11 j 04:51	9°♌26'11	
opposition	1535 Jan 16 j 18:30	5°♌59'15	0°47'40
min. Earth dist.	1535 Jan 16 j 13:03	6°♌00'22	8.12341 AU
direct	1535 Mar 25 j 13:49	2°♌29'25	
evening set	1535 Jul 09 j 15:51	10°♌40'19	
conjunction	1535 Jul 27 j 16:57	12°♌58'15	0°53'50
minimum elong	1535 Jul 27 j 16:54	12°♌58'15	0°53'50
max. Earth dist.	1535 Jul 27 j 23:34	13°♌00'23	10.16593 AU
	1535 Aug 12 j 14:35	15°♌	
morning rise	1535 Aug 14 j 14:45	15°♌15'09	
retrograde	1535 Nov 24 j 22:41	23°♌09'02	
opposition	1536 Jan 30 j 14:03	19°♌43'30	1°24'40
min. Earth dist.	1536 Jan 30 j 08:23	19°♌44'39	8.21317 AU
direct	1536 Apr 07 j 22:15	16°♌14'05	
evening set	1536 Jul 23 j 05:01	24°♌19'56	
conjunction	1536 Aug 10 j 02:08	26°♌35'14	1°21'42
minimum elong	1536 Aug 10 j 02:05	26°♌35'13	1°21'42
max. Earth dist.	1536 Aug 10 j 08:47	26°♌37'20	10.26450 AU
morning rise	1536 Aug 27 j 19:05	28°♌49'14	
	1536 Sep 06 j 10:20	0°♍	
retrograde	1536 Dec 07 j 07:55	6°♍34'03	
opposition	1537 Feb 12 j 04:20	3°♍10'00	1°56'06
min. Earth dist.	1537 Feb 11 j 23:16	3°♍11'01	8.31948 AU
	1537 Apr 03 j 03:44	30°℞♌	
direct	1537 Apr 22 j 01:42	29°♌41'20	
	1537 May 10 j 23:47	0°♍	
evening set	1537 Aug 06 j 09:08	7°♍40'44	
conjunction	1537 Aug 24 j 01:27	9°♍53'03	1°44'34
minimum elong	1537 Aug 24 j 01:24	9°♍53'02	1°44'34
max. Earth dist.	1537 Aug 24 j 07:15	9°♍54'52	10.37652 AU
morning rise	1537 Sep 10 j 13:07	12°♍03'56	
retrograde	1537 Dec 20 j 09:42	19°♍39'39	
opposition	1538 Feb 25 j 12:51	16°♍17'08	2°20'35
min. Earth dist.	1538 Feb 25 j 09:01	16°♍17'54	8.43629 AU
direct	1538 May 05 j 22:49	12°♍49'28	
evening set	1538 Aug 20 j 02:56	20°♍41'25	

conjunction	1538 Sep 06 j 14:06	22°♍50'38	2°01'32
minimum elong	1538 Sep 06 j 14:03	22°♍50'37	2°01'32
max. Earth dist.	1538 Sep 06 j 18:13	22°♍51'55	10.49587 AU
morning rise	1538 Sep 23 j 20:37	24°♍58'25	
	1538 Nov 09 j 20:02	0°♎	
retrograde	1539 Jan 02 j 03:41	2°♎25'27	
	1539 Feb 26 j 15:28	30°℞♍	
opposition	1539 Mar 10 j 15:44	29°♍04'23	2°37'20
min. Earth dist.	1539 Mar 10 j 12:40	29°♍04'59	8.55737 AU
direct	1539 May 19 j 13:21	25°♍37'55	
	1539 Aug 03 j 14:52	0°♎	
evening set	1539 Sep 02 j 09:44	3°♎21'46	
conjunction	1539 Sep 19 j 16:02	5°♎28'01	2°12'10
minimum elong	1539 Sep 19 j 16:00	5°♎28'01	2°12'10
max. Earth dist.	1539 Sep 19 j 18:50	5°♎28'53	10.61649 AU
morning rise	1539 Oct 06 j 17:48	7°♎32'53	
retrograde	1540 Jan 14 j 13:28	14°♎52'01	
opposition	1540 Mar 22 j 12:54	11°♎32'12	2°46'08
min. Earth dist.	1540 Mar 22 j 10:15	11°♎32'43	8.67667 AU
direct	1540 May 31 j 22:40	8°♎07'03	
evening set	1540 Sep 14 j 06:06	15°♎42'36	
conjunction	1540 Oct 01 j 08:09	17°♎46'10	2°16'24
minimum elong	1540 Oct 01 j 08:08	17°♎46'10	2°16'25
max. Earth dist.	1540 Oct 01 j 10:13	17°♎46'48	10.73260 AU
morning rise	1540 Oct 18 j 05:46	19°♎48'26	
retrograde	1541 Jan 25 j 19:40	27°♎00'33	
opposition	1541 Apr 04 j 04:38	23°♎41'50	2°47'12
min. Earth dist.	1541 Apr 04 j 02:36	23°♎42'13	8.78862 AU
direct	1541 Jun 13 j 22:59	20°♎18'02	
evening set	1541 Sep 26 j 16:44	27°♎45'27	
conjunction	1541 Oct 13 j 15:12	29°♎46'43	2°14'31
minimum elong	1541 Oct 13 j 15:13	29°♎46'44	2°14'31
max. Earth dist.	1541 Oct 13 j 16:43	29°♎47'11	10.83893 AU
	1541 Oct 15 j 11:22	0°♏	
morning rise	1541 Oct 30 j 09:27	1°♏46'48	
retrograde	1542 Feb 06 j 20:37	8°♏53'01	
opposition	1542 Apr 16 j 15:58	5°♏35'11	2°41'03
min. Earth dist.	1542 Apr 16 j 15:26	5°♏35'17	8.88833 AU
direct	1542 Jun 26 j 15:17	2°♏12'41	
evening set	1542 Oct 08 j 18:38	9°♏32'30	
conjunction	1542 Oct 25 j 14:06	11°♏31'52	2°06'57
minimum elong	1542 Oct 25 j 14:07	11°♏31'52	2°06'57
max. Earth dist.	1542 Oct 25 j 13:53	11°♏31'48	10.93091 AU
morning rise	1542 Nov 11 j 06:00	13°♏30'14	
	1542 Nov 24 j 09:04	15°♏	
retrograde	1543 Feb 18 j 16:07	20°♏31'52	
opposition	1543 Apr 28 j 23:21	17°♏14'39	2°28'22
min. Earth dist.	1543 Apr 29 j 00:33	17°♏14'25	8.97154 AU
	1543 May 31 j 23:45	15°℞♏	
direct	1543 Jul 09 j 03:26	13°♏53'17	
	1543 Aug 15 j 15:40	15°♏	
evening set	1543 Oct 20 j 13:17	21°♏06'24	
conjunction	1543 Nov 06 j 06:30	23°♏04'19	1°54'19
minimum elong	1543 Nov 06 j 06:32	23°♏04'19	1°54'19
max. Earth dist.	1543 Nov 06 j 04:05	23°♏03'36	11.00456 AU
morning rise	1543 Nov 22 j 21:01	25°♏01'26	
	1544 Jan 11 j 14:54	0°♐	
retrograde	1544 Mar 01 j 09:57	1°♐59'56	
	1544 Apr 22 j 08:12	30°℞♏	
opposition	1544 May 10 j 03:21	28°♏43'02	2°09'57
min. Earth dist.	1544 May 10 j 05:53	28°♏42'34	9.03448 AU
direct	1544 Jul 20 j 09:47	25°♏22'42	
	1544 Oct 08 j 07:59	0°♐	
evening set	1544 Oct 31 j 02:12	2°♐30'14	
conjunction	1544 Nov 16 j 18:02	4°♐27'11	1°37'16
minimum elong	1544 Nov 16 j 18:04	4°♐27'11	1°37'17
max. Earth dist.	1544 Nov 16 j 14:20	4°♐26'05	11.05644 AU
morning rise	1544 Dec 03 j 07:47	6°♐23'33	
retrograde	1545 Mar 13 j 02:38	13°♐20'30	
opposition	1545 May 22 j 05:20	10°♐03'39	1°46'41
min. Earth dist.	1545 May 22 j 08:22	10°♐03'05	9.07427 AU
direct	1545 Aug 01 j 11:16	6°♐44'13	
evening set	1545 Nov 11 j 11:08	13°♐47'29	
conjunction	1545 Nov 28 j 02:12	15°♐43'54	1°16'34
minimum elong	1545 Nov 28 j 02:14	15°♐43'55	1°16'35
max. Earth dist.	1545 Nov 27 j 22:01	15°♐42'41	11.08450 AU
morning rise	1545 Dec 14 j 15:43	17°♐39'58	
retrograde	1546 Mar 24 j 21:43	24°♐37'01	
opposition	1546 Jun 03 j 06:26	21°♐19'57	1°19'28
min. Earth dist.	1546 Jun 03 j 10:23	21°♐19'14	9.08995 AU
direct	1546 Aug 13 j 09:33	18°♐01'10	
evening set	1546 Nov 22 j 18:04	25°♐01'35	
conjunction	1546 Dec 09 j 08:42	26°♐57'54	0°52'59
minimum elong	1546 Dec 09 j 08:44	26°♐57'55	0°52'59
max. Earth dist.	1546 Dec 09 j 03:14	26°♐56'18	11.08851 AU
morning rise	1546 Dec 25 j 22:45	28°♐54'05	
	1547 Jan 04 j 15:48	0°♑	
retrograde	1547 Apr 05 j 15:50	5°♑52'46	
opposition	1547 Jun 15 j 07:36	2°♑35'12	0°49'15
min. Earth dist.	1547 Jun 15 j 12:53	2°♑34'14	9.08178 AU
	1547 Jul 25 j 19:01	30°℞♐	
direct	1547 Aug 25 j 04:03	29°♐16'48	
	1547 Sep 24 j 02:10	0°♑	
evening set	1547 Dec 04 j 00:27	6°♑15'50	
conjunction	1547 Dec 20 j 15:06	8°♑12'23	0°27'20
minimum elong	1547 Dec 20 j 15:07	8°♑12'23	0°27'19
max. Earth dist.	1547 Dec 20 j 08:11	8°♑10'21	11.06889 AU
morning rise	1548 Jan 06 j 06:12	10°♑09'05	
retrograde	1548 Apr 16 j 12:57	17°♑10'59	
opposition	1548 Jun 26 j 09:41	13°♑52'36	0°17'01
min. Earth dist.	1548 Jun 26 j 15:38	13°♑51'30	9.05038 AU
direct	1548 Sep 05 j 00:03	10°♑34'19	
evening set	1548 Dec 14 j 08:00	17°♑33'28	
conjunction	1548 Dec 30 j 23:07	19°♑30'39	0°00'28
minimum elong	1548 Dec 30 j 23:09	19°♑30'39	0°00'27
behind sun begin	1548 Dec 30 j 16:12	19°♑28'38	
behind sun end	1548 Dec 31 j 06:05	19°♑32'41	
max. Earth dist.	1548 Dec 30 j 16:26	19°♑28'42	11.02647 AU
desc. node	1549 Jan 06 j 06:34	20°♑15'25	
morning rise	1549 Jan 16 j 15:26	21°♑28'13	
retrograde	1549 Apr 28 j 15:23	28°♑34'50	
opposition	1549 Jul 08 j 13:44	25°♑15'24	-0°16'11
min. Earth dist.	1549 Jul 08 j 19:13	25°♑14'23	8.99700 AU
direct	1549 Sep 16 j 19:38	21°♑57'02	
evening set	1549 Dec 25 j 18:28	28°♑57'49	
	1550 Jan 03 j 14:05	0°♒	
conjunction	1550 Jan 11 j 10:27	0°♒55'58	-0°26'41
minimum elong	1550 Jan 11 j 10:26	0°♒55'58	0°26'42
max. Earth dist.	1550 Jan 11 j 04:22	0°♒54'10	10.96287 AU
morning rise	1550 Jan 28 j 04:12	2°♒54'43	
retrograde	1550 May 10 j 22:38	10°♒07'33	
opposition	1550 Jul 20 j 20:49	6°♒46'51	-0°49'11
min. Earth dist.	1550 Jul 21 j 01:44	6°♒45'56	8.92372 AU

direct	1550 Sep 28 j 15:59	3°♒28'11	
evening set	1551 Jan 06 j 09:26	10°♒32'09	
conjunction	1551 Jan 23 j 02:29	12°♒31'36	-0°53'06
minimum elong	1551 Jan 23 j 02:27	12°♒31'36	0°53'06
max. Earth dist.	1551 Jan 22 j 20:06	12°♒29'42	10.88050 AU
morning rise	1551 Feb 08 j 22:11	14°♒31'54	
	1551 Feb 12 j 22:30	15°♒	
retrograde	1551 May 23 j 12:37	21°♒52'13	
opposition	1551 Aug 02 j 07:51	18°♒30'10	-1°20'47
min. Earth dist.	1551 Aug 02 j 12:53	18°♒29'13	8.83318 AU
direct	1551 Oct 10 j 14:54	15°♒10'57	
evening set	1552 Jan 18 j 06:36	22°♒19'39	
conjunction	1552 Feb 04 j 01:04	24°♒20'43	-1°17'43
minimum elong	1552 Feb 04 j 01:02	24°♒20'42	1°17'42
max. Earth dist.	1552 Feb 03 j 18:24	24°♒18'42	10.78239 AU
morning rise	1552 Feb 20 j 23:03	26°♒22'52	
	1552 Mar 24 j 19:37	0°♓	
retrograde	1552 Jun 04 j 07:59	3°♓51'47	
opposition	1552 Aug 13 j 23:28	0°♓28'19	-1°49'37
min. Earth dist.	1552 Aug 14 j 04:31	0°♓27'21	8.72879 AU
	1552 Aug 20 j 04:37	30°♓℞♒	
direct	1552 Oct 21 j 17:36	27°♒08'22	
	1552 Dec 19 j 18:26	0°♓	
evening set	1553 Jan 29 j 11:09	4°♓23'12	
conjunction	1553 Feb 15 j 07:39	6°♓26'13	-1°39'25
minimum elong	1553 Feb 15 j 07:37	6°♓26'12	1°39'24
max. Earth dist.	1553 Feb 15 j 01:58	6°♓24'28	10.67231 AU
morning rise	1553 Mar 04 j 08:10	8°♓30'28	
retrograde	1553 Jun 17 j 11:21	16°♓08'52	
opposition	1553 Aug 26 j 20:39	12°♓43'55	-2°14'16
min. Earth dist.	1553 Aug 27 j 00:46	12°♓43'08	8.61473 AU
direct	1553 Nov 03 j 03:43	9°♓23'07	
evening set	1554 Feb 11 j 00:19	16°♓45'12	
conjunction	1554 Feb 27 j 23:30	18°♓50'30	-1°57'01
minimum elong	1554 Feb 27 j 23:28	18°♓50'29	1°57'01
max. Earth dist.	1554 Feb 27 j 19:36	18°♓49'17	10.55482 AU
morning rise	1554 Mar 17 j 02:56	20°♓57'09	
retrograde	1554 Jul 01 j 00:16	28°♓45'23	
opposition	1554 Sep 08 j 23:42	25°♓19'02	-2°33'14
min. Earth dist.	1554 Sep 09 j 02:14	25°♓18'32	8.49585 AU
direct	1554 Nov 15 j 18:05	21°♓57'15	
evening set	1555 Feb 23 j 23:26	29°♓27'31	
	1555 Feb 28 j 08:42	0°♈	
conjunction	1555 Mar 13 j 01:50	1°♈35'20	-2°09'21
minimum elong	1555 Mar 13 j 01:48	1°♈35'19	2°09'21
max. Earth dist.	1555 Mar 12 j 23:03	1°♈34'27	10.43524 AU
morning rise	1555 Mar 30 j 08:43	3°♈44'37	
retrograde	1555 Jul 14 j 20:57	11°♈42'27	
opposition	1555 Sep 22 j 08:45	8°♈14'50	-2°45'04
min. Earth dist.	1555 Sep 22 j 10:02	8°♈14'35	8.37773 AU
direct	1555 Nov 28 j 14:47	4°♈51'57	
evening set	1556 Mar 08 j 08:55	12°♈31'01	
conjunction	1556 Mar 25 j 15:03	14°♈41'31	-2°15'22
minimum elong	1556 Mar 25 j 15:03	14°♈41'31	2°15'22
max. Earth dist.	1556 Mar 25 j 13:09	14°♈40'55	10.31956 AU
morning rise	1556 Apr 12 j 01:56	16°♈53'33	
retrograde	1556 Jul 27 j 23:52	25°♈00'13	
opposition	1556 Oct 05 j 00:02	21°♈31'33	-2°48'32
min. Earth dist.	1556 Oct 05 j 00:23	21°♈31'29	8.26654 AU
direct	1556 Dec 10 j 20:46	18°♈07'31	
evening set	1557 Mar 22 j 04:39	25°♈55'24	

conjunction	1557 Apr 08 j 15:11	28°♈08'43	-2°14'14
minimum elong	1557 Apr 08 j 15:12	28°♈08'43	2°14'14
max. Earth dist.	1557 Apr 08 j 14:31	28°♈08'30	10.21416 AU
	1557 Apr 23 j 03:50	0°♉	
morning rise	1557 Apr 26 j 06:24	0°♉23'30	
retrograde	1557 Aug 11 j 08:51	8°♉37'31	
opposition	1557 Oct 18 j 20:52	5°♉08'06	-2°42'44
min. Earth dist.	1557 Oct 18 j 20:20	5°♉08'12	8.16862 AU
direct	1557 Dec 24 j 10:18	1°♉42'54	
evening set	1558 Apr 05 j 10:35	9°♉39'10	
conjunction	1558 Apr 23 j 01:56	11°♉55'11	-2°05'29
minimum elong	1558 Apr 23 j 01:58	11°♉55'12	2°05'30
max. Earth dist.	1558 Apr 23 j 03:03	11°♉55'32	10.12524 AU
morning rise	1558 May 10 j 21:31	14°♉12'32	
	1558 May 17 j 04:40	15°♉	
retrograde	1558 Aug 25 j 22:27	22°♉31'45	
opposition	1558 Nov 01 j 22:06	19°♉01'55	-2°27'21
min. Earth dist.	1558 Nov 01 j 20:27	19°♉02'15	8.08996 AU
direct	1559 Jan 07 j 07:20	15°♉35'36	
evening set	1559 Apr 20 j 01:30	23°♉39'16	
conjunction	1559 May 07 j 21:39	25°♉57'41	-1°49'15
minimum elong	1559 May 07 j 21:43	25°♉57'42	1°49'15
max. Earth dist.	1559 May 08 j 01:00	25°♉58'46	10.05839 AU
morning rise	1559 May 25 j 21:10	28°♉17'12	
	1559 Jun 08 j 14:41	0°♊	
retrograde	1559 Sep 09 j 14:34	6°♊39'00	
opposition	1559 Nov 16 j 02:46	3°♊09'06	-2°02'51
min. Earth dist.	1559 Nov 15 j 23:29	3°♊09'47	8.03560 AU
	1560 Jan 03 j 11:55	30°℞♉	
direct	1560 Jan 21 j 11:18	29°♉41'50	
	1560 Feb 08 j 08:34	0°♊	
evening set	1560 May 03 j 23:27	7°♊51'19	
conjunction	1560 May 21 j 23:47	10°♊11'34	-1°26'13
minimum elong	1560 May 21 j 23:50	10°♊11'35	1°26'13
max. Earth dist.	1560 May 22 j 05:15	10°♊13'21	10.01799 AU
morning rise	1560 Jun 09 j 02:20	12°♊32'34	
retrograde	1560 Sep 23 j 06:39	20°♊54'10	
opposition	1560 Nov 29 j 09:12	17°♊24'34	-1°30'33
min. Earth dist.	1560 Nov 29 j 04:25	17°♊25'33	8.00921 AU
direct	1561 Feb 03 j 20:35	13°♊56'27	
evening set	1561 May 19 j 02:21	22°♊09'51	
conjunction	1561 Jun 06 j 05:43	24°♊31'09	-0°57'46
minimum elong	1561 Jun 06 j 05:46	24°♊31'10	0°57'47
max. Earth dist.	1561 Jun 06 j 12:42	24°♊33'26	10.00673 AU
morning rise	1561 Jun 24 j 10:01	26°♊52'46	
	1561 Jul 20 j 00:04	0°♋	
retrograde	1561 Oct 07 j 20:22	5°♋11'21	
opposition	1561 Dec 13 j 15:39	1°♋42'22	-0°52'33
min. Earth dist.	1561 Dec 13 j 10:00	1°♋43'33	8.01243 AU
	1562 Jan 04 j 05:13	30°℞♊	
direct	1562 Feb 18 j 08:20	28°♊13'36	
	1562 Apr 03 j 21:09	0°♋	
evening set	1562 Jun 03 j 07:13	6°♋28'46	
conjunction	1562 Jun 21 j 12:03	8°♋50'09	-0°25'47
minimum elong	1562 Jun 21 j 12:04	8°♋50'10	0°25'48
max. Earth dist.	1562 Jun 21 j 19:37	8°♋52'37	10.02494 AU
morning rise	1562 Jul 09 j 16:28	11°♋11'25	
retrograde	1562 Oct 22 j 06:32	19°♋24'35	
opposition	1562 Dec 27 j 20:36	15°♋56'30	-0°11'29
min. Earth dist.	1562 Dec 27 j 14:58	15°♋57'40	8.04443 AU
direct	1563 Mar 04 j 21:38	12°♋27'18	
asc. node	1563 Apr 11 j 07:45	13°♋42'30	

evening set	1563 Jun 18 j 10:51	20°♋42'00		
conjunction	1563 Jul 06 j 15:15	23°♋02'31	0°07'38	
minimum elong	1563 Jul 06 j 15:15	23°♋02'31	0°07'38	
behind sun begin	1563 Jul 06 j 08:37	23°♋00'23		
behind sun end	1563 Jul 06 j 21:53	23°♋04'39		
max. Earth dist.	1563 Jul 06 j 22:17	23°♋04'47	10.07039 AU	
morning rise	1563 Jul 24 j 18:03	25°♋22'31		
	1563 Sep 02 j 17:19	0°♌		
retrograde	1563 Nov 05 j 10:37	3°♌28'29		
opposition	1564 Jan 10 j 22:31	0°♌01'32	0°29'50	
min. Earth dist.	1564 Jan 10 j 17:38	0°♌02'32	8.10198 AU	
	1564 Jan 11 j 06:00	30°℞♋		
direct	1564 Mar 18 j 10:29	26°♋32'12		
	1564 May 22 j 00:45	0°♌		
evening set	1564 Jul 02 j 10:29	4°♌44'32		
conjunction	1564 Jul 20 j 12:47	7°♌03'21	0°40'06	
minimum elong	1564 Jul 20 j 12:46	7°♌03'20	0°40'06	
max. Earth dist.	1564 Jul 20 j 18:33	7°♌05'12	10.13908 AU	
morning rise	1564 Aug 07 j 12:28	9°♌21'18		
	1564 Sep 28 j 00:31	15°♌		
retrograde	1564 Nov 18 j 07:17	17°♌19'02		
	1565 Jan 09 j 23:07	15°℞♌		
opposition	1565 Jan 23 j 20:16	13°♌53'25	1°08'41	
min. Earth dist.	1565 Jan 23 j 16:02	13°♌54'17	8.18081 AU	
direct	1565 Apr 01 j 21:40	10°♌24'17		
	1565 Jun 17 j 00:10	15°♌		
evening set	1565 Jul 17 j 03:43	18°♌32'33		
conjunction	1565 Aug 04 j 02:35	20°♌49'01	1°09'46	
minimum elong	1565 Aug 04 j 02:32	20°♌49'00	1°09'47	
max. Earth dist.	1565 Aug 04 j 07:17	20°♌50'31	10.22682 AU	
morning rise	1565 Aug 21 j 21:56	23°♌04'20		
	1565 Oct 31 j 14:55	0°♍		
retrograde	1565 Dec 01 j 19:14	0°♍53'19		
	1566 Jan 02 j 08:51	30°℞♌		
opposition	1566 Feb 06 j 13:14	27°♌29'05	1°42'49	
min. Earth dist.	1566 Feb 06 j 09:15	27°♌29'54	8.27676 AU	
direct	1566 Apr 16 j 04:51	24°♌00'28		
	1566 Jul 14 j 10:27	0°♍		
evening set	1566 Jul 31 j 12:35	2°♍03'06		
conjunction	1566 Aug 18 j 07:01	4°♍16'45	1°35'02	
minimum elong	1566 Aug 18 j 06:58	4°♍16'44	1°35'02	
max. Earth dist.	1566 Aug 18 j 11:07	4°♍18'03	10.32933 AU	
morning rise	1566 Sep 04 j 21:13	6°♍29'04		
retrograde	1566 Dec 15 j 01:01	14°♍09'07		
opposition	1567 Feb 20 j 00:48	10°♍46'15	2°10'34	
min. Earth dist.	1567 Feb 19 j 20:48	10°♍47'03	8.38511 AU	
direct	1567 Apr 30 j 05:25	7°♍18'23		
evening set	1567 Aug 14 j 11:32	15°♍14'04		
conjunction	1567 Sep 01 j 01:07	17°♍24'44	1°54'43	
minimum elong	1567 Sep 01 j 01:04	17°♍24'43	1°54'44	
max. Earth dist.	1567 Sep 01 j 05:05	17°♍25'58	10.44155 AU	
morning rise	1567 Sep 18 j 09:57	19°♍33'57		
retrograde	1567 Dec 27 j 23:34	27°♍05'13		
opposition	1568 Mar 04 j 06:41	23°♍43'37	2°30'51	
min. Earth dist.	1568 Mar 04 j 03:20	23°♍44'17	8.50039 AU	
direct	1568 May 12 j 23:08	20°♍16'42		
evening set	1568 Aug 26 j 23:45	28°♍04'35		
	1568 Sep 11 j 16:43	0°♎		
conjunction	1568 Sep 13 j 08:27	0°♎12'16	2°08'13	
minimum elong	1568 Sep 13 j 08:24	0°♎12'15	2°08'14	
max. Earth dist.	1568 Sep 13 j 11:45	0°♎13'17	10.55777 AU	
morning rise	1568 Sep 30 j 12:13	2°♎18'29		
retrograde	1569 Jan 08 j 13:51	9°♎41'30		
opposition	1569 Mar 17 j 06:50	6°♎21'04	2°43'13	
min. Earth dist.	1569 Mar 17 j 04:49	6°♎21'28	8.61670 AU	
direct	1569 May 26 j 10:44	2°♎55'11		
evening set	1569 Sep 09 j 01:22	10°♎34'53		
conjunction	1569 Sep 26 j 05:22	12°♎39'46	2°15'18	
minimum elong	1569 Sep 26 j 05:21	12°♎39'45	2°15'18	
max. Earth dist.	1569 Sep 26 j 07:06	12°♎40'17	10.67223 AU	
morning rise	1569 Oct 13 j 04:45	14°♎43'16		
retrograde	1570 Jan 20 j 21:34	21°♎58'49		
opposition	1570 Mar 30 j 01:25	18°♎39'24	2°47'42	
min. Earth dist.	1570 Mar 30 j 00:47	18°♎39'32	8.72852 AU	
direct	1570 Jun 08 j 15:11	15°♎14'39		
evening set	1570 Sep 21 j 16:37	22°♎46'09		
conjunction	1570 Oct 08 j 16:34	24°♎48'33	2°16'05	
minimum elong	1570 Oct 08 j 16:34	24°♎48'33	2°16'05	
max. Earth dist.	1570 Oct 08 j 16:34	24°♎48'33	10.77977 AU	
morning rise	1570 Oct 25 j 12:25	26°♎49'42		
	1570 Nov 23 j 01:30	0°♏		
retrograde	1571 Feb 01 j 23:07	3°♏58'51		
opposition	1571 Apr 11 j 15:00	0°♏40'15	2°44'40	
min. Earth dist.	1571 Apr 11 j 14:54	0°♏40'16	8.83092 AU	
	1571 Apr 20 j 12:37	30°℞♎		
direct	1571 Jun 21 j 12:49	27°♎16'40		
	1571 Aug 20 j 02:18	0°♏		
evening set	1571 Oct 03 j 22:18	4°♏40'18		
conjunction	1571 Oct 20 j 19:05	6°♏40'37	2°10'57	
minimum elong	1571 Oct 20 j 19:06	6°♏40'38	2°10'56	
max. Earth dist.	1571 Oct 20 j 18:23	6°♏40'25	10.87584 AU	
morning rise	1571 Nov 06 j 12:11	8°♏39'53		
	1572 Jan 15 j 12:40	15°♏		
retrograde	1572 Feb 13 j 21:15	15°♏43'54		
	1572 Mar 14 j 18:51	15°℞♏		
opposition	1572 Apr 23 j 00:05	12°♏25'52	2°34'45	
min. Earth dist.	1572 Apr 23 j 00:16	12°♏25'50	8.91964 AU	
direct	1572 Jul 03 j 04:13	9°♏03'27		
	1572 Oct 03 j 03:39	15°♏		
evening set	1572 Oct 14 j 20:07	16°♏19'56		
conjunction	1572 Oct 31 j 14:31	18°♏18'38	2°00'27	
minimum elong	1572 Oct 31 j 14:33	18°♏18'39	2°00'26	
max. Earth dist.	1572 Oct 31 j 13:33	18°♏18'21	10.95654 AU	
morning rise	1572 Nov 17 j 05:36	20°♏16'26		
retrograde	1573 Feb 24 j 17:19	27°♏16'37		
opposition	1573 May 05 j 05:32	23°♏59'02	2°18'44	
min. Earth dist.	1573 May 05 j 06:39	23°♏58'49	8.99131 AU	
direct	1573 Jul 15 j 11:29	20°♏37'42		
evening set	1573 Oct 26 j 11:34	27°♏48'02		
conjunction	1573 Nov 12 j 04:08	29°♏45'33	1°45'15	
minimum elong	1573 Nov 12 j 04:11	29°♏45'33	1°45'14	
max. Earth dist.	1573 Nov 12 j 02:07	29°♏44'57	11.01893 AU	
	1573 Nov 14 j 05:03	0°♐		
morning rise	1573 Nov 28 j 18:08	1°♐42'21		
retrograde	1574 Mar 08 j 09:38	8°♐40'11		
opposition	1574 May 17 j 08:37	5°♐22'49	1°57'28	
min. Earth dist.	1574 May 17 j 11:12	5°♐22'20	9.04345 AU	
direct	1574 Jul 27 j 14:29	2°♐02'28		
evening set	1574 Nov 06 j 22:05	9°♐07'50		
conjunction	1574 Nov 23 j 13:24	11°♐04'33	1°26'03	
minimum elong	1574 Nov 23 j 13:27	11°♐04'34	1°26'03	
max. Earth dist.	1574 Nov 23 j 09:41	11°♐03'27	11.06086 AU	

morning rise	1574 Dec 10 j 03:09	13°♐00'49	
retrograde	1575 Mar 20 j 02:44	19°♐57'52	
opposition	1575 May 29 j 10:00	16°♐40'28	1°31'50
min. Earth dist.	1575 May 29 j 13:16	16°♐39'52	9.07423 AU
direct	1575 Aug 08 j 14:54	13°♐20'58	
evening set	1575 Nov 18 j 05:33	20°♐22'40	
conjunction	1575 Dec 04 j 20:21	22°♐19'03	1°03'37
minimum elong	1575 Dec 04 j 20:23	22°♐19'03	1°03'38
max. Earth dist.	1575 Dec 04 j 16:14	22°♐17'50	11.08079 AU
morning rise	1575 Dec 21 j 10:17	24°♐15'12	
	1576 Feb 20 j 22:18	0°♑	
retrograde	1576 Mar 30 j 20:06	1°♑12'58	
	1576 May 09 j 19:53	30°℞♐	
opposition	1576 Jun 09 j 10:31	27°♐55'19	1°02'48
min. Earth dist.	1576 Jun 09 j 13:48	27°♐54'43	9.08248 AU
direct	1576 Aug 19 j 10:54	24°♐36'30	
	1576 Nov 14 j 05:13	0°♑	
evening set	1576 Nov 28 j 11:44	1°♑35'58	
conjunction	1576 Dec 15 j 02:29	3°♑32'23	0°38'46
minimum elong	1576 Dec 15 j 02:30	3°♑32'23	0°38'47
max. Earth dist.	1576 Dec 14 j 22:33	3°♑31'14	11.07787 AU
morning rise	1576 Dec 31 j 16:58	5°♑28'47	
retrograde	1577 Apr 11 j 17:20	12°♑28'54	
opposition	1577 Jun 21 j 11:44	9°♑10'46	0°31'20
min. Earth dist.	1577 Jun 21 j 15:04	9°♑10'09	9.06789 AU
direct	1577 Aug 31 j 06:13	5°♑52'25	
evening set	1577 Dec 09 j 18:15	12°♑51'07	
conjunction	1577 Dec 26 j 09:10	14°♑47'56	0°12'23
minimum elong	1577 Dec 26 j 09:10	14°♑47'56	0°12'22
behind sun begin	1577 Dec 26 j 04:29	14°♑46'34	
behind sun end	1577 Dec 26 j 13:50	14°♑49'17	
max. Earth dist.	1577 Dec 26 j 04:31	14°♑46'34	11.05225 AU
morning rise	1578 Jan 12 j 00:44	16°♑44'59	
retrograde	1578 Apr 23 j 17:42	23°♑48'57	
desc. node	1578 Jun 16 j 06:05	21°♑44'59	
opposition	1578 Jul 03 j 14:36	20°♑30'06	-0°01'32
min. Earth dist.	1578 Jul 03 j 18:45	20°♑29'21	9.03110 AU
direct	1578 Sep 11 j 23:31	17°♑12'00	
evening set	1578 Dec 21 j 03:01	24°♑11'29	
conjunction	1579 Jan 06 j 18:23	26°♑09'01	-0°14'46
minimum elong	1579 Jan 06 j 18:23	26°♑09'01	0°14'47
behind sun begin	1579 Jan 06 j 15:22	26°♑08'08	
behind sun end	1579 Jan 06 j 21:24	26°♑09'54	
max. Earth dist.	1579 Jan 06 j 12:51	26°♑07'23	11.00494 AU
morning rise	1579 Jan 23 j 11:30	28°♑07'04	
	1579 Feb 09 j 05:13	0°♒	
retrograde	1579 May 05 j 20:11	5°♒16'22	
opposition	1579 Jul 15 j 19:47	1°♒56'36	-0°34'41
min. Earth dist.	1579 Jul 16 j 00:25	1°♒55'45	8.97347 AU
	1579 Aug 12 j 19:59	30°℞♑	
direct	1579 Sep 23 j 18:58	28°♑38'28	
	1579 Nov 03 j 13:13	0°♒	
evening set	1580 Jan 01 j 15:25	5°♒40'17	
conjunction	1580 Jan 18 j 07:48	7°♒38'55	-0°41'33
minimum elong	1580 Jan 18 j 07:46	7°♒38'54	0°41'33
max. Earth dist.	1580 Jan 18 j 02:33	7°♒37'21	10.93754 AU
morning rise	1580 Feb 04 j 02:34	9°♒38'16	
	1580 Mar 29 j 00:00	15°♒	
retrograde	1580 May 17 j 06:51	16°♒54'17	
	1580 Jul 07 j 04:44	15°℞♒	
opposition	1580 Jul 27 j 04:23	13°♒33'24	-1°06'58
min. Earth dist.	1580 Jul 27 j 08:31	13°♒32'37	8.89693 AU
direct	1580 Oct 04 j 17:42	10°♒15'01	
	1580 Dec 22 j 15:02	15°♒	
evening set	1581 Jan 12 j 09:03	17°♒20'37	
conjunction	1581 Jan 29 j 02:48	19°♒20'39	-1°07'01
minimum elong	1581 Jan 29 j 02:45	19°♒20'38	1°07'01
max. Earth dist.	1581 Jan 28 j 22:32	19°♒19'22	10.85231 AU
morning rise	1581 Feb 14 j 23:26	21°♒21'37	
retrograde	1581 May 29 j 23:54	28°♒45'32	
opposition	1581 Aug 08 j 17:18	25°♒23'22	-1°37'05
min. Earth dist.	1581 Aug 08 j 20:33	25°♒22'46	8.80415 AU
direct	1581 Oct 16 j 17:45	22°♒04'31	
evening set	1582 Jan 24 j 09:36	29°♒15'18	
	1582 Jan 30 j 14:49	0°♓	
conjunction	1582 Feb 10 j 05:00	1°♓17'03	-1°30'05
minimum elong	1582 Feb 10 j 04:57	1°♓17'03	1°30'05
max. Earth dist.	1582 Feb 10 j 00:40	1°♓15'44	10.75239 AU
morning rise	1582 Feb 27 j 04:00	3°♓19'57	
retrograde	1582 Jun 11 j 23:37	10°♓52'40	
opposition	1582 Aug 21 j 11:11	7°♓29'08	-2°03'39
min. Earth dist.	1582 Aug 21 j 14:20	7°♓28'32	8.69847 AU
direct	1582 Nov 07 23:09	4°♓09'32	
evening set	1583 Feb 15 18:06	11°♓26'48	
conjunction	1583 Mar 04 15:41	13°♓30'36	-1°49'35
minimum elong	1583 Mar 04 15:39	13°♓30'35	1°49'35
max. Earth dist.	1583 Mar 04 10:52	13°♓29'07	10.64129 AU
morning rise	1583 Mar 21 17:35	15°♓35'43	
retrograde	1583 Jul 05 07:14	23°♓17'49	
opposition	1583 Sep 13 10:38	19°♓52'54	-2°25'13
min. Earth dist.	1583 Sep 13 14:03	19°♓52'15	8.58349 AU
direct	1583 Nov 20 09:56	16°♓32'20	
evening set	1584 Feb 28 11:40	23°♓57'14	
conjunction	1584 Mar 16 12:07	26°♓03'23	-2°04'22
minimum elong	1584 Mar 16 12:05	26°♓03'22	2°04'22
max. Earth dist.	1584 Mar 16 07:37	26°♓01'59	10.52303 AU
morning rise	1584 Apr 02 17:14	28°♓10'58	
	1584 Apr 18 00:34	0°♈	
retrograde	1584 Jul 17 21:44	6°♈02'44	
opposition	1584 Sep 25 15:56	2°♈36'28	-2°40'22
min. Earth dist.	1584 Sep 25 19:03	2°♈35'51	8.46398 AU
	1584 Nov 02 18:39	30°℞♓	
direct	1584 Dec 02 04:02	29°♓14'47	
	1584 Dec 31 03:06	0°♈	
evening set	1585 Mar 12 15:07	6°♈48'10	
conjunction	1585 Mar 29 19:13	8°♈56'57	-2°13'20
minimum elong	1585 Mar 29 19:12	8°♈56'57	2°13'20
max. Earth dist.	1585 Mar 29 16:13	8°♈56'00	10.40338 AU
morning rise	1585 Apr 16 03:59	11°♈07'13	
retrograde	1585 Jul 31 19:46	19°♈08'16	
opposition	1585 Oct 09 03:18	15°♈40'44	-2°47'46
min. Earth dist.	1585 Oct 09 05:06	15°♈40'22	8.34647 AU
direct	1585 Dec 15 05:59	12°♈17'49	
evening set	1586 Mar 26 04:54	20°♈00'01	
conjunction	1586 Apr 12 13:17	22°♈11'36	-2°15'33
minimum elong	1586 Apr 12 13:17	22°♈11'36	2°15'34
max. Earth dist.	1586 Apr 12 11:57	22°♈11'10	10.28927 AU
morning rise	1586 Apr 30 02:08	24°♈24'39	
	1586 Jun 20 07:06	0°♉	
retrograde	1586 Aug 15 01:38	2°♉33'51	
	1586 Oct 11 08:46	30°℞♈	
opposition	1586 Oct 22 20:23	29°♈05'14	-2°46'21
min. Earth dist.	1586 Oct 22 20:41	29°♈05'10	8.23781 AU

direct	1586 Dec 28 14:03	25°♈41'01	
	1587 Mar 10 08:11	0°♉	
evening set	1587 Apr 09 05:05	3°♉31'52	
conjunction	1587 Apr 26 18:04	5°♉46'15	-2°10'24
minimum elong	1587 Apr 26 18:06	5°♉46'15	2°10'24
max. Earth dist.	1587 Apr 26 18:07	5°♉46'16	10.18751 AU
morning rise	1587 May 14 11:14	8°♉02'01	
	1587 Jul 21 21:12	15°♉	
retrograde	1587 Aug 29 12:57	16°♉17'33	
	1587 Oct 07 10:46	15°℞♉	
opposition	1587 Nov 05 18:23	12°♉48'08	-2°35'31
min. Earth dist.	1587 Nov 05 17:27	12°♉48'20	8.14455 AU
direct	1588 Jan 11 05:49	9°♉22'35	
	1588 Apr 03 09:07	15°♉	
evening set	1588 Apr 22 14:39	17°♉21'27	
conjunction	1588 May 10 08:21	19°♉38'25	-1°57'41
minimum elong	1588 May 10 08:24	19°♉38'26	1°57'42
max. Earth dist.	1588 May 10 09:26	19°♉38'46	10.10438 AU
morning rise	1588 May 28 05:47	21°♉56'37	
	1588 Aug 25 20:01	0°♊	
retrograde	1588 Sep 12 02:59	0°♊16'11	
	1588 Sep 29 08:25	30°℞♉	
opposition	1588 Nov 18 20:31	26°♉46'19	-2°15'19
min. Earth dist.	1588 Nov 18 18:49	26°♉46'40	8.07253 AU
direct	1589 Jan 24 05:30	23°♉19'29	
	1589 Apr 26 00:17	0°♊	
evening set	1589 May 07 08:08	1°♊25'08	
conjunction	1589 May 25 06:19	3°♊44'18	-1°37'49
minimum elong	1589 May 25 06:23	3°♊44'19	1°37'50
max. Earth dist.	1589 May 25 08:32	3°♊45'01	10.04508 AU
morning rise	1589 Jun 12 07:29	6°♊04'25	
retrograde	1589 Sep 26 17:50	14°♊25'20	
opposition	1589 Dec 03 01:15	10°♊55'25	-1°46'39
min. Earth dist.	1589 Dec 02 22:56	10°♊55'53	8.02627 AU
direct	1590 Feb 07 11:41	7°♊27'26	
evening set	1590 May 22 07:51	15°♊38'15	
conjunction	1590 Jun 09 09:44	17°♊58'57	-1°11'51
minimum elong	1590 Jun 09 09:47	17°♊58'58	1°11'51
max. Earth dist.	1590 Jun 09 13:07	18°♊00'03	10.01323 AU
morning rise	1590 Jun 27 13:27	20°♊20'13	
retrograde	1590 Oct 11 07:20	28°♊39'45	
opposition	1590 Dec 17 06:52	25°♊10'09	-1°11'13
min. Earth dist.	1590 Dec 17 03:46	25°♊10'47	8.00862 AU
direct	1591 Feb 21 21:40	21°♊41'15	
evening set	1591 Jun 06 11:05	29°♊55'14	
	1591 Jun 07 02:00	0°♋	
conjunction	1591 Jun 24 15:18	2°♋16'37	-0°41'23
minimum elong	1591 Jun 24 15:20	2°♋16'38	0°41'23
max. Earth dist.	1591 Jun 24 19:53	2°♋18'07	10.01075 AU
morning rise	1591 Jul 12 20:01	4°♋38'08	
retrograde	1591 Oct 25 18:43	12°♋53'47	
opposition	1591 Dec 31 12:05	9°♋24'49	-0°31'22
min. Earth dist.	1591 Dec 31 07:56	9°♋25'40	8.02065 AU
direct	1592 Mar 07 10:17	5°♋55'17	
evening set	1592 Jun 20 14:44	14°♋10'16	
conjunction	1592 Jul 08 19:38	16°♋31'22	-0°08'30
minimum elong	1592 Jul 08 19:39	16°♋31'22	0°08'30
behind sun begin	1592 Jul 08 13:15	16°♋29'18	
behind sun end	1592 Jul 09 02:02	16°♋33'25	
max. Earth dist.	1592 Jul 09 01:26	16°♋33'13	10.03762 AU
morning rise	1592 Jul 26 23:35	18°♋52'09	
asc. node	1592 Oct 13 01:23	26°♋24'11	
retrograde	1592 Nov 08 01:16	27°♋01'50	
opposition	1593 Jan 13 15:10	23°♋33'47	0°10'08
min. Earth dist.	1593 Jan 13 10:05	23°♋34'50	8.06140 AU
direct	1593 Mar 21 23:18	20°♋03'58	
evening set	1593 Jul 05 16:18	28°♋17'47	
	1593 Jul 18 23:34	0°♌	
conjunction	1593 Jul 23 20:04	0°♌37'39	0°24'42
minimum elong	1593 Jul 23 20:03	0°♌37'38	0°24'42
max. Earth dist.	1593 Jul 24 02:37	0°♌39'45	10.09189 AU
morning rise	1593 Aug 10 21:31	2°♌56'48	
retrograde	1593 Nov 22 01:30	10°♌58'54	
opposition	1594 Jan 27 14:47	7°♌32'04	0°50'28
min. Earth dist.	1594 Jan 27 09:33	7°♌33'08	8.12810 AU
direct	1594 Apr 05 10:44	4°♌02'16	
evening set	1594 Jul 20 12:51	12°♌12'56	
conjunction	1594 Aug 07 13:47	14°♌30'45	0°55'57
minimum elong	1594 Aug 07 13:44	14°♌30'44	0°55'57
max. Earth dist.	1594 Aug 07 20:15	14°♌32'49	10.16995 AU
	1594 Aug 11 09:01	15°♌	
morning rise	1594 Aug 25 11:18	16°♌47'31	
retrograde	1594 Dec 05 18:35	24°♌41'06	
opposition	1595 Feb 10 10:09	21°♌15'38	1°27'06
min. Earth dist.	1595 Feb 10 05:21	21°♌16'36	8.21650 AU
direct	1595 Apr 19 18:16	17°♌46'13	
evening set	1595 Aug 04 01:43	25°♌51'55	
conjunction	1595 Aug 21 22:32	28°♌07'06	1°23'29
minimum elong	1595 Aug 21 22:29	28°♌07'05	1°23'29
max. Earth dist.	1595 Aug 22 04:18	28°♌08'56	10.26701 AU
	1595 Sep 05 19:52	0°♍	
morning rise	1595 Sep 08 15:15	0°♍21'00	
retrograde	1595 Dec 19 04:19	8°♍05'37	
opposition	1596 Feb 24 00:20	4°♍41'37	1°58'05
min. Earth dist.	1596 Feb 23 20:17	4°♍42'26	8.32130 AU
direct	1596 May 02 21:23	1°♍12'55	
evening set	1596 Aug 17 05:29	9°♍12'15	
conjunction	1596 Sep 03 21:28	11°♍24'29	1°45'57
minimum elong	1596 Sep 03 21:24	11°♍24'28	1°45'57
max. Earth dist.	1596 Sep 04 01:58	11°♍25'54	10.37747 AU
morning rise	1596 Sep 21 09:01	13°♍35'18	
retrograde	1596 Dec 31 04:54	21°♍10'56	
opposition	1597 Mar 08 08:44	17°♍48'25	2°22'01
min. Earth dist.	1597 Mar 08 05:17	17°♍49'06	8.43654 AU
direct	1597 May 16 19:25	14°♍20'42	
evening set	1597 Aug 30 22:59	22°♍12'40	
conjunction	1597 Sep 17 09:58	24°♍21'50	2°02'27
minimum elong	1597 Sep 17 09:56	24°♍21'50	2°02'28
max. Earth dist.	1597 Sep 17 13:17	24°♍22'52	10.49525 AU
morning rise	1597 Oct 04 16:23	26°♍29'35	
	1597 Nov 04 13:21	0°♎	
retrograde	1598 Jan 12 22:00	3°♎56'42	
opposition	1598 Mar 21 11:33	0°♎35'34	2°38'11
min. Earth dist.	1598 Mar 21 08:16	0°♎36'13	8.55597 AU
	1598 Mar 29 02:26	30°℞♍	
direct	1598 May 30 11:11	27°♍09'04	
	1598 Jul 29 15:06	0°♎	
evening set	1598 Sep 13 05:42	4°♎53'00	
conjunction	1598 Sep 30 11:57	6°♎59'15	2°12'36
minimum elong	1598 Sep 30 11:55	6°♎59'14	2°12'36
max. Earth dist.	1598 Sep 30 14:56	7°♎00'10	10.61427 AU
morning rise	1598 Oct 17 13:31	9°♎04'05	

retrograde	1599 Jan	25	10:49	16°♎23'23	
opposition	1599 Apr	03	08:55	13°♎03'32	2°46'23
min. Earth dist.	1599 Apr	03	06:05	13°♎04'04	8.67368 AU
direct	1599 Jun	12	18:14	9°♎38'21	
evening set	1599 Sep	26	02:03	17°♎14'01	
conjunction	1599 Oct	13	04:04	19°♎17'38	2°16'21
minimum elong	1599 Oct	13	04:04	19°♎17'38	2°16'21
max. Earth dist.	1599 Oct	13	06:35	19°♎18'24	10.72892 AU
morning rise	1599 Oct	30	01:29	21°♎19'55	
retrograde	1600 Feb	06	16:13	28°♎32'16	
opposition	1600 Apr	15	01:02	25°♎13'30	2°46'51
min. Earth dist.	1600 Apr	14	23:28	25°♎13'48	8.78434 AU
direct	1600 Jun	24	17:49	21°♎49'40	
evening set	1600 Oct	07	12:45	29°♎17'16	
	1600 Oct	13	12:57	0°♏	
conjunction	1600 Oct	24	11:07	1°♏18'36	2°13'58
minimum elong	1600 Oct	24	11:07	1°♏18'36	2°13'58
max. Earth dist.	1600 Oct	24	12:15	1°♏18'56	10.83411 AU
morning rise	1600 Nov	10	05:23	3°♏18'45	
retrograde	1601 Feb	17	16:12	10°♏25'18	
opposition	1601 Apr	27	12:39	7°♏07'24	2°40'06
min. Earth dist.	1601 Apr	27	12:46	7°♏07'23	8.88310 AU
direct	1601 Jul	07	12:16	3°♏44'50	
evening set	1601 Oct	19	14:52	11°♏04'56	
conjunction	1601 Nov	05	10:14	13°♏04'22	2°05'56
minimum elong	1601 Nov	05	10:16	13°♏04'22	2°05'55
max. Earth dist.	1601 Nov	05	09:19	13°♏04'05	10.92536 AU
	1601 Nov	21	16:38	15°♏	
morning rise	1601 Nov	22	02:16	15°♏02'49	