superior conj	101 Mar 03 j 23:56	12°♓13'12	-1°23'10
minimum elong	101 Mar 04 j 04:35	12°♓27'36	1°23'08
max. Earth dist.	101 Mar 07 j 17:20	16°♓50'11	1.72616 AU
	101 Mar 18 j 08:37	0°♈	
evening rise	101 Apr 11 j 09:07	29°♈36'22	
	101 Apr 11 j 16:48	0°♉	
asc. node	101 Apr 21 j 07:13	11°♉47'17	
	101 May 06 j 04:14	0°♊	
	101 May 30 j 19:00	0°♋	
	101 Jun 24 j 13:52	0°♌	
	101 Jul 19 j 14:59	0°♍	
desc. node	101 Aug 10 j 20:38	26°♍13'08	
	101 Aug 14 j 02:28	0°♎	
	101 Sep 09 j 08:43	0°♏	
	101 Oct 07 j 10:43	0°♐	
evening max el	101 Oct 07 j 12:49	0°♐05'16	47°14'24
	101 Nov 13 j 23:48	0°♑	
greatest brilliancy	101 Nov 17 j 05:19	1°♑20'54	-4.9m
retrograde	101 Nov 27 j 06:06	3°♑16'38	
asc. node	101 Dec 01 j 23:38	2°♑48'47	
	101 Dec 09 j 23:14	30°℞♐	
evening set	101 Dec 11 j 20:39	29°♐01'07	
min. Earth dist.	101 Dec 17 j 03:01	25°♐55'11	0.26585 AU
inferior conj	101 Dec 17 j 20:56	25°♐27'36	3°57'54
minimum elong	101 Dec 17 j 12:50	25°♐40'05	3°55'34
morning rise	101 Dec 23 j 05:25	22°♐16'35	
direct	102 Jan 07 j 04:16	17°♐49'20	
greatest brilliancy	102 Jan 16 j 13:17	19°♐28'55	-4.9m
	102 Feb 03 j 20:37	0°♑	
morning max el	102 Feb 25 j 23:45	19°♑37'56	46°27'37
	102 Mar 08 j 05:02	0°♒	
desc. node	102 Mar 23 j 13:34	16°♒25'30	
	102 Apr 04 j 18:55	0°♓	
	102 Apr 30 j 23:51	0°♈	
	102 May 26 j 13:10	0°♉	
	102 Jun 20 j 16:04	0°♊	
asc. node	102 Jul 14 j 16:35	29°♊06'49	
	102 Jul 15 j 10:01	0°♋	
	102 Aug 08 j 19:46	0°♌	
morning set	102 Aug 23 j 04:52	17°♌50'29	
	102 Sep 01 j 22:52	0°♍	
	102 Sep 25 j 21:44	0°♎	
max. Earth dist.	102 Sep 27 j 20:29	2°♎26'45	1.71452 AU
superior conj	102 Sep 30 j 01:55	5°♎14'29	1°09'28
minimum elong	102 Sep 30 j 11:44	5°♎45'19	1°09'11
	102 Oct 19 j 18:46	0°♏	
desc. node	102 Nov 03 j 06:26	18°♏12'34	
evening rise	102 Nov 09 j 14:51	26°♏11'17	
	102 Nov 12 j 15:42	0°♐	
	102 Dec 06 j 13:42	0°♑	
	102 Dec 30 j 14:06	0°♒	
	103 Jan 23 j 19:14	0°♓	
	103 Feb 17 j 08:57	0°♈	
asc. node	103 Feb 24 j 09:23	8°♈27'10	
	103 Mar 14 j 13:08	0°♉	
	103 Apr 09 j 18:16	0°♊	
	103 May 08 j 03:36	0°♋	
evening max el	103 May 12 j 13:56	4°♋18'07	45°18'20
	103 Jun 15 j 04:35	0°♌	
desc. node	103 Jun 15 j 22:57	0°♌21'28	
greatest brilliancy	103 Jun 19 j 17:14	1°♌53'29	-4.7m
retrograde	103 Jun 30 j 02:52	3°♌49'42	
	103 Jul 14 j 05:01	30°℞♋	
evening set	103 Jul 16 j 11:58	28°♋45'28	
inferior conj	103 Jul 21 j 11:13	25°♋46'37	-7°08'28
minimum elong	103 Jul 21 j 01:40	26°♋01'20	7°06'52
min. Earth dist.	103 Jul 21 j 16:41	25°♋38'10	0.28645 AU
morning rise	103 Jul 25 j 15:06	23°♋14'55	
direct	103 Aug 11 j 23:50	17°♋33'47	
greatest brilliancy	103 Aug 22 j 21:20	19°♋43'23	-4.8m
	103 Sep 09 j 07:57	0°♌	
morning max el	103 Oct 01 j 01:24	19°♌27'21	46°31'31
asc. node	103 Oct 07 j 02:07	25°♌36'47	
	103 Oct 11 j 06:01	0°♍	
	103 Nov 06 j 23:11	0°♎	
	103 Dec 02 j 03:13	0°♏	
	103 Dec 26 j 16:49	0°♐	
	104 Jan 20 j 01:21	0°♑	
desc. node	104 Jan 26 j 15:54	8°♑09'03	
	104 Feb 13 j 08:49	0°♒	
	104 Mar 08 j 16:46	0°♓	
	104 Apr 02 j 01:48	0°♈	
morning set	104 Apr 05 j 19:05	4°♈34'24	
	104 Apr 26 j 11:49	0°♉	
superior conj	104 May 12 j 17:01	19°♉54'33	-0°14'22
minimum elong	104 May 12 j 19:56	20°♉03'33	0°14'13
behind sun begin	104 May 12 j 09:55	19°♉32'47	
behind sun end	104 May 13 j 05:57	20°♉34'18	
max. Earth dist.	104 May 12 j 10:42	19°♉35'11	1.73643 AU
asc. node	104 May 18 j 18:57	27°♉22'36	
	104 May 20 j 22:14	0°♊	
	104 Jun 14 j 08:17	0°♋	
evening rise	104 Jun 17 j 17:53	4°♋10'49	
	104 Jul 08 j 17:45	0°♌	
	104 Aug 02 j 03:18	0°♍	
	104 Aug 26 j 14:23	0°♎	
desc. node	104 Sep 07 j 08:43	14°♎22'28	
	104 Sep 20 j 04:41	0°♏	
	104 Oct 15 j 00:36	0°♐	
	104 Nov 09 j 07:42	0°♑	
	104 Dec 05 j 18:04	0°♒	
evening max el	104 Dec 18 j 11:21	13°♒28'02	47°07'39
asc. node	104 Dec 29 j 11:36	24°♒13'44	
	105 Jan 04 j 22:37	0°♓	
greatest brilliancy	105 Jan 27 j 15:36	14°♓50'06	-4.9m
retrograde	105 Feb 07 j 07:13	16°♓58'55	
evening set	105 Feb 25 j 04:24	10°♓44'14	
inferior conj	105 Feb 28 j 09:52	8°♓42'42	8°29'38
minimum elong	105 Feb 28 j 13:14	8°♓37'22	8°29'29
min. Earth dist.	105 Feb 27 j 22:38	9°♓00'28	0.28346 AU
morning rise	105 Mar 03 j 22:20	6°♓31'11	
direct	105 Mar 21 j 12:06	0°♓35'40	
greatest brilliancy	105 Mar 30 j 17:17	2°♓10'21	-4.8m
desc. node	105 Apr 20 j 01:16	13°♓50'40	
	105 May 08 j 15:37	0°♈	
morning max el	105 May 09 j 11:41	0°♈47'53	45°50'00
	105 Jun 06 j 19:37	0°♉	
	105 Jul 03 j 14:17	0°♊	
	105 Jul 29 j 05:37	0°♋	
asc. node	105 Aug 11 j 04:32	15°♋31'14	
	105 Aug 23 j 02:57	0°♌	
	105 Sep 16 j 11:34	0°♍	
	105 Oct 10 j 12:05	0°♎	
greatest brilliancy	105 Oct 19 j 00:04	10°♎40'20	-3.9m
	105 Nov 03 j 08:39	0°♏	
morning set	105 Nov 04 j 00:16	0°♏49'09	
	105 Nov 27 j 04:17	0°♐	
desc. node	105 Nov 30 j 18:10	4°♐30'22	

superior conj	105 Dec 15 j 13:41	23°♐08'27	-0°34'15
minimum elong	105 Dec 15 j 05:01	22°♐41'12	0°33'52
max. Earth dist.	105 Dec 18 j 11:10	26°♐46'49	1.71157 AU
	105 Dec 21 j 00:40	0°♑	
	106 Jan 13 j 22:47	0°♒	
evening rise	106 Jan 25 j 23:48	15°♒03'02	
	106 Feb 06 j 23:48	0°♓	
	106 Mar 03 j 05:20	0°♈	
asc. node	106 Mar 23 j 21:21	25°♈20'05	
	106 Mar 27 j 17:15	0°♉	
	106 Apr 21 j 13:36	0°♊	
	106 May 16 j 21:29	0°♋	
	106 Jun 11 j 23:31	0°♌	
	106 Jul 09 j 13:07	0°♍	
desc. node	106 Jul 13 j 10:53	4°♍01'34	
evening max el	106 Jul 23 j 17:47	14°♍14'37	46°01'15
	106 Aug 10 j 13:38	0°♎	
greatest brilliancy	106 Sep 01 j 23:12	13°♎09'04	-4.8m
retrograde	106 Sep 10 j 23:18	14°♎37'54	
evening set	106 Sep 27 j 17:23	9°♎20'02	
inferior conj	106 Oct 01 j 17:42	6°♎56'06	-7°12'29
minimum elong	106 Oct 02 j 03:56	6°♎40'29	7°10'35
min. Earth dist.	106 Oct 02 j 13:09	6°♎26'26	0.27076 AU
morning rise	106 Oct 06 j 14:07	4°♎02'56	
	106 Oct 15 j 23:35	30°℞♍	
direct	106 Oct 22 j 12:00	29°♍07'58	
	106 Oct 29 j 04:20	0°♎	
greatest brilliancy	106 Nov 02 j 11:07	1°♎23'49	-4.9m
asc. node	106 Nov 03 j 13:47	1°♎51'19	
	106 Dec 09 j 14:58	0°♏	
morning max el	106 Dec 12 j 06:54	2°♏41'49	46°56'11
	107 Jan 06 j 11:31	0°♐	
	107 Feb 01 j 09:42	0°♑	
desc. node	107 Feb 23 j 03:48	25°♑49'31	
	107 Feb 26 j 15:36	0°♒	
	107 Mar 23 j 14:35	0°♓	
	107 Apr 17 j 10:09	0°♈	
	107 May 12 j 03:22	0°♉	
	107 Jun 05 j 17:52	0°♊	
morning set	107 Jun 13 j 13:12	9°♊33'20	
asc. node	107 Jun 16 j 06:49	12°♊54'24	
	107 Jun 30 j 04:46	0°♋	
max. Earth dist.	107 Jul 16 j 03:08	19°♋39'27	1.73022 AU
superior conj	107 Jul 19 j 20:04	24°♋14'26	1°08'24
minimum elong	107 Jul 19 j 11:41	23°♋48'31	1°08'10
	107 Jul 24 j 11:43	0°♌	
	107 Aug 17 j 15:27	0°♍	
evening rise	107 Aug 25 j 06:09	9°♍28'28	
	107 Sep 10 j 17:32	0°♎	
	107 Oct 04 j 19:34	0°♏	
desc. node	107 Oct 05 j 20:35	1°♏17'52	
	107 Oct 28 j 22:41	0°♐	
	107 Nov 22 j 04:16	0°♑	
	107 Dec 16 j 15:26	0°♒	
	108 Jan 10 j 15:04	0°♓	
asc. node	108 Jan 26 j 23:30	19°♓00'02	
	108 Feb 05 j 18:06	0°♈	
evening max el	108 Feb 28 j 15:36	24°♈05'37	45°55'02
	108 Mar 05 j 19:22	0°♉	
greatest brilliancy	108 Apr 06 j 23:24	22°♉47'07	-4.7m
retrograde	108 Apr 17 j 19:12	24°♉55'15	
evening set	108 May 03 j 04:51	20°♉20'48	
inferior conj	108 May 09 j 06:41	16°♉40'30	1°55'07
minimum elong	108 May 09 j 10:47	16°♉34'02	1°53'57
min. Earth dist.	108 May 09 j 11:59	16°♉32'08	0.28989 AU
morning rise	108 May 15 j 16:39	12°♉48'10	
desc. node	108 May 17 j 13:02	11°♉49'44	
direct	108 May 30 j 21:41	8°♉21'28	
greatest brilliancy	108 Jun 10 j 08:08	10°♉17'53	-4.7m
	108 Jul 09 j 21:23	0°♊	
morning max el	108 Jul 18 j 17:41	8°♊09'12	45°51'25
	108 Aug 09 j 02:16	0°♋	
	108 Sep 04 j 19:17	0°♌	
asc. node	108 Sep 07 j 16:22	3°♌21'12	
	108 Sep 30 j 01:10	0°♍	
	108 Oct 24 j 12:35	0°♎	
	108 Nov 17 j 14:50	0°♏	
	108 Dec 11 j 13:42	0°♐	
desc. node	108 Dec 28 j 06:05	20°♐54'33	
	109 Jan 04 j 12:20	0°♑	
morning set	109 Jan 20 j 07:09	19°♑44'32	
	109 Jan 28 j 12:18	0°♒	
	109 Feb 21 j 14:26	0°♓	
superior conj	109 Mar 01 j 14:02	9°♓54'42	-1°23'55
minimum elong	109 Mar 01 j 17:55	10°♓06'45	1°23'53
max. Earth dist.	109 Mar 05 j 06:52	14°♓30'04	1.72562 AU
	109 Mar 17 j 19:23	0°♈	
evening rise	109 Apr 09 j 01:26	27°♈25'58	
	109 Apr 11 j 03:34	0°♉	
asc. node	109 Apr 20 j 09:09	11°♉20'07	
	109 May 05 j 15:06	0°♊	
	109 May 30 j 06:09	0°♋	
	109 Jun 24 j 01:32	0°♌	
	109 Jul 19 j 03:31	0°♍	
desc. node	109 Aug 09 j 22:45	25°♍39'17	
	109 Aug 13 j 16:27	0°♎	
	109 Sep 09 j 01:25	0°♏	
evening max el	109 Oct 05 j 02:07	27°♏40'11	47°12'55
	109 Oct 07 j 10:25	0°♐	
greatest brilliancy	109 Nov 14 j 19:03	28°♐52'56	-4.9m
	109 Nov 18 j 10:10	0°♑	
retrograde	109 Nov 24 j 19:08	0°♑48'10	
asc. node	109 Dec 01 j 01:45	29°♐58'58	
	109 Dec 01 j 00:09	30°℞♐	
evening set	109 Dec 09 j 07:39	26°♐34'55	
min. Earth dist.	109 Dec 14 j 16:38	23°♐25'52	0.26543 AU
inferior conj	109 Dec 15 j 09:28	23°♐00'01	3°36'13
minimum elong	109 Dec 15 j 01:56	23°♐11'36	3°33'59
morning rise	109 Dec 20 j 20:36	19°♐45'52	
direct	110 Jan 04 j 16:24	15°♐22'07	
greatest brilliancy	110 Jan 14 j 02:58	17°♐03'29	-4.9m
	110 Feb 04 j 11:36	0°♑	
morning max el	110 Feb 23 j 13:53	17°♑17'54	46°29'14
	110 Mar 08 j 00:22	0°♒	
desc. node	110 Mar 22 j 15:36	15°♒46'09	
	110 Apr 04 j 09:47	0°♓	
	110 Apr 30 j 12:47	0°♈	
	110 May 26 j 01:03	0°♉	
	110 Jun 20 j 03:21	0°♊	
asc. node	110 Jul 13 j 18:44	28°♊40'01	
	110 Jul 14 j 20:57	0°♋	
	110 Aug 08 j 06:32	0°♌	
morning set	110 Aug 20 j 20:47	15°♌37'19	
	110 Sep 01 j 09:37	0°♍	
	110 Sep 25 j 08:32	0°♎	
max. Earth dist.	110 Sep 25 j 08:19	29°♍59'19	1.71496 AU
superior conj	110 Sep 27 j 15:15	2°♎51'43	1°11'29
minimum elong	110 Sep 28 j 00:40	3°♎21'15	1°11'14
	110 Oct 19 j 05:40	0°♏	
desc. node	110 Nov 02 j 08:27	17°♏44'23	
evening rise	110 Nov 07 j 01:03	23°♏38'05	

	110 Nov 12 j 02:43	0°♐	
	110 Dec 06 j 00:50	0°♑	
	110 Dec 30 j 01:22	0°♒	
	111 Jan 23 j 06:43	0°♓	
	111 Feb 16 j 20:51	0°♈	
asc. node	111 Feb 23 j 11:26	7°♈56'58	
	111 Mar 14 j 01:59	0°♉	
	111 Apr 09 j 09:13	0°♊	
	111 May 08 j 00:30	0°♋	
evening max el	111 May 10 j 06:34	2°♋10'16	45°18'12
desc. node	111 Jun 15 j 01:10	28°♋49'11	
greatest brilliancy	111 Jun 17 j 06:55	29°♋41'23	-4.7m
	111 Jun 18 j 04:37	0°♌	
retrograde	111 Jun 27 j 18:29	1°♌38'51	
	111 Jul 06 j 22:04	30°℞♋	
evening set	111 Jul 14 j 00:17	26°♋39'01	
inferior conj	111 Jul 19 j 02:46	23°♋35'10	-6°56'13
minimum elong	111 Jul 18 j 17:00	23°♋50'15	6°54'30
min. Earth dist.	111 Jul 19 j 07:23	23°♋28'02	0.28676 AU
morning rise	111 Jul 23 j 09:31	20°♋59'13	
direct	111 Aug 09 j 16:26	15°♋22'05	
greatest brilliancy	111 Aug 20 j 12:10	17°♋30'16	-4.8m
	111 Sep 09 j 19:53	0°♌	
morning max el	111 Sep 28 j 16:51	17°♌11'47	46°29'54
asc. node	111 Oct 06 j 04:08	24°♌50'49	
	111 Oct 11 j 00:31	0°♍	
	111 Nov 06 j 13:53	0°♎	
	111 Dec 01 j 16:19	0°♏	
	111 Dec 26 j 05:05	0°♐	
	112 Jan 19 j 13:04	0°♑	
desc. node	112 Jan 25 j 17:56	7°♑39'34	
	112 Feb 12 j 20:07	0°♒	
	112 Mar 08 j 03:44	0°♓	
	112 Apr 01 j 12:30	0°♈	
morning set	112 Apr 03 j 11:51	2°♈25'34	
	112 Apr 25 j 22:22	0°♉	
superior conj	112 May 10 j 11:12	17°♉50'43	-0°17'27
minimum elong	112 May 10 j 14:45	18°♉01'37	0°17'17
max. Earth dist.	112 May 10 j 10:44	17°♉49'16	1.73634 AU
asc. node	112 May 17 j 21:06	26°♉56'51	
	112 May 20 j 08:45	0°♊	
	112 Jun 13 j 18:54	0°♋	
evening rise	112 Jun 15 j 13:14	2°♋10'06	
	112 Jul 08 j 04:33	0°♌	
	112 Aug 01 j 14:25	0°♍	
	112 Aug 26 j 01:57	0°♎	
desc. node	112 Sep 06 j 10:42	13°♎52'15	
	112 Sep 19 j 16:56	0°♏	
	112 Oct 14 j 13:51	0°♐	
	112 Nov 08 j 22:37	0°♑	
	112 Dec 05 j 12:39	0°♒	
evening max el	112 Dec 16 j 03:17	11°♒10'35	47°09'25
asc. node	112 Dec 28 j 13:45	23°♒15'27	
	113 Jan 05 j 08:04	0°♓	
greatest brilliancy	113 Jan 25 j 07:48	12°♓34'09	-4.9m
retrograde	113 Feb 04 j 23:07	14°♓42'22	
evening set	113 Feb 22 j 20:39	8°♓27'10	
min. Earth dist.	113 Feb 25 j 12:52	6°♓46'24	0.28290 AU
inferior conj	113 Feb 26 j 01:14	6°♓26'49	8°33'23
minimum elong	113 Feb 26 j 03:50	6°♓22'42	8°33'18
morning rise	113 Mar 01 j 11:17	4°♓18'50	
	113 Mar 10 j 02:15	30°℞♒	
direct	113 Mar 19 j 03:08	28°♒21'02	
greatest brilliancy	113 Mar 28 j 06:28	29°♒54'12	-4.8m
	113 Mar 28 j 13:29	0°♓	
desc. node	113 Apr 19 j 03:13	12°♓44'59	
morning max el	113 May 07 j 02:34	28°♓34'59	45°50'47
	113 May 08 j 13:54	0°♈	
	113 Jun 06 j 11:07	0°♉	
	113 Jul 03 j 03:23	0°♊	
	113 Jul 28 j 17:36	0°♋	
asc. node	113 Aug 10 j 06:31	15°♋02'07	
	113 Aug 22 j 14:23	0°♌	
	113 Sep 15 j 22:43	0°♍	
	113 Oct 09 j 23:06	0°♎	
greatest brilliancy	113 Oct 19 j 07:14	11°♎43'44	-3.9m
morning set	113 Nov 01 j 11:42	28°♎19'30	
	113 Nov 02 j 19:37	0°♏	
	113 Nov 26 j 15:15	0°♐	
desc. node	113 Nov 29 j 20:20	4°♐02'41	
superior conj	113 Dec 12 j 22:55	20°♐32'13	-0°30'31
minimum elong	113 Dec 12 j 15:04	20°♐07'32	0°30'09
max. Earth dist.	113 Dec 15 j 17:03	24°♐00'03	1.71130 AU
	113 Dec 20 j 11:37	0°♑	
	114 Jan 13 j 09:45	0°♒	
evening rise	114 Jan 23 j 10:35	12°♒32'37	
	114 Feb 06 j 10:48	0°♓	
	114 Mar 02 j 16:25	0°♈	
asc. node	114 Mar 22 j 23:21	24°♈51'54	
	114 Mar 27 j 04:33	0°♉	
	114 Apr 21 j 01:22	0°♊	
	114 May 16 j 10:10	0°♋	
	114 Jun 11 j 14:03	0°♌	
	114 Jul 09 j 08:06	0°♍	
desc. node	114 Jul 12 j 12:56	3°♍16'03	
evening max el	114 Jul 21 j 06:15	11°♍53'04	45°58'35
	114 Aug 11 j 04:15	0°♎	
greatest brilliancy	114 Aug 30 j 12:06	10°♎46'22	-4.8m
retrograde	114 Sep 08 j 11:00	12°♎14'32	
evening set	114 Sep 25 j 09:18	6°♎51'50	
inferior conj	114 Sep 29 j 06:39	4°♎32'17	-7°25'19
minimum elong	114 Sep 29 j 16:33	4°♎17'10	7°23'37
min. Earth dist.	114 Sep 30 j 02:52	4°♎01'26	0.27141 AU
morning rise	114 Oct 03 j 23:23	1°♎44'02	
	114 Oct 07 j 05:33	30°℞♍	
direct	114 Oct 20 j 01:07	26°♍42'50	
greatest brilliancy	114 Oct 31 j 02:08	29°♍00'00	-4.9m
	114 Nov 02 j 09:51	0°♎	
asc. node	114 Nov 02 j 15:55	0°♎07'06	
	114 Dec 09 j 14:13	0°♏	
morning max el	114 Dec 09 j 19:39	0°♏13'52	46°56'15
	115 Jan 06 j 04:08	0°♐	
	115 Jan 31 j 23:47	0°♑	
desc. node	115 Feb 22 j 05:48	25°♑16'55	
	115 Feb 26 j 04:21	0°♒	
	115 Mar 23 j 02:31	0°♓	
	115 Apr 16 j 21:33	0°♈	
	115 May 11 j 14:24	0°♉	
	115 Jun 05 j 04:40	0°♊	
morning set	115 Jun 11 j 07:42	7°♊30'05	
asc. node	115 Jun 15 j 08:59	12°♊28'12	
	115 Jun 29 j 15:27	0°♋	
max. Earth dist.	115 Jul 13 j 23:35	17°♋41'20	1.73069 AU
superior conj	115 Jul 17 j 14:29	22°♋09'56	1°06'31
minimum elong	115 Jul 17 j 05:57	21°♋43'33	1°06'15
	115 Jul 23 j 22:24	0°♌	
	115 Aug 17 j 02:16	0°♍	
evening rise	115 Aug 22 j 22:37	7°♍16'32	
	115 Sep 10 j 04:35	0°♎	
	115 Oct 04 j 06:54	0°♏	
desc. node	115 Oct 04 j 22:39	0°♏48'59	

	115 Oct 28 j 10:21	0°♐	
	115 Nov 21 j 16:21	0°♑	
	115 Dec 16 j 04:09	0°♒	
	116 Jan 10 j 04:58	0°♓	
asc. node	116 Jan 26 j 01:29	18°♓22'24	
	116 Feb 05 j 10:36	0°♈	
evening max el	116 Feb 26 j 06:03	21°♈49'29	45°57'29
	116 Mar 05 j 20:33	0°♉	
greatest brilliancy	116 Apr 04 j 16:02	20°♉38'12	-4.7m
retrograde	116 Apr 15 j 11:53	22°♉46'56	
evening set	116 Apr 30 j 23:01	18°♉09'36	
inferior conj	116 May 06 j 23:15	14°♉31'45	2°14'09
minimum elong	116 May 07 j 03:59	14°♉24'17	2°12'49
min. Earth dist.	116 May 07 j 04:47	14°♉23'01	0.28986 AU
morning rise	116 May 13 j 08:52	10°♉39'58	
desc. node	116 May 16 j 15:15	9°♉00'31	
direct	116 May 28 j 13:36	6°♉12'29	
greatest brilliancy	116 Jun 08 j 00:31	8°♉09'26	-4.7m
	116 Jul 09 j 23:23	0°♊	
morning max el	116 Jul 16 j 10:00	6°♊00'03	45°50'48
	116 Aug 08 j 18:46	0°♋	
	116 Sep 04 j 08:59	0°♌	
asc. node	116 Sep 06 j 18:25	2°♌47'41	
	116 Sep 29 j 13:41	0°♍	
	116 Oct 24 j 00:31	0°♎	
	116 Nov 17 j 02:29	0°♏	
	116 Dec 11 j 01:09	0°♐	
desc. node	116 Dec 27 j 08:10	20°♐25'34	
	117 Jan 03 j 23:37	0°♑	
morning set	117 Jan 17 j 17:19	17°♑11'12	
	117 Jan 27 j 23:27	0°♒	
	117 Feb 21 j 01:29	0°♓	
superior conj	117 Feb 27 j 03:31	7°♓33'30	-1°24'32
minimum elong	117 Feb 27 j 06:34	7°♓42'58	1°24'30
max. Earth dist.	117 Mar 02 j 19:31	12°♓06'27	1.72507 AU
	117 Mar 17 j 06:21	0°♈	
evening rise	117 Apr 06 j 17:28	25°♈13'54	
	117 Apr 10 j 14:33	0°♉	
asc. node	117 Apr 19 j 11:19	10°♉52'56	
	117 May 05 j 02:14	0°♊	
	117 May 29 j 17:33	0°♋	
	117 Jun 23 j 13:27	0°♌	
	117 Jul 18 j 16:18	0°♍	
desc. node	117 Aug 09 j 00:45	25°♍04'35	
	117 Aug 13 j 06:41	0°♎	
	117 Sep 08 j 18:32	0°♏	
evening max el	117 Oct 02 j 16:16	25°♏17'05	47°11'14
	117 Oct 07 j 11:24	0°♐	
greatest brilliancy	117 Nov 12 j 08:03	26°♐23'26	-4.9m
retrograde	117 Nov 22 j 08:19	28°♐18'39	
asc. node	117 Nov 30 j 03:54	27°♐02'13	
evening set	117 Dec 06 j 18:50	24°♐07'21	
min. Earth dist.	117 Dec 12 j 05:56	20°♐55'32	0.26510 AU
inferior conj	117 Dec 12 j 21:53	20°♐31'06	3°13'51
minimum elong	117 Dec 12 j 15:00	20°♐41'39	3°11'46
morning rise	117 Dec 18 j 11:36	17°♐14'00	
direct	118 Jan 02 j 05:08	12°♐53'38	
greatest brilliancy	118 Jan 11 j 16:18	14°♐36'09	-4.9m
	118 Feb 04 j 23:24	0°♑	
morning max el	118 Feb 21 j 04:26	14°♑57'28	46°30'41
	118 Mar 07 j 19:40	0°♒	
desc. node	118 Mar 21 j 17:40	15°♒06'02	
	118 Apr 04 j 00:53	0°♓	
	118 Apr 30 j 02:01	0°♈	
	118 May 25 j 13:15	0°♉	
	118 Jun 19 j 14:56	0°♊	
asc. node	118 Jul 12 j 20:42	28°♊11'39	
	118 Jul 14 j 08:11	0°♋	
	118 Aug 07 j 17:37	0°♌	
morning set	118 Aug 18 j 13:06	13°♌24'33	
	118 Aug 31 j 20:39	0°♍	
max. Earth dist.	118 Sep 22 j 19:01	27°♍27'37	1.71536 AU
	118 Sep 24 j 19:36	0°♎	
superior conj	118 Sep 25 j 05:15	0°♎30'18	1°13'20
minimum elong	118 Sep 25 j 14:13	0°♎58'24	1°13'07
	118 Oct 18 j 16:48	0°♏	
desc. node	118 Nov 01 j 10:38	17°♏16'01	
evening rise	118 Nov 04 j 11:45	21°♏05'40	
	118 Nov 11 j 13:58	0°♐	
	118 Dec 05 j 12:15	0°♑	
	118 Dec 29 j 12:59	0°♒	
	119 Jan 22 j 18:37	0°♓	
	119 Feb 16 j 09:17	0°♈	
asc. node	119 Feb 22 j 13:27	7°♈25'09	
	119 Mar 13 j 15:27	0°♉	
	119 Apr 09 j 00:58	0°♊	
	119 May 07 j 22:51	0°♋	
evening max el	119 May 07 j 22:49	29°♊59'55	45°18'10
desc. node	119 Jun 14 j 03:11	27°♋11'53	
greatest brilliancy	119 Jun 14 j 21:12	27°♋28'29	-4.7m
retrograde	119 Jun 25 j 09:37	29°♋26'25	
evening set	119 Jul 11 j 12:39	24°♋31'01	
inferior conj	119 Jul 16 j 18:14	21°♋22'20	-6°43'30
minimum elong	119 Jul 16 j 08:20	21°♋37'40	6°41'39
min. Earth dist.	119 Jul 16 j 22:18	21°♋16'02	0.28701 AU
morning rise	119 Jul 21 j 03:48	18°♋41'59	
direct	119 Aug 07 j 08:39	13°♋09'01	
greatest brilliancy	119 Aug 18 j 03:00	15°♋15'43	-4.8m
	119 Sep 10 j 05:17	0°♌	
morning max el	119 Sep 26 j 07:24	14°♌52'54	46°28'29
asc. node	119 Oct 05 j 06:15	24°♌04'47	
	119 Oct 10 j 18:57	0°♍	
	119 Nov 06 j 04:42	0°♎	
	119 Dec 01 j 05:36	0°♏	
	119 Dec 25 j 17:33	0°♐	
	120 Jan 19 j 01:03	0°♑	
desc. node	120 Jan 24 j 19:56	7°♑09'05	
	120 Feb 12 j 07:45	0°♒	
	120 Mar 07 j 15:06	0°♓	
	120 Mar 31 j 23:39	0°♈	
morning set	120 Apr 01 j 04:06	0°♈13'40	
	120 Apr 25 j 09:23	0°♉	
superior conj	120 May 08 j 04:53	15°♉43'56	-0°20'34
minimum elong	120 May 08 j 09:03	15°♉56'42	0°20'22
max. Earth dist.	120 May 08 j 08:59	15°♉56'31	1.73621 AU
asc. node	120 May 16 j 23:11	26°♉29'33	
	120 May 19 j 19:44	0°♊	
evening rise	120 Jun 13 j 08:09	0°♋06'45	
	120 Jun 13 j 05:57	0°♋	
	120 Jul 07 j 15:48	0°♌	
	120 Aug 01 j 01:59	0°♍	
	120 Aug 25 j 14:00	0°♎	
desc. node	120 Sep 05 j 12:47	13°♎21'04	
	120 Sep 19 j 05:38	0°♏	
	120 Oct 14 j 03:33	0°♐	
	120 Nov 08 j 14:01	0°♑	
	120 Dec 05 j 07:58	0°♒	
evening max el	120 Dec 13 j 18:16	8°♒49'57	47°11'08
asc. node	120 Dec 27 j 15:42	22°♒14'47	
	121 Jan 05 j 21:06	0°♓	
greatest brilliancy	121 Jan 23 j 00:16	10°♓17'42	-4.9m

retrograde	121 Feb 02 j 14:29	12°♓24'59	
evening set	121 Feb 20 j 12:37	6°♓09'48	
min. Earth dist.	121 Feb 23 j 03:28	4°♓31'05	0.28239 AU
inferior conj	121 Feb 23 j 16:40	4°♓10'09	8°36'17
minimum elong	121 Feb 23 j 18:29	4°♓07'14	8°36'14
morning rise	121 Feb 27 j 00:37	2°♓05'09	
	121 Mar 02 j 16:04	30°℞♒	
direct	121 Mar 16 j 17:51	26°♒05'23	
greatest brilliancy	121 Mar 25 j 20:26	27°♒37'40	-4.8m
	121 Mar 31 j 15:31	0°♓	
desc. node	121 Apr 18 j 05:27	11°♓40'20	
morning max el	121 May 04 j 16:44	26°♓18'48	45°51'28
	121 May 08 j 11:54	0°♈	
	121 Jun 06 j 02:55	0°♉	
	121 Jul 02 j 16:53	0°♊	
	121 Jul 28 j 05:59	0°♋	
asc. node	121 Aug 09 j 08:36	14°♋32'07	
	121 Aug 22 j 02:10	0°♌	
	121 Sep 15 j 10:11	0°♍	
	121 Oct 09 j 10:26	0°♎	
greatest brilliancy	121 Oct 19 j 06:26	12°♎21'04	-3.9m
morning set	121 Oct 29 j 23:16	25°♎49'09	
	121 Nov 02 j 06:56	0°♏	
	121 Nov 26 j 02:31	0°♐	
desc. node	121 Nov 28 j 22:23	3°♐33'39	
superior conj	121 Dec 10 j 08:28	17°♐56'00	-0°26'44
minimum elong	121 Dec 10 j 01:29	17°♐34'01	0°26'24
max. Earth dist.	121 Dec 12 j 20:11	21°♐03'45	1.71101 AU
	121 Dec 19 j 22:51	0°♑	
	122 Jan 12 j 20:56	0°♒	
evening rise	122 Jan 20 j 21:39	10°♒02'19	
	122 Feb 05 j 22:00	0°♓	
	122 Mar 02 j 03:45	0°♈	
asc. node	122 Mar 22 j 01:30	24°♈23'17	
	122 Mar 26 j 16:10	0°♉	
	122 Apr 20 j 13:31	0°♊	
	122 May 15 j 23:19	0°♋	
	122 Jun 11 j 05:13	0°♌	
	122 Jul 09 j 04:07	0°♍	
desc. node	122 Jul 11 j 14:57	2°♍28'36	
evening max el	122 Jul 18 j 18:23	9°♍29'45	45°56'07
	122 Aug 12 j 00:27	0°♎	
greatest brilliancy	122 Aug 28 j 00:29	8°♎22'17	-4.8m
retrograde	122 Sep 05 j 23:03	9°♎50'36	
evening set	122 Sep 23 j 01:07	4°♎22'45	
inferior conj	122 Sep 26 j 19:35	2°♎07'34	-7°37'22
minimum elong	122 Sep 27 j 05:05	1°♎53'04	7°35'50
min. Earth dist.	122 Sep 27 j 16:18	1°♎35'59	0.27207 AU
	122 Sep 30 j 08:14	30°℞♍	
morning rise	122 Oct 01 j 08:38	29°♍24'38	
direct	122 Oct 17 j 14:23	24°♍16'46	
greatest brilliancy	122 Oct 28 j 17:05	26°♍35'30	-4.9m
asc. node	122 Nov 01 j 18:05	28°♍26'02	
	122 Nov 04 j 14:36	0°♎	
morning max el	122 Dec 07 j 09:15	27°♎47'18	46°56'24
	122 Dec 09 j 12:50	0°♏	
	123 Jan 05 j 20:39	0°♐	
	123 Jan 31 j 13:53	0°♑	
desc. node	123 Feb 21 j 07:55	24°♑44'24	
	123 Feb 25 j 17:09	0°♒	
	123 Mar 22 j 14:32	0°♓	
	123 Apr 16 j 09:04	0°♈	
	123 May 11 j 01:35	0°♉	
	123 Jun 04 j 15:39	0°♊	
morning set	123 Jun 09 j 02:07	5°♊25'50	
asc. node	123 Jun 14 j 10:57	12°♊00'39	
	123 Jun 29 j 02:21	0°♋	
max. Earth dist.	123 Jul 11 j 20:44	15°♋44'38	1.73116 AU
superior conj	123 Jul 15 j 08:39	20°♋03'57	1°04'31
minimum elong	123 Jul 15 j 00:01	19°♋37'13	1°04'14
	123 Jul 23 j 09:20	0°♌	
	123 Aug 16 j 13:19	0°♍	
evening rise	123 Aug 20 j 14:55	5°♍03'28	
	123 Sep 09 j 15:51	0°♎	
	123 Oct 03 j 18:26	0°♏	
desc. node	123 Oct 04 j 00:47	0°♏19'45	
	123 Oct 27 j 22:13	0°♐	
	123 Nov 21 j 04:39	0°♑	
	123 Dec 15 j 17:06	0°♒	
	124 Jan 09 j 19:05	0°♓	
asc. node	124 Jan 25 j 03:37	17°♓44'40	
	124 Feb 05 j 03:26	0°♈	
evening max el	124 Feb 23 j 21:20	19°♈35'27	46°00'06
	124 Mar 05 j 23:03	0°♉	
greatest brilliancy	124 Apr 02 j 08:17	18°♉29'16	-4.7m
retrograde	124 Apr 13 j 05:08	20°♉39'06	
evening set	124 Apr 28 j 17:28	15°♉58'47	
inferior conj	124 May 04 j 15:57	12°♉23'20	2°32'56
minimum elong	124 May 04 j 21:18	12°♉14'56	2°31'26
min. Earth dist.	124 May 04 j 21:19	12°♉14'54	0.28985 AU
morning rise	124 May 11 j 01:06	8°♉32'29	
desc. node	124 May 15 j 17:14	6°♉16'07	
direct	124 May 26 j 06:11	4°♉03'59	
greatest brilliancy	124 Jun 05 j 16:35	6°♉00'57	-4.7m
	124 Jul 10 j 00:07	0°♊	
morning max el	124 Jul 14 j 03:02	3°♊52'34	45°49'57
	124 Aug 08 j 11:06	0°♋	
	124 Sep 03 j 22:43	0°♌	
asc. node	124 Sep 05 j 20:35	2°♌14'12	
	124 Sep 29 j 02:15	0°♍	
	124 Oct 23 j 12:31	0°♎	
	124 Nov 16 j 14:08	0°♏	
	124 Dec 10 j 12:35	0°♐	
desc. node	124 Dec 26 j 10:07	19°♐56'07	
	125 Jan 03 j 10:54	0°♑	
morning set	125 Jan 15 j 03:25	14°♑37'41	
	125 Jan 27 j 10:36	0°♒	
	125 Feb 20 j 12:30	0°♓	
superior conj	125 Feb 24 j 17:01	5°♓12'18	-1°24'59
minimum elong	125 Feb 24 j 19:12	5°♓19'04	1°24'59
max. Earth dist.	125 Feb 28 j 09:32	9°♓47'03	1.72449 AU
	125 Mar 16 j 17:17	0°♈	
evening rise	125 Apr 04 j 09:40	23°♈02'38	
	125 Apr 10 j 01:27	0°♉	
asc. node	125 Apr 18 j 13:25	10°♉25'52	
	125 May 04 j 13:14	0°♊	
	125 May 29 j 04:52	0°♋	
	125 Jun 23 j 01:21	0°♌	
	125 Jul 18 j 05:07	0°♍	
desc. node	125 Aug 08 j 02:51	24°♍29'52	
	125 Aug 12 j 21:06	0°♎	
	125 Sep 08 j 12:03	0°♏	
evening max el	125 Sep 30 j 07:00	22°♏55'28	47°09'29
	125 Oct 07 j 13:45	0°♐	
greatest brilliancy	125 Nov 09 j 20:59	23°♐53'56	-4.9m
retrograde	125 Nov 19 j 21:30	25°♐48'46	
asc. node	125 Nov 29 j 05:50	23°♐59'51	
evening set	125 Dec 04 j 06:12	21°♐39'33	
inferior conj	125 Dec 10 j 10:11	18°♐02'01	2°50'58
minimum elong	125 Dec 10 j 04:01	18°♐11'28	2°49'04
min. Earth dist.	125 Dec 09 j 19:06	18°♐25'06	0.26475 AU

morning rise	125 Dec 16 j 02:19	14°♐42'03	
direct	125 Dec 30 j 17:56	10°♐25'18	
greatest brilliancy	126 Jan 09 j 05:18	12°♐08'24	-4.9m
	126 Feb 05 j 08:01	0°♑	
morning max el	126 Feb 18 j 18:25	12°♑35'54	46°32'06
	126 Mar 07 j 14:16	0°♒	
desc. node	126 Mar 20 j 19:47	14°♒26'57	
	126 Apr 03 j 15:37	0°♓	
	126 Apr 29 j 14:56	0°♈	
	126 May 25 j 01:09	0°♉	
	126 Jun 19 j 02:14	0°♊	
asc. node	126 Jul 11 j 22:50	27°♊44'33	
	126 Jul 13 j 19:10	0°♋	
	126 Aug 07 j 04:28	0°♌	
morning set	126 Aug 16 j 05:30	11°♌12'46	
	126 Aug 31 j 07:31	0°♍	
max. Earth dist.	126 Sep 20 j 03:15	24°♍48'42	1.71585 AU
superior conj	126 Sep 22 j 19:16	28°♍09'24	1°15'04
minimum elong	126 Sep 23 j 03:42	28°♍35'51	1°14'52
	126 Sep 24 j 06:32	0°♎	
	126 Oct 18 j 03:50	0°♏	
desc. node	126 Oct 31 j 12:39	16°♏47'27	
evening rise	126 Nov 01 j 22:06	18°♏32'28	
	126 Nov 11 j 01:07	0°♐	
	126 Dec 04 j 23:33	0°♑	
	126 Dec 29 j 00:27	0°♒	
	127 Jan 22 j 06:21	0°♓	
	127 Feb 15 j 21:31	0°♈	
asc. node	127 Feb 21 j 15:37	6°♈54'24	
	127 Mar 13 j 04:44	0°♉	
	127 Apr 08 j 16:37	0°♊	
evening max el	127 May 05 j 14:32	27°♊49'26	45°18'18
	127 May 07 j 21:38	0°♋	
greatest brilliancy	127 Jun 12 j 12:22	25°♋18'17	-4.7m
desc. node	127 Jun 13 j 05:11	25°♋32'55	
retrograde	127 Jun 23 j 00:42	27°♋16'17	
evening set	127 Jul 09 j 01:30	22°♋25'03	
inferior conj	127 Jul 14 j 10:04	19°♋11'55	-6°30'14
minimum elong	127 Jul 14 j 00:05	19°♋27'24	6°28'17
min. Earth dist.	127 Jul 14 j 13:54	19°♋05'59	0.28725 AU
morning rise	127 Jul 18 j 22:26	16°♋27'07	
direct	127 Aug 05 j 00:43	10°♋58'19	
greatest brilliancy	127 Aug 15 j 18:37	13°♋03'59	-4.8m
	127 Sep 10 j 11:30	0°♌	
morning max el	127 Sep 23 j 21:12	12°♌33'24	46°26'49
asc. node	127 Oct 04 j 08:21	23°♌20'22	
	127 Oct 10 j 12:36	0°♍	
	127 Nov 05 j 19:07	0°♎	
	127 Nov 30 j 18:37	0°♏	
	127 Dec 25 j 05:49	0°♐	
	128 Jan 18 j 12:48	0°♑	
desc. node	128 Jan 23 j 22:08	6°♑39'54	
	128 Feb 11 j 19:06	0°♒	
	128 Mar 07 j 02:09	0°♓	
morning set	128 Mar 29 j 20:14	28°♓02'23	
	128 Mar 31 j 10:28	0°♈	
	128 Apr 24 j 20:05	0°♉	
superior conj	128 May 05 j 22:46	13°♉38'48	-0°23'39
minimum elong	128 May 06 j 03:31	13°♉53'22	0°23'25
max. Earth dist.	128 May 06 j 05:44	14°♉00'09	1.73603 AU
asc. node	128 May 16 j 01:12	26°♉03'00	
	128 May 19 j 06:23	0°♊	
evening rise	128 Jun 11 j 03:23	28°♊05'30	
	128 Jun 12 j 16:39	0°♋	
	128 Jul 07 j 02:39	0°♌	
	128 Jul 31 j 13:09	0°♍	
	128 Aug 25 j 01:40	0°♎	
desc. node	128 Sep 04 j 14:56	12°♎51'16	
	128 Sep 18 j 18:02	0°♏	
	128 Oct 13 j 17:02	0°♐	
	128 Nov 08 j 05:23	0°♑	
	128 Dec 05 j 03:40	0°♒	
evening max el	128 Dec 11 j 08:16	6°♒26'59	47°12'41
asc. node	128 Dec 26 j 17:51	21°♒13'22	
	129 Jan 06 j 14:28	0°♓	
greatest brilliancy	129 Jan 20 j 16:45	8°♓01'02	-4.9m
retrograde	129 Jan 31 j 05:28	10°♓07'26	
evening set	129 Feb 18 j 03:57	3°♓52'45	
inferior conj	129 Feb 21 j 07:52	1°♓53'23	8°38'18
minimum elong	129 Feb 21 j 08:54	1°♓51'45	8°38'17
min. Earth dist.	129 Feb 20 j 18:03	2°♓15'19	0.28184 AU
	129 Feb 24 j 08:10	30°℞♒	
morning rise	129 Feb 24 j 14:04	29°♒51'00	
direct	129 Mar 14 j 07:51	23°♒49'32	
greatest brilliancy	129 Mar 23 j 10:35	25°♒21'39	-4.8m
	129 Apr 02 j 10:58	0°♓	
desc. node	129 Apr 17 j 07:28	10°♓37'40	
morning max el	129 May 02 j 06:38	24°♓02'47	45°52'24
	129 May 08 j 08:43	0°♈	
	129 Jun 05 j 18:04	0°♉	
	129 Jul 02 j 05:52	0°♊	
	129 Jul 27 j 17:53	0°♋	
asc. node	129 Aug 08 j 10:45	14°♋03'41	
	129 Aug 21 j 13:30	0°♌	
	129 Sep 14 j 21:13	0°♍	
	129 Oct 08 j 21:21	0°♎	
greatest brilliancy	129 Oct 18 j 23:49	12°♎41'26	-3.9m
morning set	129 Oct 27 j 11:13	23°♎21'21	
	129 Nov 01 j 17:50	0°♏	
	129 Nov 25 j 13:27	0°♐	
desc. node	129 Nov 28 j 00:24	3°♐05'36	
superior conj	129 Dec 07 j 17:52	15°♐20'16	-0°22'52
minimum elong	129 Dec 07 j 11:49	15°♐01'13	0°22'36
max. Earth dist.	129 Dec 09 j 22:06	18°♐04'30	1.71085 AU
	129 Dec 19 j 09:47	0°♑	
	130 Jan 12 j 07:53	0°♒	
evening rise	130 Jan 18 j 08:13	7°♒31'11	
	130 Feb 05 j 08:59	0°♓	
	130 Mar 01 j 14:50	0°♈	
asc. node	130 Mar 21 j 03:34	23°♈55'15	
	130 Mar 26 j 03:30	0°♉	
	130 Apr 20 j 01:23	0°♊	
	130 May 15 j 12:12	0°♋	
	130 Jun 10 j 20:10	0°♌	
	130 Jul 09 j 00:16	0°♍	
desc. node	130 Jul 10 j 17:07	1°♍42'05	
evening max el	130 Jul 16 j 07:24	7°♍10'13	45°53'53
	130 Aug 13 j 02:43	0°♎	
greatest brilliancy	130 Aug 25 j 12:29	6°♎00'07	-4.8m
retrograde	130 Sep 03 j 12:10	7°♎29'21	
evening set	130 Sep 20 j 17:09	1°♎56'23	
	130 Sep 23 j 23:11	30°℞♍	
inferior conj	130 Sep 24 j 08:49	29°♍45'21	-7°48'20
minimum elong	130 Sep 24 j 17:54	29°♍31'33	7°46'58
min. Earth dist.	130 Sep 25 j 05:34	29°♍13'48	0.27273 AU
morning rise	130 Sep 28 j 18:16	27°♍07'50	
direct	130 Oct 15 j 04:22	21°♍53'23	
greatest brilliancy	130 Oct 26 j 07:36	24°♍12'56	-4.9m
asc. node	130 Oct 31 j 20:00	26°♍50'32	
	130 Nov 06 j 00:11	0°♎	
morning max el	130 Dec 04 j 23:52	25°♎25'03	46°56'14

	130 Dec 09 j 10:02	0°♏	
	131 Jan 05 j 12:30	0°♐	
	131 Jan 31 j 03:35	0°♑	
desc. node	131 Feb 20 j 09:59	24°♑12'32	
	131 Feb 25 j 05:40	0°♒	
	131 Mar 22 j 02:19	0°♓	
	131 Apr 15 j 20:20	0°♈	
	131 May 10 j 12:30	0°♉	
	131 Jun 04 j 02:21	0°♊	
morning set	131 Jun 06 j 20:23	3°♊22'07	
asc. node	131 Jun 13 j 13:04	11°♊34'29	
	131 Jun 28 j 12:57	0°♋	
max. Earth dist.	131 Jul 09 j 18:41	13°♋51'24	1.73158 AU
superior conj	131 Jul 13 j 02:49	17°♋58'54	1°02'25
minimum elong	131 Jul 12 j 18:06	17°♋31'59	1°02'08
	131 Jul 22 j 19:58	0°♌	
	131 Aug 16 j 00:06	0°♍	
evening rise	131 Aug 18 j 07:30	2°♍52'16	
	131 Sep 09 j 02:49	0°♎	
desc. node	131 Oct 03 j 02:47	29°♎51'05	
	131 Oct 03 j 05:39	0°♏	
	131 Oct 27 j 09:44	0°♐	
	131 Nov 20 j 16:37	0°♑	
	131 Dec 15 j 05:46	0°♒	
	132 Jan 09 j 09:04	0°♓	
asc. node	132 Jan 24 j 05:43	17°♓07'12	
	132 Feb 04 j 20:25	0°♈	
evening max el	132 Feb 21 j 13:23	17°♈23'32	46°02'32
	132 Mar 06 j 03:08	0°♉	
greatest brilliancy	132 Mar 31 j 00:32	16°♉20'08	-4.7m
retrograde	132 Apr 10 j 22:21	18°♉30'36	
evening set	132 Apr 26 j 11:51	13°♉47'26	
inferior conj	132 May 02 j 08:24	10°♉14'23	2°51'37
minimum elong	132 May 02 j 14:20	10°♉05'04	2°49'58
min. Earth dist.	132 May 02 j 13:21	10°♉06'36	0.28981 AU
morning rise	132 May 08 j 16:54	6°♉24'43	
desc. node	132 May 14 j 19:14	3°♉35'10	
direct	132 May 23 j 22:52	1°♉55'14	
greatest brilliancy	132 Jun 03 j 07:45	3°♉51'24	-4.7m
	132 Jul 09 j 23:32	0°♊	
morning max el	132 Jul 11 j 19:52	1°♊45'11	45°49'12
	132 Aug 08 j 02:55	0°♋	
	132 Sep 03 j 12:04	0°♌	
asc. node	132 Sep 04 j 22:35	1°♌41'12	
	132 Sep 28 j 14:31	0°♍	
	132 Oct 23 j 00:13	0°♎	
	132 Nov 16 j 01:31	0°♏	
	132 Dec 09 j 23:44	0°♐	
desc. node	132 Dec 25 j 12:18	19°♐28'20	
	133 Jan 02 j 21:54	0°♑	
morning set	133 Jan 12 j 13:54	12°♑06'07	
	133 Jan 26 j 21:29	0°♒	
	133 Feb 19 j 23:19	0°♓	
superior conj	133 Feb 22 j 06:27	2°♓51'21	-1°25'17
minimum elong	133 Feb 22 j 07:44	2°♓55'22	1°25'18
max. Earth dist.	133 Feb 26 j 01:37	7°♓34'28	1.72400 AU
	133 Mar 16 j 04:03	0°♈	
evening rise	133 Apr 02 j 01:32	20°♈50'37	
	133 Apr 09 j 12:15	0°♉	
asc. node	133 Apr 17 j 15:23	9°♉58'37	
	133 May 04 j 00:11	0°♊	
	133 May 28 j 16:09	0°♋	
	133 Jun 22 j 13:12	0°♌	
	133 Jul 17 j 17:55	0°♍	
desc. node	133 Aug 07 j 04:57	23°♍55'21	
	133 Aug 12 j 11:33	0°♎	
	133 Sep 08 j 05:49	0°♏	
evening max el	133 Sep 27 j 21:44	20°♏34'13	47°07'35
	133 Oct 07 j 17:29	0°♐	
greatest brilliancy	133 Nov 07 j 10:27	21°♐25'36	-4.9m
retrograde	133 Nov 17 j 10:22	23°♐19'11	
asc. node	133 Nov 28 j 08:00	20°♐52'28	
evening set	133 Dec 01 j 17:53	19°♐12'03	
inferior conj	133 Dec 07 j 22:30	15°♐33'31	2°27'43
minimum elong	133 Dec 07 j 17:06	15°♐41'48	2°26'02
min. Earth dist.	133 Dec 07 j 08:34	15°♐54'51	0.26441 AU
morning rise	133 Dec 13 j 16:50	12°♐10'40	
direct	133 Dec 28 j 06:34	7°♐57'36	
greatest brilliancy	134 Jan 06 j 18:30	9°♐41'13	-4.9m
	134 Feb 05 j 13:59	0°♑	
morning max el	134 Feb 16 j 07:20	10°♑12'03	46°33'30
	134 Mar 07 j 08:15	0°♒	
desc. node	134 Mar 19 j 21:49	13°♒48'24	
	134 Apr 03 j 06:03	0°♓	
	134 Apr 29 j 03:43	0°♈	
	134 May 24 j 13:01	0°♉	
	134 Jun 18 j 13:35	0°♊	
asc. node	134 Jul 11 j 00:59	27°♊17'20	
	134 Jul 13 j 06:13	0°♋	
	134 Aug 06 j 15:22	0°♌	
morning set	134 Aug 13 j 21:44	9°♌00'25	
	134 Aug 30 j 18:22	0°♍	
max. Earth dist.	134 Sep 17 j 11:58	22°♍11'26	1.71634 AU
superior conj	134 Sep 20 j 09:20	25°♍48'50	1°16'39
minimum elong	134 Sep 20 j 17:11	26°♍13'27	1°16'29
	134 Sep 23 j 17:26	0°♎	
	134 Oct 17 j 14:52	0°♏	
evening rise	134 Oct 30 j 08:35	15°♏59'44	
desc. node	134 Oct 30 j 14:40	16°♏18'50	
	134 Nov 10 j 12:18	0°♐	
	134 Dec 04 j 10:52	0°♑	
	134 Dec 28 j 11:56	0°♒	
	135 Jan 21 j 18:05	0°♓	
	135 Feb 15 j 09:48	0°♈	
asc. node	135 Feb 20 j 17:38	6°♈23'12	
	135 Mar 12 j 18:08	0°♉	
	135 Apr 08 j 08:35	0°♊	
evening max el	135 May 03 j 05:25	25°♊36'29	45°18'19
	135 May 07 j 21:39	0°♋	
greatest brilliancy	135 Jun 10 j 03:29	23°♋07'12	-4.7m
desc. node	135 Jun 12 j 07:22	23°♋49'35	
retrograde	135 Jun 20 j 15:34	25°♋05'25	
evening set	135 Jul 06 j 14:16	20°♋17'55	
inferior conj	135 Jul 12 j 01:48	17°♋00'41	-6°16'16
minimum elong	135 Jul 11 j 15:47	17°♋16'14	6°14'15
min. Earth dist.	135 Jul 12 j 05:41	16°♋54'38	0.28750 AU
morning rise	135 Jul 16 j 16:59	14°♋11'31	
direct	135 Aug 02 j 16:16	8°♋46'35	
greatest brilliancy	135 Aug 13 j 10:47	10°♋52'09	-4.8m
	135 Sep 10 j 16:00	0°♌	
morning max el	135 Sep 21 j 10:45	10°♌12'46	46°25'20
asc. node	135 Oct 03 j 10:23	22°♌35'51	
	135 Oct 10 j 06:02	0°♍	
	135 Nov 05 j 09:30	0°♎	
	135 Nov 30 j 07:40	0°♏	
	135 Dec 24 j 18:08	0°♐	
	136 Jan 18 j 00:39	0°♑	
desc. node	136 Jan 23 j 00:08	6°♑09'45	
	136 Feb 11 j 06:34	0°♒	
	136 Mar 06 j 13:18	0°♓	
morning set	136 Mar 27 j 12:23	25°♓50'36	

	136 Mar 30 j 21:25	0°♈	
	136 Apr 24 j 06:54	0°♉	
superior conj	136 May 03 j 16:43	11°♉33'24	-0°26'40
minimum elong	136 May 03 j 22:02	11°♉49'43	0°26'26
max. Earth dist.	136 May 04 j 01:35	12°♉00'38	1.73588 AU
asc. node	136 May 15 j 03:20	25°♉36'23	
	136 May 18 j 17:12	0°♊	
evening rise	136 Jun 08 j 22:34	26°♊03'37	
	136 Jun 12 j 03:34	0°♋	
	136 Jul 06 j 13:47	0°♌	
	136 Jul 31 j 00:38	0°♍	
	136 Aug 24 j 13:39	0°♎	
desc. node	136 Sep 03 j 16:52	12°♎19'54	
	136 Sep 18 j 06:46	0°♏	
	136 Oct 13 j 06:54	0°♐	
	136 Nov 07 j 21:13	0°♑	
	136 Dec 05 j 00:15	0°♒	
evening max el	136 Dec 08 j 21:45	4°♒01'56	47°14'14
asc. node	136 Dec 25 j 19:59	20°♒09'37	
	137 Jan 07 j 14:31	0°♓	
greatest brilliancy	137 Jan 18 j 08:51	5°♓42'45	-4.9m
retrograde	137 Jan 28 j 20:35	7°♓48'55	
evening set	137 Feb 15 j 18:46	1°♓35'02	
	137 Feb 18 j 07:29	30°℞♒	
inferior conj	137 Feb 18 j 22:58	29°♒35'28	8°39'27
minimum elong	137 Feb 18 j 23:10	29°♒35'09	8°39'28
min. Earth dist.	137 Feb 18 j 08:27	29°♒58'28	0.28128 AU
morning rise	137 Feb 22 j 03:46	27°♒35'19	
direct	137 Mar 11 j 21:38	21°♒32'23	
greatest brilliancy	137 Mar 21 j 00:43	23°♒04'41	-4.8m
	137 Apr 03 j 17:12	0°♓	
desc. node	137 Apr 16 j 09:28	9°♓35'44	
morning max el	137 Apr 29 j 21:03	21°♓47'14	45°53'29
	137 May 08 j 05:07	0°♈	
	137 Jun 05 j 09:16	0°♉	
	137 Jul 01 j 19:00	0°♊	
	137 Jul 27 j 06:02	0°♋	
asc. node	137 Aug 07 j 12:44	13°♋33'48	
	137 Aug 21 j 01:08	0°♌	
	137 Sep 14 j 08:36	0°♍	
	137 Oct 08 j 08:39	0°♎	
greatest brilliancy	137 Oct 18 j 17:28	13°♎01'30	-3.9m
morning set	137 Oct 24 j 23:05	20°♎52'08	
	137 Nov 01 j 05:06	0°♏	
	137 Nov 25 j 00:41	0°♐	
desc. node	137 Nov 27 j 02:33	2°♐36'58	
superior conj	137 Dec 05 j 03:04	12°♐42'52	-0°18'57
minimum elong	137 Dec 04 j 22:00	12°♐26'55	0°18'43
max. Earth dist.	137 Dec 07 j 02:34	15°♐12'17	1.71069 AU
	137 Dec 18 j 21:01	0°♑	
	138 Jan 11 j 19:07	0°♒	
evening rise	138 Jan 15 j 18:45	4°♒58'58	
	138 Feb 04 j 20:17	0°♓	
	138 Mar 01 j 02:15	0°♈	
asc. node	138 Mar 20 j 05:34	23°♈26'00	
	138 Mar 25 j 15:11	0°♉	
	138 Apr 19 j 13:36	0°♊	
	138 May 15 j 01:29	0°♋	
	138 Jun 10 j 11:41	0°♌	
	138 Jul 08 j 21:32	0°♍	
desc. node	138 Jul 09 j 19:08	0°♍53'23	
evening max el	138 Jul 13 j 21:07	4°♍51'29	45°51'32
	138 Aug 14 j 17:02	0°♎	
greatest brilliancy	138 Aug 22 j 23:46	3°♎35'50	-4.8m
retrograde	138 Sep 01 j 01:20	5°♎06'11	
	138 Sep 17 j 10:49	30°℞♍	
evening set	138 Sep 18 j 08:50	29°♍28'27	
inferior conj	138 Sep 21 j 21:50	27°♍21'12	-7°58'24
minimum elong	138 Sep 22 j 06:23	27°♍08'11	7°57'14
min. Earth dist.	138 Sep 22 j 18:16	26°♍50'08	0.27342 AU
morning rise	138 Sep 26 j 03:37	24°♍49'03	
direct	138 Oct 12 j 18:38	19°♍28'11	
greatest brilliancy	138 Oct 23 j 21:25	21°♍47'41	-4.9m
asc. node	138 Oct 30 j 22:10	25°♍16'56	
	138 Nov 07 j 01:06	0°♎	
morning max el	138 Dec 02 j 14:52	23°♎02'14	46°56'06
	138 Dec 09 j 07:05	0°♏	
	139 Jan 05 j 04:33	0°♐	
	139 Jan 30 j 17:31	0°♑	
desc. node	139 Feb 19 j 12:00	23°♑39'35	
	139 Feb 24 j 18:27	0°♒	
	139 Mar 21 j 14:23	0°♓	
	139 Apr 15 j 07:55	0°♈	
	139 May 09 j 23:45	0°♉	
	139 Jun 03 j 13:22	0°♊	
morning set	139 Jun 04 j 14:55	1°♊18'12	
asc. node	139 Jun 12 j 15:12	11°♊07'20	
	139 Jun 27 j 23:52	0°♋	
max. Earth dist.	139 Jul 07 j 16:29	11°♋56'49	1.73197 AU
superior conj	139 Jul 10 j 21:14	15°♋53'43	1°00'15
minimum elong	139 Jul 10 j 12:31	15°♋26'48	0°59'58
	139 Jul 22 j 06:55	0°♌	
	139 Aug 15 j 11:12	0°♍	
evening rise	139 Aug 16 j 00:21	0°♍40'54	
	139 Sep 08 j 14:10	0°♎	
desc. node	139 Oct 02 j 04:51	29°♎21'23	
	139 Oct 02 j 17:17	0°♏	
	139 Oct 26 j 21:45	0°♐	
	139 Nov 20 j 05:06	0°♑	
	139 Dec 14 j 18:59	0°♒	
	140 Jan 08 j 23:37	0°♓	
asc. node	140 Jan 23 j 07:43	16°♓27'59	
	140 Feb 04 j 14:09	0°♈	
evening max el	140 Feb 19 j 05:41	15°♈11'06	46°05'08
	140 Mar 06 j 09:39	0°♉	
greatest brilliancy	140 Mar 28 j 17:24	14°♉10'55	-4.8m
retrograde	140 Apr 08 j 15:28	16°♉21'10	
evening set	140 Apr 24 j 06:28	11°♉35'20	
inferior conj	140 Apr 30 j 00:56	8°♉04'43	3°10'01
minimum elong	140 Apr 30 j 07:24	7°♉54'32	3°08'16
min. Earth dist.	140 Apr 30 j 05:28	7°♉57'35	0.28972 AU
morning rise	140 May 06 j 08:33	4°♉16'15	
desc. node	140 May 13 j 21:28	0°♉57'40	
	140 May 18 j 04:53	30°℞♈	
direct	140 May 21 j 15:42	29°♈45'53	
	140 May 25 j 03:59	0°♉	
greatest brilliancy	140 May 31 j 22:35	1°♉40'35	-4.7m
morning max el	140 Jul 09 j 12:19	29°♉36'08	45°48'30
	140 Jul 09 j 22:18	0°♊	
	140 Aug 07 j 18:46	0°♋	
	140 Sep 03 j 01:36	0°♌	
asc. node	140 Sep 04 j 00:39	1°♌07'43	
	140 Sep 28 j 03:01	0°♍	
	140 Oct 22 j 12:12	0°♎	
	140 Nov 15 j 13:13	0°♏	
	140 Dec 09 j 11:16	0°♐	
desc. node	140 Dec 24 j 14:21	18°♐58'48	
	141 Jan 02 j 09:18	0°♑	
morning set	141 Jan 09 j 23:52	9°♑31'36	
	141 Jan 26 j 08:45	0°♒	
	141 Feb 19 j 10:28	0°♓	

superior conj	141 Feb 19 j 19:22	0°♓27'43	-1°25'27
minimum elong	141 Feb 19 j 19:45	0°♓28'52	1°25'27
max. Earth dist.	141 Feb 23 j 18:36	5°♓23'37	1.72341 AU
	141 Mar 15 j 15:07	0°♈	
evening rise	141 Mar 30 j 17:06	18°♈36'43	
	141 Apr 08 j 23:20	0°♉	
asc. node	141 Apr 16 j 17:33	9°♉31'09	
	141 May 03 j 11:25	0°♊	
	141 May 28 j 03:43	0°♋	
	141 Jun 22 j 01:20	0°♌	
	141 Jul 17 j 07:01	0°♍	
desc. node	141 Aug 06 j 06:58	23°♍19'48	
	141 Aug 12 j 02:21	0°♎	
	141 Sep 08 j 00:11	0°♏	
evening max el	141 Sep 25 j 11:32	18°♏10'13	47°05'26
	141 Oct 07 j 23:18	0°♐	
greatest brilliancy	141 Nov 05 j 00:16	18°♐56'50	-4.9m
retrograde	141 Nov 14 j 22:28	20°♐48'29	
asc. node	141 Nov 27 j 10:06	17°♐38'52	
evening set	141 Nov 29 j 05:40	16°♐43'04	
inferior conj	141 Dec 05 j 10:44	13°♐03'58	2°04'06
minimum elong	141 Dec 05 j 06:08	13°♐11'00	2°02'38
min. Earth dist.	141 Dec 04 j 22:23	13°♐22'54	0.26415 AU
morning rise	141 Dec 11 j 07:04	9°♐38'13	
direct	141 Dec 25 j 18:39	5°♐28'31	
greatest brilliancy	142 Jan 04 j 08:20	7°♐13'19	-4.9m
	142 Feb 05 j 18:32	0°♑	
morning max el	142 Feb 13 j 19:33	7°♑44'57	46°34'56
	142 Mar 07 j 02:13	0°♒	
desc. node	142 Mar 18 j 23:53	13°♒09'16	
	142 Apr 02 j 20:38	0°♓	
	142 Apr 28 j 16:39	0°♈	
	142 May 24 j 01:01	0°♉	
	142 Jun 18 j 01:02	0°♊	
asc. node	142 Jul 10 j 02:55	26°♊49'05	
	142 Jul 12 j 17:22	0°♋	
	142 Aug 06 j 02:23	0°♌	
morning set	142 Aug 11 j 14:16	6°♌48'40	
	142 Aug 30 j 05:21	0°♍	
max. Earth dist.	142 Sep 14 j 22:41	19°♍40'14	1.71683 AU
superior conj	142 Sep 17 j 23:59	23°♍29'50	1°18'04
minimum elong	142 Sep 18 j 07:14	23°♍52'33	1°17'56
	142 Sep 23 j 04:27	0°♎	
	142 Oct 17 j 01:59	0°♏	
evening rise	142 Oct 27 j 19:38	13°♏28'43	
desc. node	142 Oct 29 j 16:51	15°♏50'36	
	142 Nov 09 j 23:34	0°♐	
	142 Dec 03 j 22:18	0°♑	
	142 Dec 27 j 23:33	0°♒	
	143 Jan 21 j 06:01	0°♓	
	143 Feb 14 j 22:19	0°♈	
asc. node	143 Feb 19 j 19:40	5°♈51'23	
	143 Mar 12 j 07:50	0°♉	
	143 Apr 08 j 01:00	0°♊	
evening max el	143 Apr 30 j 19:56	23°♊22'29	45°18'42
	143 May 07 j 22:59	0°♋	
greatest brilliancy	143 Jun 07 j 18:20	20°♋55'58	-4.7m
desc. node	143 Jun 11 j 09:21	22°♋02'28	
retrograde	143 Jun 18 j 06:56	22°♋55'10	
evening set	143 Jul 04 j 03:19	18°♋10'48	
inferior conj	143 Jul 09 j 17:40	14°♋49'50	-6°01'57
minimum elong	143 Jul 09 j 07:40	15°♋05'21	5°59'49
min. Earth dist.	143 Jul 09 j 21:34	14°♋43'47	0.28775 AU
morning rise	143 Jul 14 j 11:39	11°♋56'33	
direct	143 Jul 31 j 07:44	6°♋35'06	
greatest brilliancy	143 Aug 11 j 03:20	8°♋41'10	-4.8m
	143 Sep 10 j 18:46	0°♌	
morning max el	143 Sep 19 j 01:22	7°♌55'06	46°23'58
asc. node	143 Oct 02 j 12:29	21°♌52'14	
	143 Oct 09 j 23:03	0°♍	
	143 Nov 04 j 23:40	0°♎	
	143 Nov 29 j 20:34	0°♏	
	143 Dec 24 j 06:19	0°♐	
	144 Jan 17 j 12:23	0°♑	
desc. node	144 Jan 22 j 02:09	5°♑39'52	
	144 Feb 10 j 17:58	0°♒	
	144 Mar 06 j 00:27	0°♓	
morning set	144 Mar 25 j 04:06	23°♓37'20	
	144 Mar 30 j 08:22	0°♈	
	144 Apr 23 j 17:44	0°♉	
superior conj	144 May 01 j 10:18	9°♉26'56	-0°29'42
minimum elong	144 May 01 j 16:10	9°♉44'58	0°29'26
max. Earth dist.	144 May 01 j 20:35	9°♉58'29	1.73570 AU
asc. node	144 May 14 j 05:25	25°♉09'42	
	144 May 18 j 03:59	0°♊	
evening rise	144 Jun 06 j 17:35	24°♊01'26	
	144 Jun 11 j 14:24	0°♋	
	144 Jul 06 j 00:49	0°♌	
	144 Jul 30 j 12:02	0°♍	
	144 Aug 24 j 01:36	0°♎	
desc. node	144 Sep 02 j 18:59	11°♎49'17	
	144 Sep 17 j 19:28	0°♏	
	144 Oct 12 j 20:43	0°♐	
	144 Nov 07 j 13:05	0°♑	
	144 Dec 04 j 21:13	0°♒	
evening max el	144 Dec 06 j 12:00	1°♒39'41	47°15'48
asc. node	144 Dec 24 j 21:55	19°♒04'39	
	145 Jan 08 j 23:33	0°♓	
greatest brilliancy	145 Jan 16 j 00:17	3°♓24'27	-4.9m
retrograde	145 Jan 26 j 12:15	5°♓31'16	
	145 Feb 12 j 05:47	30°℞♒	
evening set	145 Feb 13 j 09:15	29°♒18'30	
min. Earth dist.	145 Feb 15 j 22:37	27°♒42'42	0.28075 AU
inferior conj	145 Feb 16 j 14:07	27°♒18'12	8°39'49
minimum elong	145 Feb 16 j 13:30	27°♒19'10	8°39'48
morning rise	145 Feb 19 j 17:57	25°♒19'48	
direct	145 Mar 09 j 11:46	19°♒15'50	
greatest brilliancy	145 Mar 18 j 14:36	20°♒48'09	-4.8m
	145 Apr 04 j 14:46	0°♓	
desc. node	145 Apr 15 j 11:40	8°♓36'14	
morning max el	145 Apr 27 j 12:32	19°♓34'38	45°54'29
	145 May 08 j 00:44	0°♈	
	145 Jun 05 j 00:06	0°♉	
	145 Jul 01 j 07:54	0°♊	
	145 Jul 26 j 17:56	0°♋	
asc. node	145 Aug 06 j 14:50	13°♋04'59	
	145 Aug 20 j 12:30	0°♌	
	145 Sep 13 j 19:43	0°♍	
	145 Oct 07 j 19:41	0°♎	
greatest brilliancy	145 Oct 18 j 06:00	13°♎06'20	-3.9m
morning set	145 Oct 22 j 11:16	18°♎24'47	
	145 Oct 31 j 16:07	0°♏	
	145 Nov 24 j 11:42	0°♐	
desc. node	145 Nov 26 j 04:36	2°♐08'46	
superior conj	145 Dec 02 j 12:30	10°♐06'54	-0°15'01
minimum elong	145 Dec 02 j 08:27	9°♐54'10	0°14'48
behind sun begin	145 Dec 01 j 20:54	9°♐17'50	
behind sun end	145 Dec 02 j 20:00	10°♐30'31	
max. Earth dist.	145 Dec 04 j 09:39	12°♐29'00	1.71053 AU
	145 Dec 18 j 07:59	0°♑	
	146 Jan 11 j 06:05	0°♒	

evening rise	146 Jan 13 j 05:31	2°♒28'21	
	146 Feb 04 j 07:16	0°♓	
	146 Feb 28 j 13:22	0°♈	
asc. node	146 Mar 19 j 07:44	22°♈58'11	
	146 Mar 25 j 02:35	0°♉	
	146 Apr 19 j 01:35	0°♊	
	146 May 14 j 14:36	0°♋	
	146 Jun 10 j 03:09	0°♌	
desc. node	146 Jul 08 j 21:10	0°♍04'45	
	146 Jul 08 j 19:14	0°♍	
evening max el	146 Jul 11 j 11:53	2°♍36'16	45°49'19
	146 Aug 17 j 03:27	0°♎	
greatest brilliancy	146 Aug 20 j 11:16	1°♎13'32	-4.8m
retrograde	146 Aug 29 j 14:31	2°♎44'43	
	146 Sep 10 j 09:49	30°℞♍	
evening set	146 Sep 16 j 00:36	27°♍02'47	
inferior conj	146 Sep 19 j 11:06	24°♍58'57	-8°07'34
minimum elong	146 Sep 19 j 19:03	24°♍46'49	8°06'35
min. Earth dist.	146 Sep 20 j 07:00	24°♍28'39	0.27408 AU
morning rise	146 Sep 23 j 13:14	22°♍31'58	
direct	146 Oct 10 j 09:20	17°♍05'06	
greatest brilliancy	146 Oct 21 j 10:57	19°♍23'42	-4.9m
asc. node	146 Oct 30 j 00:17	23°♍47'54	
	146 Nov 07 j 18:52	0°♎	
morning max el	146 Nov 30 j 05:43	20°♎40'19	46°55'46
	146 Dec 09 j 03:03	0°♏	
	147 Jan 04 j 19:59	0°♐	
	147 Jan 30 j 06:59	0°♑	
desc. node	147 Feb 18 j 14:07	23°♑08'10	
	147 Feb 24 j 06:49	0°♒	
	147 Mar 21 j 02:01	0°♓	
	147 Apr 14 j 19:05	0°♈	
	147 May 09 j 10:35	0°♉	
morning set	147 Jun 02 j 09:29	29°♉15'33	
	147 Jun 03 j 00:01	0°♊	
asc. node	147 Jun 11 j 17:10	10°♊40'46	
	147 Jun 27 j 10:28	0°♋	
max. Earth dist.	147 Jul 05 j 12:24	9°♋57'29	1.73236 AU
superior conj	147 Jul 08 j 15:39	13°♋49'37	0°58'01
minimum elong	147 Jul 08 j 06:58	13°♋22'52	0°57'42
	147 Jul 21 j 17:33	0°♌	
evening rise	147 Aug 13 j 17:14	28°♌30'43	
	147 Aug 14 j 21:58	0°♍	
	147 Sep 08 j 01:09	0°♎	
desc. node	147 Oct 01 j 06:59	28°♎53'03	
	147 Oct 02 j 04:34	0°♏	
	147 Oct 26 j 09:23	0°♐	
	147 Nov 19 j 17:15	0°♑	
	147 Dec 14 j 07:54	0°♒	
	148 Jan 08 j 13:57	0°♓	
asc. node	148 Jan 22 j 09:50	15°♓49'48	
	148 Feb 04 j 07:52	0°♈	
evening max el	148 Feb 16 j 21:47	12°♈59'07	46°07'42
	148 Mar 06 j 18:02	0°♉	
greatest brilliancy	148 Mar 26 j 10:52	12°♉03'40	-4.8m
retrograde	148 Apr 06 j 08:09	14°♉13'02	
evening set	148 Apr 22 j 01:15	9°♉24'35	
inferior conj	148 Apr 27 j 17:34	5°♉56'34	3°28'07
minimum elong	148 Apr 28 j 00:32	5°♉45'34	3°26'15
min. Earth dist.	148 Apr 27 j 21:55	5°♉49'42	0.28962 AU
morning rise	148 May 04 j 00:04	2°♉09'18	
	148 May 08 j 09:15	30°℞♈	
desc. node	148 May 12 j 23:24	28°♈26'20	
direct	148 May 19 j 08:23	27°♈38'07	
greatest brilliancy	148 May 29 j 13:38	29°♈31'19	-4.7m
	148 May 30 j 20:31	0°♉	
morning max el	148 Jul 07 j 03:59	27°♉26'20	45°47'44
	148 Jul 09 j 19:43	0°♊	
	148 Aug 07 j 10:01	0°♋	
	148 Sep 02 j 14:42	0°♌	
asc. node	148 Sep 03 j 02:47	0°♌35'34	
	148 Sep 27 j 15:09	0°♍	
	148 Oct 21 j 23:49	0°♎	
	148 Nov 15 j 00:32	0°♏	
	148 Dec 08 j 22:24	0°♐	
desc. node	148 Dec 23 j 16:20	18°♐30'16	
	149 Jan 01 j 20:19	0°♑	
morning set	149 Jan 07 j 09:40	6°♑57'40	
	149 Jan 25 j 19:41	0°♒	
superior conj	149 Feb 17 j 08:09	28°♒04'33	-1°25'27
minimum elong	149 Feb 17 j 07:34	28°♒02'42	1°25'27
	149 Feb 18 j 21:17	0°♓	
max. Earth dist.	149 Feb 21 j 10:29	3°♓10'15	1.72282 AU
	149 Mar 15 j 01:52	0°♈	
evening rise	149 Mar 28 j 08:29	16°♈23'07	
	149 Apr 08 j 10:05	0°♉	
asc. node	149 Apr 15 j 19:38	9°♉04'30	
	149 May 02 j 22:19	0°♊	
	149 May 27 j 14:57	0°♋	
	149 Jun 21 j 13:11	0°♌	
	149 Jul 16 j 19:54	0°♍	
desc. node	149 Aug 05 j 09:03	22°♍45'02	
	149 Aug 11 j 17:03	0°♎	
	149 Sep 07 j 18:44	0°♏	
evening max el	149 Sep 23 j 00:28	15°♏44'54	47°03'17
	149 Oct 08 j 07:02	0°♐	
greatest brilliancy	149 Nov 02 j 14:35	16°♐29'27	-4.9m
retrograde	149 Nov 12 j 10:16	18°♐18'52	
evening set	149 Nov 26 j 17:40	14°♐14'33	
asc. node	149 Nov 26 j 12:03	14°♐22'01	
inferior conj	149 Dec 02 j 23:00	10°♐35'30	1°40'08
minimum elong	149 Dec 02 j 19:15	10°♐41'14	1°38'56
min. Earth dist.	149 Dec 02 j 12:32	10°♐51'31	0.26392 AU
morning rise	149 Dec 08 j 21:09	7°♐07'05	
direct	149 Dec 23 j 06:15	3°♐00'14	
greatest brilliancy	150 Jan 01 j 22:43	4°♐47'01	-4.9m
	150 Feb 05 j 20:59	0°♑	
morning max el	150 Feb 11 j 07:36	5°♑18'15	46°36'20
	150 Mar 06 j 19:26	0°♒	
desc. node	150 Mar 18 j 02:02	12°♒31'36	
	150 Apr 02 j 10:44	0°♓	
	150 Apr 28 j 05:13	0°♈	
	150 May 23 j 12:42	0°♉	
	150 Jun 17 j 12:11	0°♊	
asc. node	150 Jul 09 j 05:04	26°♊22'23	
	150 Jul 12 j 04:14	0°♋	
	150 Aug 05 j 13:08	0°♌	
morning set	150 Aug 09 j 06:54	4°♌38'07	
	150 Aug 29 j 16:06	0°♍	
max. Earth dist.	150 Sep 12 j 11:32	17°♍16'17	1.71739 AU
superior conj	150 Sep 15 j 14:38	21°♍11'29	1°19'22
minimum elong	150 Sep 15 j 21:14	21°♍32'11	1°19'15
	150 Sep 22 j 15:17	0°♎	
	150 Oct 16 j 12:56	0°♏	
evening rise	150 Oct 25 j 06:34	10°♏57'50	
desc. node	150 Oct 28 j 18:50	15°♏22'13	
	150 Nov 09 j 10:40	0°♐	
	150 Dec 03 j 09:33	0°♑	
	150 Dec 27 j 10:59	0°♒	
	151 Jan 20 j 17:47	0°♓	
	151 Feb 14 j 10:42	0°♈	

asc. node	151 Feb 18 j 21:49	5°♈20'22	
	151 Mar 11 j 21:29	0°♉	
	151 Apr 07 j 17:33	0°♊	
evening max el	151 Apr 28 j 10:53	21°♊10'04	45°19'13
	151 May 08 j 01:32	0°♋	
greatest brilliancy	151 Jun 05 j 08:41	18°♋44'47	-4.7m
desc. node	151 Jun 10 j 11:25	20°♋12'02	
retrograde	151 Jun 15 j 22:49	20°♋45'41	
evening set	151 Jul 01 j 16:32	16°♋04'06	
inferior conj	151 Jul 07 j 09:33	12°♋39'39	-5°47'04
minimum elong	151 Jul 06 j 23:38	12°♋55'02	5°44'53
min. Earth dist.	151 Jul 07 j 13:14	12°♋33'57	0.28798 AU
morning rise	151 Jul 12 j 06:21	9°♋42'26	
direct	151 Jul 28 j 23:31	4°♋24'19	
greatest brilliancy	151 Aug 08 j 19:38	6°♋30'51	-4.8m
	151 Sep 10 j 19:51	0°♌	
morning max el	151 Sep 16 j 16:48	5°♌40'17	46°22'28
asc. node	151 Oct 01 j 14:35	21°♌09'38	
	151 Oct 09 j 15:36	0°♍	
	151 Nov 04 j 13:38	0°♎	
	151 Nov 29 j 09:22	0°♏	
	151 Dec 23 j 18:28	0°♐	
	152 Jan 17 j 00:04	0°♑	
desc. node	152 Jan 21 j 04:21	5°♑10'43	
	152 Feb 10 j 05:18	0°♒	
	152 Mar 05 j 11:30	0°♓	
morning set	152 Mar 22 j 19:32	21°♓23'19	
	152 Mar 29 j 19:14	0°♈	
	152 Apr 23 j 04:30	0°♉	
superior conj	152 Apr 29 j 03:47	7°♉20'11	-0°32'42
minimum elong	152 Apr 29 j 10:11	7°♉39'51	0°32'24
max. Earth dist.	152 Apr 29 j 16:37	7°♉59'36	1.73552 AU
asc. node	152 May 13 j 07:24	24°♉42'50	
	152 May 17 j 14:44	0°♊	
evening rise	152 Jun 04 j 12:40	21°♊59'35	
	152 Jun 11 j 01:14	0°♋	
	152 Jul 05 j 11:50	0°♌	
	152 Jul 29 j 23:24	0°♍	
	152 Aug 23 j 13:31	0°♎	
desc. node	152 Sep 01 j 21:08	11°♎18'55	
	152 Sep 17 j 08:11	0°♏	
	152 Oct 12 j 10:40	0°♐	
	152 Nov 07 j 05:17	0°♑	
evening max el	152 Dec 04 j 03:17	29°♑19'31	47°17'11
	152 Dec 04 j 19:09	0°♒	
asc. node	152 Dec 24 j 00:05	17°♒57'42	
	153 Jan 11 j 02:20	0°♓	
greatest brilliancy	153 Jan 13 j 15:09	1°♓04'21	-4.9m
retrograde	153 Jan 24 j 04:06	3°♓12'07	
	153 Feb 05 j 15:17	30°♓℞	
evening set	153 Feb 10 j 23:05	27°♒01'08	
min. Earth dist.	153 Feb 13 j 12:13	25°♒25'53	0.28018 AU
inferior conj	153 Feb 14 j 04:59	24°♒59'27	8°39'13
minimum elong	153 Feb 14 j 03:34	25°♒01'41	8°39'11
morning rise	153 Feb 17 j 08:16	23°♒02'11	
direct	153 Mar 07 j 02:02	16°♒58'01	
greatest brilliancy	153 Mar 16 j 03:39	18°♒29'46	-4.8m
	153 Apr 05 j 07:04	0°♓	
desc. node	153 Apr 14 j 13:42	7°♓37'13	
morning max el	153 Apr 25 j 04:25	17°♓22'37	45°55'28
	153 May 07 j 19:55	0°♈	
	153 Jun 04 j 14:51	0°♉	
	153 Jun 30 j 20:48	0°♊	
	153 Jul 26 j 05:53	0°♋	
asc. node	153 Aug 05 j 16:58	12°♋36'00	
	153 Aug 19 j 23:56	0°♌	
	153 Sep 13 j 06:54	0°♍	
	153 Oct 07 j 06:46	0°♎	
greatest brilliancy	153 Oct 17 j 13:27	12°♎54'58	-3.9m
morning set	153 Oct 19 j 23:52	15°♎58'40	
	153 Oct 31 j 03:11	0°♏	
	153 Nov 23 j 22:47	0°♐	
desc. node	153 Nov 25 j 06:37	1°♐40'13	
superior conj	153 Nov 29 j 21:58	7°♐30'41	-0°11'02
minimum elong	153 Nov 29 j 18:59	7°♐21'18	0°10'53
behind sun begin	153 Nov 28 j 22:46	6°♐17'40	
behind sun end	153 Nov 30 j 15:13	8°♐24'57	
max. Earth dist.	153 Dec 01 j 18:50	9°♐51'52	1.71044 AU
	153 Dec 17 j 19:07	0°♑	
evening rise	154 Jan 10 j 15:54	29°♑55'49	
	154 Jan 10 j 17:14	0°♒	
	154 Feb 03 j 18:29	0°♓	
	154 Feb 28 j 00:43	0°♈	
asc. node	154 Mar 18 j 09:46	22°♈29'15	
	154 Mar 24 j 14:14	0°♉	
	154 Apr 18 j 13:50	0°♊	
	154 May 14 j 04:04	0°♋	
	154 Jun 09 j 19:08	0°♌	
desc. node	154 Jul 07 j 23:21	29°♌14'51	
	154 Jul 08 j 18:07	0°♍	
evening max el	154 Jul 09 j 02:43	0°♍20'37	45°47'05
greatest brilliancy	154 Aug 17 j 23:20	28°♍51'35	-4.8m
	154 Aug 22 j 15:01	0°♎	
retrograde	154 Aug 27 j 03:23	0°♎22'59	
	154 Aug 31 j 13:13	30°♏℞	
evening set	154 Sep 13 j 16:20	24°♍37'23	
inferior conj	154 Sep 17 j 00:27	22°♍36'43	-8°15'52
minimum elong	154 Sep 17 j 07:46	22°♍25'32	8°15'03
min. Earth dist.	154 Sep 17 j 19:59	22°♍06'55	0.27468 AU
morning rise	154 Sep 20 j 22:59	20°♍14'41	
direct	154 Oct 07 j 23:51	14°♍42'11	
greatest brilliancy	154 Oct 19 j 00:33	16°♍59'40	-4.9m
asc. node	154 Oct 29 j 02:14	22°♍21'22	
	154 Nov 08 j 08:15	0°♎	
morning max el	154 Nov 27 j 19:39	18°♎15'45	46°55'21
	154 Dec 08 j 22:33	0°♏	
	155 Jan 04 j 11:22	0°♐	
	155 Jan 29 j 20:33	0°♑	
desc. node	155 Feb 17 j 16:11	22°♑35'53	
	155 Feb 23 j 19:23	0°♒	
	155 Mar 20 j 13:56	0°♓	
	155 Apr 14 j 06:32	0°♈	
	155 May 08 j 21:43	0°♉	
morning set	155 May 31 j 03:49	27°♉11'17	
	155 Jun 02 j 10:57	0°♊	
asc. node	155 Jun 10 j 19:18	10°♊13'51	
	155 Jun 26 j 21:20	0°♋	
max. Earth dist.	155 Jul 03 j 06:57	7°♋53'08	1.73274 AU
superior conj	155 Jul 06 j 09:58	11°♋44'26	0°55'41
minimum elong	155 Jul 06 j 01:23	11°♋17'57	0°55'23
	155 Jul 21 j 04:30	0°♌	
evening rise	155 Aug 11 j 10:11	26°♌19'55	
	155 Aug 14 j 09:04	0°♍	
	155 Sep 07 j 12:28	0°♎	
desc. node	155 Sep 30 j 08:59	28°♎23'21	
	155 Oct 01 j 16:08	0°♏	
	155 Oct 25 j 21:19	0°♐	
	155 Nov 19 j 05:40	0°♑	
	155 Dec 13 j 21:07	0°♒	
	156 Jan 08 j 04:40	0°♓	
asc. node	156 Jan 21 j 11:57	15°♓10'26	

	156 Feb 04 j 02:20	0°♈	
evening max el	156 Feb 14 j 13:07	10°♈44'05	46°10'06
	156 Mar 07 j 06:06	0°♉	
greatest brilliancy	156 Mar 24 j 04:40	9°♉55'19	-4.8m
retrograde	156 Apr 04 j 00:21	12°♉03'30	
evening set	156 Apr 19 j 20:04	7°♉12'10	
inferior conj	156 Apr 25 j 10:10	3°♉47'04	3°45'59
minimum elong	156 Apr 25 j 17:36	3°♉35'19	3°44'01
min. Earth dist.	156 Apr 25 j 14:39	3°♉39'59	0.28953 AU
morning rise	156 May 01 j 15:21	0°♉01'09	
	156 May 01 j 16:11	30°℞♈	
desc. node	156 May 12 j 01:28	25°♈57'56	
direct	156 May 17 j 00:33	25°♈28'54	
greatest brilliancy	156 May 27 j 05:13	27°♈21'12	-4.7m
	156 Jun 02 j 07:07	0°♉	
morning max el	156 Jul 04 j 19:00	25°♉13'43	45°47'06
	156 Jul 09 j 16:50	0°♊	
	156 Aug 07 j 01:26	0°♋	
asc. node	156 Sep 02 j 04:49	0°♌02'10	
	156 Sep 02 j 04:05	0°♌	
	156 Sep 27 j 03:34	0°♍	
	156 Oct 21 j 11:44	0°♎	
	156 Nov 14 j 12:09	0°♏	
	156 Dec 08 j 09:50	0°♐	
desc. node	156 Dec 22 j 18:32	18°♐01'38	
	157 Jan 01 j 07:36	0°♑	
morning set	157 Jan 04 j 19:49	4°♑23'55	
	157 Jan 25 j 06:50	0°♒	
superior conj	157 Feb 14 j 21:12	25°♒41'23	-1°25'17
minimum elong	157 Feb 14 j 19:39	25°♒36'34	1°25'17
	157 Feb 18 j 08:21	0°♓	
max. Earth dist.	157 Feb 19 j 01:15	0°♓52'34	1.72224 AU
	157 Mar 14 j 12:54	0°♈	
evening rise	157 Mar 25 j 23:52	14°♈08'35	
	157 Apr 07 j 21:10	0°♉	
asc. node	157 Apr 14 j 21:37	8°♉36'33	
	157 May 02 j 09:35	0°♊	
	157 May 27 j 02:35	0°♋	
	157 Jun 21 j 01:27	0°♌	
	157 Jul 16 j 09:13	0°♍	
desc. node	157 Aug 04 j 11:09	22°♍08'58	
	157 Aug 11 j 08:19	0°♎	
	157 Sep 07 j 14:12	0°♏	
evening max el	157 Sep 20 j 12:51	13°♏17'13	47°01'06
	157 Oct 08 j 18:03	0°♐	
greatest brilliancy	157 Oct 31 j 04:47	14°♐00'47	-4.9m
retrograde	157 Nov 09 j 22:07	15°♐48'26	
evening set	157 Nov 24 j 05:50	11°♐44'26	
asc. node	157 Nov 25 j 14:15	11°♐00'05	
inferior conj	157 Nov 30 j 11:15	8°♐06'00	1°15'51
minimum elong	157 Nov 30 j 08:23	8°♐10'22	1°14'56
min. Earth dist.	157 Nov 30 j 02:44	8°♐19'01	0.26373 AU
morning rise	157 Dec 06 j 11:04	4°♐35'21	
direct	157 Dec 20 j 17:46	0°♐30'37	
greatest brilliancy	157 Dec 30 j 13:16	2°♐19'56	-4.9m
	158 Feb 05 j 22:20	0°♑	
morning max el	158 Feb 08 j 20:21	2°♑52'23	46°37'57
	158 Mar 06 j 12:31	0°♒	
desc. node	158 Mar 17 j 04:03	11°♒53'19	
	158 Apr 02 j 00:54	0°♓	
	158 Apr 27 j 17:57	0°♈	
	158 May 23 j 00:37	0°♉	
	158 Jun 16 j 23:39	0°♊	
asc. node	158 Jul 08 j 07:13	25°♊54'41	
	158 Jul 11 j 15:25	0°♋	
	158 Aug 05 j 00:11	0°♌	
morning set	158 Aug 06 j 23:35	2°♌26'46	
	158 Aug 29 j 03:08	0°♍	
max. Earth dist.	158 Sep 10 j 02:26	14°♍57'57	1.71793 AU
superior conj	158 Sep 13 j 05:19	18°♍52'24	1°20'31
minimum elong	158 Sep 13 j 11:14	19°♍10'55	1°20'25
	158 Sep 22 j 02:24	0°♎	
	158 Oct 16 j 00:12	0°♏	
evening rise	158 Oct 22 j 17:40	8°♏26'38	
desc. node	158 Oct 27 j 20:54	14°♏53'10	
	158 Nov 08 j 22:06	0°♐	
	158 Dec 02 j 21:07	0°♑	
	158 Dec 26 j 22:45	0°♒	
	159 Jan 20 j 05:51	0°♓	
	159 Feb 13 j 23:23	0°♈	
asc. node	159 Feb 17 j 23:52	4°♈48'15	
	159 Mar 11 j 11:27	0°♉	
	159 Apr 07 j 10:35	0°♊	
evening max el	159 Apr 26 j 02:42	18°♊59'21	45°19'43
	159 May 08 j 06:00	0°♋	
greatest brilliancy	159 Jun 02 j 22:42	16°♋32'52	-4.7m
desc. node	159 Jun 09 j 13:35	18°♋17'00	
retrograde	159 Jun 13 j 15:04	18°♋35'44	
evening set	159 Jun 29 j 06:02	13°♋56'50	
inferior conj	159 Jul 05 j 01:31	10°♋28'57	-5°31'37
minimum elong	159 Jul 04 j 15:45	10°♋44'04	5°29'25
min. Earth dist.	159 Jul 05 j 04:43	10°♋24'00	0.28822 AU
morning rise	159 Jul 10 j 01:08	7°♋27'55	
direct	159 Jul 26 j 16:01	2°♋13'09	
greatest brilliancy	159 Aug 06 j 11:39	4°♋19'39	-4.8m
	159 Sep 10 j 20:03	0°♌	
morning max el	159 Sep 14 j 08:58	3°♌26'45	46°20'55
asc. node	159 Sep 30 j 16:37	20°♌26'32	
	159 Oct 09 j 08:07	0°♍	
	159 Nov 04 j 03:42	0°♎	
	159 Nov 28 j 22:18	0°♏	
	159 Dec 23 j 06:46	0°♐	
	160 Jan 16 j 11:55	0°♑	
desc. node	160 Jan 20 j 06:21	4°♑40'20	
	160 Feb 09 j 16:48	0°♒	
	160 Mar 04 j 22:44	0°♓	
morning set	160 Mar 20 j 11:08	19°♓09'15	
	160 Mar 29 j 06:15	0°♈	
	160 Apr 22 j 15:23	0°♉	
superior conj	160 Apr 26 j 21:29	5°♉13'42	-0°35'38
minimum elong	160 Apr 27 j 04:23	5°♉34'54	0°35'19
max. Earth dist.	160 Apr 27 j 15:01	6°♉07'36	1.73532 AU
asc. node	160 May 12 j 09:36	24°♉16'15	
	160 May 17 j 01:35	0°♊	
evening rise	160 Jun 02 j 08:01	19°♊58'12	
	160 Jun 10 j 12:11	0°♋	
	160 Jul 04 j 23:02	0°♌	
	160 Jul 29 j 10:59	0°♍	
	160 Aug 23 j 01:40	0°♎	
desc. node	160 Aug 31 j 23:05	10°♎47'13	
	160 Sep 16 j 21:10	0°♏	
	160 Oct 12 j 00:55	0°♐	
	160 Nov 06 j 21:55	0°♑	
evening max el	160 Dec 01 j 19:14	27°♑00'34	47°18'25
	160 Dec 04 j 18:09	0°♒	
asc. node	160 Dec 23 j 02:11	16°♒48'12	
greatest brilliancy	161 Jan 11 j 05:55	28°♒43'26	-4.9m
	161 Jan 15 j 05:09	0°♓	
retrograde	161 Jan 21 j 19:55	0°♓51'54	
	161 Jan 28 j 05:46	30°℞♒	
evening set	161 Feb 08 j 12:26	24°♒43'31	

min. Earth dist.	161 Feb 11 j 01:40	23°♒08'14	0.27956 AU
inferior conj	161 Feb 11 j 19:43	22°♒39'47	8°37'46
minimum elong	161 Feb 11 j 17:29	22°♒43'18	8°37'43
morning rise	161 Feb 14 j 22:47	20°♒43'02	
direct	161 Mar 04 j 16:37	14°♒39'29	
greatest brilliancy	161 Mar 13 j 16:20	16°♒10'14	-4.8m
	161 Apr 05 j 19:26	0°♓	
desc. node	161 Apr 13 j 15:42	6°♓39'11	
morning max el	161 Apr 22 j 20:06	15°♓09'53	45°56'38
	161 May 07 j 14:37	0°♈	
	161 Jun 04 j 05:26	0°♉	
	161 Jun 30 j 09:36	0°♊	
	161 Jul 25 j 17:47	0°♋	
asc. node	161 Aug 04 j 18:59	12°♋06'40	
	161 Aug 19 j 11:24	0°♌	
	161 Sep 12 j 18:10	0°♍	
	161 Oct 06 j 17:57	0°♎	
greatest brilliancy	161 Oct 16 j 20:19	12°♎41'30	-3.9m
morning set	161 Oct 17 j 12:23	13°♎32'02	
	161 Oct 30 j 14:21	0°♏	
	161 Nov 23 j 09:56	0°♐	
desc. node	161 Nov 24 j 08:48	1°♐11'59	
superior conj	161 Nov 27 j 07:21	4°♐54'00	-0°07'01
minimum elong	161 Nov 27 j 05:27	4°♐48'01	0°06'56
behind sun begin	161 Nov 26 j 05:01	3°♐31'08	
behind sun end	161 Nov 28 j 05:52	6°♐04'53	
max. Earth dist.	161 Nov 29 j 02:42	7°♐10'27	1.71032 AU
	161 Dec 17 j 06:16	0°♑	
evening rise	162 Jan 08 j 02:05	27°♑22'28	
	162 Jan 10 j 04:26	0°♒	
	162 Feb 03 j 05:45	0°♓	
	162 Feb 27 j 12:07	0°♈	
asc. node	162 Mar 17 j 11:48	22°♈00'13	
	162 Mar 24 j 01:56	0°♉	
	162 Apr 18 j 02:07	0°♊	
	162 May 13 j 17:33	0°♋	
	162 Jun 09 j 11:14	0°♌	
evening max el	162 Jul 06 j 16:49	28°♌03'46	45°44'50
desc. node	162 Jul 07 j 01:21	28°♌24'10	
	162 Jul 08 j 17:47	0°♍	
greatest brilliancy	162 Aug 15 j 11:55	26°♍31'02	-4.8m
retrograde	162 Aug 24 j 15:52	28°♍02'12	
evening set	162 Sep 11 j 07:57	22°♍13'21	
inferior conj	162 Sep 14 j 14:02	20°♍15'26	-8°23'04
minimum elong	162 Sep 14 j 20:39	20°♍05'18	8°22'25
min. Earth dist.	162 Sep 15 j 09:27	19°♍45'44	0.27533 AU
morning rise	162 Sep 18 j 09:07	17°♍58'02	
direct	162 Oct 05 j 14:06	12°♍20'00	
greatest brilliancy	162 Oct 16 j 15:02	14°♍37'03	-4.9m
asc. node	162 Oct 28 j 04:26	20°♍58'09	
	162 Nov 08 j 18:13	0°♎	
morning max el	162 Nov 25 j 08:45	15°♎48'52	46°54'51
	162 Dec 08 j 17:33	0°♏	
	163 Jan 04 j 02:32	0°♐	
	163 Jan 29 j 09:59	0°♑	
desc. node	163 Feb 16 j 18:13	22°♑03'48	
	163 Feb 23 j 07:49	0°♒	
	163 Mar 20 j 01:44	0°♓	
	163 Apr 13 j 17:52	0°♈	
	163 May 08 j 08:44	0°♉	
morning set	163 May 28 j 22:20	25°♉07'59	
	163 Jun 01 j 21:45	0°♊	
asc. node	163 Jun 09 j 21:27	9°♊47'23	
	163 Jun 26 j 08:03	0°♋	
max. Earth dist.	163 Jul 01 j 01:40	5°♋49'54	1.73308 AU
superior conj	163 Jul 04 j 04:40	9°♋41'05	0°53'18
minimum elong	163 Jul 03 j 20:13	9°♋15'00	0°53'00
	163 Jul 20 j 15:15	0°♌	
evening rise	163 Aug 09 j 03:39	24°♌11'25	
	163 Aug 13 j 19:58	0°♍	
	163 Sep 06 j 23:35	0°♎	
desc. node	163 Sep 29 j 11:05	27°♎54'27	
	163 Oct 01 j 03:35	0°♏	
	163 Oct 25 j 09:10	0°♐	
	163 Nov 18 j 18:05	0°♑	
	163 Dec 13 j 10:22	0°♒	
	164 Jan 07 j 19:31	0°♓	
asc. node	164 Jan 20 j 13:57	14°♓30'31	
	164 Feb 03 j 21:11	0°♈	
evening max el	164 Feb 12 j 03:18	8°♈26'13	46°12'39
	164 Mar 07 j 22:10	0°♉	
greatest brilliancy	164 Mar 21 j 22:16	7°♉46'48	-4.8m
retrograde	164 Apr 01 j 16:27	9°♉54'12	
evening set	164 Apr 17 j 14:50	4°♉59'33	
inferior conj	164 Apr 23 j 02:40	1°♉37'45	4°03'31
minimum elong	164 Apr 23 j 10:32	1°♉25'19	4°01'30
min. Earth dist.	164 Apr 23 j 07:27	1°♉30'12	0.28942 AU
	164 Apr 25 j 16:54	30°♈R	
morning rise	164 Apr 29 j 06:23	27°♈53'30	
desc. node	164 May 11 j 03:40	23°♈34'13	
direct	164 May 14 j 16:10	23°♈19'39	
greatest brilliancy	164 May 24 j 21:13	25°♈11'52	-4.7m
	164 Jun 03 j 20:14	0°♉	
morning max el	164 Jul 02 j 10:07	23°♉01'58	45°46'46
	164 Jul 09 j 13:00	0°♊	
	164 Aug 06 j 16:21	0°♋	
asc. node	164 Sep 01 j 06:54	29°♋30'03	
	164 Sep 01 j 17:02	0°♌	
	164 Sep 26 j 15:36	0°♍	
	164 Oct 20 j 23:18	0°♎	
	164 Nov 13 j 23:29	0°♏	
	164 Dec 07 j 21:02	0°♐	
desc. node	164 Dec 21 j 20:34	17°♐33'02	
	164 Dec 31 j 18:43	0°♑	
morning set	165 Jan 02 j 05:24	1°♑48'44	
	165 Jan 24 j 17:50	0°♒	
superior conj	165 Feb 12 j 09:34	23°♒16'38	-1°24'58
minimum elong	165 Feb 12 j 07:04	23°♒08'50	1°24'57
max. Earth dist.	165 Feb 16 j 12:48	28°♒25'23	1.72165 AU
	165 Feb 17 j 19:14	0°♓	
	165 Mar 13 j 23:43	0°♈	
evening rise	165 Mar 23 j 14:43	11°♈52'57	
	165 Apr 07 j 08:03	0°♉	
asc. node	165 Apr 13 j 23:47	8°♉09'48	
	165 May 01 j 20:39	0°♊	
	165 May 26 j 14:01	0°♋	
	165 Jun 20 j 13:29	0°♌	
	165 Jul 15 j 22:20	0°♍	
desc. node	165 Aug 03 j 13:10	21°♍33'25	
	165 Aug 10 j 23:24	0°♎	
	165 Sep 07 j 09:44	0°♏	
evening max el	165 Sep 18 j 01:16	10°♏51'20	46°58'58
	165 Oct 09 j 07:56	0°♐	
greatest brilliancy	165 Oct 28 j 18:11	11°♐32'35	-4.9m
retrograde	165 Nov 07 j 10:14	13°♐19'25	
evening set	165 Nov 21 j 18:12	9°♐15'00	
asc. node	165 Nov 24 j 16:19	7°♐36'35	
inferior conj	165 Nov 27 j 23:27	5°♐37'26	0°51'26
minimum elong	165 Nov 27 j 21:29	5°♐40'25	0°50'48
min. Earth dist.	165 Nov 27 j 16:33	5°♐47'56	0.26365 AU
morning rise	165 Dec 04 j 00:50	2°♐05'02	

	165 Dec 08 j 11:19	30°♏	
direct	165 Dec 18 j 05:47	28°♏01'45	
greatest brilliancy	165 Dec 28 j 03:35	29°♏53'27	-4.9m
	165 Dec 28 j 10:46	0°♐	
	166 Feb 05 j 22:15	0°♑	
morning max el	166 Feb 06 j 10:06	0°♑29'27	46°39'18
	166 Mar 06 j 05:05	0°♒	
desc. node	166 Mar 16 j 06:07	11°♒15'58	
	166 Apr 01 j 14:45	0°♓	
	166 Apr 27 j 06:24	0°♈	
	166 May 22 j 12:16	0°♉	
	166 Jun 16 j 10:48	0°♊	
asc. node	166 Jul 07 j 09:08	25°♊27'15	
	166 Jul 11 j 02:18	0°♋	
	166 Aug 04 j 10:56	0°♌	
morning set	166 Aug 04 j 16:20	0°♌16'45	
	166 Aug 28 j 13:51	0°♍	
max. Earth dist.	166 Sep 07 j 17:16	12°♍40'34	1.71840 AU
superior conj	166 Sep 10 j 20:21	16°♍35'29	1°21'31
minimum elong	166 Sep 11 j 01:32	16°♍51'45	1°21'27
	166 Sep 21 j 13:11	0°♎	
	166 Oct 15 j 11:05	0°♏	
evening rise	166 Oct 20 j 05:14	5°♏58'07	
desc. node	166 Oct 26 j 23:04	14°♏25'38	
	166 Nov 08 j 09:07	0°♐	
	166 Dec 02 j 08:19	0°♑	
	166 Dec 26 j 10:10	0°♒	
	167 Jan 19 j 17:39	0°♓	
	167 Feb 13 j 11:52	0°♈	
asc. node	167 Feb 17 j 01:54	4°♈16'43	
	167 Mar 11 j 01:19	0°♉	
	167 Apr 07 j 03:47	0°♊	
evening max el	167 Apr 23 j 19:00	16°♊50'19	45°20'24
	167 May 08 j 12:14	0°♋	
greatest brilliancy	167 May 31 j 12:53	14°♋21'42	-4.7m
desc. node	167 Jun 08 j 15:33	16°♋17'55	
retrograde	167 Jun 11 j 07:16	16°♋25'59	
evening set	167 Jun 26 j 19:37	11°♋49'54	
inferior conj	167 Jul 02 j 17:18	8°♋18'33	-5°15'46
minimum elong	167 Jul 02 j 07:44	8°♋33'22	5°13'32
min. Earth dist.	167 Jul 02 j 19:51	8°♋14'37	0.28841 AU
morning rise	167 Jul 07 j 19:39	5°♋13'44	
direct	167 Jul 24 j 08:40	0°♋02'33	
greatest brilliancy	167 Aug 04 j 02:50	2°♋08'08	-4.8m
	167 Sep 10 j 18:53	0°♌	
morning max el	167 Sep 12 j 01:01	1°♌14'00	46°19'27
asc. node	167 Sep 29 j 18:45	19°♌45'09	
	167 Oct 09 j 00:01	0°♍	
	167 Nov 03 j 17:16	0°♎	
	167 Nov 28 j 10:47	0°♏	
	167 Dec 22 j 18:37	0°♐	
	168 Jan 15 j 23:20	0°♑	
desc. node	168 Jan 19 j 08:22	4°♑11'17	
	168 Feb 09 j 03:55	0°♒	
	168 Mar 04 j 09:38	0°♓	
morning set	168 Mar 18 j 02:21	16°♓54'48	
	168 Mar 28 j 17:01	0°♈	
	168 Apr 22 j 02:03	0°♉	
superior conj	168 Apr 24 j 14:38	3°♉06'12	-0°38'33
minimum elong	168 Apr 24 j 22:00	3°♉28'52	0°38'14
max. Earth dist.	168 Apr 25 j 13:34	4°♉16'41	1.73510 AU
asc. node	168 May 11 j 11:38	23°♉49'56	
	168 May 16 j 12:13	0°♊	
evening rise	168 May 31 j 02:49	17°♊55'52	
	168 Jun 09 j 22:54	0°♋	
	168 Jul 04 j 09:59	0°♌	
	168 Jul 28 j 22:21	0°♍	
	168 Aug 22 j 13:37	0°♎	
desc. node	168 Aug 31 j 01:12	10°♎16'44	
	168 Sep 16 j 09:57	0°♏	
	168 Oct 11 j 15:01	0°♐	
	168 Nov 06 j 14:30	0°♑	
evening max el	168 Nov 29 j 11:22	24°♑43'09	47°19'38
	168 Dec 04 j 17:38	0°♒	
asc. node	168 Dec 22 j 04:10	15°♒37'49	
greatest brilliancy	169 Jan 08 j 21:00	26°♒24'16	-4.9m
retrograde	169 Jan 19 j 11:30	28°♒32'49	
evening set	169 Feb 06 j 01:34	22°♒27'51	
min. Earth dist.	169 Feb 08 j 15:16	20°♒51'48	0.27894 AU
inferior conj	169 Feb 09 j 10:32	20°♒21'25	8°35'33
minimum elong	169 Feb 09 j 07:30	20°♒26'12	8°35'25
morning rise	169 Feb 12 j 13:43	18°♒24'33	
direct	169 Mar 02 j 07:24	12°♒22'27	
greatest brilliancy	169 Mar 11 j 05:13	13°♒51'54	-4.8m
	169 Apr 06 j 04:08	0°♓	
desc. node	169 Apr 12 j 17:55	5°♓43'44	
morning max el	169 Apr 20 j 10:59	12°♓55'54	45°57'32
	169 May 07 j 08:36	0°♈	
	169 Jun 03 j 19:39	0°♉	
	169 Jun 29 j 22:10	0°♊	
	169 Jul 25 j 05:29	0°♋	
asc. node	169 Aug 03 j 21:04	11°♋38'11	
	169 Aug 18 j 22:38	0°♌	
	169 Sep 12 j 05:12	0°♍	
	169 Oct 06 j 04:55	0°♎	
morning set	169 Oct 15 j 00:52	11°♎05'56	
	169 Oct 30 j 01:18	0°♏	
	169 Nov 22 j 20:53	0°♐	
desc. node	169 Nov 23 j 10:47	0°♐43'45	
superior conj	169 Nov 24 j 16:56	2°♐18'37	-0°03'01
minimum elong	169 Nov 24 j 16:06	2°♐16'00	0°02'58
behind sun begin	169 Nov 23 j 13:48	0°♐53'15	
behind sun end	169 Nov 25 j 18:24	3°♐38'46	
max. Earth dist.	169 Nov 26 j 06:53	4°♐18'04	1.71019 AU
	169 Dec 16 j 17:13	0°♑	
evening rise	170 Jan 05 j 12:23	24°♑50'07	
	170 Jan 09 j 15:23	0°♒	
	170 Feb 02 j 16:45	0°♓	
	170 Feb 26 j 23:15	0°♈	
asc. node	170 Mar 16 j 13:58	21°♈32'19	
	170 Mar 23 j 13:23	0°♉	
	170 Apr 17 j 14:15	0°♊	
	170 May 13 j 07:01	0°♋	
	170 Jun 09 j 03:33	0°♌	
evening max el	170 Jul 04 j 06:01	25°♌44'53	45°42'39
desc. node	170 Jul 06 j 03:25	27°♌32'42	
	170 Jul 08 j 18:36	0°♍	
greatest brilliancy	170 Aug 13 j 00:43	24°♍10'52	-4.8m
retrograde	170 Aug 22 j 04:08	25°♍41'51	
evening set	170 Sep 08 j 23:11	19°♍49'59	
inferior conj	170 Sep 12 j 03:35	17°♍54'31	-8°29'19
minimum elong	170 Sep 12 j 09:25	17°♍45'34	8°28'49
min. Earth dist.	170 Sep 12 j 23:01	17°♍24'44	0.27598 AU
morning rise	170 Sep 15 j 19:24	15°♍41'38	
direct	170 Oct 03 j 03:53	9°♍57'58	
greatest brilliancy	170 Oct 14 j 05:55	12°♍15'21	-4.9m
asc. node	170 Oct 27 j 06:31	19°♍37'37	
	170 Nov 09 j 01:23	0°♎	
morning max el	170 Nov 22 j 21:23	13°♎21'08	46°54'23
	170 Dec 08 j 11:57	0°♏	
	171 Jan 03 j 17:24	0°♐	

	171 Jan 28 j 23:12	0°♉	
desc. node	171 Feb 15 j 20:19	21°♉32'28	
	171 Feb 22 j 20:04	0°♒	
	171 Mar 19 j 13:20	0°♓	
	171 Apr 13 j 05:01	0°♈	
	171 May 07 j 19:35	0°♉	
morning set	171 May 26 j 16:49	23°♉04'49	
	171 Jun 01 j 08:27	0°♊	
asc. node	171 Jun 08 j 23:23	9°♊20'35	
	171 Jun 25 j 18:44	0°♋	
max. Earth dist.	171 Jun 28 j 21:06	3°♋48'59	1.73348 AU
superior conj	171 Jul 01 j 23:14	7°♋37'25	0°50'52
minimum elong	171 Jul 01 j 14:57	7°♋11'53	0°50'32
	171 Jul 20 j 02:00	0°♌	
evening rise	171 Aug 06 j 20:58	22°♌02'36	
	171 Aug 13 j 06:53	0°♍	
	171 Sep 06 j 10:44	0°♎	
desc. node	171 Sep 28 j 13:12	27°♎25'31	
	171 Sep 30 j 15:03	0°♏	
	171 Oct 24 j 21:05	0°♐	
	171 Nov 18 j 06:34	0°♑	
	171 Dec 12 j 23:43	0°♒	
	172 Jan 07 j 10:31	0°♓	
asc. node	172 Jan 19 j 16:05	13°♓50'36	
	172 Feb 03 j 16:31	0°♈	
evening max el	172 Feb 09 j 17:21	6°♈08'08	46°15'26
	172 Mar 08 j 19:39	0°♉	
greatest brilliancy	172 Mar 19 j 15:30	5°♉38'17	-4.8m
retrograde	172 Mar 30 j 09:00	7°♉45'46	
evening set	172 Apr 15 j 09:48	2°♉47'23	
	172 Apr 19 j 23:48	30°℞♈	
inferior conj	172 Apr 20 j 19:22	29°♈29'05	4°20'35
minimum elong	172 Apr 21 j 03:36	29°♈16'04	4°18'31
min. Earth dist.	172 Apr 21 j 00:12	29°♈21'27	0.28932 AU
morning rise	172 Apr 26 j 21:29	25°♈46'58	
desc. node	172 May 10 j 05:35	21°♈16'08	
direct	172 May 12 j 07:56	21°♈10'59	
greatest brilliancy	172 May 22 j 13:29	23°♈03'30	-4.7m
	172 Jun 04 j 22:03	0°♉	
morning max el	172 Jun 30 j 01:54	20°♉52'00	45°46'16
	172 Jul 09 j 08:32	0°♊	
	172 Aug 06 j 07:09	0°♋	
asc. node	172 Aug 31 j 09:01	28°♋57'46	
	172 Sep 01 j 06:03	0°♌	
	172 Sep 26 j 03:45	0°♍	
	172 Oct 20 j 11:00	0°♎	
	172 Nov 13 j 10:56	0°♏	
	172 Dec 07 j 08:21	0°♐	
desc. node	172 Dec 20 j 22:33	17°♐04'00	
morning set	172 Dec 30 j 14:52	29°♐12'50	
	172 Dec 31 j 05:55	0°♑	
	173 Jan 24 j 04:56	0°♒	
superior conj	173 Feb 09 j 21:52	20°♒51'06	-1°24'29
minimum elong	173 Feb 09 j 18:23	20°♒40'15	1°24'27
max. Earth dist.	173 Feb 13 j 22:34	25°♒52'11	1.72106 AU
	173 Feb 17 j 06:14	0°♓	
	173 Mar 13 j 10:41	0°♈	
evening rise	173 Mar 21 j 05:37	9°♈37'09	
	173 Apr 06 j 19:02	0°♉	
asc. node	173 Apr 13 j 01:51	7°♉42'25	
	173 May 01 j 07:48	0°♊	
	173 May 26 j 01:32	0°♋	
	173 Jun 20 j 01:40	0°♌	
	173 Jul 15 j 11:42	0°♍	
desc. node	173 Aug 02 j 15:16	20°♍57'12	
	173 Aug 10 j 14:57	0°♎	
	173 Sep 07 j 06:15	0°♏	
evening max el	173 Sep 15 j 14:29	8°♏26'35	46°56'41
	173 Oct 10 j 03:09	0°♐	
greatest brilliancy	173 Oct 26 j 06:58	9°♐02'29	-4.9m
retrograde	173 Nov 04 j 22:43	10°♐49'00	
evening set	173 Nov 19 j 06:40	6°♐43'56	
asc. node	173 Nov 23 j 18:16	4°♐09'45	
inferior conj	173 Nov 25 j 11:26	3°♐07'21	0°26'47
minimum elong	173 Nov 25 j 10:25	3°♐08'54	0°26'26
min. Earth dist.	173 Nov 25 j 05:54	3°♐15'46	0.26358 AU
	173 Nov 30 j 18:44	30°℞♏	
morning rise	173 Dec 01 j 14:14	29°♏33'38	
direct	173 Dec 15 j 18:13	25°♏31'36	
greatest brilliancy	173 Dec 25 j 17:09	27°♏24'59	-4.9m
	173 Dec 31 j 11:56	0°♐	
morning max el	174 Feb 04 j 00:17	28°♐06'48	46°40'40
	174 Feb 05 j 21:26	0°♑	
	174 Mar 05 j 21:36	0°♒	
desc. node	174 Mar 15 j 08:15	10°♒38'24	
	174 Apr 01 j 04:41	0°♓	
	174 Apr 26 j 19:00	0°♈	
	174 May 22 j 00:04	0°♉	
	174 Jun 15 j 22:08	0°♊	
asc. node	174 Jul 06 j 11:19	25°♊00'05	
	174 Jul 10 j 13:21	0°♋	
morning set	174 Aug 02 j 09:30	28°♋07'29	
	174 Aug 03 j 21:52	0°♌	
	174 Aug 28 j 00:49	0°♍	
max. Earth dist.	174 Sep 05 j 07:12	10°♍19'33	1.71896 AU
superior conj	174 Sep 08 j 11:37	14°♍18'32	1°22'22
minimum elong	174 Sep 08 j 16:05	14°♍32'30	1°22'20
	174 Sep 21 j 00:16	0°♎	
	174 Oct 14 j 22:21	0°♏	
evening rise	174 Oct 17 j 16:41	3°♏28'06	
desc. node	174 Oct 26 j 01:03	13°♏56'25	
	174 Nov 07 j 20:32	0°♐	
	174 Dec 01 j 19:53	0°♑	
	174 Dec 25 j 21:58	0°♒	
	175 Jan 19 j 05:49	0°♓	
	175 Feb 13 j 00:45	0°♈	
asc. node	175 Feb 16 j 04:02	3°♈44'22	
	175 Mar 10 j 15:39	0°♉	
	175 Apr 06 j 21:41	0°♊	
evening max el	175 Apr 21 j 11:48	14°♊41'47	45°21'11
	175 May 08 j 21:14	0°♋	
greatest brilliancy	175 May 29 j 04:09	12°♋11'40	-4.7m
desc. node	175 Jun 07 j 17:38	14°♋14'37	
retrograde	175 Jun 08 j 23:35	14°♋16'24	
evening set	175 Jun 24 j 09:46	9°♋43'14	
inferior conj	175 Jun 30 j 09:27	6°♋08'36	-4°59'40
minimum elong	175 Jun 30 j 00:10	6°♋23'02	4°57'26
min. Earth dist.	175 Jun 30 j 11:29	6°♋05'27	0.28855 AU
morning rise	175 Jul 05 j 14:24	2°♋59'57	
	175 Jul 11 j 16:13	30°℞♊	
direct	175 Jul 22 j 01:33	27°♊52'36	
greatest brilliancy	175 Aug 01 j 17:58	29°♊56'39	-4.8m
	175 Aug 01 j 21:34	0°♋	
morning max el	175 Sep 09 j 16:25	28°♋59'18	46°17'45
	175 Sep 10 j 16:58	0°♌	
asc. node	175 Sep 28 j 20:49	19°♌03'24	
	175 Oct 08 j 15:56	0°♍	
	175 Nov 03 j 07:06	0°♎	
	175 Nov 27 j 23:38	0°♏	
	175 Dec 22 j 06:52	0°♐	
	176 Jan 15 j 11:11	0°♑	

desc. node	176 Jan 18 j 10:35	3°♑41'31	
	176 Feb 08 j 15:27	0°♒	
	176 Mar 03 j 20:55	0°♓	
morning set	176 Mar 15 j 17:18	14°♓38'21	
	176 Mar 28 j 04:07	0°♈	
	176 Apr 21 j 13:03	0°♉	
superior conj	176 Apr 22 j 07:44	0°♉57'29	-0°41'26
minimum elong	176 Apr 22 j 15:33	1°♉21'28	0°41'06
max. Earth dist.	176 Apr 23 j 12:20	2°♉25'20	1.73482 AU
asc. node	176 May 10 j 13:38	23°♉22'25	
	176 May 15 j 23:12	0°♊	
evening rise	176 May 28 j 21:44	15°♊52'52	
	176 Jun 09 j 09:57	0°♋	
	176 Jul 03 j 21:16	0°♌	
	176 Jul 28 j 10:01	0°♍	
	176 Aug 22 j 01:53	0°♎	
desc. node	176 Aug 30 j 03:20	9°♎45'21	
	176 Sep 15 j 23:06	0°♏	
	176 Oct 11 j 05:35	0°♐	
	176 Nov 06 j 07:51	0°♑	
evening max el	176 Nov 27 j 02:38	22°♑21'45	47°20'24
	176 Dec 04 j 18:59	0°♒	
asc. node	176 Dec 21 j 06:19	14°♒23'42	
greatest brilliancy	177 Jan 06 j 12:32	24°♒03'08	-4.9m
retrograde	177 Jan 17 j 02:24	26°♒10'51	
evening set	177 Feb 03 j 14:04	20°♒10'09	
min. Earth dist.	177 Feb 06 j 05:01	18°♒32'08	0.27828 AU
inferior conj	177 Feb 07 j 01:03	18°♒00'30	8°32'25
minimum elong	177 Feb 06 j 21:14	18°♒06'32	8°32'11
morning rise	177 Feb 10 j 04:43	16°♒02'49	
direct	177 Feb 27 j 21:24	10°♒02'55	
greatest brilliancy	177 Mar 08 j 18:19	11°♒31'29	-4.8m
	177 Apr 06 j 11:06	0°♓	
desc. node	177 Apr 11 j 19:54	4°♓47'28	
morning max el	177 Apr 18 j 00:38	10°♓37'21	45°58'39
	177 May 07 j 02:37	0°♈	
	177 Jun 03 j 10:04	0°♉	
	177 Jun 29 j 10:57	0°♊	
	177 Jul 24 j 17:26	0°♋	
asc. node	177 Aug 02 j 23:11	11°♋09'00	
	177 Aug 18 j 10:08	0°♌	
	177 Sep 11 j 16:29	0°♍	
	177 Oct 05 j 16:07	0°♎	
morning set	177 Oct 12 j 14:00	8°♎41'08	
	177 Oct 29 j 12:29	0°♏	
superior conj	177 Nov 22 j 02:53	29°♏43'36	0°01'00
minimum elong	177 Nov 22 j 03:08	29°♏44'22	0°01'00
behind sun begin	177 Nov 21 j 00:40	28°♏21'01	
behind sun end	177 Nov 23 j 05:37	1°♐07'42	
	177 Nov 22 j 08:06	0°♐	
desc. node	177 Nov 22 j 12:51	0°♐14'59	
max. Earth dist.	177 Nov 23 j 09:09	1°♐18'50	1.71017 AU
	177 Dec 16 j 04:30	0°♑	
evening rise	178 Jan 02 j 22:26	22°♑15'50	
	178 Jan 09 j 02:43	0°♒	
	178 Feb 02 j 04:09	0°♓	
	178 Feb 26 j 10:49	0°♈	
asc. node	178 Mar 15 j 15:58	21°♈02'36	
	178 Mar 23 j 01:16	0°♉	
	178 Apr 17 j 02:50	0°♊	
	178 May 12 j 20:58	0°♋	
	178 Jun 08 j 20:31	0°♌	
evening max el	178 Jul 01 j 18:47	23°♌24'24	45°40'41
desc. node	178 Jul 05 j 05:34	26°♌39'46	
	178 Jul 08 j 21:03	0°♍	
greatest brilliancy	178 Aug 10 j 13:35	21°♍50'40	-4.8m
retrograde	178 Aug 19 j 17:01	23°♍22'03	
evening set	178 Sep 06 j 14:23	17°♍27'17	
inferior conj	178 Sep 09 j 17:24	15°♍33'59	-8°34'41
minimum elong	178 Sep 09 j 22:27	15°♍26'15	8°34'19
min. Earth dist.	178 Sep 10 j 12:49	15°♍04'14	0.27660 AU
morning rise	178 Sep 13 j 06:14	13°♍25'28	
direct	178 Sep 30 j 17:46	7°♍36'13	
greatest brilliancy	178 Oct 11 j 21:09	9°♍54'28	-4.9m
asc. node	178 Oct 26 j 08:27	18°♍19'17	
	178 Nov 09 j 06:27	0°♎	
morning max el	178 Nov 20 j 10:48	10°♎55'12	46°53'56
	178 Dec 08 j 06:00	0°♏	
	179 Jan 03 j 08:15	0°♐	
	179 Jan 28 j 12:33	0°♑	
desc. node	179 Feb 14 j 22:24	21°♑00'22	
	179 Feb 22 j 08:32	0°♒	
	179 Mar 19 j 01:13	0°♓	
	179 Apr 12 j 16:28	0°♈	
	179 May 07 j 06:43	0°♉	
morning set	179 May 24 j 11:00	20°♉59'54	
	179 May 31 j 19:24	0°♊	
asc. node	179 Jun 08 j 01:33	8°♊53'44	
	179 Jun 25 j 05:38	0°♋	
max. Earth dist.	179 Jun 26 j 18:26	1°♋53'21	1.73383 AU
superior conj	179 Jun 29 j 17:41	5°♋32'48	0°48'19
minimum elong	179 Jun 29 j 09:36	5°♋07'53	0°48'00
	179 Jul 19 j 12:57	0°♌	
evening rise	179 Aug 04 j 14:33	19°♌54'07	
	179 Aug 12 j 17:59	0°♍	
	179 Sep 05 j 22:04	0°♎	
desc. node	179 Sep 27 j 15:10	26°♎55'42	
	179 Sep 30 j 02:41	0°♏	
	179 Oct 24 j 09:06	0°♐	
	179 Nov 17 j 19:08	0°♑	
	179 Dec 12 j 13:11	0°♒	
	180 Jan 07 j 01:47	0°♓	
asc. node	180 Jan 18 j 18:10	13°♓09'48	
	180 Feb 03 j 12:35	0°♈	
evening max el	180 Feb 07 j 07:52	3°♈50'37	46°17'59
	180 Mar 10 j 02:14	0°♉	
greatest brilliancy	180 Mar 17 j 08:02	3°♉27'45	-4.8m
retrograde	180 Mar 28 j 01:49	5°♉35'56	
evening set	180 Apr 13 j 04:39	0°♉33'32	
	180 Apr 14 j 03:36	30°℞♈	
inferior conj	180 Apr 18 j 11:49	27°♈18'51	4°37'30
minimum elong	180 Apr 18 j 20:24	27°♈05'18	4°35'23
min. Earth dist.	180 Apr 18 j 16:27	27°♈11'31	0.28924 AU
morning rise	180 Apr 24 j 12:14	23°♈39'21	
desc. node	180 May 09 j 07:41	19°♈01'17	
direct	180 May 09 j 23:48	19°♈00'46	
greatest brilliancy	180 May 20 j 05:14	20°♈53'27	-4.7m
	180 Jun 05 j 17:31	0°♉	
morning max el	180 Jun 27 j 18:23	18°♉43'07	45°45'57
	180 Jul 09 j 03:45	0°♊	
	180 Aug 05 j 21:54	0°♋	
asc. node	180 Aug 30 j 11:02	28°♋25'12	
	180 Aug 31 j 19:01	0°♌	
	180 Sep 25 j 15:53	0°♍	
	180 Oct 19 j 22:41	0°♎	
	180 Nov 12 j 22:23	0°♏	
	180 Dec 06 j 19:38	0°♐	
desc. node	180 Dec 20 j 00:45	16°♐35'49	
morning set	180 Dec 28 j 00:49	26°♐38'28	
	180 Dec 30 j 17:04	0°♑	
	181 Jan 23 j 15:58	0°♒	

superior conj	181 Feb 07 j 10:15	18°♒25'56	-1°23'50
minimum elong	181 Feb 07 j 05:49	18°♒12'06	1°23'48
max. Earth dist.	181 Feb 11 j 09:50	23°♒23'42	1.72054 AU
	181 Feb 16 j 17:11	0°♓	
	181 Mar 12 j 21:37	0°♈	
evening rise	181 Mar 18 j 20:30	7°♈21'13	
	181 Apr 06 j 06:03	0°♉	
asc. node	181 Apr 12 j 03:50	7°♉14'42	
	181 Apr 30 j 19:01	0°♊	
	181 May 25 j 13:08	0°♋	
	181 Jun 19 j 13:57	0°♌	
	181 Jul 15 j 01:11	0°♍	
desc. node	181 Aug 01 j 17:22	20°♍20'44	
	181 Aug 10 j 06:43	0°♎	
	181 Sep 07 j 03:23	0°♏	
evening max el	181 Sep 13 j 04:32	6°♏04'24	46°54'25
	181 Oct 11 j 04:50	0°♐	
greatest brilliancy	181 Oct 23 j 19:32	6°♐32'47	-4.9m
retrograde	181 Nov 02 j 11:29	8°♐18'57	
evening set	181 Nov 16 j 19:26	4°♐13'16	
inferior conj	181 Nov 22 j 23:26	0°♐37'39	0°01'55
minimum elong	181 Nov 22 j 23:22	0°♐37'46	0°01'54
transit middle	181 Nov 22 j 23:22	0°♐37'46	0°01'54
transit begin	181 Nov 22 j 19:19	0°♐43'55	
transit end	181 Nov 23 j 03:25	0°♐31'37	
asc. node	181 Nov 22 j 20:29	0°♐42'09	
min. Earth dist.	181 Nov 22 j 19:04	0°♐44'18	0.26351 AU
	181 Nov 24 j 00:16	30°℞♏	
morning rise	181 Nov 29 j 03:25	27°♏02'53	
direct	181 Dec 13 j 06:57	23°♏02'07	
greatest brilliancy	181 Dec 23 j 06:15	24°♏56'19	-4.9m
	182 Jan 02 j 07:20	0°♐	
morning max el	182 Feb 01 j 14:28	25°♐44'41	46°42'01
	182 Feb 05 j 19:26	0°♑	
	182 Mar 05 j 13:35	0°♒	
desc. node	182 Mar 14 j 10:16	10°♒01'33	
	182 Mar 31 j 18:16	0°♓	
	182 Apr 26 j 07:20	0°♈	
	182 May 21 j 11:43	0°♉	
	182 Jun 15 j 09:20	0°♊	
asc. node	182 Jul 05 j 13:25	24°♊32'56	
	182 Jul 10 j 00:18	0°♋	
morning set	182 Jul 31 j 02:29	25°♋58'05	
	182 Aug 03 j 08:41	0°♌	
	182 Aug 27 j 11:38	0°♍	
max. Earth dist.	182 Sep 02 j 19:14	7°♍53'18	1.71947 AU
superior conj	182 Sep 06 j 02:52	12°♍02'10	1°23'06
minimum elong	182 Sep 06 j 06:34	12°♍13'44	1°23'04
	182 Sep 20 j 11:10	0°♎	
	182 Oct 14 j 09:24	0°♏	
evening rise	182 Oct 15 j 04:11	0°♏58'57	
desc. node	182 Oct 25 j 03:07	13°♏28'05	
	182 Nov 07 j 07:44	0°♐	
	182 Dec 01 j 07:16	0°♑	
	182 Dec 25 j 09:33	0°♒	
	183 Jan 18 j 17:47	0°♓	
	183 Feb 12 j 13:25	0°♈	
asc. node	183 Feb 15 j 06:03	3°♈12'22	
	183 Mar 10 j 05:49	0°♉	
	183 Apr 06 j 15:39	0°♊	
evening max el	183 Apr 19 j 04:05	12°♊32'40	45°21'49
	183 May 09 j 09:03	0°♋	
greatest brilliancy	183 May 26 j 19:50	10°♋02'30	-4.7m
retrograde	183 Jun 06 j 15:11	12°♋07'02	
desc. node	183 Jun 06 j 19:47	12°♋06'59	
evening set	183 Jun 21 j 23:56	7°♋36'36	
inferior conj	183 Jun 28 j 01:29	3°♋59'00	-4°42'59
minimum elong	183 Jun 27 j 16:31	4°♋12'58	4°40'46
min. Earth dist.	183 Jun 28 j 03:27	3°♋55'58	0.28872 AU
morning rise	183 Jul 03 j 08:56	0°♋46'23	
	183 Jul 04 j 18:27	30°℞♊	
direct	183 Jul 19 j 18:00	25°♊42'54	
greatest brilliancy	183 Jul 30 j 09:24	27°♊45'40	-4.8m
	183 Aug 04 j 11:55	0°♋	
morning max el	183 Sep 07 j 06:55	26°♋42'52	46°16'12
	183 Sep 10 j 14:07	0°♌	
asc. node	183 Sep 27 j 22:51	18°♌22'33	
	183 Oct 08 j 07:25	0°♍	
	183 Nov 02 j 20:33	0°♎	
	183 Nov 27 j 12:06	0°♏	
	183 Dec 21 j 18:46	0°♐	
	184 Jan 14 j 22:41	0°♑	
desc. node	184 Jan 17 j 12:33	3°♑12'05	
	184 Feb 08 j 02:39	0°♒	
	184 Mar 03 j 07:52	0°♓	
morning set	184 Mar 13 j 08:17	12°♓22'58	
	184 Mar 27 j 14:53	0°♈	
superior conj	184 Apr 20 j 01:00	28°♈50'18	-0°44'15
minimum elong	184 Apr 20 j 09:11	29°♈15'28	0°43'53
	184 Apr 20 j 23:41	0°♉	
max. Earth dist.	184 Apr 21 j 10:24	0°♉32'57	1.73452 AU
asc. node	184 May 09 j 15:49	22°♉56'34	
	184 May 15 j 09:49	0°♊	
evening rise	184 May 26 j 16:44	13°♊51'06	
	184 Jun 08 j 20:42	0°♋	
	184 Jul 03 j 08:17	0°♌	
	184 Jul 27 j 21:28	0°♍	
	184 Aug 21 j 13:57	0°♎	
desc. node	184 Aug 29 j 05:17	9°♎14'03	
	184 Sep 15 j 12:04	0°♏	
	184 Oct 10 j 20:01	0°♐	
	184 Nov 06 j 01:11	0°♑	
evening max el	184 Nov 24 j 16:49	19°♑58'36	47°21'14
	184 Dec 04 j 21:11	0°♒	
asc. node	184 Dec 20 j 08:24	13°♒08'27	
greatest brilliancy	185 Jan 04 j 04:31	21°♒43'33	-4.9m
retrograde	185 Jan 14 j 16:55	23°♒50'03	
evening set	185 Feb 01 j 02:16	17°♒54'04	
min. Earth dist.	185 Feb 03 j 19:09	16°♒13'08	0.27762 AU
inferior conj	185 Feb 04 j 15:38	15°♒40'48	8°28'18
minimum elong	185 Feb 04 j 11:03	15°♒48'03	8°27'59
morning rise	185 Feb 07 j 20:08	13°♒41'45	
direct	185 Feb 25 j 10:57	7°♒44'21	
greatest brilliancy	185 Mar 06 j 08:06	9°♒12'48	-4.8m
	185 Apr 06 j 15:27	0°♓	
desc. node	185 Apr 10 j 21:57	3°♓53'40	
morning max el	185 Apr 15 j 13:52	8°♓18'46	45°59'55
	185 May 06 j 19:46	0°♈	
	185 Jun 02 j 23:54	0°♉	
	185 Jun 28 j 23:17	0°♊	
	185 Jul 24 j 04:59	0°♋	
asc. node	185 Aug 02 j 01:11	10°♋40'35	
	185 Aug 17 j 21:18	0°♌	
	185 Sep 11 j 03:29	0°♍	
	185 Oct 05 j 03:04	0°♎	
morning set	185 Oct 10 j 02:54	6°♎16'26	
	185 Oct 28 j 23:25	0°♏	
superior conj	185 Nov 19 j 12:35	27°♏08'37	0°05'02
minimum elong	185 Nov 19 j 13:55	27°♏12'50	0°04'57
behind sun begin	185 Nov 18 j 12:26	25°♏52'34	
behind sun end	185 Nov 20 j 15:25	28°♏33'05	

max. Earth dist.	185 Nov 20 j 11:15	28°♏19'59	1.71015 AU
desc. node	185 Nov 21 j 15:02	29°♏47'26	
	185 Nov 21 j 19:02	0°♐	
	185 Dec 15 j 15:27	0°♑	
evening rise	185 Dec 31 j 08:21	19°♑42'11	
	186 Jan 08 j 13:43	0°♒	
	186 Feb 01 j 15:13	0°♓	
	186 Feb 25 j 22:02	0°♈	
asc. node	186 Mar 14 j 18:02	20°♈34'05	
	186 Mar 22 j 12:50	0°♉	
	186 Apr 16 j 15:06	0°♊	
	186 May 12 j 10:40	0°♋	
	186 Jun 08 j 13:24	0°♌	
evening max el	186 Jun 29 j 07:49	21°♌05'57	45°38'45
desc. node	186 Jul 04 j 07:35	25°♌46'37	
	186 Jul 09 j 00:34	0°♍	
greatest brilliancy	186 Aug 08 j 01:39	19°♍30'49	-4.8m
retrograde	186 Aug 17 j 06:19	21°♍03'22	
evening set	186 Sep 04 j 05:09	15°♍05'55	
inferior conj	186 Sep 07 j 07:09	13°♍14'14	-8°39'01
minimum elong	186 Sep 07 j 11:23	13°♍07'44	8°38'45
min. Earth dist.	186 Sep 08 j 02:17	12°♍44'57	0.27729 AU
morning rise	186 Sep 10 j 17:23	11°♍09'41	
direct	186 Sep 28 j 08:00	5°♍15'10	
greatest brilliancy	186 Oct 09 j 12:14	7°♍34'14	-4.9m
asc. node	186 Oct 25 j 10:41	17°♍04'19	
	186 Nov 09 j 09:35	0°♎	
morning max el	186 Nov 18 j 01:15	8°♎32'32	46°53'25
	186 Dec 07 j 23:30	0°♏	
	187 Jan 02 j 22:43	0°♐	
	187 Jan 28 j 01:33	0°♑	
desc. node	187 Feb 14 j 00:26	20°♑29'13	
	187 Feb 21 j 20:39	0°♒	
	187 Mar 18 j 12:43	0°♓	
	187 Apr 12 j 03:33	0°♈	
	187 May 06 j 17:31	0°♉	
morning set	187 May 22 j 05:22	18°♉56'29	
	187 May 31 j 06:03	0°♊	
asc. node	187 Jun 07 j 03:39	8°♊27'39	
max. Earth dist.	187 Jun 24 j 17:21	0°♋03'26	1.73414 AU
	187 Jun 24 j 16:14	0°♋	
superior conj	187 Jun 27 j 12:23	3°♋29'52	0°45'44
minimum elong	187 Jun 27 j 04:32	3°♋05'43	0°45'25
	187 Jul 18 j 23:36	0°♌	
evening rise	187 Aug 02 j 08:30	17°♌47'44	
	187 Aug 12 j 04:47	0°♍	
	187 Sep 05 j 09:07	0°♎	
desc. node	187 Sep 26 j 17:19	26°♎27'06	
	187 Sep 29 j 14:07	0°♏	
	187 Oct 23 j 21:00	0°♐	
	187 Nov 17 j 07:38	0°♑	
	187 Dec 12 j 02:37	0°♒	
	188 Jan 06 j 17:06	0°♓	
asc. node	188 Jan 17 j 20:11	12°♓28'53	
	188 Feb 03 j 09:05	0°♈	
evening max el	188 Feb 04 j 23:12	1°♈35'42	46°20'48
	188 Mar 11 j 22:54	0°♉	
greatest brilliancy	188 Mar 15 j 00:20	1°♉17'47	-4.8m
retrograde	188 Mar 25 j 19:07	3°♉26'49	
	188 Apr 07 j 22:13	30°℞♈	
evening set	188 Apr 10 j 23:38	28°♈20'24	
inferior conj	188 Apr 16 j 04:17	25°♈09'17	4°53'58
minimum elong	188 Apr 16 j 13:10	24°♈55'15	4°51'50
min. Earth dist.	188 Apr 16 j 08:22	25°♈02'50	0.28912 AU
morning rise	188 Apr 22 j 02:52	21°♈32'40	
direct	188 May 07 j 16:04	16°♈51'21	
desc. node	188 May 08 j 09:53	16°♈52'00	
greatest brilliancy	188 May 17 j 20:20	18°♈43'29	-4.7m
	188 Jun 06 j 07:38	0°♉	
morning max el	188 Jun 25 j 11:33	16°♉36'42	45°45'40
	188 Jul 08 j 22:10	0°♊	
	188 Aug 05 j 12:12	0°♋	
asc. node	188 Aug 29 j 13:07	27°♋53'41	
	188 Aug 31 j 07:40	0°♌	
	188 Sep 25 j 03:44	0°♍	
	188 Oct 19 j 10:09	0°♎	
	188 Nov 12 j 09:40	0°♏	
	188 Dec 06 j 06:49	0°♐	
desc. node	188 Dec 19 j 02:47	16°♐07'16	
morning set	188 Dec 25 j 10:23	24°♐03'04	
	188 Dec 30 j 04:09	0°♑	
	189 Jan 23 j 02:57	0°♒	
superior conj	189 Feb 04 j 21:59	15°♒58'44	-1°23'00
minimum elong	189 Feb 04 j 16:37	15°♒41'59	1°22'57
max. Earth dist.	189 Feb 08 j 21:48	20°♒57'26	1.71999 AU
	189 Feb 16 j 04:04	0°♓	
	189 Mar 12 j 08:28	0°♈	
evening rise	189 Mar 16 j 10:55	5°♈04'09	
	189 Apr 05 j 16:58	0°♉	
asc. node	189 Apr 11 j 06:02	6°♉47'55	
	189 Apr 30 j 06:08	0°♊	
	189 May 25 j 00:39	0°♋	
	189 Jun 19 j 02:11	0°♌	
	189 Jul 14 j 14:39	0°♍	
desc. node	189 Jul 31 j 19:23	19°♍44'15	
	189 Aug 09 j 22:34	0°♎	
	189 Sep 07 j 01:04	0°♏	
evening max el	189 Sep 10 j 19:02	3°♏44'02	46°52'03
	189 Oct 12 j 16:18	0°♐	
greatest brilliancy	189 Oct 21 j 08:21	4°♐04'20	-4.9m
retrograde	189 Oct 31 j 00:06	5°♐49'31	
evening set	189 Nov 14 j 08:35	1°♐43'12	
	189 Nov 17 j 09:40	30°℞♏	
inferior conj	189 Nov 20 j 11:33	28°♏08'43	-0°22'46
minimum elong	189 Nov 20 j 12:25	28°♏07'24	0°22'29
min. Earth dist.	189 Nov 20 j 08:28	28°♏13'25	0.26351 AU
asc. node	189 Nov 21 j 22:31	27°♏15'43	
morning rise	189 Nov 26 j 16:25	24°♏32'51	
direct	189 Dec 10 j 19:48	20°♏33'22	
greatest brilliancy	189 Dec 20 j 19:33	22°♏28'05	-4.9m
	190 Jan 03 j 13:04	0°♐	
morning max el	190 Jan 30 j 04:07	23°♐20'56	46°43'07
	190 Feb 05 j 16:41	0°♑	
	190 Mar 05 j 05:24	0°♒	
desc. node	190 Mar 13 j 12:22	9°♒24'58	
	190 Mar 31 j 07:50	0°♓	
	190 Apr 25 j 19:41	0°♈	
	190 May 20 j 23:20	0°♉	
	190 Jun 14 j 20:30	0°♊	
asc. node	190 Jul 04 j 15:23	24°♊05'30	
	190 Jul 09 j 11:13	0°♋	
morning set	190 Jul 28 j 19:40	23°♋49'21	
	190 Aug 02 j 19:31	0°♌	
	190 Aug 26 j 22:29	0°♍	
max. Earth dist.	190 Aug 31 j 06:00	5°♍23'07	1.71998 AU
superior conj	190 Sep 03 j 18:36	9°♍47'22	1°23'41
minimum elong	190 Sep 03 j 21:32	9°♍56'31	1°23'39
	190 Sep 19 j 22:06	0°♎	
evening rise	190 Oct 12 j 16:13	28°♎31'30	
	190 Oct 13 j 20:27	0°♏	
desc. node	190 Oct 24 j 05:18	13°♏00'04	

	190 Nov 06 j 18:56	0°♐	
	190 Nov 30 j 18:39	0°♑	
	190 Dec 24 j 21:13	0°♒	
	191 Jan 18 j 05:53	0°♓	
	191 Feb 12 j 02:18	0°♈	
asc. node	191 Feb 14 j 08:08	2°♈39'56	
	191 Mar 09 j 20:20	0°♉	
	191 Apr 06 j 10:18	0°♊	
evening max el	191 Apr 16 j 19:42	10°♊21'18	45°22'39
	191 May 10 j 01:10	0°♋	
greatest brilliancy	191 May 24 j 12:02	7°♋53'37	-4.7m
retrograde	191 Jun 04 j 06:39	9°♋57'50	
desc. node	191 Jun 05 j 21:45	9°♋54'46	
evening set	191 Jun 19 j 14:24	5°♋29'42	
inferior conj	191 Jun 25 j 17:42	1°♋49'36	-4°26'02
minimum elong	191 Jun 25 j 09:05	2°♋03'02	4°23'51
min. Earth dist.	191 Jun 25 j 19:53	1°♋46'12	0.28885 AU
	191 Jun 28 j 16:35	30°℞♊	
morning rise	191 Jul 01 j 03:32	28°♊33'09	
direct	191 Jul 17 j 10:04	23°♊33'15	
greatest brilliancy	191 Jul 28 j 01:30	25°♊35'24	-4.8m
	191 Aug 06 j 02:53	0°♋	
morning max el	191 Sep 04 j 21:08	24°♋25'32	46°14'42
	191 Sep 10 j 10:39	0°♌	
asc. node	191 Sep 27 j 01:01	17°♌42'12	
	191 Oct 07 j 22:47	0°♍	
	191 Nov 02 j 10:01	0°♎	
	191 Nov 27 j 00:36	0°♏	
	191 Dec 21 j 06:42	0°♐	
	192 Jan 14 j 10:15	0°♑	
desc. node	192 Jan 16 j 14:36	2°♑42'38	
	192 Feb 07 j 13:57	0°♒	
	192 Mar 02 j 18:59	0°♓	
morning set	192 Mar 10 j 23:04	10°♓06'15	
	192 Mar 27 j 01:51	0°♈	
superior conj	192 Apr 17 j 18:04	26°♈41'44	-0°47'00
minimum elong	192 Apr 18 j 02:35	27°♈07'58	0°46'39
max. Earth dist.	192 Apr 19 j 05:58	28°♈32'08	1.73421 AU
	192 Apr 20 j 10:33	0°♉	
asc. node	192 May 08 j 17:52	22°♉29'33	
	192 May 14 j 20:40	0°♊	
evening rise	192 May 24 j 11:27	11°♊47'49	
	192 Jun 08 j 07:40	0°♋	
	192 Jul 02 j 19:32	0°♌	
	192 Jul 27 j 09:09	0°♍	
	192 Aug 21 j 02:17	0°♎	
desc. node	192 Aug 28 j 07:25	8°♎42'34	
	192 Sep 15 j 01:20	0°♏	
	192 Oct 10 j 10:51	0°♐	
	192 Nov 05 j 19:09	0°♑	
evening max el	192 Nov 22 j 06:34	17°♑33'45	47°22'03
	192 Dec 05 j 01:12	0°♒	
asc. node	192 Dec 19 j 10:24	11°♒50'20	
greatest brilliancy	193 Jan 01 j 20:27	19°♒23'18	-4.9m
retrograde	193 Jan 12 j 07:26	21°♒29'00	
evening set	193 Jan 29 j 14:12	15°♒37'52	
min. Earth dist.	193 Feb 01 j 09:26	13°♒53'37	0.27697 AU
inferior conj	193 Feb 02 j 06:16	13°♒20'44	8°23'20
minimum elong	193 Feb 02 j 00:55	13°♒29'10	8°22'54
morning rise	193 Feb 05 j 11:55	11°♒19'59	
direct	193 Feb 23 j 00:16	5°♒25'12	
greatest brilliancy	193 Mar 03 j 22:13	6°♒54'03	-4.8m
	193 Apr 06 j 18:22	0°♓	
desc. node	193 Apr 10 j 00:10	3°♓00'44	
morning max el	193 Apr 13 j 03:38	6°♓00'39	46°01'08
	193 May 06 j 12:52	0°♈	
	193 Jun 02 j 13:55	0°♉	
	193 Jun 28 j 11:52	0°♊	
	193 Jul 23 j 16:48	0°♋	
asc. node	193 Aug 01 j 03:20	10°♋11'46	
	193 Aug 17 j 08:43	0°♌	
	193 Sep 10 j 14:43	0°♍	
	193 Oct 04 j 14:14	0°♎	
morning set	193 Oct 07 j 15:56	3°♎51'25	
	193 Oct 28 j 10:36	0°♏	
superior conj	193 Nov 16 j 22:23	24°♏33'02	0°09'00
minimum elong	193 Nov 17 j 00:47	24°♏40'35	0°08'53
behind sun begin	193 Nov 16 j 02:17	23°♏29'42	
behind sun end	193 Nov 17 j 23:18	25°♏51'28	
max. Earth dist.	193 Nov 17 j 15:56	25°♏28'18	1.71018 AU
desc. node	193 Nov 20 j 17:01	29°♏18'19	
	193 Nov 21 j 06:15	0°♐	
	193 Dec 15 j 02:42	0°♑	
evening rise	193 Dec 28 j 18:24	17°♑08'00	
	194 Jan 08 j 00:59	0°♒	
	194 Feb 01 j 02:32	0°♓	
	194 Feb 25 j 09:31	0°♈	
asc. node	194 Mar 13 j 20:12	20°♈05'04	
	194 Mar 22 j 00:42	0°♉	
	194 Apr 16 j 03:44	0°♊	
	194 May 12 j 00:50	0°♋	
	194 Jun 08 j 07:01	0°♌	
evening max el	194 Jun 26 j 22:03	18°♌49'33	45°36'59
desc. node	194 Jul 03 j 09:39	24°♌51'32	
	194 Jul 09 j 06:24	0°♍	
greatest brilliancy	194 Aug 05 j 13:18	17°♍10'04	-4.8m
retrograde	194 Aug 14 j 20:14	18°♍44'18	
evening set	194 Sep 01 j 19:40	12°♍44'50	
inferior conj	194 Sep 04 j 21:03	10°♍54'06	-8°42'22
minimum elong	194 Sep 05 j 00:27	10°♍48'54	8°42'13
min. Earth dist.	194 Sep 05 j 15:27	10°♍25'59	0.27794 AU
morning rise	194 Sep 08 j 05:01	8°♍53'03	
direct	194 Sep 25 j 22:52	2°♍54'00	
greatest brilliancy	194 Oct 07 j 02:48	5°♍13'05	-4.9m
asc. node	194 Oct 24 j 12:45	15°♍50'43	
	194 Nov 09 j 11:30	0°♎	
morning max el	194 Nov 15 j 16:36	6°♎11'37	46°52'41
	194 Dec 07 j 16:55	0°♏	
	195 Jan 02 j 13:21	0°♐	
	195 Jan 27 j 14:47	0°♑	
desc. node	195 Feb 13 j 02:33	19°♑57'26	
	195 Feb 21 j 09:01	0°♒	
	195 Mar 18 j 00:29	0°♓	
	195 Apr 11 j 14:54	0°♈	
	195 May 06 j 04:36	0°♉	
morning set	195 May 19 j 23:51	16°♉52'31	
	195 May 30 j 17:00	0°♊	
asc. node	195 Jun 06 j 05:38	8°♊00'14	
max. Earth dist.	195 Jun 22 j 16:32	28°♊13'28	1.73445 AU
	195 Jun 24 j 03:09	0°♋	
superior conj	195 Jun 25 j 07:01	1°♋25'49	0°43'05
minimum elong	195 Jun 24 j 23:29	1°♋02'36	0°42'46
	195 Jul 18 j 10:35	0°♌	
evening rise	195 Jul 31 j 02:24	15°♌40'13	
	195 Aug 11 j 15:55	0°♍	
	195 Sep 04 j 20:31	0°♎	
desc. node	195 Sep 25 j 19:24	25°♎57'17	
	195 Sep 29 j 01:52	0°♏	
	195 Oct 23 j 09:13	0°♐	
	195 Nov 16 j 20:29	0°♑	
	195 Dec 11 j 16:29	0°♒	

	196 Jan 06 j 09:01	0°♓	
asc. node	196 Jan 16 j 22:20	11°♓46'47	
evening max el	196 Feb 02 j 15:29	29°♓21'55	46°23'34
	196 Feb 03 j 06:45	0°♈	
greatest brilliancy	196 Mar 12 j 16:47	29°♈06'54	-4.8m
	196 Mar 15 j 07:13	0°♉	
retrograde	196 Mar 23 j 12:20	1°♉16'20	
	196 Mar 31 j 09:44	30°℞♈	
evening set	196 Apr 08 j 18:40	26°♈06'11	
inferior conj	196 Apr 13 j 20:41	22°♈58'35	5°10'00
minimum elong	196 Apr 14 j 05:49	22°♈44'11	5°07'53
min. Earth dist.	196 Apr 14 j 00:02	22°♈53'18	0.28895 AU
morning rise	196 Apr 19 j 17:13	19°♈25'01	
direct	196 May 05 j 08:34	14°♈41'06	
desc. node	196 May 07 j 11:48	14°♈46'23	
greatest brilliancy	196 May 15 j 10:45	16°♈31'52	-4.7m
	196 Jun 06 j 18:29	0°♉	
morning max el	196 Jun 23 j 04:24	14°♉28'50	45°45'19
	196 Jul 08 j 16:25	0°♊	
	196 Aug 05 j 02:40	0°♋	
asc. node	196 Aug 28 j 15:16	27°♋21'34	
	196 Aug 30 j 20:35	0°♌	
	196 Sep 24 j 15:53	0°♍	
	196 Oct 18 j 21:54	0°♎	
	196 Nov 11 j 21:12	0°♏	
	196 Dec 05 j 18:13	0°♐	
desc. node	196 Dec 18 j 04:47	15°♐38'00	
morning set	196 Dec 22 j 19:55	21°♐26'53	
	196 Dec 29 j 15:27	0°♑	
	197 Jan 22 j 14:09	0°♒	
superior conj	197 Feb 02 j 09:32	13°♒30'06	-1°22'01
minimum elong	197 Feb 02 j 03:16	13°♒10'32	1°21'56
max. Earth dist.	197 Feb 06 j 11:07	18°♒34'30	1.71946 AU
	197 Feb 15 j 15:13	0°♓	
	197 Mar 11 j 19:36	0°♈	
evening rise	197 Mar 14 j 01:12	2°♈45'37	
	197 Apr 05 j 04:09	0°♉	
asc. node	197 Apr 10 j 08:04	6°♉19'49	
	197 Apr 29 j 17:30	0°♊	
	197 May 24 j 12:24	0°♋	
	197 Jun 18 j 14:40	0°♌	
	197 Jul 14 j 04:29	0°♍	
desc. node	197 Jul 30 j 21:30	19°♍06'57	
	197 Aug 09 j 15:00	0°♎	
	197 Sep 07 j 00:00	0°♏	
evening max el	197 Sep 08 j 09:05	1°♏21'41	46°49'27
	197 Oct 14 j 23:12	0°♐	
greatest brilliancy	197 Oct 18 j 21:43	1°♐35'22	-4.9m
retrograde	197 Oct 28 j 11:59	3°♐18'43	
	197 Nov 10 j 08:17	30°℞♏	
evening set	197 Nov 11 j 21:49	29°♏11'42	
inferior conj	197 Nov 17 j 23:34	25°♏38'45	-0°47'26
minimum elong	197 Nov 18 j 01:23	25°♏35'59	0°46'52
min. Earth dist.	197 Nov 17 j 22:07	25°♏40'56	0.26352 AU
asc. node	197 Nov 21 j 00:31	23°♏48'59	
morning rise	197 Nov 24 j 05:02	22°♏01'48	
direct	197 Dec 08 j 08:09	18°♏03'30	
greatest brilliancy	197 Dec 18 j 09:15	19°♏59'13	-4.9m
	198 Jan 04 j 11:06	0°♐	
morning max el	198 Jan 27 j 16:36	20°♐53'27	46°44'11
	198 Feb 05 j 13:28	0°♑	
	198 Mar 04 j 21:10	0°♒	
desc. node	198 Mar 12 j 14:29	8°♒48'11	
	198 Mar 30 j 21:28	0°♓	
	198 Apr 25 j 08:10	0°♈	
	198 May 20 j 11:05	0°♉	
	198 Jun 14 j 07:49	0°♊	
asc. node	198 Jul 03 j 17:34	23°♊38'19	
	198 Jul 08 j 22:15	0°♋	
morning set	198 Jul 26 j 12:59	21°♋40'44	
	198 Aug 02 j 06:27	0°♌	
	198 Aug 26 j 09:26	0°♍	
max. Earth dist.	198 Aug 28 j 18:33	2°♍58'14	1.72058 AU
superior conj	198 Sep 01 j 10:28	7°♍32'42	1°24'06
minimum elong	198 Sep 01 j 12:38	7°♍39'27	1°24'07
	198 Sep 19 j 09:11	0°♎	
evening rise	198 Oct 10 j 04:13	26°♎03'28	
	198 Oct 13 j 07:41	0°♏	
desc. node	198 Oct 23 j 07:15	12°♏30'47	
	198 Nov 06 j 06:20	0°♐	
	198 Nov 30 j 06:14	0°♑	
	198 Dec 24 j 09:04	0°♒	
	199 Jan 17 j 18:10	0°♓	
	199 Feb 11 j 15:23	0°♈	
asc. node	199 Feb 13 j 10:16	2°♈07'13	
	199 Mar 09 j 11:07	0°♉	
	199 Apr 06 j 05:35	0°♊	
evening max el	199 Apr 14 j 10:34	8°♊07'49	45°23'35
	199 May 10 j 23:08	0°♋	
greatest brilliancy	199 May 22 j 04:00	5°♋44'11	-4.7m
retrograde	199 Jun 01 j 22:12	7°♋48'38	
desc. node	199 Jun 04 j 23:51	7°♋37'39	
evening set	199 Jun 17 j 04:58	3°♋22'15	
	199 Jun 22 j 21:08	30°℞♊	
inferior conj	199 Jun 23 j 09:53	29°♊40'07	-4°08'44
minimum elong	199 Jun 23 j 01:40	29°♊52'57	4°06'36
min. Earth dist.	199 Jun 23 j 12:28	29°♊36'07	0.28897 AU
morning rise	199 Jun 28 j 22:03	26°♊20'07	
direct	199 Jul 15 j 01:45	21°♊23'25	
greatest brilliancy	199 Jul 25 j 18:06	23°♊25'50	-4.8m
	199 Aug 07 j 06:02	0°♋	
morning max el	199 Sep 02 j 11:24	22°♋08'38	46°13'17
	199 Sep 10 j 06:30	0°♌	
asc. node	199 Sep 26 j 03:03	17°♌02'07	
	199 Oct 07 j 13:56	0°♍	
	199 Nov 01 j 23:23	0°♎	
	199 Nov 26 j 13:06	0°♏	
	199 Dec 20 j 18:41	0°♐	
	200 Jan 13 j 21:52	0°♑	
desc. node	200 Jan 15 j 16:47	2°♑13'23	
	200 Feb 07 j 01:17	0°♒	
	200 Mar 02 j 06:06	0°♓	
morning set	200 Mar 08 j 13:18	7°♓47'45	
	200 Mar 26 j 12:47	0°♈	
superior conj	200 Apr 15 j 10:50	24°♈32'23	-0°49'43
minimum elong	200 Apr 15 j 19:40	24°♈59'35	0°49'22
max. Earth dist.	200 Apr 17 j 00:20	26°♈27'42	1.73389 AU
	200 Apr 19 j 21:23	0°♉	
asc. node	200 May 07 j 19:52	22°♉02'25	
	200 May 14 j 07:31	0°♊	
evening rise	200 May 22 j 06:03	9°♊44'20	
	200 Jun 07 j 18:38	0°♋	
	200 Jul 02 j 06:44	0°♌	
	200 Jul 26 j 20:46	0°♍	
	200 Aug 20 j 14:31	0°♎	
desc. node	200 Aug 27 j 09:32	8°♎11'19	
	200 Sep 14 j 14:33	0°♏	
	200 Oct 10 j 01:43	0°♐	
	200 Nov 05 j 13:27	0°♑	
evening max el	200 Nov 19 j 20:12	15°♑08'41	47°22'37
	200 Dec 05 j 07:11	0°♒	

asc. node	200 Dec 18 j 12:34	10°♒29'34	
greatest brilliancy	200 Dec 30 j 11:39	17°♒01'10	-4.9m
retrograde	201 Jan 09 j 21:57	19°♒06'46	
evening set	201 Jan 27 j 01:28	13°♒20'35	
min. Earth dist.	201 Jan 29 j 23:15	11°♒32'47	0.27634 AU
inferior conj	201 Jan 30 j 20:31	10°♒59'20	8°17'22
minimum elong	201 Jan 30 j 14:27	11°♒08'53	8°16'47
morning rise	201 Feb 03 j 03:43	8°♒56'27	
direct	201 Feb 20 j 13:13	3°♒04'36	
greatest brilliancy	201 Mar 01 j 11:58	4°♒34'07	-4.8m
	201 Apr 06 j 19:51	0°♓	
desc. node	201 Apr 09 j 02:07	2°♓08'15	
morning max el	201 Apr 10 j 17:58	3°♓43'51	46°02'30
	201 May 06 j 05:31	0°♈	
	201 Jun 02 j 03:39	0°♉	
	201 Jun 28 j 00:13	0°♊	
	201 Jul 23 j 04:26	0°♋	
asc. node	201 Jul 31 j 05:24	9°♋43'19	
	201 Aug 16 j 19:57	0°♌	
	201 Sep 10 j 01:45	0°♍	
	201 Oct 04 j 01:11	0°♎	
morning set	201 Oct 05 j 05:29	1°♎28'51	
	201 Oct 27 j 21:31	0°♏	
superior conj	201 Nov 14 j 08:32	21°♏59'18	0°12'55
minimum elong	201 Nov 14 j 11:57	22°♏10'03	0°12'46
behind sun begin	201 Nov 13 j 19:13	21°♏17'21	
behind sun end	201 Nov 15 j 04:41	23°♏02'46	
max. Earth dist.	201 Nov 15 j 00:31	22°♏49'38	1.71024 AU
desc. node	201 Nov 19 j 19:06	28°♏50'21	
	201 Nov 20 j 17:13	0°♐	
	201 Dec 14 j 13:44	0°♑	
evening rise	201 Dec 26 j 04:26	14°♑34'28	
	202 Jan 07 j 12:05	0°♒	
	202 Jan 31 j 13:42	0°♓	
	202 Feb 24 j 20:51	0°♈	
asc. node	202 Mar 12 j 22:11	19°♈35'55	
	202 Mar 21 j 12:26	0°♉	
	202 Apr 15 j 16:15	0°♊	
	202 May 11 j 14:56	0°♋	
	202 Jun 08 j 00:49	0°♌	
evening max el	202 Jun 24 j 12:58	16°♌35'33	45°35'16
desc. node	202 Jul 02 j 11:48	23°♌56'07	
	202 Jul 09 j 14:15	0°♍	
greatest brilliancy	202 Aug 03 j 00:46	14°♍50'03	-4.8m
retrograde	202 Aug 12 j 10:10	16°♍25'54	
evening set	202 Aug 30 j 09:51	10°♍25'12	
inferior conj	202 Sep 02 j 10:54	8°♍34'49	-8°44'58
minimum elong	202 Sep 02 j 13:27	8°♍30'55	8°44'53
min. Earth dist.	202 Sep 03 j 04:21	8°♍08'09	0.27854 AU
morning rise	202 Sep 05 j 16:53	6°♍36'44	
direct	202 Sep 23 j 14:04	0°♍33'56	
greatest brilliancy	202 Oct 04 j 16:41	2°♍52'09	-4.9m
asc. node	202 Oct 23 j 14:42	14°♍39'59	
	202 Nov 09 j 11:43	0°♎	
morning max el	202 Nov 13 j 07:53	3°♎51'50	46°52'01
	202 Dec 07 j 09:35	0°♏	
	203 Jan 02 j 03:25	0°♐	
	203 Jan 27 j 03:34	0°♑	
desc. node	203 Feb 12 j 04:36	19°♑26'35	
	203 Feb 20 j 21:01	0°♒	
	203 Mar 17 j 11:57	0°♓	
	203 Apr 11 j 01:58	0°♈	
	203 May 05 j 15:24	0°♉	
morning set	203 May 17 j 18:02	14°♉48'34	
	203 May 30 j 03:39	0°♊	
asc. node	203 Jun 05 j 07:48	7°♊34'20	
max. Earth dist.	203 Jun 20 j 14:58	26°♊22'09	1.73472 AU
superior conj	203 Jun 23 j 01:25	29°♊22'02	0°40'22
minimum elong	203 Jun 22 j 18:13	28°♊59'51	0°40'03
	203 Jun 23 j 13:46	0°♋	
	203 Jul 17 j 21:16	0°♌	
evening rise	203 Jul 28 j 20:14	13°♌33'31	
	203 Aug 11 j 02:47	0°♍	
	203 Sep 04 j 07:39	0°♎	
desc. node	203 Sep 24 j 21:23	25°♎28'03	
	203 Sep 28 j 13:21	0°♏	
	203 Oct 22 j 21:08	0°♐	
	203 Nov 16 j 09:00	0°♑	
	203 Dec 11 j 06:01	0°♒	
	204 Jan 06 j 00:41	0°♓	
asc. node	204 Jan 16 j 00:24	11°♓05'23	
evening max el	204 Jan 31 j 07:51	27°♓09'32	46°26'07
	204 Feb 03 j 04:43	0°♈	
greatest brilliancy	204 Mar 10 j 09:40	26°♈57'30	-4.8m
retrograde	204 Mar 21 j 05:09	29°♈06'35	
evening set	204 Apr 06 j 13:46	23°♈52'52	
inferior conj	204 Apr 11 j 13:06	20°♈48'47	5°25'43
minimum elong	204 Apr 11 j 22:25	20°♈34'04	5°23'37
min. Earth dist.	204 Apr 11 j 15:48	20°♈44'30	0.28878 AU
morning rise	204 Apr 17 j 07:23	17°♈18'17	
direct	204 May 03 j 01:08	12°♈31'50	
desc. node	204 May 06 j 13:54	12°♈46'10	
greatest brilliancy	204 May 13 j 01:11	14°♈20'59	-4.7m
	204 Jun 07 j 02:05	0°♉	
morning max el	204 Jun 20 j 20:34	12°♉20'14	45°44'57
	204 Jul 08 j 09:54	0°♊	
	204 Aug 04 j 16:37	0°♋	
asc. node	204 Aug 27 j 17:16	26°♋50'16	
	204 Aug 30 j 09:02	0°♌	
	204 Sep 24 j 03:37	0°♍	
	204 Oct 18 j 09:16	0°♎	
	204 Nov 11 j 08:23	0°♏	
	204 Dec 05 j 05:16	0°♐	
desc. node	204 Dec 17 j 06:59	15°♐10'27	
morning set	204 Dec 20 j 05:48	18°♐52'51	
	204 Dec 29 j 02:22	0°♑	
	205 Jan 22 j 00:57	0°♒	
superior conj	205 Jan 30 j 21:21	11°♒03'32	-1°20'53
minimum elong	205 Jan 30 j 14:12	10°♒41'16	1°20'46
max. Earth dist.	205 Feb 04 j 01:49	16°♒17'07	1.71890 AU
	205 Feb 15 j 01:56	0°♓	
	205 Mar 11 j 06:19	0°♈	
evening rise	205 Mar 11 j 15:33	0°♈28'34	
	205 Apr 04 j 14:57	0°♉	
asc. node	205 Apr 09 j 10:05	5°♉52'50	
	205 Apr 29 j 04:31	0°♊	
	205 May 23 j 23:50	0°♋	
	205 Jun 18 j 02:53	0°♌	
	205 Jul 13 j 18:06	0°♍	
desc. node	205 Jul 29 j 23:34	18°♍30'16	
	205 Aug 09 j 07:22	0°♎	
evening max el	205 Sep 05 j 22:09	28°♎57'55	46°46'47
	205 Sep 06 j 23:32	0°♏	
greatest brilliancy	205 Oct 16 j 11:25	29°♏07'47	-4.9m
	205 Oct 19 j 10:32	0°♐	
retrograde	205 Oct 25 j 23:15	0°♐48'59	
	205 Nov 01 j 07:31	30°℞♏	
evening set	205 Nov 09 j 11:11	26°♏40'45	
inferior conj	205 Nov 15 j 11:33	23°♏09'46	-1°12'07
minimum elong	205 Nov 15 j 14:17	23°♏05'36	1°11'14
min. Earth dist.	205 Nov 15 j 12:06	23°♏08'56	0.26358 AU

asc. node	205 Nov 20 j 02:43	20°♏24'44		
morning rise	205 Nov 21 j 17:22	19°♏32'00		
direct	205 Dec 05 j 19:59	15°♏34'18		
greatest brilliancy	205 Dec 15 j 23:32	17°♏31'47	-4.9m	
	206 Jan 05 j 03:06	0°♐		
morning max el	206 Jan 25 j 04:39	18°♐25'35	46°45'32	
	206 Feb 05 j 09:11	0°♑		
	206 Mar 04 j 12:17	0°♒		
desc. node	206 Mar 11 j 16:29	8°♒12'35		
	206 Mar 30 j 10:34	0°♓		
	206 Apr 24 j 20:10	0°♈		
	206 May 19 j 22:27	0°♉		
	206 Jun 13 j 18:46	0°♊		
asc. node	206 Jul 02 j 19:39	23°♊11'44		
	206 Jul 08 j 09:00	0°♋		
morning set	206 Jul 24 j 06:15	19°♋32'53		
	206 Aug 01 j 17:06	0°♌		
	206 Aug 25 j 20:08	0°♍		
max. Earth dist.	206 Aug 26 j 09:15	0°♍40'55	1.72116 AU	
superior conj	206 Aug 30 j 02:23	5°♍19'05	1°24'25	
minimum elong	206 Aug 30 j 03:46	5°♍23'25	1°24'24	
	206 Sep 18 j 20:00	0°♎		
evening rise	206 Oct 07 j 16:24	23°♎37'02		
	206 Oct 12 j 18:39	0°♏		
desc. node	206 Oct 22 j 09:21	12°♏02'45		
	206 Nov 05 j 17:29	0°♐		
	206 Nov 29 j 17:36	0°♑		
	206 Dec 23 j 20:43	0°♒		
	207 Jan 17 j 06:14	0°♓		
	207 Feb 11 j 04:15	0°♈		
asc. node	207 Feb 12 j 12:16	1°♈34'51		
	207 Mar 09 j 01:43	0°♉		
	207 Apr 06 j 00:59	0°♊		
evening max el	207 Apr 12 j 01:22	5°♊55'19	45°24'41	
	207 May 12 j 04:41	0°♋		
greatest brilliancy	207 May 19 j 19:29	3°♋35'27	-4.7m	
retrograde	207 May 30 j 14:17	5°♋41'01		
desc. node	207 Jun 04 j 01:59	5°♋17'18		
evening set	207 Jun 14 j 19:53	1°♋15'46		
	207 Jun 17 j 01:18	30°℞♊		
inferior conj	207 Jun 21 j 02:15	27°♊31'55	-3°51'07	
minimum elong	207 Jun 20 j 18:29	27°♊44'01	3°49'04	
min. Earth dist.	207 Jun 21 j 05:02	27°♊27'35	0.28914 AU	
morning rise	207 Jun 26 j 16:43	24°♊08'39		
direct	207 Jul 12 j 17:44	19°♊14'40		
greatest brilliancy	207 Jul 23 j 11:07	21°♊17'49	-4.7m	
	207 Aug 08 j 01:28	0°♋		
morning max el	207 Aug 31 j 02:43	19°♋55'00	46°11'52	
	207 Sep 10 j 01:36	0°♌		
asc. node	207 Sep 25 j 05:06	16°♌22'56		
	207 Oct 07 j 04:43	0°♍		
	207 Nov 01 j 12:30	0°♎		
	207 Nov 26 j 01:23	0°♏		
	207 Dec 20 j 06:28	0°♐		
	208 Jan 13 j 09:19	0°♑		
desc. node	208 Jan 14 j 18:46	1°♑43'59		
	208 Feb 06 j 12:29	0°♒		
	208 Mar 01 j 17:04	0°♓		
morning set	208 Mar 06 j 03:28	5°♓29'20		
	208 Mar 25 j 23:34	0°♈		
superior conj	208 Apr 13 j 03:46	22°♈23'56	-0°52'21	
minimum elong	208 Apr 13 j 12:52	22°♈51'56	0°51'59	
max. Earth dist.	208 Apr 14 j 18:50	24°♈24'09	1.73353 AU	
	208 Apr 19 j 08:03	0°♉		
asc. node	208 May 06 j 22:04	21°♉36'24		
	208 May 13 j 18:11	0°♊		
evening rise	208 May 20 j 00:55	7°♊42'14		
	208 Jun 07 j 05:27	0°♋		
	208 Jul 01 j 17:51	0°♌		
	208 Jul 26 j 08:21	0°♍		
	208 Aug 20 j 02:46	0°♎		
desc. node	208 Aug 26 j 11:28	7°♎39'34		
	208 Sep 14 j 03:51	0°♏		
	208 Oct 09 j 16:47	0°♐		
	208 Nov 05 j 08:13	0°♑		
evening max el	208 Nov 17 j 10:36	12°♑45'41	47°23'11	
	208 Dec 05 j 15:30	0°♒		
asc. node	208 Dec 17 j 14:37	9°♒06'02		
greatest brilliancy	208 Dec 28 j 02:09	14°♒38'05	-4.9m	
retrograde	209 Jan 07 j 12:50	16°♒44'17		
evening set	209 Jan 24 j 12:26	11°♒03'07		
min. Earth dist.	209 Jan 27 j 12:44	9°♒11'55	0.27570 AU	
inferior conj	209 Jan 28 j 10:41	8°♒37'30	8°10'25	
minimum elong	209 Jan 28 j 03:57	8°♒48'04	8°09'41	
morning rise	209 Jan 31 j 19:45	6°♒32'10		
direct	209 Feb 18 j 02:36	0°♒43'35		
greatest brilliancy	209 Feb 27 j 01:18	2°♒13'27	-4.8m	
	209 Apr 06 j 20:06	0°♓		
desc. node	209 Apr 08 j 04:13	1°♓17'05		
morning max el	209 Apr 08 j 09:10	1°♓29'01	46°03'57	
	209 May 05 j 21:51	0°♈		
	209 Jun 01 j 17:13	0°♉		
	209 Jun 27 j 12:28	0°♊		
	209 Jul 22 j 16:00	0°♋		
asc. node	209 Jul 30 j 07:25	9°♋14'49		
	209 Aug 16 j 07:11	0°♌		
	209 Sep 09 j 12:50	0°♍		
morning set	209 Oct 02 j 19:05	29°♍06'13		
	209 Oct 03 j 12:13	0°♎		
	209 Oct 27 j 08:35	0°♏		
superior conj	209 Nov 11 j 18:34	19°♏24'46	0°16'50	
minimum elong	209 Nov 11 j 22:58	19°♏38'36	0°16'37	
max. Earth dist.	209 Nov 12 j 09:09	20°♏10'40	1.71030 AU	
desc. node	209 Nov 18 j 21:16	28°♏22'10		
	209 Nov 20 j 04:20	0°♐		
	209 Dec 14 j 00:54	0°♑		
evening rise	209 Dec 23 j 14:15	11°♑59'43		
	210 Jan 06 j 23:17	0°♒		
	210 Jan 31 j 01:00	0°♓		
	210 Feb 24 j 08:22	0°♈		
asc. node	210 Mar 12 j 00:15	19°♈06'30		
	210 Mar 21 j 00:22	0°♉		
	210 Apr 15 j 05:00	0°♊		
	210 May 11 j 05:19	0°♋		
	210 Jun 07 j 19:07	0°♌		
evening max el	210 Jun 22 j 04:19	14°♌22'35	45°33'38	
desc. node	210 Jul 01 j 13:48	22°♌59'16		
	210 Jul 10 j 00:52	0°♍		
greatest brilliancy	210 Jul 31 j 12:39	12°♍31'02	-4.8m	
retrograde	210 Aug 09 j 23:58	14°♍07'58		
evening set	210 Aug 27 j 23:52	8°♍06'54		
inferior conj	210 Aug 31 j 01:02	6°♍16'05	-8°46'38	
minimum elong	210 Aug 31 j 02:43	6°♍13'30	8°46'35	
min. Earth dist.	210 Aug 31 j 17:29	5°♍50'53	0.27916 AU	
morning rise	210 Sep 03 j 05:24	4°♍20'13		
	210 Sep 11 j 21:35	30°℞♌		
direct	210 Sep 21 j 05:36	28°♌14'33		
	210 Sep 30 j 21:00	0°♍		
greatest brilliancy	210 Oct 02 j 06:39	0°♍31'18	-4.9m	
asc. node	210 Oct 22 j 16:56	13°♍31'18		
	210 Nov 09 j 11:10	0°♎		

morning max el	210 Nov 10 j 22:31	1°♎29'40	46°51'02
	210 Dec 07 j 02:17	0°♏	
	211 Jan 01 j 17:43	0°♐	
	211 Jan 26 j 16:36	0°♑	
desc. node	211 Feb 11 j 06:39	18°♑54'56	
	211 Feb 20 j 09:15	0°♒	
	211 Mar 16 j 23:38	0°♓	
	211 Apr 10 j 13:17	0°♈	
	211 May 05 j 02:28	0°♉	
morning set	211 May 15 j 12:16	12°♉43'53	
	211 May 29 j 14:34	0°♊	
asc. node	211 Jun 04 j 09:51	7°♊07'13	
max. Earth dist.	211 Jun 18 j 11:50	24°♊25'16	1.73492 AU
superior conj	211 Jun 20 j 20:04	27°♊18'17	0°37'36
minimum elong	211 Jun 20 j 13:14	26°♊57'15	0°37'18
	211 Jun 23 j 00:37	0°♋	
	211 Jul 17 j 08:11	0°♌	
evening rise	211 Jul 26 j 14:27	11°♌27'22	
	211 Aug 10 j 13:51	0°♍	
	211 Sep 03 j 19:01	0°♎	
desc. node	211 Sep 23 j 23:32	24°♎58'34	
	211 Sep 28 j 01:07	0°♏	
	211 Oct 22 j 09:24	0°♐	
	211 Nov 15 j 21:57	0°♑	
	211 Dec 10 j 20:05	0°♒	
	212 Jan 05 j 17:06	0°♓	
asc. node	212 Jan 15 j 02:24	10°♓21'58	
evening max el	212 Jan 28 j 23:19	24°♓53'11	46°28'44
	212 Feb 03 j 04:12	0°♈	
greatest brilliancy	212 Mar 08 j 03:02	24°♈47'01	-4.8m
retrograde	212 Mar 18 j 21:23	26°♈55'06	
evening set	212 Apr 04 j 08:49	21°♈37'48	
inferior conj	212 Apr 09 j 05:25	18°♈37'24	5°41'01
minimum elong	212 Apr 09 j 14:51	18°♈22'26	5°38'57
min. Earth dist.	212 Apr 09 j 07:44	18°♈33'43	0.28858 AU
morning rise	212 Apr 14 j 21:13	15°♈10'02	
direct	212 Apr 30 j 17:15	10°♈20'58	
desc. node	212 May 05 j 16:06	10°♈48'47	
greatest brilliancy	212 May 10 j 15:53	12°♈08'47	-4.7m
	212 Jun 07 j 08:01	0°♉	
morning max el	212 Jun 18 j 11:50	10°♉08'07	45°44'47
	212 Jul 08 j 03:24	0°♊	
	212 Aug 04 j 06:46	0°♋	
asc. node	212 Aug 26 j 19:20	26°♋18'21	
	212 Aug 29 j 21:44	0°♌	
	212 Sep 23 j 15:36	0°♍	
	212 Oct 17 j 20:55	0°♎	
	212 Nov 10 j 19:52	0°♏	
	212 Dec 04 j 16:39	0°♐	
desc. node	212 Dec 16 j 08:58	14°♐41'02	
morning set	212 Dec 17 j 15:23	16°♐16'37	
	212 Dec 28 j 13:41	0°♑	
	213 Jan 21 j 12:11	0°♒	
superior conj	213 Jan 28 j 08:32	8°♒33'33	-1°19'33
minimum elong	213 Jan 28 j 00:35	8°♒08'44	1°19'25
max. Earth dist.	213 Feb 01 j 13:54	13°♒49'59	1.71834 AU
	213 Feb 14 j 13:08	0°♓	
evening rise	213 Mar 09 j 05:10	28°♓07'40	
	213 Mar 10 j 17:30	0°♈	
	213 Apr 04 j 02:12	0°♉	
asc. node	213 Apr 08 j 12:15	5°♉24'54	
	213 Apr 28 j 16:00	0°♊	
	213 May 23 j 11:47	0°♋	
	213 Jun 17 j 15:39	0°♌	
	213 Jul 13 j 08:18	0°♍	
desc. node	213 Jul 29 j 01:36	17°♍52'03	
	213 Aug 09 j 00:26	0°♎	
evening max el	213 Sep 03 j 10:21	26°♎31'26	46°44'17
	213 Sep 07 j 00:30	0°♏	
greatest brilliancy	213 Oct 14 j 01:14	26°♏40'09	-4.9m
retrograde	213 Oct 23 j 10:41	28°♏19'35	
evening set	213 Nov 07 j 00:55	24°♏09'21	
inferior conj	213 Nov 12 j 23:47	20°♏40'51	-1°36'26
minimum elong	213 Nov 13 j 03:26	20°♏35'18	1°35'15
min. Earth dist.	213 Nov 13 j 02:18	20°♏37'02	0.26373 AU
morning rise	213 Nov 19 j 05:44	17°♏02'40	
asc. node	213 Nov 19 j 04:43	17°♏04'01	
direct	213 Dec 03 j 07:52	13°♏04'49	
greatest brilliancy	213 Dec 13 j 14:22	15°♏04'41	-4.9m
	214 Jan 05 j 15:24	0°♐	
morning max el	214 Jan 22 j 17:07	15°♐57'31	46°46'34
	214 Feb 05 j 04:46	0°♑	
	214 Mar 04 j 03:42	0°♒	
desc. node	214 Mar 10 j 18:35	7°♒36'08	
	214 Mar 30 j 00:05	0°♓	
	214 Apr 24 j 08:38	0°♈	
	214 May 19 j 10:14	0°♉	
	214 Jun 13 j 06:08	0°♊	
asc. node	214 Jul 01 j 21:36	22°♊43'32	
	214 Jul 07 j 20:08	0°♋	
morning set	214 Jul 21 j 23:27	17°♋23'37	
	214 Aug 01 j 04:10	0°♌	
max. Earth dist.	214 Aug 24 j 01:38	28°♌27'43	1.72170 AU
	214 Aug 25 j 07:13	0°♍	
superior conj	214 Aug 27 j 18:27	3°♍04'48	1°24'35
minimum elong	214 Aug 27 j 19:03	3°♍06'42	1°24'34
	214 Sep 18 j 07:10	0°♎	
evening rise	214 Oct 05 j 05:03	21°♎11'08	
	214 Oct 12 j 05:56	0°♏	
desc. node	214 Oct 21 j 11:30	11°♏33'55	
	214 Nov 05 j 04:55	0°♐	
	214 Nov 29 j 05:14	0°♑	
	214 Dec 23 j 08:39	0°♒	
	215 Jan 16 j 18:39	0°♓	
	215 Feb 10 j 17:34	0°♈	
asc. node	215 Feb 11 j 14:21	1°♈01'24	
	215 Mar 08 j 16:59	0°♉	
	215 Apr 05 j 21:37	0°♊	
evening max el	215 Apr 09 j 16:30	3°♊42'09	45°25'53
	215 May 14 j 01:46	0°♋	
greatest brilliancy	215 May 17 j 10:28	1°♋24'27	-4.7m
retrograde	215 May 28 j 06:42	3°♋31'31	
desc. node	215 Jun 03 j 03:57	2°♋50'25	
	215 Jun 10 j 18:21	30°℞♊	
evening set	215 Jun 12 j 10:47	29°♊07'13	
inferior conj	215 Jun 18 j 18:24	25°♊21'46	-3°33'01
minimum elong	215 Jun 18 j 11:06	25°♊33'05	3°31'04
min. Earth dist.	215 Jun 18 j 21:05	25°♊17'35	0.28928 AU
morning rise	215 Jun 24 j 11:06	21°♊55'34	
direct	215 Jul 10 j 09:53	17°♊04'05	
greatest brilliancy	215 Jul 21 j 03:29	19°♊07'40	-4.7m
	215 Aug 08 j 16:36	0°♋	
morning max el	215 Aug 28 j 18:43	17°♋42'06	46°10'30
	215 Sep 09 j 20:36	0°♌	
asc. node	215 Sep 24 j 07:15	15°♌43'28	
	215 Oct 06 j 19:40	0°♍	
	215 Nov 01 j 01:48	0°♎	
	215 Nov 25 j 13:50	0°♏	
	215 Dec 19 j 18:24	0°♐	
	216 Jan 12 j 20:55	0°♑	
desc. node	216 Jan 13 j 20:50	1°♑14'25	

	216 Feb 05 j 23:50	0°♒	
	216 Mar 01 j 04:14	0°♓	
morning set	216 Mar 03 j 17:31	3°♓09'47	
	216 Mar 25 j 10:35	0°♈	
superior conj	216 Apr 10 j 20:21	20°♈13'32	-0°54'55
minimum elong	216 Apr 11 j 05:40	20°♈42'13	0°54'34
max. Earth dist.	216 Apr 12 j 13:48	22°♈21'06	1.73324 AU
	216 Apr 18 j 19:00	0°♉	
asc. node	216 May 06 j 00:04	21°♉08'55	
	216 May 13 j 05:09	0°♊	
evening rise	216 May 17 j 19:23	5°♊38'02	
	216 Jun 06 j 16:33	0°♋	
	216 Jul 01 j 05:15	0°♌	
	216 Jul 25 j 20:13	0°♍	
	216 Aug 19 j 15:20	0°♎	
desc. node	216 Aug 25 j 13:38	7°♎07'35	
	216 Sep 13 j 17:30	0°♏	
	216 Oct 09 j 08:15	0°♐	
	216 Nov 05 j 03:39	0°♑	
evening max el	216 Nov 15 j 02:06	10°♑25'12	47°23'49
	216 Dec 06 j 02:48	0°♒	
asc. node	216 Dec 16 j 16:37	7°♒39'40	
greatest brilliancy	216 Dec 25 j 16:20	12°♒14'40	-4.9m
retrograde	217 Jan 05 j 04:08	14°♒21'50	
evening set	217 Jan 21 j 23:25	8°♒46'01	
min. Earth dist.	217 Jan 25 j 01:59	6°♒51'39	0.27503 AU
inferior conj	217 Jan 26 j 00:55	6°♒15'46	8°02'37
minimum elong	217 Jan 25 j 17:34	6°♒27'17	8°01'44
morning rise	217 Jan 29 j 12:04	4°♒07'41	
	217 Feb 06 j 19:51	30°℞♑	
direct	217 Feb 15 j 16:39	28°♑23'00	
greatest brilliancy	217 Feb 24 j 14:07	29°♑52'28	-4.8m
	217 Feb 24 j 23:19	0°♒	
morning max el	217 Apr 06 j 00:33	29°♒14'41	46°05'08
	217 Apr 06 j 19:15	0°♓	
desc. node	217 Apr 07 j 06:24	0°♓27'08	
	217 May 05 j 13:58	0°♈	
	217 Jun 01 j 06:49	0°♉	
	217 Jun 27 j 00:50	0°♊	
	217 Jul 22 j 03:42	0°♋	
asc. node	217 Jul 29 j 09:33	8°♋46'14	
	217 Aug 15 j 18:31	0°♌	
	217 Sep 08 j 24:00	0°♍	
morning set	217 Sep 30 j 08:38	26°♍43'19	
	217 Oct 02 j 23:20	0°♎	
	217 Oct 26 j 19:43	0°♏	
superior conj	217 Nov 09 j 04:42	16°♏50'28	0°20'42
minimum elong	217 Nov 09 j 10:02	17°♏07'12	0°20'26
max. Earth dist.	217 Nov 09 j 16:09	17°♏26'29	1.71035 AU
desc. node	217 Nov 17 j 23:14	27°♏53'12	
	217 Nov 19 j 15:31	0°♐	
	217 Dec 13 j 12:06	0°♑	
evening rise	217 Dec 21 j 00:05	9°♑24'56	
	218 Jan 06 j 10:29	0°♒	
	218 Jan 30 j 12:16	0°♓	
	218 Feb 23 j 19:48	0°♈	
asc. node	218 Mar 11 j 02:25	18°♈37'38	
	218 Mar 20 j 12:14	0°♉	
	218 Apr 14 j 17:45	0°♊	
	218 May 10 j 19:51	0°♋	
	218 Jun 07 j 13:56	0°♌	
evening max el	218 Jun 19 j 19:17	12°♌08'27	45°31'51
desc. node	218 Jun 30 j 15:53	22°♌01'01	
	218 Jul 10 j 15:18	0°♍	
greatest brilliancy	218 Jul 29 j 01:12	10°♍12'30	-4.8m
retrograde	218 Aug 07 j 13:19	11°♍49'49	
evening set	218 Aug 25 j 13:26	5°♍49'19	
inferior conj	218 Aug 28 j 15:08	3°♍57'24	-8°47'19
minimum elong	218 Aug 28 j 15:57	3°♍56'09	8°47'19
min. Earth dist.	218 Aug 29 j 06:52	3°♍33'14	0.27973 AU
morning rise	218 Aug 31 j 18:18	2°♍03'03	
	218 Sep 04 j 09:13	30°℞♌	
direct	218 Sep 18 j 20:32	25°♌55'15	
greatest brilliancy	218 Sep 29 j 20:48	28°♌10'41	-4.9m
	218 Oct 03 j 21:56	0°♍	
asc. node	218 Oct 21 j 18:57	12°♍24'09	
morning max el	218 Nov 08 j 12:02	29°♍04'49	46°50'05
	218 Nov 09 j 09:37	0°♎	
	218 Dec 06 j 18:37	0°♏	
	219 Jan 01 j 07:45	0°♐	
	219 Jan 26 j 05:25	0°♑	
desc. node	219 Feb 10 j 08:46	18°♑24'02	
	219 Feb 19 j 21:17	0°♒	
	219 Mar 16 j 11:06	0°♓	
	219 Apr 10 j 00:22	0°♈	
	219 May 04 j 13:18	0°♉	
morning set	219 May 13 j 06:44	10°♉40'40	
	219 May 29 j 01:17	0°♊	
asc. node	219 Jun 03 j 11:53	6°♊40'35	
max. Earth dist.	219 Jun 16 j 07:47	22°♊26'12	1.73519 AU
superior conj	219 Jun 18 j 14:53	25°♊15'37	0°34'48
minimum elong	219 Jun 18 j 08:28	24°♊55'51	0°34'32
	219 Jun 22 j 11:19	0°♋	
	219 Jul 16 j 18:58	0°♌	
evening rise	219 Jul 24 j 08:42	9°♌21'43	
	219 Aug 10 j 00:50	0°♍	
	219 Sep 03 j 06:17	0°♎	
desc. node	219 Sep 23 j 01:37	24°♎29'14	
	219 Sep 27 j 12:46	0°♏	
	219 Oct 21 j 21:32	0°♐	
	219 Nov 15 j 10:47	0°♑	
	219 Dec 10 j 10:05	0°♒	
	220 Jan 05 j 09:34	0°♓	
asc. node	220 Jan 14 j 04:34	9°♓39'11	
evening max el	220 Jan 26 j 14:03	22°♓35'36	46°31'24
	220 Feb 03 j 04:27	0°♈	
greatest brilliancy	220 Mar 05 j 20:53	22°♈38'09	-4.8m
retrograde	220 Mar 16 j 13:37	24°♈45'08	
evening set	220 Apr 02 j 04:04	19°♈24'11	
inferior conj	220 Apr 06 j 21:57	16°♈27'38	5°55'39
minimum elong	220 Apr 07 j 07:28	16°♈12'33	5°53'39
min. Earth dist.	220 Apr 07 j 00:04	16°♈24'17	0.28835 AU
morning rise	220 Apr 12 j 11:08	13°♈03'38	
direct	220 Apr 28 j 09:02	8°♈11'43	
desc. node	220 May 04 j 18:00	8°♈57'07	
greatest brilliancy	220 May 08 j 07:11	9°♈58'44	-4.7m
	220 Jun 07 j 11:25	0°♉	
morning max el	220 Jun 16 j 02:39	7°♉56'08	45°44'37
	220 Jul 07 j 20:07	0°♊	
	220 Aug 03 j 20:27	0°♋	
asc. node	220 Aug 25 j 21:29	25°♋47'35	
	220 Aug 29 j 10:06	0°♌	
	220 Sep 23 j 03:21	0°♍	
	220 Oct 17 j 08:21	0°♎	
	220 Nov 10 j 07:06	0°♏	
	220 Dec 04 j 03:46	0°♐	
morning set	220 Dec 15 j 00:52	13°♐40'48	
desc. node	220 Dec 15 j 11:02	14°♐12'46	
	220 Dec 28 j 00:41	0°♑	
	221 Jan 20 j 23:08	0°♒	

superior conj	221 Jan 25 j 19:41	6°♒04'19	-1°18'04
minimum elong	221 Jan 25 j 10:59	5°♒37'10	1°17'54
max. Earth dist.	221 Jan 29 j 23:39	11°♒16'34	1.71779 AU
	221 Feb 14 j 00:01	0°♓	
evening rise	221 Mar 06 j 18:50	25°♓47'50	
	221 Mar 10 j 04:22	0°♈	
	221 Apr 03 j 13:08	0°♉	
asc. node	221 Apr 07 j 14:18	4°♉57'37	
	221 Apr 28 j 03:07	0°♊	
	221 May 22 j 23:20	0°♋	
	221 Jun 17 j 04:02	0°♌	
	221 Jul 12 j 22:13	0°♍	
desc. node	221 Jul 28 j 03:44	17°♍14'53	
	221 Aug 08 j 17:28	0°♎	
evening max el	221 Aug 31 j 22:13	24°♎05'06	46°41'32
	221 Sep 07 j 02:30	0°♏	
greatest brilliancy	221 Oct 11 j 14:32	24°♏12'12	-4.9m
retrograde	221 Oct 20 j 22:15	25°♏50'28	
evening set	221 Nov 04 j 14:38	21°♏37'38	
inferior conj	221 Nov 10 j 11:48	18°♏11'58	-2°00'36
minimum elong	221 Nov 10 j 16:20	18°♏05'05	1°59'10
min. Earth dist.	221 Nov 10 j 16:09	18°♏05'21	0.26392 AU
morning rise	221 Nov 16 j 17:42	14°♏33'59	
asc. node	221 Nov 18 j 06:45	13°♏46'51	
direct	221 Nov 30 j 19:46	10°♏35'13	
greatest brilliancy	221 Dec 11 j 04:52	12°♏37'37	-4.9m
	222 Jan 06 j 00:17	0°♐	
morning max el	222 Jan 20 j 06:14	13°♐31'49	46°47'46
	222 Feb 04 j 23:30	0°♑	
	222 Mar 03 j 18:32	0°♒	
desc. node	222 Mar 09 j 20:43	7°♒01'07	
	222 Mar 29 j 13:07	0°♓	
	222 Apr 23 j 20:37	0°♈	
	222 May 18 j 21:34	0°♉	
	222 Jun 12 j 17:03	0°♊	
asc. node	222 Jun 30 j 23:50	22°♊17'30	
	222 Jul 07 j 06:49	0°♋	
morning set	222 Jul 19 j 17:12	15°♋17'31	
	222 Jul 31 j 14:47	0°♌	
max. Earth dist.	222 Aug 21 j 20:06	26°♌22'24	1.72229 AU
	222 Aug 24 j 17:53	0°♍	
superior conj	222 Aug 25 j 10:53	0°♍53'02	1°24'36
minimum elong	222 Aug 25 j 10:44	0°♍52'34	1°24'37
	222 Sep 17 j 17:58	0°♎	
evening rise	222 Oct 02 j 17:53	18°♎46'51	
	222 Oct 11 j 16:54	0°♏	
desc. node	222 Oct 20 j 13:28	11°♏05'28	
	222 Nov 04 j 16:06	0°♐	
	222 Nov 28 j 16:39	0°♑	
	222 Dec 22 j 20:21	0°♒	
	223 Jan 16 j 06:50	0°♓	
	223 Feb 10 j 06:40	0°♈	
asc. node	223 Feb 10 j 16:29	0°♈29'00	
	223 Mar 08 j 08:04	0°♉	
	223 Apr 05 j 18:27	0°♊	
evening max el	223 Apr 07 j 08:36	1°♊32'33	45°27'15
greatest brilliancy	223 May 15 j 01:42	29°♊15'29	-4.7m
	223 May 17 j 05:57	0°♋	
retrograde	223 May 25 j 23:39	1°♋23'53	
desc. node	223 Jun 02 j 06:05	0°♋20'54	
	223 Jun 03 j 09:02	30°℞♊	
evening set	223 Jun 10 j 02:09	27°♊00'33	
inferior conj	223 Jun 16 j 10:44	23°♊13'31	-3°14'48
minimum elong	223 Jun 16 j 03:59	23°♊24'02	3°12'57
min. Earth dist.	223 Jun 16 j 13:05	23°♊09'53	0.28937 AU
morning rise	223 Jun 22 j 05:36	19°♊44'36	
direct	223 Jul 08 j 02:40	14°♊55'41	
greatest brilliancy	223 Jul 18 j 19:19	16°♊58'54	-4.7m
	223 Aug 09 j 03:04	0°♋	
morning max el	223 Aug 26 j 11:11	15°♋32'14	46°09'05
	223 Sep 09 j 14:33	0°♌	
asc. node	223 Sep 23 j 09:18	15°♌05'33	
	223 Oct 06 j 09:57	0°♍	
	223 Oct 31 j 14:38	0°♎	
	223 Nov 25 j 01:56	0°♏	
	223 Dec 19 j 06:05	0°♐	
	224 Jan 12 j 08:17	0°♑	
desc. node	224 Jan 12 j 23:01	0°♑45'51	
	224 Feb 05 j 10:58	0°♒	
	224 Feb 29 j 15:08	0°♓	
morning set	224 Mar 01 j 07:08	0°♓49'33	
	224 Mar 24 j 21:19	0°♈	
superior conj	224 Apr 08 j 12:43	18°♈03'15	-0°57'25
minimum elong	224 Apr 08 j 22:13	18°♈32'29	0°57'05
max. Earth dist.	224 Apr 10 j 10:31	20°♈24'16	1.73288 AU
	224 Apr 18 j 05:39	0°♉	
asc. node	224 May 05 j 02:07	20°♉42'26	
	224 May 12 j 15:49	0°♊	
evening rise	224 May 15 j 13:55	3°♊34'56	
	224 Jun 06 j 03:22	0°♋	
	224 Jun 30 j 16:20	0°♌	
	224 Jul 25 j 07:44	0°♍	
	224 Aug 19 j 03:33	0°♎	
desc. node	224 Aug 24 j 15:44	6°♎36'37	
	224 Sep 13 j 06:50	0°♏	
	224 Oct 08 j 23:34	0°♐	
	224 Nov 04 j 23:20	0°♑	
evening max el	224 Nov 12 j 17:50	8°♑05'56	47°23'54
	224 Dec 06 j 17:46	0°♒	
asc. node	224 Dec 15 j 18:48	6°♒10'28	
greatest brilliancy	224 Dec 23 j 06:27	9°♒50'50	-4.9m
retrograde	225 Jan 02 j 19:03	11°♒58'16	
evening set	225 Jan 19 j 09:55	6°♒28'21	
min. Earth dist.	225 Jan 22 j 15:03	4°♒30'11	0.27437 AU
inferior conj	225 Jan 23 j 14:48	3°♒53'03	7°53'50
minimum elong	225 Jan 23 j 06:52	4°♒05'28	7°52'46
morning rise	225 Jan 27 j 04:15	1°♒41'45	
	225 Jan 30 j 04:10	30°℞♑	
direct	225 Feb 13 j 06:34	26°♑01'38	
greatest brilliancy	225 Feb 22 j 02:39	27°♑30'21	-4.8m
	225 Feb 28 j 04:24	0°♒	
morning max el	225 Apr 03 j 15:05	26°♒58'18	46°06'27
desc. node	225 Apr 06 j 08:21	29°♒37'43	
	225 Apr 06 j 17:24	0°♓	
	225 May 05 j 05:39	0°♈	
	225 May 31 j 20:05	0°♉	
	225 Jun 26 j 12:55	0°♊	
	225 Jul 21 j 15:08	0°♋	
asc. node	225 Jul 28 j 11:38	8°♋18'16	
	225 Aug 15 j 05:36	0°♌	
	225 Sep 08 j 10:53	0°♍	
morning set	225 Sep 27 j 22:49	24°♍23'13	
	225 Oct 02 j 10:09	0°♎	
	225 Oct 26 j 06:34	0°♏	
superior conj	225 Nov 06 j 15:29	14°♏19'03	0°24'27
minimum elong	225 Nov 06 j 21:40	14°♏38'29	0°24'10
max. Earth dist.	225 Nov 06 j 22:00	14°♏39'32	1.71045 AU
desc. node	225 Nov 17 j 01:20	27°♏25'28	
	225 Nov 19 j 02:26	0°♐	
	225 Dec 12 j 23:05	0°♑	
evening rise	225 Dec 18 j 10:00	6°♑50'53	

	226 Jan 05 j 21:34	0°♒	
	226 Jan 29 j 23:27	0°♓	
	226 Feb 23 j 07:14	0°♈	
asc. node	226 Mar 10 j 04:24	18°♈08'16	
	226 Mar 20 j 00:08	0°♉	
	226 Apr 14 j 06:31	0°♊	
	226 May 10 j 10:27	0°♋	
	226 Jun 07 j 09:08	0°♌	
evening max el	226 Jun 17 j 09:29	9°♌52'58	45°30'16
desc. node	226 Jun 29 j 18:02	21°♌02'06	
	226 Jul 11 j 10:12	0°♍	
greatest brilliancy	226 Jul 26 j 14:32	7°♍55'45	-4.8m
retrograde	226 Aug 05 j 02:36	9°♍33'04	
evening set	226 Aug 23 j 02:49	3°♍33'42	
inferior conj	226 Aug 26 j 05:30	1°♍40'11	-8°47'12
minimum elong	226 Aug 26 j 05:25	1°♍40'19	8°47'13
min. Earth dist.	226 Aug 26 j 20:51	1°♍16'34	0.28026 AU
	226 Aug 28 j 23:02	30°℞♌	
morning rise	226 Aug 29 j 07:50	29°♌46'47	
direct	226 Sep 16 j 11:09	23°♌37'12	
greatest brilliancy	226 Sep 27 j 11:42	25°♌52'05	-4.9m
	226 Oct 05 j 16:40	0°♍	
asc. node	226 Oct 20 j 20:58	11°♍19'32	
morning max el	226 Nov 06 j 01:05	26°♍39'35	46°49'14
	226 Nov 09 j 06:57	0°♎	
	226 Dec 06 j 10:27	0°♏	
	226 Dec 31 j 21:28	0°♐	
	227 Jan 25 j 18:01	0°♑	
desc. node	227 Feb 09 j 10:48	17°♑53'12	
	227 Feb 19 j 09:12	0°♒	
	227 Mar 15 j 22:34	0°♓	
	227 Apr 09 j 11:30	0°♈	
	227 May 04 j 00:12	0°♉	
morning set	227 May 11 j 00:45	8°♉35'45	
	227 May 28 j 12:02	0°♊	
asc. node	227 Jun 02 j 14:03	6°♊14'17	
max. Earth dist.	227 Jun 14 j 03:14	20°♊25'32	1.73540 AU
superior conj	227 Jun 16 j 09:23	23°♊12'01	0°31'57
minimum elong	227 Jun 16 j 03:24	22°♊53'37	0°31'40
	227 Jun 21 j 22:02	0°♋	
	227 Jul 16 j 05:45	0°♌	
evening rise	227 Jul 22 j 02:55	7°♌16'05	
	227 Aug 09 j 11:50	0°♍	
	227 Sep 02 j 17:35	0°♎	
desc. node	227 Sep 22 j 03:35	23°♎59'32	
	227 Sep 27 j 00:27	0°♏	
	227 Oct 21 j 09:42	0°♐	
	227 Nov 14 j 23:38	0°♑	
	227 Dec 10 j 00:09	0°♒	
	228 Jan 05 j 02:18	0°♓	
asc. node	228 Jan 13 j 06:38	8°♓55'42	
evening max el	228 Jan 24 j 03:48	20°♓15'21	46°33'53
	228 Feb 03 j 06:01	0°♈	
greatest brilliancy	228 Mar 03 j 14:12	20°♈27'43	-4.8m
retrograde	228 Mar 14 j 05:38	22°♈34'08	
evening set	228 Mar 30 j 23:03	17°♈09'06	
inferior conj	228 Apr 04 j 14:16	14°♈16'38	6°09'54
minimum elong	228 Apr 04 j 23:47	14°♈01'31	6°07'58
min. Earth dist.	228 Apr 04 j 16:14	14°♈13'30	0.28817 AU
morning rise	228 Apr 10 j 00:43	10°♈56'19	
direct	228 Apr 26 j 00:18	6°♈00'54	
desc. node	228 May 03 j 20:09	7°♈08'25	
greatest brilliancy	228 May 05 j 22:43	7°♈47'49	-4.7m
	228 Jun 07 j 13:39	0°♉	
morning max el	228 Jun 13 j 17:45	5°♉43'58	45°44'37
	228 Jul 07 j 12:46	0°♊	
	228 Aug 03 j 10:11	0°♋	
asc. node	228 Aug 24 j 23:29	25°♋16'04	
	228 Aug 28 j 22:33	0°♌	
	228 Sep 22 j 15:10	0°♍	
	228 Oct 16 j 19:51	0°♎	
	228 Nov 09 j 18:27	0°♏	
	228 Dec 03 j 14:59	0°♐	
morning set	228 Dec 12 j 10:37	11°♐05'26	
desc. node	228 Dec 14 j 13:11	13°♐44'23	
	228 Dec 27 j 11:48	0°♑	
	229 Jan 20 j 10:09	0°♒	
superior conj	229 Jan 23 j 06:59	3°♒35'15	-1°16'26
minimum elong	229 Jan 22 j 21:35	3°♒05'52	1°16'13
max. Earth dist.	229 Jan 27 j 07:50	8°♒37'54	1.71724 AU
	229 Feb 13 j 11:00	0°♓	
evening rise	229 Mar 04 j 08:35	23°♓27'52	
	229 Mar 09 j 15:21	0°♈	
	229 Apr 03 j 00:13	0°♉	
asc. node	229 Apr 06 j 16:20	4°♉29'47	
	229 Apr 27 j 14:28	0°♊	
	229 May 22 j 11:11	0°♋	
	229 Jun 16 j 16:47	0°♌	
	229 Jul 12 j 12:35	0°♍	
desc. node	229 Jul 27 j 05:47	16°♍36'25	
	229 Aug 08 j 11:10	0°♎	
evening max el	229 Aug 29 j 10:39	21°♎39'49	46°39'00
	229 Sep 07 j 06:18	0°♏	
greatest brilliancy	229 Oct 09 j 03:12	21°♏43'11	-4.9m
retrograde	229 Oct 18 j 10:22	23°♏21'03	
evening set	229 Nov 02 j 04:32	19°♏05'09	
inferior conj	229 Nov 07 j 23:47	15°♏42'24	-2°24'32
minimum elong	229 Nov 08 j 05:10	15°♏34'14	2°22'51
min. Earth dist.	229 Nov 08 j 05:36	15°♏33'35	0.26415 AU
morning rise	229 Nov 14 j 05:27	12°♏05'08	
asc. node	229 Nov 17 j 08:58	10°♏33'22	
direct	229 Nov 28 j 08:13	8°♏04'58	
greatest brilliancy	229 Dec 08 j 18:49	10°♏09'16	-4.9m
	230 Jan 06 j 07:00	0°♐	
morning max el	230 Jan 17 j 20:27	11°♐08'12	46°48'57
	230 Feb 04 j 17:59	0°♑	
	230 Mar 03 j 09:23	0°♒	
desc. node	230 Mar 08 j 22:41	6°♒25'15	
	230 Mar 29 j 02:15	0°♓	
	230 Apr 23 j 08:47	0°♈	
	230 May 18 j 09:08	0°♉	
	230 Jun 12 j 04:16	0°♊	
asc. node	230 Jun 30 j 01:52	21°♊49'50	
	230 Jul 06 j 17:51	0°♋	
morning set	230 Jul 17 j 10:44	13°♋09'43	
	230 Jul 31 j 01:45	0°♌	
max. Earth dist.	230 Aug 19 j 12:50	24°♌10'45	1.72281 AU
superior conj	230 Aug 23 j 03:07	28°♌39'40	1°24'30
minimum elong	230 Aug 23 j 02:14	28°♌36'53	1°24'30
	230 Aug 24 j 04:53	0°♍	
	230 Sep 17 j 05:04	0°♎	
evening rise	230 Sep 30 j 06:38	16°♎21'26	
	230 Oct 11 j 04:10	0°♏	
desc. node	230 Oct 19 j 15:35	10°♏36'32	
	230 Nov 04 j 03:34	0°♐	
	230 Nov 28 j 04:22	0°♑	
	230 Dec 22 j 08:24	0°♒	
	231 Jan 15 j 19:22	0°♓	
asc. node	231 Feb 09 j 18:30	29°♓55'11	
	231 Feb 09 j 20:08	0°♈	
	231 Mar 07 j 23:40	0°♉	

evening max el	231 Apr 05 j 01:14	29°♉23'27	45°28'37
	231 Apr 05 j 16:24	0°♊	
greatest brilliancy	231 May 12 j 17:09	27°♊05'52	-4.7m
retrograde	231 May 23 j 16:23	29°♊14'56	
desc. node	231 Jun 01 j 08:11	27°♊45'35	
evening set	231 Jun 07 j 17:40	24°♊52'39	
inferior conj	231 Jun 14 j 03:01	21°♊04'04	-2°56'19
minimum elong	231 Jun 13 j 20:49	21°♊13'42	2°54'36
min. Earth dist.	231 Jun 14 j 05:00	21°♊00'58	0.28948 AU
morning rise	231 Jun 19 j 23:52	17°♊32'23	
direct	231 Jul 05 j 19:37	12°♊46'10	
greatest brilliancy	231 Jul 16 j 10:38	14°♊48'11	-4.7m
	231 Aug 09 j 11:22	0°♋	
morning max el	231 Aug 24 j 03:26	13°♋20'34	46°07'36
	231 Sep 09 j 08:36	0°♌	
asc. node	231 Sep 22 j 11:21	14°♌26'39	
	231 Oct 06 j 00:33	0°♍	
	231 Oct 31 j 03:46	0°♎	
	231 Nov 24 j 14:19	0°♏	
	231 Dec 18 j 18:01	0°♐	
	232 Jan 11 j 19:57	0°♑	
desc. node	232 Jan 12 j 00:58	0°♑15'38	
	232 Feb 04 j 22:23	0°♒	
morning set	232 Feb 27 j 20:39	28°♒27'59	
	232 Feb 29 j 02:21	0°♓	
	232 Mar 24 j 08:22	0°♈	
superior conj	232 Apr 06 j 05:04	15°♈51'51	-0°59'51
minimum elong	232 Apr 06 j 14:40	16°♈21'25	0°59'31
max. Earth dist.	232 Apr 08 j 08:07	18°♈29'05	1.73248 AU
	232 Apr 17 j 16:37	0°♉	
asc. node	232 May 04 j 04:18	20°♉15'30	
	232 May 12 j 02:48	0°♊	
evening rise	232 May 13 j 08:25	1°♊30'48	
	232 Jun 05 j 14:31	0°♋	
	232 Jun 30 j 03:47	0°♌	
	232 Jul 24 j 19:41	0°♍	
	232 Aug 18 j 16:16	0°♎	
desc. node	232 Aug 23 j 17:40	6°♎03'42	
	232 Sep 12 j 20:45	0°♏	
	232 Oct 08 j 15:34	0°♐	
	232 Nov 04 j 20:06	0°♑	
evening max el	232 Nov 10 j 09:11	5°♑44'30	47°24'02
	232 Dec 07 j 14:29	0°♒	
asc. node	232 Dec 14 j 20:49	4°♒36'42	
greatest brilliancy	232 Dec 20 j 21:06	7°♒26'28	-4.9m
retrograde	232 Dec 31 j 09:34	9°♒33'14	
evening set	233 Jan 16 j 20:21	4°♒09'36	
min. Earth dist.	233 Jan 20 j 04:25	2°♒06'59	0.27368 AU
inferior conj	233 Jan 21 j 04:36	1°♒29'08	7°44'13
minimum elong	233 Jan 20 j 20:11	1°♒42'20	7°42'59
	233 Jan 23 j 14:05	30°℞♑	
morning rise	233 Jan 24 j 20:30	29°♑14'13	
direct	233 Feb 10 j 20:08	23°♑39'07	
greatest brilliancy	233 Feb 19 j 15:30	25°♑07'14	-4.8m
	233 Mar 02 j 01:59	0°♒	
morning max el	233 Apr 01 j 04:44	24°♒38'34	46°07'49
desc. node	233 Apr 05 j 10:28	28°♒48'31	
	233 Apr 06 j 15:06	0°♓	
	233 May 04 j 21:26	0°♈	
	233 May 31 j 09:34	0°♉	
	233 Jun 26 j 01:14	0°♊	
	233 Jul 21 j 02:49	0°♋	
asc. node	233 Jul 27 j 13:39	7°♋49'17	
	233 Aug 14 j 16:58	0°♌	
	233 Sep 07 j 22:07	0°♍	
morning set	233 Sep 25 j 12:41	22°♍01'03	
	233 Oct 01 j 21:22	0°♎	
	233 Oct 25 j 17:49	0°♏	
superior conj	233 Nov 04 j 02:00	11°♏45'35	0°28'11
minimum elong	233 Nov 04 j 08:58	12°♏07'33	0°27'52
max. Earth dist.	233 Nov 04 j 00:30	11°♏40'54	1.71057 AU
desc. node	233 Nov 16 j 03:29	26°♏56'41	
	233 Nov 18 j 13:44	0°♐	
	233 Dec 12 j 10:25	0°♑	
evening rise	233 Dec 15 j 19:28	4°♑14'24	
	234 Jan 05 j 08:56	0°♒	
	234 Jan 29 j 10:57	0°♓	
	234 Feb 22 j 18:58	0°♈	
asc. node	234 Mar 09 j 06:29	17°♈38'19	
	234 Mar 19 j 12:20	0°♉	
	234 Apr 13 j 19:39	0°♊	
	234 May 10 j 01:30	0°♋	
	234 Jun 07 j 05:10	0°♌	
evening max el	234 Jun 14 j 23:03	7°♌35'28	45°28'50
desc. node	234 Jun 28 j 20:01	20°♌00'55	
	234 Jul 12 j 12:15	0°♍	
greatest brilliancy	234 Jul 24 j 03:43	5°♍38'25	-4.8m
retrograde	234 Aug 02 j 15:53	7°♍16'15	
evening set	234 Aug 20 j 15:48	1°♍18'16	
	234 Aug 22 j 19:38	30°℞♌	
inferior conj	234 Aug 23 j 19:56	29°♌22'39	-8°46'11
minimum elong	234 Aug 23 j 18:58	29°♌24'09	8°46'10
min. Earth dist.	234 Aug 24 j 11:01	28°♌59'26	0.28084 AU
morning rise	234 Aug 26 j 21:55	27°♌29'39	
direct	234 Sep 14 j 01:37	21°♌18'34	
greatest brilliancy	234 Sep 25 j 03:13	23°♌33'46	-4.9m
	234 Oct 06 j 22:26	0°♍	
asc. node	234 Oct 19 j 23:11	10°♍16'06	
morning max el	234 Nov 03 j 14:24	24°♍14'05	46°48'15
	234 Nov 09 j 03:57	0°♎	
	234 Dec 06 j 02:26	0°♏	
	234 Dec 31 j 11:26	0°♐	
	235 Jan 25 j 06:52	0°♑	
desc. node	235 Feb 08 j 12:52	17°♑21'44	
	235 Feb 18 j 21:19	0°♒	
	235 Mar 15 j 10:12	0°♓	
	235 Apr 08 j 22:47	0°♈	
	235 May 03 j 11:16	0°♉	
morning set	235 May 08 j 18:45	6°♉30'14	
	235 May 27 j 22:57	0°♊	
asc. node	235 Jun 01 j 16:05	5°♊47'05	
max. Earth dist.	235 Jun 11 j 23:34	18°♊27'06	1.73561 AU
superior conj	235 Jun 14 j 04:05	21°♊08'30	0°29'03
minimum elong	235 Jun 13 j 22:33	20°♊51'31	0°28'48
	235 Jun 21 j 08:54	0°♋	
	235 Jul 15 j 16:42	0°♌	
evening rise	235 Jul 19 j 21:29	5°♌11'17	
	235 Aug 08 j 22:57	0°♍	
	235 Sep 02 j 05:01	0°♎	
desc. node	235 Sep 21 j 05:46	23°♎30'01	
	235 Sep 26 j 12:18	0°♏	
	235 Oct 20 j 22:05	0°♐	
	235 Nov 14 j 12:48	0°♑	
	235 Dec 09 j 14:39	0°♒	
	236 Jan 04 j 19:40	0°♓	
asc. node	236 Jan 12 j 08:38	8°♓10'37	
evening max el	236 Jan 21 j 17:43	17°♓54'40	46°36'39
	236 Feb 03 j 09:24	0°♈	
greatest brilliancy	236 Mar 01 j 07:03	18°♈16'02	-4.8m
retrograde	236 Mar 11 j 22:02	20°♈22'38	
evening set	236 Mar 28 j 18:02	14°♈53'13	

inferior conj	236 Apr 02 j 06:32	12°♈05'00	6°23'41
minimum elong	236 Apr 02 j 16:01	11°♈49'58	6°21'50
min. Earth dist.	236 Apr 02 j 08:09	12°♈02'26	0.28795 AU
morning rise	236 Apr 07 j 14:11	8°♈48'49	
direct	236 Apr 23 j 15:32	3°♈49'29	
desc. node	236 May 02 j 22:18	5°♈23'20	
greatest brilliancy	236 May 03 j 14:04	5°♈36'29	-4.7m
	236 Jun 07 j 14:36	0°♉	
morning max el	236 Jun 11 j 09:44	3°♉33'48	45°44'43
	236 Jul 07 j 05:08	0°♊	
	236 Aug 02 j 23:48	0°♋	
asc. node	236 Aug 24 j 01:34	24°♋44'55	
	236 Aug 28 j 10:56	0°♌	
	236 Sep 22 j 02:56	0°♍	
	236 Oct 16 j 07:19	0°♎	
	236 Nov 09 j 05:45	0°♏	
	236 Dec 03 j 02:12	0°♐	
morning set	236 Dec 09 j 20:20	8°♐29'47	
desc. node	236 Dec 13 j 15:11	13°♐15'25	
	236 Dec 26 j 22:58	0°♑	
	237 Jan 19 j 21:16	0°♒	
superior conj	237 Jan 20 j 17:43	1°♒04'00	-1°14'36
minimum elong	237 Jan 20 j 07:41	0°♒32'35	1°14'22
max. Earth dist.	237 Jan 24 j 14:15	5°♒53'17	1.71674 AU
	237 Feb 12 j 22:03	0°♓	
evening rise	237 Mar 01 j 21:46	21°♓05'58	
	237 Mar 09 j 02:23	0°♈	
	237 Apr 02 j 11:19	0°♉	
asc. node	237 Apr 05 j 18:29	4°♉02'21	
	237 Apr 27 j 01:48	0°♊	
	237 May 21 j 23:02	0°♋	
	237 Jun 16 j 05:33	0°♌	
	237 Jul 12 j 03:01	0°♍	
desc. node	237 Jul 26 j 07:49	15°♍57'52	
	237 Aug 08 j 05:06	0°♎	
evening max el	237 Aug 27 j 00:17	19°♎18'15	46°36'31
	237 Sep 07 j 11:38	0°♏	
greatest brilliancy	237 Oct 06 j 15:31	19°♏15'04	-4.9m
retrograde	237 Oct 15 j 23:03	20°♏52'47	
evening set	237 Oct 30 j 18:49	16°♏33'51	
inferior conj	237 Nov 05 j 11:55	13°♏13'59	-2°48'02
minimum elong	237 Nov 05 j 18:07	13°♏04'36	2°46'07
min. Earth dist.	237 Nov 05 j 18:51	13°♏03'29	0.26442 AU
morning rise	237 Nov 11 j 17:06	9°♏37'45	
asc. node	237 Nov 16 j 10:56	7°♏26'35	
direct	237 Nov 25 j 21:17	5°♏36'07	
greatest brilliancy	237 Dec 06 j 08:21	7°♏41'23	-4.9m
	238 Jan 06 j 11:25	0°♐	
morning max el	238 Jan 15 j 11:07	8°♐46'10	46°49'48
	238 Feb 04 j 11:55	0°♑	
	238 Mar 03 j 00:00	0°♒	
desc. node	238 Mar 08 j 00:50	5°♒50'16	
	238 Mar 28 j 15:15	0°♓	
	238 Apr 22 j 20:49	0°♈	
	238 May 17 j 20:33	0°♉	
	238 Jun 11 j 15:17	0°♊	
asc. node	238 Jun 29 j 03:51	21°♊22'39	
	238 Jul 06 j 04:39	0°♋	
morning set	238 Jul 15 j 04:20	11°♋02'55	
	238 Jul 30 j 12:30	0°♌	
max. Earth dist.	238 Aug 17 j 03:48	21°♌54'19	1.72334 AU
superior conj	238 Aug 20 j 19:39	26°♌27'54	1°24'16
minimum elong	238 Aug 20 j 18:01	26°♌22'50	1°24'15
	238 Aug 23 j 15:42	0°♍	
	238 Sep 16 j 15:59	0°♎	
evening rise	238 Sep 27 j 19:48	13°♎58'00	
	238 Oct 10 j 15:13	0°♏	
desc. node	238 Oct 18 j 17:42	10°♏08'23	
	238 Nov 03 j 14:48	0°♐	
	238 Nov 27 j 15:50	0°♑	
	238 Dec 21 j 20:11	0°♒	
	239 Jan 15 j 07:41	0°♓	
asc. node	239 Feb 08 j 20:34	29°♓22'08	
	239 Feb 09 j 09:28	0°♈	
	239 Mar 07 j 15:18	0°♉	
evening max el	239 Apr 02 j 18:00	27°♉15'06	45°30'01
	239 Apr 05 j 15:04	0°♊	
greatest brilliancy	239 May 10 j 09:26	24°♊57'48	-4.7m
retrograde	239 May 21 j 08:47	27°♊06'38	
desc. node	239 May 31 j 10:08	25°♊06'44	
evening set	239 Jun 05 j 09:26	22°♊45'26	
inferior conj	239 Jun 11 j 19:22	18°♊55'35	-2°37'35
minimum elong	239 Jun 11 j 13:47	19°♊04'18	2°36'01
min. Earth dist.	239 Jun 11 j 21:16	18°♊52'36	0.28953 AU
morning rise	239 Jun 17 j 18:04	15°♊21'04	
direct	239 Jul 03 j 12:26	10°♊37'47	
greatest brilliancy	239 Jul 14 j 01:55	12°♊38'21	-4.7m
	239 Aug 09 j 16:52	0°♋	
morning max el	239 Aug 21 j 18:55	11°♋08'09	46°06'05
	239 Sep 09 j 01:52	0°♌	
asc. node	239 Sep 21 j 13:30	13°♌49'25	
	239 Oct 05 j 14:37	0°♍	
	239 Oct 30 j 16:28	0°♎	
	239 Nov 24 j 02:19	0°♏	
	239 Dec 18 j 05:36	0°♐	
desc. node	240 Jan 11 j 03:03	29°♐47'02	
	240 Jan 11 j 07:13	0°♑	
	240 Feb 04 j 09:25	0°♒	
morning set	240 Feb 25 j 10:12	26°♒07'34	
	240 Feb 28 j 13:11	0°♓	
	240 Mar 23 j 19:04	0°♈	
superior conj	240 Apr 03 j 21:15	13°♈40'54	-1°02'12
minimum elong	240 Apr 04 j 06:53	14°♈10'36	1°01'52
max. Earth dist.	240 Apr 06 j 05:16	16°♈33'31	1.73210 AU
	240 Apr 17 j 03:16	0°♉	
asc. node	240 May 03 j 06:17	19°♉48'51	
evening rise	240 May 11 j 02:35	29°♉26'31	
	240 May 11 j 13:30	0°♊	
	240 Jun 05 j 01:21	0°♋	
	240 Jun 29 j 14:54	0°♌	
	240 Jul 24 j 07:18	0°♍	
	240 Aug 18 j 04:41	0°♎	
desc. node	240 Aug 22 j 19:50	5°♎32'29	
	240 Sep 12 j 10:25	0°♏	
	240 Oct 08 j 07:28	0°♐	
	240 Nov 04 j 17:09	0°♑	
evening max el	240 Nov 07 j 23:57	3°♑22'32	47°23'59
	240 Dec 08 j 17:57	0°♒	
asc. node	240 Dec 13 j 22:51	3°♒00'45	
greatest brilliancy	240 Dec 18 j 12:25	5°♒04'00	-4.9m
retrograde	240 Dec 28 j 23:39	7°♒09'26	
evening set	241 Jan 14 j 06:46	1°♒52'18	
	241 Jan 17 j 08:27	30°℞♑	
min. Earth dist.	241 Jan 17 j 18:17	29°♑44'38	0.27298 AU
inferior conj	241 Jan 18 j 18:29	29°♑06'45	7°33'38
minimum elong	241 Jan 18 j 09:36	29°♑20'39	7°32'15
morning rise	241 Jan 22 j 12:55	26°♑47'58	
direct	241 Feb 08 j 09:12	21°♑18'03	
greatest brilliancy	241 Feb 17 j 04:59	22°♑46'09	-4.8m
	241 Mar 03 j 08:11	0°♒	
morning max el	241 Mar 29 j 17:43	22°♒18'26	46°09'10

desc. node	241 Apr 04 j 12:37	28°♒01'39	
	241 Apr 06 j 11:29	0°♓	
	241 May 04 j 12:32	0°♈	
	241 May 30 j 22:33	0°♉	
	241 Jun 25 j 13:09	0°♊	
	241 Jul 20 j 14:08	0°♋	
asc. node	241 Jul 26 j 15:47	7°♋21'43	
	241 Aug 14 j 03:56	0°♌	
	241 Sep 07 j 08:56	0°♍	
morning set	241 Sep 23 j 02:42	19°♍40'41	
	241 Oct 01 j 08:10	0°♎	
	241 Oct 25 j 04:41	0°♏	
max. Earth dist.	241 Nov 01 j 03:57	8°♏46'27	1.71077 AU
superior conj	241 Nov 01 j 12:46	9°♏14'12	0°31'51
minimum elong	241 Nov 01 j 20:29	9°♏38'30	0°31'29
desc. node	241 Nov 15 j 05:26	26°♏28'28	
	241 Nov 18 j 00:40	0°♐	
	241 Dec 11 j 21:23	0°♑	
evening rise	241 Dec 13 j 05:07	1°♑39'35	
	242 Jan 04 j 19:57	0°♒	
	242 Jan 28 j 22:04	0°♓	
	242 Feb 22 j 06:19	0°♈	
asc. node	242 Mar 08 j 08:38	17°♈09'51	
	242 Mar 19 j 00:09	0°♉	
	242 Apr 13 j 08:26	0°♊	
	242 May 09 j 16:20	0°♋	
	242 Jun 07 j 01:26	0°♌	
evening max el	242 Jun 12 j 12:43	5°♌19'17	45°27'28
desc. node	242 Jun 27 j 22:07	18°♌59'21	
	242 Jul 14 j 00:16	0°♍	
greatest brilliancy	242 Jul 21 j 16:29	3°♍21'46	-4.7m
retrograde	242 Jul 31 j 05:44	5°♍00'54	
	242 Aug 16 j 14:06	30°℞♌	
evening set	242 Aug 18 j 04:26	29°♌04'38	
inferior conj	242 Aug 21 j 10:27	27°♌06'25	-8°44'12
minimum elong	242 Aug 21 j 08:38	27°♌09'13	8°44'09
min. Earth dist.	242 Aug 22 j 01:06	26°♌43'52	0.28141 AU
morning rise	242 Aug 24 j 12:35	25°♌13'16	
direct	242 Sep 11 j 16:16	19°♌01'15	
greatest brilliancy	242 Sep 22 j 18:49	21°♌17'06	-4.8m
	242 Oct 07 j 19:25	0°♍	
asc. node	242 Oct 19 j 01:10	9°♍14'51	
morning max el	242 Nov 01 j 04:37	21°♍52'13	46°47'14
	242 Nov 08 j 23:50	0°♎	
	242 Dec 05 j 17:47	0°♏	
	242 Dec 31 j 00:54	0°♐	
	243 Jan 24 j 19:18	0°♑	
desc. node	243 Feb 07 j 14:58	16°♑51'21	
	243 Feb 18 j 09:05	0°♒	
	243 Mar 14 j 21:29	0°♓	
	243 Apr 08 j 09:44	0°♈	
	243 May 02 j 21:58	0°♉	
morning set	243 May 06 j 12:51	4°♉26'00	
	243 May 27 j 09:31	0°♊	
asc. node	243 May 31 j 18:06	5°♊20'49	
max. Earth dist.	243 Jun 09 j 21:48	16°♊35'31	1.73583 AU
superior conj	243 Jun 11 j 22:48	19°♊06'03	0°26'07
minimum elong	243 Jun 11 j 17:46	18°♊50'35	0°25'53
	243 Jun 20 j 19:28	0°♋	
	243 Jul 15 j 03:22	0°♌	
evening rise	243 Jul 17 j 16:08	3°♌07'35	
	243 Aug 08 j 09:51	0°♍	
	243 Sep 01 j 16:14	0°♎	
desc. node	243 Sep 20 j 07:49	23°♎00'55	
	243 Sep 25 j 23:54	0°♏	
	243 Oct 20 j 10:14	0°♐	
	243 Nov 14 j 01:45	0°♑	
	243 Dec 09 j 05:00	0°♒	
	244 Jan 04 j 13:07	0°♓	
asc. node	244 Jan 11 j 10:47	7°♓26'02	
evening max el	244 Jan 19 j 08:40	15°♓37'13	46°39'19
	244 Feb 03 j 14:15	0°♈	
greatest brilliancy	244 Feb 27 j 23:20	16°♈04'09	-4.8m
retrograde	244 Mar 09 j 14:52	18°♈11'34	
evening set	244 Mar 26 j 12:57	12°♈37'42	
inferior conj	244 Mar 30 j 22:43	9°♈53'43	6°36'50
minimum elong	244 Mar 31 j 08:08	9°♈38'49	6°35'05
min. Earth dist.	244 Mar 30 j 23:41	9°♈52'12	0.28772 AU
morning rise	244 Apr 05 j 03:30	6°♈41'59	
direct	244 Apr 21 j 07:04	1°♈38'30	
greatest brilliancy	244 May 01 j 04:50	3°♈25'12	-4.7m
desc. node	244 May 02 j 00:12	3°♈42'23	
	244 Jun 07 j 14:02	0°♉	
morning max el	244 Jun 09 j 02:25	1°♉26'10	45°44'50
	244 Jul 06 j 20:56	0°♊	
	244 Aug 02 j 13:05	0°♋	
asc. node	244 Aug 23 j 03:41	24°♋14'27	
	244 Aug 27 j 23:06	0°♌	
	244 Sep 21 j 14:33	0°♍	
	244 Oct 15 j 18:39	0°♎	
	244 Nov 08 j 16:56	0°♏	
	244 Dec 02 j 13:17	0°♐	
morning set	244 Dec 07 j 06:04	5°♐54'43	
desc. node	244 Dec 12 j 17:15	12°♐47'11	
	244 Dec 26 j 09:58	0°♑	
superior conj	245 Jan 18 j 04:13	28°♑32'22	-1°12'36
minimum elong	245 Jan 17 j 17:37	27°♑59'13	1°12'21
	245 Jan 19 j 08:13	0°♒	
max. Earth dist.	245 Jan 21 j 22:49	3°♒15'51	1.71629 AU
	245 Feb 12 j 08:59	0°♓	
evening rise	245 Feb 27 j 10:50	18°♓43'57	
	245 Mar 08 j 13:20	0°♈	
	245 Apr 01 j 22:21	0°♉	
asc. node	245 Apr 04 j 20:29	3°♉34'37	
	245 Apr 26 j 13:05	0°♊	
	245 May 21 j 10:50	0°♋	
	245 Jun 15 j 18:17	0°♌	
	245 Jul 11 j 17:31	0°♍	
desc. node	245 Jul 25 j 09:57	15°♍19'23	
	245 Aug 07 j 23:27	0°♎	
evening max el	245 Aug 24 j 14:32	16°♎58'18	46°33'45
	245 Sep 07 j 19:14	0°♏	
greatest brilliancy	245 Oct 04 j 03:41	16°♏46'28	-4.9m
retrograde	245 Oct 13 j 11:18	18°♏23'36	
evening set	245 Oct 28 j 09:08	14°♏01'45	
inferior conj	245 Nov 02 j 23:51	10°♏44'50	-3°11'17
minimum elong	245 Nov 03 j 06:49	10°♏34'18	3°09'09
min. Earth dist.	245 Nov 03 j 07:54	10°♏32'39	0.26471 AU
morning rise	245 Nov 09 j 04:15	7°♏09'45	
asc. node	245 Nov 15 j 12:58	4°♏24'04	
direct	245 Nov 23 j 10:21	3°♏06'40	
greatest brilliancy	245 Dec 03 j 21:32	5°♏12'23	-4.9m
	246 Jan 06 j 14:18	0°♐	
morning max el	246 Jan 13 j 01:03	6°♐22'00	46°50'39
	246 Feb 04 j 05:29	0°♑	
	246 Mar 02 j 14:28	0°♒	
desc. node	246 Mar 07 j 02:55	5°♒15'22	
	246 Mar 28 j 04:10	0°♓	
	246 Apr 22 j 08:49	0°♈	
	246 May 17 j 07:58	0°♉	
	246 Jun 11 j 02:20	0°♊	

asc. node	246 Jun 28 j 06:03	20°♊55'57		
	246 Jul 05 j 15:31	0°♋		
morning set	246 Jul 12 j 22:12	8°♋56'52		
	246 Jul 29 j 23:19	0°♌		
max. Earth dist.	246 Aug 14 j 18:07	19°♌35'54	1.72390 AU	
superior conj	246 Aug 18 j 12:29	24°♌17'08	1°23'54	
minimum elong	246 Aug 18 j 10:09	24°♌09'50	1°23'54	
	246 Aug 23 j 02:33	0°♍		
	246 Sep 16 j 02:58	0°♎		
evening rise	246 Sep 25 j 09:09	11°♎34'54		
	246 Oct 10 j 02:23	0°♏		
desc. node	246 Oct 17 j 19:40	9°♏39'23		
	246 Nov 03 j 02:12	0°♐		
	246 Nov 27 j 03:30	0°♑		
	246 Dec 21 j 08:10	0°♒		
	247 Jan 14 j 20:13	0°♓		
asc. node	247 Feb 07 j 22:41	28°♓48'30		
	247 Feb 08 j 23:04	0°♈		
	247 Mar 07 j 07:22	0°♉		
evening max el	247 Mar 31 j 10:05	25°♉04'21	45°31'26	
	247 Apr 05 j 14:59	0°♊		
greatest brilliancy	247 May 08 j 02:11	22°♊49'36	-4.7m	
retrograde	247 May 19 j 00:35	24°♊57'46		
desc. node	247 May 30 j 12:18	22°♊22'42		
evening set	247 Jun 03 j 01:21	20°♊37'22		
inferior conj	247 Jun 09 j 11:43	16°♊46'38	-2°18'35	
minimum elong	247 Jun 09 j 06:46	16°♊54'22	2°17'11	
min. Earth dist.	247 Jun 09 j 13:55	16°♊43'12	0.28957 AU	
morning rise	247 Jun 15 j 12:04	13°♊09'20		
direct	247 Jul 01 j 04:51	8°♊28'49		
greatest brilliancy	247 Jul 11 j 17:43	10°♊28'28	-4.7m	
	247 Aug 09 j 20:43	0°♋		
morning max el	247 Aug 19 j 09:31	8°♋53'10	46°04'45	
	247 Sep 08 j 18:56	0°♌		
asc. node	247 Sep 20 j 15:30	13°♌11'37		
	247 Oct 05 j 04:43	0°♍		
	247 Oct 30 j 05:18	0°♎		
	247 Nov 23 j 14:30	0°♏		
	247 Dec 17 j 17:25	0°♐		
desc. node	248 Jan 10 j 05:13	29°♐17'45		
	248 Jan 10 j 18:47	0°♑		
	248 Feb 03 j 20:44	0°♒		
morning set	248 Feb 22 j 23:11	23°♒44'24		
	248 Feb 28 j 00:18	0°♓		
	248 Mar 23 j 06:03	0°♈		
superior conj	248 Apr 01 j 13:08	11°♈28'09	-1°04'28	
minimum elong	248 Apr 01 j 22:45	11°♈57'49	1°04'10	
max. Earth dist.	248 Apr 04 j 01:33	14°♈34'23	1.73166 AU	
	248 Apr 16 j 14:12	0°♉		
asc. node	248 May 02 j 08:20	19°♉21'31		
evening rise	248 May 08 j 20:35	27°♉20'50		
	248 May 11 j 00:29	0°♊		
	248 Jun 04 j 12:30	0°♋		
	248 Jun 29 j 02:22	0°♌		
	248 Jul 23 j 19:16	0°♍		
	248 Aug 17 j 17:26	0°♎		
desc. node	248 Aug 21 j 21:55	5°♎00'06		
	248 Sep 12 j 00:28	0°♏		
	248 Oct 07 j 23:51	0°♐		
	248 Nov 04 j 15:18	0°♑		
evening max el	248 Nov 05 j 13:36	0°♑56'54	47°23'41	
	248 Dec 10 j 10:17	0°♒		
asc. node	248 Dec 13 j 01:01	1°♒19'52		
greatest brilliancy	248 Dec 16 j 03:47	2°♒39'56	-4.9m	
retrograde	248 Dec 26 j 13:11	4°♒43'54		
	249 Jan 10 j 22:13	30°℞♑		
evening set	249 Jan 11 j 16:56	29°♑33'02		
min. Earth dist.	249 Jan 15 j 08:20	27°♑19'54	0.27233 AU	
inferior conj	249 Jan 16 j 08:12	26°♑42'33	7°22'05	
minimum elong	249 Jan 15 j 22:55	26°♑57'06	7°20'31	
morning rise	249 Jan 20 j 05:20	24°♑19'43		
direct	249 Feb 05 j 21:46	18°♑54'47		
greatest brilliancy	249 Feb 14 j 19:04	20°♑23'49	-4.8m	
	249 Mar 04 j 06:51	0°♒		
morning max el	249 Mar 27 j 06:33	19°♒56'15	46°10'39	
desc. node	249 Apr 03 j 14:35	27°♒13'38		
	249 Apr 06 j 07:46	0°♓		
	249 May 04 j 03:51	0°♈		
	249 May 30 j 11:50	0°♉		
	249 Jun 25 j 01:22	0°♊		
	249 Jul 20 j 01:46	0°♋		
asc. node	249 Jul 25 j 17:50	6°♋52'51		
	249 Aug 13 j 15:15	0°♌		
	249 Sep 06 j 20:06	0°♍		
morning set	249 Sep 20 j 17:07	17°♍20'30		
	249 Sep 30 j 19:18	0°♎		
	249 Oct 24 j 15:51	0°♏		
max. Earth dist.	249 Oct 29 j 10:48	6°♏01'49	1.71096 AU	
superior conj	249 Oct 30 j 00:00	6°♏43'23	0°35'23	
minimum elong	249 Oct 30 j 08:23	7°♏09'45	0°35'00	
desc. node	249 Nov 14 j 07:34	25°♏59'59		
	249 Nov 17 j 11:52	0°♐		
evening rise	249 Dec 10 j 15:05	29°♐04'52		
	249 Dec 11 j 08:39	0°♑		
	250 Jan 04 j 07:19	0°♒		
	250 Jan 28 j 09:34	0°♓		
	250 Feb 21 j 18:06	0°♈		
asc. node	250 Mar 07 j 10:35	16°♈39'24		
	250 Mar 18 j 12:27	0°♉		
	250 Apr 12 j 21:45	0°♊		
	250 May 09 j 07:51	0°♋		
	250 Jun 06 j 22:56	0°♌		
evening max el	250 Jun 10 j 02:48	3°♌03'02	45°26'15	
desc. node	250 Jun 27 j 00:14	17°♌54'59		
	250 Jul 16 j 09:09	0°♍		
greatest brilliancy	250 Jul 19 j 04:33	1°♍03'16	-4.7m	
retrograde	250 Jul 28 j 20:05	2°♍44'23		
	250 Aug 09 j 16:45	30°℞♌		
evening set	250 Aug 15 j 16:39	26°♌50'14		
inferior conj	250 Aug 19 j 00:53	24°♌48'50	-8°41'22	
minimum elong	250 Aug 18 j 22:13	24°♌52'56	8°41'17	
min. Earth dist.	250 Aug 19 j 14:48	24°♌27'28	0.28196 AU	
morning rise	250 Aug 22 j 03:34	22°♌55'01		
direct	250 Sep 09 j 07:19	16°♌42'38		
greatest brilliancy	250 Sep 20 j 10:01	18°♌58'51	-4.8m	
	250 Oct 08 j 11:36	0°♍		
asc. node	250 Oct 18 j 03:12	8°♍13'59		
morning max el	250 Oct 29 j 19:43	19°♍31'43	46°46'24	
	250 Nov 08 j 19:33	0°♎		
	250 Dec 05 j 09:14	0°♏		
	250 Dec 30 j 14:32	0°♐		
	251 Jan 24 j 07:57	0°♑		
desc. node	251 Feb 06 j 17:01	16°♑20'05		
	251 Feb 17 j 21:07	0°♒		
	251 Mar 14 j 09:05	0°♓		
	251 Apr 07 j 21:02	0°♈		
	251 May 02 j 09:02	0°♉		
morning set	251 May 04 j 06:41	2°♉19'47		
	251 May 26 j 20:28	0°♊		
asc. node	251 May 30 j 20:17	4°♊53'57		
max. Earth dist.	251 Jun 07 j 21:01	14°♊45'46	1.73601 AU	

superior conj	251 Jun 09 j 17:15	17°♊01'41	0°23'08
minimum elong	251 Jun 09 j 12:44	16°♊47'49	0°22'55
	251 Jun 20 j 06:23	0°♋	
	251 Jul 14 j 14:24	0°♌	
evening rise	251 Jul 15 j 10:43	1°♌02'40	
	251 Aug 07 j 21:07	0°♍	
	251 Sep 01 j 03:50	0°♎	
desc. node	251 Sep 19 j 09:47	22°♎30'23	
	251 Sep 25 j 11:55	0°♏	
	251 Oct 19 j 22:47	0°♐	
	251 Nov 13 j 15:06	0°♑	
	251 Dec 08 j 19:46	0°♒	
	252 Jan 04 j 07:10	0°♓	
asc. node	252 Jan 10 j 12:51	6°♓40'04	
evening max el	252 Jan 17 j 00:30	13°♓21'28	46°41'59
	252 Feb 03 j 21:29	0°♈	
greatest brilliancy	252 Feb 25 j 15:18	13°♈51'28	-4.8m
retrograde	252 Mar 07 j 08:00	15°♈59'52	
evening set	252 Mar 24 j 07:59	10°♈21'42	
inferior conj	252 Mar 28 j 15:01	7°♈41'45	6°49'24
minimum elong	252 Mar 29 j 00:16	7°♈27'06	6°47'47
min. Earth dist.	252 Mar 28 j 14:57	7°♈41'51	0.28750 AU
morning rise	252 Apr 02 j 16:48	4°♈34'36	
	252 Apr 13 j 17:39	30°℞♓	
direct	252 Apr 18 j 23:12	29°♓26'59	
	252 Apr 24 j 08:35	0°♈	
greatest brilliancy	252 Apr 28 j 19:14	1°♈12'43	-4.7m
desc. node	252 May 01 j 02:24	2°♈04'31	
morning max el	252 Jun 06 j 19:34	29°♈18'42	45°44'52
	252 Jun 07 j 12:52	0°♉	
	252 Jul 06 j 12:50	0°♊	
	252 Aug 02 j 02:35	0°♋	
asc. node	252 Aug 22 j 05:43	23°♋42'58	
	252 Aug 27 j 11:30	0°♌	
	252 Sep 21 j 02:24	0°♍	
	252 Oct 15 j 06:14	0°♎	
	252 Nov 08 j 04:21	0°♏	
	252 Dec 02 j 00:36	0°♐	
morning set	252 Dec 04 j 16:03	3°♐19'33	
desc. node	252 Dec 11 j 19:25	12°♐18'28	
	252 Dec 25 j 21:12	0°♑	
superior conj	253 Jan 15 j 14:52	26°♑00'30	-1°10'29
minimum elong	253 Jan 15 j 03:50	25°♑25'56	1°10'10
	253 Jan 18 j 19:22	0°♒	
max. Earth dist.	253 Jan 19 j 10:15	0°♒46'33	1.71578 AU
	253 Feb 11 j 20:04	0°♓	
evening rise	253 Feb 25 j 00:10	16°♓22'12	
	253 Mar 08 j 00:24	0°♈	
	253 Apr 01 j 09:33	0°♉	
asc. node	253 Apr 03 j 22:34	3°♉06'42	
	253 Apr 26 j 00:34	0°♊	
	253 May 20 j 22:53	0°♋	
	253 Jun 15 j 07:20	0°♌	
	253 Jul 11 j 08:25	0°♍	
desc. node	253 Jul 24 j 12:00	14°♍39'41	
	253 Aug 07 j 18:29	0°♎	
evening max el	253 Aug 22 j 04:41	14°♎37'39	46°30'59
	253 Sep 08 j 05:45	0°♏	
greatest brilliancy	253 Oct 01 j 16:18	14°♏18'21	-4.9m
retrograde	253 Oct 10 j 23:08	15°♏54'19	
evening set	253 Oct 25 j 23:43	11°♏29'34	
inferior conj	253 Oct 31 j 11:56	8°♏15'44	-3°33'57
minimum elong	253 Oct 31 j 19:35	8°♏04'08	3°31'40
min. Earth dist.	253 Oct 31 j 21:14	8°♏01'38	0.26502 AU
morning rise	253 Nov 06 j 15:12	4°♏41'52	
asc. node	253 Nov 14 j 15:12	1°♏26'57	
direct	253 Nov 20 j 23:19	0°♏37'12	
greatest brilliancy	253 Dec 01 j 11:08	2°♏43'25	-4.9m
	254 Jan 06 j 15:56	0°♐	
morning max el	254 Jan 10 j 14:16	3°♐55'23	46°51'32
	254 Feb 03 j 22:50	0°♑	
	254 Mar 02 j 04:51	0°♒	
desc. node	254 Mar 06 j 04:54	4°♒40'09	
	254 Mar 27 j 17:02	0°♓	
	254 Apr 21 j 20:47	0°♈	
	254 May 16 j 19:22	0°♉	
	254 Jun 10 j 13:26	0°♊	
asc. node	254 Jun 27 j 08:05	20°♊28'36	
	254 Jul 05 j 02:27	0°♋	
morning set	254 Jul 10 j 16:09	6°♋50'53	
	254 Jul 29 j 10:12	0°♌	
max. Earth dist.	254 Aug 12 j 08:07	17°♌16'16	1.72446 AU
superior conj	254 Aug 16 j 05:27	22°♌06'36	1°23'24
minimum elong	254 Aug 16 j 02:26	21°♌57'13	1°23'24
	254 Aug 22 j 13:29	0°♍	
	254 Sep 15 j 14:00	0°♎	
evening rise	254 Sep 22 j 22:36	9°♎12'06	
	254 Oct 09 j 13:37	0°♏	
desc. node	254 Oct 16 j 21:48	9°♏10'44	
	254 Nov 02 j 13:40	0°♐	
	254 Nov 26 j 15:14	0°♑	
	254 Dec 20 j 20:16	0°♒	
	255 Jan 14 j 08:51	0°♓	
asc. node	255 Feb 07 j 00:42	28°♓14'20	
	255 Feb 08 j 12:48	0°♈	
	255 Mar 06 j 23:40	0°♉	
evening max el	255 Mar 29 j 01:24	22°♉52'03	45°33'01
	255 Apr 05 j 15:54	0°♊	
greatest brilliancy	255 May 05 j 19:08	20°♊42'24	-4.7m
retrograde	255 May 16 j 16:33	22°♊50'11	
desc. node	255 May 29 j 14:22	19°♊36'06	
evening set	255 May 31 j 17:40	18°♊30'03	
inferior conj	255 Jun 07 j 04:21	14°♊38'51	-1°59'40
minimum elong	255 Jun 07 j 00:02	14°♊45'36	1°58'25
min. Earth dist.	255 Jun 07 j 06:59	14°♊34'44	0.28964 AU
morning rise	255 Jun 13 j 06:15	10°♊59'00	
direct	255 Jun 28 j 21:08	6°♊20'53	
greatest brilliancy	255 Jul 09 j 10:23	8°♊20'22	-4.7m
	255 Aug 09 j 22:49	0°♋	
morning max el	255 Aug 17 j 00:07	6°♋38'27	46°03'22
	255 Sep 08 j 11:38	0°♌	
asc. node	255 Sep 19 j 17:35	12°♌34'25	
	255 Oct 04 j 18:38	0°♍	
	255 Oct 29 j 18:00	0°♎	
	255 Nov 23 j 02:35	0°♏	
	255 Dec 17 j 05:08	0°♐	
desc. node	256 Jan 09 j 07:11	28°♐48'07	
	256 Jan 10 j 06:13	0°♑	
	256 Feb 03 j 07:57	0°♒	
morning set	256 Feb 20 j 11:58	21°♒20'45	
	256 Feb 27 j 11:20	0°♓	
	256 Mar 22 j 16:56	0°♈	
superior conj	256 Mar 30 j 05:07	9°♈16'02	-1°06'38
minimum elong	256 Mar 30 j 14:40	9°♈45'29	1°06'20
max. Earth dist.	256 Apr 01 j 19:51	12°♈29'27	1.73117 AU
	256 Apr 16 j 00:59	0°♉	
asc. node	256 May 01 j 10:32	18°♉55'13	
evening rise	256 May 06 j 14:44	25°♉16'13	
	256 May 10 j 11:18	0°♊	
	256 Jun 03 j 23:27	0°♋	
	256 Jun 28 j 13:38	0°♌	

	256 Jul 23 j 07:05	0°♍		
	256 Aug 17 j 06:07	0°♎		
desc. node	256 Aug 20 j 23:52	4°♎27'39		
	256 Sep 11 j 14:31	0°♏		
	256 Oct 07 j 16:25	0°♐		
evening max el	256 Nov 03 j 02:49	28°♐30'32	47°23'24	
	256 Nov 04 j 14:12	0°♑		
asc. node	256 Dec 12 j 03:02	29°♑35'07		
	256 Dec 13 j 02:57	0°♒		
greatest brilliancy	256 Dec 13 j 18:42	0°♒15'23	-4.9m	
retrograde	256 Dec 24 j 02:42	2°♒18'37		
	257 Jan 03 j 16:29	30°℞♑		
evening set	257 Jan 09 j 02:58	27°♑13'31		
min. Earth dist.	257 Jan 12 j 22:13	24°♑55'11	0.27170 AU	
inferior conj	257 Jan 13 j 21:47	24°♑18'23	7°09'40	
minimum elong	257 Jan 13 j 12:10	24°♑33'26	7°07'55	
morning rise	257 Jan 17 j 21:46	21°♑51'33		
direct	257 Feb 03 j 10:08	16°♑31'21		
greatest brilliancy	257 Feb 12 j 09:09	18°♑01'43	-4.8m	
	257 Mar 04 j 23:30	0°♒		
morning max el	257 Mar 24 j 20:01	17°♒36'02	46°12'14	
desc. node	257 Apr 02 j 16:44	26°♒27'21		
	257 Apr 06 j 03:14	0°♓		
	257 May 03 j 18:45	0°♈		
	257 May 30 j 00:45	0°♉		
	257 Jun 24 j 13:15	0°♊		
	257 Jul 19 j 13:04	0°♋		
asc. node	257 Jul 24 j 19:53	6°♋24'55		
	257 Aug 13 j 02:15	0°♌		
	257 Sep 06 j 07:00	0°♍		
morning set	257 Sep 18 j 07:40	15°♍01'38		
	257 Sep 30 j 06:13	0°♎		
	257 Oct 24 j 02:49	0°♏		
superior conj	257 Oct 27 j 11:05	4°♏12'38	0°38'51	
minimum elong	257 Oct 27 j 20:04	4°♏40'52	0°38'28	
max. Earth dist.	257 Oct 26 j 19:17	3°♏22'53	1.71122 AU	
desc. node	257 Nov 13 j 09:42	25°♏32'01		
	257 Nov 16 j 22:54	0°♐		
evening rise	257 Dec 08 j 00:41	26°♐29'35		
	257 Dec 10 j 19:44	0°♑		
	258 Jan 03 j 18:28	0°♒		
	258 Jan 27 j 20:53	0°♓		
	258 Feb 21 j 05:40	0°♈		
asc. node	258 Mar 06 j 12:43	16°♈10'09		
	258 Mar 18 j 00:33	0°♉		
	258 Apr 12 j 10:54	0°♊		
	258 May 08 j 23:15	0°♋		
	258 Jun 06 j 20:45	0°♌		
evening max el	258 Jun 07 j 18:00	0°♌50'50	45°25'18	
desc. node	258 Jun 26 j 02:14	16°♌50'09		
greatest brilliancy	258 Jul 16 j 16:28	28°♌46'46	-4.7m	
	258 Jul 21 j 06:47	0°♍		
retrograde	258 Jul 26 j 10:58	0°♍30'06		
	258 Jul 31 j 12:01	30°℞♌		
evening set	258 Aug 13 j 04:55	24°♌38'39		
inferior conj	258 Aug 16 j 15:37	22°♌33'34	-8°37'49	
minimum elong	258 Aug 16 j 12:09	22°♌38'53	8°37'38	
min. Earth dist.	258 Aug 17 j 04:19	22°♌14'03	0.28248 AU	
morning rise	258 Aug 19 j 19:12	20°♌38'31		
direct	258 Sep 06 j 23:10	14°♌26'39		
greatest brilliancy	258 Sep 18 j 00:46	16°♌42'13	-4.8m	
	258 Oct 08 j 22:58	0°♍		
asc. node	258 Oct 17 j 05:26	7°♍16'14		
morning max el	258 Oct 27 j 11:19	17°♍13'56	46°45'07	
	258 Nov 08 j 14:19	0°♎		
	258 Dec 05 j 00:12	0°♏		
	258 Dec 30 j 03:51	0°♐		
	259 Jan 23 j 20:19	0°♑		
desc. node	259 Feb 05 j 19:04	15°♑49'35		
	259 Feb 17 j 08:52	0°♒		
	259 Mar 13 j 20:24	0°♓		
	259 Apr 07 j 08:01	0°♈		
	259 May 01 j 19:49	0°♉		
morning set	259 May 02 j 00:25	0°♉14'05		
	259 May 26 j 07:07	0°♊		
asc. node	259 May 29 j 22:18	4°♊27'29		
max. Earth dist.	259 Jun 05 j 20:13	12°♊56'53	1.73612 AU	
superior conj	259 Jun 07 j 11:45	14°♊58'20	0°20'07	
minimum elong	259 Jun 07 j 07:47	14°♊46'08	0°19'55	
	259 Jun 19 j 17:01	0°♋		
evening rise	259 Jul 13 j 05:31	28°♋59'33		
	259 Jul 14 j 01:07	0°♌		
	259 Aug 07 j 08:01	0°♍		
	259 Aug 31 j 15:02	0°♎		
desc. node	259 Sep 18 j 11:59	22°♎01'45		
	259 Sep 24 j 23:33	0°♏		
	259 Oct 19 j 11:01	0°♐		
	259 Nov 13 j 04:15	0°♑		
	259 Dec 08 j 10:30	0°♒		
	260 Jan 04 j 01:32	0°♓		
asc. node	260 Jan 09 j 14:53	5°♓53'35		
evening max el	260 Jan 14 j 16:39	11°♓06'38	46°44'30	
	260 Feb 04 j 07:21	0°♈		
greatest brilliancy	260 Feb 23 j 07:22	11°♈38'40	-4.8m	
retrograde	260 Mar 05 j 00:42	13°♈47'21		
evening set	260 Mar 22 j 02:43	8°♈05'14		
inferior conj	260 Mar 26 j 06:57	5°♈29'15	7°01'36	
minimum elong	260 Mar 26 j 16:00	5°♈14'55	7°00'04	
min. Earth dist.	260 Mar 26 j 05:47	5°♈31'04	0.28722 AU	
morning rise	260 Mar 31 j 05:36	2°♈26'45		
	260 Apr 04 j 21:39	30°℞♓		
direct	260 Apr 16 j 15:14	27°♓15'11		
greatest brilliancy	260 Apr 26 j 08:55	28°♓59'21	-4.7m	
	260 Apr 29 j 00:50	0°♈		
desc. node	260 Apr 30 j 04:30	0°♈29'55		
morning max el	260 Jun 04 j 11:49	27°♈09'44	45°44'59	
	260 Jun 07 j 10:32	0°♉		
	260 Jul 06 j 04:11	0°♊		
	260 Aug 01 j 15:39	0°♋		
asc. node	260 Aug 21 j 07:47	23°♋12'44		
	260 Aug 26 j 23:30	0°♌		
	260 Sep 20 j 13:51	0°♍		
	260 Oct 14 j 17:24	0°♎		
	260 Nov 07 j 15:23	0°♏		
	260 Dec 01 j 11:33	0°♐		
morning set	260 Dec 02 j 02:11	0°♐46'00		
desc. node	260 Dec 10 j 21:23	11°♐50'13		
	260 Dec 25 j 08:08	0°♑		
superior conj	261 Jan 13 j 01:07	23°♑28'05	-1°08'11	
minimum elong	261 Jan 12 j 13:43	22°♑52'23	1°07'50	
max. Earth dist.	261 Jan 16 j 21:50	28°♑18'27	1.71535 AU	
	261 Jan 18 j 06:17	0°♒		
	261 Feb 11 j 06:57	0°♓		
evening rise	261 Feb 22 j 12:46	13°♓58'37		
	261 Mar 07 j 11:17	0°♈		
	261 Mar 31 j 20:32	0°♉		
asc. node	261 Apr 03 j 00:43	2°♉39'36		
	261 Apr 25 j 11:52	0°♊		
	261 May 20 j 10:45	0°♋		
	261 Jun 14 j 20:14	0°♌		
	261 Jul 10 j 23:15	0°♍		

desc. node	261 Jul 23 j 14:02	14°♍00'18	
	261 Aug 07 j 13:41	0°♎	
evening max el	261 Aug 19 j 18:03	12°♎16'14	46°28'19
	261 Sep 08 j 19:06	0°♏	
greatest brilliancy	261 Sep 29 j 05:34	11°♏52'43	-4.9m
retrograde	261 Oct 08 j 10:41	13°♏27'04	
evening set	261 Oct 23 j 14:38	8°♏59'12	
inferior conj	261 Oct 29 j 00:16	5°♏48'47	-3°56'00
minimum elong	261 Oct 29 j 08:32	5°♏36'12	3°53'35
min. Earth dist.	261 Oct 29 j 10:59	5°♏32'28	0.26535 AU
morning rise	261 Nov 04 j 02:07	2°♏16'20	
	261 Nov 09 j 00:13	30°℞♎	
asc. node	261 Nov 13 j 17:07	28°♎37'58	
direct	261 Nov 18 j 11:58	28°♎09'46	
	261 Nov 28 j 07:07	0°♏	
greatest brilliancy	261 Nov 29 j 01:18	0°♏16'57	-4.9m
	262 Jan 06 j 15:51	0°♐	
morning max el	262 Jan 08 j 02:30	1°♐27'19	46°52'09
	262 Feb 03 j 15:30	0°♑	
	262 Mar 01 j 18:51	0°♒	
desc. node	262 Mar 05 j 07:02	4°♒06'07	
	262 Mar 27 j 05:39	0°♓	
	262 Apr 21 j 08:34	0°♈	
	262 May 16 j 06:37	0°♉	
	262 Jun 10 j 00:21	0°♊	
asc. node	262 Jun 26 j 10:05	20°♊01'43	
	262 Jul 04 j 13:12	0°♋	
morning set	262 Jul 08 j 09:45	4°♋44'24	
	262 Jul 28 j 20:54	0°♌	
max. Earth dist.	262 Aug 09 j 23:39	15°♌02'05	1.72503 AU
superior conj	262 Aug 13 j 22:20	19°♌56'25	1°22'48
minimum elong	262 Aug 13 j 18:39	19°♌44'59	1°22'46
	262 Aug 22 j 00:14	0°♍	
	262 Sep 15 j 00:52	0°♎	
evening rise	262 Sep 20 j 12:17	6°♎50'40	
	262 Oct 09 j 00:39	0°♏	
desc. node	262 Oct 15 j 23:53	8°♏42'37	
	262 Nov 02 j 00:54	0°♐	
	262 Nov 26 j 02:43	0°♑	
	262 Dec 20 j 08:05	0°♒	
	263 Jan 13 j 21:17	0°♓	
asc. node	263 Feb 06 j 02:48	27°♓40'48	
	263 Feb 08 j 02:28	0°♈	
	263 Mar 06 j 16:09	0°♉	
evening max el	263 Mar 26 j 15:53	20°♉37'41	45°34'34
	263 Apr 05 j 18:14	0°♊	
greatest brilliancy	263 May 03 j 11:38	18°♊34'09	-4.7m
retrograde	263 May 14 j 08:33	20°♊42'04	
desc. node	263 May 28 j 16:19	16°♊45'00	
evening set	263 May 29 j 09:50	16°♊21'39	
inferior conj	263 Jun 04 j 20:44	12°♊30'24	-1°40'22
minimum elong	263 Jun 04 j 17:05	12°♊36'06	1°39'18
min. Earth dist.	263 Jun 04 j 23:52	12°♊25'29	0.28971 AU
morning rise	263 Jun 11 j 00:05	8°♊48'18	
direct	263 Jun 26 j 12:52	4°♊12'07	
greatest brilliancy	263 Jul 07 j 03:10	6°♊12'07	-4.7m
	263 Aug 09 j 23:35	0°♋	
morning max el	263 Aug 14 j 14:53	4°♋24'21	46°02'07
	263 Sep 08 j 03:56	0°♌	
asc. node	263 Sep 18 j 19:45	11°♌57'56	
	263 Oct 04 j 08:21	0°♍	
	263 Oct 29 j 06:33	0°♎	
	263 Nov 22 j 14:31	0°♏	
	263 Dec 16 j 16:41	0°♐	
desc. node	264 Jan 08 j 09:16	28°♐19'31	
	264 Jan 09 j 17:28	0°♑	
	264 Feb 02 j 18:59	0°♒	
morning set	264 Feb 18 j 00:48	18°♒57'40	
	264 Feb 26 j 22:11	0°♓	
	264 Mar 22 j 03:42	0°♈	
superior conj	264 Mar 27 j 21:00	7°♈03'51	-1°08'42
minimum elong	264 Mar 28 j 06:25	7°♈32'53	1°08'25
max. Earth dist.	264 Mar 30 j 12:44	10°♈20'24	1.73075 AU
	264 Apr 15 j 11:44	0°♉	
asc. node	264 Apr 30 j 12:31	18°♉28'16	
evening rise	264 May 04 j 08:36	23°♉10'44	
	264 May 09 j 22:06	0°♊	
	264 Jun 03 j 10:26	0°♋	
	264 Jun 28 j 00:57	0°♌	
	264 Jul 22 j 18:58	0°♍	
	264 Aug 16 j 18:55	0°♎	
desc. node	264 Aug 20 j 02:02	3°♎55'34	
	264 Sep 11 j 04:46	0°♏	
	264 Oct 07 j 09:20	0°♐	
evening max el	264 Oct 31 j 16:28	26°♐05'22	47°23'10
	264 Nov 04 j 14:06	0°♑	
asc. node	264 Dec 11 j 05:06	27°♑46'22	
greatest brilliancy	264 Dec 11 j 09:04	27°♑50'11	-4.9m
retrograde	264 Dec 21 j 16:42	29°♑53'29	
evening set	265 Jan 06 j 13:01	24°♑53'46	
min. Earth dist.	265 Jan 10 j 11:47	22°♑30'51	0.27105 AU
inferior conj	265 Jan 11 j 11:20	21°♑54'12	6°56'18
minimum elong	265 Jan 11 j 01:27	22°♑09'35	6°54'24
morning rise	265 Jan 15 j 14:17	19°♑23'26	
direct	265 Jan 31 j 22:46	14°♑07'56	
greatest brilliancy	265 Feb 09 j 22:42	15°♑39'20	-4.8m
	265 Mar 05 j 11:46	0°♒	
morning max el	265 Mar 22 j 10:17	15°♒18'01	46°13'47
desc. node	265 Apr 01 j 18:51	25°♒41'59	
	265 Apr 05 j 22:03	0°♓	
	265 May 03 j 09:25	0°♈	
	265 May 29 j 13:39	0°♉	
	265 Jun 24 j 01:12	0°♊	
	265 Jul 19 j 00:29	0°♋	
asc. node	265 Jul 23 j 22:02	5°♋56'56	
	265 Aug 12 j 13:22	0°♌	
	265 Sep 05 j 18:00	0°♍	
morning set	265 Sep 15 j 22:07	12°♍42'14	
	265 Sep 29 j 17:14	0°♎	
	265 Oct 23 j 13:53	0°♏	
max. Earth dist.	265 Oct 24 j 05:05	0°♏47'49	1.71146 AU
superior conj	265 Oct 24 j 22:10	1°♏41'32	0°42'16
minimum elong	265 Oct 25 j 07:38	2°♏11'22	0°41'51
desc. node	265 Nov 12 j 11:39	25°♏03'08	
	265 Nov 16 j 10:03	0°♐	
evening rise	265 Dec 05 j 10:19	23°♐54'00	
	265 Dec 10 j 06:57	0°♑	
	266 Jan 03 j 05:45	0°♒	
	266 Jan 27 j 08:17	0°♓	
	266 Feb 20 j 17:19	0°♈	
asc. node	266 Mar 05 j 14:51	15°♈40'42	
	266 Mar 17 j 12:44	0°♉	
	266 Apr 12 j 00:11	0°♊	
	266 May 08 j 15:01	0°♋	
evening max el	266 Jun 05 j 09:44	28°♋39'24	45°24'09
	266 Jun 06 j 19:44	0°♌	
desc. node	266 Jun 25 j 04:20	15°♌42'54	
greatest brilliancy	266 Jul 14 j 04:42	26°♌29'45	-4.7m
retrograde	266 Jul 24 j 01:39	28°♌14'37	
evening set	266 Aug 10 j 16:50	22°♌26'37	
inferior conj	266 Aug 14 j 06:15	20°♌17'15	-8°33'24

minimum elong	266 Aug 14 j 02:02	20°♌23'45	8°33'08
min. Earth dist.	266 Aug 14 j 17:45	19°♌59'34	0.28298 AU
morning rise	266 Aug 17 j 11:03	18°♌20'20	
direct	266 Sep 04 j 15:04	12°♌09'51	
greatest brilliancy	266 Sep 15 j 14:52	14°♌23'53	-4.8m
	266 Oct 09 j 07:46	0°♍	
asc. node	266 Oct 16 j 07:24	6°♍18'17	
morning max el	266 Oct 25 j 02:25	14°♍54'17	46°43'50
	266 Nov 08 j 08:53	0°♎	
	266 Dec 04 j 15:12	0°♏	
	266 Dec 29 j 17:16	0°♐	
	267 Jan 23 j 08:50	0°♑	
desc. node	267 Feb 04 j 21:11	15°♑18'43	
	267 Feb 16 j 20:47	0°♒	
	267 Mar 13 j 07:53	0°♓	
	267 Apr 06 j 19:10	0°♈	
morning set	267 Apr 29 j 18:25	28°♈08'47	
	267 May 01 j 06:44	0°♉	
	267 May 25 j 17:55	0°♊	
asc. node	267 May 29 j 00:20	4°♊00'36	
max. Earth dist.	267 Jun 03 j 19:37	11°♊08'09	1.73624 AU
superior conj	267 Jun 05 j 06:25	12°♊55'01	0°17'05
minimum elong	267 Jun 05 j 03:01	12°♊44'35	0°16'56
	267 Jun 19 j 03:50	0°♋	
evening rise	267 Jul 11 j 00:24	26°♋55'54	
	267 Jul 13 j 12:05	0°♌	
	267 Aug 06 j 19:14	0°♍	
	267 Aug 31 j 02:35	0°♎	
desc. node	267 Sep 17 j 14:00	21°♎31'27	
	267 Sep 24 j 11:33	0°♏	
	267 Oct 18 j 23:38	0°♐	
	267 Nov 12 j 17:48	0°♑	
	267 Dec 08 j 01:44	0°♒	
	268 Jan 03 j 20:40	0°♓	
asc. node	268 Jan 08 j 17:01	5°♓05'49	
evening max el	268 Jan 12 j 08:34	8°♓50'07	46°46'58
	268 Feb 04 j 21:05	0°♈	
greatest brilliancy	268 Feb 21 j 00:08	9°♈25'51	-4.8m
retrograde	268 Mar 02 j 17:07	11°♈34'01	
evening set	268 Mar 19 j 21:32	5°♈48'16	
inferior conj	268 Mar 23 j 22:59	3°♈16'10	7°13'10
minimum elong	268 Mar 24 j 07:47	3°♈02'12	7°11'46
min. Earth dist.	268 Mar 23 j 20:53	3°♈19'29	0.28687 AU
morning rise	268 Mar 28 j 18:22	0°♈18'18	
	268 Mar 29 j 07:01	30°℞♓	
direct	268 Apr 14 j 07:15	25°♓02'59	
greatest brilliancy	268 Apr 23 j 22:42	26°♓45'27	-4.7m
desc. node	268 Apr 29 j 06:25	28°♓57'45	
	268 May 01 j 07:18	0°♈	
morning max el	268 Jun 02 j 03:12	24°♈58'06	45°45'12
	268 Jun 07 j 07:38	0°♉	
	268 Jul 05 j 19:31	0°♊	
	268 Aug 01 j 04:52	0°♋	
asc. node	268 Aug 20 j 09:55	22°♋41'53	
	268 Aug 26 j 11:45	0°♌	
	268 Sep 20 j 01:39	0°♍	
	268 Oct 14 j 04:57	0°♎	
	268 Nov 07 j 02:47	0°♏	
morning set	268 Nov 29 j 12:08	28°♏10'39	
	268 Nov 30 j 22:53	0°♐	
desc. node	268 Dec 09 j 23:30	11°♐21'18	
	268 Dec 24 j 19:24	0°♑	
superior conj	269 Jan 10 j 11:11	20°♑54'06	-1°05'43
minimum elong	269 Jan 09 j 23:32	20°♑17'36	1°05'21
max. Earth dist.	269 Jan 14 j 08:30	25°♑46'22	1.71487 AU
	269 Jan 17 j 17:30	0°♒	
	269 Feb 10 j 18:09	0°♓	
evening rise	269 Feb 20 j 01:14	11°♓33'36	
	269 Mar 06 j 22:30	0°♈	
	269 Mar 31 j 07:51	0°♉	
asc. node	269 Apr 02 j 02:42	2°♉11'00	
	269 Apr 24 j 23:29	0°♊	
	269 May 19 j 22:56	0°♋	
	269 Jun 14 j 09:27	0°♌	
	269 Jul 10 j 14:31	0°♍	
desc. node	269 Jul 22 j 16:10	13°♍19'59	
	269 Aug 07 j 09:49	0°♎	
evening max el	269 Aug 17 j 06:18	9°♎51'11	46°25'23
	269 Sep 09 j 13:37	0°♏	
greatest brilliancy	269 Sep 26 j 18:54	9°♏25'40	-4.9m
retrograde	269 Oct 05 j 21:50	10°♏58'20	
evening set	269 Oct 21 j 05:30	6°♏26'44	
inferior conj	269 Oct 26 j 12:27	3°♏20'09	-4°17'37
minimum elong	269 Oct 26 j 21:17	3°♏06'42	4°15'06
min. Earth dist.	269 Oct 27 j 00:52	3°♏01'16	0.26576 AU
	269 Nov 01 j 04:52	30°℞♎	
morning rise	269 Nov 01 j 12:38	29°♎49'31	
asc. node	269 Nov 12 j 19:13	25°♎52'48	
direct	269 Nov 16 j 00:05	25°♎40'13	
greatest brilliancy	269 Nov 26 j 15:55	27°♎49'11	-4.9m
	269 Dec 01 j 10:33	0°♏	
morning max el	270 Jan 05 j 14:36	28°♏57'07	46°52'57
	270 Jan 06 j 15:20	0°♐	
	270 Feb 03 j 08:20	0°♑	
	270 Mar 01 j 09:06	0°♒	
desc. node	270 Mar 04 j 09:07	3°♒31'06	
	270 Mar 26 j 18:32	0°♓	
	270 Apr 20 j 20:37	0°♈	
	270 May 15 j 18:09	0°♉	
	270 Jun 09 j 11:32	0°♊	
asc. node	270 Jun 25 j 12:17	19°♊34'37	
	270 Jul 04 j 00:12	0°♋	
morning set	270 Jul 06 j 03:49	2°♋38'34	
	270 Jul 28 j 07:51	0°♌	
max. Earth dist.	270 Aug 07 j 18:22	12°♌57'04	1.72559 AU
superior conj	270 Aug 11 j 15:41	17°♌47'04	1°22'04
minimum elong	270 Aug 11 j 11:22	17°♌33'40	1°22'01
	270 Aug 21 j 11:13	0°♍	
	270 Sep 14 j 12:00	0°♎	
evening rise	270 Sep 18 j 02:30	4°♎30'10	
	270 Oct 08 j 12:01	0°♏	
desc. node	270 Oct 15 j 01:52	8°♏13'08	
	270 Nov 01 j 12:32	0°♐	
	270 Nov 25 j 14:38	0°♑	
	270 Dec 19 j 20:22	0°♒	
	271 Jan 13 j 10:12	0°♓	
asc. node	271 Feb 05 j 04:54	27°♓05'54	
	271 Feb 07 j 16:38	0°♈	
	271 Mar 06 j 09:21	0°♉	
evening max el	271 Mar 24 j 06:30	18°♉22'47	45°36'23
	271 Apr 05 j 22:35	0°♊	
greatest brilliancy	271 May 01 j 03:49	16°♊24'56	-4.7m
retrograde	271 May 12 j 01:09	18°♊33'41	
evening set	271 May 27 j 02:20	14°♊12'36	
desc. node	271 May 27 j 18:30	13°♊50'22	
inferior conj	271 Jun 02 j 13:14	10°♊21'33	-1°20'55
minimum elong	271 Jun 02 j 10:17	10°♊26'10	1°20'04
min. Earth dist.	271 Jun 02 j 16:39	10°♊16'13	0.28975 AU
morning rise	271 Jun 08 j 17:59	6°♊37'39	
direct	271 Jun 24 j 04:53	2°♊02'57	
greatest brilliancy	271 Jul 04 j 19:55	4°♊03'37	-4.7m

	271 Aug 09 j 23:21	0°♋	
morning max el	271 Aug 12 j 06:44	2°♋12'38	46°01'02
	271 Sep 07 j 20:06	0°♌	
asc. node	271 Sep 17 j 21:43	11°♌20'50	
	271 Oct 03 j 22:04	0°♍	
	271 Oct 28 j 19:12	0°♎	
	271 Nov 22 j 02:38	0°♏	
	271 Dec 16 j 04:29	0°♐	
desc. node	272 Jan 07 j 11:25	27°♐50'04	
	272 Jan 09 j 05:03	0°♑	
	272 Feb 02 j 06:20	0°♒	
morning set	272 Feb 15 j 12:58	16°♒31'18	
	272 Feb 26 j 09:22	0°♓	
	272 Mar 21 j 14:45	0°♈	
superior conj	272 Mar 25 j 12:25	4°♈49'16	-1°10'41
minimum elong	272 Mar 25 j 21:38	5°♈17'44	1°10'26
max. Earth dist.	272 Mar 28 j 05:18	8°♈09'32	1.73028 AU
	272 Apr 14 j 22:44	0°♉	
asc. node	272 Apr 29 j 14:34	18°♉00'52	
evening rise	272 May 02 j 02:17	21°♉04'02	
	272 May 09 j 09:08	0°♊	
	272 Jun 02 j 21:37	0°♋	
	272 Jun 27 j 12:29	0°♌	
	272 Jul 22 j 07:04	0°♍	
	272 Aug 16 j 07:53	0°♎	
desc. node	272 Aug 19 j 04:05	3°♎22'43	
	272 Sep 10 j 19:12	0°♏	
	272 Oct 07 j 02:36	0°♐	
evening max el	272 Oct 29 j 06:45	23°♐41'42	47°22'37
	272 Nov 04 j 15:16	0°♑	
greatest brilliancy	272 Dec 08 j 22:39	25°♑23'04	-4.9m
asc. node	272 Dec 10 j 07:13	25°♑52'19	
retrograde	272 Dec 19 j 06:53	27°♑26'53	
evening set	273 Jan 03 j 22:52	22°♑32'23	
min. Earth dist.	273 Jan 08 j 00:53	20°♑05'06	0.27046 AU
inferior conj	273 Jan 09 j 00:35	19°♑28'21	6°41'52
minimum elong	273 Jan 08 j 14:31	19°♑43'58	6°39'50
morning rise	273 Jan 13 j 06:38	16°♑53'34	
direct	273 Jan 29 j 11:47	11°♑42'54	
greatest brilliancy	273 Feb 07 j 11:44	13°♑14'51	-4.9m
	273 Mar 05 j 21:22	0°♒	
morning max el	273 Mar 20 j 00:58	12°♒59'57	46°15'20
desc. node	273 Mar 31 j 20:47	24°♒55'53	
	273 Apr 05 j 16:44	0°♓	
	273 May 03 j 00:09	0°♈	
	273 May 29 j 02:36	0°♉	
	273 Jun 23 j 13:11	0°♊	
	273 Jul 18 j 11:55	0°♋	
asc. node	273 Jul 23 j 00:03	5°♋28'27	
	273 Aug 12 j 00:32	0°♌	
	273 Sep 05 j 05:02	0°♍	
morning set	273 Sep 13 j 13:06	10°♍24'35	
	273 Sep 29 j 04:15	0°♎	
max. Earth dist.	273 Oct 21 j 14:57	28°♎13'07	1.71168 AU
superior conj	273 Oct 22 j 09:58	29°♎12'58	0°45'31
minimum elong	273 Oct 22 j 19:51	29°♎44'02	0°45'05
	273 Oct 23 j 00:55	0°♏	
desc. node	273 Nov 11 j 13:48	24°♏35'06	
	273 Nov 15 j 21:08	0°♐	
evening rise	273 Dec 02 j 20:23	21°♐19'52	
	273 Dec 09 j 18:07	0°♑	
	274 Jan 02 j 17:02	0°♒	
	274 Jan 26 j 19:45	0°♓	
	274 Feb 20 j 05:05	0°♈	
asc. node	274 Mar 04 j 16:47	15°♈10'14	
	274 Mar 17 j 01:04	0°♉	
	274 Apr 11 j 13:42	0°♊	
	274 May 08 j 07:09	0°♋	
evening max el	274 Jun 03 j 01:25	26°♋27'42	45°23'12
	274 Jun 06 j 19:49	0°♌	
desc. node	274 Jun 24 j 06:26	14°♌33'49	
greatest brilliancy	274 Jul 11 j 17:44	24°♌13'57	-4.7m
retrograde	274 Jul 21 j 16:02	25°♌59'31	
evening set	274 Aug 08 j 04:41	20°♌15'37	
inferior conj	274 Aug 11 j 21:00	18°♌01'36	-8°28'13
minimum elong	274 Aug 11 j 16:03	18°♌09'15	8°27'52
min. Earth dist.	274 Aug 12 j 07:35	17°♌45'18	0.28342 AU
morning rise	274 Aug 15 j 03:15	16°♌02'16	
direct	274 Sep 02 j 06:46	9°♌53'46	
greatest brilliancy	274 Sep 13 j 05:05	12°♌06'07	-4.8m
	274 Oct 09 j 13:58	0°♍	
asc. node	274 Oct 15 j 09:27	5°♍22'04	
morning max el	274 Oct 22 j 16:49	12°♍33'20	46°42'39
	274 Nov 08 j 02:51	0°♎	
	274 Dec 04 j 05:50	0°♏	
	274 Dec 29 j 06:23	0°♐	
	275 Jan 22 j 21:06	0°♑	
desc. node	275 Feb 03 j 23:12	14°♑48'12	
	275 Feb 16 j 08:31	0°♒	
	275 Mar 12 j 19:14	0°♓	
	275 Apr 06 j 06:14	0°♈	
morning set	275 Apr 27 j 12:00	26°♈02'15	
	275 Apr 30 j 17:35	0°♉	
	275 May 25 j 04:39	0°♊	
asc. node	275 May 28 j 02:30	3°♊34'19	
max. Earth dist.	275 Jun 01 j 17:02	9°♊13'35	1.73631 AU
superior conj	275 Jun 03 j 00:42	10°♊50'48	0°14'00
minimum elong	275 Jun 02 j 21:53	10°♊42'11	0°13'52
behind sun begin	275 Jun 02 j 11:04	10°♊08'56	
behind sun end	275 Jun 03 j 08:43	11°♊15'26	
	275 Jun 18 j 14:34	0°♋	
evening rise	275 Jul 08 j 19:01	24°♋51'53	
	275 Jul 12 j 22:56	0°♌	
	275 Aug 06 j 06:19	0°♍	
	275 Aug 30 j 14:00	0°♎	
desc. node	275 Sep 16 j 15:59	21°♎01'32	
	275 Sep 23 j 23:24	0°♏	
	275 Oct 18 j 12:07	0°♐	
	275 Nov 12 j 07:12	0°♑	
	275 Dec 07 j 16:49	0°♒	
	276 Jan 03 j 15:57	0°♓	
asc. node	276 Jan 07 j 19:04	4°♓18'05	
evening max el	276 Jan 09 j 23:31	6°♓32'02	46°49'19
	276 Feb 05 j 14:54	0°♈	
greatest brilliancy	276 Feb 18 j 17:18	7°♈14'21	-4.8m
retrograde	276 Feb 29 j 09:07	9°♈21'29	
evening set	276 Mar 17 j 16:17	3°♈32'14	
inferior conj	276 Mar 21 j 15:03	1°♈03'55	7°23'59
minimum elong	276 Mar 21 j 23:32	0°♈50'28	7°22'44
min. Earth dist.	276 Mar 21 j 12:16	1°♈08'22	0.28657 AU
	276 Mar 23 j 07:28	30°℞♓	
morning rise	276 Mar 26 j 07:06	28°♓10'40	
direct	276 Apr 11 j 22:48	22°♓51'30	
greatest brilliancy	276 Apr 21 j 13:04	24°♓32'40	-4.7m
desc. node	276 Apr 28 j 08:36	27°♓29'34	
	276 May 02 j 18:23	0°♈	
morning max el	276 May 30 j 17:59	22°♈45'15	45°45'23
	276 Jun 07 j 03:52	0°♉	
	276 Jul 05 j 10:29	0°♊	
	276 Jul 31 j 17:49	0°♋	
asc. node	276 Aug 19 j 11:55	22°♋11'25	

	276 Aug 25 j 23:44	0°♌	
	276 Sep 19 j 13:08	0°♍	
	276 Oct 13 j 16:10	0°♎	
	276 Nov 06 j 13:53	0°♏	
morning set	276 Nov 26 j 22:14	25°♏36'41	
	276 Nov 30 j 09:55	0°♐	
desc. node	276 Dec 09 j 01:37	10°♐53'24	
	276 Dec 24 j 06:22	0°♑	
superior conj	277 Jan 07 j 21:28	18°♑21'44	-1°03'07
minimum elong	277 Jan 07 j 09:40	17°♑44'45	1°02'44
max. Earth dist.	277 Jan 11 j 16:24	23°♑06'40	1.71437 AU
	277 Jan 17 j 04:24	0°♒	
	277 Feb 10 j 04:58	0°♓	
evening rise	277 Feb 17 j 13:49	9°♓09'55	
	277 Mar 06 j 09:20	0°♈	
	277 Mar 30 j 18:51	0°♉	
asc. node	277 Apr 01 j 04:47	1°♉43'45	
	277 Apr 24 j 10:49	0°♊	
	277 May 19 j 10:53	0°♋	
	277 Jun 13 j 22:32	0°♌	
	277 Jul 10 j 05:46	0°♍	
desc. node	277 Jul 21 j 18:11	12°♍39'36	
	277 Aug 07 j 06:16	0°♎	
evening max el	277 Aug 14 j 18:00	7°♎25'51	46°22'42
	277 Sep 10 j 13:56	0°♏	
greatest brilliancy	277 Sep 24 j 08:02	6°♏59'38	-4.9m
retrograde	277 Oct 03 j 09:17	8°♏31'12	
evening set	277 Oct 18 j 20:29	3°♏55'16	
inferior conj	277 Oct 24 j 00:40	0°♏52'50	-4°38'31
minimum elong	277 Oct 24 j 10:01	0°♏38'37	4°35'56
min. Earth dist.	277 Oct 24 j 14:38	0°♏31'36	0.26621 AU
	277 Oct 25 j 11:29	30°℞♎	
morning rise	277 Oct 29 j 23:01	27°♎24'33	
asc. node	277 Nov 11 j 21:24	23°♎14'58	
direct	277 Nov 13 j 12:14	23°♎11'45	
greatest brilliancy	277 Nov 24 j 06:36	25°♎22'55	-4.9m
	277 Dec 03 j 06:27	0°♏	
morning max el	278 Jan 03 j 03:42	26°♏30'37	46°53'46
	278 Jan 06 j 13:25	0°♐	
	278 Feb 03 j 00:26	0°♑	
	278 Feb 28 j 22:47	0°♒	
desc. node	278 Mar 03 j 11:06	2°♒57'11	
	278 Mar 26 j 06:55	0°♓	
	278 Apr 20 j 08:12	0°♈	
	278 May 15 j 05:15	0°♉	
	278 Jun 08 j 22:22	0°♊	
asc. node	278 Jun 24 j 14:17	19°♊07'58	
	278 Jul 03 j 10:54	0°♋	
morning set	278 Jul 03 j 21:43	0°♋33'15	
	278 Jul 27 j 18:30	0°♌	
max. Earth dist.	278 Aug 05 j 13:18	10°♌53'40	1.72615 AU
superior conj	278 Aug 09 j 08:49	15°♌37'54	1°21'12
minimum elong	278 Aug 09 j 03:54	15°♌22'38	1°21'09
	278 Aug 20 j 21:55	0°♍	
	278 Sep 13 j 22:51	0°♎	
evening rise	278 Sep 15 j 16:35	2°♎10'21	
	278 Oct 07 j 23:04	0°♏	
desc. node	278 Oct 14 j 04:01	7°♏45'12	
	278 Oct 31 j 23:49	0°♐	
	278 Nov 25 j 02:11	0°♑	
	278 Dec 19 j 08:19	0°♒	
	279 Jan 12 j 22:49	0°♓	
asc. node	279 Feb 04 j 06:53	26°♓31'38	
	279 Feb 07 j 06:34	0°♈	
	279 Mar 06 j 02:25	0°♉	
evening max el	279 Mar 21 j 21:55	16°♉11'11	45°38'20
	279 Apr 06 j 04:17	0°♊	
greatest brilliancy	279 Apr 28 j 19:31	14°♊16'36	-4.7m
retrograde	279 May 09 j 18:09	16°♊26'36	
evening set	279 May 24 j 19:01	12°♊04'40	
desc. node	279 May 26 j 20:32	10°♊54'38	
inferior conj	279 May 31 j 05:44	8°♊13'50	-1°01'30
minimum elong	279 May 31 j 03:29	8°♊17'21	1°00'50
min. Earth dist.	279 May 31 j 09:05	8°♊08'36	0.28983 AU
morning rise	279 Jun 06 j 11:45	4°♊28'27	
	279 Jun 19 j 19:41	30°℞♉	
direct	279 Jun 21 j 21:22	29°♉54'58	
	279 Jun 23 j 23:39	0°♊	
greatest brilliancy	279 Jul 02 j 12:07	1°♊55'42	-4.7m
	279 Aug 09 j 21:46	0°♋	
morning max el	279 Aug 09 j 23:28	0°♋04'08	45°59'46
	279 Sep 07 j 11:44	0°♌	
asc. node	279 Sep 16 j 23:49	10°♌45'02	
	279 Oct 03 j 11:27	0°♍	
	279 Oct 28 j 07:33	0°♎	
	279 Nov 21 j 14:26	0°♏	
	279 Dec 15 j 15:57	0°♐	
desc. node	280 Jan 06 j 13:23	27°♐21'13	
	280 Jan 08 j 16:14	0°♑	
	280 Feb 01 j 17:20	0°♒	
morning set	280 Feb 13 j 01:00	14°♒05'29	
	280 Feb 25 j 20:12	0°♓	
	280 Mar 21 j 01:28	0°♈	
superior conj	280 Mar 23 j 03:46	2°♈35'26	-1°12'33
minimum elong	280 Mar 23 j 12:45	3°♈03'10	1°12'20
max. Earth dist.	280 Mar 25 j 22:29	6°♈01'26	1.72981 AU
	280 Apr 14 j 09:24	0°♉	
asc. node	280 Apr 28 j 16:45	17°♉34'52	
evening rise	280 Apr 29 j 20:02	18°♉58'34	
	280 May 08 j 19:49	0°♊	
	280 Jun 02 j 08:30	0°♋	
	280 Jun 26 j 23:44	0°♌	
	280 Jul 21 j 18:56	0°♍	
	280 Aug 15 j 20:44	0°♎	
desc. node	280 Aug 18 j 06:04	2°♎50'04	
	280 Sep 10 j 09:38	0°♏	
	280 Oct 06 j 20:06	0°♐	
evening max el	280 Oct 26 j 22:00	21°♐21'01	47°22'06
	280 Nov 04 j 17:35	0°♑	
greatest brilliancy	280 Dec 06 j 12:12	22°♑56'30	-4.9m
asc. node	280 Dec 09 j 09:14	23°♑54'07	
retrograde	280 Dec 16 j 21:11	25°♑00'35	
evening set	281 Jan 01 j 08:52	20°♑11'25	
min. Earth dist.	281 Jan 05 j 13:52	17°♑39'58	0.26983 AU
inferior conj	281 Jan 06 j 13:46	17°♑02'55	6°26'47
minimum elong	281 Jan 06 j 03:36	17°♑18'41	6°24'35
morning rise	281 Jan 10 j 22:54	14°♑24'07	
direct	281 Jan 27 j 01:04	9°♑18'38	
greatest brilliancy	281 Feb 05 j 00:18	10°♑50'27	-4.9m
	281 Mar 06 j 04:00	0°♒	
morning max el	281 Mar 17 j 15:32	10°♒42'21	46°16'46
desc. node	281 Mar 30 j 22:59	24°♒11'57	
	281 Apr 05 j 10:37	0°♓	
	281 May 02 j 14:26	0°♈	
	281 May 28 j 15:12	0°♉	
	281 Jun 23 j 00:52	0°♊	
	281 Jul 17 j 23:06	0°♋	
asc. node	281 Jul 22 j 02:06	5°♋00'52	
	281 Aug 11 j 11:27	0°♌	
	281 Sep 04 j 15:54	0°♍	
morning set	281 Sep 11 j 04:04	8°♍07'26	

	281 Sep 28 j 15:08	0°♎		
max. Earth dist.	281 Oct 18 j 21:08	25°♎27'09	1.71196 AU	
superior conj	281 Oct 19 j 21:39	26°♎44'16	0°48'41	
minimum elong	281 Oct 20 j 07:51	27°♎16'19	0°48'16	
	281 Oct 22 j 11:53	0°♏		
desc. node	281 Nov 10 j 15:54	24°♏07'06		
	281 Nov 15 j 08:09	0°♐		
evening rise	281 Nov 30 j 05:55	18°♐44'13		
	281 Dec 09 j 05:12	0°♑		
	282 Jan 02 j 04:14	0°♒		
	282 Jan 26 j 07:05	0°♓		
	282 Feb 19 j 16:44	0°♈		
asc. node	282 Mar 03 j 18:56	14°♈40'46		
	282 Mar 16 j 13:19	0°♉		
	282 Apr 11 j 03:10	0°♊		
	282 May 07 j 23:23	0°♋		
evening max el	282 May 31 j 16:48	24°♋15'53	45°22'18	
	282 Jun 06 j 20:51	0°♌		
desc. node	282 Jun 23 j 08:28	13°♌23'25		
greatest brilliancy	282 Jul 09 j 07:25	21°♌59'54	-4.7m	
retrograde	282 Jul 19 j 06:07	23°♌45'46		
evening set	282 Aug 05 j 16:32	18°♌06'19		
inferior conj	282 Aug 09 j 12:01	15°♌47'26	-8°22'16	
minimum elong	282 Aug 09 j 06:20	15°♌56'13	8°21'48	
min. Earth dist.	282 Aug 09 j 21:59	15°♌32'02	0.28386 AU	
morning rise	282 Aug 12 j 19:58	13°♌45'14		
direct	282 Aug 30 j 22:13	7°♌39'03		
greatest brilliancy	282 Sep 10 j 19:59	9°♌50'09	-4.8m	
	282 Oct 09 j 18:00	0°♍		
asc. node	282 Oct 14 j 11:40	4°♍27'46		
morning max el	282 Oct 20 j 06:26	10°♍10'44	46°41'13	
	282 Nov 07 j 20:23	0°♎		
	282 Dec 03 j 20:21	0°♏		
	282 Dec 28 j 19:30	0°♐		
	283 Jan 22 j 09:25	0°♑		
desc. node	283 Feb 03 j 01:17	14°♑17'46		
	283 Feb 15 j 20:16	0°♒		
	283 Mar 12 j 06:34	0°♓		
	283 Apr 05 j 17:16	0°♈		
morning set	283 Apr 25 j 05:33	23°♈55'46		
	283 Apr 30 j 04:24	0°♉		
	283 May 24 j 15:23	0°♊		
asc. node	283 May 27 j 04:30	3°♊07'33		
max. Earth dist.	283 May 30 j 13:17	7°♊15'30	1.73637 AU	
superior conj	283 May 31 j 19:13	8°♊47'23	0°10'56	
minimum elong	283 May 31 j 17:01	8°♊40'37	0°10'49	
behind sun begin	283 May 31 j 00:31	7°♊49'57		
behind sun end	283 Jun 01 j 09:31	9°♊31'18		
	283 Jun 18 j 01:18	0°♋		
evening rise	283 Jul 06 j 14:00	22°♋49'05		
	283 Jul 12 j 09:47	0°♌		
	283 Aug 05 j 17:24	0°♍		
	283 Aug 30 j 01:25	0°♎		
desc. node	283 Sep 15 j 18:12	20°♎32'14		
	283 Sep 23 j 11:18	0°♏		
	283 Oct 18 j 00:42	0°♐		
	283 Nov 11 j 20:51	0°♑		
	283 Dec 07 j 08:20	0°♒		
	284 Jan 03 j 12:06	0°♓		
asc. node	284 Jan 06 j 21:06	3°♓28'45		
evening max el	284 Jan 07 j 13:45	4°♓11'05	46°51'42	
	284 Feb 06 j 15:49	0°♈		
greatest brilliancy	284 Feb 16 j 10:44	5°♈01'57	-4.8m	
retrograde	284 Feb 27 j 00:54	7°♈07'59		
evening set	284 Mar 15 j 10:52	1°♈15'15		
	284 Mar 17 j 11:26	30°℞♓		
inferior conj	284 Mar 19 j 07:04	28°♓50'49	7°34'16	
minimum elong	284 Mar 19 j 15:08	28°♓37'58	7°33'09	
min. Earth dist.	284 Mar 19 j 03:48	28°♓56'00	0.28621 AU	
morning rise	284 Mar 23 j 19:41	26°♓02'20		
direct	284 Apr 09 j 13:42	20°♓39'00		
greatest brilliancy	284 Apr 19 j 03:46	22°♓19'35	-4.7m	
desc. node	284 Apr 27 j 10:43	26°♓03'37		
	284 May 03 j 19:32	0°♈		
morning max el	284 May 28 j 08:34	20°♈31'33	45°45'45	
	284 Jun 06 j 23:36	0°♉		
	284 Jul 05 j 01:20	0°♊		
	284 Jul 31 j 06:47	0°♋		
asc. node	284 Aug 18 j 14:01	21°♋41'04		
	284 Aug 25 j 11:46	0°♌		
	284 Sep 19 j 00:41	0°♍		
	284 Oct 13 j 03:28	0°♎		
	284 Nov 06 j 01:05	0°♏		
morning set	284 Nov 24 j 08:37	23°♏03'03		
	284 Nov 29 j 21:05	0°♐		
desc. node	284 Dec 08 j 03:35	10°♐24'32		
	284 Dec 23 j 17:32	0°♑		
superior conj	285 Jan 05 j 07:29	15°♑47'45	-1°00'23	
minimum elong	285 Jan 04 j 19:37	15°♑10'34	0°59'58	
max. Earth dist.	285 Jan 08 j 20:29	20°♑14'14	1.71397 AU	
	285 Jan 16 j 15:32	0°♒		
	285 Feb 09 j 16:04	0°♓		
evening rise	285 Feb 15 j 01:52	6°♓43'42		
	285 Mar 05 j 20:28	0°♈		
	285 Mar 30 j 06:08	0°♉		
asc. node	285 Mar 31 j 06:55	1°♉15'48		
	285 Apr 23 j 22:25	0°♊		
	285 May 18 j 23:08	0°♋		
	285 Jun 13 j 11:56	0°♌		
	285 Jul 09 j 21:27	0°♍		
desc. node	285 Jul 20 j 20:15	11°♍58'19		
	285 Aug 07 j 03:40	0°♎		
evening max el	285 Aug 12 j 06:25	5°♎02'03	46°20'07	
	285 Sep 11 j 23:54	0°♏		
greatest brilliancy	285 Sep 21 j 20:49	4°♏33'21	-4.9m	
retrograde	285 Sep 30 j 21:28	6°♏04'35		
evening set	285 Oct 16 j 11:46	1°♏23'58		
	285 Oct 18 j 22:24	30°℞♎		
inferior conj	285 Oct 21 j 13:07	28°♎25'47	-4°58'39	
minimum elong	285 Oct 21 j 22:53	28°♎10'57	4°56'02	
min. Earth dist.	285 Oct 22 j 04:17	28°♎02'46	0.26668 AU	
morning rise	285 Oct 27 j 09:27	25°♎00'26		
asc. node	285 Nov 10 j 23:20	20°♎43'37		
direct	285 Nov 11 j 01:08	20°♎43'37		
greatest brilliancy	285 Nov 21 j 21:05	22°♎56'38	-4.9m	
	285 Dec 04 j 12:34	0°♏		
morning max el	285 Dec 31 j 17:54	24°♏06'25	46°54'22	
	286 Jan 06 j 10:53	0°♐		
	286 Feb 02 j 16:32	0°♑		
	286 Feb 28 j 12:40	0°♒		
desc. node	286 Mar 02 j 13:15	2°♒23'04		
	286 Mar 25 j 19:35	0°♓		
	286 Apr 19 j 20:07	0°♈		
	286 May 14 j 16:41	0°♉		
	286 Jun 08 j 09:29	0°♊		
asc. node	286 Jun 23 j 16:19	18°♊40'33		
morning set	286 Jul 01 j 15:42	28°♊27'26		
	286 Jul 02 j 21:51	0°♋		
	286 Jul 27 j 05:25	0°♌		
max. Earth dist.	286 Aug 03 j 08:53	8°♌51'28	1.72668 AU	

superior conj	286 Aug 07 j 02:08	13°♌28'32	1°20'14
minimum elong	286 Aug 06 j 20:40	13°♌11'35	1°20'09
	286 Aug 20 j 08:55	0°♍	
evening rise	286 Sep 13 j 07:06	29°♍50'56	
	286 Sep 13 j 10:00	0°♎	
	286 Oct 07 j 10:25	0°♏	
desc. node	286 Oct 13 j 06:04	7°♏16'04	
	286 Oct 31 j 11:23	0°♐	
	286 Nov 24 j 14:01	0°♑	
	286 Dec 18 j 20:33	0°♒	
	287 Jan 12 j 11:46	0°♓	
asc. node	287 Feb 03 j 09:02	25°♓56'38	
	287 Feb 06 j 20:57	0°♈	
	287 Mar 05 j 20:19	0°♉	
evening max el	287 Mar 19 j 14:19	14°♉00'41	45°40'13
	287 Apr 06 j 13:02	0°♊	
greatest brilliancy	287 Apr 26 j 11:26	12°♊07'13	-4.7m
retrograde	287 May 07 j 11:18	14°♊18'01	
evening set	287 May 22 j 11:55	9°♊55'23	
desc. node	287 May 25 j 22:31	7°♊55'42	
inferior conj	287 May 28 j 22:13	6°♊04'47	-0°41'57
minimum elong	287 May 28 j 20:40	6°♊07'12	0°41'29
min. Earth dist.	287 May 29 j 01:23	5°♊59'51	0.28986 AU
morning rise	287 Jun 04 j 05:22	2°♊18'04	
	287 Jun 08 j 22:54	30°℞♉	
direct	287 Jun 19 j 14:13	27°♉45'55	
greatest brilliancy	287 Jun 30 j 03:44	29°♉46'00	-4.7m
	287 Jun 30 j 18:51	0°♊	
morning max el	287 Aug 07 j 16:18	27°♊55'04	45°58'32
	287 Aug 09 j 19:41	0°♋	
	287 Sep 07 j 03:27	0°♌	
asc. node	287 Sep 16 j 01:58	10°♌08'51	
	287 Oct 03 j 01:01	0°♍	
	287 Oct 27 j 20:09	0°♎	
	287 Nov 21 j 02:31	0°♏	
	287 Dec 15 j 03:40	0°♐	
desc. node	288 Jan 05 j 15:29	26°♐51'55	
	288 Jan 08 j 03:42	0°♑	
	288 Feb 01 j 04:35	0°♒	
morning set	288 Feb 10 j 13:16	11°♒39'29	
	288 Feb 25 j 07:19	0°♓	
superior conj	288 Mar 20 j 19:09	0°♈20'36	-1°14'19
minimum elong	288 Mar 21 j 03:49	0°♈47'21	1°14'06
	288 Mar 20 j 12:29	0°♈	
max. Earth dist.	288 Mar 23 j 17:29	3°♈57'53	1.72938 AU
	288 Apr 13 j 20:23	0°♉	
evening rise	288 Apr 27 j 13:41	16°♉51'42	
asc. node	288 Apr 27 j 18:43	17°♉07'09	
	288 May 08 j 06:52	0°♊	
	288 Jun 01 j 19:44	0°♋	
	288 Jun 26 j 11:21	0°♌	
	288 Jul 21 j 07:11	0°♍	
	288 Aug 15 j 09:58	0°♎	
desc. node	288 Aug 17 j 08:15	2°♎17'01	
	288 Sep 10 j 00:32	0°♏	
	288 Oct 06 j 14:17	0°♐	
evening max el	288 Oct 24 j 13:32	19°♐00'09	47°21'19
	288 Nov 04 j 21:53	0°♑	
greatest brilliancy	288 Dec 04 j 02:14	20°♑29'32	-4.9m
asc. node	288 Dec 08 j 11:19	21°♑50'11	
retrograde	288 Dec 14 j 11:18	22°♑32'59	
evening set	288 Dec 29 j 19:02	17°♑49'22	
min. Earth dist.	289 Jan 03 j 03:11	15°♑13'18	0.26919 AU
inferior conj	289 Jan 04 j 02:56	14°♑36'30	6°10'48
minimum elong	289 Jan 03 j 16:46	14°♑52'16	6°08'30
morning rise	289 Jan 08 j 15:07	11°♑53'27	
direct	289 Jan 24 j 14:12	6°♑53'31	
greatest brilliancy	289 Feb 02 j 13:07	8°♑25'10	-4.9m
	289 Mar 06 j 08:53	0°♒	
morning max el	289 Mar 15 j 05:19	8°♒22'00	46°18'15
desc. node	289 Mar 30 j 01:03	23°♒27'38	
	289 Apr 05 j 04:22	0°♓	
	289 May 02 j 04:48	0°♈	
	289 May 28 j 04:01	0°♉	
	289 Jun 22 j 12:50	0°♊	
	289 Jul 17 j 10:34	0°♋	
asc. node	289 Jul 21 j 04:15	4°♋32'39	
	289 Aug 10 j 22:40	0°♌	
	289 Sep 04 j 03:01	0°♍	
morning set	289 Sep 08 j 19:05	5°♍49'44	
	289 Sep 28 j 02:15	0°♎	
max. Earth dist.	289 Oct 16 j 01:58	22°♎36'21	1.71227 AU
superior conj	289 Oct 17 j 09:36	24°♎15'47	0°51'44
minimum elong	289 Oct 17 j 20:01	24°♎48'33	0°51'20
	289 Oct 21 j 23:04	0°♏	
desc. node	289 Nov 09 j 17:51	23°♏37'52	
	289 Nov 14 j 19:25	0°♐	
evening rise	289 Nov 27 j 15:32	16°♐08'05	
	289 Dec 08 j 16:35	0°♑	
	290 Jan 01 j 15:43	0°♒	
	290 Jan 25 j 18:43	0°♓	
	290 Feb 19 j 04:39	0°♈	
asc. node	290 Mar 02 j 21:03	14°♈10'28	
	290 Mar 16 j 01:50	0°♉	
	290 Apr 10 j 16:58	0°♊	
	290 May 07 j 16:09	0°♋	
evening max el	290 May 29 j 07:21	22°♋01'22	45°21'21
	290 Jun 06 j 23:37	0°♌	
desc. node	290 Jun 22 j 10:33	12°♌10'17	
greatest brilliancy	290 Jul 06 j 21:20	19°♌45'14	-4.7m
retrograde	290 Jul 16 j 20:02	21°♌31'32	
evening set	290 Aug 03 j 04:15	15°♌56'30	
inferior conj	290 Aug 07 j 03:05	13°♌32'45	-8°15'34
minimum elong	290 Aug 06 j 20:43	13°♌42'34	8°14'58
min. Earth dist.	290 Aug 07 j 12:46	13°♌17'46	0.28429 AU
morning rise	290 Aug 10 j 12:57	11°♌27'27	
direct	290 Aug 28 j 13:18	5°♌23'38	
greatest brilliancy	290 Sep 08 j 11:38	7°♌34'33	-4.8m
	290 Oct 09 j 20:40	0°♍	
asc. node	290 Oct 13 j 13:36	3°♍33'19	
morning max el	290 Oct 17 j 19:47	7°♍47'00	46°39'55
	290 Nov 07 j 13:43	0°♎	
	290 Dec 03 j 10:50	0°♏	
	290 Dec 28 j 08:40	0°♐	
	291 Jan 21 j 21:48	0°♑	
desc. node	291 Feb 02 j 03:23	13°♑47'00	
	291 Feb 15 j 08:08	0°♒	
	291 Mar 11 j 18:03	0°♓	
	291 Apr 05 j 04:25	0°♈	
morning set	291 Apr 22 j 23:08	21°♈48'51	
	291 Apr 29 j 15:21	0°♉	
	291 May 24 j 02:13	0°♊	
asc. node	291 May 26 j 06:35	2°♊40'42	
max. Earth dist.	291 May 28 j 09:41	5°♊17'31	1.73643 AU
superior conj	291 May 29 j 13:49	6°♊43'54	0°07'50
minimum elong	291 May 29 j 12:14	6°♊39'01	0°07'46
behind sun begin	291 May 28 j 16:32	5°♊38'33	
behind sun end	291 May 30 j 07:56	7°♊39'31	
	291 Jun 17 j 12:10	0°♋	
evening rise	291 Jul 04 j 09:05	20°♋46'17	
	291 Jul 11 j 20:47	0°♌	

	291 Aug 05 j 04:38	0°♍	
	291 Aug 29 j 13:00	0°♎	
desc. node	291 Sep 14 j 20:11	20°♎01'45	
	291 Sep 22 j 23:23	0°♏	
	291 Oct 17 j 13:29	0°♐	
	291 Nov 11 j 10:41	0°♑	
	291 Dec 07 j 00:09	0°♒	
	292 Jan 03 j 09:01	0°♓	
evening max el	292 Jan 05 j 03:32	1°♓48'37	46°54'00
asc. node	292 Jan 05 j 23:14	2°♓38'33	
	292 Feb 08 j 03:26	0°♈	
greatest brilliancy	292 Feb 14 j 03:36	2°♈48'04	-4.8m
retrograde	292 Feb 24 j 16:38	4°♈53'46	
	292 Mar 11 j 10:49	30°℞♓	
evening set	292 Mar 13 j 05:11	28°♓57'19	
inferior conj	292 Mar 16 j 22:54	26°♓36'50	7°43'54
minimum elong	292 Mar 17 j 06:33	26°♓24'41	7°42'55
min. Earth dist.	292 Mar 16 j 19:12	26°♓42'44	0.28586 AU
morning rise	292 Mar 21 j 08:09	23°♓53'20	
direct	292 Apr 07 j 04:17	18°♓25'27	
greatest brilliancy	292 Apr 16 j 18:34	20°♓06'01	-4.7m
desc. node	292 Apr 26 j 12:38	24°♓39'43	
	292 May 04 j 14:16	0°♈	
morning max el	292 May 25 j 23:42	18°♈18'54	45°46'20
	292 Jun 06 j 18:48	0°♉	
	292 Jul 04 j 16:02	0°♊	
	292 Jul 30 j 19:40	0°♋	
asc. node	292 Aug 17 j 16:08	21°♋10'53	
	292 Aug 24 j 23:48	0°♌	
	292 Sep 18 j 12:16	0°♍	
	292 Oct 12 j 14:50	0°♎	
	292 Nov 05 j 12:20	0°♏	
morning set	292 Nov 21 j 18:53	20°♏29'00	
	292 Nov 29 j 08:16	0°♐	
desc. node	292 Dec 07 j 05:44	9°♐56'10	
	292 Dec 23 j 04:40	0°♑	
superior conj	293 Jan 02 j 17:13	13°♑12'56	-0°57'29
minimum elong	293 Jan 02 j 05:23	12°♑35'49	0°57'03
max. Earth dist.	293 Jan 06 j 00:53	17°♑22'48	1.71358 AU
	293 Jan 16 j 02:37	0°♒	
	293 Feb 09 j 03:08	0°♓	
evening rise	293 Feb 12 j 13:51	4°♓17'16	
	293 Mar 05 j 07:35	0°♈	
	293 Mar 29 j 17:24	0°♉	
asc. node	293 Mar 30 j 08:54	0°♉47'22	
	293 Apr 23 j 10:01	0°♊	
	293 May 18 j 11:21	0°♋	
	293 Jun 13 j 01:20	0°♌	
	293 Jul 09 j 13:16	0°♍	
desc. node	293 Jul 19 j 22:23	11°♍17'03	
	293 Aug 07 j 01:45	0°♎	
evening max el	293 Aug 09 j 19:37	2°♎40'40	46°17'26
	293 Sep 14 j 02:34	0°♏	
greatest brilliancy	293 Sep 19 j 08:42	2°♏06'17	-4.9m
retrograde	293 Sep 28 j 09:51	3°♏37'45	
	293 Oct 12 j 00:02	30°℞♎	
evening set	293 Oct 14 j 03:01	28°♎52'19	
inferior conj	293 Oct 19 j 01:23	25°♎58'19	-5°18'19
minimum elong	293 Oct 19 j 11:31	25°♎42'59	5°15'41
min. Earth dist.	293 Oct 19 j 17:23	25°♎34'06	0.26722 AU
morning rise	293 Oct 24 j 19:29	22°♎36'19	
direct	293 Nov 08 j 14:28	18°♎15'14	
asc. node	293 Nov 10 j 01:27	18°♎17'50	
greatest brilliancy	293 Nov 19 j 10:58	20°♎29'22	-4.9m
	293 Dec 05 j 10:33	0°♏	
morning max el	293 Dec 29 j 08:37	21°♏43'36	46°54'55

	294 Jan 06 j 07:36	0°♐	
	294 Feb 02 j 08:17	0°♑	
	294 Feb 28 j 02:17	0°♒	
desc. node	294 Mar 01 j 15:19	1°♒49'16	
	294 Mar 25 j 08:02	0°♓	
	294 Apr 19 j 07:51	0°♈	
	294 May 14 j 03:57	0°♉	
	294 Jun 07 j 20:27	0°♊	
asc. node	294 Jun 22 j 18:31	18°♊14'09	
morning set	294 Jun 29 j 09:53	26°♊22'43	
	294 Jul 02 j 08:38	0°♋	
	294 Jul 26 j 16:08	0°♌	
max. Earth dist.	294 Aug 01 j 03:47	6°♌47'53	1.72716 AU
superior conj	294 Aug 04 j 19:40	11°♌20'33	1°19'09
minimum elong	294 Aug 04 j 13:41	11°♌02'00	1°19'03
	294 Aug 19 j 19:42	0°♍	
evening rise	294 Sep 10 j 21:51	27°♍32'58	
	294 Sep 12 j 20:57	0°♎	
	294 Oct 06 j 21:35	0°♏	
desc. node	294 Oct 12 j 08:05	6°♏47'17	
	294 Oct 30 j 22:48	0°♐	
	294 Nov 24 j 01:45	0°♑	
	294 Dec 18 j 08:43	0°♒	
	295 Jan 12 j 00:40	0°♓	
asc. node	295 Feb 02 j 11:06	25°♓21'42	
	295 Feb 06 j 11:20	0°♈	
	295 Mar 05 j 14:26	0°♉	
evening max el	295 Mar 17 j 06:57	11°♉51'14	45°42'11
	295 Apr 07 j 00:36	0°♊	
greatest brilliancy	295 Apr 24 j 03:42	9°♊58'44	-4.7m
retrograde	295 May 05 j 04:03	12°♊09'37	
evening set	295 May 20 j 04:54	7°♊46'22	
desc. node	295 May 25 j 00:42	4°♊55'14	
inferior conj	295 May 26 j 14:35	3°♊56'06	-0°22'11
minimum elong	295 May 26 j 13:46	3°♊57'22	0°21'57
min. Earth dist.	295 May 26 j 17:37	3°♊51'21	0.28986 AU
morning rise	295 Jun 01 j 22:40	0°♊08'02	
	295 Jun 02 j 04:33	30°℞♉	
direct	295 Jun 17 j 07:06	25°♉37'21	
greatest brilliancy	295 Jun 27 j 18:57	27°♉36'15	-4.7m
	295 Jul 03 j 07:03	0°♊	
morning max el	295 Aug 05 j 08:30	25°♊45'17	45°57'25
	295 Aug 09 j 16:31	0°♋	
	295 Sep 06 j 18:36	0°♌	
asc. node	295 Sep 15 j 03:56	9°♌33'20	
	295 Oct 02 j 14:09	0°♍	
	295 Oct 27 j 08:23	0°♎	
	295 Nov 20 j 14:15	0°♏	
	295 Dec 14 j 15:07	0°♐	
desc. node	296 Jan 04 j 17:37	26°♐23'28	
	296 Jan 07 j 14:56	0°♑	
	296 Jan 31 j 15:38	0°♒	
morning set	296 Feb 08 j 00:55	9°♒12'11	
	296 Feb 24 j 18:12	0°♓	
superior conj	296 Mar 18 j 09:57	28°♓04'40	-1°15'59
minimum elong	296 Mar 18 j 18:13	28°♓30'12	1°15'48
	296 Mar 19 j 23:15	0°♈	
max. Earth dist.	296 Mar 21 j 13:13	1°♈57'18	1.72888 AU
	296 Apr 13 j 07:06	0°♉	
evening rise	296 Apr 25 j 06:53	14°♉44'11	
asc. node	296 Apr 26 j 20:48	16°♉40'33	
	296 May 07 j 17:39	0°♊	
	296 Jun 01 j 06:44	0°♋	
	296 Jun 25 j 22:44	0°♌	
	296 Jul 20 j 19:12	0°♍	

	296 Aug 14 j 22:58	0°♎	
desc. node	296 Aug 16 j 10:16	1°♎44'18	
	296 Sep 09 j 15:13	0°♏	
	296 Oct 06 j 08:27	0°♐	
evening max el	296 Oct 22 j 04:17	16°♐38'30	47°20'20
	296 Nov 05 j 03:31	0°♑	
greatest brilliancy	296 Dec 01 j 16:35	18°♑03'50	-4.9m
asc. node	296 Dec 07 j 13:26	19°♑42'01	
retrograde	296 Dec 12 j 00:40	20°♑05'52	
evening set	296 Dec 27 j 05:12	15°♑27'43	
min. Earth dist.	296 Dec 31 j 16:51	12°♑46'38	0.26860 AU
inferior conj	297 Jan 01 j 15:59	12°♑10'45	5°53'54
minimum elong	297 Jan 01 j 05:53	12°♑26'25	5°51'31
morning rise	297 Jan 06 j 07:12	9°♑23'16	
direct	297 Jan 22 j 02:56	4°♑28'52	
greatest brilliancy	297 Jan 31 j 02:38	6°♑00'59	-4.9m
	297 Mar 06 j 11:47	0°♒	
morning max el	297 Mar 12 j 18:07	5°♒59'34	46°19'41
desc. node	297 Mar 29 j 03:01	22°♒44'19	
	297 Apr 04 j 21:30	0°♓	
	297 May 01 j 18:47	0°♈	
	297 May 27 j 16:27	0°♉	
	297 Jun 22 j 00:26	0°♊	
	297 Jul 16 j 21:42	0°♋	
asc. node	297 Jul 20 j 06:16	4°♋05'02	
	297 Aug 10 j 09:34	0°♌	
	297 Sep 03 j 13:50	0°♍	
morning set	297 Sep 06 j 10:12	3°♍33'17	
	297 Sep 27 j 13:04	0°♎	
max. Earth dist.	297 Oct 13 j 07:19	19°♎48'17	1.71257 AU
superior conj	297 Oct 14 j 21:57	21°♎49'43	0°54'40
minimum elong	297 Oct 15 j 08:31	22°♎22'57	0°54'15
	297 Oct 21 j 09:54	0°♏	
desc. node	297 Nov 08 j 20:02	23°♏10'28	
	297 Nov 14 j 06:19	0°♐	
evening rise	297 Nov 25 j 01:33	13°♐34'23	
	297 Dec 08 j 03:34	0°♑	
	298 Jan 01 j 02:49	0°♒	
	298 Jan 25 j 06:01	0°♓	
	298 Feb 18 j 16:16	0°♈	
asc. node	298 Mar 01 j 23:00	13°♈40'26	
	298 Mar 15 j 14:07	0°♉	
	298 Apr 10 j 06:37	0°♊	
	298 May 07 j 08:59	0°♋	
evening max el	298 May 26 j 21:16	19°♋46'11	45°20'39
	298 Jun 07 j 03:42	0°♌	
desc. node	298 Jun 21 j 12:39	10°♌55'55	
greatest brilliancy	298 Jul 04 j 10:50	17°♌31'05	-4.7m
retrograde	298 Jul 14 j 10:15	19°♌18'32	
evening set	298 Jul 31 j 15:49	13°♌47'40	
inferior conj	298 Aug 04 j 18:08	11°♌18'59	-8°08'03
minimum elong	298 Aug 04 j 11:09	11°♌29'45	8°07'19
min. Earth dist.	298 Aug 05 j 03:31	11°♌04'29	0.28473 AU
morning rise	298 Aug 08 j 06:13	9°♌10'23	
direct	298 Aug 26 j 04:18	3°♌08'57	
greatest brilliancy	298 Sep 06 j 03:45	5°♌20'30	-4.8m
	298 Oct 09 j 21:36	0°♍	
asc. node	298 Oct 12 j 15:43	2°♍41'09	
morning max el	298 Oct 15 j 09:41	5°♍25'38	46°38'46
	298 Nov 07 j 06:23	0°♎	
	298 Dec 03 j 00:50	0°♏	
	298 Dec 27 j 21:23	0°♐	
	299 Jan 21 j 09:46	0°♑	
desc. node	299 Feb 01 j 05:24	13°♑17'16	
	299 Feb 14 j 19:37	0°♒	
	299 Mar 11 j 05:09	0°♓	
	299 Apr 04 j 15:16	0°♈	
morning set	299 Apr 20 j 16:29	19°♈41'57	
	299 Apr 29 j 02:01	0°♉	
	299 May 23 j 12:48	0°♊	
asc. node	299 May 25 j 08:44	2°♊14'51	
max. Earth dist.	299 May 26 j 06:02	3°♊20'13	1.73648 AU
superior conj	299 May 27 j 08:10	4°♊40'26	0°04'43
minimum elong	299 May 27 j 07:12	4°♊37'29	0°04'41
behind sun begin	299 May 26 j 09:39	3°♊31'19	
behind sun end	299 May 28 j 04:46	5°♊43'40	
	299 Jun 16 j 22:46	0°♋	
evening rise	299 Jul 02 j 04:01	18°♋43'55	
	299 Jul 11 j 07:32	0°♌	
	299 Aug 04 j 15:38	0°♍	
	299 Aug 29 j 00:23	0°♎	
desc. node	299 Sep 13 j 22:12	19°♎31'57	
	299 Sep 22 j 11:18	0°♏	
	299 Oct 17 j 02:06	0°♐	
	299 Nov 11 j 00:23	0°♑	
	299 Dec 06 j 15:53	0°♒	
evening max el	300 Jan 02 j 17:49	29°♒28'31	46°56'27
	300 Jan 03 j 06:13	0°♓	
asc. node	300 Jan 05 j 01:18	1°♓48'26	
	300 Feb 10 j 09:22	0°♈	
greatest brilliancy	300 Feb 11 j 19:47	0°♈34'41	-4.8m
retrograde	300 Feb 22 j 08:54	2°♈41'02	
	300 Mar 04 j 20:09	30°℞♓	
evening set	300 Mar 10 j 23:27	26°♓40'48	
inferior conj	300 Mar 14 j 14:52	24°♓24'05	7°52'42
minimum elong	300 Mar 14 j 22:03	24°♓12'42	7°51'51
min. Earth dist.	300 Mar 14 j 10:22	24°♓31'13	0.28552 AU
morning rise	300 Mar 18 j 20:50	21°♓45'40	
direct	300 Apr 04 j 19:16	16°♓13'05	
greatest brilliancy	300 Apr 14 j 09:17	17°♓53'35	-4.7m
desc. node	300 Apr 25 j 14:51	23°♓20'03	
	300 May 05 j 03:45	0°♈	
morning max el	300 May 23 j 15:51	16°♈09'25	45°46'47
	300 Jun 06 j 13:15	0°♉	
	300 Jul 04 j 06:22	0°♊	
	300 Jul 30 j 08:18	0°♋	
asc. node	300 Aug 16 j 18:08	20°♋40'58	
	300 Aug 24 j 11:35	0°♌	
	300 Sep 17 j 23:37	0°♍	
	300 Oct 12 j 01:59	0°♎	
	300 Nov 04 j 23:24	0°♏	
morning set	300 Nov 19 j 05:18	17°♏55'52	
	300 Nov 28 j 19:19	0°♐	
desc. node	300 Dec 06 j 07:49	9°♐28'06	
	300 Dec 22 j 15:39	0°♑	
superior conj	300 Dec 31 j 02:57	10°♑38'29	-0°54'28
minimum elong	300 Dec 30 j 15:16	10°♑01'48	0°54'02
max. Earth dist.	301 Jan 03 j 07:14	14°♑37'51	1.71318 AU
	301 Jan 15 j 13:32	0°♒	
	301 Feb 08 j 14:01	0°♓	
evening rise	301 Feb 10 j 02:00	1°♓51'57	
	301 Mar 04 j 18:30	0°♈	
asc. node	301 Mar 29 j 11:02	0°♉20'01	
	301 Mar 29 j 04:29	0°♉	
	301 Apr 22 j 21:27	0°♊	
	301 May 17 j 23:28	0°♋	
	301 Jun 12 j 14:43	0°♌	
	301 Jul 09 j 05:15	0°♍	
desc. node	301 Jul 19 j 00:24	10°♍35'16	
	301 Aug 07 j 00:38	0°♎	
evening max el	301 Aug 07 j 09:37	0°♎21'42	46°14'49

greatest brilliancy	301 Sep 16 j 20:19	29°♎39'44	-4.8m
	301 Sep 17 j 22:49	0°♏	
retrograde	301 Sep 25 j 22:23	1°♏11'26	
	301 Oct 03 j 14:49	30°℞♎	
evening set	301 Oct 11 j 18:29	26°♎21'22	
inferior conj	301 Oct 16 j 13:44	23°♎31'27	-5°37'07
minimum elong	301 Oct 17 j 00:08	23°♎15'41	5°34'31
min. Earth dist.	301 Oct 17 j 06:13	23°♎06'28	0.26776 AU
morning rise	301 Oct 22 j 05:21	20°♎12'56	
direct	301 Nov 06 j 04:12	15°♎47'37	
asc. node	301 Nov 09 j 03:37	15°♎58'22	
greatest brilliancy	301 Nov 17 j 00:25	18°♎01'56	-4.9m
	301 Dec 06 j 02:48	0°♏	
morning max el	301 Dec 26 j 23:13	19°♏20'34	46°55'19
	302 Jan 06 j 03:38	0°♐	
	302 Feb 01 j 23:47	0°♑	
	302 Feb 27 j 15:45	0°♒	
desc. node	302 Feb 28 j 17:17	1°♒15'30	
	302 Mar 24 j 20:21	0°♓	
	302 Apr 18 j 19:28	0°♈	
	302 May 13 j 15:07	0°♉	
	302 Jun 07 j 07:20	0°♊	
asc. node	302 Jun 21 j 20:29	17°♊47'10	
morning set	302 Jun 27 j 04:11	24°♊18'33	
	302 Jul 01 j 19:23	0°♋	
	302 Jul 26 j 02:53	0°♌	
max. Earth dist.	302 Jul 29 j 20:43	4°♌38'13	1.72767 AU
superior conj	302 Aug 02 j 13:16	9°♌12'47	1°17'57
minimum elong	302 Aug 02 j 06:49	8°♌52'47	1°17'50
	302 Aug 19 j 06:32	0°♍	
evening rise	302 Sep 08 j 12:35	25°♍14'54	
	302 Sep 12 j 07:57	0°♎	
	302 Oct 06 j 08:48	0°♏	
desc. node	302 Oct 11 j 10:13	6°♏18'47	
	302 Oct 30 j 10:18	0°♐	
	302 Nov 23 j 13:35	0°♑	
	302 Dec 17 j 21:01	0°♒	
	303 Jan 11 j 13:46	0°♓	
asc. node	303 Feb 01 j 13:06	24°♓46'01	
	303 Feb 06 j 01:59	0°♈	
	303 Mar 05 j 09:03	0°♉	
evening max el	303 Mar 14 j 23:24	9°♉41'06	45°44'16
	303 Apr 07 j 16:05	0°♊	
greatest brilliancy	303 Apr 21 j 20:47	7°♊51'33	-4.7m
retrograde	303 May 02 j 20:35	10°♊01'50	
evening set	303 May 17 j 22:19	5°♊37'54	
inferior conj	303 May 24 j 07:14	1°♊48'11	-0°02'39
minimum elong	303 May 24 j 07:08	1°♊48'20	0°02'38
transit middle	303 May 24 j 07:08	1°♊48'20	0°02'38
transit begin	303 May 24 j 03:08	1°♊54'37	
transit end	303 May 24 j 11:09	1°♊42'03	
desc. node	303 May 24 j 02:42	1°♊55'17	
min. Earth dist.	303 May 24 j 10:17	1°♊43'24	0.28984 AU
	303 May 27 j 04:51	30°℞♉	
morning rise	303 May 30 j 16:03	27°♉58'48	
direct	303 Jun 15 j 00:02	23°♉29'38	
greatest brilliancy	303 Jun 25 j 10:30	25°♉27'13	-4.7m
	303 Jul 04 j 20:46	0°♊	
morning max el	303 Aug 02 j 23:58	23°♊33'40	45°56'09
	303 Aug 09 j 12:44	0°♋	
	303 Sep 06 j 09:43	0°♌	
asc. node	303 Sep 14 j 06:02	8°♌57'59	
	303 Oct 02 j 03:25	0°♍	
	303 Oct 26 j 20:46	0°♎	
	303 Nov 20 j 02:10	0°♏	
	303 Dec 14 j 02:43	0°♐	
desc. node	304 Jan 03 j 19:35	25°♐53'55	
	304 Jan 07 j 02:19	0°♑	
	304 Jan 31 j 02:52	0°♒	
morning set	304 Feb 05 j 12:22	6°♒43'33	
	304 Feb 24 j 05:18	0°♓	
superior conj	304 Mar 16 j 00:43	25°♓47'50	-1°17'31
minimum elong	304 Mar 16 j 08:32	26°♓12'01	1°17'22
	304 Mar 19 j 10:15	0°♈	
max. Earth dist.	304 Mar 19 j 08:15	29°♓53'49	1.72834 AU
	304 Apr 12 j 18:03	0°♉	
evening rise	304 Apr 23 j 00:04	12°♉35'59	
asc. node	304 Apr 25 j 22:58	16°♉13'35	
	304 May 07 j 04:38	0°♊	
	304 May 31 j 17:54	0°♋	
	304 Jun 25 j 10:19	0°♌	
	304 Jul 20 j 07:27	0°♍	
	304 Aug 14 j 12:19	0°♎	
desc. node	304 Aug 15 j 12:16	1°♎10'37	
	304 Sep 09 j 06:24	0°♏	
	304 Oct 06 j 03:30	0°♐	
evening max el	304 Oct 19 j 18:06	14°♐13'17	47°19'12
	304 Nov 05 j 12:02	0°♑	
greatest brilliancy	304 Nov 29 j 07:16	15°♑36'59	-4.9m
asc. node	304 Dec 06 j 15:26	17°♑27'03	
retrograde	304 Dec 09 j 13:20	17°♑37'17	
evening set	304 Dec 24 j 15:22	13°♑04'11	
min. Earth dist.	304 Dec 29 j 06:44	10°♑18'02	0.26803 AU
inferior conj	304 Dec 30 j 04:56	9°♑43'36	5°36'15
minimum elong	304 Dec 29 j 18:58	9°♑59'04	5°33'48
morning rise	305 Jan 03 j 23:07	6°♑51'47	
direct	305 Jan 19 j 15:05	2°♑02'36	
greatest brilliancy	305 Jan 28 j 16:36	3°♑35'54	-4.9m
	305 Mar 06 j 13:39	0°♒	
morning max el	305 Mar 10 j 06:20	3°♒34'26	46°21'13
desc. node	305 Mar 28 j 05:13	22°♒01'11	
	305 Apr 04 j 14:38	0°♓	
	305 May 01 j 08:56	0°♈	
	305 May 27 j 05:08	0°♉	
	305 Jun 21 j 12:16	0°♊	
	305 Jul 16 j 09:04	0°♋	
asc. node	305 Jul 19 j 08:19	3°♋36'49	
	305 Aug 09 j 20:43	0°♌	
	305 Sep 03 j 00:55	0°♍	
morning set	305 Sep 04 j 01:37	1°♍17'03	
	305 Sep 27 j 00:10	0°♎	
max. Earth dist.	305 Oct 10 j 15:18	17°♎07'26	1.71298 AU
superior conj	305 Oct 12 j 10:26	19°♎23'00	0°57'27
minimum elong	305 Oct 12 j 21:04	19°♎56'27	0°57'04
	305 Oct 20 j 21:05	0°♏	
desc. node	305 Nov 07 j 22:06	22°♏41'32	
	305 Nov 13 j 17:36	0°♐	
evening rise	305 Nov 22 j 11:21	10°♐58'51	
	305 Dec 07 j 14:58	0°♑	
	305 Dec 31 j 14:20	0°♒	
	306 Jan 24 j 17:43	0°♓	
	306 Feb 18 j 04:19	0°♈	
asc. node	306 Mar 01 j 01:08	13°♈09'44	
	306 Mar 15 j 02:53	0°♉	
	306 Apr 09 j 20:50	0°♊	
	306 May 07 j 02:36	0°♋	
evening max el	306 May 24 j 11:37	17°♋31'12	45°20'13
	306 Jun 07 j 10:12	0°♌	
desc. node	306 Jun 20 j 14:39	9°♌38'29	
greatest brilliancy	306 Jul 01 j 24:00	15°♌16'08	-4.7m
retrograde	306 Jul 12 j 01:20	17°♌05'30	

evening set	306 Jul 29 j 03:31	11°♌38'44		
inferior conj	306 Aug 02 j 09:22	9°♌05'05	-7°59'48	
minimum elong	306 Aug 02 j 01:50	9°♌16'43	7°58'55	
min. Earth dist.	306 Aug 02 j 18:05	8°♌51'38	0.28513 AU	
morning rise	306 Aug 05 j 23:51	6°♌53'05		
direct	306 Aug 23 j 19:41	0°♌54'16		
greatest brilliancy	306 Sep 03 j 19:38	3°♌06'13	-4.8m	
	306 Oct 09 j 21:36	0°♍		
asc. node	306 Oct 11 j 17:52	1°♍49'28		
morning max el	306 Oct 13 j 00:28	3°♍06'03	46°37'24	
	306 Nov 06 j 23:04	0°♎		
	306 Dec 02 j 15:06	0°♏		
	306 Dec 27 j 10:28	0°♐		
	307 Jan 20 j 22:10	0°♑		
desc. node	307 Jan 31 j 07:30	12°♑46'20		
	307 Feb 14 j 07:31	0°♒		
	307 Mar 10 j 16:41	0°♓		
	307 Apr 04 j 02:30	0°♈		
morning set	307 Apr 18 j 09:26	17°♈32'31		
	307 Apr 28 j 13:04	0°♉		
	307 May 22 j 23:47	0°♊		
max. Earth dist.	307 May 24 j 03:28	1°♊24'59	1.73652 AU	
asc. node	307 May 24 j 10:42	1°♊47'09		
superior conj	307 May 25 j 02:21	2°♊35'13	0°01'34	
minimum elong	307 May 25 j 02:01	2°♊34'11	0°01'33	
behind sun begin	307 May 24 j 03:42	1°♊25'40		
behind sun end	307 May 26 j 00:20	3°♊42'43		
	307 Jun 16 j 09:47	0°♋		
evening rise	307 Jun 29 j 23:03	16°♋40'46		
	307 Jul 10 j 18:39	0°♌		
	307 Aug 04 j 02:58	0°♍		
	307 Aug 28 j 12:04	0°♎		
desc. node	307 Sep 13 j 00:23	19°♎01'50		
	307 Sep 21 j 23:31	0°♏		
	307 Oct 16 j 15:05	0°♐		
	307 Nov 10 j 14:33	0°♑		
	307 Dec 06 j 08:19	0°♒		
evening max el	307 Dec 31 j 08:56	27°♒08'54	46°58'41	
	308 Jan 03 j 04:52	0°♓		
asc. node	308 Jan 04 j 03:18	0°♓55'42		
greatest brilliancy	308 Feb 09 j 11:15	28°♓18'09	-4.8m	
	308 Feb 15 j 10:13	0°♈		
retrograde	308 Feb 20 j 01:19	0°♈25'33		
	308 Feb 24 j 14:06	30°℞♓		
evening set	308 Mar 08 j 17:16	24°♓21'46		
inferior conj	308 Mar 12 j 06:29	22°♓08'35	8°00'53	
minimum elong	308 Mar 12 j 13:07	21°♓58'04	8°00'11	
min. Earth dist.	308 Mar 12 j 00:49	22°♓17'33	0.28516 AU	
morning rise	308 Mar 16 j 09:11	19°♓35'22		
direct	308 Apr 02 j 10:22	13°♓58'11		
greatest brilliancy	308 Apr 11 j 23:06	15°♓38'09	-4.7m	
desc. node	308 Apr 24 j 16:53	22°♓00'55		
	308 May 05 j 14:32	0°♈		
morning max el	308 May 21 j 08:08	13°♈58'59	45°47'17	
	308 Jun 06 j 07:42	0°♉		
	308 Jul 03 j 20:56	0°♊		
	308 Jul 29 j 21:13	0°♋		
asc. node	308 Aug 15 j 20:13	20°♋10'27		
	308 Aug 23 j 23:38	0°♌		
	308 Sep 17 j 11:13	0°♍		
	308 Oct 11 j 13:21	0°♎		
greatest brilliancy	308 Oct 13 j 23:30	3°♎02'03	-3.9m	
	308 Nov 04 j 10:41	0°♏		
morning set	308 Nov 16 j 16:16	15°♏23'56		
	308 Nov 28 j 06:33	0°♐		
desc. node	308 Dec 05 j 09:48	8°♐59'00		
	308 Dec 22 j 02:52	0°♑		
superior conj	308 Dec 28 j 12:39	8°♑03'00	-0°51'20	
minimum elong	308 Dec 28 j 01:14	7°♑27'10	0°50'52	
max. Earth dist.	308 Dec 31 j 16:19	12°♑00'33	1.71288 AU	
	309 Jan 15 j 00:44	0°♒		
evening rise	309 Feb 07 j 13:43	29°♒24'11		
	309 Feb 08 j 01:14	0°♓		
	309 Mar 04 j 05:46	0°♈		
asc. node	309 Mar 28 j 13:07	29°♈51'25		
	309 Mar 28 j 15:55	0°♉		
	309 Apr 22 j 09:16	0°♊		
	309 May 17 j 11:59	0°♋		
	309 Jun 12 j 04:35	0°♌		
	309 Jul 08 j 21:52	0°♍		
desc. node	309 Jul 18 j 02:27	9°♍52'12		
evening max el	309 Aug 04 j 23:53	28°♍02'39	46°12'12	
	309 Aug 07 j 00:55	0°♎		
greatest brilliancy	309 Sep 14 j 08:25	27°♎13'35	-4.8m	
retrograde	309 Sep 23 j 10:44	28°♎44'55		
evening set	309 Oct 09 j 10:09	23°♎50'32		
inferior conj	309 Oct 14 j 02:13	21°♎04'43	-5°55'09	
minimum elong	309 Oct 14 j 12:48	20°♎48'40	5°52'38	
min. Earth dist.	309 Oct 14 j 19:12	20°♎38'57	0.26825 AU	
morning rise	309 Oct 19 j 15:03	17°♎49'48		
direct	309 Nov 03 j 17:54	13°♎20'24		
asc. node	309 Nov 08 j 05:31	13°♎44'30		
greatest brilliancy	309 Nov 14 j 13:45	15°♎34'24	-4.9m	
	309 Dec 06 j 14:59	0°♏		
morning max el	309 Dec 24 j 12:49	16°♏54'52	46°55'38	
	310 Jan 05 j 23:06	0°♐		
	310 Feb 01 j 15:08	0°♑		
	310 Feb 27 j 05:15	0°♒		
desc. node	310 Feb 27 j 19:28	0°♒42'07		
	310 Mar 24 j 08:49	0°♓		
	310 Apr 18 j 07:17	0°♈		
	310 May 13 j 02:29	0°♉		
	310 Jun 06 j 18:25	0°♊		
asc. node	310 Jun 20 j 22:33	17°♊19'53		
morning set	310 Jun 24 j 22:11	22°♊13'02		
	310 Jul 01 j 06:18	0°♋		
	310 Jul 25 j 13:46	0°♌		
max. Earth dist.	310 Jul 27 j 12:58	2°♌26'07	1.72819 AU	
superior conj	310 Jul 31 j 06:46	7°♌04'23	1°16'38	
minimum elong	310 Jul 30 j 23:54	6°♌43'05	1°16'30	
	310 Aug 18 j 17:31	0°♍		
evening rise	310 Sep 06 j 03:27	22°♍56'50		
	310 Sep 11 j 19:06	0°♎		
	310 Oct 05 j 20:10	0°♏		
desc. node	310 Oct 10 j 12:15	5°♏49'33		
	310 Oct 29 j 21:52	0°♐		
	310 Nov 23 j 01:26	0°♑		
	310 Dec 17 j 09:19	0°♒		
	311 Jan 11 j 02:52	0°♓		
asc. node	311 Jan 31 j 15:14	24°♓10'39		
	311 Feb 05 j 16:46	0°♈		
	311 Mar 05 j 04:14	0°♉		
evening max el	311 Mar 12 j 14:52	7°♉28'10	45°46'08	
	311 Apr 08 j 13:20	0°♊		
greatest brilliancy	311 Apr 19 j 14:14	5°♊43'59	-4.7m	
retrograde	311 Apr 30 j 12:39	7°♊53'14		
evening set	311 May 15 j 15:42	3°♊28'18		
	311 May 21 j 10:44	30°℞♉		
inferior conj	311 May 21 j 23:46	29°♉39'32	0°16'58	
minimum elong	311 May 22 j 00:23	29°♉38'33	0°16'47	
min. Earth dist.	311 May 22 j 03:11	29°♉34'09	0.28984 AU	

desc. node	311 May 23 j 04:43	28°♉54'06	
morning rise	311 May 28 j 09:07	25°♉48'56	
direct	311 Jun 12 j 16:22	21°♉21'04	
greatest brilliancy	311 Jun 23 j 02:29	23°♉17'58	-4.7m
	311 Jul 05 j 23:33	0°♊	
morning max el	311 Jul 31 j 14:30	21°♊19'29	45°55'01
	311 Aug 09 j 08:26	0°♋	
	311 Sep 06 j 00:40	0°♌	
asc. node	311 Sep 13 j 08:11	8°♌23'01	
	311 Oct 01 j 16:34	0°♍	
	311 Oct 26 j 09:04	0°♎	
	311 Nov 19 j 13:59	0°♏	
	311 Dec 13 j 14:13	0°♐	
desc. node	312 Jan 02 j 21:42	25°♐25'15	
	312 Jan 06 j 13:34	0°♑	
	312 Jan 30 j 13:55	0°♒	
morning set	312 Feb 03 j 00:03	4°♒16'03	
	312 Feb 23 j 16:13	0°♓	
superior conj	312 Mar 13 j 15:40	23°♓32'08	-1°18'56
minimum elong	312 Mar 13 j 22:58	23°♓54'43	1°18'47
max. Earth dist.	312 Mar 17 j 02:54	27°♓49'37	1.72783 AU
	312 Mar 18 j 21:04	0°♈	
	312 Apr 12 j 04:50	0°♉	
evening rise	312 Apr 20 j 17:11	10°♉27'57	
asc. node	312 Apr 25 j 00:55	15°♉46'19	
	312 May 06 j 15:31	0°♊	
	312 May 31 j 05:01	0°♋	
	312 Jun 24 j 21:52	0°♌	
	312 Jul 19 j 19:41	0°♍	
	312 Aug 14 j 01:39	0°♎	
desc. node	312 Aug 14 j 14:26	0°♎37'36	
	312 Sep 08 j 21:41	0°♏	
	312 Oct 05 j 22:55	0°♐	
evening max el	312 Oct 17 j 06:54	11°♐46'00	47°18'02
	312 Nov 05 j 23:15	0°♑	
greatest brilliancy	312 Nov 26 j 21:58	13°♑10'27	-4.9m
asc. node	312 Dec 05 j 17:32	15°♑07'03	
retrograde	312 Dec 07 j 02:02	15°♑09'17	
evening set	312 Dec 22 j 01:38	10°♑40'38	
min. Earth dist.	312 Dec 26 j 20:43	7°♑49'39	0.26746 AU
inferior conj	312 Dec 27 j 17:50	7°♑16'58	5°17'52
minimum elong	312 Dec 27 j 08:04	7°♑32'05	5°15'21
morning rise	313 Jan 01 j 15:00	4°♑21'02	
	313 Jan 12 j 18:06	30°℞♐	
direct	313 Jan 17 j 02:53	29°♐36'39	
	313 Jan 21 j 13:56	0°♑	
greatest brilliancy	313 Jan 26 j 06:46	1°♑11'43	-4.9m
	313 Mar 06 j 13:49	0°♒	
morning max el	313 Mar 07 j 18:52	1°♒10'56	46°22'56
desc. node	313 Mar 27 j 07:15	21°♒19'22	
	313 Apr 04 j 07:03	0°♓	
	313 Apr 30 j 22:34	0°♈	
	313 May 26 j 17:25	0°♉	
	313 Jun 20 j 23:50	0°♊	
	313 Jul 15 j 20:13	0°♋	
asc. node	313 Jul 18 j 10:28	3°♋09'30	
	313 Aug 09 j 07:39	0°♌	
morning set	313 Sep 01 j 16:56	29°♌01'16	
	313 Sep 02 j 11:46	0°♍	
	313 Sep 26 j 11:02	0°♎	
max. Earth dist.	313 Oct 08 j 02:19	14°♎36'56	1.71337 AU
superior conj	313 Oct 09 j 22:51	16°♎56'54	1°00'08
minimum elong	313 Oct 10 j 09:29	17°♎30'19	0°59'46
	313 Oct 20 j 08:01	0°♏	
desc. node	313 Nov 07 j 00:04	22°♏13'03	
	313 Nov 13 j 04:38	0°♐	
evening rise	313 Nov 19 j 21:11	8°♐24'17	
	313 Dec 07 j 02:06	0°♑	
	313 Dec 31 j 01:35	0°♒	
	314 Jan 24 j 05:07	0°♓	
	314 Feb 17 j 16:03	0°♈	
asc. node	314 Feb 28 j 03:14	12°♈39'59	
	314 Mar 14 j 15:17	0°♉	
	314 Apr 09 j 10:44	0°♊	
	314 May 06 j 20:08	0°♋	
evening max el	314 May 22 j 02:41	15°♋19'13	45°19'41
	314 Jun 07 j 18:37	0°♌	
desc. node	314 Jun 19 j 16:46	8°♌19'51	
greatest brilliancy	314 Jun 29 j 12:44	13°♌01'49	-4.7m
retrograde	314 Jul 09 j 16:45	14°♌53'20	
evening set	314 Jul 26 j 15:09	9°♌30'46	
inferior conj	314 Jul 31 j 00:34	6°♌51'58	-7°50'49
minimum elong	314 Jul 30 j 16:31	7°♌04'24	7°49'48
min. Earth dist.	314 Jul 31 j 08:22	6°♌39'56	0.28556 AU
morning rise	314 Aug 03 j 17:37	4°♌36'19	
	314 Aug 13 j 08:26	30°℞♋	
direct	314 Aug 21 j 11:32	28°♋40'27	
	314 Aug 29 j 22:07	0°♌	
greatest brilliancy	314 Sep 01 j 11:00	0°♌52'11	-4.8m
	314 Oct 09 j 20:17	0°♍	
morning max el	314 Oct 10 j 16:03	0°♍49'28	46°36'02
asc. node	314 Oct 10 j 19:49	0°♍58'57	
	314 Nov 06 j 15:10	0°♎	
	314 Dec 02 j 04:54	0°♏	
	314 Dec 26 j 23:09	0°♐	
	315 Jan 20 j 10:10	0°♑	
desc. node	315 Jan 30 j 09:35	12°♑16'36	
	315 Feb 13 j 19:02	0°♒	
	315 Mar 10 j 03:48	0°♓	
	315 Apr 03 j 13:19	0°♈	
morning set	315 Apr 16 j 02:41	15°♈25'15	
	315 Apr 27 j 23:42	0°♉	
max. Earth dist.	315 May 22 j 03:09	29°♉37'58	1.73652 AU
	315 May 22 j 10:20	0°♊	
superior conj	315 May 22 j 20:48	0°♊32'10	-0°01'36
minimum elong	315 May 22 j 21:09	0°♊33'12	0°01'35
behind sun begin	315 May 21 j 22:47	29°♉24'33	
behind sun end	315 May 23 j 19:30	1°♊41'50	
asc. node	315 May 23 j 12:48	1°♊21'17	
	315 Jun 15 j 20:21	0°♋	
evening rise	315 Jun 27 j 18:26	14°♋40'00	
	315 Jul 10 j 05:23	0°♌	
	315 Aug 03 j 13:58	0°♍	
	315 Aug 27 j 23:30	0°♎	
desc. node	315 Sep 12 j 02:23	18°♎31'55	
	315 Sep 21 j 11:30	0°♏	
	315 Oct 16 j 03:51	0°♐	
	315 Nov 10 j 04:31	0°♑	
	315 Dec 06 j 00:39	0°♒	
evening max el	315 Dec 29 j 00:51	24°♒52'19	47°00'56
asc. node	316 Jan 03 j 05:28	0°♓03'34	
	316 Jan 03 j 04:01	0°♓	
greatest brilliancy	316 Feb 07 j 02:45	26°♓02'52	-4.8m
retrograde	316 Feb 17 j 17:58	28°♓11'08	
evening set	316 Mar 06 j 11:03	22°♓04'14	
inferior conj	316 Mar 09 j 22:08	19°♓54'16	8°08'29
minimum elong	316 Mar 10 j 04:13	19°♓44'39	8°07'54
min. Earth dist.	316 Mar 09 j 15:04	20°♓05'27	0.28473 AU
morning rise	316 Mar 13 j 21:37	17°♓26'06	
direct	316 Mar 31 j 01:56	11°♓44'44	
greatest brilliancy	316 Apr 09 j 12:24	13°♓23'21	-4.8m

desc. node	316 Apr 23 j 18:51	20°♓45'26	
	316 May 05 j 21:50	0°♈	
morning max el	316 May 19 j 00:31	11°♈50'09	45°47'55
	316 Jun 06 j 01:11	0°♉	
	316 Jul 03 j 10:49	0°♊	
	316 Jul 29 j 09:34	0°♋	
asc. node	316 Aug 14 j 22:21	19°♋41'24	
	316 Aug 23 j 11:15	0°♌	
	316 Sep 16 j 22:27	0°♍	
	316 Oct 11 j 00:26	0°♎	
greatest brilliancy	316 Oct 18 j 07:24	9°♎08'14	-3.9m
	316 Nov 03 j 21:43	0°♏	
morning set	316 Nov 14 j 03:04	12°♏52'14	
	316 Nov 27 j 17:33	0°♐	
desc. node	316 Dec 04 j 11:57	8°♐31'16	
	316 Dec 21 j 13:49	0°♑	
superior conj	316 Dec 25 j 22:00	5°♑27'18	-0°48'03
minimum elong	316 Dec 25 j 10:58	4°♑52'38	0°47'35
max. Earth dist.	316 Dec 29 j 02:14	9°♑26'40	1.71252 AU
	317 Jan 14 j 11:38	0°♒	
evening rise	317 Feb 05 j 01:13	26°♒56'35	
	317 Feb 07 j 12:07	0°♓	
	317 Mar 03 j 16:44	0°♈	
asc. node	317 Mar 27 j 15:07	29°♈23'32	
	317 Mar 28 j 03:03	0°♉	
	317 Apr 21 j 20:45	0°♊	
	317 May 17 j 00:10	0°♋	
	317 Jun 11 j 18:07	0°♌	
	317 Jul 08 j 14:18	0°♍	
desc. node	317 Jul 17 j 04:37	9°♍10'18	
evening max el	317 Aug 02 j 13:37	25°♍43'44	46°09'25
	317 Aug 07 j 01:50	0°♎	
greatest brilliancy	317 Sep 11 j 20:58	24°♎49'21	-4.8m
retrograde	317 Sep 20 j 22:33	26°♎19'44	
evening set	317 Oct 07 j 01:55	21°♎21'00	
inferior conj	317 Oct 11 j 14:49	18°♎39'18	-6°12'24
minimum elong	317 Oct 12 j 01:28	18°♎23'06	6°09'58
min. Earth dist.	317 Oct 12 j 08:31	18°♎12'23	0.26883 AU
morning rise	317 Oct 17 j 00:38	15°♎28'05	
direct	317 Nov 01 j 07:14	10°♎54'12	
asc. node	317 Nov 07 j 07:41	11°♎36'54	
greatest brilliancy	317 Nov 12 j 03:42	13°♎08'16	-4.9m
	317 Dec 06 j 23:51	0°♏	
morning max el	317 Dec 22 j 01:41	14°♏27'27	46°55'52
	318 Jan 05 j 17:56	0°♐	
	318 Feb 01 j 06:07	0°♑	
desc. node	318 Feb 26 j 21:30	0°♒09'04	
	318 Feb 26 j 18:27	0°♒	
	318 Mar 23 j 20:59	0°♓	
	318 Apr 17 j 18:47	0°♈	
	318 May 12 j 13:33	0°♉	
	318 Jun 06 j 05:12	0°♊	
asc. node	318 Jun 20 j 00:43	16°♊53'48	
morning set	318 Jun 22 j 16:36	20°♊09'35	
	318 Jun 30 j 16:56	0°♋	
	318 Jul 25 j 00:23	0°♌	
max. Earth dist.	318 Jul 25 j 06:16	0°♌18'12	1.72867 AU
superior conj	318 Jul 29 j 00:53	4°♌58'51	1°15'15
minimum elong	318 Jul 28 j 17:37	4°♌36'22	1°15'05
	318 Aug 18 j 04:13	0°♍	
evening rise	318 Sep 03 j 19:00	20°♍41'58	
	318 Sep 11 j 05:59	0°♎	
	318 Oct 05 j 07:17	0°♏	
desc. node	318 Oct 09 j 14:17	5°♏21'03	
	318 Oct 29 j 09:17	0°♐	
	318 Nov 22 j 13:13	0°♑	
	318 Dec 16 j 21:38	0°♒	
	319 Jan 10 j 16:02	0°♓	
asc. node	319 Jan 30 j 17:18	23°♓35'02	
	319 Feb 05 j 07:41	0°♈	
	319 Mar 04 j 23:52	0°♉	
evening max el	319 Mar 10 j 05:26	5°♉13'09	45°48'18
	319 Apr 09 j 18:27	0°♊	
greatest brilliancy	319 Apr 17 j 07:41	3°♊36'49	-4.7m
retrograde	319 Apr 28 j 04:47	5°♊45'24	
evening set	319 May 13 j 09:15	1°♊18'57	
	319 May 15 j 16:15	30°℞♉	
inferior conj	319 May 19 j 16:22	27°♉31'32	0°36'35
minimum elong	319 May 19 j 17:42	27°♉29'26	0°36'12
min. Earth dist.	319 May 19 j 20:19	27°♉25'20	0.28981 AU
desc. node	319 May 22 j 06:53	25°♉53'52	
morning rise	319 May 26 j 02:06	23°♉40'00	
direct	319 Jun 10 j 08:18	19°♉12'58	
greatest brilliancy	319 Jun 20 j 18:58	21°♉09'53	-4.7m
	319 Jul 06 j 18:50	0°♊	
morning max el	319 Jul 29 j 05:21	19°♊06'41	45°54'10
	319 Aug 09 j 03:20	0°♋	
	319 Sep 05 j 15:12	0°♌	
asc. node	319 Sep 12 j 10:08	7°♌48'20	
	319 Oct 01 j 05:25	0°♍	
	319 Oct 25 j 21:08	0°♎	
	319 Nov 19 j 01:38	0°♏	
	319 Dec 13 j 01:37	0°♐	
desc. node	320 Jan 01 j 23:49	24°♐56'37	
	320 Jan 06 j 00:48	0°♑	
	320 Jan 30 j 01:01	0°♒	
morning set	320 Jan 31 j 11:00	1°♒45'58	
	320 Feb 23 j 03:11	0°♓	
superior conj	320 Mar 11 j 06:01	21°♓14'20	-1°20'14
minimum elong	320 Mar 11 j 12:43	21°♓35'06	1°20'06
max. Earth dist.	320 Mar 14 j 18:37	25°♓36'09	1.72726 AU
	320 Mar 18 j 07:56	0°♈	
	320 Apr 11 j 15:39	0°♉	
evening rise	320 Apr 18 j 09:53	8°♉18'31	
asc. node	320 Apr 24 j 03:02	15°♉19'29	
	320 May 06 j 02:25	0°♊	
	320 May 30 j 16:10	0°♋	
	320 Jun 24 j 09:26	0°♌	
	320 Jul 19 j 07:56	0°♍	
desc. node	320 Aug 13 j 16:27	0°♎04'12	
	320 Aug 13 j 15:01	0°♎	
	320 Sep 08 j 13:02	0°♏	
	320 Oct 05 j 18:43	0°♐	
evening max el	320 Oct 14 j 19:39	9°♐19'17	47°16'50
	320 Nov 06 j 13:55	0°♑	
greatest brilliancy	320 Nov 24 j 12:07	10°♑43'35	-4.9m
retrograde	320 Dec 04 j 15:02	12°♑41'43	
asc. node	320 Dec 04 j 19:38	12°♑41'41	
evening set	320 Dec 19 j 12:06	8°♑16'41	
min. Earth dist.	320 Dec 24 j 10:34	5°♑21'27	0.26702 AU
inferior conj	320 Dec 25 j 06:45	4°♑50'18	4°58'38
minimum elong	320 Dec 24 j 21:17	5°♑04'54	4°56'07
morning rise	320 Dec 30 j 06:55	1°♑50'27	
	321 Jan 02 j 20:19	30°℞♐	
direct	321 Jan 14 j 14:58	27°♐10'19	
greatest brilliancy	321 Jan 23 j 20:55	28°♐47'13	-4.9m
	321 Jan 27 j 00:48	0°♑	
morning max el	321 Mar 05 j 08:26	28°♑49'10	46°24'28
	321 Mar 06 j 13:11	0°♒	
desc. node	321 Mar 26 j 09:14	20°♒37'07	
	321 Apr 03 j 23:26	0°♓	

	321 Apr 30 j 12:20	0°♈	
	321 May 26 j 05:51	0°♉	
	321 Jun 20 j 11:30	0°♊	
	321 Jul 15 j 07:27	0°♋	
asc. node	321 Jul 17 j 12:28	2°♋41'28	
	321 Aug 08 j 18:42	0°♌	
morning set	321 Aug 30 j 08:36	26°♌46'19	
	321 Sep 01 j 22:44	0°♍	
	321 Sep 25 j 22:00	0°♎	
max. Earth dist.	321 Oct 05 j 14:52	12°♎11'00	1.71372 AU
superior conj	321 Oct 07 j 11:49	14°♎32'15	1°02'41
minimum elong	321 Oct 07 j 22:22	15°♎05'24	1°02'20
	321 Oct 19 j 19:02	0°♏	
desc. node	321 Nov 06 j 02:15	21°♏45'04	
	321 Nov 12 j 15:45	0°♐	
evening rise	321 Nov 17 j 07:35	5°♐51'18	
	321 Dec 06 j 13:20	0°♑	
	321 Dec 30 j 12:57	0°♒	
	322 Jan 23 j 16:42	0°♓	
	322 Feb 17 j 04:03	0°♈	
asc. node	322 Feb 27 j 05:12	12°♈08'56	
	322 Mar 14 j 04:05	0°♉	
	322 Apr 09 j 01:09	0°♊	
	322 May 06 j 14:30	0°♋	
evening max el	322 May 19 j 18:34	13°♋08'20	45°19'25
	322 Jun 08 j 06:33	0°♌	
desc. node	322 Jun 18 j 18:50	6°♌57'49	
greatest brilliancy	322 Jun 27 j 01:38	10°♌47'03	-4.7m
retrograde	322 Jul 07 j 08:13	12°♌40'25	
evening set	322 Jul 24 j 02:54	7°♌22'16	
inferior conj	322 Jul 28 j 15:48	4°♌38'14	-7°41'16
minimum elong	322 Jul 28 j 07:18	4°♌51'21	7°40'05
min. Earth dist.	322 Jul 28 j 22:32	4°♌27'50	0.28591 AU
morning rise	322 Aug 01 j 11:27	2°♌18'45	
	322 Aug 05 j 16:07	30℞♋	
direct	322 Aug 19 j 03:46	26°♋26'15	
greatest brilliancy	322 Aug 30 j 01:41	28°♋36'54	-4.8m
	322 Sep 02 j 07:40	0°♌	
morning max el	322 Oct 08 j 07:50	28°♌33'05	46°34'39
asc. node	322 Oct 09 j 21:58	0°♍09'16	
	322 Oct 09 j 18:19	0°♍	
	322 Nov 06 j 07:11	0°♎	
	322 Dec 01 j 18:45	0°♏	
	322 Dec 26 j 11:55	0°♐	
	323 Jan 19 j 22:17	0°♑	
desc. node	323 Jan 29 j 11:37	11°♑46'14	
	323 Feb 13 j 06:41	0°♒	
	323 Mar 09 j 15:08	0°♓	
	323 Apr 03 j 00:26	0°♈	
morning set	323 Apr 13 j 19:38	13°♈16'02	
	323 Apr 27 j 10:40	0°♉	
max. Earth dist.	323 May 20 j 02:17	27°♉48'06	1.73650 AU
superior conj	323 May 20 j 14:52	28°♉26'44	-0°04'47
minimum elong	323 May 20 j 15:50	28°♉29'43	0°04'43
behind sun begin	323 May 19 j 18:11	27°♉23'15	
behind sun end	323 May 21 j 13:28	29°♉36'10	
	323 May 21 j 21:14	0°♊	
asc. node	323 May 22 j 14:58	0°♊54'25	
	323 Jun 15 j 07:17	0°♋	
evening rise	323 Jun 25 j 13:23	12°♋36'51	
	323 Jul 09 j 16:26	0°♌	
	323 Aug 03 j 01:18	0°♍	
	323 Aug 27 j 11:15	0°♎	
desc. node	323 Sep 11 j 04:24	18°♎01'08	
	323 Sep 20 j 23:50	0°♏	
	323 Oct 15 j 16:59	0°♐	
	323 Nov 09 j 18:54	0°♑	
	323 Dec 05 j 17:32	0°♒	
evening max el	323 Dec 26 j 16:56	22°♒35'25	47°03'05
asc. node	324 Jan 02 j 07:31	29°♒09'30	
	324 Jan 03 j 04:29	0°♓	
greatest brilliancy	324 Feb 04 j 18:39	23°♓47'19	-4.9m
retrograde	324 Feb 15 j 10:21	25°♓55'41	
evening set	324 Mar 04 j 04:39	19°♓46'14	
min. Earth dist.	324 Mar 07 j 05:20	17°♓52'25	0.28431 AU
inferior conj	324 Mar 07 j 13:47	17°♓39'03	8°15'15
minimum elong	324 Mar 07 j 19:15	17°♓30'23	8°14'46
morning rise	324 Mar 11 j 10:09	15°♓15'35	
direct	324 Mar 28 j 17:36	9°♓30'33	
greatest brilliancy	324 Apr 07 j 01:34	11°♓07'23	-4.8m
desc. node	324 Apr 22 j 21:05	19°♓31'42	
	324 May 06 j 03:25	0°♈	
morning max el	324 May 16 j 16:12	9°♈38'26	45°48'21
	324 Jun 05 j 18:45	0°♉	
	324 Jul 03 j 01:03	0°♊	
	324 Jul 28 j 22:18	0°♋	
asc. node	324 Aug 14 j 00:21	19°♋10'51	
	324 Aug 22 j 23:12	0°♌	
	324 Sep 16 j 10:01	0°♍	
	324 Oct 10 j 11:50	0°♎	
greatest brilliancy	324 Oct 20 j 07:31	12°♎18'57	-3.9m
	324 Nov 03 j 09:02	0°♏	
morning set	324 Nov 11 j 13:55	10°♏19'43	
	324 Nov 27 j 04:50	0°♐	
desc. node	324 Dec 03 j 14:01	8°♐02'14	
	324 Dec 21 j 01:03	0°♑	
superior conj	324 Dec 23 j 07:28	2°♑50'57	-0°44'40
minimum elong	324 Dec 22 j 20:54	2°♑17'46	0°44'13
max. Earth dist.	324 Dec 26 j 10:22	6°♑46'09	1.71215 AU
	325 Jan 13 j 22:50	0°♒	
evening rise	325 Feb 02 j 12:45	24°♒28'04	
	325 Feb 06 j 23:19	0°♓	
	325 Mar 03 j 03:59	0°♈	
asc. node	325 Mar 26 j 17:15	28°♈55'10	
	325 Mar 27 j 14:29	0°♉	
	325 Apr 21 j 08:35	0°♊	
	325 May 16 j 12:47	0°♋	
	325 Jun 11 j 08:14	0°♌	
	325 Jul 08 j 07:35	0°♍	
desc. node	325 Jul 16 j 06:36	8°♍25'58	
evening max el	325 Jul 31 j 02:28	23°♍21'21	46°06'44
	325 Aug 07 j 04:44	0°♎	
greatest brilliancy	325 Sep 09 j 10:03	22°♎24'36	-4.8m
retrograde	325 Sep 18 j 10:06	23°♎53'44	
evening set	325 Oct 04 j 17:44	18°♎50'24	
inferior conj	325 Oct 09 j 03:28	16°♎13'08	-6°28'50
minimum elong	325 Oct 09 j 14:08	15°♎56'52	6°26'30
min. Earth dist.	325 Oct 09 j 22:09	15°♎44'40	0.26940 AU
morning rise	325 Oct 14 j 10:05	13°♎05'50	
direct	325 Oct 29 j 20:01	8°♎26'59	
asc. node	325 Nov 06 j 09:50	9°♎33'30	
greatest brilliancy	325 Nov 09 j 18:09	10°♎41'54	-4.9m
	325 Dec 07 j 06:39	0°♏	
morning max el	325 Dec 19 j 14:07	11°♏57'55	46°56'06
	326 Jan 05 j 12:35	0°♐	
	326 Jan 31 j 21:13	0°♑	
desc. node	326 Feb 25 j 23:30	29°♑35'11	
	326 Feb 26 j 07:50	0°♒	
	326 Mar 23 j 09:23	0°♓	
	326 Apr 17 j 06:33	0°♈	
	326 May 12 j 00:54	0°♉	

	326 Jun 05 j 16:17	0°♊		
asc. node	326 Jun 19 j 02:42	16°♊26'08		
morning set	326 Jun 20 j 10:53	18°♊04'45		
	326 Jun 30 j 03:54	0°♋		
max. Earth dist.	326 Jul 23 j 00:13	28°♋11'15	1.72921 AU	
	326 Jul 24 j 11:22	0°♌		
superior conj	326 Jul 26 j 18:46	2°♌51'33	1°13'44	
minimum elong	326 Jul 26 j 11:09	2°♌27'58	1°13'32	
	326 Aug 17 j 15:18	0°♍		
evening rise	326 Sep 01 j 10:22	18°♍25'29		
	326 Sep 10 j 17:14	0°♎		
	326 Oct 04 j 18:44	0°♏		
desc. node	326 Oct 08 j 16:26	4°♏51'51		
	326 Oct 28 j 21:01	0°♐		
	326 Nov 22 j 01:19	0°♑		
	326 Dec 16 j 10:16	0°♒		
	327 Jan 10 j 05:34	0°♓		
asc. node	327 Jan 29 j 19:19	22°♓58'07		
	327 Feb 04 j 23:05	0°♈		
	327 Mar 04 j 20:26	0°♉		
evening max el	327 Mar 07 j 19:46	2°♉56'49	45°50'35	
	327 Apr 11 j 13:41	0°♊		
greatest brilliancy	327 Apr 15 j 00:41	1°♊28'26	-4.7m	
retrograde	327 Apr 25 j 21:17	3°♊37'10		
	327 May 09 j 12:11	30°℞♉		
evening set	327 May 11 j 02:57	29°♉08'41		
inferior conj	327 May 17 j 09:00	25°♉22'59	0°56'06	
minimum elong	327 May 17 j 11:02	25°♉19'46	0°55'29	
min. Earth dist.	327 May 17 j 13:22	25°♉16'07	0.28980 AU	
desc. node	327 May 21 j 08:54	22°♉54'37		
morning rise	327 May 23 j 19:02	21°♉30'55		
direct	327 Jun 08 j 00:04	17°♉04'13		
greatest brilliancy	327 Jun 18 j 11:36	19°♉01'32	-4.7m	
	327 Jul 07 j 09:29	0°♊		
morning max el	327 Jul 26 j 20:59	16°♊55'09	45°53'11	
	327 Aug 08 j 22:04	0°♋		
	327 Sep 05 j 05:54	0°♌		
asc. node	327 Sep 11 j 12:18	7°♌13'31		
	327 Sep 30 j 18:33	0°♍		
	327 Oct 25 j 09:29	0°♎		
	327 Nov 18 j 13:32	0°♏		
	327 Dec 12 j 13:14	0°♐		
desc. node	328 Jan 01 j 01:47	24°♐26'56		
	328 Jan 05 j 12:13	0°♑		
morning set	328 Jan 28 j 21:47	29°♑14'43		
	328 Jan 29 j 12:17	0°♒		
	328 Feb 22 j 14:19	0°♓		
superior conj	328 Mar 08 j 20:19	18°♓55'46	-1°21'23	
minimum elong	328 Mar 09 j 02:24	19°♓14'37	1°21'18	
max. Earth dist.	328 Mar 12 j 08:21	23°♓15'57	1.72671 AU	
	328 Mar 17 j 18:58	0°♈		
	328 Apr 11 j 02:39	0°♉		
evening rise	328 Apr 16 j 02:36	6°♉08'38		
asc. node	328 Apr 23 j 05:11	14°♉52'13		
	328 May 05 j 13:29	0°♊		
	328 May 30 j 03:28	0°♋		
	328 Jun 23 j 21:10	0°♌		
	328 Jul 18 j 20:25	0°♍		
desc. node	328 Aug 12 j 18:28	29°♍30'00		
	328 Aug 13 j 04:42	0°♎		
	328 Sep 08 j 04:55	0°♏		
	328 Oct 05 j 15:32	0°♐		
evening max el	328 Oct 12 j 09:14	6°♐53'49	47°15'32	
	328 Nov 07 j 10:12	0°♑		
greatest brilliancy	328 Nov 22 j 01:37	8°♑14'34	-4.9m	
retrograde	328 Dec 02 j 04:20	10°♑12'36		
asc. node	328 Dec 03 j 21:39	10°♑08'54		
evening set	328 Dec 16 j 22:29	5°♑50'51		
min. Earth dist.	328 Dec 21 j 23:52	2°♑51'59	0.26654 AU	
inferior conj	328 Dec 22 j 19:22	2°♑22'00	4°38'35	
minimum elong	328 Dec 22 j 10:16	2°♑36'00	4°36'06	
	328 Dec 26 j 17:26	30°℞♐		
morning rise	328 Dec 27 j 22:30	29°♐18'35		
direct	329 Jan 12 j 03:13	24°♐42'34		
greatest brilliancy	329 Jan 21 j 10:15	26°♐20'49	-4.9m	
	329 Jan 29 j 11:33	0°♑		
morning max el	329 Mar 02 j 22:43	26°♑28'48	46°26'03	
	329 Mar 06 j 11:41	0°♒		
desc. node	329 Mar 25 j 11:28	19°♒55'50		
	329 Apr 03 j 15:34	0°♓		
	329 Apr 30 j 02:00	0°♈		
	329 May 25 j 18:14	0°♉		
	329 Jun 19 j 23:10	0°♊		
	329 Jul 14 j 18:42	0°♋		
asc. node	329 Jul 16 j 14:33	2°♋13'36		
	329 Aug 08 j 05:44	0°♌		
morning set	329 Aug 28 j 00:27	24°♌32'02		
	329 Sep 01 j 09:42	0°♍		
	329 Sep 25 j 09:00	0°♎		
max. Earth dist.	329 Oct 03 j 01:54	9°♎40'11	1.71414 AU	
superior conj	329 Oct 05 j 00:48	12°♎07'27	1°05'07	
minimum elong	329 Oct 05 j 11:09	12°♎39'58	1°04'46	
	329 Oct 19 j 06:09	0°♏		
desc. node	329 Nov 05 j 04:18	21°♏16'18		
	329 Nov 12 j 02:59	0°♐		
evening rise	329 Nov 14 j 17:35	3°♐16'36		
	329 Dec 06 j 00:41	0°♑		
	329 Dec 30 j 00:25	0°♒		
	330 Jan 23 j 04:21	0°♓		
	330 Feb 16 j 16:05	0°♈		
asc. node	330 Feb 26 j 07:22	11°♈38'31		
	330 Mar 13 j 16:56	0°♉		
	330 Apr 08 j 15:40	0°♊		
	330 May 06 j 09:14	0°♋		
evening max el	330 May 17 j 11:07	10°♋59'22	45°19'11	
	330 Jun 08 j 22:16	0°♌		
desc. node	330 Jun 17 j 20:52	5°♌33'37		
greatest brilliancy	330 Jun 24 j 15:15	8°♌33'54	-4.7m	
retrograde	330 Jul 04 j 23:37	10°♌28'21		
evening set	330 Jul 21 j 14:54	5°♌14'58		
inferior conj	330 Jul 26 j 07:13	2°♌25'38	-7°30'59	
minimum elong	330 Jul 25 j 22:20	2°♌39'21	7°29'41	
min. Earth dist.	330 Jul 26 j 13:00	2°♌16'40	0.28622 AU	
morning rise	330 Jul 30 j 05:33	0°♌02'02		
	330 Jul 30 j 06:56	30°℞♋		
direct	330 Aug 16 j 20:09	24°♋13'26		
greatest brilliancy	330 Aug 27 j 16:10	26°♋22'19	-4.8m	
	330 Sep 04 j 05:19	0°♌		
morning max el	330 Oct 05 j 23:03	26°♌15'57	46°33'04	
asc. node	330 Oct 09 j 00:06	29°♌20'57		
	330 Oct 09 j 15:20	0°♍		
	330 Nov 05 j 22:51	0°♎		
	330 Dec 01 j 08:26	0°♏		
	330 Dec 26 j 00:37	0°♐		
	331 Jan 19 j 10:21	0°♑		
desc. node	331 Jan 28 j 13:42	11°♑16'06		
	331 Feb 12 j 18:17	0°♒		
	331 Mar 09 j 02:21	0°♓		
	331 Apr 02 j 11:24	0°♈		
morning set	331 Apr 11 j 12:25	11°♈06'46		
	331 Apr 26 j 21:28	0°♉		

superior conj	331 May 18 j 08:54	26°♉21'50	-0°07'55
minimum elong	331 May 18 j 10:31	26°♉26'50	0°07'51
behind sun begin	331 May 17 j 14:44	25°♉26'04	
behind sun end	331 May 19 j 06:19	27°♉27'35	
max. Earth dist.	331 May 18 j 01:19	25°♉58'33	1.73644 AU
	331 May 21 j 07:58	0°♊	
asc. node	331 May 21 j 16:55	0°♊27'30	
	331 Jun 14 j 18:02	0°♋	
evening rise	331 Jun 23 j 08:30	10°♋34'47	
	331 Jul 09 j 03:19	0°♌	
	331 Aug 02 j 12:27	0°♍	
	331 Aug 26 j 22:48	0°♎	
desc. node	331 Sep 10 j 06:36	17°♎31'41	
	331 Sep 20 j 11:57	0°♏	
	331 Oct 15 j 05:56	0°♐	
	331 Nov 09 j 09:13	0°♑	
	331 Dec 05 j 10:36	0°♒	
evening max el	331 Dec 24 j 08:34	20°♒17'14	47°04'55
asc. node	332 Jan 01 j 09:32	28°♒14'22	
	332 Jan 03 j 06:11	0°♓	
greatest brilliancy	332 Feb 02 j 11:06	21°♓31'56	-4.9m
retrograde	332 Feb 13 j 02:09	23°♓39'27	
evening set	332 Mar 01 j 21:49	17°♓28'12	
inferior conj	332 Mar 05 j 05:13	15°♓23'27	8°21'16
minimum elong	332 Mar 05 j 10:02	15°♓15'49	8°20'56
min. Earth dist.	332 Mar 04 j 19:46	15°♓38'26	0.28383 AU
morning rise	332 Mar 08 j 22:31	13°♓04'25	
direct	332 Mar 26 j 08:38	7°♓16'06	
greatest brilliancy	332 Apr 04 j 14:54	8°♓51'25	-4.8m
desc. node	332 Apr 21 j 23:05	18°♓20'02	
	332 May 06 j 06:55	0°♈	
morning max el	332 May 14 j 06:49	7°♈24'36	45°48'57
	332 Jun 05 j 11:40	0°♉	
	332 Jul 02 j 14:49	0°♊	
	332 Jul 28 j 10:39	0°♋	
asc. node	332 Aug 13 j 02:27	18°♋41'34	
	332 Aug 22 j 10:49	0°♌	
	332 Sep 15 j 21:15	0°♍	
	332 Oct 09 j 22:53	0°♎	
greatest brilliancy	332 Oct 21 j 14:40	14°♎37'37	-3.9m
	332 Nov 02 j 20:01	0°♏	
morning set	332 Nov 09 j 01:17	7°♏49'55	
	332 Nov 26 j 15:46	0°♐	
desc. node	332 Dec 02 j 16:01	7°♐34'05	
	332 Dec 20 j 11:59	0°♑	
superior conj	332 Dec 20 j 17:09	0°♑16'16	-0°41'12
minimum elong	332 Dec 20 j 07:10	29°♐44'53	0°40'46
max. Earth dist.	332 Dec 23 j 16:05	3°♑59'03	1.71186 AU
	333 Jan 13 j 09:46	0°♒	
evening rise	333 Jan 31 j 00:01	21°♒59'22	
	333 Feb 06 j 10:16	0°♓	
	333 Mar 02 j 15:00	0°♈	
asc. node	333 Mar 25 j 19:20	28°♈27'25	
	333 Mar 27 j 01:41	0°♉	
	333 Apr 20 j 20:11	0°♊	
	333 May 16 j 01:10	0°♋	
	333 Jun 10 j 22:08	0°♌	
	333 Jul 08 j 00:50	0°♍	
desc. node	333 Jul 15 j 08:41	7°♍42'27	
evening max el	333 Jul 28 j 14:49	20°♍59'06	46°04'08
	333 Aug 07 j 08:45	0°♎	
greatest brilliancy	333 Sep 06 j 23:17	20°♎01'39	-4.8m
retrograde	333 Sep 15 j 21:52	21°♎29'56	
evening set	333 Oct 02 j 09:41	16°♎21'37	
inferior conj	333 Oct 06 j 16:19	13°♎48'58	-6°44'16
minimum elong	333 Oct 07 j 02:55	13°♎32'50	6°42'04
min. Earth dist.	333 Oct 07 j 12:02	13°♎18'56	0.26999 AU
morning rise	333 Oct 11 j 19:38	10°♎46'02	
direct	333 Oct 27 j 08:55	6°♎01'34	
asc. node	333 Nov 05 j 11:44	7°♎36'35	
greatest brilliancy	333 Nov 07 j 09:07	8°♎18'04	-4.9m
	333 Dec 07 j 10:45	0°♏	
morning max el	333 Dec 17 j 03:05	9°♏31'09	46°56'24
	334 Jan 05 j 06:17	0°♐	
	334 Jan 31 j 11:41	0°♑	
desc. node	334 Feb 25 j 01:40	29°♑03'04	
	334 Feb 25 j 20:46	0°♒	
	334 Mar 22 j 21:24	0°♓	
	334 Apr 16 j 17:59	0°♈	
	334 May 11 j 11:54	0°♉	
	334 Jun 05 j 03:01	0°♊	
morning set	334 Jun 18 j 05:02	16°♊00'36	
asc. node	334 Jun 18 j 04:47	15°♊59'51	
	334 Jun 29 j 14:30	0°♋	
max. Earth dist.	334 Jul 20 j 20:26	26°♋12'30	1.72971 AU
	334 Jul 23 j 21:57	0°♌	
superior conj	334 Jul 24 j 12:38	0°♌45'26	1°12'06
minimum elong	334 Jul 24 j 04:43	0°♌20'55	1°11'55
	334 Aug 17 j 02:00	0°♍	
evening rise	334 Aug 30 j 02:03	16°♍11'13	
	334 Sep 10 j 04:07	0°♎	
	334 Oct 04 j 05:52	0°♏	
desc. node	334 Oct 07 j 18:27	4°♏23'22	
	334 Oct 28 j 08:24	0°♐	
	334 Nov 21 j 13:03	0°♑	
	334 Dec 15 j 22:31	0°♒	
	335 Jan 09 j 18:45	0°♓	
asc. node	335 Jan 28 j 21:27	22°♓22'45	
	335 Feb 04 j 14:13	0°♈	
	335 Mar 04 j 17:13	0°♉	
evening max el	335 Mar 05 j 10:38	0°♉42'53	45°52'49
greatest brilliancy	335 Apr 12 j 17:07	29°♉20'15	-4.7m
	335 Apr 14 j 14:34	0°♊	
retrograde	335 Apr 23 j 14:08	1°♊29'45	
	335 May 02 j 05:42	30°℞♉	
evening set	335 May 08 j 20:45	26°♉58'57	
inferior conj	335 May 15 j 01:35	23°♉15'07	1°15'31
minimum elong	335 May 15 j 04:20	23°♉10'49	1°14'43
min. Earth dist.	335 May 15 j 06:10	23°♉07'56	0.28981 AU
desc. node	335 May 20 j 10:54	19°♉57'57	
morning rise	335 May 21 j 11:48	19°♉22'57	
direct	335 Jun 05 j 16:09	14°♉56'08	
greatest brilliancy	335 Jun 16 j 04:03	16°♉53'57	-4.7m
	335 Jul 07 j 19:58	0°♊	
morning max el	335 Jul 24 j 13:29	14°♊46'52	45°52'18
	335 Aug 08 j 15:55	0°♋	
	335 Sep 04 j 20:02	0°♌	
asc. node	335 Sep 10 j 14:24	6°♌39'57	
	335 Sep 30 j 07:11	0°♍	
	335 Oct 24 j 21:23	0°♎	
	335 Nov 18 j 01:02	0°♏	
	335 Dec 12 j 00:28	0°♐	
desc. node	335 Dec 31 j 03:54	23°♐58'49	
	336 Jan 04 j 23:17	0°♑	
morning set	336 Jan 26 j 08:46	26°♑45'08	
	336 Jan 28 j 23:11	0°♒	
	336 Feb 22 j 01:04	0°♓	
superior conj	336 Mar 06 j 10:42	16°♓38'30	-1°22'24
minimum elong	336 Mar 06 j 16:07	16°♓55'16	1°22'20
max. Earth dist.	336 Mar 09 j 22:52	20°♓59'15	1.72619 AU
	336 Mar 17 j 05:37	0°♈	

	336 Apr 10 j 13:18	0°♉	
evening rise	336 Apr 13 j 19:21	3°♉59'54	
asc. node	336 Apr 22 j 07:08	14°♉25'26	
	336 May 05 j 00:15	0°♊	
	336 May 29 j 14:29	0°♋	
	336 Jun 23 j 08:39	0°♌	
	336 Jul 18 j 08:38	0°♍	
desc. node	336 Aug 11 j 20:38	28°♍57'04	
	336 Aug 12 j 18:11	0°♎	
	336 Sep 07 j 20:41	0°♏	
	336 Oct 05 j 12:42	0°♐	
evening max el	336 Oct 09 j 23:41	4°♐31'42	47°14'06
	336 Nov 08 j 13:12	0°♑	
greatest brilliancy	336 Nov 19 j 14:44	5°♑45'59	-4.9m
retrograde	336 Nov 29 j 17:50	7°♑43'58	
asc. node	336 Dec 02 j 23:45	7°♑30'46	
evening set	336 Dec 14 j 09:03	3°♑25'23	
min. Earth dist.	336 Dec 19 j 13:00	0°♑23'05	0.26609 AU
inferior conj	336 Dec 20 j 07:51	29°♐54'09	4°17'55
minimum elong	336 Dec 19 j 23:13	0°♑07'25	4°15'29
	336 Dec 20 j 04:03	30°℞♐	
morning rise	336 Dec 25 j 13:53	26°♐47'15	
direct	337 Jan 09 j 15:54	22°♐15'24	
greatest brilliancy	337 Jan 18 j 23:13	23°♐54'26	-4.9m
	337 Jan 31 j 00:46	0°♑	
morning max el	337 Feb 28 j 13:14	24°♑09'48	46°27'42
	337 Mar 06 j 09:00	0°♒	
desc. node	337 Mar 24 j 13:27	19°♒15'18	
	337 Apr 03 j 07:07	0°♓	
	337 Apr 29 j 15:14	0°♈	
	337 May 25 j 06:18	0°♉	
	337 Jun 19 j 10:33	0°♊	
	337 Jul 14 j 05:44	0°♋	
asc. node	337 Jul 15 j 16:41	1°♋46'31	
	337 Aug 07 j 16:34	0°♌	
morning set	337 Aug 25 j 16:20	22°♌18'35	
	337 Aug 31 j 20:29	0°♍	
	337 Sep 24 j 19:48	0°♎	
max. Earth dist.	337 Sep 30 j 11:01	7°♎04'12	1.71454 AU
superior conj	337 Oct 02 j 13:59	9°♎44'10	1°07'23
minimum elong	337 Oct 03 j 00:04	10°♎15'48	1°07'05
	337 Oct 18 j 17:02	0°♏	
desc. node	337 Nov 04 j 06:17	20°♏47'59	
	337 Nov 11 j 14:00	0°♐	
evening rise	337 Nov 12 j 03:42	0°♐43'00	
	337 Dec 05 j 11:50	0°♑	
	337 Dec 29 j 11:42	0°♒	
	338 Jan 22 j 15:51	0°♓	
	338 Feb 16 j 04:00	0°♈	
asc. node	338 Feb 25 j 09:26	11°♈08'12	
	338 Mar 13 j 05:40	0°♉	
	338 Apr 08 j 06:09	0°♊	
	338 May 06 j 04:16	0°♋	
evening max el	338 May 15 j 03:14	8°♋49'50	45°18'53
	338 Jun 09 j 19:11	0°♌	
desc. node	338 Jun 16 j 22:57	4°♌07'01	
greatest brilliancy	338 Jun 22 j 05:27	6°♌21'49	-4.7m
retrograde	338 Jul 02 j 14:29	8°♌16'40	
evening set	338 Jul 19 j 02:59	3°♌08'06	
inferior conj	338 Jul 23 j 22:41	0°♌13'33	-7°20'06
minimum elong	338 Jul 23 j 13:28	0°♌27'50	7°18'40
min. Earth dist.	338 Jul 24 j 03:54	0°♌05'27	0.28653 AU
	338 Jul 24 j 07:25	30°℞♋	
morning rise	338 Jul 27 j 23:43	27°♋45'39	
direct	338 Aug 14 j 12:17	22°♋01'02	
greatest brilliancy	338 Aug 25 j 07:11	24°♋08'29	-4.8m
	338 Sep 05 j 12:07	0°♌	
morning max el	338 Oct 03 j 13:22	23°♌56'46	46°31'31
asc. node	338 Oct 08 j 02:02	28°♌32'58	
	338 Oct 09 j 11:38	0°♍	
	338 Nov 05 j 14:13	0°♎	
	338 Nov 30 j 21:56	0°♏	
	338 Dec 25 j 13:09	0°♐	
	339 Jan 18 j 22:18	0°♑	
desc. node	339 Jan 27 j 15:48	10°♑46'14	
	339 Feb 12 j 05:48	0°♒	
	339 Mar 08 j 13:33	0°♓	
	339 Apr 01 j 22:21	0°♈	
morning set	339 Apr 09 j 05:10	8°♈57'21	
	339 Apr 26 j 08:15	0°♉	
superior conj	339 May 16 j 03:02	24°♉17'18	-0°11'03
minimum elong	339 May 16 j 05:18	24°♉24'15	0°10'57
behind sun begin	339 May 15 j 12:48	23°♉33'36	
behind sun end	339 May 16 j 21:48	25°♉14'54	
max. Earth dist.	339 May 15 j 23:35	24°♉06'41	1.73633 AU
asc. node	339 May 20 j 19:02	0°♊01'06	
	339 May 20 j 18:41	0°♊	
	339 Jun 14 j 04:47	0°♋	
evening rise	339 Jun 21 j 03:42	8°♋33'02	
	339 Jul 08 j 14:14	0°♌	
	339 Aug 01 j 23:40	0°♍	
	339 Aug 26 j 10:28	0°♎	
desc. node	339 Sep 09 j 08:33	17°♎01'02	
	339 Sep 20 j 00:15	0°♏	
	339 Oct 14 j 19:05	0°♐	
	339 Nov 08 j 23:47	0°♑	
	339 Dec 05 j 04:07	0°♒	
evening max el	339 Dec 21 j 23:08	17°♒55'59	47°06'45
asc. node	339 Dec 31 j 11:41	27°♒18'08	
	340 Jan 03 j 09:28	0°♓	
greatest brilliancy	340 Jan 31 j 03:48	19°♓16'18	-4.9m
retrograde	340 Feb 10 j 17:27	21°♓22'42	
evening set	340 Feb 28 j 14:42	15°♓09'57	
inferior conj	340 Mar 02 j 20:38	13°♓07'22	8°26'38
minimum elong	340 Mar 03 j 00:43	13°♓00'52	8°26'23
min. Earth dist.	340 Mar 02 j 10:29	13°♓23'29	0.28335 AU
morning rise	340 Mar 06 j 11:00	10°♓52'32	
direct	340 Mar 23 j 23:08	5°♓00'55	
greatest brilliancy	340 Apr 02 j 04:52	6°♓35'25	-4.8m
desc. node	340 Apr 21 j 01:05	17°♓09'50	
	340 May 06 j 09:04	0°♈	
morning max el	340 May 11 j 21:00	5°♈09'07	45°49'45
	340 Jun 05 j 04:23	0°♉	
	340 Jul 02 j 04:34	0°♊	
	340 Jul 27 j 23:02	0°♋	
asc. node	340 Aug 12 j 04:33	18°♋11'56	
	340 Aug 21 j 22:32	0°♌	
	340 Sep 15 j 08:39	0°♍	
	340 Oct 09 j 10:09	0°♎	
greatest brilliancy	340 Oct 22 j 12:54	16°♎27'35	-3.9m
	340 Nov 02 j 07:14	0°♏	
morning set	340 Nov 06 j 12:25	5°♏18'29	
	340 Nov 26 j 02:57	0°♐	
desc. node	340 Dec 01 j 18:10	7°♐05'38	
superior conj	340 Dec 18 j 02:29	27°♐39'43	-0°37'37
minimum elong	340 Dec 17 j 17:09	27°♐10'23	0°37'12
	340 Dec 19 j 23:08	0°♑	
max. Earth dist.	340 Dec 20 j 19:12	1°♑03'02	1.71156 AU
	341 Jan 12 j 20:54	0°♒	
evening rise	341 Jan 28 j 10:58	19°♒29'03	
	341 Feb 05 j 21:26	0°♓	

	341 Mar 02 j 02:16	0°♈		
asc. node	341 Mar 24 j 21:18	27°♈58'29		
	341 Mar 26 j 13:09	0°♉		
	341 Apr 20 j 08:04	0°♊		
	341 May 15 j 13:52	0°♋		
	341 Jun 10 j 12:27	0°♌		
	341 Jul 07 j 18:43	0°♍		
desc. node	341 Jul 14 j 10:49	6°♍57'48		
evening max el	341 Jul 26 j 03:00	18°♍36'04	46°01'38	
	341 Aug 07 j 15:01	0°♎		
greatest brilliancy	341 Sep 04 j 11:37	17°♎37'09	-4.8m	
retrograde	341 Sep 13 j 09:54	19°♎05'32		
evening set	341 Sep 30 j 01:31	13°♎51'49		
inferior conj	341 Oct 04 j 05:06	11°♎23'45	-6°58'51	
minimum elong	341 Oct 04 j 15:31	11°♎07'53	6°56'49	
min. Earth dist.	341 Oct 05 j 01:31	10°♎52'41	0.27065 AU	
morning rise	341 Oct 09 j 05:01	8°♎25'39		
direct	341 Oct 24 j 22:09	3°♎34'56		
asc. node	341 Nov 04 j 13:55	5°♎43'17		
greatest brilliancy	341 Nov 04 j 23:58	5°♎53'06	-4.9m	
	341 Dec 07 j 13:47	0°♏		
morning max el	341 Dec 14 j 17:00	7°♏05'29	46°56'35	
	342 Jan 05 j 00:04	0°♐		
	342 Jan 31 j 02:25	0°♑		
desc. node	342 Feb 24 j 03:41	28°♑29'34		
	342 Feb 25 j 09:58	0°♒		
	342 Mar 22 j 09:42	0°♓		
	342 Apr 16 j 05:41	0°♈		
	342 May 10 j 23:13	0°♉		
	342 Jun 04 j 14:04	0°♊		
morning set	342 Jun 15 j 23:16	13°♊55'40		
asc. node	342 Jun 17 j 06:55	15°♊32'41		
	342 Jun 29 j 01:26	0°♋		
max. Earth dist.	342 Jul 18 j 17:37	24°♋15'46	1.73016 AU	
superior conj	342 Jul 22 j 06:42	28°♋38'57	1°10'23	
minimum elong	342 Jul 21 j 22:32	28°♋13'40	1°10'10	
	342 Jul 23 j 08:53	0°♌		
	342 Aug 16 j 13:02	0°♍		
evening rise	342 Aug 27 j 18:06	13°♍57'14		
	342 Sep 09 j 15:19	0°♎		
	342 Oct 03 j 17:18	0°♏		
desc. node	342 Oct 06 j 20:28	3°♏53'55		
	342 Oct 27 j 20:10	0°♐		
	342 Nov 21 j 01:14	0°♑		
	342 Dec 15 j 11:17	0°♒		
	343 Jan 09 j 08:29	0°♓		
asc. node	343 Jan 27 j 23:30	21°♓45'21		
	343 Feb 04 j 06:04	0°♈		
evening max el	343 Mar 03 j 02:12	28°♈29'16	45°55'16	
	343 Mar 04 j 15:20	0°♉		
greatest brilliancy	343 Apr 10 j 09:05	27°♉10'13	-4.7m	
retrograde	343 Apr 21 j 07:13	29°♉20'47		
evening set	343 May 06 j 14:38	24°♉47'35		
inferior conj	343 May 12 j 18:04	21°♉05'35	1°34'56	
minimum elong	343 May 12 j 21:29	21°♉00'13	1°33'57	
min. Earth dist.	343 May 12 j 22:31	20°♉58'37	0.28980 AU	
morning rise	343 May 19 j 04:20	17°♉13'39		
desc. node	343 May 19 j 13:06	17°♉01'42		
direct	343 Jun 03 j 08:42	12°♉46'31		
greatest brilliancy	343 Jun 13 j 19:51	14°♉44'13	-4.7m	
	343 Jul 08 j 04:16	0°♊		
morning max el	343 Jul 22 j 06:33	12°♊38'47	45°51'30	
	343 Aug 08 j 09:49	0°♋		
	343 Sep 04 j 10:25	0°♌		
asc. node	343 Sep 09 j 16:21	6°♌04'59		
	343 Sep 29 j 20:06	0°♍		
	343 Oct 24 j 09:35	0°♎		
	343 Nov 17 j 12:51	0°♏		
	343 Dec 11 j 12:04	0°♐		
desc. node	343 Dec 30 j 06:00	23°♐29'25		
	344 Jan 04 j 10:44	0°♑		
morning set	344 Jan 23 j 19:18	24°♑12'45		
	344 Jan 28 j 10:30	0°♒		
	344 Feb 21 j 12:15	0°♓		
superior conj	344 Mar 04 j 00:28	14°♓17'47	-1°23'18	
minimum elong	344 Mar 04 j 05:07	14°♓32'15	1°23'14	
max. Earth dist.	344 Mar 07 j 13:54	18°♓42'42	1.72565 AU	
	344 Mar 16 j 16:42	0°♈		
	344 Apr 10 j 00:22	0°♉		
evening rise	344 Apr 11 j 11:38	1°♉48'25		
asc. node	344 Apr 21 j 09:14	13°♉57'49		
	344 May 04 j 11:26	0°♊		
	344 May 29 j 01:57	0°♋		
	344 Jun 22 j 20:35	0°♌		
	344 Jul 17 j 21:21	0°♍		
desc. node	344 Aug 10 j 22:37	28°♍22'12		
	344 Aug 12 j 08:11	0°♎		
	344 Sep 07 j 13:06	0°♏		
	344 Oct 05 j 10:58	0°♐		
evening max el	344 Oct 07 j 14:47	2°♐10'32	47°12'37	
	344 Nov 10 j 03:57	0°♑		
greatest brilliancy	344 Nov 17 j 03:57	3°♑17'02	-4.9m	
retrograde	344 Nov 27 j 07:16	5°♑14'34		
asc. node	344 Dec 02 j 01:50	4°♑46'00		
evening set	344 Dec 11 j 19:59	0°♑59'09		
	344 Dec 13 j 14:02	30°℞♐		
min. Earth dist.	344 Dec 17 j 02:17	27°♐53'29	0.26567 AU	
inferior conj	344 Dec 17 j 20:25	27°♐25'39	3°56'43	
minimum elong	344 Dec 17 j 12:19	27°♐38'06	3°54'22	
morning rise	344 Dec 23 j 05:13	24°♐15'15		
direct	345 Jan 07 j 04:54	19°♐47'46		
greatest brilliancy	345 Jan 16 j 12:16	21°♐27'11	-4.9m	
	345 Feb 01 j 03:28	0°♑		
morning max el	345 Feb 26 j 03:11	21°♑48'08	46°29'04	
	345 Mar 06 j 06:01	0°♒		
desc. node	345 Mar 23 j 15:28	18°♒34'04		
	345 Apr 02 j 22:51	0°♓		
	345 Apr 29 j 04:47	0°♈		
	345 May 24 j 18:41	0°♉		
	345 Jun 18 j 22:17	0°♊		
	345 Jul 13 j 17:05	0°♋		
asc. node	345 Jul 14 j 18:41	1°♋18'03		
	345 Aug 07 j 03:44	0°♌		
morning set	345 Aug 23 j 08:15	20°♌04'17		
	345 Aug 31 j 07:34	0°♍		
	345 Sep 24 j 06:55	0°♎		
max. Earth dist.	345 Sep 27 j 17:58	4°♎20'26	1.71493 AU	
superior conj	345 Sep 30 j 03:33	7°♎21'06	1°09'31	
minimum elong	345 Sep 30 j 13:18	7°♎51'43	1°09'15	
	345 Oct 18 j 04:14	0°♏		
desc. node	345 Nov 03 j 08:28	20°♏19'32		
evening rise	345 Nov 09 j 14:08	28°♏09'35		
	345 Nov 11 j 01:17	0°♐		
	345 Dec 04 j 23:12	0°♑		
	345 Dec 28 j 23:13	0°♒		
	346 Jan 22 j 03:36	0°♓		
	346 Feb 15 j 16:13	0°♈		
asc. node	346 Feb 24 j 11:24	10°♈36'44		
	346 Mar 12 j 18:46	0°♉		
	346 Apr 07 j 21:08	0°♊		
	346 May 06 j 00:15	0°♋		

evening max el	346 May 12 j 18:36	6°♋37'33	45°18'43
	346 Jun 11 j 00:35	0°♌	
desc. node	346 Jun 16 j 01:03	2°♌36'39	
greatest brilliancy	346 Jun 19 j 20:10	4°♌09'34	-4.7m
retrograde	346 Jun 30 j 05:05	6°♌04'38	
evening set	346 Jul 16 j 15:14	1°♌00'38	
	346 Jul 18 j 08:42	30°℞♋	
inferior conj	346 Jul 21 j 14:16	28°♋01'10	-7°08'40
minimum elong	346 Jul 21 j 04:46	28°♋15'54	7°07'04
min. Earth dist.	346 Jul 21 j 19:13	27°♋53'27	0.28683 AU
morning rise	346 Jul 25 j 18:03	25°♋28'53	
direct	346 Aug 12 j 04:01	19°♋48'12	
greatest brilliancy	346 Aug 22 j 22:53	21°♋54'59	-4.8m
	346 Sep 06 j 10:40	0°♌	
morning max el	346 Oct 01 j 02:57	21°♌35'11	46°29'59
asc. node	346 Oct 07 j 04:13	27°♌45'40	
	346 Oct 09 j 07:34	0°♍	
	346 Nov 05 j 05:37	0°♎	
	346 Nov 30 j 11:31	0°♏	
	346 Dec 25 j 01:47	0°♐	
	347 Jan 18 j 10:18	0°♑	
desc. node	347 Jan 26 j 17:48	10°♑15'50	
	347 Feb 11 j 17:22	0°♒	
	347 Mar 08 j 00:49	0°♓	
	347 Apr 01 j 09:24	0°♈	
morning set	347 Apr 06 j 21:52	6°♈47'20	
	347 Apr 25 j 19:10	0°♉	
superior conj	347 May 13 j 21:06	22°♉12'07	-0°14'11
minimum elong	347 May 13 j 24:00	22°♉21'01	0°14'02
behind sun begin	347 May 13 j 13:26	21°♉48'35	
behind sun end	347 May 14 j 10:34	22°♉53'27	
max. Earth dist.	347 May 13 j 19:50	22°♉08'16	1.73623 AU
asc. node	347 May 19 j 21:10	29°♉34'22	
	347 May 20 j 05:31	0°♊	
	347 Jun 13 j 15:39	0°♋	
evening rise	347 Jun 18 j 22:47	6°♋30'34	
	347 Jul 08 j 01:16	0°♌	
	347 Aug 01 j 11:01	0°♍	
	347 Aug 25 j 22:17	0°♎	
desc. node	347 Sep 08 j 10:37	16°♎30'21	
	347 Sep 19 j 12:41	0°♏	
	347 Oct 14 j 08:26	0°♐	
	347 Nov 08 j 14:36	0°♑	
	347 Dec 04 j 22:04	0°♒	
evening max el	347 Dec 19 j 13:08	15°♒33'06	47°08'40
asc. node	347 Dec 30 j 13:44	26°♒20'30	
	348 Jan 03 j 14:28	0°♓	
greatest brilliancy	348 Jan 28 j 20:34	17°♓00'56	-4.9m
retrograde	348 Feb 08 j 08:50	19°♓06'40	
evening set	348 Feb 26 j 07:27	12°♓52'40	
min. Earth dist.	348 Feb 29 j 01:29	11°♓09'02	0.28286 AU
inferior conj	348 Feb 29 j 12:14	10°♓51'59	8°31'08
minimum elong	348 Feb 29 j 15:36	10°♓46'38	8°30'58
morning rise	348 Mar 03 j 23:57	8°♓41'05	
direct	348 Mar 21 j 13:28	2°♓46'17	
greatest brilliancy	348 Mar 30 j 19:26	4°♓20'42	-4.8m
desc. node	348 Apr 20 j 03:18	16°♓02'25	
	348 May 06 j 09:44	0°♈	
morning max el	348 May 09 j 11:28	2°♈54'31	45°50'30
	348 Jun 04 j 20:44	0°♉	
	348 Jul 01 j 18:10	0°♊	
	348 Jul 27 j 11:22	0°♋	
asc. node	348 Aug 11 j 06:33	17°♋42'08	
	348 Aug 21 j 10:12	0°♌	
	348 Sep 14 j 20:00	0°♍	
	348 Oct 08 j 21:21	0°♎	
greatest brilliancy	348 Oct 22 j 19:12	17°♎27'45	-3.9m
	348 Nov 01 j 18:23	0°♏	
morning set	348 Nov 03 j 23:41	2°♏47'48	
	348 Nov 25 j 14:05	0°♐	
desc. node	348 Nov 30 j 20:14	6°♐37'05	
superior conj	348 Dec 15 j 11:50	25°♐03'17	-0°33'57
minimum elong	348 Dec 15 j 03:13	24°♐36'13	0°33'33
max. Earth dist.	348 Dec 17 j 21:28	28°♐04'28	1.71131 AU
	348 Dec 19 j 10:14	0°♑	
	349 Jan 12 j 07:59	0°♒	
evening rise	349 Jan 25 j 22:01	16°♒59'12	
	349 Feb 05 j 08:30	0°♓	
	349 Mar 01 j 13:23	0°♈	
asc. node	349 Mar 23 j 23:29	27°♈30'46	
	349 Mar 26 j 00:27	0°♉	
	349 Apr 19 j 19:49	0°♊	
	349 May 15 j 02:29	0°♋	
	349 Jun 10 j 02:47	0°♌	
	349 Jul 07 j 12:54	0°♍	
desc. node	349 Jul 13 j 12:48	6°♍12'27	
evening max el	349 Jul 23 j 16:07	16°♍15'52	45°59'12
	349 Aug 07 j 23:27	0°♎	
greatest brilliancy	349 Sep 01 j 23:28	15°♎13'08	-4.8m
retrograde	349 Sep 10 j 22:45	16°♎42'17	
evening set	349 Sep 27 j 17:29	11°♎23'11	
inferior conj	349 Oct 01 j 18:02	8°♎59'34	-7°12'33
minimum elong	349 Oct 02 j 04:14	8°♎44'04	7°10'40
min. Earth dist.	349 Oct 02 j 14:41	8°♎28'11	0.27132 AU
morning rise	349 Oct 06 j 14:30	6°♎06'35	
direct	349 Oct 22 j 12:02	1°♎09'35	
greatest brilliancy	349 Nov 02 j 14:24	3°♎28'43	-4.9m
asc. node	349 Nov 03 j 16:01	3°♎55'13	
	349 Dec 07 j 15:05	0°♏	
morning max el	349 Dec 12 j 07:43	4°♏42'42	46°56'35
	350 Jan 04 j 17:15	0°♐	
	350 Jan 30 j 16:47	0°♑	
desc. node	350 Feb 23 j 05:42	27°♑56'45	
	350 Feb 24 j 22:53	0°♒	
	350 Mar 21 j 21:44	0°♓	
	350 Apr 15 j 17:06	0°♈	
	350 May 10 j 10:13	0°♉	
	350 Jun 04 j 00:50	0°♊	
morning set	350 Jun 13 j 17:51	11°♊52'44	
asc. node	350 Jun 16 j 08:55	15°♊06'00	
	350 Jun 28 j 12:06	0°♋	
max. Earth dist.	350 Jul 16 j 14:56	22°♋20'15	1.73063 AU
superior conj	350 Jul 20 j 00:58	26°♋33'52	1°08'36
minimum elong	350 Jul 19 j 16:35	26°♋07'58	1°08'21
	350 Jul 22 j 19:35	0°♌	
	350 Aug 15 j 23:51	0°♍	
evening rise	350 Aug 25 j 10:19	11°♍44'25	
	350 Sep 09 j 02:19	0°♎	
	350 Oct 03 j 04:32	0°♏	
desc. node	350 Oct 05 j 22:39	3°♏25'38	
	350 Oct 27 j 07:43	0°♐	
	350 Nov 20 j 13:12	0°♑	
	350 Dec 14 j 23:50	0°♒	
	351 Jan 08 j 22:05	0°♓	
asc. node	351 Jan 27 j 01:31	21°♓08'21	
	351 Feb 03 j 21:54	0°♈	
evening max el	351 Feb 28 j 18:37	26°♈18'32	45°57'46
	351 Mar 04 j 14:00	0°♉	
greatest brilliancy	351 Apr 08 j 01:32	25°♉01'59	-4.7m
retrograde	351 Apr 19 j 00:34	27°♉13'02	
evening set	351 May 04 j 08:51	22°♉37'42	

inferior conj	351 May 10 j 10:41	18°♉57'31	1°54'09
minimum elong	351 May 10 j 14:46	18°♉51'06	1°52'59
min. Earth dist.	351 May 10 j 14:46	18°♉51'06	0.28973 AU
morning rise	351 May 16 j 20:48	15°♉05'59	
desc. node	351 May 18 j 15:04	14°♉10'21	
direct	351 Jun 01 j 01:37	10°♉38'42	
greatest brilliancy	351 Jun 11 j 11:06	12°♉35'24	-4.7m
	351 Jul 08 j 09:33	0°♊	
morning max el	351 Jul 19 j 23:23	10°♊31'40	45°50'34
	351 Aug 08 j 02:52	0°♋	
	351 Sep 04 j 00:18	0°♌	
asc. node	351 Sep 08 j 18:31	5°♌31'53	
	351 Sep 29 j 08:39	0°♍	
	351 Oct 23 j 21:28	0°♎	
	351 Nov 17 j 00:21	0°♏	
	351 Dec 10 j 23:21	0°♐	
desc. node	351 Dec 29 j 08:00	23°♐00'45	
	352 Jan 03 j 21:51	0°♑	
morning set	352 Jan 21 j 05:40	21°♑40'49	
	352 Jan 27 j 21:28	0°♒	
	352 Feb 20 j 23:06	0°♓	
superior conj	352 Mar 01 j 14:02	11°♓57'21	-1°24'03
minimum elong	352 Mar 01 j 17:53	12°♓09'20	1°24'01
max. Earth dist.	352 Mar 05 j 06:25	16°♓31'35	1.72512 AU
	352 Mar 16 j 03:28	0°♈	
evening rise	352 Apr 09 j 03:51	29°♈37'37	
	352 Apr 09 j 11:08	0°♉	
asc. node	352 Apr 20 j 11:24	13°♉31'21	
	352 May 03 j 22:17	0°♊	
	352 May 28 j 13:03	0°♋	
	352 Jun 22 j 08:08	0°♌	
	352 Jul 17 j 09:41	0°♍	
desc. node	352 Aug 10 j 00:40	27°♍48'33	
	352 Aug 11 j 21:54	0°♎	
	352 Sep 07 j 05:26	0°♏	
evening max el	352 Oct 05 j 05:35	29°♏49'23	47°10'48
	352 Oct 05 j 09:50	0°♐	
	352 Nov 12 j 16:19	0°♑	
greatest brilliancy	352 Nov 14 j 17:34	0°♑49'00	-4.9m
retrograde	352 Nov 24 j 20:05	2°♑45'12	
asc. node	352 Dec 01 j 03:51	1°♑55'20	
	352 Dec 06 j 09:56	30°℞♐	
evening set	352 Dec 09 j 07:01	28°♐32'58	
min. Earth dist.	352 Dec 14 j 15:47	25°♐23'41	0.26526 AU
inferior conj	352 Dec 15 j 08:50	24°♐57'30	3°34'47
minimum elong	352 Dec 15 j 01:20	25°♐09'01	3°32'34
morning rise	352 Dec 20 j 20:13	21°♐43'32	
direct	353 Jan 04 j 17:27	17°♐20'29	
greatest brilliancy	353 Jan 14 j 01:35	19°♐00'30	-4.9m
	353 Feb 01 j 22:46	0°♑	
morning max el	353 Feb 23 j 15:56	19°♑24'10	46°30'27
	353 Mar 06 j 02:00	0°♒	
desc. node	353 Mar 22 j 17:42	17°♒54'43	
	353 Apr 02 j 14:01	0°♓	
	353 Apr 28 j 17:53	0°♈	
	353 May 24 j 06:41	0°♉	
	353 Jun 18 j 09:37	0°♊	
	353 Jul 13 j 04:03	0°♋	
asc. node	353 Jul 13 j 20:47	0°♋51'04	
	353 Aug 06 j 14:29	0°♌	
morning set	353 Aug 21 j 00:34	17°♌52'30	
	353 Aug 30 j 18:16	0°♍	
	353 Sep 23 j 17:40	0°♎	
max. Earth dist.	353 Sep 25 j 02:19	1°♎42'22	1.71543 AU
superior conj	353 Sep 27 j 17:28	5°♎00'25	1°11'31
minimum elong	353 Sep 28 j 02:50	5°♎29'46	1°11'16
	353 Oct 17 j 15:07	0°♏	
desc. node	353 Nov 02 j 10:30	19°♏51'31	
evening rise	353 Nov 07 j 00:31	25°♏36'56	
	353 Nov 10 j 12:19	0°♐	
	353 Dec 04 j 10:21	0°♑	
	353 Dec 28 j 10:31	0°♒	
	354 Jan 21 j 15:09	0°♓	
	354 Feb 15 j 04:14	0°♈	
asc. node	354 Feb 23 j 13:35	10°♈06'33	
	354 Mar 12 j 07:43	0°♉	
	354 Apr 07 j 12:04	0°♊	
	354 May 05 j 20:33	0°♋	
evening max el	354 May 10 j 09:14	4°♋24'15	45°18'43
	354 Jun 12 j 18:30	0°♌	
desc. node	354 Jun 15 j 03:04	1°♌04'03	
greatest brilliancy	354 Jun 17 j 10:58	1°♌58'28	-4.7m
retrograde	354 Jun 27 j 20:00	3°♌54'08	
	354 Jul 12 j 03:16	30°℞♋	
evening set	354 Jul 14 j 03:37	28°♋54'17	
inferior conj	354 Jul 19 j 05:57	25°♋50'14	-6°56'33
minimum elong	354 Jul 18 j 20:14	26°♋05'19	6°54'50
min. Earth dist.	354 Jul 19 j 10:48	25°♋42'42	0.28709 AU
morning rise	354 Jul 23 j 12:32	23°♋13'42	
direct	354 Aug 09 j 19:28	17°♋36'46	
greatest brilliancy	354 Aug 20 j 15:03	19°♋43'37	-4.8m
	354 Sep 07 j 02:41	0°♌	
morning max el	354 Sep 28 j 16:37	19°♌15'14	46°28'33
asc. node	354 Oct 06 j 06:20	27°♌00'12	
	354 Oct 09 j 02:27	0°♍	
	354 Nov 04 j 20:25	0°♎	
	354 Nov 30 j 00:43	0°♏	
	354 Dec 24 j 14:08	0°♐	
	355 Jan 17 j 22:06	0°♑	
desc. node	355 Jan 25 j 19:56	9°♑46'21	
	355 Feb 11 j 04:46	0°♒	
	355 Mar 07 j 11:55	0°♓	
	355 Mar 31 j 20:16	0°♈	
morning set	355 Apr 04 j 14:02	4°♈36'11	
	355 Apr 25 j 05:53	0°♉	
superior conj	355 May 11 j 14:54	20°♉06'45	-0°17'19
minimum elong	355 May 11 j 18:26	20°♉17'34	0°17'08
max. Earth dist.	355 May 11 j 15:10	20°♉07'33	1.73612 AU
asc. node	355 May 18 j 23:08	29°♉07'41	
	355 May 19 j 16:11	0°♊	
	355 Jun 13 j 02:22	0°♋	
evening rise	355 Jun 16 j 17:50	4°♋28'39	
	355 Jul 07 j 12:09	0°♌	
	355 Jul 31 j 22:11	0°♍	
	355 Aug 25 j 09:52	0°♎	
desc. node	355 Sep 07 j 12:48	16°♎00'53	
	355 Sep 19 j 00:53	0°♏	
	355 Oct 13 j 21:33	0°♐	
	355 Nov 08 j 05:19	0°♑	
	355 Dec 04 j 16:15	0°♒	
evening max el	355 Dec 17 j 02:52	13°♒09'50	47°10'18
asc. node	355 Dec 29 j 15:47	25°♒21'39	
	356 Jan 03 j 21:37	0°♓	
greatest brilliancy	356 Jan 26 j 12:30	14°♓43'48	-4.9m
retrograde	356 Feb 06 j 00:05	16°♓49'37	
evening set	356 Feb 23 j 23:25	10°♓34'37	
min. Earth dist.	356 Feb 26 j 15:58	8°♓53'32	0.28239 AU
inferior conj	356 Feb 27 j 03:28	8°♓35'20	8°34'42
minimum elong	356 Feb 27 j 06:03	8°♓31'13	8°34'36
morning rise	356 Mar 01 j 12:52	6°♓28'07	
direct	356 Mar 19 j 03:30	0°♓30'15	

greatest brilliancy	356 Mar 28 j 09:39	2°♓04'52	-4.8m
desc. node	356 Apr 19 j 05:18	14°♓55'58	
	356 May 06 j 09:20	0°♈	
morning max el	356 May 07 j 02:17	0°♈40'29	45°51'25
	356 Jun 04 j 12:46	0°♉	
	356 Jul 01 j 07:36	0°♊	
	356 Jul 26 j 23:33	0°♋	
asc. node	356 Aug 10 j 08:41	17°♋13'00	
	356 Aug 20 j 21:45	0°♌	
	356 Sep 14 j 07:13	0°♍	
	356 Oct 08 j 08:25	0°♎	
greatest brilliancy	356 Oct 22 j 19:29	18°♎09'31	-3.9m
morning set	356 Nov 01 j 11:35	0°♏19'35	
	356 Nov 01 j 05:22	0°♏	
	356 Nov 25 j 01:02	0°♐	
desc. node	356 Nov 29 j 22:14	6°♐08'55	
superior conj	356 Dec 12 j 21:27	22°♐28'09	-0°30'13
minimum elong	356 Dec 12 j 13:38	22°♐03'36	0°29'52
max. Earth dist.	356 Dec 15 j 03:17	25°♐17'26	1.71113 AU
	356 Dec 18 j 21:11	0°♑	
	357 Jan 11 j 18:58	0°♒	
evening rise	357 Jan 23 j 09:04	14°♒29'35	
	357 Feb 04 j 19:32	0°♓	
	357 Mar 01 j 00:31	0°♈	
asc. node	357 Mar 23 j 01:32	27°♈02'28	
	357 Mar 25 j 11:49	0°♉	
	357 Apr 19 j 07:39	0°♊	
	357 May 14 j 15:15	0°♋	
	357 Jun 09 j 17:21	0°♌	
	357 Jul 07 j 07:37	0°♍	
desc. node	357 Jul 12 j 14:55	5°♍26'31	
evening max el	357 Jul 21 j 06:01	13°♍57'38	45°56'52
	357 Aug 08 j 10:56	0°♎	
greatest brilliancy	357 Aug 30 j 10:56	12°♎48'55	-4.8m
retrograde	357 Sep 08 j 11:50	14°♎18'57	
evening set	357 Sep 25 j 09:27	8°♎54'45	
inferior conj	357 Sep 29 j 06:55	6°♎35'23	-7°25'28
minimum elong	357 Sep 29 j 16:50	6°♎20'20	7°23'45
min. Earth dist.	357 Sep 30 j 03:26	6°♎04'14	0.27194 AU
morning rise	357 Oct 03 j 23:49	3°♎47'38	
	357 Oct 12 j 06:46	30°℞♍	
direct	357 Oct 20 j 02:15	28°♍44'32	
	357 Oct 28 j 03:36	0°♎	
greatest brilliancy	357 Oct 31 j 04:01	1°♎03'34	-4.9m
asc. node	357 Nov 02 j 17:58	2°♎11'07	
	357 Dec 07 j 15:04	0°♏	
morning max el	357 Dec 09 j 22:35	2°♏20'36	46°56'38
	358 Jan 04 j 09:59	0°♐	
	358 Jan 30 j 06:55	0°♑	
desc. node	358 Feb 22 j 07:52	27°♑24'41	
	358 Feb 24 j 11:42	0°♒	
	358 Mar 21 j 09:45	0°♓	
	358 Apr 15 j 04:36	0°♈	
	358 May 09 j 21:20	0°♉	
	358 Jun 03 j 11:44	0°♊	
morning set	358 Jun 11 j 12:03	9°♊48'16	
asc. node	358 Jun 15 j 11:01	14°♊39'11	
	358 Jun 27 j 22:54	0°♋	
max. Earth dist.	358 Jul 14 j 11:12	20°♋21'15	1.73106 AU
superior conj	358 Jul 17 j 18:53	24°♋27'27	1°06'40
minimum elong	358 Jul 17 j 10:21	24°♋01'04	1°06'25
	358 Jul 22 j 06:24	0°♌	
	358 Aug 15 j 10:47	0°♍	
evening rise	358 Aug 23 j 02:22	9°♍30'50	
	358 Sep 08 j 13:26	0°♎	
	358 Oct 02 j 15:55	0°♏	
desc. node	358 Oct 05 j 00:38	2°♏56'20	
	358 Oct 26 j 19:24	0°♐	
	358 Nov 20 j 01:17	0°♑	
	358 Dec 14 j 12:30	0°♒	
	359 Jan 08 j 11:47	0°♓	
asc. node	359 Jan 26 j 03:42	20°♓31'25	
	359 Feb 03 j 14:00	0°♈	
evening max el	359 Feb 26 j 10:58	24°♈07'16	46°00'01
	359 Mar 04 j 13:47	0°♉	
greatest brilliancy	359 Apr 05 j 18:25	22°♉53'27	-4.7m
retrograde	359 Apr 16 j 17:23	25°♉04'06	
evening set	359 May 02 j 03:05	20°♉26'40	
inferior conj	359 May 08 j 03:11	16°♉48'23	2°13'17
minimum elong	359 May 08 j 07:54	16°♉40'57	2°11'57
min. Earth dist.	359 May 08 j 07:03	16°♉42'18	0.28969 AU
morning rise	359 May 14 j 12:56	12°♉57'14	
desc. node	359 May 17 j 17:07	11°♉20'48	
direct	359 May 29 j 18:31	8°♉29'50	
greatest brilliancy	359 Jun 09 j 02:12	10°♉25'11	-4.7m
	359 Jul 08 j 13:28	0°♊	
morning max el	359 Jul 17 j 15:21	8°♊21'26	45°49'40
	359 Aug 07 j 19:55	0°♋	
	359 Sep 03 j 14:19	0°♌	
asc. node	359 Sep 07 j 20:38	4°♌58'00	
	359 Sep 28 j 21:21	0°♍	
	359 Oct 23 j 09:31	0°♎	
	359 Nov 16 j 12:03	0°♏	
	359 Dec 10 j 10:50	0°♐	
desc. node	359 Dec 28 j 10:07	22°♐31'50	
	360 Jan 03 j 09:09	0°♑	
morning set	360 Jan 18 j 16:17	19°♑09'03	
	360 Jan 27 j 08:36	0°♒	
	360 Feb 20 j 10:05	0°♓	
superior conj	360 Feb 28 j 03:50	9°♓37'10	-1°24'38
minimum elong	360 Feb 28 j 06:53	9°♓46'37	1°24'38
max. Earth dist.	360 Mar 03 j 01:11	14°♓26'55	1.72456 AU
	360 Mar 15 j 14:23	0°♈	
evening rise	360 Apr 06 j 20:09	27°♈26'27	
	360 Apr 08 j 22:04	0°♉	
asc. node	360 Apr 19 j 13:21	13°♉03'43	
	360 May 03 j 09:23	0°♊	
	360 May 28 j 00:25	0°♋	
	360 Jun 21 j 20:01	0°♌	
	360 Jul 16 j 22:25	0°♍	
desc. node	360 Aug 09 j 02:50	27°♍14'00	
	360 Aug 11 j 12:06	0°♎	
	360 Sep 06 j 22:26	0°♏	
evening max el	360 Oct 02 j 19:12	27°♏24'22	47°08'56
	360 Oct 05 j 10:07	0°♐	
greatest brilliancy	360 Nov 12 j 07:43	28°♐20'33	-4.9m
	360 Nov 18 j 19:52	0°♑	
retrograde	360 Nov 22 j 08:17	0°♑14'46	
	360 Nov 25 j 19:20	30°℞♐	
asc. node	360 Nov 30 j 05:59	28°♐57'25	
evening set	360 Dec 06 j 18:12	26°♐05'18	
min. Earth dist.	360 Dec 12 j 05:39	22°♐52'16	0.26487 AU
inferior conj	360 Dec 12 j 21:12	22°♐28'21	3°12'21
minimum elong	360 Dec 12 j 14:21	22°♐38'52	3°10'17
morning rise	360 Dec 18 j 11:01	19°♐10'53	
direct	361 Jan 02 j 05:26	14°♐51'58	
greatest brilliancy	361 Jan 11 j 15:29	16°♐33'17	-4.9m
	361 Feb 02 j 13:35	0°♑	
morning max el	361 Feb 21 j 03:54	16°♑57'12	46°32'05
	361 Mar 05 j 21:38	0°♒	
desc. node	361 Mar 21 j 19:40	17°♒14'28	

	361 Apr 02 j 05:11	0°♓	
	361 Apr 28 j 07:05	0°♈	
	361 May 23 j 18:51	0°♉	
	361 Jun 17 j 21:13	0°♊	
asc. node	361 Jul 12 j 22:55	0°♋23'13	
	361 Jul 12 j 15:18	0°♋	
	361 Aug 06 j 01:34	0°♌	
morning set	361 Aug 18 j 16:41	15°♌39'00	
	361 Aug 30 j 05:19	0°♍	
max. Earth dist.	361 Sep 22 j 12:42	29°♍09'35	1.71592 AU
	361 Sep 23 j 04:47	0°♎	
superior conj	361 Sep 25 j 07:16	2°♎38'19	1°13'23
minimum elong	361 Sep 25 j 16:10	3°♎06'14	1°13'09
	361 Oct 17 j 02:20	0°♏	
desc. node	361 Nov 01 j 12:30	19°♏22'22	
evening rise	361 Nov 04 j 10:53	23°♏03'17	
	361 Nov 09 j 23:39	0°♐	
	361 Dec 03 j 21:50	0°♑	
	361 Dec 27 j 22:09	0°♒	
	362 Jan 21 j 03:04	0°♓	
	362 Feb 14 j 16:36	0°♈	
asc. node	362 Feb 22 j 15:39	9°♈35'01	
	362 Mar 11 j 21:00	0°♉	
	362 Apr 07 j 03:25	0°♊	
	362 May 05 j 17:47	0°♋	
evening max el	362 May 07 j 23:35	2°♋09'50	45°18'49
desc. node	362 Jun 14 j 05:10	29°♋27'38	
greatest brilliancy	362 Jun 15 j 01:18	29°♋46'15	-4.7m
	362 Jun 15 j 17:05	0°♌	
retrograde	362 Jun 25 j 11:22	1°♌43'15	
	362 Jul 04 j 20:32	30°℞♋	
evening set	362 Jul 11 j 16:09	26°♋47'03	
inferior conj	362 Jul 16 j 21:43	23°♋38'37	-6°43'46
minimum elong	362 Jul 16 j 11:50	23°♋53'57	6°41'57
min. Earth dist.	362 Jul 17 j 02:21	23°♋31'26	0.28741 AU
morning rise	362 Jul 21 j 07:10	20°♋57'55	
direct	362 Aug 07 j 11:01	15°♋24'27	
greatest brilliancy	362 Aug 18 j 07:35	17°♋31'49	-4.8m
	362 Sep 07 j 15:10	0°♌	
morning max el	362 Sep 26 j 07:15	16°♌56'37	46°27'05
asc. node	362 Oct 05 j 08:17	26°♌13'37	
	362 Oct 08 j 21:20	0°♍	
	362 Nov 04 j 11:29	0°♎	
	362 Nov 29 j 14:11	0°♏	
	362 Dec 24 j 02:44	0°♐	
	363 Jan 17 j 10:10	0°♑	
desc. node	363 Jan 24 j 22:01	9°♑15'54	
	363 Feb 10 j 16:26	0°♒	
	363 Mar 06 j 23:17	0°♓	
	363 Mar 31 j 07:25	0°♈	
morning set	363 Apr 02 j 06:19	2°♈24'21	
	363 Apr 24 j 16:52	0°♉	
superior conj	363 May 09 j 08:58	18°♉01'24	-0°20'24
minimum elong	363 May 09 j 13:06	18°♉14'07	0°20'12
max. Earth dist.	363 May 09 j 11:31	18°♉09'14	1.73597 AU
asc. node	363 May 18 j 01:17	28°♉40'52	
	363 May 19 j 03:04	0°♊	
	363 Jun 12 j 13:18	0°♋	
evening rise	363 Jun 14 j 13:13	2°♋27'11	
	363 Jul 06 j 23:16	0°♌	
	363 Jul 31 j 09:38	0°♍	
	363 Aug 24 j 21:50	0°♎	
desc. node	363 Sep 06 j 14:45	15°♎29'26	
	363 Sep 18 j 13:32	0°♏	
	363 Oct 13 j 11:11	0°♐	
	363 Nov 07 j 20:38	0°♑	
	363 Dec 04 j 11:18	0°♒	
evening max el	363 Dec 14 j 17:11	10°♒47'02	47°12'02
asc. node	363 Dec 28 j 17:55	24°♒20'35	
	364 Jan 04 j 07:54	0°♓	
greatest brilliancy	364 Jan 24 j 03:48	12°♓24'48	-4.9m
retrograde	364 Feb 03 j 15:53	14°♓31'29	
evening set	364 Feb 21 j 15:02	8°♓15'46	
inferior conj	364 Feb 24 j 18:36	6°♓17'26	8°37'33
minimum elong	364 Feb 24 j 20:24	6°♓14'35	8°37'31
min. Earth dist.	364 Feb 24 j 06:00	6°♓37'21	0.28189 AU
morning rise	364 Feb 28 j 01:59	4°♓13'37	
	364 Mar 07 j 09:02	30°℞♒	
direct	364 Mar 16 j 17:47	28°♒13'03	
greatest brilliancy	364 Mar 25 j 23:17	29°♒47'28	-4.8m
	364 Mar 26 j 14:11	0°♓	
desc. node	364 Apr 18 j 07:20	13°♓50'30	
morning max el	364 May 04 j 18:00	28°♓28'00	45°52'28
	364 May 06 j 08:11	0°♈	
	364 Jun 04 j 04:44	0°♉	
	364 Jun 30 j 21:04	0°♊	
	364 Jul 26 j 11:51	0°♋	
asc. node	364 Aug 09 j 10:46	16°♋43'20	
	364 Aug 20 j 09:27	0°♌	
	364 Sep 13 j 18:38	0°♍	
	364 Oct 07 j 19:44	0°♎	
greatest brilliancy	364 Oct 22 j 16:53	18°♎41'22	-3.9m
morning set	364 Oct 29 j 23:20	27°♎49'59	
	364 Oct 31 j 16:38	0°♏	
	364 Nov 24 j 12:17	0°♐	
desc. node	364 Nov 29 j 00:25	5°♐40'19	
superior conj	364 Dec 10 j 06:35	19°♐50'28	-0°26'24
minimum elong	364 Dec 09 j 23:40	19°♐28'43	0°26'04
max. Earth dist.	364 Dec 12 j 10:31	22°♐33'49	1.71094 AU
	364 Dec 18 j 08:27	0°♑	
	365 Jan 11 j 06:13	0°♒	
evening rise	365 Jan 20 j 19:45	11°♒57'54	
	365 Feb 04 j 06:49	0°♓	
	365 Feb 28 j 11:52	0°♈	
asc. node	365 Mar 22 j 03:32	26°♈33'22	
	365 Mar 24 j 23:24	0°♉	
	365 Apr 18 j 19:42	0°♊	
	365 May 14 j 04:14	0°♋	
	365 Jun 09 j 08:11	0°♌	
	365 Jul 07 j 02:53	0°♍	
desc. node	365 Jul 11 j 17:02	4°♍39'53	
evening max el	365 Jul 18 j 20:36	11°♍41'12	45°54'33
	365 Aug 09 j 02:09	0°♎	
greatest brilliancy	365 Aug 27 j 22:34	10°♎25'31	-4.8m
retrograde	365 Sep 06 j 00:51	11°♎56'05	
evening set	365 Sep 23 j 01:31	6°♎27'14	
inferior conj	365 Sep 26 j 20:03	4°♎11'46	-7°37'16
minimum elong	365 Sep 27 j 05:34	3°♎57'17	7°35'45
min. Earth dist.	365 Sep 27 j 16:14	3°♎41'04	0.27261 AU
morning rise	365 Oct 01 j 09:17	1°♎29'03	
	365 Oct 04 j 03:07	30°℞♍	
direct	365 Oct 17 j 16:47	26°♍20'07	
greatest brilliancy	365 Oct 28 j 17:30	28°♍38'13	-4.9m
	365 Oct 31 j 19:22	0°♎	
asc. node	365 Nov 01 j 20:09	0°♎30'59	
morning max el	365 Dec 07 j 13:10	29°♎57'06	46°56'21
	365 Dec 07 j 14:18	0°♏	
	366 Jan 04 j 02:44	0°♐	
	366 Jan 29 j 21:11	0°♑	
desc. node	366 Feb 21 j 09:52	26°♑51'31	
	366 Feb 24 j 00:40	0°♒	

	366 Mar 20 j 21:53	0°♓	
	366 Apr 14 j 16:10	0°♈	
	366 May 09 j 08:32	0°♉	
	366 Jun 02 j 22:41	0°♊	
morning set	366 Jun 09 j 06:31	7°♊44'25	
asc. node	366 Jun 14 j 13:10	14°♊12'22	
	366 Jun 27 j 09:45	0°♋	
max. Earth dist.	366 Jul 12 j 06:17	18°♋18'31	1.73143 AU
superior conj	366 Jul 15 j 13:16	22°♋22'25	1°04'42
minimum elong	366 Jul 15 j 04:38	21°♋55'45	1°04'25
	366 Jul 21 j 17:15	0°♌	
	366 Aug 14 j 21:42	0°♍	
evening rise	366 Aug 20 j 19:00	7°♍19'09	
	366 Sep 08 j 00:32	0°♎	
	366 Oct 02 j 03:17	0°♏	
desc. node	366 Oct 04 j 02:42	2°♏27'19	
	366 Oct 26 j 07:09	0°♐	
	366 Nov 19 j 13:29	0°♑	
	366 Dec 14 j 01:21	0°♒	
	367 Jan 08 j 01:48	0°♓	
asc. node	367 Jan 25 j 05:43	19°♓53'08	
	367 Feb 03 j 06:35	0°♈	
evening max el	367 Feb 24 j 02:43	21°♈53'51	46°02'27
	367 Mar 04 j 14:58	0°♉	
greatest brilliancy	367 Apr 03 j 11:57	20°♉45'22	-4.8m
retrograde	367 Apr 14 j 09:48	22°♉54'58	
evening set	367 Apr 29 j 21:27	18°♉15'22	
inferior conj	367 May 05 j 19:43	14°♉39'15	2°32'10
minimum elong	367 May 06 j 01:02	14°♉30'51	2°30'41
min. Earth dist.	367 May 05 j 23:35	14°♉33'08	0.28959 AU
morning rise	367 May 12 j 04:51	10°♉48'33	
desc. node	367 May 16 j 19:17	8°♉34'43	
direct	367 May 27 j 11:01	6°♉21'02	
greatest brilliancy	367 Jun 06 j 17:28	8°♉15'08	-4.7m
	367 Jul 08 j 15:42	0°♊	
morning max el	367 Jul 15 j 06:39	6°♊09'51	45°48'57
	367 Aug 07 j 12:31	0°♋	
	367 Sep 03 j 04:03	0°♌	
asc. node	367 Sep 06 j 22:34	4°♌24'14	
	367 Sep 28 j 09:50	0°♍	
	367 Oct 22 j 21:21	0°♎	
	367 Nov 15 j 23:34	0°♏	
	367 Dec 09 j 22:10	0°♐	
desc. node	367 Dec 27 j 12:13	22°♐03'13	
	368 Jan 02 j 20:22	0°♑	
morning set	368 Jan 16 j 02:29	16°♑36'01	
	368 Jan 26 j 19:42	0°♒	
	368 Feb 19 j 21:04	0°♓	
superior conj	368 Feb 25 j 17:02	7°♓15'01	-1°25'06
minimum elong	368 Feb 25 j 19:12	7°♓21'44	1°25'05
max. Earth dist.	368 Feb 29 j 17:32	12°♓14'39	1.72398 AU
	368 Mar 15 j 01:18	0°♈	
evening rise	368 Apr 04 j 11:45	25°♈13'10	
	368 Apr 08 j 08:59	0°♉	
asc. node	368 Apr 18 j 15:29	12°♉36'46	
	368 May 02 j 20:24	0°♊	
	368 May 27 j 11:43	0°♋	
	368 Jun 21 j 07:49	0°♌	
	368 Jul 16 j 11:05	0°♍	
desc. node	368 Aug 08 j 04:48	26°♍39'11	
	368 Aug 11 j 02:15	0°♎	
	368 Sep 06 j 15:29	0°♏	
evening max el	368 Sep 30 j 08:02	24°♏58'29	47°07'06
	368 Oct 05 j 11:10	0°♐	
greatest brilliancy	368 Nov 09 j 22:07	25°♐53'40	-4.9m
retrograde	368 Nov 19 j 20:20	27°♐45'56	
asc. node	368 Nov 29 j 08:02	25°♐55'20	
evening set	368 Dec 04 j 05:43	23°♐38'30	
inferior conj	368 Dec 10 j 09:43	20°♐00'39	2°49'39
minimum elong	368 Dec 10 j 03:35	20°♐10'04	2°47'45
min. Earth dist.	368 Dec 09 j 19:50	20°♐21'58	0.26457 AU
morning rise	368 Dec 16 j 01:50	16°♐39'56	
direct	368 Dec 30 j 17:12	12°♐24'31	
greatest brilliancy	369 Jan 09 j 05:57	14°♐07'47	-4.9m
	369 Feb 03 j 00:18	0°♑	
morning max el	369 Feb 18 j 16:05	14°♑31'08	46°33'29
	369 Mar 05 j 16:33	0°♒	
desc. node	369 Mar 20 j 21:42	16°♒35'10	
	369 Apr 01 j 20:02	0°♓	
	369 Apr 27 j 20:06	0°♈	
	369 May 23 j 06:51	0°♉	
	369 Jun 17 j 08:35	0°♊	
asc. node	369 Jul 12 j 00:54	29°♊55'43	
	369 Jul 12 j 02:18	0°♋	
	369 Aug 05 j 12:24	0°♌	
morning set	369 Aug 16 j 08:51	13°♌26'36	
	369 Aug 29 j 16:06	0°♍	
max. Earth dist.	369 Sep 20 j 01:11	26°♍44'19	1.71640 AU
superior conj	369 Sep 22 j 21:24	0°♎18'07	1°15'06
minimum elong	369 Sep 23 j 05:48	0°♎44'29	1°14'55
	369 Sep 22 j 15:37	0°♎	
	369 Oct 16 j 13:15	0°♏	
desc. node	369 Oct 31 j 14:41	18°♏54'47	
evening rise	369 Nov 01 j 21:47	20°♏32'23	
	369 Nov 09 j 10:40	0°♐	
	369 Dec 03 j 08:57	0°♑	
	369 Dec 27 j 09:26	0°♒	
	370 Jan 20 j 14:38	0°♓	
	370 Feb 14 j 04:42	0°♈	
asc. node	370 Feb 21 j 17:36	9°♈03'57	
	370 Mar 11 j 10:07	0°♉	
	370 Apr 06 j 18:46	0°♊	
evening max el	370 May 05 j 14:36	29°♊57'33	45°19'05
	370 May 05 j 15:37	0°♋	
greatest brilliancy	370 Jun 12 j 15:06	27°♋34'01	-4.7m
desc. node	370 Jun 13 j 07:14	27°♋48'08	
retrograde	370 Jun 23 j 03:09	29°♋32'55	
evening set	370 Jul 09 j 04:43	24°♋40'10	
inferior conj	370 Jul 14 j 13:23	21°♋27'32	-6°30'31
minimum elong	370 Jul 14 j 03:23	21°♋43'00	6°28'34
min. Earth dist.	370 Jul 14 j 17:32	21°♋21'06	0.28768 AU
morning rise	370 Jul 19 j 01:43	18°♋42'48	
direct	370 Aug 05 j 02:47	13°♋12'46	
greatest brilliancy	370 Aug 15 j 23:34	15°♋20'25	-4.8m
	370 Sep 08 j 00:01	0°♌	
morning max el	370 Sep 23 j 22:47	14°♌41'30	46°25'37
asc. node	370 Oct 04 j 10:28	25°♌29'23	
	370 Oct 08 j 15:22	0°♍	
	370 Nov 04 j 01:59	0°♎	
	370 Nov 29 j 03:10	0°♏	
	370 Dec 23 j 14:54	0°♐	
	371 Jan 16 j 21:46	0°♑	
desc. node	371 Jan 24 j 00:01	8°♑46'31	
	371 Feb 10 j 03:40	0°♒	
	371 Mar 06 j 10:15	0°♓	
morning set	371 Mar 30 j 22:22	0°♈12'54	
	371 Mar 30 j 18:11	0°♈	
	371 Apr 24 j 03:30	0°♉	
superior conj	371 May 07 j 02:40	15°♉55'48	-0°23'29
minimum elong	371 May 07 j 07:25	16°♉10'22	0°23'16

max. Earth dist.	371 May 07 j 08:14	16°♉12'56	1.73586 AU
asc. node	371 May 17 j 03:23	28°♉14'46	
	371 May 18 j 13:40	0°♊	
	371 Jun 11 j 23:57	0°♋	
evening rise	371 Jun 12 j 08:14	0°♋25'26	
	371 Jul 06 j 10:06	0°♌	
	371 Jul 30 j 20:49	0°♍	
	371 Aug 24 j 09:29	0°♎	
desc. node	371 Sep 05 j 16:49	14°♎59'18	
	371 Sep 18 j 01:52	0°♏	
	371 Oct 13 j 00:33	0°♐	
	371 Nov 07 j 11:46	0°♑	
	371 Dec 04 j 06:25	0°♒	
evening max el	371 Dec 12 j 08:41	8°♒28'28	47°13'48
asc. node	371 Dec 27 j 19:57	23°♒19'10	
	372 Jan 04 j 20:57	0°♓	
greatest brilliancy	372 Jan 21 j 18:50	10°♓06'55	-4.9m
retrograde	372 Feb 01 j 08:09	12°♓14'38	
evening set	372 Feb 19 j 06:21	5°♓58'50	
inferior conj	372 Feb 22 j 09:46	4°♓00'52	8°39'37
minimum elong	372 Feb 22 j 10:48	3°♓59'16	8°39'36
min. Earth dist.	372 Feb 21 j 19:46	4°♓22'59	0.28135 AU
morning rise	372 Feb 25 j 15:27	1°♓59'54	
	372 Feb 29 j 02:47	30°℞♒	
direct	372 Mar 14 j 08:33	25°♒57'25	
greatest brilliancy	372 Mar 23 j 12:20	27°♒30'55	-4.8m
	372 Mar 29 j 12:51	0°♓	
desc. node	372 Apr 17 j 09:32	12°♓48'28	
morning max el	372 May 02 j 10:04	26°♓17'37	45°53'18
	372 May 06 j 05:37	0°♈	
	372 Jun 03 j 20:03	0°♉	
	372 Jun 30 j 10:08	0°♊	
	372 Jul 25 j 23:48	0°♋	
asc. node	372 Aug 08 j 12:46	16°♋14'19	
	372 Aug 19 j 20:50	0°♌	
	372 Sep 13 j 05:44	0°♍	
	372 Oct 07 j 06:42	0°♎	
greatest brilliancy	372 Oct 22 j 01:37	18°♎34'29	-3.9m
morning set	372 Oct 27 j 11:10	25°♎21'55	
	372 Oct 31 j 03:33	0°♏	
	372 Nov 23 j 23:12	0°♐	
desc. node	372 Nov 28 j 02:25	5°♐12'16	
superior conj	372 Dec 07 j 15:47	17°♐14'02	-0°22'31
minimum elong	372 Dec 07 j 09:50	16°♐55'16	0°22'13
max. Earth dist.	372 Dec 09 j 18:43	19°♐54'16	1.71077 AU
	372 Dec 17 j 19:22	0°♑	
	373 Jan 10 j 17:09	0°♒	
evening rise	373 Jan 18 j 06:26	9°♒27'11	
	373 Feb 03 j 17:44	0°♓	
	373 Feb 27 j 22:52	0°♈	
asc. node	373 Mar 21 j 05:42	26°♈05'54	
	373 Mar 24 j 10:37	0°♉	
	373 Apr 18 j 07:27	0°♊	
	373 May 13 j 16:59	0°♋	
	373 Jun 08 j 22:56	0°♌	
	373 Jul 06 j 22:29	0°♍	
desc. node	373 Jul 10 j 19:01	3°♍52'39	
evening max el	373 Jul 16 j 11:03	9°♍25'00	45°52'07
	373 Aug 09 j 22:15	0°♎	
greatest brilliancy	373 Aug 25 j 10:49	8°♎03'24	-4.8m
retrograde	373 Sep 03 j 13:20	9°♎33'42	
evening set	373 Sep 20 j 17:29	4°♎00'38	
inferior conj	373 Sep 24 j 09:10	1°♎48'58	-7°48'18
minimum elong	373 Sep 24 j 18:12	1°♎35'11	7°46'57
min. Earth dist.	373 Sep 25 j 05:17	1°♎18'17	0.27324 AU
	373 Sep 27 j 09:13	30°℞♍	
morning rise	373 Sep 28 j 18:37	29°♍11'15	
direct	373 Oct 15 j 06:54	23°♍56'34	
greatest brilliancy	373 Oct 26 j 07:12	26°♍13'52	-4.9m
asc. node	373 Oct 31 j 22:14	28°♍55'00	
	373 Nov 02 j 19:28	0°♎	
morning max el	373 Dec 05 j 02:40	27°♎31'40	46°56'01
	373 Dec 07 j 12:17	0°♏	
	374 Jan 03 j 18:52	0°♐	
	374 Jan 29 j 11:02	0°♑	
desc. node	374 Feb 20 j 11:54	26°♑19'27	
	374 Feb 23 j 13:16	0°♒	
	374 Mar 20 j 09:41	0°♓	
	374 Apr 14 j 03:25	0°♈	
	374 May 08 j 19:25	0°♉	
	374 Jun 02 j 09:22	0°♊	
morning set	374 Jun 07 j 01:03	5°♊41'40	
asc. node	374 Jun 13 j 15:08	13°♊45'50	
	374 Jun 26 j 20:22	0°♋	
max. Earth dist.	374 Jul 10 j 00:25	16°♋13'36	1.73187 AU
superior conj	374 Jul 13 j 07:39	20°♋18'10	1°02'38
minimum elong	374 Jul 12 j 22:58	19°♋51'21	1°02'20
	374 Jul 21 j 03:54	0°♌	
	374 Aug 14 j 08:30	0°♍	
evening rise	374 Aug 18 j 11:34	5°♍07'45	
	374 Sep 07 j 11:32	0°♎	
	374 Oct 01 j 14:34	0°♏	
desc. node	374 Oct 03 j 04:50	1°♏58'54	
	374 Oct 25 j 18:46	0°♐	
	374 Nov 19 j 01:33	0°♑	
	374 Dec 13 j 14:05	0°♒	
	375 Jan 07 j 15:44	0°♓	
asc. node	375 Jan 24 j 07:44	19°♓15'06	
	375 Feb 02 j 23:16	0°♈	
evening max el	375 Feb 21 j 17:43	19°♈38'55	46°04'56
	375 Mar 04 j 17:16	0°♉	
greatest brilliancy	375 Apr 01 j 05:54	18°♉38'17	-4.8m
retrograde	375 Apr 12 j 02:04	20°♉46'40	
evening set	375 Apr 27 j 15:58	16°♉04'35	
inferior conj	375 May 03 j 12:21	12°♉30'59	2°50'51
minimum elong	375 May 03 j 18:15	12°♉21'40	2°49'14
min. Earth dist.	375 May 03 j 16:30	12°♉24'25	0.28949 AU
morning rise	375 May 09 j 20:42	8°♉40'55	
desc. node	375 May 15 j 21:16	5°♉53'41	
direct	375 May 25 j 03:02	4°♉12'59	
greatest brilliancy	375 Jun 04 j 09:16	6°♉06'23	-4.7m
	375 Jul 08 j 16:19	0°♊	
morning max el	375 Jul 12 j 21:33	3°♊57'51	45°48'13
	375 Aug 07 j 04:40	0°♋	
	375 Sep 02 j 17:35	0°♌	
asc. node	375 Sep 06 j 00:45	3°♌51'33	
	375 Sep 27 j 22:13	0°♍	
	375 Oct 22 j 09:11	0°♎	
	375 Nov 15 j 11:05	0°♏	
	375 Dec 09 j 09:29	0°♐	
desc. node	375 Dec 26 j 14:12	21°♐34'22	
	376 Jan 02 j 07:31	0°♑	
morning set	376 Jan 13 j 12:25	14°♑02'15	
	376 Jan 26 j 06:43	0°♒	
	376 Feb 19 j 07:59	0°♓	
superior conj	376 Feb 23 j 06:08	4°♓52'45	-1°25'24
minimum elong	376 Feb 23 j 07:23	4°♓56'35	1°25'24
max. Earth dist.	376 Feb 27 j 07:55	9°♓56'28	1.72339 AU
	376 Mar 14 j 12:10	0°♈	
evening rise	376 Apr 02 j 03:19	22°♈59'53	
	376 Apr 07 j 19:52	0°♉	

asc. node	376 Apr 17 j 17:35	12°♉09'48	
	376 May 02 j 07:24	0°♊	
	376 May 26 j 22:59	0°♋	
	376 Jun 20 j 19:37	0°♌	
	376 Jul 15 j 23:48	0°♍	
desc. node	376 Aug 07 j 06:54	26°♍04'30	
	376 Aug 10 j 16:35	0°♎	
	376 Sep 06 j 09:02	0°♏	
evening max el	376 Sep 27 j 20:20	22°♏30'48	47°05'00
	376 Oct 05 j 13:53	0°♐	
greatest brilliancy	376 Nov 07 j 12:06	23°♐24'56	-4.9m
retrograde	376 Nov 17 j 08:20	25°♐15'43	
asc. node	376 Nov 28 j 10:04	22°♐46'05	
evening set	376 Dec 01 j 17:06	21°♐09'34	
inferior conj	376 Dec 07 j 21:55	17°♐31'22	2°26'12
minimum elong	376 Dec 07 j 16:33	17°♐39'35	2°24'31
min. Earth dist.	376 Dec 07 j 09:46	17°♐49'59	0.26430 AU
morning rise	376 Dec 13 j 16:15	14°♐07'48	
direct	376 Dec 28 j 04:34	9°♐55'15	
greatest brilliancy	377 Jan 06 j 20:12	11°♐40'55	-4.9m
	377 Feb 03 j 08:29	0°♑	
morning max el	377 Feb 16 j 04:59	12°♑06'12	46°35'05
	377 Mar 05 j 11:06	0°♒	
desc. node	377 Mar 19 j 23:55	15°♒56'28	
	377 Apr 01 j 10:46	0°♓	
	377 Apr 27 j 09:06	0°♈	
	377 May 22 j 18:52	0°♉	
	377 Jun 16 j 20:01	0°♊	
asc. node	377 Jul 11 j 03:00	29°♊28'17	
	377 Jul 11 j 13:23	0°♋	
	377 Aug 04 j 23:18	0°♌	
morning set	377 Aug 14 j 01:30	11°♌15'28	
	377 Aug 29 j 02:59	0°♍	
max. Earth dist.	377 Sep 17 j 15:47	24°♍25'19	1.71692 AU
superior conj	377 Sep 20 j 11:51	27°♍58'35	1°16'40
minimum elong	377 Sep 20 j 19:43	28°♍23'12	1°16'30
	377 Sep 22 j 02:36	0°♎	
	377 Oct 16 j 00:22	0°♏	
evening rise	377 Oct 30 j 08:43	18°♏00'58	
desc. node	377 Oct 30 j 16:43	18°♏26'02	
	377 Nov 08 j 21:55	0°♐	
	377 Dec 02 j 20:21	0°♑	
	377 Dec 26 j 21:02	0°♒	
	378 Jan 20 j 02:30	0°♓	
	378 Feb 13 j 17:06	0°♈	
asc. node	378 Feb 20 j 19:49	8°♈32'47	
	378 Mar 10 j 23:33	0°♉	
	378 Apr 06 j 10:34	0°♊	
evening max el	378 May 03 j 06:37	27°♊47'19	45°19'29
	378 May 05 j 14:33	0°♋	
greatest brilliancy	378 Jun 10 j 04:58	25°♋21'48	-4.7m
desc. node	378 Jun 12 j 09:17	26°♋04'56	
retrograde	378 Jun 20 j 19:22	27°♋22'38	
evening set	378 Jul 06 j 17:41	22°♋33'18	
inferior conj	378 Jul 12 j 05:14	19°♋16'31	-6°16'42
minimum elong	378 Jul 11 j 19:13	19°♋32'01	6°14'40
min. Earth dist.	378 Jul 12 j 08:41	19°♋11'11	0.28791 AU
morning rise	378 Jul 16 j 20:28	16°♋27'46	
direct	378 Aug 02 j 19:14	11°♋01'22	
greatest brilliancy	378 Aug 13 j 15:04	13°♋08'31	-4.8m
	378 Sep 08 j 06:30	0°♌	
morning max el	378 Sep 21 j 15:02	12°♌28'09	46°24'08
asc. node	378 Oct 03 j 12:32	24°♌45'00	
	378 Oct 08 j 09:09	0°♍	
	378 Nov 03 j 16:32	0°♎	
	378 Nov 28 j 16:21	0°♏	
	378 Dec 23 j 03:20	0°♐	
	379 Jan 16 j 09:44	0°♑	
desc. node	379 Jan 23 j 02:08	8°♑16'25	
	379 Feb 09 j 15:17	0°♒	
	379 Mar 05 j 21:34	0°♓	
morning set	379 Mar 28 j 14:07	27°♓59'22	
	379 Mar 30 j 05:17	0°♈	
	379 Apr 23 j 14:27	0°♉	
superior conj	379 May 04 j 20:13	13°♉48'47	-0°26'34
minimum elong	379 May 05 j 01:33	14°♉05'09	0°26'18
max. Earth dist.	379 May 05 j 06:54	14°♉21'34	1.73570 AU
asc. node	379 May 16 j 05:21	27°♉47'24	
	379 May 18 j 00:34	0°♊	
evening rise	379 Jun 10 j 03:23	28°♊23'13	
	379 Jun 11 j 10:55	0°♋	
	379 Jul 05 j 21:16	0°♌	
	379 Jul 30 j 08:18	0°♍	
	379 Aug 23 j 21:27	0°♎	
desc. node	379 Sep 04 j 19:01	14°♎28'42	
	379 Sep 17 j 14:31	0°♏	
	379 Oct 12 j 14:16	0°♐	
	379 Nov 07 j 03:24	0°♑	
	379 Dec 04 j 02:31	0°♒	
evening max el	379 Dec 10 j 00:52	6°♒10'26	47°15'07
asc. node	379 Dec 26 j 22:00	22°♒14'49	
	380 Jan 05 j 15:22	0°♓	
greatest brilliancy	380 Jan 19 j 09:51	7°♓47'03	-4.9m
retrograde	380 Jan 30 j 00:05	9°♓55'16	
evening set	380 Feb 16 j 21:05	3°♓40'18	
min. Earth dist.	380 Feb 19 j 09:21	2°♓06'14	0.28079 AU
inferior conj	380 Feb 20 j 00:43	1°♓41'59	8°40'46
minimum elong	380 Feb 20 j 00:56	1°♓41'38	8°40'46
	380 Feb 22 j 18:02	30°℞♒	
morning rise	380 Feb 23 j 05:03	29°♒43'12	
direct	380 Mar 11 j 23:25	23°♒39'41	
greatest brilliancy	380 Mar 21 j 01:01	25°♒11'49	-4.8m
	380 Mar 31 j 08:18	0°♓	
desc. node	380 Apr 16 j 11:31	11°♓45'55	
morning max el	380 Apr 30 j 01:39	24°♓04'35	45°54'15
	380 May 06 j 02:51	0°♈	
	380 Jun 03 j 11:34	0°♉	
	380 Jun 29 j 23:26	0°♊	
	380 Jul 25 j 12:02	0°♋	
asc. node	380 Aug 07 j 14:54	15°♋44'49	
	380 Aug 19 j 08:31	0°♌	
	380 Sep 12 j 17:08	0°♍	
	380 Oct 06 j 17:58	0°♎	
greatest brilliancy	380 Oct 21 j 07:38	18°♎18'07	-3.9m
morning set	380 Oct 24 j 23:40	22°♎54'57	
	380 Oct 30 j 14:46	0°♏	
	380 Nov 23 j 10:24	0°♐	
desc. node	380 Nov 27 j 04:28	4°♐43'30	
superior conj	380 Dec 05 j 01:31	14°♐38'23	-0°18'37
minimum elong	380 Dec 04 j 20:33	14°♐22'44	0°18'24
max. Earth dist.	380 Dec 07 j 03:09	17°♐14'31	1.71061 AU
	380 Dec 17 j 06:35	0°♑	
	381 Jan 10 j 04:24	0°♒	
evening rise	381 Jan 15 j 17:09	6°♒55'28	
	381 Feb 03 j 05:02	0°♓	
	381 Feb 27 j 10:16	0°♈	
asc. node	381 Mar 20 j 07:44	25°♈36'38	
	381 Mar 23 j 22:18	0°♉	
	381 Apr 17 j 19:39	0°♊	
	381 May 13 j 06:13	0°♋	
	381 Jun 08 j 14:17	0°♌	

	381 Jul 06 j 19:07	0°♍		
desc. node	381 Jul 09 j 21:09	3°♍04'03		
evening max el	381 Jul 14 j 00:51	7°♍06'20	45°49'45	
	381 Aug 11 j 02:10	0°♎		
greatest brilliancy	381 Aug 22 j 23:41	5°♎41'31	-4.8m	
retrograde	381 Sep 01 j 01:32	7°♎11'14		
evening set	381 Sep 18 j 09:30	1°♎34'04		
	381 Sep 21 j 00:19	30°℞♍		
inferior conj	381 Sep 21 j 22:30	29°♍26'07	-7°58'24	
minimum elong	381 Sep 22 j 07:00	29°♍13'07	7°57'14	
min. Earth dist.	381 Sep 22 j 18:51	28°♍54'59	0.27387 AU	
morning rise	381 Sep 26 j 04:12	26°♍53'23		
direct	381 Oct 12 j 20:43	21°♍32'45		
greatest brilliancy	381 Oct 23 j 21:40	23°♍49'59	-4.9m	
asc. node	381 Oct 31 j 00:11	27°♍21'37		
	381 Nov 04 j 04:07	0°♎		
morning max el	381 Dec 02 j 15:35	25°♎03'56	46°55'51	
	381 Dec 07 j 09:44	0°♏		
	382 Jan 03 j 10:59	0°♐		
	382 Jan 29 j 00:59	0°♑		
desc. node	382 Feb 19 j 14:05	25°♑47'12		
	382 Feb 23 j 02:04	0°♒		
	382 Mar 19 j 21:46	0°♓		
	382 Apr 13 j 15:00	0°♈		
	382 May 08 j 06:40	0°♉		
	382 Jun 01 j 20:24	0°♊		
morning set	382 Jun 04 j 19:25	3°♊37'18		
asc. node	382 Jun 12 j 17:16	13°♊18'46		
	382 Jun 26 j 07:19	0°♋		
max. Earth dist.	382 Jul 07 j 19:01	14°♋09'15	1.73227 AU	
superior conj	382 Jul 11 j 02:02	18°♋13'01	1°00'28	
minimum elong	382 Jul 10 j 17:19	17°♋46'08	1°00'11	
	382 Jul 20 j 14:51	0°♌		
	382 Aug 13 j 19:33	0°♍		
evening rise	382 Aug 16 j 04:23	2°♍56'25		
	382 Sep 06 j 22:49	0°♎		
	382 Oct 01 j 02:09	0°♏		
desc. node	382 Oct 02 j 06:49	1°♏29'03		
	382 Oct 25 j 06:42	0°♐		
	382 Nov 18 j 13:55	0°♑		
	382 Dec 13 j 03:06	0°♒		
	383 Jan 07 j 06:00	0°♓		
asc. node	383 Jan 23 j 09:55	18°♓36'37		
	383 Feb 02 j 16:29	0°♈		
evening max el	383 Feb 19 j 08:02	17°♈21'36	46°07'20	
	383 Mar 04 j 21:30	0°♉		
greatest brilliancy	383 Mar 29 j 23:27	16°♉29'51	-4.8m	
retrograde	383 Apr 09 j 18:21	18°♉37'41		
evening set	383 Apr 25 j 10:35	13°♉52'36		
inferior conj	383 May 01 j 05:01	10°♉21'53	3°09'18	
minimum elong	383 May 01 j 11:28	10°♉11'42	3°07'32	
min. Earth dist.	383 May 01 j 09:37	10°♉14'39	0.28943 AU	
morning rise	383 May 07 j 12:26	6°♉32'46		
desc. node	383 May 14 j 23:20	3°♉16'01		
direct	383 May 22 j 18:47	2°♉03'50		
greatest brilliancy	383 Jun 02 j 01:41	3°♉57'24	-4.7m	
	383 Jul 08 j 16:11	0°♊		
morning max el	383 Jul 10 j 12:54	1°♊46'00	45°47'40	
	383 Aug 06 j 20:50	0°♋		
	383 Sep 02 j 07:13	0°♌		
asc. node	383 Sep 05 j 02:51	3°♌18'09		
	383 Sep 27 j 10:44	0°♍		
	383 Oct 21 j 21:08	0°♎		
	383 Nov 14 j 22:45	0°♏		
	383 Dec 08 j 20:59	0°♐		
desc. node	383 Dec 25 j 16:21	21°♐05'30		
	384 Jan 01 j 18:51	0°♑		
morning set	384 Jan 10 j 22:27	11°♑28'09		
	384 Jan 25 j 17:53	0°♒		
	384 Feb 18 j 19:02	0°♓		
superior conj	384 Feb 20 j 19:24	2°♓30'28	-1°25'32	
minimum elong	384 Feb 20 j 19:43	2°♓31'25	1°25'33	
max. Earth dist.	384 Feb 24 j 20:34	7°♓32'29	1.72279 AU	
	384 Mar 13 j 23:09	0°♈		
evening rise	384 Mar 30 j 19:02	20°♈46'36		
	384 Apr 07 j 06:53	0°♉		
asc. node	384 Apr 16 j 19:35	11°♉42'05		
	384 May 01 j 18:33	0°♊		
	384 May 26 j 10:27	0°♋		
	384 Jun 20 j 07:37	0°♌		
	384 Jul 15 j 12:45	0°♍		
desc. node	384 Aug 06 j 09:02	25°♍29'19		
	384 Aug 10 j 07:12	0°♎		
	384 Sep 06 j 03:03	0°♏		
evening max el	384 Sep 25 j 09:07	20°♏04'32	47°03'02	
	384 Oct 05 j 18:14	0°♐		
greatest brilliancy	384 Nov 05 j 01:36	20°♐55'48	-4.9m	
retrograde	384 Nov 14 j 20:49	22°♐45'50		
asc. node	384 Nov 27 j 12:13	19°♐32'10		
evening set	384 Nov 29 j 04:49	18°♐40'20		
inferior conj	384 Dec 05 j 10:11	15°♐02'05	2°02'24	
minimum elong	384 Dec 05 j 05:38	15°♐09'02	2°00'58	
min. Earth dist.	384 Dec 04 j 23:31	15°♐18'22	0.26410 AU	
morning rise	384 Dec 11 j 06:37	11°♐36'04		
direct	384 Dec 25 j 16:37	7°♐25'52		
greatest brilliancy	385 Jan 04 j 10:17	9°♐13'45	-4.9m	
	385 Feb 03 j 14:23	0°♑		
morning max el	385 Feb 13 j 19:00	9°♑43'51	46°36'40	
	385 Mar 05 j 05:15	0°♒		
desc. node	385 Mar 19 j 01:52	15°♒17'22		
	385 Apr 01 j 01:22	0°♓		
	385 Apr 26 j 22:01	0°♈		
	385 May 22 j 06:51	0°♉		
	385 Jun 16 j 07:27	0°♊		
asc. node	385 Jul 10 j 05:09	29°♊00'55		
	385 Jul 11 j 00:30	0°♋		
	385 Aug 04 j 10:16	0°♌		
morning set	385 Aug 11 j 18:08	9°♌04'15		
	385 Aug 28 j 13:56	0°♍		
max. Earth dist.	385 Sep 15 j 05:39	22°♍04'04	1.71739 AU	
superior conj	385 Sep 18 j 02:19	25°♍39'07	1°18'06	
minimum elong	385 Sep 18 j 09:34	26°♍01'47	1°17'57	
	385 Sep 21 j 13:35	0°♎		
	385 Oct 15 j 11:27	0°♏		
evening rise	385 Oct 27 j 19:42	15°♏29'47		
desc. node	385 Oct 29 j 18:44	17°♏57'22		
	385 Nov 08 j 09:08	0°♐		
	385 Dec 02 j 07:43	0°♑		
	385 Dec 26 j 08:37	0°♒		
	386 Jan 19 j 14:24	0°♓		
	386 Feb 13 j 05:31	0°♈		
asc. node	386 Feb 19 j 21:50	8°♈00'58		
	386 Mar 10 j 13:03	0°♉		
	386 Apr 06 j 02:32	0°♊		
evening max el	386 Apr 30 j 23:10	25°♊38'40	45°19'56	
	386 May 05 j 14:24	0°♋		
greatest brilliancy	386 Jun 07 j 19:02	23°♋10'15	-4.7m	
desc. node	386 Jun 11 j 11:23	24°♋18'18		
retrograde	386 Jun 18 j 11:28	25°♋12'28		
evening set	386 Jul 04 j 06:49	20°♋26'41		
inferior conj	386 Jul 09 j 21:04	17°♋05'45	-6°02'20	

minimum elong	386 Jul 09 j 11:05	17°♋21'13	6°00'14	
min. Earth dist.	386 Jul 09 j 23:46	17°♋01'33	0.28814 AU	
morning rise	386 Jul 14 j 15:08	14°♋12'55		
direct	386 Jul 31 j 12:01	8°♋50'23		
greatest brilliancy	386 Aug 11 j 06:10	10°♋56'21	-4.8m	
	386 Sep 08 j 10:57	0°♌		
morning max el	386 Sep 19 j 06:59	10°♌14'15	46°22'31	
asc. node	386 Oct 02 j 14:32	24°♌01'03		
	386 Oct 08 j 02:31	0°♍		
	386 Nov 03 j 06:52	0°♎		
	386 Nov 28 j 05:20	0°♏		
	386 Dec 22 j 15:33	0°♐		
	387 Jan 15 j 21:28	0°♑		
desc. node	387 Jan 22 j 04:14	7°♑46'53		
	387 Feb 09 j 02:41	0°♒		
	387 Mar 05 j 08:43	0°♓		
morning set	387 Mar 26 j 05:46	25°♓45'58		
	387 Mar 29 j 16:13	0°♈		
	387 Apr 23 j 01:13	0°♉		
superior conj	387 May 02 j 13:46	11°♉42'12	-0°29'36	
minimum elong	387 May 02 j 19:39	12°♉00'17	0°29'19	
max. Earth dist.	387 May 03 j 06:13	12°♉32'45	1.73549 AU	
asc. node	387 May 15 j 07:31	27°♉21'10		
	387 May 17 j 11:16	0°♊		
evening rise	387 Jun 07 j 22:34	26°♊21'40		
	387 Jun 10 j 21:42	0°♋		
	387 Jul 05 j 08:15	0°♌		
	387 Jul 29 j 19:38	0°♍		
	387 Aug 23 j 09:18	0°♎		
desc. node	387 Sep 03 j 20:57	13°♎57'37		
	387 Sep 17 j 03:06	0°♏		
	387 Oct 12 j 03:59	0°♐		
	387 Nov 06 j 19:08	0°♑		
	387 Dec 03 j 23:02	0°♒		
evening max el	387 Dec 07 j 16:47	3°♒52'05	47°16'28	
asc. node	387 Dec 26 j 00:09	21°♒09'43		
	388 Jan 06 j 15:59	0°♓		
greatest brilliancy	388 Jan 17 j 01:15	5°♓28'08	-4.9m	
retrograde	388 Jan 27 j 15:36	7°♓36'05		
evening set	388 Feb 14 j 11:21	1°♓22'53		
	388 Feb 16 j 16:27	30°℞♒		
min. Earth dist.	388 Feb 16 j 23:03	29°♒49'36	0.28021 AU	
inferior conj	388 Feb 17 j 15:34	29°♒23'29	8°41'05	
minimum elong	388 Feb 17 j 14:58	29°♒24'26	8°41'06	
morning rise	388 Feb 20 j 18:52	27°♒26'14		
direct	388 Mar 09 j 14:05	21°♒22'27		
greatest brilliancy	388 Mar 18 j 13:53	22°♒53'13	-4.8m	
	388 Apr 01 j 13:48	0°♓		
desc. node	388 Apr 15 j 13:35	10°♓45'41		
morning max el	388 Apr 27 j 16:27	21°♓50'14	45°55'13	
	388 May 05 j 23:05	0°♈		
	388 Jun 03 j 02:35	0°♉		
	388 Jun 29 j 12:22	0°♊		
	388 Jul 24 j 23:57	0°♋		
asc. node	388 Aug 06 j 16:59	15°♋16'06		
	388 Aug 18 j 19:54	0°♌		
	388 Sep 12 j 04:16	0°♍		
	388 Oct 06 j 04:59	0°♎		
greatest brilliancy	388 Oct 20 j 08:15	17°♎45'24	-3.9m	
morning set	388 Oct 22 j 11:54	20°♎27'52		
	388 Oct 30 j 01:45	0°♏		
	388 Nov 22 j 21:24	0°♐		
desc. node	388 Nov 26 j 06:39	4°♐15'44		
superior conj	388 Dec 02 j 10:53	12°♐02'13	-0°14'40	
minimum elong	388 Dec 02 j 06:57	11°♐49'50	0°14'29	
behind sun begin	388 Dec 01 j 18:21	11°♐10'11		
behind sun end	388 Dec 02 j 19:33	12°♐29'29		
max. Earth dist.	388 Dec 04 j 07:32	14°♐22'43	1.71045 AU	
	388 Dec 16 j 17:36	0°♑		
	389 Jan 09 j 15:24	0°♒		
evening rise	389 Jan 13 j 03:23	4°♒22'50		
	389 Feb 02 j 16:04	0°♓		
	389 Feb 26 j 21:25	0°♈		
asc. node	389 Mar 19 j 09:46	25°♈08'08		
	389 Mar 23 j 09:43	0°♉		
	389 Apr 17 j 07:39	0°♊		
	389 May 12 j 19:17	0°♋		
	389 Jun 08 j 05:31	0°♌		
	389 Jul 06 j 16:00	0°♍		
desc. node	389 Jul 08 j 23:16	2°♍15'44		
evening max el	389 Jul 11 j 13:46	4°♍46'46	45°47'32	
	389 Aug 12 j 16:52	0°♎		
greatest brilliancy	389 Aug 20 j 12:35	3°♎21'11	-4.8m	
retrograde	389 Aug 29 j 13:43	4°♎50'38		
	389 Sep 14 j 13:59	30°℞♍		
evening set	389 Sep 16 j 01:24	29°♍09'20		
inferior conj	389 Sep 19 j 11:59	27°♍04'57	-8°07'23	
minimum elong	389 Sep 19 j 19:53	26°♍52'51	8°06'24	
min. Earth dist.	389 Sep 20 j 08:38	26°♍33'21	0.27454 AU	
morning rise	389 Sep 23 j 14:02	24°♍37'14		
direct	389 Oct 10 j 10:22	19°♍10'22		
greatest brilliancy	389 Oct 21 j 12:47	21°♍28'21	-4.9m	
asc. node	389 Oct 30 j 02:24	25°♍53'01		
	389 Nov 05 j 03:02	0°♎		
morning max el	389 Nov 30 j 04:31	22°♎37'02	46°55'28	
	389 Dec 07 j 06:12	0°♏		
	390 Jan 03 j 02:39	0°♐		
	390 Jan 28 j 14:37	0°♑		
desc. node	390 Feb 18 j 16:04	25°♑15'13		
	390 Feb 22 j 14:33	0°♒		
	390 Mar 19 j 09:30	0°♓		
	390 Apr 13 j 02:14	0°♈		
	390 May 07 j 17:34	0°♉		
	390 Jun 01 j 07:08	0°♊		
morning set	390 Jun 02 j 13:41	1°♊33'30		
asc. node	390 Jun 11 j 19:23	12°♊52'35		
	390 Jun 25 j 17:57	0°♋		
max. Earth dist.	390 Jul 05 j 14:27	12°♋08'25	1.73265 AU	
superior conj	390 Jul 08 j 20:28	16°♋09'03	0°58'14	
minimum elong	390 Jul 08 j 11:48	15°♋42'16	0°57'56	
	390 Jul 20 j 01:30	0°♌		
	390 Aug 13 j 06:18	0°♍		
evening rise	390 Aug 13 j 21:29	0°♍47'09		
	390 Sep 06 j 09:46	0°♎		
	390 Sep 30 j 13:23	0°♏		
desc. node	390 Oct 01 j 08:56	1°♏00'40		
	390 Oct 24 j 18:19	0°♐		
	390 Nov 18 j 02:01	0°♑		
	390 Dec 12 j 15:56	0°♒		
	391 Jan 06 j 20:12	0°♓		
asc. node	391 Jan 22 j 11:56	17°♓57'52		
	391 Feb 02 j 09:52	0°♈		
evening max el	391 Feb 16 j 22:12	15°♈04'23	46°09'57	
	391 Mar 05 j 03:28	0°♉		
greatest brilliancy	391 Mar 27 j 16:17	14°♉20'55	-4.8m	
retrograde	391 Apr 07 j 10:48	16°♉29'06		
evening set	391 Apr 23 j 05:07	11°♉40'33		
inferior conj	391 Apr 28 j 21:31	8°♉12'59	3°27'27	
minimum elong	391 Apr 29 j 04:29	8°♉02'00	3°25'35	
min. Earth dist.	391 Apr 29 j 02:17	8°♉05'28	0.28936 AU	
morning rise	391 May 05 j 03:52	4°♉25'18		

desc. node	391 May 14 j 01:30	0°♉43'03	
	391 May 18 j 07:52	30°℞♈	
direct	391 May 20 j 10:27	29°♈54'48	
	391 May 22 j 13:39	0°♉	
greatest brilliancy	391 May 30 j 17:55	1°♉48'49	-4.7m
morning max el	391 Jul 08 j 04:57	29°♉36'41	45°47'11
	391 Jul 08 j 14:42	0°♊	
	391 Aug 06 j 12:25	0°♋	
	391 Sep 01 j 20:27	0°♌	
asc. node	391 Sep 04 j 04:47	2°♌45'24	
	391 Sep 26 j 22:52	0°♍	
	391 Oct 21 j 08:44	0°♎	
	391 Nov 14 j 10:04	0°♏	
	391 Dec 08 j 08:07	0°♐	
desc. node	391 Dec 24 j 18:25	20°♐37'23	
	392 Jan 01 j 05:51	0°♑	
morning set	392 Jan 08 j 08:19	8°♑54'15	
	392 Jan 25 j 04:47	0°♒	
superior conj	392 Feb 18 j 08:09	0°♓07'09	-1°25'32
minimum elong	392 Feb 18 j 07:31	0°♓05'09	1°25'32
	392 Feb 18 j 05:51	0°♓	
max. Earth dist.	392 Feb 22 j 06:50	5°♓01'37	1.72223 AU
	392 Mar 13 j 09:56	0°♈	
evening rise	392 Mar 28 j 10:11	18°♈32'17	
	392 Apr 06 j 17:40	0°♉	
asc. node	392 Apr 15 j 21:44	11°♉15'30	
	392 May 01 j 05:28	0°♊	
	392 May 25 j 21:41	0°♋	
	392 Jun 19 j 19:27	0°♌	
	392 Jul 15 j 01:35	0°♍	
desc. node	392 Aug 05 j 11:00	24°♍54'02	
	392 Aug 09 j 21:47	0°♎	
	392 Sep 05 j 21:14	0°♏	
evening max el	392 Sep 22 j 22:57	17°♏41'58	47°01'09
	392 Oct 06 j 00:05	0°♐	
greatest brilliancy	392 Nov 02 j 14:32	18°♐27'17	-4.9m
retrograde	392 Nov 12 j 09:44	20°♐17'11	
evening set	392 Nov 26 j 16:52	16°♐12'08	
asc. node	392 Nov 26 j 14:16	16°♐15'36	
inferior conj	392 Dec 02 j 22:28	12°♐33'54	1°38'31
minimum elong	392 Dec 02 j 18:46	12°♐39'32	1°37'19
min. Earth dist.	392 Dec 02 j 12:56	12°♐48'25	0.26391 AU
morning rise	392 Dec 08 j 20:52	9°♐05'50	
direct	392 Dec 23 j 05:21	4°♐57'51	
greatest brilliancy	393 Jan 01 j 23:49	6°♐47'07	-4.9m
	393 Feb 03 j 17:59	0°♑	
morning max el	393 Feb 11 j 09:30	7°♑23'33	46°37'58
	393 Mar 04 j 22:43	0°♒	
desc. node	393 Mar 18 j 03:57	14°♒39'37	
	393 Mar 31 j 15:36	0°♓	
	393 Apr 26 j 10:42	0°♈	
	393 May 21 j 18:38	0°♉	
	393 Jun 15 j 18:41	0°♊	
asc. node	393 Jul 09 j 07:08	28°♊33'40	
	393 Jul 10 j 11:24	0°♋	
	393 Aug 03 j 21:02	0°♌	
morning set	393 Aug 09 j 10:41	6°♌53'29	
	393 Aug 28 j 00:42	0°♍	
max. Earth dist.	393 Sep 12 j 17:24	19°♍36'41	1.71788 AU
superior conj	393 Sep 15 j 16:55	23°♍20'34	1°19'24
minimum elong	393 Sep 15 j 23:30	23°♍41'10	1°19'17
	393 Sep 21 j 00:26	0°♎	
	393 Oct 14 j 22:24	0°♏	
evening rise	393 Oct 25 j 06:49	12°♏59'31	
desc. node	393 Oct 28 j 20:55	17°♏29'39	
	393 Nov 07 j 20:12	0°♐	
	393 Dec 01 j 18:55	0°♑	
	393 Dec 25 j 20:00	0°♒	
	394 Jan 19 j 02:06	0°♓	
	394 Feb 12 j 17:48	0°♈	
asc. node	394 Feb 18 j 23:51	7°♈29'37	
	394 Mar 10 j 02:30	0°♉	
	394 Apr 05 j 18:40	0°♊	
evening max el	394 Apr 28 j 15:53	23°♊30'34	45°20'22
	394 May 05 j 15:22	0°♋	
greatest brilliancy	394 Jun 05 j 09:54	20°♋59'52	-4.7m
desc. node	394 Jun 10 j 13:27	22°♋27'59	
retrograde	394 Jun 16 j 03:14	23°♋02'33	
evening set	394 Jul 01 j 20:12	18°♋20'25	
inferior conj	394 Jul 07 j 12:58	14°♋55'28	-5°47'33
minimum elong	394 Jul 07 j 03:05	15°♋10'49	5°45'23
min. Earth dist.	394 Jul 07 j 15:08	14°♋52'06	0.28833 AU
morning rise	394 Jul 12 j 09:47	11°♋58'27	
direct	394 Jul 29 j 04:43	6°♋40'02	
greatest brilliancy	394 Aug 08 j 21:15	8°♋44'28	-4.8m
	394 Sep 08 j 13:36	0°♌	
morning max el	394 Sep 16 j 21:57	7°♌58'19	46°20'50
asc. node	394 Oct 01 j 16:45	23°♌18'32	
	394 Oct 07 j 19:29	0°♍	
	394 Nov 02 j 21:00	0°♎	
	394 Nov 27 j 18:10	0°♏	
	394 Dec 22 j 03:40	0°♐	
	395 Jan 15 j 09:07	0°♑	
desc. node	395 Jan 21 j 06:14	7°♑17'19	
	395 Feb 08 j 13:59	0°♒	
	395 Mar 04 j 19:45	0°♓	
morning set	395 Mar 23 j 21:36	23°♓33'22	
	395 Mar 29 j 03:03	0°♈	
	395 Apr 22 j 11:57	0°♉	
superior conj	395 Apr 30 j 07:22	9°♉35'53	-0°32'35
minimum elong	395 Apr 30 j 13:47	9°♉55'36	0°32'18
max. Earth dist.	395 May 01 j 05:02	10°♉42'26	1.73528 AU
asc. node	395 May 14 j 09:38	26°♉54'46	
	395 May 16 j 21:59	0°♊	
evening rise	395 Jun 05 j 17:37	24°♊19'43	
	395 Jun 10 j 08:29	0°♋	
	395 Jul 04 j 19:16	0°♌	
	395 Jul 29 j 07:00	0°♍	
	395 Aug 22 j 21:12	0°♎	
desc. node	395 Sep 02 j 23:03	13°♎26'53	
	395 Sep 16 j 15:47	0°♏	
	395 Oct 11 j 17:53	0°♐	
	395 Nov 06 j 11:11	0°♑	
	395 Dec 03 j 20:21	0°♒	
evening max el	395 Dec 05 j 08:00	1°♒31'35	47°17'41
asc. node	395 Dec 25 j 02:11	20°♒02'29	
	396 Jan 08 j 02:44	0°♓	
greatest brilliancy	396 Jan 14 j 17:19	3°♓09'47	-4.9m
retrograde	396 Jan 25 j 06:44	5°♓16'45	
	396 Feb 10 j 13:35	30°℞♒	
evening set	396 Feb 12 j 01:20	29°♒06'07	
min. Earth dist.	396 Feb 14 j 13:11	27°♒32'34	0.27957 AU
inferior conj	396 Feb 15 j 06:31	27°♒05'10	8°40'40
minimum elong	396 Feb 15 j 05:04	27°♒07'26	8°40'38
morning rise	396 Feb 18 j 09:05	25°♒08'53	
direct	396 Mar 07 j 04:22	19°♒05'23	
greatest brilliancy	396 Mar 16 j 03:21	20°♒35'18	-4.8m
	396 Apr 02 j 11:04	0°♓	
desc. node	396 Apr 14 j 15:46	9°♓47'18	
morning max el	396 Apr 25 j 06:19	19°♓33'30	45°56'13
	396 May 05 j 18:40	0°♈	

	396 Jun 02 j 17:26	0°♉	
	396 Jun 29 j 01:19	0°♊	
	396 Jul 24 j 11:57	0°♋	
asc. node	396 Aug 05 j 19:01	14°♋46'55	
	396 Aug 18 j 07:23	0°♌	
	396 Sep 11 j 15:30	0°♍	
	396 Oct 05 j 16:06	0°♎	
greatest brilliancy	396 Oct 18 j 23:11	16°♎41'56	-3.9m
morning set	396 Oct 20 j 00:11	18°♎00'32	
	396 Oct 29 j 12:52	0°♏	
	396 Nov 22 j 08:33	0°♐	
desc. node	396 Nov 25 j 08:39	3°♐46'58	
superior conj	396 Nov 29 j 20:19	9°♐25'49	-0°10'41
minimum elong	396 Nov 29 j 17:27	9°♐16'46	0°10'32
behind sun begin	396 Nov 28 j 20:47	8°♐11'46	
behind sun end	396 Nov 30 j 14:06	10°♐21'45	
max. Earth dist.	396 Dec 01 j 08:59	11°♐21'11	1.71035 AU
	396 Dec 16 j 04:47	0°♑	
	397 Jan 09 j 02:36	0°♒	
evening rise	397 Jan 10 j 13:35	1°♒49'33	
	397 Feb 02 j 03:16	0°♓	
	397 Feb 26 j 08:43	0°♈	
asc. node	397 Mar 18 j 11:57	24°♈39'44	
	397 Mar 22 j 21:18	0°♉	
	397 Apr 16 j 19:47	0°♊	
	397 May 12 j 08:33	0°♋	
	397 Jun 07 j 21:07	0°♌	
	397 Jul 06 j 13:56	0°♍	
desc. node	397 Jul 08 j 01:14	1°♍25'34	
evening max el	397 Jul 09 j 02:23	2°♍25'59	45°45'19
	397 Aug 15 j 06:38	0°♎	
greatest brilliancy	397 Aug 18 j 01:13	0°♎59'59	-4.8m
retrograde	397 Aug 27 j 02:21	2°♎29'50	
	397 Sep 07 j 09:55	30°℞♍	
evening set	397 Sep 13 j 17:06	26°♍44'22	
inferior conj	397 Sep 17 j 01:32	24°♍43'18	-8°15'23
minimum elong	397 Sep 17 j 08:47	24°♍32'13	8°14'35
min. Earth dist.	397 Sep 17 j 22:19	24°♍11'31	0.27522 AU
morning rise	397 Sep 21 j 00:07	22°♍20'41	
direct	397 Oct 08 j 00:11	16°♍47'24	
greatest brilliancy	397 Oct 19 j 04:05	19°♍06'35	-4.9m
asc. node	397 Oct 29 j 04:27	24°♍26'31	
	397 Nov 05 j 20:20	0°♎	
morning max el	397 Nov 27 j 18:02	20°♎10'59	46°55'04
	397 Dec 07 j 02:18	0°♏	
	398 Jan 02 j 18:19	0°♐	
	398 Jan 28 j 04:23	0°♑	
desc. node	398 Feb 17 j 18:08	24°♑42'48	
	398 Feb 22 j 03:13	0°♒	
	398 Mar 18 j 21:27	0°♓	
	398 Apr 12 j 13:42	0°♈	
	398 May 07 j 04:42	0°♉	
morning set	398 May 31 j 08:13	29°♉29'54	
	398 May 31 j 18:04	0°♊	
asc. node	398 Jun 10 j 21:22	12°♊25'22	
	398 Jun 25 j 04:48	0°♋	
max. Earth dist.	398 Jul 03 j 12:23	10°♋14'36	1.73306 AU
superior conj	398 Jul 06 j 15:07	14°♋05'02	0°55'56
minimum elong	398 Jul 06 j 06:31	13°♋38'29	0°55'37
	398 Jul 19 j 12:23	0°♌	
evening rise	398 Aug 11 j 14:50	28°♌37'45	
	398 Aug 12 j 17:20	0°♍	
	398 Sep 05 j 21:03	0°♎	
desc. node	398 Sep 30 j 11:03	0°♏31'14	
	398 Sep 30 j 00:59	0°♏	
	398 Oct 24 j 06:18	0°♐	
	398 Nov 17 j 14:30	0°♑	
	398 Dec 12 j 05:11	0°♒	
	399 Jan 06 j 10:54	0°♓	
asc. node	399 Jan 21 j 13:58	17°♓17'47	
	399 Feb 02 j 04:03	0°♈	
evening max el	399 Feb 14 j 13:04	12°♈47'48	46°12'37
	399 Mar 05 j 12:24	0°♉	
greatest brilliancy	399 Mar 25 j 08:47	12°♉10'38	-4.8m
retrograde	399 Apr 05 j 03:51	14°♉19'38	
evening set	399 Apr 20 j 23:48	9°♉27'30	
inferior conj	399 Apr 26 j 14:02	6°♉03'08	3°45'22
minimum elong	399 Apr 26 j 21:28	5°♉51'24	3°43'25
min. Earth dist.	399 Apr 26 j 18:38	5°♉55'53	0.28924 AU
morning rise	399 May 02 j 19:13	2°♉17'22	
	399 May 07 j 11:06	30°℞♈	
desc. node	399 May 13 j 03:28	28°♈14'17	
direct	399 May 18 j 02:32	27°♈44'59	
greatest brilliancy	399 May 28 j 09:40	29°♈39'07	-4.7m
	399 May 29 j 08:29	0°♉	
morning max el	399 Jul 05 j 21:42	27°♉28'33	45°46'46
	399 Jul 08 j 12:35	0°♊	
	399 Aug 06 j 04:00	0°♋	
	399 Sep 01 j 09:50	0°♌	
asc. node	399 Sep 03 j 07:01	2°♌12'50	
	399 Sep 26 j 11:17	0°♍	
	399 Oct 20 j 20:40	0°♎	
	399 Nov 13 j 21:45	0°♏	
	399 Dec 07 j 19:37	0°♐	
desc. node	399 Dec 23 j 20:26	20°♐07'56	
	399 Dec 31 j 17:13	0°♑	
morning set	400 Jan 05 j 17:58	6°♑18'32	
	400 Jan 24 j 16:02	0°♒	
superior conj	400 Feb 15 j 20:35	27°♒41'38	-1°25'22
minimum elong	400 Feb 15 j 18:58	27°♒36'35	1°25'21
	400 Feb 17 j 17:02	0°♓	
max. Earth dist.	400 Feb 19 j 18:32	2°♓34'02	1.72170 AU
	400 Mar 12 j 21:04	0°♈	
evening rise	400 Mar 26 j 01:15	16°♈16'31	
	400 Apr 06 j 04:50	0°♉	
asc. node	400 Apr 14 j 23:49	10°♉47'33	
	400 Apr 30 j 16:46	0°♊	
	400 May 25 j 09:16	0°♋	
	400 Jun 19 j 07:37	0°♌	
	400 Jul 14 j 14:46	0°♍	
desc. node	400 Aug 04 j 13:07	24°♍18'11	
	400 Aug 09 j 12:50	0°♎	
	400 Sep 05 j 16:15	0°♏	
evening max el	400 Sep 20 j 13:17	15°♏19'40	46°58'53
	400 Oct 06 j 08:54	0°♐	
greatest brilliancy	400 Oct 31 j 03:04	15°♐56'40	-4.9m
retrograde	400 Nov 09 j 22:30	17°♐46'11	
evening set	400 Nov 24 j 04:57	13°♐41'37	
asc. node	400 Nov 25 j 16:17	12°♐53'04	
inferior conj	400 Nov 30 j 10:28	10°♐03'24	1°14'04
minimum elong	400 Nov 30 j 07:40	10°♐07'40	1°13'09
min. Earth dist.	400 Nov 30 j 02:03	10°♐16'13	0.26378 AU
morning rise	400 Dec 06 j 10:38	6°♐33'25	
direct	400 Dec 20 j 18:03	2°♐27'44	
greatest brilliancy	400 Dec 30 j 12:53	4°♐17'45	-4.9m
	401 Feb 03 j 20:40	0°♑	
morning max el	401 Feb 08 j 23:26	5°♑00'12	46°39'17
	401 Mar 04 j 16:17	0°♒	
desc. node	401 Mar 17 j 06:09	14°♒01'23	
	401 Mar 31 j 06:05	0°♓	
	401 Apr 25 j 23:39	0°♈	

	401 May 21 j 06:42	0°♉	
	401 Jun 15 j 06:12	0°♊	
asc. node	401 Jul 08 j 09:15	28°♊05'54	
	401 Jul 09 j 22:36	0°♋	
	401 Aug 03 j 08:04	0°♌	
morning set	401 Aug 07 j 03:43	4°♌43'30	
	401 Aug 27 j 11:43	0°♍	
max. Earth dist.	401 Sep 10 j 04:55	17°♍08'07	1.71839 AU
superior conj	401 Sep 13 j 08:05	21°♍03'13	1°20'32
minimum elong	401 Sep 13 j 13:59	21°♍21'42	1°20'27
	401 Sep 20 j 11:31	0°♎	
	401 Oct 14 j 09:37	0°♏	
evening rise	401 Oct 22 j 18:14	10°♏29'18	
desc. node	401 Oct 27 j 22:54	17°♏00'25	
	401 Nov 07 j 07:34	0°♐	
	401 Dec 01 j 06:28	0°♑	
	401 Dec 25 j 07:46	0°♒	
	402 Jan 18 j 14:13	0°♓	
	402 Feb 12 j 06:30	0°♈	
asc. node	402 Feb 18 j 02:02	6°♈57'33	
	402 Mar 09 j 16:26	0°♉	
	402 Apr 05 j 11:28	0°♊	
evening max el	402 Apr 26 j 07:52	21°♊19'36	45°20'53
	402 May 05 j 18:09	0°♋	
greatest brilliancy	402 Jun 03 j 01:31	18°♋49'27	-4.7m
desc. node	402 Jun 09 j 15:30	20°♋32'49	
retrograde	402 Jun 13 j 18:39	20°♋51'57	
evening set	402 Jun 29 j 09:46	16°♋13'17	
inferior conj	402 Jul 05 j 04:55	12°♋44'42	-5°32'19
minimum elong	402 Jul 04 j 19:11	12°♋59'51	5°30'07
min. Earth dist.	402 Jul 05 j 06:56	12°♋41'34	0.28846 AU
morning rise	402 Jul 10 j 04:23	9°♋43'28	
direct	402 Jul 26 j 20:54	4°♋29'11	
greatest brilliancy	402 Aug 06 j 12:41	6°♋32'27	-4.8m
	402 Sep 08 j 15:01	0°♌	
morning max el	402 Sep 14 j 12:03	5°♌39'57	46°19'21
asc. node	402 Sep 30 j 18:46	22°♌35'45	
	402 Oct 07 j 12:13	0°♍	
	402 Nov 02 j 11:05	0°♎	
	402 Nov 27 j 07:04	0°♏	
	402 Dec 21 j 15:56	0°♐	
	403 Jan 14 j 20:58	0°♑	
desc. node	403 Jan 20 j 08:22	6°♑47'25	
	403 Feb 08 j 01:32	0°♒	
	403 Mar 04 j 07:03	0°♓	
morning set	403 Mar 21 j 12:45	21°♓17'47	
	403 Mar 28 j 14:07	0°♈	
	403 Apr 21 j 22:53	0°♉	
superior conj	403 Apr 28 j 00:29	7°♉27'27	-0°35'35
minimum elong	403 Apr 28 j 07:24	7°♉48'42	0°35'15
max. Earth dist.	403 Apr 29 j 02:21	8°♉46'54	1.73503 AU
asc. node	403 May 13 j 11:34	26°♉27'14	
	403 May 16 j 08:53	0°♊	
evening rise	403 Jun 03 j 12:22	22°♊16'17	
	403 Jun 09 j 19:30	0°♋	
	403 Jul 04 j 06:29	0°♌	
	403 Jul 28 j 18:33	0°♍	
	403 Aug 22 j 09:15	0°♎	
desc. node	403 Sep 02 j 01:12	12°♎55'57	
	403 Sep 16 j 04:36	0°♏	
	403 Oct 11 j 07:55	0°♐	
	403 Nov 06 j 03:30	0°♑	
evening max el	403 Dec 02 j 22:01	29°♑07'43	47°18'36
	403 Dec 03 j 18:31	0°♒	
asc. node	403 Dec 24 j 04:14	18°♒53'03	
	404 Jan 10 j 08:45	0°♓	
greatest brilliancy	404 Jan 12 j 09:19	0°♓50'15	-4.9m
retrograde	404 Jan 22 j 21:13	2°♓56'12	
	404 Feb 03 j 20:23	30°♒℞	
evening set	404 Feb 09 j 14:38	26°♒48'39	
min. Earth dist.	404 Feb 12 j 03:23	25°♒13'47	0.27899 AU
inferior conj	404 Feb 12 j 21:13	24°♒45'35	8°39'13
minimum elong	404 Feb 12 j 18:58	24°♒49'09	8°39'08
morning rise	404 Feb 15 j 23:33	22°♒49'36	
direct	404 Mar 04 j 17:59	16°♒46'49	
greatest brilliancy	404 Mar 13 j 17:16	18°♒16'40	-4.8m
	404 Apr 03 j 03:19	0°♓	
desc. node	404 Apr 13 j 17:44	8°♓49'01	
morning max el	404 Apr 22 j 19:40	17°♓14'39	45°57'20
	404 May 05 j 13:55	0°♈	
	404 Jun 02 j 08:14	0°♉	
	404 Jun 28 j 14:15	0°♊	
	404 Jul 23 j 23:57	0°♋	
asc. node	404 Aug 04 j 21:08	14°♋17'57	
	404 Aug 17 j 18:53	0°♌	
	404 Sep 11 j 02:44	0°♍	
	404 Oct 05 j 03:12	0°♎	
greatest brilliancy	404 Oct 17 j 15:59	15°♎44'26	-3.9m
morning set	404 Oct 17 j 12:56	15°♎34'52	
	404 Oct 28 j 23:55	0°♏	
	404 Nov 21 j 19:36	0°♐	
desc. node	404 Nov 24 j 10:41	3°♐18'38	
superior conj	404 Nov 27 j 06:15	6°♐51'17	-0°06'44
minimum elong	404 Nov 27 j 04:26	6°♐45'33	0°06'38
behind sun begin	404 Nov 26 j 03:50	5°♐28'08	
behind sun end	404 Nov 28 j 05:01	8°♐02'59	
max. Earth dist.	404 Nov 28 j 12:03	8°♐25'06	1.71028 AU
	404 Dec 15 j 15:50	0°♑	
evening rise	405 Jan 08 j 00:04	29°♑17'28	
	405 Jan 08 j 13:40	0°♒	
	405 Feb 01 j 14:24	0°♓	
	405 Feb 25 j 20:00	0°♈	
asc. node	405 Mar 17 j 13:56	24°♈10'41	
	405 Mar 22 j 08:54	0°♉	
	405 Apr 16 j 08:00	0°♊	
	405 May 11 j 21:56	0°♋	
	405 Jun 07 j 13:00	0°♌	
evening max el	405 Jul 06 j 15:20	0°♍06'14	45°43'18
	405 Jul 06 j 12:43	0°♍	
desc. node	405 Jul 07 j 03:23	0°♍35'01	
greatest brilliancy	405 Aug 15 j 13:07	28°♍38'20	-4.8m
	405 Aug 21 j 19:16	0°♎	
retrograde	405 Aug 24 j 15:33	0°♎09'20	
	405 Aug 27 j 10:57	30°♏℞	
evening set	405 Sep 11 j 08:32	24°♍19'48	
inferior conj	405 Sep 14 j 14:59	22°♍21'45	-8°22'38
minimum elong	405 Sep 14 j 21:32	22°♍11'45	8°21'59
min. Earth dist.	405 Sep 15 j 11:33	21°♍50'21	0.27589 AU
morning rise	405 Sep 18 j 10:13	20°♍04'11	
direct	405 Oct 05 j 14:16	14°♍24'37	
greatest brilliancy	405 Oct 16 j 18:47	16°♍44'36	-4.9m
asc. node	405 Oct 28 j 06:26	23°♍03'07	
	405 Nov 06 j 09:07	0°♎	
morning max el	405 Nov 25 j 08:33	17°♎48'09	46°54'51
	405 Dec 06 j 21:36	0°♏	
	406 Jan 02 j 09:31	0°♐	
	406 Jan 27 j 17:45	0°♑	
desc. node	406 Feb 16 j 20:17	24°♑11'39	
	406 Feb 21 j 15:33	0°♒	
	406 Mar 18 j 09:08	0°♓	
	406 Apr 12 j 00:56	0°♈	

	406 May 06 j 15:40	0°♉	
morning set	406 May 29 j 02:27	27°♉25'47	
	406 May 31 j 04:50	0°♊	
asc. node	406 Jun 09 j 23:30	11°♊59'02	
	406 Jun 24 j 15:29	0°♋	
max. Earth dist.	406 Jul 01 j 11:00	8°♋23'25	1.73342 AU
superior conj	406 Jul 04 j 09:24	12°♋00'27	0°53'32
minimum elong	406 Jul 04 j 00:55	11°♋34'15	0°53'13
	406 Jul 18 j 23:06	0°♌	
evening rise	406 Aug 09 j 08:01	26°♌28'33	
	406 Aug 12 j 04:12	0°♍	
	406 Sep 05 j 08:09	0°♎	
desc. node	406 Sep 29 j 13:02	0°♏01'56	
	406 Sep 29 j 12:24	0°♏	
	406 Oct 23 j 18:05	0°♐	
	406 Nov 17 j 02:45	0°♑	
	406 Dec 11 j 18:12	0°♒	
	407 Jan 06 j 01:23	0°♓	
asc. node	407 Jan 20 j 16:10	16°♓39'01	
	407 Feb 01 j 22:11	0°♈	
evening max el	407 Feb 12 j 04:46	10°♈34'33	46°15'18
	407 Mar 05 j 23:45	0°♉	
greatest brilliancy	407 Mar 23 j 01:00	10°♉01'18	-4.8m
retrograde	407 Apr 02 j 21:10	12°♉11'10	
evening set	407 Apr 18 j 18:39	7°♉15'27	
inferior conj	407 Apr 24 j 06:34	3°♉54'10	4°03'01
minimum elong	407 Apr 24 j 14:27	3°♉41'46	4°00'58
min. Earth dist.	407 Apr 24 j 10:40	3°♉47'44	0.28917 AU
morning rise	407 Apr 30 j 10:26	0°♉10'35	
	407 Apr 30 j 18:05	30°℞♈	
desc. node	407 May 12 j 05:33	25°♈51'20	
direct	407 May 15 j 19:09	25°♈36'12	
greatest brilliancy	407 May 26 j 00:57	27°♈29'44	-4.7m
	407 May 31 j 20:18	0°♉	
morning max el	407 Jul 03 j 14:47	25°♉21'58	45°46'13
	407 Jul 08 j 09:25	0°♊	
	407 Aug 05 j 19:06	0°♋	
	407 Aug 31 j 22:52	0°♌	
asc. node	407 Sep 02 j 09:03	1°♌40'41	
	407 Sep 25 j 23:22	0°♍	
	407 Oct 20 j 08:16	0°♎	
	407 Nov 13 j 09:05	0°♏	
	407 Dec 07 j 06:47	0°♐	
desc. node	407 Dec 22 j 22:34	19°♐39'53	
	407 Dec 31 j 04:14	0°♑	
morning set	408 Jan 03 j 03:47	3°♑44'21	
	408 Jan 24 j 02:55	0°♒	
superior conj	408 Feb 13 j 09:07	25°♒17'34	-1°25'02
minimum elong	408 Feb 13 j 06:31	25°♒09'28	1°25'01
	408 Feb 17 j 03:48	0°♓	
max. Earth dist.	408 Feb 17 j 08:49	0°♓15'38	1.72112 AU
	408 Mar 12 j 07:46	0°♈	
evening rise	408 Mar 23 j 16:29	14°♈02'33	
	408 Apr 05 j 15:34	0°♉	
asc. node	408 Apr 14 j 01:49	10°♉20'39	
	408 Apr 30 j 03:39	0°♊	
	408 May 24 j 20:31	0°♋	
	408 Jun 18 j 19:30	0°♌	
	408 Jul 14 j 03:44	0°♍	
desc. node	408 Aug 03 j 15:15	23°♍43'01	
	408 Aug 09 j 03:45	0°♎	
	408 Sep 05 j 11:25	0°♏	
evening max el	408 Sep 18 j 03:37	12°♏58'25	46°56'34
	408 Oct 06 j 20:11	0°♐	
greatest brilliancy	408 Oct 28 j 15:59	13°♐27'43	-4.9m
retrograde	408 Nov 07 j 10:55	15°♐16'03	
evening set	408 Nov 21 j 17:17	11°♐11'58	
asc. node	408 Nov 24 j 18:26	9°♐28'40	
inferior conj	408 Nov 27 j 22:26	7°♐34'00	0°49'24
minimum elong	408 Nov 27 j 20:33	7°♐36'52	0°48'47
min. Earth dist.	408 Nov 27 j 15:22	7°♐44'47	0.26365 AU
morning rise	408 Dec 04 j 00:07	4°♐02'04	
	408 Dec 17 j 06:07	30°℞♏	
direct	408 Dec 18 j 06:37	29°♏58'43	
	408 Dec 19 j 07:13	0°♐	
greatest brilliancy	408 Dec 28 j 02:06	1°♐49'23	-4.9m
	409 Feb 03 j 21:31	0°♑	
morning max el	409 Feb 06 j 12:32	2°♑35'47	46°40'39
	409 Mar 04 j 09:03	0°♒	
desc. node	409 Mar 16 j 08:04	13°♒23'59	
	409 Mar 30 j 19:57	0°♓	
	409 Apr 25 j 12:03	0°♈	
	409 May 20 j 18:15	0°♉	
	409 Jun 14 j 17:15	0°♊	
asc. node	409 Jul 07 j 11:22	27°♊39'23	
	409 Jul 09 j 09:23	0°♋	
	409 Aug 02 j 18:46	0°♌	
morning set	409 Aug 04 j 20:39	2°♌34'16	
	409 Aug 26 j 22:25	0°♍	
max. Earth dist.	409 Sep 07 j 15:09	14°♍36'30	1.71892 AU
superior conj	409 Sep 10 j 23:13	18°♍46'49	1°21'32
minimum elong	409 Sep 11 j 04:24	19°♍03'03	1°21'28
	409 Sep 19 j 22:18	0°♎	
	409 Oct 13 j 20:30	0°♏	
evening rise	409 Oct 20 j 05:32	7°♏59'52	
desc. node	409 Oct 27 j 00:58	16°♏32'26	
	409 Nov 06 j 18:36	0°♐	
	409 Nov 30 j 17:42	0°♑	
	409 Dec 24 j 19:14	0°♒	
	410 Jan 18 j 02:00	0°♓	
	410 Feb 11 j 18:53	0°♈	
asc. node	410 Feb 17 j 04:02	6°♈25'57	
	410 Mar 09 j 06:03	0°♉	
	410 Apr 05 j 04:05	0°♊	
evening max el	410 Apr 23 j 23:08	19°♊08'25	45°21'34
	410 May 05 j 21:51	0°♋	
greatest brilliancy	410 May 31 j 17:27	16°♋41'12	-4.7m
desc. node	410 Jun 08 j 17:36	18°♋35'29	
retrograde	410 Jun 11 j 10:04	18°♋43'40	
evening set	410 Jun 26 j 23:43	14°♋07'52	
inferior conj	410 Jul 02 j 21:09	10°♋36'05	-5°16'39
minimum elong	410 Jul 02 j 11:36	10°♋50'57	5°14'26
min. Earth dist.	410 Jul 02 j 23:17	10°♋32'45	0.28865 AU
morning rise	410 Jul 07 j 23:13	7°♋30'45	
direct	410 Jul 24 j 12:57	2°♋20'12	
greatest brilliancy	410 Aug 04 j 05:02	4°♋23'05	-4.8m
	410 Sep 08 j 14:48	0°♌	
morning max el	410 Sep 12 j 02:04	3°♌22'21	46°17'45
asc. node	410 Sep 29 j 20:46	21°♌54'11	
	410 Oct 07 j 04:24	0°♍	
	410 Nov 02 j 00:50	0°♎	
	410 Nov 26 j 19:41	0°♏	
	410 Dec 21 j 03:53	0°♐	
	411 Jan 14 j 08:31	0°♑	
desc. node	411 Jan 19 j 10:28	6°♑18'25	
	411 Feb 07 j 12:46	0°♒	
	411 Mar 03 j 18:02	0°♓	
morning set	411 Mar 19 j 03:50	19°♓02'47	
	411 Mar 28 j 00:54	0°♈	
	411 Apr 21 j 09:31	0°♉	

superior conj	411 Apr 25 j 17:51	5°♉20'41	-0°38'30
minimum elong	411 Apr 26 j 01:14	5°♉43'21	0°38'10
max. Earth dist.	411 Apr 26 j 22:00	6°♉47'10	1.73472 AU
asc. node	411 May 12 j 13:46	26°♉01'24	
	411 May 15 j 19:29	0°♊	
evening rise	411 Jun 01 j 07:27	20°♊14'54	
	411 Jun 09 j 06:10	0°♋	
	411 Jul 03 j 17:23	0°♌	
	411 Jul 28 j 05:50	0°♍	
	411 Aug 21 j 21:06	0°♎	
desc. node	411 Sep 01 j 03:09	12°♎24'58	
	411 Sep 15 j 17:19	0°♏	
	411 Oct 10 j 21:58	0°♐	
	411 Nov 05 j 20:00	0°♑	
evening max el	411 Nov 30 j 11:26	26°♑42'35	47°19'38
	411 Dec 03 j 17:28	0°♒	
asc. node	411 Dec 23 j 06:23	17°♒42'18	
greatest brilliancy	412 Jan 10 j 01:08	28°♒30'41	-4.9m
	412 Jan 14 j 23:47	0°♓	
retrograde	412 Jan 20 j 11:52	0°♓36'09	
	412 Jan 25 j 21:03	30°℞♒	
evening set	412 Feb 07 j 03:31	24°♒31'57	
min. Earth dist.	412 Feb 09 j 17:34	22°♒55'19	0.27838 AU
inferior conj	412 Feb 10 j 11:55	22°♒26'21	8°36'51
minimum elong	412 Feb 10 j 08:51	22°♒31'12	8°36'43
morning rise	412 Feb 13 j 14:24	20°♒30'12	
direct	412 Mar 02 j 07:22	14°♒28'24	
greatest brilliancy	412 Mar 11 j 07:19	15°♒58'37	-4.8m
	412 Apr 03 j 15:12	0°♓	
desc. node	412 Apr 12 j 19:51	7°♓52'58	
morning max el	412 Apr 20 j 09:42	14°♓57'53	45°58'36
	412 May 05 j 08:26	0°♈	
	412 Jun 01 j 22:39	0°♉	
	412 Jun 28 j 02:54	0°♊	
	412 Jul 23 j 11:40	0°♋	
asc. node	412 Aug 03 j 23:12	13°♋49'35	
	412 Aug 17 j 06:09	0°♌	
	412 Sep 10 j 13:46	0°♍	
	412 Oct 04 j 14:10	0°♎	
morning set	412 Oct 15 j 01:49	13°♎09'56	
	412 Oct 28 j 10:54	0°♏	
	412 Nov 21 j 06:38	0°♐	
desc. node	412 Nov 23 j 12:53	2°♐50'47	
superior conj	412 Nov 24 j 15:52	4°♐15'44	-0°02'43
minimum elong	412 Nov 24 j 15:07	4°♐13'22	0°02'41
behind sun begin	412 Nov 23 j 12:48	2°♐50'30	
behind sun end	412 Nov 25 j 17:27	5°♐36'15	
max. Earth dist.	412 Nov 25 j 16:24	5°♐32'59	1.71027 AU
	412 Dec 15 j 02:54	0°♑	
evening rise	413 Jan 05 j 10:07	26°♑43'57	
	413 Jan 08 j 00:44	0°♒	
	413 Feb 01 j 01:31	0°♓	
	413 Feb 25 j 07:16	0°♈	
asc. node	413 Mar 16 j 15:59	23°♈41'53	
	413 Mar 21 j 20:30	0°♉	
	413 Apr 15 j 20:14	0°♊	
	413 May 11 j 11:21	0°♋	
	413 Jun 07 j 05:00	0°♌	
evening max el	413 Jul 04 j 05:31	27°♌50'17	45°41'29
desc. node	413 Jul 06 j 05:30	29°♌44'06	
	413 Jul 06 j 12:16	0°♍	
greatest brilliancy	413 Aug 13 j 00:45	26°♍17'55	-4.8m
retrograde	413 Aug 22 j 05:28	27°♍50'26	
evening set	413 Sep 09 j 00:01	21°♍57'22	
inferior conj	413 Sep 12 j 04:47	20°♍01'45	-8°28'46
minimum elong	413 Sep 12 j 10:37	19°♍52'51	8°28'16
min. Earth dist.	413 Sep 13 j 00:40	19°♍31'24	0.27658 AU
morning rise	413 Sep 15 j 20:57	17°♍48'49	
direct	413 Oct 03 j 05:10	12°♍03'34	
greatest brilliancy	413 Oct 14 j 09:08	14°♍23'19	-4.9m
asc. node	413 Oct 27 j 08:39	21°♍43'31	
	413 Nov 06 j 18:26	0°♎	
morning max el	413 Nov 22 j 23:59	15°♎27'51	46°54'11
	413 Dec 06 j 16:27	0°♏	
	414 Jan 02 j 00:40	0°♐	
	414 Jan 27 j 07:12	0°♑	
desc. node	414 Feb 15 j 22:17	23°♑39'33	
	414 Feb 21 j 04:00	0°♒	
	414 Mar 17 j 20:55	0°♓	
	414 Apr 11 j 12:17	0°♈	
	414 May 06 j 02:42	0°♉	
morning set	414 May 26 j 20:46	25°♉21'43	
	414 May 30 j 15:41	0°♊	
asc. node	414 Jun 09 j 01:36	11°♊32'21	
	414 Jun 24 j 02:16	0°♋	
max. Earth dist.	414 Jun 29 j 09:28	6°♋31'33	1.73372 AU
superior conj	414 Jul 02 j 03:58	9°♋56'26	0°51'05
minimum elong	414 Jul 01 j 19:38	9°♋30'45	0°50'45
	414 Jul 18 j 09:53	0°♌	
evening rise	414 Aug 07 j 01:43	24°♌20'46	
	414 Aug 11 j 15:07	0°♍	
	414 Sep 04 j 19:18	0°♎	
desc. node	414 Sep 28 j 15:09	29°♎33'00	
	414 Sep 28 j 23:52	0°♏	
	414 Oct 23 j 05:57	0°♐	
	414 Nov 16 j 15:11	0°♑	
	414 Dec 11 j 07:30	0°♒	
	415 Jan 05 j 16:21	0°♓	
asc. node	415 Jan 19 j 18:09	15°♓58'17	
	415 Feb 01 j 17:13	0°♈	
evening max el	415 Feb 09 j 21:03	8°♈21'29	46°17'57
	415 Mar 06 j 15:50	0°♉	
greatest brilliancy	415 Mar 20 j 17:37	7°♉51'03	-4.8m
retrograde	415 Mar 31 j 14:17	10°♉00'59	
evening set	415 Apr 16 j 13:28	5°♉01'57	
inferior conj	415 Apr 21 j 22:57	1°♉43'46	4°20'20
minimum elong	415 Apr 22 j 07:14	1°♉30'43	4°18'14
min. Earth dist.	415 Apr 22 j 02:26	1°♉38'17	0.28903 AU
	415 Apr 24 j 17:22	30°℞♈	
morning rise	415 Apr 28 j 01:15	28°♈02'27	
desc. node	415 May 11 j 07:43	23°♈31'47	
direct	415 May 13 j 11:45	23°♈26'14	
greatest brilliancy	415 May 23 j 15:27	25°♈18'19	-4.7m
	415 Jun 02 j 10:40	0°♉	
morning max el	415 Jul 01 j 07:26	23°♉13'39	45°45'46
	415 Jul 08 j 05:49	0°♊	
	415 Aug 05 j 10:13	0°♋	
	415 Aug 31 j 12:00	0°♌	
asc. node	415 Sep 01 j 11:01	1°♌07'57	
	415 Sep 25 j 11:33	0°♍	
	415 Oct 19 j 19:59	0°♎	
	415 Nov 12 j 20:33	0°♏	
	415 Dec 06 j 18:07	0°♐	
desc. node	415 Dec 22 j 00:38	19°♐11'02	
	415 Dec 30 j 15:28	0°♑	
morning set	415 Dec 31 j 13:40	1°♑09'38	
	416 Jan 23 j 14:05	0°♒	
superior conj	416 Feb 10 j 21:12	22°♒50'57	-1°24'31
minimum elong	416 Feb 10 j 17:38	22°♒39'52	1°24'30
max. Earth dist.	416 Feb 14 j 23:17	27°♒56'36	1.72060 AU
	416 Feb 16 j 14:55	0°♓	

	416 Mar 11 j 18:51	0°♈	
evening rise	416 Mar 21 j 07:03	11°♈45'14	
	416 Apr 05 j 02:40	0°♉	
asc. node	416 Apr 13 j 03:58	9°♉53'03	
	416 Apr 29 j 14:55	0°♊	
	416 May 24 j 08:08	0°♋	
	416 Jun 18 j 07:47	0°♌	
	416 Jul 13 j 17:09	0°♍	
desc. node	416 Aug 02 j 17:13	23°♍06'15	
	416 Aug 08 j 19:12	0°♎	
	416 Sep 05 j 07:25	0°♏	
evening max el	416 Sep 15 j 17:42	10°♏36'02	46°54'17
	416 Oct 07 j 11:22	0°♐	
greatest brilliancy	416 Oct 26 j 05:45	10°♐59'54	-4.9m
retrograde	416 Nov 04 j 23:04	12°♐46'21	
evening set	416 Nov 19 j 06:09	8°♐42'31	
asc. node	416 Nov 23 j 20:29	6°♐03'30	
inferior conj	416 Nov 25 j 10:45	5°♐05'15	0°24'56
minimum elong	416 Nov 25 j 09:48	5°♐06'42	0°24'37
min. Earth dist.	416 Nov 25 j 05:18	5°♐13'34	0.26355 AU
morning rise	416 Dec 01 j 13:40	1°♐31'25	
	416 Dec 04 j 16:57	30℞♏	
direct	416 Dec 15 j 19:01	27°♏30'14	
greatest brilliancy	416 Dec 25 j 16:01	29°♏21'54	-4.9m
	416 Dec 27 j 07:21	0°♐	
	417 Feb 03 j 21:25	0°♑	
morning max el	417 Feb 04 j 00:58	0°♑08'53	46°41'46
	417 Mar 04 j 01:50	0°♒	
desc. node	417 Mar 15 j 10:12	12°♒46'31	
	417 Mar 30 j 10:06	0°♓	
	417 Apr 25 j 00:50	0°♈	
	417 May 20 j 06:14	0°♉	
	417 Jun 14 j 04:43	0°♊	
asc. node	417 Jul 06 j 13:22	27°♊11'18	
	417 Jul 08 j 20:33	0°♋	
	417 Aug 02 j 05:49	0°♌	
morning set	417 Aug 02 j 13:30	0°♌23'45	
	417 Aug 26 j 09:28	0°♍	
max. Earth dist.	417 Sep 05 j 02:53	12°♍08'35	1.71947 AU
superior conj	417 Sep 08 j 14:33	16°♍30'03	1°22'24
minimum elong	417 Sep 08 j 19:00	16°♍43'58	1°22'21
	417 Sep 19 j 09:25	0°♎	
	417 Oct 13 j 07:44	0°♏	
evening rise	417 Oct 17 j 17:14	5°♏30'43	
desc. node	417 Oct 26 j 03:08	16°♏03'43	
	417 Nov 06 j 05:58	0°♐	
	417 Nov 30 j 05:13	0°♑	
	417 Dec 24 j 06:59	0°♒	
	418 Jan 17 j 14:06	0°♓	
	418 Feb 11 j 07:39	0°♈	
asc. node	418 Feb 16 j 06:05	5°♈53'24	
	418 Mar 08 j 20:12	0°♉	
	418 Apr 04 j 21:35	0°♊	
evening max el	418 Apr 21 j 13:54	16°♊54'25	45°22'13
	418 May 06 j 04:21	0°♋	
greatest brilliancy	418 May 29 j 08:59	14°♋30'34	-4.7m
desc. node	418 Jun 07 j 19:40	16°♋31'48	
retrograde	418 Jun 09 j 01:36	16°♋33'35	
evening set	418 Jun 24 j 13:36	12°♋00'10	
inferior conj	418 Jun 30 j 13:12	8°♋25'36	-5°00'27
minimum elong	418 Jun 30 j 03:54	8°♋40'06	4°58'14
min. Earth dist.	418 Jun 30 j 15:34	8°♋21'56	0.28881 AU
morning rise	418 Jul 05 j 17:52	5°♋16'25	
direct	418 Jul 22 j 04:31	0°♋09'17	
greatest brilliancy	418 Aug 01 j 21:36	2°♋12'32	-4.8m
	418 Sep 08 j 14:04	0°♌	
morning max el	418 Sep 09 j 16:27	1°♌04'37	46°16'19
asc. node	418 Sep 28 j 23:01	21°♌12'44	
	418 Oct 06 j 20:41	0°♍	
	418 Nov 01 j 14:46	0°♎	
	418 Nov 26 j 08:31	0°♏	
	418 Dec 20 j 16:06	0°♐	
	419 Jan 13 j 20:19	0°♑	
desc. node	419 Jan 18 j 12:27	5°♑48'12	
	419 Feb 07 j 00:15	0°♒	
	419 Mar 03 j 05:15	0°♓	
morning set	419 Mar 16 j 18:57	16°♓46'56	
	419 Mar 27 j 11:57	0°♈	
	419 Apr 20 j 20:29	0°♉	
superior conj	419 Apr 23 j 11:09	3°♉12'40	-0°41'21
minimum elong	419 Apr 23 j 18:58	3°♉36'42	0°41'01
max. Earth dist.	419 Apr 24 j 16:24	4°♉42'33	1.73448 AU
asc. node	419 May 11 j 15:51	25°♉34'05	
	419 May 15 j 06:28	0°♊	
evening rise	419 May 30 j 02:18	18°♊11'42	
	419 Jun 08 j 17:16	0°♋	
	419 Jul 03 j 04:41	0°♌	
	419 Jul 27 j 17:30	0°♍	
	419 Aug 21 j 09:21	0°♎	
desc. node	419 Aug 31 j 05:16	11°♎53'25	
	419 Sep 15 j 06:26	0°♏	
	419 Oct 10 j 12:29	0°♐	
	419 Nov 05 j 13:07	0°♑	
evening max el	419 Nov 28 j 01:23	24°♑18'02	47°20'38
	419 Dec 03 j 17:47	0°♒	
asc. node	419 Dec 22 j 08:25	16°♒28'28	
greatest brilliancy	420 Jan 07 j 16:28	26°♒09'33	-4.9m
retrograde	420 Jan 18 j 02:57	28°♒15'15	
evening set	420 Feb 04 j 15:57	22°♒14'44	
min. Earth dist.	420 Feb 07 j 07:28	20°♒36'11	0.27776 AU
inferior conj	420 Feb 08 j 02:34	20°♒06'08	8°33'35
minimum elong	420 Feb 07 j 22:40	20°♒12'15	8°33'22
morning rise	420 Feb 11 j 05:37	18°♒09'23	
direct	420 Feb 28 j 20:49	12°♒09'00	
greatest brilliancy	420 Mar 08 j 20:59	13°♒39'32	-4.8m
	420 Apr 04 j 00:13	0°♓	
desc. node	420 Apr 11 j 22:00	6°♓57'43	
morning max el	420 Apr 18 j 00:30	12°♓42'22	45°59'51
	420 May 05 j 02:42	0°♈	
	420 Jun 01 j 13:09	0°♉	
	420 Jun 27 j 15:46	0°♊	
	420 Jul 22 j 23:43	0°♋	
asc. node	420 Aug 03 j 01:15	13°♋20'08	
	420 Aug 16 j 17:43	0°♌	
	420 Sep 10 j 01:05	0°♍	
	420 Oct 04 j 01:23	0°♎	
morning set	420 Oct 12 j 14:42	10°♎44'24	
	420 Oct 27 j 22:07	0°♏	
	420 Nov 20 j 17:53	0°♐	
superior conj	420 Nov 22 j 01:26	1°♐39'22	0°01'21
minimum elong	420 Nov 22 j 01:47	1°♐40'28	0°01'20
behind sun begin	420 Nov 20 j 23:20	0°♐17'10	
behind sun end	420 Nov 23 j 04:14	3°♐03'44	
desc. node	420 Nov 22 j 14:51	2°♐21'39	
max. Earth dist.	420 Nov 23 j 00:26	2°♐51'46	1.71028 AU
	420 Dec 14 j 14:10	0°♑	
evening rise	421 Jan 02 j 20:12	24°♑09'53	
	421 Jan 07 j 12:01	0°♒	
	421 Jan 31 j 12:51	0°♓	
	421 Feb 24 j 18:44	0°♈	
asc. node	421 Mar 15 j 18:11	23°♈13'02	

	421 Mar 21 j 08:16	0°♉	
	421 Apr 15 j 08:38	0°♊	
	421 May 11 j 01:03	0°♋	
	421 Jun 06 j 21:31	0°♌	
evening max el	421 Jul 01 j 20:28	25°♌35'27	45°39'29
desc. node	421 Jul 05 j 07:28	28°♌50'59	
	421 Jul 06 j 13:21	0°♍	
greatest brilliancy	421 Aug 10 j 12:16	23°♍56'22	-4.8m
retrograde	421 Aug 19 j 19:04	25°♍30'07	
evening set	421 Sep 06 j 15:04	19°♍34'19	
inferior conj	421 Sep 09 j 18:25	17°♍40'36	-8°34'02
minimum elong	421 Sep 09 j 23:28	17°♍32'53	8°33'41
min. Earth dist.	421 Sep 10 j 13:29	17°♍11'29	0.27722 AU
morning rise	421 Sep 13 j 07:40	15°♍31'56	
direct	421 Sep 30 j 20:12	9°♍41'39	
greatest brilliancy	421 Oct 11 j 22:50	12°♍00'24	-4.9m
asc. node	421 Oct 26 j 10:40	20°♍25'18	
	421 Nov 07 j 01:31	0°♎	
morning max el	421 Nov 20 j 15:00	13°♎06'08	46°53'32
	421 Dec 06 j 10:58	0°♏	
	422 Jan 01 j 15:42	0°♐	
	422 Jan 26 j 20:36	0°♑	
desc. node	422 Feb 15 j 00:22	23°♑07'42	
	422 Feb 20 j 16:27	0°♒	
	422 Mar 17 j 08:44	0°♓	
	422 Apr 10 j 23:39	0°♈	
	422 May 05 j 13:46	0°♉	
morning set	422 May 24 j 15:18	23°♉18'14	
	422 May 30 j 02:34	0°♊	
asc. node	422 Jun 08 j 03:37	11°♊05'17	
	422 Jun 23 j 13:04	0°♋	
max. Earth dist.	422 Jun 27 j 07:27	4°♋38'09	1.73404 AU
superior conj	422 Jun 29 j 22:36	7°♋52'38	0°48'34
minimum elong	422 Jun 29 j 14:29	7°♋27'38	0°48'14
	422 Jul 17 j 20:45	0°♌	
evening rise	422 Aug 04 j 19:22	22°♌12'40	
	422 Aug 11 j 02:09	0°♍	
	422 Sep 04 j 06:36	0°♎	
desc. node	422 Sep 27 j 17:17	29°♎03'40	
	422 Sep 28 j 11:28	0°♏	
	422 Oct 22 j 17:57	0°♐	
	422 Nov 16 j 03:43	0°♑	
	422 Dec 10 j 20:56	0°♒	
	423 Jan 05 j 07:29	0°♓	
asc. node	423 Jan 18 j 20:13	15°♓17'30	
	423 Feb 01 j 12:45	0°♈	
evening max el	423 Feb 07 j 13:13	6°♈07'59	46°20'33
	423 Mar 07 j 13:27	0°♉	
greatest brilliancy	423 Mar 18 j 10:55	5°♉41'43	-4.8m
retrograde	423 Mar 29 j 07:03	7°♉50'53	
evening set	423 Apr 14 j 08:27	2°♉48'41	
	423 Apr 18 j 22:46	30°℞♈	
inferior conj	423 Apr 19 j 15:24	29°♈33'43	4°37'17
minimum elong	423 Apr 20 j 00:01	29°♈20'07	4°35'10
min. Earth dist.	423 Apr 19 j 18:29	29°♈28'51	0.28886 AU
morning rise	423 Apr 25 j 15:54	25°♈54'40	
desc. node	423 May 10 j 09:42	21°♈17'25	
direct	423 May 11 j 04:14	21°♈16'43	
greatest brilliancy	423 May 21 j 06:01	23°♈07'12	-4.7m
	423 Jun 03 j 13:18	0°♉	
morning max el	423 Jun 28 j 23:16	21°♉03'48	45°45'21
	423 Jul 08 j 01:26	0°♊	
	423 Aug 05 j 01:00	0°♋	
	423 Aug 31 j 00:57	0°♌	
asc. node	423 Aug 31 j 13:15	0°♌36'22	
	423 Sep 24 j 23:41	0°♍	
	423 Oct 19 j 07:42	0°♎	
	423 Nov 12 j 08:02	0°♏	
	423 Dec 06 j 05:24	0°♐	
desc. node	423 Dec 21 j 02:40	18°♐42'13	
morning set	423 Dec 28 j 23:15	28°♐34'09	
	423 Dec 30 j 02:37	0°♑	
	424 Jan 23 j 01:08	0°♒	
superior conj	424 Feb 08 j 09:06	20°♒24'10	-1°23'52
minimum elong	424 Feb 08 j 04:35	20°♒10'06	1°23'49
max. Earth dist.	424 Feb 12 j 14:11	25°♒39'17	1.72002 AU
	424 Feb 16 j 01:53	0°♓	
	424 Mar 11 j 05:47	0°♈	
evening rise	424 Mar 18 j 21:34	9°♈28'05	
	424 Apr 04 j 13:38	0°♉	
asc. node	424 Apr 12 j 06:03	9°♉25'43	
	424 Apr 29 j 02:02	0°♊	
	424 May 23 j 19:36	0°♋	
	424 Jun 17 j 19:54	0°♌	
	424 Jul 13 j 06:25	0°♍	
desc. node	424 Aug 01 j 19:22	22°♍30'27	
	424 Aug 08 j 10:38	0°♎	
	424 Sep 05 j 03:52	0°♏	
evening max el	424 Sep 13 j 06:33	8°♏11'00	46°51'40
	424 Oct 08 j 07:36	0°♐	
greatest brilliancy	424 Oct 23 j 19:42	8°♐31'52	-4.9m
retrograde	424 Nov 02 j 10:28	10°♐16'05	
evening set	424 Nov 16 j 18:54	6°♐11'55	
inferior conj	424 Nov 22 j 22:47	2°♐35'53	0°00'10
minimum elong	424 Nov 22 j 22:47	2°♐35'53	0°00'10
transit middle	424 Nov 22 j 22:47	2°♐35'53	0°00'10
transit begin	424 Nov 22 j 18:43	2°♐42'06	
transit end	424 Nov 23 j 02:51	2°♐29'41	
asc. node	424 Nov 22 j 22:31	2°♐36'17	
min. Earth dist.	424 Nov 22 j 19:23	2°♐41'04	0.26353 AU
	424 Nov 27 j 07:21	30°℞♏	
morning rise	424 Nov 29 j 02:44	29°♏00'22	
direct	424 Dec 13 j 06:39	25°♏00'43	
greatest brilliancy	424 Dec 23 j 06:25	26°♏54'23	-4.9m
	424 Dec 29 j 23:07	0°♐	
morning max el	425 Feb 01 j 12:57	27°♐40'45	46°43'07
	425 Feb 03 j 20:15	0°♑	
	425 Mar 03 j 18:08	0°♒	
desc. node	425 Mar 14 j 12:23	12°♒10'05	
	425 Mar 29 j 23:51	0°♓	
	425 Apr 24 j 13:16	0°♈	
	425 May 19 j 17:51	0°♉	
	425 Jun 13 j 15:51	0°♊	
asc. node	425 Jul 05 j 15:30	26°♊44'34	
	425 Jul 08 j 07:25	0°♋	
morning set	425 Jul 31 j 06:43	28°♋15'24	
	425 Aug 01 j 16:33	0°♌	
	425 Aug 25 j 20:12	0°♍	
max. Earth dist.	425 Sep 02 j 17:50	9°♍51'45	1.72004 AU
superior conj	425 Sep 06 j 06:16	14°♍15'34	1°23'06
minimum elong	425 Sep 06 j 09:59	14°♍27'10	1°23'05
	425 Sep 18 j 20:14	0°♎	
	425 Oct 12 j 18:41	0°♏	
evening rise	425 Oct 15 j 05:15	3°♏03'31	
desc. node	425 Oct 25 j 05:08	15°♏35'21	
	425 Nov 05 j 17:06	0°♐	
	425 Nov 29 j 16:34	0°♑	
	425 Dec 23 j 18:34	0°♒	
	426 Jan 17 j 02:02	0°♓	
	426 Feb 10 j 20:15	0°♈	
asc. node	426 Feb 15 j 08:16	5°♈21'51	

	426 Mar 08 j 10:13	0°♉	
	426 Apr 04 j 15:06	0°♊	
evening max el	426 Apr 19 j 04:45	14°♊41'46	45°23'10
	426 May 06 j 12:42	0°♋	
greatest brilliancy	426 May 27 j 00:05	12°♋20'51	-4.7m
retrograde	426 Jun 06 j 17:42	14°♋25'12	
desc. node	426 Jun 06 j 21:42	14°♋25'11	
evening set	426 Jun 22 j 03:49	9°♋53'42	
inferior conj	426 Jun 28 j 05:24	6°♋16'39	-4°43'57
minimum elong	426 Jun 27 j 20:24	6°♋30'40	4°41'44
min. Earth dist.	426 Jun 28 j 07:47	6°♋12'56	0.28896 AU
morning rise	426 Jul 03 j 12:37	3°♋03'54	
	426 Jul 09 j 18:33	30°℞♊	
direct	426 Jul 19 j 20:21	27°♊59'50	
	426 Jul 30 j 10:13	0°♋	
greatest brilliancy	426 Jul 30 j 14:16	0°♋03'41	-4.8m
morning max el	426 Sep 07 j 07:57	28°♋51'12	46°14'58
	426 Sep 08 j 11:51	0°♌	
asc. node	426 Sep 28 j 01:00	20°♌32'24	
	426 Oct 06 j 12:13	0°♍	
	426 Nov 01 j 04:10	0°♎	
	426 Nov 25 j 20:55	0°♏	
	426 Dec 20 j 03:57	0°♐	
	427 Jan 13 j 07:49	0°♑	
desc. node	427 Jan 17 j 14:36	5°♑19'22	
	427 Feb 06 j 11:28	0°♒	
	427 Mar 02 j 16:13	0°♓	
morning set	427 Mar 14 j 09:31	14°♓30'01	
	427 Mar 26 j 22:42	0°♈	
	427 Apr 20 j 07:07	0°♉	
superior conj	427 Apr 21 j 04:06	1°♉04'32	-0°44'11
minimum elong	427 Apr 21 j 12:20	1°♉29'49	0°43'50
max. Earth dist.	427 Apr 22 j 11:22	2°♉40'39	1.73419 AU
asc. node	427 May 10 j 17:50	25°♉07'33	
	427 May 14 j 17:05	0°♊	
evening rise	427 May 27 j 21:07	16°♊09'30	
	427 Jun 08 j 03:59	0°♋	
	427 Jul 02 j 15:38	0°♌	
	427 Jul 27 j 04:50	0°♍	
	427 Aug 20 j 21:15	0°♎	
desc. node	427 Aug 30 j 07:25	11°♎23'03	
	427 Sep 14 j 19:13	0°♏	
	427 Oct 10 j 02:41	0°♐	
	427 Nov 05 j 06:05	0°♑	
evening max el	427 Nov 25 j 16:13	21°♑57'02	47°21'23
	427 Dec 03 j 18:47	0°♒	
asc. node	427 Dec 21 j 10:29	15°♒13'24	
greatest brilliancy	428 Jan 05 j 06:58	23°♒47'57	-4.9m
retrograde	428 Jan 15 j 18:14	25°♒54'30	
evening set	428 Feb 02 j 03:52	19°♒58'00	
min. Earth dist.	428 Feb 04 j 20:56	18°♒17'23	0.27718 AU
inferior conj	428 Feb 05 j 16:58	17°♒45'54	8°29'24
minimum elong	428 Feb 05 j 12:18	17°♒53'14	8°29'04
morning rise	428 Feb 08 j 21:00	15°♒48'00	
direct	428 Feb 26 j 10:35	9°♒49'38	
greatest brilliancy	428 Mar 06 j 10:08	11°♒20'05	-4.8m
	428 Apr 04 j 06:32	0°♓	
desc. node	428 Apr 10 j 23:58	6°♓03'44	
morning max el	428 Apr 15 j 16:02	10°♓29'14	46°01'08
	428 May 04 j 20:17	0°♈	
	428 Jun 01 j 03:12	0°♉	
	428 Jun 27 j 04:13	0°♊	
	428 Jul 22 j 11:19	0°♋	
asc. node	428 Aug 02 j 03:23	12°♋52'13	
	428 Aug 16 j 04:52	0°♌	
	428 Sep 09 j 12:01	0°♍	
	428 Oct 03 j 12:14	0°♎	
morning set	428 Oct 10 j 04:04	8°♎21'31	
	428 Oct 27 j 08:58	0°♏	
superior conj	428 Nov 19 j 11:31	29°♏05'46	0°05'20
minimum elong	428 Nov 19 j 12:56	29°♏10'16	0°05'16
behind sun begin	428 Nov 18 j 11:38	27°♏50'35	
behind sun end	428 Nov 20 j 14:14	0°♐29'55	
	428 Nov 20 j 04:44	0°♐	
max. Earth dist.	428 Nov 20 j 10:17	0°♐17'29	1.71026 AU
desc. node	428 Nov 21 j 16:56	1°♐53'59	
	428 Dec 14 j 01:02	0°♑	
evening rise	428 Dec 31 j 06:35	21°♑37'53	
	429 Jan 06 j 22:55	0°♒	
	429 Jan 30 j 23:50	0°♓	
	429 Feb 24 j 05:55	0°♈	
asc. node	429 Mar 14 j 20:10	22°♈44'22	
	429 Mar 20 j 19:47	0°♉	
	429 Apr 14 j 20:49	0°♊	
	429 May 10 j 14:34	0°♋	
	429 Jun 06 j 14:01	0°♌	
evening max el	429 Jun 29 j 11:42	23°♌22'23	45°37'40
desc. node	429 Jul 04 j 09:38	27°♌58'24	
	429 Jul 06 j 15:17	0°♍	
greatest brilliancy	429 Aug 08 j 00:19	21°♍37'09	-4.8m
retrograde	429 Aug 17 j 08:29	23°♍11'33	
evening set	429 Sep 04 j 06:04	17°♍13'41	
inferior conj	429 Sep 07 j 08:18	15°♍21'20	-8°38'29
minimum elong	429 Sep 07 j 12:32	15°♍14'51	8°38'14
min. Earth dist.	429 Sep 08 j 02:36	14°♍53'18	0.27784 AU
morning rise	429 Sep 10 j 18:49	13°♍16'25	
direct	429 Sep 28 j 11:22	7°♍21'39	
greatest brilliancy	429 Oct 09 j 12:43	9°♍39'04	-4.9m
asc. node	429 Oct 25 j 12:42	19°♍10'37	
	429 Nov 07 j 06:03	0°♎	
morning max el	429 Nov 18 j 05:28	10°♎44'05	46°52'52
	429 Dec 06 j 04:41	0°♏	
	430 Jan 01 j 06:12	0°♐	
	430 Jan 26 j 09:34	0°♑	
desc. node	430 Feb 14 j 02:30	22°♑37'03	
	430 Feb 20 j 04:31	0°♒	
	430 Mar 16 j 20:14	0°♓	
	430 Apr 10 j 10:46	0°♈	
	430 May 05 j 00:37	0°♉	
morning set	430 May 22 j 09:39	21°♉14'50	
	430 May 29 j 13:13	0°♊	
asc. node	430 Jun 07 j 05:45	10°♊39'14	
	430 Jun 22 j 23:39	0°♋	
max. Earth dist.	430 Jun 25 j 03:36	2°♋39'50	1.73431 AU
superior conj	430 Jun 27 j 17:06	5°♋49'09	0°45'59
minimum elong	430 Jun 27 j 09:15	5°♋24'57	0°45'39
	430 Jul 17 j 07:23	0°♌	
evening rise	430 Aug 02 j 13:01	20°♌05'19	
	430 Aug 10 j 12:57	0°♍	
	430 Sep 03 j 17:40	0°♎	
desc. node	430 Sep 26 j 19:14	28°♎34'27	
	430 Sep 27 j 22:53	0°♏	
	430 Oct 22 j 05:48	0°♐	
	430 Nov 15 j 16:08	0°♑	
	430 Dec 10 j 10:15	0°♒	
	431 Jan 04 j 22:35	0°♓	
asc. node	431 Jan 17 j 22:25	14°♓37'21	
	431 Feb 01 j 08:33	0°♈	
evening max el	431 Feb 05 j 04:37	3°♈53'12	46°23'07
	431 Mar 08 j 18:56	0°♉	
greatest brilliancy	431 Mar 16 j 04:32	3°♉33'25	-4.8m

retrograde	431 Mar 26 j 23:18	5°♉41'28	
evening set	431 Apr 12 j 03:30	0°♉35'58	
	431 Apr 13 j 03:53	30°℞♈	
inferior conj	431 Apr 17 j 07:55	27°♈24'24	4°53'52
minimum elong	431 Apr 17 j 16:49	27°♈10'19	4°51'44
min. Earth dist.	431 Apr 17 j 10:52	27°♈19'44	0.28870 AU
morning rise	431 Apr 23 j 06:26	23°♈47'44	
direct	431 May 08 j 20:26	19°♈07'49	
desc. node	431 May 09 j 11:47	19°♈08'17	
greatest brilliancy	431 May 18 j 21:13	20°♈57'09	-4.7m
	431 Jun 04 j 08:34	0°♉	
morning max el	431 Jun 26 j 14:30	18°♉52'40	45°44'59
	431 Jul 07 j 20:23	0°♊	
	431 Aug 04 j 15:30	0°♋	
asc. node	431 Aug 30 j 15:16	0°♌04'35	
	431 Aug 30 j 13:43	0°♌	
	431 Sep 24 j 11:38	0°♍	
	431 Oct 18 j 19:14	0°♎	
	431 Nov 11 j 19:20	0°♏	
	431 Dec 05 j 16:35	0°♐	
desc. node	431 Dec 20 j 04:47	18°♐13'52	
morning set	431 Dec 26 j 08:49	25°♐58'43	
	431 Dec 29 j 13:42	0°♑	
	432 Jan 22 j 12:07	0°♒	
superior conj	432 Feb 05 j 21:02	17°♒57'37	-1°23'02
minimum elong	432 Feb 05 j 15:35	17°♒40'35	1°22'58
max. Earth dist.	432 Feb 10 j 02:58	23°♒15'29	1.71942 AU
	432 Feb 15 j 12:47	0°♓	
	432 Mar 10 j 16:37	0°♈	
evening rise	432 Mar 16 j 12:01	7°♈10'59	
	432 Apr 04 j 00:31	0°♉	
asc. node	432 Apr 11 j 08:03	8°♉58'21	
	432 Apr 28 j 13:06	0°♊	
	432 May 23 j 07:05	0°♋	
	432 Jun 17 j 08:05	0°♌	
	432 Jul 12 j 19:49	0°♍	
desc. node	432 Jul 31 j 21:27	21°♍54'06	
	432 Aug 08 j 02:20	0°♎	
	432 Sep 05 j 01:01	0°♏	
evening max el	432 Sep 10 j 18:38	5°♏44'20	46°49'13
	432 Oct 09 j 11:01	0°♐	
greatest brilliancy	432 Oct 21 j 09:32	6°♐03'53	-4.9m
retrograde	432 Oct 30 j 21:53	7°♐46'17	
evening set	432 Nov 14 j 07:51	3°♐40'56	
inferior conj	432 Nov 20 j 10:52	0°♐06'39	-0°24'36
minimum elong	432 Nov 20 j 11:48	0°♐05'13	0°24'17
min. Earth dist.	432 Nov 20 j 09:32	0°♐08'41	0.26358 AU
	432 Nov 20 j 15:14	30°℞♏	
asc. node	432 Nov 22 j 00:40	29°♏09'11	
morning rise	432 Nov 26 j 15:38	26°♏29'52	
direct	432 Dec 10 j 18:17	22°♏30'57	
greatest brilliancy	432 Dec 20 j 21:09	24°♏27'14	-4.9m
	432 Dec 31 j 15:06	0°♐	
morning max el	433 Jan 30 j 01:33	25°♐13'44	46°44'27
	433 Feb 03 j 18:18	0°♑	
	433 Mar 03 j 10:16	0°♒	
desc. node	433 Mar 13 j 14:17	11°♒32'49	
	433 Mar 29 j 13:34	0°♓	
	433 Apr 24 j 01:42	0°♈	
	433 May 19 j 05:31	0°♉	
	433 Jun 13 j 03:04	0°♊	
asc. node	433 Jul 04 j 17:36	26°♊17'20	
	433 Jul 07 j 18:24	0°♋	
morning set	433 Jul 28 j 23:52	26°♋06'24	
	433 Aug 01 j 03:27	0°♌	
	433 Aug 25 j 07:06	0°♍	
max. Earth dist.	433 Aug 31 j 09:52	7°♍37'49	1.72060 AU
superior conj	433 Sep 03 j 21:54	12°♍00'16	1°23'42
minimum elong	433 Sep 04 j 00:52	12°♍09'30	1°23'40
	433 Sep 18 j 07:12	0°♎	
	433 Oct 12 j 05:48	0°♏	
evening rise	433 Oct 12 j 17:15	0°♏35'52	
desc. node	433 Oct 24 j 07:11	15°♏06'39	
	433 Nov 05 j 04:24	0°♐	
	433 Nov 29 j 04:05	0°♑	
	433 Dec 23 j 06:20	0°♒	
	434 Jan 16 j 14:12	0°♓	
	434 Feb 10 j 09:08	0°♈	
asc. node	434 Feb 14 j 10:14	4°♈48'54	
	434 Mar 08 j 00:37	0°♉	
	434 Apr 04 j 09:17	0°♊	
evening max el	434 Apr 16 j 20:16	12°♊30'14	45°24'17
	434 May 07 j 00:23	0°♋	
greatest brilliancy	434 May 24 j 14:42	10°♋10'12	-4.7m
retrograde	434 Jun 04 j 10:11	12°♋16'22	
desc. node	434 Jun 05 j 23:49	12°♋13'29	
evening set	434 Jun 19 j 18:14	7°♋46'32	
inferior conj	434 Jun 25 j 21:35	4°♋07'06	-4°27'01
minimum elong	434 Jun 25 j 12:56	4°♋20'33	4°24'50
min. Earth dist.	434 Jun 25 j 23:41	4°♋03'50	0.28912 AU
morning rise	434 Jul 01 j 07:20	0°♋51'00	
	434 Jul 02 j 20:15	30°℞♊	
direct	434 Jul 17 j 12:47	25°♊49'51	
greatest brilliancy	434 Jul 28 j 06:31	27°♊53'55	-4.8m
	434 Aug 02 j 02:44	0°♋	
morning max el	434 Sep 05 j 00:10	26°♋38'56	46°13'27
	434 Sep 08 j 09:11	0°♌	
asc. node	434 Sep 27 j 03:02	19°♌51'37	
	434 Oct 06 j 03:53	0°♍	
	434 Oct 31 j 17:48	0°♎	
	434 Nov 25 j 09:34	0°♏	
	434 Dec 19 j 16:04	0°♐	
	435 Jan 12 j 19:33	0°♑	
desc. node	435 Jan 16 j 16:40	4°♑49'30	
	435 Feb 05 j 22:55	0°♒	
	435 Mar 02 j 03:27	0°♓	
morning set	435 Mar 11 j 23:49	12°♓11'20	
	435 Mar 26 j 09:46	0°♈	
superior conj	435 Apr 18 j 20:55	28°♈54'52	-0°46'59
minimum elong	435 Apr 19 j 05:30	29°♈21'16	0°46'37
	435 Apr 19 j 18:06	0°♉	
max. Earth dist.	435 Apr 20 j 07:18	0°♉40'39	1.73388 AU
asc. node	435 May 09 j 20:00	24°♉40'38	
	435 May 14 j 04:02	0°♊	
evening rise	435 May 25 j 15:54	14°♊06'21	
	435 Jun 07 j 15:01	0°♋	
	435 Jul 02 j 02:53	0°♌	
	435 Jul 26 j 16:30	0°♍	
	435 Aug 20 j 09:34	0°♎	
desc. node	435 Aug 29 j 09:21	10°♎50'54	
	435 Sep 14 j 08:30	0°♏	
	435 Oct 09 j 17:31	0°♐	
	435 Nov 04 j 23:56	0°♑	
evening max el	435 Nov 23 j 07:50	19°♑36'36	47°22'06
	435 Dec 03 j 21:47	0°♒	
asc. node	435 Dec 20 j 12:37	13°♒54'37	
greatest brilliancy	436 Jan 02 j 21:08	21°♒24'23	-4.9m
retrograde	436 Jan 13 j 09:32	23°♒31'45	
evening set	436 Jan 30 j 15:21	17°♒39'53	
min. Earth dist.	436 Feb 02 j 10:02	15°♒56'58	0.27654 AU
inferior conj	436 Feb 03 j 07:11	15°♒23'47	8°24'15

minimum elong	436 Feb 03 j 01:47	15°♒32'15	8°23'48	
morning rise	436 Feb 06 j 12:31	13°♒24'11		
direct	436 Feb 24 j 00:38	7°♒28'39		
greatest brilliancy	436 Mar 03 j 22:42	8°♒58'25	-4.8m	
	436 Apr 04 j 11:21	0°♓		
desc. node	436 Apr 10 j 02:06	5°♓10'03		
morning max el	436 Apr 13 j 07:27	8°♓14'34	46°02'21	
	436 May 04 j 13:55	0°♈		
	436 May 31 j 17:29	0°♉		
	436 Jun 26 j 16:58	0°♊		
	436 Jul 21 j 23:14	0°♋		
asc. node	436 Aug 01 j 05:24	12°♋22'54		
	436 Aug 15 j 16:20	0°♌		
	436 Sep 08 j 23:17	0°♍		
	436 Oct 02 j 23:27	0°♎		
morning set	436 Oct 07 j 17:27	5°♎57'41		
	436 Oct 26 j 20:13	0°♏		
superior conj	436 Nov 16 j 21:24	26°♏30'17	0°09'18	
minimum elong	436 Nov 16 j 23:52	26°♏38'03	0°09'11	
behind sun begin	436 Nov 16 j 01:45	25°♏28'25		
behind sun end	436 Nov 17 j 22:00	27°♏47'42		
max. Earth dist.	436 Nov 17 j 16:56	27°♏31'47	1.71029 AU	
	436 Nov 19 j 16:02	0°♐		
desc. node	436 Nov 20 j 19:06	1°♐25'14		
	436 Dec 13 j 12:21	0°♑		
evening rise	436 Dec 28 j 16:21	19°♑02'31		
	437 Jan 06 j 10:16	0°♒		
	437 Jan 30 j 11:16	0°♓		
	437 Feb 23 j 17:31	0°♈		
asc. node	437 Mar 13 j 22:13	22°♈14'38		
	437 Mar 20 j 07:45	0°♉		
	437 Apr 14 j 09:30	0°♊		
	437 May 10 j 04:40	0°♋		
	437 Jun 06 j 07:17	0°♌		
evening max el	437 Jun 27 j 02:20	21°♌06'47	45°35'54	
desc. node	437 Jul 03 j 11:43	27°♌03'27		
	437 Jul 06 j 19:16	0°♍		
greatest brilliancy	437 Aug 05 j 13:01	19°♍17'58	-4.8m	
retrograde	437 Aug 14 j 21:35	20°♍52'31		
evening set	437 Sep 01 j 20:49	14°♍53'20		
inferior conj	437 Sep 04 j 22:20	13°♍01'47	-8°41'59	
minimum elong	437 Sep 05 j 01:44	12°♍56'34	8°41'48	
min. Earth dist.	437 Sep 05 j 16:07	12°♍34'28	0.27844 AU	
morning rise	437 Sep 08 j 06:27	11°♍00'05		
direct	437 Sep 26 j 02:06	5°♍01'22		
greatest brilliancy	437 Oct 07 j 03:03	7°♍17'46	-4.9m	
asc. node	437 Oct 24 j 14:53	17°♍57'39		
	437 Nov 07 j 09:14	0°♎		
morning max el	437 Nov 15 j 18:49	8°♎18'09	46°51'58	
	437 Dec 05 j 22:25	0°♏		
	437 Dec 31 j 20:59	0°♐		
	438 Jan 25 j 22:54	0°♑		
desc. node	438 Feb 13 j 04:28	22°♑04'34		
	438 Feb 19 j 16:59	0°♒		
	438 Mar 16 j 08:07	0°♓		
	438 Apr 09 j 22:14	0°♈		
	438 May 04 j 11:47	0°♉		
morning set	438 May 20 j 03:47	19°♉09'39		
	438 May 29 j 00:14	0°♊		
asc. node	438 Jun 06 j 07:49	10°♊11'51		
	438 Jun 22 j 10:36	0°♋		
max. Earth dist.	438 Jun 22 j 22:14	0°♋35'46	1.73458 AU	
superior conj	438 Jun 25 j 11:37	3°♋44'39	0°43'19	
minimum elong	438 Jun 25 j 04:03	3°♋21'21	0°43'00	
	438 Jul 16 j 18:23	0°♌		
evening rise	438 Jul 31 j 06:52	17°♌57'38		
	438 Aug 10 j 00:07	0°♍		
	438 Sep 03 j 05:03	0°♎		
desc. node	438 Sep 25 j 21:23	28°♎04'57		
	438 Sep 27 j 10:36	0°♏		
	438 Oct 21 j 17:56	0°♐		
	438 Nov 15 j 04:54	0°♑		
	438 Dec 10 j 00:01	0°♒		
	439 Jan 04 j 14:18	0°♓		
asc. node	439 Jan 17 j 00:22	13°♓54'48		
	439 Feb 01 j 05:33	0°♈		
evening max el	439 Feb 02 j 19:04	1°♈34'27	46°25'41	
	439 Mar 10 j 15:51	0°♉		
greatest brilliancy	439 Mar 13 j 22:12	1°♉23'23	-4.8m	
retrograde	439 Mar 24 j 15:19	3°♉30'26		
	439 Apr 06 j 22:19	30°℞♈		
evening set	439 Apr 09 j 22:29	28°♈21'20		
inferior conj	439 Apr 15 j 00:19	25°♈13'30	5°10'03	
minimum elong	439 Apr 15 j 09:27	24°♈59'01	5°07'54	
min. Earth dist.	439 Apr 15 j 03:19	25°♈08'44	0.28852 AU	
morning rise	439 Apr 20 j 20:40	21°♈39'28		
direct	439 May 06 j 11:58	16°♈57'13		
desc. node	439 May 08 j 13:55	17°♈02'12		
greatest brilliancy	439 May 16 j 12:44	18°♈46'08	-4.7m	
	439 Jun 04 j 23:29	0°♉		
morning max el	439 Jun 24 j 05:23	16°♉39'39	45°44'43	
	439 Jul 07 j 15:11	0°♊		
	439 Aug 04 j 06:09	0°♋		
asc. node	439 Aug 29 j 17:15	29°♋32'01		
	439 Aug 30 j 02:41	0°♌		
	439 Sep 23 j 23:47	0°♍		
	439 Oct 18 j 06:57	0°♎		
	439 Nov 11 j 06:48	0°♏		
	439 Dec 05 j 03:54	0°♐		
desc. node	439 Dec 19 j 06:51	17°♐44'57		
morning set	439 Dec 23 j 18:36	23°♐23'24		
	439 Dec 29 j 00:55	0°♑		
	440 Jan 21 j 23:17	0°♒		
superior conj	440 Feb 03 j 08:47	15°♒29'50	-1°22'02	
minimum elong	440 Feb 03 j 02:26	15°♒10'00	1°21'57	
max. Earth dist.	440 Feb 07 j 12:47	20°♒41'49	1.71887 AU	
	440 Feb 14 j 23:53	0°♓		
	440 Mar 10 j 03:42	0°♈		
evening rise	440 Mar 14 j 02:02	4°♈51'42		
	440 Apr 03 j 11:38	0°♉		
asc. node	440 Apr 10 j 10:12	8°♉30'45		
	440 Apr 28 j 00:24	0°♊		
	440 May 22 j 18:48	0°♋		
	440 Jun 16 j 20:32	0°♌		
	440 Jul 12 j 09:32	0°♍		
desc. node	440 Jul 30 j 23:26	21°♍16'32		
	440 Aug 07 j 18:29	0°♎		
	440 Sep 04 j 23:09	0°♏		
evening max el	440 Sep 08 j 06:56	3°♏17'55	46°46'49	
	440 Oct 11 j 01:59	0°♐		
greatest brilliancy	440 Oct 18 j 22:55	3°♐35'25	-4.9m	
retrograde	440 Oct 28 j 09:47	5°♐16'52		
evening set	440 Nov 11 j 21:06	1°♐09'47		
	440 Nov 13 j 23:29	30°℞♏		
inferior conj	440 Nov 17 j 23:00	27°♏37'35	-0°49'14	
minimum elong	440 Nov 18 j 00:53	27°♏34'44	0°48'37	
min. Earth dist.	440 Nov 17 j 23:25	27°♏36'56	0.26363 AU	
asc. node	440 Nov 21 j 02:42	25°♏43'45		
morning rise	440 Nov 24 j 04:27	24°♏00'10		
direct	440 Dec 08 j 06:19	20°♏01'22		
greatest brilliancy	440 Dec 18 j 11:33	22°♏00'06	-4.9m	

	441 Jan 01 j 18:53	0°♐	
morning max el	441 Jan 27 j 15:05	22°♐49'12	46°45'42
	441 Feb 03 j 15:28	0°♑	
	441 Mar 03 j 02:07	0°♒	
desc. node	441 Mar 12 j 16:27	10°♒56'36	
	441 Mar 29 j 03:13	0°♓	
	441 Apr 23 j 14:08	0°♈	
	441 May 18 j 17:13	0°♉	
	441 Jun 12 j 14:19	0°♊	
asc. node	441 Jul 03 j 19:36	25°♊49'46	
	441 Jul 07 j 05:23	0°♋	
morning set	441 Jul 26 j 17:01	23°♋57'28	
	441 Jul 31 j 14:20	0°♌	
	441 Aug 24 j 18:01	0°♍	
max. Earth dist.	441 Aug 29 j 02:27	5°♍25'42	1.72116 AU
superior conj	441 Sep 01 j 13:36	9°♍45'14	1°24'08
minimum elong	441 Sep 01 j 15:47	9°♍52'02	1°24'07
	441 Sep 17 j 18:12	0°♎	
evening rise	441 Oct 10 j 05:28	28°♎08'55	
	441 Oct 11 j 16:56	0°♏	
desc. node	441 Oct 23 j 09:21	14°♏38'18	
	441 Nov 04 j 15:42	0°♐	
	441 Nov 28 j 15:33	0°♑	
	441 Dec 22 j 18:00	0°♒	
	442 Jan 16 j 02:14	0°♓	
	442 Feb 09 j 21:56	0°♈	
asc. node	442 Feb 13 j 12:18	4°♈16'37	
	442 Mar 07 j 15:01	0°♉	
	442 Apr 04 j 03:48	0°♊	
evening max el	442 Apr 14 j 12:43	10°♊21'14	45°25'20
	442 May 07 j 15:56	0°♋	
greatest brilliancy	442 May 22 j 05:33	8°♋00'10	-4.7m
retrograde	442 Jun 02 j 02:55	10°♋07'45	
desc. node	442 Jun 05 j 01:52	9°♋57'25	
evening set	442 Jun 17 j 08:56	5°♋39'43	
inferior conj	442 Jun 23 j 13:49	1°♋57'53	-4°09'40
minimum elong	442 Jun 23 j 05:34	2°♋10'41	4°07'33
min. Earth dist.	442 Jun 23 j 15:24	1°♋55'25	0.28926 AU
	442 Jun 26 j 18:25	30°℞♊	
morning rise	442 Jun 29 j 02:00	28°♊38'34	
direct	442 Jul 15 j 05:40	23°♊40'31	
greatest brilliancy	442 Jul 25 j 22:11	25°♊43'57	-4.7m
	442 Aug 03 j 18:16	0°♋	
morning max el	442 Sep 02 j 16:31	24°♋27'38	46°11'52
	442 Sep 08 j 05:36	0°♌	
asc. node	442 Sep 26 j 05:16	19°♌12'18	
	442 Oct 05 j 19:09	0°♍	
	442 Oct 31 j 07:10	0°♎	
	442 Nov 24 j 22:01	0°♏	
	442 Dec 19 j 03:58	0°♐	
	443 Jan 12 j 07:05	0°♑	
desc. node	443 Jan 15 j 18:41	4°♑20'04	
	443 Feb 05 j 10:07	0°♒	
	443 Mar 01 j 14:24	0°♓	
morning set	443 Mar 09 j 14:22	9°♓54'12	
	443 Mar 25 j 20:33	0°♈	
superior conj	443 Apr 16 j 13:51	26°♈46'21	-0°49'40
minimum elong	443 Apr 16 j 22:45	27°♈13'44	0°49'20
max. Earth dist.	443 Apr 18 j 05:14	28°♈47'33	1.73359 AU
	443 Apr 19 j 04:47	0°♉	
asc. node	443 May 08 j 22:04	24°♉14'10	
	443 May 13 j 14:45	0°♊	
evening rise	443 May 23 j 10:44	12°♊04'01	
	443 Jun 07 j 01:50	0°♋	
	443 Jul 01 j 13:56	0°♌	
	443 Jul 26 j 03:58	0°♍	
	443 Aug 19 j 21:41	0°♎	
desc. node	443 Aug 28 j 11:30	10°♎20'01	
	443 Sep 13 j 21:37	0°♏	
	443 Oct 09 j 08:14	0°♐	
	443 Nov 04 j 17:53	0°♑	
evening max el	443 Nov 20 j 23:50	17°♑17'48	47°22'36
	443 Dec 04 j 02:06	0°♒	
asc. node	443 Dec 19 j 14:38	12°♒33'50	
greatest brilliancy	443 Dec 31 j 11:44	19°♒02'02	-4.9m
retrograde	444 Jan 11 j 00:42	21°♒09'31	
evening set	444 Jan 28 j 02:38	15°♒23'02	
min. Earth dist.	444 Jan 30 j 23:17	13°♒37'09	0.27584 AU
inferior conj	444 Jan 31 j 21:23	13°♒02'30	8°18'14
minimum elong	444 Jan 31 j 15:17	13°♒12'05	8°17'40
morning rise	444 Feb 04 j 04:17	11°♒00'41	
direct	444 Feb 21 j 14:49	5°♒08'47	
greatest brilliancy	444 Mar 01 j 11:16	6°♒37'35	-4.8m
	444 Apr 04 j 13:55	0°♓	
desc. node	444 Apr 09 j 04:14	4°♓18'39	
morning max el	444 Apr 10 j 22:01	5°♓59'01	46°03'38
	444 May 04 j 06:42	0°♈	
	444 May 31 j 07:13	0°♉	
	444 Jun 26 j 05:16	0°♊	
	444 Jul 21 j 10:47	0°♋	
asc. node	444 Jul 31 j 07:29	11°♋54'44	
	444 Aug 15 j 03:29	0°♌	
	444 Sep 08 j 10:14	0°♍	
	444 Oct 02 j 10:21	0°♎	
morning set	444 Oct 05 j 06:57	3°♎35'14	
	444 Oct 26 j 07:07	0°♏	
superior conj	444 Nov 14 j 07:29	23°♏56'32	0°13'14
minimum elong	444 Nov 14 j 10:58	24°♏07'28	0°13'03
behind sun begin	444 Nov 13 j 18:55	23°♏16'58	
behind sun end	444 Nov 15 j 03:00	24°♏57'57	
max. Earth dist.	444 Nov 14 j 21:15	24°♏39'53	1.71035 AU
	444 Nov 19 j 02:58	0°♐	
desc. node	444 Nov 19 j 21:05	0°♐57'02	
	444 Dec 12 j 23:20	0°♑	
evening rise	444 Dec 26 j 02:07	16°♑28'02	
	445 Jan 05 j 21:18	0°♒	
	445 Jan 29 j 22:23	0°♓	
	445 Feb 23 j 04:47	0°♈	
asc. node	445 Mar 13 j 00:24	21°♈46'27	
	445 Mar 19 j 19:21	0°♉	
	445 Apr 13 j 21:47	0°♊	
	445 May 09 j 18:25	0°♋	
	445 Jun 06 j 00:26	0°♌	
evening max el	445 Jun 24 j 16:10	18°♌50'34	45°34'02
desc. node	445 Jul 02 j 13:42	26°♌08'19	
	445 Jul 07 j 00:34	0°♍	
greatest brilliancy	445 Aug 03 j 02:10	17°♍00'35	-4.8m
retrograde	445 Aug 12 j 10:31	18°♍35'09	
evening set	445 Aug 30 j 11:13	12°♍35'09	
inferior conj	445 Sep 02 j 12:30	10°♍43'51	-8°44'25
minimum elong	445 Sep 02 j 15:02	10°♍39'57	8°44'20
min. Earth dist.	445 Sep 03 j 06:03	10°♍16'52	0.27905 AU
morning rise	445 Sep 05 j 18:39	8°♍44'50	
direct	445 Sep 23 j 16:32	2°♍42'27	
greatest brilliancy	445 Oct 04 j 18:10	4°♍58'45	-4.9m
asc. node	445 Oct 23 j 16:53	16°♍47'26	
	445 Nov 07 j 10:33	0°♎	
morning max el	445 Nov 13 j 07:38	5°♎51'58	46°51'08
	445 Dec 05 j 15:25	0°♏	
	445 Dec 31 j 11:13	0°♐	
	446 Jan 25 j 11:46	0°♑	

desc. node	446 Feb 12 j 06:37	21°♋33'50	
	446 Feb 19 j 05:02	0°♒	
	446 Mar 15 j 19:37	0°♓	
	446 Apr 09 j 09:19	0°♈	
	446 May 03 j 22:34	0°♉	
morning set	446 May 17 j 22:11	17°♉06'32	
	446 May 28 j 10:49	0°♊	
asc. node	446 Jun 05 j 09:51	9°♊45'38	
max. Earth dist.	446 Jun 20 j 18:10	28°♊37'06	1.73485 AU
	446 Jun 21 j 21:08	0°♋	
superior conj	446 Jun 23 j 06:30	1°♋42'40	0°40'38
minimum elong	446 Jun 22 j 23:16	1°♋20'24	0°40'20
	446 Jul 16 j 05:00	0°♌	
evening rise	446 Jul 29 j 01:09	15°♌52'35	
	446 Aug 09 j 10:54	0°♍	
	446 Sep 02 j 16:07	0°♎	
desc. node	446 Sep 24 j 23:30	27°♎36'18	
	446 Sep 26 j 22:01	0°♏	
	446 Oct 21 j 05:48	0°♐	
	446 Nov 14 j 17:24	0°♑	
	446 Dec 09 j 13:33	0°♒	
	447 Jan 04 j 05:54	0°♓	
asc. node	447 Jan 16 j 02:28	13°♓13'10	
evening max el	447 Jan 31 j 08:51	29°♓14'51	46°28'16
	447 Feb 01 j 02:54	0°♈	
greatest brilliancy	447 Mar 11 j 15:33	29°♈13'45	-4.8m
	447 Mar 13 j 21:22	0°♉	
retrograde	447 Mar 22 j 07:31	1°♉20'26	
	447 Mar 30 j 10:56	30°℞♈	
evening set	447 Apr 07 j 17:28	26°♈07'20	
inferior conj	447 Apr 12 j 16:43	23°♈03'29	5°25'46
minimum elong	447 Apr 13 j 02:02	22°♈48'43	5°23'39
min. Earth dist.	447 Apr 12 j 19:45	22°♈58'41	0.28834 AU
morning rise	447 Apr 18 j 10:46	19°♈32'33	
direct	447 May 04 j 03:18	14°♈47'21	
desc. node	447 May 07 j 15:55	15°♈01'29	
greatest brilliancy	447 May 14 j 04:34	16°♈36'28	-4.7m
	447 Jun 05 j 10:05	0°♉	
morning max el	447 Jun 21 j 20:47	14°♉29'01	45°44'43
	447 Jul 07 j 09:02	0°♊	
	447 Aug 03 j 20:12	0°♋	
asc. node	447 Aug 28 j 19:29	29°♋01'29	
	447 Aug 29 j 15:11	0°♌	
	447 Sep 23 j 11:33	0°♍	
	447 Oct 17 j 18:22	0°♎	
	447 Nov 10 j 18:02	0°♏	
	447 Dec 04 j 15:00	0°♐	
desc. node	447 Dec 18 j 08:54	17°♐16'38	
morning set	447 Dec 21 j 04:03	20°♐47'37	
	447 Dec 28 j 11:56	0°♑	
	448 Jan 21 j 10:12	0°♒	
superior conj	448 Jan 31 j 20:08	13°♒01'25	-1°20'52
minimum elong	448 Jan 31 j 12:54	12°♒38'52	1°20'45
max. Earth dist.	448 Feb 04 j 21:11	18°♒04'24	1.71833 AU
	448 Feb 14 j 10:45	0°♓	
	448 Mar 09 j 14:32	0°♈	
evening rise	448 Mar 11 j 15:51	2°♈32'32	
	448 Apr 02 j 22:31	0°♉	
asc. node	448 Apr 09 j 12:15	8°♉03'33	
	448 Apr 27 j 11:30	0°♊	
	448 May 22 j 06:18	0°♋	
	448 Jun 16 j 08:44	0°♌	
	448 Jul 11 j 23:02	0°♍	
desc. node	448 Jul 30 j 01:37	20°♍40'21	
	448 Aug 07 j 10:31	0°♎	
	448 Sep 04 j 21:45	0°♏	
evening max el	448 Sep 05 j 19:45	0°♏54'05	46°44'17
	448 Oct 13 j 14:14	0°♐	
greatest brilliancy	448 Oct 16 j 11:31	1°♐06'50	-4.9m
retrograde	448 Oct 25 j 22:04	2°♐47'59	
	448 Nov 06 j 17:06	30°℞♏	
evening set	448 Nov 09 j 10:29	28°♏38'44	
inferior conj	448 Nov 15 j 11:01	25°♏08'39	-1°13'48
minimum elong	448 Nov 15 j 13:50	25°♏04'23	1°12'54
min. Earth dist.	448 Nov 15 j 12:53	25°♏05'50	0.26379 AU
asc. node	448 Nov 20 j 04:45	22°♏20'27	
morning rise	448 Nov 21 j 16:59	21°♏31'03	
direct	448 Dec 05 j 18:54	17°♏31'56	
greatest brilliancy	448 Dec 16 j 01:29	19°♏32'30	-4.9m
	449 Jan 02 j 15:11	0°♐	
morning max el	449 Jan 25 j 05:20	20°♐26'32	46°46'52
	449 Feb 03 j 11:54	0°♑	
	449 Mar 02 j 17:37	0°♒	
desc. node	449 Mar 11 j 18:36	10°♒20'49	
	449 Mar 28 j 16:36	0°♓	
	449 Apr 23 j 02:21	0°♈	
	449 May 18 j 04:45	0°♉	
	449 Jun 12 j 01:25	0°♊	
asc. node	449 Jul 02 j 21:44	25°♊22'56	
	449 Jul 06 j 16:15	0°♋	
morning set	449 Jul 24 j 10:33	21°♋50'16	
	449 Jul 31 j 01:05	0°♌	
	449 Aug 24 j 04:44	0°♍	
max. Earth dist.	449 Aug 26 j 18:50	3°♍13'33	1.72166 AU
superior conj	449 Aug 30 j 05:49	7°♍32'26	1°24'26
minimum elong	449 Aug 30 j 07:14	7°♍36'50	1°24'26
	449 Sep 17 j 05:01	0°♎	
evening rise	449 Oct 07 j 18:10	25°♎43'59	
	449 Oct 11 j 03:54	0°♏	
desc. node	449 Oct 22 j 11:21	14°♏09'54	
	449 Nov 04 j 02:53	0°♐	
	449 Nov 28 j 02:57	0°♑	
	449 Dec 22 j 05:42	0°♒	
	450 Jan 15 j 14:22	0°♓	
	450 Feb 09 j 10:52	0°♈	
asc. node	450 Feb 12 j 14:29	3°♈44'20	
	450 Mar 07 j 05:39	0°♉	
	450 Apr 03 j 22:54	0°♊	
evening max el	450 Apr 12 j 05:18	8°♊12'19	45°26'29
	450 May 08 j 13:08	0°♋	
greatest brilliancy	450 May 19 j 20:58	5°♋50'30	-4.7m
retrograde	450 May 30 j 19:23	7°♋58'32	
desc. node	450 Jun 04 j 03:55	7°♋36'04	
evening set	450 Jun 14 j 23:44	3°♋32'26	
	450 Jun 20 j 22:23	30°℞♊	
inferior conj	450 Jun 21 j 05:55	29°♊48'16	-3°52'00
minimum elong	450 Jun 20 j 22:07	0°♋00'24	3°49'57
min. Earth dist.	450 Jun 21 j 07:07	29°♊46'24	0.28934 AU
morning rise	450 Jun 26 j 20:24	26°♊25'40	
direct	450 Jul 12 j 22:28	21°♊30'55	
greatest brilliancy	450 Jul 23 j 13:17	23°♊33'02	-4.7m
	450 Aug 04 j 21:51	0°♋	
morning max el	450 Aug 31 j 08:19	22°♋15'10	46°10'29
	450 Sep 08 j 01:23	0°♌	
asc. node	450 Sep 25 j 07:13	18°♌32'45	
	450 Oct 05 j 10:08	0°♍	
	450 Oct 30 j 20:21	0°♎	
	450 Nov 24 j 10:21	0°♏	
	450 Dec 18 j 15:50	0°♐	
	451 Jan 11 j 18:37	0°♑	
desc. node	451 Jan 14 j 20:50	3°♑50'58	

	451 Feb 04 j 21:25	0°♒	
	451 Mar 01 j 01:28	0°♓	
morning set	451 Mar 07 j 04:20	7°♓34'42	
	451 Mar 25 j 07:29	0°♈	
superior conj	451 Apr 14 j 06:14	24°♈35'39	-0°52'21
minimum elong	451 Apr 14 j 15:25	25°♈03'53	0°52'00
max. Earth dist.	451 Apr 16 j 03:29	26°♈54'55	1.73324 AU
	451 Apr 18 j 15:38	0°♉	
asc. node	451 May 08 j 00:04	23°♉47'03	
	451 May 13 j 01:35	0°♊	
evening rise	451 May 21 j 05:09	9°♊59'58	
	451 Jun 06 j 12:47	0°♋	
	451 Jul 01 j 01:10	0°♌	
	451 Jul 25 j 15:37	0°♍	
	451 Aug 19 j 10:00	0°♎	
desc. node	451 Aug 27 j 13:37	9°♎48'37	
	451 Sep 13 j 10:54	0°♏	
	451 Oct 08 j 23:09	0°♐	
	451 Nov 04 j 12:13	0°♑	
evening max el	451 Nov 18 j 15:09	14°♑57'16	47°22'55
	451 Dec 04 j 08:22	0°♒	
asc. node	451 Dec 18 j 16:43	11°♒10'21	
greatest brilliancy	451 Dec 29 j 02:41	16°♒39'51	-4.9m
retrograde	452 Jan 08 j 15:20	18°♒46'40	
evening set	452 Jan 25 j 13:43	13°♒06'01	
min. Earth dist.	452 Jan 28 j 12:52	11°♒16'19	0.27520 AU
inferior conj	452 Jan 29 j 11:35	10°♒40'40	8°11'20
minimum elong	452 Jan 29 j 04:48	10°♒51'18	8°10'36
morning rise	452 Feb 01 j 20:17	8°♒36'05	
direct	452 Feb 19 j 04:44	2°♒48'17	
greatest brilliancy	452 Feb 28 j 00:24	4°♒16'23	-4.8m
	452 Apr 04 j 15:27	0°♓	
desc. node	452 Apr 08 j 06:12	3°♓26'50	
morning max el	452 Apr 08 j 11:41	3°♓40'06	46°04'50
	452 May 03 j 23:31	0°♈	
	452 May 30 j 21:07	0°♉	
	452 Jun 25 j 17:48	0°♊	
	452 Jul 20 j 22:33	0°♋	
asc. node	452 Jul 30 j 09:37	11°♋26'05	
	452 Aug 14 j 14:51	0°♌	
	452 Sep 07 j 21:25	0°♍	
	452 Oct 01 j 21:28	0°♎	
morning set	452 Oct 02 j 20:35	1°♎12'31	
	452 Oct 25 j 18:14	0°♏	
superior conj	452 Nov 11 j 18:02	21°♏23'44	0°17'06
minimum elong	452 Nov 11 j 22:28	21°♏37'41	0°16'53
max. Earth dist.	452 Nov 12 j 00:06	21°♏42'48	1.71038 AU
desc. node	452 Nov 18 j 23:11	0°♐28'38	
	452 Nov 18 j 14:05	0°♐	
	452 Dec 12 j 10:28	0°♑	
evening rise	452 Dec 23 j 12:15	13°♑54'13	
	453 Jan 05 j 08:29	0°♒	
	453 Jan 29 j 09:41	0°♓	
	453 Feb 22 j 16:17	0°♈	
asc. node	453 Mar 12 j 02:23	21°♈16'45	
	453 Mar 19 j 07:16	0°♉	
	453 Apr 13 j 10:30	0°♊	
	453 May 09 j 08:42	0°♋	
	453 Jun 05 j 18:25	0°♌	
evening max el	453 Jun 22 j 05:14	16°♌31'28	45°32'23
desc. node	453 Jul 01 j 15:53	25°♌11'13	
	453 Jul 07 j 08:42	0°♍	
greatest brilliancy	453 Jul 31 j 15:05	14°♍41'50	-4.8m
retrograde	453 Aug 09 j 23:37	16°♍16'57	
evening set	453 Aug 28 j 01:08	10°♍16'22	
inferior conj	453 Aug 31 j 02:37	8°♍24'50	-8°46'02
minimum elong	453 Aug 31 j 04:15	8°♍22'19	8°46'01
min. Earth dist.	453 Aug 31 j 19:56	7°♍58'12	0.27966 AU
morning rise	453 Sep 03 j 07:09	6°♍28'10	
direct	453 Sep 21 j 06:42	0°♍22'16	
greatest brilliancy	453 Oct 02 j 09:32	2°♍39'08	-4.9m
asc. node	453 Oct 22 j 18:57	15°♍38'09	
	453 Nov 07 j 11:02	0°♎	
morning max el	453 Nov 10 j 21:04	3°♎26'23	46°50'29
	453 Dec 05 j 08:22	0°♏	
	453 Dec 31 j 01:32	0°♐	
	454 Jan 25 j 00:46	0°♑	
desc. node	454 Feb 11 j 08:44	21°♑02'32	
	454 Feb 18 j 17:14	0°♒	
	454 Mar 15 j 07:18	0°♓	
	454 Apr 08 j 20:39	0°♈	
	454 May 03 j 09:39	0°♉	
morning set	454 May 15 j 16:20	15°♉01'29	
	454 May 27 j 21:46	0°♊	
asc. node	454 Jun 04 j 12:01	9°♊18'45	
max. Earth dist.	454 Jun 18 j 14:48	26°♊39'25	1.73512 AU
superior conj	454 Jun 21 j 01:02	29°♊38'30	0°37'53
minimum elong	454 Jun 20 j 18:10	29°♊17'21	0°37'34
	454 Jun 21 j 08:02	0°♋	
	454 Jul 15 j 15:58	0°♌	
evening rise	454 Jul 26 j 19:10	13°♌45'45	
	454 Aug 08 j 22:03	0°♍	
	454 Sep 02 j 03:33	0°♎	
desc. node	454 Sep 24 j 01:27	27°♎06'03	
	454 Sep 26 j 09:48	0°♏	
	454 Oct 20 j 18:04	0°♐	
	454 Nov 14 j 06:19	0°♑	
	454 Dec 09 j 03:32	0°♒	
	455 Jan 03 j 22:01	0°♓	
asc. node	455 Jan 15 j 04:39	12°♓30'32	
evening max el	455 Jan 28 j 23:02	26°♓55'40	46°31'03
	455 Feb 01 j 01:18	0°♈	
greatest brilliancy	455 Mar 09 j 08:15	27°♈02'55	-4.8m
retrograde	455 Mar 20 j 00:12	29°♈10'10	
evening set	455 Apr 05 j 12:34	23°♈52'43	
inferior conj	455 Apr 10 j 09:12	20°♈52'54	5°40'58
minimum elong	455 Apr 10 j 18:39	20°♈37'56	5°38'54
min. Earth dist.	455 Apr 10 j 11:53	20°♈48'38	0.28819 AU
morning rise	455 Apr 16 j 00:53	17°♈25'29	
direct	455 May 01 j 19:00	12°♈36'52	
desc. node	455 May 06 j 18:01	13°♈04'36	
greatest brilliancy	455 May 11 j 20:13	14°♈26'06	-4.7m
	455 Jun 05 j 18:16	0°♉	
morning max el	455 Jun 19 j 13:08	12°♉19'41	45°44'34
	455 Jul 07 j 02:55	0°♊	
	455 Aug 03 j 10:31	0°♋	
asc. node	455 Aug 27 j 21:29	28°♋29'10	
	455 Aug 29 j 04:02	0°♌	
	455 Sep 22 j 23:40	0°♍	
	455 Oct 17 j 06:06	0°♎	
	455 Nov 10 j 05:33	0°♏	
	455 Dec 04 j 02:24	0°♐	
desc. node	455 Dec 17 j 11:01	16°♐47'38	
morning set	455 Dec 18 j 13:31	18°♐10'54	
	455 Dec 27 j 23:15	0°♑	
	456 Jan 20 j 21:26	0°♒	
superior conj	456 Jan 29 j 07:27	10°♒31'55	-1°19'32
minimum elong	456 Jan 28 j 23:24	10°♒06'44	1°19'23
max. Earth dist.	456 Feb 02 j 05:28	15°♒25'37	1.71777 AU
	456 Feb 13 j 21:52	0°♓	

evening rise	456 Mar 09 j 05:52	0°♈13'12	
	456 Mar 09 j 01:36	0°♈	
	456 Apr 02 j 09:39	0°♉	
asc. node	456 Apr 08 j 14:18	7°♉35'37	
	456 Apr 26 j 22:51	0°♊	
	456 May 21 j 18:06	0°♋	
	456 Jun 15 j 21:20	0°♌	
	456 Jul 11 j 13:01	0°♍	
desc. node	456 Jul 29 j 03:40	20°♍02'15	
	456 Aug 07 j 03:16	0°♎	
evening max el	456 Sep 03 j 09:30	28°♎31'35	46°41'48
	456 Sep 04 j 21:50	0°♏	
greatest brilliancy	456 Oct 13 j 23:48	28°♏37'02	-4.9m
	456 Oct 19 j 13:13	0°♐	
retrograde	456 Oct 23 j 10:37	0°♐17'54	
	456 Oct 27 j 06:16	30°℞♏	
evening set	456 Nov 07 j 00:05	26°♏06'34	
inferior conj	456 Nov 12 j 22:59	22°♏38'34	-1°38'14
minimum elong	456 Nov 13 j 02:42	22°♏32'55	1°37'03
min. Earth dist.	456 Nov 13 j 02:00	22°♏33'59	0.26395 AU
morning rise	456 Nov 19 j 05:11	19°♏01'03	
asc. node	456 Nov 19 j 06:54	18°♏58'47	
direct	456 Dec 03 j 07:47	15°♏01'38	
greatest brilliancy	456 Dec 13 j 14:46	17°♏03'05	-4.9m
	457 Jan 03 j 06:47	0°♐	
morning max el	457 Jan 22 j 19:42	18°♐03'16	46°47'57
	457 Feb 03 j 08:00	0°♑	
	457 Mar 02 j 09:10	0°♒	
desc. node	457 Mar 10 j 20:31	9°♒43'56	
	457 Mar 28 j 06:06	0°♓	
	457 Apr 22 j 14:43	0°♈	
	457 May 17 j 16:25	0°♉	
	457 Jun 11 j 12:41	0°♊	
asc. node	457 Jul 01 j 23:51	24°♊55'34	
	457 Jul 06 j 03:19	0°♋	
morning set	457 Jul 22 j 04:11	19°♋42'47	
	457 Jul 30 j 12:04	0°♌	
	457 Aug 23 j 15:45	0°♍	
max. Earth dist.	457 Aug 24 j 08:46	0°♍53'00	1.72222 AU
superior conj	457 Aug 27 j 22:01	5°♍18'48	1°24'36
minimum elong	457 Aug 27 j 22:41	5°♍20'50	1°24'36
	457 Sep 16 j 16:07	0°♎	
evening rise	457 Oct 05 j 06:39	23°♎17'32	
	457 Oct 10 j 15:11	0°♏	
desc. node	457 Oct 21 j 13:26	13°♏40'57	
	457 Nov 03 j 14:20	0°♐	
	457 Nov 27 j 14:37	0°♑	
	457 Dec 21 j 17:38	0°♒	
	458 Jan 15 j 02:45	0°♓	
	458 Feb 09 j 00:06	0°♈	
asc. node	458 Feb 11 j 16:27	3°♈10'37	
	458 Mar 06 j 20:40	0°♉	
	458 Apr 03 j 18:41	0°♊	
evening max el	458 Apr 09 j 21:57	6°♊03'16	45°27'46
	458 May 09 j 18:18	0°♋	
greatest brilliancy	458 May 17 j 13:15	3°♋42'14	-4.7m
retrograde	458 May 28 j 11:41	5°♋50'02	
desc. node	458 Jun 03 j 06:02	5°♋10'45	
evening set	458 Jun 12 j 15:04	1°♋25'44	
	458 Jun 15 j 02:58	30°℞♊	
inferior conj	458 Jun 18 j 22:22	27°♊39'36	-3°34'15
minimum elong	458 Jun 18 j 15:04	27°♊51'00	3°32'17
min. Earth dist.	458 Jun 18 j 23:26	27°♊37'57	0.28941 AU
morning rise	458 Jun 24 j 14:59	24°♊13'40	
direct	458 Jul 10 j 15:20	19°♊22'20	
greatest brilliancy	458 Jul 21 j 04:46	21°♊23'00	-4.7m
	458 Aug 05 j 17:50	0°♋	
morning max el	458 Aug 28 j 23:25	20°♋00'53	46°08'50
	458 Sep 07 j 20:41	0°♌	
asc. node	458 Sep 24 j 09:18	17°♌53'24	
	458 Oct 05 j 01:07	0°♍	
	458 Oct 30 j 09:41	0°♎	
	458 Nov 23 j 22:52	0°♏	
	458 Dec 18 j 03:51	0°♐	
	459 Jan 11 j 06:16	0°♑	
desc. node	459 Jan 13 j 22:55	3°♑21'15	
	459 Feb 04 j 08:47	0°♒	
	459 Feb 28 j 12:38	0°♓	
morning set	459 Mar 04 j 18:10	5°♓14'30	
	459 Mar 24 j 18:30	0°♈	
superior conj	459 Apr 11 j 22:45	22°♈25'02	-0°54'57
minimum elong	459 Apr 12 j 08:07	22°♈53'55	0°54'35
max. Earth dist.	459 Apr 14 j 00:51	24°♈59'17	1.73283 AU
	459 Apr 18 j 02:33	0°♉	
asc. node	459 May 07 j 02:15	23°♉20'24	
	459 May 12 j 12:28	0°♊	
evening rise	459 May 18 j 23:43	7°♊56'16	
	459 Jun 05 j 23:45	0°♋	
	459 Jun 30 j 12:22	0°♌	
	459 Jul 25 j 03:17	0°♍	
	459 Aug 18 j 22:22	0°♎	
desc. node	459 Aug 26 j 15:33	9°♎16'30	
	459 Sep 13 j 00:22	0°♏	
	459 Oct 08 j 14:26	0°♐	
	459 Nov 04 j 07:16	0°♑	
evening max el	459 Nov 16 j 05:28	12°♑33'19	47°23'03
	459 Dec 04 j 17:26	0°♒	
asc. node	459 Dec 17 j 18:51	9°♒43'08	
greatest brilliancy	459 Dec 26 j 18:06	14°♒17'01	-4.9m
retrograde	460 Jan 06 j 05:23	16°♒22'31	
evening set	460 Jan 23 j 00:24	10°♒48'06	
min. Earth dist.	460 Jan 26 j 02:40	8°♒53'46	0.27452 AU
inferior conj	460 Jan 27 j 01:33	8°♒17'50	8°03'29
minimum elong	460 Jan 26 j 18:09	8°♒29'27	8°02'35
morning rise	460 Jan 30 j 12:17	6°♒10'07	
direct	460 Feb 16 j 17:46	0°♒26'40	
greatest brilliancy	460 Feb 25 j 13:54	1°♒54'47	-4.8m
	460 Apr 04 j 15:47	0°♓	
morning max el	460 Apr 06 j 00:31	1°♓18'55	46°06'13
desc. node	460 Apr 07 j 08:22	2°♓36'23	
	460 May 03 j 15:59	0°♈	
	460 May 30 j 10:50	0°♉	
	460 Jun 25 j 06:08	0°♊	
	460 Jul 20 j 10:09	0°♋	
asc. node	460 Jul 29 j 11:38	10°♋57'30	
	460 Aug 14 j 02:03	0°♌	
	460 Sep 07 j 08:26	0°♍	
morning set	460 Sep 30 j 10:29	28°♍51'01	
	460 Oct 01 j 08:28	0°♎	
	460 Oct 25 j 05:17	0°♏	
superior conj	460 Nov 09 j 04:30	18°♏50'44	0°20'56
minimum elong	460 Nov 09 j 09:52	19°♏07'35	0°20'40
max. Earth dist.	460 Nov 09 j 03:08	18°♏46'26	1.71056 AU
desc. node	460 Nov 18 j 01:20	0°♐00'29	
	460 Nov 18 j 01:11	0°♐	
	460 Dec 11 j 21:37	0°♑	
evening rise	460 Dec 20 j 21:52	11°♑18'43	
	461 Jan 04 j 19:42	0°♒	
	461 Jan 28 j 20:59	0°♓	
	461 Feb 22 j 03:46	0°♈	
asc. node	461 Mar 11 j 04:27	20°♈47'31	

	461 Mar 18 j 19:08	0°♉	
	461 Apr 12 j 23:09	0°♊	
	461 May 08 j 22:59	0°♋	
	461 Jun 05 j 12:36	0°♌	
evening max el	461 Jun 19 j 18:49	14°♌14'34	45°31'02
desc. node	461 Jun 30 j 17:56	24°♌13'30	
	461 Jul 07 j 19:09	0°♍	
greatest brilliancy	461 Jul 29 j 03:46	12°♍24'33	-4.8m
retrograde	461 Aug 07 j 13:36	14°♍01'00	
evening set	461 Aug 25 j 14:59	8°♍00'14	
inferior conj	461 Aug 28 j 17:05	6°♍07'56	-8°46'45
minimum elong	461 Aug 28 j 17:52	6°♍06'45	8°46'44
min. Earth dist.	461 Aug 29 j 09:55	5°♍42'06	0.28026 AU
morning rise	461 Aug 31 j 20:30	4°♍13'02	
	461 Sep 09 j 02:46	30°℞♌	
direct	461 Sep 18 j 21:24	28°♌04'16	
	461 Sep 29 j 02:01	0°♍	
greatest brilliancy	461 Sep 30 j 01:01	0°♍21'43	-4.9m
asc. node	461 Oct 21 j 21:08	14°♍32'16	
	461 Nov 07 j 10:00	0°♎	
morning max el	461 Nov 08 j 11:34	1°♎04'48	46°49'30
	461 Dec 05 j 00:45	0°♏	
	461 Dec 30 j 15:34	0°♐	
	462 Jan 24 j 13:36	0°♑	
desc. node	462 Feb 10 j 10:41	20°♑31'02	
	462 Feb 18 j 05:20	0°♒	
	462 Mar 14 j 18:51	0°♓	
	462 Apr 08 j 07:48	0°♈	
	462 May 02 j 20:31	0°♉	
morning set	462 May 13 j 10:18	12°♉56'28	
	462 May 27 j 08:28	0°♊	
asc. node	462 Jun 03 j 14:03	8°♊52'14	
max. Earth dist.	462 Jun 16 j 13:02	24°♊47'21	1.73535 AU
superior conj	462 Jun 18 j 19:36	27°♊35'07	0°35'04
minimum elong	462 Jun 18 j 13:06	27°♊15'10	0°34'46
	462 Jun 20 j 18:42	0°♋	
	462 Jul 15 j 02:42	0°♌	
evening rise	462 Jul 24 j 13:33	11°♌40'52	
	462 Aug 08 j 08:57	0°♍	
	462 Sep 01 j 14:40	0°♎	
desc. node	462 Sep 23 j 03:36	26°♎37'27	
	462 Sep 25 j 21:16	0°♏	
	462 Oct 20 j 06:01	0°♐	
	462 Nov 13 j 19:00	0°♑	
	462 Dec 08 j 17:22	0°♒	
	463 Jan 03 j 14:13	0°♓	
asc. node	463 Jan 14 j 06:36	11°♓47'02	
evening max el	463 Jan 26 j 14:07	24°♓38'52	46°33'39
	463 Feb 01 j 00:35	0°♈	
greatest brilliancy	463 Mar 07 j 00:26	24°♈51'05	-4.8m
retrograde	463 Mar 17 j 17:10	26°♈59'10	
evening set	463 Apr 03 j 07:27	21°♈37'21	
inferior conj	463 Apr 08 j 01:21	18°♈41'37	5°55'52
minimum elong	463 Apr 08 j 10:54	18°♈26'31	5°53'50
min. Earth dist.	463 Apr 08 j 03:25	18°♈38'20	0.28800 AU
morning rise	463 Apr 13 j 14:33	15°♈18'06	
direct	463 Apr 29 j 10:44	10°♈25'53	
desc. node	463 May 05 j 20:08	11°♈11'40	
greatest brilliancy	463 May 09 j 10:57	12°♈14'41	-4.7m
	463 Jun 05 j 23:53	0°♉	
morning max el	463 Jun 17 j 05:56	10°♉12'10	45°44'34
	463 Jul 06 j 20:06	0°♊	
	463 Aug 03 j 00:22	0°♋	
asc. node	463 Aug 26 j 23:30	27°♋58'01	
	463 Aug 28 j 16:27	0°♌	
	463 Sep 22 j 11:22	0°♍	
	463 Oct 16 j 17:24	0°♎	
	463 Nov 09 j 16:39	0°♏	
	463 Dec 03 j 13:24	0°♐	
morning set	463 Dec 15 j 23:31	15°♐37'06	
desc. node	463 Dec 16 j 13:03	16°♐19'38	
	463 Dec 27 j 10:11	0°♑	
	464 Jan 20 j 08:18	0°♒	
superior conj	464 Jan 26 j 18:37	8°♒02'50	-1°18'01
minimum elong	464 Jan 26 j 09:48	7°♒35'14	1°17'51
max. Earth dist.	464 Jan 30 j 15:26	12°♒52'55	1.71733 AU
	464 Feb 13 j 08:42	0°♓	
evening rise	464 Mar 06 j 19:26	27°♓53'08	
	464 Mar 08 j 12:26	0°♈	
	464 Apr 01 j 20:34	0°♉	
asc. node	464 Apr 07 j 16:27	7°♉08'43	
	464 Apr 26 j 09:59	0°♊	
	464 May 21 j 05:40	0°♋	
	464 Jun 15 j 09:41	0°♌	
	464 Jul 11 j 02:48	0°♍	
desc. node	464 Jul 28 j 05:39	19°♍24'36	
	464 Aug 06 j 19:57	0°♎	
evening max el	464 Aug 31 j 23:57	26°♎12'08	46°39'18
	464 Sep 04 j 22:35	0°♏	
greatest brilliancy	464 Oct 11 j 12:25	26°♏09'25	-4.9m
retrograde	464 Oct 20 j 23:10	27°♏49'29	
evening set	464 Nov 04 j 14:03	23°♏36'11	
inferior conj	464 Nov 10 j 11:05	20°♏10'25	-2°02'25
minimum elong	464 Nov 10 j 15:41	20°♏03'26	2°00'56
min. Earth dist.	464 Nov 10 j 15:18	20°♏04'02	0.26411 AU
morning rise	464 Nov 16 j 17:13	16°♏33'04	
asc. node	464 Nov 18 j 08:55	15°♏42'58	
direct	464 Nov 30 j 20:48	12°♏33'25	
greatest brilliancy	464 Dec 11 j 03:58	14°♏35'14	-4.9m
	465 Jan 03 j 17:44	0°♐	
morning max el	465 Jan 20 j 09:30	15°♐39'57	46°48'52
	465 Feb 03 j 02:59	0°♑	
	465 Mar 02 j 00:04	0°♒	
desc. node	465 Mar 09 j 22:41	9°♒09'08	
	465 Mar 27 j 19:09	0°♓	
	465 Apr 22 j 02:45	0°♈	
	465 May 17 j 03:49	0°♉	
	465 Jun 10 j 23:41	0°♊	
asc. node	465 Jul 01 j 01:50	24°♊28'38	
	465 Jul 05 j 14:04	0°♋	
morning set	465 Jul 19 j 21:33	17°♋35'31	
	465 Jul 29 j 22:43	0°♌	
max. Earth dist.	465 Aug 21 j 21:33	28°♌30'07	1.72276 AU
	465 Aug 23 j 02:25	0°♍	
superior conj	465 Aug 25 j 14:14	3°♍06'22	1°24'39
minimum elong	465 Aug 25 j 14:07	3°♍06'00	1°24'38
	465 Sep 16 j 02:54	0°♎	
evening rise	465 Oct 02 j 19:20	20°♎52'47	
	465 Oct 10 j 02:08	0°♏	
desc. node	465 Oct 20 j 15:33	13°♏13'07	
	465 Nov 03 j 01:28	0°♐	
	465 Nov 27 j 01:56	0°♑	
	465 Dec 21 j 05:12	0°♒	
	466 Jan 14 j 14:46	0°♓	
	466 Feb 08 j 13:00	0°♈	
asc. node	466 Feb 10 j 18:33	2°♈38'22	
	466 Mar 06 j 11:29	0°♉	
	466 Apr 03 j 14:46	0°♊	
evening max el	466 Apr 07 j 13:48	3°♊52'54	45°28'52
	466 May 11 j 12:46	0°♋	
greatest brilliancy	466 May 15 j 05:49	1°♋34'23	-4.7m

retrograde	466 May 26 j 03:20	3°♋41'35	
desc. node	466 Jun 02 j 08:04	2°♋40'31	
	466 Jun 08 j 23:09	30°℞♊	
evening set	466 Jun 10 j 06:20	29°♊18'46	
inferior conj	466 Jun 16 j 14:39	25°♊31'04	-3°15'57
minimum elong	466 Jun 16 j 07:53	25°♊41'39	3°14'06
min. Earth dist.	466 Jun 16 j 16:00	25°♊28'56	0.28948 AU
morning rise	466 Jun 22 j 09:17	22°♊01'50	
direct	466 Jul 08 j 07:32	17°♊13'44	
greatest brilliancy	466 Jul 18 j 20:40	19°♊13'37	-4.7m
	466 Aug 06 j 08:31	0°♋	
morning max el	466 Aug 26 j 13:44	17°♋45'19	46°07'23
	466 Sep 07 j 15:13	0°♌	
asc. node	466 Sep 23 j 11:30	17°♌15'33	
	466 Oct 04 j 15:38	0°♍	
	466 Oct 29 j 22:37	0°♎	
	466 Nov 23 j 11:00	0°♏	
	466 Dec 17 j 15:31	0°♐	
	467 Jan 10 j 17:36	0°♑	
desc. node	467 Jan 13 j 00:53	2°♑52'10	
	467 Feb 03 j 19:50	0°♒	
	467 Feb 27 j 23:29	0°♓	
morning set	467 Mar 02 j 08:02	2°♓55'18	
	467 Mar 24 j 05:11	0°♈	
superior conj	467 Apr 09 j 15:16	20°♈15'21	-0°57'27
minimum elong	467 Apr 10 j 00:47	20°♈44'41	0°57'06
max. Earth dist.	467 Apr 11 j 21:03	23°♈01'01	1.73245 AU
	467 Apr 17 j 13:10	0°♉	
asc. node	467 May 06 j 04:17	22°♉54'01	
	467 May 11 j 23:07	0°♊	
evening rise	467 May 16 j 18:07	5°♊52'42	
	467 Jun 05 j 10:33	0°♋	
	467 Jun 29 j 23:27	0°♌	
	467 Jul 24 j 14:50	0°♍	
	467 Aug 18 j 10:38	0°♎	
desc. node	467 Aug 25 j 17:43	8°♎45'23	
	467 Sep 12 j 13:44	0°♏	
	467 Oct 08 j 05:41	0°♐	
	467 Nov 04 j 02:36	0°♑	
evening max el	467 Nov 13 j 18:59	10°♑07'56	47°23'08
	467 Dec 05 j 05:17	0°♒	
asc. node	467 Dec 16 j 20:52	8°♒13'09	
greatest brilliancy	467 Dec 24 j 09:38	11°♒54'34	-4.9m
retrograde	468 Jan 03 j 19:11	13°♒58'51	
evening set	468 Jan 20 j 10:51	8°♒30'34	
min. Earth dist.	468 Jan 23 j 16:39	6°♒31'13	0.27384 AU
inferior conj	468 Jan 24 j 15:28	5°♒55'25	7°54'37
minimum elong	468 Jan 24 j 07:30	6°♒07'57	7°53'33
morning rise	468 Jan 28 j 04:29	3°♒44'17	
	468 Feb 04 j 13:28	30°℞♑	
direct	468 Feb 14 j 06:24	28°♑05'12	
greatest brilliancy	468 Feb 23 j 03:47	29°♑34'03	-4.8m
	468 Feb 24 j 10:14	0°♒	
morning max el	468 Apr 03 j 13:33	28°♒58'42	46°07'45
	468 Apr 04 j 14:45	0°♓	
desc. node	468 Apr 06 j 10:27	1°♓47'18	
	468 May 03 j 07:55	0°♈	
	468 May 30 j 00:13	0°♉	
	468 Jun 24 j 18:17	0°♊	
	468 Jul 19 j 21:38	0°♋	
asc. node	468 Jul 28 j 13:43	10°♋29'20	
	468 Aug 13 j 13:11	0°♌	
	468 Sep 06 j 19:26	0°♍	
morning set	468 Sep 28 j 00:19	26°♍29'33	
	468 Sep 30 j 19:25	0°♎	
	468 Oct 24 j 16:14	0°♏	

superior conj	468 Nov 06 j 14:57	16°♏17'59	0°24'43
minimum elong	468 Nov 06 j 21:10	16°♏37'33	0°24'25
max. Earth dist.	468 Nov 06 j 09:50	16°♏01'52	1.71072 AU
desc. node	468 Nov 17 j 03:18	29°♏32'05	
	468 Nov 17 j 12:11	0°♐	
	468 Dec 11 j 08:41	0°♑	
evening rise	468 Dec 18 j 07:34	8°♑43'49	
	469 Jan 04 j 06:50	0°♒	
	469 Jan 28 j 08:13	0°♓	
	469 Feb 21 j 15:12	0°♈	
asc. node	469 Mar 10 j 06:37	20°♈18'43	
	469 Mar 18 j 06:57	0°♉	
	469 Apr 12 j 11:47	0°♊	
	469 May 08 j 13:21	0°♋	
	469 Jun 05 j 07:14	0°♌	
evening max el	469 Jun 17 j 09:03	11°♌59'23	45°29'35
desc. node	469 Jun 29 j 19:55	23°♌14'04	
	469 Jul 08 j 09:21	0°♍	
greatest brilliancy	469 Jul 26 j 15:36	10°♍05'58	-4.8m
retrograde	469 Aug 05 j 03:48	11°♍44'19	
evening set	469 Aug 23 j 04:12	5°♍43'56	
inferior conj	469 Aug 26 j 07:21	3°♍50'09	-8°46'29
minimum elong	469 Aug 26 j 07:15	3°♍50'17	8°46'29
min. Earth dist.	469 Aug 26 j 23:23	3°♍25'33	0.28088 AU
morning rise	469 Aug 29 j 10:06	1°♍56'22	
	469 Sep 01 j 19:36	30°℞♌	
direct	469 Sep 16 j 12:28	25°♌45'26	
greatest brilliancy	469 Sep 27 j 15:56	28°♌03'01	-4.9m
	469 Oct 01 j 23:11	0°♍	
asc. node	469 Oct 20 j 23:07	13°♍26'59	
morning max el	469 Nov 06 j 02:49	28°♍44'49	46°48'37
	469 Nov 07 j 08:15	0°♎	
	469 Dec 04 j 16:58	0°♏	
	469 Dec 30 j 05:31	0°♐	
	470 Jan 24 j 02:23	0°♑	
desc. node	470 Feb 09 j 12:51	20°♑00'11	
	470 Feb 17 j 17:24	0°♒	
	470 Mar 14 j 06:26	0°♓	
	470 Apr 07 j 19:00	0°♈	
	470 May 02 j 07:27	0°♉	
morning set	470 May 11 j 04:25	10°♉51'44	
	470 May 26 j 19:14	0°♊	
asc. node	470 Jun 02 j 16:05	8°♊25'29	
max. Earth dist.	470 Jun 14 j 12:59	23°♊00'23	1.73556 AU
superior conj	470 Jun 16 j 14:16	25°♊31'53	0°32'12
minimum elong	470 Jun 16 j 08:12	25°♊13'16	0°31'56
	470 Jun 20 j 05:26	0°♋	
	470 Jul 14 j 13:32	0°♌	
evening rise	470 Jul 22 j 08:04	9°♌36'09	
	470 Aug 07 j 19:59	0°♍	
	470 Sep 01 j 02:01	0°♎	
desc. node	470 Sep 22 j 05:42	26°♎07'50	
	470 Sep 25 j 09:00	0°♏	
	470 Oct 19 j 18:17	0°♐	
	470 Nov 13 j 07:58	0°♑	
	470 Dec 08 j 07:32	0°♒	
	471 Jan 03 j 06:53	0°♓	
asc. node	471 Jan 13 j 08:43	11°♓02'57	
evening max el	471 Jan 24 j 06:03	22°♓23'40	46°36'21
	471 Feb 01 j 01:07	0°♈	
greatest brilliancy	471 Mar 04 j 16:35	22°♈38'50	-4.8m
retrograde	471 Mar 15 j 10:15	24°♈47'29	
evening set	471 Apr 01 j 02:26	19°♈21'30	
inferior conj	471 Apr 05 j 17:32	16°♈29'44	6°10'14
minimum elong	471 Apr 06 j 03:07	16°♈14'35	6°08'17
min. Earth dist.	471 Apr 05 j 18:44	16°♈27'49	0.28777 AU

morning rise	471 Apr 11 j 04:04	13°♈10'15	
direct	471 Apr 27 j 02:51	8°♈14'29	
desc. node	471 May 04 j 22:08	9°♈22'14	
greatest brilliancy	471 May 07 j 01:10	10°♈02'08	-4.7m
	471 Jun 06 j 03:50	0°♉	
morning max el	471 Jun 14 j 22:51	8°♉04'29	45°44'35
	471 Jul 06 j 13:06	0°♊	
	471 Aug 02 j 14:16	0°♋	
asc. node	471 Aug 26 j 01:43	27°♋27'03	
	471 Aug 28 j 05:01	0°♌	
	471 Sep 21 j 23:17	0°♍	
	471 Oct 16 j 05:00	0°♎	
	471 Nov 09 j 04:05	0°♏	
	471 Dec 03 j 00:44	0°♐	
morning set	471 Dec 13 j 09:12	13°♐01'08	
desc. node	471 Dec 15 j 15:08	15°♐50'39	
	471 Dec 26 j 21:27	0°♑	
	472 Jan 19 j 19:29	0°♒	
superior conj	472 Jan 24 j 05:21	5°♒31'19	-1°16'20
minimum elong	472 Jan 23 j 19:50	5°♒01'34	1°16'08
max. Earth dist.	472 Jan 28 j 03:31	10°♒25'49	1.71681 AU
	472 Feb 12 j 19:48	0°♓	
evening rise	472 Mar 04 j 08:45	25°♓31'27	
	472 Mar 07 j 23:31	0°♈	
	472 Apr 01 j 07:45	0°♉	
asc. node	472 Apr 06 j 18:28	6°♉40'33	
	472 Apr 25 j 21:25	0°♊	
	472 May 20 j 17:32	0°♋	
	472 Jun 14 j 22:22	0°♌	
	472 Jul 10 j 16:59	0°♍	
desc. node	472 Jul 27 j 07:51	18°♍46'31	
	472 Aug 06 j 13:15	0°♎	
evening max el	472 Aug 29 j 13:55	23°♎50'42	46°36'30
	472 Sep 05 j 01:02	0°♏	
greatest brilliancy	472 Oct 09 j 01:18	23°♏40'58	-4.9m
retrograde	472 Oct 18 j 10:52	25°♏19'29	
evening set	472 Nov 02 j 04:04	21°♏04'04	
inferior conj	472 Nov 07 j 23:04	17°♏40'47	-2°26'19
minimum elong	472 Nov 08 j 04:31	17°♏32'31	2°24'36
min. Earth dist.	472 Nov 08 j 04:49	17°♏32'04	0.26435 AU
morning rise	472 Nov 14 j 04:49	14°♏03'36	
asc. node	472 Nov 17 j 10:58	12°♏29'28	
direct	472 Nov 28 j 09:28	10°♏03'30	
greatest brilliancy	472 Dec 08 j 17:43	12°♏06'06	-4.9m
	473 Jan 04 j 02:32	0°♐	
morning max el	473 Jan 17 j 22:18	13°♐12'18	46°49'48
	473 Feb 02 j 22:02	0°♑	
	473 Mar 01 j 15:15	0°♒	
desc. node	473 Mar 09 j 00:49	8°♒33'10	
	473 Mar 27 j 08:30	0°♓	
	473 Apr 21 j 15:04	0°♈	
	473 May 16 j 15:31	0°♉	
	473 Jun 10 j 11:00	0°♊	
asc. node	473 Jun 30 j 03:58	24°♊01'14	
	473 Jul 05 j 01:09	0°♋	
morning set	473 Jul 17 j 15:16	15°♋28'21	
	473 Jul 29 j 09:42	0°♌	
max. Earth dist.	473 Aug 19 j 11:27	26°♌09'46	1.72331 AU
	473 Aug 22 j 13:24	0°♍	
superior conj	473 Aug 23 j 07:00	0°♍54'50	1°24'32
minimum elong	473 Aug 23 j 06:08	0°♍52'08	1°24'33
	473 Sep 15 j 14:00	0°♎	
evening rise	473 Sep 30 j 08:35	18°♎28'59	
	473 Oct 09 j 13:24	0°♏	
desc. node	473 Oct 19 j 17:33	12°♏43'51	
	473 Nov 02 j 12:57	0°♐	
	473 Nov 26 j 13:40	0°♑	
	473 Dec 20 j 17:15	0°♒	
	474 Jan 14 j 03:19	0°♓	
	474 Feb 08 j 02:29	0°♈	
asc. node	474 Feb 09 j 20:41	2°♈04'37	
	474 Mar 06 j 02:59	0°♉	
	474 Apr 03 j 12:02	0°♊	
evening max el	474 Apr 05 j 04:49	1°♊39'15	45°30'16
greatest brilliancy	474 May 12 j 22:27	29°♊25'45	-4.7m
	474 May 14 j 13:48	0°♋	
retrograde	474 May 23 j 19:08	1°♋32'46	
desc. node	474 Jun 01 j 10:08	0°♋05'09	
	474 Jun 01 j 16:09	30°℞♊	
evening set	474 Jun 07 j 21:54	27°♊10'50	
inferior conj	474 Jun 14 j 07:06	23°♊22'01	-2°57'31
minimum elong	474 Jun 14 j 00:53	23°♊31'44	2°55'48
min. Earth dist.	474 Jun 14 j 08:57	23°♊19'08	0.28954 AU
morning rise	474 Jun 20 j 03:38	19°♊49'45	
direct	474 Jul 05 j 23:29	15°♊04'26	
greatest brilliancy	474 Jul 16 j 13:21	17°♊04'23	-4.7m
	474 Aug 06 j 19:51	0°♋	
morning max el	474 Aug 24 j 04:17	15°♋29'35	46°06'07
	474 Sep 07 j 09:36	0°♌	
asc. node	474 Sep 22 j 13:27	16°♌36'29	
	474 Oct 04 j 06:16	0°♍	
	474 Oct 29 j 11:45	0°♎	
	474 Nov 22 j 23:24	0°♏	
	474 Dec 17 j 03:29	0°♐	
	475 Jan 10 j 05:16	0°♑	
desc. node	475 Jan 12 j 03:04	2°♑22'42	
	475 Feb 03 j 07:17	0°♒	
	475 Feb 27 j 10:44	0°♓	
morning set	475 Feb 27 j 21:20	0°♓32'52	
	475 Mar 23 j 16:18	0°♈	
superior conj	475 Apr 07 j 07:22	18°♈03'09	-0°59'53
minimum elong	475 Apr 07 j 17:01	18°♈32'50	0°59'33
max. Earth dist.	475 Apr 09 j 15:04	20°♈54'43	1.73202 AU
	475 Apr 17 j 00:11	0°♉	
asc. node	475 May 05 j 06:17	22°♉26'26	
	475 May 11 j 10:08	0°♊	
evening rise	475 May 14 j 12:15	3°♊47'18	
	475 Jun 04 j 21:41	0°♋	
	475 Jun 29 j 10:53	0°♌	
	475 Jul 24 j 02:45	0°♍	
	475 Aug 17 j 23:17	0°♎	
desc. node	475 Aug 24 j 19:48	8°♎13'00	
	475 Sep 12 j 03:29	0°♏	
	475 Oct 07 j 21:23	0°♐	
	475 Nov 03 j 22:42	0°♑	
evening max el	475 Nov 11 j 08:23	7°♑41'51	47°23'10
	475 Dec 05 j 21:23	0°♒	
asc. node	475 Dec 15 j 22:57	6°♒39'30	
greatest brilliancy	475 Dec 22 j 00:37	9°♒30'44	-4.9m
retrograde	476 Jan 01 j 09:12	11°♒34'38	
evening set	476 Jan 17 j 21:12	6°♒12'08	
min. Earth dist.	476 Jan 21 j 06:32	4°♒07'56	0.27323 AU
inferior conj	476 Jan 22 j 05:24	3°♒32'09	7°44'51
minimum elong	476 Jan 21 j 20:53	3°♒45'29	7°43'36
morning rise	476 Jan 25 j 20:55	1°♒17'31	
	476 Jan 28 j 02:57	30°℞♑	
direct	476 Feb 11 j 19:05	25°♑42'38	
greatest brilliancy	476 Feb 20 j 17:48	27°♑12'30	-4.8m
	476 Feb 27 j 09:23	0°♒	
morning max el	476 Apr 01 j 03:37	26°♒39'47	46°09'13
	476 Apr 04 j 13:14	0°♓	

desc. node	476 Apr 05 j 12:26	0°♓57'43	
	476 May 02 j 23:58	0°♈	
	476 May 29 j 13:49	0°♉	
	476 Jun 24 j 06:40	0°♊	
	476 Jul 19 j 09:20	0°♋	
asc. node	476 Jul 27 j 15:51	10°♋00'44	
	476 Aug 13 j 00:32	0°♌	
	476 Sep 06 j 06:37	0°♍	
morning set	476 Sep 25 j 14:28	24°♍08'35	
	476 Sep 30 j 06:34	0°♎	
	476 Oct 24 j 03:23	0°♏	
superior conj	476 Nov 04 j 01:51	13°♏46'00	0°28'25
minimum elong	476 Nov 04 j 08:52	14°♏08'05	0°28'05
max. Earth dist.	476 Nov 03 j 18:42	13°♏23'29	1.71087 AU
desc. node	476 Nov 16 j 05:25	29°♏03'33	
	476 Nov 16 j 23:21	0°♐	
	476 Dec 10 j 19:53	0°♑	
evening rise	476 Dec 15 j 17:41	6°♑09'46	
	477 Jan 03 j 18:07	0°♒	
	477 Jan 27 j 19:37	0°♓	
	477 Feb 21 j 02:48	0°♈	
asc. node	477 Mar 09 j 08:34	19°♈48'36	
	477 Mar 17 j 19:00	0°♉	
	477 Apr 12 j 00:44	0°♊	
	477 May 08 j 04:09	0°♋	
	477 Jun 05 j 02:37	0°♌	
evening max el	477 Jun 15 j 00:15	9°♌46'06	45°28'21
desc. node	477 Jun 28 j 22:07	22°♌13'14	
	477 Jul 09 j 04:35	0°♍	
greatest brilliancy	477 Jul 24 j 03:19	7°♍47'27	-4.7m
retrograde	477 Aug 02 j 18:19	9°♍27'48	
evening set	477 Aug 20 j 17:13	3°♍28'36	
inferior conj	477 Aug 23 j 21:46	1°♍32'38	-8°45'24
minimum elong	477 Aug 23 j 20:49	1°♍34'06	8°45'24
min. Earth dist.	477 Aug 24 j 12:38	1°♍09'50	0.28145 AU
	477 Aug 26 j 10:28	30°℞♌	
morning rise	477 Aug 27 j 00:15	29°♌39'20	
direct	477 Sep 14 j 04:07	23°♌27'09	
greatest brilliancy	477 Sep 25 j 06:19	25°♌43'55	-4.8m
	477 Oct 03 j 16:58	0°♍	
asc. node	477 Oct 20 j 01:12	12°♍23'24	
morning max el	477 Nov 03 j 18:30	26°♍26'00	46°47'34
	477 Nov 07 j 05:45	0°♎	
	477 Dec 04 j 08:59	0°♏	
	477 Dec 29 j 19:24	0°♐	
	478 Jan 23 j 15:09	0°♑	
desc. node	478 Feb 08 j 14:55	19°♑29'08	
	478 Feb 17 j 05:27	0°♒	
	478 Mar 13 j 17:59	0°♓	
	478 Apr 07 j 06:12	0°♈	
	478 May 01 j 18:25	0°♉	
morning set	478 May 08 j 22:29	8°♉46'41	
	478 May 26 j 06:04	0°♊	
asc. node	478 Jun 01 j 18:14	7°♊58'56	
max. Earth dist.	478 Jun 12 j 12:09	21°♊10'49	1.73573 AU
superior conj	478 Jun 14 j 08:47	23°♊28'00	0°29'18
minimum elong	478 Jun 14 j 03:12	23°♊10'50	0°29'03
	478 Jun 19 j 16:14	0°♋	
	478 Jul 14 j 00:25	0°♌	
evening rise	478 Jul 20 j 02:30	7°♌31'07	
	478 Aug 07 j 07:02	0°♍	
	478 Aug 31 j 13:20	0°♎	
desc. node	478 Sep 21 j 07:40	25°♎37'53	
	478 Sep 24 j 20:44	0°♏	
	478 Oct 19 j 06:33	0°♐	
	478 Nov 12 j 21:01	0°♑	
	478 Dec 07 j 21:48	0°♒	
	479 Jan 02 j 23:46	0°♓	
asc. node	479 Jan 12 j 10:53	10°♓18'40	
evening max el	479 Jan 21 j 22:28	20°♓09'51	46°38'59
	479 Feb 01 j 02:46	0°♈	
greatest brilliancy	479 Mar 02 j 09:06	20°♈27'30	-4.8m
retrograde	479 Mar 13 j 03:06	22°♈36'10	
evening set	479 Mar 29 j 21:31	17°♈06'19	
inferior conj	479 Apr 03 j 09:47	14°♈18'26	6°24'02
minimum elong	479 Apr 03 j 19:21	14°♈03'19	6°22'10
min. Earth dist.	479 Apr 03 j 10:05	14°♈17'58	0.28753 AU
morning rise	479 Apr 08 j 17:30	11°♈02'59	
direct	479 Apr 24 j 19:13	6°♈03'49	
desc. node	479 May 04 j 00:15	7°♈37'18	
greatest brilliancy	479 May 04 j 15:13	7°♈49'49	-4.7m
	479 Jun 06 j 06:02	0°♉	
morning max el	479 Jun 12 j 15:14	5°♉55'49	45°44'30
	479 Jul 06 j 05:43	0°♊	
	479 Aug 02 j 03:59	0°♋	
asc. node	479 Aug 25 j 03:41	26°♋55'39	
	479 Aug 27 j 17:26	0°♌	
	479 Sep 21 j 11:02	0°♍	
	479 Oct 15 j 16:25	0°♎	
	479 Nov 08 j 15:20	0°♏	
	479 Dec 02 j 11:55	0°♐	
morning set	479 Dec 10 j 18:54	10°♐25'45	
desc. node	479 Dec 14 j 17:15	15°♐22'21	
	479 Dec 26 j 08:33	0°♑	
	480 Jan 19 j 06:31	0°♒	
superior conj	480 Jan 21 j 16:00	2°♒59'58	-1°14'31
minimum elong	480 Jan 21 j 05:53	2°♒28'19	1°14'15
max. Earth dist.	480 Jan 25 j 15:22	7°♒58'19	1.71630 AU
	480 Feb 12 j 06:45	0°♓	
evening rise	480 Mar 01 j 22:00	23°♓09'51	
	480 Mar 07 j 10:27	0°♈	
	480 Mar 31 j 18:45	0°♉	
asc. node	480 Apr 05 j 20:32	6°♉13'08	
	480 Apr 25 j 08:39	0°♊	
	480 May 20 j 05:15	0°♋	
	480 Jun 14 j 10:56	0°♌	
	480 Jul 10 j 07:09	0°♍	
desc. node	480 Jul 26 j 09:52	18°♍08'00	
	480 Aug 06 j 06:45	0°♎	
evening max el	480 Aug 27 j 03:11	21°♎28'14	46°33'48
	480 Sep 05 j 04:48	0°♏	
greatest brilliancy	480 Oct 06 j 14:47	21°♏14'19	-4.9m
retrograde	480 Oct 15 j 22:11	22°♏50'57	
evening set	480 Oct 30 j 18:24	18°♏33'05	
inferior conj	480 Nov 05 j 11:16	15°♏12'42	-2°49'40
minimum elong	480 Nov 05 j 17:31	15°♏03'13	2°47'45
min. Earth dist.	480 Nov 05 j 18:44	15°♏01'21	0.26461 AU
morning rise	480 Nov 11 j 16:21	11°♏35'56	
asc. node	480 Nov 16 j 13:07	9°♏22'21	
direct	480 Nov 25 j 21:48	7°♏34'57	
greatest brilliancy	480 Dec 06 j 08:06	9°♏38'59	-4.9m
	481 Jan 04 j 08:30	0°♐	
morning max el	481 Jan 15 j 10:30	10°♐43'52	46°50'37
	481 Feb 02 j 16:16	0°♑	
	481 Mar 01 j 05:56	0°♒	
desc. node	481 Mar 08 j 02:43	7°♒57'40	
	481 Mar 26 j 21:29	0°♓	
	481 Apr 21 j 03:03	0°♈	
	481 May 16 j 02:53	0°♉	
	481 Jun 09 j 21:59	0°♊	
asc. node	481 Jun 29 j 06:04	23°♊34'38	

	481 Jul 04 j 11:55	0°♋	
morning set	481 Jul 15 j 08:59	13°♋22'04	
	481 Jul 28 j 20:24	0°♌	
max. Earth dist.	481 Aug 17 j 02:50	23°♌54'50	1.72390 AU
superior conj	481 Aug 20 j 23:44	28°♌43'59	1°24'19
minimum elong	481 Aug 20 j 22:09	28°♌39'03	1°24'19
	481 Aug 22 j 00:09	0°♍	
	481 Sep 15 j 00:52	0°♎	
evening rise	481 Sep 27 j 21:48	16°♎05'54	
	481 Oct 09 j 00:26	0°♏	
desc. node	481 Oct 18 j 19:40	12°♏15'48	
	481 Nov 02 j 00:10	0°♐	
	481 Nov 26 j 01:06	0°♑	
	481 Dec 20 j 05:01	0°♒	
	482 Jan 13 j 15:37	0°♓	
	482 Feb 07 j 15:46	0°♈	
asc. node	482 Feb 08 j 22:39	1°♈31'01	
	482 Mar 05 j 18:23	0°♉	
evening max el	482 Apr 02 j 19:30	29°♉25'40	45°31'47
	482 Apr 03 j 09:43	0°♊	
greatest brilliancy	482 May 10 j 14:35	27°♊17'30	-4.7m
retrograde	482 May 21 j 11:16	29°♊25'09	
desc. node	482 May 31 j 12:15	27°♊26'22	
evening set	482 Jun 05 j 13:36	25°♊03'34	
inferior conj	482 Jun 11 j 23:32	21°♊14'02	-2°38'55
minimum elong	482 Jun 11 j 17:54	21°♊22'50	2°37'20
min. Earth dist.	482 Jun 12 j 01:45	21°♊10'34	0.28961 AU
morning rise	482 Jun 17 j 21:55	17°♊39'06	
direct	482 Jul 03 j 15:20	12°♊56'06	
greatest brilliancy	482 Jul 14 j 06:15	14°♊56'42	-4.7m
	482 Aug 07 j 03:42	0°♋	
morning max el	482 Aug 21 j 19:21	13°♋16'13	46°04'47
	482 Sep 07 j 03:12	0°♌	
asc. node	482 Sep 21 j 15:33	15°♌59'03	
	482 Oct 03 j 20:29	0°♍	
	482 Oct 29 j 00:34	0°♎	
	482 Nov 22 j 11:30	0°♏	
	482 Dec 16 j 15:07	0°♐	
	483 Jan 09 j 16:35	0°♑	
desc. node	483 Jan 11 j 05:07	1°♑53'55	
	483 Feb 02 j 18:21	0°♒	
morning set	483 Feb 25 j 10:20	28°♒10'27	
	483 Feb 26 j 21:38	0°♓	
	483 Mar 23 j 03:04	0°♈	
superior conj	483 Apr 04 j 23:23	15°♈51'35	-1°02'15
minimum elong	483 Apr 05 j 09:05	16°♈21'28	1°01'55
max. Earth dist.	483 Apr 07 j 07:47	18°♈45'23	1.73161 AU
	483 Apr 16 j 10:53	0°♉	
asc. node	483 May 04 j 08:29	22°♉00'25	
	483 May 10 j 20:49	0°♊	
evening rise	483 May 12 j 06:24	1°♊42'57	
	483 Jun 04 j 08:29	0°♋	
	483 Jun 28 j 21:59	0°♌	
	483 Jul 23 j 14:21	0°♍	
	483 Aug 17 j 11:38	0°♎	
desc. node	483 Aug 23 j 21:46	7°♎41'11	
	483 Sep 11 j 17:02	0°♏	
	483 Oct 07 j 13:03	0°♐	
	483 Nov 03 j 19:13	0°♑	
evening max el	483 Nov 08 j 22:25	5°♑17'59	47°23'08
	483 Dec 06 j 18:47	0°♒	
asc. node	483 Dec 15 j 01:04	5°♒02'43	
greatest brilliancy	483 Dec 19 j 14:53	7°♒06'09	-4.9m
retrograde	483 Dec 29 j 23:30	9°♒10'23	
evening set	484 Jan 15 j 07:15	3°♒53'30	
min. Earth dist.	484 Jan 18 j 19:56	1°♒44'50	0.27259 AU
inferior conj	484 Jan 19 j 19:05	1°♒08'43	7°34'07
minimum elong	484 Jan 19 j 10:06	1°♒22'45	7°32'41
	484 Jan 21 j 15:20	30°℞♑	
morning rise	484 Jan 23 j 13:18	28°♑50'29	
direct	484 Feb 09 j 07:57	23°♑20'00	
greatest brilliancy	484 Feb 18 j 07:10	24°♑50'39	-4.8m
	484 Feb 29 j 03:49	0°♒	
morning max el	484 Mar 29 j 18:15	24°♒23'05	46°10'40
	484 Apr 04 j 10:30	0°♓	
desc. node	484 Apr 04 j 14:37	0°♓10'22	
	484 May 02 j 15:26	0°♈	
	484 May 29 j 03:00	0°♉	
	484 Jun 23 j 18:40	0°♊	
	484 Jul 18 j 20:41	0°♋	
asc. node	484 Jul 26 j 17:51	9°♋32'47	
	484 Aug 12 j 11:32	0°♌	
	484 Sep 05 j 17:29	0°♍	
morning set	484 Sep 23 j 04:55	21°♍49'36	
	484 Sep 29 j 17:24	0°♎	
	484 Oct 23 j 14:16	0°♏	
max. Earth dist.	484 Nov 01 j 04:09	10°♏47'50	1.71108 AU
superior conj	484 Nov 01 j 12:45	11°♏14'52	0°32'03
minimum elong	484 Nov 01 j 20:30	11°♏39'15	0°31'42
desc. node	484 Nov 15 j 07:34	28°♏35'56	
	484 Nov 16 j 10:18	0°♐	
	484 Dec 10 j 06:55	0°♑	
evening rise	484 Dec 13 j 03:24	3°♑35'01	
	485 Jan 03 j 05:13	0°♒	
	485 Jan 27 j 06:48	0°♓	
	485 Feb 20 j 14:13	0°♈	
asc. node	485 Mar 08 j 10:41	19°♈19'38	
	485 Mar 17 j 06:52	0°♉	
	485 Apr 11 j 13:32	0°♊	
	485 May 07 j 18:54	0°♋	
	485 Jun 04 j 22:20	0°♌	
evening max el	485 Jun 12 j 15:57	7°♌34'46	45°27'09
desc. node	485 Jun 28 j 00:09	21°♌11'23	
	485 Jul 10 j 06:11	0°♍	
greatest brilliancy	485 Jul 21 j 15:32	5°♍30'36	-4.7m
retrograde	485 Jul 31 j 08:44	7°♍12'19	
evening set	485 Aug 18 j 06:01	1°♍15'12	
	485 Aug 20 j 07:53	30°℞♌	
inferior conj	485 Aug 21 j 12:18	29°♌16'25	-8°43'35
minimum elong	485 Aug 21 j 10:30	29°♌19'11	8°43'32
min. Earth dist.	485 Aug 22 j 01:59	28°♌55'23	0.28196 AU
morning rise	485 Aug 24 j 14:50	27°♌22'55	
direct	485 Sep 11 j 19:58	21°♌10'27	
greatest brilliancy	485 Sep 22 j 20:20	23°♌25'37	-4.8m
	485 Oct 04 j 21:12	0°♍	
asc. node	485 Oct 19 j 03:23	11°♍22'35	
morning max el	485 Nov 01 j 09:22	24°♍06'12	46°46'23
	485 Nov 07 j 02:09	0°♎	
	485 Dec 04 j 00:29	0°♏	
	485 Dec 29 j 08:59	0°♐	
	486 Jan 23 j 03:42	0°♑	
desc. node	486 Feb 07 j 16:55	18°♑58'17	
	486 Feb 16 j 17:20	0°♒	
	486 Mar 13 j 05:23	0°♓	
	486 Apr 06 j 17:14	0°♈	
	486 May 01 j 05:12	0°♉	
morning set	486 May 06 j 16:21	6°♉41'29	
	486 May 25 j 16:44	0°♊	
asc. node	486 May 31 j 20:17	7°♊32'32	
max. Earth dist.	486 Jun 10 j 10:10	19°♊18'16	1.73589 AU

superior conj	486 Jun	12 j 03:14	21°♊24'24	0°26'21
minimum elong	486 Jun	11 j 22:08	21°♊08'46	0°26'07
	486 Jun	19 j 02:55	0°♋	
	486 Jul	13 j 11:10	0°♌	
evening rise	486 Jul	17 j 21:00	5°♌26'41	
	486 Aug	06 j 17:58	0°♍	
	486 Aug	31 j 00:33	0°♎	
desc. node	486 Sep	20 j 09:50	25°♎09'02	
	486 Sep	24 j 08:20	0°♏	
	486 Oct	18 j 18:41	0°♐	
	486 Nov	12 j 09:55	0°♑	
	486 Dec	07 j 12:02	0°♒	
	487 Jan	02 j 16:53	0°♓	
asc. node	487 Jan	11 j 12:50	9°♓33'19	
evening max el	487 Jan	19 j 14:15	17°♓54'13	46°41'23
	487 Feb	01 j 05:56	0°♈	
greatest brilliancy	487 Feb	28 j 02:09	18°♈16'13	-4.8m
retrograde	487 Mar	10 j 19:22	20°♈24'04	
evening set	487 Mar	27 j 16:29	14°♈50'30	
inferior conj	487 Apr	01 j 01:54	12°♈06'32	6°37'25
minimum elong	487 Apr	01 j 11:22	11°♈51'33	6°35'39
min. Earth dist.	487 Apr	01 j 01:31	12°♈07'08	0.28726 AU
morning rise	487 Apr	06 j 06:36	8°♈55'12	
direct	487 Apr	22 j 11:13	3°♈52'40	
greatest brilliancy	487 May	02 j 05:24	5°♈37'07	-4.7m
desc. node	487 May	03 j 02:22	5°♈55'43	
	487 Jun	06 j 06:55	0°♉	
morning max el	487 Jun	10 j 06:31	3°♉44'23	45°44'30
	487 Jul	05 j 21:59	0°♊	
	487 Aug	01 j 17:32	0°♋	
asc. node	487 Aug	24 j 05:45	26°♋24'49	
	487 Aug	27 j 05:45	0°♌	
	487 Sep	20 j 22:44	0°♍	
	487 Oct	15 j 03:46	0°♎	
	487 Nov	08 j 02:31	0°♏	
	487 Dec	01 j 23:00	0°♐	
morning set	487 Dec	08 j 05:00	7°♐51'50	
desc. node	487 Dec	13 j 19:17	14°♐54'03	
	487 Dec	25 j 19:34	0°♑	
	488 Jan	18 j 17:28	0°♒	
superior conj	488 Jan	19 j 02:48	0°♒29'14	-1°12'31
minimum elong	488 Jan	18 j 16:09	29°♑55'54	1°12'14
max. Earth dist.	488 Jan	23 j 02:37	5°♒29'05	1.71582 AU
	488 Feb	11 j 17:41	0°♓	
evening rise	488 Feb	28 j 11:02	20°♓47'30	
	488 Mar	06 j 21:24	0°♈	
	488 Mar	31 j 05:49	0°♉	
asc. node	488 Apr	04 j 22:41	5°♉45'46	
	488 Apr	24 j 19:57	0°♊	
	488 May	19 j 17:02	0°♋	
	488 Jun	13 j 23:38	0°♌	
	488 Jul	09 j 21:32	0°♍	
desc. node	488 Jul	25 j 11:53	17°♍28'52	
	488 Aug	06 j 00:45	0°♎	
evening max el	488 Aug	24 j 15:24	19°♎03'02	46°31'03
	488 Sep	05 j 10:34	0°♏	
greatest brilliancy	488 Oct	04 j 04:25	18°♏47'38	-4.9m
retrograde	488 Oct	13 j 09:28	20°♏22'32	
evening set	488 Oct	28 j 08:51	16°♏01'35	
inferior conj	488 Nov	02 j 23:28	12°♏44'34	-3°12'46
minimum elong	488 Nov	03 j 06:27	12°♏33'57	3°10'38
min. Earth dist.	488 Nov	03 j 08:48	12°♏30'22	0.26490 AU
morning rise	488 Nov	09 j 03:38	9°♏08'41	
asc. node	488 Nov	15 j 15:09	6°♏20'32	
direct	488 Nov	23 j 09:46	5°♏06'02	
greatest brilliancy	488 Dec	03 j 22:48	7°♏12'13	-4.9m
	489 Jan	04 j 12:31	0°♐	
morning max el	489 Jan	12 j 22:49	8°♐15'32	46°51'38
	489 Feb	02 j 10:03	0°♑	
	489 Feb	28 j 20:26	0°♒	
desc. node	489 Mar	07 j 04:56	7°♒23'16	
	489 Mar	26 j 10:25	0°♓	
	489 Apr	20 j 15:05	0°♈	
	489 May	15 j 14:22	0°♉	
	489 Jun	09 j 09:06	0°♊	
asc. node	489 Jun	28 j 08:04	23°♊07'20	
	489 Jul	03 j 22:49	0°♋	
morning set	489 Jul	13 j 02:38	11°♋15'13	
	489 Jul	28 j 07:13	0°♌	
max. Earth dist.	489 Aug	14 j 20:50	21°♌47'44	1.72448 AU
superior conj	489 Aug	18 j 16:27	26°♌32'46	1°23'57
minimum elong	489 Aug	18 j 14:09	26°♌25'37	1°23'57
	489 Aug	21 j 11:01	0°♍	
	489 Sep	14 j 11:54	0°♎	
evening rise	489 Sep	25 j 11:13	13°♎43'07	
	489 Oct	08 j 11:39	0°♏	
desc. node	489 Oct	17 j 21:46	11°♏47'04	
	489 Nov	01 j 11:35	0°♐	
	489 Nov	25 j 12:44	0°♑	
	489 Dec	19 j 16:57	0°♒	
	490 Jan	13 j 04:05	0°♓	
	490 Feb	07 j 05:13	0°♈	
asc. node	490 Feb	08 j 00:47	0°♈57'33	
	490 Mar	05 j 10:07	0°♉	
evening max el	490 Mar	31 j 10:31	27°♉12'36	45°33'18
	490 Apr	03 j 08:25	0°♊	
greatest brilliancy	490 May	08 j 06:18	25°♊08'17	-4.7m
retrograde	490 May	19 j 03:54	27°♊17'09	
desc. node	490 May	30 j 14:16	24°♊43'07	
evening set	490 Jun	03 j 05:33	22°♊55'34	
inferior conj	490 Jun	09 j 16:01	19°♊05'27	-2°19'59
minimum elong	490 Jun	09 j 11:00	19°♊13'16	2°18'34
min. Earth dist.	490 Jun	09 j 18:20	19°♊01'50	0.28970 AU
morning rise	490 Jun	15 j 16:12	15°♊28'12	
direct	490 Jul	01 j 07:34	10°♊47'10	
greatest brilliancy	490 Jul	11 j 22:59	12°♊48'21	-4.7m
	490 Aug	07 j 09:33	0°♋	
morning max el	490 Aug	19 j 11:23	11°♋04'44	46°03'29
	490 Sep	06 j 20:40	0°♌	
asc. node	490 Sep	20 j 17:46	15°♌21'40	
	490 Oct	03 j 10:46	0°♍	
	490 Oct	28 j 13:31	0°♎	
	490 Nov	21 j 23:46	0°♏	
	490 Dec	16 j 02:58	0°♐	
	491 Jan	09 j 04:08	0°♑	
desc. node	491 Jan	10 j 07:06	1°♑24'08	
	491 Feb	02 j 05:40	0°♒	
morning set	491 Feb	22 j 23:28	25°♒47'42	
	491 Feb	26 j 08:45	0°♓	
	491 Mar	22 j 14:02	0°♈	
superior conj	491 Apr	02 j 15:36	13°♈39'59	-1°04'30
minimum elong	491 Apr	03 j 01:17	14°♈09'51	1°04'11
max. Earth dist.	491 Apr	05 j 01:51	16°♈39'34	1.73119 AU
	491 Apr	15 j 21:45	0°♉	
asc. node	491 May	03 j 10:31	21°♉33'13	
evening rise	491 May	10 j 00:45	29°♉38'37	
	491 May	10 j 07:43	0°♊	
	491 Jun	03 j 19:33	0°♋	
	491 Jun	28 j 09:22	0°♌	
	491 Jul	23 j 02:15	0°♍	
	491 Aug	17 j 00:20	0°♎	

desc. node	491 Aug 22 j 23:56	7°♎08'57	
	491 Sep 11 j 06:59	0°♏	
	491 Oct 07 j 05:16	0°♐	
	491 Nov 03 j 16:49	0°♑	
evening max el	491 Nov 06 j 13:15	2°♑55'20	47°22'55
	491 Dec 08 j 00:57	0°♒	
asc. node	491 Dec 14 j 03:06	3°♒21'00	
greatest brilliancy	491 Dec 17 j 04:35	4°♒39'37	-4.9m
retrograde	491 Dec 27 j 14:00	6°♒44'32	
evening set	492 Jan 12 j 17:10	1°♒33'20	
	492 Jan 15 j 07:21	30°℞♑	
min. Earth dist.	492 Jan 16 j 08:58	29°♑20'23	0.27195 AU
inferior conj	492 Jan 17 j 08:35	28°♑43'39	7°22'21
minimum elong	492 Jan 16 j 23:13	28°♑58'14	7°20'45
morning rise	492 Jan 21 j 05:40	26°♑21'37	
direct	492 Feb 06 j 21:18	20°♑55'55	
greatest brilliancy	492 Feb 15 j 19:56	22°♑26'43	-4.8m
	492 Mar 01 j 09:39	0°♒	
morning max el	492 Mar 27 j 09:08	22°♒06'08	46°12'17
desc. node	492 Apr 03 j 16:40	29°♒22'42	
	492 Apr 04 j 07:21	0°♓	
	492 May 02 j 06:54	0°♈	
	492 May 28 j 16:17	0°♉	
	492 Jun 23 j 06:51	0°♊	
	492 Jul 18 j 08:18	0°♋	
asc. node	492 Jul 25 j 19:57	9°♋04'16	
	492 Aug 11 j 22:51	0°♌	
	492 Sep 05 j 04:40	0°♍	
morning set	492 Sep 20 j 19:26	19°♍29'55	
	492 Sep 29 j 04:33	0°♎	
	492 Oct 23 j 01:26	0°♏	
superior conj	492 Oct 29 j 23:45	8°♏43'13	0°35'37
minimum elong	492 Oct 30 j 08:08	9°♏09'37	0°35'14
max. Earth dist.	492 Oct 29 j 12:38	8°♏08'14	1.71128 AU
desc. node	492 Nov 14 j 09:31	28°♏06'44	
	492 Nov 15 j 21:32	0°♐	
	492 Dec 09 j 18:14	0°♑	
evening rise	492 Dec 10 j 13:04	0°♑59'06	
	493 Jan 02 j 16:38	0°♒	
	493 Jan 26 j 18:21	0°♓	
	493 Feb 20 j 01:58	0°♈	
asc. node	493 Mar 07 j 12:50	18°♈49'41	
	493 Mar 16 j 19:05	0°♉	
	493 Apr 11 j 02:41	0°♊	
	493 May 07 j 10:05	0°♋	
	493 Jun 04 j 18:55	0°♌	
evening max el	493 Jun 10 j 07:27	5°♌22'26	45°25'54
desc. node	493 Jun 27 j 02:09	20°♌07'20	
	493 Jul 11 j 18:48	0°♍	
greatest brilliancy	493 Jul 19 j 04:28	3°♍14'10	-4.7m
retrograde	493 Jul 28 j 22:50	4°♍56'30	
	493 Aug 14 j 02:44	30°℞♌	
evening set	493 Aug 15 j 18:40	29°♌02'10	
inferior conj	493 Aug 19 j 03:01	27°♌00'00	-8°40'53
minimum elong	493 Aug 19 j 00:24	27°♌04'02	8°40'47
min. Earth dist.	493 Aug 19 j 15:48	26°♌40'18	0.28248 AU
morning rise	493 Aug 22 j 06:00	25°♌05'34	
direct	493 Sep 09 j 11:36	18°♌53'31	
greatest brilliancy	493 Sep 20 j 10:47	21°♌07'08	-4.8m
	493 Oct 05 j 18:11	0°♍	
asc. node	493 Oct 18 j 05:21	10°♍21'45	
morning max el	493 Oct 29 j 23:24	21°♍43'17	46°45'08
	493 Nov 06 j 22:19	0°♎	
	493 Dec 03 j 16:07	0°♏	
	493 Dec 28 j 22:46	0°♐	
	494 Jan 22 j 16:29	0°♑	
desc. node	494 Feb 06 j 19:04	18°♑27'10	
	494 Feb 16 j 05:29	0°♒	
	494 Mar 12 j 17:04	0°♓	
	494 Apr 06 j 04:34	0°♈	
	494 Apr 30 j 16:17	0°♉	
morning set	494 May 04 j 10:19	4°♉35'44	
	494 May 25 j 03:40	0°♊	
asc. node	494 May 30 j 22:19	7°♊05'20	
max. Earth dist.	494 Jun 08 j 07:22	17°♊22'30	1.73598 AU
superior conj	494 Jun 09 j 21:55	19°♊20'57	0°23'23
minimum elong	494 Jun 09 j 17:21	19°♊06'56	0°23'11
	494 Jun 18 j 13:48	0°♋	
	494 Jul 12 j 22:08	0°♌	
evening rise	494 Jul 15 j 15:48	3°♌22'37	
	494 Aug 06 j 05:08	0°♍	
	494 Aug 30 j 12:02	0°♎	
desc. node	494 Sep 19 j 11:54	24°♎38'52	
	494 Sep 23 j 20:16	0°♏	
	494 Oct 18 j 07:13	0°♐	
	494 Nov 11 j 23:16	0°♑	
	494 Dec 07 j 02:46	0°♒	
	495 Jan 02 j 10:44	0°♓	
asc. node	495 Jan 10 j 14:58	8°♓46'52	
evening max el	495 Jan 17 j 04:50	15°♓34'24	46°43'49
	495 Feb 01 j 11:20	0°♈	
greatest brilliancy	495 Feb 25 j 19:31	16°♈04'03	-4.8m
retrograde	495 Mar 08 j 11:12	18°♈10'43	
evening set	495 Mar 25 j 11:20	12°♈33'26	
inferior conj	495 Mar 29 j 17:56	9°♈53'30	6°50'15
minimum elong	495 Mar 30 j 03:14	9°♈38'43	6°48'36
min. Earth dist.	495 Mar 29 j 17:10	9°♈54'42	0.28696 AU
morning rise	495 Apr 03 j 19:28	6°♈46'24	
direct	495 Apr 20 j 02:36	1°♈40'16	
greatest brilliancy	495 Apr 29 j 20:01	3°♈23'46	-4.7m
desc. node	495 May 02 j 04:21	4°♈16'34	
	495 Jun 06 j 06:55	0°♉	
morning max el	495 Jun 07 j 21:05	1°♉30'25	45°44'46
	495 Jul 05 j 14:10	0°♊	
	495 Aug 01 j 07:06	0°♋	
asc. node	495 Aug 23 j 07:56	25°♋54'08	
	495 Aug 26 j 18:07	0°♌	
	495 Sep 20 j 10:31	0°♍	
	495 Oct 14 j 15:17	0°♎	
	495 Nov 07 j 13:55	0°♏	
	495 Dec 01 j 10:20	0°♐	
morning set	495 Dec 05 j 14:47	5°♐16'02	
desc. node	495 Dec 12 j 21:21	14°♐25'04	
	495 Dec 25 j 06:50	0°♑	
superior conj	496 Jan 16 j 13:07	27°♑56'14	-1°10'20
minimum elong	496 Jan 16 j 02:02	27°♑21'30	1°10'02
	496 Jan 18 j 04:39	0°♒	
max. Earth dist.	496 Jan 20 j 10:40	2°♒49'07	1.71532 AU
	496 Feb 11 j 04:49	0°♓	
evening rise	496 Feb 25 j 23:37	18°♓23'03	
	496 Mar 06 j 08:33	0°♈	
	496 Mar 30 j 17:05	0°♉	
asc. node	496 Apr 04 j 00:41	5°♉17'19	
	496 Apr 24 j 07:28	0°♊	
	496 May 19 j 05:03	0°♋	
	496 Jun 13 j 12:32	0°♌	
	496 Jul 09 j 12:10	0°♍	
desc. node	496 Jul 24 j 14:04	16°♍49'48	
	496 Aug 05 j 19:12	0°♎	
evening max el	496 Aug 22 j 03:06	16°♎36'57	46°28'24
	496 Sep 05 j 18:32	0°♏	

greatest brilliancy	496 Oct 01 j 17:33	16°♏20'41	-4.9m
retrograde	496 Oct 10 j 21:03	17°♏54'35	
evening set	496 Oct 25 j 23:28	13°♏29'51	
inferior conj	496 Oct 31 j 11:43	10°♏16'28	-3°35'18
minimum elong	496 Oct 31 j 19:24	10°♏04'48	3°33'00
min. Earth dist.	496 Oct 31 j 22:42	9°♏59'46	0.26530 AU
morning rise	496 Nov 06 j 14:49	6°♏42'00	
asc. node	496 Nov 14 j 17:12	3°♏24'32	
direct	496 Nov 20 j 22:03	2°♏36'52	
greatest brilliancy	496 Dec 01 j 13:37	4°♏45'25	-4.9m
	497 Jan 04 j 15:11	0°♐	
morning max el	497 Jan 10 j 12:01	5°♐48'45	46°52'26
	497 Feb 02 j 03:41	0°♑	
	497 Feb 28 j 11:00	0°♒	
desc. node	497 Mar 06 j 07:00	6°♒48'03	
	497 Mar 25 j 23:26	0°♓	
	497 Apr 20 j 03:12	0°♈	
	497 May 15 j 01:54	0°♉	
	497 Jun 08 j 20:16	0°♊	
asc. node	497 Jun 27 j 10:13	22°♊40'16	
	497 Jul 03 j 09:46	0°♋	
morning set	497 Jul 10 j 20:24	9°♋08'34	
	497 Jul 27 j 18:04	0°♌	
max. Earth dist.	497 Aug 12 j 16:06	19°♌44'39	1.72499 AU
superior conj	497 Aug 16 j 09:28	24°♌22'31	1°23'29
minimum elong	497 Aug 16 j 06:28	24°♌13'12	1°23'27
	497 Aug 20 j 21:53	0°♍	
	497 Sep 13 j 22:52	0°♎	
evening rise	497 Sep 23 j 01:10	11°♎22'14	
	497 Oct 07 j 22:47	0°♏	
desc. node	497 Oct 16 j 23:45	11°♏18'13	
	497 Oct 31 j 22:56	0°♐	
	497 Nov 25 j 00:21	0°♑	
	497 Dec 19 j 04:57	0°♒	
	498 Jan 12 j 16:39	0°♓	
	498 Feb 06 j 18:53	0°♈	
asc. node	498 Feb 07 j 02:54	0°♈23'31	
	498 Mar 05 j 02:12	0°♉	
evening max el	498 Mar 29 j 02:02	25°♉00'28	45°35'03
	498 Apr 03 j 08:15	0°♊	
greatest brilliancy	498 May 05 j 21:43	22°♊58'26	-4.7m
retrograde	498 May 16 j 20:47	25°♊08'33	
desc. node	498 May 29 j 16:20	21°♊55'20	
evening set	498 May 31 j 21:31	20°♊46'55	
inferior conj	498 Jun 07 j 08:17	16°♊56'15	-2°00'46
minimum elong	498 Jun 07 j 03:56	17°♊03'03	1°59'32
min. Earth dist.	498 Jun 07 j 10:27	16°♊52'53	0.28975 AU
morning rise	498 Jun 13 j 10:10	13°♊16'57	
direct	498 Jun 29 j 00:03	8°♊37'46	
greatest brilliancy	498 Jul 09 j 14:55	10°♊38'55	-4.7m
	498 Aug 07 j 13:29	0°♋	
morning max el	498 Aug 17 j 03:57	8°♋54'57	46°02'19
	498 Sep 06 j 13:41	0°♌	
asc. node	498 Sep 19 j 19:40	14°♌44'09	
	498 Oct 03 j 00:45	0°♍	
	498 Oct 28 j 02:11	0°♎	
	498 Nov 21 j 11:46	0°♏	
	498 Dec 15 j 14:34	0°♐	
	499 Jan 08 j 15:28	0°♑	
desc. node	499 Jan 09 j 09:17	0°♑55'34	
	499 Feb 01 j 16:49	0°♒	
morning set	499 Feb 20 j 12:03	23°♒23'25	
	499 Feb 25 j 19:45	0°♓	
	499 Mar 22 j 00:54	0°♈	
superior conj	499 Mar 31 j 07:06	11°♈26'17	-1°06'41
minimum elong	499 Mar 31 j 16:43	11°♈55'58	1°06'24
max. Earth dist.	499 Apr 02 j 20:15	14°♈34'57	1.73077 AU
	499 Apr 15 j 08:33	0°♉	
asc. node	499 May 02 j 12:31	21°♉06'14	
evening rise	499 May 07 j 18:28	27°♉32'40	
	499 May 09 j 18:31	0°♊	
	499 Jun 03 j 06:31	0°♋	
	499 Jun 27 j 20:40	0°♌	
	499 Jul 22 j 14:04	0°♍	
	499 Aug 16 j 12:56	0°♎	
desc. node	499 Aug 22 j 01:58	6°♎36'44	
	499 Sep 10 j 20:51	0°♏	
	499 Oct 06 j 21:28	0°♐	
	499 Nov 03 j 14:46	0°♑	
evening max el	499 Nov 04 j 04:40	0°♑35'20	47°22'41
	499 Dec 09 j 19:46	0°♒	
asc. node	499 Dec 13 j 05:10	1°♒36'50	
greatest brilliancy	499 Dec 14 j 18:13	2°♒14'21	-4.9m
retrograde	499 Dec 25 j 04:33	4°♒19'41	
	500 Jan 08 j 18:56	30°℞♑	
evening set	500 Jan 10 j 03:12	29°♑14'22	
min. Earth dist.	500 Jan 13 j 21:57	26°♑57'08	0.27132 AU
inferior conj	500 Jan 14 j 22:06	26°♑19'38	7°09'46
minimum elong	500 Jan 14 j 12:24	26°♑34'42	7°08'01
morning rise	500 Jan 18 j 22:06	23°♑53'38	
direct	500 Feb 04 j 10:56	18°♑33'08	
greatest brilliancy	500 Feb 13 j 08:32	20°♑03'29	-4.8m
	500 Mar 02 j 06:50	0°♒	
morning max el	500 Mar 24 j 23:42	19°♒48'57	46°13'35
desc. node	500 Apr 02 j 18:40	28°♒36'16	
	500 Apr 04 j 03:16	0°♓	
	500 May 01 j 21:57	0°♈	
	500 May 28 j 05:18	0°♉	
	500 Jun 22 j 18:48	0°♊	
	500 Jul 17 j 19:39	0°♋	
asc. node	500 Jul 24 j 22:04	8°♋36'36	
	500 Aug 11 j 09:53	0°♌	
	500 Sep 04 j 15:34	0°♍	
morning set	500 Sep 18 j 09:52	17°♍10'56	
	500 Sep 28 j 15:26	0°♎	
	500 Oct 22 j 12:19	0°♏	
superior conj	500 Oct 27 j 11:05	6°♏13'32	0°39'05
minimum elong	500 Oct 27 j 20:02	6°♏41'42	0°38'40
max. Earth dist.	500 Oct 26 j 18:00	5°♏19'50	1.71145 AU
desc. node	500 Nov 13 j 11:39	27°♏39'03	
	500 Nov 15 j 08:28	0°♐	
evening rise	500 Dec 07 j 22:58	28°♐25'02	
	500 Dec 09 j 05:13	0°♑	
	501 Jan 02 j 03:40	0°♒	
	501 Jan 26 j 05:29	0°♓	
	501 Feb 19 j 13:22	0°♈	
asc. node	501 Mar 06 j 14:47	18°♈20'09	
	501 Mar 16 j 07:00	0°♉	
	501 Apr 10 j 15:38	0°♊	
	501 May 07 j 01:13	0°♋	
	501 Jun 04 j 15:59	0°♌	
evening max el	501 Jun 07 j 22:08	3°♌08'41	45°24'44
desc. node	501 Jun 26 j 04:20	19°♌02'38	
	501 Jul 14 j 03:00	0°♍	
greatest brilliancy	501 Jul 16 j 17:57	0°♍58'55	-4.7m
retrograde	501 Jul 26 j 12:30	2°♍41'25	
	501 Aug 07 j 07:13	30°℞♌	
evening set	501 Aug 13 j 06:53	26°♌50'26	
inferior conj	501 Aug 16 j 17:40	24°♌44'27	-8°37'18
minimum elong	501 Aug 16 j 14:15	24°♌49'45	8°37'09
min. Earth dist.	501 Aug 17 j 05:54	24°♌25'34	0.28297 AU

morning rise	501 Aug 19 j 21:27	22°♌48'32	
direct	501 Sep 07 j 02:33	16°♌37'17	
greatest brilliancy	501 Sep 18 j 01:37	18°♌49'57	-4.8m
	501 Oct 06 j 09:25	0°♍	
asc. node	501 Oct 17 j 07:28	9°♍23'28	
morning max el	501 Oct 27 j 12:42	19°♍19'27	46°43'58
	501 Nov 06 j 17:33	0°♎	
	501 Dec 03 j 07:11	0°♏	
	501 Dec 28 j 12:04	0°♐	
	502 Jan 22 j 04:48	0°♑	
desc. node	502 Feb 05 j 21:08	17°♑57'10	
	502 Feb 15 j 17:09	0°♒	
	502 Mar 12 j 04:15	0°♓	
	502 Apr 05 j 15:26	0°♈	
	502 Apr 30 j 02:57	0°♉	
morning set	502 May 02 j 04:11	2°♉30'47	
	502 May 24 j 14:15	0°♊	
asc. node	502 May 30 j 00:28	6°♊39'32	
max. Earth dist.	502 Jun 06 j 02:54	15°♊22'41	1.73612 AU
superior conj	502 Jun 07 j 16:26	17°♊17'56	0°20'22
minimum elong	502 Jun 07 j 12:25	17°♊05'37	0°20'11
	502 Jun 18 j 00:23	0°♋	
	502 Jul 12 j 08:48	0°♌	
evening rise	502 Jul 13 j 10:22	1°♌18'49	
	502 Aug 05 j 16:00	0°♍	
	502 Aug 29 j 23:14	0°♎	
desc. node	502 Sep 18 j 13:52	24°♎09'20	
	502 Sep 23 j 07:56	0°♏	
	502 Oct 17 j 19:28	0°♐	
	502 Nov 11 j 12:21	0°♑	
	502 Dec 06 j 17:17	0°♒	
	503 Jan 02 j 04:31	0°♓	
asc. node	503 Jan 09 j 17:07	8°♓01'07	
evening max el	503 Jan 14 j 18:50	13°♓14'16	46°46'24
	503 Feb 01 j 18:13	0°♈	
greatest brilliancy	503 Feb 23 j 12:56	13°♈53'33	-4.8m
retrograde	503 Mar 06 j 03:10	15°♈59'27	
evening set	503 Mar 23 j 06:18	10°♈18'15	
inferior conj	503 Mar 27 j 10:11	7°♈42'28	7°02'19
minimum elong	503 Mar 27 j 19:16	7°♈28'01	7°00'48
min. Earth dist.	503 Mar 27 j 09:03	7°♈44'16	0.28666 AU
morning rise	503 Apr 01 j 08:30	4°♈39'49	
	503 Apr 12 j 16:40	30°℞♓	
direct	503 Apr 17 j 17:45	29°♓29'42	
	503 Apr 22 j 22:03	0°♈	
greatest brilliancy	503 Apr 27 j 11:09	1°♈12'49	-4.7m
desc. node	503 May 01 j 06:28	2°♈42'50	
morning max el	503 Jun 05 j 11:57	29°♈18'25	45°44'56
	503 Jun 06 j 05:21	0°♉	
	503 Jul 05 j 05:42	0°♊	
	503 Jul 31 j 20:16	0°♋	
asc. node	503 Aug 22 j 09:54	25°♋23'39	
	503 Aug 26 j 06:11	0°♌	
	503 Sep 19 j 22:00	0°♍	
	503 Oct 14 j 02:30	0°♎	
	503 Nov 07 j 01:00	0°♏	
	503 Nov 30 j 21:21	0°♐	
morning set	503 Dec 03 j 00:34	2°♐41'09	
desc. node	503 Dec 11 j 23:28	13°♐57'12	
	503 Dec 24 j 17:47	0°♑	
superior conj	504 Jan 13 j 23:25	25°♑23'59	-1°08'02
minimum elong	504 Jan 13 j 11:58	24°♑48'08	1°07'41
max. Earth dist.	504 Jan 17 j 15:25	29°♑59'38	1.71482 AU
	504 Jan 17 j 15:32	0°♒	
	504 Feb 10 j 15:39	0°♓	
evening rise	504 Feb 23 j 12:17	15°♓59'49	
	504 Mar 05 j 19:23	0°♈	
	504 Mar 30 j 03:59	0°♉	
asc. node	504 Apr 03 j 02:46	4°♉50'13	
	504 Apr 23 j 18:38	0°♊	
	504 May 18 j 16:44	0°♋	
	504 Jun 13 j 01:13	0°♌	
	504 Jul 09 j 02:43	0°♍	
desc. node	504 Jul 23 j 16:05	16°♍10'26	
	504 Aug 05 j 13:56	0°♎	
evening max el	504 Aug 19 j 15:31	14°♎13'18	46°25'43
	504 Sep 06 j 05:08	0°♏	
greatest brilliancy	504 Sep 29 j 06:04	13°♏53'33	-4.9m
retrograde	504 Oct 08 j 09:06	15°♏27'09	
evening set	504 Oct 23 j 14:08	10°♏58'16	
inferior conj	504 Oct 28 j 23:51	7°♏48'38	-3°57'16
minimum elong	504 Oct 29 j 08:10	7°♏36'01	3°54'51
min. Earth dist.	504 Oct 29 j 12:09	7°♏29'59	0.26572 AU
morning rise	504 Nov 04 j 01:41	4°♏16'10	
asc. node	504 Nov 13 j 19:20	0°♏34'52	
direct	504 Nov 18 j 10:43	0°♏08'04	
greatest brilliancy	504 Nov 29 j 03:47	2°♏18'27	-4.9m
	505 Jan 04 j 16:13	0°♐	
morning max el	505 Jan 08 j 02:10	3°♐25'00	46°53'14
	505 Feb 01 j 20:43	0°♑	
	505 Feb 28 j 01:10	0°♒	
desc. node	505 Mar 05 j 08:56	6°♒13'26	
	505 Mar 25 j 12:08	0°♓	
	505 Apr 19 j 15:02	0°♈	
	505 May 14 j 13:09	0°♉	
	505 Jun 08 j 07:08	0°♊	
asc. node	505 Jun 26 j 12:17	22°♊13'49	
	505 Jul 02 j 20:27	0°♋	
morning set	505 Jul 08 j 14:26	7°♋03'39	
	505 Jul 27 j 04:44	0°♌	
max. Earth dist.	505 Aug 10 j 10:56	17°♌40'44	1.72555 AU
superior conj	505 Aug 14 j 02:34	22°♌13'05	1°22'52
minimum elong	505 Aug 13 j 22:56	22°♌01'45	1°22'50
	505 Aug 20 j 08:38	0°♍	
	505 Sep 13 j 09:46	0°♎	
evening rise	505 Sep 20 j 15:05	9°♎01'29	
	505 Oct 07 j 09:52	0°♏	
desc. node	505 Oct 16 j 01:53	10°♏49'57	
	505 Oct 31 j 10:13	0°♐	
	505 Nov 24 j 11:55	0°♑	
	505 Dec 18 j 16:53	0°♒	
	506 Jan 12 j 05:12	0°♓	
asc. node	506 Feb 06 j 04:51	29°♓49'09	
	506 Feb 06 j 08:33	0°♈	
	506 Mar 04 j 18:26	0°♉	
evening max el	506 Mar 26 j 18:41	22°♉51'31	45°36'56
	506 Apr 03 j 09:01	0°♊	
greatest brilliancy	506 May 03 j 13:41	20°♊50'15	-4.7m
retrograde	506 May 14 j 13:59	23°♊01'04	
desc. node	506 May 28 j 18:27	19°♊05'39	
evening set	506 May 29 j 14:00	18°♊39'31	
inferior conj	506 Jun 05 j 00:50	14°♊48'21	-1°41'38
minimum elong	506 Jun 04 j 21:09	14°♊54'06	1°40'34
min. Earth dist.	506 Jun 05 j 02:41	14°♊45'28	0.28977 AU
morning rise	506 Jun 11 j 04:14	11°♊07'06	
direct	506 Jun 26 j 17:04	6°♊29'56	
greatest brilliancy	506 Jul 07 j 06:23	8°♊30'05	-4.7m
	506 Aug 07 j 15:30	0°♋	
morning max el	506 Aug 14 j 20:32	6°♋45'56	46°00'55
	506 Sep 06 j 06:14	0°♌	
asc. node	506 Sep 18 j 21:47	14°♌07'47	

	506 Oct 02 j 14:35	0°♍		
	506 Oct 27 j 14:52	0°♎		
	506 Nov 20 j 23:49	0°♏		
	506 Dec 15 j 02:15	0°♐		
desc. node	507 Jan 08 j 11:19	0°♑26'21		
	507 Jan 08 j 02:52	0°♑		
	507 Feb 01 j 04:01	0°♒		
morning set	507 Feb 18 j 00:26	20°♒58'22		
	507 Feb 25 j 06:47	0°♓		
	507 Mar 21 j 11:48	0°♈		
superior conj	507 Mar 28 j 22:33	9°♈12'14	-1°08'47	
minimum elong	507 Mar 29 j 08:03	9°♈41'33	1°08'31	
max. Earth dist.	507 Mar 31 j 16:01	12°♈34'18	1.73033 AU	
	507 Apr 14 j 19:22	0°♉		
asc. node	507 May 01 j 14:42	20°♉39'38		
evening rise	507 May 05 j 12:19	25°♉26'53		
	507 May 09 j 05:23	0°♊		
	507 Jun 02 j 17:31	0°♋		
	507 Jun 27 j 07:58	0°♌		
	507 Jul 22 j 01:54	0°♍		
	507 Aug 16 j 01:37	0°♎		
desc. node	507 Aug 21 j 03:58	6°♎04'13		
	507 Sep 10 j 10:56	0°♏		
	507 Oct 06 j 14:08	0°♐		
evening max el	507 Nov 01 j 20:02	28°♐14'15	47°22'01	
	507 Nov 03 j 14:00	0°♑		
asc. node	507 Dec 12 j 07:16	29°♑47'04		
greatest brilliancy	507 Dec 12 j 08:23	29°♑48'07	-4.9m	
	507 Dec 12 j 21:10	0°♒		
retrograde	507 Dec 22 j 18:38	1°♒52'42		
	508 Jan 01 j 05:59	30°℞♑		
evening set	508 Jan 07 j 13:03	26°♑53'38		
min. Earth dist.	508 Jan 11 j 11:09	24°♑31'29	0.27067 AU	
inferior conj	508 Jan 12 j 11:21	23°♑53'52	6°56'17	
minimum elong	508 Jan 12 j 01:25	24°♑09'19	6°54'21	
morning rise	508 Jan 16 j 14:19	21°♑23'37		
direct	508 Feb 02 j 00:05	16°♑08'44		
greatest brilliancy	508 Feb 10 j 21:16	17°♑38'46	-4.8m	
	508 Mar 02 j 23:04	0°♒		
morning max el	508 Mar 22 j 13:07	17°♒28'05	46°15'01	
desc. node	508 Apr 01 j 20:52	27°♒50'28		
	508 Apr 03 j 22:50	0°♓		
	508 May 01 j 12:59	0°♈		
	508 May 27 j 18:23	0°♉		
	508 Jun 22 j 06:51	0°♊		
	508 Jul 17 j 07:07	0°♋		
asc. node	508 Jul 24 j 00:03	8°♋08'06		
	508 Aug 10 j 21:03	0°♌		
	508 Sep 04 j 02:36	0°♍		
morning set	508 Sep 16 j 00:53	14°♍53'21		
	508 Sep 28 j 02:26	0°♎		
	508 Oct 21 j 23:23	0°♏		
max. Earth dist.	508 Oct 23 j 22:48	2°♏29'05	1.71175 AU	
superior conj	508 Oct 24 j 22:50	3°♏44'41	0°42'24	
minimum elong	508 Oct 25 j 08:16	4°♏14'21	0°42'00	
desc. node	508 Nov 12 j 13:47	27°♏10'36		
	508 Nov 14 j 19:39	0°♐		
evening rise	508 Dec 05 j 08:41	25°♐49'22		
	508 Dec 08 j 16:30	0°♑		
	509 Jan 01 j 15:03	0°♒		
	509 Jan 25 j 17:00	0°♓		
	509 Feb 19 j 01:08	0°♈		
asc. node	509 Mar 05 j 16:54	17°♈50'06		
	509 Mar 15 j 19:18	0°♉		
	509 Apr 10 j 05:01	0°♊		
	509 May 06 j 16:55	0°♋		
	509 Jun 04 j 14:09	0°♌		
evening max el	509 Jun 05 j 12:22	0°♌53'12	45°23'46	
desc. node	509 Jun 25 j 06:21	17°♌55'27		
greatest brilliancy	509 Jul 14 j 07:51	28°♌44'00	-4.7m	
	509 Jul 19 j 04:29	0°♍		
retrograde	509 Jul 24 j 02:26	0°♍26'58		
	509 Jul 28 j 21:47	30°℞♌		
evening set	509 Aug 10 j 19:08	24°♌39'28		
inferior conj	509 Aug 14 j 08:41	22°♌29'27	-8°32'59	
minimum elong	509 Aug 14 j 04:27	22°♌35'59	8°32'44	
min. Earth dist.	509 Aug 14 j 20:34	22°♌11'04	0.28343 AU	
morning rise	509 Aug 17 j 13:33	20°♌31'43		
direct	509 Sep 04 j 17:30	14°♌21'27		
greatest brilliancy	509 Sep 15 j 17:15	16°♌34'05	-4.8m	
	509 Oct 06 j 20:49	0°♍		
asc. node	509 Oct 16 j 09:35	8°♍26'20		
morning max el	509 Oct 25 j 02:05	16°♍55'39	46°42'45	
	509 Nov 06 j 12:25	0°♎		
	509 Dec 02 j 22:18	0°♏		
	509 Dec 28 j 01:35	0°♐		
	510 Jan 21 j 17:27	0°♑		
desc. node	510 Feb 04 j 23:07	17°♑25'41		
	510 Feb 15 j 05:12	0°♒		
	510 Mar 11 j 15:53	0°♓		
	510 Apr 05 j 02:44	0°♈		
morning set	510 Apr 29 j 21:41	0°♉23'28		
	510 Apr 29 j 14:01	0°♉		
	510 May 24 j 01:12	0°♊		
asc. node	510 May 29 j 02:29	6°♊12'10		
max. Earth dist.	510 Jun 03 j 22:49	13°♊22'56	1.73623 AU	
superior conj	510 Jun 05 j 10:51	15°♊13'35	0°17'20	
minimum elong	510 Jun 05 j 07:24	15°♊03'00	0°17'09	
	510 Jun 17 j 11:19	0°♋		
evening rise	510 Jul 11 j 05:09	29°♋14'44		
	510 Jul 11 j 19:50	0°♌		
	510 Aug 05 j 03:13	0°♍		
	510 Aug 29 j 10:46	0°♎		
desc. node	510 Sep 17 j 16:03	23°♎39'35		
	510 Sep 22 j 19:53	0°♏		
	510 Oct 17 j 08:00	0°♐		
	510 Nov 11 j 01:46	0°♑		
	510 Dec 06 j 08:17	0°♒		
	511 Jan 01 j 23:12	0°♓		
asc. node	511 Jan 08 j 19:02	7°♓12'47		
evening max el	511 Jan 12 j 08:36	10°♓52'07	46°48'41	
	511 Feb 02 j 04:38	0°♈		
greatest brilliancy	511 Feb 21 j 05:44	11°♈39'54	-4.8m	
retrograde	511 Mar 03 j 19:07	13°♈45'40		
evening set	511 Mar 21 j 00:55	8°♈00'18		
inferior conj	511 Mar 25 j 02:07	5°♈28'46	7°13'54	
minimum elong	511 Mar 25 j 10:56	5°♈14'46	7°12'30	
min. Earth dist.	511 Mar 25 j 00:34	5°♈31'13	0.28639 AU	
morning rise	511 Mar 29 j 21:10	2°♈30'56		
	511 Apr 03 j 15:41	30°℞♓		
direct	511 Apr 15 j 08:31	27°♓16'19		
greatest brilliancy	511 Apr 25 j 02:07	28°♓59'30	-4.7m	
	511 Apr 27 j 18:11	0°♈		
desc. node	511 Apr 30 j 08:34	1°♈10'12		
morning max el	511 Jun 03 j 03:23	27°♈06'09	45°45'18	
	511 Jun 06 j 03:32	0°♉		
	511 Jul 04 j 21:29	0°♊		
	511 Jul 31 j 09:43	0°♋		
asc. node	511 Aug 21 j 11:58	24°♋52'32		
	511 Aug 25 j 18:32	0°♌		
	511 Sep 19 j 09:48	0°♍		

	511 Oct 13 j 14:01	0°♎	
	511 Nov 06 j 12:23	0°♏	
morning set	511 Nov 30 j 11:00	0°♐07'27	
	511 Nov 30 j 08:38	0°♐	
desc. node	511 Dec 11 j 01:29	13°♐28'13	
	511 Dec 24 j 05:00	0°♑	
superior conj	512 Jan 11 j 09:51	22°♑51'14	-1°05'35
minimum elong	512 Jan 10 j 22:09	22°♑14'31	1°05'12
max. Earth dist.	512 Jan 14 j 21:07	27°♑12'09	1.71443 AU
	512 Jan 17 j 02:42	0°♒	
	512 Feb 10 j 02:49	0°♓	
evening rise	512 Feb 21 j 00:51	13°♓35'05	
	512 Mar 05 j 06:36	0°♈	
	512 Mar 29 j 15:21	0°♉	
asc. node	512 Apr 02 j 04:53	4°♉21'53	
	512 Apr 23 j 06:16	0°♊	
	512 May 18 j 04:55	0°♋	
	512 Jun 12 j 14:25	0°♌	
	512 Jul 08 j 17:54	0°♍	
desc. node	512 Jul 22 j 18:05	15°♍29'34	
	512 Aug 05 j 09:38	0°♎	
evening max el	512 Aug 17 j 04:57	11°♎51'20	46°23'09
	512 Sep 06 j 19:46	0°♏	
greatest brilliancy	512 Sep 26 j 18:14	11°♏25'34	-4.9m
retrograde	512 Oct 05 j 21:43	12°♏59'12	
evening set	512 Oct 21 j 05:04	8°♏26'12	
inferior conj	512 Oct 26 j 12:04	5°♏20'16	-4°18'46
minimum elong	512 Oct 26 j 20:57	5°♏06'49	4°16'16
min. Earth dist.	512 Oct 27 j 01:19	5°♏00'12	0.26613 AU
morning rise	512 Nov 01 j 12:22	1°♏50'12	
	512 Nov 05 j 07:19	30°℞♎	
asc. node	512 Nov 12 j 21:21	27°♎51'01	
direct	512 Nov 15 j 23:55	27°♎39'01	
greatest brilliancy	512 Nov 26 j 17:25	29°♎50'21	-4.9m
	512 Nov 27 j 03:11	0°♏	
	513 Jan 04 j 16:15	0°♐	
morning max el	513 Jan 05 j 16:57	1°♐02'22	46°54'00
	513 Feb 01 j 13:35	0°♑	
	513 Feb 27 j 15:23	0°♒	
desc. node	513 Mar 04 j 11:10	5°♒39'15	
	513 Mar 25 j 01:01	0°♓	
	513 Apr 19 j 03:06	0°♈	
	513 May 14 j 00:43	0°♉	
	513 Jun 07 j 18:22	0°♊	
asc. node	513 Jun 25 j 14:18	21°♊46'06	
	513 Jul 02 j 07:29	0°♋	
morning set	513 Jul 06 j 08:17	4°♋57'10	
	513 Jul 26 j 15:42	0°♌	
max. Earth dist.	513 Aug 08 j 04:15	15°♌31'19	1.72606 AU
superior conj	513 Aug 11 j 19:34	20°♌02'31	1°22'08
minimum elong	513 Aug 11 j 15:18	19°♌49'17	1°22'06
	513 Aug 19 j 19:39	0°♍	
	513 Sep 12 j 20:55	0°♎	
evening rise	513 Sep 18 j 05:03	6°♎40'10	
	513 Oct 06 j 21:13	0°♏	
desc. node	513 Oct 15 j 03:58	10°♏20'46	
	513 Oct 30 j 21:47	0°♐	
	513 Nov 23 j 23:43	0°♑	
	513 Dec 18 j 05:03	0°♒	
	514 Jan 11 j 17:57	0°♓	
asc. node	514 Feb 05 j 07:01	29°♓14'53	
	514 Feb 05 j 22:28	0°♈	
	514 Mar 04 j 11:06	0°♉	
evening max el	514 Mar 24 j 11:27	20°♉42'14	45°38'35
	514 Apr 03 j 11:27	0°♊	
greatest brilliancy	514 May 01 j 06:03	18°♊41'30	-4.7m
retrograde	514 May 12 j 06:37	20°♊52'11	
evening set	514 May 27 j 06:31	16°♊30'46	
desc. node	514 May 27 j 20:28	16°♊11'31	
inferior conj	514 Jun 02 j 17:15	12°♊39'13	-1°22'12
minimum elong	514 Jun 02 j 14:15	12°♊43'54	1°21'19
min. Earth dist.	514 Jun 02 j 19:00	12°♊36'28	0.28980 AU
morning rise	514 Jun 08 j 22:00	8°♊55'56	
direct	514 Jun 24 j 09:57	4°♊20'56	
greatest brilliancy	514 Jul 04 j 21:38	6°♊19'43	-4.7m
	514 Aug 07 j 16:37	0°♋	
morning max el	514 Aug 12 j 12:26	4°♋34'24	45°59'36
	514 Sep 05 j 22:46	0°♌	
asc. node	514 Sep 17 j 23:59	13°♌31'15	
	514 Oct 02 j 04:30	0°♍	
	514 Oct 27 j 03:36	0°♎	
	514 Nov 20 j 11:57	0°♏	
	514 Dec 14 j 14:00	0°♐	
desc. node	515 Jan 07 j 13:19	29°♐56'45	
	515 Jan 07 j 14:22	0°♑	
	515 Jan 31 j 15:17	0°♒	
morning set	515 Feb 15 j 12:58	18°♒33'31	
	515 Feb 24 j 17:52	0°♓	
	515 Mar 20 j 22:44	0°♈	
superior conj	515 Mar 26 j 14:09	6°♈58'29	-1°10'46
minimum elong	515 Mar 26 j 23:27	7°♈27'12	1°10'31
max. Earth dist.	515 Mar 29 j 13:00	10°♈37'16	1.72986 AU
	515 Apr 14 j 06:14	0°♉	
asc. node	515 Apr 30 j 16:44	20°♉12'23	
evening rise	515 May 03 j 06:11	23°♉20'58	
	515 May 08 j 16:18	0°♊	
	515 Jun 02 j 04:38	0°♋	
	515 Jun 26 j 19:26	0°♌	
	515 Jul 21 j 13:55	0°♍	
	515 Aug 15 j 14:30	0°♎	
desc. node	515 Aug 20 j 06:08	5°♎31'41	
	515 Sep 10 j 01:15	0°♏	
	515 Oct 06 j 07:11	0°♐	
evening max el	515 Oct 30 j 10:38	25°♐51'10	47°21'19
	515 Nov 03 j 14:17	0°♑	
greatest brilliancy	515 Dec 09 j 23:06	27°♑22'30	-4.9m
asc. node	515 Dec 11 j 09:17	27°♑52'55	
retrograde	515 Dec 20 j 08:10	29°♑25'37	
evening set	516 Jan 04 j 23:01	24°♑32'45	
min. Earth dist.	516 Jan 09 j 00:50	22°♑05'14	0.27002 AU
inferior conj	516 Jan 10 j 00:37	21°♑28'13	6°41'55
minimum elong	516 Jan 09 j 14:32	21°♑43'56	6°39'51
morning rise	516 Jan 14 j 06:35	18°♑53'31	
direct	516 Jan 30 j 12:45	13°♑44'17	
greatest brilliancy	516 Feb 08 j 10:42	15°♑14'38	-4.9m
	516 Mar 03 j 11:09	0°♒	
morning max el	516 Mar 20 j 01:51	15°♒05'28	46°16'35
desc. node	516 Mar 31 j 22:54	27°♒05'13	
	516 Apr 03 j 17:45	0°♓	
	516 May 01 j 03:42	0°♈	
	516 May 27 j 07:16	0°♉	
	516 Jun 21 j 18:47	0°♊	
	516 Jul 16 j 18:32	0°♋	
asc. node	516 Jul 23 j 02:12	7°♋40'15	
	516 Aug 10 j 08:12	0°♌	
	516 Sep 03 j 13:37	0°♍	
morning set	516 Sep 13 j 15:37	12°♍34'59	
	516 Sep 27 j 13:25	0°♎	
max. Earth dist.	516 Oct 21 j 03:55	29°♎39'35	1.71203 AU
	516 Oct 21 j 10:25	0°♏	

superior conj	516 Oct 22 j 10:28	1°♏15'38	0°45'40
minimum elong	516 Oct 22 j 20:19	1°♏46'35	0°45'16
desc. node	516 Nov 11 j 15:45	26°♏41'53	
	516 Nov 14 j 06:44	0°♐	
evening rise	516 Dec 02 j 18:19	23°♐13'51	
	516 Dec 08 j 03:41	0°♑	
	517 Jan 01 j 02:19	0°♒	
	517 Jan 25 j 04:24	0°♓	
	517 Feb 18 j 12:48	0°♈	
asc. node	517 Mar 04 j 19:02	17°♈20'26	
	517 Mar 15 j 07:31	0°♉	
	517 Apr 09 j 18:18	0°♊	
	517 May 06 j 08:36	0°♋	
evening max el	517 Jun 03 j 02:13	28°♋37'34	45°22'49
	517 Jun 04 j 12:57	0°♌	
desc. node	517 Jun 24 j 08:23	16°♌47'00	
greatest brilliancy	517 Jul 11 j 20:56	26°♌28'42	-4.7m
retrograde	517 Jul 21 j 16:34	28°♌13'02	
evening set	517 Aug 08 j 07:00	22°♌28'58	
inferior conj	517 Aug 11 j 23:35	20°♌14'40	-8°27'49
minimum elong	517 Aug 11 j 18:36	20°♌22'20	8°27'27
min. Earth dist.	517 Aug 12 j 11:04	19°♌56'55	0.28394 AU
morning rise	517 Aug 15 j 05:58	18°♌14'42	
direct	517 Sep 02 j 08:26	12°♌05'38	
greatest brilliancy	517 Sep 13 j 09:14	14°♌18'52	-4.8m
	517 Oct 07 j 05:14	0°♍	
asc. node	517 Oct 15 j 11:36	7°♍30'12	
morning max el	517 Oct 22 j 16:15	14°♍34'02	46°41'36
	517 Nov 06 j 06:46	0°♎	
	517 Dec 02 j 13:07	0°♏	
	517 Dec 27 j 14:51	0°♐	
	518 Jan 21 j 05:48	0°♑	
desc. node	518 Feb 04 j 01:19	16°♑55'45	
	518 Feb 14 j 16:57	0°♒	
	518 Mar 11 j 03:12	0°♓	
	518 Apr 04 j 13:45	0°♈	
morning set	518 Apr 27 j 15:17	28°♈17'10	
	518 Apr 29 j 00:50	0°♉	
	518 May 23 j 11:53	0°♊	
asc. node	518 May 28 j 04:33	5°♊45'47	
max. Earth dist.	518 Jun 01 j 20:17	11°♊28'48	1.73631 AU
superior conj	518 Jun 03 j 05:28	13°♊10'43	0°14'16
minimum elong	518 Jun 03 j 02:36	13°♊01'55	0°14'08
behind sun begin	518 Jun 02 j 16:28	12°♊30'47	
behind sun end	518 Jun 03 j 12:45	13°♊33'03	
	518 Jun 16 j 21:58	0°♋	
evening rise	518 Jul 09 j 00:14	27°♋12'33	
	518 Jul 11 j 06:34	0°♌	
	518 Aug 04 j 14:11	0°♍	
	518 Aug 28 j 22:06	0°♎	
desc. node	518 Sep 16 j 18:06	23°♎09'58	
	518 Sep 22 j 07:42	0°♏	
	518 Oct 16 j 20:26	0°♐	
	518 Nov 10 j 15:07	0°♑	
	518 Dec 05 j 23:16	0°♒	
	519 Jan 01 j 18:04	0°♓	
asc. node	519 Jan 07 j 21:13	6°♓25'13	
evening max el	519 Jan 09 j 23:06	8°♓32'34	46°51'15
	519 Feb 02 j 18:04	0°♈	
greatest brilliancy	519 Feb 18 j 21:55	9°♈26'31	-4.8m
retrograde	519 Mar 01 j 11:35	11°♈32'57	
evening set	519 Mar 18 j 19:31	5°♈43'15	
inferior conj	519 Mar 22 j 18:04	3°♈15'57	7°24'53
minimum elong	519 Mar 23 j 02:35	3°♈02'28	7°23'36
min. Earth dist.	519 Mar 22 j 15:48	3°♈19'32	0.28609 AU
morning rise	519 Mar 27 j 09:51	0°♈23'11	
	519 Mar 28 j 01:47	30°℞♓	
direct	519 Apr 12 j 23:37	25°♓03'51	
greatest brilliancy	519 Apr 22 j 16:44	26°♓46'54	-4.7m
desc. node	519 Apr 29 j 10:35	29°♓41'46	
	519 Apr 30 j 00:28	0°♈	
morning max el	519 May 31 j 19:48	24°♈57'22	45°45'46
	519 Jun 06 j 00:27	0°♉	
	519 Jul 04 j 12:35	0°♊	
	519 Jul 30 j 22:40	0°♋	
asc. node	519 Aug 20 j 14:10	24°♋23'02	
	519 Aug 25 j 06:28	0°♌	
	519 Sep 18 j 21:14	0°♍	
	519 Oct 13 j 01:14	0°♎	
	519 Nov 05 j 23:30	0°♏	
morning set	519 Nov 27 j 21:06	27°♏33'24	
	519 Nov 29 j 19:42	0°♐	
desc. node	519 Dec 10 j 03:35	13°♐00'05	
	519 Dec 23 j 15:59	0°♑	
superior conj	520 Jan 08 j 19:39	20°♑17'04	-1°02'56
minimum elong	520 Jan 08 j 07:46	19°♑39'48	1°02'32
max. Earth dist.	520 Jan 12 j 03:54	24°♑28'43	1.71401 AU
	520 Jan 16 j 13:38	0°♒	
	520 Feb 09 j 13:43	0°♓	
evening rise	520 Feb 18 j 13:03	11°♓10'06	
	520 Mar 04 j 17:30	0°♈	
	520 Mar 29 j 02:21	0°♉	
asc. node	520 Apr 01 j 06:54	3°♉54'15	
	520 Apr 22 j 17:33	0°♊	
	520 May 17 j 16:46	0°♋	
	520 Jun 12 j 03:19	0°♌	
	520 Jul 08 j 08:50	0°♍	
desc. node	520 Jul 21 j 20:19	14°♍50'15	
	520 Aug 05 j 05:23	0°♎	
evening max el	520 Aug 14 j 19:11	9°♎33'00	46°20'31
	520 Sep 07 j 14:22	0°♏	
greatest brilliancy	520 Sep 24 j 06:10	8°♏59'14	-4.9m
retrograde	520 Oct 03 j 10:12	10°♏32'42	
evening set	520 Oct 18 j 20:15	5°♏55'42	
inferior conj	520 Oct 24 j 00:22	2°♏53'24	-4°39'39
minimum elong	520 Oct 24 j 09:46	2°♏39'11	4°37'03
min. Earth dist.	520 Oct 24 j 14:24	2°♏32'10	0.26661 AU
	520 Oct 28 j 21:54	30°℞♎	
morning rise	520 Oct 29 j 22:52	29°♎25'48	
asc. node	520 Nov 11 j 23:26	25°♎14'38	
direct	520 Nov 13 j 13:34	25°♎11'30	
greatest brilliancy	520 Nov 24 j 06:55	27°♎23'05	-4.9m
	520 Nov 29 j 20:28	0°♏	
morning max el	521 Jan 03 j 07:25	28°♏39'28	46°54'28
	521 Jan 04 j 15:02	0°♐	
	521 Feb 01 j 05:57	0°♑	
	521 Feb 27 j 05:15	0°♒	
desc. node	521 Mar 03 j 13:12	5°♒05'20	
	521 Mar 24 j 13:33	0°♓	
	521 Apr 18 j 14:49	0°♈	
	521 May 13 j 11:54	0°♉	
	521 Jun 07 j 05:12	0°♊	
asc. node	521 Jun 24 j 16:27	21°♊19'53	
	521 Jul 01 j 18:09	0°♋	
morning set	521 Jul 04 j 02:24	2°♋52'41	
	521 Jul 26 j 02:18	0°♌	
max. Earth dist.	521 Aug 05 j 20:12	13°♌18'55	1.72655 AU
superior conj	521 Aug 09 j 13:03	17°♌54'42	1°21'18
minimum elong	521 Aug 09 j 08:12	17°♌39'38	1°21'14
	521 Aug 19 j 06:19	0°♍	
	521 Sep 12 j 07:42	0°♎	

evening rise	521 Sep 15 j 19:34	4°♎21'50	
	521 Oct 06 j 08:10	0°♏	
desc. node	521 Oct 14 j 05:58	9°♏52'32	
	521 Oct 30 j 08:59	0°♐	
	521 Nov 23 j 11:15	0°♑	
	521 Dec 17 j 17:00	0°♒	
	522 Jan 11 j 06:33	0°♓	
asc. node	522 Feb 04 j 09:07	28°♓40'47	
	522 Feb 05 j 12:18	0°♈	
	522 Mar 04 j 03:53	0°♉	
evening max el	522 Mar 22 j 03:41	18°♉32'06	45°40'27
	522 Apr 03 j 15:09	0°♊	
greatest brilliancy	522 Apr 28 j 23:04	16°♊34'24	-4.7m
retrograde	522 May 09 j 22:49	18°♊44'20	
evening set	522 May 24 j 23:17	14°♊22'53	
desc. node	522 May 26 j 22:32	13°♊15'49	
inferior conj	522 May 31 j 09:45	10°♊31'18	-1°02'41
minimum elong	522 May 31 j 07:27	10°♊34'54	1°02'01
min. Earth dist.	522 May 31 j 11:42	10°♊28'15	0.28977 AU
morning rise	522 Jun 06 j 15:40	6°♊46'00	
direct	522 Jun 22 j 02:36	2°♊13'08	
greatest brilliancy	522 Jul 02 j 13:19	4°♊10'50	-4.7m
	522 Aug 07 j 16:08	0°♋	
morning max el	522 Aug 10 j 03:35	2°♋22'08	45°58'23
	522 Sep 05 j 14:39	0°♌	
asc. node	522 Sep 17 j 01:53	12°♌55'14	
	522 Oct 01 j 17:56	0°♍	
	522 Oct 26 j 15:56	0°♎	
	522 Nov 19 j 23:42	0°♏	
	522 Dec 14 j 01:24	0°♐	
desc. node	523 Jan 06 j 15:29	29°♐28'33	
	523 Jan 07 j 01:33	0°♑	
	523 Jan 31 j 02:19	0°♒	
morning set	523 Feb 13 j 01:04	16°♒07'51	
	523 Feb 24 j 04:45	0°♓	
	523 Mar 20 j 09:29	0°♈	
superior conj	523 Mar 24 j 05:17	4°♈43'43	-1°12'39
minimum elong	523 Mar 24 j 14:18	5°♈11'35	1°12'25
max. Earth dist.	523 Mar 27 j 08:14	8°♈35'17	1.72935 AU
	523 Apr 13 j 16:56	0°♉	
asc. node	523 Apr 29 j 18:46	19°♉45'43	
evening rise	523 Apr 30 j 23:32	21°♉14'02	
	523 May 08 j 03:01	0°♊	
	523 Jun 01 j 15:32	0°♋	
	523 Jun 26 j 06:42	0°♌	
	523 Jul 21 j 01:45	0°♍	
	523 Aug 15 j 03:13	0°♎	
desc. node	523 Aug 19 j 08:09	4°♎59'20	
	523 Sep 09 j 15:28	0°♏	
	523 Oct 06 j 00:17	0°♐	
evening max el	523 Oct 28 j 00:21	23°♐26'44	47°20'34
	523 Nov 03 j 15:23	0°♑	
greatest brilliancy	523 Dec 07 j 14:06	24°♑58'06	-4.9m
asc. node	523 Dec 10 j 11:24	25°♑55'16	
retrograde	523 Dec 17 j 21:17	26°♑59'38	
evening set	524 Jan 02 j 09:07	22°♑12'29	
min. Earth dist.	524 Jan 06 j 14:54	19°♑39'30	0.26943 AU
inferior conj	524 Jan 07 j 13:58	19°♑03'37	6°26'41
minimum elong	524 Jan 07 j 03:47	19°♑19'28	6°24'29
morning rise	524 Jan 11 j 22:57	16°♑24'29	
direct	524 Jan 28 j 01:07	11°♑20'31	
greatest brilliancy	524 Feb 06 j 00:52	12°♑52'00	-4.9m
	524 Mar 03 j 19:50	0°♒	
morning max el	524 Mar 17 j 14:28	12°♒42'47	46°18'03
desc. node	524 Mar 31 j 00:54	26°♒20'51	
	524 Apr 03 j 12:04	0°♓	
	524 Apr 30 j 18:11	0°♈	
	524 May 26 j 20:00	0°♉	
	524 Jun 21 j 06:35	0°♊	
	524 Jul 16 j 05:48	0°♋	
asc. node	524 Jul 22 j 04:17	7°♋12'38	
	524 Aug 09 j 19:12	0°♌	
	524 Sep 03 j 00:30	0°♍	
morning set	524 Sep 11 j 06:31	10°♍17'34	
	524 Sep 27 j 00:17	0°♎	
max. Earth dist.	524 Oct 18 j 11:13	26°♎57'14	1.71235 AU
superior conj	524 Oct 19 j 22:24	28°♎47'52	0°48'50
minimum elong	524 Oct 20 j 08:35	29°♎19'51	0°48'24
	524 Oct 20 j 21:21	0°♏	
desc. node	524 Nov 10 j 17:52	26°♏13'57	
	524 Nov 13 j 17:45	0°♐	
evening rise	524 Nov 30 j 04:18	20°♐39'48	
	524 Dec 07 j 14:45	0°♑	
	524 Dec 31 j 13:27	0°♒	
	525 Jan 24 j 15:41	0°♓	
	525 Feb 18 j 00:24	0°♈	
asc. node	525 Mar 03 j 21:00	16°♈50'26	
	525 Mar 14 j 19:43	0°♉	
	525 Apr 09 j 07:41	0°♊	
	525 May 06 j 00:34	0°♋	
evening max el	525 May 31 j 16:38	26°♋23'21	45°22'08
	525 Jun 04 j 12:49	0°♌	
desc. node	525 Jun 23 j 10:33	15°♌36'58	
greatest brilliancy	525 Jul 09 j 09:40	24°♌13'21	-4.7m
retrograde	525 Jul 19 j 07:28	25°♌59'43	
evening set	525 Aug 05 j 18:51	20°♌19'12	
inferior conj	525 Aug 09 j 14:38	18°♌00'22	-8°21'49
minimum elong	525 Aug 09 j 08:57	18°♌09'06	8°21'21
min. Earth dist.	525 Aug 10 j 01:21	17°♌43'50	0.28441 AU
morning rise	525 Aug 12 j 22:48	15°♌57'52	
direct	525 Aug 30 j 23:50	9°♌50'28	
greatest brilliancy	525 Sep 11 j 00:56	12°♌04'03	-4.8m
	525 Oct 07 j 11:08	0°♍	
asc. node	525 Oct 14 j 13:43	6°♍35'47	
morning max el	525 Oct 20 j 07:23	12°♍15'20	46°40'18
	525 Nov 06 j 00:38	0°♎	
	525 Dec 02 j 03:46	0°♏	
	525 Dec 27 j 04:01	0°♐	
	526 Jan 20 j 18:07	0°♑	
desc. node	526 Feb 03 j 03:18	16°♑25'09	
	526 Feb 14 j 04:41	0°♒	
	526 Mar 10 j 14:31	0°♓	
	526 Apr 04 j 00:47	0°♈	
morning set	526 Apr 25 j 08:50	26°♈10'27	
	526 Apr 28 j 11:42	0°♉	
	526 May 22 j 22:39	0°♊	
asc. node	526 May 27 j 06:43	5°♊19'22	
max. Earth dist.	526 May 30 j 18:40	9°♊37'06	1.73641 AU
superior conj	526 May 31 j 23:55	11°♊06'55	0°11'11
minimum elong	526 May 31 j 21:39	10°♊59'59	0°11'04
behind sun begin	526 May 31 j 05:28	10°♊10'18	
behind sun end	526 Jun 01 j 13:50	11°♊49'40	
	526 Jun 16 j 08:44	0°♋	
evening rise	526 Jul 06 j 19:10	25°♋09'35	
	526 Jul 10 j 17:26	0°♌	
	526 Aug 04 j 01:17	0°♍	
	526 Aug 28 j 09:32	0°♎	
desc. node	526 Sep 15 j 20:05	22°♎39'49	
	526 Sep 21 j 19:38	0°♏	
	526 Oct 16 j 09:02	0°♐	
	526 Nov 10 j 04:42	0°♑	

	526 Dec 05 j 14:37	0°♒	
	527 Jan 01 j 13:42	0°♓	
asc. node	527 Jan 06 j 23:20	5°♓36'09	
evening max el	527 Jan 07 j 14:40	6°♓15'07	46°53'43
	527 Feb 03 j 12:30	0°♈	
greatest brilliancy	527 Feb 16 j 13:34	7°♈11'52	-4.8m
retrograde	527 Feb 27 j 04:19	9°♈19'22	
evening set	527 Mar 16 j 13:58	3°♈25'36	
inferior conj	527 Mar 20 j 09:55	1°♈02'17	7°35'07
minimum elong	527 Mar 20 j 18:04	0°♈49'23	7°33'59
min. Earth dist.	527 Mar 20 j 06:33	1°♈07'37	0.28575 AU
	527 Mar 22 j 01:26	30°℞♓	
morning rise	527 Mar 24 j 22:24	28°♓14'41	
direct	527 Apr 10 j 15:07	22°♓50'46	
greatest brilliancy	527 Apr 20 j 06:38	24°♓32'58	-4.7m
desc. node	527 Apr 28 j 12:41	28°♓15'55	
	527 May 01 j 11:58	0°♈	
morning max el	527 May 29 j 12:33	22°♈48'55	45°46'08
	527 Jun 05 j 20:53	0°♉	
	527 Jul 04 j 03:44	0°♊	
	527 Jul 30 j 11:47	0°♋	
asc. node	527 Aug 19 j 16:06	23°♋52'03	
	527 Aug 24 j 18:36	0°♌	
	527 Sep 18 j 08:53	0°♍	
	527 Oct 12 j 12:37	0°♎	
	527 Nov 05 j 10:46	0°♏	
morning set	527 Nov 25 j 07:24	24°♏59'26	
	527 Nov 29 j 06:55	0°♐	
desc. node	527 Dec 09 j 05:41	12°♐31'22	
	527 Dec 23 j 03:11	0°♑	
superior conj	528 Jan 06 j 05:22	17°♑41'52	-1°00'09
minimum elong	528 Jan 05 j 17:27	17°♑04'29	0°59'44
max. Earth dist.	528 Jan 09 j 13:07	21°♑52'03	1.71364 AU
	528 Jan 16 j 00:48	0°♒	
	528 Feb 09 j 00:52	0°♓	
evening rise	528 Feb 16 j 01:09	8°♓43'53	
	528 Mar 04 j 04:40	0°♈	
	528 Mar 28 j 13:38	0°♉	
asc. node	528 Mar 31 j 09:00	3°♉26'05	
	528 Apr 22 j 05:07	0°♊	
	528 May 17 j 04:56	0°♋	
	528 Jun 11 j 16:37	0°♌	
	528 Jul 08 j 00:21	0°♍	
desc. node	528 Jul 20 j 22:16	14°♍08'39	
	528 Aug 05 j 02:14	0°♎	
evening max el	528 Aug 12 j 09:30	7°♎13'44	46°17'47
	528 Sep 08 j 16:20	0°♏	
greatest brilliancy	528 Sep 21 j 18:29	6°♏32'22	-4.9m
retrograde	528 Sep 30 j 22:12	8°♏05'05	
evening set	528 Oct 16 j 11:32	3°♏24'14	
inferior conj	528 Oct 21 j 12:42	0°♏25'42	-4°59'49
minimum elong	528 Oct 21 j 22:30	0°♏10'49	4°57'11
min. Earth dist.	528 Oct 22 j 03:33	0°♏03'09	0.26707 AU
	528 Oct 22 j 05:38	30°℞♎	
morning rise	528 Oct 27 j 09:04	27°♎00'40	
direct	528 Nov 11 j 03:00	22°♎43'17	
asc. node	528 Nov 11 j 01:33	22°♎43'18	
greatest brilliancy	528 Nov 21 j 20:25	24°♎54'54	-4.9m
	528 Dec 01 j 13:26	0°♏	
morning max el	528 Dec 31 j 20:45	26°♏12'48	46°54'50
	529 Jan 04 j 13:15	0°♐	
	529 Jan 31 j 22:21	0°♑	
	529 Feb 26 j 19:19	0°♒	
desc. node	529 Mar 02 j 15:09	4°♒30'27	
	529 Mar 24 j 02:22	0°♓	
	529 Apr 18 j 02:50	0°♈	
	529 May 12 j 23:23	0°♉	
	529 Jun 06 j 16:21	0°♊	
asc. node	529 Jun 23 j 18:31	20°♊52'27	
	529 Jul 01 j 05:07	0°♋	
morning set	529 Jul 01 j 20:32	0°♋47'19	
	529 Jul 25 j 13:16	0°♌	
max. Earth dist.	529 Aug 03 j 11:41	11°♌04'05	1.72710 AU
superior conj	529 Aug 07 j 06:33	15°♌45'56	1°20'20
minimum elong	529 Aug 07 j 01:08	15°♌29'09	1°20'16
	529 Aug 18 j 17:21	0°♍	
	529 Sep 11 j 18:53	0°♎	
evening rise	529 Sep 13 j 10:01	2°♎02'06	
	529 Oct 05 j 19:33	0°♏	
desc. node	529 Oct 13 j 08:06	9°♏23'24	
	529 Oct 29 j 20:36	0°♐	
	529 Nov 22 j 23:10	0°♑	
	529 Dec 17 j 05:19	0°♒	
	530 Jan 10 j 19:33	0°♓	
asc. node	530 Feb 03 j 11:03	28°♓04'56	
	530 Feb 05 j 02:39	0°♈	
	530 Mar 03 j 21:26	0°♉	
evening max el	530 Mar 19 j 19:04	16°♉18'34	45°42'19
	530 Apr 03 j 21:22	0°♊	
greatest brilliancy	530 Apr 26 j 16:22	14°♊26'18	-4.7m
retrograde	530 May 07 j 14:46	16°♊35'26	
evening set	530 May 22 j 16:10	12°♊13'34	
desc. node	530 May 26 j 00:39	10°♊16'44	
inferior conj	530 May 29 j 02:16	8°♊22'22	-0°43'09
minimum elong	530 May 29 j 00:41	8°♊24'51	0°42'41
min. Earth dist.	530 May 29 j 04:40	8°♊18'37	0.28975 AU
morning rise	530 Jun 04 j 09:10	4°♊35'15	
direct	530 Jun 19 j 18:47	0°♊04'16	
greatest brilliancy	530 Jun 30 j 05:29	2°♊01'31	-4.7m
	530 Aug 07 j 15:02	0°♋	
morning max el	530 Aug 07 j 18:01	0°♋07'12	45°57'13
	530 Sep 05 j 06:39	0°♌	
asc. node	530 Sep 16 j 04:03	12°♌19'08	
	530 Oct 01 j 07:39	0°♍	
	530 Oct 26 j 04:38	0°♎	
	530 Nov 19 j 11:50	0°♏	
	530 Dec 13 j 13:13	0°♐	
desc. node	531 Jan 05 j 17:31	28°♐58'44	
	531 Jan 06 j 13:08	0°♑	
	531 Jan 30 j 13:42	0°♒	
morning set	531 Feb 10 j 12:47	13°♒39'50	
	531 Feb 23 j 15:57	0°♓	
	531 Mar 19 j 20:35	0°♈	
superior conj	531 Mar 21 j 20:14	2°♈27'21	-1°14'26
minimum elong	531 Mar 22 j 04:56	2°♈54'14	1°14'14
max. Earth dist.	531 Mar 25 j 01:55	6°♈27'22	1.72884 AU
	531 Apr 13 j 03:59	0°♉	
evening rise	531 Apr 28 j 16:45	19°♉05'33	
asc. node	531 Apr 28 j 20:56	19°♉18'21	
	531 May 07 j 14:08	0°♊	
	531 Jun 01 j 02:50	0°♋	
	531 Jun 25 j 18:18	0°♌	
	531 Jul 20 j 13:55	0°♍	
	531 Aug 14 j 16:20	0°♎	
desc. node	531 Aug 18 j 10:10	4°♎25'53	
	531 Sep 09 j 06:12	0°♏	
	531 Oct 05 j 18:11	0°♐	
evening max el	531 Oct 25 j 13:15	20°♐58'54	47°19'34
	531 Nov 03 j 18:31	0°♑	
greatest brilliancy	531 Dec 05 j 04:43	22°♑30'59	-4.9m
asc. node	531 Dec 09 j 13:29	23°♑50'30	

retrograde	531 Dec 15 j 10:08	24°♉31'21		
evening set	531 Dec 30 j 18:56	19°♉49'24		
min. Earth dist.	532 Jan 04 j 04:43	17°♉11'10	0.26885 AU	
inferior conj	532 Jan 05 j 02:59	16°♉36'36	6°10'29	
minimum elong	532 Jan 04 j 16:46	16°♉52'29	6°08'10	
morning rise	532 Jan 09 j 15:02	13°♉53'10		
direct	532 Jan 25 j 13:00	8°♉54'09		
greatest brilliancy	532 Feb 03 j 14:57	10°♉27'20	-4.9m	
	532 Mar 04 j 02:40	0°♒		
morning max el	532 Mar 15 j 03:15	10°♒19'10	46°19'41	
desc. node	532 Mar 30 j 03:06	25°♒36'36		
	532 Apr 03 j 06:18	0°♓		
	532 Apr 30 j 08:48	0°♈		
	532 May 26 j 08:58	0°♉		
	532 Jun 20 j 18:38	0°♊		
	532 Jul 15 j 17:20	0°♋		
asc. node	532 Jul 21 j 06:17	6°♋43'54		
	532 Aug 09 j 06:25	0°♌		
	532 Sep 02 j 11:35	0°♍		
morning set	532 Sep 08 j 21:47	8°♍00'43		
	532 Sep 26 j 11:22	0°♎		
max. Earth dist.	532 Oct 15 j 22:13	24°♎25'51	1.71272 AU	
superior conj	532 Oct 17 j 10:36	26°♎20'16	0°51'51	
minimum elong	532 Oct 17 j 21:01	26°♎52'59	0°51'26	
	532 Oct 20 j 08:30	0°♏		
desc. node	532 Nov 09 j 19:59	25°♏45'16		
	532 Nov 13 j 05:01	0°♐		
evening rise	532 Nov 27 j 14:15	18°♐04'50		
	532 Dec 07 j 02:06	0°♑		
	532 Dec 31 j 00:54	0°♒		
	533 Jan 24 j 03:18	0°♓		
	533 Feb 17 j 12:19	0°♈		
asc. node	533 Mar 02 j 23:07	16°♈20'05		
	533 Mar 14 j 08:13	0°♉		
	533 Apr 08 j 21:26	0°♊		
	533 May 05 j 17:05	0°♋		
evening max el	533 May 29 j 07:48	24°♋10'20	45°21'32	
	533 Jun 04 j 14:11	0°♌		
desc. node	533 Jun 22 j 12:33	14°♌23'54		
greatest brilliancy	533 Jul 06 j 22:05	21°♌57'13	-4.7m	
retrograde	533 Jul 16 j 22:42	23°♌45'47		
evening set	533 Aug 03 j 06:32	18°♌09'13		
inferior conj	533 Aug 07 j 05:37	15°♌45'31	-8°15'04	
minimum elong	533 Aug 06 j 23:17	15°♌55'17	8°14'29	
min. Earth dist.	533 Aug 07 j 15:15	15°♌30'41	0.28483 AU	
morning rise	533 Aug 10 j 15:48	13°♌40'10		
direct	533 Aug 28 j 15:41	7°♌34'59		
greatest brilliancy	533 Sep 08 j 15:53	9°♌48'09	-4.8m	
	533 Oct 07 j 15:13	0°♍		
asc. node	533 Oct 13 j 15:50	5°♍42'13		
morning max el	533 Oct 17 j 22:55	9°♍57'42	46°39'03	
	533 Nov 05 j 18:11	0°♎		
	533 Dec 01 j 18:18	0°♏		
	533 Dec 26 j 17:12	0°♐		
	534 Jan 20 j 06:30	0°♑		
desc. node	534 Feb 02 j 05:20	15°♑54'14		
	534 Feb 13 j 16:33	0°♒		
	534 Mar 10 j 01:59	0°♓		
	534 Apr 03 j 11:57	0°♈		
morning set	534 Apr 23 j 02:00	24°♈02'11		
	534 Apr 27 j 22:39	0°♉		
	534 May 22 j 09:29	0°♊		
asc. node	534 May 26 j 08:42	4°♊52'12		
max. Earth dist.	534 May 28 j 18:06	7°♊48'25	1.73646 AU	
superior conj	534 May 29 j 18:03	9°♊01'58	0°08'03	
minimum elong	534 May 29 j 16:24	8°♊56'55	0°07'58	
behind sun begin	534 May 28 j 20:50	7°♊56'48		
behind sun end	534 May 30 j 11:59	9°♊57'03		
	534 Jun 15 j 19:34	0°♋		
evening rise	534 Jul 04 j 14:02	23°♋06'12		
	534 Jul 10 j 04:23	0°♌		
	534 Aug 03 j 12:28	0°♍		
	534 Aug 27 j 21:04	0°♎		
desc. node	534 Sep 14 j 22:15	22°♎10'09		
	534 Sep 21 j 07:37	0°♏		
	534 Oct 15 j 21:39	0°♐		
	534 Nov 09 j 18:18	0°♑		
	534 Dec 05 j 06:06	0°♒		
	535 Jan 01 j 09:51	0°♓		
evening max el	535 Jan 05 j 06:43	3°♓58'54	46°55'56	
asc. node	535 Jan 06 j 01:15	4°♓45'51		
	535 Feb 04 j 13:46	0°♈		
greatest brilliancy	535 Feb 14 j 05:13	4°♈56'51	-4.8m	
retrograde	535 Feb 24 j 20:55	7°♈04'57		
evening set	535 Mar 14 j 08:14	1°♈07'31		
	535 Mar 16 j 03:57	30°℞♓		
inferior conj	535 Mar 18 j 01:38	28°♓47'57	7°44'47	
minimum elong	535 Mar 18 j 09:22	28°♓35'45	7°43'48	
min. Earth dist.	535 Mar 17 j 20:59	28°♓55'19	0.28541 AU	
morning rise	535 Mar 22 j 10:46	26°♓05'30		
direct	535 Apr 08 j 06:50	20°♓37'16		
greatest brilliancy	535 Apr 17 j 20:04	22°♓18'03	-4.7m	
desc. node	535 Apr 27 j 14:47	26°♓52'34		
	535 May 02 j 13:16	0°♈		
morning max el	535 May 27 j 04:48	20°♈39'14	45°46'29	
	535 Jun 05 j 16:40	0°♉		
	535 Jul 03 j 18:36	0°♊		
	535 Jul 30 j 00:42	0°♋		
asc. node	535 Aug 18 j 18:12	23°♋21'58		
	535 Aug 24 j 06:36	0°♌		
	535 Sep 17 j 20:24	0°♍		
	535 Oct 11 j 23:55	0°♎		
	535 Nov 04 j 21:56	0°♏		
morning set	535 Nov 22 j 18:12	22°♏27'31		
	535 Nov 28 j 17:58	0°♐		
desc. node	535 Dec 08 j 07:42	12°♐02'57		
	535 Dec 22 j 14:10	0°♑		
superior conj	536 Jan 03 j 15:26	15°♑08'25	-0°57'16	
minimum elong	536 Jan 03 j 03:36	14°♑31'16	0°56'50	
max. Earth dist.	536 Jan 07 j 00:41	19°♑23'22	1.71325 AU	
	536 Jan 15 j 11:45	0°♒		
	536 Feb 08 j 11:48	0°♓		
evening rise	536 Feb 13 j 13:21	6°♓18'31		
	536 Mar 03 j 15:39	0°♈		
	536 Mar 28 j 00:45	0°♉		
asc. node	536 Mar 30 j 11:06	2°♉58'29		
	536 Apr 21 j 16:33	0°♊		
	536 May 16 j 16:59	0°♋		
	536 Jun 11 j 05:50	0°♌		
	536 Jul 07 j 15:53	0°♍		
desc. node	536 Jul 20 j 00:19	13°♍27'29		
	536 Aug 04 j 23:34	0°♎		
evening max el	536 Aug 09 j 22:53	4°♎52'56	46°15'00	
	536 Sep 10 j 04:10	0°♏		
greatest brilliancy	536 Sep 19 j 07:22	4°♏07'04	-4.8m	
retrograde	536 Sep 28 j 09:46	5°♏38'28		
evening set	536 Oct 14 j 02:58	0°♏53'39		
	536 Oct 15 j 16:31	30°℞♎		
inferior conj	536 Oct 19 j 01:05	27°♎59'04	-5°19'18	
minimum elong	536 Oct 19 j 11:12	27°♎43'40	5°16'42	
min. Earth dist.	536 Oct 19 j 17:03	27°♎34'47	0.26755 AU	

morning rise	536 Oct 24 j 19:03	24°♎36'49	
direct	536 Nov 08 j 15:55	20°♎15'57	
asc. node	536 Nov 10 j 03:34	20°♎18'37	
greatest brilliancy	536 Nov 19 j 10:28	22°♎28'08	-4.9m
	536 Dec 02 j 17:34	0°♏	
morning max el	536 Dec 29 j 09:13	23°♏44'38	46°55'25
	537 Jan 04 j 10:18	0°♐	
	537 Jan 31 j 14:07	0°♑	
	537 Feb 26 j 08:53	0°♒	
desc. node	537 Mar 01 j 17:22	3°♒57'36	
	537 Mar 23 j 14:44	0°♓	
	537 Apr 17 j 14:29	0°♈	
	537 May 12 j 10:32	0°♉	
	537 Jun 06 j 03:12	0°♊	
asc. node	537 Jun 22 j 20:31	20°♊25'43	
morning set	537 Jun 29 j 14:36	28°♊42'37	
	537 Jun 30 j 15:49	0°♋	
	537 Jul 24 j 23:55	0°♌	
max. Earth dist.	537 Aug 01 j 04:23	8°♌54'05	1.72764 AU
superior conj	537 Aug 05 j 00:03	13°♌38'17	1°19'15
minimum elong	537 Aug 04 j 18:08	13°♌19'55	1°19'10
	537 Aug 18 j 04:04	0°♍	
evening rise	537 Sep 11 j 00:40	29°♍44'08	
	537 Sep 11 j 05:45	0°♎	
	537 Oct 05 j 06:37	0°♏	
desc. node	537 Oct 12 j 10:09	8°♏55'01	
	537 Oct 29 j 07:56	0°♐	
	537 Nov 22 j 10:48	0°♑	
	537 Dec 16 j 17:22	0°♒	
	538 Jan 10 j 08:14	0°♓	
asc. node	538 Feb 02 j 13:14	27°♓30'58	
	538 Feb 04 j 16:40	0°♈	
	538 Mar 03 j 14:49	0°♉	
evening max el	538 Mar 17 j 09:38	14°♉04'29	45°44'14
	538 Apr 04 j 05:12	0°♊	
greatest brilliancy	538 Apr 24 j 09:31	12°♊19'33	-4.7m
retrograde	538 May 05 j 07:01	14°♊28'27	
evening set	538 May 20 j 09:19	10°♊05'33	
desc. node	538 May 25 j 02:39	7°♊18'14	
inferior conj	538 May 26 j 18:58	6°♊15'09	-0°23'38
minimum elong	538 May 26 j 18:05	6°♊16'30	0°23'23
min. Earth dist.	538 May 26 j 21:52	6°♊10'34	0.28977 AU
morning rise	538 Jun 02 j 02:45	2°♊26'30	
	538 Jun 07 j 05:01	30°℞♉	
direct	538 Jun 17 j 10:48	27°♉56'52	
greatest brilliancy	538 Jun 27 j 22:23	29°♉54'26	-4.7m
	538 Jun 28 j 04:32	0°♊	
morning max el	538 Aug 05 j 09:00	27°♊54'44	45°56'06
	538 Aug 07 j 12:36	0°♋	
	538 Sep 04 j 22:00	0°♌	
asc. node	538 Sep 15 j 06:11	11°♌44'20	
	538 Sep 30 j 20:52	0°♍	
	538 Oct 25 j 16:51	0°♎	
	538 Nov 18 j 23:32	0°♏	
	538 Dec 13 j 00:37	0°♐	
desc. node	539 Jan 04 j 19:31	28°♐29'58	
	539 Jan 06 j 00:19	0°♑	
	539 Jan 30 j 00:41	0°♒	
morning set	539 Feb 08 j 00:28	11°♒12'48	
	539 Feb 23 j 02:45	0°♓	
superior conj	539 Mar 19 j 11:23	0°♈12'53	-1°16'05
minimum elong	539 Mar 19 j 19:42	0°♈38'33	1°15'54
	539 Mar 19 j 07:14	0°♈	
max. Earth dist.	539 Mar 22 j 18:25	4°♈17'13	1.72829 AU
	539 Apr 12 j 14:34	0°♉	
evening rise	539 Apr 26 j 10:12	16°♉59'11	
asc. node	539 Apr 27 j 22:56	18°♉51'55	
	539 May 07 j 00:48	0°♊	
	539 May 31 j 13:41	0°♋	
	539 Jun 25 j 05:32	0°♌	
	539 Jul 20 j 01:46	0°♍	
	539 Aug 14 j 05:10	0°♎	
desc. node	539 Aug 17 j 12:20	3°♎53'51	
	539 Sep 08 j 20:43	0°♏	
	539 Oct 05 j 12:04	0°♐	
evening max el	539 Oct 23 j 02:16	18°♐32'44	47°18'34
	539 Nov 03 j 22:48	0°♑	
greatest brilliancy	539 Dec 02 j 18:40	20°♑04'07	-4.9m
asc. node	539 Dec 08 j 15:28	21°♑41'35	
retrograde	539 Dec 12 j 23:19	22°♑04'12	
evening set	539 Dec 28 j 04:49	17°♑26'46	
min. Earth dist.	540 Jan 01 j 18:13	14°♑43'54	0.26832 AU
inferior conj	540 Jan 02 j 15:55	14°♑10'21	5°53'29
minimum elong	540 Jan 02 j 05:45	14°♑26'05	5°51'03
morning rise	540 Jan 07 j 07:06	11°♑22'50	
direct	540 Jan 23 j 01:08	6°♑28'24	
greatest brilliancy	540 Feb 01 j 04:40	8°♑03'09	-4.9m
	540 Mar 04 j 06:58	0°♒	
morning max el	540 Mar 12 j 17:04	7°♒59'02	46°21'27
desc. node	540 Mar 29 j 05:05	24°♒53'28	
	540 Apr 02 j 23:41	0°♓	
	540 Apr 29 j 22:48	0°♈	
	540 May 25 j 21:23	0°♉	
	540 Jun 20 j 06:12	0°♊	
	540 Jul 15 j 04:26	0°♋	
asc. node	540 Jul 20 j 08:25	6°♋16'51	
	540 Aug 08 j 17:16	0°♌	
	540 Sep 01 j 22:21	0°♍	
morning set	540 Sep 06 j 13:10	5°♍45'21	
	540 Sep 25 j 22:09	0°♎	
max. Earth dist.	540 Oct 13 j 09:47	21°♎57'17	1.71306 AU
superior conj	540 Oct 14 j 22:52	23°♎53'52	0°54'46
minimum elong	540 Oct 15 j 09:26	24°♎27'04	0°54'22
	540 Oct 19 j 19:21	0°♏	
desc. node	540 Nov 08 j 21:58	25°♏17'09	
	540 Nov 12 j 15:56	0°♐	
evening rise	540 Nov 25 j 00:11	15°♐30'50	
	540 Dec 06 j 13:08	0°♑	
	540 Dec 30 j 12:03	0°♒	
	541 Jan 23 j 14:38	0°♓	
	541 Feb 16 j 23:58	0°♈	
asc. node	541 Mar 02 j 01:13	15°♈50'28	
	541 Mar 13 j 20:29	0°♉	
	541 Apr 08 j 10:56	0°♊	
	541 May 05 j 09:27	0°♋	
evening max el	541 May 26 j 23:47	22°♋00'42	45°21'03
	541 Jun 04 j 16:21	0°♌	
desc. node	541 Jun 21 j 14:35	13°♌10'09	
greatest brilliancy	541 Jul 04 j 10:48	19°♌43'10	-4.7m
retrograde	541 Jul 14 j 14:03	21°♌33'32	
evening set	541 Jul 31 j 18:24	16°♌01'15	
inferior conj	541 Aug 04 j 20:49	13°♌32'23	-8°07'42
minimum elong	541 Aug 04 j 13:52	13°♌43'05	8°06'58
min. Earth dist.	541 Aug 05 j 05:11	13°♌19'28	0.28525 AU
morning rise	541 Aug 08 j 09:11	11°♌23'48	
direct	541 Aug 26 j 08:02	5°♌21'25	
greatest brilliancy	541 Sep 06 j 06:27	7°♌33'09	-4.8m
	541 Oct 07 j 17:23	0°♍	
asc. node	541 Oct 12 j 17:48	4°♍50'01	
morning max el	541 Oct 15 j 14:34	7°♍41'12	46°37'34
	541 Nov 05 j 11:11	0°♎	

	541 Dec 01 j 08:32	0°♏	
	541 Dec 26 j 06:06	0°♐	
	542 Jan 19 j 18:38	0°♑	
desc. node	542 Feb 01 j 07:32	15°♑24'35	
	542 Feb 13 j 04:09	0°♒	
	542 Mar 09 j 13:13	0°♓	
	542 Apr 02 j 22:55	0°♈	
morning set	542 Apr 20 j 19:14	21°♈54'39	
	542 Apr 27 j 09:25	0°♉	
	542 May 21 j 20:08	0°♊	
asc. node	542 May 25 j 10:46	4°♊25'54	
max. Earth dist.	542 May 26 j 17:38	6°♊00'38	1.73644 AU
superior conj	542 May 27 j 12:23	6°♊58'14	0°04'56
minimum elong	542 May 27 j 11:23	6°♊55'09	0°04'53
behind sun begin	542 May 26 j 13:52	5°♊49'04	
behind sun end	542 May 28 j 08:54	8°♊01'15	
	542 Jun 15 j 06:11	0°♋	
evening rise	542 Jul 02 j 09:12	21°♋04'31	
	542 Jul 09 j 15:07	0°♌	
	542 Aug 02 j 23:27	0°♍	
	542 Aug 27 j 08:26	0°♎	
desc. node	542 Sep 14 j 00:18	21°♎40'30	
	542 Sep 20 j 19:30	0°♏	
	542 Oct 15 j 10:15	0°♐	
	542 Nov 09 j 07:59	0°♑	
	542 Dec 04 j 21:46	0°♒	
	543 Jan 01 j 06:39	0°♓	
evening max el	543 Jan 02 j 22:37	1°♓42'10	46°58'07
asc. node	543 Jan 05 j 03:27	3°♓55'26	
	543 Feb 06 j 01:38	0°♈	
greatest brilliancy	543 Feb 11 j 21:20	2°♈42'17	-4.8m
retrograde	543 Feb 22 j 13:07	4°♈50'10	
	543 Mar 10 j 02:48	30°℞♓	
evening set	543 Mar 12 j 02:22	28°♓49'28	
inferior conj	543 Mar 15 j 17:17	26°♓33'27	7°53'53
minimum elong	543 Mar 16 j 00:31	26°♓21'59	7°53'01
min. Earth dist.	543 Mar 15 j 11:28	26°♓42'38	0.28502 AU
morning rise	543 Mar 19 j 22:59	23°♓56'00	
direct	543 Apr 05 j 22:32	18°♓23'42	
greatest brilliancy	543 Apr 15 j 09:26	20°♓02'48	-4.7m
desc. node	543 Apr 26 j 16:48	25°♓31'42	
	543 May 03 j 07:52	0°♈	
morning max el	543 May 24 j 20:13	18°♈27'32	45°46'59
	543 Jun 05 j 11:49	0°♉	
	543 Jul 03 j 09:13	0°♊	
	543 Jul 29 j 13:28	0°♋	
asc. node	543 Aug 17 j 20:21	22°♋52'21	
	543 Aug 23 j 18:27	0°♌	
	543 Sep 17 j 07:49	0°♍	
	543 Oct 11 j 11:08	0°♎	
	543 Nov 04 j 09:04	0°♏	
morning set	543 Nov 20 j 04:50	19°♏54'57	
	543 Nov 28 j 05:05	0°♐	
desc. node	543 Dec 07 j 09:48	11°♐34'37	
	543 Dec 22 j 01:15	0°♑	
superior conj	544 Jan 01 j 01:01	12°♑33'03	-0°54'14
minimum elong	543 Dec 31 j 13:21	11°♑56'27	0°53'46
max. Earth dist.	544 Jan 04 j 09:02	16°♑44'11	1.71287 AU
	544 Jan 14 j 22:49	0°♒	
	544 Feb 07 j 22:51	0°♓	
evening rise	544 Feb 11 j 00:54	3°♓50'40	
	544 Mar 03 j 02:44	0°♈	
	544 Mar 27 j 11:59	0°♉	
asc. node	544 Mar 29 j 13:06	2°♉30'09	
	544 Apr 21 j 04:07	0°♊	
	544 May 16 j 05:13	0°♋	
	544 Jun 10 j 19:17	0°♌	
	544 Jul 07 j 07:44	0°♍	
desc. node	544 Jul 19 j 02:31	12°♍46'06	
	544 Aug 04 j 21:42	0°♎	
evening max el	544 Aug 07 j 11:27	2°♎30'18	46°12'23
	544 Sep 12 j 10:18	0°♏	
greatest brilliancy	544 Sep 16 j 20:38	1°♏42'49	-4.8m
retrograde	544 Sep 25 j 21:18	3°♏12'53	
	544 Oct 08 j 16:57	30°℞♎	
evening set	544 Oct 11 j 18:37	28°♎23'39	
inferior conj	544 Oct 16 j 13:44	25°♎33'18	-5°37'57
minimum elong	544 Oct 17 j 00:06	25°♎17'31	5°35'23
min. Earth dist.	544 Oct 17 j 06:55	25°♎07'07	0.26809 AU
morning rise	544 Oct 22 j 05:05	22°♎14'08	
direct	544 Nov 06 j 04:38	17°♎49'08	
asc. node	544 Nov 09 j 05:38	18°♎00'10	
greatest brilliancy	544 Nov 17 j 01:12	20°♎02'34	-4.9m
	544 Dec 03 j 14:07	0°♏	
morning max el	544 Dec 26 j 21:35	21°♏15'33	46°55'44
	545 Jan 04 j 06:52	0°♐	
	545 Jan 31 j 05:54	0°♑	
	545 Feb 25 j 22:37	0°♒	
desc. node	545 Feb 28 j 19:23	3°♒23'28	
	545 Mar 23 j 03:18	0°♓	
	545 Apr 17 j 02:19	0°♈	
	545 May 11 j 21:53	0°♉	
	545 Jun 05 j 14:16	0°♊	
asc. node	545 Jun 21 j 22:40	19°♊58'43	
morning set	545 Jun 27 j 08:34	26°♊36'57	
	545 Jun 30 j 02:44	0°♋	
	545 Jul 24 j 10:48	0°♌	
max. Earth dist.	545 Jul 29 j 22:38	6°♌48'08	1.72814 AU
superior conj	545 Aug 02 j 17:44	11°♌30'30	1°18'05
minimum elong	545 Aug 02 j 11:20	11°♌10'38	1°17'57
	545 Aug 17 j 15:00	0°♍	
evening rise	545 Sep 08 j 15:47	27°♍27'11	
	545 Sep 10 j 16:48	0°♎	
	545 Oct 04 j 17:52	0°♏	
desc. node	545 Oct 11 j 12:09	8°♏25'59	
	545 Oct 28 j 19:26	0°♐	
	545 Nov 21 j 22:39	0°♑	
	545 Dec 16 j 05:40	0°♒	
	546 Jan 09 j 21:18	0°♓	
asc. node	546 Feb 01 j 15:18	26°♓55'14	
	546 Feb 04 j 07:13	0°♈	
	546 Mar 03 j 09:07	0°♉	
evening max el	546 Mar 14 j 23:54	11°♉48'12	45°46'20
	546 Apr 04 j 16:47	0°♊	
greatest brilliancy	546 Apr 22 j 02:04	10°♊10'24	-4.7m
retrograde	546 May 02 j 23:26	12°♊19'43	
evening set	546 May 18 j 02:24	7°♊55'20	
inferior conj	546 May 24 j 11:25	4°♊06'01	-0°03'55
minimum elong	546 May 24 j 11:16	4°♊06'14	0°03'52
transit middle	546 May 24 j 11:16	4°♊06'14	0°03'52
transit begin	546 May 24 j 07:20	4°♊12'25	
transit end	546 May 24 j 15:13	4°♊00'04	
desc. node	546 May 24 j 04:44	4°♊16'29	
min. Earth dist.	546 May 24 j 14:43	4°♊00'50	0.28978 AU
morning rise	546 May 30 j 20:00	0°♊16'16	
	546 May 31 j 07:56	30°℞♉	
direct	546 Jun 15 j 02:34	25°♉47'27	
greatest brilliancy	546 Jun 25 j 15:02	27°♉45'39	-4.7m
	546 Jun 30 j 20:05	0°♊	
morning max el	546 Aug 03 j 00:39	25°♊42'51	45°55'09
	546 Aug 07 j 09:51	0°♋	

	546 Sep 04 j 13:31	0°♌	
asc. node	546 Sep 14 j 08:06	11°♌08'08	
	546 Sep 30 j 10:18	0°♍	
	546 Oct 25 j 05:18	0°♎	
	546 Nov 18 j 11:28	0°♏	
	546 Dec 12 j 12:14	0°♐	
desc. node	547 Jan 03 j 21:42	28°♐01'03	
	547 Jan 05 j 11:44	0°♑	
	547 Jan 29 j 11:57	0°♒	
morning set	547 Feb 05 j 11:55	8°♒43'53	
	547 Feb 22 j 13:52	0°♓	
superior conj	547 Mar 17 j 02:05	27°♓55'41	-1°17'38
minimum elong	547 Mar 17 j 09:55	28°♓19'56	1°17'28
	547 Mar 18 j 18:16	0°♈	
max. Earth dist.	547 Mar 20 j 08:59	1°♈59'43	1.72779 AU
	547 Apr 12 j 01:36	0°♉	
evening rise	547 Apr 24 j 03:08	14°♉49'57	
asc. node	547 Apr 27 j 00:58	18°♉24'18	
	547 May 06 j 11:53	0°♊	
	547 May 31 j 00:58	0°♋	
	547 Jun 24 j 17:12	0°♌	
	547 Jul 19 j 14:05	0°♍	
	547 Aug 13 j 18:32	0°♎	
desc. node	547 Aug 16 j 14:20	3°♎19'56	
	547 Sep 08 j 11:50	0°♏	
	547 Oct 05 j 06:47	0°♐	
evening max el	547 Oct 20 j 16:16	16°♐08'26	47°17'44
	547 Nov 04 j 05:21	0°♑	
greatest brilliancy	547 Nov 30 j 08:15	17°♑36'27	-4.9m
asc. node	547 Dec 07 j 17:38	19°♑27'07	
retrograde	547 Dec 10 j 13:11	19°♑36'48	
evening set	547 Dec 25 j 15:04	15°♑03'35	
min. Earth dist.	547 Dec 30 j 07:33	12°♑16'45	0.26778 AU
inferior conj	547 Dec 31 j 04:58	11°♑43'44	5°35'43
minimum elong	547 Dec 30 j 18:56	11°♑59'11	5°33'14
morning rise	548 Jan 04 j 23:17	8°♑52'20	
direct	548 Jan 20 j 13:56	4°♑02'28	
greatest brilliancy	548 Jan 29 j 17:57	5°♑38'07	-4.9m
	548 Mar 04 j 09:52	0°♒	
morning max el	548 Mar 10 j 07:39	5°♒40'02	46°22'54
desc. node	548 Mar 28 j 07:09	24°♒10'10	
	548 Apr 02 j 17:03	0°♓	
	548 Apr 29 j 13:05	0°♈	
	548 May 25 j 10:12	0°♉	
	548 Jun 19 j 18:11	0°♊	
	548 Jul 14 j 15:55	0°♋	
asc. node	548 Jul 19 j 10:31	5°♋48'25	
	548 Aug 08 j 04:30	0°♌	
	548 Sep 01 j 09:29	0°♍	
morning set	548 Sep 04 j 04:28	3°♍28'42	
	548 Sep 25 j 09:18	0°♎	
max. Earth dist.	548 Oct 10 j 19:38	19°♎22'14	1.71339 AU
superior conj	548 Oct 12 j 11:15	21°♎26'43	0°57'35
minimum elong	548 Oct 12 j 21:53	22°♎00'06	0°57'11
	548 Oct 19 j 06:34	0°♏	
desc. node	548 Nov 08 j 00:06	24°♏48'25	
	548 Nov 12 j 03:14	0°♐	
evening rise	548 Nov 22 j 10:13	12°♐56'04	
	548 Dec 06 j 00:29	0°♑	
	548 Dec 29 j 23:29	0°♒	
	549 Jan 23 j 02:14	0°♓	
	549 Feb 16 j 11:55	0°♈	
asc. node	549 Mar 01 j 03:12	15°♈19'36	
	549 Mar 13 j 09:06	0°♉	
	549 Apr 08 j 00:55	0°♊	
	549 May 05 j 02:37	0°♋	
evening max el	549 May 24 j 15:59	19°♋50'12	45°20'28
	549 Jun 04 j 20:47	0°♌	
desc. node	549 Jun 20 j 16:47	11°♌52'53	
greatest brilliancy	549 Jul 02 j 00:14	17°♌28'30	-4.7m
retrograde	549 Jul 12 j 05:03	19°♌19'43	
evening set	549 Jul 29 j 06:10	13°♌52'13	
inferior conj	549 Aug 02 j 11:59	11°♌18'02	-7°59'34
minimum elong	549 Aug 02 j 04:30	11°♌29'36	7°58'41
min. Earth dist.	549 Aug 02 j 19:24	11°♌06'34	0.28563 AU
morning rise	549 Aug 06 j 02:39	9°♌05'47	
direct	549 Aug 24 j 00:09	3°♌06'46	
greatest brilliancy	549 Sep 03 j 20:48	5°♌16'41	-4.8m
	549 Oct 07 j 18:40	0°♍	
asc. node	549 Oct 11 j 19:59	3°♍58'08	
morning max el	549 Oct 13 j 05:20	5°♍21'33	46°36'02
	549 Nov 05 j 04:14	0°♎	
	549 Nov 30 j 22:56	0°♏	
	549 Dec 25 j 19:14	0°♐	
	550 Jan 19 j 06:59	0°♑	
desc. node	550 Jan 31 j 09:30	14°♑53'32	
	550 Feb 12 j 15:57	0°♒	
	550 Mar 09 j 00:39	0°♓	
	550 Apr 02 j 10:04	0°♈	
morning set	550 Apr 18 j 12:39	19°♈47'02	
	550 Apr 26 j 20:23	0°♉	
	550 May 21 j 07:02	0°♊	
max. Earth dist.	550 May 24 j 16:11	4°♊09'04	1.73645 AU
asc. node	550 May 24 j 12:55	3°♊59'04	
superior conj	550 May 25 j 06:46	4°♊53'51	0°01'47
minimum elong	550 May 25 j 06:24	4°♊52'42	0°01'46
behind sun begin	550 May 24 j 08:04	3°♊44'09	
behind sun end	550 May 26 j 04:44	6°♊01'16	
	550 Jun 14 j 17:06	0°♋	
evening rise	550 Jun 30 j 04:14	19°♋01'27	
	550 Jul 09 j 02:10	0°♌	
	550 Aug 02 j 10:45	0°♍	
	550 Aug 26 j 20:07	0°♎	
desc. node	550 Sep 13 j 02:17	21°♎09'48	
	550 Sep 20 j 07:42	0°♏	
	550 Oct 14 j 23:11	0°♐	
	550 Nov 08 j 22:03	0°♑	
	550 Dec 04 j 13:58	0°♒	
evening max el	550 Dec 31 j 14:00	29°♒23'15	47°00'18
	551 Jan 01 j 04:28	0°♓	
asc. node	551 Jan 04 j 05:33	3°♓03'11	
	551 Feb 08 j 09:58	0°♈	
greatest brilliancy	551 Feb 09 j 14:14	0°♈28'11	-4.8m
retrograde	551 Feb 20 j 05:05	2°♈35'09	
	551 Mar 03 j 10:43	30°℞♓	
evening set	551 Mar 09 j 20:30	26°♓31'38	
inferior conj	551 Mar 13 j 09:04	24°♓18'57	8°02'09
minimum elong	551 Mar 13 j 15:47	24°♓08'18	8°01'26
min. Earth dist.	551 Mar 13 j 02:21	24°♓29'37	0.28457 AU
morning rise	551 Mar 17 j 11:22	21°♓46'22	
direct	551 Apr 03 j 13:49	16°♓10'16	
greatest brilliancy	551 Apr 12 j 23:11	17°♓47'53	-4.8m
desc. node	551 Apr 25 j 18:55	24°♓13'27	
	551 May 03 j 21:43	0°♈	
morning max el	551 May 22 j 10:53	16°♈13'44	45°47'27
	551 Jun 05 j 06:31	0°♉	
	551 Jul 02 j 23:46	0°♊	
	551 Jul 29 j 02:20	0°♋	
asc. node	551 Aug 16 j 22:18	22°♋21'34	
	551 Aug 23 j 06:29	0°♌	
	551 Sep 16 j 19:26	0°♍	

	551 Oct 10 j 22:32	0°♎	
greatest brilliancy	551 Oct 22 j 22:41	15°♎02'44	-3.9m
	551 Nov 03 j 20:21	0°♏	
morning set	551 Nov 17 j 15:24	17°♏21'42	
	551 Nov 27 j 16:18	0°♐	
desc. node	551 Dec 06 j 11:54	11°♐05'53	
	551 Dec 21 j 12:28	0°♑	
superior conj	551 Dec 29 j 10:31	9°♑57'02	-0°51'03
minimum elong	551 Dec 28 j 23:08	9°♑21'19	0°50'36
max. Earth dist.	552 Jan 01 j 14:05	13°♑54'15	1.71251 AU
	552 Jan 14 j 10:00	0°♒	
	552 Feb 07 j 10:02	0°♓	
evening rise	552 Feb 08 j 12:23	1°♓22'08	
	552 Mar 02 j 13:55	0°♈	
	552 Mar 26 j 23:16	0°♉	
asc. node	552 Mar 28 j 15:14	2°♉02'07	
	552 Apr 20 j 15:44	0°♊	
	552 May 15 j 17:30	0°♋	
	552 Jun 10 j 08:50	0°♌	
	552 Jul 06 j 23:54	0°♍	
desc. node	552 Jul 18 j 04:28	12°♍03'14	
	552 Aug 04 j 20:54	0°♎	
evening max el	552 Aug 04 j 23:32	0°♎06'21	46°09'38
greatest brilliancy	552 Sep 14 j 09:45	29°♎17'55	-4.8m
	552 Sep 16 j 22:03	0°♏	
retrograde	552 Sep 23 j 08:57	0°♏47'05	
	552 Sep 29 j 15:41	30°℞♎	
evening set	552 Oct 09 j 10:15	25°♎52'58	
inferior conj	552 Oct 14 j 02:20	23°♎07'09	-5°55'51
minimum elong	552 Oct 14 j 12:52	22°♎51'06	5°53'20
min. Earth dist.	552 Oct 14 j 20:45	22°♎39'06	0.26866 AU
morning rise	552 Oct 19 j 14:56	19°♎51'35	
direct	552 Nov 03 j 17:14	15°♎21'43	
asc. node	552 Nov 08 j 07:46	15°♎46'46	
greatest brilliancy	552 Nov 14 j 16:04	17°♎36'59	-4.9m
	552 Dec 04 j 05:37	0°♏	
morning max el	552 Dec 24 j 10:39	18°♏48'03	46°56'06
	553 Jan 04 j 02:52	0°♐	
	553 Jan 30 j 21:28	0°♑	
	553 Feb 25 j 12:13	0°♒	
desc. node	553 Feb 27 j 21:23	2°♒49'29	
	553 Mar 22 j 15:47	0°♓	
	553 Apr 16 j 14:04	0°♈	
	553 May 11 j 09:09	0°♉	
	553 Jun 05 j 01:12	0°♊	
asc. node	553 Jun 21 j 00:44	19°♊31'52	
morning set	553 Jun 25 j 02:59	24°♊33'00	
	553 Jun 29 j 13:31	0°♋	
	553 Jul 23 j 21:34	0°♌	
max. Earth dist.	553 Jul 27 j 19:14	4°♌49'54	1.72868 AU
superior conj	553 Jul 31 j 11:42	9°♌23'58	1°16'47
minimum elong	553 Jul 31 j 04:51	9°♌02'44	1°16'39
	553 Aug 17 j 01:52	0°♍	
evening rise	553 Sep 06 j 07:09	25°♍11'11	
	553 Sep 10 j 03:50	0°♎	
	553 Oct 04 j 05:07	0°♏	
desc. node	553 Oct 10 j 14:19	7°♏57'25	
	553 Oct 28 j 06:58	0°♐	
	553 Nov 21 j 10:30	0°♑	
	553 Dec 15 j 17:58	0°♒	
	554 Jan 09 j 10:22	0°♓	
asc. node	554 Jan 31 j 17:17	26°♓19'17	
	554 Feb 03 j 21:52	0°♈	
	554 Mar 03 j 03:44	0°♉	
evening max el	554 Mar 12 j 15:05	9°♉34'38	45°48'35
	554 Apr 05 j 07:59	0°♊	
greatest brilliancy	554 Apr 19 j 18:22	8°♊01'45	-4.7m
retrograde	554 Apr 30 j 16:31	10°♊12'02	
evening set	554 May 15 j 19:48	5°♊46'00	
inferior conj	554 May 22 j 04:01	1°♊57'54	0°15'44
minimum elong	554 May 22 j 04:36	1°♊56'59	0°15'34
transit middle	554 May 22 j 04:36	1°♊56'59	0°15'34
transit begin	554 May 22 j 03:28	1°♊58'46	
transit end	554 May 22 j 05:44	1°♊55'12	
min. Earth dist.	554 May 22 j 07:24	1°♊52'36	0.28975 AU
desc. node	554 May 23 j 06:51	1°♊15'54	
	554 May 25 j 08:00	30°℞♉	
morning rise	554 May 28 j 13:17	28°♉07'28	
direct	554 Jun 12 j 18:50	23°♉39'12	
greatest brilliancy	554 Jun 23 j 07:17	25°♉37'41	-4.7m
	554 Jul 02 j 10:49	0°♊	
morning max el	554 Jul 31 j 17:19	23°♊34'35	45°54'12
	554 Aug 07 j 06:01	0°♋	
	554 Sep 04 j 04:30	0°♌	
asc. node	554 Sep 13 j 10:17	10°♌33'42	
	554 Sep 29 j 23:24	0°♍	
	554 Oct 24 j 17:32	0°♎	
	554 Nov 17 j 23:15	0°♏	
	554 Dec 11 j 23:45	0°♐	
desc. node	555 Jan 02 j 23:43	27°♐31'56	
	555 Jan 04 j 23:02	0°♑	
	555 Jan 28 j 23:03	0°♒	
morning set	555 Feb 02 j 22:58	6°♒14'08	
	555 Feb 22 j 00:49	0°♓	
superior conj	555 Mar 14 j 16:32	25°♓38'14	-1°19'03
minimum elong	555 Mar 14 j 23:52	26°♓00'56	1°18'55
max. Earth dist.	555 Mar 18 j 00:11	29°♓44'47	1.72728 AU
	555 Mar 18 j 05:06	0°♈	
	555 Apr 11 j 12:24	0°♉	
evening rise	555 Apr 21 j 20:05	12°♉41'27	
asc. node	555 Apr 26 j 03:10	17°♉57'49	
	555 May 05 j 22:45	0°♊	
	555 May 30 j 12:01	0°♋	
	555 Jun 24 j 04:35	0°♌	
	555 Jul 19 j 02:05	0°♍	
	555 Aug 13 j 07:36	0°♎	
desc. node	555 Aug 15 j 16:23	2°♎47'06	
	555 Sep 08 j 02:47	0°♏	
	555 Oct 05 j 01:40	0°♐	
evening max el	555 Oct 18 j 07:02	13°♐46'44	47°16'25
	555 Nov 04 j 14:12	0°♑	
greatest brilliancy	555 Nov 27 j 21:23	15°♑07'57	-4.9m
asc. node	555 Dec 06 j 19:41	17°♑06'17	
retrograde	555 Dec 08 j 02:53	17°♑08'22	
evening set	555 Dec 23 j 01:07	12°♑39'24	
min. Earth dist.	555 Dec 27 j 20:31	9°♑48'34	0.26728 AU
inferior conj	555 Dec 28 j 17:36	9°♑16'07	5°16'57
minimum elong	555 Dec 28 j 07:48	9°♑31'12	5°14'27
morning rise	556 Jan 02 j 15:02	6°♑20'48	
direct	556 Jan 18 j 02:47	1°♑35'44	
greatest brilliancy	556 Jan 27 j 06:39	3°♑11'45	-4.9m
	556 Mar 04 j 11:16	0°♒	
morning max el	556 Mar 07 j 21:57	3°♒20'31	46°24'27
desc. node	556 Mar 27 j 09:19	23°♒28'11	
	556 Apr 02 j 09:52	0°♓	
	556 Apr 29 j 02:57	0°♈	
	556 May 24 j 22:37	0°♉	
	556 Jun 19 j 05:48	0°♊	
	556 Jul 14 j 03:03	0°♋	
asc. node	556 Jul 18 j 12:29	5°♋20'44	
	556 Aug 07 j 15:21	0°♌	

	556 Aug 31 j 20:13	0°♍	
morning set	556 Sep 01 j 20:21	1°♍15'09	
	556 Sep 24 j 20:03	0°♎	
max. Earth dist.	556 Oct 08 j 04:44	16°♎46'08	1.71376 AU
superior conj	556 Oct 10 j 00:16	19°♎02'53	1°00'14
minimum elong	556 Oct 10 j 10:51	19°♎36'07	0°59'51
	556 Oct 18 j 17:25	0°♏	
desc. node	556 Nov 07 j 02:12	24°♏20'41	
	556 Nov 11 j 14:11	0°♐	
evening rise	556 Nov 19 j 20:24	10°♐22'40	
	556 Dec 05 j 11:34	0°♑	
	556 Dec 29 j 10:42	0°♒	
	557 Jan 22 j 13:39	0°♓	
	557 Feb 15 j 23:41	0°♈	
asc. node	557 Feb 28 j 05:21	14°♈49'50	
	557 Mar 12 j 21:33	0°♉	
	557 Apr 07 j 14:45	0°♊	
	557 May 04 j 19:47	0°♋	
evening max el	557 May 22 j 07:48	17°♋39'45	45°20'04
	557 Jun 05 j 02:40	0°♌	
desc. node	557 Jun 19 j 18:44	10°♌34'03	
greatest brilliancy	557 Jun 29 j 14:29	15°♌16'12	-4.7m
retrograde	557 Jul 09 j 19:43	17°♌07'42	
evening set	557 Jul 26 j 18:08	11°♌45'09	
inferior conj	557 Jul 31 j 03:22	9°♌05'42	-7°50'45
minimum elong	557 Jul 30 j 19:23	9°♌18'05	7°49'45
min. Earth dist.	557 Jul 31 j 10:12	8°♌55'07	0.28594 AU
morning rise	557 Aug 03 j 20:27	6°♌49'34	
direct	557 Aug 21 j 15:59	0°♌54'07	
greatest brilliancy	557 Sep 01 j 11:45	3°♌02'39	-4.8m
	557 Oct 07 j 18:08	0°♍	
asc. node	557 Oct 10 j 22:03	3°♍08'29	
morning max el	557 Oct 10 j 19:19	3°♍01'37	46°34'36
	557 Nov 04 j 20:26	0°♎	
	557 Nov 30 j 12:43	0°♏	
	557 Dec 25 j 07:52	0°♐	
	558 Jan 18 j 18:56	0°♑	
desc. node	558 Jan 30 j 11:32	14°♑23'37	
	558 Feb 12 j 03:29	0°♒	
	558 Mar 08 j 11:50	0°♓	
	558 Apr 01 j 21:00	0°♈	
morning set	558 Apr 16 j 05:30	17°♈38'22	
	558 Apr 26 j 07:06	0°♉	
	558 May 20 j 17:38	0°♊	
max. Earth dist.	558 May 22 j 13:16	2°♊13'55	1.73639 AU
superior conj	558 May 23 j 00:47	2°♊49'17	-0°01'25
minimum elong	558 May 23 j 01:04	2°♊50'09	0°01'24
behind sun begin	558 May 22 j 02:41	1°♊41'26	
behind sun end	558 May 23 j 23:27	3°♊58'52	
asc. node	558 May 23 j 14:55	3°♊32'40	
	558 Jun 14 j 03:42	0°♋	
evening rise	558 Jun 27 j 23:09	16°♋59'03	
	558 Jul 08 j 12:55	0°♌	
	558 Aug 01 j 21:46	0°♍	
	558 Aug 26 j 07:30	0°♎	
desc. node	558 Sep 12 j 04:28	20°♎40'44	
	558 Sep 19 j 19:34	0°♏	
	558 Oct 14 j 11:45	0°♐	
	558 Nov 08 j 11:47	0°♑	
	558 Dec 04 j 05:58	0°♒	
evening max el	558 Dec 29 j 04:13	27°♒02'15	47°02'07
	559 Jan 01 j 02:43	0°♓	
asc. node	559 Jan 03 j 07:29	2°♓10'27	
greatest brilliancy	559 Feb 07 j 07:10	28°♓14'04	-4.8m
	559 Feb 13 j 18:13	0°♈	
retrograde	559 Feb 17 j 20:26	0°♈19'50	
	559 Feb 21 j 20:47	30°℞♓	
evening set	559 Mar 07 j 14:08	24°♓13'43	
min. Earth dist.	559 Mar 10 j 17:20	22°♓15'45	0.28418 AU
inferior conj	559 Mar 11 j 00:36	22°♓04'12	8°09'41
minimum elong	559 Mar 11 j 06:43	21°♓54'29	8°09'07
morning rise	559 Mar 14 j 23:33	19°♓36'22	
direct	559 Apr 01 j 04:20	13°♓56'14	
greatest brilliancy	559 Apr 10 j 13:25	15°♓33'11	-4.8m
desc. node	559 Apr 24 j 20:59	22°♓57'26	
	559 May 04 j 08:00	0°♈	
morning max el	559 May 20 j 01:04	13°♈58'54	45°48'06
	559 Jun 05 j 00:36	0°♉	
	559 Jul 02 j 13:57	0°♊	
	559 Jul 28 j 14:51	0°♋	
asc. node	559 Aug 16 j 00:27	21°♋52'19	
	559 Aug 22 j 18:11	0°♌	
	559 Sep 16 j 06:43	0°♍	
	559 Oct 10 j 09:37	0°♎	
greatest brilliancy	559 Oct 25 j 04:12	18°♎31'31	-3.9m
	559 Nov 03 j 07:19	0°♏	
morning set	559 Nov 15 j 02:29	14°♏51'03	
	559 Nov 27 j 03:12	0°♐	
desc. node	559 Dec 05 j 13:54	10°♐37'56	
	559 Dec 20 j 23:19	0°♑	
superior conj	559 Dec 26 j 20:28	7°♑23'30	-0°47'48
minimum elong	559 Dec 26 j 09:28	6°♑48'57	0°47'21
max. Earth dist.	559 Dec 29 j 18:06	11°♑02'09	1.71218 AU
	560 Jan 13 j 20:51	0°♒	
evening rise	560 Feb 06 j 00:05	28°♒55'11	
	560 Feb 06 j 20:53	0°♓	
	560 Mar 02 j 00:50	0°♈	
	560 Mar 26 j 10:22	0°♉	
asc. node	560 Mar 27 j 17:19	1°♉34'33	
	560 Apr 20 j 03:13	0°♊	
	560 May 15 j 05:42	0°♋	
	560 Jun 09 j 22:22	0°♌	
	560 Jul 06 j 16:11	0°♍	
desc. node	560 Jul 17 j 06:33	11°♍20'42	
evening max el	560 Aug 02 j 11:46	27°♍43'35	46°07'09
	560 Aug 04 j 20:55	0°♎	
greatest brilliancy	560 Sep 11 j 22:18	26°♎53'22	-4.8m
retrograde	560 Sep 20 j 21:05	28°♎22'25	
evening set	560 Oct 07 j 01:57	23°♎23'00	
inferior conj	560 Oct 11 j 14:57	20°♎41'47	-6°12'57
minimum elong	560 Oct 12 j 01:35	20°♎25'36	6°10'31
min. Earth dist.	560 Oct 12 j 10:18	20°♎12'22	0.26926 AU
morning rise	560 Oct 17 j 00:38	17°♎30'21	
direct	560 Nov 01 j 06:19	12°♎55'01	
asc. node	560 Nov 07 j 09:48	13°♎39'20	
greatest brilliancy	560 Nov 12 j 06:44	15°♎12'03	-4.9m
	560 Dec 04 j 16:53	0°♏	
morning max el	560 Dec 22 j 00:47	16°♏24'08	46°56'34
	561 Jan 03 j 21:59	0°♐	
	561 Jan 30 j 12:32	0°♑	
	561 Feb 25 j 01:27	0°♒	
desc. node	561 Feb 26 j 23:35	2°♒17'07	
	561 Mar 22 j 03:58	0°♓	
	561 Apr 16 j 01:36	0°♈	
	561 May 10 j 20:16	0°♉	
	561 Jun 04 j 12:04	0°♊	
asc. node	561 Jun 20 j 02:45	19°♊05'04	
morning set	561 Jun 22 j 21:01	22°♊28'09	
	561 Jun 29 j 00:15	0°♋	
	561 Jul 23 j 08:16	0°♌	
max. Earth dist.	561 Jul 25 j 15:52	2°♌52'02	1.72916 AU

superior conj	561 Jul 29 j 05:18	7°♌16'35	1°15'22
minimum elong	561 Jul 28 j 22:03	6°♌54'07	1°15'13
	561 Aug 16 j 12:37	0°♍	
evening rise	561 Sep 03 j 22:24	22°♍55'11	
	561 Sep 09 j 14:45	0°♎	
	561 Oct 03 j 16:17	0°♏	
desc. node	561 Oct 09 j 16:20	7°♏28'46	
	561 Oct 27 j 18:26	0°♐	
	561 Nov 20 j 22:18	0°♑	
	561 Dec 15 j 06:13	0°♒	
	562 Jan 08 j 23:23	0°♓	
asc. node	562 Jan 30 j 19:28	25°♓44'10	
	562 Feb 03 j 12:30	0°♈	
	562 Mar 02 j 22:41	0°♉	
evening max el	562 Mar 10 j 07:00	7°♉23'15	45°50'47
	562 Apr 06 j 04:21	0°♊	
greatest brilliancy	562 Apr 17 j 10:17	5°♊52'50	-4.7m
retrograde	562 Apr 28 j 09:40	8°♊04'03	
evening set	562 May 13 j 13:17	3°♊36'21	
inferior conj	562 May 19 j 20:30	29°♉49'23	0°35'22
minimum elong	562 May 19 j 21:48	29°♉47'21	0°35'00
	562 May 19 j 13:43	30℞♉	
min. Earth dist.	562 May 19 j 23:43	29°♉44'20	0.28977 AU
desc. node	562 May 22 j 08:50	28°♉15'28	
morning rise	562 May 26 j 06:19	25°♉58'29	
direct	562 Jun 10 j 11:31	21°♉30'38	
greatest brilliancy	562 Jun 20 j 23:00	23°♉28'43	-4.7m
	562 Jul 03 j 14:00	0°♊	
morning max el	562 Jul 29 j 10:22	21°♊27'03	45°53'10
	562 Aug 07 j 01:41	0°♋	
	562 Sep 03 j 19:23	0°♌	
asc. node	562 Sep 12 j 12:24	9°♌59'03	
	562 Sep 29 j 12:28	0°♍	
	562 Oct 24 j 05:44	0°♎	
	562 Nov 17 j 11:00	0°♏	
	562 Dec 11 j 11:15	0°♐	
desc. node	563 Jan 02 j 01:44	27°♐02'52	
	563 Jan 04 j 10:20	0°♑	
	563 Jan 28 j 10:09	0°♒	
morning set	563 Jan 31 j 10:02	3°♒44'20	
	563 Feb 21 j 11:46	0°♓	
superior conj	563 Mar 12 j 06:59	23°♓20'37	-1°20'20
minimum elong	563 Mar 12 j 13:45	23°♓41'34	1°20'14
max. Earth dist.	563 Mar 15 j 17:11	27°♓35'15	1.72675 AU
	563 Mar 17 j 15:57	0°♈	
	563 Apr 10 j 23:13	0°♉	
evening rise	563 Apr 19 j 13:03	10°♉32'55	
asc. node	563 Apr 25 j 05:08	17°♉30'39	
	563 May 05 j 09:39	0°♊	
	563 May 29 j 23:08	0°♋	
	563 Jun 23 j 16:08	0°♌	
	563 Jul 18 j 14:20	0°♍	
	563 Aug 12 j 20:59	0°♎	
desc. node	563 Aug 14 j 18:31	2°♎13'43	
	563 Sep 07 j 18:09	0°♏	
	563 Oct 04 j 21:17	0°♐	
evening max el	563 Oct 15 j 22:09	11°♐25'34	47°15'07
	563 Nov 05 j 02:18	0°♑	
greatest brilliancy	563 Nov 25 j 10:45	12°♑39'24	-4.9m
retrograde	563 Dec 05 j 16:22	14°♑39'11	
asc. node	563 Dec 05 j 21:42	14°♑39'08	
evening set	563 Dec 20 j 11:24	10°♑14'31	
min. Earth dist.	563 Dec 25 j 09:39	7°♑19'34	0.26677 AU
inferior conj	563 Dec 26 j 06:11	6°♑47'57	4°57'37
minimum elong	563 Dec 25 j 20:43	7°♑02'32	4°55'05
morning rise	563 Dec 31 j 06:38	3°♑48'38	
	564 Jan 09 j 05:00	30℞♐	
direct	564 Jan 15 j 15:37	29°♐08'34	
	564 Jan 22 j 06:44	0°♑	
greatest brilliancy	564 Jan 24 j 19:29	0°♑44'45	-4.9m
	564 Mar 04 j 11:35	0°♒	
morning max el	564 Mar 05 j 11:41	0°♒59'02	46°26'00
desc. node	564 Mar 26 j 11:19	22°♒45'47	
	564 Apr 02 j 02:30	0°♓	
	564 Apr 28 j 16:50	0°♈	
	564 May 24 j 11:07	0°♉	
	564 Jun 18 j 17:31	0°♊	
	564 Jul 13 j 14:20	0°♋	
asc. node	564 Jul 17 j 14:39	4°♋53'03	
	564 Aug 07 j 02:26	0°♌	
morning set	564 Aug 30 j 11:57	28°♌59'54	
	564 Aug 31 j 07:15	0°♍	
	564 Sep 24 j 07:08	0°♎	
max. Earth dist.	564 Oct 05 j 10:26	13°♎58'33	1.71415 AU
superior conj	564 Oct 07 j 13:08	16°♎37'43	1°02'46
minimum elong	564 Oct 07 j 23:36	17°♎10'35	1°02'25
	564 Oct 18 j 04:33	0°♏	
desc. node	564 Nov 06 j 04:10	23°♏51'42	
	564 Nov 11 j 01:25	0°♐	
evening rise	564 Nov 17 j 06:18	7°♐47'40	
	564 Dec 04 j 22:53	0°♑	
	564 Dec 28 j 22:10	0°♒	
	565 Jan 22 j 01:20	0°♓	
	565 Feb 15 j 11:44	0°♈	
asc. node	565 Feb 27 j 07:25	14°♈18'58	
	565 Mar 12 j 10:18	0°♉	
	565 Apr 07 j 04:57	0°♊	
	565 May 04 j 13:35	0°♋	
evening max el	565 May 19 j 22:50	15°♋26'47	45°19'43
	565 Jun 05 j 11:15	0°♌	
desc. node	565 Jun 18 j 20:49	9°♌12'15	
greatest brilliancy	565 Jun 27 j 04:51	13°♌03'27	-4.7m
retrograde	565 Jul 07 j 10:05	14°♌55'21	
evening set	565 Jul 24 j 06:05	9°♌37'29	
inferior conj	565 Jul 28 j 18:50	6°♌52'54	-7°41'15
minimum elong	565 Jul 28 j 10:22	7°♌06'01	7°40'06
min. Earth dist.	565 Jul 29 j 01:20	6°♌42'47	0.28631 AU
morning rise	565 Aug 01 j 14:25	4°♌32'45	
	565 Aug 11 j 03:26	30℞♋	
direct	565 Aug 19 j 07:31	28°♋40'43	
	565 Aug 27 j 18:16	0°♌	
greatest brilliancy	565 Aug 30 j 03:30	0°♌48'45	-4.8m
	565 Oct 07 j 17:07	0°♍	
morning max el	565 Oct 08 j 08:55	0°♍39'31	46°33'05
asc. node	565 Oct 10 j 00:03	2°♍18'10	
	565 Nov 04 j 12:50	0°♎	
	565 Nov 30 j 02:50	0°♏	
	565 Dec 24 j 20:49	0°♐	
	566 Jan 18 j 07:12	0°♑	
desc. node	566 Jan 29 j 13:45	13°♑53'19	
	566 Feb 11 j 15:16	0°♒	
	566 Mar 07 j 23:18	0°♓	
	566 Apr 01 j 08:12	0°♈	
morning set	566 Apr 13 j 22:21	15°♈28'41	
	566 Apr 25 j 18:07	0°♉	
	566 May 20 j 04:33	0°♊	
superior conj	566 May 20 j 18:59	0°♊44'21	-0°04'34
minimum elong	566 May 20 j 19:56	0°♊47'14	0°04'32
behind sun begin	566 May 19 j 22:12	29°♉40'31	
behind sun end	566 May 21 j 17:40	1°♊53'57	
max. Earth dist.	566 May 20 j 09:15	0°♊14'28	1.73631 AU

asc. node	566 May 22 j 16:59	3°♊05'33	
	566 Jun 13 j 14:37	0°♋	
evening rise	566 Jun 25 j 18:19	14°♋56'36	
	566 Jul 07 j 23:58	0°♌	
	566 Aug 01 j 09:05	0°♍	
	566 Aug 25 j 19:14	0°♎	
desc. node	566 Sep 11 j 06:29	20°♎09'54	
	566 Sep 19 j 07:53	0°♏	
	566 Oct 14 j 00:53	0°♐	
	566 Nov 08 j 02:11	0°♑	
	566 Dec 03 j 22:49	0°♒	
evening max el	566 Dec 26 j 17:58	24°♒38'27	47°04'10
	567 Jan 01 j 02:31	0°♓	
asc. node	567 Jan 02 j 09:41	1°♓15'54	
greatest brilliancy	567 Feb 04 j 23:50	25°♓58'12	-4.9m
retrograde	567 Feb 15 j 11:47	28°♓03'23	
evening set	567 Mar 05 j 07:35	21°♓54'38	
inferior conj	567 Mar 08 j 16:08	19°♓48'13	8°16'36
minimum elong	567 Mar 08 j 21:36	19°♓39'32	8°16'08
min. Earth dist.	567 Mar 08 j 08:19	20°♓00'38	0.28374 AU
morning rise	567 Mar 12 j 11:51	17°♓25'13	
direct	567 Mar 29 j 18:34	11°♓40'51	
greatest brilliancy	567 Apr 08 j 03:55	13°♓17'46	-4.8m
desc. node	567 Apr 23 j 23:01	21°♓42'38	
	567 May 04 j 15:57	0°♈	
morning max el	567 May 17 j 15:46	11°♈44'16	45°48'53
	567 Jun 04 j 18:35	0°♉	
	567 Jul 02 j 04:18	0°♊	
	567 Jul 28 j 03:36	0°♋	
asc. node	567 Aug 15 j 02:33	21°♋22'07	
	567 Aug 22 j 06:09	0°♌	
	567 Sep 15 j 18:18	0°♍	
	567 Oct 09 j 21:00	0°♎	
greatest brilliancy	567 Oct 26 j 08:28	20°♎40'01	-3.9m
	567 Nov 02 j 18:38	0°♏	
morning set	567 Nov 12 j 13:28	12°♏18'50	
	567 Nov 26 j 14:31	0°♐	
desc. node	567 Dec 04 j 16:01	10°♐09'00	
	567 Dec 20 j 10:38	0°♑	
superior conj	567 Dec 24 j 05:50	4°♑46'38	-0°44'24
minimum elong	567 Dec 23 j 19:18	4°♑13'33	0°43'57
max. Earth dist.	567 Dec 26 j 20:32	8°♑03'36	1.71190 AU
	568 Jan 13 j 08:09	0°♒	
evening rise	568 Feb 03 j 11:12	26°♒25'07	
	568 Feb 06 j 08:09	0°♓	
	568 Mar 01 j 12:08	0°♈	
	568 Mar 25 j 21:50	0°♉	
asc. node	568 Mar 26 j 19:18	1°♉05'34	
	568 Apr 19 j 15:05	0°♊	
	568 May 14 j 18:17	0°♋	
	568 Jun 09 j 12:20	0°♌	
	568 Jul 06 j 09:03	0°♍	
desc. node	568 Jul 16 j 08:44	10°♍37'08	
evening max el	568 Jul 31 j 01:06	25°♍23'06	46°04'46
	568 Aug 04 j 22:23	0°♎	
greatest brilliancy	568 Sep 09 j 10:12	24°♎28'14	-4.8m
retrograde	568 Sep 18 j 09:52	25°♎57'54	
evening set	568 Oct 04 j 17:50	20°♎53'10	
inferior conj	568 Oct 09 j 03:44	18°♎16'22	-6°29'06
minimum elong	568 Oct 09 j 14:23	18°♎00'12	6°26'48
min. Earth dist.	568 Oct 09 j 23:30	17°♎46'23	0.26990 AU
morning rise	568 Oct 14 j 10:24	15°♎09'24	
direct	568 Oct 29 j 20:11	10°♎28'30	
asc. node	568 Nov 06 j 11:51	11°♎36'46	
greatest brilliancy	568 Nov 09 j 20:59	12°♎46'27	-4.9m
	568 Dec 05 j 01:32	0°♏	
morning max el	568 Dec 19 j 15:43	14°♏01'19	46°56'39
	569 Jan 03 j 17:01	0°♐	
	569 Jan 30 j 03:51	0°♑	
	569 Feb 24 j 15:00	0°♒	
desc. node	569 Feb 26 j 01:33	1°♒42'52	
	569 Mar 21 j 16:29	0°♓	
	569 Apr 15 j 13:25	0°♈	
	569 May 10 j 07:38	0°♉	
	569 Jun 03 j 23:11	0°♊	
asc. node	569 Jun 19 j 04:53	18°♊37'57	
morning set	569 Jun 20 j 15:13	20°♊23'07	
	569 Jun 28 j 11:13	0°♋	
	569 Jul 22 j 19:13	0°♌	
max. Earth dist.	569 Jul 23 j 11:58	0°♌51'50	1.72960 AU
superior conj	569 Jul 26 j 23:12	5°♌09'27	1°13'52
minimum elong	569 Jul 26 j 15:37	4°♌45'57	1°13'41
	569 Aug 15 j 23:37	0°♍	
evening rise	569 Sep 01 j 14:08	20°♍40'06	
	569 Sep 09 j 01:54	0°♎	
	569 Oct 03 j 03:38	0°♏	
desc. node	569 Oct 08 j 18:22	6°♏59'32	
	569 Oct 27 j 06:04	0°♐	
	569 Nov 20 j 10:18	0°♑	
	569 Dec 14 j 18:43	0°♒	
	570 Jan 08 j 12:46	0°♓	
asc. node	570 Jan 29 j 21:29	25°♓07'17	
	570 Feb 03 j 03:40	0°♈	
	570 Mar 02 j 18:36	0°♉	
evening max el	570 Mar 07 j 23:36	5°♉12'29	45°53'05
	570 Apr 07 j 09:12	0°♊	
greatest brilliancy	570 Apr 15 j 02:43	3°♊43'41	-4.7m
retrograde	570 Apr 26 j 02:45	5°♊55'09	
evening set	570 May 11 j 06:59	1°♊25'58	
	570 May 13 j 18:31	30°℞♉	
inferior conj	570 May 17 j 13:00	27°♉40'12	0°54'58
minimum elong	570 May 17 j 15:01	27°♉37'04	0°54'23
min. Earth dist.	570 May 17 j 15:59	27°♉35'32	0.28971 AU
desc. node	570 May 21 j 10:55	25°♉15'22	
morning rise	570 May 23 j 23:10	23°♉48'55	
direct	570 Jun 08 j 04:24	19°♉21'41	
greatest brilliancy	570 Jun 18 j 14:14	21°♉18'42	-4.7m
	570 Jul 04 j 10:05	0°♊	
morning max el	570 Jul 27 j 02:58	19°♊18'08	45°52'09
	570 Aug 06 j 20:56	0°♋	
	570 Sep 03 j 10:11	0°♌	
asc. node	570 Sep 11 j 14:19	9°♌23'42	
	570 Sep 29 j 01:32	0°♍	
	570 Oct 23 j 17:58	0°♎	
	570 Nov 16 j 22:47	0°♏	
	570 Dec 10 j 22:46	0°♐	
desc. node	571 Jan 01 j 03:55	26°♐34'14	
	571 Jan 03 j 21:39	0°♑	
	571 Jan 27 j 21:19	0°♒	
morning set	571 Jan 28 j 21:07	1°♒14'17	
	571 Feb 20 j 22:49	0°♓	
superior conj	571 Mar 09 j 21:06	21°♓01'28	-1°21'30
minimum elong	571 Mar 10 j 03:12	21°♓20'25	1°21'25
max. Earth dist.	571 Mar 13 j 10:49	25°♓27'08	1.72624 AU
	571 Mar 17 j 02:56	0°♈	
	571 Apr 10 j 10:11	0°♉	
evening rise	571 Apr 17 j 05:33	8°♉22'29	
asc. node	571 Apr 24 j 07:12	17°♉03'22	
	571 May 04 j 20:40	0°♊	
	571 May 29 j 10:21	0°♋	
	571 Jun 23 j 03:46	0°♌	

	571 Jul 18 j 02:41	0°♍	
	571 Aug 12 j 10:31	0°♎	
desc. node	571 Aug 13 j 20:30	1°♎39'36	
	571 Sep 07 j 09:45	0°♏	
	571 Oct 04 j 17:27	0°♐	
evening max el	571 Oct 13 j 13:01	9°♐03'55	47°13'42
	571 Nov 05 j 18:11	0°♑	
greatest brilliancy	571 Nov 23 j 00:49	10°♑12'17	-4.9m
retrograde	571 Dec 03 j 05:30	12°♑10'38	
asc. node	571 Dec 04 j 23:50	12°♑06'47	
evening set	571 Dec 17 j 22:06	7°♑50'11	
min. Earth dist.	571 Dec 22 j 23:21	4°♑50'56	0.26627 AU
inferior conj	571 Dec 23 j 18:57	4°♑20'44	4°37'41
minimum elong	571 Dec 23 j 09:52	4°♑34'43	4°35'11
morning rise	571 Dec 28 j 22:15	1°♑17'21	
	571 Dec 31 j 09:07	30°℞♐	
direct	572 Jan 13 j 04:14	26°♐42'20	
greatest brilliancy	572 Jan 22 j 09:00	28°♐19'07	-4.9m
	572 Jan 26 j 13:35	0°♑	
morning max el	572 Mar 03 j 00:29	28°♑35'28	46°27'23
	572 Mar 04 j 10:40	0°♒	
desc. node	572 Mar 25 j 13:22	22°♒04'21	
	572 Apr 01 j 18:46	0°♓	
	572 Apr 28 j 06:33	0°♈	
	572 May 23 j 23:32	0°♉	
	572 Jun 18 j 05:11	0°♊	
	572 Jul 13 j 01:32	0°♋	
asc. node	572 Jul 16 j 16:43	4°♋25'19	
	572 Aug 06 j 13:24	0°♌	
morning set	572 Aug 28 j 03:39	26°♌45'26	
	572 Aug 30 j 18:09	0°♍	
	572 Sep 23 j 18:03	0°♎	
max. Earth dist.	572 Oct 02 j 17:19	11°♎15'09	1.71459 AU
superior conj	572 Oct 05 j 02:21	14°♎14'08	1°05'10
minimum elong	572 Oct 05 j 12:39	14°♎46'27	1°04'51
	572 Oct 17 j 15:34	0°♏	
desc. node	572 Nov 05 j 06:19	23°♏23'41	
	572 Nov 10 j 12:31	0°♐	
evening rise	572 Nov 14 j 16:32	5°♐14'08	
	572 Dec 04 j 10:04	0°♑	
	572 Dec 28 j 09:28	0°♒	
	573 Jan 21 j 12:49	0°♓	
	573 Feb 14 j 23:35	0°♈	
asc. node	573 Feb 26 j 09:24	13°♈48'24	
	573 Mar 11 j 22:53	0°♉	
	573 Apr 06 j 19:07	0°♊	
	573 May 04 j 07:38	0°♋	
evening max el	573 May 17 j 13:17	13°♋12'51	45°19'25
	573 Jun 05 j 22:40	0°♌	
desc. node	573 Jun 17 j 22:58	7°♌48'18	
greatest brilliancy	573 Jun 24 j 19:10	10°♌51'07	-4.7m
retrograde	573 Jul 05 j 00:49	12°♌43'56	
evening set	573 Jul 21 j 18:06	7°♌30'26	
inferior conj	573 Jul 26 j 10:22	4°♌40'56	-7°31'06
minimum elong	573 Jul 26 j 01:31	4°♌54'41	7°29'47
min. Earth dist.	573 Jul 26 j 16:39	4°♌31'11	0.28664 AU
morning rise	573 Jul 30 j 08:37	2°♌16'46	
	573 Aug 03 j 11:39	30°℞♋	
direct	573 Aug 16 j 22:52	26°♋28'07	
greatest brilliancy	573 Aug 27 j 19:48	28°♋36'30	-4.8m
	573 Aug 31 j 02:39	0°♌	
morning max el	573 Oct 05 j 22:45	28°♌18'59	46°31'36
	573 Oct 07 j 14:53	0°♍	
asc. node	573 Oct 09 j 02:12	1°♍29'54	
	573 Nov 04 j 04:40	0°♎	
	573 Nov 29 j 16:32	0°♏	
	573 Dec 24 j 09:26	0°♐	
	574 Jan 17 j 19:09	0°♑	
desc. node	574 Jan 28 j 15:42	13°♑23'09	
	574 Feb 11 j 02:46	0°♒	
	574 Mar 07 j 10:26	0°♓	
	574 Mar 31 j 19:04	0°♈	
morning set	574 Apr 11 j 15:14	13°♈19'59	
	574 Apr 25 j 04:48	0°♉	
max. Earth dist.	574 May 18 j 05:15	28°♉15'57	1.73627 AU
superior conj	574 May 18 j 13:13	28°♉40'25	-0°07'43
minimum elong	574 May 18 j 14:48	28°♉45'17	0°07'38
behind sun begin	574 May 17 j 18:50	27°♉43'57	
behind sun end	574 May 19 j 10:47	29°♉46'36	
	574 May 19 j 15:09	0°♊	
asc. node	574 May 21 j 19:09	2°♊39'35	
	574 Jun 13 j 01:17	0°♋	
evening rise	574 Jun 23 j 13:29	12°♋55'02	
	574 Jul 07 j 10:47	0°♌	
	574 Jul 31 j 20:10	0°♍	
	574 Aug 25 j 06:41	0°♎	
desc. node	574 Sep 10 j 08:29	19°♎39'56	
	574 Sep 18 j 19:54	0°♏	
	574 Oct 13 j 13:43	0°♐	
	574 Nov 07 j 16:22	0°♑	
	574 Dec 03 j 15:36	0°♒	
evening max el	574 Dec 24 j 08:03	22°♒16'30	47°06'09
asc. node	575 Jan 01 j 11:44	0°♓20'55	
	575 Jan 01 j 03:01	0°♓	
greatest brilliancy	575 Feb 02 j 15:55	23°♓42'28	-4.9m
retrograde	575 Feb 13 j 03:30	25°♓48'00	
evening set	575 Mar 03 j 00:44	19°♓36'44	
inferior conj	575 Mar 06 j 07:38	17°♓33'08	8°22'38
minimum elong	575 Mar 06 j 12:27	17°♓25'30	8°22'17
min. Earth dist.	575 Mar 05 j 23:03	17°♓46'44	0.28329 AU
morning rise	575 Mar 10 j 00:20	15°♓14'52	
direct	575 Mar 27 j 08:55	9°♓26'20	
greatest brilliancy	575 Apr 05 j 18:11	11°♓03'19	-4.8m
desc. node	575 Apr 23 j 01:07	20°♓31'18	
	575 May 04 j 21:03	0°♈	
morning max el	575 May 15 j 07:14	9°♈32'41	45°49'42
	575 Jun 04 j 11:43	0°♉	
	575 Jul 01 j 18:06	0°♊	
	575 Jul 27 j 15:58	0°♋	
asc. node	575 Aug 14 j 04:30	20°♋52'30	
	575 Aug 21 j 17:47	0°♌	
	575 Sep 15 j 05:33	0°♍	
	575 Oct 09 j 08:03	0°♎	
greatest brilliancy	575 Oct 26 j 20:17	21°♎58'05	-3.9m
	575 Nov 02 j 05:36	0°♏	
morning set	575 Nov 10 j 00:39	9°♏48'27	
	575 Nov 26 j 01:27	0°♐	
desc. node	575 Dec 03 j 18:07	9°♐41'12	
	575 Dec 19 j 21:34	0°♑	
superior conj	575 Dec 21 j 15:09	2°♑10'42	-0°40'54
minimum elong	575 Dec 21 j 05:11	1°♑39'22	0°40'27
max. Earth dist.	575 Dec 24 j 02:29	5°♑17'11	1.71167 AU
	576 Jan 12 j 19:04	0°♒	
evening rise	576 Jan 31 j 22:20	23°♒56'07	
	576 Feb 05 j 19:05	0°♓	
	576 Feb 29 j 23:06	0°♈	
	576 Mar 25 j 08:58	0°♉	
asc. node	576 Mar 25 j 21:27	0°♉38'04	
	576 Apr 19 j 02:36	0°♊	
	576 May 14 j 06:33	0°♋	
	576 Jun 09 j 02:02	0°♌	

	576 Jul 06 j 01:52	0°♍	
desc. node	576 Jul 15 j 10:40	9°♍53'13	
evening max el	576 Jul 28 j 15:11	23°♍05'29	46°02'14
	576 Aug 05 j 00:53	0°♎	
greatest brilliancy	576 Sep 06 j 21:40	22°♎03'34	-4.8m
retrograde	576 Sep 15 j 22:43	23°♎33'53	
evening set	576 Oct 02 j 09:43	18°♎24'07	
inferior conj	576 Oct 06 j 16:26	15°♎51'37	-6°44'37
minimum elong	576 Oct 07 j 03:01	15°♎35'33	6°42'25
min. Earth dist.	576 Oct 07 j 12:18	15°♎21'28	0.27053 AU
morning rise	576 Oct 11 j 19:53	12°♎49'15	
direct	576 Oct 27 j 10:17	8°♎02'56	
asc. node	576 Nov 05 j 13:59	9°♎39'45	
greatest brilliancy	576 Nov 07 j 10:33	10°♎20'49	-4.9m
	576 Dec 05 j 07:24	0°♏	
morning max el	576 Dec 17 j 06:28	11°♏39'06	46°56'42
	577 Jan 03 j 11:11	0°♐	
	577 Jan 29 j 18:34	0°♑	
	577 Feb 24 j 04:04	0°♒	
desc. node	577 Feb 25 j 03:36	1°♒10'13	
	577 Mar 21 j 04:34	0°♓	
	577 Apr 15 j 00:52	0°♈	
	577 May 09 j 18:40	0°♉	
	577 Jun 03 j 09:56	0°♊	
morning set	577 Jun 18 j 09:40	18°♊20'00	
asc. node	577 Jun 18 j 06:56	18°♊11'38	
	577 Jun 27 j 21:50	0°♋	
max. Earth dist.	577 Jul 21 j 07:26	28°♋50'48	1.73005 AU
	577 Jul 22 j 05:48	0°♌	
superior conj	577 Jul 24 j 17:19	3°♌04'04	1°12'16
minimum elong	577 Jul 24 j 09:25	2°♌39'39	1°12'04
	577 Aug 15 j 10:19	0°♍	
evening rise	577 Aug 30 j 05:59	18°♍26'16	
	577 Sep 08 j 12:47	0°♎	
	577 Oct 02 j 14:47	0°♏	
desc. node	577 Oct 07 j 20:31	6°♏31'25	
	577 Oct 26 j 17:30	0°♐	
	577 Nov 19 j 22:05	0°♑	
	577 Dec 14 j 07:01	0°♒	
	578 Jan 08 j 01:57	0°♓	
asc. node	578 Jan 28 j 23:29	24°♓30'57	
	578 Feb 02 j 18:44	0°♈	
	578 Mar 02 j 14:49	0°♉	
evening max el	578 Mar 05 j 16:01	3°♉01'53	45°55'19
	578 Apr 09 j 02:40	0°♊	
greatest brilliancy	578 Apr 12 j 19:46	1°♊35'57	-4.7m
retrograde	578 Apr 23 j 19:23	3°♊46'49	
	578 May 07 j 16:15	30°℞♉	
evening set	578 May 09 j 00:50	29°♉16'12	
inferior conj	578 May 15 j 05:30	25°♉31'48	1°14'36
minimum elong	578 May 15 j 08:12	25°♉27'33	1°13'48
min. Earth dist.	578 May 15 j 08:26	25°♉27'12	0.28963 AU
desc. node	578 May 20 j 13:03	22°♉17'32	
morning rise	578 May 21 j 15:46	21°♉40'08	
direct	578 Jun 05 j 21:12	17°♉13'35	
greatest brilliancy	578 Jun 16 j 05:23	19°♉09'16	-4.7m
	578 Jul 05 j 00:36	0°♊	
morning max el	578 Jul 24 j 18:38	17°♊07'54	45°51'15
	578 Aug 06 j 15:18	0°♋	
	578 Sep 03 j 00:30	0°♌	
asc. node	578 Sep 10 j 16:31	8°♌50'18	
	578 Sep 28 j 14:15	0°♍	
	578 Oct 23 j 05:57	0°♎	
	578 Nov 16 j 10:24	0°♏	
	578 Dec 10 j 10:08	0°♐	
desc. node	578 Dec 31 j 05:55	26°♐05'27	
	579 Jan 03 j 08:49	0°♑	
morning set	579 Jan 26 j 07:45	28°♑43'15	
	579 Jan 27 j 08:19	0°♒	
	579 Feb 20 j 09:41	0°♓	
superior conj	579 Mar 07 j 10:55	18°♓41'58	-1°22'32
minimum elong	579 Mar 07 j 16:19	18°♓58'44	1°22'28
max. Earth dist.	579 Mar 11 j 05:15	23°♓22'05	1.72570 AU
	579 Mar 16 j 13:43	0°♈	
	579 Apr 09 j 20:58	0°♉	
evening rise	579 Apr 14 j 21:53	6°♉11'57	
asc. node	579 Apr 23 j 09:21	16°♉36'50	
	579 May 04 j 07:32	0°♊	
	579 May 28 j 21:26	0°♋	
	579 Jun 22 j 15:16	0°♌	
	579 Jul 17 j 14:54	0°♍	
	579 Aug 11 j 23:56	0°♎	
desc. node	579 Aug 12 j 22:36	1°♎06'15	
	579 Sep 07 j 01:22	0°♏	
	579 Oct 04 j 14:06	0°♐	
evening max el	579 Oct 11 j 02:39	6°♐39'28	47°11'57
	579 Nov 06 j 15:28	0°♑	
greatest brilliancy	579 Nov 20 j 15:06	7°♑44'52	-4.9m
retrograde	579 Nov 30 j 17:42	9°♑41'17	
asc. node	579 Dec 04 j 01:53	9°♑27'31	
evening set	579 Dec 15 j 08:41	5°♑24'37	
min. Earth dist.	579 Dec 20 j 13:14	2°♑20'52	0.26583 AU
inferior conj	579 Dec 21 j 07:28	1°♑52'46	4°16'50
minimum elong	579 Dec 20 j 22:51	2°♑06'02	4°14'24
	579 Dec 24 j 09:37	30°℞♐	
morning rise	579 Dec 26 j 13:33	28°♐45'22	
direct	580 Jan 10 j 16:13	24°♐15'02	
greatest brilliancy	580 Jan 19 j 23:00	25°♐53'13	-4.9m
	580 Jan 28 j 18:41	0°♑	
morning max el	580 Feb 29 j 12:23	26°♑09'15	46°28'55
	580 Mar 04 j 08:53	0°♒	
desc. node	580 Mar 24 j 15:33	21°♒23'48	
	580 Apr 01 j 10:44	0°♓	
	580 Apr 27 j 20:04	0°♈	
	580 May 23 j 11:49	0°♉	
	580 Jun 17 j 16:44	0°♊	
	580 Jul 12 j 12:40	0°♋	
asc. node	580 Jul 15 j 18:42	3°♋57'34	
	580 Aug 06 j 00:19	0°♌	
morning set	580 Aug 25 j 19:43	24°♌32'19	
	580 Aug 30 j 04:59	0°♍	
	580 Sep 23 j 04:55	0°♎	
max. Earth dist.	580 Sep 30 j 04:04	8°♎44'09	1.71504 AU
superior conj	580 Oct 02 j 16:00	11°♎52'13	1°07'26
minimum elong	580 Oct 03 j 02:03	12°♎23'44	1°07'07
	580 Oct 17 j 02:30	0°♏	
desc. node	580 Nov 04 j 08:24	22°♏55'36	
	580 Nov 09 j 23:34	0°♐	
evening rise	580 Nov 12 j 03:03	2°♐41'40	
	580 Dec 03 j 21:15	0°♑	
	580 Dec 27 j 20:49	0°♒	
	581 Jan 21 j 00:25	0°♓	
	581 Feb 14 j 11:35	0°♈	
asc. node	581 Feb 25 j 11:34	13°♈17'59	
	581 Mar 11 j 11:39	0°♉	
	581 Apr 06 j 09:33	0°♊	
	581 May 04 j 02:15	0°♋	
evening max el	581 May 15 j 03:35	10°♋58'25	45°19'20
	581 Jun 06 j 14:09	0°♌	
desc. node	581 Jun 17 j 00:57	6°♌21'05	
greatest brilliancy	581 Jun 22 j 08:57	8°♌38'01	-4.7m

retrograde	581 Jul 02 j 16:03	10°♌32'29		
evening set	581 Jul 19 j 06:08	5°♌22'59		
inferior conj	581 Jul 24 j 01:53	2°♌28'42	-7°20'11	
minimum elong	581 Jul 23 j 16:41	2°♌42'58	7°18'44	
min. Earth dist.	581 Jul 24 j 07:45	2°♌19'36	0.28696 AU	
morning rise	581 Jul 28 j 02:54	0°♌00'33		
	581 Jul 28 j 03:17	30°℞♋		
direct	581 Aug 14 j 14:19	24°♋15'10		
greatest brilliancy	581 Aug 25 j 12:02	26°♋24'06	-4.8m	
	581 Sep 02 j 00:27	0°♌		
morning max el	581 Oct 03 j 13:26	26°♌00'37	46°30'20	
	581 Oct 07 j 11:56	0°♍		
asc. node	581 Oct 08 j 04:17	0°♍42'04		
	581 Nov 03 j 20:18	0°♎		
	581 Nov 29 j 06:08	0°♏		
	581 Dec 23 j 22:02	0°♐		
	582 Jan 17 j 07:10	0°♑		
desc. node	582 Jan 27 j 17:46	12°♑53'03		
	582 Feb 10 j 14:23	0°♒		
	582 Mar 06 j 21:44	0°♓		
	582 Mar 31 j 06:07	0°♈		
morning set	582 Apr 09 j 07:40	11°♈09'13		
	582 Apr 24 j 15:41	0°♉		
superior conj	582 May 16 j 07:09	26°♉34'58	-0°10'52	
minimum elong	582 May 16 j 09:23	26°♉41'50	0°10'45	
behind sun begin	582 May 15 j 16:35	25°♉50'17		
behind sun end	582 May 17 j 02:10	27°♉33'23		
max. Earth dist.	582 May 16 j 02:03	26°♉19'20	1.73620 AU	
	582 May 19 j 01:56	0°♊		
asc. node	582 May 20 j 21:08	2°♊12'34		
	582 Jun 12 j 12:07	0°♋		
evening rise	582 Jun 21 j 08:35	10°♋52'49		
	582 Jul 06 j 21:47	0°♌		
	582 Jul 31 j 07:27	0°♍		
	582 Aug 24 j 18:23	0°♎		
desc. node	582 Sep 09 j 10:41	19°♎09'49		
	582 Sep 18 j 08:10	0°♏		
	582 Oct 13 j 02:49	0°♐		
	582 Nov 07 j 06:48	0°♑		
	582 Dec 03 j 08:48	0°♒		
evening max el	582 Dec 21 j 22:51	19°♒56'05	47°08'02	
asc. node	582 Dec 31 j 13:44	29°♒24'15		
	583 Jan 01 j 04:56	0°♓		
greatest brilliancy	583 Jan 31 j 07:17	21°♓25'12	-4.9m	
retrograde	583 Feb 10 j 19:39	23°♓31'44		
evening set	583 Feb 28 j 17:34	17°♓18'11		
inferior conj	583 Mar 03 j 23:04	15°♓16'56	8°27'49	
minimum elong	583 Mar 04 j 03:12	15°♓10'26	8°27'34	
min. Earth dist.	583 Mar 03 j 13:21	15°♓32'18	0.28287 AU	
morning rise	583 Mar 07 j 13:00	13°♓03'11		
direct	583 Mar 24 j 23:43	7°♓10'45		
greatest brilliancy	583 Apr 03 j 08:04	8°♓47'24	-4.8m	
desc. node	583 Apr 22 j 03:12	19°♓21'02		
	583 May 05 j 00:45	0°♈		
morning max el	583 May 12 j 23:20	7°♈21'42	45°50'29	
	583 Jun 04 j 04:50	0°♉		
	583 Jul 01 j 08:04	0°♊		
	583 Jul 27 j 04:31	0°♋		
asc. node	583 Aug 13 j 06:41	20°♋22'55		
	583 Aug 21 j 05:38	0°♌		
	583 Sep 14 j 17:02	0°♍		
	583 Oct 08 j 19:21	0°♎		
greatest brilliancy	583 Oct 26 j 22:55	22°♎46'25	-3.9m	
	583 Nov 01 j 16:49	0°♏		
morning set	583 Nov 07 j 12:12	7°♏18'29		
	583 Nov 25 j 12:39	0°♐		
desc. node	583 Dec 02 j 20:07	9°♐12'22		
superior conj	583 Dec 19 j 00:46	29°♐34'56	-0°37'19	
minimum elong	583 Dec 18 j 15:28	29°♐05'41	0°36'55	
	583 Dec 19 j 08:44	0°♑		
max. Earth dist.	583 Dec 21 j 11:20	2°♑39'05	1.71141 AU	
	584 Jan 12 j 06:12	0°♒		
evening rise	584 Jan 29 j 09:45	21°♒27'16		
	584 Feb 05 j 06:12	0°♓		
	584 Feb 29 j 10:19	0°♈		
asc. node	584 Mar 24 j 23:32	0°♉09'34		
	584 Mar 24 j 20:24	0°♉		
	584 Apr 18 j 14:27	0°♊		
	584 May 13 j 19:12	0°♋		
	584 Jun 08 j 16:12	0°♌		
	584 Jul 05 j 19:23	0°♍		
desc. node	584 Jul 14 j 12:47	9°♍08'17		
evening max el	584 Jul 26 j 05:34	20°♍47'48	45°59'45	
	584 Aug 05 j 05:26	0°♎		
greatest brilliancy	584 Sep 04 j 09:29	19°♎38'55	-4.8m	
retrograde	584 Sep 13 j 11:21	21°♎09'20		
evening set	584 Sep 30 j 01:44	15°♎54'49		
inferior conj	584 Oct 04 j 05:16	13°♎26'29	-6°59'11	
minimum elong	584 Oct 04 j 15:42	13°♎10'36	6°57'09	
min. Earth dist.	584 Oct 05 j 01:12	12°♎56'11	0.27115 AU	
morning rise	584 Oct 09 j 05:17	10°♎28'42		
direct	584 Oct 25 j 00:30	5°♎37'02		
asc. node	584 Nov 04 j 16:01	7°♎46'25		
greatest brilliancy	584 Nov 05 j 00:04	7°♎54'19	-4.9m	
	584 Dec 05 j 11:45	0°♏		
morning max el	584 Dec 14 j 20:35	9°♏14'18	46°56'46	
	585 Jan 03 j 05:15	0°♐		
	585 Jan 29 j 09:23	0°♑		
	585 Feb 23 j 17:16	0°♒		
desc. node	585 Feb 24 j 05:47	0°♒37'24		
	585 Mar 20 j 16:50	0°♓		
	585 Apr 14 j 12:32	0°♈		
	585 May 09 j 05:57	0°♉		
	585 Jun 02 j 21:00	0°♊		
morning set	585 Jun 16 j 04:06	16°♊15'52		
asc. node	585 Jun 17 j 08:59	17°♊44'19		
	585 Jun 27 j 08:46	0°♋		
max. Earth dist.	585 Jul 19 j 01:20	26°♋44'05	1.73049 AU	
	585 Jul 21 j 16:43	0°♌		
superior conj	585 Jul 22 j 11:25	0°♌57'49	1°10'33	
minimum elong	585 Jul 22 j 03:16	0°♌32'39	1°10'21	
	585 Aug 14 j 21:18	0°♍		
evening rise	585 Aug 27 j 21:53	16°♍11'47		
	585 Sep 07 j 23:58	0°♎		
	585 Oct 02 j 02:15	0°♏		
desc. node	585 Oct 06 j 22:32	6°♏01'53		
	585 Oct 26 j 05:17	0°♐		
	585 Nov 19 j 10:14	0°♑		
	585 Dec 13 j 19:42	0°♒		
	586 Jan 07 j 15:34	0°♓		
asc. node	586 Jan 28 j 01:42	23°♓54'09		
	586 Feb 02 j 10:18	0°♈		
	586 Mar 02 j 11:59	0°♉		
evening max el	586 Mar 03 j 07:39	0°♉48'33	45°57'37	
greatest brilliancy	586 Apr 10 j 13:25	29°♉28'29	-4.7m	
	586 Apr 12 j 00:50	0°♊		
retrograde	586 Apr 21 j 11:47	1°♊38'18		
	586 Apr 30 j 13:22	30°℞♉		
evening set	586 May 06 j 18:58	27°♉06'00		
inferior conj	586 May 12 j 22:12	23°♉23'15	1°33'54	
minimum elong	586 May 13 j 01:35	23°♉17'55	1°32'55	

min. Earth dist.	586 May 13 j 01:18	23°♉18'21	0.28957 AU
morning rise	586 May 19 j 08:23	19°♉31'16	
desc. node	586 May 19 j 15:01	19°♉22'14	
direct	586 Jun 03 j 13:49	15°♉05'16	
greatest brilliancy	586 Jun 13 j 21:11	16°♉59'57	-4.7m
	586 Jul 05 j 11:46	0°♊	
morning max el	586 Jul 22 j 09:43	14°♊55'21	45°50'19
	586 Aug 06 j 09:34	0°♋	
	586 Sep 02 j 14:59	0°♌	
asc. node	586 Sep 09 j 18:37	8°♌15'47	
	586 Sep 28 j 03:13	0°♍	
	586 Oct 22 j 18:12	0°♎	
	586 Nov 15 j 22:16	0°♏	
	586 Dec 09 j 21:45	0°♐	
desc. node	586 Dec 30 j 07:57	25°♐35'59	
	587 Jan 02 j 20:16	0°♑	
morning set	587 Jan 23 j 18:15	26°♑10'46	
	587 Jan 26 j 19:36	0°♒	
	587 Feb 19 j 20:51	0°♓	
superior conj	587 Mar 05 j 00:49	16°♓21'47	-1°23'25
minimum elong	587 Mar 05 j 05:28	16°♓36'15	1°23'22
max. Earth dist.	587 Mar 08 j 22:26	21°♓12'11	1.72509 AU
	587 Mar 16 j 00:47	0°♈	
	587 Apr 09 j 07:58	0°♉	
evening rise	587 Apr 12 j 14:17	4°♉00'56	
asc. node	587 Apr 22 j 11:22	16°♉09'10	
	587 May 03 j 18:37	0°♊	
	587 May 28 j 08:45	0°♋	
	587 Jun 22 j 03:03	0°♌	
	587 Jul 17 j 03:27	0°♍	
	587 Aug 11 j 13:46	0°♎	
desc. node	587 Aug 12 j 00:43	0°♎31'56	
	587 Sep 06 j 17:33	0°♏	
	587 Oct 04 j 11:47	0°♐	
evening max el	587 Oct 08 j 15:17	4°♐11'53	47°10'15
	587 Nov 07 j 21:00	0°♑	
greatest brilliancy	587 Nov 18 j 05:26	5°♑16'48	-4.9m
retrograde	587 Nov 28 j 05:50	7°♑11'31	
asc. node	587 Dec 03 j 03:54	6°♑41'36	
evening set	587 Dec 12 j 19:28	2°♑57'51	
	587 Dec 17 j 20:42	30°℞♐	
min. Earth dist.	587 Dec 18 j 03:15	29°♐49'56	0.26546 AU
inferior conj	587 Dec 18 j 20:00	29°♐24'08	3°55'30
minimum elong	587 Dec 18 j 11:55	29°♐36'35	3°53'09
morning rise	587 Dec 24 j 04:47	26°♐13'00	
direct	588 Jan 08 j 03:54	21°♐46'44	
greatest brilliancy	588 Jan 17 j 13:23	23°♐26'56	-4.9m
	588 Jan 30 j 06:05	0°♑	
morning max el	588 Feb 27 j 00:45	23°♑43'07	46°30'32
	588 Mar 04 j 06:34	0°♒	
desc. node	588 Mar 23 j 17:31	20°♒42'20	
	588 Apr 01 j 02:42	0°♓	
	588 Apr 27 j 09:42	0°♈	
	588 May 23 j 00:13	0°♉	
	588 Jun 17 j 04:24	0°♊	
	588 Jul 11 j 23:56	0°♋	
asc. node	588 Jul 14 j 20:54	3°♋30'04	
	588 Aug 05 j 11:24	0°♌	
morning set	588 Aug 23 j 11:51	22°♌18'53	
	588 Aug 29 j 16:02	0°♍	
	588 Sep 22 j 16:00	0°♎	
max. Earth dist.	588 Sep 27 j 16:26	6°♎17'34	1.71551 AU
superior conj	588 Sep 30 j 05:37	9°♎29'31	1°09'34
minimum elong	588 Sep 30 j 15:21	10°♎00'01	1°09'17
	588 Oct 16 j 13:40	0°♏	
desc. node	588 Nov 03 j 10:24	22°♏26'36	
	588 Nov 09 j 10:49	0°♐	
evening rise	588 Nov 09 j 13:29	0°♐08'22	
	588 Dec 03 j 08:38	0°♑	
	588 Dec 27 j 08:22	0°♒	
	589 Jan 20 j 12:13	0°♓	
	589 Feb 13 j 23:48	0°♈	
asc. node	589 Feb 24 j 13:37	12°♈46'32	
	589 Mar 11 j 00:40	0°♉	
	589 Apr 06 j 00:17	0°♊	
	589 May 03 j 21:29	0°♋	
evening max el	589 May 12 j 18:44	8°♋46'02	45°19'31
	589 Jun 07 j 10:53	0°♌	
desc. node	589 Jun 16 j 03:02	4°♌51'25	
greatest brilliancy	589 Jun 19 j 22:28	6°♌25'06	-4.7m
retrograde	589 Jun 30 j 08:01	8°♌21'43	
evening set	589 Jul 16 j 18:29	3°♌16'06	
inferior conj	589 Jul 21 j 17:36	0°♌17'05	-7°08'45
minimum elong	589 Jul 21 j 08:06	0°♌31'47	7°07'10
min. Earth dist.	589 Jul 21 j 22:41	0°♌09'14	0.28728 AU
	589 Jul 22 j 04:39	30°℞♋	
morning rise	589 Jul 25 j 21:27	27°♋44'59	
direct	589 Aug 12 j 06:22	22°♋02'59	
greatest brilliancy	589 Aug 23 j 03:49	24°♋11'51	-4.8m
	589 Sep 03 j 07:13	0°♌	
morning max el	589 Oct 01 j 05:13	23°♌45'09	46°28'47
asc. node	589 Oct 07 j 06:18	29°♌54'42	
	589 Oct 07 j 08:20	0°♍	
	589 Nov 03 j 11:48	0°♎	
	589 Nov 28 j 19:46	0°♏	
	589 Dec 23 j 10:42	0°♐	
	590 Jan 16 j 19:14	0°♑	
desc. node	590 Jan 26 j 19:58	12°♑23'14	
	590 Feb 10 j 02:02	0°♒	
	590 Mar 06 j 09:05	0°♓	
	590 Mar 30 j 17:13	0°♈	
morning set	590 Apr 06 j 23:54	8°♈57'33	
	590 Apr 24 j 02:36	0°♉	
superior conj	590 May 14 j 01:00	24°♉29'07	-0°14'01
minimum elong	590 May 14 j 03:53	24°♉37'58	0°13'53
behind sun begin	590 May 13 j 16:51	24°♉04'06	
behind sun end	590 May 14 j 14:55	25°♉11'51	
max. Earth dist.	590 May 13 j 23:43	24°♉25'10	1.73609 AU
	590 May 18 j 12:47	0°♊	
asc. node	590 May 19 j 23:14	1°♊45'46	
	590 Jun 11 j 22:58	0°♋	
evening rise	590 Jun 19 j 03:48	8°♋50'59	
	590 Jul 06 j 08:46	0°♌	
	590 Jul 30 j 18:42	0°♍	
	590 Aug 24 j 06:03	0°♎	
desc. node	590 Sep 08 j 12:41	18°♎39'11	
	590 Sep 17 j 20:26	0°♏	
	590 Oct 12 j 16:01	0°♐	
	590 Nov 06 j 21:30	0°♑	
	590 Dec 03 j 02:31	0°♒	
evening max el	590 Dec 19 j 14:25	17°♒37'08	47°09'50
asc. node	590 Dec 30 j 15:55	28°♒26'23	
	591 Jan 01 j 08:35	0°♓	
greatest brilliancy	591 Jan 28 j 22:09	19°♓06'31	-4.9m
retrograde	591 Feb 08 j 11:46	21°♓14'05	
evening set	591 Feb 26 j 09:50	14°♓58'54	
min. Earth dist.	591 Mar 01 j 02:59	13°♓17'09	0.28239 AU
inferior conj	591 Mar 01 j 14:10	12°♓59'30	8°32'20
minimum elong	591 Mar 01 j 17:33	12°♓54'10	8°32'10
morning rise	591 Mar 05 j 01:29	10°♓49'57	
direct	591 Mar 22 j 14:37	4°♓54'13	

greatest brilliancy	591 Mar 31 j 20:57	6°♓29'46	-4.8m
desc. node	591 Apr 21 j 05:15	18°♓12'22	
	591 May 05 j 02:56	0°♈	
morning max el	591 May 10 j 15:20	5°♈10'24	45°51'19
	591 Jun 03 j 21:35	0°♉	
	591 Jun 30 j 21:50	0°♊	
	591 Jul 26 j 16:54	0°♋	
asc. node	591 Aug 12 j 08:45	19°♋53'32	
	591 Aug 20 j 17:18	0°♌	
	591 Sep 14 j 04:19	0°♍	
	591 Oct 08 j 06:27	0°♎	
greatest brilliancy	591 Oct 26 j 12:09	22°♎53'12	-3.9m
	591 Nov 01 j 03:53	0°♏	
morning set	591 Nov 04 j 23:55	4°♏49'30	
	591 Nov 24 j 23:43	0°♐	
desc. node	591 Dec 01 j 22:15	8°♐44'16	
superior conj	591 Dec 16 j 10:03	26°♐58'21	-0°33'38
minimum elong	591 Dec 16 j 01:31	26°♐31'30	0°33'14
	591 Dec 18 j 19:49	0°♑	
max. Earth dist.	591 Dec 18 j 19:36	29°♐59'20	1.71121 AU
	592 Jan 11 j 17:16	0°♒	
evening rise	592 Jan 26 j 20:31	18°♒56'26	
	592 Feb 04 j 17:16	0°♓	
	592 Feb 28 j 21:27	0°♈	
asc. node	592 Mar 24 j 01:31	29°♈40'59	
	592 Mar 24 j 07:45	0°♉	
	592 Apr 18 j 02:14	0°♊	
	592 May 13 j 07:48	0°♋	
	592 Jun 08 j 06:22	0°♌	
	592 Jul 05 j 13:05	0°♍	
desc. node	592 Jul 13 j 14:57	8°♍23'27	
evening max el	592 Jul 23 j 19:45	18°♍30'28	45°57'24
	592 Aug 05 j 11:33	0°♎	
greatest brilliancy	592 Sep 01 j 22:02	17°♎16'37	-4.8m
retrograde	592 Sep 10 j 23:43	18°♎46'31	
evening set	592 Sep 27 j 17:56	13°♎27'34	
inferior conj	592 Oct 01 j 18:22	11°♎03'19	-7°12'45
minimum elong	592 Oct 02 j 04:33	10°♎47'48	7°10'54
min. Earth dist.	592 Oct 02 j 14:28	10°♎32'41	0.27176 AU
morning rise	592 Oct 06 j 14:48	8°♎10'10	
direct	592 Oct 22 j 14:26	3°♎13'10	
greatest brilliancy	592 Nov 02 j 13:58	5°♎29'53	-4.9m
asc. node	592 Nov 03 j 18:06	5°♎59'02	
	592 Dec 05 j 14:02	0°♏	
morning max el	592 Dec 12 j 09:49	6°♏48'08	46°56'31
	593 Jan 02 j 22:39	0°♐	
	593 Jan 28 j 23:50	0°♑	
desc. node	593 Feb 23 j 07:45	0°♒04'29	
	593 Feb 23 j 06:15	0°♒	
	593 Mar 20 j 04:55	0°♓	
	593 Apr 14 j 00:02	0°♈	
	593 May 08 j 17:03	0°♉	
	593 Jun 02 j 07:50	0°♊	
morning set	593 Jun 13 j 22:14	14°♊11'29	
asc. node	593 Jun 16 j 11:07	17°♊17'59	
	593 Jun 26 j 19:29	0°♋	
max. Earth dist.	593 Jul 16 j 18:32	24°♋35'56	1.73092 AU
superior conj	593 Jul 20 j 05:28	28°♋52'11	1°08'45
minimum elong	593 Jul 19 j 21:07	28°♋26'24	1°08'31
	593 Jul 21 j 03:24	0°♌	
	593 Aug 14 j 08:05	0°♍	
evening rise	593 Aug 25 j 14:00	13°♍58'52	
	593 Sep 07 j 10:54	0°♎	
	593 Oct 01 j 13:24	0°♏	
desc. node	593 Oct 06 j 00:34	5°♏33'21	
	593 Oct 25 j 16:43	0°♐	
	593 Nov 18 j 22:03	0°♑	
	593 Dec 13 j 08:05	0°♒	
	594 Jan 07 j 04:58	0°♓	
asc. node	594 Jan 27 j 03:42	23°♓17'08	
	594 Feb 02 j 01:52	0°♈	
evening max el	594 Feb 28 j 22:18	28°♈33'03	45°59'52
	594 Mar 02 j 09:46	0°♉	
greatest brilliancy	594 Apr 08 j 07:04	27°♉20'50	-4.7m
retrograde	594 Apr 19 j 03:50	29°♉29'37	
evening set	594 May 04 j 12:57	24°♉55'14	
inferior conj	594 May 10 j 14:40	21°♉14'33	1°53'12
minimum elong	594 May 10 j 18:43	21°♉08'11	1°52'03
min. Earth dist.	594 May 10 j 18:13	21°♉08'58	0.28950 AU
morning rise	594 May 17 j 00:35	17°♉22'30	
desc. node	594 May 18 j 17:08	16°♉29'02	
direct	594 Jun 01 j 05:38	12°♉56'40	
greatest brilliancy	594 Jun 11 j 13:13	14°♉51'05	-4.7m
	594 Jul 05 j 19:46	0°♊	
morning max el	594 Jul 20 j 00:21	12°♊42'19	45°49'32
	594 Aug 06 j 03:08	0°♋	
	594 Sep 02 j 05:02	0°♌	
asc. node	594 Sep 08 j 20:33	7°♌41'56	
	594 Sep 27 j 15:48	0°♍	
	594 Oct 22 j 06:03	0°♎	
	594 Nov 15 j 09:43	0°♏	
	594 Dec 09 j 08:57	0°♐	
desc. node	594 Dec 29 j 10:07	25°♐08'11	
	595 Jan 02 j 07:16	0°♑	
morning set	595 Jan 21 j 04:51	23°♑39'48	
	595 Jan 26 j 06:29	0°♒	
	595 Feb 19 j 07:38	0°♓	
superior conj	595 Mar 02 j 14:33	14°♓02'06	-1°24'10
minimum elong	595 Mar 02 j 18:24	14°♓14'05	1°24'08
max. Earth dist.	595 Mar 06 j 13:15	18°♓55'57	1.72454 AU
	595 Mar 15 j 11:31	0°♈	
	595 Apr 08 j 18:42	0°♉	
evening rise	595 Apr 10 j 06:13	1°♉49'15	
asc. node	595 Apr 21 j 13:27	15°♉42'31	
	595 May 03 j 05:26	0°♊	
	595 May 27 j 19:49	0°♋	
	595 Jun 21 j 14:35	0°♌	
	595 Jul 16 j 15:48	0°♍	
desc. node	595 Aug 11 j 02:42	29°♍57'49	
	595 Aug 11 j 03:27	0°♎	
	595 Sep 06 j 09:41	0°♏	
	595 Oct 04 j 09:55	0°♐	
evening max el	595 Oct 06 j 03:44	1°♐44'59	47°08'38
	595 Nov 09 j 14:35	0°♑	
greatest brilliancy	595 Nov 15 j 19:31	2°♑49'34	-4.9m
retrograde	595 Nov 25 j 18:22	4°♑43'14	
asc. node	595 Dec 02 j 06:04	3°♑51'01	
evening set	595 Dec 10 j 06:28	0°♑31'51	
	595 Dec 11 j 05:38	30°℞♐	
min. Earth dist.	595 Dec 15 j 17:09	27°♐20'25	0.26509 AU
inferior conj	595 Dec 16 j 08:32	26°♐56'48	3°33'40
minimum elong	595 Dec 16 j 01:02	27°♐08'18	3°31'26
morning rise	595 Dec 21 j 19:56	23°♐42'19	
direct	596 Jan 05 j 15:35	19°♐19'37	
greatest brilliancy	596 Jan 15 j 03:32	21°♐01'56	-4.9m
	596 Jan 31 j 06:31	0°♑	
morning max el	596 Feb 24 j 13:53	21°♑20'20	46°32'06
	596 Mar 04 j 02:58	0°♒	
desc. node	596 Mar 22 j 19:36	20°♒03'01	
	596 Mar 31 j 17:58	0°♓	
	596 Apr 26 j 22:52	0°♈	

	596 May 22 j 12:15	0°♉	
	596 Jun 16 j 15:47	0°♊	
	596 Jul 11 j 10:55	0°♋	
asc. node	596 Jul 13 j 22:55	3°♋02'50	
	596 Aug 04 j 22:11	0°♌	
morning set	596 Aug 21 j 03:47	20°♌05'51	
	596 Aug 29 j 02:46	0°♍	
	596 Sep 22 j 02:47	0°♎	
max. Earth dist.	596 Sep 25 j 05:57	3°♎55'34	1.71598 AU
superior conj	596 Sep 27 j 19:10	7°♎07'32	1°11'34
minimum elong	596 Sep 28 j 04:31	7°♎36'50	1°11'20
	596 Oct 16 j 00:33	0°♏	
desc. node	596 Nov 02 j 12:33	21°♏58'54	
evening rise	596 Nov 06 j 23:59	27°♏36'10	
	596 Nov 08 j 21:48	0°♐	
	596 Dec 02 j 19:44	0°♑	
	596 Dec 26 j 19:37	0°♒	
	597 Jan 19 j 23:39	0°♓	
	597 Feb 13 j 11:38	0°♈	
asc. node	597 Feb 23 j 15:37	12°♈16'06	
	597 Mar 10 j 13:22	0°♉	
	597 Apr 05 j 14:50	0°♊	
	597 May 03 j 16:58	0°♋	
evening max el	597 May 10 j 10:46	6°♋36'30	45°19'34
	597 Jun 08 j 15:09	0°♌	
desc. node	597 Jun 15 j 05:11	3°♌19'06	
greatest brilliancy	597 Jun 17 j 11:56	4°♌12'34	-4.7m
retrograde	597 Jun 27 j 23:57	6°♌11'01	
evening set	597 Jul 14 j 06:49	1°♌09'27	
	597 Jul 16 j 06:25	30°℞♋	
inferior conj	597 Jul 19 j 09:11	28°♋05'39	-6°56'39
minimum elong	597 Jul 18 j 23:28	28°♋20'40	6°54'56
min. Earth dist.	597 Jul 19 j 13:21	27°♋59'11	0.28757 AU
morning rise	597 Jul 23 j 15:54	25°♋29'27	
direct	597 Aug 09 j 22:45	19°♋51'09	
greatest brilliancy	597 Aug 20 j 18:55	21°♋59'11	-4.8m
	597 Sep 04 j 05:13	0°♌	
morning max el	597 Sep 28 j 21:09	21°♌30'53	46°27'13
asc. node	597 Oct 06 j 08:27	29°♌08'59	
	597 Oct 07 j 03:54	0°♍	
	597 Nov 03 j 02:53	0°♎	
	597 Nov 28 j 09:04	0°♏	
	597 Dec 22 j 23:04	0°♐	
	598 Jan 16 j 07:02	0°♑	
desc. node	598 Jan 25 j 21:53	11°♑53'18	
	598 Feb 09 j 13:25	0°♒	
	598 Mar 05 j 20:07	0°♓	
	598 Mar 30 j 03:59	0°♈	
morning set	598 Apr 04 j 16:26	6°♈47'39	
	598 Apr 23 j 13:13	0°♉	
superior conj	598 May 11 j 19:00	22°♉24'27	-0°17'08
minimum elong	598 May 11 j 22:31	22°♉35'14	0°16'58
max. Earth dist.	598 May 11 j 23:12	22°♉37'20	1.73600 AU
	598 May 17 j 23:22	0°♊	
asc. node	598 May 19 j 01:22	1°♊19'51	
	598 Jun 11 j 09:38	0°♋	
evening rise	598 Jun 16 j 23:02	6°♋49'48	
	598 Jul 05 j 19:37	0°♌	
	598 Jul 30 j 05:50	0°♍	
	598 Aug 23 j 17:37	0°♎	
desc. node	598 Sep 07 j 14:43	18°♎08'58	
	598 Sep 17 j 08:40	0°♏	
	598 Oct 12 j 05:12	0°♐	
	598 Nov 06 j 12:14	0°♑	
	598 Dec 02 j 20:29	0°♒	
evening max el	598 Dec 17 j 06:32	15°♒19'46	47°11'31
asc. node	598 Dec 29 j 17:57	27°♒27'15	
	599 Jan 01 j 13:53	0°♓	
greatest brilliancy	599 Jan 26 j 13:34	16°♓48'50	-4.9m
retrograde	599 Feb 06 j 03:54	18°♓56'41	
evening set	599 Feb 24 j 01:55	12°♓40'38	
min. Earth dist.	599 Feb 26 j 16:44	11°♓02'26	0.28184 AU
inferior conj	599 Feb 27 j 05:19	10°♓42'33	8°36'07
minimum elong	599 Feb 27 j 07:57	10°♓38'24	8°36'01
morning rise	599 Mar 02 j 14:13	8°♓36'45	
direct	599 Mar 20 j 05:42	2°♓38'29	
greatest brilliancy	599 Mar 29 j 09:35	4°♓12'22	-4.8m
desc. node	599 Apr 20 j 07:20	17°♓06'26	
	599 May 05 j 03:28	0°♈	
morning max el	599 May 08 j 06:50	2°♈58'34	45°52'10
	599 Jun 03 j 13:46	0°♉	
	599 Jun 30 j 11:18	0°♊	
	599 Jul 26 j 05:08	0°♋	
asc. node	599 Aug 11 j 10:43	19°♋24'03	
	599 Aug 20 j 04:54	0°♌	
	599 Sep 13 j 15:35	0°♍	
	599 Oct 07 j 17:34	0°♎	
greatest brilliancy	599 Oct 25 j 19:30	22°♎41'27	-3.9m
	599 Oct 31 j 14:57	0°♏	
morning set	599 Nov 02 j 11:34	2°♏20'24	
	599 Nov 24 j 10:47	0°♐	
desc. node	599 Dec 01 j 00:20	8°♐16'03	
superior conj	599 Dec 13 j 19:18	24°♐21'46	-0°29'53
minimum elong	599 Dec 13 j 11:36	23°♐57'33	0°29'31
max. Earth dist.	599 Dec 16 j 02:51	27°♐16'25	1.71099 AU
	599 Dec 18 j 06:53	0°♑	
	600 Jan 11 j 04:20	0°♒	
evening rise	600 Jan 24 j 07:12	16°♒25'17	
	600 Feb 04 j 04:21	0°♓	
	600 Feb 28 j 08:36	0°♈	
asc. node	600 Mar 23 j 03:40	29°♈12'57	
	600 Mar 23 j 19:06	0°♉	
	600 Apr 17 j 14:00	0°♊	
	600 May 12 j 20:22	0°♋	
	600 Jun 07 j 20:37	0°♌	
	600 Jul 05 j 07:12	0°♍	
desc. node	600 Jul 12 j 16:52	7°♍37'20	
evening max el	600 Jul 21 j 09:06	16°♍11'00	45°54'49
	600 Aug 05 j 20:12	0°♎	
greatest brilliancy	600 Aug 30 j 11:02	14°♎54'23	-4.8m
retrograde	600 Sep 08 j 11:39	16°♎23'23	
evening set	600 Sep 25 j 10:00	10°♎59'54	
inferior conj	600 Sep 29 j 07:28	8°♎39'49	-7°25'31
minimum elong	600 Sep 29 j 17:18	8°♎24'47	7°23'49
min. Earth dist.	600 Sep 30 j 04:05	8°♎08'17	0.27242 AU
morning rise	600 Oct 04 j 00:12	5°♎51'24	
direct	600 Oct 20 j 03:50	0°♎48'34	
greatest brilliancy	600 Oct 31 j 04:29	3°♎05'35	-4.9m
asc. node	600 Nov 02 j 20:12	4°♎15'02	
	600 Dec 05 j 15:13	0°♏	
morning max el	600 Dec 09 j 22:29	4°♏19'49	46°56'24
	601 Jan 02 j 15:52	0°♐	
	601 Jan 28 j 14:16	0°♑	
desc. node	601 Feb 22 j 09:49	29°♑31'44	
	601 Feb 22 j 19:15	0°♒	
	601 Mar 19 j 17:03	0°♓	
	601 Apr 13 j 11:36	0°♈	
	601 May 08 j 04:14	0°♉	
	601 Jun 01 j 18:45	0°♊	
morning set	601 Jun 11 j 16:45	12°♊08'01	
asc. node	601 Jun 15 j 13:09	16°♊51'04	

	601 Jun	26 j 06:16	0°♋	
max. Earth dist.	601 Jul	14 j 13:44	22°♋33'46	1.73137 AU
superior conj	601 Jul	17 j 23:56	26°♋47'40	1°06'53
minimum elong	601 Jul	17 j 15:26	26°♋21'22	1°06'37
	601 Jul	20 j 14:11	0°♌	
	601 Aug	13 j 18:59	0°♍	
evening rise	601 Aug	23 j 06:34	11°♍46'59	
	601 Sep	06 j 22:02	0°♎	
	601 Oct	01 j 00:49	0°♏	
desc. node	601 Oct	05 j 02:44	5°♏04'24	
	601 Oct	25 j 04:28	0°♐	
	601 Nov	18 j 10:12	0°♑	
	601 Dec	12 j 20:50	0°♒	
	602 Jan	06 j 18:47	0°♓	