

superior conj	101 Mar 03 j 23:56	12° Υ 13'12	-1°-23'-9	inferior conj	103 Jul 21 j 11:13	25° \ominus 46'37	-7°-8'-27
minimum elong	101 Mar 04 j 04:35	12° Υ 27'36	1°23'08	minimum elong	103 Jul 21 j 01:40	26° \ominus 01'20	7°06'52
max. Earth dist.	101 Mar 07 j 17:20	16° Υ 50'11	1.72616 AU	min. Earth dist.	103 Jul 21 j 16:41	25° \ominus 38'10	0.28645 AU
	101 Mar 18 j 08:37	0° Υ		morning rise	103 Jul 25 j 15:06	23° \ominus 14'55	
evening rise	101 Apr 11 j 09:07	29° Υ 36'22		direct	103 Aug 11 j 23:50	17° \ominus 33'47	
	101 Apr 11 j 16:48	0° Υ		greatest brilliancy	103 Aug 26 j 13:01	21° \ominus 17'30	-4.6m
asc. node	101 Apr 21 j 07:13	11° Υ 47'17			103 Sep 09 j 07:57	0° Ω	
	101 May 06 j 04:15	0° Υ		morning max el	103 Oct 01 j 01:24	19° Ω 27'21	46°31'31
	101 May 30 j 19:00	0° \ominus		asc. node	103 Oct 07 j 02:07	25° Ω 36'47	
	101 Jun 24 j 13:52	0° Ω			103 Oct 11 j 06:01	0° Υ	
	101 Jul 19 j 14:59	0° Υ			103 Nov 06 j 23:11	0° Ω	
desc. node	101 Aug 10 j 20:38	26° Υ 13'08			103 Dec 02 j 03:13	0° Υ	
	101 Aug 14 j 02:28	0° Ω			103 Dec 26 j 16:49	0° Υ	
	101 Sep 09 j 08:43	0° Υ			104 Jan 20 j 01:21	0° Υ	
	101 Oct 07 j 10:43	0° Υ		desc. node	104 Jan 26 j 15:54	8° Υ 09'03	
evening max el	101 Oct 07 j 12:49	0° Υ 05'16	47°14'24		104 Feb 13 j 08:49	0° \approx	
	101 Nov 13 j 23:48	0° Υ			104 Mar 08 j 16:46	0° Υ	
greatest brilliancy	101 Nov 15 j 08:14	0° Υ 36'06	-4.7m		104 Apr 02 j 01:48	0° Υ	
retrograde	101 Nov 27 j 06:06	3° Υ 16'38		morning set	104 Apr 05 j 19:05	4° Υ 34'24	
asc. node	101 Dec 01 j 23:38	2° Υ 48'47			104 Apr 26 j 11:49	0° Υ	
	101 Dec 09 j 23:14	30° Υ					
evening set	101 Dec 11 j 20:39	29° Υ 01'07		superior conj	104 May 12 j 17:01	19° Υ 54'33	0°-14'-21
min. Earth dist.	101 Dec 17 j 03:02	25° Υ 55'11	0.26585 AU	minimum elong	104 May 12 j 19:56	20° Υ 03'33	0°14'13
inferior conj	101 Dec 17 j 20:56	25° Υ 27'36	3°57'54	behind sun begin	104 May 12 j 09:55	19° Υ 32'47	
minimum elong	101 Dec 17 j 12:50	25° Υ 40'05	3°55'34	behind sun end	104 May 13 j 05:57	20° Υ 34'18	
morning rise	101 Dec 23 j 05:25	22° Υ 16'35		max. Earth dist.	104 May 12 j 10:42	19° Υ 35'11	1.73643 AU
direct	102 Jan 07 j 04:16	17° Υ 49'20		asc. node	104 May 18 j 18:57	27° Υ 22'36	
greatest brilliancy	102 Jan 18 j 05:08	20° Υ 05'23	-4.6m		104 May 20 j 22:14	0° Υ	
	102 Feb 03 j 20:37	0° Υ			104 Jun 14 j 08:17	0° \ominus	
morning max el	102 Feb 25 j 23:45	19° Υ 37'56	46°27'37	evening rise	104 Jun 17 j 17:53	4° \ominus 10'49	
	102 Mar 08 j 05:02	0° \approx			104 Jul 08 j 17:45	0° Ω	
desc. node	102 Mar 23 j 13:34	16° \approx 25'30			104 Aug 02 j 03:18	0° Υ	
	102 Apr 04 j 18:55	0° Υ			104 Aug 26 j 14:23	0° Ω	
	102 Apr 30 j 23:51	0° Υ		desc. node	104 Sep 07 j 08:43	14° Ω 22'28	
	102 May 26 j 13:10	0° Υ			104 Sep 20 j 04:41	0° Υ	
	102 Jun 20 j 16:04	0° Υ			104 Oct 15 j 00:36	0° Υ	
asc. node	102 Jul 14 j 16:35	29° Υ 06'49			104 Nov 09 j 07:42	0° Υ	
	102 Jul 15 j 10:01	0° \ominus			104 Dec 05 j 18:04	0° \approx	
	102 Aug 08 j 19:46	0° Ω		evening max el	104 Dec 18 j 11:21	13° \approx 28'02	47°07'39
morning set	102 Aug 23 j 04:52	17° Ω 50'29		asc. node	104 Dec 29 j 11:36	24° \approx 13'44	
	102 Sep 01 j 22:53	0° Υ			105 Jan 04 j 22:37	0° Υ	
	102 Sep 25 j 21:45	0° Ω		greatest brilliancy	105 Jan 24 j 05:57	13° Υ 21'27	-4.6m
max. Earth dist.	102 Sep 27 j 20:30	2° Ω 26'45	1.71452 AU	retrograde	105 Feb 07 j 07:13	16° Υ 58'55	
				evening set	105 Feb 25 j 04:24	10° Υ 44'14	
superior conj	102 Sep 30 j 01:55	5° Ω 14'29	1°09'28	inferior conj	105 Feb 28 j 09:52	8° Υ 42'42	8°29'38
minimum elong	102 Sep 30 j 11:44	5° Ω 45'19	1°09'11	minimum elong	105 Feb 28 j 13:14	8° Υ 37'22	8°29'29
	102 Oct 19 j 18:46	0° Υ		min. Earth dist.	105 Feb 27 j 22:38	9° Υ 00'28	0.28346 AU
desc. node	102 Nov 03 j 06:26	18° Υ 12'34		morning rise	105 Mar 03 j 22:20	6° Υ 31'11	
evening rise	102 Nov 09 j 14:51	26° Υ 11'17		direct	105 Mar 21 j 12:06	0° Υ 35'40	
	102 Nov 12 j 15:42	0° Υ		greatest brilliancy	105 Apr 01 j 19:13	2° Υ 55'13	-4.5m
	102 Dec 06 j 13:42	0° Υ		desc. node	105 Apr 20 j 01:16	13° Υ 50'40	
	102 Dec 30 j 14:06	0° \approx			105 May 08 j 15:37	0° Υ	
	103 Jan 23 j 19:14	0° Υ		morning max el	105 May 09 j 11:42	0° Υ 47'53	45°50'00
asc. node	103 Feb 17 j 08:57	0° Υ			105 Jun 06 j 19:37	0° Υ	
	103 Feb 24 j 09:23	8° Υ 27'10			105 Jul 03 j 14:17	0° Υ	
	103 Mar 14 j 13:08	0° Υ		asc. node	105 Jul 29 j 05:37	0° \ominus	
	103 Apr 09 j 18:16	0° Υ			105 Aug 11 j 04:32	15° \ominus 31'14	
	103 May 08 j 03:36	0° \ominus			105 Aug 23 j 02:57	0° Ω	
evening max el	103 May 12 j 13:56	4° \ominus 18'07	45°18'20		105 Sep 16 j 11:34	0° Υ	
	103 Jun 15 j 04:35	0° Ω			105 Oct 10 j 12:05	0° Ω	
desc. node	103 Jun 15 j 22:57	0° Ω 21'28			105 Nov 03 j 08:39	0° Υ	
greatest brilliancy	103 Jun 17 j 01:34	0° Ω 50'58	-4.5m	morning set	105 Nov 04 j 00:16	0° Υ 49'09	
retrograde	103 Jun 30 j 02:52	3° Ω 49'42			105 Nov 27 j 04:17	0° Υ	
	103 Jul 14 j 05:02	30° Υ		desc. node	105 Nov 30 j 18:10	4° Υ 30'22	
evening set	103 Jul 16 j 11:58	28° \ominus 45'28					

superior conj	105 Dec 15 j 13:41	23°♁08'27	0°-34'-14	desc. node	108 May 17 j 13:02	11°♁49'44	
minimum elong	105 Dec 15 j 05:01	22°♁41'12	0°33'52	direct	108 May 30 j 21:41	8°♁21'28	
max. Earth dist.	105 Dec 18 j 11:10	26°♁46'49	1.71157 AU	greatest brilliancy	108 Jun 13 j 10:16	11°♁31'59	-4.5m
	105 Dec 21 j 00:40	0°♁			108 Jul 09 j 21:23	0°♁	
	106 Jan 13 j 22:47	0°♁		morning max el	108 Jul 18 j 17:41	8°♁09'12	45°51'25
evening rise	106 Jan 25 j 23:48	15°♁03'02			108 Aug 09 j 02:16	0°♁	
	106 Feb 06 j 23:48	0°♁			108 Sep 04 j 19:17	0°♁	
	106 Mar 03 j 05:20	0°♁		asc. node	108 Sep 07 j 16:22	3°♁21'12	
asc. node	106 Mar 23 j 21:21	25°♁20'05			108 Sep 30 j 01:10	0°♁	
	106 Mar 27 j 17:15	0°♁			108 Oct 24 j 12:35	0°♁	
	106 Apr 21 j 13:36	0°♁			108 Nov 17 j 14:50	0°♁	
	106 May 16 j 21:29	0°♁			108 Dec 11 j 13:42	0°♁	
	106 Jun 11 j 23:31	0°♁		desc. node	108 Dec 28 j 06:05	20°♁54'33	
	106 Jul 09 j 13:07	0°♁			109 Jan 04 j 12:20	0°♁	
desc. node	106 Jul 13 j 10:53	4°♁01'34		morning set	109 Jan 20 j 07:09	19°♁44'32	
evening max el	106 Jul 23 j 17:47	14°♁14'37	46°01'15		109 Jan 28 j 12:18	0°♁	
	106 Aug 10 j 13:38	0°♁			109 Feb 21 j 14:26	0°♁	
greatest brilliancy	106 Aug 31 j 13:26	12°♁40'27	-4.6m				
retrograde	106 Sep 10 j 23:18	14°♁37'54		superior conj	109 Mar 01 j 14:02	9°♁54'42	-1°-23'-54
evening set	106 Sep 27 j 17:23	9°♁20'02		minimum elong	109 Mar 01 j 17:55	10°♁06'45	1°23'53
inferior conj	106 Oct 01 j 17:42	6°♁56'06	-7°-12'-28	max. Earth dist.	109 Mar 05 j 06:52	14°♁30'04	1.72562 AU
minimum elong	106 Oct 02 j 03:56	6°♁40'29	7°10'35		109 Mar 17 j 19:23	0°♁	
min. Earth dist.	106 Oct 02 j 13:09	6°♁26'26	0.27076 AU	evening rise	109 Apr 09 j 01:26	27°♁25'58	
morning rise	106 Oct 06 j 14:07	4°♁02'56			109 Apr 11 j 03:34	0°♁	
	106 Oct 15 j 23:35	30°♁		asc. node	109 Apr 20 j 09:09	11°♁20'07	
direct	106 Oct 22 j 12:00	29°♁07'58			109 May 05 j 15:07	0°♁	
	106 Oct 29 j 04:20	0°♁			109 May 30 j 06:09	0°♁	
asc. node	106 Nov 03 j 13:47	1°♁51'19			109 Jun 24 j 01:32	0°♁	
greatest brilliancy	106 Nov 04 j 23:14	2°♁28'53	-4.7m		109 Jul 19 j 03:31	0°♁	
	106 Dec 09 j 14:58	0°♁		desc. node	109 Aug 09 j 22:45	25°♁39'17	
morning max el	106 Dec 12 j 06:54	2°♁41'49	46°56'11		109 Aug 13 j 16:27	0°♁	
	107 Jan 06 j 11:32	0°♁			109 Sep 09 j 01:25	0°♁	
	107 Feb 01 j 09:42	0°♁		evening max el	109 Oct 05 j 02:07	27°♁40'11	47°12'55
desc. node	107 Feb 23 j 03:48	25°♁49'31			109 Oct 07 j 10:25	0°♁	
	107 Feb 26 j 15:36	0°♁		greatest brilliancy	109 Nov 12 j 22:28	28°♁08'47	-4.7m
	107 Mar 23 j 14:35	0°♁			109 Nov 18 j 10:10	0°♁	
	107 Apr 17 j 10:09	0°♁		retrograde	109 Nov 24 j 19:08	0°♁48'10	
	107 May 12 j 03:22	0°♁		asc. node	109 Dec 01 j 01:45	29°♁58'58	
	107 Jun 05 j 17:52	0°♁			109 Dec 01 j 00:09	30°♁	
morning set	107 Jun 13 j 13:12	9°♁33'20		evening set	109 Dec 09 j 07:39	26°♁34'55	
asc. node	107 Jun 16 j 06:49	12°♁54'24		min. Earth dist.	109 Dec 14 j 16:38	23°♁25'52	0.26543 AU
	107 Jun 30 j 04:46	0°♁		inferior conj	109 Dec 15 j 09:28	23°♁00'01	3°36'13
max. Earth dist.	107 Jul 16 j 03:08	19°♁39'27	1.73022 AU	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	
superior conj	107 Jul 19 j 20:04	24°♁14'26	1°08'24	direct	110 Jan 04 j 16:24	15°♁22'07	
minimum elong	107 Jul 19 j 11:41	23°♁48'31	1°08'10	greatest brilliancy	110 Jan 15 j 19:21	17°♁40'44	-4.6m
	107 Jul 24 j 11:43	0°♁			110 Feb 04 j 11:36	0°♁	
	107 Aug 17 j 15:27	0°♁		morning max el	110 Feb 23 j 13:53	17°♁17'54	46°29'14
evening rise	107 Aug 25 j 06:09	9°♁28'28			110 Mar 08 j 00:22	0°♁	
	107 Sep 10 j 17:32	0°♁		desc. node	110 Mar 22 j 15:36	15°♁46'09	
	107 Oct 04 j 19:34	0°♁			110 Apr 04 j 09:47	0°♁	
desc. node	107 Oct 05 j 20:35	1°♁17'52			110 Apr 30 j 12:47	0°♁	
	107 Oct 28 j 22:41	0°♁			110 May 26 j 01:03	0°♁	
	107 Nov 22 j 04:16	0°♁			110 Jun 20 j 03:21	0°♁	
	107 Dec 16 j 15:26	0°♁		asc. node	110 Jul 13 j 18:44	28°♁40'01	
	108 Jan 10 j 15:04	0°♁			110 Jul 14 j 20:57	0°♁	
asc. node	108 Jan 26 j 23:30	19°♁00'02			110 Aug 08 j 06:32	0°♁	
	108 Feb 05 j 18:06	0°♁		morning set	110 Aug 20 j 20:47	15°♁37'19	
evening max el	108 Feb 28 j 15:36	24°♁05'37	45°55'02		110 Sep 01 j 09:37	0°♁	
	108 Mar 05 j 19:22	0°♁			110 Sep 25 j 08:32	0°♁	
greatest brilliancy	108 Apr 03 j 02:51	21°♁07'16	-4.5m	max. Earth dist.	110 Sep 25 j 08:19	29°♁59'19	1.71496 AU
retrograde	108 Apr 17 j 19:12	24°♁55'15					
evening set	108 May 03 j 04:51	20°♁20'48		superior conj	110 Sep 27 j 15:15	2°♁51'43	1°11'29
inferior conj	108 May 09 j 06:41	16°♁40'30	1°55'07	minimum elong	110 Sep 28 j 00:40	3°♁21'15	1°11'14
minimum elong	108 May 09 j 10:47	16°♁34'02	1°53'57		110 Oct 19 j 05:40	0°♁	
min. Earth dist.	108 May 09 j 11:59	16°♁32'08	0.28989 AU	desc. node	110 Nov 02 j 08:27	17°♁44'23	
morning rise	108 May 15 j 16:39	12°♁48'10		evening rise	110 Nov 07 j 01:03	23°♁38'05	

	110 Nov 12 j 02:43	0°♁		morning max el	113 May 07 j 02:34	28°♁34'59	45°50'47
	110 Dec 06 j 00:50	0°♁			113 May 08 j 13:54	0°♁	
	110 Dec 30 j 01:22	0°♁			113 Jun 06 j 11:07	0°♁	
	111 Jan 23 j 06:43	0°♁			113 Jul 03 j 03:23	0°♁	
	111 Feb 16 j 20:51	0°♁			113 Jul 28 j 17:36	0°♁	
asc. node	111 Feb 23 j 11:26	7°♁56'58		asc. node	113 Aug 10 j 06:31	15°♁02'07	
	111 Mar 14 j 01:59	0°♁			113 Aug 22 j 14:23	0°♁	
	111 Apr 09 j 09:13	0°♁			113 Sep 15 j 22:43	0°♁	
	111 May 08 j 00:30	0°♁			113 Oct 09 j 23:06	0°♁	
evening max el	111 May 10 j 06:35	2°♁10'16	45°18'12	morning set	113 Nov 01 j 11:42	28°♁19'30	
greatest brilliancy	111 Jun 14 j 14:20	28°♁37'40	-4.5m		113 Nov 02 j 19:37	0°♁	
desc. node	111 Jun 15 j 01:10	28°♁49'11			113 Nov 26 j 15:15	0°♁	
	111 Jun 18 j 04:37	0°♁		desc. node	113 Nov 29 j 20:20	4°♁02'41	
retrograde	111 Jun 27 j 18:29	1°♁38'51					
	111 Jul 06 j 22:04	30°♁		superior conj	113 Dec 12 j 22:55	20°♁32'13	0°-30'-30
evening set	111 Jul 14 j 00:17	26°♁39'01		minimum elong	113 Dec 12 j 15:04	20°♁07'32	0°30'09
inferior conj	111 Jul 19 j 02:46	23°♁35'10	-6°-56'-12	max. Earth dist.	113 Dec 15 j 17:03	24°♁00'03	1.71130 AU
minimum elong	111 Jul 18 j 17:00	23°♁50'15	6°54'30		113 Dec 20 j 11:37	0°♁	
min. Earth dist.	111 Jul 19 j 07:23	23°♁28'02	0.28676 AU		114 Jan 13 j 09:45	0°♁	
morning rise	111 Jul 23 j 09:31	20°♁59'13		evening rise	114 Jan 23 j 10:35	12°♁32'37	
direct	111 Aug 09 j 16:26	15°♁22'05			114 Feb 06 j 10:48	0°♁	
greatest brilliancy	111 Aug 24 j 04:02	19°♁04'20	-4.6m		114 Mar 02 j 16:25	0°♁	
	111 Sep 09 j 19:53	0°♁		asc. node	114 Mar 22 j 23:21	24°♁51'54	
morning max el	111 Sep 28 j 16:51	17°♁11'47	46°29'54		114 Mar 27 j 04:33	0°♁	
asc. node	111 Oct 06 j 04:08	24°♁50'49			114 Apr 21 j 01:22	0°♁	
	111 Oct 11 j 00:31	0°♁			114 May 16 j 10:10	0°♁	
	111 Nov 06 j 13:53	0°♁			114 Jun 11 j 14:03	0°♁	
	111 Dec 01 j 16:19	0°♁			114 Jul 09 j 08:06	0°♁	
	111 Dec 26 j 05:05	0°♁		desc. node	114 Jul 12 j 12:56	3°♁16'03	
	112 Jan 19 j 13:04	0°♁		evening max el	114 Jul 21 j 06:15	11°♁53'04	45°58'35
desc. node	112 Jan 25 j 17:56	7°♁39'34			114 Aug 11 j 04:15	0°♁	
	112 Feb 12 j 20:07	0°♁		greatest brilliancy	114 Aug 29 j 02:14	10°♁17'42	-4.6m
	112 Mar 08 j 03:44	0°♁		retrograde	114 Sep 08 j 11:00	12°♁14'32	
	112 Apr 01 j 12:30	0°♁		evening set	114 Sep 25 j 09:18	6°♁51'50	
morning set	112 Apr 03 j 11:51	2°♁25'34		inferior conj	114 Sep 29 j 06:39	4°♁32'17	-7°-25'-18
	112 Apr 25 j 22:22	0°♁		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
superior conj	112 May 10 j 11:12	17°♁50'43	0°-17'-26	morning rise	114 Oct 03 j 23:23	1°♁44'02	
minimum elong	112 May 10 j 14:45	18°♁01'37	0°17'17		114 Oct 07 j 05:33	30°♁	
max. Earth dist.	112 May 10 j 10:44	17°♁49'16	1.73634 AU	direct	114 Oct 20 j 01:07	26°♁42'50	
asc. node	112 May 17 j 21:06	26°♁56'51			114 Nov 02 j 09:51	0°♁	
	112 May 20 j 08:45	0°♁		greatest brilliancy	114 Nov 02 j 15:21	0°♁06'26	-4.7m
	112 Jun 13 j 18:54	0°♁		asc. node	114 Nov 02 j 15:55	0°♁07'06	
evening rise	112 Jun 15 j 13:14	2°♁10'06			114 Dec 09 j 14:13	0°♁	
	112 Jul 08 j 04:33	0°♁		morning max el	114 Dec 09 j 19:39	0°♁13'52	46°56'15
	112 Aug 01 j 14:25	0°♁			115 Jan 06 j 04:08	0°♁	
	112 Aug 26 j 01:57	0°♁			115 Jan 31 j 23:47	0°♁	
desc. node	112 Sep 06 j 10:42	13°♁52'15		desc. node	115 Feb 22 j 05:48	25°♁16'55	
	112 Sep 19 j 16:56	0°♁			115 Feb 26 j 04:21	0°♁	
	112 Oct 14 j 13:51	0°♁			115 Mar 23 j 02:31	0°♁	
	112 Nov 08 j 22:37	0°♁			115 Apr 16 j 21:33	0°♁	
	112 Dec 05 j 12:39	0°♁			115 May 11 j 14:24	0°♁	
evening max el	112 Dec 16 j 03:17	11°♁10'35	47°09'25		115 Jun 05 j 04:40	0°♁	
asc. node	112 Dec 28 j 13:45	23°♁15'27		morning set	115 Jun 11 j 07:42	7°♁30'05	
	113 Jan 05 j 08:04	0°♁		asc. node	115 Jun 15 j 08:59	12°♁28'12	
greatest brilliancy	113 Jan 22 j 00:07	11°♁07'55	-4.6m		115 Jun 29 j 15:27	0°♁	
retrograde	113 Feb 04 j 23:07	14°♁42'22		max. Earth dist.	115 Jul 13 j 23:35	17°♁41'20	1.73069 AU
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	superior conj	115 Jul 17 j 14:29	22°♁09'56	1°06'31
inferior conj	113 Feb 26 j 01:14	6°♁26'49	8°33'23	minimum elong	115 Jul 17 j 05:57	21°♁43'33	1°06'15
minimum elong	113 Feb 26 j 03:50	6°♁22'42	8°33'18		115 Jul 23 j 22:24	0°♁	
morning rise	113 Mar 01 j 11:17	4°♁18'50			115 Aug 17 j 02:16	0°♁	
	113 Mar 10 j 02:15	30°♁		evening rise	115 Aug 22 j 22:37	7°♁16'32	
direct	113 Mar 19 j 03:08	28°♁21'02			115 Sep 10 j 04:35	0°♁	
	113 Mar 28 j 13:29	0°♁			115 Oct 04 j 06:54	0°♁	
greatest brilliancy	113 Mar 30 j 06:49	0°♁37'21	-4.5m	desc. node	115 Oct 04 j 22:39	0°♁48'59	
desc. node	113 Apr 19 j 03:13	12°♁44'59			115 Oct 28 j 10:21	0°♁	

	115 Nov 21 j 16:21	0°☾			118 Jul 14 j 08:11	0°☾	
	115 Dec 16 j 04:09	0°♊			118 Aug 07 j 17:37	0°♋	
	116 Jan 10 j 04:58	0°♋		morning set	118 Aug 18 j 13:06	13°♌24'33	
asc. node	116 Jan 26 j 01:29	18°♋22'24			118 Aug 31 j 20:39	0°♌	
	116 Feb 05 j 10:36	0°♌		max. Earth dist.	118 Sep 22 j 19:01	27°♌27'37	1.71536 AU
evening max el	116 Feb 26 j 06:03	21°♌49'29	45°57'29		118 Sep 24 j 19:36	0°♌	
	116 Mar 05 j 20:33	0°♍					
greatest brilliancy	116 Mar 31 j 18:11	18°♍56'37	-4.5m	superior conj	118 Sep 25 j 05:15	0°♌30'18	1°13'20
retrograde	116 Apr 15 j 11:53	22°♍46'56		minimum elong	118 Sep 25 j 14:13	0°♌58'24	1°13'07
evening set	116 Apr 30 j 23:01	18°♍09'36			118 Oct 18 j 16:48	0°♌	
inferior conj	116 May 06 j 23:15	14°♍31'45	2°14'09	desc. node	118 Nov 01 j 10:38	17°♌16'01	
minimum elong	116 May 07 j 03:59	14°♍24'17	2°12'49	evening rise	118 Nov 04 j 11:45	21°♌05'40	
min. Earth dist.	116 May 07 j 04:47	14°♍23'01	0.28986 AU		118 Nov 11 j 13:58	0°♍	
morning rise	116 May 13 j 08:52	10°♍39'58			118 Dec 05 j 12:15	0°☾	
desc. node	116 May 16 j 15:15	9°♍00'31			118 Dec 29 j 12:59	0°♊	
direct	116 May 28 j 13:36	6°♍12'29			119 Jan 22 j 18:37	0°♋	
greatest brilliancy	116 Jun 11 j 02:25	9°♍23'14	-4.5m		119 Feb 16 j 09:17	0°♌	
	116 Jul 09 j 23:23	0°♎		asc. node	119 Feb 22 j 13:27	7°♌25'09	
morning max el	116 Jul 16 j 10:00	6°♎00'03	45°50'48		119 Mar 13 j 15:27	0°♍	
	116 Aug 08 j 18:46	0°☾			119 Apr 09 j 00:58	0°♎	
	116 Sep 04 j 08:59	0°♋			119 May 07 j 22:51	0°☾	
asc. node	116 Sep 06 j 18:25	2°♋47'41		evening max el	119 May 07 j 22:49	29°♎59'55	45°18'10
	116 Sep 29 j 13:41	0°♌		greatest brilliancy	119 Jun 12 j 04:12	26°♎24'11	-4.5m
	116 Oct 24 j 00:31	0°♍		desc. node	119 Jun 14 j 03:10	27°♎11'53	
	116 Nov 17 j 02:29	0°♎		retrograde	119 Jun 25 j 09:37	29°♎26'25	
	116 Dec 11 j 01:09	0°♏		evening set	119 Jul 11 j 12:39	24°♎31'01	
desc. node	116 Dec 27 j 08:10	20°♏25'34		inferior conj	119 Jul 16 j 18:14	21°♎22'20	-6°-43'-29
	117 Jan 03 j 23:37	0°☾		minimum elong	119 Jul 16 j 08:20	21°♎37'40	6°41'39
morning set	117 Jan 17 j 17:19	17°☾11'12		min. Earth dist.	119 Jul 16 j 22:18	21°♎16'02	0.28701 AU
	117 Jan 27 j 23:27	0°♊		morning rise	119 Jul 21 j 03:48	18°♎41'59	
	117 Feb 21 j 01:29	0°♋		direct	119 Aug 07 j 08:39	13°♎09'01	
				greatest brilliancy	119 Aug 21 j 18:20	16°♎48'50	-4.6m
superior conj	117 Feb 27 j 03:31	7°♋33'30	-1°-24'-31		119 Sep 10 j 05:17	0°♋	
minimum elong	117 Feb 27 j 06:34	7°♋42'58	1°24'30	morning max el	119 Sep 26 j 07:24	14°♋52'54	46°28'29
max. Earth dist.	117 Mar 02 j 19:31	12°♋06'27	1.72507 AU	asc. node	119 Oct 05 j 06:15	24°♋04'47	
	117 Mar 17 j 06:21	0°♌			119 Oct 10 j 18:57	0°♌	
evening rise	117 Apr 06 j 17:27	25°♌13'54			119 Nov 06 j 04:42	0°♍	
	117 Apr 10 j 14:33	0°♍			119 Dec 01 j 05:36	0°♎	
asc. node	117 Apr 19 j 11:19	10°♍52'56			119 Dec 25 j 17:33	0°♏	
	117 May 05 j 02:14	0°♎			120 Jan 19 j 01:03	0°☾	
	117 May 29 j 17:33	0°☾		desc. node	120 Jan 24 j 19:56	7°☾09'05	
	117 Jun 23 j 13:27	0°♋			120 Feb 12 j 07:45	0°♊	
	117 Jul 18 j 16:18	0°♌			120 Mar 07 j 15:06	0°♋	
desc. node	117 Aug 09 j 00:45	25°♌04'35			120 Mar 31 j 23:39	0°♌	
	117 Aug 13 j 06:41	0°♍		morning set	120 Apr 01 j 04:06	0°♌13'40	
	117 Sep 08 j 18:32	0°♎			120 Apr 25 j 09:23	0°♍	
evening max el	117 Oct 02 j 16:16	25°♎17'05	47°11'14				
	117 Oct 07 j 11:24	0°♏		superior conj	120 May 08 j 04:53	15°♏43'56	0°-20'-33
greatest brilliancy	117 Nov 10 j 11:45	25°♏39'45	-4.7m	minimum elong	120 May 08 j 09:03	15°♏56'42	0°20'22
retrograde	117 Nov 22 j 08:19	28°♏18'39		max. Earth dist.	120 May 08 j 08:59	15°♏56'31	1.73621 AU
asc. node	117 Nov 30 j 03:54	27°♏02'13		asc. node	120 May 16 j 23:11	26°♏29'33	
evening set	117 Dec 06 j 18:50	24°♏07'21			120 May 19 j 19:44	0°♎	
min. Earth dist.	117 Dec 12 j 05:56	20°♏55'32	0.26510 AU	evening rise	120 Jun 13 j 08:09	0°♎06'45	
inferior conj	117 Dec 12 j 21:53	20°♏31'06	3°13'51		120 Jun 13 j 05:57	0°☾	
minimum elong	117 Dec 12 j 15:00	20°♏41'39	3°11'46		120 Jul 07 j 15:48	0°♋	
morning rise	117 Dec 18 j 11:36	17°♏14'00			120 Aug 01 j 01:59	0°♌	
direct	118 Jan 02 j 05:08	12°♏53'38			120 Aug 25 j 14:00	0°♍	
greatest brilliancy	118 Jan 13 j 09:01	15°♏14'00	-4.6m	desc. node	120 Sep 05 j 12:47	13°♏21'04	
	118 Feb 04 j 23:24	0°☾			120 Sep 19 j 05:38	0°♎	
morning max el	118 Feb 21 j 04:26	14°☾57'28	46°30'41		120 Oct 14 j 03:33	0°♏	
	118 Mar 07 j 19:40	0°♊			120 Nov 08 j 14:01	0°☾	
desc. node	118 Mar 21 j 17:40	15°♊06'02			120 Dec 05 j 07:58	0°♊	
	118 Apr 04 j 00:53	0°♋		evening max el	120 Dec 13 j 18:16	8°♊49'57	47°11'08
	118 Apr 20 j 02:01	0°♌		asc. node	120 Dec 27 j 15:42	22°♊14'47	
	118 May 25 j 13:15	0°♍			121 Jan 05 j 21:06	0°♋	
	118 Jun 19 j 14:56	0°♎		greatest brilliancy	121 Jan 19 j 18:12	8°♋53'26	-4.6m
asc. node	118 Jul 12 j 20:42	28°♎11'39		retrograde	121 Feb 02 j 14:29	12°♋24'59	

evening set	121 Feb 20 j 12:36	6° Υ 09'48		superior conj	123 Jul 15 j 08:39	20° Υ 03'57	1°04'31
min. Earth dist.	121 Feb 23 j 03:28	4° Υ 31'05	0.28239 AU	minimum elong	123 Jul 15 j 00:01	19° Υ 37'13	1°04'14
inferior conj	121 Feb 23 j 16:40	4° Υ 10'09	8°36'17		123 Jul 23 j 09:20	0° Ω	
minimum elong	121 Feb 23 j 18:29	4° Υ 07'14	8°36'14		123 Aug 16 j 13:19	0° Υ	
morning rise	121 Feb 27 j 00:37	2° Υ 05'09		evening rise	123 Aug 20 j 14:55	5° Υ 03'28	
	121 Mar 02 j 16:04	30° Υ			123 Sep 09 j 15:51	0° Ω	
direct	121 Mar 16 j 17:50	26° Υ 05'23			123 Oct 03 j 18:26	0° Υ	
greatest brilliancy	121 Mar 27 j 19:44	28° Υ 19'39	-4.5m	desc. node	123 Oct 04 j 00:47	0° Υ 19'45	
	121 Mar 31 j 15:31	0° Υ			123 Oct 27 j 22:13	0° Υ	
desc. node	121 Apr 18 j 05:27	11° Υ 40'20			123 Nov 21 j 04:39	0° Υ	
morning max el	121 May 04 j 16:44	26° Υ 18'48	45°51'28		123 Dec 15 j 17:06	0° Υ	
	121 May 08 j 11:54	0° Υ			124 Jan 09 j 19:05	0° Υ	
	121 Jun 06 j 02:55	0° Υ		asc. node	124 Jan 25 j 03:37	17° Υ 44'40	
	121 Jul 02 j 16:53	0° Υ			124 Feb 05 j 03:26	0° Υ	
	121 Jul 28 j 05:59	0° Υ		evening max el	124 Feb 23 j 21:20	19° Υ 35'27	46°00'06
asc. node	121 Aug 09 j 08:36	14° Υ 32'07			124 Mar 05 j 23:03	0° Υ	
	121 Aug 22 j 02:10	0° Ω		greatest brilliancy	124 Mar 29 j 09:33	16° Υ 46'27	-4.5m
	121 Sep 15 j 10:11	0° Υ		retrograde	124 Apr 13 j 05:08	20° Υ 39'06	
	121 Oct 09 j 10:26	0° Ω		evening set	124 Apr 28 j 17:28	15° Υ 58'47	
morning set	121 Oct 29 j 23:16	25° Ω 49'09		inferior conj	124 May 04 j 15:57	12° Υ 23'20	2°32'56
	121 Nov 02 j 06:56	0° Υ		minimum elong	124 May 04 j 21:18	12° Υ 14'56	2°31'26
	121 Nov 26 j 02:31	0° Υ		min. Earth dist.	124 May 04 j 21:19	12° Υ 14'54	0.28985 AU
desc. node	121 Nov 28 j 22:23	3° Υ 33'39		morning rise	124 May 11 j 01:06	8° Υ 32'29	
				desc. node	124 May 15 j 17:14	6° Υ 16'07	
superior conj	121 Dec 10 j 08:28	17° Υ 56'00	0°-26'-43	direct	124 May 26 j 06:11	4° Υ 03'59	
minimum elong	121 Dec 10 j 01:29	17° Υ 34'01	0°26'24	greatest brilliancy	124 Jun 08 j 18:26	7° Υ 14'39	-4.5m
max. Earth dist.	121 Dec 12 j 20:11	21° Υ 03'45	1.71101 AU		124 Jul 10 j 00:07	0° Υ	
	121 Dec 19 j 22:51	0° Υ		morning max el	124 Jul 14 j 03:02	3° Υ 52'34	45°49'57
	122 Jan 12 j 20:56	0° Υ			124 Aug 08 j 11:06	0° Υ	
evening rise	122 Jan 20 j 21:39	10° Υ 02'19			124 Sep 03 j 22:43	0° Ω	
	122 Feb 05 j 22:00	0° Υ		asc. node	124 Sep 05 j 20:35	2° Ω 14'12	
	122 Mar 02 j 03:45	0° Υ			124 Sep 29 j 02:15	0° Υ	
asc. node	122 Mar 22 j 01:30	24° Υ 23'17			124 Oct 23 j 12:31	0° Ω	
	122 Mar 26 j 16:09	0° Υ			124 Nov 16 j 14:08	0° Υ	
	122 Apr 20 j 13:31	0° Υ			124 Dec 10 j 12:35	0° Υ	
	122 May 15 j 23:19	0° Υ		desc. node	124 Dec 26 j 10:07	19° Υ 56'07	
	122 Jun 11 j 05:13	0° Ω			125 Jan 03 j 10:54	0° Υ	
	122 Jul 09 j 04:07	0° Υ		morning set	125 Jan 15 j 03:25	14° Υ 37'41	
desc. node	122 Jul 11 j 14:57	2° Υ 28'36			125 Jan 27 j 10:36	0° Υ	
evening max el	122 Jul 18 j 18:23	9° Υ 29'45	45°56'07		125 Feb 20 j 12:30	0° Υ	
	122 Aug 12 j 00:27	0° Ω					
greatest brilliancy	122 Aug 26 j 14:02	7° Ω 53'04	-4.6m	superior conj	125 Feb 24 j 17:01	5° Υ 12'18	-1°-24'-58
retrograde	122 Sep 05 j 23:03	9° Ω 50'36		minimum elong	125 Feb 24 j 19:12	5° Υ 19'04	1°24'59
evening set	122 Sep 23 j 01:07	4° Ω 22'45		max. Earth dist.	125 Feb 28 j 09:32	9° Υ 47'03	1.72449 AU
inferior conj	122 Sep 26 j 19:35	2° Ω 07'34	-7°-37'-21		125 Mar 16 j 17:17	0° Υ	
minimum elong	122 Sep 27 j 05:05	1° Ω 53'04	7°35'50	evening rise	125 Apr 04 j 09:39	23° Υ 02'38	
min. Earth dist.	122 Sep 27 j 16:18	1° Ω 35'59	0.27207 AU		125 Apr 10 j 01:27	0° Υ	
	122 Sep 30 j 08:14	30° Υ		asc. node	125 Apr 18 j 13:25	10° Υ 25'52	
morning rise	122 Oct 01 j 08:38	29° Υ 24'38			125 May 04 j 13:14	0° Υ	
direct	122 Oct 17 j 14:23	24° Υ 16'46			125 May 29 j 04:52	0° Υ	
greatest brilliancy	122 Oct 31 j 08:07	27° Υ 44'11	-4.7m		125 Jun 23 j 01:21	0° Ω	
asc. node	122 Nov 01 j 18:05	28° Υ 26'02			125 Jul 18 j 05:07	0° Υ	
	122 Nov 04 j 14:36	0° Ω		desc. node	125 Aug 08 j 02:51	24° Υ 29'52	
morning max el	122 Dec 07 j 09:14	27° Ω 47'18	46°56'24		125 Aug 12 j 21:06	0° Ω	
	122 Dec 09 j 12:50	0° Υ			125 Sep 08 j 12:03	0° Υ	
	123 Jan 05 j 20:39	0° Υ		evening max el	125 Sep 30 j 07:00	22° Υ 55'28	47°09'29
	123 Jan 31 j 13:53	0° Υ			125 Oct 07 j 13:45	0° Υ	
desc. node	123 Feb 21 j 07:55	24° Υ 44'24		greatest brilliancy	125 Nov 08 j 01:27	23° Υ 11'15	-4.7m
	123 Feb 25 j 17:09	0° Υ		retrograde	125 Nov 19 j 21:30	25° Υ 48'46	
	123 Mar 22 j 14:32	0° Υ		asc. node	125 Nov 29 j 05:50	23° Υ 59'51	
	123 Apr 16 j 09:04	0° Υ		evening set	125 Dec 04 j 06:12	21° Υ 39'33	
	123 May 11 j 01:35	0° Υ		inferior conj	125 Dec 10 j 10:11	18° Υ 02'01	2°50'58
	123 Jun 04 j 15:39	0° Υ		minimum elong	125 Dec 10 j 04:00	18° Υ 11'28	2°49'04
morning set	123 Jun 09 j 02:07	5° Υ 25'50		min. Earth dist.	125 Dec 09 j 19:06	18° Υ 25'06	0.26475 AU
asc. node	123 Jun 14 j 10:57	12° Υ 00'39		morning rise	125 Dec 16 j 02:19	14° Υ 42'03	
	123 Jun 29 j 02:21	0° Υ		direct	125 Dec 30 j 17:56	10° Υ 25'18	
max. Earth dist.	123 Jul 11 j 20:44	15° Υ 44'38	1.73116 AU	greatest brilliancy	126 Jan 10 j 21:56	12° Υ 46'23	-4.6m

	126 Feb 05 j 08:01	0°☾			128 Sep 18 j 18:02	0°♍		
morning max el	126 Feb 18 j 18:24	12°☾35'54	46°32'06		128 Oct 13 j 17:02	0°♁		
	126 Mar 07 j 14:16	0°♁			128 Nov 08 j 05:23	0°☾		
desc. node	126 Mar 20 j 19:47	14°♁26'57			128 Dec 05 j 03:40	0°♁		
	126 Apr 03 j 15:37	0°♁		evening max el	128 Dec 11 j 08:16	6°♁26'59	47°12'41	
	126 Apr 29 j 14:56	0°♁		asc. node	128 Dec 26 j 17:51	21°♁13'22		
	126 May 25 j 01:08	0°♁			129 Jan 06 j 14:28	0°♁		
asc. node	126 Jun 19 j 02:14	0°♁		greatest brilliancy	129 Jan 17 j 12:01	6°♁38'20	-4.6m	
	126 Jul 11 j 22:50	27°♁44'33		retrograde	129 Jan 31 j 05:27	10°♁07'26		
	126 Jul 13 j 19:10	0°☾		evening set	129 Feb 18 j 03:57	3°♁52'45		
morning set	126 Aug 07 j 04:28	0°♁		inferior conj	129 Feb 21 j 07:52	1°♁53'23	8°38'18	
	126 Aug 16 j 05:30	11°♁12'46		minimum elong	129 Feb 21 j 08:53	1°♁51'45	8°38'17	
max. Earth dist.	126 Aug 31 j 07:31	0°♁		min. Earth dist.	129 Feb 20 j 18:03	2°♁15'19	0.28184 AU	
	126 Sep 20 j 03:15	24°♁48'42	1.71585 AU		129 Feb 24 j 08:10	30°♁		
superior conj	126 Sep 22 j 19:16	28°♁09'24	1°15'04	morning rise	129 Feb 24 j 14:03	29°♁51'00		
minimum elong	126 Sep 23 j 03:42	28°♁35'51	1°14'52	direct	129 Mar 14 j 07:51	23°♁49'32		
	126 Sep 24 j 06:31	0°♁		greatest brilliancy	129 Mar 25 j 09:17	26°♁02'57	-4.5m	
	126 Oct 18 j 03:50	0°♍			129 Apr 02 j 10:58	0°♁		
desc. node	126 Oct 31 j 12:39	16°♁47'27		desc. node	129 Apr 17 j 07:28	10°♁37'40		
evening rise	126 Nov 01 j 22:06	18°♁32'28		morning max el	129 May 02 j 06:38	24°♁02'47	45°52'24	
	126 Nov 11 j 01:07	0°♁			129 May 08 j 08:43	0°♁		
	126 Dec 04 j 23:32	0°♁			129 Jun 05 j 18:04	0°♁		
	126 Dec 29 j 00:27	0°♁			129 Jul 02 j 05:51	0°♁		
	127 Jan 22 j 06:21	0°♁			129 Jul 27 j 17:53	0°☾		
asc. node	127 Feb 15 j 21:31	0°♁		asc. node	129 Aug 08 j 10:45	14°♁03'41		
	127 Feb 21 j 15:37	6°♁54'24			129 Aug 21 j 13:30	0°♁		
	127 Mar 13 j 04:44	0°♁			129 Sep 14 j 21:13	0°♁		
evening max el	127 Apr 08 j 16:37	0°♁		morning set	129 Oct 08 j 21:21	0°♁		
	127 May 05 j 14:32	27°♁49'26	45°18'18		129 Oct 27 j 11:13	23°♁21'21		
	127 May 07 j 21:38	0°☾			129 Nov 01 j 17:50	0°♍		
greatest brilliancy	127 Jun 09 j 18:46	24°♁13'11	-4.5m	desc. node	129 Nov 25 j 13:27	0°♁		
desc. node	127 Jun 13 j 05:10	25°♁32'55			129 Nov 28 j 00:24	3°♁05'36		
retrograde	127 Jun 23 j 00:41	27°♁16'17		superior conj	129 Dec 07 j 17:52	15°♁20'16	0°-22'-51	
evening set	127 Jul 09 j 01:30	22°♁25'03		minimum elong	129 Dec 07 j 11:49	15°♁01'13	0°22'36	
inferior conj	127 Jul 14 j 10:04	19°♁11'55	-6°-30'-13	max. Earth dist.	129 Dec 09 j 22:06	18°♁04'30	1.71085 AU	
minimum elong	127 Jul 14 j 00:05	19°♁27'24	6°28'17		129 Dec 19 j 09:47	0°☾		
min. Earth dist.	127 Jul 14 j 13:53	19°♁05'59	0.28725 AU		130 Jan 12 j 07:53	0°♁		
morning rise	127 Jul 18 j 22:26	16°♁27'07		evening rise	130 Jan 18 j 08:13	7°♁31'11		
direct	127 Aug 05 j 00:43	10°♁58'19			130 Feb 05 j 08:59	0°♁		
greatest brilliancy	127 Aug 19 j 09:05	14°♁35'45	-4.5m	asc. node	130 Mar 01 j 14:50	0°♁		
	127 Sep 10 j 11:30	0°♁			130 Mar 21 j 03:34	23°♁55'15		
morning max el	127 Sep 23 j 21:12	12°♁33'24	46°26'49		130 Mar 26 j 03:30	0°♁		
asc. node	127 Oct 04 j 08:21	23°♁20'22			130 Apr 20 j 01:23	0°♁		
	127 Oct 10 j 12:36	0°♁			130 May 15 j 12:12	0°☾		
	127 Nov 05 j 19:07	0°♁			130 Jun 10 j 20:10	0°♁		
	127 Nov 30 j 18:37	0°♍			130 Jul 09 j 00:16	0°♁		
	127 Dec 25 j 05:48	0°♁		desc. node	130 Jul 10 j 17:07	1°♁42'05		
desc. node	128 Jan 18 j 12:48	0°☾		evening max el	130 Jul 16 j 07:24	7°♁10'13	45°53'53	
	128 Jan 23 j 22:08	6°☾39'54			130 Aug 13 j 02:43	0°♁		
	128 Feb 11 j 19:06	0°♁		greatest brilliancy	130 Aug 24 j 01:05	5°♁29'58	-4.6m	
	128 Mar 07 j 02:09	0°♁		retrograde	130 Sep 03 j 12:10	7°♁29'21		
morning set	128 Mar 29 j 20:14	28°♁02'23		evening set	130 Sep 20 j 17:09	1°♁56'23		
	128 Mar 31 j 10:28	0°♁			130 Sep 23 j 23:11	30°♁		
	128 Apr 24 j 20:04	0°♁		inferior conj	130 Sep 24 j 08:49	29°♁45'21	-7°-48'-19	
superior conj	128 May 05 j 22:46	13°♁38'48	0°-23'-38	minimum elong	130 Sep 24 j 17:54	29°♁31'33	7°46'58	
minimum elong	128 May 06 j 03:31	13°♁53'22	0°23'25	min. Earth dist.	130 Sep 25 j 05:34	29°♁13'48	0.27273 AU	
max. Earth dist.	128 May 06 j 05:44	14°♁00'09	1.73603 AU	morning rise	130 Sep 28 j 18:15	27°♁07'50		
asc. node	128 May 16 j 01:12	26°♁03'00		direct	130 Oct 15 j 04:22	21°♁53'23		
	128 May 19 j 06:23	0°♁		greatest brilliancy	130 Oct 29 j 00:31	25°♁23'56	-4.7m	
evening rise	128 Jun 11 j 03:23	28°♁05'30		asc. node	130 Oct 31 j 20:00	26°♁50'32		
	128 Jun 12 j 16:39	0°☾			130 Nov 06 j 00:11	0°♁		
	128 Jul 07 j 02:39	0°♁		morning max el	130 Dec 04 j 23:52	25°♁25'03	46°56'14	
	128 Jul 31 j 13:09	0°♁			130 Dec 09 j 10:02	0°♍		
	128 Aug 25 j 01:40	0°♁			131 Jan 05 j 12:30	0°♁		
desc. node	128 Sep 04 j 14:56	12°♁51'16		desc. node	131 Jan 31 j 03:34	0°☾		
					131 Feb 20 j 09:59	24°☾12'32		

	131 Feb 25 j 05:40	0°♁		greatest brilliancy	133 Nov 05 j 16:08	20°♁44'26	-4.7m
	131 Mar 22 j 02:19	0°♁		retrograde	133 Nov 17 j 10:22	23°♁19'11	
	131 Apr 15 j 20:20	0°♁		asc. node	133 Nov 28 j 08:00	20°♁52'28	
	131 May 10 j 12:30	0°♁		evening set	133 Dec 01 j 17:53	19°♁12'03	
	131 Jun 04 j 02:21	0°♁		inferior conj	133 Dec 07 j 22:30	15°♁33'31	2°27'43
morning set	131 Jun 06 j 20:23	3°♁22'07		minimum elong	133 Dec 07 j 17:06	15°♁41'48	2°26'02
asc. node	131 Jun 13 j 13:04	11°♁34'29		min. Earth dist.	133 Dec 07 j 08:34	15°♁54'51	0.26441 AU
	131 Jun 28 j 12:57	0°♁		morning rise	133 Dec 13 j 16:50	12°♁10'40	
max. Earth dist.	131 Jul 09 j 18:41	13°♁51'24	1.73158 AU	direct	133 Dec 28 j 06:34	7°♁57'36	
				greatest brilliancy	134 Jan 08 j 10:54	10°♁19'08	-4.7m
superior conj	131 Jul 13 j 02:49	17°♁58'54	1°02'25		134 Feb 05 j 13:59	0°♁	
minimum elong	131 Jul 12 j 18:06	17°♁31'59	1°02'08	morning max el	134 Feb 16 j 07:20	10°♁12'03	46°33'30
	131 Jul 22 j 19:58	0°♁			134 Mar 07 j 08:15	0°♁	
	131 Aug 16 j 00:05	0°♁		desc. node	134 Mar 19 j 21:49	13°♁48'24	
evening rise	131 Aug 18 j 07:30	2°♁52'16			134 Apr 03 j 06:03	0°♁	
	131 Sep 09 j 02:49	0°♁			134 Apr 29 j 03:43	0°♁	
desc. node	131 Oct 03 j 02:46	29°♁51'05			134 May 24 j 13:01	0°♁	
	131 Oct 03 j 05:39	0°♁			134 Jun 18 j 13:35	0°♁	
	131 Oct 27 j 09:44	0°♁		asc. node	134 Jul 11 j 00:58	27°♁17'20	
	131 Nov 20 j 16:37	0°♁			134 Jul 13 j 06:12	0°♁	
	131 Dec 15 j 05:46	0°♁			134 Aug 06 j 15:22	0°♁	
asc. node	132 Jan 09 j 09:04	0°♁		morning set	134 Aug 13 j 21:44	9°♁00'25	
	132 Jan 24 j 05:43	17°♁07'12			134 Aug 30 j 18:22	0°♁	
	132 Feb 04 j 20:25	0°♁		max. Earth dist.	134 Sep 17 j 11:57	22°♁11'26	1.71634 AU
evening max el	132 Feb 21 j 13:23	17°♁23'32	46°02'32				
	132 Mar 06 j 03:08	0°♁		superior conj	134 Sep 20 j 09:20	25°♁48'50	1°16'39
greatest brilliancy	132 Mar 27 j 02:01	14°♁37'32	-4.5m	minimum elong	134 Sep 20 j 17:11	26°♁13'27	1°16'29
retrograde	132 Apr 10 j 22:21	18°♁30'36			134 Sep 23 j 17:26	0°♁	
evening set	132 Apr 26 j 11:51	13°♁47'26			134 Oct 17 j 14:52	0°♁	
inferior conj	132 May 02 j 08:23	10°♁14'23	2°51'37	evening rise	134 Oct 30 j 08:34	15°♁59'44	
minimum elong	132 May 02 j 14:19	10°♁05'04	2°49'58	desc. node	134 Oct 30 j 14:40	16°♁18'50	
min. Earth dist.	132 May 02 j 13:21	10°♁06'36	0.28981 AU		134 Nov 10 j 12:18	0°♁	
morning rise	132 May 08 j 16:54	6°♁24'43			134 Dec 04 j 10:52	0°♁	
desc. node	132 May 14 j 19:14	3°♁35'10			134 Dec 28 j 11:56	0°♁	
direct	132 May 23 j 22:52	1°♁55'14			135 Jan 21 j 18:05	0°♁	
greatest brilliancy	132 Jun 06 j 09:16	5°♁04'40	-4.5m		135 Feb 15 j 09:48	0°♁	
	132 Jul 09 j 23:32	0°♁		asc. node	135 Feb 20 j 17:38	6°♁23'12	
morning max el	132 Jul 11 j 19:52	1°♁45'11	45°49'12		135 Mar 12 j 18:08	0°♁	
	132 Aug 08 j 02:55	0°♁			135 Apr 08 j 08:35	0°♁	
asc. node	132 Sep 03 j 12:04	0°♁		evening max el	135 May 03 j 05:25	25°♁36'29	45°18'19
	132 Sep 04 j 22:35	1°♁41'12			135 May 07 j 21:39	0°♁	
	132 Sep 28 j 14:31	0°♁		greatest brilliancy	135 Jun 07 j 08:36	22°♁00'30	-4.5m
	132 Oct 23 j 00:13	0°♁		desc. node	135 Jun 12 j 07:22	23°♁49'35	
	132 Nov 16 j 01:31	0°♁		retrograde	135 Jun 20 j 15:34	25°♁05'25	
desc. node	132 Dec 09 j 23:44	0°♁		evening set	135 Jul 06 j 14:16	20°♁17'55	
	132 Dec 25 j 12:18	19°♁28'20		inferior conj	135 Jul 12 j 01:48	17°♁00'41	-6°-16'-15
	133 Jan 02 j 21:54	0°♁		minimum elong	135 Jul 11 j 15:47	17°♁16'14	6°14'15
morning set	133 Jan 12 j 13:54	12°♁06'07		min. Earth dist.	135 Jul 12 j 05:41	16°♁54'38	0.28750 AU
	133 Jan 26 j 21:29	0°♁		morning rise	135 Jul 16 j 16:59	14°♁11'31	
	133 Feb 19 j 23:18	0°♁		direct	135 Aug 02 j 16:15	8°♁46'35	
				greatest brilliancy	135 Aug 17 j 00:52	12°♁23'14	-4.5m
superior conj	133 Feb 22 j 06:27	2°♁51'21	-1°-25'-16		135 Sep 10 j 16:00	0°♁	
minimum elong	133 Feb 22 j 07:44	2°♁55'22	1°25'18	morning max el	135 Sep 21 j 10:45	10°♁12'46	46°25'20
max. Earth dist.	133 Feb 26 j 01:37	7°♁34'28	1.72400 AU	asc. node	135 Oct 03 j 10:23	22°♁35'51	
	133 Mar 16 j 04:03	0°♁			135 Oct 10 j 06:02	0°♁	
evening rise	133 Apr 02 j 01:32	20°♁50'37			135 Nov 05 j 09:30	0°♁	
	133 Apr 09 j 12:15	0°♁			135 Nov 30 j 07:40	0°♁	
asc. node	133 Apr 17 j 15:23	9°♁58'37			135 Dec 24 j 18:08	0°♁	
	133 May 04 j 00:11	0°♁		desc. node	136 Jan 18 j 00:38	0°♁	
	133 May 28 j 16:09	0°♁			136 Jan 23 j 00:08	6°♁09'45	
	133 Jun 22 j 13:11	0°♁			136 Feb 11 j 06:34	0°♁	
	133 Jul 17 j 17:55	0°♁			136 Mar 06 j 13:18	0°♁	
desc. node	133 Aug 07 j 04:57	23°♁55'21		morning set	136 Mar 27 j 12:23	25°♁50'36	
	133 Aug 12 j 11:32	0°♁			136 Mar 30 j 21:25	0°♁	
	133 Sep 08 j 05:49	0°♁			136 Apr 24 j 06:54	0°♁	
evening max el	133 Sep 27 j 21:43	20°♁34'13	47°07'35				
	133 Oct 07 j 17:29	0°♁		superior conj	136 May 03 j 16:43	11°♁33'24	0°-26'-39

minimum elong	136 May 03 j 22:02	11°♄49'43	0°26'26	morning rise	138 Sep 26 j 03:37	24°♎49'03	
max. Earth dist.	136 May 04 j 01:35	12°♄00'38	1.73588 AU	direct	138 Oct 12 j 18:38	19°♎28'11	
asc. node	136 May 15 j 03:20	25°♄36'23		greatest brilliancy	138 Oct 26 j 15:59	23°♎00'43	-4.7m
	136 May 18 j 17:12	0°♄		asc. node	138 Oct 30 j 22:10	25°♎16'56	
evening rise	136 Jun 08 j 22:34	26°♄03'37			138 Nov 07 j 01:06	0°♄	
	136 Jun 12 j 03:34	0°♄		morning max el	138 Dec 02 j 14:52	23°♄02'14	46°56'06
	136 Jun 06 j 13:47	0°♄			138 Dec 09 j 07:05	0°♄	
	136 Jul 31 j 00:38	0°♄			139 Jan 05 j 04:33	0°♄	
	136 Aug 24 j 13:39	0°♄			139 Jan 30 j 17:31	0°♄	
desc. node	136 Sep 03 j 16:52	12°♄19'54		desc. node	139 Feb 19 j 12:00	23°♄39'35	
	136 Sep 18 j 06:46	0°♄			139 Feb 24 j 18:27	0°♄	
	136 Oct 13 j 06:54	0°♄			139 Mar 21 j 14:23	0°♄	
	136 Nov 07 j 21:13	0°♄			139 Apr 15 j 07:55	0°♄	
	136 Dec 05 j 00:15	0°♄			139 May 09 j 23:45	0°♄	
evening max el	136 Dec 08 j 21:44	4°♄01'56	47°14'14		139 Jun 03 j 13:21	0°♄	
asc. node	136 Dec 25 j 19:59	20°♄09'37		morning set	139 Jun 04 j 14:55	1°♄18'12	
	137 Jan 07 j 14:31	0°♄		asc. node	139 Jun 12 j 15:12	11°♄07'20	
greatest brilliancy	137 Jan 15 j 04:53	4°♄20'55	-4.6m		139 Jun 27 j 23:52	0°♄	
retrograde	137 Jan 28 j 20:35	7°♄48'55		max. Earth dist.	139 Jul 07 j 16:29	11°♄56'49	1.73197 AU
evening set	137 Feb 15 j 18:46	1°♄35'02					
	137 Feb 18 j 07:29	30°♄		superior conj	139 Jul 10 j 21:14	15°♄53'43	1°00'15
inferior conj	137 Feb 18 j 22:58	29°♄35'28	8°39'27	minimum elong	139 Jul 10 j 12:31	15°♄26'48	0°59'58
minimum elong	137 Feb 18 j 23:10	29°♄35'09	8°39'28		139 Jul 22 j 06:55	0°♄	
min. Earth dist.	137 Feb 18 j 08:27	29°♄58'28	0.28128 AU		139 Aug 15 j 11:12	0°♄	
morning rise	137 Feb 22 j 03:46	27°♄35'19		evening rise	139 Aug 16 j 00:21	0°♄40'54	
direct	137 Mar 11 j 21:38	21°♄32'23			139 Sep 08 j 14:10	0°♄	
greatest brilliancy	137 Mar 22 j 23:16	23°♄45'50	-4.5m	desc. node	139 Oct 02 j 04:51	29°♄21'23	
	137 Apr 03 j 17:12	0°♄			139 Oct 02 j 17:17	0°♄	
desc. node	137 Apr 16 j 09:28	9°♄35'44			139 Oct 26 j 21:44	0°♄	
morning max el	137 Apr 29 j 21:03	21°♄47'14	45°53'29		139 Nov 20 j 05:06	0°♄	
	137 May 08 j 05:07	0°♄			139 Dec 14 j 18:59	0°♄	
	137 Jun 05 j 09:15	0°♄			140 Jan 08 j 23:37	0°♄	
	137 Jul 01 j 19:00	0°♄		asc. node	140 Jan 23 j 07:43	16°♄27'59	
	137 Jul 27 j 06:02	0°♄			140 Feb 04 j 14:09	0°♄	
asc. node	137 Aug 07 j 12:44	13°♄33'48		evening max el	140 Feb 19 j 05:41	15°♄11'06	46°05'08
	137 Aug 21 j 01:08	0°♄			140 Mar 06 j 09:39	0°♄	
	137 Sep 14 j 08:36	0°♄		greatest brilliancy	140 Mar 24 j 19:35	12°♄29'10	-4.5m
	137 Oct 08 j 08:39	0°♄		retrograde	140 Apr 08 j 15:28	16°♄21'10	
morning set	137 Oct 24 j 23:04	20°♄52'08		evening set	140 Apr 24 j 06:28	11°♄35'20	
	137 Nov 01 j 05:05	0°♄		inferior conj	140 Apr 30 j 00:56	8°♄04'43	3°10'01
	137 Nov 25 j 00:41	0°♄		minimum elong	140 Apr 30 j 07:24	7°♄54'32	3°08'16
desc. node	137 Nov 27 j 02:33	2°♄36'58		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	
superior conj	137 Dec 05 j 03:04	12°♄42'52	0°-18'-56	desc. node	140 May 13 j 21:28	0°♄57'40	
minimum elong	137 Dec 04 j 21:59	12°♄26'55	0°18'43		140 May 18 j 04:53	30°♄	
max. Earth dist.	137 Dec 07 j 02:33	15°♄12'17	1.71069 AU	direct	140 May 21 j 15:42	29°♄45'53	
	137 Dec 18 j 21:01	0°♄			140 May 25 j 03:59	0°♄	
	138 Jan 11 j 19:07	0°♄		greatest brilliancy	140 Jun 03 j 23:03	2°♄52'33	-4.5m
evening rise	138 Jan 15 j 18:45	4°♄58'58		morning max el	140 Jul 09 j 12:19	29°♄36'08	45°48'30
	138 Feb 04 j 20:16	0°♄			140 Jul 09 j 22:18	0°♄	
	138 Mar 01 j 02:15	0°♄			140 Aug 07 j 18:46	0°♄	
asc. node	138 Mar 20 j 05:34	23°♄26'00			140 Sep 03 j 01:36	0°♄	
	138 Mar 25 j 15:11	0°♄		asc. node	140 Sep 04 j 00:39	1°♄07'43	
	138 Apr 19 j 13:35	0°♄			140 Sep 28 j 03:01	0°♄	
	138 May 15 j 01:29	0°♄			140 Oct 22 j 12:12	0°♄	
	138 Jun 10 j 11:41	0°♄			140 Nov 15 j 13:13	0°♄	
	138 Jul 08 j 21:31	0°♄			140 Dec 09 j 11:16	0°♄	
desc. node	138 Jul 09 j 19:08	0°♄53'23		desc. node	140 Dec 24 j 14:21	18°♄58'48	
evening max el	138 Jul 13 j 21:07	4°♄51'29	45°51'32		141 Jan 02 j 09:18	0°♄	
	138 Aug 14 j 17:02	0°♄		morning set	141 Jan 09 j 23:51	9°♄31'36	
greatest brilliancy	138 Aug 21 j 11:18	3°♄04'40	-4.6m		141 Jan 26 j 08:45	0°♄	
retrograde	138 Sep 01 j 01:20	5°♄06'11			141 Feb 19 j 10:27	0°♄	
	138 Sep 17 j 10:49	30°♄					
evening set	138 Sep 18 j 08:49	29°♄28'27		superior conj	141 Feb 19 j 19:22	0°♄27'43	-1°-25'-26
inferior conj	138 Sep 21 j 21:50	27°♄21'12	-7°-58'-23	minimum elong	141 Feb 19 j 19:44	0°♄28'52	1°25'27
minimum elong	138 Sep 22 j 06:23	27°♄08'11	7°57'14	max. Earth dist.	141 Feb 23 j 18:36	5°♄23'37	1.72341 AU
min. Earth dist.	138 Sep 22 j 18:16	26°♄50'08	0.27342 AU		141 Mar 15 j 15:07	0°♄	

evening rise	141 Mar 30 j 17:06	18°♃36'43		143 Nov 04 j 23:40	0°♎	
	141 Apr 08 j 23:20	0°♄		143 Nov 29 j 20:33	0°♌	
asc. node	141 Apr 16 j 17:33	9°♃31'09		143 Dec 24 j 06:19	0°♁	
	141 May 03 j 11:25	0°♀		144 Jan 17 j 12:23	0°♄	
	141 May 28 j 03:43	0°♁		desc. node	144 Jan 22 j 02:09	5°♄39'52
	141 Jun 22 j 01:20	0°♂		144 Feb 10 j 17:58	0°♁	
	141 Jul 17 j 07:01	0°♃		144 Mar 06 j 00:26	0°♁	
desc. node	141 Aug 06 j 06:57	23°♃19'48		morning set	144 Mar 25 j 04:06	23°♁37'20
	141 Aug 12 j 02:20	0°♎		144 Mar 30 j 08:22	0°♃	
	141 Sep 08 j 00:11	0°♌		144 Apr 23 j 17:43	0°♄	
evening max el	141 Sep 25 j 11:32	18°♌10'13	47°05'26			
	141 Oct 07 j 23:18	0°♁		superior conj	144 May 01 j 10:18	9°♃26'56 0°-29'-41
greatest brilliancy	141 Nov 03 j 07:20	18°♁17'22	-4.7m	minimum elong	144 May 01 j 16:10	9°♃44'58 0°29'26
retrograde	141 Nov 14 j 22:28	20°♁48'29		max. Earth dist.	144 May 01 j 20:35	9°♃58'29 1.73570 AU
asc. node	141 Nov 27 j 10:05	17°♁38'52		asc. node	144 May 14 j 05:25	25°♃09'42
evening set	141 Nov 29 j 05:40	16°♁43'04			144 May 18 j 03:58	0°♀
inferior conj	141 Dec 05 j 10:44	13°♁03'58	2°04'06	evening rise	144 Jun 06 j 17:34	24°♀01'26
minimum elong	141 Dec 05 j 06:08	13°♁11'00	2°02'38		144 Jun 11 j 14:24	0°♁
min. Earth dist.	141 Dec 04 j 22:23	13°♁22'54	0.26415 AU		144 Jul 06 j 00:49	0°♂
morning rise	141 Dec 11 j 07:04	9°♁38'13			144 Jul 30 j 12:02	0°♃
direct	141 Dec 25 j 18:38	5°♁28'31			144 Aug 24 j 01:36	0°♎
greatest brilliancy	142 Jan 06 j 00:48	7°♁51'28	-4.7m	desc. node	144 Sep 02 j 18:59	11°♎49'17
	142 Feb 05 j 18:32	0°♄		144 Sep 17 j 19:28	0°♌	
morning max el	142 Feb 13 j 19:32	7°♄44'57	46°34'56		144 Oct 12 j 20:43	0°♁
	142 Mar 07 j 02:13	0°♁			144 Nov 07 j 13:05	0°♄
desc. node	142 Mar 18 j 23:53	13°♁09'16			144 Dec 04 j 21:13	0°♁
	142 Apr 02 j 20:38	0°♁		evening max el	144 Dec 06 j 12:00	1°♁39'41 47°15'48
	142 Apr 28 j 16:39	0°♃		asc. node	144 Dec 24 j 21:54	19°♁04'39
	142 May 24 j 01:01	0°♄			145 Jan 08 j 23:33	0°♁
	142 Jun 18 j 01:02	0°♀		greatest brilliancy	145 Jan 12 j 20:40	2°♁02'53 -4.6m
asc. node	142 Jul 10 j 02:55	26°♀49'05		retrograde	145 Jan 26 j 12:15	5°♁31'16
	142 Jul 12 j 17:22	0°♁			145 Feb 12 j 05:47	30°♁
	142 Aug 06 j 02:23	0°♂		evening set	145 Feb 13 j 09:15	29°♁18'30
morning set	142 Aug 11 j 14:16	6°♂48'40		min. Earth dist.	145 Feb 15 j 22:36	27°♁42'42 0.28075 AU
	142 Aug 30 j 05:21	0°♃		inferior conj	145 Feb 16 j 14:07	27°♁18'12 8°39'49
max. Earth dist.	142 Sep 14 j 22:41	19°♃40'14	1.71683 AU	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
superior conj	142 Sep 17 j 23:59	23°♃29'50	1°18'04	direct	145 Mar 09 j 11:46	19°♁15'50
minimum elong	142 Sep 18 j 07:13	23°♃52'33	1°17'56	greatest brilliancy	145 Mar 20 j 13:07	21°♁29'15 -4.5m
	142 Sep 23 j 04:27	0°♎			145 Apr 04 j 14:46	0°♁
	142 Oct 17 j 01:58	0°♌		desc. node	145 Apr 15 j 11:40	8°♁36'14
evening rise	142 Oct 27 j 19:38	13°♌28'43		morning max el	145 Apr 27 j 12:32	19°♁34'38 45°54'29
desc. node	142 Oct 29 j 16:51	15°♌50'36			145 May 08 j 00:44	0°♃
	142 Nov 09 j 23:34	0°♁			145 Jun 05 j 00:06	0°♄
	142 Dec 03 j 22:18	0°♄			145 Jul 01 j 07:54	0°♀
	142 Dec 27 j 23:33	0°♁			145 Jul 26 j 17:56	0°♁
	143 Jan 21 j 06:01	0°♁		asc. node	145 Aug 06 j 14:50	13°♁04'59
	143 Feb 14 j 22:18	0°♃			145 Aug 20 j 12:30	0°♂
asc. node	143 Feb 19 j 19:40	5°♃51'23			145 Sep 13 j 19:43	0°♃
	143 Mar 12 j 07:50	0°♄			145 Oct 07 j 19:41	0°♎
	143 Apr 08 j 01:00	0°♀		morning set	145 Oct 22 j 11:15	18°♎24'47
evening max el	143 Apr 30 j 19:55	23°♀22'29	45°18'42		145 Oct 31 j 16:06	0°♌
	143 May 07 j 22:59	0°♁			145 Nov 24 j 11:41	0°♁
greatest brilliancy	143 Jun 04 j 21:28	19°♁46'48	-4.5m	desc. node	145 Nov 26 j 04:36	2°♁08'46
desc. node	143 Jun 11 j 09:21	22°♁02'28				
retrograde	143 Jun 18 j 06:56	22°♁55'10		superior conj	145 Dec 02 j 12:30	10°♁06'54 0°-15'00
evening set	143 Jul 04 j 03:18	18°♁10'48		minimum elong	145 Dec 02 j 08:27	9°♁54'10 0°14'48
inferior conj	143 Jul 09 j 17:40	14°♁49'50	-6°-1'-56	behind sun begin	145 Dec 01 j 20:54	9°♁17'50
minimum elong	143 Jul 09 j 07:40	15°♁05'21	5°59'49	behind sun end	145 Dec 02 j 20:00	10°♁30'31
min. Earth dist.	143 Jul 09 j 21:33	14°♁43'47	0.28775 AU	max. Earth dist.	145 Dec 04 j 09:39	12°♁29'00 1.71053 AU
morning rise	143 Jul 14 j 11:39	11°♁56'33			145 Dec 18 j 07:59	0°♄
direct	143 Jul 31 j 07:44	6°♁35'06			146 Jan 11 j 06:05	0°♁
greatest brilliancy	143 Aug 14 j 17:42	10°♁12'28	-4.5m	evening rise	146 Jan 13 j 05:31	2°♁28'21
	143 Sep 10 j 18:46	0°♂			146 Feb 04 j 07:16	0°♁
morning max el	143 Sep 19 j 01:22	7°♂55'06	46°23'58		146 Feb 28 j 13:22	0°♃
asc. node	143 Oct 02 j 12:29	21°♂52'14		asc. node	146 Mar 19 j 07:44	22°♃58'11
	143 Oct 09 j 23:03	0°♃			146 Mar 25 j 02:35	0°♄

	146 Apr 19 j 01:35	0°♁		148 Sep 27 j 15:08	0°♎
	146 May 14 j 14:36	0°♄		148 Oct 21 j 23:49	0°♌
	146 Jun 10 j 03:08	0°♁		148 Nov 15 j 00:32	0°♍
desc. node	146 Jul 08 j 21:10	0°♎04'45		148 Dec 08 j 22:24	0°♏
	146 Jul 08 j 19:13	0°♎	desc. node	148 Dec 23 j 16:19	18°♏30'16
evening max el	146 Jul 11 j 11:52	2°♎36'16 45°49'19		149 Jan 01 j 20:19	0°♏
	146 Aug 17 j 03:27	0°♌	morning set	149 Jan 07 j 09:40	6°♏57'40
greatest brilliancy	146 Aug 18 j 21:58	0°♌41'34 -4.6m		149 Jan 25 j 19:41	0°♏
retrograde	146 Aug 29 j 14:31	2°♌44'43			
	146 Sep 10 j 09:49	30°♎♎	superior conj	149 Feb 17 j 08:09	28°♏04'33 -1°-25'-26
evening set	146 Sep 16 j 00:36	27°♎02'47	minimum elong	149 Feb 17 j 07:33	28°♏02'42 1°25'27
inferior conj	146 Sep 19 j 11:05	24°♎58'57 -8°-7'-33		149 Feb 18 j 21:17	0°♏
minimum elong	146 Sep 19 j 19:03	24°♎46'49 8°06'35	max. Earth dist.	149 Feb 21 j 10:29	3°♏10'15 1.72282 AU
min. Earth dist.	146 Sep 20 j 06:59	24°♎28'39 0.27408 AU		149 Mar 15 j 01:52	0°♎
morning rise	146 Sep 23 j 13:13	22°♎31'58	evening rise	149 Mar 28 j 08:28	16°♎23'07
direct	146 Oct 10 j 09:20	17°♎05'06		149 Apr 08 j 10:05	0°♏
greatest brilliancy	146 Oct 24 j 06:32	20°♎37'53 -4.7m	asc. node	149 Apr 15 j 19:37	9°♏04'30
asc. node	146 Oct 30 j 00:17	23°♎47'54		149 May 02 j 22:19	0°♁
	146 Nov 07 j 18:52	0°♌		149 May 27 j 14:57	0°♄
morning max el	146 Nov 30 j 05:43	20°♌40'19 46°55'46		149 Jun 21 j 13:11	0°♁
	146 Dec 09 j 03:03	0°♍		149 Jul 16 j 19:54	0°♎
	147 Jan 04 j 19:59	0°♏	desc. node	149 Aug 05 j 09:03	22°♎45'02
	147 Jan 30 j 06:58	0°♏		149 Aug 11 j 17:02	0°♌
desc. node	147 Feb 18 j 14:07	23°♏08'10		149 Sep 07 j 18:44	0°♍
	147 Feb 24 j 06:48	0°♏	evening max el	149 Sep 23 j 00:28	15°♍44'54 47°03'17
	147 Mar 21 j 02:01	0°♏		149 Oct 08 j 07:02	0°♏
	147 Apr 14 j 19:04	0°♎	greatest brilliancy	149 Oct 31 j 22:56	15°♏51'34 -4.7m
	147 May 09 j 10:35	0°♏	retrograde	149 Nov 12 j 10:16	18°♏18'52
morning set	147 Jun 02 j 09:29	29°♏15'33	evening set	149 Nov 26 j 17:40	14°♏14'33
	147 Jun 03 j 00:01	0°♁	asc. node	149 Nov 26 j 12:02	14°♏22'01
asc. node	147 Jun 11 j 17:10	10°♁40'46	inferior conj	149 Dec 02 j 23:00	10°♏35'30 1°40'08
	147 Jun 27 j 10:27	0°♄	minimum elong	149 Dec 02 j 19:15	10°♏41'14 1°38'56
max. Earth dist.	147 Jul 05 j 12:24	9°♄57'29 1.73236 AU	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
superior conj	147 Jul 08 j 15:38	13°♄49'37 0°58'01	direct	149 Dec 23 j 06:15	3°♏00'14
minimum elong	147 Jul 08 j 06:58	13°♄22'52 0°57'42	greatest brilliancy	150 Jan 03 j 15:35	5°♏25'48 -4.7m
	147 Jul 21 j 17:33	0°♁		150 Feb 05 j 20:58	0°♏
evening rise	147 Aug 13 j 17:13	28°♁30'43	morning max el	150 Feb 11 j 07:36	5°♏18'15 46°36'20
	147 Aug 14 j 21:58	0°♎		150 Mar 06 j 19:26	0°♏
	147 Sep 08 j 01:09	0°♌	desc. node	150 Mar 18 j 02:01	12°♏31'36
desc. node	147 Oct 01 j 06:59	28°♌53'03		150 Apr 02 j 10:44	0°♏
	147 Oct 02 j 04:34	0°♍		150 Apr 28 j 05:13	0°♎
	147 Oct 26 j 09:23	0°♏		150 May 23 j 12:42	0°♏
	147 Nov 19 j 17:15	0°♏		150 Jun 17 j 12:11	0°♁
	147 Dec 14 j 07:54	0°♏	asc. node	150 Jul 09 j 05:04	26°♁22'23
	148 Jan 08 j 13:57	0°♏		150 Jul 12 j 04:14	0°♄
asc. node	148 Jan 22 j 09:50	15°♏49'48		150 Aug 05 j 13:07	0°♁
	148 Feb 04 j 07:52	0°♎	morning set	150 Aug 09 j 06:54	4°♁38'07
evening max el	148 Feb 16 j 21:47	12°♎59'07 46°07'42		150 Aug 29 j 16:06	0°♎
	148 Mar 06 j 18:02	0°♏	max. Earth dist.	150 Sep 12 j 11:32	17°♎16'17 1.71739 AU
greatest brilliancy	148 Mar 22 j 13:43	10°♏22'46 -4.5m			
retrograde	148 Apr 06 j 08:08	14°♏13'02	superior conj	150 Sep 15 j 14:37	21°♎11'29 1°19'22
evening set	148 Apr 22 j 01:15	9°♏24'35	minimum elong	150 Sep 15 j 21:14	21°♎32'11 1°19'15
inferior conj	148 Apr 27 j 17:34	5°♏56'34 3°28'07		150 Sep 22 j 15:17	0°♌
minimum elong	148 Apr 28 j 00:32	5°♏45'34 3°26'15		150 Oct 16 j 12:56	0°♍
min. Earth dist.	148 Apr 27 j 21:55	5°♏49'42 0.28962 AU	evening rise	150 Oct 25 j 06:34	10°♍57'50
morning rise	148 May 04 j 00:04	2°♏09'18	desc. node	150 Oct 28 j 18:50	15°♍22'13
	148 May 08 j 09:14	30°♎♎		150 Nov 09 j 10:40	0°♏
desc. node	148 May 12 j 23:24	28°♎26'20		150 Dec 03 j 09:33	0°♏
direct	148 May 19 j 08:23	27°♎38'07		150 Dec 27 j 10:59	0°♏
	148 May 30 j 20:30	0°♏		151 Jan 20 j 17:47	0°♏
greatest brilliancy	148 Jun 01 j 12:22	0°♏41'09 -4.5m		151 Feb 14 j 10:42	0°♎
morning max el	148 Jul 07 j 03:59	27°♏26'20 45°47'44	asc. node	151 Feb 18 j 21:49	5°♎20'22
	148 Jul 09 j 19:42	0°♁		151 Mar 11 j 21:29	0°♏
	148 Aug 07 j 10:01	0°♄		151 Apr 07 j 17:33	0°♁
	148 Sep 02 j 14:42	0°♁	evening max el	151 Apr 28 j 10:52	21°♁10'04 45°19'13
asc. node	148 Sep 03 j 02:47	0°♁35'34		151 May 08 j 01:32	0°♄

greatest brilliancy	151 Jun 02 j 09:33	17°♄32'48	-4.5m	desc. node	153 Nov 25 j 06:37	1°♁40'13	
desc. node	151 Jun 10 j 11:24	20°♄12'02		superior conj	153 Nov 29 j 21:58	7°♁30'41	0°-11'-1
retrograde	151 Jun 15 j 22:49	20°♄45'41		minimum elong	153 Nov 29 j 18:59	7°♁21'18	0°10'53
evening set	151 Jul 01 j 16:31	16°♄04'06		behind sun begin	153 Nov 28 j 22:46	6°♁17'40	
inferior conj	151 Jul 07 j 09:33	12°♄39'39	-5°-47'-3	behind sun end	153 Nov 30 j 15:12	8°♁24'57	
minimum elong	151 Jul 06 j 23:38	12°♄55'02	5°44'53	max. Earth dist.	153 Dec 01 j 18:50	9°♁51'52	1.71044 AU
min. Earth dist.	151 Jul 07 j 13:14	12°♄33'57	0.28798 AU		153 Dec 17 j 19:06	0°♁	
morning rise	151 Jul 12 j 06:21	9°♄42'26		evening rise	154 Jan 10 j 15:54	29°♁55'49	
direct	151 Jul 28 j 23:31	4°♄24'19			154 Jan 10 j 17:14	0°♁	
greatest brilliancy	151 Aug 12 j 10:39	8°♄02'48	-4.5m		154 Feb 03 j 18:29	0°♁	
	151 Sep 10 j 19:51	0°♁			154 Feb 28 j 00:43	0°♁	
morning max el	151 Sep 16 j 16:48	5°♁40'17	46°22'28	asc. node	154 Mar 18 j 09:45	22°♁29'15	
asc. node	151 Oct 01 j 14:35	21°♁09'38			154 Mar 24 j 14:14	0°♁	
	151 Oct 09 j 15:36	0°♁			154 Apr 18 j 13:50	0°♁	
	151 Nov 04 j 13:37	0°♁			154 May 14 j 04:04	0°♁	
	151 Nov 29 j 09:22	0°♁			154 Jun 09 j 19:08	0°♁	
	151 Dec 23 j 18:28	0°♁		desc. node	154 Jul 07 j 23:21	29°♁14'51	
	152 Jan 17 j 00:03	0°♁			154 Jul 08 j 18:07	0°♁	
desc. node	152 Jan 21 j 04:21	5°♁10'43		evening max el	154 Jul 09 j 02:43	0°♁20'37	45°47'05
	152 Feb 10 j 05:17	0°♁		greatest brilliancy	154 Aug 16 j 09:43	28°♁19'20	-4.5m
	152 Mar 05 j 11:29	0°♁			154 Aug 22 j 15:01	0°♁	
morning set	152 Mar 22 j 19:31	21°♁23'19		retrograde	154 Aug 27 j 03:23	0°♁22'59	
	152 Mar 29 j 19:14	0°♁			154 Aug 31 j 13:13	30°♁	
	152 Apr 23 j 04:30	0°♁		evening set	154 Sep 13 j 16:20	24°♁37'23	
				inferior conj	154 Sep 17 j 00:27	22°♁36'43	-8°-15'-51
superior conj	152 Apr 29 j 03:46	7°♁20'11	0°-32'-41	minimum elong	154 Sep 17 j 07:46	22°♁25'32	8°15'03
minimum elong	152 Apr 29 j 10:11	7°♁39'51	0°32'24	min. Earth dist.	154 Sep 17 j 19:59	22°♁06'55	0.27468 AU
max. Earth dist.	152 Apr 29 j 16:36	7°♁59'36	1.73552 AU	morning rise	154 Sep 20 j 22:58	20°♁14'41	
asc. node	152 May 13 j 07:24	24°♁42'50		direct	154 Oct 07 j 23:50	14°♁42'11	
	152 May 17 j 14:44	0°♁		greatest brilliancy	154 Oct 21 j 20:22	18°♁13'59	-4.6m
evening rise	152 Jun 04 j 12:40	21°♁59'35		asc. node	154 Oct 29 j 02:13	22°♁21'22	
	152 Jun 11 j 01:13	0°♁			154 Nov 08 j 08:14	0°♁	
	152 Jul 05 j 11:50	0°♁		morning max el	154 Nov 27 j 19:39	18°♁15'45	46°55'21
	152 Jul 29 j 23:24	0°♁			154 Dec 08 j 22:33	0°♁	
	152 Aug 23 j 13:31	0°♁		desc. node	155 Jan 04 j 11:21	0°♁	
desc. node	152 Sep 01 j 21:08	11°♁18'55			155 Jan 29 j 20:33	0°♁	
	152 Sep 17 j 08:11	0°♁		desc. node	155 Feb 17 j 16:11	22°♁35'53	
	152 Oct 12 j 10:40	0°♁			155 Feb 23 j 19:22	0°♁	
	152 Nov 07 j 05:17	0°♁			155 Mar 20 j 13:56	0°♁	
evening max el	152 Dec 04 j 03:16	29°♁19'31	47°17'11		155 Apr 14 j 06:32	0°♁	
	152 Dec 04 j 19:09	0°♁			155 May 08 j 21:42	0°♁	
asc. node	152 Dec 24 j 00:05	17°♁57'42		morning set	155 May 31 j 03:49	27°♁11'17	
greatest brilliancy	153 Jan 10 j 12:13	29°♁43'28	-4.6m		155 Jun 02 j 10:57	0°♁	
	153 Jan 11 j 02:20	0°♁		asc. node	155 Jun 10 j 19:18	10°♁13'51	
retrograde	153 Jan 24 j 04:06	3°♁12'07			155 Jun 26 j 21:20	0°♁	
	153 Feb 05 j 15:17	30°♁		max. Earth dist.	155 Jul 03 j 06:57	7°♁53'08	1.73274 AU
evening set	153 Feb 10 j 23:04	27°♁01'08		superior conj	155 Jul 06 j 09:58	11°♁44'26	0°55'41
min. Earth dist.	153 Feb 13 j 12:13	25°♁25'53	0.28018 AU	minimum elong	155 Jul 06 j 01:22	11°♁17'57	0°55'23
inferior conj	153 Feb 14 j 04:59	24°♁59'27	8°39'13		155 Jul 21 j 04:29	0°♁	
minimum elong	153 Feb 14 j 03:33	25°♁01'41	8°39'11	evening rise	155 Aug 11 j 10:11	26°♁19'55	
morning rise	153 Feb 17 j 08:16	23°♁02'11			155 Aug 14 j 09:04	0°♁	
direct	153 Mar 07 j 02:02	16°♁58'01		desc. node	155 Sep 07 j 12:27	0°♁	
greatest brilliancy	153 Mar 18 j 01:43	19°♁10'24	-4.5m		155 Sep 30 j 08:58	28°♁23'21	
	153 Apr 05 j 07:04	0°♁			155 Oct 01 j 16:08	0°♁	
desc. node	153 Apr 14 j 13:41	7°♁37'13			155 Oct 25 j 21:18	0°♁	
morning max el	153 Apr 25 j 04:25	17°♁22'37	45°55'28	asc. node	155 Nov 19 j 05:40	0°♁	
	153 May 07 j 19:54	0°♁			155 Dec 13 j 21:06	0°♁	
	153 Jun 04 j 14:51	0°♁			156 Jan 08 j 04:40	0°♁	
	153 Jun 30 j 20:48	0°♁		asc. node	156 Jan 21 j 11:56	15°♁10'26	
	153 Jul 26 j 05:53	0°♁			156 Feb 04 j 02:19	0°♁	
asc. node	153 Aug 05 j 16:58	12°♁36'00		evening max el	156 Feb 14 j 13:07	10°♁44'05	46°10'06
	153 Aug 19 j 23:56	0°♁			156 Mar 07 j 06:06	0°♁	
	153 Sep 13 j 06:54	0°♁		greatest brilliancy	156 Mar 20 j 07:47	8°♁14'49	-4.5m
	153 Oct 07 j 06:46	0°♁		retrograde	156 Apr 04 j 00:21	12°♁03'30	
morning set	153 Oct 19 j 23:52	15°♁58'40		evening set	156 Apr 19 j 20:04	7°♁12'10	
	153 Oct 31 j 03:11	0°♁					
	153 Nov 23 j 22:47	0°♁					

inferior conj	156 Apr 25 j 10:10	3°♄47'04	3°45'59		158 Sep 22 j 02:24	0°♌	
minimum elong	156 Apr 25 j 17:36	3°♄35'19	3°44'01		158 Oct 16 j 00:12	0°♍	
min. Earth dist.	156 Apr 25 j 14:39	3°♄39'59	0.28953 AU	evening rise	158 Oct 22 j 17:40	8°♍26'38	
morning rise	156 May 01 j 15:21	0°♄01'09		desc. node	158 Oct 27 j 20:54	14°♍53'10	
	156 May 01 j 16:11	30°♀			158 Nov 08 j 22:06	0°♎	
desc. node	156 May 12 j 01:27	25°♀57'56			158 Dec 02 j 21:07	0°♏	
direct	156 May 17 j 00:32	25°♀28'54			158 Dec 26 j 22:44	0°♐	
greatest brilliancy	156 May 30 j 02:17	28°♀29'02	-4.5m		159 Jan 20 j 05:51	0°♑	
	156 Jun 02 j 07:07	0°♄			159 Feb 13 j 23:22	0°♒	
morning max el	156 Jul 04 j 19:00	25°♄13'43	45°47'06	asc. node	159 Feb 17 j 23:51	4°♒48'15	
	156 Jul 09 j 16:50	0°♄			159 Mar 11 j 11:27	0°♓	
	156 Aug 07 j 01:26	0°♄			159 Apr 07 j 10:35	0°♔	
asc. node	156 Sep 02 j 04:48	0°♄02'10		evening max el	159 Apr 26 j 02:42	18°♔59'21	45°19'43
	156 Sep 02 j 04:04	0°♄			159 May 08 j 05:59	0°♕	
	156 Sep 27 j 03:34	0°♄		greatest brilliancy	159 May 30 j 21:46	15°♕18'35	-4.5m
	156 Oct 21 j 11:44	0°♄		desc. node	159 Jun 09 j 13:35	18°♕17'00	
	156 Nov 14 j 12:09	0°♄		retrograde	159 Jun 13 j 15:04	18°♕35'44	
	156 Dec 08 j 09:50	0°♄		evening set	159 Jun 29 j 06:02	13°♕56'50	
desc. node	156 Dec 22 j 18:32	18°♄01'38		inferior conj	159 Jul 05 j 01:31	10°♕28'57	-5°-31'-36
	157 Jan 01 j 07:36	0°♄		minimum elong	159 Jul 04 j 15:45	10°♕44'04	5°29'25
morning set	157 Jan 04 j 19:49	4°♄23'55		min. Earth dist.	159 Jul 05 j 04:42	10°♕24'00	0.28822 AU
	157 Jan 25 j 06:50	0°♄		morning rise	159 Jul 10 j 01:08	7°♕27'55	
				direct	159 Jul 26 j 16:01	2°♕13'09	
superior conj	157 Feb 14 j 21:11	25°♄41'23	-1°-25'-16	greatest brilliancy	159 Aug 10 j 03:32	5°♕52'32	-4.5m
minimum elong	157 Feb 14 j 19:38	25°♄36'34	1°25'17		159 Sep 10 j 20:03	0°♖	
	157 Feb 18 j 08:20	0°♄		morning max el	159 Sep 14 j 08:58	3°♖26'45	46°20'55
max. Earth dist.	157 Feb 19 j 01:15	0°♄52'34	1.72224 AU	asc. node	159 Sep 30 j 16:37	20°♖26'32	
	157 Mar 14 j 12:53	0°♄			159 Oct 09 j 08:07	0°♗	
evening rise	157 Mar 25 j 23:52	14°♄08'35			159 Nov 04 j 03:41	0°♘	
	157 Apr 07 j 21:10	0°♄			159 Nov 28 j 22:18	0°♙	
asc. node	157 Apr 14 j 21:37	8°♄36'33			159 Dec 23 j 06:46	0°♚	
	157 May 02 j 09:35	0°♄		desc. node	160 Jan 16 j 11:55	0°♛	
	157 May 27 j 02:35	0°♄			160 Jan 20 j 06:21	4°♛40'20	
	157 Jun 21 j 01:26	0°♄			160 Feb 09 j 16:48	0°♜	
	157 Jul 16 j 09:13	0°♄			160 Mar 04 j 22:43	0°♝	
desc. node	157 Aug 04 j 11:09	22°♄08'58		morning set	160 Mar 20 j 11:08	19°♝09'15	
	157 Aug 11 j 08:19	0°♄			160 Mar 29 j 06:15	0°♞	
	157 Sep 07 j 14:12	0°♄			160 Apr 22 j 15:23	0°♟	
evening max el	157 Sep 20 j 12:50	13°♄17'13	47°01'06				
	157 Oct 08 j 18:03	0°♄		superior conj	160 Apr 26 j 21:28	5°♟13'42	0°-35'-37
greatest brilliancy	157 Oct 29 j 13:58	13°♄23'56	-4.7m	minimum elong	160 Apr 27 j 04:22	5°♟34'54	0°35'19
retrograde	157 Nov 09 j 22:07	15°♄48'26		max. Earth dist.	160 Apr 27 j 15:01	6°♟07'36	1.73532 AU
evening set	157 Nov 24 j 05:50	11°♄44'26		asc. node	160 May 12 j 09:35	24°♟16'15	
asc. node	157 Nov 25 j 14:14	11°♄00'05			160 May 17 j 01:35	0°♠	
inferior conj	157 Nov 30 j 11:14	8°♄06'00	1°15'51	evening rise	160 Jun 02 j 08:00	19°♠58'12	
minimum elong	157 Nov 30 j 08:23	8°♄10'22	1°14'56		160 Jun 10 j 12:10	0°♡	
min. Earth dist.	157 Nov 30 j 02:44	8°♄19'01	0.26373 AU		160 Jul 04 j 23:01	0°♢	
morning rise	157 Dec 06 j 11:04	4°♄35'21			160 Jul 29 j 10:59	0°♣	
direct	157 Dec 20 j 17:46	0°♄30'37			160 Aug 23 j 01:40	0°♤	
greatest brilliancy	158 Jan 01 j 06:58	2°♄59'53	-4.7m	desc. node	160 Aug 31 j 23:04	10°♤47'13	
	158 Feb 05 j 22:20	0°♄			160 Sep 16 j 21:09	0°♥	
morning max el	158 Feb 08 j 20:21	2°♄52'23	46°37'57		160 Oct 12 j 00:55	0°♦	
	158 Mar 06 j 12:30	0°♄			160 Nov 06 j 21:55	0°♧	
desc. node	158 Mar 17 j 04:03	11°♄53'19		evening max el	160 Dec 01 j 19:14	27°♧00'34	47°18'25
	158 Apr 02 j 00:54	0°♄			160 Dec 04 j 18:08	0°♨	
	158 Apr 27 j 17:57	0°♄		asc. node	160 Dec 23 j 02:11	16°♨48'12	
	158 May 23 j 00:37	0°♄		greatest brilliancy	161 Jan 08 j 04:15	27°♨24'01	-4.6m
	158 Jun 16 j 23:38	0°♄			161 Jan 15 j 05:09	0°♩	
asc. node	158 Jul 08 j 07:12	25°♄54'41		retrograde	161 Jan 21 j 19:55	0°♪51'54	
	158 Jul 11 j 15:25	0°♄			161 Jan 28 j 05:46	30°♫	
	158 Aug 05 j 00:11	0°♄		evening set	161 Feb 08 j 12:26	24°♫43'31	
morning set	158 Aug 06 j 23:34	2°♄26'46		min. Earth dist.	161 Feb 11 j 01:40	23°♫08'14	0.27956 AU
	158 Aug 29 j 03:08	0°♄		inferior conj	161 Feb 11 j 19:43	22°♫39'47	8°37'46
max. Earth dist.	158 Sep 10 j 02:25	14°♄57'57	1.71793 AU	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	
superior conj	158 Sep 13 j 05:19	18°♄52'24	1°20'31	direct	161 Mar 04 j 16:36	14°♫39'29	
minimum elong	158 Sep 13 j 11:13	19°♄10'55	1°20'25	greatest brilliancy	161 Mar 15 j 13:31	16°♫49'56	-4.5m

	161 Apr 05 j 19:25	0°♁		163 Oct 01 j 03:35	0°♁	
desc. node	161 Apr 13 j 15:42	6°♁39'11		163 Oct 25 j 09:10	0°♁	
morning max el	161 Apr 22 j 20:06	15°♁09'53	45°56'38	163 Nov 18 j 18:05	0°♁	
	161 May 07 j 14:37	0°♁		163 Dec 13 j 10:22	0°♁	
	161 Jun 04 j 05:25	0°♁		164 Jan 07 j 19:30	0°♁	
	161 Jun 30 j 09:36	0°♁		164 Jan 20 j 13:57	14°♁30'31	
asc. node	161 Jul 25 j 17:47	0°♁		164 Feb 03 j 21:11	0°♁	
	161 Aug 04 j 18:58	12°♁06'40		164 Feb 12 j 03:18	8°♁26'13	46°12'39
	161 Aug 19 j 11:23	0°♁		164 Mar 07 j 22:09	0°♁	
	161 Sep 12 j 18:10	0°♁		164 Mar 18 j 01:00	6°♁05'46	-4.5m
	161 Oct 06 j 17:57	0°♁		164 Apr 01 j 16:27	9°♁54'12	
morning set	161 Oct 17 j 12:23	13°♁32'02		164 Apr 17 j 14:49	4°♁59'33	
	161 Oct 30 j 14:20	0°♁		164 Apr 23 j 02:40	1°♁37'45	4°03'31
	161 Nov 23 j 09:56	0°♁		164 Apr 23 j 10:32	1°♁25'19	4°01'30
desc. node	161 Nov 24 j 08:48	1°♁11'59		164 Apr 23 j 07:26	1°♁30'12	0.28942 AU
				164 Apr 25 j 16:54	30°♁	
superior conj	161 Nov 27 j 07:20	4°♁54'00	0°-7'00	164 Apr 29 j 06:22	27°♁53'30	
minimum elong	161 Nov 27 j 05:26	4°♁48'01	0°06'56	164 May 11 j 03:40	23°♁34'13	
behind sun begin	161 Nov 26 j 05:01	3°♁31'08		164 May 14 j 16:09	23°♁19'39	
behind sun end	161 Nov 28 j 05:52	6°♁04'53		164 May 27 j 17:06	26°♁18'17	-4.5m
max. Earth dist.	161 Nov 29 j 02:42	7°♁10'27	1.71032 AU	164 Jun 03 j 20:14	0°♁	
	161 Dec 17 j 06:16	0°♁		164 Jul 02 j 10:06	23°♁01'58	45°46'46
evening rise	162 Jan 08 j 02:05	27°♁22'28		164 Jul 09 j 13:00	0°♁	
	162 Jan 10 j 04:26	0°♁		164 Aug 06 j 16:21	0°♁	
	162 Feb 03 j 05:45	0°♁		164 Sep 01 j 06:53	29°♁30'03	
	162 Feb 27 j 12:07	0°♁		164 Sep 01 j 17:01	0°♁	
asc. node	162 Mar 17 j 11:48	22°♁00'13		164 Sep 26 j 15:36	0°♁	
	162 Mar 24 j 01:55	0°♁		164 Oct 20 j 23:18	0°♁	
	162 Apr 18 j 02:07	0°♁		164 Nov 13 j 23:29	0°♁	
	162 May 13 j 17:33	0°♁		164 Dec 07 j 21:02	0°♁	
	162 Jun 09 j 11:14	0°♁		164 Dec 21 j 20:34	17°♁33'02	
evening max el	162 Jul 06 j 16:49	28°♁03'46	45°44'50	164 Dec 31 j 18:43	0°♁	
desc. node	162 Jul 07 j 01:21	28°♁24'10		165 Jan 02 j 05:24	1°♁48'44	
	162 Jul 08 j 17:47	0°♁		165 Jan 24 j 17:50	0°♁	
greatest brilliancy	162 Aug 13 j 22:07	25°♁58'35	-4.5m			
retrograde	162 Aug 24 j 15:52	28°♁02'12		superior conj	165 Feb 12 j 09:34	23°♁16'38 -1°-24'-57
evening set	162 Sep 11 j 07:57	22°♁13'21		minimum elong	165 Feb 12 j 07:04	23°♁08'50 1°24'57
inferior conj	162 Sep 14 j 14:02	20°♁15'26	-8°-23'-3	max. Earth dist.	165 Feb 16 j 12:48	28°♁25'23 1.72165 AU
minimum elong	162 Sep 14 j 20:39	20°♁05'18	8°22'25		165 Feb 17 j 19:13	0°♁
min. Earth dist.	162 Sep 15 j 09:26	19°♁45'44	0.27533 AU		165 Mar 13 j 23:43	0°♁
morning rise	162 Sep 18 j 09:06	17°♁58'02		evening rise	165 Mar 23 j 14:43	11°♁52'57
direct	162 Oct 05 j 14:06	12°♁20'00			165 Apr 07 j 08:02	0°♁
greatest brilliancy	162 Oct 19 j 11:14	15°♁51'42	-4.6m	asc. node	165 Apr 13 j 23:47	8°♁09'48
asc. node	162 Oct 28 j 04:26	20°♁58'09			165 May 01 j 20:39	0°♁
	162 Nov 08 j 18:12	0°♁			165 May 26 j 14:00	0°♁
morning max el	162 Nov 25 j 08:44	15°♁48'52	46°54'51		165 Jun 20 j 13:29	0°♁
	162 Dec 08 j 17:33	0°♁			165 Jul 15 j 22:19	0°♁
	163 Jan 04 j 02:32	0°♁		desc. node	165 Aug 03 j 13:09	21°♁33'25
	163 Jan 29 j 09:59	0°♁			165 Aug 10 j 23:23	0°♁
desc. node	163 Feb 16 j 18:13	22°♁03'48			165 Sep 07 j 09:43	0°♁
	163 Feb 23 j 07:49	0°♁		evening max el	165 Sep 18 j 01:16	10°♁51'20 46°58'58
	163 Mar 20 j 01:44	0°♁			165 Oct 09 j 07:56	0°♁
	163 Apr 13 j 17:52	0°♁		greatest brilliancy	165 Oct 27 j 03:38	10°♁56'09 -4.7m
	163 May 08 j 08:43	0°♁		retrograde	165 Nov 07 j 10:14	13°♁19'25
morning set	163 May 28 j 22:20	25°♁07'59		evening set	165 Nov 21 j 18:12	9°♁15'00
	163 Jun 01 j 21:45	0°♁		asc. node	165 Nov 24 j 16:18	7°♁36'35
asc. node	163 Jun 09 j 21:26	9°♁47'23		inferior conj	165 Nov 27 j 23:26	5°♁37'26 0°51'26
	163 Jun 26 j 08:03	0°♁		minimum elong	165 Nov 27 j 21:29	5°♁40'25 0°50'48
max. Earth dist.	163 Jul 01 j 01:40	5°♁49'54	1.73308 AU	min. Earth dist.	165 Nov 27 j 16:33	5°♁47'56 0.26365 AU
				morning rise	165 Dec 04 j 00:49	2°♁05'02
superior conj	163 Jul 04 j 04:40	9°♁41'05	0°53'18		165 Dec 08 j 11:19	30°♁
minimum elong	163 Jul 03 j 20:12	9°♁15'00	0°53'00	direct	165 Dec 18 j 05:47	28°♁01'45
	163 Jul 20 j 15:14	0°♁			165 Dec 28 j 10:46	0°♁
evening rise	163 Aug 09 j 03:38	24°♁11'25		greatest brilliancy	165 Dec 29 j 22:20	0°♁34'49 -4.7m
	163 Aug 13 j 19:57	0°♁			166 Feb 05 j 22:15	0°♁
	163 Sep 06 j 23:35	0°♁		morning max el	166 Feb 06 j 10:06	0°♁29'27 46°39'18
desc. node	163 Sep 29 j 11:05	27°♁54'27			166 Mar 06 j 05:05	0°♁

desc. node	166 Mar 16 j 06:07	11°♊15'58		evening max el	168 Nov 29 j 11:22	24°♁43'09	47°19'38
	166 Apr 01 j 14:45	0°♋			168 Dec 04 j 17:38	0°♌	
	166 Apr 27 j 06:23	0°♌		asc. node	168 Dec 22 j 04:09	15°♍37'49	
	166 May 22 j 12:15	0°♍		greatest brilliancy	169 Jan 05 j 21:03	25°♎06'55	-4.7m
	166 Jun 16 j 10:48	0°♎		retrograde	169 Jan 19 j 11:30	28°♏32'49	
asc. node	166 Jul 07 j 09:08	25°♐27'15		evening set	169 Feb 06 j 01:34	22°♑27'51	
	166 Jul 11 j 02:18	0°♒		min. Earth dist.	169 Feb 08 j 15:16	20°♓51'48	0.27894 AU
	166 Aug 04 j 10:55	0°♓		inferior conj	169 Feb 09 j 10:32	20°♑21'25	8°35'33
morning set	166 Aug 04 j 16:20	0°♑16'45		minimum elong	169 Feb 09 j 07:30	20°♑26'12	8°35'25
	166 Aug 28 j 13:51	0°♒		morning rise	169 Feb 12 j 13:43	18°♑24'33	
max. Earth dist.	166 Sep 07 j 17:16	12°♓40'34	1.71840 AU	direct	169 Mar 02 j 07:23	12°♑22'27	
				greatest brilliancy	169 Mar 13 j 01:14	14°♑30'24	-4.6m
superior conj	166 Sep 10 j 20:20	16°♒35'29	1°21'31		169 Apr 06 j 04:08	0°♋	
minimum elong	166 Sep 11 j 01:32	16°♒51'45	1°21'27	desc. node	169 Apr 12 j 17:55	5°♋43'44	
	166 Sep 21 j 13:10	0°♌		morning max el	169 Apr 20 j 10:59	12°♋55'54	45°57'32
	166 Oct 15 j 11:05	0°♍			169 May 07 j 08:36	0°♌	
evening rise	166 Oct 20 j 05:14	5°♍58'07			169 Jun 03 j 19:38	0°♍	
desc. node	166 Oct 26 j 23:03	14°♍25'38			169 Jun 29 j 22:09	0°♎	
	166 Nov 08 j 09:07	0°♏			169 Jul 25 j 05:29	0°♏	
	166 Dec 02 j 08:18	0°♐		asc. node	169 Aug 03 j 21:04	11°♑38'11	
	166 Dec 26 j 10:09	0°♑			169 Aug 18 j 22:38	0°♒	
	167 Jan 19 j 17:38	0°♋			169 Sep 12 j 05:12	0°♓	
	167 Feb 13 j 11:51	0°♌		greatest brilliancy	169 Sep 15 j 20:44	4°♓32'39	-3.9m
asc. node	167 Feb 17 j 01:54	4°♌16'43			169 Oct 06 j 04:55	0°♌	
	167 Mar 11 j 01:19	0°♍		morning set	169 Oct 15 j 00:52	11°♌05'56	
	167 Apr 07 j 03:47	0°♎			169 Oct 30 j 01:17	0°♍	
evening max el	167 Apr 23 j 18:59	16°♐50'19	45°20'24		169 Nov 22 j 20:53	0°♏	
	167 May 08 j 12:14	0°♑		desc. node	169 Nov 23 j 10:47	0°♏43'45	
greatest brilliancy	167 May 28 j 11:06	13°♑06'16	-4.5m				
desc. node	167 Jun 08 j 15:33	16°♑17'55		superior conj	169 Nov 24 j 16:55	2°♏18'37	0°-3'00
retrograde	167 Jun 11 j 07:16	16°♑25'59		minimum elong	169 Nov 24 j 16:06	2°♏16'00	0°02'58
evening set	167 Jun 26 j 19:36	11°♑49'54		behind sun begin	169 Nov 23 j 13:48	0°♏53'15	
inferior conj	167 Jul 02 j 17:18	8°♑18'33	-5°-15'-45	behind sun end	169 Nov 25 j 18:23	3°♏38'46	
minimum elong	167 Jul 02 j 07:44	8°♑33'22	5°13'32	max. Earth dist.	169 Nov 26 j 06:52	4°♏18'04	1.71019 AU
min. Earth dist.	167 Jul 02 j 19:51	8°♑14'37	0.28841 AU		169 Dec 16 j 17:13	0°♐	
morning rise	167 Jul 07 j 19:39	5°♑13'44		evening rise	170 Jan 05 j 12:22	24°♁50'07	
direct	167 Jul 24 j 08:40	0°♑02'33			170 Jan 09 j 15:23	0°♑	
greatest brilliancy	167 Aug 07 j 19:12	3°♑41'25	-4.5m		170 Feb 02 j 16:44	0°♋	
	167 Sep 10 j 18:52	0°♒			170 Feb 26 j 23:15	0°♌	
morning max el	167 Sep 12 j 01:01	1°♒14'00	46°19'27	asc. node	170 Mar 16 j 13:58	21°♌32'19	
asc. node	167 Sep 29 j 18:45	19°♒45'09			170 Mar 23 j 13:23	0°♍	
	167 Oct 09 j 00:01	0°♓			170 Apr 17 j 14:15	0°♎	
	167 Nov 03 j 17:16	0°♑			170 May 13 j 07:01	0°♏	
	167 Nov 28 j 10:47	0°♒			170 Jun 09 j 03:33	0°♑	
	167 Dec 22 j 18:36	0°♓		evening max el	170 Jul 04 j 06:00	25°♒44'53	45°42'39
	168 Jan 15 j 23:20	0°♑		desc. node	170 Jul 06 j 03:24	27°♒32'42	
desc. node	168 Jan 19 j 08:21	4°♑11'17			170 Jul 08 j 18:35	0°♓	
	168 Feb 09 j 03:55	0°♑		greatest brilliancy	170 Aug 11 j 10:38	23°♓38'08	-4.5m
	168 Mar 04 j 09:38	0°♋		retrograde	170 Aug 22 j 04:08	25°♓41'51	
morning set	168 Mar 18 j 02:21	16°♋54'48		evening set	170 Sep 08 j 23:11	19°♓49'59	
	168 Mar 28 j 17:00	0°♌		inferior conj	170 Sep 12 j 03:35	17°♓54'31	-8°-29'-18
	168 Apr 22 j 02:02	0°♍		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
superior conj	168 Apr 24 j 14:38	3°♌06'12	0°-38'-32	morning rise	170 Sep 15 j 19:24	15°♓41'38	
minimum elong	168 Apr 24 j 22:00	3°♌28'52	0°38'14	direct	170 Oct 03 j 03:52	9°♓57'58	
max. Earth dist.	168 Apr 25 j 13:33	4°♌16'41	1.73510 AU	greatest brilliancy	170 Oct 17 j 02:59	13°♓30'57	-4.6m
asc. node	168 May 11 j 11:38	23°♌49'56		asc. node	170 Oct 27 j 06:30	19°♓37'37	
	168 May 16 j 12:13	0°♎			170 Nov 09 j 01:23	0°♌	
evening rise	168 May 31 j 02:48	17°♎55'52		morning max el	170 Nov 22 j 21:23	13°♌21'08	46°54'23
	168 Jun 09 j 22:53	0°♏			170 Dec 08 j 11:56	0°♍	
	168 Jul 04 j 09:59	0°♑			171 Jan 03 j 17:24	0°♏	
	168 Jul 28 j 22:21	0°♒			171 Jan 28 j 23:12	0°♐	
	168 Aug 22 j 13:37	0°♓		desc. node	171 Feb 15 j 20:19	21°♑32'28	
desc. node	168 Aug 31 j 01:12	10°♓16'44			171 Feb 22 j 20:03	0°♑	
	168 Sep 16 j 09:57	0°♑			171 Mar 19 j 13:19	0°♋	
	168 Oct 11 j 15:00	0°♒			171 Apr 13 j 05:01	0°♌	
	168 Nov 06 j 14:29	0°♓			171 May 07 j 19:34	0°♍	

morning set	171 May 26 j 16:49	23°♄04'49		evening set	173 Nov 19 j 06:39	6°♁43'56	
	171 Jun 01 j 08:27	0°♁		asc. node	173 Nov 23 j 18:15	4°♁09'45	
asc. node	171 Jun 08 j 23:23	9°♁20'35		inferior conj	173 Nov 25 j 11:26	3°♁07'21	0°26'47
	171 Jun 25 j 18:44	0°♁		minimum elong	173 Nov 25 j 10:25	3°♁08'54	0°26'26
max. Earth dist.	171 Jun 28 j 21:06	3°♁48'59	1.73348 AU	min. Earth dist.	173 Nov 25 j 05:54	3°♁15'46	0.26358 AU
					173 Nov 30 j 18:44	30°♁	
superior conj	171 Jul 01 j 23:14	7°♁37'25	0°50'52	morning rise	173 Dec 01 j 14:14	29°♁33'38	
minimum elong	171 Jul 01 j 14:57	7°♁11'53	0°50'32	direct	173 Dec 15 j 18:13	25°♁31'36	
	171 Jul 20 j 02:00	0°♁		greatest brilliancy	173 Dec 27 j 12:45	28°♁07'32	-4.7m
evening rise	171 Aug 06 j 20:58	22°♁02'36			173 Dec 31 j 11:55	0°♁	
	171 Aug 13 j 06:52	0°♁		morning max el	174 Feb 04 j 00:17	28°♁06'48	46°40'40
	171 Sep 06 j 10:44	0°♁			174 Feb 05 j 21:26	0°♁	
desc. node	171 Sep 28 j 13:11	27°♁25'31			174 Mar 05 j 21:36	0°♁	
	171 Sep 30 j 15:03	0°♁		desc. node	174 Mar 15 j 08:15	10°♁38'24	
	171 Oct 24 j 21:04	0°♁			174 Apr 01 j 04:41	0°♁	
	171 Nov 18 j 06:33	0°♁			174 Apr 26 j 18:59	0°♁	
	171 Dec 12 j 23:42	0°♁			174 May 22 j 00:04	0°♁	
	172 Jan 07 j 10:31	0°♁			174 Jun 15 j 22:07	0°♁	
asc. node	172 Jan 19 j 16:05	13°♁50'36		asc. node	174 Jul 06 j 11:19	25°♁00'05	
	172 Feb 03 j 16:30	0°♁			174 Jul 10 j 13:21	0°♁	
evening max el	172 Feb 09 j 17:21	6°♁08'08	46°15'26	morning set	174 Aug 02 j 09:30	28°♁07'29	
	172 Mar 08 j 19:39	0°♁			174 Aug 03 j 21:52	0°♁	
greatest brilliancy	172 Mar 15 j 17:22	3°♁56'04	-4.5m		174 Aug 28 j 00:49	0°♁	
retrograde	172 Mar 30 j 08:59	7°♁45'46		max. Earth dist.	174 Sep 05 j 07:12	10°♁19'33	1.71896 AU
evening set	172 Apr 15 j 09:48	2°♁47'23					
	172 Apr 19 j 23:48	30°♁		superior conj	174 Sep 08 j 11:36	14°♁18'32	1°22'22
inferior conj	172 Apr 20 j 19:22	29°♁29'05	4°20'35	minimum elong	174 Sep 08 j 16:04	14°♁32'30	1°22'20
minimum elong	172 Apr 21 j 03:36	29°♁16'04	4°18'31		174 Sep 21 j 00:16	0°♁	
min. Earth dist.	172 Apr 21 j 00:12	29°♁21'27	0.28932 AU		174 Oct 14 j 22:20	0°♁	
morning rise	172 Apr 26 j 21:29	25°♁46'58		evening rise	174 Oct 17 j 16:41	3°♁28'06	
desc. node	172 May 10 j 05:35	21°♁16'08		desc. node	174 Oct 26 j 01:03	13°♁56'25	
direct	172 May 12 j 07:56	21°♁10'59			174 Nov 07 j 20:32	0°♁	
greatest brilliancy	172 May 25 j 08:49	24°♁09'15	-4.5m		174 Dec 01 j 19:53	0°♁	
	172 Jun 04 j 22:03	0°♁			174 Dec 25 j 21:57	0°♁	
morning max el	172 Jun 30 j 01:54	20°♁52'00	45°46'16		175 Jan 19 j 05:49	0°♁	
	172 Jul 09 j 08:32	0°♁			175 Feb 13 j 00:44	0°♁	
	172 Aug 06 j 07:09	0°♁		asc. node	175 Feb 16 j 04:02	3°♁44'22	
asc. node	172 Aug 31 j 09:00	28°♁57'46			175 Mar 10 j 15:39	0°♁	
	172 Sep 01 j 06:02	0°♁			175 Apr 06 j 21:40	0°♁	
	172 Sep 26 j 03:45	0°♁		evening max el	175 Apr 21 j 11:48	14°♁41'47	45°21'11
	172 Oct 20 j 11:00	0°♁			175 May 08 j 21:14	0°♁	
	172 Nov 13 j 10:56	0°♁		greatest brilliancy	175 May 26 j 02:01	10°♁55'41	-4.5m
	172 Dec 07 j 08:20	0°♁		desc. node	175 Jun 07 j 17:37	14°♁14'37	
desc. node	172 Dec 20 j 22:32	17°♁04'00		retrograde	175 Jun 08 j 23:34	14°♁16'24	
morning set	172 Dec 30 j 14:52	29°♁12'50		evening set	175 Jun 24 j 09:45	9°♁43'14	
	172 Dec 31 j 05:55	0°♁		inferior conj	175 Jun 30 j 09:27	6°♁08'36	-4°-59'-39
	173 Jan 24 j 04:56	0°♁		minimum elong	175 Jun 30 j 00:09	6°♁23'02	4°57'26
				min. Earth dist.	175 Jun 30 j 11:29	6°♁05'27	0.28855 AU
superior conj	173 Feb 09 j 21:51	20°♁51'06	-1°-24'-28	morning rise	175 Jul 05 j 14:23	2°♁59'57	
minimum elong	173 Feb 09 j 18:23	20°♁40'15	1°24'27		175 Jul 11 j 16:13	30°♁	
max. Earth dist.	173 Feb 13 j 22:34	25°♁52'11	1.72106 AU	direct	175 Jul 22 j 01:33	27°♁52'36	
	173 Feb 17 j 06:14	0°♁			175 Aug 01 j 21:34	0°♁	
	173 Mar 13 j 10:40	0°♁		greatest brilliancy	175 Aug 05 j 09:50	1°♁29'04	-4.5m
evening rise	173 Mar 21 j 05:37	9°♁37'09		morning max el	175 Sep 09 j 16:25	28°♁59'18	46°17'45
	173 Apr 06 j 19:02	0°♁			175 Sep 10 j 16:58	0°♁	
asc. node	173 Apr 13 j 01:50	7°♁42'25		asc. node	175 Sep 28 j 20:49	19°♁03'24	
	173 May 01 j 07:48	0°♁			175 Oct 08 j 15:56	0°♁	
	173 May 26 j 01:31	0°♁			175 Nov 03 j 07:06	0°♁	
	173 Jun 20 j 01:40	0°♁			175 Nov 27 j 23:37	0°♁	
	173 Jul 15 j 11:42	0°♁			175 Dec 22 j 06:52	0°♁	
desc. node	173 Aug 02 j 15:16	20°♁57'12		desc. node	176 Jan 15 j 11:11	0°♁	
	173 Aug 10 j 14:57	0°♁			176 Jan 18 j 10:34	3°♁41'31	
	173 Sep 07 j 06:15	0°♁			176 Feb 08 j 15:27	0°♁	
evening max el	173 Sep 15 j 14:29	8°♁26'35	46°56'41		176 Mar 03 j 20:55	0°♁	
	173 Oct 10 j 03:08	0°♁		morning set	176 Mar 15 j 17:18	14°♁38'21	
greatest brilliancy	173 Oct 24 j 16:36	8°♁26'23	-4.7m		176 Mar 28 j 04:07	0°♁	
retrograde	173 Nov 04 j 22:43	10°♁49'00			176 Apr 21 j 13:02	0°♁	

superior conj	176 Apr 22 j 07:44	0°♄57'29	0°-41'-25	morning rise	178 Sep 13 j 06:14	13°♃25'28	
minimum elong	176 Apr 22 j 15:32	1°♄21'28	0°41'06	direct	178 Sep 30 j 17:45	7°♃36'13	
max. Earth dist.	176 Apr 23 j 12:19	2°♄25'20	1.73482 AU	greatest brilliancy	178 Oct 14 j 19:32	11°♃11'35	-4.6m
asc. node	176 May 10 j 13:37	23°♄22'25		asc. node	178 Oct 26 j 08:27	18°♃19'17	
	176 May 15 j 23:11	0°♂			178 Nov 09 j 06:27	0°♄	
evening rise	176 May 28 j 21:44	15°♂52'52		morning max el	178 Nov 20 j 10:47	10°♄55'12	46°53'56
	176 Jun 09 j 09:57	0°♄			178 Dec 08 j 06:00	0°♃	
	176 Jul 03 j 21:16	0°♃			179 Jan 03 j 08:14	0°♂	
	176 Jul 28 j 10:01	0°♃			179 Jan 28 j 12:33	0°♄	
	176 Aug 22 j 01:53	0°♄		desc. node	179 Feb 14 j 22:23	21°♄00'22	
desc. node	176 Aug 30 j 03:19	9°♄45'21			179 Feb 22 j 08:32	0°♃	
	176 Sep 15 j 23:05	0°♃			179 Mar 19 j 01:12	0°♂	
	176 Oct 11 j 05:35	0°♂			179 Apr 12 j 16:27	0°♃	
	176 Nov 06 j 07:51	0°♄			179 May 07 j 06:42	0°♂	
evening max el	176 Nov 27 j 02:37	22°♄21'45	47°20'24	morning set	179 May 24 j 10:59	20°♄59'54	
	176 Dec 04 j 18:58	0°♃			179 May 31 j 19:24	0°♂	
asc. node	176 Dec 21 j 06:19	14°♃23'42		asc. node	179 Jun 08 j 01:32	8°♂53'44	
greatest brilliancy	177 Jan 03 j 14:47	22°♃48'29	-4.7m		179 Jun 25 j 05:37	0°♄	
retrograde	177 Jan 17 j 02:23	26°♃10'51		max. Earth dist.	179 Jun 26 j 18:26	1°♄53'21	1.73383 AU
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	superior conj	179 Jun 29 j 17:41	5°♄32'48	0°48'19
inferior conj	177 Feb 07 j 01:03	18°♃00'30	8°32'25	minimum elong	179 Jun 29 j 09:35	5°♄07'53	0°48'00
minimum elong	177 Feb 06 j 21:14	18°♃06'32	8°32'11		179 Jul 19 j 12:57	0°♃	
morning rise	177 Feb 10 j 04:43	16°♃02'49		evening rise	179 Aug 04 j 14:33	19°♃54'07	
direct	177 Feb 27 j 21:24	10°♃02'55			179 Aug 12 j 17:58	0°♃	
greatest brilliancy	177 Mar 10 j 13:19	12°♃08'55	-4.6m		179 Sep 05 j 22:03	0°♄	
	177 Apr 06 j 11:05	0°♂		desc. node	179 Sep 27 j 15:10	26°♄55'42	
desc. node	177 Apr 11 j 19:54	4°♂47'28			179 Sep 30 j 02:41	0°♃	
morning max el	177 Apr 18 j 00:37	10°♂37'21	45°58'39		179 Oct 24 j 09:06	0°♂	
	177 May 07 j 02:36	0°♃			179 Nov 17 j 19:08	0°♄	
	177 Jun 03 j 10:03	0°♄			179 Dec 12 j 13:10	0°♃	
	177 Jun 29 j 10:57	0°♂			180 Jan 07 j 01:47	0°♂	
	177 Jul 24 j 17:26	0°♄		asc. node	180 Jan 18 j 18:09	13°♂09'48	
asc. node	177 Aug 02 j 23:11	11°♄09'00			180 Feb 03 j 12:34	0°♃	
	177 Aug 18 j 10:07	0°♃		evening max el	180 Feb 07 j 07:52	3°♃50'37	46°17'59
	177 Sep 11 j 16:28	0°♃			180 Mar 10 j 02:14	0°♄	
greatest brilliancy	177 Sep 19 j 06:37	9°♃27'53	-3.9m	greatest brilliancy	180 Mar 13 j 09:08	1°♄44'28	-4.5m
	177 Oct 05 j 16:06	0°♄		retrograde	180 Mar 28 j 01:48	5°♄35'56	
morning set	177 Oct 12 j 14:00	8°♄41'08		evening set	180 Apr 13 j 04:39	0°♄33'32	
	177 Oct 29 j 12:28	0°♃			180 Apr 14 j 03:36	30°♃♃	
				inferior conj	180 Apr 18 j 11:48	27°♃18'51	4°37'30
superior conj	177 Nov 22 j 02:53	29°♃43'36	0°01'00	minimum elong	180 Apr 18 j 20:24	27°♃05'18	4°35'23
minimum elong	177 Nov 22 j 03:08	29°♃44'22	0°01'00	min. Earth dist.	180 Apr 18 j 16:27	27°♃11'31	0.28924 AU
behind sun begin	177 Nov 21 j 00:39	28°♃21'01		morning rise	180 Apr 24 j 12:14	23°♃39'21	
behind sun end	177 Nov 23 j 05:36	1°♂07'42		desc. node	180 May 09 j 07:41	19°♃01'17	
	177 Nov 22 j 08:06	0°♂		direct	180 May 09 j 23:47	19°♃00'46	
desc. node	177 Nov 22 j 12:51	0°♂14'59		greatest brilliancy	180 May 23 j 00:37	21°♃59'13	-4.5m
max. Earth dist.	177 Nov 23 j 09:09	1°♂18'50	1.71017 AU		180 Jun 05 j 17:31	0°♄	
	177 Dec 16 j 04:29	0°♄		morning max el	180 Jun 27 j 18:23	18°♄43'07	45°45'57
evening rise	178 Jan 02 j 22:26	22°♄15'50			180 Jul 09 j 03:45	0°♂	
	178 Jan 09 j 02:43	0°♃			180 Aug 05 j 21:54	0°♄	
	178 Feb 02 j 04:09	0°♂		asc. node	180 Aug 30 j 11:02	28°♄25'12	
	178 Feb 26 j 10:48	0°♃			180 Aug 31 j 19:01	0°♃	
asc. node	178 Mar 15 j 15:57	21°♃02'36			180 Sep 25 j 15:53	0°♃	
	178 Mar 23 j 01:16	0°♄			180 Oct 19 j 22:41	0°♄	
	178 Apr 17 j 02:49	0°♂			180 Nov 12 j 22:22	0°♃	
	178 May 12 j 20:58	0°♄			180 Dec 06 j 19:38	0°♂	
	178 Jun 08 j 20:31	0°♃		desc. node	180 Dec 20 j 00:45	16°♂35'49	
evening max el	178 Jul 01 j 18:46	23°♃24'24	45°40'41	morning set	180 Dec 28 j 00:49	26°♂38'28	
desc. node	178 Jul 05 j 05:34	26°♃239'46			180 Dec 30 j 17:04	0°♄	
	178 Jul 08 j 21:02	0°♃			181 Jan 23 j 15:57	0°♃	
greatest brilliancy	178 Aug 08 j 22:49	21°♃17'13	-4.5m				
retrograde	178 Aug 19 j 17:01	23°♃22'03		superior conj	181 Feb 07 j 10:15	18°♃25'56	-1°-23'-49
evening set	178 Sep 06 j 14:23	17°♃27'17		minimum elong	181 Feb 07 j 05:48	18°♃12'06	1°23'48
inferior conj	178 Sep 09 j 17:23	15°♃33'59	-8°-34'-40	max. Earth dist.	181 Feb 11 j 09:49	23°♃23'42	1.72054 AU
minimum elong	178 Sep 09 j 22:26	15°♃26'15	8°34'19		181 Feb 16 j 17:10	0°♂	
min. Earth dist.	178 Sep 10 j 12:49	15°♃04'14	0.27660 AU		181 Mar 12 j 21:36	0°♃	

evening rise	181 Mar 18 j 20:29	7°Υ21'13		direct	183 Jul 19 j 17:59	25°Π42'54	
	181 Apr 06 j 06:03	0°Ϡ		greatest brilliancy	183 Aug 03 j 00:18	29°Π16'40	-4.5m
asc. node	181 Apr 12 j 03:50	7°Ϡ14'42			183 Aug 04 j 11:55	0°Ϡ	
	181 Apr 30 j 19:01	0°Π		morning max el	183 Sep 07 j 06:55	26°Ϡ42'52	46°16'12
	181 May 25 j 13:07	0°Ϡ			183 Sep 10 j 14:06	0°Ω	
	181 Jun 19 j 13:57	0°Ω		asc. node	183 Sep 27 j 22:50	18°Ω22'33	
	181 Jul 15 j 01:11	0°η			183 Oct 08 j 07:24	0°η	
desc. node	181 Aug 01 j 17:21	20°η20'44			183 Nov 02 j 20:32	0°♁	
	181 Aug 10 j 06:43	0°♁			183 Nov 27 j 12:05	0°♁	
	181 Sep 07 j 03:23	0°♁			183 Dec 21 j 18:45	0°♁	
evening max el	181 Sep 13 j 04:32	6°♁04'24	46°54'25		184 Jan 14 j 22:40	0°Ϡ	
	181 Oct 11 j 04:50	0°♁		desc. node	184 Jan 17 j 12:32	3°Ϡ12'05	
greatest brilliancy	181 Oct 22 j 05:30	5°♁57'12	-4.7m		184 Feb 08 j 02:38	0°≈	
retrograde	181 Nov 02 j 11:29	8°♁18'57			184 Mar 03 j 07:52	0°κ	
evening set	181 Nov 16 j 19:26	4°♁13'16		morning set	184 Mar 13 j 08:17	12°κ22'58	
inferior conj	181 Nov 22 j 23:26	0°♁37'39	0°01'55		184 Mar 27 j 14:52	0°Υ	
minimum elong	181 Nov 22 j 23:21	0°♁37'46	0°01'54				
transit middle	181 Nov 22 j 23:21	0°♁37'46	0°01'54	superior conj	184 Apr 20 j 01:00	28°Υ50'18	0°-44'-14
transit begin	181 Nov 22 j 19:18	0°♁43'55		minimum elong	184 Apr 20 j 09:11	29°Υ15'28	0°43'53
transit end	181 Nov 23 j 03:24	0°♁31'37			184 Apr 20 j 23:40	0°Ϡ	
asc. node	181 Nov 22 j 20:28	0°♁42'09		max. Earth dist.	184 Apr 21 j 10:23	0°Ϡ32'57	1.73452 AU
min. Earth dist.	181 Nov 22 j 19:04	0°♁44'18	0.26351 AU	asc. node	184 May 09 j 15:49	22°Ϡ56'34	
	181 Nov 24 j 00:16	30°R♁			184 May 15 j 09:48	0°Π	
morning rise	181 Nov 29 j 03:24	27°♁02'53		evening rise	184 May 26 j 16:44	13°Π51'06	
direct	181 Dec 13 j 06:56	23°♁02'07			184 Jun 08 j 20:42	0°Ϡ	
greatest brilliancy	181 Dec 25 j 02:13	25°♁39'33	-4.7m		184 Jul 03 j 08:17	0°Ω	
	182 Jan 02 j 07:19	0°♁			184 Jul 27 j 21:28	0°η	
morning max el	182 Feb 01 j 14:27	25°♁44'41	46°42'01		184 Aug 21 j 13:57	0°♁	
	182 Feb 05 j 19:25	0°Ϡ		desc. node	184 Aug 29 j 05:16	9°♁14'03	
	182 Mar 05 j 13:34	0°≈			184 Sep 15 j 12:03	0°♁	
desc. node	182 Mar 14 j 10:15	10°≈01'33			184 Oct 10 j 20:00	0°♁	
	182 Mar 31 j 18:16	0°κ			184 Nov 06 j 01:11	0°Ϡ	
	182 Apr 26 j 07:20	0°Υ		evening max el	184 Nov 24 j 16:48	19°Ϡ58'36	47°21'14
	182 May 21 j 11:42	0°Ϡ			184 Dec 04 j 21:11	0°≈	
	182 Jun 15 j 09:20	0°Π		asc. node	184 Dec 20 j 08:23	13°≈08'27	
asc. node	182 Jul 05 j 13:25	24°Π32'56		greatest brilliancy	185 Jan 01 j 08:37	20°≈31'08	-4.7m
	182 Jul 10 j 00:18	0°Ϡ		retrograde	185 Jan 14 j 16:54	23°≈50'03	
morning set	182 Jul 31 j 02:29	25°Ϡ58'05		evening set	185 Feb 01 j 02:16	17°≈54'04	
	182 Aug 03 j 08:41	0°Ω		min. Earth dist.	185 Feb 03 j 19:09	16°≈13'08	0.27762 AU
	182 Aug 27 j 11:38	0°η		inferior conj	185 Feb 04 j 15:37	15°≈40'48	8°28'18
max. Earth dist.	182 Sep 02 j 19:14	7°η53'18	1.71947 AU	minimum elong	185 Feb 04 j 11:02	15°≈48'03	8°27'59
				morning rise	185 Feb 07 j 20:07	13°≈41'45	
superior conj	182 Sep 06 j 02:51	12°η02'10	1°23'06	direct	185 Feb 25 j 10:57	7°≈44'21	
minimum elong	182 Sep 06 j 06:33	12°η13'44	1°23'04	greatest brilliancy	185 Mar 08 j 02:30	9°≈49'38	-4.6m
	182 Sep 20 j 11:10	0°♁			185 Apr 06 j 15:27	0°κ	
	182 Oct 14 j 09:23	0°♁		desc. node	185 Apr 10 j 21:57	3°κ53'40	
evening rise	182 Oct 15 j 04:11	0°♁58'57		morning max el	185 Apr 15 j 13:51	8°κ18'46	45°59'55
desc. node	182 Oct 25 j 03:07	13°♁28'05			185 May 06 j 19:45	0°Υ	
	182 Nov 07 j 07:44	0°♁			185 Jun 02 j 23:53	0°Ϡ	
	182 Dec 01 j 07:15	0°Ϡ			185 Jun 28 j 23:16	0°Π	
	182 Dec 25 j 09:33	0°≈			185 Jul 24 j 04:59	0°Ϡ	
	183 Jan 18 j 17:46	0°κ		asc. node	185 Aug 02 j 01:11	10°Ϡ40'35	
	183 Feb 12 j 13:24	0°Υ			185 Aug 17 j 21:18	0°Ω	
asc. node	183 Feb 15 j 06:03	3°Υ12'22			185 Sep 11 j 03:29	0°η	
	183 Mar 10 j 05:49	0°Ϡ		greatest brilliancy	185 Sep 22 j 01:43	13°η38'16	-3.9m
	183 Apr 06 j 15:39	0°Π			185 Oct 05 j 03:03	0°♁	
evening max el	183 Apr 19 j 04:05	12°Π32'40	45°21'49	morning set	185 Oct 10 j 02:54	6°♁16'26	
	183 May 09 j 09:03	0°Ϡ			185 Oct 28 j 23:24	0°♁	
greatest brilliancy	183 May 23 j 17:15	8°Ϡ45'54	-4.5m				
retrograde	183 Jun 06 j 15:11	12°Ϡ07'02		superior conj	185 Nov 19 j 12:35	27°♁08'37	0°05'02
desc. node	183 Jun 06 j 19:47	12°Ϡ06'59		minimum elong	185 Nov 19 j 13:55	27°♁12'50	0°04'57
evening set	183 Jun 21 j 23:55	7°Ϡ36'36		behind sun begin	185 Nov 18 j 12:25	25°♁52'34	
inferior conj	183 Jun 27 j 01:29	3°Ϡ59'00	-4°-42'-58	behind sun end	185 Nov 20 j 15:24	28°♁33'05	
minimum elong	183 Jun 28 j 16:31	4°Ϡ12'58	4°40'46	max. Earth dist.	185 Nov 20 j 11:15	28°♁19'59	1.71015 AU
min. Earth dist.	183 Jun 28 j 03:26	3°Ϡ55'58	0.28872 AU	desc. node	185 Nov 21 j 15:02	29°♁47'26	
morning rise	183 Jul 03 j 08:56	0°Ϡ46'23			185 Nov 21 j 19:02	0°♁	
	183 Jul 04 j 18:26	30°RΠ			185 Dec 15 j 15:26	0°Ϡ	

evening rise	185 Dec 31 j 08:21	19°☾42'11		188 Jul 08 j 22:09	0°♁	
	186 Jan 08 j 13:42	0°♁		188 Aug 05 j 12:12	0°☾	
	186 Feb 01 j 15:13	0°♁		188 Aug 29 j 13:06	27°☾53'41	
	186 Feb 25 j 22:02	0°♁	asc. node	188 Aug 31 j 07:40	0°♁	
asc. node	186 Mar 14 j 18:01	20°♁34'05		188 Sep 25 j 03:44	0°♁	
	186 Mar 22 j 12:50	0°♁		188 Oct 19 j 10:09	0°♁	
	186 Apr 16 j 15:06	0°♁		188 Nov 12 j 09:39	0°♁	
	186 May 12 j 10:39	0°☾		188 Dec 06 j 06:48	0°♁	
	186 Jun 08 j 13:23	0°♁	desc. node	188 Dec 19 j 02:46	16°♁07'16	
evening max el	186 Jun 29 j 07:49	21°♁05'57	45°38'45	188 Dec 25 j 10:22	24°♁03'04	
desc. node	186 Jul 04 j 07:35	25°♁46'37		188 Dec 30 j 04:09	0°☾	
	186 Jul 09 j 00:33	0°♁		189 Jan 23 j 02:56	0°♁	
greatest brilliancy	186 Aug 06 j 09:34	18°♁55'59	-4.5m			
retrograde	186 Aug 17 j 06:19	21°♁03'22		superior conj	189 Feb 04 j 21:58	15°♁58'44 -1°-22'-59
evening set	186 Sep 04 j 05:08	15°♁05'55		minimum elong	189 Feb 04 j 16:36	15°♁41'59 1°22'57
inferior conj	186 Sep 07 j 07:08	13°♁14'14	-8°-39'00	max. Earth dist.	189 Feb 08 j 21:47	20°♁57'26 1.71999 AU
minimum elong	186 Sep 07 j 11:23	13°♁07'44	8°38'45		189 Feb 16 j 04:04	0°♁
min. Earth dist.	186 Sep 08 j 02:17	12°♁44'57	0.27729 AU		189 Mar 12 j 08:28	0°♁
morning rise	186 Sep 10 j 17:22	11°♁09'41		evening rise	189 Mar 16 j 10:55	5°♁04'09
direct	186 Sep 28 j 08:00	5°♁15'10			189 Apr 05 j 16:58	0°♁
greatest brilliancy	186 Oct 12 j 12:32	8°♁53'39	-4.6m	asc. node	189 Apr 11 j 06:02	6°♁47'55
asc. node	186 Oct 25 j 10:41	17°♁04'19			189 Apr 30 j 06:08	0°♁
	186 Nov 09 j 09:34	0°♁			189 May 25 j 00:38	0°☾
morning max el	186 Nov 18 j 01:15	8°♁32'32	46°53'25		189 Jun 19 j 02:10	0°♁
	186 Dec 07 j 23:30	0°♁			189 Jul 14 j 14:39	0°♁
	187 Jan 02 j 22:43	0°♁		desc. node	189 Jul 31 j 19:23	19°♁44'15
	187 Jan 28 j 01:33	0°☾			189 Aug 09 j 22:34	0°♁
desc. node	187 Feb 14 j 00:26	20°☾29'13			189 Sep 07 j 01:03	0°♁
	187 Feb 21 j 20:38	0°♁		evening max el	189 Sep 10 j 19:01	3°♁44'02 46°52'03
	187 Mar 18 j 12:43	0°♁			189 Oct 12 j 16:17	0°♁
	187 Apr 12 j 03:33	0°♁		greatest brilliancy	189 Oct 19 j 18:58	3°♁29'37 -4.7m
	187 May 06 j 17:31	0°♁		retrograde	189 Oct 31 j 00:05	5°♁49'31
morning set	187 May 22 j 05:22	18°♁56'29		evening set	189 Nov 14 j 08:34	1°♁43'12
	187 May 31 j 06:03	0°♁			189 Nov 17 j 09:39	30°♁
asc. node	187 Jun 07 j 03:39	8°♁27'39		inferior conj	189 Nov 20 j 11:33	28°♁08'43 0°-22'-45
max. Earth dist.	187 Jun 24 j 17:20	0°☾03'26	1.73414 AU	minimum elong	189 Nov 20 j 12:25	28°♁07'24 0°22'29
	187 Jun 24 j 16:13	0°☾		min. Earth dist.	189 Nov 20 j 08:27	28°♁13'25 0.26351 AU
				asc. node	189 Nov 21 j 22:31	27°♁15'43
superior conj	187 Jun 27 j 12:22	3°☾29'52	0°45'44	morning rise	189 Nov 26 j 16:25	24°♁32'51
minimum elong	187 Jun 27 j 04:32	3°☾05'43	0°45'25	direct	189 Dec 10 j 19:47	20°♁33'22
	187 Jul 18 j 23:36	0°♁		greatest brilliancy	189 Dec 22 j 15:31	23°♁11'29 -4.7m
evening rise	187 Aug 02 j 08:29	17°♁47'44			190 Jan 03 j 13:04	0°♁
	187 Aug 12 j 04:46	0°♁		morning max el	190 Jan 30 j 04:06	23°♁20'56 46°43'07
	187 Sep 05 j 09:07	0°♁			190 Feb 05 j 16:41	0°☾
desc. node	187 Sep 26 j 17:19	26°♁27'06			190 Mar 05 j 05:23	0°♁
	187 Sep 29 j 14:06	0°♁		desc. node	190 Mar 13 j 12:22	9°♁24'58
	187 Oct 23 j 20:59	0°♁			190 Mar 31 j 07:49	0°♁
	187 Nov 17 j 07:37	0°☾			190 Apr 25 j 19:41	0°♁
	187 Dec 12 j 02:36	0°♁			190 May 20 j 23:19	0°♁
	188 Jan 06 j 17:06	0°♁			190 Jun 14 j 20:30	0°♁
asc. node	188 Jan 17 j 20:10	12°♁28'53		asc. node	190 Jul 04 j 15:23	24°♁05'30
	188 Feb 03 j 09:04	0°♁			190 Jul 09 j 11:13	0°☾
evening max el	188 Feb 04 j 23:12	1°♁35'42	46°20'48	morning set	190 Jul 28 j 19:40	23°☾49'21
greatest brilliancy	188 Mar 11 j 01:14	29°♁34'07	-4.5m		190 Aug 02 j 19:31	0°♁
	188 Mar 11 j 22:53	0°♁			190 Aug 26 j 22:28	0°♁
retrograde	188 Mar 25 j 19:07	3°♁26'49		max. Earth dist.	190 Aug 31 j 06:00	5°♁23'07 1.71998 AU
	188 Apr 07 j 22:13	30°♁				
evening set	188 Apr 10 j 23:38	28°♁20'24		superior conj	190 Sep 03 j 18:36	9°♁47'22 1°23'41
inferior conj	188 Apr 16 j 04:17	25°♁09'17	4°53'58	minimum elong	190 Sep 03 j 21:31	9°♁56'31 1°23'39
minimum elong	188 Apr 16 j 13:10	24°♁55'15	4°51'50		190 Sep 19 j 22:06	0°♁
min. Earth dist.	188 Apr 16 j 08:22	25°♁02'50	0.28912 AU	evening rise	190 Oct 12 j 16:13	28°♁31'30
morning rise	188 Apr 22 j 02:51	21°♁32'40			190 Oct 13 j 20:26	0°♁
direct	188 May 07 j 16:04	16°♁51'21		desc. node	190 Oct 24 j 05:17	13°♁00'04
desc. node	188 May 08 j 09:53	16°♁52'00			190 Nov 06 j 18:56	0°♁
greatest brilliancy	188 May 20 j 15:29	19°♁48'57	-4.5m		190 Nov 30 j 18:38	0°☾
	188 Jun 06 j 07:37	0°♁			190 Dec 24 j 21:13	0°♁
morning max el	188 Jun 25 j 11:32	16°♁36'42	45°45'40		191 Jan 18 j 05:53	0°♁

	191 Feb 12 j 02:18	0°♃			193 Aug 17 j 08:43	0°♄	
asc. node	191 Feb 14 j 08:08	2°♃39'56			193 Sep 10 j 14:43	0°♃	
	191 Mar 09 j 20:19	0°♄		greatest brilliancy	193 Sep 23 j 20:00	16°♃30'40	-3.9m
	191 Apr 06 j 10:18	0°♂			193 Oct 04 j 14:14	0°♁	
evening max el	191 Apr 16 j 19:41	10°♂21'18	45°22'39	morning set	193 Oct 07 j 15:55	3°♁51'25	
	191 May 10 j 01:10	0°♁			193 Oct 28 j 10:35	0°♂	
greatest brilliancy	191 May 21 j 08:29	6°♁35'49	-4.5m				
retrograde	191 Jun 04 j 06:39	9°♁57'50		superior conj	193 Nov 16 j 22:23	24°♂33'02	0°09'00
desc. node	191 Jun 05 j 21:45	9°♁54'46		minimum elong	193 Nov 17 j 00:47	24°♂40'35	0°08'53
evening set	191 Jun 19 j 14:23	5°♁29'42		behind sun begin	193 Nov 16 j 02:16	23°♂29'42	
inferior conj	191 Jun 25 j 17:42	1°♁49'36	-4°-26'-1	behind sun end	193 Nov 17 j 23:17	25°♂51'28	
minimum elong	191 Jun 25 j 09:05	2°♁03'02	4°23'51	max. Earth dist.	193 Nov 17 j 15:56	25°♂28'18	1.71018 AU
min. Earth dist.	191 Jun 25 j 19:52	1°♁46'12	0.28885 AU	desc. node	193 Nov 20 j 17:00	29°♂18'19	
	191 Jun 28 j 16:35	30°♂♂			193 Nov 21 j 06:15	0°♂	
morning rise	191 Jul 01 j 03:31	28°♂♂33'09			193 Dec 15 j 02:42	0°♂	
direct	191 Jul 17 j 10:04	23°♂♂33'15		evening rise	193 Dec 28 j 18:23	17°♂♂08'00	
greatest brilliancy	191 Jul 31 j 15:15	27°♂♂04'50	-4.5m		194 Jan 08 j 00:59	0°♂	
	191 Aug 06 j 02:52	0°♁			194 Feb 01 j 02:32	0°♂	
morning max el	191 Sep 04 j 21:07	24°♁25'32	46°14'42		194 Feb 25 j 09:30	0°♃	
	191 Sep 10 j 10:39	0°♄		asc. node	194 Mar 13 j 20:12	20°♃05'04	
asc. node	191 Sep 27 j 01:00	17°♄42'12			194 Mar 22 j 00:41	0°♄	
	191 Oct 07 j 22:47	0°♃			194 Apr 16 j 03:44	0°♂	
	191 Nov 02 j 10:00	0°♁			194 May 12 j 00:49	0°♁	
	191 Nov 27 j 00:36	0°♂			194 Jun 08 j 07:01	0°♄	
	191 Dec 21 j 06:42	0°♂		evening max el	194 Jun 26 j 22:02	18°♄49'33	45°36'59
desc. node	192 Jan 14 j 10:14	0°♂		desc. node	194 Jul 03 j 09:39	24°♄51'32	
	192 Jan 16 j 14:36	2°♂42'38			194 Jul 09 j 06:24	0°♃	
	192 Feb 07 j 13:57	0°♂		greatest brilliancy	194 Aug 03 j 19:36	16°♃33'33	-4.5m
	192 Mar 02 j 18:59	0°♂		retrograde	194 Aug 14 j 20:13	18°♃44'18	
morning set	192 Mar 10 j 23:03	10°♂06'15		evening set	194 Sep 01 j 19:40	12°♃44'50	
	192 Mar 27 j 01:50	0°♃		inferior conj	194 Sep 04 j 21:02	10°♃54'06	-8°-42'-21
				minimum elong	194 Sep 05 j 00:27	10°♃48'54	8°42'13
superior conj	192 Apr 17 j 18:03	26°♃41'44	0°-46'-59	min. Earth dist.	194 Sep 05 j 15:27	10°♃25'59	0.27794 AU
minimum elong	192 Apr 18 j 02:35	27°♃07'58	0°46'39	morning rise	194 Sep 08 j 05:00	8°♃53'03	
max. Earth dist.	192 Apr 19 j 05:58	28°♃32'08	1.73421 AU	direct	194 Sep 25 j 22:52	2°♃54'00	
	192 Apr 20 j 10:33	0°♄		greatest brilliancy	194 Oct 10 j 04:53	6°♃34'37	-4.6m
asc. node	192 May 08 j 17:52	22°♄29'33		asc. node	194 Oct 24 j 12:44	15°♃50'43	
	192 May 14 j 20:40	0°♂			194 Nov 09 j 11:30	0°♁	
evening rise	192 May 24 j 11:26	11°♂47'49		morning max el	194 Nov 15 j 16:36	6°♁11'37	46°52'41
	192 Jun 08 j 07:40	0°♁			194 Dec 07 j 16:54	0°♂	
	192 Jul 02 j 19:31	0°♄			195 Jan 02 j 13:20	0°♂	
	192 Jul 27 j 09:09	0°♃			195 Jan 27 j 14:46	0°♂	
desc. node	192 Aug 21 j 02:16	0°♁		desc. node	195 Feb 13 j 02:32	19°♂57'26	
	192 Aug 28 j 07:25	8°♁42'34			195 Feb 21 j 09:01	0°♂	
	192 Sep 15 j 01:20	0°♂			195 Mar 18 j 00:29	0°♂	
	192 Oct 10 j 10:50	0°♂			195 Apr 11 j 14:53	0°♃	
	192 Nov 05 j 19:08	0°♂			195 May 06 j 04:35	0°♄	
evening max el	192 Nov 22 j 06:33	17°♂33'45	47°22'03	morning set	195 May 19 j 23:50	16°♂52'31	
	192 Dec 05 j 01:11	0°♂			195 May 30 j 16:59	0°♂	
asc. node	192 Dec 19 j 10:24	11°♂50'20		asc. node	195 Jun 06 j 05:38	8°♂00'14	
greatest brilliancy	192 Dec 30 j 01:42	18°♂12'15	-4.7m	max. Earth dist.	195 Jun 22 j 16:32	28°♂13'28	1.73445 AU
retrograde	193 Jan 12 j 07:26	21°♂29'00			195 Jun 24 j 03:09	0°♁	
evening set	193 Jan 29 j 14:12	15°♂37'52					
min. Earth dist.	193 Feb 01 j 09:25	13°♂53'37	0.27697 AU	superior conj	195 Jun 25 j 07:01	1°♁25'49	0°43'05
inferior conj	193 Feb 02 j 06:16	13°♂20'44	8°23'20	minimum elong	195 Jun 24 j 23:28	1°♁02'36	0°42'46
minimum elong	193 Feb 02 j 00:55	13°♂29'10	8°22'54		195 Jul 18 j 10:35	0°♄	
morning rise	193 Feb 05 j 11:55	11°♂19'59		evening rise	195 Jul 31 j 02:23	15°♄40'13	
direct	193 Feb 23 j 00:16	5°♂25'12			195 Aug 11 j 15:54	0°♃	
greatest brilliancy	193 Mar 05 j 16:26	7°♂30'42	-4.6m		195 Sep 04 j 20:31	0°♁	
	193 Apr 06 j 18:21	0°♂		desc. node	195 Sep 25 j 19:24	25°♁57'17	
desc. node	193 Apr 10 j 00:10	3°♂00'44			195 Sep 29 j 01:52	0°♂	
morning max el	193 Apr 13 j 03:38	6°♂00'39	46°01'08		195 Oct 23 j 09:12	0°♂	
	193 May 06 j 12:51	0°♃			195 Nov 16 j 20:29	0°♂	
	193 Jun 02 j 13:54	0°♄			195 Dec 11 j 16:29	0°♂	
	193 Jun 28 j 11:51	0°♂			196 Jan 06 j 09:01	0°♂	
	193 Jul 23 j 16:48	0°♁		asc. node	196 Jan 16 j 22:19	11°♂46'47	
asc. node	193 Aug 01 j 03:19	10°♁11'46		evening max el	196 Feb 02 j 15:28	29°♂21'55	46°23'34

	196 Feb 03 j 06:44	0°♃		morning set	198 Jul 26 j 12:58	21°♄40'44	
greatest brilliancy	196 Mar 08 j 18:19	27°♃23'57	-4.5m		198 Aug 02 j 06:26	0°♁	
	196 Mar 15 j 07:13	0°♄			198 Aug 26 j 09:26	0°♃	
retrograde	196 Mar 23 j 12:20	1°♄16'20		max. Earth dist.	198 Aug 28 j 18:33	2°♃58'14	1.72058 AU
	196 Mar 31 j 09:43	30°♃					
evening set	196 Apr 08 j 18:39	26°♃06'11		superior conj	198 Sep 01 j 10:28	7°♃32'42	1°24'06
inferior conj	196 Apr 13 j 20:41	22°♃58'35	5°10'00	minimum elong	198 Sep 01 j 12:37	7°♃39'27	1°24'07
minimum elong	196 Apr 14 j 05:48	22°♃44'11	5°07'53		198 Sep 19 j 09:11	0°♁	
min. Earth dist.	196 Apr 14 j 00:01	22°♃53'18	0.28895 AU	evening rise	198 Oct 10 j 04:12	26°♁03'28	
morning rise	196 Apr 19 j 17:13	19°♃25'01			198 Oct 13 j 07:40	0°♃	
direct	196 May 05 j 08:33	14°♃41'06		desc. node	198 Oct 23 j 07:15	12°♃30'47	
desc. node	196 May 07 j 11:47	14°♃46'23			198 Nov 06 j 06:20	0°♄	
greatest brilliancy	196 May 18 j 04:58	17°♃36'11	-4.5m		198 Nov 30 j 06:14	0°♄	
	196 Jun 06 j 18:29	0°♄			198 Dec 24 j 09:03	0°♁	
morning max el	196 Jun 23 j 04:23	14°♄28'50	45°45'19		199 Jan 17 j 18:09	0°♃	
	196 Jul 08 j 16:25	0°♁			199 Feb 11 j 15:23	0°♃	
	196 Aug 05 j 02:40	0°♁		asc. node	199 Feb 13 j 10:16	2°♃07'13	
asc. node	196 Aug 28 j 15:15	27°♁21'34			199 Mar 09 j 11:06	0°♄	
	196 Aug 30 j 20:34	0°♁			199 Apr 06 j 05:34	0°♁	
	196 Sep 24 j 15:52	0°♃		evening max el	199 Apr 14 j 10:34	8°♁07'49	45°23'35
	196 Oct 18 j 21:53	0°♁			199 May 10 j 23:08	0°♁	
	196 Nov 11 j 21:11	0°♃		greatest brilliancy	199 May 18 j 22:52	4°♁24'21	-4.5m
	196 Dec 05 j 18:13	0°♄		retrograde	199 Jun 01 j 22:12	7°♁48'38	
desc. node	196 Dec 18 j 04:47	15°♄38'00		desc. node	199 Jun 04 j 23:51	7°♁37'39	
morning set	196 Dec 22 j 19:55	21°♄26'53		evening set	199 Jun 17 j 04:57	3°♁22'15	
	196 Dec 29 j 15:27	0°♄			199 Jun 22 j 21:08	30°♃	
	197 Jan 22 j 14:09	0°♁		inferior conj	199 Jun 23 j 09:53	29°♁40'07	-4°-8'-43
				minimum elong	199 Jun 23 j 01:40	29°♁52'57	4°06'36
superior conj	197 Feb 02 j 09:31	13°♁30'06	-1°-22'00	min. Earth dist.	199 Jun 23 j 12:27	29°♁36'07	0.28897 AU
minimum elong	197 Feb 02 j 03:15	13°♁10'32	1°21'56	morning rise	199 Jun 28 j 22:02	26°♁20'07	
max. Earth dist.	197 Feb 06 j 11:07	18°♁34'30	1.71946 AU	direct	199 Jul 15 j 01:45	21°♁23'25	
	197 Feb 15 j 15:13	0°♃		greatest brilliancy	199 Jul 29 j 07:01	24°♁54'08	-4.5m
	197 Mar 11 j 19:36	0°♃			199 Aug 07 j 06:02	0°♁	
evening rise	197 Mar 14 j 01:11	2°♃45'37		morning max el	199 Sep 02 j 11:24	22°♁08'38	46°13'17
	197 Apr 05 j 04:09	0°♄			199 Sep 10 j 06:30	0°♁	
asc. node	197 Apr 10 j 08:04	6°♄19'49		asc. node	199 Sep 26 j 03:03	17°♁02'07	
	197 Apr 29 j 17:30	0°♁			199 Oct 07 j 13:55	0°♃	
	197 May 24 j 12:23	0°♁			199 Nov 01 j 23:22	0°♁	
	197 Jun 18 j 14:40	0°♁			199 Nov 26 j 13:06	0°♃	
desc. node	197 Jul 14 j 04:29	0°♃			199 Dec 20 j 18:41	0°♄	
	197 Jul 30 j 21:29	19°♃06'57			200 Jan 13 j 21:52	0°♄	
	197 Aug 09 j 15:00	0°♁		desc. node	200 Jan 15 j 16:47	2°♄13'23	
	197 Sep 07 j 00:00	0°♃			200 Feb 07 j 01:17	0°♁	
evening max el	197 Sep 08 j 09:05	1°♃21'41	46°49'27		200 Mar 02 j 06:05	0°♃	
	197 Oct 14 j 23:12	0°♄		morning set	200 Mar 08 j 13:17	7°♃47'45	
greatest brilliancy	197 Oct 17 j 09:19	1°♄01'53	-4.7m		200 Mar 26 j 12:46	0°♃	
retrograde	197 Oct 28 j 11:58	3°♄18'43					
	197 Nov 10 j 08:16	30°♃		superior conj	200 Apr 15 j 10:49	24°♃32'23	0°-49'-42
evening set	197 Nov 11 j 21:48	29°♃11'42		minimum elong	200 Apr 15 j 19:40	24°♃59'35	0°49'22
inferior conj	197 Nov 17 j 23:33	25°♃38'45	0°-47'-25	max. Earth dist.	200 Apr 17 j 00:19	26°♃27'42	1.73389 AU
minimum elong	197 Nov 18 j 01:22	25°♃35'59	0°46'52		200 Apr 19 j 21:23	0°♄	
min. Earth dist.	197 Nov 17 j 22:07	25°♃40'56	0.26352 AU	asc. node	200 May 07 j 19:51	22°♄02'25	
asc. node	197 Nov 21 j 00:30	23°♃48'59			200 May 14 j 07:30	0°♁	
morning rise	197 Nov 24 j 05:02	22°♃01'48		evening rise	200 May 22 j 06:02	9°♁44'20	
direct	197 Dec 08 j 08:08	18°♃03'30			200 Jun 07 j 18:37	0°♁	
greatest brilliancy	197 Dec 20 j 05:15	20°♃42'49	-4.7m		200 Jul 02 j 06:44	0°♃	
	198 Jan 04 j 11:06	0°♄			200 Jul 26 j 20:46	0°♃	
morning max el	198 Jan 27 j 16:36	20°♄53'27	46°44'11		200 Aug 20 j 14:30	0°♁	
	198 Feb 05 j 13:27	0°♄		desc. node	200 Aug 27 j 09:31	8°♁11'19	
	198 Mar 04 j 21:09	0°♁			200 Sep 14 j 14:33	0°♃	
desc. node	198 Mar 12 j 14:28	8°♁48'11			200 Oct 10 j 01:42	0°♄	
	198 Mar 30 j 21:27	0°♃			200 Nov 05 j 13:27	0°♄	
	198 Apr 25 j 08:09	0°♃		evening max el	200 Nov 19 j 20:12	15°♄08'41	47°22'37
	198 May 20 j 11:05	0°♄			200 Dec 05 j 07:11	0°♁	
	198 Jun 14 j 07:48	0°♁		asc. node	200 Dec 18 j 12:33	10°♁29'34	
asc. node	198 Jul 03 j 17:34	23°♁38'19		greatest brilliancy	200 Dec 27 j 17:37	15°♁50'56	-4.7m
	198 Jul 08 j 22:15	0°♁		retrograde	201 Jan 09 j 21:57	19°♁06'46	

evening set	201 Jan 27 j 01:27	13° \approx 20'35		superior conj	203 Jun 23 j 01:25	29° Π 22'02	0°40'22
min. Earth dist.	201 Jan 29 j 23:15	11° \approx 32'47	0.27634 AU	minimum elong	203 Jun 22 j 18:13	28° Π 59'51	0°40'03
inferior conj	201 Jan 30 j 20:31	10° \approx 59'20	8°17'22		203 Jun 23 j 13:45	0° \ominus	
minimum elong	201 Jan 30 j 14:27	11° \approx 08'53	8°16'47		203 Jul 17 j 21:16	0° Ω	
morning rise	201 Feb 03 j 03:43	8° \approx 56'27		evening rise	203 Jul 28 j 20:14	13° Ω 33'31	
direct	201 Feb 20 j 13:12	3° \approx 04'36			203 Aug 11 j 02:46	0° \cap	
greatest brilliancy	201 Mar 03 j 06:15	5° \approx 10'54	-4.6m		203 Sep 04 j 07:39	0° $\underline{\Omega}$	
	201 Apr 06 j 19:50	0° X		desc. node	203 Sep 24 j 21:23	25° $\underline{\Omega}$ 28'03	
desc. node	201 Apr 09 j 02:07	2° X 08'15			203 Sep 28 j 13:21	0° \cap	
morning max el	201 Apr 10 j 17:58	3° X 43'51	46°02'30		203 Oct 22 j 21:08	0° Z	
	201 May 06 j 05:30	0° Υ			203 Nov 16 j 09:00	0° \ominus	
	201 Jun 02 j 03:38	0° B			203 Dec 11 j 06:00	0° \approx	
	201 Jun 28 j 00:13	0° Π			204 Jan 06 j 00:41	0° X	
	201 Jul 23 j 04:25	0° \ominus		asc. node	204 Jan 16 j 00:23	11° X 05'23	
asc. node	201 Jul 31 j 05:24	9° \ominus 43'19		evening max el	204 Jan 31 j 07:51	27° X 09'32	46°26'07
	201 Aug 16 j 19:57	0° Ω			204 Feb 03 j 04:42	0° Υ	
	201 Sep 10 j 01:44	0° \cap		greatest brilliancy	204 Mar 06 j 12:22	25° Υ 16'01	-4.6m
greatest brilliancy	201 Sep 25 j 12:15	19° \cap 17'29	-3.9m	retrograde	204 Mar 21 j 05:08	29° Υ 06'35	
	201 Oct 04 j 01:10	0° $\underline{\Omega}$		evening set	204 Apr 06 j 13:45	23° Υ 52'52	
morning set	201 Oct 05 j 05:28	1° $\underline{\Omega}$ 28'51		inferior conj	204 Apr 11 j 13:06	20° Υ 48'47	5°25'43
	201 Oct 27 j 21:31	0° \cap		minimum elong	204 Apr 11 j 22:24	20° Υ 34'04	5°23'37
				min. Earth dist.	204 Apr 11 j 15:48	20° Υ 44'30	0.28878 AU
superior conj	201 Nov 14 j 08:31	21° \cap 59'18	0°12'55	morning rise	204 Apr 17 j 07:22	17° Υ 18'17	
minimum elong	201 Nov 14 j 11:56	22° \cap 10'03	0°12'46	direct	204 May 03 j 01:07	12° Υ 31'50	
behind sun begin	201 Nov 13 j 19:12	21° \cap 17'21		desc. node	204 May 06 j 13:54	12° Υ 46'10	
behind sun end	201 Nov 15 j 04:41	23° \cap 02'46		greatest brilliancy	204 May 15 j 17:52	15° Υ 23'28	-4.5m
max. Earth dist.	201 Nov 15 j 00:30	22° \cap 49'38	1.71024 AU		204 Jun 07 j 02:05	0° B	
desc. node	201 Nov 19 j 19:05	28° \cap 50'21		morning max el	204 Jun 20 j 20:34	12° B 20'14	45°44'57
	201 Nov 20 j 17:13	0° Z			204 Jul 08 j 09:53	0° Π	
	201 Dec 14 j 13:43	0° \ominus			204 Aug 04 j 16:36	0° \ominus	
evening rise	201 Dec 26 j 04:26	14° \ominus 34'28		asc. node	204 Aug 27 j 17:15	26° \ominus 50'16	
	202 Jan 07 j 12:04	0° \approx			204 Aug 30 j 09:01	0° Ω	
	202 Jan 31 j 13:42	0° X			204 Sep 24 j 03:36	0° \cap	
	202 Feb 24 j 20:50	0° Υ			204 Oct 18 j 09:16	0° $\underline{\Omega}$	
asc. node	202 Mar 12 j 22:11	19° Υ 35'55			204 Nov 11 j 08:22	0° \cap	
	202 Mar 21 j 12:25	0° B			204 Dec 05 j 05:15	0° Z	
	202 Apr 15 j 16:15	0° Π		desc. node	204 Dec 17 j 06:58	15° Z 10'27	
	202 May 11 j 14:56	0° \ominus		morning set	204 Dec 20 j 05:47	18° Z 52'51	
	202 Jun 08 j 00:49	0° Ω			204 Dec 29 j 02:21	0° \ominus	
evening max el	202 Jun 24 j 12:58	16° Ω 35'33	45°35'16		205 Jan 22 j 00:56	0° \approx	
desc. node	202 Jul 02 j 11:47	23° Ω 56'07					
	202 Jul 09 j 14:14	0° \cap		superior conj	205 Jan 30 j 21:20	11° \approx 03'32	-1°-20'-52
greatest brilliancy	202 Aug 01 j 05:49	14° \cap 12'11	-4.5m	minimum elong	205 Jan 30 j 14:12	10° \approx 41'16	1°20'46
retrograde	202 Aug 12 j 10:10	16° \cap 25'54		max. Earth dist.	205 Feb 04 j 01:49	16° \approx 17'07	1.71890 AU
evening set	202 Aug 30 j 09:50	10° \cap 25'12			205 Feb 15 j 01:56	0° X	
inferior conj	202 Sep 02 j 10:54	8° \cap 34'49	-8°-44'-57		205 Mar 11 j 06:18	0° Υ	
minimum elong	202 Sep 02 j 13:27	8° \cap 30'55	8°44'53	evening rise	205 Mar 11 j 15:33	0° Υ 28'34	
min. Earth dist.	202 Sep 03 j 04:21	8° \cap 08'09	0.27854 AU		205 Apr 04 j 14:56	0° B	
morning rise	202 Sep 05 j 16:52	6° \cap 36'44		asc. node	205 Apr 09 j 10:05	5° B 52'50	
direct	202 Sep 23 j 14:03	0° \cap 33'56			205 Apr 29 j 04:30	0° Π	
greatest brilliancy	202 Oct 07 j 20:00	4° \cap 15'03	-4.6m		205 May 23 j 23:50	0° \ominus	
asc. node	202 Oct 23 j 14:42	14° \cap 39'59			205 Jun 18 j 02:53	0° Ω	
	202 Nov 09 j 11:43	0° $\underline{\Omega}$			205 Jul 13 j 18:06	0° \cap	
morning max el	202 Nov 13 j 07:53	3° $\underline{\Omega}$ 51'50	46°52'01	desc. node	205 Jul 29 j 23:34	18° \cap 30'16	
	202 Dec 07 j 09:34	0° \cap			205 Aug 09 j 07:21	0° $\underline{\Omega}$	
	203 Jan 02 j 03:25	0° Z		evening max el	205 Sep 05 j 22:08	28° $\underline{\Omega}$ 57'55	46°46'47
	203 Jan 27 j 03:33	0° \ominus			205 Sep 06 j 23:31	0° \cap	
desc. node	203 Feb 12 j 04:35	19° \ominus 26'35		greatest brilliancy	205 Oct 15 j 00:01	28° \cap 35'32	-4.7m
	203 Feb 20 j 21:01	0° \approx			205 Oct 19 j 10:31	0° Z	
	203 Mar 17 j 11:56	0° X		retrograde	205 Oct 25 j 23:14	0° Z 48'59	
	203 Apr 11 j 01:58	0° Υ			205 Nov 01 j 07:30	30° \cap	
	203 May 05 j 15:23	0° B		evening set	205 Nov 09 j 11:10	26° \cap 40'45	
morning set	203 May 17 j 18:01	14° B 48'34		inferior conj	205 Nov 15 j 11:32	23° \cap 09'46	-1°-12'-6
	203 May 30 j 03:38	0° Π		minimum elong	205 Nov 15 j 14:17	23° \cap 05'36	1°11'14
asc. node	203 Jun 05 j 07:48	7° Π 34'20		min. Earth dist.	205 Nov 15 j 12:05	23° \cap 08'56	0.26358 AU
max. Earth dist.	203 Jun 20 j 14:58	26° Π 22'09	1.73472 AU	asc. node	205 Nov 20 j 02:43	20° \cap 24'44	
				morning rise	205 Nov 21 j 17:21	19° \cap 32'00	

direct	205 Dec 05 j 19:59	15°♄34'18		208 Jun 07 j 05:26	0°☉	
greatest brilliancy	205 Dec 17 j 20:01	18°♄16'09	-4.7m	208 Jul 01 j 17:50	0°♁	
	206 Jan 05 j 03:05	0°♁		208 Jul 26 j 08:20	0°♃	
morning max el	206 Jan 25 j 04:38	18°♁25'35	46°45'32	208 Aug 20 j 02:46	0°♅	
	206 Feb 05 j 09:10	0°♄		208 Aug 26 j 11:28	7°♅39'34	
	206 Mar 04 j 12:16	0°♃		208 Sep 14 j 03:50	0°♄	
desc. node	206 Mar 11 j 16:28	8°♃12'35		208 Oct 09 j 16:46	0°♁	
	206 Mar 30 j 10:33	0°♂		208 Nov 05 j 08:12	0°♄	
	206 Apr 24 j 20:10	0°♃		208 Nov 17 j 10:35	12°♄45'41	47°23'11
	206 May 19 j 22:26	0°♂		208 Dec 05 j 15:30	0°♃	
	206 Jun 13 j 18:46	0°♁		208 Dec 17 j 14:36	9°♃06'02	
asc. node	206 Jul 02 j 19:38	23°♁11'44		208 Dec 25 j 08:35	13°♃28'18	-4.7m
	206 Jul 08 j 08:59	0°☉		retrograde	209 Jan 07 j 12:50	16°♃44'17
morning set	206 Jul 24 j 06:15	19°☉32'53		evening set	209 Jan 24 j 12:26	11°♃03'07
	206 Aug 01 j 17:06	0°♁		min. Earth dist.	209 Jan 27 j 12:44	9°♃11'55 0.27570 AU
	206 Aug 25 j 20:07	0°♃		inferior conj	209 Jan 28 j 10:40	8°♃37'30 8°10'25
max. Earth dist.	206 Aug 26 j 09:14	0°♃40'55	1.72116 AU	minimum elong	209 Jan 28 j 03:56	8°♃48'04 8°09'41
				morning rise	209 Jan 31 j 19:44	6°♃32'10
superior conj	206 Aug 30 j 02:22	5°♃19'05	1°24'25	direct	209 Feb 18 j 02:36	0°♃43'35
minimum elong	206 Aug 30 j 03:45	5°♃23'25	1°24'24	greatest brilliancy	209 Feb 28 j 19:36	2°♃50'19 -4.6m
	206 Sep 18 j 19:59	0°♅			209 Apr 06 j 20:05	0°♂
evening rise	206 Oct 07 j 16:23	23°♅37'02		desc. node	209 Apr 08 j 04:13	1°♂17'05
	206 Oct 12 j 18:38	0°♄		morning max el	209 Apr 08 j 09:09	1°♂29'01 46°03'57
desc. node	206 Oct 22 j 09:21	12°♄02'45			209 May 05 j 21:50	0°♃
	206 Nov 05 j 17:29	0°♁			209 Jun 01 j 17:13	0°♂
	206 Nov 29 j 17:36	0°♄			209 Jun 27 j 12:28	0°♁
	206 Dec 23 j 20:42	0°♃			209 Jul 22 j 15:59	0°☉
	207 Jan 17 j 06:13	0°♂		asc. node	209 Jul 30 j 07:25	9°☉14'49
	207 Feb 11 j 04:14	0°♃			209 Aug 16 j 07:10	0°♁
asc. node	207 Feb 12 j 12:16	1°♃34'51			209 Sep 09 j 12:49	0°♃
	207 Mar 09 j 01:42	0°♂		greatest brilliancy	209 Sep 27 j 02:21	21°♃57'26 -3.9m
	207 Apr 06 j 00:58	0°♁		morning set	209 Oct 02 j 19:05	29°♃06'13
evening max el	207 Apr 12 j 01:21	5°♁55'19	45°24'41		209 Oct 03 j 12:13	0°♅
	207 May 12 j 04:41	0°☉			209 Oct 27 j 08:35	0°♄
greatest brilliancy	207 May 16 j 12:18	2°☉13'01	-4.5m			
retrograde	207 May 30 j 14:17	5°☉41'01		superior conj	209 Nov 11 j 18:33	19°♄24'46 0°16'50
desc. node	207 Jun 04 j 01:59	5°☉17'18		minimum elong	209 Nov 11 j 22:57	19°♄38'36 0°16'37
evening set	207 Jun 14 j 19:52	1°☉15'46		max. Earth dist.	209 Nov 12 j 09:08	20°♄10'40 1.71030 AU
	207 Jun 17 j 01:17	30°♁		desc. node	209 Nov 18 j 21:15	28°♄22'10
inferior conj	207 Jun 21 j 02:15	27°♁31'55	-3°-51'-6		209 Nov 20 j 04:20	0°♁
minimum elong	207 Jun 20 j 18:28	27°♁44'01	3°49'04		209 Dec 14 j 00:53	0°♄
min. Earth dist.	207 Jun 21 j 05:01	27°♁27'35	0.28914 AU	evening rise	209 Dec 23 j 14:14	11°♄59'43
morning rise	207 Jun 26 j 16:42	24°♁08'39			210 Jan 06 j 23:17	0°♃
direct	207 Jul 12 j 17:44	19°♁14'40			210 Jan 31 j 01:00	0°♂
greatest brilliancy	207 Jul 27 j 00:10	22°♁46'12	-4.5m		210 Feb 24 j 08:21	0°♃
	207 Aug 08 j 01:28	0°☉		asc. node	210 Mar 12 j 00:15	19°♃06'30
morning max el	207 Aug 31 j 02:43	19°☉55'00	46°11'52		210 Mar 21 j 00:21	0°♂
	207 Sep 10 j 01:36	0°♁			210 Apr 15 j 05:00	0°♁
asc. node	207 Sep 25 j 05:05	16°♁22'56			210 May 11 j 05:19	0°☉
	207 Oct 07 j 04:43	0°♃			210 Jun 07 j 19:06	0°♁
	207 Nov 01 j 12:29	0°♅		evening max el	210 Jun 22 j 04:19	14°♁22'35 45°33'38
	207 Nov 26 j 01:22	0°♄		desc. node	210 Jul 01 j 13:48	22°♁59'16
	207 Dec 20 j 06:28	0°♁			210 Jul 10 j 00:52	0°♃
	208 Jan 13 j 09:19	0°♄		greatest brilliancy	210 Jul 29 j 16:50	11°♃52'14 -4.5m
desc. node	208 Jan 14 j 18:45	1°♄43'59		retrograde	210 Aug 09 j 23:57	14°♃07'58
	208 Feb 06 j 12:29	0°♃		evening set	210 Aug 27 j 23:52	8°♃06'54
	208 Mar 01 j 17:04	0°♂		inferior conj	210 Aug 31 j 01:01	6°♃16'05 -8°-46'-37
morning set	208 Mar 06 j 03:28	5°♂29'20		minimum elong	210 Aug 31 j 02:43	6°♃13'30 8°46'35
	208 Mar 25 j 23:34	0°♃		min. Earth dist.	210 Aug 31 j 17:28	5°♃50'53 0.27916 AU
				morning rise	210 Sep 03 j 05:24	4°♃20'13
superior conj	208 Apr 13 j 03:45	22°♃23'56	0°-52'-20		210 Sep 11 j 21:34	30°♁
minimum elong	208 Apr 13 j 12:51	22°♃51'56	0°51'59	direct	210 Sep 21 j 05:35	28°♁14'33
max. Earth dist.	208 Apr 14 j 18:50	24°♃24'09	1.73353 AU		210 Sep 30 j 21:00	0°♃
	208 Apr 19 j 08:03	0°♂		greatest brilliancy	210 Oct 05 j 10:40	1°♃54'47 -4.6m
asc. node	208 May 06 j 22:03	21°♂36'24		asc. node	210 Oct 22 j 16:55	13°♃31'18
	208 May 13 j 18:10	0°♁			210 Nov 09 j 11:10	0°♅
evening rise	208 May 20 j 00:55	7°♁42'14		morning max el	210 Nov 10 j 22:31	1°♅29'40 46°51'02

	210 Dec 07 j 02:17	0°♌			213 Aug 09 j 00:25	0°♎	
	211 Jan 01 j 17:42	0°♊		evening max el	213 Sep 03 j 10:20	26°♎31'26	46°44'17
	211 Jan 26 j 16:35	0°♉			213 Sep 07 j 00:30	0°♌	
desc. node	211 Feb 11 j 06:38	18°♉54'56		greatest brilliancy	213 Oct 12 j 14:30	26°♌08'43	-4.6m
	211 Feb 20 j 09:15	0°♈		retrograde	213 Oct 23 j 10:41	28°♌19'35	
	211 Mar 16 j 23:38	0°♈		evening set	213 Nov 07 j 00:54	24°♌09'21	
	211 Apr 10 j 13:16	0°♈		inferior conj	213 Nov 12 j 23:46	20°♌40'51	-1°-36'-25
	211 May 05 j 02:27	0°♈		minimum elong	213 Nov 13 j 03:25	20°♌35'18	1°35'15
morning set	211 May 15 j 12:15	12°♈43'53		min. Earth dist.	213 Nov 13 j 02:17	20°♌37'02	0.26373 AU
	211 May 29 j 14:34	0°♈		morning rise	213 Nov 19 j 05:43	17°♌02'40	
asc. node	211 Jun 04 j 09:51	7°♈07'13		asc. node	213 Nov 19 j 04:42	17°♌04'01	
max. Earth dist.	211 Jun 18 j 11:49	24°♈25'16	1.73492 AU	direct	213 Dec 03 j 07:51	13°♌04'49	
				greatest brilliancy	213 Dec 15 j 11:50	15°♌50'22	-4.7m
superior conj	211 Jun 20 j 20:04	27°♈18'17	0°37'36		214 Jan 05 j 15:23	0°♊	
minimum elong	211 Jun 20 j 13:14	26°♈57'15	0°37'18	morning max el	214 Jan 22 j 17:06	15°♊57'31	46°46'34
	211 Jun 23 j 00:37	0°♈			214 Feb 05 j 04:46	0°♉	
	211 Jul 17 j 08:10	0°♈			214 Mar 04 j 03:41	0°♈	
evening rise	211 Jul 26 j 14:27	11°♈27'22		desc. node	214 Mar 10 j 18:35	7°♈36'08	
	211 Aug 10 j 13:50	0°♈			214 Mar 30 j 00:05	0°♈	
	211 Sep 03 j 19:00	0°♈			214 Apr 24 j 08:37	0°♈	
desc. node	211 Sep 23 j 23:31	24°♈58'34			214 May 19 j 10:13	0°♈	
	211 Sep 28 j 01:06	0°♈			214 Jun 13 j 06:07	0°♈	
	211 Oct 22 j 09:23	0°♈		asc. node	214 Jul 01 j 21:36	22°♈43'32	
	211 Nov 15 j 21:56	0°♈			214 Jul 07 j 20:07	0°♈	
	211 Dec 10 j 20:05	0°♈		morning set	214 Jul 21 j 23:27	17°♈23'37	
	212 Jan 05 j 17:05	0°♈			214 Aug 01 j 04:09	0°♈	
asc. node	212 Jan 15 j 02:24	10°♈21'58		max. Earth dist.	214 Aug 24 j 01:37	28°♈27'43	1.72170 AU
evening max el	212 Jan 28 j 23:18	24°♈53'11	46°28'44		214 Aug 25 j 07:12	0°♈	
	212 Feb 03 j 04:12	0°♈					
greatest brilliancy	212 Mar 04 j 06:54	23°♈07'02	-4.6m	superior conj	214 Aug 27 j 18:26	3°♈04'48	1°24'35
retrograde	212 Mar 18 j 21:23	26°♈55'06		minimum elong	214 Aug 27 j 19:03	3°♈06'42	1°24'34
evening set	212 Apr 04 j 08:48	21°♈37'48			214 Sep 18 j 07:09	0°♈	
inferior conj	212 Apr 09 j 05:24	18°♈37'24	5°41'01	evening rise	214 Oct 05 j 05:02	21°♈11'08	
minimum elong	212 Apr 09 j 14:51	18°♈22'26	5°38'57		214 Oct 12 j 05:55	0°♈	
min. Earth dist.	212 Apr 09 j 07:43	18°♈33'43	0.28858 AU	desc. node	214 Oct 21 j 11:29	11°♈33'55	
morning rise	212 Apr 14 j 21:12	15°♈10'02			214 Nov 05 j 04:54	0°♈	
direct	212 Apr 30 j 17:14	10°♈20'58			214 Nov 29 j 05:13	0°♈	
desc. node	212 May 05 j 16:05	10°♈48'47			214 Dec 23 j 08:38	0°♈	
greatest brilliancy	212 May 13 j 06:52	13°♈09'14	-4.5m		215 Jan 16 j 18:39	0°♈	
	212 Jun 07 j 08:00	0°♈			215 Feb 10 j 17:34	0°♈	
morning max el	212 Jun 18 j 11:49	10°♈08'07	45°44'47	asc. node	215 Feb 11 j 14:20	1°♈01'24	
	212 Jul 08 j 03:24	0°♈			215 Mar 08 j 16:59	0°♈	
	212 Aug 04 j 06:45	0°♈			215 Apr 05 j 21:36	0°♈	
asc. node	212 Aug 26 j 19:19	26°♈18'21		evening max el	215 Apr 09 j 16:30	3°♈42'09	45°25'53
	212 Aug 29 j 21:43	0°♈		greatest brilliancy	215 May 14 j 01:31	29°♈59'43	-4.5m
	212 Sep 23 j 15:35	0°♈			215 May 14 j 01:45	0°♈	
	212 Oct 17 j 20:54	0°♈		retrograde	215 May 28 j 06:42	3°♈31'31	
	212 Nov 10 j 19:51	0°♈		desc. node	215 Jun 03 j 03:56	2°♈50'25	
	212 Dec 04 j 16:38	0°♈			215 Jun 10 j 18:20	30°♈♌	
desc. node	212 Dec 16 j 08:57	14°♈41'02		evening set	215 Jun 12 j 10:46	29°♈07'13	
morning set	212 Dec 17 j 15:23	16°♈16'37		inferior conj	215 Jun 18 j 18:23	25°♈21'46	-3°-33'00
	212 Dec 28 j 13:40	0°♈		minimum elong	215 Jun 18 j 11:06	25°♈33'05	3°31'04
	213 Jan 21 j 12:11	0°♈		min. Earth dist.	215 Jun 18 j 21:04	25°♈17'35	0.28928 AU
				morning rise	215 Jun 24 j 11:06	21°♈55'34	
superior conj	213 Jan 28 j 08:32	8°♈33'33	-1°-19'-32	direct	215 Jul 10 j 09:53	17°♈04'05	
minimum elong	213 Jan 28 j 00:35	8°♈08'44	1°19'25	greatest brilliancy	215 Jul 24 j 17:09	20°♈36'45	-4.5m
max. Earth dist.	213 Feb 01 j 13:53	13°♈49'59	1.71834 AU		215 Aug 08 j 16:35	0°♈	
	213 Feb 14 j 13:07	0°♈		morning max el	215 Aug 28 j 18:43	17°♈42'06	46°10'30
evening rise	213 Mar 09 j 05:09	28°♈07'40			215 Sep 09 j 20:36	0°♈	
	213 Mar 10 j 17:29	0°♈		asc. node	215 Sep 24 j 07:15	15°♈43'28	
	213 Apr 04 j 02:12	0°♈			215 Oct 06 j 19:39	0°♈	
asc. node	213 Apr 08 j 12:15	5°♈24'54			215 Nov 01 j 01:47	0°♈	
	213 Apr 28 j 15:59	0°♈			215 Nov 25 j 13:49	0°♈	
	213 May 23 j 11:46	0°♈			215 Dec 19 j 18:24	0°♈	
	213 Jun 17 j 15:38	0°♈			216 Jan 12 j 20:54	0°♈	
	213 Jul 13 j 08:17	0°♈		desc. node	216 Jan 13 j 20:49	1°♈14'25	
desc. node	213 Jul 29 j 01:35	17°♈52'03			216 Feb 05 j 23:50	0°♈	

	216 Mar 01 j 04:13	0°♄		retrograde	218 Aug 07 j 13:18	11°♎49'49	
morning set	216 Mar 03 j 17:31	3°♄09'47		evening set	218 Aug 25 j 13:25	5°♎49'19	
	216 Mar 25 j 10:35	0°♃		inferior conj	218 Aug 28 j 15:07	3°♎57'24	-8°-47'-18
				minimum elong	218 Aug 28 j 15:56	3°♎56'09	8°47'19
superior conj	216 Apr 10 j 20:21	20°♃13'32	0°-54'-54	min. Earth dist.	218 Aug 29 j 06:52	3°♎33'14	0.27973 AU
minimum elong	216 Apr 11 j 05:40	20°♃42'13	0°54'34	morning rise	218 Aug 31 j 18:18	2°♎03'03	
max. Earth dist.	216 Apr 12 j 13:48	22°♃21'06	1.73324 AU		218 Sep 04 j 09:13	30°♏	
	216 Apr 18 j 19:00	0°♄		direct	218 Sep 18 j 20:32	25°♏55'15	
	216 May 06 j 00:04	21°♄08'55		greatest brilliancy	218 Oct 03 j 01:03	29°♏34'12	-4.6m
evening rise	216 May 13 j 05:08	0°♂			218 Oct 03 j 21:55	0°♎	
	216 May 17 j 19:23	5°♂38'02		asc. node	218 Oct 21 j 18:57	12°♎24'09	
	216 Jun 06 j 16:33	0°♁		morning max el	218 Nov 08 j 12:01	29°♎04'49	46°50'05
desc. node	216 Jul 01 j 05:14	0°♊			218 Nov 09 j 09:37	0°♎	
	216 Jul 25 j 20:12	0°♋			218 Dec 06 j 18:37	0°♎	
	216 Aug 19 j 15:20	0°♌			219 Jan 01 j 07:44	0°♎	
	216 Aug 25 j 13:37	7°♌07'35			219 Jan 26 j 05:24	0°♎	
	216 Sep 13 j 17:29	0°♍		desc. node	219 Feb 10 j 08:45	18°♎24'02	
	216 Oct 09 j 08:15	0°♎			219 Feb 19 j 21:16	0°♎	
	216 Nov 05 j 03:38	0°♏			219 Mar 16 j 11:06	0°♎	
evening max el	216 Nov 15 j 02:05	10°♏25'12	47°23'49		219 Apr 10 j 00:21	0°♎	
	216 Dec 06 j 02:47	0°♏			219 May 04 j 13:18	0°♎	
	216 Dec 16 j 16:37	7°♏39'40		morning set	219 May 13 j 06:44	10°♎40'40	
greatest brilliancy	216 Dec 22 j 23:38	11°♏05'52	-4.7m		219 May 29 j 01:17	0°♎	
retrograde	217 Jan 05 j 04:08	14°♏21'50		asc. node	219 Jun 03 j 11:52	6°♎40'35	
evening set	217 Jan 21 j 23:24	8°♏46'01		max. Earth dist.	219 Jun 16 j 07:47	22°♎26'12	1.73519 AU
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	superior conj	219 Jun 18 j 14:52	25°♎15'37	0°34'48
minimum elong	217 Jan 25 j 17:33	6°♏27'17	8°01'44	minimum elong	219 Jun 18 j 08:27	24°♎55'51	0°34'32
morning rise	217 Jan 29 j 12:03	4°♏07'41			219 Jun 22 j 11:19	0°♎	
direct	217 Feb 06 j 19:50	30°♏			219 Jul 16 j 18:57	0°♎	
	217 Feb 15 j 16:38	28°♏23'00		evening rise	219 Jul 24 j 08:42	9°♎21'43	
	217 Feb 24 j 23:19	0°♏			219 Aug 10 j 00:49	0°♎	
greatest brilliancy	217 Feb 26 j 07:57	0°♏28'54	-4.6m		219 Sep 03 j 06:17	0°♎	
morning max el	217 Apr 06 j 00:32	29°♏14'41	46°05'08	desc. node	219 Sep 23 j 01:36	24°♎29'14	
desc. node	217 Apr 06 j 19:14	0°♄			219 Sep 27 j 12:45	0°♎	
	217 Apr 07 j 06:23	0°♄27'08			219 Oct 21 j 21:31	0°♎	
	217 May 05 j 13:57	0°♃			219 Nov 15 j 10:46	0°♎	
asc. node	217 Jun 01 j 06:48	0°♄			219 Dec 10 j 10:04	0°♎	
	217 Jun 27 j 00:50	0°♂		asc. node	220 Jan 05 j 09:33	0°♄	
	217 Jul 22 j 03:42	0°♁		evening max el	220 Jan 14 j 04:33	9°♄39'11	
	217 Jul 29 j 09:33	8°♁46'14			220 Jan 26 j 14:02	22°♄35'36	46°31'24
	217 Aug 15 j 18:31	0°♊			220 Feb 03 j 04:26	0°♃	
	217 Sep 08 j 23:59	0°♋		greatest brilliancy	220 Mar 02 j 01:26	20°♃59'00	-4.6m
	217 Sep 28 j 04:11	23°♋58'50	-3.9m	retrograde	220 Mar 16 j 13:37	24°♃45'08	
morning set	217 Sep 30 j 08:38	26°♋43'19		evening set	220 Apr 02 j 04:03	19°♃24'11	
superior conj	217 Oct 02 j 23:19	0°♌		inferior conj	220 Apr 06 j 21:57	16°♃27'38	5°55'39
	217 Oct 26 j 19:42	0°♍		minimum elong	220 Apr 07 j 07:27	16°♃12'33	5°53'39
				min. Earth dist.	220 Apr 07 j 00:03	16°♃24'17	0.28835 AU
minimum elong	217 Nov 09 j 04:42	16°♍50'28	0°20'42	morning rise	220 Apr 12 j 11:08	13°♃03'38	
max. Earth dist.	217 Nov 09 j 10:01	17°♍07'12	0°20'26	direct	220 Apr 28 j 09:02	8°♃11'43	
desc. node	217 Nov 09 j 16:08	17°♍26'29	1.71035 AU	desc. node	220 May 04 j 17:59	8°♃57'07	
evening rise	217 Nov 17 j 23:13	27°♍53'12		greatest brilliancy	220 May 10 j 20:47	10°♃57'33	-4.5m
	217 Nov 19 j 15:30	0°♎			220 Jun 07 j 11:24	0°♄	
	217 Dec 13 j 12:05	0°♏		morning max el	220 Jun 16 j 02:38	7°♄56'08	45°44'37
asc. node	217 Dec 21 j 00:04	9°♏24'56			220 Jul 07 j 20:07	0°♂	
	218 Jan 06 j 10:29	0°♏			220 Aug 03 j 20:26	0°♁	
	218 Jan 30 j 12:15	0°♄		asc. node	220 Aug 25 j 21:29	25°♁47'35	
	218 Feb 23 j 19:48	0°♃			220 Aug 29 j 10:06	0°♊	
	218 Mar 11 j 02:25	18°♃37'38			220 Sep 23 j 03:20	0°♋	
	218 Mar 20 j 12:14	0°♄			220 Oct 17 j 08:20	0°♌	
	218 Apr 14 j 17:44	0°♂			220 Nov 10 j 07:06	0°♍	
218 May 10 j 19:50	0°♁			220 Dec 04 j 03:45	0°♎		
218 Jun 07 j 13:56	0°♊		morning set	220 Dec 15 j 00:51	13°♎40'48		
evening max el	218 Jun 19 j 19:17	12°♊08'27	45°31'51	desc. node	220 Dec 15 j 11:02	14°♎12'46	
desc. node	218 Jun 30 j 15:52	22°♊01'01			220 Dec 28 j 00:41	0°♏	
	218 Jul 10 j 15:17	0°♋			221 Jan 20 j 23:07	0°♏	
	218 Jul 27 j 05:04	9°♋33'20	-4.5m				

superior conj	221 Jan 25 j 19:40	6°≈04'19	-1°-18'-3	direct	223 Jul 08 j 02:40	14°II55'41	
minimum elong	221 Jan 25 j 10:59	5°≈37'10	1°17'54	greatest brilliancy	223 Jul 22 j 09:24	18°II28'22	-4.5m
max. Earth dist.	221 Jan 29 j 23:39	11°≈16'34	1.71779 AU		223 Aug 09 j 03:04	0°☾	
	221 Feb 14 j 00:01	0°☿		morning max el	223 Aug 26 j 11:11	15°☽32'14	46°09'05
evening rise	221 Mar 06 j 18:49	25°☿47'50			223 Sep 09 j 14:32	0°♁	
	221 Mar 10 j 04:22	0°♂		asc. node	223 Sep 23 j 09:17	15°♁05'33	
	221 Apr 03 j 13:07	0°♃			223 Oct 06 j 09:57	0°♄	
asc. node	221 Apr 07 j 14:17	4°♃57'37			223 Oct 31 j 14:37	0°♅	
	221 Apr 28 j 03:06	0°♆			223 Nov 25 j 01:55	0°♆	
	221 May 22 j 23:19	0°☽			223 Dec 19 j 06:04	0°♁	
	221 Jun 17 j 04:01	0°♁			224 Jan 12 j 08:17	0°♂	
	221 Jul 12 j 22:13	0°♄		desc. node	224 Jan 12 j 23:00	0°♂45'51	
desc. node	221 Jul 28 j 03:43	17°♄14'53			224 Feb 05 j 10:57	0°≈	
	221 Aug 08 j 17:28	0°♅			224 Feb 29 j 15:07	0°☿	
evening max el	221 Aug 31 j 22:12	24°♅05'06	46°41'32	morning set	224 Mar 01 j 07:07	0°☿49'33	
	221 Sep 07 j 02:30	0°♆			224 Mar 24 j 21:18	0°♂	
greatest brilliancy	221 Oct 10 j 04:09	23°♆41'15	-4.6m				
retrograde	221 Oct 20 j 22:15	25°♆50'28		superior conj	224 Apr 08 j 12:43	18°♂03'15	0°-57'-24
evening set	221 Nov 04 j 14:37	21°♆37'38		minimum elong	224 Apr 08 j 22:12	18°♂32'29	0°57'05
inferior conj	221 Nov 10 j 11:47	18°♆11'58	-2°00'-35	max. Earth dist.	224 Apr 10 j 10:30	20°♂24'16	1.73288 AU
minimum elong	221 Nov 10 j 16:19	18°♆05'05	1°59'10		224 Apr 18 j 05:38	0°♃	
min. Earth dist.	221 Nov 10 j 16:09	18°♆05'21	0.26392 AU	asc. node	224 May 05 j 02:06	20°♃42'26	
morning rise	221 Nov 16 j 17:42	14°♆33'59			224 May 12 j 15:49	0°♄	
asc. node	221 Nov 18 j 06:44	13°♆46'51		evening rise	224 May 15 j 13:54	3°♄34'56	
direct	221 Nov 30 j 19:46	10°♆35'13			224 Jun 06 j 03:22	0°☽	
greatest brilliancy	221 Dec 13 j 03:42	13°♆25'06	-4.7m		224 Jun 30 j 16:19	0°♁	
	222 Jan 06 j 00:17	0°♁			224 Jul 25 j 07:43	0°♄	
morning max el	222 Jan 20 j 06:13	13°♁31'49	46°47'46		224 Aug 19 j 03:32	0°♅	
	222 Feb 04 j 23:29	0°♂		desc. node	224 Aug 24 j 15:43	6°♅36'37	
	222 Mar 03 j 18:31	0°≈			224 Sep 13 j 06:49	0°♆	
desc. node	222 Mar 09 j 20:42	7°≈01'07			224 Oct 08 j 23:33	0°♁	
	222 Mar 29 j 13:06	0°☿			224 Nov 04 j 23:19	0°♂	
	222 Apr 23 j 20:36	0°♂		evening max el	224 Nov 12 j 17:49	8°♂05'56	47°23'54
	222 May 18 j 21:33	0°♃			224 Dec 06 j 17:45	0°≈	
	222 Jun 12 j 17:02	0°♆		asc. node	224 Dec 15 j 18:48	6°≈10'28	
asc. node	222 Jun 30 j 23:49	22°♆17'30		greatest brilliancy	224 Dec 20 j 15:23	8°≈44'01	-4.7m
	222 Jul 07 j 06:48	0°☽		retrograde	225 Jan 02 j 19:03	11°≈58'16	
morning set	222 Jul 19 j 17:12	15°☽17'31		evening set	225 Jan 19 j 09:54	6°≈28'21	
	222 Jul 31 j 14:46	0°♁		min. Earth dist.	225 Jan 22 j 15:03	4°≈30'11	0.27437 AU
max. Earth dist.	222 Aug 21 j 20:05	26°♁22'24	1.72229 AU	inferior conj	225 Jan 23 j 14:47	3°≈53'03	7°53'50
	222 Aug 24 j 17:52	0°♄		minimum elong	225 Jan 23 j 06:51	4°≈05'28	7°52'46
				morning rise	225 Jan 27 j 04:14	1°≈41'45	
superior conj	222 Aug 25 j 10:53	0°♄53'02	1°24'36		225 Jan 30 j 04:09	30°♁♂	
minimum elong	222 Aug 25 j 10:44	0°♄52'34	1°24'37	direct	225 Feb 13 j 06:33	26°♂01'38	
	222 Sep 17 j 17:57	0°♅		greatest brilliancy	225 Feb 23 j 19:43	28°♂06'05	-4.6m
evening rise	222 Oct 02 j 17:53	18°♅46'51			225 Feb 28 j 04:23	0°≈	
	222 Oct 11 j 16:54	0°♆		morning max el	225 Apr 03 j 15:05	26°≈58'18	46°06'27
desc. node	222 Oct 20 j 13:28	11°♆05'28		desc. node	225 Apr 06 j 08:21	29°≈37'43	
	222 Nov 04 j 16:05	0°♁			225 Apr 06 j 17:23	0°☿	
	222 Nov 28 j 16:38	0°♂			225 May 05 j 05:39	0°♂	
	222 Dec 22 j 20:21	0°≈			225 May 31 j 20:05	0°♃	
	223 Jan 16 j 06:50	0°☿			225 Jun 26 j 12:54	0°♆	
	223 Feb 10 j 06:39	0°♂			225 Jul 21 j 15:07	0°☽	
asc. node	223 Feb 10 j 16:29	0°♂29'00		asc. node	225 Jul 28 j 11:37	8°☽18'16	
	223 Mar 08 j 08:04	0°♃			225 Aug 15 j 05:35	0°♁	
	223 Apr 05 j 18:26	0°♆			225 Sep 08 j 10:53	0°♄	
evening max el	223 Apr 07 j 08:35	1°♆32'33	45°27'15	morning set	225 Sep 27 j 22:48	24°♄23'13	
greatest brilliancy	223 May 11 j 15:39	27°♆49'17	-4.5m		225 Oct 02 j 10:09	0°♅	
	223 May 17 j 05:56	0°☽			225 Oct 26 j 06:34	0°♆	
retrograde	223 May 25 j 23:38	1°☽23'53					
desc. node	223 Jun 02 j 06:04	0°☽20'54		superior conj	225 Nov 06 j 15:29	14°♆19'03	0°24'27
	223 Jun 03 j 09:01	30°♁♂		minimum elong	225 Nov 06 j 21:39	14°♆38'29	0°24'10
evening set	223 Jun 10 j 02:08	27°♁00'33		max. Earth dist.	225 Nov 06 j 21:59	14°♆39'32	1.71045 AU
inferior conj	223 Jun 16 j 10:44	23°♁13'31	-3°-14'-47	desc. node	225 Nov 17 j 01:20	27°♆25'28	
minimum elong	223 Jun 16 j 03:58	23°♁24'02	3°12'57		225 Nov 19 j 02:25	0°♁	
min. Earth dist.	223 Jun 16 j 13:04	23°♁09'53	0.28937 AU		225 Dec 12 j 23:05	0°♂	
morning rise	223 Jun 22 j 05:35	19°♁44'36		evening rise	225 Dec 18 j 09:59	6°♂50'53	

	226 Jan 05 j 21:33	0°♊			228 Aug 03 j 10:10	0°♄
	226 Jan 29 j 23:27	0°♋		asc. node	228 Aug 24 j 23:29	25°♄16'04
	226 Feb 23 j 07:13	0°♌			228 Aug 28 j 22:32	0°♌
asc. node	226 Mar 10 j 04:23	18°♌08'16			228 Sep 22 j 15:09	0°♍
	226 Mar 20 j 00:07	0°♍			228 Oct 16 j 19:50	0°♎
	226 Apr 14 j 06:31	0°♎			228 Nov 09 j 18:26	0°♏
	226 May 10 j 10:26	0°♏			228 Dec 03 j 14:58	0°♐
	226 Jun 07 j 09:08	0°♐		morning set	228 Dec 12 j 10:37	11°♐05'26
evening max el	226 Jun 17 j 09:28	9°♐52'58	45°30'16	desc. node	228 Dec 14 j 13:11	13°♐44'23
desc. node	226 Jun 29 j 18:01	21°♐02'06			228 Dec 27 j 11:47	0°♑
	226 Jul 11 j 10:12	0°♑			229 Jan 20 j 10:09	0°♒
greatest brilliancy	226 Jul 24 j 18:05	7°♑16'10	-4.5m			
retrograde	226 Aug 05 j 02:35	9°♑33'04		superior conj	229 Jan 23 j 06:59	3°♒35'15 -1°-16'-25
evening set	226 Aug 23 j 02:49	3°♑33'42		minimum elong	229 Jan 22 j 21:35	3°♒05'52 1°16'13
inferior conj	226 Aug 26 j 05:29	1°♑40'11	-8°-47'-11	max. Earth dist.	229 Jan 27 j 07:50	8°♒37'54 1.71724 AU
minimum elong	226 Aug 26 j 05:24	1°♑40'19	8°47'13		229 Feb 13 j 10:59	0°♋
min. Earth dist.	226 Aug 26 j 20:50	1°♑16'34	0.28026 AU	evening rise	229 Mar 04 j 08:34	23°♋27'52
	226 Aug 28 j 23:01	30°♌♌			229 Mar 09 j 15:21	0°♌
morning rise	226 Aug 29 j 07:49	29°♌46'47			229 Apr 03 j 00:13	0°♍
direct	226 Sep 16 j 11:08	23°♌37'12		asc. node	229 Apr 06 j 16:19	4°♍29'47
greatest brilliancy	226 Sep 30 j 16:09	27°♌15'38	-4.6m		229 Apr 27 j 14:27	0°♎
	226 Oct 05 j 16:40	0°♏			229 May 22 j 11:10	0°♏
asc. node	226 Oct 20 j 20:57	11°♏19'32			229 Jun 16 j 16:46	0°♐
morning max el	226 Nov 06 j 01:04	26°♏39'35	46°49'14		229 Jul 12 j 12:34	0°♑
	226 Nov 09 j 06:56	0°♑		desc. node	229 Jul 27 j 05:46	16°♑36'25
	226 Dec 06 j 10:26	0°♒			229 Aug 08 j 11:09	0°♒
	226 Dec 31 j 21:27	0°♓		evening max el	229 Aug 29 j 10:38	21°♓39'49 46°39'00
	227 Jan 25 j 18:01	0°♑			229 Sep 07 j 06:17	0°♓
desc. node	227 Feb 09 j 10:47	17°♑53'12		greatest brilliancy	229 Oct 07 j 16:47	21°♓12'20 -4.6m
	227 Feb 19 j 09:12	0°♒		retrograde	229 Oct 18 j 10:22	23°♓21'03
	227 Mar 15 j 22:33	0°♋		evening set	229 Nov 02 j 04:32	19°♓05'09
	227 Apr 09 j 11:29	0°♌		inferior conj	229 Nov 07 j 23:46	15°♓42'24 -2°-24'-31
	227 May 04 j 00:12	0°♍		minimum elong	229 Nov 08 j 05:10	15°♓34'14 2°22'51
morning set	227 May 11 j 00:44	8°♍35'45		min. Earth dist.	229 Nov 08 j 05:35	15°♓33'35 0.26415 AU
	227 May 28 j 12:02	0°♎		morning rise	229 Nov 14 j 05:27	12°♓05'08
asc. node	227 Jun 02 j 14:02	6°♎14'17		asc. node	229 Nov 17 j 08:58	10°♓33'22
max. Earth dist.	227 Jun 14 j 03:13	20°♎25'32	1.73540 AU	direct	229 Nov 28 j 08:12	8°♓04'58
				greatest brilliancy	229 Dec 10 j 18:54	10°♓58'27 -4.7m
superior conj	227 Jun 16 j 09:23	23°♎12'01	0°31'57		230 Jan 06 j 06:59	0°♑
minimum elong	227 Jun 16 j 03:24	22°♎53'37	0°31'40	morning max el	230 Jan 17 j 20:27	11°♑08'12 46°48'57
	227 Jun 21 j 22:01	0°♏			230 Feb 04 j 17:58	0°♑
	227 Jul 16 j 05:45	0°♐			230 Mar 03 j 09:22	0°♒
evening rise	227 Jul 22 j 02:54	7°♐16'05		desc. node	230 Mar 08 j 22:40	6°♒25'15
	227 Aug 09 j 11:49	0°♑			230 Mar 29 j 02:14	0°♋
	227 Sep 02 j 17:35	0°♒			230 Apr 23 j 08:46	0°♌
desc. node	227 Sep 22 j 03:35	23°♒59'32			230 May 18 j 09:08	0°♍
	227 Sep 27 j 00:26	0°♓			230 Jun 12 j 04:15	0°♎
	227 Oct 21 j 09:41	0°♑		asc. node	230 Jun 30 j 01:51	21°♎49'50
	227 Nov 14 j 23:37	0°♒			230 Jul 06 j 17:50	0°♏
	227 Dec 10 j 00:09	0°♓		morning set	230 Jul 17 j 10:43	13°♏09'43
	228 Jan 05 j 02:17	0°♋			230 Jul 31 j 01:44	0°♐
asc. node	228 Jan 13 j 06:38	8°♋55'42		max. Earth dist.	230 Aug 19 j 12:49	24°♐10'45 1.72281 AU
evening max el	228 Jan 24 j 03:48	20°♋15'21	46°33'53			
	228 Feb 03 j 06:00	0°♌		superior conj	230 Aug 23 j 03:07	28°♐39'40 1°24'30
greatest brilliancy	228 Feb 28 j 18:40	18°♌48'24	-4.6m	minimum elong	230 Aug 23 j 02:13	28°♐36'53 1°24'30
retrograde	228 Mar 14 j 05:37	22°♌34'08			230 Aug 24 j 04:53	0°♍
evening set	228 Mar 30 j 23:02	17°♌09'06			230 Sep 17 j 05:03	0°♎
inferior conj	228 Apr 04 j 14:15	14°♌16'38	6°09'54	evening rise	230 Sep 30 j 06:37	16°♎21'26
minimum elong	228 Apr 04 j 23:46	14°♌01'31	6°07'58		230 Oct 11 j 04:09	0°♏
min. Earth dist.	228 Apr 04 j 16:13	14°♌13'30	0.28817 AU	desc. node	230 Oct 19 j 15:34	10°♏36'32
morning rise	228 Apr 10 j 00:42	10°♌56'19			230 Nov 04 j 03:33	0°♐
direct	228 Apr 26 j 00:18	6°♌00'54			230 Nov 28 j 04:22	0°♑
desc. node	228 May 03 j 20:08	7°♌08'25			230 Dec 22 j 08:23	0°♒
greatest brilliancy	228 May 08 j 11:38	8°♌45'49	-4.5m		231 Jan 15 j 19:22	0°♋
	228 Jun 07 j 13:39	0°♍		asc. node	231 Feb 09 j 18:29	29°♋55'11
morning max el	228 Jun 13 j 17:45	5°♍43'59	45°44'37		231 Feb 09 j 20:07	0°♌
	228 Jul 07 j 12:46	0°♎			231 Mar 07 j 23:39	0°♍

evening max el	231 Apr 05 j 01:13	29°♄23'27	45°28'37		233 Oct 01 j 21:21	0°♌	
	231 Apr 05 j 16:24	0°♈			233 Oct 25 j 17:49	0°♍	
greatest brilliancy	231 May 09 j 06:33	25°♈38'55	-4.5m				
retrograde	231 May 23 j 16:22	29°♈14'56		superior conj	233 Nov 04 j 01:59	11°♍45'35	0°28'11
desc. node	231 Jun 01 j 08:10	27°♈45'35		minimum elong	233 Nov 04 j 08:58	12°♍07'33	0°27'52
evening set	231 Jun 07 j 17:39	24°♈52'39		max. Earth dist.	233 Nov 04 j 00:30	11°♍40'54	1.71057 AU
inferior conj	231 Jun 14 j 03:00	21°♈04'04	-2°-56'-18	desc. node	233 Nov 16 j 03:28	26°♍56'41	
minimum elong	231 Jun 13 j 20:49	21°♈13'42	2°54'36		233 Nov 18 j 13:43	0°♄	
min. Earth dist.	231 Jun 14 j 05:00	21°♈00'58	0.28948 AU		233 Dec 12 j 10:24	0°♃	
morning rise	231 Jun 19 j 23:52	17°♈32'23		evening rise	233 Dec 15 j 19:27	4°♃14'24	
direct	231 Jul 05 j 19:37	12°♈46'10			234 Jan 05 j 08:55	0°♂	
greatest brilliancy	231 Jul 20 j 00:39	16°♈17'26	-4.5m		234 Jan 29 j 10:56	0°♁	
	231 Aug 09 j 11:21	0°♆			234 Feb 22 j 18:57	0°♐	
morning max el	231 Aug 24 j 03:26	13°♆20'34	46°07'36	asc. node	234 Mar 09 j 06:28	17°♐38'19	
	231 Sep 09 j 08:35	0°♎			234 Mar 19 j 12:19	0°♏	
asc. node	231 Sep 22 j 11:20	14°♎26'39			234 Apr 13 j 19:38	0°♈	
	231 Oct 06 j 00:32	0°♍			234 May 10 j 01:29	0°♆	
	231 Oct 31 j 03:45	0°♌			234 Jun 07 j 05:09	0°♎	
	231 Nov 24 j 14:18	0°♍		evening max el	234 Jun 14 j 23:03	7°♎35'28	45°28'50
	231 Dec 18 j 18:01	0°♄		desc. node	234 Jun 28 j 20:01	20°♎00'55	
	232 Jan 11 j 19:56	0°♃			234 Jul 12 j 12:14	0°♍	
desc. node	232 Jan 12 j 00:57	0°♃15'38		greatest brilliancy	234 Jul 22 j 06:12	4°♍57'38	-4.5m
	232 Feb 04 j 22:22	0°♂		retrograde	234 Aug 02 j 15:52	7°♍16'15	
morning set	232 Feb 27 j 20:39	28°♂27'59		evening set	234 Aug 20 j 15:47	1°♍18'16	
	232 Feb 29 j 02:20	0°♁			234 Aug 22 j 19:37	30°♎♊	
	232 Mar 24 j 08:21	0°♐		inferior conj	234 Aug 23 j 19:55	29°♎22'39	-8°-46'-10
				minimum elong	234 Aug 23 j 18:57	29°♎24'09	8°46'10
superior conj	232 Apr 06 j 05:03	15°♐51'51	0°-59'-50	min. Earth dist.	234 Aug 24 j 11:00	28°♎59'26	0.28084 AU
minimum elong	232 Apr 06 j 14:39	16°♐21'25	0°59'31	morning rise	234 Aug 26 j 21:54	27°♎29'39	
max. Earth dist.	232 Apr 08 j 08:06	18°♐29'05	1.73248 AU	direct	234 Sep 14 j 01:37	21°♎18'34	
	232 Apr 17 j 16:36	0°♏		greatest brilliancy	234 Sep 28 j 08:26	24°♎58'03	-4.6m
asc. node	232 May 04 j 04:18	20°♏15'30			234 Oct 06 j 22:26	0°♍	
	232 May 12 j 02:48	0°♈		asc. node	234 Oct 19 j 23:11	10°♍16'06	
evening rise	232 May 13 j 08:24	1°♈30'48		morning max el	234 Nov 03 j 14:24	24°♍14'05	46°48'15
	232 Jun 05 j 14:30	0°♆			234 Nov 09 j 03:56	0°♌	
	232 Jun 30 j 03:46	0°♎			234 Dec 06 j 02:25	0°♍	
	232 Jul 24 j 19:40	0°♍			234 Dec 31 j 11:25	0°♄	
	232 Aug 18 j 16:15	0°♌			235 Jan 25 j 06:51	0°♃	
desc. node	232 Aug 23 j 17:40	6°♌03'42		desc. node	235 Feb 08 j 12:52	17°♃21'44	
	232 Sep 12 j 20:44	0°♍			235 Feb 18 j 21:19	0°♂	
	232 Oct 08 j 15:34	0°♄			235 Mar 15 j 10:11	0°♁	
	232 Nov 04 j 20:06	0°♃			235 Apr 08 j 22:46	0°♐	
evening max el	232 Nov 10 j 09:10	5°♃44'30	47°24'02		235 May 03 j 11:15	0°♏	
	232 Dec 07 j 14:28	0°♂		morning set	235 May 08 j 18:44	6°♏30'14	
asc. node	232 Dec 14 j 20:49	4°♂36'42			235 May 27 j 22:56	0°♈	
greatest brilliancy	232 Dec 18 j 07:58	6°♂22'00	-4.7m	asc. node	235 Jun 01 j 16:05	5°♈47'05	
retrograde	232 Dec 31 j 09:33	9°♂33'14		max. Earth dist.	235 Jun 11 j 23:33	18°♈27'06	1.73561 AU
evening set	233 Jan 16 j 20:20	4°♂09'36					
min. Earth dist.	233 Jan 20 j 04:25	2°♂06'59	0.27368 AU	superior conj	235 Jun 14 j 04:04	21°♈08'30	0°29'03
inferior conj	233 Jan 21 j 04:36	1°♂29'08	7°44'13	minimum elong	235 Jun 13 j 22:32	20°♈51'31	0°28'48
minimum elong	233 Jan 20 j 20:10	1°♂42'20	7°42'59		235 Jun 21 j 08:53	0°♆	
	233 Jan 23 j 14:05	30°♎♊			235 Jul 15 j 16:41	0°♎	
morning rise	233 Jan 24 j 20:29	29°♎14'13		evening rise	235 Jul 19 j 21:28	5°♎11'17	
direct	233 Feb 10 j 20:08	23°♎39'07			235 Aug 08 j 22:57	0°♍	
greatest brilliancy	233 Feb 21 j 07:42	25°♎42'09	-4.6m		235 Sep 02 j 05:01	0°♌	
	233 Mar 02 j 01:59	0°♂		desc. node	235 Sep 21 j 05:45	23°♌30'01	
morning max el	233 Apr 01 j 04:44	24°♂38'34	46°07'49		235 Sep 26 j 12:17	0°♍	
desc. node	233 Apr 05 j 10:28	28°♂48'31			235 Oct 20 j 22:04	0°♄	
	233 Apr 06 j 15:05	0°♁			235 Nov 14 j 12:47	0°♃	
	233 May 04 j 21:25	0°♐			235 Dec 09 j 14:38	0°♂	
	233 May 31 j 09:33	0°♏			236 Jan 04 j 19:39	0°♁	
	233 Jun 26 j 01:13	0°♈		asc. node	236 Jan 12 j 08:38	8°♁10'37	
	233 Jul 21 j 02:49	0°♆		evening max el	236 Jan 21 j 17:43	17°♁54'40	46°36'39
asc. node	233 Jul 27 j 13:39	7°♆49'17			236 Feb 03 j 09:23	0°♐	
	233 Aug 14 j 16:57	0°♎		greatest brilliancy	236 Feb 26 j 10:59	16°♐35'54	-4.6m
	233 Sep 07 j 22:06	0°♍		retrograde	236 Mar 11 j 22:02	20°♐22'38	
morning set	233 Sep 25 j 12:40	22°♍01'03		evening set	236 Mar 28 j 18:02	14°♐53'13	

inferior conj	236 Apr 02 j 06:31	12°♃05'00	6°23'41	evening rise	238 Sep 27 j 19:47	13°♌58'00	
minimum elong	236 Apr 02 j 16:01	11°♃49'58	6°21'50		238 Oct 10 j 15:12	0°♍	
min. Earth dist.	236 Apr 02 j 08:09	12°♃02'26	0.28795 AU	desc. node	238 Oct 18 j 17:41	10°♍08'23	
morning rise	236 Apr 07 j 14:10	8°♃48'49			238 Nov 03 j 14:47	0°♎	
direct	236 Apr 23 j 15:31	3°♃49'29			238 Nov 27 j 15:49	0°♏	
desc. node	236 May 02 j 22:17	5°♃23'20			238 Dec 21 j 20:10	0°♐	
greatest brilliancy	236 May 06 j 02:41	6°♃34'06	-4.5m		239 Jan 15 j 07:40	0°♑	
	236 Jun 07 j 14:35	0°♒		asc. node	239 Feb 08 j 20:34	29°♑22'08	
morning max el	236 Jun 11 j 09:43	3°♒33'48	45°44'43		239 Feb 09 j 09:27	0°♓	
	236 Jul 07 j 05:07	0°♓			239 Mar 07 j 15:17	0°♈	
	236 Aug 02 j 23:47	0°♔		evening max el	239 Apr 02 j 18:00	27°♈15'06	45°30'01
asc. node	236 Aug 24 j 01:34	24°♔44'55			239 Apr 05 j 15:03	0°♉	
	236 Aug 28 j 10:55	0°♕		greatest brilliancy	239 May 06 j 22:44	23°♉30'41	-4.5m
	236 Sep 22 j 02:55	0°♖		retrograde	239 May 21 j 08:46	27°♉06'38	
	236 Oct 16 j 07:18	0°♗		desc. node	239 May 31 j 10:07	25°♉06'44	
	236 Nov 09 j 05:45	0°♘		evening set	239 Jun 05 j 09:26	22°♉45'26	
	236 Dec 03 j 02:12	0°♙		inferior conj	239 Jun 11 j 19:21	18°♉55'35	-2°-37'-34
morning set	236 Dec 09 j 20:19	8°♙29'47		minimum elong	239 Jun 11 j 13:46	19°♉04'18	2°36'01
desc. node	236 Dec 13 j 15:10	13°♙15'25		min. Earth dist.	239 Jun 11 j 21:16	18°♉52'36	0.28953 AU
	236 Dec 26 j 22:57	0°♚		morning rise	239 Jun 17 j 18:03	15°♉21'04	
	237 Jan 19 j 21:15	0°♛		direct	239 Jul 03 j 12:25	10°♉37'47	
				greatest brilliancy	239 Jul 17 j 14:43	14°♉05'58	-4.5m
superior conj	237 Jan 20 j 17:43	1°♛04'00	-1°-14'-35		239 Aug 09 j 16:51	0°♜	
minimum elong	237 Jan 20 j 07:40	0°♛32'35	1°14'22	morning max el	239 Aug 21 j 18:54	11°♜08'09	46°06'05
max. Earth dist.	237 Jan 24 j 14:14	5°♛53'17	1.71674 AU		239 Sep 09 j 01:51	0°♝	
	237 Feb 12 j 22:03	0°♞		asc. node	239 Sep 21 j 13:29	13°♝49'25	
evening rise	237 Mar 01 j 21:45	21°♞05'58			239 Oct 05 j 14:36	0°♞	
	237 Mar 09 j 02:23	0°♟			239 Oct 30 j 16:28	0°♏	
	237 Apr 02 j 11:19	0°♠			239 Nov 24 j 02:18	0°♐	
asc. node	237 Apr 05 j 18:29	4°♠02'21			239 Dec 18 j 05:35	0°♑	
	237 Apr 27 j 01:48	0°♒		desc. node	240 Jan 11 j 03:02	29°♑47'02	
	237 May 21 j 23:02	0°♓			240 Jan 11 j 07:12	0°♒	
	237 Jun 16 j 05:32	0°♔			240 Feb 04 j 09:24	0°♓	
	237 Jul 12 j 03:00	0°♕		morning set	240 Feb 25 j 10:11	26°♓07'34	
desc. node	237 Jul 26 j 07:48	15°♕57'52			240 Feb 28 j 13:11	0°♔	
	237 Aug 08 j 05:06	0°♖			240 Mar 23 j 19:04	0°♕	
evening max el	237 Aug 27 j 00:17	19°♖18'15	46°36'31				
	237 Sep 07 j 11:37	0°♗		superior conj	240 Apr 03 j 21:14	13°♗40'54	-1°-2'-11
greatest brilliancy	237 Oct 05 j 04:57	18°♗44'12	-4.6m	minimum elong	240 Apr 04 j 06:52	14°♗10'36	1°01'52
retrograde	237 Oct 15 j 23:02	20°♗52'47		max. Earth dist.	240 Apr 06 j 05:16	16°♗33'31	1.73210 AU
evening set	237 Oct 30 j 18:48	16°♗33'51			240 Apr 17 j 03:15	0°♘	
inferior conj	237 Nov 05 j 11:54	13°♗13'59	-2°-48'-1	asc. node	240 May 03 j 06:17	19°♘48'51	
minimum elong	237 Nov 05 j 18:06	13°♗04'36	2°46'07	evening rise	240 May 11 j 02:34	29°♘26'31	
min. Earth dist.	237 Nov 05 j 18:50	13°♗03'29	0.26442 AU		240 May 11 j 13:29	0°♙	
morning rise	237 Nov 11 j 17:06	9°♗37'45			240 Jun 05 j 01:20	0°♚	
asc. node	237 Nov 16 j 10:55	7°♗26'35			240 Jun 29 j 14:54	0°♛	
direct	237 Nov 25 j 21:16	5°♗36'07			240 Jul 24 j 07:17	0°♜	
greatest brilliancy	237 Dec 08 j 09:15	8°♗31'42	-4.7m		240 Aug 18 j 04:40	0°♝	
	238 Jan 06 j 11:25	0°♞		desc. node	240 Aug 22 j 19:49	5°♞32'29	
morning max el	238 Jan 15 j 11:07	8°♞46'10	46°49'48		240 Sep 12 j 10:24	0°♟	
	238 Feb 04 j 11:54	0°♟			240 Oct 08 j 07:27	0°♠	
	238 Mar 03 j 00:00	0°♠			240 Nov 04 j 17:09	0°♒	
desc. node	238 Mar 08 j 00:49	5°♠50'16		evening max el	240 Nov 07 j 23:56	3°♒22'32	47°23'59
	238 Mar 28 j 15:14	0°♓			240 Dec 08 j 17:56	0°♓	
	238 Apr 22 j 20:48	0°♔		asc. node	240 Dec 13 j 22:51	3°♓00'45	
	238 May 17 j 20:32	0°♕		greatest brilliancy	240 Dec 16 j 01:16	4°♓01'57	-4.7m
	238 Jun 11 j 15:16	0°♖		retrograde	240 Dec 28 j 23:38	7°♓09'26	
asc. node	238 Jun 29 j 03:50	21°♖22'39		evening set	241 Jan 14 j 06:46	1°♔52'18	
	238 Jul 06 j 04:39	0°♗			241 Jan 17 j 08:27	30°♔	
morning set	238 Jul 15 j 04:19	11°♗02'55		min. Earth dist.	241 Jan 17 j 18:17	29°♔44'39	0.27298 AU
	238 Jul 30 j 12:30	0°♘		inferior conj	241 Jan 18 j 18:28	29°♔06'45	7°33'38
max. Earth dist.	238 Aug 17 j 03:47	21°♘54'19	1.72334 AU	minimum elong	241 Jan 18 j 09:36	29°♔20'39	7°32'15
				morning rise	241 Jan 22 j 12:54	26°♔47'58	
superior conj	238 Aug 20 j 19:38	26°♘27'54	1°24'16	direct	241 Feb 08 j 09:12	21°♔18'03	
minimum elong	238 Aug 20 j 18:01	26°♘22'50	1°24'15	greatest brilliancy	241 Feb 18 j 20:29	23°♔20'25	-4.6m
	238 Aug 23 j 15:41	0°♙			241 Mar 03 j 08:10	0°♕	
	238 Sep 16 j 15:58	0°♚		morning max el	241 Mar 29 j 17:42	22°♕18'26	46°09'10

desc. node	241 Apr 04 j 12:36	28°≈01'39		243 Oct 20 j 10:13	0°♁	
	241 Apr 06 j 11:29	0°♁		243 Nov 14 j 01:44	0°♁	
	241 May 04 j 12:31	0°♁		243 Dec 09 j 04:59	0°≈	
	241 May 30 j 22:32	0°♁		244 Jan 04 j 13:06	0°♁	
	241 Jun 25 j 13:08	0°♁		244 Jan 11 j 10:46	7°♁26'02	
	241 Jul 20 j 14:07	0°♁		244 Jan 19 j 08:39	15°♁37'13	46°39'19
asc. node	241 Jul 26 j 15:46	7°♁21'43		244 Feb 03 j 14:15	0°♁	
	241 Aug 14 j 03:55	0°♁		244 Feb 24 j 02:53	14°♁23'25	-4.6m
	241 Sep 07 j 08:55	0°♁		244 Mar 09 j 14:51	18°♁11'34	
morning set	241 Sep 23 j 02:42	19°♁40'41		244 Mar 26 j 12:57	12°♁37'42	
	241 Oct 01 j 08:09	0°♁		244 Mar 30 j 22:43	9°♁53'43	6°36'50
	241 Oct 25 j 04:40	0°♁		244 Mar 31 j 08:07	9°♁38'49	6°35'05
max. Earth dist.	241 Nov 01 j 03:56	8°♁46'27	1.71077 AU	min. Earth dist.	244 Mar 30 j 23:40	9°♁52'12 0.28772 AU
				morning rise	244 Apr 05 j 03:29	6°♁41'59
superior conj	241 Nov 01 j 12:45	9°♁14'12	0°31'51	direct	244 Apr 21 j 07:04	1°♁38'30
minimum elong	241 Nov 01 j 20:28	9°♁38'30	0°31'29	desc. node	244 May 02 j 00:11	3°♁42'23
desc. node	241 Nov 15 j 05:25	26°♁28'28		greatest brilliancy	244 May 03 j 17:10	4°♁22'26 -4.5m
	241 Nov 18 j 00:39	0°♁			244 Jun 07 j 14:01	0°♁
	241 Dec 11 j 21:23	0°♁		morning max el	244 Jun 09 j 02:25	1°♁26'10 45°44'50
evening rise	241 Dec 13 j 05:06	1°♁39'35			244 Jul 06 j 20:55	0°♁
	242 Jan 04 j 19:57	0°≈			244 Aug 02 j 13:04	0°♁
	242 Jan 28 j 22:03	0°♁		asc. node	244 Aug 23 j 03:41	24°♁14'27
	242 Feb 22 j 06:18	0°♁			244 Aug 27 j 23:05	0°♁
asc. node	242 Mar 08 j 08:38	17°♁09'51			244 Sep 21 j 14:33	0°♁
	242 Mar 19 j 00:08	0°♁			244 Oct 15 j 18:39	0°♁
	242 Apr 13 j 08:25	0°♁			244 Nov 08 j 16:55	0°♁
	242 May 09 j 16:20	0°♁			244 Dec 02 j 13:16	0°♁
	242 Jun 07 j 01:25	0°♁		morning set	244 Dec 07 j 06:04	5°♁54'43
evening max el	242 Jun 12 j 12:43	5°♁19'17	45°27'28	desc. node	244 Dec 12 j 17:15	12°♁47'11
desc. node	242 Jun 27 j 22:06	18°♁59'21			244 Dec 26 j 09:57	0°♁
	242 Jul 14 j 00:16	0°♁		superior conj	245 Jan 18 j 04:12	28°♁32'22 -1°-12'-35
greatest brilliancy	242 Jul 19 j 17:25	2°♁39'16	-4.5m	minimum elong	245 Jan 17 j 17:37	27°♁59'13 1°12'21
retrograde	242 Jul 31 j 05:44	5°♁00'54			245 Jan 19 j 08:12	0°≈
	242 Aug 16 j 14:06	30°♁		max. Earth dist.	245 Jan 21 j 22:49	3°≈15'51 1.71629 AU
evening set	242 Aug 18 j 04:25	29°♁04'38			245 Feb 12 j 08:58	0°♁
inferior conj	242 Aug 21 j 10:26	27°♁06'25	-8°-44'-11	evening rise	245 Feb 27 j 10:50	18°♁43'57
minimum elong	242 Aug 21 j 08:37	27°♁09'13	8°44'09		245 Mar 08 j 13:19	0°♁
min. Earth dist.	242 Aug 22 j 01:06	26°♁43'52	0.28141 AU		245 Apr 01 j 22:20	0°♁
morning rise	242 Aug 24 j 12:34	25°♁13'16		asc. node	245 Apr 04 j 20:28	3°♁34'37
direct	242 Sep 11 j 16:15	19°♁01'15			245 Apr 26 j 13:04	0°♁
greatest brilliancy	242 Sep 26 j 01:22	22°♁42'52	-4.6m		245 May 21 j 10:49	0°♁
	242 Oct 07 j 19:24	0°♁			245 Jun 15 j 18:17	0°♁
asc. node	242 Oct 19 j 01:09	9°♁14'51			245 Jul 11 j 17:30	0°♁
morning max el	242 Nov 01 j 04:36	21°♁52'13	46°47'14	desc. node	245 Jul 25 j 09:56	15°♁19'23
	242 Nov 08 j 23:49	0°♁			245 Aug 07 j 23:26	0°♁
	242 Dec 05 j 17:46	0°♁		evening max el	245 Aug 24 j 14:32	16°♁58'18 46°33'45
	242 Dec 31 j 00:53	0°♁			245 Sep 07 j 19:13	0°♁
	243 Jan 24 j 19:18	0°♁		greatest brilliancy	245 Oct 02 j 17:14	16°♁15'52 -4.6m
desc. node	243 Feb 07 j 14:57	16°♁51'21		retrograde	245 Oct 13 j 11:17	18°♁23'36
	243 Feb 18 j 09:05	0°≈		evening set	245 Oct 28 j 09:07	14°♁01'45
	243 Mar 14 j 21:28	0°♁		inferior conj	245 Nov 02 j 23:51	10°♁44'50 -3°-11'-16
	243 Apr 08 j 09:43	0°♁		minimum elong	245 Nov 03 j 06:48	10°♁34'18 3°09'09
	243 May 02 j 21:57	0°♁		min. Earth dist.	245 Nov 03 j 07:53	10°♁32'39 0.26471 AU
morning set	243 May 06 j 12:50	4°♁26'00		morning rise	245 Nov 09 j 04:14	7°♁09'45
	243 May 27 j 09:31	0°♁		asc. node	245 Nov 15 j 12:57	4°♁24'04
asc. node	243 May 31 j 18:05	5°♁20'49		direct	245 Nov 23 j 10:20	3°♁06'40
max. Earth dist.	243 Jun 09 j 21:48	16°♁35'31	1.73583 AU	greatest brilliancy	245 Dec 05 j 22:50	6°♁03'21 -4.7m
					246 Jan 06 j 14:17	0°♁
superior conj	243 Jun 11 j 22:47	19°♁06'03	0°26'07	morning max el	246 Jan 13 j 01:02	6°♁22'00 46°50'39
minimum elong	243 Jun 11 j 17:45	18°♁50'35	0°25'53		246 Feb 04 j 05:28	0°♁
	243 Jun 20 j 19:27	0°♁			246 Mar 02 j 14:27	0°≈
	243 Jul 15 j 03:22	0°♁		desc. node	246 Mar 07 j 02:54	5°≈15'22
evening rise	243 Jul 17 j 16:07	3°♁07'35			246 Mar 28 j 04:09	0°♁
	243 Aug 08 j 09:50	0°♁			246 Apr 22 j 08:48	0°♁
	243 Sep 01 j 16:13	0°♁			246 May 17 j 07:57	0°♁
desc. node	243 Sep 20 j 07:48	23°♁00'55			246 Jun 11 j 02:19	0°♁
	243 Sep 25 j 23:53	0°♁				

asc. node	246 Jun 28 j 06:02	20°♁55'57			249 Jan 10 j 22:12	30°♁	
	246 Jul 05 j 15:30	0°♁		evening set	249 Jan 11 j 16:55	29°♁33'02	
morning set	246 Jul 12 j 22:11	8°♁56'52		min. Earth dist.	249 Jan 15 j 08:20	27°♁19'54	0.27233 AU
	246 Jul 29 j 23:18	0°♁		inferior conj	249 Jan 16 j 08:11	26°♁42'33	7°22'05
max. Earth dist.	246 Aug 14 j 18:07	19°♁35'54	1.72390 AU	minimum elong	249 Jan 15 j 22:54	26°♁57'06	7°20'31
				morning rise	249 Jan 20 j 05:19	24°♁19'43	
superior conj	246 Aug 18 j 12:29	24°♁17'08	1°23'54	direct	249 Feb 05 j 21:45	18°♁54'47	
minimum elong	246 Aug 18 j 10:08	24°♁09'50	1°23'54	greatest brilliancy	249 Feb 16 j 10:30	20°♁58'06	-4.6m
	246 Aug 23 j 02:32	0°♁			249 Mar 04 j 06:51	0°♁	
	246 Sep 16 j 02:57	0°♁		morning max el	249 Mar 27 j 06:32	19°♁56'15	46°10'39
evening rise	246 Sep 25 j 09:08	11°♁34'54		desc. node	249 Apr 03 j 14:34	27°♁13'38	
	246 Oct 10 j 02:23	0°♁			249 Apr 06 j 07:46	0°♁	
desc. node	246 Oct 17 j 19:40	9°♁39'23			249 May 04 j 03:51	0°♁	
	246 Nov 03 j 02:11	0°♁			249 May 30 j 11:49	0°♁	
	246 Nov 27 j 03:29	0°♁			249 Jun 25 j 01:22	0°♁	
	246 Dec 21 j 08:10	0°♁			249 Jul 20 j 01:46	0°♁	
	247 Jan 14 j 20:12	0°♁		asc. node	249 Jul 25 j 17:50	6°♁52'51	
asc. node	247 Feb 07 j 22:40	28°♁48'30			249 Aug 13 j 15:14	0°♁	
	247 Feb 08 j 23:03	0°♁			249 Sep 06 j 20:05	0°♁	
	247 Mar 07 j 07:22	0°♁		morning set	249 Sep 20 j 17:06	17°♁20'30	
evening max el	247 Mar 31 j 10:04	25°♁04'21	45°31'26		249 Sep 30 j 19:18	0°♁	
	247 Apr 05 j 14:58	0°♁			249 Oct 24 j 15:50	0°♁	
greatest brilliancy	247 May 04 j 15:10	21°♁22'05	-4.5m				
retrograde	247 May 19 j 00:35	24°♁57'46		superior conj	249 Oct 29 j 23:59	6°♁43'23	0°35'23
desc. node	247 May 30 j 12:17	22°♁22'42		minimum elong	249 Oct 30 j 08:22	7°♁09'45	0°35'00
evening set	247 Jun 03 j 01:20	20°♁37'22		max. Earth dist.	249 Oct 29 j 10:47	6°♁01'49	1.71096 AU
inferior conj	247 Jun 09 j 11:42	16°♁46'38	-2°-18'-34	desc. node	249 Nov 14 j 07:34	25°♁59'59	
minimum elong	247 Jun 09 j 06:45	16°♁54'22	2°17'11		249 Nov 17 j 11:51	0°♁	
min. Earth dist.	247 Jun 09 j 13:54	16°♁43'12	0.28957 AU	evening rise	249 Dec 10 j 15:05	29°♁04'52	
morning rise	247 Jun 15 j 12:04	13°♁09'20			249 Dec 11 j 08:39	0°♁	
direct	247 Jul 01 j 04:51	8°♁28'49			250 Jan 04 j 07:18	0°♁	
greatest brilliancy	247 Jul 15 j 04:50	11°♁53'55	-4.5m		250 Jan 28 j 09:34	0°♁	
	247 Aug 09 j 20:42	0°♁			250 Feb 21 j 18:05	0°♁	
morning max el	247 Aug 19 j 09:30	8°♁53'10	46°04'45	asc. node	250 Mar 07 j 10:35	16°♁39'24	
	247 Sep 08 j 18:55	0°♁			250 Mar 18 j 12:26	0°♁	
asc. node	247 Sep 20 j 15:29	13°♁11'37			250 Apr 12 j 21:44	0°♁	
	247 Oct 05 j 04:42	0°♁			250 May 09 j 07:51	0°♁	
	247 Oct 30 j 05:17	0°♁			250 Jun 06 j 22:55	0°♁	
	247 Nov 23 j 14:29	0°♁		evening max el	250 Jun 10 j 02:47	3°♁03'02	45°26'15
	247 Dec 17 j 17:25	0°♁		desc. node	250 Jun 27 j 00:14	17°♁54'59	
desc. node	248 Jan 10 j 05:13	29°♁17'45			250 Jul 16 j 09:08	0°♁	
	248 Jan 10 j 18:46	0°♁		greatest brilliancy	250 Jul 17 j 03:34	0°♁18'38	-4.5m
	248 Feb 03 j 20:44	0°♁		retrograde	250 Jul 28 j 20:04	2°♁44'23	
morning set	248 Feb 22 j 23:10	23°♁44'24			250 Aug 09 j 16:44	30°♁	
	248 Feb 28 j 00:18	0°♁		evening set	250 Aug 15 j 16:38	26°♁50'14	
	248 Mar 23 j 06:02	0°♁		inferior conj	250 Aug 19 j 00:52	24°♁48'50	-8°-41'-21
				minimum elong	250 Aug 18 j 22:12	24°♁52'56	8°41'17
superior conj	248 Apr 01 j 13:07	11°♁28'09	-1°-4'-27	min. Earth dist.	250 Aug 19 j 14:47	24°♁27'28	0.28196 AU
minimum elong	248 Apr 01 j 22:45	11°♁57'49	1°04'10	morning rise	250 Aug 22 j 03:33	22°♁55'01	
max. Earth dist.	248 Apr 04 j 01:33	14°♁34'23	1.73166 AU	direct	250 Sep 09 j 07:18	16°♁42'38	
	248 Apr 16 j 14:11	0°♁		greatest brilliancy	250 Sep 23 j 18:16	20°♁26'37	-4.6m
asc. node	248 May 02 j 08:19	19°♁21'31			250 Oct 08 j 11:35	0°♁	
evening rise	248 May 08 j 20:34	27°♁20'50		asc. node	250 Oct 18 j 03:12	8°♁13'59	
	248 May 11 j 00:28	0°♁		morning max el	250 Oct 29 j 19:42	19°♁31'43	46°46'24
	248 Jun 04 j 12:29	0°♁			250 Nov 08 j 19:32	0°♁	
	248 Jun 29 j 02:21	0°♁			250 Dec 05 j 09:13	0°♁	
	248 Jul 23 j 19:15	0°♁			250 Dec 30 j 14:32	0°♁	
	248 Aug 17 j 17:26	0°♁			251 Jan 24 j 07:57	0°♁	
desc. node	248 Aug 21 j 21:54	5°♁00'06		desc. node	251 Feb 06 j 17:00	16°♁20'05	
	248 Sep 12 j 00:27	0°♁			251 Feb 17 j 21:06	0°♁	
	248 Oct 07 j 23:50	0°♁			251 Mar 14 j 09:05	0°♁	
	248 Nov 04 j 15:17	0°♁			251 Apr 07 j 21:01	0°♁	
evening max el	248 Nov 05 j 13:35	0°♁56'54	47°23'41		251 May 02 j 09:02	0°♁	
	248 Dec 10 j 10:17	0°♁		morning set	251 May 04 j 06:41	2°♁19'47	
asc. node	248 Dec 13 j 01:00	1°♁19'52			251 May 26 j 20:27	0°♁	
greatest brilliancy	248 Dec 13 j 18:05	1°♁39'41	-4.7m	asc. node	251 May 30 j 20:16	4°♁53'57	
retrograde	248 Dec 26 j 13:10	4°♁43'54		max. Earth dist.	251 Jun 07 j 21:00	14°♁45'46	1.73601 AU

superior conj	251 Jun 09 j 17:14	17°II01'41	0°23'08	direct	253 Nov 20 j 23:18	0°ML37'12	
minimum elong	251 Jun 09 j 12:43	16°II47'49	0°22'55	greatest brilliancy	253 Dec 03 j 12:42	3°ML34'51	-4.7m
	251 Jun 20 j 06:23	0°☾			254 Jan 06 j 15:55	0°♁	
	251 Jul 14 j 14:24	0°♁		morning max el	254 Jan 10 j 14:15	3°♁55'23	46°51'32
evening rise	251 Jul 15 j 10:42	1°♁02'40			254 Feb 03 j 22:49	0°☾	
	251 Aug 07 j 21:07	0°♁			254 Mar 02 j 04:50	0°≈	
	251 Sep 01 j 03:49	0°♁		desc. node	254 Mar 06 j 04:53	4°≈40'09	
desc. node	251 Sep 19 j 09:47	22°♁30'23			254 Mar 27 j 17:01	0°♁	
	251 Sep 25 j 11:54	0°ML			254 Apr 21 j 20:46	0°♁	
	251 Oct 19 j 22:46	0°♁			254 May 16 j 19:22	0°♁	
	251 Nov 13 j 15:05	0°☾			254 Jun 10 j 13:25	0°II	
	251 Dec 08 j 19:45	0°≈		asc. node	254 Jun 27 j 08:04	20°II28'36	
	252 Jan 04 j 07:09	0°♁			254 Jul 05 j 02:27	0°☾	
asc. node	252 Jan 10 j 12:50	6°♁40'04		morning set	254 Jul 10 j 16:08	6°☾50'53	
evening max el	252 Jan 17 j 00:29	13°♁21'28	46°41'59		254 Jul 29 j 10:11	0°♁	
	252 Feb 03 j 21:28	0°♁		max. Earth dist.	254 Aug 12 j 08:06	17°♁16'16	1.72446 AU
greatest brilliancy	252 Feb 21 j 19:15	12°♁11'04	-4.6m				
retrograde	252 Mar 07 j 08:00	15°♁59'52		superior conj	254 Aug 16 j 05:27	22°♁06'36	1°23'24
evening set	252 Mar 24 j 07:58	10°♁21'42		minimum elong	254 Aug 16 j 02:26	21°♁57'13	1°23'24
inferior conj	252 Mar 28 j 15:00	7°♁41'45	6°49'24		254 Aug 22 j 13:28	0°♁	
minimum elong	252 Mar 29 j 00:16	7°♁27'06	6°47'47		254 Sep 15 j 13:59	0°♁	
min. Earth dist.	252 Mar 28 j 14:56	7°♁41'51	0.28750 AU	evening rise	254 Sep 22 j 22:35	9°♁12'06	
morning rise	252 Apr 02 j 16:48	4°♁34'36			254 Oct 09 j 13:36	0°ML	
	252 Apr 13 j 17:38	30°R♁		desc. node	254 Oct 16 j 21:48	9°ML10'44	
direct	252 Apr 18 j 23:11	29°♁26'59			254 Nov 02 j 13:39	0°♁	
	252 Apr 24 j 08:35	0°♁			254 Nov 26 j 15:14	0°☾	
desc. node	252 May 01 j 02:23	2°♁04'31			254 Dec 20 j 20:15	0°≈	
greatest brilliancy	252 May 01 j 06:58	2°♁09'13	-4.5m		255 Jan 14 j 08:50	0°♁	
morning max el	252 Jun 06 j 19:33	29°♁18'42	45°44'52	asc. node	255 Feb 07 j 00:41	28°♁14'20	
	252 Jun 07 j 12:51	0°♁			255 Feb 08 j 12:47	0°♁	
	252 Jul 06 j 12:49	0°II			255 Mar 06 j 23:39	0°♁	
	252 Aug 02 j 02:34	0°☾		evening max el	255 Mar 29 j 01:23	22°♁52'03	45°33'01
asc. node	252 Aug 22 j 05:42	23°☾42'58			255 Apr 05 j 15:53	0°II	
	252 Aug 27 j 11:29	0°♁		greatest brilliancy	255 May 02 j 07:08	19°II13'38	-4.5m
	252 Sep 21 j 02:24	0°♁		retrograde	255 May 16 j 16:32	22°II50'11	
	252 Oct 15 j 06:13	0°♁		desc. node	255 May 29 j 14:21	19°II36'06	
	252 Nov 08 j 04:21	0°ML		evening set	255 May 31 j 17:39	18°II30'03	
	252 Dec 02 j 00:35	0°♁		inferior conj	255 Jun 07 j 04:20	14°II38'51	-1°-59'-39
morning set	252 Dec 04 j 16:02	3°♁19'33		minimum elong	255 Jun 07 j 00:02	14°II45'36	1°58'25
desc. node	252 Dec 11 j 19:24	12°♁18'28		min. Earth dist.	255 Jun 07 j 06:58	14°II34'44	0.28964 AU
	252 Dec 25 j 21:11	0°☾		morning rise	255 Jun 13 j 06:14	10°II59'00	
				direct	255 Jun 28 j 21:07	6°II20'53	
superior conj	253 Jan 15 j 14:51	26°☾00'30	-1°-10'-28	greatest brilliancy	255 Jul 12 j 20:15	9°II44'13	-4.5m
minimum elong	253 Jan 15 j 03:49	25°☾25'56	1°10'10		255 Aug 09 j 22:49	0°☾	
	253 Jan 18 j 19:21	0°≈		morning max el	255 Aug 17 j 00:06	6°☾38'27	46°03'22
max. Earth dist.	253 Jan 19 j 10:14	0°≈46'33	1.71578 AU		255 Sep 08 j 11:37	0°♁	
	253 Feb 11 j 20:04	0°♁		asc. node	255 Sep 19 j 17:35	12°♁34'25	
evening rise	253 Feb 25 j 00:10	16°♁22'12			255 Oct 04 j 18:38	0°♁	
	253 Mar 08 j 00:24	0°♁			255 Oct 29 j 18:00	0°♁	
	253 Apr 01 j 09:32	0°♁			255 Nov 23 j 02:34	0°ML	
asc. node	253 Apr 03 j 22:33	3°♁06'42			255 Dec 17 j 05:07	0°♁	
	253 Apr 26 j 00:34	0°II		desc. node	256 Jan 09 j 07:10	28°♁48'07	
	253 May 20 j 22:52	0°☾			256 Jan 10 j 06:12	0°☾	
	253 Jun 15 j 07:19	0°♁			256 Feb 03 j 07:57	0°≈	
	253 Jul 11 j 08:25	0°♁		morning set	256 Feb 20 j 11:57	21°≈20'45	
desc. node	253 Jul 24 j 11:59	14°♁39'41			256 Feb 27 j 11:19	0°♁	
	253 Aug 07 j 18:28	0°♁			256 Mar 22 j 16:55	0°♁	
evening max el	253 Aug 22 j 04:40	14°♁37'39	46°30'59				
	253 Sep 08 j 05:44	0°ML		superior conj	256 Mar 30 j 05:06	9°♁16'02	-1°-6'-37
greatest brilliancy	253 Sep 30 j 06:16	13°ML48'21	-4.6m	minimum elong	256 Mar 30 j 14:39	9°♁45'29	1°06'20
retrograde	253 Oct 10 j 23:07	15°ML54'19		max. Earth dist.	256 Apr 01 j 19:50	12°♁29'27	1.73117 AU
evening set	253 Oct 25 j 23:43	11°ML29'34			256 Apr 16 j 00:59	0°♁	
inferior conj	253 Oct 31 j 11:55	8°ML15'44	-3°-33'-56	asc. node	256 May 01 j 10:31	18°♁55'13	
minimum elong	253 Oct 31 j 19:34	8°ML04'08	3°31'40	evening rise	256 May 06 j 14:44	25°♁16'13	
min. Earth dist.	253 Oct 31 j 21:13	8°ML01'38	0.26502 AU		256 May 10 j 11:17	0°II	
morning rise	253 Nov 06 j 15:11	4°ML41'52			256 Jun 03 j 23:26	0°☾	
asc. node	253 Nov 14 j 15:11	1°ML26'57			256 Jun 28 j 13:37	0°♁	

	256 Jul 23 j 07:04	0°♍		258 Dec 30 j 03:50	0°♏		
	256 Aug 17 j 06:07	0°♌		259 Jan 23 j 20:19	0°♁		
desc. node	256 Aug 20 j 23:52	4°♌27'39		desc. node	259 Feb 05 j 19:04	15°♁49'35	
	256 Sep 11 j 14:31	0°♍		259 Feb 17 j 08:51	0°♁		
evening max el	256 Oct 07 j 16:25	0°♏		259 Mar 13 j 20:23	0°♏		
	256 Nov 03 j 02:48	28°♏30'32	47°23'24	259 Apr 07 j 08:00	0°♍		
	256 Nov 04 j 14:11	0°♁		259 May 01 j 19:48	0°♏		
greatest brilliancy	256 Dec 11 j 09:55	29°♁16'14	-4.7m	morning set	259 May 02 j 00:24	0°♏14'05	
asc. node	256 Dec 12 j 03:02	29°♁35'07		259 May 26 j 07:06	0°♌		
	256 Dec 13 j 02:56	0°♁		asc. node	259 May 29 j 22:17	4°♌27'29	
retrograde	256 Dec 24 j 02:41	2°♁18'37		max. Earth dist.	259 Jun 05 j 20:12	12°♌56'53	1.73612 AU
	257 Jan 03 j 16:28	30°♌♁					
evening set	257 Jan 09 j 02:57	27°♁13'31		superior conj	259 Jun 07 j 11:44	14°♌58'20	0°20'07
min. Earth dist.	257 Jan 12 j 22:12	24°♁55'11	0.27170 AU	minimum elong	259 Jun 07 j 07:46	14°♌46'08	0°19'55
inferior conj	257 Jan 13 j 21:46	24°♁18'23	7°09'40		259 Jun 19 j 17:00	0°♁	
minimum elong	257 Jan 13 j 12:09	24°♁33'26	7°07'55	evening rise	259 Jul 13 j 05:31	28°♁59'33	
morning rise	257 Jan 17 j 21:45	21°♁51'33		259 Jul 14 j 01:06	0°♌		
direct	257 Feb 03 j 10:07	16°♁31'21		259 Aug 07 j 08:00	0°♍		
greatest brilliancy	257 Feb 14 j 00:59	18°♁36'31	-4.6m	259 Aug 31 j 15:01	0°♌		
	257 Mar 04 j 23:30	0°♁		desc. node	259 Sep 18 j 11:58	22°♌01'45	
morning max el	257 Mar 24 j 20:00	17°♁36'02	46°12'14	259 Sep 24 j 23:32	0°♍		
desc. node	257 Apr 02 j 16:43	26°♁27'21		259 Oct 19 j 11:00	0°♏		
	257 Apr 06 j 03:13	0°♏		259 Nov 13 j 04:14	0°♁		
	257 May 03 j 18:44	0°♍		259 Dec 08 j 10:29	0°♁		
	257 May 30 j 00:44	0°♏		260 Jan 04 j 01:31	0°♏		
	257 Jun 24 j 13:15	0°♌		asc. node	260 Jan 09 j 14:52	5°♏53'35	
	257 Jul 19 j 13:03	0°♁		evening max el	260 Jan 14 j 16:39	11°♏06'38	46°44'30
asc. node	257 Jul 24 j 19:52	6°♁24'55		260 Feb 04 j 07:20	0°♍		
	257 Aug 13 j 02:14	0°♌		greatest brilliancy	260 Feb 19 j 12:39	9°♍59'50	-4.6m
	257 Sep 06 j 06:59	0°♍		retrograde	260 Mar 05 j 00:41	13°♍47'21	
morning set	257 Sep 18 j 07:39	15°♍01'38		evening set	260 Mar 22 j 02:42	8°♍05'14	
	257 Sep 30 j 06:12	0°♌		inferior conj	260 Mar 26 j 06:56	5°♍29'15	7°01'36
	257 Oct 24 j 02:48	0°♍		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
superior conj	257 Oct 27 j 11:05	4°♌12'38	0°38'51	morning rise	260 Mar 31 j 05:35	2°♍26'45	
minimum elong	257 Oct 27 j 20:03	4°♌40'52	0°38'28	260 Apr 04 j 21:38	30°♌♏		
max. Earth dist.	257 Oct 26 j 19:16	3°♌22'53	1.71122 AU	direct	260 Apr 16 j 15:13	27°♏15'11	
desc. node	257 Nov 13 j 09:41	25°♌32'01		greatest brilliancy	260 Apr 28 j 19:29	29°♏54'29	-4.5m
	257 Nov 16 j 22:53	0°♏		260 Apr 29 j 00:49	0°♍		
evening rise	257 Dec 08 j 00:41	26°♏29'35		desc. node	260 Apr 30 j 04:29	0°♍29'55	
	257 Dec 10 j 19:44	0°♁		morning max el	260 Jun 04 j 11:49	27°♍09'44	45°44'59
	258 Jan 03 j 18:28	0°♁		260 Jun 07 j 10:32	0°♏		
	258 Jan 27 j 20:52	0°♏		260 Jul 06 j 04:10	0°♌		
	258 Feb 21 j 05:40	0°♍		260 Aug 01 j 15:38	0°♁		
asc. node	258 Mar 06 j 12:42	16°♍10'09		asc. node	260 Aug 21 j 07:47	23°♁12'44	
	258 Mar 18 j 00:32	0°♏		260 Aug 26 j 23:29	0°♌		
	258 Apr 12 j 10:53	0°♌		260 Sep 20 j 13:51	0°♍		
	258 May 08 j 23:15	0°♁		260 Oct 14 j 17:23	0°♌		
	258 Jun 06 j 20:44	0°♌		260 Nov 07 j 15:22	0°♍		
evening max el	258 Jun 07 j 17:59	0°♌50'50	45°25'18	260 Dec 01 j 11:33	0°♏		
desc. node	258 Jun 26 j 02:14	16°♌50'09		morning set	260 Dec 02 j 02:10	0°♏46'00	
greatest brilliancy	258 Jul 14 j 13:48	28°♌00'11	-4.5m	desc. node	260 Dec 10 j 21:22	11°♏50'13	
	258 Jul 21 j 06:46	0°♍		260 Dec 25 j 08:07	0°♁		
retrograde	258 Jul 26 j 10:57	0°♍30'06					
	258 Jul 31 j 12:01	30°♌♌		superior conj	261 Jan 13 j 01:06	23°♁28'05	-1°8'-10
evening set	258 Aug 13 j 04:54	24°♌38'39		minimum elong	261 Jan 12 j 13:42	22°♁52'23	1°07'50
inferior conj	258 Aug 16 j 15:36	22°♌33'34	-8°-37'-48	max. Earth dist.	261 Jan 16 j 21:50	28°♁18'27	1.71535 AU
minimum elong	258 Aug 16 j 12:08	22°♌38'53	8°37'38		261 Jan 18 j 06:16	0°♁	
min. Earth dist.	258 Aug 17 j 04:19	22°♌14'03	0.28248 AU		261 Feb 11 j 06:56	0°♏	
morning rise	258 Aug 19 j 19:11	20°♌38'31		evening rise	261 Feb 22 j 12:45	13°♏58'37	
direct	258 Sep 06 j 23:10	14°♌26'39		261 Mar 07 j 11:17	0°♍		
greatest brilliancy	258 Sep 21 j 10:34	18°♌11'42	-4.6m	261 Mar 31 j 20:31	0°♏		
	258 Oct 08 j 22:57	0°♍		asc. node	261 Apr 03 j 00:42	2°♏39'36	
asc. node	258 Oct 17 j 05:25	7°♍16'14		261 Apr 25 j 11:51	0°♌		
morning max el	258 Oct 27 j 11:18	17°♍13'56	46°45'07	261 May 20 j 10:45	0°♁		
	258 Nov 08 j 14:18	0°♌		261 Jun 14 j 20:13	0°♌		
	258 Dec 05 j 00:11	0°♍		261 Jul 10 j 23:14	0°♍		

desc. node	261 Jul 23 j 14:01	14°♄00'18			264 Feb 02 j 18:58	0°≈	
	261 Aug 07 j 13:40	0°♁		morning set	264 Feb 18 j 00:47	18°≈57'40	
evening max el	261 Aug 19 j 18:02	12°♁16'14	46°28'19		264 Feb 26 j 22:10	0°✠	
	261 Sep 08 j 19:05	0°♌			264 Mar 22 j 03:41	0°♃	
greatest brilliancy	261 Sep 27 j 20:13	11°♌23'33	-4.6m				
retrograde	261 Oct 08 j 10:40	13°♌27'04		superior conj	264 Mar 27 j 21:00	7°♃03'51	-1°-8'-41
evening set	261 Oct 23 j 14:38	8°♌59'12		minimum elong	264 Mar 28 j 06:24	7°♃32'53	1°08'25
inferior conj	261 Oct 29 j 00:15	5°♌48'47	-3°-55'-59	max. Earth dist.	264 Mar 30 j 12:43	10°♃20'24	1.73075 AU
minimum elong	261 Oct 29 j 08:31	5°♌36'12	3°53'35		264 Apr 15 j 11:44	0°♄	
min. Earth dist.	261 Oct 29 j 10:58	5°♌32'28	0.26535 AU	asc. node	264 Apr 30 j 12:30	18°♄28'16	
morning rise	261 Nov 04 j 02:06	2°♌16'20		evening rise	264 May 04 j 08:35	23°♄10'44	
	261 Nov 09 j 00:12	30°♌♁			264 May 09 j 22:05	0°♂	
asc. node	261 Nov 13 j 17:07	28°♁37'58			264 Jun 03 j 10:25	0°♄	
direct	261 Nov 18 j 11:57	28°♁09'46			264 Jun 28 j 00:56	0°♁	
	261 Nov 28 j 07:06	0°♌			264 Jul 22 j 18:58	0°♄	
greatest brilliancy	261 Dec 01 j 03:17	1°♌08'58	-4.7m		264 Aug 16 j 18:54	0°♁	
	262 Jan 06 j 15:50	0°♄		desc. node	264 Aug 20 j 02:02	3°♁55'34	
morning max el	262 Jan 08 j 02:30	1°♄27'19	46°52'09		264 Sep 11 j 04:45	0°♌	
	262 Feb 03 j 15:29	0°♄			264 Oct 07 j 09:19	0°♄	
	262 Mar 01 j 18:51	0°≈		evening max el	264 Oct 31 j 16:27	26°♄05'22	47°23'10
desc. node	262 Mar 05 j 07:01	4°≈06'07			264 Nov 04 j 14:05	0°♄	
	262 Mar 27 j 05:39	0°✠		greatest brilliancy	264 Dec 09 j 00:59	26°♄51'50	-4.7m
	262 Apr 21 j 08:33	0°♃		asc. node	264 Dec 11 j 05:05	27°♄46'22	
	262 May 16 j 06:36	0°♄		retrograde	264 Dec 21 j 16:41	29°♄53'29	
	262 Jun 10 j 00:20	0°♂		evening set	265 Jan 06 j 13:00	24°♄53'46	
asc. node	262 Jun 26 j 10:04	20°♂01'43		min. Earth dist.	265 Jan 10 j 11:46	22°♄30'51	0.27105 AU
	262 Jul 04 j 13:11	0°♄		inferior conj	265 Jan 11 j 11:19	21°♄54'12	6°56'18
morning set	262 Jul 08 j 09:44	4°♄44'24		minimum elong	265 Jan 11 j 01:26	22°♄09'35	6°54'24
	262 Jul 28 j 20:54	0°♁		morning rise	265 Jan 15 j 14:16	19°♄23'26	
max. Earth dist.	262 Aug 09 j 23:39	15°♁02'05	1.72503 AU	direct	265 Jan 31 j 22:45	14°♄07'56	
				greatest brilliancy	265 Feb 11 j 14:48	16°♄14'33	-4.6m
superior conj	262 Aug 13 j 22:19	19°♁56'25	1°22'48		265 Mar 05 j 11:45	0°≈	
minimum elong	262 Aug 13 j 18:38	19°♁44'59	1°22'46	morning max el	265 Mar 22 j 10:16	15°≈18'01	46°13'47
	262 Aug 22 j 00:13	0°♄		desc. node	265 Apr 01 j 18:50	25°≈41'59	
	262 Sep 15 j 00:51	0°♁			265 Apr 05 j 22:02	0°✠	
evening rise	262 Sep 20 j 12:16	6°♁50'40			265 May 03 j 09:24	0°♃	
	262 Oct 09 j 00:38	0°♌			265 May 29 j 13:38	0°♄	
desc. node	262 Oct 15 j 23:52	8°♌42'37			265 Jun 24 j 01:12	0°♂	
	262 Nov 02 j 00:53	0°♄			265 Jul 19 j 00:28	0°♄	
	262 Nov 26 j 02:42	0°♄		asc. node	265 Jul 23 j 22:01	5°♄56'56	
	262 Dec 20 j 08:04	0°≈			265 Aug 12 j 13:22	0°♁	
	263 Jan 13 j 21:16	0°✠			265 Sep 05 j 18:00	0°♄	
asc. node	263 Feb 06 j 02:47	27°✠40'48		morning set	265 Sep 15 j 22:06	12°♄42'14	
	263 Feb 08 j 02:27	0°♃			265 Sep 29 j 17:13	0°♁	
	263 Mar 06 j 16:08	0°♄			265 Oct 23 j 13:53	0°♌	
evening max el	263 Mar 26 j 15:52	20°♄37'41	45°34'34	max. Earth dist.	265 Oct 24 j 05:04	0°♌47'49	1.71146 AU
	263 Apr 05 j 18:13	0°♂					
greatest brilliancy	263 Apr 29 j 22:09	17°♂03'27	-4.5m	superior conj	265 Oct 24 j 22:09	1°♌41'32	0°42'16
retrograde	263 May 14 j 08:32	20°♂42'04		minimum elong	265 Oct 25 j 07:37	2°♌11'22	0°41'51
desc. node	263 May 28 j 16:19	16°♂45'00		desc. node	265 Nov 12 j 11:38	25°♌03'08	
evening set	263 May 29 j 09:49	16°♂21'39			265 Nov 16 j 10:02	0°♄	
inferior conj	263 Jun 04 j 20:43	12°♂30'24	-1°-40'-21	evening rise	265 Dec 05 j 10:18	23°♄54'00	
minimum elong	263 Jun 04 j 17:04	12°♂36'06	1°39'18		265 Dec 10 j 06:56	0°♄	
min. Earth dist.	263 Jun 04 j 23:51	12°♂25'29	0.28971 AU		266 Jan 03 j 05:44	0°≈	
morning rise	263 Jun 11 j 00:04	8°♂48'18			266 Jan 27 j 08:16	0°✠	
direct	263 Jun 26 j 12:52	4°♂12'07			266 Feb 20 j 17:19	0°♃	
greatest brilliancy	263 Jul 10 j 12:29	7°♂35'16	-4.5m	asc. node	266 Mar 05 j 14:50	15°♃40'42	
	263 Aug 09 j 23:34	0°♄			266 Mar 17 j 12:43	0°♄	
morning max el	263 Aug 14 j 14:52	4°♄24'21	46°02'07		266 Apr 12 j 00:10	0°♂	
	263 Sep 08 j 03:56	0°♁			266 May 08 j 15:00	0°♄	
asc. node	263 Sep 18 j 19:44	11°♁57'56		evening max el	266 Jun 05 j 09:43	28°♄39'24	45°24'09
	263 Oct 04 j 08:20	0°♄			266 Jun 06 j 19:43	0°♁	
	263 Oct 29 j 06:32	0°♁		desc. node	266 Jun 25 j 04:19	15°♁42'54	
	263 Nov 22 j 14:30	0°♌		greatest brilliancy	266 Jul 12 j 01:05	25°♁42'01	-4.5m
	263 Dec 16 j 16:40	0°♄		retrograde	266 Jul 24 j 01:38	28°♁14'37	
desc. node	264 Jan 08 j 09:15	28°♄19'31		evening set	266 Aug 10 j 16:49	22°♁26'37	
	264 Jan 09 j 17:28	0°♄		inferior conj	266 Aug 14 j 06:14	20°♁17'15	-8°-33'-23

minimum elong	266 Aug 14 j 02:01	20°Ω23'45	8°33'08		269 Jan 17 j 17:30	0°≈	
min. Earth dist.	266 Aug 14 j 17:44	19°Ω59'34	0.28298 AU		269 Feb 10 j 18:08	0°✠	
morning rise	266 Aug 17 j 11:02	18°Ω20'20		evening rise	269 Feb 20 j 01:13	11°✠33'36	
direct	266 Sep 04 j 15:03	12°Ω09'51			269 Mar 06 j 22:29	0°Υ	
greatest brilliancy	266 Sep 19 j 01:42	15°Ω54'19	-4.6m		269 Mar 31 j 07:51	0°♁	
	266 Oct 09 j 07:46	0°♎		asc. node	269 Apr 02 j 02:41	2°♁11'00	
asc. node	266 Oct 16 j 07:23	6°♎18'17			269 Apr 24 j 23:28	0°♈	
morning max el	266 Oct 25 j 02:25	14°♎54'17	46°43'50		269 May 19 j 22:55	0°♁	
	266 Nov 08 j 08:53	0°♊			269 Jun 14 j 09:27	0°♎	
	266 Dec 04 j 15:11	0°♋			269 Jul 10 j 14:31	0°♎	
	266 Dec 29 j 17:15	0°♌		desc. node	269 Jul 22 j 16:09	13°♎19'59	
	267 Jan 23 j 08:49	0°♍			269 Aug 07 j 09:48	0°♊	
desc. node	267 Feb 04 j 21:10	15°♍18'43		evening max el	269 Aug 17 j 06:17	9°♊51'11	46°25'23
	267 Feb 16 j 20:46	0°≈			269 Sep 09 j 13:37	0°♌	
	267 Mar 13 j 07:52	0°✠		greatest brilliancy	269 Sep 25 j 10:08	8°♌57'13	-4.6m
	267 Apr 06 j 19:09	0°Υ		retrograde	269 Oct 05 j 21:50	10°♌58'20	
morning set	267 Apr 29 j 18:25	28°Υ08'47		evening set	269 Oct 21 j 05:29	6°♌26'44	
	267 May 01 j 06:43	0°♁		inferior conj	269 Oct 26 j 12:26	3°♌20'09	-4°-17'-36
	267 May 25 j 17:54	0°♈		minimum elong	269 Oct 26 j 21:16	3°♌06'42	4°15'06
asc. node	267 May 29 j 00:19	4°♈00'36		min. Earth dist.	269 Oct 27 j 00:51	3°♌01'16	0.26576 AU
max. Earth dist.	267 Jun 03 j 19:36	11°♈08'09	1.73624 AU		269 Nov 01 j 04:51	30°♌♁	
				morning rise	269 Nov 01 j 12:37	29°♌49'31	
superior conj	267 Jun 05 j 06:24	12°♈55'01	0°17'05	asc. node	269 Nov 12 j 19:12	25°♌52'48	
minimum elong	267 Jun 05 j 03:00	12°♈44'35	0°16'56	direct	269 Nov 16 j 00:04	25°♌40'13	
	267 Jun 19 j 03:49	0°♁		greatest brilliancy	269 Nov 28 j 18:55	28°♌42'34	-4.7m
evening rise	267 Jul 11 j 00:23	26°♁55'54			269 Dec 01 j 10:32	0°♌	
	267 Jul 13 j 12:04	0°♎		morning max el	270 Jan 05 j 14:35	28°♌57'07	46°52'57
	267 Aug 06 j 19:13	0°♎			270 Jan 06 j 15:19	0°♌	
	267 Aug 31 j 02:34	0°♊			270 Feb 03 j 08:19	0°♍	
desc. node	267 Sep 17 j 13:59	21°♊31'27			270 Mar 01 j 09:05	0°≈	
	267 Sep 24 j 11:32	0°♌		desc. node	270 Mar 04 j 09:07	3°≈31'06	
	267 Oct 18 j 23:37	0°♌			270 Mar 26 j 18:32	0°✠	
	267 Nov 12 j 17:47	0°♍			270 Apr 20 j 20:36	0°Υ	
	267 Dec 08 j 01:43	0°≈			270 May 15 j 18:08	0°♁	
	268 Jan 03 j 20:40	0°✠		asc. node	270 Jun 09 j 11:32	0°♈	
asc. node	268 Jan 08 j 17:00	5°✠05'49			270 Jun 25 j 12:16	19°♈34'37	
evening max el	268 Jan 12 j 08:33	8°✠50'07	46°46'58		270 Jul 04 j 00:12	0°♁	
	268 Feb 04 j 21:05	0°Υ		morning set	270 Jul 06 j 03:48	2°♁38'34	
greatest brilliancy	268 Feb 17 j 07:15	7°Υ49'19	-4.6m		270 Jul 28 j 07:50	0°♎	
retrograde	268 Mar 02 j 17:06	11°Υ34'01		max. Earth dist.	270 Aug 07 j 18:21	12°♎57'04	1.72559 AU
evening set	268 Mar 19 j 21:31	5°Υ48'16					
inferior conj	268 Mar 23 j 22:58	3°Υ16'10	7°13'10	superior conj	270 Aug 11 j 15:40	17°♎47'04	1°22'04
minimum elong	268 Mar 24 j 07:46	3°Υ02'12	7°11'46	minimum elong	270 Aug 11 j 11:22	17°♎33'40	1°22'01
min. Earth dist.	268 Mar 23 j 20:52	3°Υ19'29	0.28687 AU		270 Aug 21 j 11:12	0°♎	
morning rise	268 Mar 28 j 18:21	0°Υ18'18			270 Sep 14 j 12:00	0°♊	
	268 Mar 29 j 07:00	30°♌✠		evening rise	270 Sep 18 j 02:29	4°♊30'10	
direct	268 Apr 14 j 07:14	25°✠02'59			270 Oct 08 j 12:00	0°♌	
greatest brilliancy	268 Apr 26 j 07:42	27°✠38'45	-4.5m	desc. node	270 Oct 15 j 01:51	8°♌13'08	
desc. node	268 Apr 29 j 06:24	28°✠57'45			270 Nov 01 j 12:31	0°♌	
	268 May 01 j 07:17	0°Υ			270 Nov 25 j 14:37	0°♍	
morning max el	268 Jun 02 j 03:12	24°Υ58'06	45°45'12		270 Dec 19 j 20:21	0°≈	
	268 Jun 07 j 07:37	0°♁			271 Jan 13 j 10:11	0°✠	
	268 Jul 05 j 19:30	0°♈		asc. node	271 Feb 05 j 04:53	27°✠05'54	
	268 Aug 01 j 04:51	0°♁			271 Feb 07 j 16:38	0°Υ	
asc. node	268 Aug 20 j 09:54	22°♁41'53			271 Mar 06 j 09:20	0°♁	
	268 Aug 26 j 11:44	0°♎		evening max el	271 Mar 24 j 06:29	18°♁22'47	45°36'23
	268 Sep 20 j 01:38	0°♎			271 Apr 05 j 22:34	0°♈	
	268 Oct 14 j 04:56	0°♊		greatest brilliancy	271 Apr 27 j 12:31	14°♈51'54	-4.5m
	268 Nov 07 j 02:46	0°♌		retrograde	271 May 12 j 01:08	18°♈33'41	
morning set	268 Nov 29 j 12:07	28°♌10'39		evening set	271 May 27 j 02:19	14°♈12'36	
	268 Nov 30 j 22:52	0°♌		desc. node	271 May 27 j 18:29	13°♈50'22	
desc. node	268 Dec 09 j 23:29	11°♌21'18		inferior conj	271 Jun 02 j 13:13	10°♈21'33	-1°-20'-54
	268 Dec 24 j 19:23	0°♍		minimum elong	271 Jun 02 j 10:16	10°♈26'10	1°20'04
				min. Earth dist.	271 Jun 02 j 16:38	10°♈16'13	0.28975 AU
superior conj	269 Jan 10 j 11:11	20°♍54'06	-1°-5'-42	morning rise	271 Jun 08 j 17:58	6°♈37'39	
minimum elong	269 Jan 09 j 23:32	20°♍17'36	1°05'21	direct	271 Jun 24 j 04:52	2°♈02'57	
max. Earth dist.	269 Jan 14 j 08:29	25°♍46'22	1.71487 AU	greatest brilliancy	271 Jul 08 j 05:25	5°♈26'56	-4.5m

	271 Aug 09 j 23:20	0°☿		274 Mar 17 j 01:04	0°♄	
morning max el	271 Aug 12 j 06:43	2°☿12'38	46°01'02	274 Apr 11 j 13:41	0°♁	
	271 Sep 07 j 20:05	0°♁		274 May 08 j 07:08	0°☿	
asc. node	271 Sep 17 j 21:42	11°♁20'50		evening max el	274 Jun 03 j 01:24	26°☿27'42 45°23'12
	271 Oct 03 j 22:03	0°♁		274 Jun 06 j 19:48	0°♁	
	271 Oct 28 j 19:11	0°♁		desc. node	274 Jun 24 j 06:25	14°♁33'49
	271 Nov 22 j 02:38	0°♁		greatest brilliancy	274 Jul 09 j 13:29	23°♁25'28 -4.5m
	271 Dec 16 j 04:29	0°♁		retrograde	274 Jul 21 j 16:01	25°♁59'31
desc. node	272 Jan 07 j 11:24	27°♁50'04		evening set	274 Aug 08 j 04:40	20°♁15'37
	272 Jan 09 j 05:02	0°♁		inferior conj	274 Aug 11 j 21:00	18°♁01'36 -8°-28'-12
	272 Feb 02 j 06:20	0°♁		minimum elong	274 Aug 11 j 16:02	18°♁09'15 8°27'52
morning set	272 Feb 15 j 12:57	16°♁31'18		min. Earth dist.	274 Aug 12 j 07:34	17°♁45'18 0.28342 AU
	272 Feb 26 j 09:21	0°♁		morning rise	274 Aug 15 j 03:14	16°♁02'16
	272 Mar 21 j 14:44	0°♁		direct	274 Sep 02 j 06:45	9°♁53'46
				greatest brilliancy	274 Sep 16 j 16:00	13°♁36'21 -4.6m
superior conj	272 Mar 25 j 12:24	4°♁49'16	-1°-10'-40	274 Oct 09 j 13:57	0°♁	
minimum elong	272 Mar 25 j 21:37	5°♁17'44	1°10'26	asc. node	274 Oct 15 j 09:26	5°♁22'04
max. Earth dist.	272 Mar 28 j 05:17	8°♁09'32	1.73028 AU	morning max el	274 Oct 22 j 16:48	12°♁33'20 46°42'39
	272 Apr 14 j 22:43	0°♁		274 Nov 08 j 02:50	0°♁	
asc. node	272 Apr 29 j 14:33	18°♁00'52		274 Dec 04 j 05:49	0°♁	
evening rise	272 May 02 j 02:16	21°♁04'02		274 Dec 29 j 06:22	0°♁	
	272 May 09 j 09:07	0°♁		275 Jan 22 j 21:05	0°♁	
	272 Jun 02 j 21:37	0°♁		desc. node	275 Feb 03 j 23:11	14°♁48'12
	272 Jun 27 j 12:28	0°♁		275 Feb 16 j 08:30	0°♁	
	272 Jul 22 j 07:03	0°♁		275 Mar 12 j 19:13	0°♁	
	272 Aug 16 j 07:53	0°♁		275 Apr 06 j 06:13	0°♁	
desc. node	272 Aug 19 j 04:05	3°♁22'43		morning set	275 Apr 27 j 11:59	26°♁02'15
	272 Sep 10 j 19:11	0°♁		275 Apr 30 j 17:34	0°♁	
	272 Oct 07 j 02:36	0°♁		275 May 25 j 04:38	0°♁	
evening max el	272 Oct 29 j 06:44	23°♁41'42	47°22'37	asc. node	275 May 28 j 02:30	3°♁34'19
	272 Nov 04 j 15:15	0°♁		max. Earth dist.	275 Jun 01 j 17:01	9°♁13'35 1.73631 AU
greatest brilliancy	272 Dec 06 j 15:14	24°♁25'30	-4.7m			
asc. node	272 Dec 10 j 07:12	25°♁52'19		superior conj	275 Jun 03 j 00:41	10°♁50'48 0°14'00
retrograde	272 Dec 19 j 06:52	27°♁26'53		minimum elong	275 Jun 02 j 21:53	10°♁42'11 0°13'52
evening set	273 Jan 03 j 22:51	22°♁32'23		behind sun begin	275 Jun 02 j 11:03	10°♁08'56
min. Earth dist.	273 Jan 08 j 00:53	20°♁05'06	0.27046 AU	behind sun end	275 Jun 03 j 08:42	11°♁15'26
inferior conj	273 Jan 09 j 00:34	19°♁28'21	6°41'52	275 Jun 18 j 14:33	0°♁	
minimum elong	273 Jan 08 j 14:30	19°♁43'58	6°39'50	evening rise	275 Jul 08 j 19:00	24°☿51'53
morning rise	273 Jan 13 j 06:37	16°♁53'34		275 Jul 12 j 22:55	0°♁	
direct	273 Jan 29 j 11:47	11°♁42'54		275 Aug 06 j 06:18	0°♁	
greatest brilliancy	273 Feb 09 j 03:56	13°♁50'19	-4.6m	275 Aug 30 j 13:59	0°♁	
	273 Mar 05 j 21:21	0°♁		desc. node	275 Sep 16 j 15:59	21°♁01'32
morning max el	273 Mar 20 j 00:58	12°♁59'57	46°15'20	275 Sep 23 j 23:24	0°♁	
desc. node	273 Mar 31 j 20:47	24°♁55'53		275 Oct 18 j 12:06	0°♁	
	273 Apr 05 j 16:43	0°♁		275 Nov 12 j 07:11	0°♁	
	273 May 03 j 00:08	0°♁		275 Dec 07 j 16:49	0°♁	
	273 May 29 j 02:35	0°♁		276 Jan 03 j 15:56	0°♁	
	273 Jun 23 j 13:11	0°♁		asc. node	276 Jan 07 j 19:03	4°♁18'05
	273 Jul 18 j 11:54	0°♁		evening max el	276 Jan 09 j 23:30	6°♁32'02 46°49'19
asc. node	273 Jul 23 j 00:02	5°☿28'27		276 Feb 05 j 14:54	0°♁	
	273 Aug 12 j 00:31	0°♁		greatest brilliancy	276 Feb 15 j 01:53	5°♁39'36 -4.6m
	273 Sep 05 j 05:02	0°♁		retrograde	276 Feb 29 j 09:06	9°♁21'29
morning set	273 Sep 13 j 13:05	10°♁24'35		evening set	276 Mar 17 j 16:16	3°♁32'14
	273 Sep 29 j 04:14	0°♁		inferior conj	276 Mar 21 j 15:02	1°♁03'55 7°23'59
max. Earth dist.	273 Oct 21 j 14:56	28°♁13'07	1.71168 AU	minimum elong	276 Mar 21 j 23:31	0°♁50'28 7°22'44
				min. Earth dist.	276 Mar 21 j 12:15	1°♁08'22 0.28657 AU
superior conj	273 Oct 22 j 09:58	29°♁12'58	0°45'31	276 Mar 23 j 07:27	30°♁	
minimum elong	273 Oct 22 j 19:50	29°♁44'02	0°45'05	morning rise	276 Mar 26 j 07:05	28°♁10'40
	273 Oct 23 j 00:55	0°♁		direct	276 Apr 11 j 22:47	22°♁51'30
desc. node	273 Nov 11 j 13:47	24°♁35'06		greatest brilliancy	276 Apr 23 j 20:41	25°♁24'21 -4.5m
	273 Nov 15 j 21:07	0°♁		desc. node	276 Apr 28 j 08:36	27°♁29'34
evening rise	273 Dec 02 j 20:22	21°♁19'52		276 May 02 j 18:22	0°♁	
	273 Dec 09 j 18:06	0°♁		morning max el	276 May 30 j 17:58	22°♁45'15 45°45'23
	274 Jan 02 j 17:01	0°♁		276 Jun 07 j 03:51	0°♁	
	274 Jan 26 j 19:44	0°♁		276 Jul 05 j 10:28	0°♁	
	274 Feb 20 j 05:05	0°♁		276 Jul 31 j 17:49	0°♁	
asc. node	274 Mar 04 j 16:46	15°♁10'14		asc. node	276 Aug 19 j 11:54	22°☿11'25

	276 Aug 25 j 23:43	0°♈		evening max el	279 Mar 21 j 21:55	16°♄11'11	45°38'20
	276 Sep 19 j 13:07	0°♉			279 Apr 06 j 04:16	0°♈	
	276 Oct 13 j 16:09	0°♊		greatest brilliancy	279 Apr 25 j 02:44	12°♈41'35	-4.5m
	276 Nov 06 j 13:52	0°♋		retrograde	279 May 09 j 18:08	16°♈26'36	
morning set	276 Nov 26 j 22:14	25°♋36'41		evening set	279 May 24 j 19:00	12°♈04'40	
	276 Nov 30 j 09:54	0°♌		desc. node	279 May 26 j 20:31	10°♈54'38	
desc. node	276 Dec 09 j 01:36	10°♌53'24		inferior conj	279 May 31 j 05:43	8°♈13'50	-1°-1'-29
	276 Dec 24 j 06:21	0°♍		minimum elong	279 May 31 j 03:28	8°♈17'21	1°00'50
				min. Earth dist.	279 May 31 j 09:04	8°♈08'36	0.28983 AU
superior conj	277 Jan 07 j 21:27	18°♍21'44	-1°-3'-6	morning rise	279 Jun 06 j 11:44	4°♈28'27	
minimum elong	277 Jan 07 j 09:39	17°♍44'45	1°02'44		279 Jun 19 j 19:40	30°♈	
max. Earth dist.	277 Jan 11 j 16:23	23°♍06'40	1.71437 AU	direct	279 Jun 21 j 21:22	29°♈54'58	
	277 Jan 17 j 04:23	0°♎			279 Jun 23 j 23:38	0°♈	
	277 Feb 10 j 04:58	0°♏		greatest brilliancy	279 Jul 05 j 21:59	3°♈19'25	-4.5m
evening rise	277 Feb 17 j 13:48	9°♏09'55			279 Aug 09 j 21:45	0°♉	
	277 Mar 06 j 09:19	0°♐		morning max el	279 Aug 09 j 23:27	0°♉04'08	45°59'46
	277 Mar 30 j 18:50	0°♑			279 Sep 07 j 11:43	0°♈	
asc. node	277 Apr 01 j 04:46	1°♑43'45		asc. node	279 Sep 16 j 23:48	10°♈45'02	
	277 Apr 24 j 10:48	0°♒			279 Oct 03 j 11:26	0°♉	
	277 May 19 j 10:53	0°♓			279 Oct 28 j 07:32	0°♊	
	277 Jun 13 j 22:31	0°♈			279 Nov 21 j 14:26	0°♋	
	277 Jul 10 j 05:45	0°♉			279 Dec 15 j 15:56	0°♌	
desc. node	277 Jul 21 j 18:10	12°♉39'36		desc. node	280 Jan 06 j 13:22	27°♌21'13	
	277 Aug 07 j 06:16	0°♊			280 Jan 08 j 16:14	0°♍	
evening max el	277 Aug 14 j 17:59	7°♊25'51	46°22'42		280 Feb 01 j 17:19	0°♎	
	277 Sep 10 j 13:56	0°♋		morning set	280 Feb 13 j 00:59	14°♎05'29	
greatest brilliancy	277 Sep 22 j 23:29	6°♋31'29	-4.6m		280 Feb 25 j 20:11	0°♏	
retrograde	277 Oct 03 j 09:16	8°♋31'12			280 Mar 21 j 01:27	0°♐	
evening set	277 Oct 18 j 20:28	3°♌55'16					
inferior conj	277 Oct 24 j 00:40	0°♌52'50	-4°-38'-30	superior conj	280 Mar 23 j 03:46	2°♐35'26	-1°-12'-32
minimum elong	277 Oct 24 j 10:00	0°♌38'37	4°35'56	minimum elong	280 Mar 23 j 12:44	3°♐03'10	1°12'20
min. Earth dist.	277 Oct 24 j 14:38	0°♌31'36	0.26621 AU	max. Earth dist.	280 Mar 25 j 22:28	6°♐01'26	1.72981 AU
	277 Oct 25 j 11:29	30°♌			280 Apr 14 j 09:23	0°♑	
morning rise	277 Oct 29 j 23:01	27°♌24'33		asc. node	280 Apr 28 j 16:44	17°♑34'52	
asc. node	277 Nov 11 j 21:23	23°♌14'58		evening rise	280 Apr 29 j 20:01	18°♑58'34	
direct	277 Nov 13 j 12:13	23°♌11'45		greatest brilliancy	280 Apr 30 j 04:29	19°♑24'32	-3.9m
greatest brilliancy	277 Nov 26 j 10:59	26°♌18'05	-4.7m		280 May 08 j 19:48	0°♒	
	277 Dec 03 j 06:26	0°♍			280 Jun 02 j 08:29	0°♓	
morning max el	278 Jan 03 j 03:41	26°♍30'37	46°53'46		280 Jun 26 j 23:43	0°♈	
	278 Jan 06 j 13:25	0°♎			280 Jul 21 j 18:55	0°♉	
	278 Feb 03 j 00:25	0°♏			280 Aug 15 j 20:44	0°♊	
	278 Feb 28 j 22:46	0°♐		desc. node	280 Aug 18 j 06:03	2°♊50'04	
desc. node	278 Mar 03 j 11:05	2°♐57'11			280 Sep 10 j 09:37	0°♋	
	278 Mar 26 j 06:54	0°♑			280 Oct 06 j 20:05	0°♌	
	278 Apr 20 j 08:11	0°♒		evening max el	280 Oct 26 j 21:59	21°♌21'01	47°22'06
	278 May 15 j 05:14	0°♓			280 Nov 04 j 17:35	0°♍	
	278 Jun 08 j 22:21	0°♈		greatest brilliancy	280 Dec 04 j 05:52	22°♍00'16	-4.7m
asc. node	278 Jun 24 j 14:16	19°♈07'58		asc. node	280 Dec 09 j 09:13	23°♍54'07	
	278 Jul 03 j 10:53	0°♉		retrograde	280 Dec 16 j 21:10	25°♍00'35	
morning set	278 Jul 03 j 21:42	0°♊		evening set	281 Jan 01 j 08:52	20°♎11'25	
	278 Jul 27 j 18:29	0°♋		min. Earth dist.	281 Jan 05 j 13:51	17°♎39'58	0.26983 AU
max. Earth dist.	278 Aug 05 j 13:18	10°♋53'40	1.72615 AU	inferior conj	281 Jan 06 j 13:46	17°♎02'55	6°26'47
				minimum elong	281 Jan 06 j 03:35	17°♎18'41	6°24'35
superior conj	278 Aug 09 j 08:48	15°♋37'54	1°21'12	morning rise	281 Jan 10 j 22:53	14°♎24'07	
minimum elong	278 Aug 09 j 03:53	15°♋22'38	1°21'09	direct	281 Jan 27 j 01:03	9°♎18'38	
	278 Aug 20 j 21:54	0°♌		greatest brilliancy	281 Feb 06 j 16:02	11°♎25'35	-4.6m
	278 Sep 13 j 22:50	0°♍			281 Mar 06 j 03:59	0°♏	
evening rise	278 Sep 15 j 16:34	2°♍10'21		morning max el	281 Mar 17 j 15:31	10°♏42'21	46°16'46
	278 Oct 07 j 23:03	0°♎		desc. node	281 Mar 30 j 22:58	24°♏11'57	
desc. node	278 Oct 14 j 04:00	7°♎45'12			281 Apr 05 j 10:36	0°♐	
	278 Oct 31 j 23:48	0°♏			281 May 02 j 14:25	0°♑	
	278 Nov 25 j 02:10	0°♐			281 May 28 j 15:11	0°♒	
	278 Dec 19 j 08:18	0°♑			281 Jun 23 j 00:52	0°♓	
	279 Jan 12 j 22:48	0°♒			281 Jul 17 j 23:05	0°♈	
asc. node	279 Feb 04 j 06:52	26°♒31'38		asc. node	281 Jul 22 j 02:05	5°♈00'52	
	279 Feb 07 j 06:33	0°♓			281 Aug 11 j 11:26	0°♉	
	279 Mar 06 j 02:25	0°♔			281 Sep 04 j 15:53	0°♊	

morning set	281 Sep 11 j 04:03	8°♄07'26		evening set	284 Mar 15 j 10:51	1°♃15'15	
	281 Sep 28 j 15:07	0°♁			284 Mar 17 j 11:25	30°♃	
max. Earth dist.	281 Oct 18 j 21:07	25°♁27'09	1.71196 AU	inferior conj	284 Mar 19 j 07:03	28°♃50'49	7°34'16
				minimum elong	284 Mar 19 j 15:08	28°♃37'58	7°33'09
superior conj	281 Oct 19 j 21:39	26°♁44'16	0°48'41	min. Earth dist.	284 Mar 19 j 03:47	28°♃56'00	0.28621 AU
minimum elong	281 Oct 20 j 07:50	27°♁16'19	0°48'16	morning rise	284 Mar 23 j 19:41	26°♃02'20	
	281 Oct 22 j 11:52	0°♃		direct	284 Apr 09 j 13:41	20°♃39'00	
desc. node	281 Nov 10 j 15:54	24°♃07'06		greatest brilliancy	284 Apr 21 j 10:21	23°♃10'02	-4.5m
	281 Nov 15 j 08:09	0°♃		desc. node	284 Apr 27 j 10:42	26°♃03'37	
evening rise	281 Nov 30 j 05:54	18°♃44'13			284 May 03 j 19:32	0°♃	
	281 Dec 09 j 05:12	0°♃		morning max el	284 May 28 j 08:33	20°♃31'33	45°45'45
	282 Jan 02 j 04:13	0°♃			284 Jun 06 j 23:35	0°♃	
	282 Jan 26 j 07:05	0°♃			284 Jul 05 j 01:20	0°♃	
	282 Feb 19 j 16:43	0°♃			284 Jul 31 j 06:46	0°♃	
asc. node	282 Mar 03 j 18:55	14°♃40'46		asc. node	284 Aug 18 j 14:00	21°♃41'04	
	282 Mar 16 j 13:18	0°♃			284 Aug 25 j 11:46	0°♃	
	282 Apr 11 j 03:09	0°♃			284 Sep 19 j 00:40	0°♃	
	282 May 07 j 23:22	0°♃			284 Oct 13 j 03:28	0°♃	
evening max el	282 May 31 j 16:47	24°♃15'53	45°22'18		284 Nov 06 j 01:04	0°♃	
	282 Jun 06 j 20:50	0°♃		morning set	284 Nov 24 j 08:36	23°♃03'03	
desc. node	282 Jun 23 j 08:27	13°♃23'25			284 Nov 29 j 21:04	0°♃	
greatest brilliancy	282 Jul 07 j 02:32	21°♃10'36	-4.5m	desc. node	284 Dec 08 j 03:35	10°♃24'32	
retrograde	282 Jul 19 j 06:06	23°♃45'46			284 Dec 23 j 17:31	0°♃	
evening set	282 Aug 05 j 16:31	18°♃06'19					
inferior conj	282 Aug 09 j 12:00	15°♃47'26	-8°-22'-15	superior conj	285 Jan 05 j 07:28	15°♃47'45	-1°00'-22
minimum elong	282 Aug 09 j 06:19	15°♃56'13	8°21'48	minimum elong	285 Jan 04 j 19:36	15°♃10'34	0°59'58
min. Earth dist.	282 Aug 09 j 21:58	15°♃32'02	0.28386 AU	max. Earth dist.	285 Jan 08 j 20:28	20°♃14'14	1.71397 AU
morning rise	282 Aug 12 j 19:57	13°♃45'14			285 Jan 16 j 15:31	0°♃	
direct	282 Aug 30 j 22:12	7°♃39'03			285 Feb 09 j 16:04	0°♃	
greatest brilliancy	282 Sep 14 j 06:33	11°♃19'37	-4.6m	evening rise	285 Feb 15 j 01:52	6°♃43'42	
	282 Oct 09 j 17:59	0°♃			285 Mar 05 j 20:27	0°♃	
asc. node	282 Oct 14 j 11:39	4°♃27'46			285 Mar 30 j 06:07	0°♃	
morning max el	282 Oct 20 j 06:25	10°♃10'44	46°41'13	asc. node	285 Mar 31 j 06:54	1°♃15'48	
	282 Nov 07 j 20:22	0°♃			285 Apr 23 j 22:24	0°♃	
	282 Dec 03 j 20:20	0°♃			285 May 18 j 23:07	0°♃	
	282 Dec 28 j 19:29	0°♃			285 Jun 13 j 11:55	0°♃	
	283 Jan 22 j 09:24	0°♃			285 Jul 09 j 21:27	0°♃	
desc. node	283 Feb 03 j 01:17	14°♃17'46		desc. node	285 Jul 20 j 20:15	11°♃58'19	
	283 Feb 15 j 20:15	0°♃			285 Aug 07 j 03:39	0°♃	
	283 Mar 12 j 06:33	0°♃		evening max el	285 Aug 12 j 06:24	5°♃02'03	46°20'07
	283 Apr 05 j 17:15	0°♃			285 Sep 11 j 23:53	0°♃	
morning set	283 Apr 25 j 05:33	23°♃55'46		greatest brilliancy	285 Sep 20 j 12:01	4°♃05'04	-4.6m
	283 Apr 30 j 04:24	0°♃		retrograde	285 Sep 30 j 21:27	6°♃04'35	
	283 May 24 j 15:22	0°♃		evening set	285 Oct 16 j 11:45	1°♃23'58	
asc. node	283 May 27 j 04:29	3°♃07'33			285 Oct 18 j 22:23	30°♃	
max. Earth dist.	283 May 30 j 13:17	7°♃15'30	1.73637 AU	inferior conj	285 Oct 21 j 13:06	28°♃25'47	-4°-58'-38
				minimum elong	285 Oct 21 j 22:53	28°♃10'57	4°56'02
superior conj	283 May 31 j 19:12	8°♃47'23	0°10'56	min. Earth dist.	285 Oct 22 j 04:17	28°♃02'46	0.26668 AU
minimum elong	283 May 31 j 17:00	8°♃40'37	0°10'49	morning rise	285 Oct 27 j 09:26	25°♃00'26	
behind sun begin	283 May 31 j 00:30	7°♃49'57		asc. node	285 Nov 10 j 23:19	20°♃43'37	
behind sun end	283 Jun 01 j 09:30	9°♃31'18		direct	285 Nov 11 j 01:07	20°♃43'37	
	283 Jun 18 j 01:17	0°♃		greatest brilliancy	285 Nov 24 j 02:56	23°♃53'43	-4.7m
evening rise	283 Jul 06 j 13:59	22°♃49'05			285 Dec 04 j 12:33	0°♃	
	283 Jul 12 j 09:46	0°♃		morning max el	285 Dec 31 j 17:53	24°♃06'25	46°54'22
	283 Aug 05 j 17:23	0°♃			286 Jan 06 j 10:52	0°♃	
	283 Aug 30 j 01:24	0°♃			286 Feb 02 j 16:31	0°♃	
desc. node	283 Sep 15 j 18:11	20°♃32'14			286 Feb 28 j 12:39	0°♃	
	283 Sep 23 j 11:17	0°♃		desc. node	286 Mar 02 j 13:14	2°♃23'04	
	283 Oct 18 j 00:41	0°♃			286 Mar 25 j 19:34	0°♃	
	283 Nov 11 j 20:50	0°♃			286 Apr 19 j 20:06	0°♃	
	283 Dec 07 j 08:19	0°♃			286 May 14 j 16:40	0°♃	
	284 Jan 03 j 12:05	0°♃			286 Jun 08 j 09:28	0°♃	
asc. node	284 Jan 06 j 21:05	3°♃28'45		asc. node	286 Jun 23 j 16:18	18°♃40'33	
evening max el	284 Jan 07 j 13:44	4°♃11'05	46°51'42	morning set	286 Jul 01 j 15:42	28°♃27'26	
	284 Feb 06 j 15:48	0°♃			286 Jul 02 j 21:50	0°♃	
greatest brilliancy	284 Feb 12 j 20:02	3°♃28'04	-4.6m		286 Jul 27 j 05:24	0°♃	
retrograde	284 Feb 27 j 00:53	7°♃07'59		max. Earth dist.	286 Aug 03 j 08:52	8°♃51'28	1.72668 AU

superior conj	286 Aug 07 j 02:07	13°♈28'32	1°20'14	morning rise	289 Jan 08 j 15:06	11°♁53'27	
minimum elong	286 Aug 06 j 20:39	13°♈11'35	1°20'09	direct	289 Jan 24 j 14:11	6°♁53'31	
	286 Aug 20 j 08:54	0°♎		greatest brilliancy	289 Feb 04 j 04:05	8°♁59'38	-4.6m
evening rise	286 Sep 13 j 07:05	29°♎50'56			289 Mar 06 j 08:52	0°♁	
	286 Sep 13 j 09:59	0°♊		morning max el	289 Mar 15 j 05:18	8°♁22'00	46°18'15
	286 Oct 07 j 10:24	0°♌		desc. node	289 Mar 30 j 01:02	23°♁27'38	
desc. node	286 Oct 13 j 06:04	7°♌16'04			289 Apr 05 j 04:21	0°♋	
	286 Oct 31 j 11:22	0°♌			289 May 02 j 04:48	0°♎	
	286 Nov 24 j 14:00	0°♁			289 May 28 j 04:00	0°♁	
	286 Dec 18 j 20:32	0°♁			289 Jun 22 j 12:49	0°♊	
	287 Jan 12 j 11:45	0°♋			289 Jul 17 j 10:33	0°♁	
asc. node	287 Feb 03 j 09:01	25°♋56'38		asc. node	289 Jul 21 j 04:14	4°♁32'39	
	287 Feb 06 j 20:56	0°♎			289 Aug 10 j 22:39	0°♈	
	287 Mar 05 j 20:18	0°♁			289 Sep 04 j 03:00	0°♎	
evening max el	287 Mar 19 j 14:18	14°♁00'41	45°40'13	morning set	289 Sep 08 j 19:04	5°♎49'44	
	287 Apr 06 j 13:01	0°♊			289 Sep 28 j 02:15	0°♊	
greatest brilliancy	287 Apr 22 j 18:04	10°♊31'25	-4.5m	max. Earth dist.	289 Oct 16 j 01:57	22°♁36'21	1.71227 AU
retrograde	287 May 07 j 11:17	14°♊18'01					
evening set	287 May 22 j 11:54	9°♊55'23		superior conj	289 Oct 17 j 09:35	24°♁15'47	0°51'44
desc. node	287 May 25 j 22:31	7°♊55'42		minimum elong	289 Oct 17 j 20:00	24°♁48'33	0°51'20
inferior conj	287 May 28 j 22:12	6°♊04'47	0°-41'-56		289 Oct 21 j 23:03	0°♌	
minimum elong	287 May 28 j 20:39	6°♊07'12	0°41'29	desc. node	289 Nov 09 j 17:50	23°♌37'52	
min. Earth dist.	287 May 29 j 01:22	5°♊59'51	0.28986 AU		289 Nov 14 j 19:24	0°♌	
morning rise	287 Jun 04 j 05:21	2°♊18'04		evening rise	289 Nov 27 j 15:32	16°♌08'05	
	287 Jun 08 j 22:53	30°♌			289 Dec 08 j 16:34	0°♁	
direct	287 Jun 19 j 14:12	27°♌45'55			290 Jan 01 j 15:42	0°♁	
	287 Jun 30 j 18:51	0°♊			290 Jan 25 j 18:43	0°♋	
greatest brilliancy	287 Jul 03 j 13:22	1°♊09'23	-4.5m		290 Feb 19 j 04:38	0°♎	
morning max el	287 Aug 07 j 16:17	27°♊55'04	45°58'32	asc. node	290 Mar 02 j 21:03	14°♎10'28	
	287 Aug 09 j 19:40	0°♁			290 Mar 16 j 01:49	0°♁	
	287 Sep 07 j 03:26	0°♈			290 Apr 10 j 16:57	0°♊	
asc. node	287 Sep 16 j 01:58	10°♈08'51			290 May 07 j 16:09	0°♁	
	287 Oct 03 j 01:00	0°♎		evening max el	290 May 29 j 07:20	22°♁01'22	45°21'21
	287 Oct 27 j 20:08	0°♊			290 Jun 06 j 23:37	0°♈	
	287 Nov 21 j 02:30	0°♌		desc. node	290 Jun 22 j 10:32	12°♈10'17	
	287 Dec 15 j 03:39	0°♌		greatest brilliancy	290 Jul 04 j 15:27	18°♈54'45	-4.5m
desc. node	288 Jan 05 j 15:28	26°♌51'55		retrograde	290 Jul 16 j 20:01	21°♈31'32	
	288 Jan 08 j 03:41	0°♁		evening set	290 Aug 03 j 04:14	15°♈56'30	
	288 Feb 01 j 04:35	0°♁		inferior conj	290 Aug 07 j 03:04	13°♈32'45	-8°-15'-33
morning set	288 Feb 10 j 13:15	11°♁39'29		minimum elong	290 Aug 06 j 20:43	13°♈42'34	8°14'58
	288 Feb 25 j 07:18	0°♋		min. Earth dist.	290 Aug 07 j 12:45	13°♈17'46	0.28429 AU
				morning rise	290 Aug 10 j 12:56	11°♈27'27	
superior conj	288 Mar 20 j 19:08	0°♎20'36	-1°-14'-18	direct	290 Aug 28 j 13:17	5°♈23'38	
minimum elong	288 Mar 21 j 03:48	0°♎47'21	1°14'06	greatest brilliancy	290 Sep 11 j 22:06	9°♈03'37	-4.6m
	288 Mar 20 j 12:28	0°♎			290 Oct 09 j 20:39	0°♎	
max. Earth dist.	288 Mar 23 j 17:28	3°♎57'53	1.72938 AU	asc. node	290 Oct 13 j 13:35	3°♎33'19	
	288 Apr 13 j 20:22	0°♁		morning max el	290 Oct 17 j 19:46	7°♎47'00	46°39'55
evening rise	288 Apr 27 j 13:40	16°♎51'42			290 Nov 07 j 13:42	0°♊	
asc. node	288 Apr 27 j 18:42	17°♎07'09			290 Dec 03 j 10:50	0°♌	
greatest brilliancy	288 May 02 j 18:29	23°♎14'28	-3.9m		290 Dec 28 j 08:39	0°♌	
	288 May 08 j 06:52	0°♊			291 Jan 21 j 21:47	0°♁	
	288 Jun 01 j 19:43	0°♁		desc. node	291 Feb 02 j 03:22	13°♁47'00	
	288 Jun 26 j 11:20	0°♈			291 Feb 15 j 08:08	0°♁	
	288 Jul 21 j 07:10	0°♎			291 Mar 11 j 18:02	0°♋	
	288 Aug 15 j 09:58	0°♊			291 Apr 05 j 04:24	0°♎	
desc. node	288 Aug 17 j 08:14	2°♊17'01		morning set	291 Apr 22 j 23:08	21°♎48'51	
	288 Sep 10 j 00:31	0°♌			291 Apr 29 j 15:20	0°♁	
	288 Oct 06 j 14:16	0°♌			291 May 24 j 02:12	0°♊	
evening max el	288 Oct 24 j 13:32	19°♌00'09	47°21'19	asc. node	291 May 26 j 06:34	2°♊40'42	
	288 Nov 04 j 21:52	0°♁		max. Earth dist.	291 May 28 j 09:40	5°♊17'31	1.73643 AU
greatest brilliancy	288 Dec 01 j 21:27	19°♁35'14	-4.7m				
asc. node	288 Dec 08 j 11:19	21°♁50'11		superior conj	291 May 29 j 13:48	6°♊43'54	0°07'50
retrograde	288 Dec 14 j 11:17	22°♁32'59		minimum elong	291 May 29 j 12:13	6°♊39'01	0°07'46
evening set	288 Dec 29 j 19:01	17°♁49'22		behind sun begin	291 May 28 j 16:31	5°♊38'33	
min. Earth dist.	289 Jan 03 j 03:10	15°♁13'18	0.26919 AU	behind sun end	291 May 30 j 07:55	7°♊39'31	
inferior conj	289 Jan 04 j 02:55	14°♁36'30	6°10'48		291 Jun 17 j 12:09	0°♁	
minimum elong	289 Jan 03 j 16:45	14°♁52'16	6°08'30	evening rise	291 Jul 04 j 09:04	20°♁46'17	

	291 Jul 11 j 20:47	0°♁		morning max el	293 Dec 29 j 08:37	21°♁43'36	46°54'55
	291 Aug 05 j 04:37	0°♁			294 Jan 06 j 07:35	0°♁	
	291 Aug 29 j 12:59	0°♁			294 Feb 02 j 08:17	0°♁	
desc. node	291 Sep 14 j 20:10	20°♁01'45			294 Feb 28 j 02:16	0°♁	
	291 Sep 22 j 23:22	0°♁		desc. node	294 Mar 01 j 15:18	1°♁49'16	
	291 Oct 17 j 13:28	0°♁			294 Mar 25 j 08:01	0°♁	
	291 Nov 11 j 10:40	0°♁			294 Apr 19 j 07:50	0°♁	
	291 Dec 07 j 00:08	0°♁			294 May 14 j 03:56	0°♁	
	292 Jan 03 j 09:00	0°♁			294 Jun 07 j 20:26	0°♁	
evening max el	292 Jan 05 j 03:31	1°♁48'37	46°54'00	asc. node	294 Jun 22 j 18:30	18°♁14'09	
asc. node	292 Jan 05 j 23:14	2°♁38'33		morning set	294 Jun 29 j 09:52	26°♁22'43	
	292 Feb 08 j 03:25	0°♁			294 Jul 02 j 08:37	0°♁	
greatest brilliancy	292 Feb 10 j 12:58	1°♁14'12	-4.6m		294 Jul 26 j 16:07	0°♁	
retrograde	292 Feb 24 j 16:37	4°♁53'46		max. Earth dist.	294 Aug 01 j 03:46	6°♁47'53	1.72716 AU
	292 Mar 11 j 10:48	30°♁					
evening set	292 Mar 13 j 05:10	28°♁57'19		superior conj	294 Aug 04 j 19:39	11°♁20'33	1°19'09
inferior conj	292 Mar 16 j 22:54	26°♁36'50	7°43'54	minimum elong	294 Aug 04 j 13:40	11°♁02'00	1°19'03
minimum elong	292 Mar 17 j 06:33	26°♁24'41	7°42'55		294 Aug 19 j 19:41	0°♁	
min. Earth dist.	292 Mar 16 j 19:11	26°♁42'44	0.28586 AU	evening rise	294 Sep 10 j 21:50	27°♁32'58	
morning rise	292 Mar 21 j 08:08	23°♁53'20			294 Sep 12 j 20:56	0°♁	
direct	292 Apr 07 j 04:16	18°♁25'27			294 Oct 06 j 21:34	0°♁	
greatest brilliancy	292 Apr 19 j 00:38	20°♁55'52	-4.5m	desc. node	294 Oct 12 j 08:04	6°♁47'17	
desc. node	292 Apr 26 j 12:37	24°♁39'43			294 Oct 30 j 22:48	0°♁	
	292 May 04 j 14:15	0°♁			294 Nov 24 j 01:44	0°♁	
morning max el	292 May 25 j 23:41	18°♁18'54	45°46'20		294 Dec 18 j 08:42	0°♁	
	292 Jun 06 j 18:47	0°♁			295 Jan 12 j 00:39	0°♁	
	292 Jul 04 j 16:01	0°♁		asc. node	295 Feb 02 j 11:05	25°♁21'42	
	292 Jul 30 j 19:40	0°♁			295 Feb 06 j 11:20	0°♁	
asc. node	292 Aug 17 j 16:08	21°♁10'53			295 Mar 05 j 14:25	0°♁	
	292 Aug 24 j 23:47	0°♁		evening max el	295 Mar 17 j 06:56	11°♁51'14	45°42'11
	292 Sep 18 j 12:15	0°♁			295 Apr 07 j 00:36	0°♁	
	292 Oct 12 j 14:49	0°♁		greatest brilliancy	295 Apr 20 j 10:27	8°♁23'02	-4.5m
	292 Nov 05 j 12:19	0°♁		retrograde	295 May 05 j 04:02	12°♁09'37	
morning set	292 Nov 21 j 18:52	20°♁29'00		evening set	295 May 20 j 04:53	7°♁46'22	
	292 Nov 29 j 08:15	0°♁		desc. node	295 May 25 j 00:41	4°♁55'14	
desc. node	292 Dec 07 j 05:43	9°♁56'10		inferior conj	295 May 26 j 14:34	3°♁56'06	0°-22'-10
	292 Dec 23 j 04:39	0°♁		minimum elong	295 May 26 j 13:45	3°♁57'22	0°21'57
				min. Earth dist.	295 May 26 j 17:36	3°♁51'21	0.28986 AU
superior conj	293 Jan 02 j 17:12	13°♁12'56	0°-57'-28	morning rise	295 Jun 01 j 22:39	0°♁08'02	
minimum elong	293 Jan 02 j 05:22	12°♁35'49	0°57'03		295 Jun 02 j 04:32	30°♁	
max. Earth dist.	293 Jan 06 j 00:52	17°♁22'48	1.71358 AU	direct	295 Jun 17 j 07:05	25°♁37'21	
	293 Jan 16 j 02:36	0°♁		greatest brilliancy	295 Jul 01 j 03:39	28°♁58'26	-4.5m
	293 Feb 09 j 03:07	0°♁			295 Jul 03 j 07:03	0°♁	
evening rise	293 Feb 12 j 13:50	4°♁17'16		morning max el	295 Aug 05 j 08:29	25°♁45'17	45°57'25
	293 Mar 05 j 07:34	0°♁			295 Aug 09 j 16:30	0°♁	
	293 Mar 29 j 17:24	0°♁			295 Sep 06 j 18:36	0°♁	
asc. node	293 Mar 30 j 08:53	0°♁47'22		asc. node	295 Sep 15 j 03:55	9°♁33'20	
	293 Apr 23 j 10:00	0°♁			295 Oct 02 j 14:08	0°♁	
	293 May 18 j 11:20	0°♁			295 Oct 27 j 08:22	0°♁	
	293 Jun 13 j 01:19	0°♁			295 Nov 20 j 14:14	0°♁	
	293 Jul 09 j 13:15	0°♁			295 Dec 14 j 15:06	0°♁	
desc. node	293 Jul 19 j 22:22	11°♁17'03		desc. node	296 Jan 04 j 17:36	26°♁23'28	
	293 Aug 07 j 01:44	0°♁			296 Jan 07 j 14:55	0°♁	
evening max el	293 Aug 09 j 19:36	2°♁40'40	46°17'26		296 Jan 31 j 15:37	0°♁	
	293 Sep 14 j 02:33	0°♁		morning set	296 Feb 08 j 00:54	9°♁12'11	
greatest brilliancy	293 Sep 17 j 23:16	1°♁37'28	-4.6m		296 Feb 24 j 18:11	0°♁	
retrograde	293 Sep 28 j 09:50	3°♁37'45					
	293 Oct 12 j 00:02	30°♁		superior conj	296 Mar 18 j 09:56	28°♁04'40	-1°-15'-58
evening set	293 Oct 14 j 03:00	28°♁52'19		minimum elong	296 Mar 18 j 18:12	28°♁30'12	1°15'48
inferior conj	293 Oct 19 j 01:22	25°♁58'19	-5°-18'-18		296 Mar 19 j 23:15	0°♁	
minimum elong	293 Oct 19 j 11:30	25°♁42'59	5°15'41	max. Earth dist.	296 Mar 21 j 13:12	1°♁57'18	1.72888 AU
min. Earth dist.	293 Oct 19 j 17:22	25°♁34'06	0.26722 AU		296 Apr 13 j 07:06	0°♁	
morning rise	293 Oct 24 j 19:28	22°♁36'19		evening rise	296 Apr 25 j 06:52	14°♁44'11	
direct	293 Nov 08 j 14:27	18°♁15'14		asc. node	296 Apr 26 j 20:47	16°♁40'33	
asc. node	293 Nov 10 j 01:26	18°♁17'50		greatest brilliancy	296 May 06 j 08:25	28°♁18'16	-3.9m
greatest brilliancy	293 Nov 21 j 18:13	21°♁28'19	-4.7m		296 May 07 j 17:39	0°♁	
	293 Dec 05 j 10:32	0°♁			296 Jun 01 j 06:43	0°♁	

	296 Jun 25 j 22:43	0°♈			299 Feb 14 j 19:36	0°♁		
	296 Jul 20 j 19:11	0°♉			299 Mar 11 j 05:08	0°♊		
	296 Aug 14 j 22:57	0°♋			299 Apr 04 j 15:15	0°♌		
desc. node	296 Aug 16 j 10:15	1°♌44'18		morning set	299 Apr 20 j 16:28	19°♌41'57		
	296 Sep 09 j 15:12	0°♍			299 Apr 29 j 02:00	0°♍		
	296 Oct 06 j 08:26	0°♎			299 May 23 j 12:47	0°♎		
evening max el	296 Oct 22 j 04:16	16°♎38'30	47°20'20	asc. node	299 May 25 j 08:43	2°♎14'51		
	296 Nov 05 j 03:30	0°♏		max. Earth dist.	299 May 26 j 06:01	3°♎20'13	1.73648 AU	
greatest brilliancy	296 Nov 29 j 13:27	17°♏11'33	-4.7m					
asc. node	296 Dec 07 j 13:25	19°♏42'01		superior conj	299 May 27 j 08:09	4°♎40'26	0°04'43	
retrograde	296 Dec 12 j 00:39	20°♏05'52		minimum elong	299 May 27 j 07:12	4°♎37'29	0°04'41	
evening set	296 Dec 27 j 05:11	15°♏27'43		behind sun begin	299 May 26 j 09:38	3°♎31'19		
min. Earth dist.	296 Dec 31 j 16:50	12°♏46'38	0.26860 AU	behind sun end	299 May 28 j 04:45	5°♎43'40		
inferior conj	297 Jan 01 j 15:58	12°♏10'45	5°53'54		299 Jun 16 j 22:45	0°♏		
minimum elong	297 Jan 01 j 05:52	12°♏26'25	5°51'31	evening rise	299 Jul 02 j 04:00	18°♏43'55		
morning rise	297 Jan 06 j 07:11	9°♏23'16			299 Jul 11 j 07:31	0°♐		
direct	297 Jan 22 j 02:55	4°♏28'52			299 Aug 04 j 15:37	0°♑		
greatest brilliancy	297 Feb 01 j 17:13	6°♏35'10	-4.6m		299 Aug 29 j 00:22	0°♒		
	297 Mar 06 j 11:46	0°♓		desc. node	299 Sep 13 j 22:11	19°♒31'57		
morning max el	297 Mar 12 j 18:06	5°♓59'34	46°19'41		299 Sep 22 j 11:17	0°♓		
desc. node	297 Mar 29 j 03:00	22°♓44'19			299 Oct 17 j 02:05	0°♔		
	297 Apr 04 j 21:29	0°♕			299 Nov 11 j 00:22	0°♕		
	297 May 01 j 18:46	0°♖			299 Dec 06 j 15:52	0°♖		
	297 May 27 j 16:26	0°♗		evening max el	300 Jan 02 j 17:48	29°♖28'31	46°56'27	
	297 Jun 22 j 00:25	0°♘			300 Jan 03 j 06:12	0°♗		
	297 Jul 16 j 21:41	0°♙		asc. node	300 Jan 05 j 01:17	1°♗48'26		
asc. node	297 Jul 20 j 06:15	4°♙05'02		greatest brilliancy	300 Feb 08 j 04:58	29°♗00'23	-4.6m	
	297 Aug 10 j 09:34	0°♚			300 Feb 10 j 09:21	0°♘		
	297 Sep 03 j 13:49	0°♛		retrograde	300 Feb 22 j 08:53	2°♘41'02		
morning set	297 Sep 06 j 10:11	3°♛33'17			300 Mar 04 j 20:08	30°♘		
	297 Sep 27 j 13:03	0°♜		evening set	300 Mar 10 j 23:26	26°♘40'48		
max. Earth dist.	297 Oct 13 j 07:18	19°♜48'17	1.71257 AU	inferior conj	300 Mar 14 j 14:52	24°♘24'05	7°52'42	
				minimum elong	300 Mar 14 j 22:02	24°♘12'42	7°51'51	
superior conj	297 Oct 14 j 21:56	21°♜49'43	0°54'40	min. Earth dist.	300 Mar 14 j 10:21	24°♘31'13	0.28552 AU	
minimum elong	297 Oct 15 j 08:31	22°♜22'57	0°54'15	morning rise	300 Mar 18 j 20:49	21°♘45'40		
	297 Oct 21 j 09:53	0°♝		direct	300 Apr 04 j 19:15	16°♘13'05		
desc. node	297 Nov 08 j 20:01	23°♝10'28		greatest brilliancy	300 Apr 16 j 15:07	18°♘43'08	-4.5m	
	297 Nov 14 j 06:18	0°♞		desc. node	300 Apr 25 j 14:50	23°♘20'03		
evening rise	297 Nov 25 j 01:32	13°♞34'23			300 May 05 j 03:44	0°♟		
	297 Dec 08 j 03:33	0°♟		morning max el	300 May 23 j 15:50	16°♟09'25	45°46'47	
	298 Jan 01 j 02:48	0°♠			300 Jun 06 j 13:14	0°♞		
	298 Jan 25 j 06:00	0°♡			300 Jul 04 j 06:21	0°♟		
	298 Feb 18 j 16:15	0°♢		asc. node	300 Jul 30 j 08:17	0°♠		
asc. node	298 Mar 01 j 22:59	13°♢40'26			300 Aug 16 j 18:07	20°♠40'58		
	298 Mar 15 j 14:06	0°♣			300 Aug 24 j 11:34	0°♡		
	298 Apr 10 j 06:36	0°♤			300 Sep 17 j 23:36	0°♢		
	298 May 07 j 08:58	0°♥			300 Oct 12 j 01:58	0°♣		
evening max el	298 May 26 j 21:15	19°♥46'11	45°20'39		300 Nov 04 j 23:23	0°♤		
	298 Jun 07 j 03:41	0°♦		morning set	300 Nov 19 j 05:17	17°♤55'52		
desc. node	298 Jun 21 j 12:38	10°♦55'55			300 Nov 28 j 19:18	0°♥		
greatest brilliancy	298 Jul 02 j 03:20	16°♦38'40	-4.5m	desc. node	300 Dec 06 j 07:48	9°♥28'06		
retrograde	298 Jul 14 j 10:14	19°♦18'32			300 Dec 22 j 15:38	0°♧		
evening set	298 Jul 31 j 15:48	13°♦47'40						
inferior conj	298 Aug 04 j 18:07	11°♦18'59	-8°-8'-2	superior conj	300 Dec 31 j 02:57	10°♧38'29	0°-54'-27	
minimum elong	298 Aug 04 j 11:08	11°♦29'45	8°07'19	minimum elong	300 Dec 30 j 15:15	10°♧01'48	0°54'02	
min. Earth dist.	298 Aug 05 j 03:30	11°♦04'29	0.28473 AU	max. Earth dist.	301 Jan 03 j 07:13	14°♧37'51	1.71318 AU	
morning rise	298 Aug 08 j 06:12	9°♦10'23			301 Jan 15 j 13:31	0°♨		
direct	298 Aug 26 j 04:17	3°♦08'57			301 Feb 08 j 14:00	0°♩		
greatest brilliancy	298 Sep 09 j 14:51	6°♦50'11	-4.6m	evening rise	301 Feb 10 j 01:59	1°♩51'57		
	298 Oct 09 j 21:35	0°♪			301 Mar 04 j 18:29	0°♟		
asc. node	298 Oct 12 j 15:42	2°♪41'09		asc. node	301 Mar 29 j 11:01	0°♨20'01		
morning max el	298 Oct 15 j 09:40	5°♪25'38	46°38'46		301 Mar 29 j 04:28	0°♩		
	298 Nov 07 j 06:23	0°♫			301 Apr 22 j 21:26	0°♪		
	298 Dec 03 j 00:49	0°♬			301 May 17 j 23:27	0°♫		
	298 Dec 27 j 21:22	0°♭			301 Jun 12 j 14:42	0°♬		
	299 Jan 21 j 09:45	0°♧			301 Jul 09 j 05:14	0°♭		
desc. node	299 Feb 01 j 05:23	13°♧17'16		desc. node	301 Jul 19 j 00:23	10°♭35'16		

	301 Aug 07 j 00:37	0°♌			303 Nov 20 j 02:09	0°♍	
evening max el	301 Aug 07 j 09:36	0°♌21'42	46°14'49		303 Dec 14 j 02:42	0°♎	
greatest brilliancy	301 Sep 15 j 10:24	29°♌10'33	-4.6m	desc. node	304 Jan 03 j 19:34	25°♎53'55	
	301 Sep 17 j 22:48	0°♍			304 Jan 07 j 02:18	0°♏	
retrograde	301 Sep 25 j 22:22	1°♍11'26			304 Jan 31 j 02:51	0°♐	
	301 Oct 03 j 14:48	30°♍		morning set	304 Feb 05 j 12:21	6°♐43'33	
evening set	301 Oct 11 j 18:28	26°♌21'22			304 Feb 24 j 05:17	0°♑	
inferior conj	301 Oct 16 j 13:43	23°♌31'27	-5°-37'-6				
minimum elong	301 Oct 17 j 00:07	23°♌15'41	5°34'31	superior conj	304 Mar 16 j 00:42	25°♑47'50	-1°-17'-30
min. Earth dist.	301 Oct 17 j 06:12	23°♌06'28	0.26776 AU	minimum elong	304 Mar 16 j 08:31	26°♑12'01	1°17'22
morning rise	301 Oct 22 j 05:20	20°♌12'56			304 Mar 19 j 10:14	0°♒	
direct	301 Nov 06 j 04:11	15°♌47'37		max. Earth dist.	304 Mar 19 j 08:14	29°♑53'49	1.72834 AU
asc. node	301 Nov 09 j 03:36	15°♌58'22			304 Apr 12 j 18:02	0°♓	
greatest brilliancy	301 Nov 19 j 08:39	19°♌02'10	-4.7m	evening rise	304 Apr 23 j 00:03	12°♓35'59	
	301 Dec 06 j 02:47	0°♍		asc. node	304 Apr 25 j 22:57	16°♓13'35	
morning max el	301 Dec 26 j 23:13	19°♍20'34	46°55'19		304 May 07 j 04:37	0°♔	
	302 Jan 06 j 03:37	0°♎			304 May 31 j 17:53	0°♕	
	302 Feb 01 j 23:46	0°♏			304 Jun 25 j 10:18	0°♖	
	302 Feb 27 j 15:44	0°♐			304 Jul 20 j 07:26	0°♗	
desc. node	302 Feb 28 j 17:16	1°♐15'30			304 Aug 14 j 12:18	0°♘	
	302 Mar 24 j 20:20	0°♑		desc. node	304 Aug 15 j 12:15	1°♘10'37	
	302 Apr 18 j 19:27	0°♒			304 Sep 09 j 06:23	0°♙	
	302 May 13 j 15:06	0°♓			304 Oct 06 j 03:29	0°♚	
	302 Jun 07 j 07:19	0°♔		evening max el	304 Oct 19 j 18:05	14°♚13'17	47°19'12
asc. node	302 Jun 21 j 20:28	17°♔47'10			304 Nov 05 j 12:01	0°♛	
morning set	302 Jun 27 j 04:10	24°♔18'33		greatest brilliancy	304 Nov 27 j 05:41	14°♛46'38	-4.7m
	302 Jul 01 j 19:22	0°♕		asc. node	304 Dec 06 j 15:25	17°♛27'03	
	302 Jul 26 j 02:52	0°♖		retrograde	304 Dec 09 j 13:19	17°♛37'17	
max. Earth dist.	302 Jul 29 j 20:42	4°♖38'13	1.72767 AU	evening set	304 Dec 24 j 15:21	13°♛04'11	
				min. Earth dist.	304 Dec 29 j 06:43	10°♛18'02	0.26803 AU
superior conj	302 Aug 02 j 13:15	9°♗12'47	1°17'57	inferior conj	304 Dec 30 j 04:55	9°♛43'36	5°36'15
minimum elong	302 Aug 02 j 06:48	8°♗52'47	1°17'50	minimum elong	304 Dec 29 j 18:57	9°♛59'04	5°33'48
	302 Aug 19 j 06:31	0°♘		morning rise	305 Jan 03 j 23:06	6°♛51'47	
evening rise	302 Sep 08 j 12:34	25°♘14'54		direct	305 Jan 19 j 15:04	2°♛02'36	
	302 Sep 12 j 07:56	0°♙		greatest brilliancy	305 Jan 30 j 07:14	4°♛10'17	-4.6m
	302 Oct 06 j 08:48	0°♚			305 Mar 06 j 13:38	0°♜	
desc. node	302 Oct 11 j 10:12	6°♚18'47		morning max el	305 Mar 10 j 06:19	3°♜34'26	46°21'13
	302 Oct 30 j 10:17	0°♛		desc. node	305 Mar 28 j 05:12	22°♜01'11	
	302 Nov 23 j 13:34	0°♜			305 Apr 04 j 14:38	0°♝	
	302 Dec 17 j 21:00	0°♞			305 May 01 j 08:55	0°♞	
	303 Jan 11 j 13:45	0°♟			305 May 27 j 05:07	0°♞	
asc. node	303 Feb 01 j 13:05	24°♟46'01			305 Jun 21 j 12:16	0°♟	
	303 Feb 06 j 01:58	0°♠			305 Jul 16 j 09:03	0°♠	
	303 Mar 05 j 09:02	0°♑		asc. node	305 Jul 19 j 08:18	3°♠36'49	
evening max el	303 Mar 14 j 23:23	9°♑41'06	45°44'16		305 Aug 09 j 20:42	0°♒	
	303 Apr 07 j 16:04	0°♒			305 Sep 03 j 00:54	0°♓	
greatest brilliancy	303 Apr 18 j 03:56	6°♒16'21	-4.5m	morning set	305 Sep 04 j 01:36	1°♓17'03	
retrograde	303 May 02 j 20:35	10°♒01'50			305 Sep 27 j 00:09	0°♔	
evening set	303 May 17 j 22:18	5°♒37'54		max. Earth dist.	305 Oct 10 j 15:17	17°♔07'26	1.71298 AU
inferior conj	303 May 24 j 07:13	1°♒48'11	0°-2'-38				
minimum elong	303 May 24 j 07:08	1°♒48'20	0°02'38	superior conj	305 Oct 12 j 10:25	19°♔23'00	0°57'27
transit middle	303 May 24 j 07:08	1°♒48'20	0°02'38	minimum elong	305 Oct 12 j 21:03	19°♔56'27	0°57'04
transit begin	303 May 24 j 03:07	1°♒54'37			305 Oct 20 j 21:04	0°♕	
transit end	303 May 24 j 11:08	1°♒42'03		desc. node	305 Nov 07 j 22:05	22°♕41'32	
desc. node	303 May 24 j 02:42	1°♒55'17			305 Nov 13 j 17:35	0°♖	
min. Earth dist.	303 May 24 j 10:16	1°♒43'24	0.28984 AU	evening rise	305 Nov 22 j 11:20	10°♖58'51	
	303 May 27 j 04:51	30°♒			305 Dec 07 j 14:57	0°♗	
morning rise	303 May 30 j 16:02	27°♒58'48			305 Dec 31 j 14:19	0°♘	
direct	303 Jun 15 j 00:01	23°♒29'38			306 Jan 24 j 17:42	0°♙	
greatest brilliancy	303 Jun 28 j 17:35	26°♒47'21	-4.5m		306 Feb 18 j 04:18	0°♚	
	303 Jul 04 j 20:46	0°♓		asc. node	306 Mar 01 j 01:08	13°♚09'44	
morning max el	303 Aug 02 j 23:57	23°♓33'40	45°56'09		306 Mar 15 j 02:52	0°♛	
	303 Aug 09 j 12:43	0°♔			306 Apr 09 j 20:49	0°♜	
	303 Sep 06 j 09:42	0°♕			306 May 07 j 02:35	0°♝	
asc. node	303 Sep 14 j 06:02	8°♕57'59		evening max el	306 May 24 j 11:36	17°♝31'12	45°20'13
	303 Oct 02 j 03:24	0°♖			306 Jun 07 j 10:11	0°♞	
	303 Oct 26 j 20:45	0°♗		desc. node	306 Jun 20 j 14:38	9°♗38'29	

greatest brilliancy	306 Jun 29 j 14:32	14°Ω21'23	-4.5m	desc. node	308 Dec 05 j 09:47	8°♁59'00	
retrograde	306 Jul 12 j 01:19	17°Ω05'30			308 Dec 22 j 02:51	0°♁	
evening set	306 Jul 29 j 03:30	11°Ω38'44					
inferior conj	306 Aug 02 j 09:22	9°Ω05'05	-7°-59'-47	superior conj	308 Dec 28 j 12:38	8°♁03'00	0°-51'-19
minimum elong	306 Aug 02 j 01:49	9°Ω16'43	7°58'55	minimum elong	308 Dec 28 j 01:13	7°♁27'10	0°50'52
min. Earth dist.	306 Aug 02 j 18:04	8°Ω51'38	0.28513 AU	max. Earth dist.	308 Dec 31 j 16:19	12°♁00'33	1.71288 AU
morning rise	306 Aug 05 j 23:50	6°Ω53'05			309 Jan 15 j 00:43	0°≈	
direct	306 Aug 23 j 19:40	0°Ω54'16		evening rise	309 Feb 07 j 13:42	29°≈24'11	
greatest brilliancy	306 Sep 07 j 08:07	4°Ω37'25	-4.6m		309 Feb 08 j 01:13	0°✕	
	306 Oct 09 j 21:35	0°♎			309 Mar 04 j 05:45	0°♃	
asc. node	306 Oct 11 j 17:51	1°♎49'28		asc. node	309 Mar 28 j 13:06	29°♃51'25	
morning max el	306 Oct 13 j 00:27	3°♎06'03	46°37'24		309 Mar 28 j 15:54	0°♄	
	306 Nov 06 j 23:03	0°♅			309 Apr 22 j 09:15	0°♆	
	306 Dec 02 j 15:05	0°♆			309 May 17 j 11:58	0°♇	
	306 Dec 27 j 10:27	0°♁			309 Jun 12 j 04:34	0°Ω	
	307 Jan 20 j 22:10	0°♁			309 Jul 08 j 21:51	0°♎	
desc. node	307 Jan 31 j 07:29	12°♁46'20		desc. node	309 Jul 18 j 02:26	9°♎52'12	
	307 Feb 14 j 07:30	0°≈		evening max el	309 Aug 04 j 23:53	28°♎02'39	46°12'12
	307 Mar 10 j 16:40	0°✕			309 Aug 07 j 00:54	0°♅	
	307 Apr 04 j 02:29	0°♃		greatest brilliancy	309 Sep 12 j 22:32	26°♅44'31	-4.6m
morning set	307 Apr 18 j 09:25	17°♃32'31		retrograde	309 Sep 23 j 10:43	28°♅44'55	
	307 Apr 28 j 13:03	0°♄		evening set	309 Oct 09 j 10:08	23°♅50'32	
	307 May 22 j 23:46	0°♆		inferior conj	309 Oct 14 j 02:12	21°♅04'43	-5°-55'-8
max. Earth dist.	307 May 24 j 03:28	1°♆24'59	1.73652 AU	minimum elong	309 Oct 14 j 12:47	20°♅48'40	5°52'38
asc. node	307 May 24 j 10:41	1°♆47'09		min. Earth dist.	309 Oct 14 j 19:11	20°♅38'57	0.26825 AU
				morning rise	309 Oct 19 j 15:02	17°♅49'48	
superior conj	307 May 25 j 02:20	2°♆35'13	0°01'34	direct	309 Nov 03 j 17:53	13°♅20'24	
minimum elong	307 May 25 j 02:00	2°♆34'11	0°01'33	asc. node	309 Nov 08 j 05:30	13°♅44'30	
behind sun begin	307 May 24 j 03:41	1°♆25'40		greatest brilliancy	309 Nov 16 j 22:26	16°♅35'12	-4.7m
behind sun end	307 May 26 j 00:19	3°♆42'43			309 Dec 06 j 14:58	0°♆	
	307 Jun 16 j 09:46	0°♇		morning max el	309 Dec 24 j 12:49	16°♆54'52	46°55'38
evening rise	307 Jun 29 j 23:02	16°♇40'46			310 Jan 05 j 23:05	0°♁	
	307 Jul 10 j 18:38	0°Ω			310 Feb 01 j 15:07	0°♁	
	307 Aug 04 j 02:57	0°♎			310 Feb 27 j 05:14	0°≈	
	307 Aug 28 j 12:04	0°♅		desc. node	310 Feb 27 j 19:27	0°≈42'07	
desc. node	307 Sep 13 j 00:22	19°♅01'50			310 Mar 24 j 08:48	0°✕	
	307 Sep 21 j 23:30	0°♆			310 Apr 18 j 07:16	0°♃	
	307 Oct 16 j 15:04	0°♁			310 May 13 j 02:28	0°♄	
	307 Nov 10 j 14:32	0°♁			310 Jun 06 j 18:24	0°♆	
	307 Dec 06 j 08:18	0°≈		asc. node	310 Jun 20 j 22:32	17°♆19'53	
evening max el	307 Dec 31 j 08:55	27°≈08'54	46°58'41	morning set	310 Jun 24 j 22:10	22°♆13'02	
	308 Jan 03 j 04:51	0°✕			310 Jul 01 j 06:17	0°♇	
asc. node	308 Jan 04 j 03:17	0°✕55'42			310 Jul 25 j 13:46	0°Ω	
greatest brilliancy	308 Feb 05 j 20:47	26°✕44'06	-4.6m	max. Earth dist.	310 Jul 27 j 12:57	2°Ω26'07	1.72819 AU
	308 Feb 15 j 10:12	0°♃					
retrograde	308 Feb 20 j 01:18	0°♃25'33		superior conj	310 Jul 31 j 06:45	7°Ω04'23	1°16'38
	308 Feb 24 j 14:05	30°♃		minimum elong	310 Jul 30 j 23:53	6°Ω43'05	1°16'30
evening set	308 Mar 08 j 17:15	24°✕21'46			310 Aug 18 j 17:30	0°♎	
inferior conj	308 Mar 12 j 06:28	22°✕08'35	8°00'53	evening rise	310 Sep 06 j 03:26	22°♎56'50	
minimum elong	308 Mar 12 j 13:06	21°✕58'04	8°00'11		310 Sep 11 j 19:06	0°♅	
min. Earth dist.	308 Mar 12 j 00:48	22°✕17'33	0.28516 AU		310 Oct 05 j 20:09	0°♆	
morning rise	308 Mar 16 j 09:10	19°✕35'22		desc. node	310 Oct 10 j 12:14	5°♆49'33	
direct	308 Apr 02 j 10:21	13°✕58'11			310 Oct 29 j 21:51	0°♁	
greatest brilliancy	308 Apr 14 j 04:37	16°✕27'17	-4.5m		310 Nov 23 j 01:25	0°♁	
desc. node	308 Apr 24 j 16:53	22°✕00'55			310 Dec 17 j 09:18	0°≈	
	308 May 05 j 14:31	0°♃			311 Jan 11 j 02:51	0°✕	
morning max el	308 May 21 j 08:08	13°♃58'59	45°47'17	asc. node	311 Jan 31 j 15:13	24°✕10'39	
	308 Jun 06 j 07:41	0°♄			311 Feb 05 j 16:45	0°♃	
	308 Jul 03 j 20:55	0°♆			311 Mar 05 j 04:13	0°♄	
	308 Jul 29 j 21:12	0°♇		evening max el	311 Mar 12 j 14:51	7°♄28'10	45°46'08
asc. node	308 Aug 15 j 20:13	20°♇10'27			311 Apr 08 j 13:19	0°♆	
	308 Aug 23 j 23:37	0°Ω		greatest brilliancy	311 Apr 15 j 21:16	4°♆08'41	-4.5m
	308 Sep 17 j 11:12	0°♎		retrograde	311 Apr 30 j 12:38	7°♆53'14	
	308 Oct 11 j 13:20	0°♅		evening set	311 May 15 j 15:41	3°♆28'18	
	308 Nov 04 j 10:40	0°♆			311 May 21 j 10:43	30°♃	
morning set	308 Nov 16 j 16:15	15°♆23'56		inferior conj	311 May 21 j 23:45	29°♃39'32	0°16'58
	308 Nov 28 j 06:32	0°♁		minimum elong	311 May 22 j 00:22	29°♃38'33	0°16'47

min. Earth dist.	311 May 22 j 03:10	29°♄34'09	0.28984 AU	desc. node	313 Nov 07 j 00:03	22°♁13'03	
desc. node	311 May 23 j 04:42	28°♄54'06			313 Nov 13 j 04:37	0°♄	
morning rise	311 May 28 j 09:06	25°♄48'56		evening rise	313 Nov 19 j 21:10	8°♄24'17	
direct	311 Jun 12 j 16:21	21°♄21'04			313 Dec 07 j 02:05	0°♄	
greatest brilliancy	311 Jun 26 j 08:02	24°♄36'12	-4.5m		313 Dec 31 j 01:35	0°≈	
	311 Jul 05 j 23:32	0°♁			314 Jan 24 j 05:06	0°♄	
morning max el	311 Jul 31 j 14:29	21°♁19'29	45°55'01		314 Feb 17 j 16:02	0°♄	
	311 Aug 09 j 08:25	0°♄		asc. node	314 Feb 28 j 03:14	12°♄39'59	
	311 Sep 06 j 00:39	0°♁			314 Mar 14 j 15:16	0°♄	
asc. node	311 Sep 13 j 08:11	8°♁23'01			314 Apr 09 j 10:43	0°♁	
	311 Oct 01 j 16:33	0°♄			314 May 06 j 20:07	0°♄	
	311 Oct 26 j 09:03	0°♁		evening max el	314 May 22 j 02:40	15°♄19'13	45°19'41
	311 Nov 19 j 13:58	0°♁			314 Jun 07 j 18:36	0°♁	
	311 Dec 13 j 14:12	0°♄		desc. node	314 Jun 19 j 16:45	8°♁19'51	
desc. node	312 Jan 02 j 21:41	25°♄25'15		greatest brilliancy	314 Jun 27 j 01:22	12°♁04'45	-4.5m
	312 Jan 06 j 13:33	0°♄		retrograde	314 Jul 09 j 16:44	14°♁53'20	
	312 Jan 30 j 13:54	0°≈		evening set	314 Jul 26 j 15:08	9°♁30'46	
morning set	312 Feb 03 j 00:02	4°≈16'03		inferior conj	314 Jul 31 j 00:34	6°♁51'58	-7°-50'-48
	312 Feb 23 j 16:12	0°♄		minimum elong	314 Jul 30 j 16:30	7°♁04'24	7°49'48
				min. Earth dist.	314 Jul 31 j 08:21	6°♁39'56	0.28556 AU
superior conj	312 Mar 13 j 15:39	23°♄32'08	-1°-18'-55	morning rise	314 Aug 03 j 17:36	4°♁36'19	
minimum elong	312 Mar 13 j 22:57	23°♄54'43	1°18'47		314 Aug 13 j 08:26	30°♁	
max. Earth dist.	312 Mar 17 j 02:53	27°♄49'37	1.72783 AU	direct	314 Aug 21 j 11:31	28°♁40'27	
	312 Mar 18 j 21:03	0°♄			314 Aug 29 j 22:06	0°♁	
	312 Apr 12 j 04:49	0°♄		greatest brilliancy	314 Sep 05 j 01:06	2°♁25'13	-4.6m
evening rise	312 Apr 20 j 17:10	10°♄27'57			314 Oct 09 j 20:16	0°♄	
asc. node	312 Apr 25 j 00:54	15°♄46'19		morning max el	314 Oct 10 j 16:02	0°♄49'28	46°36'02
	312 May 06 j 15:30	0°♁		asc. node	314 Oct 10 j 19:48	0°♄58'57	
	312 May 31 j 05:00	0°♄			314 Nov 06 j 15:09	0°♁	
	312 Jun 24 j 21:51	0°♁			314 Dec 02 j 04:53	0°♁	
	312 Jul 19 j 19:40	0°♄			314 Dec 26 j 23:08	0°♄	
	312 Aug 14 j 01:38	0°♁			315 Jan 20 j 10:09	0°♄	
desc. node	312 Aug 14 j 14:25	0°♁37'36		desc. node	315 Jan 30 j 09:34	12°♄16'36	
	312 Sep 08 j 21:40	0°♁			315 Feb 13 j 19:01	0°≈	
	312 Oct 05 j 22:54	0°♄			315 Mar 10 j 03:47	0°♄	
evening max el	312 Oct 17 j 06:53	11°♄46'00	47°18'02		315 Apr 03 j 13:19	0°♄	
	312 Nov 05 j 23:14	0°♄		morning set	315 Apr 16 j 02:40	15°♄25'15	
greatest brilliancy	312 Nov 24 j 21:40	12°♄21'40	-4.7m		315 Apr 27 j 23:41	0°♄	
asc. node	312 Dec 05 j 17:31	15°♄07'03		max. Earth dist.	315 May 22 j 03:08	29°♄37'58	1.73652 AU
retrograde	312 Dec 07 j 02:01	15°♄09'17			315 May 22 j 10:19	0°♁	
evening set	312 Dec 22 j 01:37	10°♄40'38					
min. Earth dist.	312 Dec 26 j 20:42	7°♄49'39	0.26746 AU	superior conj	315 May 22 j 20:48	0°♁32'10	0°-1'-35
inferior conj	312 Dec 27 j 17:49	7°♄16'58	5°17'52	minimum elong	315 May 22 j 21:08	0°♁33'12	0°01'35
minimum elong	312 Dec 27 j 08:04	7°♄32'05	5°15'21	behind sun begin	315 May 21 j 22:46	29°♄24'33	
morning rise	313 Jan 01 j 14:59	4°♄21'02		behind sun end	315 May 23 j 19:29	1°♁41'50	
	313 Jan 12 j 18:05	30°♁		asc. node	315 May 23 j 12:47	1°♁21'17	
direct	313 Jan 17 j 02:52	29°♄36'39			315 Jun 15 j 20:20	0°♄	
	313 Jan 21 j 13:55	0°♄		evening rise	315 Jun 27 j 18:25	14°♄40'00	
greatest brilliancy	313 Jan 27 j 21:50	1°♄46'43	-4.6m		315 Jul 10 j 05:22	0°♁	
	313 Mar 06 j 13:48	0°≈			315 Aug 03 j 13:58	0°♄	
morning max el	313 Mar 07 j 18:51	1°≈10'56	46°22'56		315 Aug 27 j 23:29	0°♁	
desc. node	313 Mar 27 j 07:15	21°≈19'22		desc. node	315 Sep 12 j 02:22	18°♁31'55	
	313 Apr 04 j 07:02	0°♄			315 Sep 21 j 11:29	0°♁	
	313 Apr 30 j 22:33	0°♄			315 Oct 16 j 03:50	0°♄	
	313 May 26 j 17:24	0°♄			315 Nov 10 j 04:30	0°♄	
	313 Jun 20 j 23:49	0°♁			315 Dec 06 j 00:38	0°≈	
	313 Jul 15 j 20:12	0°♄		evening max el	315 Dec 29 j 00:50	24°≈52'19	47°00'56
asc. node	313 Jul 18 j 10:27	3°♄09'30		asc. node	316 Jan 03 j 05:27	0°♄03'34	
	313 Aug 09 j 07:38	0°♁			316 Jan 03 j 04:00	0°♄	
morning set	313 Sep 01 j 16:55	29°♁01'16		greatest brilliancy	316 Feb 03 j 13:35	24°♄30'18	-4.6m
	313 Sep 02 j 11:45	0°♄		retrograde	316 Feb 17 j 17:57	28°♄11'08	
	313 Sep 26 j 11:01	0°♁		evening set	316 Mar 06 j 11:02	22°♄04'14	
max. Earth dist.	313 Oct 08 j 02:18	14°♁36'56	1.71337 AU	inferior conj	316 Mar 09 j 22:07	19°♄54'16	8°08'29
				minimum elong	316 Mar 10 j 04:12	19°♄44'39	8°07'54
superior conj	313 Oct 09 j 22:50	16°♁56'54	1°00'08	min. Earth dist.	316 Mar 09 j 15:03	20°♄05'27	0.28473 AU
minimum elong	313 Oct 10 j 09:28	17°♁30'19	0°59'46	morning rise	316 Mar 13 j 21:36	17°♄26'06	
	313 Oct 20 j 08:00	0°♁		direct	316 Mar 31 j 01:55	11°♄44'44	

greatest brilliancy	316 Apr 11 j 17:08	14° Υ 11'36	-4.5m		318 Nov 22 j 13:12	0° \eth	
desc. node	316 Apr 23 j 18:50	20° Υ 45'26			318 Dec 16 j 21:37	0° \approx	
	316 May 05 j 21:49	0° Υ			319 Jan 10 j 16:01	0° Υ	
morning max el	316 May 19 j 00:30	11° Υ 50'09	45°47'55	asc. node	319 Jan 30 j 17:17	23° Υ 35'02	
	316 Jun 06 j 01:10	0° \eth			319 Feb 05 j 07:40	0° Υ	
	316 Jul 03 j 10:48	0° \eth			319 Mar 04 j 23:51	0° \eth	
	316 Jul 29 j 09:33	0° \eth		evening max el	319 Mar 10 j 05:25	5° \eth 13'09	45°48'18
asc. node	316 Aug 14 j 22:20	19° \eth 41'24			319 Apr 09 j 18:26	0° \eth	
	316 Aug 23 j 11:14	0° \eth		greatest brilliancy	319 Apr 13 j 13:47	2° \eth 00'20	-4.5m
	316 Sep 16 j 22:27	0° \eth		retrograde	319 Apr 28 j 04:46	5° \eth 45'24	
	316 Oct 11 j 00:25	0° \eth		evening set	319 May 13 j 09:14	1° \eth 18'57	
	316 Nov 03 j 21:42	0° \eth			319 May 15 j 16:14	30° \eth	
morning set	316 Nov 14 j 03:04	12° \eth 52'14		inferior conj	319 May 19 j 16:21	27° \eth 31'32	0°36'35
	316 Nov 27 j 17:32	0° \eth		minimum elong	319 May 19 j 17:41	27° \eth 29'26	0°36'12
desc. node	316 Dec 04 j 11:56	8° \eth 31'16		min. Earth dist.	319 May 19 j 20:18	27° \eth 25'20	0.28981 AU
	316 Dec 21 j 13:48	0° \eth		desc. node	319 May 22 j 06:53	25° \eth 53'52	
				morning rise	319 May 26 j 02:05	23° \eth 40'00	
superior conj	316 Dec 25 j 22:00	5° \eth 27'18	0°-48'-2	direct	319 Jun 10 j 08:17	19° \eth 12'58	
minimum elong	316 Dec 25 j 10:57	4° \eth 52'38	0°47'35	greatest brilliancy	319 Jun 23 j 23:29	22° \eth 26'51	-4.5m
max. Earth dist.	316 Dec 29 j 02:13	9° \eth 26'40	1.71252 AU		319 Jul 06 j 18:49	0° \eth	
	317 Jan 14 j 11:37	0° \approx		morning max el	319 Jul 29 j 05:20	19° \eth 06'41	45°54'10
evening rise	317 Feb 05 j 01:12	26° \approx 56'35			319 Aug 09 j 03:19	0° \eth	
	317 Feb 07 j 12:06	0° Υ			319 Sep 05 j 15:11	0° \eth	
	317 Mar 03 j 16:43	0° Υ		asc. node	319 Sep 12 j 10:07	7° \eth 48'20	
asc. node	317 Mar 27 j 15:06	29° Υ 23'32			319 Oct 01 j 05:24	0° \eth	
	317 Mar 28 j 03:02	0° \eth			319 Oct 25 j 21:07	0° \eth	
	317 Apr 21 j 20:44	0° \eth			319 Nov 19 j 01:37	0° \eth	
	317 May 17 j 00:09	0° \eth			319 Dec 13 j 01:36	0° \eth	
	317 Jun 11 j 18:06	0° \eth		desc. node	320 Jan 01 j 23:48	24° \eth 56'37	
	317 Jul 08 j 14:17	0° \eth			320 Jan 06 j 00:47	0° \eth	
desc. node	317 Jul 17 j 04:36	9° \eth 10'18			320 Jan 30 j 01:00	0° \approx	
evening max el	317 Aug 02 j 13:36	25° \eth 43'44	46°09'25	morning set	320 Jan 31 j 10:59	1° \approx 45'58	
	317 Aug 07 j 01:49	0° \eth			320 Feb 23 j 03:10	0° Υ	
greatest brilliancy	317 Sep 10 j 11:20	24° \eth 20'40	-4.6m				
retrograde	317 Sep 20 j 22:32	26° \eth 19'44		superior conj	320 Mar 11 j 06:00	21° Υ 14'20	-1°-20'-13
evening set	317 Oct 07 j 01:54	21° \eth 21'00		minimum elong	320 Mar 11 j 12:42	21° Υ 35'06	1°20'06
inferior conj	317 Oct 11 j 14:48	18° \eth 39'18	-6°-12'-23	max. Earth dist.	320 Mar 14 j 18:36	25° Υ 36'09	1.72726 AU
minimum elong	317 Oct 12 j 01:27	18° \eth 23'06	6°09'58		320 Mar 18 j 07:55	0° Υ	
min. Earth dist.	317 Oct 12 j 08:30	18° \eth 12'23	0.26883 AU		320 Apr 11 j 15:38	0° \eth	
morning rise	317 Oct 17 j 00:37	15° \eth 28'05		evening rise	320 Apr 18 j 09:52	8° \eth 18'31	
direct	317 Nov 01 j 07:13	10° \eth 54'12		asc. node	320 Apr 24 j 03:01	15° \eth 19'29	
asc. node	317 Nov 07 j 07:40	11° \eth 36'54			320 May 06 j 02:24	0° \eth	
greatest brilliancy	317 Nov 14 j 12:54	14° \eth 09'42	-4.7m		320 May 30 j 16:09	0° \eth	
	317 Dec 06 j 23:50	0° \eth			320 Jun 24 j 09:25	0° \eth	
morning max el	317 Dec 22 j 01:40	14° \eth 27'27	46°55'52		320 Jul 19 j 07:55	0° \eth	
	318 Jan 05 j 17:55	0° \eth		desc. node	320 Aug 13 j 16:26	0° \eth 04'12	
	318 Feb 01 j 06:06	0° \eth			320 Aug 13 j 15:00	0° \eth	
desc. node	318 Feb 26 j 21:29	0° \approx 09'04			320 Sep 08 j 13:01	0° \eth	
	318 Feb 26 j 18:26	0° \approx			320 Oct 05 j 18:42	0° \eth	
	318 Mar 23 j 20:58	0° Υ		evening max el	320 Oct 14 j 19:38	9° \eth 19'17	47°16'50
	318 Apr 17 j 18:46	0° Υ			320 Nov 06 j 13:54	0° \eth	
	318 May 12 j 13:32	0° \eth		greatest brilliancy	320 Nov 22 j 12:31	9° \eth 55'40	-4.7m
	318 Jun 06 j 05:11	0° \eth		retrograde	320 Dec 04 j 15:01	12° \eth 41'43	
asc. node	318 Jun 20 j 00:42	16° \eth 53'48		asc. node	320 Dec 04 j 19:37	12° \eth 41'41	
morning set	318 Jun 22 j 16:35	20° \eth 09'35		evening set	320 Dec 19 j 12:05	8° \eth 16'41	
	318 Jun 30 j 16:55	0° \eth		min. Earth dist.	320 Dec 24 j 10:33	5° \eth 21'27	0.26702 AU
	318 Jul 25 j 00:22	0° \eth		inferior conj	320 Dec 25 j 06:44	4° \eth 50'18	4°58'38
max. Earth dist.	318 Jul 25 j 06:15	0° \eth 18'12	1.72867 AU	minimum elong	320 Dec 24 j 21:17	5° \eth 04'54	4°56'07
				morning rise	320 Dec 30 j 06:54	1° \eth 50'27	
superior conj	318 Jul 29 j 00:52	4° \eth 58'51	1°15'15		321 Jan 02 j 20:18	30° \eth	
minimum elong	318 Jul 28 j 17:36	4° \eth 36'22	1°15'05	direct	321 Jan 14 j 14:57	27° \eth 10'19	
	318 Aug 18 j 04:12	0° \eth		greatest brilliancy	321 Jan 25 j 12:42	29° \eth 23'09	-4.6m
evening rise	318 Sep 03 j 18:59	20° \eth 41'58			321 Jan 27 j 00:47	0° \eth	
	318 Sep 11 j 05:58	0° \eth		morning max el	321 Mar 05 j 08:25	28° \eth 49'10	46°24'28
	318 Oct 05 j 07:16	0° \eth			321 Mar 06 j 13:10	0° \approx	
desc. node	318 Oct 09 j 14:16	5° \eth 21'03		desc. node	321 Mar 26 j 09:13	20° \approx 37'07	
	318 Oct 29 j 09:16	0° \eth			321 Apr 03 j 23:25	0° Υ	

	321 Apr 30 j 12:19	0°♃			323 Oct 15 j 16:58	0°♁		
	321 May 26 j 05:50	0°♂			323 Nov 09 j 18:53	0°♁		
	321 Jun 20 j 11:29	0°♁			323 Dec 05 j 17:31	0°♁		
	321 Jul 15 j 07:27	0°♁		evening max el	323 Dec 26 j 16:55	22°♁35'25	47°03'05	
asc. node	321 Jul 17 j 12:28	2°♁41'28		asc. node	324 Jan 02 j 07:30	29°♁09'30		
	321 Aug 08 j 18:41	0°♁			324 Jan 03 j 04:28	0°♁		
morning set	321 Aug 30 j 08:35	26°♁46'19		greatest brilliancy	324 Feb 01 j 07:10	22°♁16'47	-4.6m	
	321 Sep 01 j 22:43	0°♁		retrograde	324 Feb 15 j 10:20	25°♁55'41		
	321 Sep 25 j 21:59	0°♁		evening set	324 Mar 04 j 04:38	19°♁46'14		
max. Earth dist.	321 Oct 05 j 14:51	12°♁11'00	1.71372 AU	min. Earth dist.	324 Mar 07 j 05:19	17°♁52'25	0.28431 AU	
				inferior conj	324 Mar 07 j 13:46	17°♁39'03	8°15'15	
superior conj	321 Oct 07 j 11:48	14°♁32'15	1°02'41	minimum elong	324 Mar 07 j 19:14	17°♁30'23	8°14'46	
minimum elong	321 Oct 07 j 22:21	15°♁05'24	1°02'20	morning rise	324 Mar 11 j 10:08	15°♁15'35		
	321 Oct 19 j 19:01	0°♁		direct	324 Mar 28 j 17:35	9°♁30'33		
desc. node	321 Nov 06 j 02:14	21°♁45'04		greatest brilliancy	324 Apr 09 j 04:59	11°♁54'06	-4.5m	
	321 Nov 12 j 15:44	0°♁		desc. node	324 Apr 22 j 21:04	19°♁31'42		
evening rise	321 Nov 17 j 07:35	5°♁51'18			324 May 06 j 03:24	0°♁		
	321 Dec 06 j 13:19	0°♁		morning max el	324 May 16 j 16:11	9°♁38'26	45°48'21	
	321 Dec 30 j 12:56	0°♁			324 Jun 05 j 18:44	0°♁		
	322 Jan 23 j 16:41	0°♁			324 Jul 03 j 01:02	0°♁		
	322 Feb 17 j 04:02	0°♁			324 Jul 28 j 22:17	0°♁		
asc. node	322 Feb 27 j 05:11	12°♁08'56		asc. node	324 Aug 14 j 00:20	19°♁10'51		
	322 Mar 14 j 04:04	0°♁			324 Aug 22 j 23:11	0°♁		
	322 Apr 09 j 01:08	0°♁			324 Sep 16 j 10:00	0°♁		
	322 May 06 j 14:29	0°♁			324 Oct 10 j 11:49	0°♁		
evening max el	322 May 19 j 18:33	13°♁08'20	45°19'25		324 Nov 03 j 09:01	0°♁		
	322 Jun 08 j 06:33	0°♁		morning set	324 Nov 11 j 13:54	10°♁19'43		
desc. node	322 Jun 18 j 18:49	6°♁57'49			324 Nov 27 j 04:49	0°♁		
greatest brilliancy	322 Jun 24 j 12:52	9°♁48'16	-4.5m	desc. node	324 Dec 03 j 14:00	8°♁02'14		
retrograde	322 Jul 07 j 08:12	12°♁40'25			324 Dec 21 j 01:02	0°♁		
evening set	322 Jul 24 j 02:53	7°♁22'16						
inferior conj	322 Jul 28 j 15:47	4°♁38'14	-7°-41'-15	superior conj	324 Dec 23 j 07:27	2°♁50'57	0°-44'-39	
minimum elong	322 Jul 28 j 07:17	4°♁51'21	7°40'05	minimum elong	324 Dec 22 j 20:54	2°♁17'46	0°44'13	
min. Earth dist.	322 Jul 28 j 22:31	4°♁27'50	0.28591 AU	max. Earth dist.	324 Dec 26 j 10:21	6°♁46'09	1.71215 AU	
morning rise	322 Aug 01 j 11:26	2°♁18'45			325 Jan 13 j 22:49	0°♁		
	322 Aug 05 j 16:06	30°♁		evening rise	325 Feb 02 j 12:44	24°♁28'04		
direct	322 Aug 19 j 03:45	26°♁26'15			325 Feb 06 j 23:18	0°♁		
	322 Sep 02 j 07:39	0°♁			325 Mar 03 j 03:58	0°♁		
greatest brilliancy	322 Sep 02 j 16:52	0°♁10'58	-4.6m	asc. node	325 Mar 26 j 17:14	28°♁55'10		
morning max el	322 Oct 08 j 07:50	28°♁33'05	46°34'39		325 Mar 27 j 14:28	0°♁		
asc. node	322 Oct 09 j 21:57	0°♁09'16			325 Apr 21 j 08:35	0°♁		
	322 Oct 09 j 18:18	0°♁			325 May 16 j 12:46	0°♁		
	322 Nov 06 j 07:10	0°♁			325 Jun 11 j 08:13	0°♁		
	322 Dec 01 j 18:44	0°♁			325 Jul 08 j 07:34	0°♁		
	322 Dec 26 j 11:54	0°♁		desc. node	325 Jul 16 j 06:35	8°♁25'58		
desc. node	323 Jan 19 j 22:16	0°♁		evening max el	325 Jul 31 j 02:27	23°♁21'21	46°06'44	
	323 Jan 29 j 11:36	11°♁46'14			325 Aug 07 j 04:43	0°♁		
	323 Feb 13 j 06:40	0°♁		greatest brilliancy	325 Sep 08 j 00:49	21°♁56'23	-4.6m	
	323 Mar 09 j 15:07	0°♁		retrograde	325 Sep 18 j 10:05	23°♁53'44		
	323 Apr 03 j 00:25	0°♁		evening set	325 Oct 04 j 17:43	18°♁50'24		
morning set	323 Apr 13 j 19:37	13°♁16'02		inferior conj	325 Oct 09 j 03:27	16°♁13'08	-6°-28'-49	
	323 Apr 27 j 10:39	0°♁		minimum elong	325 Oct 09 j 14:07	15°♁56'52	6°26'30	
max. Earth dist.	323 May 20 j 02:16	27°♁48'06	1.73650 AU	min. Earth dist.	325 Oct 09 j 22:08	15°♁44'40	0.26940 AU	
				morning rise	325 Oct 14 j 10:04	13°♁05'50		
superior conj	323 May 20 j 14:51	28°♁26'44	0°-4'-46	direct	325 Oct 29 j 20:00	8°♁26'59		
minimum elong	323 May 20 j 15:49	28°♁29'43	0°04'43	asc. node	325 Nov 06 j 09:49	9°♁33'30		
behind sun begin	323 May 19 j 18:10	27°♁23'15		greatest brilliancy	325 Nov 12 j 04:02	11°♁44'12	-4.7m	
behind sun end	323 May 21 j 13:27	29°♁36'10			325 Dec 07 j 06:38	0°♁		
	323 May 21 j 21:13	0°♁		morning max el	325 Dec 19 j 14:07	11°♁57'55	46°56'06	
asc. node	323 May 22 j 14:57	0°♁54'25			326 Jan 05 j 12:34	0°♁		
	323 Jun 15 j 07:16	0°♁			326 Jan 31 j 21:12	0°♁		
evening rise	323 Jun 25 j 13:22	12°♁36'51		desc. node	326 Feb 25 j 23:29	29°♁35'11		
	323 Jul 09 j 16:25	0°♁			326 Feb 26 j 07:49	0°♁		
	323 Aug 03 j 01:17	0°♁			326 Mar 23 j 09:22	0°♁		
	323 Aug 27 j 11:14	0°♁			326 Apr 17 j 06:32	0°♁		
desc. node	323 Sep 11 j 04:23	18°♁01'08			326 May 12 j 00:53	0°♁		
	323 Sep 20 j 23:49	0°♁			326 Jun 05 j 16:16	0°♁		

asc. node	326 Jun 19 j 02:42	16°II26'08		asc. node	328 Dec 03 j 21:38	10°☾08'54	
morning set	326 Jun 20 j 10:52	18°II04'45		evening set	328 Dec 16 j 22:28	5°☾50'51	
	326 Jun 30 j 03:54	0°☾		min. Earth dist.	328 Dec 21 j 23:52	2°☾51'59	0.26654 AU
max. Earth dist.	326 Jul 23 j 00:12	28°☾11'15	1.72921 AU	inferior conj	328 Dec 22 j 19:21	2°☾22'00	4°38'35
	326 Jul 24 j 11:21	0°♁		minimum elong	328 Dec 22 j 10:15	2°☾36'00	4°36'06
					328 Dec 26 j 17:26	30°R☾	
superior conj	326 Jul 26 j 18:45	2°♁51'33	1°13'44	morning rise	328 Dec 27 j 22:29	29°☾18'35	
minimum elong	326 Jul 26 j 11:08	2°♁27'58	1°13'32	direct	329 Jan 12 j 03:12	24°☾42'34	
	326 Aug 17 j 15:17	0°♁		greatest brilliancy	329 Jan 23 j 02:24	26°☾57'21	-4.6m
evening rise	326 Sep 01 j 10:22	18°♁25'29			329 Jan 29 j 11:32	0°☾	
	326 Sep 10 j 17:13	0°♁		morning max el	329 Mar 02 j 22:42	26°☾28'48	46°26'03
	326 Oct 04 j 18:44	0°♁			329 Mar 06 j 11:41	0°≈	
desc. node	326 Oct 08 j 16:25	4°♁51'51		desc. node	329 Mar 25 j 11:27	19°≈55'50	
	326 Oct 28 j 21:00	0°☾			329 Apr 03 j 15:33	0°☾	
	326 Nov 22 j 01:18	0°☾			329 Apr 30 j 01:59	0°☾	
	326 Dec 16 j 10:15	0°≈			329 May 25 j 18:14	0°☾	
	327 Jan 10 j 05:34	0°☾			329 Jun 19 j 23:09	0°II	
asc. node	327 Jan 29 j 19:18	22°☾58'07			329 Jul 14 j 18:42	0°☾	
	327 Feb 04 j 23:04	0°☾		asc. node	329 Jul 16 j 14:32	2°☾13'36	
	327 Mar 04 j 20:25	0°☾			329 Aug 08 j 05:43	0°♁	
evening max el	327 Mar 07 j 19:45	2°☾56'49	45°50'35	morning set	329 Aug 28 j 00:26	24°♁32'02	
greatest brilliancy	327 Apr 11 j 05:15	29°☾49'56	-4.5m		329 Sep 01 j 09:42	0°♁	
	327 Apr 11 j 13:41	0°II			329 Sep 25 j 08:59	0°♁	
retrograde	327 Apr 25 j 21:16	3°II37'10		max. Earth dist.	329 Oct 03 j 01:53	9°♁40'11	1.71414 AU
	327 May 09 j 12:10	30°R☾					
evening set	327 May 11 j 02:56	29°☾08'41		superior conj	329 Oct 05 j 00:47	12°♁07'27	1°05'07
inferior conj	327 May 17 j 08:59	25°☾22'59	0°56'06	minimum elong	329 Oct 05 j 11:08	12°♁39'58	1°04'46
minimum elong	327 May 17 j 11:02	25°☾19'46	0°55'29		329 Oct 19 j 06:08	0°♁	
min. Earth dist.	327 May 17 j 13:21	25°☾16'07	0.28980 AU	desc. node	329 Nov 05 j 04:18	21°♁16'18	
desc. node	327 May 21 j 08:53	22°☾54'37			329 Nov 12 j 02:58	0°☾	
morning rise	327 May 23 j 19:01	21°☾30'55		evening rise	329 Nov 14 j 17:34	3°☾16'36	
direct	327 Jun 08 j 00:03	17°☾04'13			329 Dec 06 j 00:40	0°☾	
greatest brilliancy	327 Jun 21 j 15:36	20°☾17'53	-4.5m		329 Dec 30 j 00:24	0°≈	
	327 Jul 07 j 09:28	0°II			330 Jan 23 j 04:20	0°☾	
morning max el	327 Jul 26 j 20:58	16°II55'09	45°53'11		330 Feb 16 j 16:04	0°☾	
	327 Aug 08 j 22:03	0°☾		asc. node	330 Feb 26 j 07:22	11°☾38'31	
	327 Sep 05 j 05:53	0°♁			330 Mar 13 j 16:55	0°☾	
asc. node	327 Sep 11 j 12:17	7°♁13'31			330 Apr 08 j 15:39	0°II	
	327 Sep 30 j 18:32	0°♁			330 May 06 j 09:13	0°☾	
	327 Oct 25 j 09:28	0°♁		evening max el	330 May 17 j 11:06	10°☾59'22	45°19'11
	327 Nov 18 j 13:31	0°♁			330 Jun 08 j 22:15	0°♁	
	327 Dec 12 j 13:13	0°☾		desc. node	330 Jun 17 j 20:51	5°♁33'37	
desc. node	328 Jan 01 j 01:46	24°☾26'56		greatest brilliancy	330 Jun 22 j 01:40	7°♁34'03	-4.5m
	328 Jan 05 j 12:13	0°☾		retrograde	330 Jul 04 j 23:36	10°♁28'21	
morning set	328 Jan 28 j 21:46	29°☾14'43		evening set	330 Jul 21 j 14:54	5°♁14'58	
	328 Jan 29 j 12:16	0°≈		inferior conj	330 Jul 26 j 07:12	2°♁25'38	-7°-30'-58
	328 Feb 22 j 14:18	0°☾		minimum elong	330 Jul 25 j 22:19	2°♁39'21	7°29'41
				min. Earth dist.	330 Jul 26 j 12:59	2°♁16'40	0.28622 AU
superior conj	328 Mar 08 j 20:19	18°☾55'46	-1°-21'-22	morning rise	330 Jul 30 j 05:32	0°♁02'02	
minimum elong	328 Mar 09 j 02:23	19°☾14'37	1°21'18		330 Jul 30 j 06:55	30°R☾	
max. Earth dist.	328 Mar 12 j 08:20	23°☾15'57	1.72671 AU	direct	330 Aug 16 j 20:08	24°☾13'26	
	328 Mar 17 j 18:57	0°☾		greatest brilliancy	330 Aug 31 j 07:21	27°☾56'03	-4.6m
	328 Apr 11 j 02:38	0°☾			330 Sep 04 j 05:18	0°♁	
evening rise	328 Apr 16 j 02:36	6°☾08'38		morning max el	330 Oct 05 j 23:02	26°♁15'57	46°33'04
asc. node	328 Apr 23 j 05:10	14°☾52'13		asc. node	330 Oct 09 j 00:05	29°♁20'57	
	328 May 05 j 13:28	0°II			330 Oct 09 j 15:19	0°♁	
	328 May 30 j 03:27	0°☾			330 Nov 05 j 22:50	0°♁	
	328 Jun 23 j 21:10	0°♁			330 Dec 01 j 08:25	0°♁	
	328 Jul 18 j 20:24	0°♁			330 Dec 26 j 00:36	0°☾	
desc. node	328 Aug 12 j 18:27	29°♁30'00			331 Jan 19 j 10:20	0°☾	
	328 Aug 13 j 04:41	0°♁		desc. node	331 Jan 28 j 13:41	11°☾16'06	
	328 Sep 08 j 04:54	0°♁			331 Feb 12 j 18:16	0°≈	
	328 Oct 05 j 15:31	0°☾			331 Mar 09 j 02:20	0°☾	
evening max el	328 Oct 12 j 09:13	6°☾53'49	47°15'32		331 Apr 02 j 11:23	0°☾	
	328 Nov 07 j 10:11	0°☾		morning set	331 Apr 11 j 12:24	11°☾06'46	
greatest brilliancy	328 Nov 20 j 02:34	7°☾27'21	-4.7m		331 Apr 26 j 21:27	0°☾	
retrograde	328 Dec 02 j 04:19	10°☾12'36					

superior conj	331 May 18 j 08:53	26°♄21'50	0°-7'-54	morning rise	333 Oct 11 j 19:37	10°♁46'02	
minimum elong	331 May 18 j 10:30	26°♄26'50	0°07'51	direct	333 Oct 27 j 08:54	6°♁01'34	
behind sun begin	331 May 17 j 14:43	25°♄26'04		asc. node	333 Nov 05 j 11:43	7°♁36'35	
behind sun end	331 May 19 j 06:18	27°♄27'35		greatest brilliancy	333 Nov 09 j 20:08	9°♁21'49	-4.7m
max. Earth dist.	331 May 18 j 01:18	25°♄58'33	1.73644 AU		333 Dec 07 j 10:44	0°♁	
	331 May 21 j 07:57	0°♁		morning max el	333 Dec 17 j 03:04	9°♁31'09	46°56'24
asc. node	331 May 21 j 16:54	0°♁27'30			334 Jan 05 j 06:16	0°♁	
	331 Jun 14 j 18:01	0°♁			334 Jan 31 j 11:40	0°♁	
evening rise	331 Jun 23 j 08:29	10°♁34'47		desc. node	334 Feb 25 j 01:39	29°♁03'04	
	331 Jul 09 j 03:18	0°♁			334 Feb 25 j 20:45	0°♁	
	331 Aug 02 j 12:26	0°♁			334 Mar 22 j 21:23	0°♁	
	331 Aug 26 j 22:47	0°♁			334 Apr 16 j 17:58	0°♁	
desc. node	331 Sep 10 j 06:35	17°♁31'41			334 May 11 j 11:53	0°♁	
	331 Sep 20 j 11:56	0°♁		morning set	334 Jun 05 j 03:00	0°♁	
	331 Oct 15 j 05:55	0°♁		asc. node	334 Jun 18 j 05:01	16°♁00'36	
	331 Nov 09 j 09:12	0°♁			334 Jun 18 j 04:46	15°♁59'51	
	331 Dec 05 j 10:35	0°♁			334 Jun 29 j 14:29	0°♁	
evening max el	331 Dec 24 j 08:33	20°♁17'14	47°04'55	max. Earth dist.	334 Jul 20 j 20:25	26°♁12'30	1.72971 AU
asc. node	332 Jan 01 j 09:31	28°♁14'22			334 Jul 23 j 21:56	0°♁	
	332 Jan 03 j 06:10	0°♁		superior conj	334 Jul 24 j 12:37	0°♁45'26	1°12'06
greatest brilliancy	332 Jan 30 j 01:31	20°♁03'45	-4.6m	minimum elong	334 Jul 24 j 04:42	0°♁20'55	1°11'55
retrograde	332 Feb 13 j 02:08	23°♁39'27			334 Aug 17 j 01:59	0°♁	
evening set	332 Mar 01 j 21:48	17°♁28'12		evening rise	334 Aug 30 j 02:02	16°♁11'13	
inferior conj	332 Mar 05 j 05:12	15°♁23'27	8°21'16		334 Sep 10 j 04:06	0°♁	
minimum elong	332 Mar 05 j 10:01	15°♁15'49	8°20'56		334 Oct 04 j 05:51	0°♁	
min. Earth dist.	332 Mar 04 j 19:45	15°♁38'26	0.28383 AU	desc. node	334 Oct 07 j 18:26	4°♁23'22	
morning rise	332 Mar 08 j 22:30	13°♁04'25			334 Oct 28 j 08:23	0°♁	
direct	332 Mar 26 j 08:38	7°♁16'06			334 Nov 21 j 13:02	0°♁	
greatest brilliancy	332 Apr 06 j 16:50	9°♁36'28	-4.5m		334 Dec 15 j 22:30	0°♁	
desc. node	332 Apr 21 j 23:04	18°♁20'02		asc. node	335 Jan 09 j 18:44	0°♁	
	332 May 06 j 06:54	0°♁			335 Jan 28 j 21:26	22°♁22'45	
morning max el	332 May 14 j 06:48	7°♁24'36	45°48'57		335 Feb 04 j 14:12	0°♁	
	332 Jun 05 j 11:39	0°♁			335 Mar 04 j 17:12	0°♁	
	332 Jul 02 j 14:48	0°♁		evening max el	335 Mar 05 j 10:37	0°♁42'53	45°52'49
asc. node	332 Aug 13 j 02:26	18°♁41'34		greatest brilliancy	335 Apr 08 j 20:06	27°♁39'41	-4.5m
	332 Aug 22 j 10:48	0°♁			335 Apr 14 j 14:33	0°♁	
	332 Sep 15 j 21:14	0°♁		retrograde	335 Apr 23 j 14:07	1°♁29'45	
	332 Oct 09 j 22:52	0°♁			335 May 02 j 05:41	30°♁	
	332 Nov 02 j 20:00	0°♁		evening set	335 May 08 j 20:44	26°♁58'57	
morning set	332 Nov 09 j 01:16	7°♁49'55		inferior conj	335 May 15 j 01:34	23°♁15'07	1°15'31
	332 Nov 26 j 15:45	0°♁		minimum elong	335 May 15 j 04:19	23°♁10'49	1°14'43
desc. node	332 Dec 02 j 16:00	7°♁34'05		min. Earth dist.	335 May 15 j 06:09	23°♁07'56	0.28981 AU
	332 Dec 20 j 11:58	0°♁		desc. node	335 May 20 j 10:53	19°♁57'57	
				morning rise	335 May 21 j 11:47	19°♁22'57	
superior conj	332 Dec 20 j 17:08	0°♁16'16	0°-41'-11	direct	335 Jun 05 j 16:08	14°♁56'08	
minimum elong	332 Dec 20 j 07:09	29°♁44'53	0°40'46	greatest brilliancy	335 Jun 19 j 07:59	18°♁10'12	-4.5m
max. Earth dist.	332 Dec 23 j 16:04	3°♁59'03	1.71186 AU		335 Jul 07 j 19:57	0°♁	
	333 Jan 13 j 09:45	0°♁		morning max el	335 Jul 24 j 13:28	14°♁46'52	45°52'18
evening rise	333 Jan 31 j 00:00	21°♁59'22			335 Aug 08 j 15:54	0°♁	
	333 Feb 06 j 10:15	0°♁			335 Sep 04 j 20:01	0°♁	
	333 Mar 02 j 14:59	0°♁		asc. node	335 Sep 10 j 14:23	6°♁39'57	
asc. node	333 Mar 25 j 19:19	28°♁27'25			335 Sep 30 j 07:10	0°♁	
	333 Mar 27 j 01:40	0°♁			335 Oct 24 j 21:22	0°♁	
	333 Apr 20 j 20:10	0°♁			335 Nov 18 j 01:01	0°♁	
	333 May 16 j 01:09	0°♁			335 Dec 12 j 00:28	0°♁	
	333 Jun 10 j 22:08	0°♁		desc. node	335 Dec 31 j 03:53	23°♁58'49	
	333 Jul 08 j 00:49	0°♁			336 Jan 04 j 23:16	0°♁	
desc. node	333 Jul 15 j 08:40	7°♁42'27		morning set	336 Jan 26 j 08:45	26°♁45'08	
evening max el	333 Jul 28 j 14:48	20°♁59'06	46°04'08		336 Jan 28 j 23:10	0°♁	
	333 Aug 07 j 08:44	0°♁			336 Feb 22 j 01:03	0°♁	
greatest brilliancy	333 Sep 05 j 14:02	19°♁33'29	-4.6m	superior conj	336 Mar 06 j 10:41	16°♁38'30	-1°22'-23
retrograde	333 Sep 15 j 21:51	21°♁29'56		minimum elong	336 Mar 06 j 16:06	16°♁55'16	1°22'20
evening set	333 Oct 02 j 09:40	16°♁21'37		max. Earth dist.	336 Mar 09 j 22:51	20°♁59'15	1.72619 AU
inferior conj	333 Oct 06 j 16:18	13°♁48'58	-6°-44'-15		336 Mar 17 j 05:36	0°♁	
minimum elong	333 Oct 07 j 02:54	13°♁32'50	6°42'04		336 Apr 10 j 13:17	0°♁	
min. Earth dist.	333 Oct 07 j 12:01	13°♁18'56	0.26999 AU				

evening rise	336 Apr 13 j 19:20	3°♄59'54		morning max el	338 Oct 03 j 13:21	23°♁56'46	46°31'31
asc. node	336 Apr 22 j 07:07	14°♄25'26		asc. node	338 Oct 08 j 02:01	28°♁32'58	
	336 May 05 j 00:14	0°♁			338 Oct 09 j 11:37	0°♁	
	336 May 29 j 14:28	0°♁			338 Nov 05 j 14:12	0°♁	
	336 Jun 23 j 08:38	0°♁			338 Nov 30 j 21:55	0°♁	
	336 Jul 18 j 08:37	0°♁			338 Dec 25 j 13:08	0°♁	
desc. node	336 Aug 11 j 20:37	28°♁57'04			339 Jan 18 j 22:17	0°♁	
	336 Aug 12 j 18:10	0°♁		desc. node	339 Jan 27 j 15:47	10°♁46'14	
	336 Sep 07 j 20:40	0°♁			339 Feb 12 j 05:47	0°♁	
	336 Oct 05 j 12:41	0°♁			339 Mar 08 j 13:32	0°♁	
evening max el	336 Oct 09 j 23:40	4°♁31'42	47°14'06		339 Apr 01 j 22:20	0°♁	
	336 Nov 08 j 13:11	0°♁		morning set	339 Apr 09 j 05:09	8°♁57'21	
greatest brilliancy	336 Nov 17 j 16:19	4°♁59'34	-4.7m		339 Apr 26 j 08:14	0°♁	
retrograde	336 Nov 29 j 17:49	7°♁43'58					
asc. node	336 Dec 02 j 23:44	7°♁30'46		superior conj	339 May 16 j 03:01	24°♁17'18	0°-11'-2
evening set	336 Dec 14 j 09:02	3°♁25'23		minimum elong	339 May 16 j 05:17	24°♁24'15	0°10'57
min. Earth dist.	336 Dec 19 j 13:00	0°♁23'05	0.26609 AU	behind sun begin	339 May 15 j 12:47	23°♁33'36	
inferior conj	336 Dec 20 j 07:50	29°♁54'09	4°17'55	behind sun end	339 May 16 j 21:47	25°♁14'54	
minimum elong	336 Dec 19 j 23:12	0°♁07'25	4°15'29	max. Earth dist.	339 May 15 j 23:34	24°♁06'41	1.73633 AU
	336 Dec 20 j 04:02	30°♁		asc. node	339 May 20 j 19:01	0°♁01'06	
morning rise	336 Dec 25 j 13:52	26°♁47'15			339 May 20 j 18:40	0°♁	
direct	337 Jan 09 j 15:53	22°♁15'24			339 Jun 14 j 04:46	0°♁	
greatest brilliancy	337 Jan 20 j 15:23	24°♁31'13	-4.6m	evening rise	339 Jun 21 j 03:41	8°♁33'02	
	337 Jan 31 j 00:45	0°♁			339 Jul 08 j 14:13	0°♁	
morning max el	337 Feb 28 j 13:13	24°♁09'48	46°27'42		339 Aug 01 j 23:39	0°♁	
	337 Mar 06 j 08:59	0°♁			339 Aug 26 j 10:27	0°♁	
desc. node	337 Mar 24 j 13:26	19°♁15'18		desc. node	339 Sep 09 j 08:32	17°♁01'02	
	337 Apr 03 j 07:06	0°♁			339 Sep 20 j 00:14	0°♁	
	337 Apr 29 j 15:13	0°♁			339 Oct 14 j 19:04	0°♁	
	337 May 25 j 06:17	0°♁			339 Nov 08 j 23:46	0°♁	
	337 Jun 19 j 10:32	0°♁			339 Dec 05 j 04:06	0°♁	
	337 Jul 14 j 05:44	0°♁		evening max el	339 Dec 21 j 23:07	17°♁55'59	47°06'45
asc. node	337 Jul 15 j 16:40	1°♁46'31		asc. node	339 Dec 31 j 11:40	27°♁18'08	
	337 Aug 07 j 16:34	0°♁			340 Jan 03 j 09:27	0°♁	
morning set	337 Aug 25 j 16:19	22°♁18'35		greatest brilliancy	340 Jan 27 j 19:42	17°♁49'54	-4.6m
	337 Aug 31 j 20:28	0°♁		retrograde	340 Feb 10 j 17:26	21°♁22'42	
	337 Sep 24 j 19:47	0°♁		evening set	340 Feb 28 j 14:41	15°♁09'57	
max. Earth dist.	337 Sep 30 j 11:00	7°♁04'12	1.71454 AU	inferior conj	340 Mar 02 j 20:37	13°♁07'22	8°26'38
				minimum elong	340 Mar 03 j 00:42	13°♁00'52	8°26'23
superior conj	337 Oct 02 j 13:58	9°♁44'10	1°07'23	min. Earth dist.	340 Mar 02 j 10:28	13°♁23'29	0.28335 AU
minimum elong	337 Oct 03 j 00:03	10°♁15'48	1°07'05	morning rise	340 Mar 06 j 10:59	10°♁52'32	
	337 Oct 18 j 17:01	0°♁		direct	340 Mar 23 j 23:07	5°♁00'55	
desc. node	337 Nov 04 j 06:16	20°♁47'59		greatest brilliancy	340 Apr 04 j 05:39	7°♁19'13	-4.5m
	337 Nov 11 j 13:59	0°♁		desc. node	340 Apr 21 j 01:04	17°♁09'50	
evening rise	337 Nov 12 j 03:41	0°♁43'00			340 May 06 j 09:03	0°♁	
	337 Dec 05 j 11:49	0°♁		morning max el	340 May 11 j 20:59	5°♁09'07	45°49'45
	337 Dec 29 j 11:41	0°♁			340 Jun 05 j 04:22	0°♁	
	338 Jan 22 j 15:50	0°♁			340 Jul 02 j 04:33	0°♁	
	338 Feb 16 j 03:59	0°♁			340 Jul 27 j 23:01	0°♁	
asc. node	338 Feb 25 j 09:25	11°♁08'12		asc. node	340 Aug 12 j 04:32	18°♁11'56	
	338 Mar 13 j 05:39	0°♁			340 Aug 21 j 22:31	0°♁	
	338 Apr 08 j 06:08	0°♁			340 Sep 15 j 08:38	0°♁	
	338 May 06 j 04:15	0°♁			340 Oct 09 j 10:08	0°♁	
evening max el	338 May 15 j 03:13	8°♁49'50	45°18'53		340 Nov 02 j 07:13	0°♁	
	338 Jun 09 j 19:10	0°♁		morning set	340 Nov 06 j 12:24	5°♁18'29	
desc. node	338 Jun 16 j 22:56	4°♁07'01			340 Nov 26 j 02:56	0°♁	
greatest brilliancy	338 Jun 19 j 15:18	5°♁21'12	-4.5m	desc. node	340 Dec 01 j 18:09	7°♁05'38	
retrograde	338 Jul 02 j 14:28	8°♁16'40					
evening set	338 Jul 19 j 02:58	3°♁08'06		superior conj	340 Dec 18 j 02:28	27°♁39'43	0°-37'-36
inferior conj	338 Jul 23 j 22:40	0°♁13'33	-7°-20'-5	minimum elong	340 Dec 17 j 17:08	27°♁10'23	0°37'12
minimum elong	338 Jul 23 j 13:27	0°♁27'50	7°18'40		340 Dec 19 j 23:07	0°♁	
min. Earth dist.	338 Jul 24 j 03:53	0°♁05'27	0.28653 AU	max. Earth dist.	340 Dec 20 j 19:11	1°♁03'02	1.71156 AU
	338 Jul 24 j 07:25	30°♁			341 Jan 12 j 20:53	0°♁	
morning rise	338 Jul 27 j 23:42	27°♁45'39		evening rise	341 Jan 28 j 10:57	19°♁29'03	
direct	338 Aug 14 j 12:16	22°♁01'02			341 Feb 05 j 21:25	0°♁	
greatest brilliancy	338 Aug 28 j 21:38	25°♁41'00	-4.6m		341 Mar 02 j 02:15	0°♁	
	338 Sep 05 j 12:07	0°♁		asc. node	341 Mar 24 j 21:17	27°♁58'29	

	341 Mar 26 j 13:08	0°♄			343 Dec 11 j 12:03	0°♁		
	341 Apr 20 j 08:03	0°♁		desc. node	343 Dec 30 j 05:59	23°♁29'25		
	341 May 15 j 13:51	0°♁			344 Jan 04 j 10:43	0°♁		
	341 Jun 10 j 12:26	0°♁		morning set	344 Jan 23 j 19:17	24°♁12'45		
	341 Jul 07 j 18:42	0°♁			344 Jan 28 j 10:29	0°♁		
desc. node	341 Jul 14 j 10:48	6°♁57'48			344 Feb 21 j 12:14	0°♁		
evening max el	341 Jul 26 j 02:59	18°♁36'04	46°01'38					
	341 Aug 07 j 15:00	0°♁		superior conj	344 Mar 04 j 00:27	14°♁17'47	-1°-23'-17	
greatest brilliancy	341 Sep 03 j 01:44	17°♁08'24	-4.6m	minimum elong	344 Mar 04 j 05:06	14°♁32'15	1°23'14	
retrograde	341 Sep 13 j 09:53	19°♁05'32		max. Earth dist.	344 Mar 07 j 13:53	18°♁42'42	1.72565 AU	
evening set	341 Sep 30 j 01:30	13°♁51'49			344 Mar 16 j 16:41	0°♁		
inferior conj	341 Oct 04 j 05:05	11°♁23'45	-6°-58'-50		344 Apr 10 j 00:21	0°♁		
minimum elong	341 Oct 04 j 15:30	11°♁07'53	6°56'49	evening rise	344 Apr 11 j 11:37	1°♁48'25		
min. Earth dist.	341 Oct 05 j 01:30	10°♁52'41	0.27065 AU	asc. node	344 Apr 21 j 09:13	13°♁57'49		
morning rise	341 Oct 09 j 05:00	8°♁25'39			344 May 04 j 11:25	0°♁		
direct	341 Oct 24 j 22:08	3°♁34'56			344 May 29 j 01:56	0°♁		
asc. node	341 Nov 04 j 13:54	5°♁43'17			344 Jun 22 j 20:34	0°♁		
greatest brilliancy	341 Nov 07 j 12:45	6°♁59'03	-4.7m		344 Jul 17 j 21:20	0°♁		
	341 Dec 07 j 13:46	0°♁		desc. node	344 Aug 10 j 22:36	28°♁22'12		
morning max el	341 Dec 14 j 16:59	7°♁05'29	46°56'35		344 Aug 12 j 08:10	0°♁		
	342 Jan 05 j 00:03	0°♁			344 Sep 07 j 13:05	0°♁		
	342 Jan 31 j 02:24	0°♁			344 Oct 05 j 10:57	0°♁		
desc. node	342 Feb 24 j 03:40	28°♁29'34		evening max el	344 Oct 07 j 14:47	2°♁10'32	47°12'37	
	342 Feb 25 j 09:57	0°♁			344 Nov 10 j 03:56	0°♁		
	342 Mar 22 j 09:41	0°♁		greatest brilliancy	344 Nov 15 j 06:24	2°♁31'45	-4.7m	
	342 Apr 16 j 05:40	0°♁		retrograde	344 Nov 27 j 07:15	5°♁14'34		
	342 May 10 j 23:12	0°♁		asc. node	344 Dec 02 j 01:49	4°♁46'00		
	342 Jun 04 j 14:03	0°♁		evening set	344 Dec 11 j 19:58	0°♁59'09		
morning set	342 Jun 15 j 23:15	13°♁55'40			344 Dec 13 j 14:01	30°♁		
asc. node	342 Jun 17 j 06:55	15°♁32'41		min. Earth dist.	344 Dec 17 j 02:16	27°♁53'29	0.26567 AU	
	342 Jun 29 j 01:25	0°♁		inferior conj	344 Dec 17 j 20:24	27°♁25'39	3°56'43	
max. Earth dist.	342 Jul 18 j 17:36	24°♁15'46	1.73016 AU	minimum elong	344 Dec 17 j 12:18	27°♁38'06	3°54'22	
				morning rise	344 Dec 23 j 05:12	24°♁15'15		
superior conj	342 Jul 22 j 06:41	28°♁38'57	1°10'23	direct	345 Jan 07 j 04:53	19°♁47'46		
minimum elong	342 Jul 21 j 22:31	28°♁13'40	1°10'10	greatest brilliancy	345 Jan 18 j 04:11	22°♁03'52	-4.6m	
	342 Jul 23 j 08:52	0°♁			345 Feb 01 j 03:27	0°♁		
	342 Aug 16 j 13:01	0°♁		morning max el	345 Feb 26 j 03:10	21°♁48'08	46°29'04	
evening rise	342 Aug 27 j 18:06	13°♁57'14			345 Mar 06 j 06:00	0°♁		
	342 Sep 09 j 15:18	0°♁		desc. node	345 Mar 23 j 15:27	18°♁34'04		
	342 Oct 03 j 17:17	0°♁			345 Apr 02 j 22:50	0°♁		
desc. node	342 Oct 06 j 20:27	3°♁53'55			345 Apr 29 j 04:46	0°♁		
	342 Oct 27 j 20:09	0°♁			345 May 24 j 18:40	0°♁		
	342 Nov 21 j 01:13	0°♁			345 Jun 18 j 22:16	0°♁		
	342 Dec 15 j 11:16	0°♁			345 Jul 13 j 17:04	0°♁		
asc. node	343 Jan 09 j 08:28	0°♁		asc. node	345 Jul 14 j 18:40	1°♁18'03		
	343 Jan 27 j 23:29	21°♁45'21			345 Aug 07 j 03:43	0°♁		
	343 Feb 04 j 06:03	0°♁		morning set	345 Aug 23 j 08:14	20°♁04'17		
evening max el	343 Mar 03 j 02:11	28°♁29'16	45°55'16		345 Aug 31 j 07:33	0°♁		
	343 Mar 04 j 15:19	0°♁			345 Sep 24 j 06:54	0°♁		
greatest brilliancy	343 Apr 06 j 11:22	25°♁28'41	-4.5m	max. Earth dist.	345 Sep 27 j 17:57	4°♁20'26	1.71493 AU	
retrograde	343 Apr 21 j 07:12	29°♁20'47						
evening set	343 May 06 j 14:37	24°♁47'35		superior conj	345 Sep 30 j 03:32	7°♁21'06	1°09'31	
inferior conj	343 May 12 j 18:03	21°♁05'35	1°34'56	minimum elong	345 Sep 30 j 13:17	7°♁51'43	1°09'15	
minimum elong	343 May 12 j 21:29	21°♁00'13	1°33'57		345 Oct 18 j 04:13	0°♁		
min. Earth dist.	343 May 12 j 22:30	20°♁58'37	0.28980 AU	desc. node	345 Nov 03 j 08:27	20°♁19'32		
morning rise	343 May 19 j 04:19	17°♁13'39		evening rise	345 Nov 09 j 14:07	28°♁09'35		
desc. node	343 May 19 j 13:05	17°♁01'42			345 Nov 11 j 01:17	0°♁		
direct	343 Jun 03 j 08:41	12°♁46'31			345 Dec 04 j 23:11	0°♁		
greatest brilliancy	343 Jun 16 j 23:44	16°♁00'23	-4.5m		345 Dec 28 j 23:12	0°♁		
	343 Jul 08 j 04:15	0°♁			346 Jan 22 j 03:35	0°♁		
morning max el	343 Jul 22 j 06:32	12°♁38'47	45°51'30		346 Feb 15 j 16:12	0°♁		
	343 Aug 08 j 09:48	0°♁		asc. node	346 Feb 24 j 11:23	10°♁36'44		
	343 Sep 04 j 10:24	0°♁			346 Mar 12 j 18:45	0°♁		
asc. node	343 Sep 09 j 16:20	6°♁04'59			346 Apr 07 j 21:08	0°♁		
	343 Sep 29 j 20:05	0°♁			346 May 06 j 00:14	0°♁		
	343 Oct 24 j 09:34	0°♁		evening max el	346 May 12 j 18:35	6°♁37'33	45°18'43	
	343 Nov 17 j 12:50	0°♁			346 Jun 11 j 00:34	0°♁		

desc. node	346 Jun 16 j 01:02	2°♁36'39			348 Nov 25 j 14:04	0°♁	
greatest brilliancy	346 Jun 17 j 05:12	3°♁07'54	-4.5m	desc. node	348 Nov 30 j 20:13	6°♁37'05	
retrograde	346 Jun 30 j 05:04	6°♁04'38					
evening set	346 Jul 16 j 15:13	1°♁00'38		superior conj	348 Dec 15 j 11:49	25°♁03'17	0°-33'-56
	346 Jul 18 j 08:42	30°♁		minimum elong	348 Dec 15 j 03:12	24°♁36'13	0°33'33
inferior conj	346 Jul 21 j 14:15	28°♁01'10	-7°-8'-39	max. Earth dist.	348 Dec 17 j 21:27	28°♁04'28	1.71131 AU
minimum elong	346 Jul 21 j 04:45	28°♁15'54	7°07'04		348 Dec 19 j 10:13	0°♁	
min. Earth dist.	346 Jul 21 j 19:12	27°♁53'27	0.28683 AU		349 Jan 12 j 07:58	0°♁	
morning rise	346 Jul 25 j 18:02	25°♁28'53		evening rise	349 Jan 25 j 22:00	16°♁59'12	
direct	346 Aug 12 j 04:00	19°♁48'12			349 Feb 05 j 08:29	0°♁	
greatest brilliancy	346 Aug 26 j 12:43	23°♁26'27	-4.6m		349 Mar 01 j 13:22	0°♁	
	346 Sep 06 j 10:39	0°♁		asc. node	349 Mar 23 j 23:28	27°♁30'46	
morning max el	346 Oct 01 j 02:56	21°♁35'11	46°29'59		349 Mar 26 j 00:26	0°♁	
asc. node	346 Oct 07 j 04:12	27°♁45'40			349 Apr 19 j 19:48	0°♁	
	346 Oct 09 j 07:33	0°♁			349 May 15 j 02:28	0°♁	
	346 Nov 05 j 05:36	0°♁			349 Jun 10 j 02:46	0°♁	
	346 Nov 30 j 11:30	0°♁			349 Jul 07 j 12:53	0°♁	
	346 Dec 25 j 01:46	0°♁		desc. node	349 Jul 13 j 12:47	6°♁12'27	
	347 Jan 18 j 10:18	0°♁		evening max el	349 Jul 23 j 16:06	16°♁15'52	45°59'12
desc. node	347 Jan 26 j 17:47	10°♁15'50			349 Aug 07 j 23:26	0°♁	
	347 Feb 11 j 17:21	0°♁		greatest brilliancy	349 Aug 31 j 12:38	14°♁43'30	-4.6m
	347 Mar 08 j 00:48	0°♁		retrograde	349 Sep 10 j 22:44	16°♁42'17	
	347 Apr 01 j 09:23	0°♁		evening set	349 Sep 27 j 17:28	11°♁23'11	
morning set	347 Apr 06 j 21:51	6°♁47'20		inferior conj	349 Oct 01 j 18:01	8°♁59'34	-7°-12'-32
	347 Apr 25 j 19:09	0°♁		minimum elong	349 Oct 02 j 04:13	8°♁44'04	7°10'40
				min. Earth dist.	349 Oct 02 j 14:40	8°♁28'11	0.27132 AU
superior conj	347 May 13 j 21:05	22°♁12'07	0°-14'-10	morning rise	349 Oct 06 j 14:29	6°♁06'35	
minimum elong	347 May 13 j 23:59	22°♁21'01	0°14'02	direct	349 Oct 22 j 12:02	1°♁09'35	
behind sun begin	347 May 13 j 13:25	21°♁48'35		asc. node	349 Nov 03 j 16:00	3°♁55'13	
behind sun end	347 May 14 j 10:33	22°♁53'27		greatest brilliancy	349 Nov 05 j 04:58	4°♁36'57	-4.7m
max. Earth dist.	347 May 13 j 19:49	22°♁08'16	1.73623 AU		349 Dec 07 j 15:04	0°♁	
asc. node	347 May 19 j 21:09	29°♁34'22		morning max el	349 Dec 12 j 07:42	4°♁42'42	46°56'35
	347 May 20 j 05:30	0°♁			350 Jan 04 j 17:14	0°♁	
	347 Jun 13 j 15:39	0°♁			350 Jan 30 j 16:46	0°♁	
evening rise	347 Jun 18 j 22:46	6°♁30'34		desc. node	350 Feb 23 j 05:41	27°♁56'45	
	347 Jul 08 j 01:15	0°♁			350 Feb 24 j 22:52	0°♁	
	347 Aug 01 j 11:00	0°♁			350 Mar 21 j 21:43	0°♁	
	347 Aug 25 j 22:16	0°♁			350 Apr 15 j 17:05	0°♁	
desc. node	347 Sep 08 j 10:36	16°♁30'21			350 May 10 j 10:12	0°♁	
	347 Sep 19 j 12:40	0°♁			350 Jun 04 j 00:49	0°♁	
	347 Oct 14 j 08:25	0°♁		morning set	350 Jun 13 j 17:50	11°♁52'44	
	347 Nov 08 j 14:35	0°♁		asc. node	350 Jun 16 j 08:54	15°♁06'00	
	347 Dec 04 j 22:03	0°♁			350 Jun 28 j 12:05	0°♁	
evening max el	347 Dec 19 j 13:07	15°♁33'06	47°08'40	max. Earth dist.	350 Jul 16 j 14:55	22°♁20'15	1.73063 AU
asc. node	347 Dec 30 j 13:43	26°♁20'30					
	348 Jan 03 j 14:27	0°♁		superior conj	350 Jul 20 j 00:57	26°♁33'52	1°08'36
greatest brilliancy	348 Jan 25 j 13:17	15°♁35'29	-4.6m	minimum elong	350 Jul 19 j 16:34	26°♁07'58	1°08'21
retrograde	348 Feb 08 j 08:49	19°♁06'40			350 Jul 22 j 19:34	0°♁	
evening set	348 Feb 26 j 07:26	12°♁52'40			350 Aug 15 j 23:50	0°♁	
min. Earth dist.	348 Feb 29 j 01:28	11°♁09'02	0.28286 AU	evening rise	350 Aug 25 j 10:18	11°♁44'25	
inferior conj	348 Feb 29 j 12:13	10°♁51'59	8°31'08		350 Sep 09 j 02:18	0°♁	
minimum elong	348 Feb 29 j 15:35	10°♁46'38	8°30'58		350 Oct 03 j 04:31	0°♁	
morning rise	348 Mar 03 j 23:56	8°♁41'05		desc. node	350 Oct 05 j 22:38	3°♁25'38	
direct	348 Mar 21 j 13:27	2°♁46'17			350 Oct 27 j 07:42	0°♁	
greatest brilliancy	348 Apr 01 j 19:35	5°♁03'46	-4.5m		350 Nov 20 j 13:11	0°♁	
desc. node	348 Apr 20 j 03:17	16°♁02'25			350 Dec 14 j 23:49	0°♁	
	348 May 06 j 09:43	0°♁			351 Jan 08 j 22:04	0°♁	
morning max el	348 May 09 j 11:27	2°♁54'31	45°50'30	asc. node	351 Jan 27 j 01:30	21°♁08'21	
	348 Jun 04 j 20:43	0°♁			351 Feb 03 j 21:53	0°♁	
	348 Jul 01 j 18:09	0°♁		evening max el	351 Feb 28 j 18:36	26°♁18'32	45°57'46
	348 Jul 27 j 11:21	0°♁			351 Mar 04 j 13:59	0°♁	
asc. node	348 Aug 11 j 06:32	17°♁42'08		greatest brilliancy	351 Apr 04 j 04:11	23°♁20'49	-4.5m
	348 Aug 21 j 10:11	0°♁		retrograde	351 Apr 19 j 00:33	27°♁13'02	
	348 Sep 14 j 19:59	0°♁		evening set	351 May 04 j 08:50	22°♁37'42	
	348 Oct 08 j 21:20	0°♁		inferior conj	351 May 10 j 10:40	18°♁57'31	1°54'09
	348 Nov 01 j 18:22	0°♁		minimum elong	351 May 10 j 14:45	18°♁51'06	1°52'59
morning set	348 Nov 03 j 23:40	2°♁47'48		min. Earth dist.	351 May 10 j 14:45	18°♁51'06	0.28973 AU

morning rise	351 May 16 j 20:47	15°♄05'59		evening rise	353 Nov 07 j 00:30	25°♍36'56	
desc. node	351 May 18 j 15:03	14°♄10'21			353 Nov 10 j 12:18	0°♄	
direct	351 Jun 01 j 01:36	10°♄38'42			353 Dec 04 j 10:20	0°♄	
greatest brilliancy	351 Jun 14 j 14:17	13°♄50'42	-4.5m		353 Dec 28 j 10:30	0°≈	
	351 Jul 08 j 09:32	0°♄			354 Jan 21 j 15:09	0°♄	
morning max el	351 Jul 19 j 23:22	10°♄31'40	45°50'34		354 Feb 15 j 04:13	0°♄	
	351 Aug 08 j 02:51	0°♄		asc. node	354 Feb 23 j 13:34	10°♄06'33	
	351 Sep 04 j 00:17	0°♄			354 Mar 12 j 07:42	0°♄	
asc. node	351 Sep 08 j 18:30	5°♄31'53			354 Apr 07 j 12:03	0°♄	
	351 Sep 29 j 08:38	0°♄			354 May 05 j 20:32	0°♄	
	351 Oct 23 j 21:27	0°♄		evening max el	354 May 10 j 09:13	4°♄24'15	45°18'43
	351 Nov 17 j 00:20	0°♄			354 Jun 12 j 18:29	0°♄	
	351 Dec 10 j 23:20	0°♄		greatest brilliancy	354 Jun 14 j 18:44	0°♄55'11	-4.5m
desc. node	351 Dec 29 j 07:59	23°♄00'45		desc. node	354 Jun 15 j 03:03	1°♄04'03	
	352 Jan 03 j 21:50	0°♄		retrograde	354 Jun 27 j 19:59	3°♄54'08	
morning set	352 Jan 21 j 05:39	21°♄40'49			354 Jul 12 j 03:15	30°♄	
	352 Jan 27 j 21:27	0°≈		evening set	354 Jul 14 j 03:36	28°♄54'17	
	352 Feb 20 j 23:05	0°♄		inferior conj	354 Jul 19 j 05:56	25°♄50'14	-6°-56'-32
				minimum elong	354 Jul 18 j 20:13	26°♄05'19	6°54'50
superior conj	352 Mar 01 j 14:01	11°♄57'21	-1°-24'-2	min. Earth dist.	354 Jul 19 j 10:47	25°♄42'42	0.28709 AU
minimum elong	352 Mar 01 j 17:52	12°♄09'20	1°24'01	morning rise	354 Jul 23 j 12:31	23°♄13'42	
max. Earth dist.	352 Mar 05 j 06:24	16°♄31'35	1.72512 AU	direct	354 Aug 09 j 19:27	17°♄36'46	
	352 Mar 16 j 03:27	0°♄		greatest brilliancy	354 Aug 24 j 04:42	21°♄14'39	-4.6m
evening rise	352 Apr 09 j 03:50	29°♄37'37			354 Sep 07 j 02:40	0°♄	
	352 Apr 09 j 11:07	0°♄		morning max el	354 Sep 28 j 16:36	19°♄15'14	46°28'33
asc. node	352 Apr 20 j 11:23	13°♄31'21		asc. node	354 Oct 06 j 06:19	27°♄00'12	
	352 May 03 j 22:16	0°♄			354 Oct 09 j 02:26	0°♄	
	352 May 28 j 13:02	0°♄			354 Nov 04 j 20:24	0°♄	
	352 Jun 22 j 08:07	0°♄			354 Nov 30 j 00:42	0°♄	
	352 Jul 17 j 09:40	0°♄			354 Dec 24 j 14:07	0°♄	
desc. node	352 Aug 10 j 00:39	27°♄48'33			355 Jan 17 j 22:05	0°♄	
	352 Aug 11 j 21:53	0°♄		desc. node	355 Jan 25 j 19:55	9°♄46'21	
	352 Sep 07 j 05:25	0°♄			355 Feb 11 j 04:45	0°≈	
evening max el	352 Oct 05 j 05:34	29°♄49'23	47°10'48		355 Mar 07 j 11:54	0°♄	
	352 Oct 05 j 09:49	0°♄			355 Mar 31 j 20:15	0°♄	
	352 Nov 12 j 16:18	0°♄		morning set	355 Apr 04 j 14:01	4°♄36'11	
greatest brilliancy	352 Nov 12 j 21:21	0°♄05'23	-4.7m		355 Apr 25 j 05:52	0°♄	
retrograde	352 Nov 24 j 20:04	2°♄45'12					
asc. node	352 Dec 01 j 03:50	1°♄55'20		superior conj	355 May 11 j 14:53	20°♄06'45	0°-17'-18
	352 Dec 06 j 09:55	30°♄		minimum elong	355 May 11 j 18:25	20°♄17'34	0°17'08
evening set	352 Dec 09 j 07:00	28°♄32'58		max. Earth dist.	355 May 11 j 15:09	20°♄07'33	1.73612 AU
min. Earth dist.	352 Dec 14 j 15:46	25°♄23'41	0.26526 AU	asc. node	355 May 18 j 23:07	29°♄07'41	
inferior conj	352 Dec 15 j 08:49	24°♄57'30	3°34'47		355 May 19 j 16:10	0°♄	
minimum elong	352 Dec 15 j 01:19	25°♄09'01	3°32'34		355 Jun 13 j 02:21	0°♄	
morning rise	352 Dec 20 j 20:13	21°♄43'32		evening rise	355 Jun 16 j 17:49	4°♄28'39	
direct	353 Jan 04 j 17:26	17°♄20'29			355 Jul 07 j 12:08	0°♄	
greatest brilliancy	353 Jan 15 j 17:15	19°♄37'05	-4.6m		355 Jul 31 j 22:10	0°♄	
	353 Feb 01 j 22:45	0°♄			355 Aug 25 j 09:51	0°♄	
morning max el	353 Feb 23 j 15:55	19°♄24'10	46°30'27	desc. node	355 Sep 07 j 12:47	16°♄00'53	
	353 Mar 06 j 01:59	0°≈			355 Sep 19 j 00:52	0°♄	
desc. node	353 Mar 22 j 17:41	17°≈54'43			355 Oct 13 j 21:32	0°♄	
	353 Apr 02 j 14:00	0°♄			355 Nov 08 j 05:18	0°♄	
	353 Apr 28 j 17:52	0°♄			355 Dec 04 j 16:14	0°≈	
	353 May 24 j 06:40	0°♄		evening max el	355 Dec 17 j 02:51	13°≈09'50	47°10'18
	353 Jun 18 j 09:36	0°♄		asc. node	355 Dec 29 j 15:46	25°≈21'39	
	353 Jul 13 j 04:02	0°♄			356 Jan 03 j 21:36	0°♄	
asc. node	353 Jul 13 j 20:46	0°♄51'04		greatest brilliancy	356 Jan 23 j 05:40	13°♄18'46	-4.6m
	353 Aug 06 j 14:28	0°♄		retrograde	356 Feb 06 j 00:04	16°♄49'37	
morning set	353 Aug 21 j 00:33	17°♄52'30		evening set	356 Feb 23 j 23:24	10°♄34'37	
	353 Aug 30 j 18:15	0°♄		min. Earth dist.	356 Feb 26 j 15:57	8°♄53'32	0.28239 AU
	353 Sep 23 j 17:39	0°♄		inferior conj	356 Feb 27 j 03:27	8°♄35'20	8°34'42
max. Earth dist.	353 Sep 25 j 02:18	1°♄42'22	1.71543 AU	minimum elong	356 Feb 27 j 06:03	8°♄31'13	8°34'36
				morning rise	356 Mar 01 j 12:51	6°♄28'07	
superior conj	353 Sep 27 j 17:27	5°♄00'25	1°11'31	direct	356 Mar 19 j 03:29	0°♄30'15	
minimum elong	353 Sep 28 j 02:49	5°♄29'46	1°11'16	greatest brilliancy	356 Mar 30 j 09:48	2°♄47'53	-4.5m
	353 Oct 17 j 15:06	0°♄		desc. node	356 Apr 19 j 05:17	14°♄55'58	
desc. node	353 Nov 02 j 10:29	19°♄51'31			356 May 06 j 09:19	0°♄	

morning max el	356 May 07 j 02:16	0°♃40'29	45°51'25		358 Dec 14 j 12:29	0°♁	
	356 Jun 04 j 12:45	0°♄			359 Jan 08 j 11:46	0°♁	
	356 Jul 01 j 07:35	0°♂		asc. node	359 Jan 26 j 03:41	20°♁31'25	
	356 Jul 26 j 23:32	0°♁			359 Feb 03 j 13:59	0°♃	
asc. node	356 Aug 10 j 08:40	17°♁13'00		evening max el	359 Feb 26 j 10:57	24°♃07'16	46°00'01
	356 Aug 20 j 21:44	0°♄			359 Mar 04 j 13:46	0°♄	
	356 Sep 14 j 07:12	0°♅		greatest brilliancy	359 Apr 01 j 21:44	21°♄13'10	-4.5m
	356 Oct 08 j 08:24	0°♆		retrograde	359 Apr 16 j 17:22	25°♄04'06	
morning set	356 Nov 01 j 11:34	0°♇19'35		evening set	359 May 02 j 03:04	20°♄26'40	
	356 Nov 01 j 05:21	0°♈		inferior conj	359 May 08 j 03:10	16°♄48'23	2°13'17
	356 Nov 25 j 01:01	0°♉		minimum elong	359 May 08 j 07:53	16°♄40'57	2°11'57
desc. node	356 Nov 29 j 22:13	6°♊08'55		min. Earth dist.	359 May 08 j 07:02	16°♄42'18	0.28969 AU
				morning rise	359 May 14 j 12:55	12°♄57'14	
superior conj	356 Dec 12 j 21:26	22°♋28'09	0°-30'-12	desc. node	359 May 17 j 17:06	11°♄20'48	
minimum elong	356 Dec 12 j 13:37	22°♋03'36	0°29'52	direct	359 May 29 j 18:30	8°♄29'50	
max. Earth dist.	356 Dec 15 j 03:16	25°♋17'26	1.71113 AU	greatest brilliancy	359 Jun 12 j 04:11	11°♄38'59	-4.5m
	356 Dec 18 j 21:10	0°♌			359 Jul 08 j 13:27	0°♂	
	357 Jan 11 j 18:57	0°♍		morning max el	359 Jul 17 j 15:20	8°♂21'26	45°49'40
evening rise	357 Jan 23 j 09:03	14°♎29'35			359 Aug 07 j 19:54	0°♁	
	357 Feb 04 j 19:31	0°♏			359 Sep 03 j 14:18	0°♂	
	357 Mar 01 j 00:30	0°♐		asc. node	359 Sep 07 j 20:37	4°♂58'00	
asc. node	357 Mar 23 j 01:31	27°♑02'28			359 Sep 28 j 21:20	0°♅	
	357 Mar 25 j 11:48	0°♒			359 Oct 23 j 09:30	0°♆	
	357 Apr 19 j 07:38	0°♓			359 Nov 16 j 12:02	0°♇	
	357 May 14 j 15:14	0°♈			359 Dec 10 j 10:49	0°♉	
	357 Jun 09 j 17:20	0°♊		desc. node	359 Dec 28 j 10:06	22°♋31'50	
	357 Jul 07 j 07:36	0°♋			360 Jan 03 j 09:08	0°♌	
desc. node	357 Jul 12 j 14:54	5°♌26'31		morning set	360 Jan 18 j 16:16	19°♌09'03	
evening max el	357 Jul 21 j 06:00	13°♌57'38	45°56'52		360 Jan 27 j 08:35	0°♍	
	357 Aug 08 j 10:55	0°♎			360 Feb 20 j 10:04	0°♏	
greatest brilliancy	357 Aug 28 j 23:16	12°♏18'29	-4.6m				
retrograde	357 Sep 08 j 11:49	14°♏18'57		superior conj	360 Feb 28 j 03:49	9°♏37'10	-1°-24'-37
evening set	357 Sep 25 j 09:26	8°♏54'45		minimum elong	360 Feb 28 j 06:52	9°♏46'37	1°24'38
inferior conj	357 Sep 29 j 06:54	6°♏35'23	-7°-25'-27	max. Earth dist.	360 Mar 03 j 01:10	14°♏26'55	1.72456 AU
minimum elong	357 Sep 29 j 16:49	6°♏20'20	7°23'45		360 Mar 15 j 14:22	0°♐	
min. Earth dist.	357 Sep 30 j 03:25	6°♏04'14	0.27194 AU	evening rise	360 Apr 06 j 20:08	27°♑26'27	
morning rise	357 Oct 03 j 23:48	3°♏47'38			360 Apr 08 j 22:03	0°♒	
	357 Oct 12 j 06:45	30°♑		asc. node	360 Apr 19 j 13:20	13°♒03'43	
direct	357 Oct 20 j 02:14	28°♑44'32			360 May 03 j 09:22	0°♓	
	357 Oct 28 j 03:35	0°♒			360 May 28 j 00:24	0°♁	
asc. node	357 Nov 02 j 17:57	2°♒11'07			360 Jun 21 j 20:00	0°♂	
greatest brilliancy	357 Nov 02 j 20:04	2°♒13'37	-4.7m		360 Jul 16 j 22:24	0°♅	
	357 Dec 07 j 15:03	0°♓		desc. node	360 Aug 09 j 02:49	27°♑14'00	
morning max el	357 Dec 09 j 22:34	2°♓20'36	46°56'38		360 Aug 11 j 12:05	0°♆	
	358 Jan 04 j 09:58	0°♈			360 Sep 06 j 22:25	0°♇	
	358 Jan 30 j 06:54	0°♉		evening max el	360 Oct 02 j 19:12	27°♓24'22	47°08'56
desc. node	358 Feb 22 j 07:51	27°♊24'41			360 Oct 05 j 10:06	0°♉	
	358 Feb 24 j 11:41	0°♋		greatest brilliancy	360 Nov 10 j 13:02	27°♋38'49	-4.7m
	358 Mar 21 j 09:44	0°♌			360 Nov 18 j 19:51	0°♌	
	358 Apr 15 j 04:35	0°♍		retrograde	360 Nov 22 j 08:16	0°♌14'46	
	358 May 09 j 21:19	0°♎			360 Nov 25 j 19:19	30°♑	
	358 Jun 03 j 11:43	0°♏		asc. node	360 Nov 30 j 05:59	28°♋57'25	
morning set	358 Jun 11 j 12:02	9°♏48'16		evening set	360 Dec 06 j 18:11	26°♋05'18	
asc. node	358 Jun 15 j 11:00	14°♏39'11		min. Earth dist.	360 Dec 12 j 05:38	22°♋52'16	0.26487 AU
	358 Jun 27 j 22:53	0°♐		inferior conj	360 Dec 12 j 21:11	22°♋28'21	3°12'21
max. Earth dist.	358 Jul 14 j 11:11	20°♑21'15	1.73106 AU	minimum elong	360 Dec 12 j 14:20	22°♋38'52	3°10'17
				morning rise	360 Dec 18 j 11:00	19°♋10'53	
superior conj	358 Jul 17 j 18:52	24°♑27'27	1°06'40	direct	361 Jan 02 j 05:25	14°♋51'58	
minimum elong	358 Jul 17 j 10:20	24°♑01'04	1°06'25	greatest brilliancy	361 Jan 13 j 07:14	17°♋10'10	-4.6m
	358 Jul 22 j 06:23	0°♒			361 Feb 02 j 13:34	0°♍	
	358 Aug 15 j 10:46	0°♓		morning max el	361 Feb 21 j 03:53	16°♌57'12	46°32'05
evening rise	358 Aug 23 j 02:21	9°♓30'50			361 Mar 05 j 21:37	0°♎	
	358 Sep 08 j 13:25	0°♈		desc. node	361 Mar 21 j 19:39	17°♎14'28	
	358 Oct 02 j 15:54	0°♉			361 Apr 02 j 05:10	0°♏	
desc. node	358 Oct 05 j 00:37	2°♊56'20			361 Apr 28 j 07:05	0°♐	
	358 Oct 26 j 19:23	0°♋			361 May 23 j 18:50	0°♒	
	358 Nov 20 j 01:16	0°♌			361 Jun 17 j 21:12	0°♓	

asc. node	361 Jul 12 j 22:54	0°☿23'13			364 Jan 04 j 07:53	0°♁	
	361 Jul 12 j 15:17	0°☿		greatest brilliancy	364 Jan 20 j 21:24	11°♁00'10	-4.6m
	361 Aug 06 j 01:33	0°♁		retrograde	364 Feb 03 j 15:53	14°♁31'29	
morning set	361 Aug 18 j 16:40	15°♁39'00		evening set	364 Feb 21 j 15:01	8°♁15'46	
	361 Aug 30 j 05:18	0°♁		min. Earth dist.	364 Feb 24 j 05:59	6°♁37'21	0.28189 AU
max. Earth dist.	361 Sep 22 j 12:41	29°♁09'35	1.71592 AU	inferior conj	364 Feb 24 j 18:35	6°♁17'26	8°37'33
	361 Sep 23 j 04:46	0°♁		minimum elong	364 Feb 24 j 20:23	6°♁14'35	8°37'31
				morning rise	364 Feb 28 j 01:58	4°♁13'37	
superior conj	361 Sep 25 j 07:15	2°♁38'19	1°13'23		364 Mar 07 j 09:01	30°♁	
minimum elong	361 Sep 25 j 16:09	3°♁06'14	1°13'09	direct	364 Mar 16 j 17:46	28°♁13'03	
	361 Oct 17 j 02:19	0°♁			364 Mar 26 j 14:10	0°♁	
desc. node	361 Nov 01 j 12:29	19°♁22'22		greatest brilliancy	364 Mar 27 j 23:22	0°♁30'24	-4.5m
evening rise	361 Nov 04 j 10:52	23°♁03'17		desc. node	364 Apr 18 j 07:19	13°♁50'30	
	361 Nov 09 j 23:38	0°♁		morning max el	364 May 04 j 17:59	28°♁28'00	45°52'28
	361 Dec 03 j 21:49	0°♁			364 May 06 j 08:10	0°♁	
	361 Dec 27 j 22:08	0°♁			364 Jun 04 j 04:43	0°♁	
	362 Jan 21 j 03:03	0°♁			364 Jun 30 j 21:03	0°♁	
	362 Feb 14 j 16:35	0°♁			364 Jul 26 j 11:50	0°♁	
asc. node	362 Feb 22 j 15:38	9°♁35'01		asc. node	364 Aug 09 j 10:45	16°♁43'20	
	362 Mar 11 j 20:59	0°♁			364 Aug 20 j 09:26	0°♁	
	362 Apr 07 j 03:24	0°♁			364 Sep 13 j 18:37	0°♁	
	362 May 05 j 17:46	0°♁			364 Oct 07 j 19:43	0°♁	
evening max el	362 May 07 j 23:34	2°♁09'50	45°18'49	morning set	364 Oct 29 j 23:19	27°♁49'59	
greatest brilliancy	362 Jun 12 j 07:00	28°♁40'26	-4.5m		364 Oct 31 j 16:37	0°♁	
desc. node	362 Jun 14 j 05:09	29°♁27'38			364 Nov 24 j 12:17	0°♁	
	362 Jun 15 j 17:04	0°♁		desc. node	364 Nov 29 j 00:24	5°♁40'19	
retrograde	362 Jun 25 j 11:21	1°♁43'15					
	362 Jul 04 j 20:31	30°♁		superior conj	364 Dec 10 j 06:34	19°♁50'28	0°-26'-23
evening set	362 Jul 11 j 16:08	26°♁47'03		minimum elong	364 Dec 09 j 23:39	19°♁28'43	0°26'04
inferior conj	362 Jul 16 j 21:42	23°♁38'37	-6°-43'-45	max. Earth dist.	364 Dec 12 j 10:30	22°♁33'49	1.71094 AU
minimum elong	362 Jul 16 j 11:49	23°♁53'57	6°41'57		364 Dec 18 j 08:26	0°♁	
min. Earth dist.	362 Jul 17 j 02:20	23°♁31'26	0.28741 AU		365 Jan 11 j 06:12	0°♁	
morning rise	362 Jul 21 j 07:09	20°♁57'55		evening rise	365 Jan 20 j 19:44	11°♁57'54	
direct	362 Aug 07 j 11:00	15°♁24'27			365 Feb 04 j 06:48	0°♁	
greatest brilliancy	362 Aug 21 j 21:58	19°♁03'36	-4.5m		365 Feb 28 j 11:51	0°♁	
	362 Sep 07 j 15:09	0°♁		asc. node	365 Mar 22 j 03:31	26°♁33'22	
morning max el	362 Sep 26 j 07:14	16°♁56'37	46°27'05		365 Mar 24 j 23:23	0°♁	
asc. node	362 Oct 05 j 08:16	26°♁13'37			365 Apr 18 j 19:41	0°♁	
	362 Oct 08 j 21:19	0°♁			365 May 14 j 04:13	0°♁	
	362 Nov 04 j 11:28	0°♁			365 Jun 09 j 08:10	0°♁	
	362 Nov 29 j 14:10	0°♁			365 Jul 07 j 02:52	0°♁	
	362 Dec 24 j 02:43	0°♁		desc. node	365 Jul 11 j 17:01	4°♁39'53	
	363 Jan 17 j 10:09	0°♁		evening max el	365 Jul 18 j 20:35	11°♁41'12	45°54'33
desc. node	363 Jan 24 j 22:00	9°♁15'54			365 Aug 09 j 02:08	0°♁	
	363 Feb 10 j 16:25	0°♁		greatest brilliancy	365 Aug 26 j 10:19	9°♁54'34	-4.6m
	363 Mar 06 j 23:16	0°♁		retrograde	365 Sep 06 j 00:50	11°♁56'05	
	363 Mar 31 j 07:24	0°♁		evening set	365 Sep 23 j 01:30	6°♁27'14	
morning set	363 Apr 02 j 06:18	2°♁24'21		inferior conj	365 Sep 26 j 20:02	4°♁11'46	-7°-37'-15
	363 Apr 24 j 16:51	0°♁		minimum elong	365 Sep 27 j 05:33	3°♁57'17	7°35'45
				min. Earth dist.	365 Sep 27 j 16:13	3°♁41'04	0.27261 AU
superior conj	363 May 09 j 08:57	18°♁01'24	0°-20'-23	morning rise	365 Oct 01 j 09:16	1°♁29'03	
minimum elong	363 May 09 j 13:05	18°♁14'07	0°20'12		365 Oct 04 j 03:06	30°♁	
max. Earth dist.	363 May 09 j 11:30	18°♁09'14	1.73597 AU	direct	365 Oct 17 j 16:46	26°♁20'07	
asc. node	363 May 18 j 01:16	28°♁40'52		greatest brilliancy	365 Oct 31 j 10:27	29°♁49'18	-4.7m
	363 May 19 j 03:03	0°♁			365 Oct 31 j 19:21	0°♁	
	363 Jun 12 j 13:17	0°♁		asc. node	365 Nov 01 j 20:08	0°♁30'59	
evening rise	363 Jun 14 j 13:12	2°♁27'11		morning max el	365 Dec 07 j 13:09	29°♁57'06	46°56'21
	363 Jul 06 j 23:15	0°♁			365 Dec 07 j 14:17	0°♁	
	363 Jul 31 j 09:37	0°♁			366 Jan 04 j 02:43	0°♁	
	363 Aug 24 j 21:49	0°♁			366 Jan 29 j 21:10	0°♁	
desc. node	363 Sep 06 j 14:44	15°♁29'26		desc. node	366 Feb 21 j 09:51	26°♁51'31	
	363 Sep 18 j 13:31	0°♁			366 Feb 24 j 00:39	0°♁	
	363 Oct 13 j 11:10	0°♁			366 Mar 20 j 21:52	0°♁	
	363 Nov 07 j 20:37	0°♁			366 Apr 14 j 16:09	0°♁	
	363 Dec 04 j 11:17	0°♁			366 May 09 j 08:31	0°♁	
evening max el	363 Dec 14 j 17:10	10°♁47'02	47°12'02		366 Jun 02 j 22:40	0°♁	
asc. node	363 Dec 28 j 17:54	24°♁20'35		morning set	366 Jun 09 j 06:30	7°♁44'25	

asc. node	366 Jun 14 j 13:09	14°♁12'22		min. Earth dist.	368 Dec 09 j 19:49	20°♁21'58	0.26457 AU
	366 Jun 27 j 09:44	0°♁		morning rise	368 Dec 16 j 01:49	16°♁39'56	
max. Earth dist.	366 Jul 12 j 06:16	18°♁18'31	1.73143 AU	direct	368 Dec 30 j 17:11	12°♁24'31	
				greatest brilliancy	369 Jan 10 j 22:13	14°♁45'25	-4.6m
superior conj	366 Jul 15 j 13:15	22°♁22'25	1°04'42		369 Feb 03 j 00:17	0°♁	
minimum elong	366 Jul 15 j 04:37	21°♁55'45	1°04'25	morning max el	369 Feb 18 j 16:04	14°♁31'08	46°33'29
	366 Jul 21 j 17:14	0°♁			369 Mar 05 j 16:32	0°♁	
	366 Aug 14 j 21:41	0°♁		desc. node	369 Mar 20 j 21:41	16°♁35'10	
evening rise	366 Aug 20 j 18:59	7°♁19'09			369 Apr 01 j 20:01	0°♁	
	366 Sep 08 j 00:31	0°♁			369 Apr 27 j 20:05	0°♁	
	366 Oct 02 j 03:16	0°♁			369 May 23 j 06:50	0°♁	
desc. node	366 Oct 04 j 02:41	2°♁27'19			369 Jun 17 j 08:34	0°♁	
	366 Oct 26 j 07:08	0°♁		asc. node	369 Jul 12 j 00:53	29°♁55'43	
	366 Nov 19 j 13:28	0°♁			369 Jul 12 j 02:17	0°♁	
	366 Dec 14 j 01:20	0°♁			369 Aug 05 j 12:23	0°♁	
	367 Jan 08 j 01:47	0°♁		morning set	369 Aug 16 j 08:50	13°♁26'36	
asc. node	367 Jan 25 j 05:42	19°♁53'08			369 Aug 29 j 16:05	0°♁	
	367 Feb 03 j 06:34	0°♁		max. Earth dist.	369 Sep 20 j 01:10	26°♁44'19	1.71640 AU
evening max el	367 Feb 24 j 02:42	21°♁53'51	46°02'27				
	367 Mar 04 j 14:57	0°♁		superior conj	369 Sep 22 j 21:23	0°♁18'07	1°15'06
greatest brilliancy	367 Mar 30 j 15:54	19°♁05'54	-4.5m	minimum elong	369 Sep 23 j 05:47	0°♁44'29	1°14'55
retrograde	367 Apr 14 j 09:47	22°♁54'58			369 Sep 22 j 15:36	0°♁	
evening set	367 Apr 29 j 21:26	18°♁15'22			369 Oct 16 j 13:14	0°♁	
inferior conj	367 May 05 j 19:42	14°♁39'15	2°32'10	desc. node	369 Oct 31 j 14:40	18°♁54'47	
minimum elong	367 May 06 j 01:01	14°♁30'51	2°30'41	evening rise	369 Nov 01 j 21:46	20°♁32'23	
min. Earth dist.	367 May 05 j 23:34	14°♁33'08	0.28959 AU		369 Nov 09 j 10:39	0°♁	
morning rise	367 May 12 j 04:51	10°♁48'33			369 Dec 03 j 08:56	0°♁	
desc. node	367 May 16 j 19:16	8°♁34'43			369 Dec 27 j 09:25	0°♁	
direct	367 May 27 j 11:00	6°♁21'02			370 Jan 20 j 14:37	0°♁	
greatest brilliancy	367 Jun 09 j 17:52	9°♁27'00	-4.5m		370 Feb 14 j 04:41	0°♁	
	367 Jul 08 j 15:41	0°♁		asc. node	370 Feb 21 j 17:35	9°♁03'57	
morning max el	367 Jul 15 j 06:38	6°♁09'51	45°48'57		370 Mar 11 j 10:06	0°♁	
	367 Aug 07 j 12:30	0°♁			370 Apr 06 j 18:45	0°♁	
	367 Sep 03 j 04:02	0°♁		evening max el	370 May 05 j 14:35	29°♁57'33	45°19'05
asc. node	367 Sep 06 j 22:33	4°♁24'14			370 May 05 j 15:36	0°♁	
	367 Sep 28 j 09:49	0°♁		greatest brilliancy	370 Jun 09 j 18:37	26°♁25'28	-4.5m
	367 Oct 22 j 21:20	0°♁		desc. node	370 Jun 13 j 07:13	27°♁48'08	
	367 Nov 15 j 23:33	0°♁		retrograde	370 Jun 23 j 03:08	29°♁32'55	
	367 Dec 09 j 22:09	0°♁		evening set	370 Jul 09 j 04:42	24°♁40'10	
desc. node	367 Dec 27 j 12:12	22°♁03'13		inferior conj	370 Jul 14 j 13:22	21°♁27'32	-6°-30'-30
	368 Jan 02 j 20:21	0°♁		minimum elong	370 Jul 14 j 03:22	21°♁43'00	6°28'34
morning set	368 Jan 16 j 02:28	16°♁36'01		min. Earth dist.	370 Jul 14 j 17:31	21°♁21'06	0.28768 AU
	368 Jan 26 j 19:41	0°♁		morning rise	370 Jul 19 j 01:42	18°♁42'48	
	368 Feb 19 j 21:03	0°♁		direct	370 Aug 05 j 02:46	13°♁12'46	
				greatest brilliancy	370 Aug 19 j 15:04	16°♁53'26	-4.5m
superior conj	368 Feb 25 j 17:01	7°♁15'01	-1°-25'-5		370 Sep 08 j 00:00	0°♁	
minimum elong	368 Feb 25 j 19:11	7°♁21'44	1°25'05	morning max el	370 Sep 23 j 22:46	14°♁41'30	46°25'37
max. Earth dist.	368 Feb 29 j 17:31	12°♁14'39	1.72398 AU	asc. node	370 Oct 04 j 10:27	25°♁29'23	
	368 Mar 15 j 01:17	0°♁			370 Oct 08 j 15:21	0°♁	
evening rise	368 Apr 04 j 11:44	25°♁13'10			370 Nov 04 j 01:58	0°♁	
	368 Apr 08 j 08:58	0°♁			370 Nov 29 j 03:09	0°♁	
asc. node	368 Apr 18 j 15:28	12°♁36'46			370 Dec 23 j 14:53	0°♁	
	368 May 02 j 20:23	0°♁			371 Jan 16 j 21:45	0°♁	
	368 May 27 j 11:42	0°♁		desc. node	371 Jan 24 j 00:00	8°♁46'31	
	368 Jun 21 j 07:48	0°♁			371 Feb 10 j 03:39	0°♁	
	368 Jul 16 j 11:04	0°♁			371 Mar 06 j 10:14	0°♁	
desc. node	368 Aug 08 j 04:47	26°♁39'11		morning set	371 Mar 30 j 22:21	0°♁12'54	
	368 Aug 11 j 02:14	0°♁			371 Mar 30 j 18:10	0°♁	
	368 Sep 06 j 15:28	0°♁			371 Apr 24 j 03:29	0°♁	
evening max el	368 Sep 30 j 08:01	24°♁58'29	47°07'06				
	368 Oct 05 j 11:09	0°♁		superior conj	371 May 07 j 02:39	15°♁55'48	0°-23'-28
greatest brilliancy	368 Nov 08 j 04:37	25°♁13'23	-4.7m	minimum elong	371 May 07 j 07:24	16°♁10'22	0°23'16
retrograde	368 Nov 19 j 20:19	27°♁45'56		max. Earth dist.	371 May 07 j 08:13	16°♁12'56	1.73586 AU
asc. node	368 Nov 29 j 08:01	25°♁55'20		asc. node	371 May 17 j 03:22	28°♁14'46	
evening set	368 Dec 04 j 05:42	23°♁38'30			371 May 18 j 13:39	0°♁	
inferior conj	368 Dec 10 j 09:42	20°♁00'39	2°49'39		371 Jun 11 j 23:56	0°♁	
minimum elong	368 Dec 10 j 03:34	20°♁10'04	2°47'45	evening rise	371 Jun 12 j 08:13	0°♁25'26	

	371 Jul 06 j 10:05	0°♈			373 Dec 07 j 12:16	0°♌		
	371 Jul 30 j 20:48	0°♍			374 Jan 03 j 18:51	0°♎		
	371 Aug 24 j 09:28	0°♎			374 Jan 29 j 11:01	0°♏		
desc. node	371 Sep 05 j 16:48	14°♎59'18		desc. node	374 Feb 20 j 11:53	26°♏19'27		
	371 Sep 18 j 01:51	0°♏			374 Feb 23 j 13:15	0°♐		
	371 Oct 13 j 00:32	0°♐			374 Mar 20 j 09:40	0°♑		
	371 Nov 07 j 11:45	0°♑			374 Apr 14 j 03:24	0°♒		
	371 Dec 04 j 06:24	0°♒			374 May 08 j 19:24	0°♓		
evening max el	371 Dec 12 j 08:40	8°♒28'28	47°13'48		374 Jun 02 j 09:21	0°♈		
asc. node	371 Dec 27 j 19:56	23°♒19'10		morning set	374 Jun 07 j 01:02	5°♈41'40		
	372 Jan 04 j 20:56	0°♓		asc. node	374 Jun 13 j 15:07	13°♈45'50		
greatest brilliancy	372 Jan 18 j 13:16	8°♓43'07	-4.6m		374 Jun 26 j 20:21	0°♉		
retrograde	372 Feb 01 j 08:08	12°♓14'38		max. Earth dist.	374 Jul 10 j 00:24	16°♉13'36	1.73187 AU	
evening set	372 Feb 19 j 06:20	5°♓58'50						
inferior conj	372 Feb 22 j 09:45	4°♓00'52	8°39'37	superior conj	374 Jul 13 j 07:38	20°♉18'10	1°02'38	
minimum elong	372 Feb 22 j 10:47	3°♓59'16	8°39'36	minimum elong	374 Jul 12 j 22:57	19°♉51'21	1°02'20	
min. Earth dist.	372 Feb 21 j 19:45	4°♓22'59	0.28135 AU		374 Jul 21 j 03:53	0°♊		
morning rise	372 Feb 25 j 15:26	1°♓59'54			374 Aug 14 j 08:29	0°♋		
	372 Feb 29 j 02:46	30°♋		evening rise	374 Aug 18 j 11:33	5°♋07'45		
direct	372 Mar 14 j 08:32	25°♋57'25			374 Sep 07 j 11:31	0°♌		
greatest brilliancy	372 Mar 25 j 11:49	28°♋13'11	-4.5m		374 Oct 01 j 14:33	0°♍		
	372 Mar 29 j 12:50	0°♌		desc. node	374 Oct 03 j 04:49	1°♌58'54		
desc. node	372 Apr 17 j 09:31	12°♌48'28			374 Oct 25 j 18:45	0°♎		
morning max el	372 May 02 j 10:03	26°♌17'37	45°53'18		374 Nov 19 j 01:32	0°♏		
	372 May 06 j 05:36	0°♐			374 Dec 13 j 14:04	0°♐		
	372 Jun 03 j 20:02	0°♑			375 Jan 07 j 15:43	0°♑		
	372 Jun 30 j 10:07	0°♒		asc. node	375 Jan 24 j 07:43	19°♑15'06		
	372 Jul 25 j 23:47	0°♓			375 Feb 02 j 23:15	0°♒		
asc. node	372 Aug 08 j 12:45	16°♓14'19		evening max el	375 Feb 21 j 17:42	19°♒38'54	46°04'56	
	372 Aug 19 j 20:49	0°♈			375 Mar 04 j 17:15	0°♓		
	372 Sep 13 j 05:43	0°♉		greatest brilliancy	375 Mar 28 j 09:42	16°♓58'40	-4.5m	
	372 Oct 07 j 06:41	0°♊		retrograde	375 Apr 12 j 02:03	20°♓46'40		
morning set	372 Oct 27 j 11:09	25°♊21'55		evening set	375 Apr 27 j 15:57	16°♓04'35		
	372 Oct 31 j 03:32	0°♋		inferior conj	375 May 03 j 12:20	12°♓30'59	2°50'51	
	372 Nov 23 j 23:11	0°♌		minimum elong	375 May 03 j 18:14	12°♓21'40	2°49'14	
desc. node	372 Nov 28 j 02:24	5°♌12'16		min. Earth dist.	375 May 03 j 16:29	12°♓24'25	0.28949 AU	
				morning rise	375 May 09 j 20:41	8°♓40'55		
superior conj	372 Dec 07 j 15:46	17°♌14'02	0°-22'-30	desc. node	375 May 15 j 21:15	5°♓53'41		
minimum elong	372 Dec 07 j 09:49	16°♌55'16	0°22'13	direct	375 May 25 j 03:01	4°♓12'59		
max. Earth dist.	372 Dec 09 j 18:42	19°♌54'16	1.71077 AU	greatest brilliancy	375 Jun 07 j 08:03	7°♓16'19	-4.5m	
	372 Dec 17 j 19:21	0°♏			375 Jul 08 j 16:18	0°♈		
	373 Jan 10 j 17:08	0°♐		morning max el	375 Jul 12 j 21:32	3°♈57'51	45°48'13	
evening rise	373 Jan 18 j 06:25	9°♐27'11			375 Aug 07 j 04:39	0°♉		
	373 Feb 03 j 17:43	0°♑			375 Sep 02 j 17:34	0°♊		
	373 Feb 27 j 22:51	0°♒		asc. node	375 Sep 06 j 00:44	3°♊51'33		
asc. node	373 Mar 21 j 05:41	26°♒05'54			375 Sep 27 j 22:12	0°♋		
	373 Mar 24 j 10:36	0°♓			375 Oct 22 j 09:10	0°♌		
	373 Apr 18 j 07:26	0°♔			375 Nov 15 j 11:04	0°♍		
	373 May 13 j 16:58	0°♕			375 Dec 09 j 09:28	0°♎		
	373 Jun 08 j 22:55	0°♖		desc. node	375 Dec 26 j 14:11	21°♎34'22		
	373 Jul 06 j 22:28	0°♗			376 Jan 02 j 07:30	0°♏		
desc. node	373 Jul 10 j 19:00	3°♗52'39		morning set	376 Jan 13 j 12:24	14°♏02'15		
evening max el	373 Jul 16 j 11:02	9°♗25'00	45°52'07		376 Jan 26 j 06:42	0°♐		
	373 Aug 09 j 22:14	0°♘			376 Feb 19 j 07:58	0°♑		
greatest brilliancy	373 Aug 23 j 22:27	7°♘32'24	-4.6m					
retrograde	373 Sep 03 j 13:19	9°♘33'42		superior conj	376 Feb 23 j 06:07	4°♘52'45	-1°-25'-23	
evening set	373 Sep 20 j 17:28	4°♘00'38		minimum elong	376 Feb 23 j 07:22	4°♘56'35	1°25'24	
inferior conj	373 Sep 24 j 09:09	1°♘48'58	-7°-48'-17	max. Earth dist.	376 Feb 27 j 07:54	9°♘56'28	1.72339 AU	
minimum elong	373 Sep 24 j 18:11	1°♘35'11	7°46'57		376 Mar 14 j 12:09	0°♒		
min. Earth dist.	373 Sep 25 j 05:16	1°♘18'17	0.27324 AU	evening rise	376 Apr 02 j 03:18	22°♒59'53		
	373 Sep 27 j 09:12	30°♒			376 Apr 07 j 19:51	0°♓		
morning rise	373 Sep 28 j 18:36	29°♒11'15		asc. node	376 Apr 17 j 17:34	12°♓09'48		
direct	373 Oct 15 j 06:53	23°♒56'34			376 May 02 j 07:23	0°♈		
greatest brilliancy	373 Oct 29 j 00:23	27°♒25'09	-4.7m		376 May 26 j 22:58	0°♉		
asc. node	373 Oct 31 j 22:13	28°♒55'00			376 Jun 20 j 19:36	0°♊		
	373 Nov 02 j 19:27	0°♋			376 Jul 15 j 23:47	0°♋		
morning max el	373 Dec 05 j 02:39	27°♋31'40	46°56'01	desc. node	376 Aug 07 j 06:53	26°♋04'30		

	376 Aug 10 j 16:34	0°♁			379 Mar 30 j 05:16	0°♃	
	376 Sep 06 j 09:01	0°♁			379 Apr 23 j 14:26	0°♁	
evening max el	376 Sep 27 j 20:19	22°♁30'48	47°05'00				
	376 Oct 05 j 13:52	0°♁		superior conj	379 May 04 j 20:12	13°♁48'47	0°-26'-33
greatest brilliancy	376 Nov 05 j 19:29	22°♁45'45	-4.7m	minimum elong	379 May 05 j 01:32	14°♁05'09	0°26'18
retrograde	376 Nov 17 j 08:19	25°♁15'43		max. Earth dist.	379 May 05 j 06:53	14°♁21'34	1.73570 AU
asc. node	376 Nov 28 j 10:03	22°♁46'05		asc. node	379 May 16 j 05:20	27°♁47'24	
evening set	376 Dec 01 j 17:05	21°♁09'34			379 May 18 j 00:33	0°♁	
inferior conj	376 Dec 07 j 21:54	17°♁31'22	2°26'12	evening rise	379 Jun 10 j 03:22	28°♁23'13	
minimum elong	376 Dec 07 j 16:32	17°♁39'35	2°24'31		379 Jun 11 j 10:54	0°♁	
min. Earth dist.	376 Dec 07 j 09:45	17°♁49'59	0.26430 AU		379 Jul 05 j 21:15	0°♁	
morning rise	376 Dec 13 j 16:14	14°♁07'48			379 Jul 30 j 08:17	0°♁	
direct	376 Dec 28 j 04:33	9°♁55'15			379 Aug 23 j 21:26	0°♁	
greatest brilliancy	377 Jan 08 j 13:17	12°♁19'38	-4.7m	desc. node	379 Sep 04 j 19:00	14°♁28'42	
	377 Feb 03 j 08:28	0°♁			379 Sep 17 j 14:30	0°♁	
morning max el	377 Feb 16 j 04:58	12°♁06'12	46°35'05		379 Oct 12 j 14:15	0°♁	
	377 Mar 05 j 11:05	0°♁			379 Nov 07 j 03:23	0°♁	
desc. node	377 Mar 19 j 23:54	15°♁56'28			379 Dec 04 j 02:30	0°♁	
	377 Apr 01 j 10:45	0°♁		evening max el	379 Dec 10 j 00:51	6°♁10'26	47°15'07
	377 Apr 27 j 09:05	0°♁		asc. node	379 Dec 26 j 21:59	22°♁14'49	
	377 May 22 j 18:51	0°♁			380 Jan 05 j 15:21	0°♁	
	377 Jun 16 j 20:00	0°♁		greatest brilliancy	380 Jan 16 j 05:46	6°♁25'00	-4.6m
asc. node	377 Jul 11 j 02:59	29°♁28'17		retrograde	380 Jan 30 j 00:04	9°♁55'16	
	377 Jul 11 j 13:22	0°♁		evening set	380 Feb 16 j 21:04	3°♁40'18	
	377 Aug 04 j 23:17	0°♁		min. Earth dist.	380 Feb 19 j 09:20	2°♁06'14	0.28079 AU
morning set	377 Aug 14 j 01:29	11°♁15'28		inferior conj	380 Feb 20 j 00:42	1°♁41'59	8°40'46
	377 Aug 29 j 02:58	0°♁		minimum elong	380 Feb 20 j 00:55	1°♁41'38	8°40'46
max. Earth dist.	377 Sep 17 j 15:46	24°♁25'19	1.71692 AU		380 Feb 22 j 18:01	30°♁	
				morning rise	380 Feb 23 j 05:02	29°♁43'12	
superior conj	377 Sep 20 j 11:50	27°♁58'35	1°16'40	direct	380 Mar 11 j 23:24	23°♁39'41	
minimum elong	377 Sep 20 j 19:42	28°♁23'12	1°16'30	greatest brilliancy	380 Mar 22 j 23:26	25°♁52'57	-4.5m
	377 Sep 22 j 02:35	0°♁			380 Mar 31 j 08:17	0°♁	
	377 Oct 16 j 00:21	0°♁		desc. node	380 Apr 16 j 11:30	11°♁45'55	
evening rise	377 Oct 30 j 08:42	18°♁00'58		morning max el	380 Apr 30 j 01:38	24°♁04'35	45°54'15
desc. node	377 Oct 30 j 16:42	18°♁26'02			380 May 06 j 02:50	0°♁	
	377 Nov 08 j 21:54	0°♁			380 Jun 03 j 11:33	0°♁	
	377 Dec 02 j 20:20	0°♁			380 Jun 29 j 23:25	0°♁	
	377 Dec 26 j 21:01	0°♁			380 Jul 25 j 12:01	0°♁	
	378 Jan 20 j 02:29	0°♁		asc. node	380 Aug 07 j 14:53	15°♁44'49	
	378 Feb 13 j 17:05	0°♁			380 Aug 19 j 08:30	0°♁	
asc. node	378 Feb 20 j 19:48	8°♁32'47			380 Sep 12 j 17:07	0°♁	
	378 Mar 10 j 23:32	0°♁			380 Oct 06 j 17:57	0°♁	
	378 Apr 06 j 10:33	0°♁		morning set	380 Oct 24 j 23:39	22°♁54'57	
evening max el	378 May 03 j 06:36	27°♁47'19	45°19'29		380 Oct 30 j 14:45	0°♁	
	378 May 05 j 14:32	0°♁			380 Nov 23 j 10:23	0°♁	
greatest brilliancy	378 Jun 07 j 06:51	24°♁11'11	-4.5m	desc. node	380 Nov 27 j 04:27	4°♁43'30	
desc. node	378 Jun 12 j 09:16	26°♁04'56					
retrograde	378 Jun 20 j 19:21	27°♁22'38		superior conj	380 Dec 05 j 01:30	14°♁38'23	0°-18'-36
evening set	378 Jul 06 j 17:40	22°♁33'18		minimum elong	380 Dec 04 j 20:32	14°♁22'44	0°18'24
inferior conj	378 Jul 12 j 05:13	19°♁16'31	-6°-16'-41	max. Earth dist.	380 Dec 07 j 03:08	17°♁14'31	1.71061 AU
minimum elong	378 Jul 11 j 19:12	19°♁32'01	6°14'40		380 Dec 17 j 06:34	0°♁	
min. Earth dist.	378 Jul 12 j 08:40	19°♁11'11	0.28791 AU		381 Jan 10 j 04:23	0°♁	
morning rise	378 Jul 16 j 20:27	16°♁27'46		evening rise	381 Jan 15 j 17:08	6°♁55'28	
direct	378 Aug 02 j 19:13	11°♁01'22			381 Feb 03 j 05:01	0°♁	
greatest brilliancy	378 Aug 17 j 07:23	14°♁42'20	-4.5m		381 Feb 27 j 10:15	0°♁	
	378 Sep 08 j 06:29	0°♁		asc. node	381 Mar 20 j 07:43	25°♁36'38	
morning max el	378 Sep 21 j 15:01	12°♁28'09	46°24'08		381 Mar 23 j 22:17	0°♁	
asc. node	378 Oct 03 j 12:31	24°♁45'00			381 Apr 17 j 19:38	0°♁	
	378 Oct 08 j 09:08	0°♁			381 May 13 j 06:12	0°♁	
	378 Nov 03 j 16:31	0°♁			381 Jun 08 j 14:16	0°♁	
	378 Nov 28 j 16:20	0°♁			381 Jul 06 j 19:06	0°♁	
	378 Dec 23 j 03:19	0°♁		desc. node	381 Jul 09 j 21:08	3°♁04'03	
	379 Jan 16 j 09:43	0°♁		evening max el	381 Jul 14 j 00:50	7°♁06'20	45°49'45
desc. node	379 Jan 23 j 02:07	8°♁16'25			381 Aug 11 j 02:09	0°♁	
	379 Feb 09 j 15:16	0°♁		greatest brilliancy	381 Aug 21 j 11:17	5°♁10'32	-4.6m
	379 Mar 05 j 21:33	0°♁		retrograde	381 Sep 01 j 01:31	7°♁11'14	
morning set	379 Mar 28 j 14:06	27°♁59'22		evening set	381 Sep 18 j 09:29	1°♁34'04	

	381 Sep 21 j 00:18	30°♁♃		max. Earth dist.	384 Feb 24 j 20:33	7°♁32'29	1.72279 AU
inferior conj	381 Sep 21 j 22:29	29°♁26'07	-7°-58'-23		384 Mar 13 j 23:08	0°♁	
minimum elong	381 Sep 22 j 06:59	29°♁13'07	7°57'14	evening rise	384 Mar 30 j 19:01	20°♁46'36	
min. Earth dist.	381 Sep 22 j 18:50	28°♁54'59	0.27387 AU		384 Apr 07 j 06:52	0°♁	
morning rise	381 Sep 26 j 04:11	26°♁53'23		asc. node	384 Apr 16 j 19:34	11°♁42'05	
direct	381 Oct 12 j 20:42	21°♁32'45			384 May 01 j 18:32	0°♁	
greatest brilliancy	381 Oct 26 j 15:16	25°♁01'41	-4.7m		384 May 26 j 10:26	0°♁	
asc. node	381 Oct 31 j 00:10	27°♁21'37			384 Jun 20 j 07:36	0°♁	
	381 Nov 04 j 04:06	0°♁			384 Jul 15 j 12:44	0°♁	
morning max el	381 Dec 02 j 15:34	25°♁03'56	46°55'51	desc. node	384 Aug 06 j 09:01	25°♁29'19	
	381 Dec 07 j 09:43	0°♁			384 Aug 10 j 07:11	0°♁	
	382 Jan 03 j 10:58	0°♁			384 Sep 06 j 03:02	0°♁	
	382 Jan 29 j 00:58	0°♁		evening max el	384 Sep 25 j 09:06	20°♁04'32	47°03'02
desc. node	382 Feb 19 j 14:04	25°♁47'12			384 Oct 05 j 18:13	0°♁	
	382 Feb 23 j 02:03	0°♁		greatest brilliancy	384 Nov 03 j 09:20	20°♁17'06	-4.7m
	382 Mar 19 j 21:45	0°♁		retrograde	384 Nov 14 j 20:48	22°♁45'50	
	382 Apr 13 j 14:59	0°♁		asc. node	384 Nov 27 j 12:12	19°♁32'10	
	382 May 08 j 06:39	0°♁		evening set	384 Nov 29 j 04:48	18°♁40'20	
	382 Jun 01 j 20:23	0°♁		inferior conj	384 Dec 05 j 10:10	15°♁02'05	2°02'24
morning set	382 Jun 04 j 19:24	3°♁37'18		minimum elong	384 Dec 05 j 05:37	15°♁09'02	2°00'58
asc. node	382 Jun 12 j 17:15	13°♁18'46		min. Earth dist.	384 Dec 04 j 23:30	15°♁18'22	0.26410 AU
	382 Jun 26 j 07:18	0°♁		morning rise	384 Dec 11 j 06:36	11°♁36'04	
max. Earth dist.	382 Jul 07 j 19:00	14°♁09'15	1.73227 AU	direct	384 Dec 25 j 16:36	7°♁25'52	
				greatest brilliancy	385 Jan 06 j 04:15	9°♁53'41	-4.7m
superior conj	382 Jul 11 j 02:01	18°♁13'01	1°00'28		385 Feb 03 j 14:22	0°♁	
minimum elong	382 Jul 10 j 17:18	17°♁46'08	1°00'11	morning max el	385 Feb 13 j 18:59	9°♁43'51	46°36'40
	382 Jul 20 j 14:50	0°♁			385 Mar 05 j 05:14	0°♁	
	382 Aug 13 j 19:32	0°♁		desc. node	385 Mar 19 j 01:51	15°♁17'22	
evening rise	382 Aug 16 j 04:22	2°♁56'25			385 Apr 01 j 01:21	0°♁	
	382 Sep 06 j 22:48	0°♁			385 Apr 26 j 22:00	0°♁	
	382 Oct 01 j 02:08	0°♁			385 May 22 j 06:50	0°♁	
desc. node	382 Oct 02 j 06:48	1°♁29'03			385 Jun 16 j 07:26	0°♁	
	382 Oct 25 j 06:41	0°♁		asc. node	385 Jul 10 j 05:08	29°♁00'55	
	382 Nov 18 j 13:54	0°♁			385 Jul 11 j 00:29	0°♁	
	382 Dec 13 j 03:05	0°♁			385 Aug 04 j 10:15	0°♁	
	383 Jan 07 j 05:59	0°♁		morning set	385 Aug 11 j 18:07	9°♁04'15	
asc. node	383 Jan 23 j 09:54	18°♁36'37			385 Aug 28 j 13:55	0°♁	
	383 Feb 02 j 16:28	0°♁		max. Earth dist.	385 Sep 15 j 05:38	22°♁04'04	1.71739 AU
evening max el	383 Feb 19 j 08:00	17°♁21'36	46°07'20				
	383 Mar 04 j 21:29	0°♁		superior conj	385 Sep 18 j 02:18	25°♁39'07	1°18'06
greatest brilliancy	383 Mar 26 j 02:18	14°♁49'01	-4.5m	minimum elong	385 Sep 18 j 09:33	26°♁01'47	1°17'57
retrograde	383 Apr 09 j 18:20	18°♁37'41			385 Sep 21 j 13:34	0°♁	
evening set	383 Apr 25 j 10:34	13°♁52'36			385 Oct 15 j 11:26	0°♁	
inferior conj	383 May 01 j 05:00	10°♁21'53	3°09'18	evening rise	385 Oct 27 j 19:41	15°♁29'47	
minimum elong	383 May 01 j 11:27	10°♁11'42	3°07'32	desc. node	385 Oct 29 j 18:43	17°♁57'22	
min. Earth dist.	383 May 01 j 09:36	10°♁14'39	0.28943 AU		385 Nov 08 j 09:07	0°♁	
morning rise	383 May 07 j 12:25	6°♁32'46			385 Dec 02 j 07:42	0°♁	
desc. node	383 May 14 j 23:19	3°♁16'01			385 Dec 26 j 08:36	0°♁	
direct	383 May 22 j 18:46	2°♁03'50			386 Jan 19 j 14:23	0°♁	
greatest brilliancy	383 Jun 04 j 23:30	5°♁06'11	-4.5m		386 Feb 13 j 05:30	0°♁	
	383 Jul 08 j 16:10	0°♁		asc. node	386 Feb 19 j 21:49	8°♁00'58	
morning max el	383 Jul 10 j 12:53	1°♁46'00	45°47'40		386 Mar 10 j 13:02	0°♁	
	383 Aug 06 j 20:49	0°♁			386 Apr 06 j 02:31	0°♁	
	383 Sep 02 j 07:12	0°♁		evening max el	386 Apr 30 j 23:09	25°♁38'40	45°19'56
asc. node	383 Sep 05 j 02:50	3°♁18'09			386 May 05 j 14:23	0°♁	
	383 Sep 27 j 10:43	0°♁		greatest brilliancy	386 Jun 04 j 19:58	21°♁58'21	-4.5m
	383 Oct 21 j 21:07	0°♁		desc. node	386 Jun 11 j 11:22	24°♁18'18	
	383 Nov 14 j 22:44	0°♁		retrograde	386 Jun 18 j 11:27	25°♁12'28	
	383 Dec 08 j 20:58	0°♁		evening set	386 Jul 04 j 06:48	20°♁26'41	
desc. node	383 Dec 25 j 16:20	21°♁05'30		inferior conj	386 Jul 09 j 21:03	17°♁05'45	-6°-2'-19
	384 Jan 01 j 18:50	0°♁		minimum elong	386 Jul 09 j 11:04	17°♁21'13	6°00'14
morning set	384 Jan 10 j 22:26	11°♁28'09		min. Earth dist.	386 Jul 09 j 23:45	17°♁01'33	0.28814 AU
	384 Jan 25 j 17:52	0°♁		morning rise	386 Jul 14 j 15:07	14°♁12'55	
	384 Feb 18 j 19:01	0°♁		direct	386 Jul 31 j 12:00	8°♁50'23	
				greatest brilliancy	386 Aug 14 j 22:41	12°♁30'10	-4.5m
superior conj	384 Feb 20 j 19:23	2°♁30'28	-1°-25'-31		386 Sep 08 j 10:55	0°♁	
minimum elong	384 Feb 20 j 19:42	2°♁31'25	1°25'33	morning max el	386 Sep 19 j 06:58	10°♁14'15	46°22'31

asc. node	386 Oct 02 j 14:31	24°♁01'03		asc. node	389 Mar 19 j 09:45	25°♃08'08	
	386 Oct 08 j 02:30	0°♎			389 Mar 23 j 09:42	0°♄	
	386 Nov 03 j 06:51	0°♌			389 Apr 17 j 07:38	0°♁	
	386 Nov 28 j 05:19	0°♍			389 May 12 j 19:16	0°♄	
	386 Dec 22 j 15:32	0°♁			389 Jun 08 j 05:30	0°♁	
	387 Jan 15 j 21:27	0°♄			389 Jul 06 j 15:59	0°♎	
desc. node	387 Jan 22 j 04:13	7°♄46'53		desc. node	389 Jul 08 j 23:15	2°♎15'44	
	387 Feb 09 j 02:40	0°♁		evening max el	389 Jul 11 j 13:45	4°♎46'46	45°47'32
	387 Mar 05 j 08:42	0°♁			389 Aug 12 j 16:51	0°♌	
morning set	387 Mar 26 j 05:45	25°♁45'58		greatest brilliancy	389 Aug 18 j 23:51	2°♌49'51	-4.6m
	387 Mar 29 j 16:12	0°♃		retrograde	389 Aug 29 j 13:42	4°♌50'38	
	387 Apr 23 j 01:12	0°♄			389 Sep 14 j 13:58	30°♎	
				evening set	389 Sep 16 j 01:23	29°♎09'20	
superior conj	387 May 02 j 13:45	11°♄42'12	0°-29'-35	inferior conj	389 Sep 19 j 11:58	27°♎04'57	-8°-7'-22
minimum elong	387 May 02 j 19:38	12°♄00'17	0°29'19	minimum elong	389 Sep 19 j 19:52	26°♎52'51	8°06'24
max. Earth dist.	387 May 03 j 06:12	12°♄32'45	1.73549 AU	min. Earth dist.	389 Sep 20 j 08:37	26°♎33'21	0.27454 AU
asc. node	387 May 15 j 07:30	27°♄21'10		morning rise	389 Sep 23 j 14:01	24°♎37'14	
	387 May 17 j 11:15	0°♁		direct	389 Oct 10 j 10:21	19°♎10'22	
evening rise	387 Jun 07 j 22:33	26°♁21'40		greatest brilliancy	389 Oct 24 j 07:17	22°♎41'05	-4.6m
	387 Jun 10 j 21:41	0°♄		asc. node	389 Oct 30 j 02:23	25°♎53'01	
	387 Jul 05 j 08:14	0°♁			389 Nov 05 j 03:01	0°♌	
	387 Jul 29 j 19:37	0°♎		morning max el	389 Nov 30 j 04:30	22°♌37'02	46°55'28
	387 Aug 23 j 09:17	0°♌			389 Dec 07 j 06:11	0°♍	
desc. node	387 Sep 03 j 20:56	13°♌57'37			390 Jan 03 j 02:38	0°♁	
	387 Sep 17 j 03:05	0°♍			390 Jan 28 j 14:36	0°♄	
	387 Oct 12 j 03:58	0°♁		desc. node	390 Feb 18 j 16:03	25°♄15'13	
	387 Nov 06 j 19:07	0°♄			390 Feb 22 j 14:32	0°♁	
	387 Dec 03 j 23:01	0°♁			390 Mar 19 j 09:29	0°♁	
evening max el	387 Dec 07 j 16:46	3°♁52'05	47°16'28		390 Apr 13 j 02:13	0°♃	
asc. node	387 Dec 26 j 00:08	21°♁09'43			390 May 07 j 17:33	0°♄	
	388 Jan 06 j 15:58	0°♁			390 Jun 01 j 07:07	0°♁	
greatest brilliancy	388 Jan 13 j 23:02	4°♁08'21	-4.6m	morning set	390 Jun 02 j 13:40	1°♁33'30	
retrograde	388 Jan 27 j 15:35	7°♁36'05		asc. node	390 Jun 11 j 19:22	12°♁52'35	
evening set	388 Feb 14 j 11:20	1°♁22'53			390 Jun 25 j 17:56	0°♄	
	388 Feb 16 j 16:26	30°♎		max. Earth dist.	390 Jul 05 j 14:26	12°♄08'25	1.73265 AU
min. Earth dist.	388 Feb 16 j 23:02	29°♁49'36	0.28021 AU				
inferior conj	388 Feb 17 j 15:33	29°♁23'29	8°41'05	superior conj	390 Jul 08 j 20:27	16°♄09'03	0°58'14
minimum elong	388 Feb 17 j 14:57	29°♁24'26	8°41'06	minimum elong	390 Jul 08 j 11:47	15°♄42'16	0°57'56
morning rise	388 Feb 20 j 18:51	27°♁26'14			390 Jul 20 j 01:29	0°♁	
direct	388 Mar 09 j 14:04	21°♁22'27			390 Aug 13 j 06:17	0°♎	
greatest brilliancy	388 Mar 20 j 11:00	23°♁32'58	-4.5m	evening rise	390 Aug 13 j 21:28	0°♎47'09	
	388 Apr 01 j 13:47	0°♁			390 Sep 06 j 09:45	0°♌	
desc. node	388 Apr 15 j 13:34	10°♁45'41			390 Sep 30 j 13:22	0°♍	
morning max el	388 Apr 27 j 16:26	21°♁50'14	45°55'13	desc. node	390 Oct 01 j 08:55	1°♍00'40	
	388 May 05 j 23:04	0°♃			390 Oct 24 j 18:18	0°♁	
	388 Jun 03 j 02:34	0°♄			390 Nov 18 j 02:00	0°♄	
	388 Jun 29 j 12:21	0°♁			390 Dec 12 j 15:55	0°♁	
	388 Jul 24 j 23:56	0°♄			391 Jan 06 j 20:11	0°♁	
asc. node	388 Aug 06 j 16:58	15°♄16'06		asc. node	391 Jan 22 j 11:55	17°♁57'52	
	388 Aug 18 j 19:53	0°♁			391 Feb 02 j 09:51	0°♃	
	388 Sep 12 j 04:15	0°♎		evening max el	391 Feb 16 j 22:11	15°♃04'23	46°09'57
	388 Oct 06 j 04:58	0°♌			391 Mar 05 j 03:27	0°♄	
morning set	388 Oct 22 j 11:53	20°♌27'52		greatest brilliancy	391 Mar 23 j 18:04	12°♄38'38	-4.5m
	388 Oct 30 j 01:44	0°♍		retrograde	391 Apr 07 j 10:47	16°♄29'06	
	388 Nov 22 j 21:23	0°♁		evening set	391 Apr 23 j 05:06	11°♄40'33	
desc. node	388 Nov 26 j 06:38	4°♁15'44		inferior conj	391 Apr 28 j 21:30	8°♄12'59	3°27'27
				minimum elong	391 Apr 29 j 04:28	8°♄02'00	3°25'35
superior conj	388 Dec 02 j 10:52	12°♁02'13	0°-14'-39	min. Earth dist.	391 Apr 29 j 02:16	8°♄05'28	0.28936 AU
minimum elong	388 Dec 02 j 06:56	11°♁49'50	0°14'29	morning rise	391 May 05 j 03:51	4°♄25'18	
behind sun begin	388 Dec 01 j 18:20	11°♁10'11		desc. node	391 May 14 j 01:29	0°♄43'03	
behind sun end	388 Dec 02 j 19:32	12°♁29'29			391 May 18 j 07:51	30°♎	
max. Earth dist.	388 Dec 04 j 07:31	14°♁22'43	1.71045 AU	direct	391 May 20 j 10:26	29°♃54'48	
	388 Dec 16 j 17:35	0°♄			391 May 22 j 13:38	0°♄	
	388 Jan 09 j 15:23	0°♁		greatest brilliancy	391 Jun 02 j 15:23	2°♄57'11	-4.5m
evening rise	389 Jan 13 j 03:22	4°♁22'50		morning max el	391 Jul 08 j 04:56	29°♄36'41	45°47'11
	389 Feb 02 j 16:03	0°♁			391 Jul 08 j 14:41	0°♁	
	389 Feb 26 j 21:24	0°♃			391 Aug 06 j 12:24	0°♄	

	391 Sep 01 j 20:26	0°♁		evening max el	394 Apr 28 j 15:52	23°♁30'34	45°20'22
asc. node	391 Sep 04 j 04:46	2°♁45'24			394 May 05 j 15:21	0°♁	
	391 Sep 26 j 22:51	0°♁		greatest brilliancy	394 Jun 02 j 10:30	19°♁47'28	-4.5m
	391 Oct 21 j 08:43	0°♁		desc. node	394 Jun 10 j 13:26	22°♁27'59	
	391 Nov 14 j 10:03	0°♁		retrograde	394 Jun 16 j 03:13	23°♁02'33	
	391 Dec 08 j 08:06	0°♁		evening set	394 Jul 01 j 20:11	18°♁20'25	
desc. node	391 Dec 24 j 18:24	20°♁37'23		inferior conj	394 Jul 07 j 12:57	14°♁55'28	-5°-47'-32
	392 Jan 01 j 05:50	0°♁		minimum elong	394 Jul 07 j 03:04	15°♁10'49	5°45'23
morning set	392 Jan 08 j 08:18	8°♁54'15		min. Earth dist.	394 Jul 07 j 15:07	14°♁52'06	0.28833 AU
	392 Jan 25 j 04:46	0°♁		morning rise	394 Jul 12 j 09:46	11°♁58'27	
				direct	394 Jul 29 j 04:42	6°♁40'02	
superior conj	392 Feb 18 j 08:08	0°♁07'09	-1°-25'-31	greatest brilliancy	394 Aug 12 j 13:11	10°♁17'18	-4.5m
minimum elong	392 Feb 18 j 07:30	0°♁05'09	1°25'32		394 Sep 08 j 13:35	0°♁	
	392 Feb 18 j 05:50	0°♁		morning max el	394 Sep 16 j 21:56	7°♁58'19	46°20'50
max. Earth dist.	392 Feb 22 j 06:49	5°♁01'37	1.72223 AU	asc. node	394 Oct 01 j 16:44	23°♁18'32	
	392 Mar 13 j 09:55	0°♁			394 Oct 07 j 19:28	0°♁	
evening rise	392 Mar 28 j 10:10	18°♁32'17			394 Nov 02 j 20:59	0°♁	
	392 Apr 06 j 17:39	0°♁			394 Nov 27 j 18:09	0°♁	
asc. node	392 Apr 15 j 21:43	11°♁15'30			394 Dec 22 j 03:39	0°♁	
	392 May 01 j 05:27	0°♁			395 Jan 15 j 09:06	0°♁	
	392 May 25 j 21:40	0°♁		desc. node	395 Jan 21 j 06:13	7°♁17'19	
	392 Jun 19 j 19:26	0°♁			395 Feb 08 j 13:58	0°♁	
	392 Jul 15 j 01:34	0°♁			395 Mar 04 j 19:44	0°♁	
desc. node	392 Aug 05 j 10:59	24°♁54'02		morning set	395 Mar 23 j 21:35	23°♁33'22	
	392 Aug 09 j 21:46	0°♁			395 Mar 29 j 03:02	0°♁	
	392 Sep 05 j 21:13	0°♁			395 Apr 22 j 11:55	0°♁	
evening max el	392 Sep 22 j 22:56	17°♁41'58	47°01'09				
	392 Oct 06 j 00:04	0°♁		superior conj	395 Apr 30 j 07:21	9°♁35'53	0°-32'-34
greatest brilliancy	392 Oct 31 j 22:22	17°♁48'50	-4.7m	minimum elong	395 Apr 30 j 13:46	9°♁55'36	0°32'18
retrograde	392 Nov 12 j 09:43	20°♁17'11		max. Earth dist.	395 May 01 j 05:01	10°♁42'26	1.73528 AU
evening set	392 Nov 26 j 16:51	16°♁12'08		asc. node	395 May 14 j 09:37	26°♁54'46	
asc. node	392 Nov 26 j 14:15	16°♁15'36			395 May 16 j 21:58	0°♁	
inferior conj	392 Dec 02 j 22:27	12°♁33'54	1°38'31	evening rise	395 Jun 05 j 17:36	24°♁19'43	
minimum elong	392 Dec 02 j 18:45	12°♁39'32	1°37'19		395 Jun 10 j 08:28	0°♁	
min. Earth dist.	392 Dec 02 j 12:55	12°♁48'25	0.26391 AU		395 Jul 04 j 19:15	0°♁	
morning rise	392 Dec 08 j 20:51	9°♁05'50			395 Jul 29 j 06:59	0°♁	
direct	392 Dec 23 j 05:20	4°♁57'51			395 Aug 22 j 21:11	0°♁	
greatest brilliancy	393 Jan 03 j 18:20	7°♁27'53	-4.7m	desc. node	395 Sep 02 j 23:02	13°♁26'53	
	393 Feb 03 j 17:58	0°♁			395 Sep 16 j 15:46	0°♁	
morning max el	393 Feb 11 j 09:29	7°♁23'33	46°37'58		395 Oct 11 j 17:52	0°♁	
	393 Mar 04 j 22:42	0°♁			395 Nov 06 j 11:10	0°♁	
desc. node	393 Mar 18 j 03:56	14°♁39'37			395 Dec 03 j 20:20	0°♁	
	393 Mar 31 j 15:35	0°♁		evening max el	395 Dec 05 j 07:59	1°♁31'35	47°17'41
	393 Apr 26 j 10:41	0°♁		asc. node	395 Dec 25 j 02:10	20°♁02'29	
	393 May 21 j 18:37	0°♁			396 Jan 08 j 02:43	0°♁	
	393 Jun 15 j 18:40	0°♁		greatest brilliancy	396 Jan 11 j 17:05	1°♁52'23	-4.6m
asc. node	393 Jul 09 j 07:07	28°♁33'40		retrograde	396 Jan 25 j 06:43	5°♁16'45	
	393 Jul 10 j 11:23	0°♁			396 Feb 10 j 13:34	30°♁	
	393 Aug 03 j 21:01	0°♁		evening set	396 Feb 12 j 01:19	29°♁06'07	
morning set	393 Aug 09 j 10:40	6°♁53'29		min. Earth dist.	396 Feb 14 j 13:10	27°♁32'34	0.27957 AU
	393 Aug 28 j 00:41	0°♁		inferior conj	396 Feb 15 j 06:30	27°♁05'10	8°40'40
max. Earth dist.	393 Sep 12 j 17:23	19°♁36'41	1.71788 AU	minimum elong	396 Feb 15 j 05:03	27°♁07'26	8°40'38
				morning rise	396 Feb 18 j 09:04	25°♁08'53	
superior conj	393 Sep 15 j 16:54	23°♁20'34	1°19'24	direct	396 Mar 07 j 04:20	19°♁05'23	
minimum elong	393 Sep 15 j 23:29	23°♁41'10	1°19'17	greatest brilliancy	396 Mar 17 j 23:21	21°♁13'52	-4.5m
	393 Sep 21 j 00:25	0°♁			396 Apr 02 j 11:03	0°♁	
	393 Oct 14 j 22:23	0°♁		desc. node	396 Apr 14 j 15:45	9°♁47'18	
evening rise	393 Oct 25 j 06:48	12°♁59'31		morning max el	396 Apr 25 j 06:18	19°♁33'30	45°56'13
desc. node	393 Oct 28 j 20:54	17°♁29'39			396 May 05 j 18:39	0°♁	
	393 Nov 07 j 20:11	0°♁			396 Jun 02 j 17:25	0°♁	
	393 Dec 01 j 18:54	0°♁			396 Jun 29 j 01:18	0°♁	
	393 Dec 25 j 19:59	0°♁			396 Jul 24 j 11:56	0°♁	
	394 Jan 19 j 02:05	0°♁		asc. node	396 Aug 05 j 19:00	14°♁46'55	
	394 Feb 12 j 17:47	0°♁			396 Aug 18 j 07:22	0°♁	
asc. node	394 Feb 18 j 23:50	7°♁29'37			396 Sep 11 j 15:29	0°♁	
	394 Mar 10 j 02:29	0°♁			396 Oct 05 j 16:05	0°♁	
	394 Apr 05 j 18:39	0°♁		morning set	396 Oct 20 j 00:10	18°♁00'32	

	396 Oct 29 j 12:51	0°♁		retrograde	399 Apr 05 j 03:50	14°♁19'38	
	396 Nov 22 j 08:32	0°♁		evening set	399 Apr 20 j 23:47	9°♁27'30	
desc. node	396 Nov 25 j 08:38	3°♁46'58		inferior conj	399 Apr 26 j 14:01	6°♁03'08	3°45'22
				minimum elong	399 Apr 26 j 21:27	5°♁51'24	3°43'25
superior conj	396 Nov 29 j 20:18	9°♁25'49	0°-10'-40	min. Earth dist.	399 Apr 26 j 18:37	5°♁55'53	0.28924 AU
minimum elong	396 Nov 29 j 17:26	9°♁16'46	0°10'32	morning rise	399 May 02 j 19:12	2°♁17'22	
behind sun begin	396 Nov 28 j 20:46	8°♁11'46			399 May 07 j 11:05	30°♁	
behind sun end	396 Nov 30 j 14:05	10°♁21'45		desc. node	399 May 13 j 03:27	28°♁14'17	
max. Earth dist.	396 Dec 01 j 08:58	11°♁21'11	1.71035 AU	direct	399 May 18 j 02:31	27°♁44'59	
	396 Dec 16 j 04:46	0°♁			399 May 29 j 08:28	0°♁	
	397 Jan 09 j 02:35	0°♁		greatest brilliancy	399 May 31 j 06:57	0°♁47'14	-4.5m
evening rise	397 Jan 10 j 13:34	1°♁49'33		morning max el	399 Jul 05 j 21:41	27°♁28'33	45°46'46
	397 Feb 02 j 03:15	0°♁			399 Jul 08 j 12:34	0°♁	
	397 Feb 26 j 08:42	0°♁			399 Aug 06 j 03:59	0°♁	
asc. node	397 Mar 18 j 11:56	24°♁39'44			399 Sep 01 j 09:49	0°♁	
	397 Mar 22 j 21:16	0°♁		asc. node	399 Sep 03 j 06:59	2°♁12'50	
	397 Apr 16 j 19:46	0°♁			399 Sep 26 j 11:16	0°♁	
	397 May 12 j 08:32	0°♁			399 Oct 20 j 20:39	0°♁	
	397 Jun 07 j 21:06	0°♁			399 Nov 13 j 21:44	0°♁	
	397 Jul 06 j 13:55	0°♁			399 Dec 07 j 19:36	0°♁	
desc. node	397 Jul 08 j 01:13	1°♁25'34		desc. node	399 Dec 23 j 20:25	20°♁07'56	
evening max el	397 Jul 09 j 02:22	2°♁25'59	45°45'19		399 Dec 31 j 17:12	0°♁	
	397 Aug 15 j 06:37	0°♁		morning set	400 Jan 05 j 17:57	6°♁18'32	
greatest brilliancy	397 Aug 16 j 11:44	0°♁27'54	-4.5m		400 Jan 24 j 16:01	0°♁	
retrograde	397 Aug 27 j 02:20	2°♁29'50					
	397 Sep 07 j 09:54	30°♁		superior conj	400 Feb 15 j 20:34	27°♁41'38	-1°-25'-21
evening set	397 Sep 13 j 17:05	26°♁44'22		minimum elong	400 Feb 15 j 18:56	27°♁36'35	1°25'21
inferior conj	397 Sep 17 j 01:31	24°♁43'18	-8°-15'-22		400 Feb 17 j 17:01	0°♁	
minimum elong	397 Sep 17 j 08:46	24°♁32'13	8°14'35	max. Earth dist.	400 Feb 19 j 18:31	2°♁34'02	1.72170 AU
min. Earth dist.	397 Sep 17 j 22:18	24°♁11'31	0.27522 AU		400 Mar 12 j 21:03	0°♁	
morning rise	397 Sep 21 j 00:06	22°♁20'41		evening rise	400 Mar 26 j 01:14	16°♁16'31	
direct	397 Oct 08 j 00:10	16°♁47'24			400 Apr 06 j 04:49	0°♁	
greatest brilliancy	397 Oct 22 j 00:13	20°♁21'17	-4.6m	asc. node	400 Apr 14 j 23:48	10°♁47'33	
asc. node	397 Oct 29 j 04:26	24°♁26'31			400 Apr 30 j 16:45	0°♁	
	397 Nov 05 j 20:19	0°♁			400 May 25 j 09:15	0°♁	
morning max el	397 Nov 27 j 18:01	20°♁10'59	46°55'04		400 Jun 19 j 07:36	0°♁	
	397 Dec 07 j 02:17	0°♁			400 Jul 14 j 14:45	0°♁	
	398 Jan 02 j 18:18	0°♁		desc. node	400 Aug 04 j 13:06	24°♁18'11	
	398 Jan 28 j 04:22	0°♁			400 Aug 09 j 12:49	0°♁	
desc. node	398 Feb 17 j 18:07	24°♁42'48			400 Sep 05 j 16:13	0°♁	
	398 Feb 22 j 03:12	0°♁		evening max el	400 Sep 20 j 13:16	15°♁19'40	46°58'53
	398 Mar 18 j 21:26	0°♁			400 Oct 06 j 08:53	0°♁	
	398 Apr 12 j 13:41	0°♁		greatest brilliancy	400 Oct 29 j 11:22	15°♁18'54	-4.7m
	398 May 07 j 04:41	0°♁		retrograde	400 Nov 09 j 22:28	17°♁46'11	
morning set	398 May 31 j 08:12	29°♁29'54		evening set	400 Nov 24 j 04:56	13°♁41'37	
	398 May 31 j 18:03	0°♁		asc. node	400 Nov 25 j 16:16	12°♁53'04	
asc. node	398 Jun 10 j 21:21	12°♁25'22		inferior conj	400 Nov 30 j 10:27	10°♁03'24	1°14'04
	398 Jun 25 j 04:47	0°♁		minimum elong	400 Nov 30 j 07:39	10°♁07'40	1°13'09
max. Earth dist.	398 Jul 03 j 12:22	10°♁14'36	1.73306 AU	min. Earth dist.	400 Nov 30 j 02:02	10°♁16'13	0.26378 AU
				morning rise	400 Dec 06 j 10:37	6°♁33'25	
superior conj	398 Jul 06 j 15:06	14°♁05'02	0°55'56	direct	400 Dec 20 j 18:02	2°♁27'44	
minimum elong	398 Jul 06 j 06:30	13°♁38'29	0°55'37	greatest brilliancy	401 Jan 01 j 07:37	4°♁59'01	-4.7m
	398 Jul 19 j 12:22	0°♁			401 Feb 03 j 20:39	0°♁	
evening rise	398 Aug 11 j 14:48	28°♁37'45		morning max el	401 Feb 08 j 23:25	5°♁00'12	46°39'17
	398 Aug 12 j 17:19	0°♁			401 Mar 04 j 16:16	0°♁	
	398 Sep 05 j 21:02	0°♁		desc. node	401 Mar 17 j 06:08	14°♁01'23	
desc. node	398 Sep 30 j 11:02	0°♁31'14			401 Mar 31 j 06:04	0°♁	
	398 Sep 30 j 00:58	0°♁			401 Apr 25 j 23:38	0°♁	
	398 Oct 24 j 06:17	0°♁			401 May 21 j 06:41	0°♁	
	398 Nov 17 j 14:29	0°♁			401 Jun 15 j 06:11	0°♁	
	398 Dec 12 j 05:10	0°♁		asc. node	401 Jul 08 j 09:14	28°♁05'54	
	399 Jan 06 j 10:53	0°♁			401 Jul 09 j 22:35	0°♁	
asc. node	399 Jan 21 j 13:57	17°♁17'47			401 Aug 03 j 08:03	0°♁	
	399 Feb 02 j 04:02	0°♁		morning set	401 Aug 07 j 03:42	4°♁43'30	
evening max el	399 Feb 14 j 13:03	12°♁47'48	46°12'37		401 Aug 27 j 11:41	0°♁	
	399 Mar 05 j 12:23	0°♁		max. Earth dist.	401 Sep 10 j 04:54	17°♁08'07	1.71839 AU
greatest brilliancy	399 Mar 21 j 09:54	10°♁27'26	-4.5m				

superior conj	401 Sep 13 j 08:04	21°♄03'13	1°20'32	direct	404 Mar 04 j 17:58	16°♁46'49	
minimum elong	401 Sep 13 j 13:58	21°♄21'42	1°20'27	greatest brilliancy	404 Mar 15 j 12:49	18°♁54'44	-4.6m
	401 Sep 20 j 11:30	0°♁			404 Apr 03 j 03:18	0°♁	
	401 Oct 14 j 09:36	0°♁		desc. node	404 Apr 13 j 17:43	8°♁49'01	
evening rise	401 Oct 22 j 18:12	10°♁29'18		morning max el	404 Apr 22 j 19:39	17°♁14'39	45°57'20
desc. node	401 Oct 27 j 22:53	17°♁00'25			404 May 05 j 13:54	0°♁	
	401 Nov 07 j 07:33	0°♁			404 Jun 02 j 08:13	0°♁	
	401 Dec 01 j 06:27	0°♁			404 Jun 28 j 14:14	0°♁	
	401 Dec 25 j 07:45	0°♁			404 Jul 23 j 23:55	0°♁	
	402 Jan 18 j 14:12	0°♁		asc. node	404 Aug 04 j 21:07	14°♁17'57	
	402 Feb 12 j 06:29	0°♁			404 Aug 17 j 18:52	0°♁	
asc. node	402 Feb 18 j 02:01	6°♁57'33		greatest brilliancy	404 Sep 07 j 23:30	26°♁06'36	-3.9m
	402 Mar 09 j 16:25	0°♁			404 Sep 11 j 02:43	0°♁	
	402 Apr 05 j 11:27	0°♁			404 Oct 05 j 03:11	0°♁	
evening max el	402 Apr 26 j 07:50	21°♁19'36	45°20'53	morning set	404 Oct 17 j 12:55	15°♁34'52	
	402 May 05 j 18:08	0°♁			404 Oct 28 j 23:53	0°♁	
greatest brilliancy	402 May 31 j 01:50	17°♁36'36	-4.5m		404 Nov 21 j 19:35	0°♁	
desc. node	402 Jun 09 j 15:28	20°♁32'49		desc. node	404 Nov 24 j 10:40	3°♁18'38	
retrograde	402 Jun 13 j 18:38	20°♁51'57					
evening set	402 Jun 29 j 09:45	16°♁13'17		superior conj	404 Nov 27 j 06:14	6°♁51'17	0°-6'-43
inferior conj	402 Jul 05 j 04:54	12°♁44'42	-5°-32'-18	minimum elong	404 Nov 27 j 04:24	6°♁45'33	0°06'38
minimum elong	402 Jul 04 j 19:10	12°♁59'51	5°30'07	behind sun begin	404 Nov 26 j 03:49	5°♁28'08	
min. Earth dist.	402 Jul 05 j 06:55	12°♁41'34	0.28846 AU	behind sun end	404 Nov 28 j 05:00	8°♁02'59	
morning rise	402 Jul 10 j 04:22	9°♁43'28		max. Earth dist.	404 Nov 28 j 12:02	8°♁25'06	1.71028 AU
direct	402 Jul 26 j 20:53	4°♁29'11			404 Dec 15 j 15:49	0°♁	
greatest brilliancy	402 Aug 10 j 03:32	8°♁03'42	-4.5m	evening rise	405 Jan 08 j 00:03	29°♁17'28	
	402 Sep 08 j 14:59	0°♁			405 Jan 08 j 13:39	0°♁	
morning max el	402 Sep 14 j 12:02	5°♁39'57	46°19'21		405 Feb 01 j 14:23	0°♁	
asc. node	402 Sep 30 j 18:45	22°♁35'45			405 Feb 25 j 19:59	0°♁	
	402 Oct 07 j 12:12	0°♁		asc. node	405 Mar 17 j 13:55	24°♁10'41	
	402 Nov 02 j 11:04	0°♁			405 Mar 22 j 08:52	0°♁	
	402 Nov 27 j 07:03	0°♁			405 Apr 16 j 07:59	0°♁	
	402 Dec 21 j 15:55	0°♁			405 May 11 j 21:55	0°♁	
	403 Jan 14 j 20:57	0°♁			405 Jun 07 j 12:59	0°♁	
desc. node	403 Jan 20 j 08:21	6°♁47'25		evening max el	405 Jul 06 j 15:19	0°♁06'14	45°43'18
	403 Feb 08 j 01:31	0°♁			405 Jul 06 j 12:42	0°♁	
	403 Mar 04 j 07:02	0°♁		desc. node	405 Jul 07 j 03:22	0°♁35'01	
morning set	403 Mar 21 j 12:44	21°♁17'47		greatest brilliancy	405 Aug 13 j 22:26	28°♁05'02	-4.5m
	403 Mar 28 j 14:06	0°♁			405 Aug 21 j 19:15	0°♁	
	403 Apr 21 j 22:52	0°♁		retrograde	405 Aug 24 j 15:32	0°♁09'20	
					405 Aug 27 j 10:56	30°♁	
superior conj	403 Apr 28 j 00:28	7°♁27'27	0°-35'-34	evening set	405 Sep 11 j 08:31	24°♁19'48	
minimum elong	403 Apr 28 j 07:23	7°♁48'42	0°35'15	inferior conj	405 Sep 14 j 14:58	22°♁21'45	-8°-22'-37
max. Earth dist.	403 Apr 29 j 02:20	8°♁46'54	1.73503 AU	minimum elong	405 Sep 14 j 21:31	22°♁11'45	8°21'59
asc. node	403 May 13 j 11:33	26°♁27'14		min. Earth dist.	405 Sep 15 j 11:32	21°♁50'21	0.27589 AU
	403 May 16 j 08:52	0°♁		morning rise	405 Sep 18 j 10:12	20°♁04'11	
evening rise	403 Jun 03 j 12:21	22°♁16'17		direct	405 Oct 05 j 14:15	14°♁24'37	
	403 Jun 09 j 19:29	0°♁		greatest brilliancy	405 Oct 19 j 16:59	18°♁01'48	-4.6m
	403 Jul 04 j 06:28	0°♁		asc. node	405 Oct 28 j 06:25	23°♁03'07	
	403 Jul 28 j 18:32	0°♁			405 Nov 06 j 09:06	0°♁	
	403 Aug 22 j 09:14	0°♁		morning max el	405 Nov 25 j 08:32	17°♁48'09	46°54'51
desc. node	403 Sep 02 j 01:11	12°♁55'57			405 Dec 06 j 21:35	0°♁	
	403 Sep 16 j 04:35	0°♁			406 Jan 02 j 09:30	0°♁	
	403 Oct 11 j 07:54	0°♁			406 Jan 27 j 17:44	0°♁	
	403 Nov 06 j 03:29	0°♁		desc. node	406 Feb 16 j 20:16	24°♁11'39	
evening max el	403 Dec 02 j 22:00	29°♁07'43	47°18'36		406 Feb 21 j 15:32	0°♁	
	403 Dec 03 j 18:30	0°♁			406 Mar 18 j 09:07	0°♁	
asc. node	403 Dec 24 j 04:13	18°♁53'03			406 Apr 12 j 00:55	0°♁	
greatest brilliancy	404 Jan 09 j 10:36	29°♁34'42	-4.7m		406 May 06 j 15:39	0°♁	
	404 Jan 10 j 08:44	0°♁		morning set	406 May 29 j 02:26	27°♁25'47	
retrograde	404 Jan 22 j 21:12	2°♁56'12			406 May 31 j 04:49	0°♁	
	404 Feb 03 j 20:22	30°♁		asc. node	406 Jun 09 j 23:29	11°♁59'02	
evening set	404 Feb 09 j 14:37	26°♁48'39			406 Jun 24 j 15:28	0°♁	
min. Earth dist.	404 Feb 12 j 03:22	25°♁13'47	0.27899 AU	max. Earth dist.	406 Jul 01 j 10:59	8°♁23'25	1.73342 AU
inferior conj	404 Feb 12 j 21:12	24°♁45'35	8°39'13				
minimum elong	404 Feb 12 j 18:57	24°♁49'09	8°39'08	superior conj	406 Jul 04 j 09:23	12°♁00'27	0°53'32
morning rise	404 Feb 15 j 23:32	22°♁49'36		minimum elong	406 Jul 04 j 00:54	11°♁34'15	0°53'13

	406 Jul 18 j 23:05	0°♋			408 Dec 19 j 07:12	0°♌	
evening rise	406 Aug 09 j 08:00	26°♋28'33		greatest brilliancy	408 Dec 29 j 20:50	2°♌30'51	-4.7m
	406 Aug 12 j 04:11	0°♍			409 Feb 03 j 21:30	0°♎	
	406 Sep 05 j 08:08	0°♎		morning max el	409 Feb 06 j 12:31	2°♎35'47	46°40'39
desc. node	406 Sep 29 j 13:01	0°♎01'56			409 Mar 04 j 09:02	0°♏	
	406 Sep 29 j 12:23	0°♎		desc. node	409 Mar 16 j 08:03	13°♏23'59	
	406 Oct 23 j 18:04	0°♏			409 Mar 30 j 19:56	0°♐	
	406 Nov 17 j 02:44	0°♐			409 Apr 25 j 12:02	0°♑	
	406 Dec 11 j 18:11	0°♑			409 May 20 j 18:14	0°♒	
	407 Jan 06 j 01:22	0°♒			409 Jun 14 j 17:14	0°♓	
asc. node	407 Jan 20 j 16:09	16°♒39'01		asc. node	409 Jul 07 j 11:21	27°♓39'23	
	407 Feb 01 j 22:10	0°♑			409 Jul 09 j 09:22	0°♈	
evening max el	407 Feb 12 j 04:45	10°♑34'33	46°15'18		409 Aug 02 j 18:45	0°♉	
	407 Mar 05 j 23:44	0°♒		morning set	409 Aug 04 j 20:38	2°♉34'16	
greatest brilliancy	407 Mar 19 j 02:06	8°♒17'57	-4.5m		409 Aug 26 j 22:24	0°♊	
retrograde	407 Apr 02 j 21:09	12°♒11'10		max. Earth dist.	409 Sep 07 j 15:08	14°♊36'30	1.71892 AU
evening set	407 Apr 18 j 18:38	7°♒15'27					
inferior conj	407 Apr 24 j 06:33	3°♒54'10	4°03'01	superior conj	409 Sep 10 j 23:12	18°♊46'49	1°21'32
minimum elong	407 Apr 24 j 14:26	3°♒41'46	4°00'58	minimum elong	409 Sep 11 j 04:23	19°♊03'03	1°21'28
min. Earth dist.	407 Apr 24 j 10:39	3°♒47'44	0.28917 AU		409 Sep 19 j 22:17	0°♋	
morning rise	407 Apr 30 j 10:25	0°♒10'35			409 Oct 13 j 20:29	0°♌	
	407 Apr 30 j 18:04	30°♒♑		evening rise	409 Oct 20 j 05:31	7°♌59'52	
desc. node	407 May 12 j 05:32	25°♑51'20		desc. node	409 Oct 27 j 00:57	16°♌32'26	
direct	407 May 15 j 19:08	25°♑36'12			409 Nov 06 j 18:35	0°♌	
greatest brilliancy	407 May 28 j 21:59	28°♑37'32	-4.5m		409 Nov 30 j 17:41	0°♍	
	407 May 31 j 20:17	0°♒			409 Dec 24 j 19:13	0°♎	
morning max el	407 Jul 03 j 14:46	25°♒21'58	45°46'13		410 Jan 18 j 01:59	0°♏	
	407 Jul 08 j 09:24	0°♓			410 Feb 11 j 18:52	0°♑	
	407 Aug 05 j 19:05	0°♈		asc. node	410 Feb 17 j 04:01	6°♑25'57	
	407 Aug 31 j 22:51	0°♉			410 Mar 09 j 06:02	0°♒	
asc. node	407 Sep 02 j 09:02	1°♉40'41			410 Apr 05 j 04:04	0°♓	
	407 Sep 25 j 23:21	0°♊		evening max el	410 Apr 23 j 23:07	19°♓08'25	45°21'34
	407 Oct 20 j 08:15	0°♋			410 May 05 j 21:50	0°♈	
	407 Nov 13 j 09:04	0°♌		greatest brilliancy	410 May 28 j 16:30	15°♈26'46	-4.5m
	407 Dec 07 j 06:46	0°♍		desc. node	410 Jun 08 j 17:35	18°♈35'29	
desc. node	407 Dec 22 j 22:33	19°♌39'53		retrograde	410 Jun 11 j 10:03	18°♈43'40	
	407 Dec 31 j 04:13	0°♎		evening set	410 Jun 26 j 23:42	14°♉07'52	
morning set	408 Jan 03 j 03:46	3°♎44'21		inferior conj	410 Jul 02 j 21:08	10°♉36'05	-5°-16'-38
	408 Jan 24 j 02:54	0°♏		minimum elong	410 Jul 02 j 11:35	10°♉50'57	5°14'26
				min. Earth dist.	410 Jul 02 j 23:16	10°♉32'45	0.28865 AU
superior conj	408 Feb 13 j 09:06	25°♏17'34	-1°-25'-1	morning rise	410 Jul 07 j 23:12	7°♉30'45	
minimum elong	408 Feb 13 j 06:30	25°♏09'28	1°25'01	direct	410 Jul 24 j 12:56	2°♉20'12	
	408 Feb 17 j 03:47	0°♐		greatest brilliancy	410 Aug 07 j 19:03	5°♉53'08	-4.5m
max. Earth dist.	408 Feb 17 j 08:48	0°♐15'38	1.72112 AU		410 Sep 08 j 14:47	0°♊	
	408 Mar 12 j 07:45	0°♑		morning max el	410 Sep 12 j 02:03	3°♊22'21	46°17'45
evening rise	408 Mar 23 j 16:28	14°♑02'33		asc. node	410 Sep 29 j 20:45	21°♊54'11	
	408 Apr 05 j 15:33	0°♒			410 Oct 07 j 04:23	0°♋	
asc. node	408 Apr 14 j 01:48	10°♒20'39			410 Nov 02 j 00:49	0°♌	
	408 Apr 30 j 03:38	0°♓			410 Nov 26 j 19:40	0°♍	
	408 May 24 j 20:30	0°♈			410 Dec 21 j 03:52	0°♎	
	408 Jun 18 j 19:29	0°♉			411 Jan 14 j 08:30	0°♏	
	408 Jul 14 j 03:43	0°♊		desc. node	411 Jan 19 j 10:27	6°♏18'25	
desc. node	408 Aug 03 j 15:14	23°♊43'01			411 Feb 07 j 12:45	0°♐	
	408 Aug 09 j 03:44	0°♋			411 Mar 03 j 18:01	0°♑	
	408 Sep 05 j 11:24	0°♌		morning set	411 Mar 19 j 03:49	19°♑02'47	
evening max el	408 Sep 18 j 03:36	12°♌58'25	46°56'34		411 Mar 28 j 00:53	0°♒	
	408 Oct 06 j 20:10	0°♍			411 Apr 21 j 09:30	0°♓	
greatest brilliancy	408 Oct 27 j 01:13	12°♍51'07	-4.7m				
retrograde	408 Nov 07 j 10:54	15°♍16'03		superior conj	411 Apr 25 j 17:50	5°♍20'41	0°-38'-29
evening set	408 Nov 21 j 17:16	11°♍11'58		minimum elong	411 Apr 26 j 01:13	5°♍43'21	0°38'10
asc. node	408 Nov 24 j 18:25	9°♍28'40		max. Earth dist.	411 Apr 26 j 21:59	6°♍47'10	1.73472 AU
inferior conj	408 Nov 27 j 22:25	7°♍34'00	0°49'24	asc. node	411 May 12 j 13:45	26°♍01'24	
minimum elong	408 Nov 27 j 20:32	7°♍36'52	0°48'47		411 May 15 j 19:28	0°♎	
min. Earth dist.	408 Nov 27 j 15:21	7°♍44'47	0.26365 AU	evening rise	411 Jun 01 j 07:26	20°♎14'54	
morning rise	408 Dec 04 j 00:06	4°♍02'04			411 Jun 09 j 06:09	0°♏	
	408 Dec 17 j 06:06	30°♍♌			411 Jul 03 j 17:22	0°♐	
direct	408 Dec 18 j 06:36	29°♍58'43			411 Jul 28 j 05:49	0°♑	

	411 Aug 21 j 21:05	0°♌		414 Jan 02 j 00:39	0°♌	
desc. node	411 Sep 01 j 03:08	12°♌24'58		414 Jan 27 j 07:11	0°♌	
	411 Sep 15 j 17:18	0°♌	desc. node	414 Feb 15 j 22:16	23°♌39'33	
	411 Oct 10 j 21:57	0°♌		414 Feb 21 j 03:59	0°♌	
evening max el	411 Nov 05 j 19:59	0°♌		414 Mar 17 j 20:54	0°♌	
	411 Nov 30 j 11:24	26°♌42'35	47°19'38	414 Apr 11 j 12:16	0°♌	
	411 Dec 03 j 17:27	0°♌		414 May 06 j 02:41	0°♌	
asc. node	411 Dec 23 j 06:22	17°♌42'18		414 May 26 j 20:45	25°♌21'43	
greatest brilliancy	412 Jan 07 j 03:29	27°♌16'22	-4.7m	414 May 30 j 15:40	0°♌	
	412 Jan 14 j 23:46	0°♌		414 Jun 09 j 01:35	11°♌32'21	
retrograde	412 Jan 20 j 11:51	0°♌	36'09	414 Jun 24 j 02:15	0°♌	
	412 Jan 25 j 21:02	30°♌		max. Earth dist.	414 Jun 29 j 09:27	6°♌31'33 1.73372 AU
evening set	412 Feb 07 j 03:30	24°♌31'57				
min. Earth dist.	412 Feb 09 j 17:33	22°♌55'19	0.27838 AU	superior conj	414 Jul 02 j 03:57	9°♌56'26 0°51'05
inferior conj	412 Feb 10 j 11:54	22°♌26'21	8°36'51	minimum elong	414 Jul 01 j 19:37	9°♌30'45 0°50'45
minimum elong	412 Feb 10 j 08:49	22°♌31'12	8°36'43		414 Jul 18 j 09:52	0°♌
morning rise	412 Feb 13 j 14:23	20°♌30'12		evening rise	414 Aug 07 j 01:41	24°♌20'46
direct	412 Mar 02 j 07:21	14°♌28'24			414 Aug 11 j 15:06	0°♌
greatest brilliancy	412 Mar 13 j 02:48	16°♌36'39	-4.6m		414 Sep 04 j 19:17	0°♌
	412 Apr 03 j 15:11	0°♌		desc. node	414 Sep 28 j 15:08	29°♌33'00
desc. node	412 Apr 12 j 19:50	7°♌52'58			414 Sep 28 j 23:51	0°♌
morning max el	412 Apr 20 j 09:41	14°♌57'53	45°58'36		414 Oct 23 j 05:56	0°♌
	412 May 05 j 08:25	0°♌			414 Nov 16 j 15:10	0°♌
	412 Jun 01 j 22:38	0°♌			414 Dec 11 j 07:29	0°♌
	412 Jun 28 j 02:53	0°♌			415 Jan 05 j 16:20	0°♌
asc. node	412 Jul 23 j 11:39	0°♌		asc. node	415 Jan 19 j 18:08	15°♌58'17
	412 Aug 03 j 23:11	13°♌49'35			415 Feb 01 j 17:12	0°♌
	412 Aug 17 j 06:08	0°♌		evening max el	415 Feb 09 j 21:02	8°♌21'29 46°17'57
	412 Sep 10 j 13:45	0°♌			415 Mar 06 j 15:49	0°♌
greatest brilliancy	412 Sep 16 j 15:10	7°♌32'28	-3.9m	greatest brilliancy	415 Mar 16 j 19:35	6°♌08'45 -4.5m
	412 Oct 04 j 14:09	0°♌		retrograde	415 Mar 31 j 14:16	10°♌00'59
morning set	412 Oct 15 j 01:48	13°♌09'56		evening set	415 Apr 16 j 13:27	5°♌01'57
	412 Oct 28 j 10:53	0°♌		inferior conj	415 Apr 21 j 22:56	1°♌43'46 4°20'20
	412 Nov 21 j 06:37	0°♌		minimum elong	415 Apr 22 j 07:13	1°♌30'43 4°18'14
desc. node	412 Nov 23 j 12:52	2°♌50'47		min. Earth dist.	415 Apr 22 j 02:25	1°♌38'17 0.28903 AU
					415 Apr 24 j 17:21	30°♌
superior conj	412 Nov 24 j 15:51	4°♌15'44	0°-2'-42	morning rise	415 Apr 28 j 01:14	28°♌02'27
minimum elong	412 Nov 24 j 15:06	4°♌13'22	0°02'41	desc. node	415 May 11 j 07:42	23°♌31'47
behind sun begin	412 Nov 23 j 12:47	2°♌50'30		direct	415 May 13 j 11:44	23°♌26'14
behind sun end	412 Nov 25 j 17:25	5°♌36'15		greatest brilliancy	415 May 26 j 11:35	26°♌25'00 -4.5m
max. Earth dist.	412 Nov 25 j 16:23	5°♌32'59	1.71027 AU		415 Jun 02 j 10:39	0°♌
	412 Dec 15 j 02:53	0°♌		morning max el	415 Jul 01 j 07:25	23°♌13'39 45°45'46
evening rise	413 Jan 05 j 10:06	26°♌43'57			415 Jul 08 j 05:48	0°♌
	413 Jan 08 j 00:43	0°♌			415 Aug 05 j 10:12	0°♌
	413 Feb 01 j 01:30	0°♌			415 Aug 31 j 11:59	0°♌
asc. node	413 Feb 25 j 07:15	0°♌		asc. node	415 Sep 01 j 11:00	1°♌07'57
	413 Mar 16 j 15:58	23°♌41'53			415 Sep 25 j 11:32	0°♌
	413 Mar 21 j 20:29	0°♌			415 Oct 19 j 19:58	0°♌
	413 Apr 15 j 20:12	0°♌			415 Nov 12 j 20:32	0°♌
	413 May 11 j 11:20	0°♌			415 Dec 06 j 18:06	0°♌
	413 Jun 07 j 04:59	0°♌		desc. node	415 Dec 22 j 00:37	19°♌11'02
evening max el	413 Jul 04 j 05:30	27°♌50'17	45°41'29		415 Dec 30 j 15:27	0°♌
desc. node	413 Jul 06 j 05:29	29°♌44'06		morning set	415 Dec 31 j 13:39	1°♌09'38
	413 Jul 06 j 12:15	0°♌			416 Jan 23 j 14:04	0°♌
greatest brilliancy	413 Aug 11 j 08:39	25°♌43'09	-4.5m			
retrograde	413 Aug 22 j 05:27	27°♌50'26		superior conj	416 Feb 10 j 21:11	22°♌50'57 -1°-24'-30
evening set	413 Sep 09 j 00:00	21°♌57'22		minimum elong	416 Feb 10 j 17:37	22°♌39'52 1°24'30
inferior conj	413 Sep 12 j 04:46	20°♌01'45	-8°-28'-45	max. Earth dist.	416 Feb 14 j 23:16	27°♌56'36 1.72060 AU
minimum elong	413 Sep 12 j 10:36	19°♌52'51	8°28'16		416 Feb 16 j 14:54	0°♌
min. Earth dist.	413 Sep 13 j 00:39	19°♌31'24	0.27658 AU		416 Mar 11 j 18:50	0°♌
morning rise	413 Sep 15 j 20:56	17°♌48'49		evening rise	416 Mar 21 j 07:02	11°♌45'14
direct	413 Oct 03 j 05:09	12°♌03'34			416 Apr 05 j 02:39	0°♌
greatest brilliancy	413 Oct 17 j 09:01	15°♌42'33	-4.6m	asc. node	416 Apr 13 j 03:57	9°♌53'03
asc. node	413 Oct 27 j 08:38	21°♌43'31			416 Apr 29 j 14:53	0°♌
	413 Nov 06 j 18:25	0°♌			416 May 24 j 08:07	0°♌
morning max el	413 Nov 22 j 23:58	15°♌27'51	46°54'11		416 Jun 18 j 07:46	0°♌
	413 Dec 06 j 16:26	0°♌			416 Jul 13 j 17:08	0°♌

desc. node	416 Aug 02 j 17:12	23°♎06'15		419 Feb 07 j 00:14	0°♊	
	416 Aug 08 j 19:11	0°♌		419 Mar 03 j 05:14	0°♋	
	416 Sep 05 j 07:24	0°♍	morning set	419 Mar 16 j 18:56	16°♌46'56	
evening max el	416 Sep 15 j 17:41	10°♍36'02	46°54'17	419 Mar 27 j 11:56	0°♎	
	416 Oct 07 j 11:21	0°♏		419 Apr 20 j 20:28	0°♐	
greatest brilliancy	416 Oct 24 j 16:06	10°♏24'41	-4.7m			
retrograde	416 Nov 04 j 23:03	12°♏46'21		superior conj	419 Apr 23 j 11:08	3°♐12'40 0°-41'-20
evening set	416 Nov 19 j 06:08	8°♏42'31		minimum elong	419 Apr 23 j 18:57	3°♐36'42 0°41'01
asc. node	416 Nov 23 j 20:28	6°♏03'30		max. Earth dist.	419 Apr 24 j 16:23	4°♐42'33 1.73448 AU
inferior conj	416 Nov 25 j 10:44	5°♏05'15	0°24'56	asc. node	419 May 11 j 15:50	25°♐34'05
minimum elong	416 Nov 25 j 09:47	5°♏06'42	0°24'37		419 May 15 j 06:27	0°♑
min. Earth dist.	416 Nov 25 j 05:17	5°♏13'34	0.26355 AU	evening rise	419 May 30 j 02:17	18°♑11'42
morning rise	416 Dec 01 j 13:39	1°♏31'25			419 Jun 08 j 17:15	0°♒
	416 Dec 04 j 16:56	30°♒♍			419 Jul 03 j 04:40	0°♓
direct	416 Dec 15 j 19:00	27°♒30'14			419 Jul 27 j 17:29	0°♑
	416 Dec 27 j 07:20	0°♏			419 Aug 21 j 09:20	0°♌
greatest brilliancy	416 Dec 27 j 10:46	0°♏03'34	-4.7m	desc. node	419 Aug 31 j 05:15	11°♌53'25
	417 Feb 03 j 21:24	0°♐			419 Sep 15 j 06:25	0°♍
morning max el	417 Feb 04 j 00:57	0°♐08'53	46°41'46		419 Oct 10 j 12:28	0°♎
	417 Mar 04 j 01:49	0°♑			419 Nov 05 j 13:06	0°♏
desc. node	417 Mar 15 j 10:11	12°♑46'31		evening max el	419 Nov 28 j 01:22	24°♏18'02 47°20'38
	417 Mar 30 j 10:05	0°♋			419 Dec 03 j 17:46	0°♊
	417 Apr 25 j 00:49	0°♌		asc. node	419 Dec 22 j 08:24	16°♑28'28
	417 May 20 j 06:13	0°♍		greatest brilliancy	420 Jan 04 j 19:27	24°♑55'53 -4.7m
	417 Jun 14 j 04:42	0°♎		retrograde	420 Jan 18 j 02:56	28°♑15'15
asc. node	417 Jul 06 j 13:21	27°♑11'18		evening set	420 Feb 04 j 15:56	22°♑14'44
	417 Jul 08 j 20:32	0°♒		min. Earth dist.	420 Feb 07 j 07:27	20°♑36'11 0.27776 AU
	417 Aug 02 j 05:48	0°♓		inferior conj	420 Feb 08 j 02:33	20°♑06'08 8°33'35
morning set	417 Aug 02 j 13:29	0°♓23'45		minimum elong	420 Feb 07 j 22:39	20°♑12'15 8°33'22
	417 Aug 26 j 09:27	0°♑		morning rise	420 Feb 11 j 05:36	18°♑09'23
max. Earth dist.	417 Sep 05 j 02:52	12°♑08'35	1.71947 AU	direct	420 Feb 28 j 20:48	12°♑09'00
				greatest brilliancy	420 Mar 10 j 16:27	14°♑17'34 -4.6m
superior conj	417 Sep 08 j 14:32	16°♑30'03	1°22'24		420 Apr 04 j 00:12	0°♋
minimum elong	417 Sep 08 j 18:59	16°♑43'58	1°22'21	desc. node	420 Apr 11 j 21:59	6°♋57'43
	417 Sep 19 j 09:24	0°♌		morning max el	420 Apr 18 j 00:28	12°♋42'22 45°59'51
	417 Oct 13 j 07:43	0°♍			420 May 05 j 02:41	0°♌
evening rise	417 Oct 17 j 17:13	5°♍30'43			420 Jun 01 j 13:08	0°♍
desc. node	417 Oct 26 j 03:07	16°♍03'43			420 Jun 27 j 15:45	0°♎
	417 Nov 06 j 05:57	0°♏			420 Jul 22 j 23:41	0°♏
	417 Nov 30 j 05:12	0°♐		asc. node	420 Aug 03 j 01:13	13°♏20'08
	417 Dec 24 j 06:58	0°♑			420 Aug 16 j 17:42	0°♓
	418 Jan 17 j 14:05	0°♋			420 Sep 10 j 01:04	0°♑
	418 Feb 11 j 07:38	0°♌		greatest brilliancy	420 Sep 20 j 23:12	13°♑36'43 -3.9m
asc. node	418 Feb 16 j 06:04	5°♌53'24			420 Oct 04 j 01:22	0°♌
	418 Mar 08 j 20:11	0°♍		morning set	420 Oct 12 j 14:41	10°♌44'24
	418 Apr 04 j 21:34	0°♎			420 Oct 27 j 22:06	0°♍
evening max el	418 Apr 21 j 13:53	16°♑54'25	45°22'13		420 Nov 20 j 17:52	0°♎
	418 May 06 j 04:20	0°♒				
greatest brilliancy	418 May 26 j 06:14	13°♒13'52	-4.5m	superior conj	420 Nov 22 j 01:25	1°♏39'22 0°01'21
desc. node	418 Jun 07 j 19:39	16°♒31'48		minimum elong	420 Nov 22 j 01:46	1°♏40'28 0°01'20
retrograde	418 Jun 09 j 01:34	16°♒33'35		behind sun begin	420 Nov 20 j 23:19	0°♏17'10
evening set	418 Jun 24 j 13:35	12°♒00'10		behind sun end	420 Nov 23 j 04:13	3°♏03'44
inferior conj	418 Jun 30 j 13:11	8°♒25'36	-5°00'-26	desc. node	420 Nov 22 j 14:50	2°♏21'39
minimum elong	418 Jun 30 j 03:53	8°♒40'06	4°58'14	max. Earth dist.	420 Nov 23 j 00:25	2°♏51'46 1.71028 AU
min. Earth dist.	418 Jun 30 j 15:33	8°♒21'56	0.28881 AU		420 Dec 14 j 14:08	0°♐
morning rise	418 Jul 05 j 17:51	5°♒16'25		evening rise	421 Jan 02 j 20:11	24°♐09'53
direct	418 Jul 22 j 04:30	0°♒09'17			421 Jan 07 j 12:00	0°♑
greatest brilliancy	418 Aug 05 j 11:22	3°♒42'08	-4.5m		421 Jan 31 j 12:50	0°♋
	418 Sep 08 j 14:03	0°♓			421 Feb 24 j 18:43	0°♌
morning max el	418 Sep 09 j 16:26	1°♓04'37	46°16'19	asc. node	421 Mar 15 j 18:10	23°♌13'02
asc. node	418 Sep 28 j 23:00	21°♓12'44			421 Mar 21 j 08:15	0°♍
	418 Oct 06 j 20:40	0°♑			421 Apr 15 j 08:37	0°♎
	418 Nov 01 j 14:45	0°♒			421 May 11 j 01:02	0°♏
	418 Nov 26 j 08:30	0°♓			421 Jun 06 j 21:30	0°♐
	418 Dec 20 j 16:05	0°♏		evening max el	421 Jul 01 j 20:27	25°♓35'27 45°39'29
	419 Jan 13 j 20:18	0°♐		desc. node	421 Jul 05 j 07:27	28°♓50'59
desc. node	419 Jan 18 j 12:26	5°♐48'12			421 Jul 06 j 13:20	0°♑

greatest brilliancy	421 Aug 08 j 19:08	23° Υ 20'33	-4.5m	superior conj	424 Feb 08 j 09:05	20° \approx 24'10	-1°-23'-51
retrograde	421 Aug 19 j 19:03	25° Υ 30'07		minimum elong	424 Feb 08 j 04:34	20° \approx 10'06	1°23'49
evening set	421 Sep 06 j 15:03	19° Υ 34'19		max. Earth dist.	424 Feb 12 j 14:10	25° \approx 39'17	1.72002 AU
inferior conj	421 Sep 09 j 18:24	17° Υ 40'36	-8°-34'-1		424 Feb 16 j 01:52	0° X	
minimum elong	421 Sep 09 j 23:27	17° Υ 32'53	8°33'41		424 Mar 11 j 05:46	0° Υ	
min. Earth dist.	421 Sep 10 j 13:28	17° Υ 11'29	0.27722 AU	evening rise	424 Mar 18 j 21:33	9° Υ 28'05	
morning rise	421 Sep 13 j 07:38	15° Υ 31'56			424 Apr 04 j 13:37	0° B	
direct	421 Sep 30 j 20:11	9° Υ 41'39		asc. node	424 Apr 12 j 06:02	9° B 25'43	
greatest brilliancy	421 Oct 14 j 23:50	13° Υ 20'50	-4.6m		424 Apr 29 j 02:00	0° II	
asc. node	421 Oct 26 j 10:39	20° Υ 25'18			424 May 23 j 19:35	0° E	
	421 Nov 07 j 01:30	0° E			424 Jun 17 j 19:53	0° O	
morning max el	421 Nov 20 j 14:59	13° E 06'08	46°53'32		424 Jul 13 j 06:24	0° Υ	
	421 Dec 06 j 10:57	0° L		desc. node	424 Aug 01 j 19:21	22° Υ 30'27	
	422 Jan 01 j 15:41	0° Z			424 Aug 08 j 10:37	0° E	
	422 Jan 26 j 20:35	0° Z			424 Sep 05 j 03:51	0° L	
desc. node	422 Feb 15 j 00:21	23° Z 07'42		evening max el	424 Sep 13 j 06:32	8° L 11'00	46°51'40
	422 Feb 20 j 16:26	0° \approx			424 Oct 08 j 07:35	0° Z	
	422 Mar 17 j 08:43	0° X		greatest brilliancy	424 Oct 22 j 07:11	7° Z 58'02	-4.7m
	422 Apr 10 j 23:38	0° Υ		retrograde	424 Nov 02 j 10:27	10° Z 16'05	
	422 May 05 j 13:45	0° B		evening set	424 Nov 16 j 18:53	6° Z 11'55	
morning set	422 May 24 j 15:17	23° B 18'14		inferior conj	424 Nov 22 j 22:46	2° Z 35'53	0°00'10
	422 May 30 j 02:33	0° II		minimum elong	424 Nov 22 j 22:46	2° Z 35'53	0°00'10
asc. node	422 Jun 08 j 03:36	11° II 05'17		transit middle	424 Nov 22 j 22:46	2° Z 35'53	0°00'10
	422 Jun 23 j 13:02	0° E		transit begin	424 Nov 22 j 18:42	2° Z 42'06	
max. Earth dist.	422 Jun 27 j 07:26	4° E 38'09	1.73404 AU	transit end	424 Nov 23 j 02:50	2° Z 29'41	
				asc. node	424 Nov 22 j 22:30	2° Z 36'17	
superior conj	422 Jun 29 j 22:35	7° E 52'38	0°48'34	min. Earth dist.	424 Nov 22 j 19:22	2° Z 41'04	0.26353 AU
minimum elong	422 Jun 29 j 14:28	7° E 27'38	0°48'14		424 Nov 27 j 07:20	30° R L	
	422 Jul 17 j 20:44	0° O		morning rise	424 Nov 29 j 02:43	29° L 00'22	
evening rise	422 Aug 04 j 19:21	22° O 12'40		direct	424 Dec 13 j 06:38	25° L 00'43	
	422 Aug 11 j 02:08	0° Υ		greatest brilliancy	424 Dec 25 j 01:40	27° L 36'48	-4.7m
	422 Sep 04 j 06:35	0° E			424 Dec 29 j 23:06	0° Z	
desc. node	422 Sep 27 j 17:16	29° E 03'40		morning max el	425 Feb 01 j 12:56	27° Z 40'45	46°43'07
	422 Sep 28 j 11:27	0° L			425 Feb 03 j 20:14	0° Z	
	422 Oct 22 j 17:56	0° Z			425 Mar 03 j 18:07	0° \approx	
	422 Nov 16 j 03:42	0° Z		desc. node	425 Mar 14 j 12:22	12° \approx 10'05	
	422 Dec 10 j 20:55	0° \approx			425 Mar 29 j 23:50	0° X	
	423 Jan 05 j 07:28	0° X			425 Apr 24 j 13:15	0° Υ	
asc. node	423 Jan 18 j 20:12	15° X 17'30			425 May 19 j 17:50	0° B	
	423 Feb 01 j 12:44	0° Υ			425 Jun 13 j 15:50	0° II	
evening max el	423 Feb 07 j 13:12	6° Υ 07'59	46°20'33	asc. node	425 Jul 05 j 15:29	26° II 44'34	
	423 Mar 07 j 13:26	0° B			425 Jul 08 j 07:24	0° E	
greatest brilliancy	423 Mar 14 j 13:58	4° B 00'49	-4.5m	morning set	425 Jul 31 j 06:42	28° E 15'24	
retrograde	423 Mar 29 j 07:01	7° B 50'53			425 Aug 01 j 16:32	0° O	
evening set	423 Apr 14 j 08:26	2° B 48'41			425 Aug 25 j 20:11	0° Υ	
	423 Apr 18 j 22:45	30° R Υ		max. Earth dist.	425 Sep 02 j 17:48	9° Υ 51'45	1.72004 AU
inferior conj	423 Apr 19 j 15:23	29° Υ 33'43	4°37'17				
minimum elong	423 Apr 20 j 00:00	29° Υ 20'07	4°35'10	superior conj	425 Sep 06 j 06:15	14° Υ 15'34	1°23'06
min. Earth dist.	423 Apr 19 j 18:28	29° Υ 28'51	0.28886 AU	minimum elong	425 Sep 06 j 09:58	14° Υ 27'10	1°23'05
morning rise	423 Apr 25 j 15:53	25° Υ 54'40			425 Sep 18 j 20:12	0° E	
desc. node	423 May 10 j 09:41	21° Υ 17'25			425 Oct 12 j 18:40	0° L	
direct	423 May 11 j 04:13	21° Υ 16'43		evening rise	425 Oct 15 j 05:14	3° L 03'31	
greatest brilliancy	423 May 24 j 00:26	24° Υ 11'50	-4.5m	desc. node	425 Oct 25 j 05:07	15° L 35'21	
	423 Jun 03 j 13:17	0° B			425 Nov 05 j 17:05	0° Z	
morning max el	423 Jun 28 j 23:15	21° B 03'48	45°45'21		425 Nov 29 j 16:33	0° Z	
	423 Jul 08 j 01:25	0° II			425 Dec 23 j 18:33	0° \approx	
	423 Aug 05 j 00:59	0° E			426 Jan 17 j 02:01	0° X	
	423 Aug 31 j 00:56	0° O			426 Feb 10 j 20:14	0° Υ	
asc. node	423 Aug 31 j 13:14	0° O 36'22		asc. node	426 Feb 15 j 08:15	5° Υ 21'51	
	423 Sep 24 j 23:40	0° Υ			426 Mar 08 j 10:12	0° B	
	423 Oct 19 j 07:41	0° E			426 Apr 04 j 15:05	0° II	
	423 Nov 12 j 08:01	0° L		evening max el	426 Apr 19 j 04:44	14° II 41'46	45°23'10
	423 Dec 06 j 05:23	0° Z			426 May 06 j 12:41	0° E	
desc. node	423 Dec 21 j 02:39	18° Z 42'13		greatest brilliancy	426 May 23 j 19:13	11° E 01'26	-4.5m
morning set	423 Dec 28 j 23:14	28° Z 34'09		retrograde	426 Jun 06 j 17:41	14° E 25'12	
	423 Dec 30 j 02:36	0° Z		desc. node	426 Jun 06 j 21:41	14° E 25'11	
	424 Jan 23 j 01:06	0° \approx		evening set	426 Jun 22 j 03:48	9° E 53'42	

inferior conj	426 Jun 28 j 05:23	6°☾16'39	-4°-43'-56	behind sun end	428 Nov 20 j 14:13	0°♁29'55	
minimum elong	426 Jun 27 j 20:23	6°☾30'40	4°41'44		428 Nov 20 j 04:43	0°♁	
min. Earth dist.	426 Jun 28 j 07:46	6°☾12'56	0.28896 AU	max. Earth dist.	428 Nov 20 j 10:16	0°♁17'29	1.71026 AU
morning rise	426 Jul 03 j 12:36	3°☾03'54		desc. node	428 Nov 21 j 16:55	1°♁53'59	
	426 Jul 09 j 18:32	30°♁II			428 Dec 14 j 01:01	0°☾	
direct	426 Jul 19 j 20:19	27°II59'50		evening rise	428 Dec 31 j 06:33	21°☾37'53	
	426 Jul 30 j 10:12	0°☾			429 Jan 06 j 22:54	0°≈	
greatest brilliancy	426 Aug 03 j 04:21	1°☾33'36	-4.5m		429 Jan 30 j 23:49	0°♁	
morning max el	426 Sep 07 j 07:56	28°☾51'12	46°14'58		429 Feb 24 j 05:54	0°♁	
	426 Sep 08 j 11:50	0°♁		asc. node	429 Mar 14 j 20:09	22°♁44'22	
asc. node	426 Sep 28 j 00:59	20°♁32'24			429 Mar 20 j 19:46	0°♁	
	426 Oct 06 j 12:12	0°♁			429 Apr 14 j 20:48	0°II	
	426 Nov 01 j 04:09	0°♁			429 May 10 j 14:33	0°☾	
	426 Nov 25 j 20:54	0°♁			429 Jun 06 j 14:00	0°♁	
	426 Dec 20 j 03:56	0°♁		evening max el	429 Jun 29 j 11:41	23°♁22'23	45°37'40
	427 Jan 13 j 07:48	0°☾		desc. node	429 Jul 04 j 09:37	27°♁58'24	
desc. node	427 Jan 17 j 14:35	5°☾19'22			429 Jul 06 j 15:16	0°♁	
	427 Feb 06 j 11:27	0°≈		greatest brilliancy	429 Aug 06 j 06:32	21°♁00'39	-4.5m
	427 Mar 02 j 16:12	0°♁		retrograde	429 Aug 17 j 08:28	23°♁11'33	
morning set	427 Mar 14 j 09:29	14°♁30'01		evening set	429 Sep 04 j 06:03	17°♁13'41	
	427 Mar 26 j 22:41	0°♁		inferior conj	429 Sep 07 j 08:17	15°♁21'20	-8°-38'-28
	427 Apr 20 j 07:06	0°♁		minimum elong	429 Sep 07 j 12:31	15°♁14'51	8°38'14
				min. Earth dist.	429 Sep 08 j 02:35	14°♁53'18	0.27784 AU
superior conj	427 Apr 21 j 04:05	1°♁04'32	0°-44'-10	morning rise	429 Sep 10 j 18:48	13°♁16'25	
minimum elong	427 Apr 21 j 12:19	1°♁29'49	0°43'50	direct	429 Sep 28 j 11:20	7°♁21'39	
max. Earth dist.	427 Apr 22 j 11:21	2°♁40'39	1.73419 AU	greatest brilliancy	429 Oct 12 j 14:11	10°♁59'52	-4.6m
asc. node	427 May 10 j 17:49	25°♁07'33		asc. node	429 Oct 25 j 12:41	19°♁10'37	
	427 May 14 j 17:04	0°II			429 Nov 07 j 06:02	0°♁	
evening rise	427 May 27 j 21:06	16°II09'30		morning max el	429 Nov 18 j 05:27	10°♁44'05	46°52'52
	427 Jun 08 j 03:58	0°☾			429 Dec 06 j 04:40	0°♁	
	427 Jul 02 j 15:37	0°♁			430 Jan 01 j 06:11	0°♁	
	427 Jul 27 j 04:49	0°♁			430 Jan 26 j 09:33	0°☾	
	427 Aug 20 j 21:14	0°♁		desc. node	430 Feb 14 j 02:29	22°☾37'03	
desc. node	427 Aug 30 j 07:24	11°♁23'03			430 Feb 20 j 04:30	0°≈	
	427 Sep 14 j 19:12	0°♁			430 Mar 16 j 20:13	0°♁	
	427 Oct 10 j 02:40	0°♁			430 Apr 10 j 10:45	0°♁	
	427 Nov 05 j 06:04	0°☾			430 May 05 j 00:35	0°♁	
evening max el	427 Nov 25 j 16:12	21°☾57'02	47°21'23	morning set	430 May 22 j 09:38	21°♁14'50	
	427 Dec 03 j 18:46	0°≈			430 May 29 j 13:12	0°II	
asc. node	427 Dec 21 j 10:28	15°≈13'24		asc. node	430 Jun 07 j 05:44	10°II39'14	
greatest brilliancy	428 Jan 02 j 10:27	22°≈34'47	-4.7m		430 Jun 22 j 23:38	0°☾	
retrograde	428 Jan 15 j 18:13	25°≈54'30		max. Earth dist.	430 Jun 25 j 03:35	2°☾39'50	1.73431 AU
evening set	428 Feb 02 j 03:50	19°≈58'00					
min. Earth dist.	428 Feb 04 j 20:54	18°≈17'23	0.27718 AU	superior conj	430 Jun 27 j 17:05	5°☾49'09	0°45'59
inferior conj	428 Feb 05 j 16:57	17°≈45'54	8°29'24	minimum elong	430 Jun 27 j 09:14	5°☾24'57	0°45'39
minimum elong	428 Feb 05 j 12:17	17°≈53'14	8°29'04		430 Jul 17 j 07:22	0°♁	
morning rise	428 Feb 08 j 20:59	15°≈48'00		evening rise	430 Aug 02 j 13:00	20°♁05'19	
direct	428 Feb 26 j 10:34	9°≈49'38			430 Aug 10 j 12:56	0°♁	
greatest brilliancy	428 Mar 08 j 05:25	11°≈57'58	-4.6m		430 Sep 03 j 17:39	0°♁	
	428 Apr 04 j 06:31	0°♁		desc. node	430 Sep 26 j 19:13	28°♁34'27	
desc. node	428 Apr 10 j 23:57	6°♁03'44			430 Sep 27 j 22:52	0°♁	
morning max el	428 Apr 15 j 16:01	10°♁29'14	46°01'08		430 Oct 22 j 05:47	0°♁	
	428 May 04 j 20:16	0°♁			430 Nov 15 j 16:07	0°☾	
	428 Jun 01 j 03:11	0°♁			430 Dec 10 j 10:14	0°≈	
	428 Jun 27 j 04:12	0°II			431 Jan 04 j 22:34	0°♁	
	428 Jul 22 j 11:18	0°☾		asc. node	431 Jan 17 j 22:24	14°♁37'21	
asc. node	428 Aug 02 j 03:22	12°☾52'13			431 Feb 01 j 08:32	0°♁	
	428 Aug 16 j 04:51	0°♁		evening max el	431 Feb 05 j 04:36	3°♁53'12	46°23'07
	428 Sep 09 j 12:00	0°♁			431 Mar 08 j 18:55	0°♁	
greatest brilliancy	428 Sep 23 j 21:20	17°♁56'50	-3.9m	greatest brilliancy	431 Mar 12 j 08:15	1°♁53'22	-4.5m
	428 Oct 03 j 12:13	0°♁		retrograde	431 Mar 26 j 23:17	5°♁41'28	
morning set	428 Oct 10 j 04:03	8°♁21'31		evening set	431 Apr 12 j 03:29	0°♁35'58	
	428 Oct 27 j 08:57	0°♁			431 Apr 13 j 03:52	30°♁♁	
				inferior conj	431 Apr 17 j 07:54	27°♁24'24	4°53'52
superior conj	428 Nov 19 j 11:29	29°♁05'46	0°05'20	minimum elong	431 Apr 17 j 16:48	27°♁10'19	4°51'44
minimum elong	428 Nov 19 j 12:55	29°♁10'16	0°05'16	min. Earth dist.	431 Apr 17 j 10:51	27°♁19'44	0.28870 AU
behind sun begin	428 Nov 18 j 11:37	27°♁50'35		morning rise	431 Apr 23 j 06:24	23°♁47'44	

direct	431 May 08 j 20:25	19°♃07'49		desc. node	433 Oct 24 j 07:10	15°♋06'39	
desc. node	431 May 09 j 11:46	19°♃08'17			433 Nov 05 j 04:23	0°♁	
greatest brilliancy	431 May 21 j 13:55	21°♃59'46	-4.5m		433 Nov 29 j 04:03	0°♁	
	431 Jun 04 j 08:33	0°♁			433 Dec 23 j 06:19	0°♁	
morning max el	431 Jun 26 j 14:29	18°♁52'40	45°44'59		434 Jan 16 j 14:11	0°♁	
	431 Jul 07 j 20:22	0°♁			434 Feb 10 j 09:07	0°♃	
	431 Aug 04 j 15:29	0°♁		asc. node	434 Feb 14 j 10:13	4°♃48'54	
asc. node	431 Aug 30 j 15:15	0°♁04'35			434 Mar 08 j 00:36	0°♁	
	431 Aug 30 j 13:42	0°♁			434 Apr 04 j 09:16	0°♁	
	431 Sep 24 j 11:36	0°♁		evening max el	434 Apr 16 j 20:15	12°♁30'14	45°24'17
	431 Oct 18 j 19:13	0°♁			434 May 07 j 00:22	0°♁	
	431 Nov 11 j 19:19	0°♁		greatest brilliancy	434 May 21 j 07:59	8°♁48'23	-4.5m
	431 Dec 05 j 16:34	0°♁		retrograde	434 Jun 04 j 10:10	12°♁16'22	
desc. node	431 Dec 20 j 04:46	18°♁13'52		desc. node	434 Jun 05 j 23:48	12°♁13'29	
morning set	431 Dec 26 j 08:48	25°♁58'43		evening set	434 Jun 19 j 18:13	7°♁46'32	
	431 Dec 29 j 13:41	0°♁		inferior conj	434 Jun 25 j 21:34	4°♁07'06	-4°-27'00
	432 Jan 22 j 12:06	0°♁		minimum elong	434 Jun 25 j 12:55	4°♁20'33	4°24'50
				min. Earth dist.	434 Jun 25 j 23:40	4°♁03'50	0.28912 AU
superior conj	432 Feb 05 j 21:01	17°♁57'37	-1°-23'-1	morning rise	434 Jul 01 j 07:19	0°♁51'00	
minimum elong	432 Feb 05 j 15:33	17°♁40'35	1°22'58		434 Jul 02 j 20:14	30°♁	
max. Earth dist.	432 Feb 10 j 02:57	23°♁15'29	1.71942 AU	direct	434 Jul 17 j 12:45	25°♁49'51	
	432 Feb 15 j 12:46	0°♁		greatest brilliancy	434 Jul 31 j 21:12	29°♁24'26	-4.5m
	432 Mar 10 j 16:36	0°♁			434 Aug 02 j 02:43	0°♁	
evening rise	432 Mar 16 j 12:00	7°♃10'59		morning max el	434 Sep 05 j 00:09	26°♁38'56	46°13'27
	432 Apr 04 j 00:29	0°♁			434 Sep 08 j 09:10	0°♁	
asc. node	432 Apr 11 j 08:02	8°♁58'21		asc. node	434 Sep 27 j 03:01	19°♁51'37	
	432 Apr 28 j 13:04	0°♁			434 Oct 06 j 03:52	0°♁	
	432 May 23 j 07:04	0°♁			434 Oct 31 j 17:47	0°♁	
	432 Jun 17 j 08:04	0°♁			434 Nov 25 j 09:33	0°♁	
	432 Jul 12 j 19:48	0°♁			434 Dec 19 j 16:03	0°♁	
desc. node	432 Jul 31 j 21:26	21°♁54'06			435 Jan 12 j 19:32	0°♁	
	432 Aug 08 j 02:18	0°♁		desc. node	435 Jan 16 j 16:39	4°♁49'30	
	432 Sep 05 j 01:00	0°♁			435 Feb 05 j 22:54	0°♁	
evening max el	432 Sep 10 j 18:37	5°♁44'20	46°49'13		435 Mar 02 j 03:25	0°♁	
	432 Oct 09 j 11:00	0°♁		morning set	435 Mar 11 j 23:48	12°♁11'20	
greatest brilliancy	432 Oct 19 j 21:39	5°♁30'53	-4.7m		435 Mar 26 j 09:45	0°♃	
retrograde	432 Oct 30 j 21:51	7°♁46'17					
evening set	432 Nov 14 j 07:50	3°♁40'56		superior conj	435 Apr 18 j 20:54	28°♃54'52	0°-46'-58
inferior conj	432 Nov 20 j 10:51	0°♁06'39	0°-24'-35	minimum elong	435 Apr 19 j 05:29	29°♃21'16	0°46'37
minimum elong	432 Nov 20 j 11:47	0°♁05'13	0°24'17		435 Apr 19 j 18:04	0°♁	
min. Earth dist.	432 Nov 20 j 09:31	0°♁08'41	0.26358 AU	max. Earth dist.	435 Apr 20 j 07:17	0°♁40'39	1.73388 AU
	432 Nov 20 j 15:13	30°♁		asc. node	435 May 09 j 19:59	24°♁40'38	
asc. node	432 Nov 22 j 00:39	29°♁09'11			435 May 14 j 04:01	0°♁	
morning rise	432 Nov 26 j 15:37	26°♁29'52		evening rise	435 May 25 j 15:53	14°♁06'21	
direct	432 Dec 10 j 18:16	22°♁30'57			435 Jun 07 j 15:00	0°♁	
greatest brilliancy	432 Dec 22 j 17:27	25°♁11'04	-4.7m		435 Jul 02 j 02:52	0°♁	
	432 Dec 31 j 15:04	0°♁			435 Jul 26 j 16:29	0°♁	
morning max el	433 Jan 30 j 01:32	25°♁13'44	46°44'27		435 Aug 20 j 09:33	0°♁	
	433 Feb 03 j 18:17	0°♁		desc. node	435 Aug 29 j 09:20	10°♁50'54	
	433 Mar 03 j 10:15	0°♁			435 Sep 14 j 08:29	0°♁	
desc. node	433 Mar 13 j 14:16	11°♁32'49			435 Oct 09 j 17:30	0°♁	
	433 Mar 29 j 13:33	0°♁			435 Nov 04 j 23:55	0°♁	
	433 Apr 24 j 01:41	0°♃		evening max el	435 Nov 23 j 07:49	19°♁36'36	47°22'06
	433 May 19 j 05:30	0°♁			435 Dec 03 j 21:46	0°♁	
	433 Jun 13 j 03:03	0°♁		asc. node	435 Dec 20 j 12:36	13°♁54'37	
asc. node	433 Jul 04 j 17:35	26°♁17'20		greatest brilliancy	435 Dec 31 j 01:41	20°♁12'25	-4.7m
	433 Jul 07 j 18:22	0°♁		retrograde	436 Jan 13 j 09:31	23°♁31'45	
morning set	433 Jul 28 j 23:51	26°♁06'24		evening set	436 Jan 30 j 15:19	17°♁39'53	
	433 Aug 01 j 03:26	0°♁		min. Earth dist.	436 Feb 02 j 10:01	15°♁56'58	0.27654 AU
	433 Aug 25 j 07:05	0°♁		inferior conj	436 Feb 03 j 07:10	15°♁23'47	8°24'15
max. Earth dist.	433 Aug 31 j 09:51	7°♁37'49	1.72060 AU	minimum elong	436 Feb 03 j 01:46	15°♁32'15	8°23'48
				morning rise	436 Feb 06 j 12:30	13°♁24'11	
superior conj	433 Sep 03 j 21:53	12°♁00'16	1°23'42	direct	436 Feb 24 j 00:37	7°♁28'39	
minimum elong	433 Sep 04 j 00:50	12°♁09'30	1°23'40	greatest brilliancy	436 Mar 05 j 17:21	9°♁35'40	-4.6m
	433 Sep 18 j 07:11	0°♁			436 Apr 04 j 11:20	0°♁	
	433 Oct 12 j 05:46	0°♁		desc. node	436 Apr 10 j 02:05	5°♁10'03	
evening rise	433 Oct 12 j 17:13	0°♁35'52		morning max el	436 Apr 13 j 07:26	8°♁14'34	46°02'21

	436 May 04 j 13:54	0°♃			438 Nov 15 j 04:53	0°♁	
	436 May 31 j 17:28	0°♂			438 Dec 10 j 00:00	0°♁	
	436 Jun 26 j 16:57	0°♁			439 Jan 04 j 14:17	0°♂	
	436 Jul 21 j 23:13	0°♁		asc. node	439 Jan 17 j 00:21	13°♂54'48	
asc. node	436 Aug 01 j 05:23	12°♁22'54			439 Feb 01 j 05:32	0°♃	
	436 Aug 15 j 16:19	0°♁		evening max el	439 Feb 02 j 19:03	1°♃34'27	46°25'41
	436 Sep 08 j 23:16	0°♃		greatest brilliancy	439 Mar 10 j 02:09	29°♃43'37	-4.6m
greatest brilliancy	436 Sep 25 j 22:33	21°♃10'49	-3.9m		439 Mar 10 j 15:49	0°♂	
	436 Oct 02 j 23:26	0°♁		retrograde	439 Mar 24 j 15:18	3°♂30'26	
morning set	436 Oct 07 j 17:26	5°♁57'41			439 Apr 06 j 22:18	30°♃	
	436 Oct 26 j 20:12	0°♁		evening set	439 Apr 09 j 22:28	28°♃21'20	
				inferior conj	439 Apr 15 j 00:18	25°♃13'30	5°10'03
superior conj	436 Nov 16 j 21:23	26°♁30'17	0°09'18	minimum elong	439 Apr 15 j 09:26	24°♃59'01	5°07'54
minimum elong	436 Nov 16 j 23:51	26°♁38'04	0°09'11	min. Earth dist.	439 Apr 15 j 03:18	25°♃08'44	0.28852 AU
behind sun begin	436 Nov 16 j 01:44	25°♁28'25		morning rise	439 Apr 20 j 20:38	21°♃39'28	
behind sun end	436 Nov 17 j 21:58	27°♁47'42		direct	439 May 06 j 11:57	16°♃57'13	
max. Earth dist.	436 Nov 17 j 16:55	27°♁31'47	1.71029 AU	desc. node	439 May 08 j 13:54	17°♃02'12	
	436 Nov 19 j 16:00	0°♂		greatest brilliancy	439 May 19 j 04:09	19°♃47'13	-4.5m
desc. node	436 Nov 20 j 19:05	1°♂25'14			439 Jun 04 j 23:28	0°♂	
	436 Dec 13 j 12:20	0°♁		morning max el	439 Jun 24 j 05:22	16°♂39'39	45°44'43
evening rise	436 Dec 28 j 16:20	19°♁02'31			439 Jul 07 j 15:09	0°♁	
	437 Jan 06 j 10:15	0°♁			439 Aug 04 j 06:08	0°♁	
	437 Jan 30 j 11:15	0°♂		asc. node	439 Aug 29 j 17:14	29°♁32'01	
	437 Feb 23 j 17:30	0°♃			439 Aug 30 j 02:40	0°♁	
asc. node	437 Mar 13 j 22:12	22°♃14'38			439 Sep 23 j 23:46	0°♃	
	437 Mar 20 j 07:44	0°♂			439 Oct 18 j 06:56	0°♁	
	437 Apr 14 j 09:29	0°♁			439 Nov 11 j 06:47	0°♁	
	437 May 10 j 04:39	0°♁			439 Dec 05 j 03:53	0°♂	
	437 Jun 06 j 07:16	0°♁		desc. node	439 Dec 19 j 06:50	17°♂44'57	
evening max el	437 Jun 27 j 02:19	21°♁06'47	45°35'54	morning set	439 Dec 23 j 18:35	23°♂23'24	
desc. node	437 Jul 03 j 11:42	27°♁03'27			439 Dec 29 j 00:54	0°♁	
	437 Jul 06 j 19:15	0°♃			440 Jan 21 j 23:15	0°♁	
greatest brilliancy	437 Aug 03 j 18:54	18°♃41'07	-4.5m				
retrograde	437 Aug 14 j 21:34	20°♃52'31		superior conj	440 Feb 03 j 08:46	15°♁29'50	-1°-22'-1
evening set	437 Sep 01 j 20:48	14°♃53'20		minimum elong	440 Feb 03 j 02:25	15°♁10'00	1°21'57
inferior conj	437 Sep 04 j 22:18	13°♃01'47	-8°-41'-58	max. Earth dist.	440 Feb 07 j 12:46	20°♁41'49	1.71887 AU
minimum elong	437 Sep 05 j 01:42	12°♃56'34	8°41'48		440 Feb 14 j 23:52	0°♂	
min. Earth dist.	437 Sep 05 j 16:06	12°♃34'28	0.27844 AU		440 Mar 10 j 03:41	0°♃	
morning rise	437 Sep 08 j 06:26	11°♃00'05		evening rise	440 Mar 14 j 02:01	4°♃51'42	
direct	437 Sep 26 j 02:05	5°♃01'22			440 Apr 03 j 11:36	0°♂	
greatest brilliancy	437 Oct 10 j 04:37	8°♃38'27	-4.6m	asc. node	440 Apr 10 j 10:11	8°♂30'45	
asc. node	437 Oct 24 j 14:52	17°♃57'39			440 Apr 28 j 00:23	0°♁	
	437 Nov 07 j 09:13	0°♁			440 May 22 j 18:46	0°♁	
morning max el	437 Nov 15 j 18:48	8°♁18'09	46°51'58		440 Jun 16 j 20:31	0°♁	
	437 Dec 05 j 22:24	0°♂		desc. node	440 Jul 12 j 09:31	0°♃	
	437 Dec 31 j 20:58	0°♂			440 Jul 30 j 23:24	21°♃16'32	
desc. node	438 Jan 25 j 22:53	0°♁			440 Aug 07 j 18:28	0°♁	
	438 Feb 13 j 04:27	22°♁04'34			440 Sep 04 j 23:08	0°♁	
	438 Feb 19 j 16:58	0°♁		evening max el	440 Sep 08 j 06:55	3°♁17'55	46°46'49
	438 Mar 16 j 08:06	0°♂			440 Oct 11 j 01:58	0°♂	
	438 Apr 09 j 22:13	0°♃		greatest brilliancy	440 Oct 17 j 11:18	3°♂02'48	-4.7m
	438 May 04 j 11:46	0°♂		retrograde	440 Oct 28 j 09:46	5°♂16'52	
morning set	438 May 20 j 03:45	19°♂09'39		evening set	440 Nov 11 j 21:05	1°♂09'47	
	438 May 29 j 00:13	0°♁			440 Nov 13 j 23:28	30°♃	
asc. node	438 Jun 06 j 07:48	10°♁11'51		inferior conj	440 Nov 17 j 22:59	27°♁37'35	0°-49'-13
	438 Jun 22 j 10:35	0°♁		minimum elong	440 Nov 18 j 00:52	27°♁34'44	0°48'37
max. Earth dist.	438 Jun 22 j 22:13	0°♁35'46	1.73458 AU	min. Earth dist.	440 Nov 17 j 23:24	27°♁36'56	0.26363 AU
				asc. node	440 Nov 21 j 02:41	25°♁43'45	
superior conj	438 Jun 25 j 11:36	3°♁44'39	0°43'19	morning rise	440 Nov 24 j 04:26	24°♁00'10	
minimum elong	438 Jun 25 j 04:02	3°♁21'21	0°43'00	direct	440 Dec 08 j 06:18	20°♁01'22	
	438 Jul 16 j 18:22	0°♁		greatest brilliancy	440 Dec 20 j 09:01	22°♁45'30	-4.7m
evening rise	438 Jul 31 j 06:51	17°♁57'38			441 Jan 01 j 18:52	0°♂	
	438 Aug 10 j 00:06	0°♃		morning max el	441 Jan 27 j 15:04	22°♂49'12	46°45'42
	438 Sep 03 j 05:02	0°♁			441 Feb 03 j 15:27	0°♁	
desc. node	438 Sep 25 j 21:22	28°♁04'57			441 Mar 03 j 02:06	0°♁	
	438 Sep 27 j 10:35	0°♁		desc. node	441 Mar 12 j 16:26	10°♁56'36	
	438 Oct 21 j 17:55	0°♂			441 Mar 29 j 03:11	0°♂	

	441 Apr 23 j 14:07	0°♃		evening max el	443 Nov 20 j 23:49	17°♁17'48	47°22'36
	441 May 18 j 17:12	0°♄			443 Dec 04 j 02:05	0°♁	
	441 Jun 12 j 14:18	0°♅		asc. node	443 Dec 19 j 14:37	12°♁33'50	
asc. node	441 Jul 03 j 19:35	25°♅49'46		greatest brilliancy	443 Dec 28 j 17:59	17°♁52'09	-4.7m
	441 Jul 07 j 05:22	0°♆		retrograde	444 Jan 11 j 00:40	21°♁09'31	
morning set	441 Jul 26 j 17:00	23°♆57'28		evening set	444 Jan 28 j 02:36	15°♁23'02	
	441 Jul 31 j 14:19	0°♇		min. Earth dist.	444 Jan 30 j 23:16	13°♁37'09	0.27584 AU
	441 Aug 24 j 17:59	0°♈		inferior conj	444 Jan 31 j 21:22	13°♁02'30	8°18'14
max. Earth dist.	441 Aug 29 j 02:26	5°♈25'42	1.72116 AU	minimum elong	444 Jan 31 j 15:15	13°♁12'05	8°17'40
				morning rise	444 Feb 04 j 04:16	11°♁00'41	
superior conj	441 Sep 01 j 13:35	9°♈45'14	1°24'08	direct	444 Feb 21 j 14:48	5°♁08'47	
minimum elong	441 Sep 01 j 15:46	9°♈52'02	1°24'07	greatest brilliancy	444 Mar 03 j 04:55	7°♁13'51	-4.6m
	441 Sep 17 j 18:11	0°♉			444 Apr 04 j 13:54	0°♁	
evening rise	441 Oct 10 j 05:27	28°♉08'55		desc. node	444 Apr 09 j 04:13	4°♁18'39	
	441 Oct 11 j 16:55	0°♊		morning max el	444 Apr 10 j 22:00	5°♁59'01	46°03'38
desc. node	441 Oct 23 j 09:20	14°♊38'18			444 May 04 j 06:41	0°♃	
	441 Nov 04 j 15:41	0°♋			444 May 31 j 07:11	0°♄	
	441 Nov 28 j 15:31	0°♌			444 Jun 26 j 05:15	0°♅	
	441 Dec 22 j 17:59	0°♍			444 Jul 21 j 10:46	0°♆	
	442 Jan 16 j 02:13	0°♎		asc. node	444 Jul 31 j 07:28	11°♆54'44	
	442 Feb 09 j 21:55	0°♏			444 Aug 15 j 03:28	0°♇	
asc. node	442 Feb 13 j 12:17	4°♏16'37			444 Sep 08 j 10:12	0°♈	
	442 Mar 07 j 15:00	0°♐		greatest brilliancy	444 Sep 27 j 16:10	24°♈02'09	-3.9m
	442 Apr 04 j 03:47	0°♑			444 Oct 02 j 10:20	0°♉	
evening max el	442 Apr 14 j 12:42	10°♑21'14	45°25'20	morning set	444 Oct 05 j 06:56	3°♉35'14	
	442 May 07 j 15:55	0°♒			444 Oct 26 j 07:06	0°♊	
greatest brilliancy	442 May 18 j 22:00	6°♒37'12	-4.5m				
retrograde	442 Jun 02 j 02:53	10°♒07'45		superior conj	444 Nov 14 j 07:28	23°♊56'32	0°13'14
desc. node	442 Jun 05 j 01:51	9°♒57'25		minimum elong	444 Nov 14 j 10:56	24°♊07'28	0°13'03
evening set	442 Jun 17 j 08:55	5°♒39'43		behind sun begin	444 Nov 13 j 18:54	23°♊16'58	
inferior conj	442 Jun 23 j 13:48	1°♒57'53	-4°-9'-39	behind sun end	444 Nov 15 j 02:59	24°♊57'57	
minimum elong	442 Jun 23 j 05:33	2°♒10'41	4°07'33	max. Earth dist.	444 Nov 14 j 21:14	24°♊39'53	1.71035 AU
min. Earth dist.	442 Jun 23 j 15:23	1°♒55'25	0.28926 AU		444 Nov 19 j 02:57	0°♋	
	442 Jun 26 j 18:24	30°♋		desc. node	444 Nov 19 j 21:04	0°♋57'02	
morning rise	442 Jun 29 j 01:58	28°♋38'34			444 Dec 12 j 23:19	0°♌	
direct	442 Jul 15 j 05:39	23°♋40'31		evening rise	444 Dec 26 j 02:06	16°♌28'02	
greatest brilliancy	442 Jul 29 j 13:15	27°♋14'48	-4.5m		445 Jan 05 j 21:17	0°♍	
	442 Aug 03 j 18:15	0°♎			445 Jan 29 j 22:22	0°♎	
morning max el	442 Sep 02 j 16:29	24°♎27'38	46°11'52		445 Feb 23 j 04:46	0°♏	
	442 Sep 08 j 05:35	0°♏		asc. node	445 Mar 13 j 00:23	21°♏46'27	
asc. node	442 Sep 26 j 05:15	19°♏12'18			445 Mar 19 j 19:20	0°♐	
	442 Oct 05 j 19:07	0°♑			445 Apr 13 j 21:46	0°♑	
	442 Oct 31 j 07:08	0°♒			445 May 09 j 18:24	0°♒	
	442 Nov 24 j 22:00	0°♓			445 Jun 06 j 00:25	0°♓	
	442 Dec 19 j 03:57	0°♈		evening max el	445 Jun 24 j 16:08	18°♓50'34	45°34'02
desc. node	443 Jan 12 j 07:03	0°♉		desc. node	445 Jul 02 j 13:41	26°♓08'19	
	443 Jan 15 j 18:40	4°♉20'04			445 Jul 07 j 00:33	0°♈	
	443 Feb 05 j 10:06	0°♊		greatest brilliancy	445 Aug 01 j 07:39	16°♈23'15	-4.5m
	443 Mar 01 j 14:22	0°♋		retrograde	445 Aug 12 j 10:30	18°♈35'09	
morning set	443 Mar 09 j 14:21	9°♋54'12		evening set	445 Aug 30 j 11:12	12°♈35'09	
	443 Mar 25 j 20:32	0°♌		inferior conj	445 Sep 02 j 12:29	10°♈43'51	-8°-44'-24
				minimum elong	445 Sep 02 j 15:01	10°♈39'57	8°44'20
superior conj	443 Apr 16 j 13:50	26°♌46'21	0°-49'-39	min. Earth dist.	445 Sep 03 j 06:02	10°♈16'52	0.27905 AU
minimum elong	443 Apr 16 j 22:44	27°♌13'44	0°49'20	morning rise	445 Sep 05 j 18:38	8°♈44'50	
max. Earth dist.	443 Apr 18 j 05:13	28°♌47'33	1.73359 AU	direct	445 Sep 23 j 16:31	2°♈42'27	
	443 Apr 19 j 04:46	0°♍		greatest brilliancy	445 Oct 07 j 20:18	6°♈19'56	-4.6m
asc. node	443 May 08 j 22:03	24°♍14'10		asc. node	445 Oct 23 j 16:52	16°♈47'26	
	443 May 13 j 14:43	0°♎			445 Nov 07 j 10:32	0°♉	
evening rise	443 May 23 j 10:43	12°♎04'01		morning max el	445 Nov 13 j 07:37	5°♉51'58	46°51'08
	443 Jun 07 j 01:48	0°♏			445 Dec 05 j 15:23	0°♊	
	443 Jul 01 j 13:55	0°♐			445 Dec 31 j 11:12	0°♋	
	443 Jul 26 j 03:57	0°♑			446 Jan 25 j 11:45	0°♌	
	443 Aug 19 j 21:40	0°♒		desc. node	446 Feb 12 j 06:35	21°♌33'50	
desc. node	443 Aug 28 j 11:28	10°♒20'01			446 Feb 19 j 05:01	0°♍	
	443 Sep 13 j 21:36	0°♓			446 Mar 15 j 19:36	0°♎	
	443 Oct 09 j 08:13	0°♈			446 Apr 09 j 09:18	0°♏	
	443 Nov 04 j 17:52	0°♉			446 May 03 j 22:33	0°♐	

morning set	446 May 17 j 22:10	17°♄06'32		448 Nov 06 j 17:05	30°♂♂	
	446 May 28 j 10:48	0°♂		evening set	448 Nov 09 j 10:28	28°♂♂38'44
asc. node	446 Jun 05 j 09:49	9°♂45'38		inferior conj	448 Nov 15 j 11:00	25°♂♂08'39 -1°-13'-47
max. Earth dist.	446 Jun 20 j 18:09	28°♂♂37'06	1.73485 AU	minimum elong	448 Nov 15 j 13:49	25°♂♂04'23 1°12'54
	446 Jun 21 j 21:07	0°♂		min. Earth dist.	448 Nov 15 j 12:52	25°♂♂05'50 0.26379 AU
				asc. node	448 Nov 20 j 04:44	22°♂♂20'27
superior conj	446 Jun 23 j 06:29	1°♂♂42'40	0°40'38	morning rise	448 Nov 21 j 16:57	21°♂♂31'03
minimum elong	446 Jun 22 j 23:15	1°♂♂20'24	0°40'20	direct	448 Dec 05 j 18:53	17°♂♂31'56
	446 Jul 16 j 04:58	0°♂		greatest brilliancy	448 Dec 18 j 00:07	20°♂♂19'28 -4.7m
evening rise	446 Jul 29 j 01:08	15°♂♂52'35			449 Jan 02 j 15:10	0°♂
	446 Aug 09 j 10:53	0°♂		morning max el	449 Jan 25 j 05:19	20°♂♂26'32 46°46'52
	446 Sep 02 j 16:06	0°♂			449 Feb 03 j 11:53	0°♂
desc. node	446 Sep 24 j 23:29	27°♂♂36'18			449 Mar 02 j 17:36	0°♂
	446 Sep 26 j 21:59	0°♂		desc. node	449 Mar 11 j 18:34	10°♂♂20'49
	446 Oct 21 j 05:47	0°♂			449 Mar 28 j 16:34	0°♂
	446 Nov 14 j 17:23	0°♂			449 Apr 23 j 02:20	0°♂
	446 Dec 09 j 13:32	0°♂			449 May 18 j 04:44	0°♂
	447 Jan 04 j 05:53	0°♂			449 Jun 12 j 01:24	0°♂
asc. node	447 Jan 16 j 02:27	13°♂♂13'10		asc. node	449 Jul 02 j 21:42	25°♂♂22'56
evening max el	447 Jan 31 j 08:50	29°♂♂14'51	46°28'16		449 Jul 06 j 16:14	0°♂
	447 Feb 01 j 02:53	0°♂		morning set	449 Jul 24 j 10:31	21°♂♂50'16
greatest brilliancy	447 Mar 07 j 19:10	27°♂♂33'30	-4.6m		449 Jul 31 j 01:04	0°♂
	447 Mar 13 j 21:21	0°♂			449 Aug 24 j 04:43	0°♂
retrograde	447 Mar 22 j 07:29	1°♂♂20'26		max. Earth dist.	449 Aug 26 j 18:49	3°♂♂13'33 1.72166 AU
	447 Mar 30 j 10:55	30°♂♂				
evening set	447 Apr 07 j 17:27	26°♂♂07'20		superior conj	449 Aug 30 j 05:48	7°♂♂32'26 1°24'26
inferior conj	447 Apr 12 j 16:41	23°♂♂03'29	5°25'46	minimum elong	449 Aug 30 j 07:13	7°♂♂36'50 1°24'26
minimum elong	447 Apr 13 j 02:01	22°♂♂48'43	5°23'39		449 Sep 17 j 05:00	0°♂
min. Earth dist.	447 Apr 12 j 19:43	22°♂♂58'41	0.28834 AU	evening rise	449 Oct 07 j 18:09	25°♂♂43'59
morning rise	447 Apr 18 j 10:45	19°♂♂32'33			449 Oct 11 j 03:53	0°♂
direct	447 May 04 j 03:17	14°♂♂47'21		desc. node	449 Oct 22 j 11:20	14°♂♂09'54
desc. node	447 May 07 j 15:54	15°♂♂01'29			449 Nov 04 j 02:52	0°♂
greatest brilliancy	447 May 16 j 19:20	17°♂♂36'47	-4.5m		449 Nov 28 j 02:56	0°♂
	447 Jun 05 j 10:04	0°♂			449 Dec 22 j 05:41	0°♂
morning max el	447 Jun 21 j 20:46	14°♂♂29'01	45°44'43		450 Jan 15 j 14:21	0°♂
	447 Jul 07 j 09:01	0°♂			450 Feb 09 j 10:51	0°♂
	447 Aug 03 j 20:10	0°♂		asc. node	450 Feb 12 j 14:28	3°♂♂44'20
asc. node	447 Aug 28 j 19:28	29°♂♂01'29			450 Mar 07 j 05:38	0°♂
	447 Aug 29 j 15:10	0°♂			450 Apr 03 j 22:53	0°♂
	447 Sep 23 j 11:32	0°♂		evening max el	450 Apr 12 j 05:16	8°♂♂12'19 45°26'29
	447 Oct 17 j 18:21	0°♂			450 May 08 j 13:07	0°♂
	447 Nov 10 j 18:01	0°♂		greatest brilliancy	450 May 16 j 13:08	4°♂♂27'07 -4.5m
	447 Dec 04 j 14:59	0°♂		retrograde	450 May 30 j 19:22	7°♂♂58'32
desc. node	447 Dec 18 j 08:53	17°♂♂16'38		desc. node	450 Jun 04 j 03:54	7°♂♂36'04
morning set	447 Dec 21 j 04:02	20°♂♂47'37		evening set	450 Jun 14 j 23:43	3°♂♂32'26
	447 Dec 28 j 11:55	0°♂			450 Jun 20 j 22:22	30°♂♂
	448 Jan 21 j 10:11	0°♂		inferior conj	450 Jun 21 j 05:54	29°♂♂48'16 -3°-51'-59
				minimum elong	450 Jun 20 j 22:06	0°♂♂00'24 3°49'57
superior conj	448 Jan 31 j 20:06	13°♂♂01'25	-1°-20'-51	min. Earth dist.	450 Jun 21 j 07:06	29°♂♂46'24 0.28934 AU
minimum elong	448 Jan 31 j 12:53	12°♂♂38'52	1°20'45	morning rise	450 Jun 26 j 20:23	26°♂♂25'40
max. Earth dist.	448 Feb 04 j 21:10	18°♂♂04'24	1.71833 AU	direct	450 Jul 12 j 22:27	21°♂♂30'55
	448 Feb 14 j 10:43	0°♂		greatest brilliancy	450 Jul 27 j 04:02	25°♂♂03'19 -4.5m
	448 Mar 09 j 14:30	0°♂			450 Aug 04 j 21:50	0°♂
evening rise	448 Mar 11 j 15:50	2°♂♂32'32		morning max el	450 Aug 31 j 08:18	22°♂♂15'10 46°10'29
	448 Apr 02 j 22:30	0°♂			450 Sep 08 j 01:21	0°♂
asc. node	448 Apr 09 j 12:14	8°♂♂03'33		asc. node	450 Sep 25 j 07:12	18°♂♂32'45
	448 Apr 27 j 11:29	0°♂			450 Oct 05 j 10:07	0°♂
	448 May 22 j 06:17	0°♂			450 Oct 30 j 20:20	0°♂
	448 Jun 16 j 08:43	0°♂			450 Nov 24 j 10:20	0°♂
	448 Jul 11 j 23:01	0°♂			450 Dec 18 j 15:49	0°♂
desc. node	448 Jul 30 j 01:36	20°♂♂40'21		desc. node	451 Jan 11 j 18:36	0°♂
	448 Aug 07 j 10:30	0°♂			451 Jan 14 j 20:49	3°♂♂50'58
	448 Sep 04 j 21:44	0°♂			451 Feb 04 j 21:23	0°♂
evening max el	448 Sep 05 j 19:44	0°♂♂54'05	46°44'17		451 Mar 01 j 01:27	0°♂
	448 Oct 13 j 14:13	0°♂		morning set	451 Mar 07 j 04:18	7°♂♂34'42
greatest brilliancy	448 Oct 14 j 23:52	0°♂♂34'18	-4.6m		451 Mar 25 j 07:28	0°♂
retrograde	448 Oct 25 j 22:03	2°♂♂47'59				

superior conj	451 Apr 14 j 06:13	24°♃35'39	0°-52'-20	direct	453 Sep 21 j 06:41	0°♎22'16	
minimum elong	451 Apr 14 j 15:23	25°♃03'53	0°52'00	greatest brilliancy	453 Oct 05 j 12:50	4°♎01'37	-4.6m
max. Earth dist.	451 Apr 16 j 03:28	26°♃54'55	1.73324 AU	asc. node	453 Oct 22 j 18:56	15°♎38'09	
	451 Apr 18 j 15:37	0°♃			453 Nov 07 j 11:01	0°♎	
asc. node	451 May 08 j 00:02	23°♃47'03		morning max el	453 Nov 10 j 21:02	3°♎26'23	46°50'29
	451 May 13 j 01:34	0°♃			453 Dec 05 j 08:21	0°♎	
evening rise	451 May 21 j 05:08	9°♃59'58			453 Dec 31 j 01:31	0°♎	
	451 Jun 06 j 12:46	0°♃			454 Jan 25 j 00:45	0°♎	
	451 Jul 01 j 01:08	0°♃		desc. node	454 Feb 11 j 08:42	21°♎02'32	
	451 Jul 25 j 15:36	0°♃			454 Feb 18 j 17:13	0°♎	
	451 Aug 19 j 09:59	0°♃			454 Mar 15 j 07:17	0°♎	
desc. node	451 Aug 27 j 13:35	9°♎48'37			454 Apr 08 j 20:38	0°♎	
	451 Sep 13 j 10:53	0°♎			454 May 03 j 09:38	0°♎	
	451 Oct 08 j 23:08	0°♎		morning set	454 May 15 j 16:19	15°♎01'29	
	451 Nov 04 j 12:12	0°♎			454 May 27 j 21:44	0°♎	
evening max el	451 Nov 18 j 15:08	14°♎57'16	47°22'55	asc. node	454 Jun 04 j 11:59	9°♎18'45	
	451 Dec 04 j 08:21	0°♎		max. Earth dist.	454 Jun 18 j 14:47	26°♎39'25	1.73512 AU
asc. node	451 Dec 18 j 16:42	11°♎10'21					
greatest brilliancy	451 Dec 26 j 10:54	15°♎32'20	-4.7m	superior conj	454 Jun 21 j 01:01	29°♎38'30	0°37'53
retrograde	452 Jan 08 j 15:19	18°♎46'40		minimum elong	454 Jun 20 j 18:08	29°♎17'21	0°37'34
evening set	452 Jan 25 j 13:42	13°♎06'01			454 Jun 21 j 08:00	0°♎	
min. Earth dist.	452 Jan 28 j 12:51	11°♎16'19	0.27520 AU		454 Jul 15 j 15:57	0°♎	
inferior conj	452 Jan 29 j 11:34	10°♎40'40	8°11'20	evening rise	454 Jul 26 j 19:09	13°♎45'45	
minimum elong	452 Jan 29 j 04:47	10°♎51'18	8°10'36		454 Aug 08 j 22:02	0°♎	
morning rise	452 Feb 01 j 20:16	8°♎36'05			454 Sep 02 j 03:32	0°♎	
direct	452 Feb 19 j 04:42	2°♎48'17		desc. node	454 Sep 24 j 01:26	27°♎06'03	
greatest brilliancy	452 Feb 29 j 17:13	4°♎51'49	-4.6m		454 Sep 26 j 09:47	0°♎	
	452 Apr 04 j 15:26	0°♎			454 Oct 20 j 18:03	0°♎	
desc. node	452 Apr 08 j 06:11	3°♎26'50			454 Nov 14 j 06:18	0°♎	
morning max el	452 Apr 08 j 11:40	3°♎40'06	46°04'50		454 Dec 09 j 03:30	0°♎	
	452 May 03 j 23:30	0°♎			455 Jan 03 j 22:00	0°♎	
	452 May 30 j 21:06	0°♎		asc. node	455 Jan 15 j 04:38	12°♎30'32	
	452 Jun 25 j 17:46	0°♎		evening max el	455 Jan 28 j 23:01	26°♎55'40	46°31'03
	452 Jul 20 j 22:32	0°♎			455 Feb 01 j 01:17	0°♎	
asc. node	452 Jul 30 j 09:36	11°♎26'05		greatest brilliancy	455 Mar 05 j 11:09	25°♎21'39	-4.6m
	452 Aug 14 j 14:49	0°♎		retrograde	455 Mar 20 j 00:11	29°♎10'10	
	452 Sep 07 j 21:23	0°♎		evening set	455 Apr 05 j 12:33	23°♎52'43	
greatest brilliancy	452 Sep 29 j 04:45	26°♎37'07	-3.9m	inferior conj	455 Apr 10 j 09:10	20°♎52'54	5°40'58
	452 Oct 01 j 21:27	0°♎		minimum elong	455 Apr 10 j 18:38	20°♎37'56	5°38'54
morning set	452 Oct 02 j 20:34	1°♎12'31		min. Earth dist.	455 Apr 10 j 11:52	20°♎48'38	0.28819 AU
	452 Oct 25 j 18:13	0°♎		morning rise	455 Apr 16 j 00:52	17°♎25'29	
				direct	455 May 01 j 18:59	12°♎36'52	
superior conj	452 Nov 11 j 18:01	21°♎23'44	0°17'06	desc. node	455 May 06 j 18:00	13°♎04'36	
minimum elong	452 Nov 11 j 22:27	21°♎37'41	0°16'53	greatest brilliancy	455 May 14 j 10:56	15°♎26'17	-4.5m
max. Earth dist.	452 Nov 12 j 00:05	21°♎42'48	1.71038 AU		455 Jun 05 j 18:14	0°♎	
desc. node	452 Nov 18 j 23:10	0°♎28'38		morning max el	455 Jun 19 j 13:07	12°♎19'41	45°44'34
	452 Nov 18 j 14:04	0°♎			455 Jul 07 j 02:54	0°♎	
	452 Dec 12 j 10:27	0°♎			455 Aug 03 j 10:30	0°♎	
evening rise	452 Dec 23 j 12:14	13°♎54'13		asc. node	455 Aug 27 j 21:28	28°♎29'10	
	453 Jan 05 j 08:28	0°♎			455 Aug 29 j 04:01	0°♎	
	453 Jan 29 j 09:39	0°♎			455 Sep 22 j 23:39	0°♎	
	453 Feb 22 j 16:16	0°♎			455 Oct 17 j 06:05	0°♎	
asc. node	453 Mar 12 j 02:21	21°♎16'45			455 Nov 10 j 05:32	0°♎	
	453 Mar 19 j 07:15	0°♎			455 Dec 04 j 02:23	0°♎	
	453 Apr 13 j 10:28	0°♎		desc. node	455 Dec 17 j 11:00	16°♎47'38	
	453 May 09 j 08:41	0°♎		morning set	455 Dec 18 j 13:30	18°♎10'54	
	453 Jun 05 j 18:24	0°♎			455 Dec 27 j 23:14	0°♎	
evening max el	453 Jun 22 j 05:13	16°♎31'28	45°32'23		456 Jan 20 j 21:25	0°♎	
desc. node	453 Jul 01 j 15:51	25°♎11'13					
	453 Jul 07 j 08:41	0°♎		superior conj	456 Jan 29 j 07:26	10°♎31'55	-1°-19'-31
greatest brilliancy	453 Jul 29 j 19:39	14°♎03'30	-4.5m	minimum elong	456 Jan 28 j 23:23	10°♎06'44	1°19'23
retrograde	453 Aug 09 j 23:36	16°♎16'57		max. Earth dist.	456 Feb 02 j 05:27	15°♎25'37	1.71777 AU
evening set	453 Aug 28 j 01:07	10°♎16'22			456 Feb 13 j 21:51	0°♎	
inferior conj	453 Aug 31 j 02:36	8°♎24'50	-8°-46'-1	evening rise	456 Mar 09 j 05:51	0°♎13'12	
minimum elong	453 Aug 31 j 04:14	8°♎22'19	8°46'01		456 Mar 09 j 01:35	0°♎	
min. Earth dist.	453 Aug 31 j 19:55	7°♎58'12	0.27966 AU		456 Apr 02 j 09:38	0°♎	
morning rise	453 Sep 03 j 07:08	6°♎28'10		asc. node	456 Apr 08 j 14:17	7°♎35'37	

	456 Apr 26 j 22:50	0°♁			458 Oct 05 j 01:06	0°♁	
	456 May 21 j 18:05	0°♁			458 Oct 30 j 09:40	0°♁	
	456 Jun 15 j 21:19	0°♁			458 Nov 23 j 22:50	0°♁	
	456 Jul 11 j 13:00	0°♁			458 Dec 18 j 03:49	0°♁	
desc. node	456 Jul 29 j 03:39	20°♁02'15			459 Jan 11 j 06:15	0°♁	
	456 Aug 07 j 03:15	0°♁		desc. node	459 Jan 13 j 22:54	3°♁21'15	
evening max el	456 Sep 03 j 09:29	28°♁31'35	46°41'48		459 Feb 04 j 08:46	0°♁	
	456 Sep 04 j 21:49	0°♁			459 Feb 28 j 12:37	0°♁	
greatest brilliancy	456 Oct 12 j 12:11	28°♁04'41	-4.6m	morning set	459 Mar 04 j 18:09	5°♁14'30	
	456 Oct 19 j 13:12	0°♁			459 Mar 24 j 18:28	0°♁	
retrograde	456 Oct 23 j 10:36	0°♁17'54					
	456 Oct 27 j 06:15	30°♁		superior conj	459 Apr 11 j 22:43	22°♁25'02	0°-54'-56
evening set	456 Nov 07 j 00:03	26°♁06'34		minimum elong	459 Apr 12 j 08:06	22°♁53'55	0°54'35
inferior conj	456 Nov 12 j 22:58	22°♁38'34	-1°-38'-13	max. Earth dist.	459 Apr 14 j 00:49	24°♁59'17	1.73283 AU
minimum elong	456 Nov 13 j 02:41	22°♁32'55	1°37'03		459 Apr 18 j 02:31	0°♁	
min. Earth dist.	456 Nov 13 j 01:59	22°♁33'59	0.26395 AU	asc. node	459 May 07 j 02:14	23°♁20'24	
morning rise	456 Nov 19 j 05:10	19°♁01'03			459 May 12 j 12:27	0°♁	
asc. node	456 Nov 19 j 06:53	18°♁58'47		evening rise	459 May 18 j 23:42	7°♁56'16	
direct	456 Dec 03 j 07:46	15°♁01'38			459 Jun 05 j 23:44	0°♁	
greatest brilliancy	456 Dec 15 j 14:08	17°♁51'08	-4.7m		459 Jun 30 j 12:21	0°♁	
	457 Jan 03 j 06:45	0°♁			459 Jul 25 j 03:16	0°♁	
morning max el	457 Jan 22 j 19:41	18°♁03'16	46°47'57		459 Aug 18 j 22:21	0°♁	
	457 Feb 03 j 07:59	0°♁		desc. node	459 Aug 26 j 15:32	9°♁16'30	
	457 Mar 02 j 09:09	0°♁			459 Sep 13 j 00:20	0°♁	
desc. node	457 Mar 10 j 20:30	9°♁43'56			459 Oct 08 j 14:24	0°♁	
	457 Mar 28 j 06:05	0°♁			459 Nov 04 j 07:15	0°♁	
	457 Apr 22 j 14:42	0°♁		evening max el	459 Nov 16 j 05:27	12°♁33'19	47°23'03
	457 May 17 j 16:24	0°♁			459 Dec 04 j 17:25	0°♁	
	457 Jun 11 j 12:40	0°♁		asc. node	459 Dec 17 j 18:50	9°♁43'08	
asc. node	457 Jul 01 j 23:50	24°♁55'34		greatest brilliancy	459 Dec 24 j 04:21	13°♁11'58	-4.7m
	457 Jul 06 j 03:17	0°♁		retrograde	460 Jan 06 j 05:22	16°♁22'31	
morning set	457 Jul 22 j 04:10	19°♁42'47		evening set	460 Jan 23 j 00:23	10°♁48'06	
	457 Jul 30 j 12:03	0°♁		min. Earth dist.	460 Jan 26 j 02:39	8°♁53'46	0.27452 AU
	457 Aug 23 j 15:44	0°♁		inferior conj	460 Jan 27 j 01:32	8°♁17'50	8°03'29
max. Earth dist.	457 Aug 24 j 08:44	0°♁53'00	1.72222 AU	minimum elong	460 Jan 26 j 18:08	8°♁29'27	8°02'35
				morning rise	460 Jan 30 j 12:16	6°♁10'07	
superior conj	457 Aug 27 j 22:00	5°♁18'48	1°24'36	direct	460 Feb 16 j 17:45	0°♁26'40	
minimum elong	457 Aug 27 j 22:39	5°♁20'50	1°24'36	greatest brilliancy	460 Feb 27 j 06:11	2°♁29'43	-4.6m
	457 Sep 16 j 16:06	0°♁			460 Apr 04 j 15:46	0°♁	
evening rise	457 Oct 05 j 06:38	23°♁17'32		morning max el	460 Apr 06 j 00:30	1°♁18'55	46°06'13
	457 Oct 10 j 15:10	0°♁		desc. node	460 Apr 07 j 08:21	2°♁36'23	
desc. node	457 Oct 21 j 13:25	13°♁40'57			460 May 03 j 15:58	0°♁	
	457 Nov 03 j 14:19	0°♁			460 May 30 j 10:49	0°♁	
	457 Nov 27 j 14:36	0°♁			460 Jun 25 j 06:07	0°♁	
	457 Dec 21 j 17:37	0°♁			460 Jul 20 j 10:08	0°♁	
	458 Jan 15 j 02:44	0°♁		asc. node	460 Jul 29 j 11:37	10°♁57'30	
	458 Feb 09 j 00:05	0°♁			460 Aug 14 j 02:01	0°♁	
asc. node	458 Feb 11 j 16:26	3°♁10'37			460 Sep 07 j 08:25	0°♁	
	458 Mar 06 j 20:39	0°♁		greatest brilliancy	460 Sep 30 j 02:46	28°♁26'54	-3.9m
	458 Apr 03 j 18:40	0°♁		morning set	460 Sep 30 j 10:28	28°♁51'01	
evening max el	458 Apr 09 j 21:55	6°♁03'16	45°27'46		460 Oct 01 j 08:27	0°♁	
	458 May 09 j 18:17	0°♁			460 Oct 25 j 05:16	0°♁	
greatest brilliancy	458 May 14 j 05:11	2°♁18'28	-4.5m				
retrograde	458 May 28 j 11:40	5°♁50'02		superior conj	460 Nov 09 j 04:29	18°♁50'44	0°20'56
desc. node	458 Jun 03 j 06:01	5°♁10'45		minimum elong	460 Nov 09 j 09:50	19°♁07'35	0°20'40
evening set	458 Jun 12 j 15:03	1°♁25'44		max. Earth dist.	460 Nov 09 j 03:07	18°♁46'26	1.71056 AU
	458 Jun 15 j 02:57	30°♁		desc. node	460 Nov 18 j 01:19	0°♁00'29	
inferior conj	458 Jun 18 j 22:21	27°♁39'36	-3°-34'-14		460 Nov 18 j 01:10	0°♁	
minimum elong	458 Jun 18 j 15:03	27°♁51'00	3°32'17		460 Dec 11 j 21:36	0°♁	
min. Earth dist.	458 Jun 18 j 23:25	27°♁37'57	0.28941 AU	evening rise	460 Dec 20 j 21:50	11°♁18'43	
morning rise	458 Jun 24 j 14:58	24°♁13'40			461 Jan 04 j 19:41	0°♁	
direct	458 Jul 10 j 15:18	19°♁22'20			461 Jan 28 j 20:57	0°♁	
greatest brilliancy	458 Jul 24 j 18:19	22°♁51'37	-4.5m		461 Feb 22 j 03:45	0°♁	
	458 Aug 05 j 17:49	0°♁		asc. node	461 Mar 11 j 04:26	20°♁47'31	
morning max el	458 Aug 28 j 23:24	20°♁00'53	46°08'50		461 Mar 18 j 19:07	0°♁	
	458 Sep 07 j 20:40	0°♁			461 Apr 12 j 23:08	0°♁	
asc. node	458 Sep 24 j 09:17	17°♁53'24			461 May 08 j 22:58	0°♁	

	461 Jun 05 j 12:35	0°♁		morning set	463 Dec 15 j 23:30	15°♁37'06	
evening max el	461 Jun 19 j 18:47	14°♁14'34	45°31'02	desc. node	463 Dec 16 j 13:02	16°♁19'38	
desc. node	461 Jun 30 j 17:55	24°♁13'30			463 Dec 27 j 10:10	0°♁	
	461 Jul 07 j 19:08	0°♁			464 Jan 20 j 08:17	0°♁	
greatest brilliancy	461 Jul 27 j 06:51	11°♁44'35	-4.5m				
retrograde	461 Aug 07 j 13:35	14°♁01'00		superior conj	464 Jan 26 j 18:36	8°♁02'50	-1°-18'00
evening set	461 Aug 25 j 14:58	8°♁00'14		minimum elong	464 Jan 26 j 09:47	7°♁35'14	1°17'51
inferior conj	461 Aug 28 j 17:04	6°♁07'56	-8°-46'-44	max. Earth dist.	464 Jan 30 j 15:25	12°♁52'55	1.71733 AU
minimum elong	461 Aug 28 j 17:50	6°♁06'45	8°46'44		464 Feb 13 j 08:41	0°♁	
min. Earth dist.	461 Aug 29 j 09:53	5°♁42'06	0.28026 AU	evening rise	464 Mar 06 j 19:24	27°♁53'08	
morning rise	461 Aug 31 j 20:29	4°♁13'02			464 Mar 08 j 12:24	0°♁	
	461 Sep 09 j 02:45	30°♁♁			464 Apr 01 j 20:32	0°♁	
direct	461 Sep 18 j 21:23	28°♁04'16		asc. node	464 Apr 07 j 16:26	7°♁08'43	
	461 Sep 29 j 02:00	0°♁			464 Apr 26 j 09:58	0°♁	
greatest brilliancy	461 Oct 03 j 05:51	1°♁45'58	-4.6m		464 May 21 j 05:39	0°♁	
asc. node	461 Oct 21 j 21:07	14°♁32'16			464 Jun 15 j 09:40	0°♁	
	461 Nov 07 j 09:59	0°♁			464 Jul 11 j 02:47	0°♁	
morning max el	461 Nov 08 j 11:33	1°♁04'48	46°49'30	desc. node	464 Jul 28 j 05:38	19°♁24'36	
	461 Dec 05 j 00:44	0°♁			464 Aug 06 j 19:56	0°♁	
	461 Dec 30 j 15:33	0°♁		evening max el	464 Aug 31 j 23:56	26°♁12'08	46°39'18
	462 Jan 24 j 13:35	0°♁			464 Sep 04 j 22:34	0°♁	
desc. node	462 Feb 10 j 10:40	20°♁31'02		greatest brilliancy	464 Oct 10 j 01:11	25°♁37'38	-4.6m
	462 Feb 18 j 05:19	0°♁		retrograde	464 Oct 20 j 23:08	27°♁49'29	
	462 Mar 14 j 18:50	0°♁		evening set	464 Nov 04 j 14:02	23°♁36'11	
	462 Apr 08 j 07:47	0°♁		inferior conj	464 Nov 10 j 11:04	20°♁10'25	-2°-2'-24
	462 May 02 j 20:30	0°♁		minimum elong	464 Nov 10 j 15:40	20°♁03'26	2°00'56
morning set	462 May 13 j 10:16	12°♁56'28		min. Earth dist.	464 Nov 10 j 15:17	20°♁04'02	0.26411 AU
	462 May 27 j 08:27	0°♁		morning rise	464 Nov 16 j 17:12	16°♁33'04	
asc. node	462 Jun 03 j 14:02	8°♁52'14		asc. node	464 Nov 18 j 08:54	15°♁42'58	
max. Earth dist.	462 Jun 16 j 13:01	24°♁47'21	1.73535 AU	direct	464 Nov 30 j 20:47	12°♁33'25	
				greatest brilliancy	464 Dec 13 j 03:25	15°♁23'32	-4.7m
superior conj	462 Jun 18 j 19:34	27°♁35'07	0°35'04		465 Jan 03 j 17:43	0°♁	
minimum elong	462 Jun 18 j 13:05	27°♁15'10	0°34'46	morning max el	465 Jan 20 j 09:28	15°♁39'57	46°48'52
	462 Jun 20 j 18:41	0°♁			465 Feb 03 j 02:58	0°♁	
	462 Jul 15 j 02:41	0°♁			465 Mar 02 j 00:03	0°♁	
evening rise	462 Jul 24 j 13:32	11°♁40'52		desc. node	465 Mar 09 j 22:40	9°♁09'08	
	462 Aug 08 j 08:55	0°♁			465 Mar 27 j 19:08	0°♁	
	462 Sep 01 j 14:39	0°♁			465 Apr 22 j 02:43	0°♁	
desc. node	462 Sep 23 j 03:35	26°♁37'27			465 May 17 j 03:48	0°♁	
	462 Sep 25 j 21:15	0°♁			465 Jun 10 j 23:40	0°♁	
	462 Oct 20 j 06:00	0°♁		asc. node	465 Jul 01 j 01:49	24°♁28'38	
	462 Nov 13 j 18:58	0°♁			465 Jul 05 j 14:03	0°♁	
	462 Dec 08 j 17:21	0°♁		morning set	465 Jul 19 j 21:32	17°♁35'31	
	463 Jan 03 j 14:12	0°♁			465 Jul 29 j 22:42	0°♁	
asc. node	463 Jan 14 j 06:35	11°♁47'02		max. Earth dist.	465 Aug 21 j 21:32	28°♁30'07	1.72276 AU
evening max el	463 Jan 26 j 14:06	24°♁38'52	46°33'39		465 Aug 23 j 02:24	0°♁	
	463 Feb 01 j 00:34	0°♁					
greatest brilliancy	463 Mar 03 j 03:13	23°♁09'33	-4.6m	superior conj	465 Aug 25 j 14:13	3°♁06'22	1°24'39
retrograde	463 Mar 17 j 17:09	26°♁59'10		minimum elong	465 Aug 25 j 14:06	3°♁06'00	1°24'38
evening set	463 Apr 03 j 07:26	21°♁37'21			465 Sep 16 j 02:53	0°♁	
inferior conj	463 Apr 08 j 01:20	18°♁41'37	5°55'52	evening rise	465 Oct 02 j 19:18	20°♁52'47	
minimum elong	463 Apr 08 j 10:53	18°♁26'31	5°53'50		465 Oct 10 j 02:07	0°♁	
min. Earth dist.	463 Apr 08 j 03:24	18°♁38'20	0.28800 AU	desc. node	465 Oct 20 j 15:32	13°♁13'07	
morning rise	463 Apr 13 j 14:32	15°♁18'06			465 Nov 03 j 01:27	0°♁	
direct	463 Apr 29 j 10:43	10°♁25'53			465 Nov 27 j 01:55	0°♁	
desc. node	463 May 05 j 20:07	11°♁11'40			465 Dec 21 j 05:11	0°♁	
greatest brilliancy	463 May 12 j 01:24	13°♁14'33	-4.5m		466 Jan 14 j 14:45	0°♁	
	463 Jun 05 j 23:52	0°♁			466 Feb 08 j 12:58	0°♁	
morning max el	463 Jun 17 j 05:55	10°♁12'10	45°44'34	asc. node	466 Feb 10 j 18:32	2°♁38'22	
	463 Jul 06 j 20:04	0°♁			466 Mar 06 j 11:27	0°♁	
	463 Aug 03 j 00:21	0°♁			466 Apr 03 j 14:45	0°♁	
asc. node	463 Aug 26 j 23:29	27°♁58'01		evening max el	466 Apr 07 j 13:47	3°♁52'54	45°28'52
	463 Aug 28 j 16:26	0°♁			466 May 11 j 12:45	0°♁	
	463 Sep 22 j 11:21	0°♁		greatest brilliancy	466 May 11 j 21:09	0°♁09'51	-4.5m
	463 Oct 16 j 17:23	0°♁		retrograde	466 May 26 j 03:19	3°♁41'35	
	463 Nov 09 j 16:38	0°♁		desc. node	466 Jun 02 j 08:03	2°♁40'31	
	463 Dec 03 j 13:22	0°♁			466 Jun 08 j 23:08	30°♁♁	

evening set	466 Jun 10 j 06:19	29°II18'46		max. Earth dist.	468 Nov 06 j 09:49	16°ML01'52	1.71072 AU
inferior conj	466 Jun 16 j 14:37	25°II31'04	-3°-15'-56	desc. node	468 Nov 17 j 03:17	29°ML32'05	
minimum elong	466 Jun 16 j 07:51	25°II41'39	3°14'06		468 Nov 17 j 12:10	0°♁	
min. Earth dist.	466 Jun 16 j 15:59	25°II28'56	0.28948 AU		468 Dec 11 j 08:40	0°♁	
morning rise	466 Jun 22 j 09:16	22°II01'50		evening rise	468 Dec 18 j 07:33	8°♁43'49	
direct	466 Jul 08 j 07:31	17°II13'44			469 Jan 04 j 06:49	0°≈	
greatest brilliancy	466 Jul 22 j 08:49	20°II40'23	-4.5m		469 Jan 28 j 08:12	0°✠	
	466 Aug 06 j 08:30	0°♁			469 Feb 21 j 15:11	0°♃	
morning max el	466 Aug 26 j 13:42	17°♁45'19	46°07'23	asc. node	469 Mar 10 j 06:36	20°♃18'43	
	466 Sep 07 j 15:12	0°♁			469 Mar 18 j 06:56	0°♁	
asc. node	466 Sep 23 j 11:29	17°♁15'33			469 Apr 12 j 11:46	0°II	
	466 Oct 04 j 15:37	0°♁			469 May 08 j 13:20	0°♁	
	466 Oct 29 j 22:35	0°♁			469 Jun 05 j 07:12	0°♁	
	466 Nov 23 j 10:59	0°ML		evening max el	469 Jun 17 j 09:02	11°♁59'23	45°29'35
	466 Dec 17 j 15:30	0°♁		desc. node	469 Jun 29 j 19:54	23°♁14'04	
	467 Jan 10 j 17:35	0°♁			469 Jul 08 j 09:20	0°♁	
desc. node	467 Jan 13 j 00:51	2°♁52'10		greatest brilliancy	469 Jul 24 j 16:47	9°♁23'55	-4.5m
	467 Feb 03 j 19:49	0°≈		retrograde	469 Aug 05 j 03:47	11°♁44'19	
	467 Feb 27 j 23:28	0°✠		evening set	469 Aug 23 j 04:10	5°♁43'56	
morning set	467 Mar 02 j 08:01	2°✠55'18		inferior conj	469 Aug 26 j 07:20	3°♁50'09	-8°-46'-28
	467 Mar 24 j 05:10	0°♃		minimum elong	469 Aug 26 j 07:14	3°♁50'17	8°46'29
				min. Earth dist.	469 Aug 26 j 23:21	3°♁25'33	0.28088 AU
superior conj	467 Apr 09 j 15:14	20°♃15'21	0°-57'-26	morning rise	469 Aug 29 j 10:05	1°♁56'22	
minimum elong	467 Apr 10 j 00:46	20°♃44'41	0°57'06		469 Sep 01 j 19:35	30°R♁	
max. Earth dist.	467 Apr 11 j 21:02	23°♃01'01	1.73245 AU	direct	469 Sep 16 j 12:27	25°♁45'26	
	467 Apr 17 j 13:09	0°♁		greatest brilliancy	469 Sep 30 j 22:35	29°♁29'24	-4.6m
asc. node	467 May 06 j 04:16	22°♁54'01			469 Oct 01 j 23:10	0°♁	
	467 May 11 j 23:06	0°II		asc. node	469 Oct 20 j 23:06	13°♁26'59	
evening rise	467 May 16 j 18:06	5°II52'42		morning max el	469 Nov 06 j 02:47	28°♁44'49	46°48'37
	467 Jun 05 j 10:31	0°♁			469 Nov 07 j 08:14	0°♁	
	467 Jun 29 j 23:26	0°♁			469 Dec 04 j 16:57	0°ML	
	467 Jul 24 j 14:49	0°♁			469 Dec 30 j 05:30	0°♁	
	467 Aug 18 j 10:37	0°♁			470 Jan 24 j 02:22	0°♁	
desc. node	467 Aug 25 j 17:41	8°♁45'23		desc. node	470 Feb 09 j 12:50	20°♁00'11	
	467 Sep 12 j 13:42	0°ML			470 Feb 17 j 17:23	0°≈	
	467 Oct 08 j 05:39	0°♁			470 Mar 14 j 06:25	0°✠	
	467 Nov 04 j 02:35	0°♁			470 Apr 07 j 18:59	0°♃	
evening max el	467 Nov 13 j 18:57	10°♁07'56	47°23'08		470 May 02 j 07:26	0°♁	
	467 Dec 05 j 05:16	0°≈		morning set	470 May 11 j 04:24	10°♁51'44	
asc. node	467 Dec 16 j 20:50	8°≈13'09			470 May 26 j 19:13	0°II	
greatest brilliancy	467 Dec 21 j 21:17	10°≈51'14	-4.7m	asc. node	470 Jun 02 j 16:03	8°II25'29	
retrograde	468 Jan 03 j 19:09	13°≈58'51		max. Earth dist.	470 Jun 14 j 12:58	23°II00'23	1.73556 AU
evening set	468 Jan 20 j 10:50	8°≈30'34					
min. Earth dist.	468 Jan 23 j 16:38	6°≈31'13	0.27384 AU	superior conj	470 Jun 16 j 14:14	25°II31'53	0°32'12
inferior conj	468 Jan 24 j 15:27	5°≈55'25	7°54'37	minimum elong	470 Jun 16 j 08:11	25°II13'16	0°31'56
minimum elong	468 Jan 24 j 07:28	6°≈07'57	7°53'33		470 Jun 20 j 05:25	0°♁	
morning rise	468 Jan 28 j 04:28	3°≈44'17			470 Jul 14 j 13:31	0°♁	
	468 Feb 04 j 13:27	30°R♁		evening rise	470 Jul 22 j 08:03	9°♁36'09	
direct	468 Feb 14 j 06:23	28°♁05'12			470 Aug 07 j 19:58	0°♁	
	468 Feb 24 j 10:13	0°≈			470 Sep 01 j 01:59	0°♁	
greatest brilliancy	468 Feb 24 j 19:58	0°≈08'56	-4.6m	desc. node	470 Sep 22 j 05:41	26°♁07'50	
morning max el	468 Apr 03 j 13:32	28°≈58'42	46°07'45		470 Sep 25 j 08:59	0°ML	
	468 Apr 04 j 14:44	0°✠			470 Oct 19 j 18:15	0°♁	
desc. node	468 Apr 06 j 10:25	1°✠47'18			470 Nov 13 j 07:57	0°♁	
	468 May 03 j 07:53	0°♃			470 Dec 08 j 07:31	0°≈	
	468 May 30 j 00:11	0°♁			471 Jan 03 j 06:51	0°✠	
	468 Jun 24 j 18:16	0°II		asc. node	471 Jan 13 j 08:42	11°✠02'57	
	468 Jul 19 j 21:37	0°♁		evening max el	471 Jan 24 j 06:01	22°✠23'40	46°36'21
asc. node	468 Jul 28 j 13:42	10°♁29'20			471 Feb 01 j 01:06	0°♃	
	468 Aug 13 j 13:10	0°♁		greatest brilliancy	471 Feb 28 j 19:57	20°♃57'55	-4.6m
	468 Sep 06 j 19:25	0°♁		retrograde	471 Mar 15 j 10:13	24°♃47'29	
morning set	468 Sep 28 j 00:17	26°♁29'33		evening set	471 Apr 01 j 02:25	19°♃21'30	
	468 Sep 30 j 19:24	0°♁		inferior conj	471 Apr 05 j 17:30	16°♃29'44	6°10'14
	468 Oct 24 j 16:13	0°ML		minimum elong	471 Apr 06 j 03:06	16°♃14'35	6°08'17
				min. Earth dist.	471 Apr 05 j 18:43	16°♃27'49	0.28777 AU
superior conj	468 Nov 06 j 14:56	16°ML17'59	0°24'43	morning rise	471 Apr 11 j 04:03	13°♃10'15	
minimum elong	468 Nov 06 j 21:09	16°ML37'33	0°24'25	direct	471 Apr 27 j 02:49	8°♃14'29	

desc. node	471 May 04 j 22:07	9°Υ22'14		473 Dec 20 j 17:14	0°≈	
greatest brilliancy	471 May 09 j 14:49	11°Υ01'03	-4.5m	474 Jan 14 j 03:18	0°✕	
	471 Jun 06 j 03:49	0°Ϡ		474 Feb 08 j 02:27	0°Υ	
morning max el	471 Jun 14 j 22:49	8°Ϡ04'29	45°44'35	asc. node	474 Feb 09 j 20:40	2°Υ04'37
	471 Jul 06 j 13:05	0°Π			474 Mar 06 j 02:57	0°Ϡ
	471 Aug 02 j 14:15	0°☾			474 Apr 03 j 12:01	0°Π
asc. node	471 Aug 26 j 01:42	27°☾27'03		evening max el	474 Apr 05 j 04:48	1°Π39'15 45°30'16
	471 Aug 28 j 04:59	0°Ω		greatest brilliancy	474 May 09 j 12:27	27°Π59'32 -4.5m
	471 Sep 21 j 23:16	0°♍			474 May 14 j 13:47	0°☾
	471 Oct 16 j 04:58	0°♁		retrograde	474 May 23 j 19:07	1°☾32'46
	471 Nov 09 j 04:04	0°♌		desc. node	474 Jun 01 j 10:07	0°☾05'09
	471 Dec 03 j 00:43	0°♊			474 Jun 01 j 16:08	30°RΠ
morning set	471 Dec 13 j 09:10	13°♊01'08		evening set	474 Jun 07 j 21:53	27°Π10'50
desc. node	471 Dec 15 j 15:06	15°♊50'39		inferior conj	474 Jun 14 j 07:05	23°Π22'01 -2°-57'-30
	471 Dec 26 j 21:25	0°♋		minimum elong	474 Jun 14 j 00:52	23°Π31'44 2°55'48
	472 Jan 19 j 19:27	0°≈		min. Earth dist.	474 Jun 14 j 08:55	23°Π19'08 0.28954 AU
				morning rise	474 Jun 20 j 03:37	19°Π49'45
superior conj	472 Jan 24 j 05:19	5°≈31'19	-1°-16'-19	direct	474 Jul 05 j 23:28	15°Π04'26
minimum elong	472 Jan 23 j 19:49	5°≈01'34	1°16'08	greatest brilliancy	474 Jul 20 j 00:23	18°Π29'44 -4.5m
max. Earth dist.	472 Jan 28 j 03:29	10°≈25'49	1.71681 AU		474 Aug 06 j 19:50	0°☾
	472 Feb 12 j 19:47	0°✕		morning max el	474 Aug 24 j 04:16	15°☾29'35 46°06'07
evening rise	472 Mar 04 j 08:44	25°✕31'27			474 Sep 07 j 09:35	0°Ω
	472 Mar 07 j 23:30	0°Υ		asc. node	474 Sep 22 j 13:26	16°Ω36'29
	472 Apr 01 j 07:44	0°Ϡ			474 Oct 04 j 06:15	0°♍
asc. node	472 Apr 06 j 18:27	6°Ϡ40'33			474 Oct 29 j 11:43	0°♁
	472 Apr 25 j 21:23	0°Π			474 Nov 22 j 23:23	0°♌
	472 May 20 j 17:31	0°☾			474 Dec 17 j 03:27	0°♊
	472 Jun 14 j 22:21	0°Ω			475 Jan 10 j 05:14	0°♋
	472 Jul 10 j 16:57	0°♍		desc. node	475 Jan 12 j 03:02	2°♋22'42
desc. node	472 Jul 27 j 07:50	18°♍46'31			475 Feb 03 j 07:15	0°≈
	472 Aug 06 j 13:14	0°♁			475 Feb 27 j 10:43	0°✕
evening max el	472 Aug 29 j 13:54	23°♁50'42	46°36'30	morning set	475 Feb 27 j 21:19	0°✕32'52
	472 Sep 05 j 01:01	0°♌			475 Mar 23 j 16:17	0°Υ
greatest brilliancy	472 Oct 07 j 14:42	23°♌10'01	-4.6m			
retrograde	472 Oct 18 j 10:50	25°♌19'29		superior conj	475 Apr 07 j 07:21	18°Υ03'09 0°-59'-52
evening set	472 Nov 02 j 04:03	21°♌04'04		minimum elong	475 Apr 07 j 16:59	18°Υ32'50 0°59'33
inferior conj	472 Nov 07 j 23:03	17°♌40'47	-2°-26'-18	max. Earth dist.	475 Apr 09 j 15:03	20°Υ54'43 1.73202 AU
minimum elong	472 Nov 08 j 04:30	17°♌32'31	2°24'36		475 Apr 17 j 00:10	0°Ϡ
min. Earth dist.	472 Nov 08 j 04:48	17°♌32'04	0.26435 AU	asc. node	475 May 05 j 06:16	22°Ϡ26'26
morning rise	472 Nov 14 j 04:48	14°♌03'36			475 May 11 j 10:06	0°Π
asc. node	472 Nov 17 j 10:57	12°♌29'28		evening rise	475 May 14 j 12:14	3°Π47'18
direct	472 Nov 28 j 09:26	10°♌03'30			475 Jun 04 j 21:40	0°☾
greatest brilliancy	472 Dec 10 j 17:21	12°♌54'47	-4.7m		475 Jun 29 j 10:52	0°Ω
	473 Jan 04 j 02:31	0°♊			475 Jul 24 j 02:44	0°♍
morning max el	473 Jan 17 j 22:17	13°♊12'18	46°49'48		475 Aug 17 j 23:16	0°♁
	473 Feb 02 j 22:01	0°♋		desc. node	475 Aug 24 j 19:47	8°♁13'00
	473 Mar 01 j 15:13	0°≈			475 Sep 12 j 03:28	0°♌
desc. node	473 Mar 09 j 00:47	8°≈33'10			475 Oct 07 j 21:21	0°♊
	473 Mar 27 j 08:29	0°✕			475 Nov 03 j 22:41	0°♋
	473 Apr 21 j 15:02	0°Υ		evening max el	475 Nov 11 j 08:22	7°♋41'51 47°23'10
	473 May 16 j 15:30	0°Ϡ			475 Dec 05 j 21:22	0°≈
	473 Jun 10 j 10:58	0°Π		asc. node	475 Dec 15 j 22:55	6°≈39'30
asc. node	473 Jun 30 j 03:57	24°Π01'14		greatest brilliancy	475 Dec 19 j 13:01	8°≈28'16 -4.7m
	473 Jul 05 j 01:08	0°☾		retrograde	476 Jan 01 j 09:10	11°≈34'38
morning set	473 Jul 17 j 15:15	15°☾28'21		evening set	476 Jan 17 j 21:11	6°≈12'08
	473 Jul 29 j 09:40	0°Ω		min. Earth dist.	476 Jan 21 j 06:31	4°≈07'56 0.27323 AU
max. Earth dist.	473 Aug 19 j 11:26	26°Ω09'46	1.72331 AU	inferior conj	476 Jan 22 j 05:23	3°≈32'09 7°44'51
	473 Aug 22 j 13:22	0°♍		minimum elong	476 Jan 21 j 20:52	3°≈45'29 7°43'36
				morning rise	476 Jan 25 j 20:54	1°≈17'31
superior conj	473 Aug 23 j 06:59	0°♍54'50	1°24'32		476 Jan 28 j 02:56	30°R♋
minimum elong	473 Aug 23 j 06:07	0°♍52'08	1°24'33	direct	476 Feb 11 j 19:04	25°♋42'38
	473 Sep 15 j 13:59	0°♁		greatest brilliancy	476 Feb 22 j 10:14	27°♋47'44 -4.6m
evening rise	473 Sep 30 j 08:34	18°♁28'59			476 Feb 27 j 09:22	0°≈
	473 Oct 09 j 13:23	0°♌		morning max el	476 Apr 01 j 03:36	26°≈39'47 46°09'13
desc. node	473 Oct 19 j 17:32	12°♌43'51			476 Apr 04 j 13:12	0°✕
	473 Nov 02 j 12:56	0°♊		desc. node	476 Apr 05 j 12:25	0°✕57'43
	473 Nov 26 j 13:38	0°♋			476 May 02 j 23:57	0°Υ

	476 May 29 j 13:48	0°♄			479 Jan 02 j 23:45	0°♁	
	476 Jun 24 j 06:38	0°♁		asc. node	479 Jan 12 j 10:52	10°♁18'40	
	476 Jul 19 j 09:19	0°♁		evening max el	479 Jan 21 j 22:27	20°♁09'51	46°38'59
asc. node	476 Jul 27 j 15:49	10°♁00'44			479 Feb 01 j 02:45	0°♁	
	476 Aug 13 j 00:30	0°♁		greatest brilliancy	479 Feb 26 j 13:41	18°♁48'02	-4.6m
	476 Sep 06 j 06:36	0°♁		retrograde	479 Mar 13 j 03:04	22°♁36'10	
morning set	476 Sep 25 j 14:27	24°♁08'35		evening set	479 Mar 29 j 21:29	17°♁06'19	
	476 Sep 30 j 06:33	0°♁		inferior conj	479 Apr 03 j 09:46	14°♁18'26	6°24'02
	476 Oct 24 j 03:22	0°♁		minimum elong	479 Apr 03 j 19:19	14°♁03'19	6°22'10
				min. Earth dist.	479 Apr 03 j 10:04	14°♁17'58	0.28753 AU
superior conj	476 Nov 04 j 01:50	13°♁46'00	0°28'25	morning rise	479 Apr 08 j 17:29	11°♁02'59	
minimum elong	476 Nov 04 j 08:51	14°♁08'05	0°28'05	direct	479 Apr 24 j 19:12	6°♁03'49	
max. Earth dist.	476 Nov 03 j 18:40	13°♁23'29	1.71087 AU	desc. node	479 May 04 j 00:13	7°♁37'18	
desc. node	476 Nov 16 j 05:24	29°♁03'33		greatest brilliancy	479 May 07 j 03:30	8°♁47'05	-4.5m
	476 Nov 16 j 23:20	0°♁			479 Jun 06 j 06:01	0°♁	
	476 Dec 10 j 19:52	0°♁		morning max el	479 Jun 12 j 15:13	5°♁55'49	45°44'30
evening rise	476 Dec 15 j 17:40	6°♁09'46			479 Jul 06 j 05:41	0°♁	
	477 Jan 03 j 18:06	0°♁			479 Aug 02 j 03:58	0°♁	
	477 Jan 27 j 19:35	0°♁		asc. node	479 Aug 25 j 03:40	26°♁55'39	
	477 Feb 21 j 02:47	0°♁			479 Aug 27 j 17:25	0°♁	
asc. node	477 Mar 09 j 08:33	19°♁48'36			479 Sep 21 j 11:01	0°♁	
	477 Mar 17 j 18:59	0°♁			479 Oct 15 j 16:23	0°♁	
	477 Apr 12 j 00:42	0°♁			479 Nov 08 j 15:18	0°♁	
	477 May 08 j 04:08	0°♁			479 Dec 02 j 11:54	0°♁	
	477 Jun 05 j 02:36	0°♁		morning set	479 Dec 10 j 18:53	10°♁25'45	
evening max el	477 Jun 15 j 00:13	9°♁46'06	45°28'21	desc. node	479 Dec 14 j 17:14	15°♁22'21	
desc. node	477 Jun 28 j 22:05	22°♁13'14			479 Dec 26 j 08:32	0°♁	
	477 Jul 09 j 04:34	0°♁			480 Jan 19 j 06:29	0°♁	
greatest brilliancy	477 Jul 22 j 02:56	7°♁03'40	-4.5m				
retrograde	477 Aug 02 j 18:18	9°♁27'48		superior conj	480 Jan 21 j 15:59	2°♁59'58	-1°-14'-30
evening set	477 Aug 20 j 17:12	3°♁28'36		minimum elong	480 Jan 21 j 05:52	2°♁28'19	1°14'15
inferior conj	477 Aug 23 j 21:45	1°♁32'38	-8°-45'-23	max. Earth dist.	480 Jan 25 j 15:20	7°♁58'19	1.71630 AU
minimum elong	477 Aug 23 j 20:48	1°♁34'06	8°45'24		480 Feb 12 j 06:44	0°♁	
min. Earth dist.	477 Aug 24 j 12:37	1°♁09'50	0.28145 AU	evening rise	480 Mar 01 j 21:59	23°♁09'51	
	477 Aug 26 j 10:27	30°♁			480 Mar 07 j 10:26	0°♁	
morning rise	477 Aug 27 j 00:13	29°♁39'20			480 Mar 31 j 18:44	0°♁	
direct	477 Sep 14 j 04:06	23°♁27'09		asc. node	480 Apr 05 j 20:31	6°♁13'08	
greatest brilliancy	477 Sep 28 j 14:25	27°♁11'52	-4.6m		480 Apr 25 j 08:38	0°♁	
	477 Oct 03 j 16:57	0°♁			480 May 20 j 05:14	0°♁	
asc. node	477 Oct 20 j 01:11	12°♁23'24			480 Jun 14 j 10:55	0°♁	
morning max el	477 Nov 03 j 18:29	26°♁26'00	46°47'34		480 Jul 10 j 07:07	0°♁	
	477 Nov 07 j 05:43	0°♁		desc. node	480 Jul 26 j 09:51	18°♁08'00	
	477 Dec 04 j 08:58	0°♁			480 Aug 06 j 06:44	0°♁	
	477 Dec 29 j 19:23	0°♁		evening max el	480 Aug 27 j 03:10	21°♁28'14	46°33'48
	478 Jan 23 j 15:07	0°♁			480 Sep 05 j 04:47	0°♁	
desc. node	478 Feb 08 j 14:54	19°♁29'08		greatest brilliancy	480 Oct 05 j 04:55	20°♁44'18	-4.6m
	478 Feb 17 j 05:26	0°♁		retrograde	480 Oct 15 j 22:10	22°♁50'57	
	478 Mar 13 j 17:58	0°♁		evening set	480 Oct 30 j 18:23	18°♁33'05	
	478 Apr 07 j 06:11	0°♁		inferior conj	480 Nov 05 j 11:15	15°♁12'42	-2°-49'-39
	478 May 01 j 18:23	0°♁		minimum elong	480 Nov 05 j 17:29	15°♁03'13	2°47'45
morning set	478 May 08 j 22:28	8°♁46'41		min. Earth dist.	480 Nov 05 j 18:43	15°♁01'21	0.26461 AU
	478 May 26 j 06:03	0°♁		morning rise	480 Nov 11 j 16:20	11°♁35'56	
asc. node	478 Jun 01 j 18:13	7°♁58'56		asc. node	480 Nov 16 j 13:05	9°♁22'21	
max. Earth dist.	478 Jun 12 j 12:08	21°♁10'49	1.73573 AU	direct	480 Nov 25 j 21:46	7°♁34'57	
				greatest brilliancy	480 Dec 08 j 08:16	10°♁28'27	-4.7m
superior conj	478 Jun 14 j 08:46	23°♁28'00	0°29'18		481 Jan 04 j 08:29	0°♁	
minimum elong	478 Jun 14 j 03:10	23°♁10'50	0°29'03	morning max el	481 Jan 15 j 10:29	10°♁43'52	46°50'37
	478 Jun 19 j 16:13	0°♁			481 Feb 02 j 16:15	0°♁	
	478 Jul 14 j 00:24	0°♁			481 Mar 01 j 05:54	0°♁	
evening rise	478 Jul 20 j 02:29	7°♁31'07		desc. node	481 Mar 08 j 02:42	7°♁57'40	
	478 Aug 07 j 07:01	0°♁			481 Mar 26 j 21:27	0°♁	
	478 Aug 31 j 13:19	0°♁			481 Apr 21 j 03:02	0°♁	
desc. node	478 Sep 21 j 07:39	25°♁37'53			481 May 16 j 02:52	0°♁	
	478 Sep 24 j 20:43	0°♁			481 Jun 09 j 21:58	0°♁	
	478 Oct 19 j 06:32	0°♁		asc. node	481 Jun 29 j 06:03	23°♁34'38	
	478 Nov 12 j 20:59	0°♁			481 Jul 04 j 11:54	0°♁	
	478 Dec 07 j 21:46	0°♁		morning set	481 Jul 15 j 08:58	13°♁22'04	

	481 Jul 28 j 20:23	0°♁		minimum elong	484 Jan 19 j 10:05	1°≈22'45	7°32'41
max. Earth dist.	481 Aug 17 j 02:49	23°♁54'50	1.72390 AU		484 Jan 21 j 15:19	30°R☾	
				morning rise	484 Jan 23 j 13:16	28°☾50'29	
superior conj	481 Aug 20 j 23:43	28°♁43'59	1°24'19	direct	484 Feb 09 j 07:56	23°☾20'00	
minimum elong	481 Aug 20 j 22:08	28°♁39'03	1°24'19	greatest brilliancy	484 Feb 19 j 23:46	25°☾26'10	-4.6m
	481 Aug 22 j 00:07	0°♎			484 Feb 29 j 03:48	0°≈	
evening rise	481 Sep 15 j 00:51	0°♌		morning max el	484 Mar 29 j 18:13	24°≈23'05	46°10'40
	481 Sep 27 j 21:46	16°♌05'54			484 Apr 04 j 10:29	0°♋	
	481 Oct 09 j 00:25	0°♍		desc. node	484 Apr 04 j 14:36	0°♋10'22	
desc. node	481 Oct 18 j 19:39	12°♍15'48			484 May 02 j 15:24	0°♎	
	481 Nov 02 j 00:09	0°♏			484 May 29 j 02:58	0°♏	
	481 Nov 26 j 01:05	0°☾			484 Jun 23 j 18:38	0°♁	
	481 Dec 20 j 04:59	0°≈			484 Jul 18 j 20:40	0°☽	
	482 Jan 13 j 15:36	0°♋		asc. node	484 Jul 26 j 17:50	9°☽32'47	
	482 Feb 07 j 15:44	0°♎			484 Aug 12 j 11:31	0°♁	
asc. node	482 Feb 08 j 22:38	1°♎31'01			484 Sep 05 j 17:28	0°♎	
	482 Mar 05 j 18:22	0°♏		morning set	484 Sep 23 j 04:54	21°♎49'36	
evening max el	482 Apr 02 j 19:28	29°♏25'40	45°31'47		484 Sep 29 j 17:23	0°♌	
	482 Apr 03 j 09:41	0°♁			484 Oct 23 j 14:14	0°♍	
greatest brilliancy	482 May 07 j 02:49	25°♁48'59	-4.5m	max. Earth dist.	484 Nov 01 j 04:08	10°♍47'50	1.71108 AU
retrograde	482 May 21 j 11:14	29°♁25'09					
desc. node	482 May 31 j 12:13	27°♁26'22		superior conj	484 Nov 01 j 12:43	11°♍14'52	0°32'03
evening set	482 Jun 05 j 13:35	25°♁03'34		minimum elong	484 Nov 01 j 20:28	11°♍39'15	0°31'42
inferior conj	482 Jun 11 j 23:31	21°♁14'02	-2°-38'-54	desc. node	484 Nov 15 j 07:33	28°♍35'56	
minimum elong	482 Jun 11 j 17:53	21°♁22'50	2°37'20		484 Nov 16 j 10:17	0°♏	
min. Earth dist.	482 Jun 12 j 01:43	21°♁10'34	0.28961 AU		484 Dec 10 j 06:53	0°☾	
morning rise	482 Jun 17 j 21:54	17°♁39'06		evening rise	484 Dec 13 j 03:23	3°☾35'01	
direct	482 Jul 03 j 15:19	12°♁56'06			485 Jan 03 j 05:11	0°≈	
greatest brilliancy	482 Jul 17 j 16:51	16°♁21'30	-4.5m		485 Jan 27 j 06:47	0°♋	
	482 Aug 07 j 03:41	0°☽		asc. node	485 Feb 20 j 14:11	0°♎	
morning max el	482 Aug 21 j 19:20	13°☽16'13	46°04'47		485 Mar 08 j 10:40	19°♎19'38	
	482 Sep 07 j 03:11	0°♁			485 Mar 17 j 06:51	0°♏	
asc. node	482 Sep 21 j 15:32	15°♁59'03			485 Apr 11 j 13:30	0°♁	
	482 Oct 03 j 20:28	0°♎			485 May 07 j 18:52	0°☽	
	482 Oct 29 j 00:32	0°♌			485 Jun 04 j 22:19	0°♁	
	482 Nov 22 j 11:28	0°♍		evening max el	485 Jun 12 j 15:55	7°♁34'46	45°27'09
	482 Dec 16 j 15:06	0°♏		desc. node	485 Jun 28 j 00:08	21°♁11'23	
	483 Jan 09 j 16:33	0°☾			485 Jul 10 j 06:10	0°♎	
desc. node	483 Jan 11 j 05:06	1°☾53'55		greatest brilliancy	485 Jul 19 j 14:18	4°♎45'49	-4.5m
	483 Feb 02 j 18:20	0°≈		retrograde	485 Jul 31 j 08:43	7°♎12'19	
morning set	483 Feb 25 j 10:19	28°≈10'27		evening set	485 Aug 18 j 06:00	1°♎15'12	
	483 Feb 26 j 21:37	0°♋			485 Aug 20 j 07:52	30°R♁	
	483 Mar 23 j 03:03	0°♎		inferior conj	485 Aug 21 j 12:16	29°♁16'25	-8°-43'-34
				minimum elong	485 Aug 21 j 10:29	29°♁19'11	8°43'32
superior conj	483 Apr 04 j 23:22	15°♎51'35	-1°-2'-14	min. Earth dist.	485 Aug 22 j 01:58	28°♁55'23	0.28196 AU
minimum elong	483 Apr 05 j 09:04	16°♎21'28	1°01'55	morning rise	485 Aug 24 j 14:48	27°♁22'55	
max. Earth dist.	483 Apr 07 j 07:46	18°♎45'23	1.73161 AU	direct	485 Sep 11 j 19:56	27°♁10'27	
	483 Apr 16 j 10:51	0°♏		greatest brilliancy	485 Sep 26 j 05:02	24°♁54'02	-4.6m
asc. node	483 May 04 j 08:28	22°♏00'25			485 Oct 04 j 21:10	0°♎	
	483 May 10 j 20:48	0°♁		asc. node	485 Oct 19 j 03:21	11°♎22'35	
evening rise	483 May 12 j 06:22	1°♁42'57		morning max el	485 Nov 01 j 09:21	24°♎06'12	46°46'23
	483 Jun 04 j 08:28	0°☽			485 Nov 07 j 02:08	0°♌	
	483 Jun 28 j 21:57	0°♁			485 Dec 04 j 00:28	0°♍	
	483 Jul 23 j 14:19	0°♎			485 Dec 29 j 08:58	0°♏	
	483 Aug 17 j 11:37	0°♌			486 Jan 23 j 03:41	0°☾	
desc. node	483 Aug 23 j 21:45	7°♌41'11		desc. node	486 Feb 07 j 16:53	18°☾58'17	
	483 Sep 11 j 17:01	0°♍			486 Feb 16 j 17:19	0°≈	
	483 Oct 07 j 13:02	0°♏			486 Mar 13 j 05:22	0°♋	
	483 Nov 03 j 19:12	0°☾			486 Apr 06 j 17:13	0°♎	
evening max el	483 Nov 08 j 22:23	5°☾17'59	47°23'08		486 May 01 j 05:11	0°♏	
	483 Dec 06 j 18:45	0°≈		morning set	486 May 06 j 16:20	6°♏41'29	
asc. node	483 Dec 15 j 01:03	5°≈02'43			486 May 25 j 16:43	0°♁	
greatest brilliancy	483 Dec 17 j 03:51	6°≈04'18	-4.7m	asc. node	486 May 31 j 20:16	7°♁32'32	
retrograde	483 Dec 29 j 23:29	9°≈10'23		max. Earth dist.	486 Jun 10 j 10:09	19°♁18'16	1.73589 AU
evening set	484 Jan 15 j 07:14	3°≈53'30					
min. Earth dist.	484 Jan 18 j 19:54	1°≈44'50	0.27259 AU	superior conj	486 Jun 12 j 03:12	21°♁24'24	0°26'21
inferior conj	484 Jan 19 j 19:04	1°≈08'43	7°34'07	minimum elong	486 Jun 11 j 22:07	21°♁08'46	0°26'07

	486 Jun 19 j 02:53	0°☿			489 Feb 02 j 10:01	0°♁		
	486 Jul 13 j 11:09	0°♁			489 Feb 28 j 20:25	0°♁		
evening rise	486 Jul 17 j 20:59	5°♁26'41		desc. node	489 Mar 07 j 04:55	7°♁23'16		
	486 Aug 06 j 17:57	0°♁			489 Mar 26 j 10:23	0°♁		
	486 Aug 31 j 00:31	0°♁			489 Apr 20 j 15:04	0°♁		
desc. node	486 Sep 20 j 09:49	25°♁09'02			489 May 15 j 14:21	0°♁		
	486 Sep 24 j 08:19	0°♁			489 Jun 09 j 09:05	0°♁		
	486 Oct 18 j 18:40	0°♁		asc. node	489 Jun 28 j 08:03	23°♁07'20		
	486 Nov 12 j 09:54	0°♁			489 Jul 03 j 22:48	0°♁		
	486 Dec 07 j 12:01	0°♁		morning set	489 Jul 13 j 02:37	11°♁15'13		
asc. node	487 Jan 02 j 16:52	0°♁			489 Jul 28 j 07:12	0°♁		
evening max el	487 Jan 11 j 12:49	9°♁33'19		max. Earth dist.	489 Aug 14 j 20:49	21°♁47'44	1.72448 AU	
	487 Jan 19 j 14:14	17°♁54'13	46°41'23					
	487 Feb 01 j 05:55	0°♁		superior conj	489 Aug 18 j 16:26	26°♁32'46	1°23'57	
greatest brilliancy	487 Feb 24 j 08:21	16°♁38'48	-4.6m	minimum elong	489 Aug 18 j 14:08	26°♁25'37	1°23'57	
retrograde	487 Mar 10 j 19:21	20°♁24'04			489 Aug 21 j 11:00	0°♁		
evening set	487 Mar 27 j 16:27	14°♁50'30			489 Sep 14 j 11:52	0°♁		
inferior conj	487 Apr 01 j 01:53	12°♁06'32	6°37'25	evening rise	489 Sep 25 j 11:12	13°♁43'07		
minimum elong	487 Apr 01 j 11:20	11°♁51'33	6°35'39		489 Oct 08 j 11:38	0°♁		
min. Earth dist.	487 Apr 01 j 01:30	12°♁07'08	0.28726 AU	desc. node	489 Oct 17 j 21:45	11°♁47'04		
morning rise	487 Apr 06 j 06:35	8°♁55'12			489 Nov 01 j 11:33	0°♁		
direct	487 Apr 22 j 11:12	3°♁52'40			489 Nov 25 j 12:43	0°♁		
desc. node	487 May 03 j 02:21	5°♁55'43			489 Dec 19 j 16:56	0°♁		
greatest brilliancy	487 May 04 j 15:59	6°♁32'26	-4.5m		490 Jan 13 j 04:03	0°♁		
	487 Jun 06 j 06:53	0°♁			490 Feb 07 j 05:12	0°♁		
morning max el	487 Jun 10 j 06:29	3°♁44'23	45°44'30	asc. node	490 Feb 08 j 00:46	0°♁57'33		
	487 Jul 05 j 21:58	0°♁			490 Mar 05 j 10:06	0°♁		
	487 Aug 01 j 17:30	0°♁		evening max el	490 Mar 31 j 10:30	27°♁12'36	45°33'18	
asc. node	487 Aug 24 j 05:44	26°♁24'49			490 Apr 03 j 08:24	0°♁		
	487 Aug 27 j 05:44	0°♁		greatest brilliancy	490 May 04 j 16:49	23°♁37'32	-4.5m	
	487 Sep 20 j 22:43	0°♁		retrograde	490 May 19 j 03:53	27°♁17'09		
	487 Oct 15 j 03:45	0°♁		desc. node	490 May 30 j 14:15	24°♁43'07		
	487 Nov 08 j 02:30	0°♁		evening set	490 Jun 03 j 05:32	22°♁55'34		
	487 Dec 01 j 22:59	0°♁		inferior conj	490 Jun 09 j 16:00	19°♁05'27	-2°-19'-58	
morning set	487 Dec 08 j 04:59	7°♁51'50		minimum elong	490 Jun 09 j 10:59	19°♁13'16	2°18'34	
desc. node	487 Dec 13 j 19:16	14°♁54'03		min. Earth dist.	490 Jun 09 j 18:19	19°♁01'50	0.28970 AU	
	487 Dec 25 j 19:33	0°♁		morning rise	490 Jun 15 j 16:11	15°♁28'12		
	488 Jan 18 j 17:27	0°♁		direct	490 Jul 01 j 07:32	10°♁47'10		
				greatest brilliancy	490 Jul 15 j 09:59	14°♁13'35	-4.5m	
superior conj	488 Jan 19 j 02:47	0°♁29'14	-1°-12'-30		490 Aug 07 j 09:32	0°♁		
minimum elong	488 Jan 18 j 16:08	29°♁55'54	1°12'14	morning max el	490 Aug 19 j 11:21	11°♁04'44	46°03'29	
max. Earth dist.	488 Jan 23 j 02:35	5°♁29'05	1.71582 AU		490 Sep 06 j 20:39	0°♁		
	488 Feb 11 j 17:39	0°♁		asc. node	490 Sep 20 j 17:44	15°♁21'40		
evening rise	488 Feb 28 j 11:01	20°♁47'30			490 Oct 03 j 10:44	0°♁		
	488 Mar 06 j 21:23	0°♁			490 Oct 28 j 13:29	0°♁		
	488 Mar 31 j 05:48	0°♁			490 Nov 21 j 23:45	0°♁		
asc. node	488 Apr 04 j 22:40	5°♁45'46			490 Dec 16 j 02:57	0°♁		
	488 Apr 24 j 19:56	0°♁			491 Jan 09 j 04:06	0°♁		
	488 May 19 j 17:01	0°♁		desc. node	491 Jan 10 j 07:05	1°♁24'08		
	488 Jun 13 j 23:36	0°♁			491 Feb 02 j 05:38	0°♁		
	488 Jul 09 j 21:31	0°♁		morning set	491 Feb 22 j 23:27	25°♁47'42		
desc. node	488 Jul 25 j 11:51	17°♁28'52			491 Feb 26 j 08:43	0°♁		
	488 Aug 06 j 00:44	0°♁			491 Mar 22 j 14:00	0°♁		
evening max el	488 Aug 24 j 15:23	19°♁03'02	46°31'03					
	488 Sep 05 j 10:33	0°♁		superior conj	491 Apr 02 j 15:35	13°♁39'59	-1°-4'-29	
greatest brilliancy	488 Oct 02 j 19:11	18°♁18'23	-4.6m	minimum elong	491 Apr 03 j 01:16	14°♁09'51	1°04'11	
retrograde	488 Oct 13 j 09:27	20°♁22'32		max. Earth dist.	491 Apr 05 j 01:49	16°♁39'34	1.73119 AU	
evening set	488 Oct 28 j 08:50	16°♁01'35			491 Apr 15 j 21:44	0°♁		
inferior conj	488 Nov 02 j 23:27	12°♁44'34	-3°-12'-45	asc. node	491 May 03 j 10:30	21°♁33'13		
minimum elong	488 Nov 03 j 06:26	12°♁33'57	3°10'38	evening rise	491 May 10 j 00:44	29°♁38'37		
min. Earth dist.	488 Nov 03 j 08:47	12°♁30'22	0.26490 AU		491 May 10 j 07:42	0°♁		
morning rise	488 Nov 09 j 03:37	9°♁08'41			491 Jun 03 j 19:32	0°♁		
asc. node	488 Nov 15 j 15:08	6°♁20'32			491 Jun 28 j 09:21	0°♁		
direct	488 Nov 23 j 09:45	5°♁06'02			491 Jul 23 j 02:14	0°♁		
greatest brilliancy	488 Dec 05 j 23:57	8°♁03'00	-4.7m		491 Aug 17 j 00:18	0°♁		
	489 Jan 04 j 12:30	0°♁		desc. node	491 Aug 22 j 23:54	7°♁08'57		
morning max el	489 Jan 12 j 22:47	8°♁15'32	46°51'38		491 Sep 11 j 06:58	0°♁		

	491 Oct 07 j 05:15	0°♁			494 Mar 12 j 17:03	0°♁	
	491 Nov 03 j 16:47	0°♁			494 Apr 06 j 04:33	0°♁	
evening max el	491 Nov 06 j 13:14	2°♁55'20	47°22'55		494 Apr 30 j 16:15	0°♁	
	491 Dec 08 j 00:56	0°♁		morning set	494 May 04 j 10:18	4°♁35'44	
asc. node	491 Dec 14 j 03:04	3°♁21'00			494 May 25 j 03:39	0°♁	
greatest brilliancy	491 Dec 14 j 18:18	3°♁38'38	-4.7m	asc. node	494 May 30 j 22:17	7°♁05'20	
retrograde	491 Dec 27 j 13:59	6°♁44'32		max. Earth dist.	494 Jun 08 j 07:20	17°♁22'30	1.73598 AU
evening set	492 Jan 12 j 17:09	1°♁33'20					
	492 Jan 15 j 07:20	30°♁♁		superior conj	494 Jun 09 j 21:54	19°♁20'57	0°23'23
min. Earth dist.	492 Jan 16 j 08:56	29°♁20'23	0.27195 AU	minimum elong	494 Jun 09 j 17:20	19°♁06'56	0°23'11
inferior conj	492 Jan 17 j 08:34	28°♁43'39	7°22'21		494 Jun 18 j 13:47	0°♁	
minimum elong	492 Jan 16 j 23:11	28°♁58'14	7°20'45		494 Jul 12 j 22:07	0°♁	
morning rise	492 Jan 21 j 05:39	26°♁21'37		evening rise	494 Jul 15 j 15:47	3°♁22'37	
direct	492 Feb 06 j 21:16	20°♁55'55			494 Aug 06 j 05:06	0°♁	
greatest brilliancy	492 Feb 17 j 12:26	23°♁02'15	-4.6m		494 Aug 30 j 12:00	0°♁	
	492 Mar 01 j 09:38	0°♁		desc. node	494 Sep 19 j 11:52	24°♁38'52	
morning max el	492 Mar 27 j 09:07	22°♁06'08	46°12'17		494 Sep 23 j 20:15	0°♁	
desc. node	492 Apr 03 j 16:39	29°♁22'42			494 Oct 18 j 07:11	0°♁	
	492 Apr 04 j 07:19	0°♁			494 Nov 11 j 23:14	0°♁	
	492 May 02 j 06:52	0°♁			494 Dec 07 j 02:45	0°♁	
	492 May 28 j 16:16	0°♁			495 Jan 02 j 10:43	0°♁	
	492 Jun 23 j 06:50	0°♁		asc. node	495 Jan 10 j 14:57	8°♁46'52	
	492 Jul 18 j 08:16	0°♁		evening max el	495 Jan 17 j 04:48	15°♁34'24	46°43'49
asc. node	492 Jul 25 j 19:56	9°♁04'16			495 Feb 01 j 11:19	0°♁	
	492 Aug 11 j 22:50	0°♁		greatest brilliancy	495 Feb 22 j 02:53	14°♁28'06	-4.6m
	492 Sep 05 j 04:39	0°♁		retrograde	495 Mar 08 j 11:11	18°♁10'43	
morning set	492 Sep 20 j 19:24	19°♁29'55		evening set	495 Mar 25 j 11:19	12°♁33'26	
	492 Sep 29 j 04:32	0°♁		inferior conj	495 Mar 29 j 17:54	9°♁53'30	6°50'15
	492 Oct 23 j 01:24	0°♁		minimum elong	495 Mar 30 j 03:13	9°♁38'43	6°48'36
				min. Earth dist.	495 Mar 29 j 17:09	9°♁54'42	0.28696 AU
superior conj	492 Oct 29 j 23:44	8°♁43'13	0°35'37	morning rise	495 Apr 03 j 19:26	6°♁46'24	
minimum elong	492 Oct 30 j 08:07	9°♁09'37	0°35'14	direct	495 Apr 20 j 02:34	1°♁40'16	
max. Earth dist.	492 Oct 29 j 12:37	8°♁08'14	1.71128 AU	greatest brilliancy	495 May 02 j 05:17	4°♁17'32	-4.5m
desc. node	492 Nov 14 j 09:30	28°♁06'44		desc. node	495 May 02 j 04:20	4°♁16'34	
	492 Nov 15 j 21:31	0°♁			495 Jun 06 j 06:54	0°♁	
	492 Dec 09 j 18:13	0°♁		morning max el	495 Jun 07 j 21:03	1°♁30'25	45°44'46
evening rise	492 Dec 10 j 13:02	0°♁59'06			495 Jul 05 j 14:09	0°♁	
	493 Jan 02 j 16:37	0°♁			495 Aug 01 j 07:05	0°♁	
	493 Jan 26 j 18:20	0°♁		asc. node	495 Aug 23 j 07:55	25°♁54'08	
	493 Feb 20 j 01:57	0°♁			495 Aug 26 j 18:06	0°♁	
asc. node	493 Mar 07 j 12:49	18°♁49'41			495 Sep 20 j 10:29	0°♁	
	493 Mar 16 j 19:04	0°♁			495 Oct 14 j 15:15	0°♁	
	493 Apr 11 j 02:40	0°♁			495 Nov 07 j 13:53	0°♁	
	493 May 07 j 10:03	0°♁			495 Dec 01 j 10:19	0°♁	
	493 Jun 04 j 18:54	0°♁		morning set	495 Dec 05 j 14:45	5°♁16'02	
evening max el	493 Jun 10 j 07:26	5°♁22'26	45°25'54	desc. node	495 Dec 12 j 21:19	14°♁25'04	
desc. node	493 Jun 27 j 02:07	20°♁07'20			495 Dec 25 j 06:49	0°♁	
	493 Jul 11 j 18:47	0°♁					
greatest brilliancy	493 Jul 17 j 02:43	2°♁28'45	-4.5m	superior conj	496 Jan 16 j 13:06	27°♁56'14	-1°-10'-19
retrograde	493 Jul 28 j 22:49	4°♁56'30		minimum elong	496 Jan 16 j 02:00	27°♁21'30	1°10'02
	493 Aug 14 j 02:43	30°♁♁			496 Jan 18 j 04:37	0°♁	
evening set	493 Aug 15 j 18:38	29°♁02'10		max. Earth dist.	496 Jan 20 j 10:39	2°♁49'07	1.71532 AU
inferior conj	493 Aug 19 j 02:59	27°♁00'00	-8°-40'-52		496 Feb 11 j 04:47	0°♁	
minimum elong	493 Aug 19 j 00:23	27°♁04'02	8°40'47	evening rise	496 Feb 25 j 23:35	18°♁23'03	
min. Earth dist.	493 Aug 19 j 15:46	26°♁40'18	0.28248 AU		496 Mar 06 j 08:32	0°♁	
morning rise	493 Aug 22 j 05:58	25°♁05'34			496 Mar 30 j 17:04	0°♁	
direct	493 Sep 09 j 11:34	18°♁53'31		asc. node	496 Apr 04 j 00:40	5°♁17'19	
greatest brilliancy	493 Sep 23 j 19:40	22°♁35'26	-4.6m		496 Apr 24 j 07:27	0°♁	
	493 Oct 05 j 18:10	0°♁			496 May 19 j 05:01	0°♁	
asc. node	493 Oct 18 j 05:20	10°♁21'45			496 Jun 13 j 12:31	0°♁	
morning max el	493 Oct 29 j 23:23	21°♁43'17	46°45'08		496 Jul 09 j 12:08	0°♁	
	493 Nov 06 j 22:18	0°♁		desc. node	496 Jul 24 j 14:03	16°♁49'48	
	493 Dec 03 j 16:06	0°♁			496 Aug 05 j 19:10	0°♁	
	493 Dec 28 j 22:45	0°♁		evening max el	496 Aug 22 j 03:05	16°♁36'57	46°28'24
	494 Jan 22 j 16:28	0°♁			496 Sep 05 j 18:31	0°♁	
desc. node	494 Feb 06 j 19:03	18°♁27'10		greatest brilliancy	496 Sep 30 j 08:26	15°♁51'39	-4.6m
	494 Feb 16 j 05:28	0°♁		retrograde	496 Oct 10 j 21:02	17°♁54'35	

evening set	496 Oct 25 j 23:26	13°♌29'51		499 Apr 15 j 08:31	0°♄	
inferior conj	496 Oct 31 j 11:41	10°♌16'28	-3°-35'-17	asc. node	499 May 02 j 12:30	21°♄06'14
minimum elong	496 Oct 31 j 19:22	10°♌04'48	3°33'00	evening rise	499 May 07 j 18:27	27°♄32'40
min. Earth dist.	496 Oct 31 j 22:41	9°♌59'46	0.26530 AU		499 May 09 j 18:30	0°♀
morning rise	496 Nov 06 j 14:48	6°♌42'00			499 Jun 03 j 06:30	0°♁
asc. node	496 Nov 14 j 17:11	3°♌24'32			499 Jun 27 j 20:38	0°♁
direct	496 Nov 20 j 22:01	2°♌36'52			499 Jul 22 j 14:03	0°♁
greatest brilliancy	496 Dec 03 j 16:17	5°♌38'11	-4.7m		499 Aug 16 j 12:55	0°♁
	497 Jan 04 j 15:10	0°♁		desc. node	499 Aug 22 j 01:57	6°♁36'44
morning max el	497 Jan 10 j 12:00	5°♁48'45	46°52'26		499 Sep 10 j 20:50	0°♌
	497 Feb 02 j 03:39	0°♁			499 Oct 06 j 21:26	0°♁
	497 Feb 28 j 10:59	0°♁			499 Nov 03 j 14:45	0°♁
desc. node	497 Mar 06 j 06:58	6°♁48'03		evening max el	499 Nov 04 j 04:39	0°♁35'20 47°22'41
	497 Mar 25 j 23:25	0°♁			499 Dec 09 j 19:45	0°♁
	497 Apr 20 j 03:11	0°♁		greatest brilliancy	499 Dec 12 j 09:12	1°♁14'53 -4.7m
	497 May 15 j 01:53	0°♁		asc. node	499 Dec 13 j 05:09	1°♁36'50
	497 Jun 08 j 20:14	0°♁		retrograde	499 Dec 25 j 04:32	4°♁19'41
asc. node	497 Jun 27 j 10:11	22°♁40'16			500 Jan 08 j 18:54	30°♁
	497 Jul 03 j 09:45	0°♁		evening set	500 Jan 10 j 03:11	29°♁14'22
morning set	497 Jul 10 j 20:22	9°♁08'34		min. Earth dist.	500 Jan 13 j 21:56	26°♁57'08 0.27132 AU
	497 Jul 27 j 18:03	0°♁		inferior conj	500 Jan 14 j 22:04	26°♁19'38 7°09'46
max. Earth dist.	497 Aug 12 j 16:05	19°♁44'39	1.72499 AU	minimum elong	500 Jan 14 j 12:23	26°♁34'42 7°08'01
				morning rise	500 Jan 18 j 22:05	23°♁53'38
superior conj	497 Aug 16 j 09:26	24°♁22'31	1°23'29	direct	500 Feb 04 j 10:54	18°♁33'08
minimum elong	497 Aug 16 j 06:27	24°♁13'12	1°23'27	greatest brilliancy	500 Feb 15 j 00:27	20°♁38'31 -4.6m
	497 Aug 20 j 21:52	0°♁			500 Mar 02 j 06:49	0°♁
	497 Sep 13 j 22:51	0°♁		morning max el	500 Mar 24 j 23:40	19°♁48'57 46°13'35
evening rise	497 Sep 23 j 01:09	11°♁22'14		desc. node	500 Apr 02 j 18:38	28°♁36'16
	497 Oct 07 j 22:46	0°♌			500 Apr 04 j 03:15	0°♁
desc. node	497 Oct 16 j 23:44	11°♌18'13			500 May 01 j 21:56	0°♁
	497 Oct 31 j 22:54	0°♁			500 May 28 j 05:17	0°♁
	497 Nov 25 j 00:20	0°♁			500 Jun 22 j 18:47	0°♁
	497 Dec 19 j 04:55	0°♁			500 Jul 17 j 19:37	0°♁
	498 Jan 12 j 16:38	0°♁		asc. node	500 Jul 24 j 22:03	8°♁36'36
	498 Feb 06 j 18:52	0°♁			500 Aug 11 j 09:52	0°♁
asc. node	498 Feb 07 j 02:53	0°♁23'31			500 Sep 04 j 15:33	0°♁
	498 Mar 05 j 02:11	0°♁		morning set	500 Sep 18 j 09:51	17°♁10'56
evening max el	498 Mar 29 j 02:01	25°♁00'28	45°35'03		500 Sep 28 j 15:24	0°♁
	498 Apr 03 j 08:14	0°♁			500 Oct 22 j 12:18	0°♌
greatest brilliancy	498 May 02 j 07:02	21°♁26'05	-4.5m	max. Earth dist.	500 Oct 26 j 17:59	5°♌19'50 1.71145 AU
retrograde	498 May 16 j 20:46	25°♁08'33				
desc. node	498 May 29 j 16:18	21°♁55'20		superior conj	500 Oct 27 j 11:03	6°♌13'32 0°39'05
evening set	498 May 31 j 21:30	20°♁46'55		minimum elong	500 Oct 27 j 20:00	6°♌41'42 0°38'40
inferior conj	498 Jun 07 j 08:16	16°♁56'15	-2°00'-45	desc. node	500 Nov 13 j 11:38	27°♌39'03
minimum elong	498 Jun 07 j 03:54	17°♁03'03	1°59'32		500 Nov 15 j 08:26	0°♁
min. Earth dist.	498 Jun 07 j 10:26	16°♁52'53	0.28975 AU	evening rise	500 Dec 07 j 22:57	28°♁25'02
morning rise	498 Jun 13 j 10:09	13°♁16'57			500 Dec 09 j 05:11	0°♁
direct	498 Jun 29 j 00:01	8°♁37'46			501 Jan 02 j 03:39	0°♁
greatest brilliancy	498 Jul 13 j 02:20	12°♁04'34	-4.5m		501 Jan 26 j 05:28	0°♁
	498 Aug 07 j 13:28	0°♁			501 Feb 19 j 13:20	0°♁
morning max el	498 Aug 17 j 03:56	8°♁54'57	46°02'19	asc. node	501 Mar 06 j 14:45	18°♁20'09
	498 Sep 06 j 13:39	0°♁			501 Mar 16 j 06:58	0°♁
asc. node	498 Sep 19 j 19:39	14°♁44'09			501 Apr 10 j 15:37	0°♁
	498 Oct 03 j 00:43	0°♁			501 May 07 j 01:12	0°♁
	498 Oct 28 j 02:10	0°♁			501 Jun 04 j 15:58	0°♁
	498 Nov 21 j 11:44	0°♌		evening max el	501 Jun 07 j 22:06	3°♁08'41 45°24'44
	498 Dec 15 j 14:33	0°♁		desc. node	501 Jun 26 j 04:19	19°♁02'38
	499 Jan 08 j 15:27	0°♁			501 Jul 14 j 02:58	0°♁
desc. node	499 Jan 09 j 09:15	0°♁55'34		greatest brilliancy	501 Jul 14 j 15:44	0°♁12'54 -4.5m
	499 Feb 01 j 16:48	0°♁		retrograde	501 Jul 26 j 12:28	2°♁41'25
morning set	499 Feb 20 j 12:02	23°♁23'25			501 Aug 07 j 07:11	30°♁
	499 Feb 25 j 19:44	0°♁		evening set	501 Aug 13 j 06:51	26°♁50'26
	499 Mar 22 j 00:53	0°♁		inferior conj	501 Aug 16 j 17:39	24°♁44'27 -8°-37'-17
				minimum elong	501 Aug 16 j 14:13	24°♁49'45 8°37'09
superior conj	499 Mar 31 j 07:05	11°♁26'17	-1°-6'-40	min. Earth dist.	501 Aug 17 j 05:53	24°♁25'34 0.28297 AU
minimum elong	499 Mar 31 j 16:42	11°♁55'58	1°06'24	morning rise	501 Aug 19 j 21:25	22°♁48'32
max. Earth dist.	499 Apr 02 j 20:14	14°♁34'57	1.73077 AU	direct	501 Sep 07 j 02:32	16°♁37'17

greatest brilliancy	501 Sep 21 j 10:29	20°♁17'57	-4.6m		504 Mar 30 j 03:58	0°♄	
	501 Oct 06 j 09:23	0°♁		asc. node	504 Apr 03 j 02:45	4°♄50'13	
asc. node	501 Oct 17 j 07:26	9°♁23'28			504 Apr 23 j 18:36	0°♁	
morning max el	501 Oct 27 j 12:40	19°♁19'27	46°43'58		504 May 18 j 16:42	0°♁	
	501 Nov 06 j 17:31	0°♁			504 Jun 13 j 01:12	0°♁	
	501 Dec 03 j 07:10	0°♁			504 Jul 09 j 02:42	0°♁	
	501 Dec 28 j 12:02	0°♁		desc. node	504 Jul 23 j 16:03	16°♁10'26	
	502 Jan 22 j 04:46	0°♁			504 Aug 05 j 13:55	0°♁	
desc. node	502 Feb 05 j 21:06	17°♁57'10		evening max el	504 Aug 19 j 15:30	14°♁13'18	46°25'43
	502 Feb 15 j 17:07	0°♁			504 Sep 06 j 05:06	0°♁	
	502 Mar 12 j 04:14	0°♁		greatest brilliancy	504 Sep 27 j 20:43	13°♁24'24	-4.6m
	502 Apr 05 j 15:25	0°♁		retrograde	504 Oct 08 j 09:05	15°♁27'09	
	502 Apr 30 j 02:56	0°♁		evening set	504 Oct 23 j 14:06	10°♁58'16	
morning set	502 May 02 j 04:10	2°♁30'47		inferior conj	504 Oct 28 j 23:49	7°♁48'38	-3°-57'-15
	502 May 24 j 14:14	0°♁		minimum elong	504 Oct 29 j 08:09	7°♁36'01	3°54'51
asc. node	502 May 30 j 00:27	6°♁39'32		min. Earth dist.	504 Oct 29 j 12:07	7°♁29'59	0.26572 AU
max. Earth dist.	502 Jun 06 j 02:53	15°♁22'41	1.73612 AU	morning rise	504 Nov 04 j 01:39	4°♁16'10	
				asc. node	504 Nov 13 j 19:18	0°♁34'52	
superior conj	502 Jun 07 j 16:25	17°♁17'56	0°20'22	direct	504 Nov 18 j 10:42	0°♁08'04	
minimum elong	502 Jun 07 j 12:24	17°♁05'37	0°20'11	greatest brilliancy	504 Dec 01 j 07:56	3°♁13'11	-4.7m
	502 Jun 18 j 00:22	0°♁			505 Jan 04 j 16:11	0°♁	
	502 Jul 12 j 08:47	0°♁		morning max el	505 Jan 08 j 02:09	3°♁25'00	46°53'14
evening rise	502 Jul 13 j 10:21	1°♁18'49			505 Feb 01 j 20:41	0°♁	
	502 Aug 05 j 15:58	0°♁			505 Feb 28 j 01:09	0°♁	
	502 Aug 29 j 23:12	0°♁		desc. node	505 Mar 05 j 08:55	6°♁13'26	
desc. node	502 Sep 18 j 13:51	24°♁09'20			505 Mar 25 j 12:07	0°♁	
	502 Sep 23 j 07:54	0°♁			505 Apr 19 j 15:00	0°♁	
	502 Oct 17 j 19:26	0°♁			505 May 14 j 13:08	0°♁	
	502 Nov 11 j 12:20	0°♁			505 Jun 08 j 07:07	0°♁	
	502 Dec 06 j 17:16	0°♁		asc. node	505 Jun 26 j 12:16	22°♁13'49	
	503 Jan 02 j 04:30	0°♁			505 Jul 02 j 20:26	0°♁	
asc. node	503 Jan 09 j 17:06	8°♁01'07		morning set	505 Jul 08 j 14:25	7°♁03'39	
evening max el	503 Jan 14 j 18:48	13°♁14'16	46°46'24		505 Jul 27 j 04:42	0°♁	
	503 Feb 01 j 18:11	0°♁		max. Earth dist.	505 Aug 10 j 10:55	17°♁40'44	1.72555 AU
greatest brilliancy	503 Feb 19 j 20:45	12°♁18'04	-4.6m				
retrograde	503 Mar 06 j 03:09	15°♁59'27		superior conj	505 Aug 14 j 02:33	22°♁13'05	1°22'52
evening set	503 Mar 23 j 06:17	10°♁18'15		minimum elong	505 Aug 13 j 22:54	22°♁01'45	1°22'50
inferior conj	503 Mar 27 j 10:09	7°♁42'28	7°02'19		505 Aug 20 j 08:36	0°♁	
minimum elong	503 Mar 27 j 19:15	7°♁28'01	7°00'48		505 Sep 13 j 09:45	0°♁	
min. Earth dist.	503 Mar 27 j 09:01	7°♁44'16	0.28666 AU	evening rise	505 Sep 20 j 15:03	9°♁01'29	
morning rise	503 Apr 01 j 08:29	4°♁39'49			505 Oct 07 j 09:51	0°♁	
	503 Apr 12 j 16:39	30°♁		desc. node	505 Oct 16 j 01:51	10°♁49'57	
direct	503 Apr 17 j 17:44	29°♁29'42			505 Oct 31 j 10:12	0°♁	
	503 Apr 22 j 22:01	0°♁			505 Nov 24 j 11:54	0°♁	
greatest brilliancy	503 Apr 29 j 19:33	2°♁05'33	-4.5m		505 Dec 18 j 16:52	0°♁	
desc. node	503 May 01 j 06:27	2°♁42'50			506 Jan 12 j 05:10	0°♁	
morning max el	503 Jun 05 j 11:55	29°♁18'25	45°44'56	asc. node	506 Feb 06 j 04:49	29°♁49'09	
	503 Jun 06 j 05:19	0°♁			506 Feb 06 j 08:32	0°♁	
	503 Jul 05 j 05:41	0°♁			506 Mar 04 j 18:24	0°♁	
	503 Jul 31 j 20:15	0°♁		evening max el	506 Mar 26 j 18:39	22°♁51'31	45°36'56
asc. node	503 Aug 22 j 09:52	25°♁23'39			506 Apr 03 j 09:00	0°♁	
	503 Aug 26 j 06:10	0°♁		greatest brilliancy	506 Apr 29 j 22:35	19°♁17'19	-4.5m
	503 Sep 19 j 21:59	0°♁		retrograde	506 May 14 j 13:57	23°♁01'04	
	503 Oct 14 j 02:28	0°♁		desc. node	506 May 28 j 18:26	19°♁05'39	
	503 Nov 07 j 00:59	0°♁		evening set	506 May 29 j 13:59	18°♁39'31	
	503 Nov 30 j 21:20	0°♁		inferior conj	506 Jun 05 j 00:49	14°♁48'21	-1°-41'-37
morning set	503 Dec 03 j 00:33	2°♁41'09		minimum elong	506 Jun 04 j 21:07	14°♁54'06	1°40'34
desc. node	503 Dec 11 j 23:26	13°♁57'12		min. Earth dist.	506 Jun 05 j 02:39	14°♁45'28	0.28977 AU
	503 Dec 24 j 17:46	0°♁		morning rise	506 Jun 11 j 04:13	11°♁07'06	
				direct	506 Jun 26 j 17:03	6°♁29'56	
superior conj	504 Jan 13 j 23:23	25°♁23'59	-1°-8'-1	greatest brilliancy	506 Jul 10 j 17:33	9°♁55'21	-4.5m
minimum elong	504 Jan 13 j 11:57	24°♁48'08	1°07'41		506 Aug 07 j 15:29	0°♁	
max. Earth dist.	504 Jan 17 j 15:23	29°♁59'38	1.71482 AU	morning max el	506 Aug 14 j 20:31	6°♁45'56	46°00'55
	504 Jan 17 j 15:31	0°♁			506 Sep 06 j 06:12	0°♁	
	504 Feb 10 j 15:38	0°♁		asc. node	506 Sep 18 j 21:46	14°♁07'47	
evening rise	504 Feb 23 j 12:16	15°♁59'49			506 Oct 02 j 14:34	0°♁	
	504 Mar 05 j 19:21	0°♁			506 Oct 27 j 14:50	0°♁	

	506 Nov 20 j 23:48	0°♍		evening max el	509 Jun 05 j 12:21	0°♌53'12	45°23'46
	506 Dec 15 j 02:13	0°♊		desc. node	509 Jun 25 j 06:20	17°♌55'27	
desc. node	507 Jan 08 j 11:18	0°♌26'21		greatest brilliancy	509 Jul 12 j 04:34	27°♌56'43	-4.5m
	507 Jan 08 j 02:51	0°♌			509 Jul 19 j 04:28	0°♍	
morning set	507 Feb 01 j 04:00	0°♌		retrograde	509 Jul 24 j 02:25	0°♍26'58	
	507 Feb 18 j 00:25	20°♌58'22			509 Jul 28 j 21:46	30°♍	
	507 Feb 25 j 06:45	0°♋		evening set	509 Aug 10 j 19:06	24°♌39'28	
	507 Mar 21 j 11:47	0°♋		inferior conj	509 Aug 14 j 08:39	22°♌29'27	-8°-32'-58
superior conj	507 Mar 28 j 22:31	9°♋12'14	-1°-8'-46	minimum elong	509 Aug 14 j 04:26	22°♌35'59	8°32'44
minimum elong	507 Mar 29 j 08:01	9°♋41'33	1°08'31	min. Earth dist.	509 Aug 14 j 20:33	22°♌11'04	0.28343 AU
max. Earth dist.	507 Mar 31 j 15:59	12°♋34'18	1.73033 AU	morning rise	509 Aug 17 j 13:32	20°♌31'43	
	507 Apr 14 j 19:21	0°♋		direct	509 Sep 04 j 17:29	14°♌21'27	
asc. node	507 May 01 j 14:41	20°♋39'38		greatest brilliancy	509 Sep 19 j 02:17	18°♌02'00	-4.6m
evening rise	507 May 05 j 12:17	25°♋26'53			509 Oct 06 j 20:48	0°♍	
	507 May 09 j 05:21	0°♌		asc. node	509 Oct 16 j 09:34	8°♍26'20	
	507 Jun 02 j 17:30	0°♌		morning max el	509 Oct 25 j 02:04	16°♍55'39	46°42'45
	507 Jun 27 j 07:57	0°♌			509 Nov 06 j 12:23	0°♎	
	507 Jul 22 j 01:53	0°♍			509 Dec 02 j 22:16	0°♍	
	507 Aug 16 j 01:36	0°♎			509 Dec 28 j 01:34	0°♊	
desc. node	507 Aug 21 j 03:57	6°♎04'13		desc. node	510 Jan 21 j 17:25	0°♌	
	507 Sep 10 j 10:55	0°♍			510 Feb 04 j 23:05	17°♌25'41	
	507 Oct 06 j 14:07	0°♊			510 Feb 15 j 05:11	0°♌	
evening max el	507 Nov 01 j 20:01	28°♊14'14	47°22'01		510 Mar 11 j 15:51	0°♋	
	507 Nov 03 j 13:59	0°♌		morning set	510 Apr 05 j 02:42	0°♋	
greatest brilliancy	507 Dec 10 j 01:09	28°♌50'51	-4.7m		510 Apr 29 j 21:40	0°♋23'28	
asc. node	507 Dec 12 j 07:15	29°♌47'04			510 Apr 29 j 14:00	0°♋	
	507 Dec 12 j 21:09	0°♌		asc. node	510 May 24 j 01:11	0°♌	
retrograde	507 Dec 22 j 18:37	1°♌52'42		max. Earth dist.	510 May 29 j 02:28	6°♌12'10	
	508 Jan 01 j 05:58	30°♌			510 Jun 03 j 22:48	13°♌22'56	1.73623 AU
evening set	508 Jan 07 j 13:02	26°♌53'38		superior conj	510 Jun 05 j 10:50	15°♌13'35	0°17'20
min. Earth dist.	508 Jan 11 j 11:08	24°♌31'29	0.27067 AU	minimum elong	510 Jun 05 j 07:23	15°♌03'00	0°17'09
inferior conj	508 Jan 12 j 11:19	23°♌53'52	6°56'17		510 Jun 17 j 11:18	0°♌	
minimum elong	508 Jan 12 j 01:23	24°♌09'19	6°54'21	evening rise	510 Jul 11 j 05:08	29°♌14'44	
morning rise	508 Jan 16 j 14:18	21°♌23'37			510 Jul 11 j 19:49	0°♌	
direct	508 Feb 02 j 00:04	16°♌08'44			510 Aug 05 j 03:12	0°♍	
greatest brilliancy	508 Feb 12 j 12:26	18°♌13'07	-4.6m		510 Aug 29 j 10:44	0°♎	
	508 Mar 02 j 23:03	0°♌		desc. node	510 Sep 17 j 16:02	23°♌39'35	
morning max el	508 Mar 22 j 13:06	17°♌28'05	46°15'01		510 Sep 22 j 19:52	0°♍	
desc. node	508 Apr 01 j 20:50	27°♌50'28			510 Oct 17 j 07:59	0°♊	
	508 Apr 03 j 22:49	0°♋			510 Nov 11 j 01:45	0°♌	
	508 May 01 j 12:58	0°♋			510 Dec 06 j 08:16	0°♌	
	508 May 27 j 18:22	0°♋			511 Jan 01 j 23:10	0°♋	
	508 Jun 22 j 06:50	0°♌		asc. node	511 Jan 08 j 19:01	7°♋12'47	
	508 Jul 17 j 07:06	0°♌		evening max el	511 Jan 12 j 08:35	10°♋52'07	46°48'41
asc. node	508 Jul 24 j 00:02	8°♌08'06			511 Feb 02 j 04:36	0°♋	
	508 Aug 10 j 21:02	0°♌		greatest brilliancy	511 Feb 17 j 13:28	10°♋04'15	-4.6m
	508 Sep 04 j 02:35	0°♍		retrograde	511 Mar 03 j 19:06	13°♋45'40	
morning set	508 Sep 16 j 00:51	14°♍53'21		evening set	511 Mar 21 j 00:54	8°♋00'18	
	508 Sep 28 j 02:24	0°♎		inferior conj	511 Mar 25 j 02:06	5°♋28'46	7°13'54
	508 Oct 21 j 23:22	0°♍		minimum elong	511 Mar 25 j 10:55	5°♋14'46	7°12'30
max. Earth dist.	508 Oct 23 j 22:47	2°♍29'05	1.71175 AU	min. Earth dist.	511 Mar 25 j 00:33	5°♋31'13	0.28639 AU
				morning rise	511 Mar 29 j 21:09	2°♋30'56	
superior conj	508 Oct 24 j 22:49	3°♍44'41	0°42'24		511 Apr 03 j 15:40	30°♋	
minimum elong	508 Oct 25 j 08:15	4°♍14'21	0°42'00	direct	511 Apr 15 j 08:29	27°♋16'19	
desc. node	508 Nov 12 j 13:46	27°♍10'36		greatest brilliancy	511 Apr 27 j 10:10	29°♋51'47	-4.5m
	508 Nov 14 j 19:37	0°♊			511 Apr 27 j 18:10	0°♋	
evening rise	508 Dec 05 j 08:40	25°♊49'22		desc. node	511 Apr 30 j 08:32	1°♋10'12	
	508 Dec 08 j 16:29	0°♌		morning max el	511 Jun 03 j 03:21	27°♋06'09	45°45'18
	509 Jan 01 j 15:02	0°♌			511 Jun 06 j 03:31	0°♋	
	509 Jan 25 j 16:58	0°♋			511 Jul 04 j 21:27	0°♌	
	509 Feb 19 j 01:07	0°♋			511 Jul 31 j 09:42	0°♌	
asc. node	509 Mar 05 j 16:53	17°♋50'06		asc. node	511 Aug 21 j 11:57	24°♌52'32	
	509 Mar 15 j 19:17	0°♋			511 Aug 25 j 18:31	0°♌	
	509 Apr 10 j 05:00	0°♌			511 Sep 19 j 09:47	0°♍	
	509 May 06 j 16:53	0°♌			511 Oct 13 j 14:00	0°♎	
	509 Jun 04 j 14:07	0°♌			511 Nov 06 j 12:21	0°♍	

morning set	511 Nov 30 j 10:59	0°♁07'27		evening set	514 May 27 j 06:30	16°♁30'46	
	511 Nov 30 j 08:37	0°♁		desc. node	514 May 27 j 20:27	16°♁11'31	
desc. node	511 Dec 11 j 01:28	13°♁28'13		inferior conj	514 Jun 02 j 17:13	12°♁39'13	-1°-22'-11
	511 Dec 24 j 04:58	0°♁		minimum elong	514 Jun 02 j 14:13	12°♁43'54	1°21'19
				min. Earth dist.	514 Jun 02 j 18:58	12°♁36'28	0.28980 AU
superior conj	512 Jan 11 j 09:50	22°♁51'14	-1°-5'-34	morning rise	514 Jun 08 j 21:59	8°♁55'56	
minimum elong	512 Jan 10 j 22:07	22°♁14'31	1°05'12	direct	514 Jun 24 j 09:56	4°♁20'56	
max. Earth dist.	512 Jan 14 j 21:05	27°♁12'09	1.71443 AU	greatest brilliancy	514 Jul 08 j 07:47	7°♁43'38	-4.5m
	512 Jan 17 j 02:41	0°♁			514 Aug 07 j 16:36	0°♁	
	512 Feb 10 j 02:48	0°♁		morning max el	514 Aug 12 j 12:25	4°♁34'24	45°59'36
evening rise	512 Feb 21 j 00:49	13°♁35'05			514 Sep 05 j 22:45	0°♁	
	512 Mar 05 j 06:35	0°♁		asc. node	514 Sep 17 j 23:58	13°♁31'15	
	512 Mar 29 j 15:19	0°♁			514 Oct 02 j 04:28	0°♁	
asc. node	512 Apr 02 j 04:52	4°♁21'53			514 Oct 27 j 03:35	0°♁	
	512 Apr 23 j 06:14	0°♁			514 Nov 20 j 11:56	0°♁	
	512 May 18 j 04:53	0°♁			514 Dec 14 j 13:58	0°♁	
	512 Jun 12 j 14:24	0°♁		desc. node	515 Jan 07 j 13:18	29°♁56'45	
	512 Jul 08 j 17:53	0°♁			515 Jan 07 j 14:20	0°♁	
desc. node	512 Jul 22 j 18:04	15°♁29'34			515 Jan 31 j 15:16	0°♁	
	512 Aug 05 j 09:37	0°♁		morning set	515 Feb 15 j 12:57	18°♁33'31	
evening max el	512 Aug 17 j 04:55	11°♁51'20	46°23'09		515 Feb 24 j 17:50	0°♁	
	512 Sep 06 j 19:45	0°♁			515 Mar 20 j 22:42	0°♁	
greatest brilliancy	512 Sep 25 j 08:32	10°♁56'12	-4.6m	superior conj	515 Mar 26 j 14:08	6°♁58'29	-1°-10'-45
retrograde	512 Oct 05 j 21:42	12°♁59'12		minimum elong	515 Mar 26 j 23:25	7°♁27'12	1°10'31
evening set	512 Oct 21 j 05:03	8°♁26'12		max. Earth dist.	515 Mar 29 j 12:59	10°♁37'16	1.72986 AU
inferior conj	512 Oct 26 j 12:03	5°♁20'16	-4°-18'-45		515 Apr 14 j 06:13	0°♁	
minimum elong	512 Oct 26 j 20:56	5°♁06'49	4°16'16	asc. node	515 Apr 30 j 16:42	20°♁12'23	
min. Earth dist.	512 Oct 27 j 01:18	5°♁00'12	0.26613 AU	evening rise	515 May 03 j 06:09	23°♁20'58	
morning rise	512 Nov 01 j 12:21	1°♁50'12			515 May 08 j 16:16	0°♁	
	512 Nov 05 j 07:18	30°♁			515 Jun 02 j 04:37	0°♁	
asc. node	512 Nov 12 j 21:20	27°♁51'01			515 Jun 26 j 19:25	0°♁	
direct	512 Nov 15 j 23:54	27°♁39'01			515 Jul 21 j 13:54	0°♁	
	512 Nov 27 j 03:10	0°♁			515 Aug 15 j 14:28	0°♁	
greatest brilliancy	512 Nov 28 j 22:37	0°♁46'31	-4.7m	desc. node	515 Aug 20 j 06:06	5°♁31'41	
	513 Jan 04 j 16:14	0°♁			515 Sep 10 j 01:13	0°♁	
morning max el	513 Jan 05 j 16:56	1°♁02'22	46°54'00		515 Oct 06 j 07:09	0°♁	
	513 Feb 01 j 13:33	0°♁		evening max el	515 Oct 30 j 10:37	25°♁51'10	47°21'19
	513 Feb 27 j 15:22	0°♁			515 Nov 03 j 14:15	0°♁	
desc. node	513 Mar 04 j 11:08	5°♁39'15		greatest brilliancy	515 Dec 07 j 17:42	26°♁27'29	-4.7m
	513 Mar 25 j 00:59	0°♁		asc. node	515 Dec 11 j 09:16	27°♁52'55	
	513 Apr 19 j 03:05	0°♁		retrograde	515 Dec 20 j 08:08	29°♁25'37	
	513 May 14 j 00:42	0°♁		evening set	516 Jan 04 j 23:00	24°♁32'45	
asc. node	513 Jun 07 j 18:21	0°♁		min. Earth dist.	516 Jan 09 j 00:49	22°♁05'14	0.27002 AU
	513 Jun 25 j 14:17	21°♁46'06		inferior conj	516 Jan 10 j 00:36	21°♁28'13	6°41'55
	513 Jul 02 j 07:28	0°♁		minimum elong	516 Jan 09 j 14:30	21°♁43'56	6°39'51
morning set	513 Jul 06 j 08:16	4°♁57'10		morning rise	516 Jan 14 j 06:34	18°♁53'31	
	513 Jul 26 j 15:40	0°♁		direct	516 Jan 30 j 12:44	13°♁44'17	
max. Earth dist.	513 Aug 08 j 04:14	15°♁31'19	1.72606 AU	greatest brilliancy	516 Feb 10 j 01:23	15°♁48'37	-4.6m
					516 Mar 03 j 11:07	0°♁	
superior conj	513 Aug 11 j 19:33	20°♁02'31	1°22'08	morning max el	516 Mar 20 j 01:49	15°♁05'28	46°16'35
minimum elong	513 Aug 11 j 15:17	19°♁49'17	1°22'06	desc. node	516 Mar 31 j 22:52	27°♁05'13	
	513 Aug 19 j 19:38	0°♁			516 Apr 03 j 17:44	0°♁	
	513 Sep 12 j 20:54	0°♁			516 May 01 j 03:41	0°♁	
evening rise	513 Sep 18 j 05:02	6°♁40'10			516 May 27 j 07:15	0°♁	
	513 Oct 06 j 21:11	0°♁			516 Jun 21 j 18:45	0°♁	
desc. node	513 Oct 15 j 03:56	10°♁20'46			516 Jul 16 j 18:31	0°♁	
	513 Oct 30 j 21:45	0°♁		asc. node	516 Jul 23 j 02:11	7°♁40'15	
	513 Nov 23 j 23:42	0°♁			516 Aug 10 j 08:11	0°♁	
	513 Dec 18 j 05:01	0°♁			516 Sep 03 j 13:36	0°♁	
asc. node	514 Jan 11 j 17:55	0°♁		morning set	516 Sep 13 j 15:36	12°♁34'59	
	514 Feb 05 j 06:59	29°♁14'53			516 Sep 27 j 13:24	0°♁	
	514 Feb 05 j 22:26	0°♁		max. Earth dist.	516 Oct 21 j 03:54	29°♁39'35	1.71203 AU
	514 Mar 04 j 11:05	0°♁			516 Oct 21 j 10:23	0°♁	
evening max el	514 Mar 24 j 11:26	20°♁42'14	45°38'35	superior conj	516 Oct 22 j 10:27	1°♁15'38	0°45'40
	514 Apr 03 j 11:25	0°♁		minimum elong	516 Oct 22 j 20:17	1°♁46'35	0°45'16
greatest brilliancy	514 Apr 27 j 15:00	17°♁08'35	-4.5m				
retrograde	514 May 12 j 06:36	20°♁52'11					

desc. node	516 Nov 11 j 15:43	26°♁41'53		greatest brilliancy	519 Apr 25 j 00:34	27°♁38'54	-4.5m
	516 Nov 14 j 06:43	0°♁		desc. node	519 Apr 29 j 10:34	29°♁41'46	
evening rise	516 Dec 02 j 18:17	23°♁13'51			519 Apr 30 j 00:27	0°♁	
	516 Dec 08 j 03:39	0°♁		morning max el	519 May 31 j 19:46	24°♁57'22	45°45'46
	517 Jan 01 j 02:17	0°♁			519 Jun 06 j 00:26	0°♁	
	517 Jan 25 j 04:22	0°♁			519 Jul 04 j 12:34	0°♁	
	517 Feb 18 j 12:47	0°♁			519 Jul 30 j 22:39	0°♁	
asc. node	517 Mar 04 j 19:01	17°♁20'26		asc. node	519 Aug 20 j 14:08	24°♁23'02	
	517 Mar 15 j 07:29	0°♁			519 Aug 25 j 06:26	0°♁	
	517 Apr 09 j 18:17	0°♁			519 Sep 18 j 21:13	0°♁	
	517 May 06 j 08:35	0°♁			519 Oct 13 j 01:12	0°♁	
evening max el	517 Jun 03 j 02:12	28°♁37'34	45°22'49		519 Nov 05 j 23:28	0°♁	
	517 Jun 04 j 12:56	0°♁		morning set	519 Nov 27 j 21:05	27°♁33'24	
desc. node	517 Jun 24 j 08:21	16°♁47'00			519 Nov 29 j 19:40	0°♁	
greatest brilliancy	517 Jul 09 j 15:52	25°♁39'20	-4.5m	desc. node	519 Dec 10 j 03:34	13°♁00'05	
retrograde	517 Jul 21 j 16:32	28°♁13'02			519 Dec 23 j 15:58	0°♁	
evening set	517 Aug 08 j 06:59	22°♁28'58					
inferior conj	517 Aug 11 j 23:33	20°♁14'40	-8°-27'-48	superior conj	520 Jan 08 j 19:37	20°♁17'04	-1°-2'-55
minimum elong	517 Aug 11 j 18:35	20°♁22'20	8°27'27	minimum elong	520 Jan 08 j 07:44	19°♁39'48	1°02'32
min. Earth dist.	517 Aug 12 j 11:03	19°♁56'55	0.28394 AU	max. Earth dist.	520 Jan 12 j 03:53	24°♁28'43	1.71401 AU
morning rise	517 Aug 15 j 05:56	18°♁14'42			520 Jan 16 j 13:36	0°♁	
direct	517 Sep 02 j 08:25	12°♁05'38			520 Feb 09 j 13:41	0°♁	
greatest brilliancy	517 Sep 16 j 19:17	15°♁47'55	-4.6m	evening rise	520 Feb 18 j 13:01	11°♁10'06	
	517 Oct 07 j 05:12	0°♁			520 Mar 04 j 17:29	0°♁	
asc. node	517 Oct 15 j 11:34	7°♁30'12			520 Mar 29 j 02:20	0°♁	
morning max el	517 Oct 22 j 16:14	14°♁34'02	46°41'36	asc. node	520 Apr 01 j 06:53	3°♁54'15	
	517 Nov 06 j 06:45	0°♁			520 Apr 22 j 17:32	0°♁	
	517 Dec 02 j 13:06	0°♁			520 May 17 j 16:44	0°♁	
	517 Dec 27 j 14:49	0°♁			520 Jun 12 j 03:18	0°♁	
	518 Jan 21 j 05:47	0°♁			520 Jul 08 j 08:48	0°♁	
desc. node	518 Feb 04 j 01:17	16°♁55'45		desc. node	520 Jul 21 j 20:17	14°♁50'15	
	518 Feb 14 j 16:56	0°♁			520 Aug 05 j 05:22	0°♁	
	518 Mar 11 j 03:10	0°♁		evening max el	520 Aug 14 j 19:10	9°♁33'00	46°20'31
	518 Apr 04 j 13:43	0°♁			520 Sep 07 j 14:21	0°♁	
morning set	518 Apr 27 j 15:16	28°♁17'10		greatest brilliancy	520 Sep 22 j 20:10	8°♁29'41	-4.6m
	518 Apr 29 j 00:48	0°♁		retrograde	520 Oct 03 j 10:10	10°♁32'42	
	518 May 23 j 11:51	0°♁		evening set	520 Oct 18 j 20:13	5°♁55'42	
asc. node	518 May 28 j 04:31	5°♁45'47		inferior conj	520 Oct 24 j 00:21	2°♁53'24	-4°-39'-38
max. Earth dist.	518 Jun 01 j 20:16	11°♁28'48	1.73631 AU	minimum elong	520 Oct 24 j 09:44	2°♁39'11	4°37'03
				min. Earth dist.	520 Oct 24 j 14:22	2°♁32'10	0.26661 AU
superior conj	518 Jun 03 j 05:27	13°♁10'43	0°14'16		520 Oct 28 j 21:52	30°♁	
minimum elong	518 Jun 03 j 02:35	13°♁01'55	0°14'08	morning rise	520 Oct 29 j 22:51	29°♁25'48	
behind sun begin	518 Jun 02 j 16:27	12°♁30'47		asc. node	520 Nov 11 j 23:25	25°♁14'38	
behind sun end	518 Jun 03 j 12:43	13°♁33'03		direct	520 Nov 13 j 13:32	25°♁11'30	
	518 Jun 16 j 21:56	0°♁		greatest brilliancy	520 Nov 26 j 12:51	28°♁20'14	-4.7m
evening rise	518 Jul 09 j 00:12	27°♁12'33			520 Nov 29 j 20:26	0°♁	
	518 Jul 11 j 06:33	0°♁		morning max el	521 Jan 03 j 07:23	28°♁39'28	46°54'28
	518 Aug 04 j 14:10	0°♁			521 Jan 04 j 15:01	0°♁	
	518 Aug 28 j 22:04	0°♁			521 Feb 01 j 05:56	0°♁	
desc. node	518 Sep 16 j 18:05	23°♁09'58			521 Feb 27 j 05:14	0°♁	
	518 Sep 22 j 07:40	0°♁		desc. node	521 Mar 03 j 13:10	5°♁05'20	
	518 Oct 16 j 20:25	0°♁			521 Mar 24 j 13:32	0°♁	
	518 Nov 10 j 15:05	0°♁			521 Apr 18 j 14:48	0°♁	
	518 Dec 05 j 23:15	0°♁			521 May 13 j 11:52	0°♁	
	519 Jan 01 j 18:03	0°♁			521 Jun 07 j 05:11	0°♁	
asc. node	519 Jan 07 j 21:12	6°♁25'13		asc. node	521 Jun 24 j 16:25	21°♁19'53	
evening max el	519 Jan 09 j 23:04	8°♁32'34	46°51'15		521 Jul 01 j 18:07	0°♁	
	519 Feb 02 j 18:03	0°♁		morning set	521 Jul 04 j 02:23	2°♁52'41	
greatest brilliancy	519 Feb 15 j 05:16	7°♁50'14	-4.6m		521 Jul 26 j 02:17	0°♁	
retrograde	519 Mar 01 j 11:33	11°♁32'57		max. Earth dist.	521 Aug 05 j 20:10	13°♁18'55	1.72655 AU
evening set	519 Mar 18 j 19:30	5°♁43'15					
inferior conj	519 Mar 22 j 18:03	3°♁15'57	7°24'53	superior conj	521 Aug 09 j 13:02	17°♁54'42	1°21'18
minimum elong	519 Mar 23 j 02:34	3°♁02'28	7°23'36	minimum elong	521 Aug 09 j 08:10	17°♁39'38	1°21'14
min. Earth dist.	519 Mar 22 j 15:46	3°♁19'32	0.28609 AU		521 Aug 19 j 06:17	0°♁	
morning rise	519 Mar 27 j 09:49	0°♁23'11			521 Sep 12 j 07:41	0°♁	
	519 Mar 28 j 01:46	30°♁		evening rise	521 Sep 15 j 19:33	4°♁21'50	
direct	519 Apr 12 j 23:36	25°♁03'51			521 Oct 06 j 08:09	0°♁	

desc. node	521 Oct 14 j 05:56	9°♍52'32		524 Jun 21 j 06:34	0°♈		
	521 Oct 30 j 08:57	0°♁		524 Jul 16 j 05:47	0°♁		
	521 Nov 23 j 11:13	0°♁		asc. node	524 Jul 22 j 04:16	7°♁12'38	
	521 Dec 17 j 16:58	0°♁		524 Aug 09 j 19:10	0°♁		
	522 Jan 11 j 06:31	0°♁		524 Sep 03 j 00:28	0°♁		
asc. node	522 Feb 04 j 09:05	28°♁40'47		morning set	524 Sep 11 j 06:29	10°♁17'34	
	522 Feb 05 j 12:17	0°♁		524 Sep 27 j 00:16	0°♁		
	522 Mar 04 j 03:52	0°♁		max. Earth dist.	524 Oct 18 j 11:12	26°♁57'14	1.71235 AU
evening max el	522 Mar 22 j 03:39	18°♁32'05	45°40'27				
	522 Apr 03 j 15:07	0°♈		superior conj	524 Oct 19 j 22:23	28°♁47'52	0°48'50
greatest brilliancy	522 Apr 25 j 08:03	15°♈01'32	-4.5m	minimum elong	524 Oct 20 j 08:33	29°♁19'51	0°48'24
retrograde	522 May 09 j 22:48	18°♈44'20			524 Oct 20 j 21:19	0°♈	
evening set	522 May 24 j 23:16	14°♈22'53		desc. node	524 Nov 10 j 17:51	26°♈13'57	
desc. node	522 May 26 j 22:31	13°♈15'49			524 Nov 13 j 17:44	0°♁	
inferior conj	522 May 31 j 09:44	10°♈31'18	-1°-2'-40	evening rise	524 Nov 30 j 04:16	20°♁39'48	
minimum elong	522 May 31 j 07:26	10°♈34'54	1°02'01		524 Dec 07 j 14:44	0°♁	
min. Earth dist.	522 May 31 j 11:40	10°♈28'15	0.28977 AU		524 Dec 31 j 13:26	0°♁	
morning rise	522 Jun 06 j 15:38	6°♈46'00			525 Jan 24 j 15:40	0°♁	
direct	522 Jun 22 j 02:34	2°♈13'08			525 Feb 18 j 00:23	0°♁	
greatest brilliancy	522 Jul 05 j 21:42	5°♈32'32	-4.5m	asc. node	525 Mar 03 j 20:58	16°♁50'26	
	522 Aug 07 j 16:06	0°♁			525 Mar 14 j 19:41	0°♁	
morning max el	522 Aug 10 j 03:33	2°♁22'08	45°58'23		525 Apr 09 j 07:40	0°♈	
	522 Sep 05 j 14:38	0°♁			525 May 06 j 00:33	0°♁	
asc. node	522 Sep 17 j 01:52	12°♁55'14		evening max el	525 May 31 j 16:37	26°♁23'21	45°22'08
	522 Oct 01 j 17:55	0°♁			525 Jun 04 j 12:48	0°♁	
	522 Oct 26 j 15:55	0°♁		desc. node	525 Jun 23 j 10:32	15°♁36'58	
	522 Nov 19 j 23:40	0°♈		greatest brilliancy	525 Jul 07 j 02:36	23°♁21'40	-4.5m
	522 Dec 14 j 01:23	0°♁		retrograde	525 Jul 19 j 07:27	25°♁59'43	
desc. node	523 Jan 06 j 15:28	29°♁28'33		evening set	525 Aug 05 j 18:50	20°♁19'12	
	523 Jan 07 j 01:32	0°♁		inferior conj	525 Aug 09 j 14:36	18°♁00'22	-8°-21'-48
	523 Jan 31 j 02:18	0°♁		minimum elong	525 Aug 09 j 08:56	18°♁09'06	8°21'21
morning set	523 Feb 13 j 01:02	16°♁07'51		min. Earth dist.	525 Aug 10 j 01:19	17°♁43'50	0.28441 AU
	523 Feb 24 j 04:43	0°♁		morning rise	525 Aug 12 j 22:47	15°♁57'52	
	523 Mar 20 j 09:28	0°♁		direct	525 Aug 30 j 23:49	9°♁50'28	
				greatest brilliancy	525 Sep 14 j 12:28	13°♁34'45	-4.6m
superior conj	523 Mar 24 j 05:15	4°♁43'43	-1°-12'-38		525 Oct 07 j 11:07	0°♁	
minimum elong	523 Mar 24 j 14:16	5°♁11'35	1°12'25	asc. node	525 Oct 14 j 13:42	6°♁35'47	
max. Earth dist.	523 Mar 27 j 08:13	8°♁35'17	1.72935 AU	morning max el	525 Oct 20 j 07:22	12°♁15'20	46°40'18
	523 Apr 13 j 16:54	0°♁			525 Nov 06 j 00:37	0°♁	
asc. node	523 Apr 29 j 18:44	19°♁45'43			525 Dec 02 j 03:44	0°♈	
evening rise	523 Apr 30 j 23:31	21°♁14'02			525 Dec 27 j 04:00	0°♁	
	523 May 08 j 03:00	0°♈			526 Jan 20 j 18:06	0°♁	
	523 Jun 01 j 15:31	0°♁		desc. node	526 Feb 03 j 03:17	16°♁25'09	
	523 Jun 26 j 06:40	0°♁			526 Feb 14 j 04:40	0°♁	
	523 Jul 21 j 01:43	0°♁			526 Mar 10 j 14:30	0°♁	
	523 Aug 15 j 03:12	0°♁			526 Apr 04 j 00:46	0°♁	
desc. node	523 Aug 19 j 08:08	4°♁59'20		morning set	526 Apr 25 j 08:49	26°♁10'27	
	523 Sep 09 j 15:27	0°♈			526 Apr 28 j 11:40	0°♁	
	523 Oct 06 j 00:15	0°♁			526 May 22 j 22:38	0°♈	
evening max el	523 Oct 28 j 00:20	23°♁26'44	47°20'34	asc. node	526 May 27 j 06:41	5°♈19'22	
	523 Nov 03 j 15:21	0°♁		max. Earth dist.	526 May 30 j 18:38	9°♈37'06	1.73641 AU
greatest brilliancy	523 Dec 05 j 10:11	24°♁04'53	-4.7m				
asc. node	523 Dec 10 j 11:23	25°♁55'16		superior conj	526 May 31 j 23:53	11°♈06'55	0°11'11
retrograde	523 Dec 17 j 21:16	26°♁59'38		minimum elong	526 May 31 j 21:38	10°♈59'59	0°11'04
evening set	524 Jan 02 j 09:06	22°♁12'29		behind sun begin	526 May 31 j 05:27	10°♈10'18	
min. Earth dist.	524 Jan 06 j 14:53	19°♁39'30	0.26943 AU	behind sun end	526 Jun 01 j 13:48	11°♈49'40	
inferior conj	524 Jan 07 j 13:57	19°♁03'37	6°26'41		526 Jun 16 j 08:42	0°♁	
minimum elong	524 Jan 07 j 03:45	19°♁19'28	6°24'29	evening rise	526 Jul 06 j 19:08	25°♁09'35	
morning rise	524 Jan 11 j 22:55	16°♁24'29			526 Jul 10 j 17:25	0°♁	
direct	524 Jan 28 j 01:06	11°♁20'31			526 Aug 04 j 01:15	0°♁	
greatest brilliancy	524 Feb 07 j 15:33	13°♁26'05	-4.6m		526 Aug 28 j 09:31	0°♁	
	524 Mar 03 j 19:48	0°♁		desc. node	526 Sep 15 j 20:03	22°♁39'49	
morning max el	524 Mar 17 j 14:27	12°♁42'47	46°18'03		526 Sep 21 j 19:37	0°♈	
desc. node	524 Mar 31 j 00:52	26°♁20'51			526 Oct 16 j 09:01	0°♁	
	524 Apr 03 j 12:02	0°♁			526 Nov 10 j 04:41	0°♁	
	524 Apr 30 j 18:09	0°♁			526 Dec 05 j 14:36	0°♁	
	524 May 26 j 19:59	0°♁			527 Jan 01 j 13:40	0°♁	

asc. node	527 Jan 06 j 23:19	5°♁36'09		asc. node	529 Jun 23 j 18:29	20°♁52'27	
evening max el	527 Jan 07 j 14:38	6°♁15'07	46°53'43		529 Jul 01 j 05:06	0°♁	
	527 Feb 03 j 12:29	0°♁		morning set	529 Jul 01 j 20:31	0°♁47'19	
greatest brilliancy	527 Feb 12 j 21:19	5°♁35'53	-4.6m		529 Jul 25 j 13:14	0°♁	
retrograde	527 Feb 27 j 04:18	9°♁19'22		max. Earth dist.	529 Aug 03 j 11:39	11°♁04'05	1.72710 AU
evening set	527 Mar 16 j 13:56	3°♁25'36					
inferior conj	527 Mar 20 j 09:54	1°♁02'17	7°35'07	superior conj	529 Aug 07 j 06:31	15°♁45'56	1°20'20
minimum elong	527 Mar 20 j 18:03	0°♁49'23	7°33'59	minimum elong	529 Aug 07 j 01:07	15°♁29'09	1°20'16
min. Earth dist.	527 Mar 20 j 06:31	1°♁07'37	0.28575 AU		529 Aug 18 j 17:20	0°♁	
	527 Mar 22 j 01:24	30°♁			529 Sep 11 j 18:52	0°♁	
morning rise	527 Mar 24 j 22:23	28°♁14'41		evening rise	529 Sep 13 j 10:00	2°♁02'06	
direct	527 Apr 10 j 15:05	22°♁50'46			529 Oct 05 j 19:31	0°♁	
greatest brilliancy	527 Apr 22 j 13:54	25°♁24'18	-4.5m	desc. node	529 Oct 13 j 08:04	9°♁23'24	
desc. node	527 Apr 28 j 12:39	28°♁15'55			529 Oct 29 j 20:34	0°♁	
	527 May 01 j 11:57	0°♁			529 Nov 22 j 23:08	0°♁	
morning max el	527 May 29 j 12:31	22°♁48'55	45°46'08		529 Dec 17 j 05:18	0°♁	
	527 Jun 05 j 20:51	0°♁			530 Jan 10 j 19:32	0°♁	
	527 Jul 04 j 03:42	0°♁		asc. node	530 Feb 03 j 11:02	28°♁04'56	
	527 Jul 30 j 11:45	0°♁			530 Feb 05 j 02:38	0°♁	
asc. node	527 Aug 19 j 16:04	23°♁52'03			530 Mar 03 j 21:25	0°♁	
	527 Aug 24 j 18:35	0°♁		evening max el	530 Mar 19 j 19:03	16°♁18'34	45°42'19
	527 Sep 18 j 08:51	0°♁			530 Apr 03 j 21:20	0°♁	
	527 Oct 12 j 12:36	0°♁		greatest brilliancy	530 Apr 23 j 00:55	12°♁52'54	-4.5m
	527 Nov 05 j 10:45	0°♁		retrograde	530 May 07 j 14:44	16°♁35'26	
morning set	527 Nov 25 j 07:22	24°♁59'26		evening set	530 May 22 j 16:08	12°♁13'34	
	527 Nov 29 j 06:53	0°♁		desc. node	530 May 26 j 00:37	10°♁16'44	
desc. node	527 Dec 09 j 05:39	12°♁31'22		inferior conj	530 May 29 j 02:14	8°♁22'22	0°-43'-8
	527 Dec 23 j 03:09	0°♁		minimum elong	530 May 29 j 00:39	8°♁24'51	0°42'41
				min. Earth dist.	530 May 29 j 04:38	8°♁18'37	0.28975 AU
superior conj	528 Jan 06 j 05:20	17°♁41'52	-1°00'-8	morning rise	530 Jun 04 j 09:09	4°♁35'15	
minimum elong	528 Jan 05 j 17:26	17°♁04'29	0°59'44	direct	530 Jun 19 j 18:45	0°♁04'16	
max. Earth dist.	528 Jan 09 j 13:05	21°♁52'03	1.71364 AU	greatest brilliancy	530 Jul 03 j 12:18	3°♁21'16	-4.5m
	528 Jan 16 j 00:46	0°♁			530 Aug 07 j 15:01	0°♁	
	528 Feb 09 j 00:50	0°♁		morning max el	530 Aug 07 j 18:00	0°♁07'12	45°57'13
evening rise	528 Feb 16 j 01:08	8°♁43'53			530 Sep 05 j 06:38	0°♁	
	528 Mar 04 j 04:39	0°♁		asc. node	530 Sep 16 j 04:02	12°♁19'08	
	528 Mar 28 j 13:36	0°♁			530 Oct 01 j 07:38	0°♁	
asc. node	528 Mar 31 j 08:58	3°♁26'05			530 Oct 26 j 04:36	0°♁	
	528 Apr 22 j 05:06	0°♁			530 Nov 19 j 11:49	0°♁	
	528 May 17 j 04:54	0°♁			530 Dec 13 j 13:11	0°♁	
	528 Jun 11 j 16:35	0°♁		desc. node	531 Jan 05 j 17:30	28°♁58'44	
	528 Jul 08 j 00:19	0°♁			531 Jan 06 j 13:06	0°♁	
desc. node	528 Jul 20 j 22:14	14°♁08'39			531 Jan 30 j 13:40	0°♁	
	528 Aug 05 j 02:13	0°♁		morning set	531 Feb 10 j 12:45	13°♁39'50	
evening max el	528 Aug 12 j 09:29	7°♁13'44	46°17'47		531 Feb 23 j 15:56	0°♁	
	528 Sep 08 j 16:18	0°♁			531 Mar 19 j 20:33	0°♁	
greatest brilliancy	528 Sep 20 j 08:37	6°♁03'06	-4.6m				
retrograde	528 Sep 30 j 22:11	8°♁05'05		superior conj	531 Mar 21 j 20:13	2°♁27'21	-1°-14'-25
evening set	528 Oct 16 j 11:31	3°♁24'14		minimum elong	531 Mar 22 j 04:54	2°♁54'14	1°14'14
inferior conj	528 Oct 21 j 12:40	0°♁25'42	-4°-59'-48	max. Earth dist.	531 Mar 25 j 01:53	6°♁27'22	1.72884 AU
minimum elong	528 Oct 21 j 22:28	0°♁10'49	4°57'11		531 Apr 13 j 03:57	0°♁	
min. Earth dist.	528 Oct 22 j 03:31	0°♁03'09	0.26707 AU	evening rise	531 Apr 28 j 16:44	19°♁05'33	
	528 Oct 22 j 05:36	30°♁		asc. node	531 Apr 28 j 20:54	19°♁18'21	
morning rise	528 Oct 27 j 09:03	27°♁00'40			531 May 07 j 14:07	0°♁	
direct	528 Nov 11 j 02:58	22°♁43'17		greatest brilliancy	531 May 13 j 14:56	7°♁23'32	-3.9m
asc. node	528 Nov 11 j 01:31	22°♁43'18			531 Jun 01 j 02:48	0°♁	
greatest brilliancy	528 Nov 24 j 02:41	25°♁52'32	-4.7m		531 Jun 25 j 18:17	0°♁	
	528 Dec 01 j 13:25	0°♁			531 Jul 20 j 13:54	0°♁	
morning max el	528 Dec 31 j 20:44	26°♁12'48	46°54'50		531 Aug 14 j 16:19	0°♁	
	529 Jan 04 j 13:13	0°♁		desc. node	531 Aug 18 j 10:08	4°♁25'53	
	529 Jan 31 j 22:20	0°♁			531 Sep 09 j 06:11	0°♁	
	529 Feb 26 j 19:18	0°♁			531 Oct 05 j 18:10	0°♁	
desc. node	529 Mar 02 j 15:08	4°♁30'27		evening max el	531 Oct 25 j 13:14	20°♁58'54	47°19'34
	529 Mar 24 j 02:20	0°♁			531 Nov 03 j 18:29	0°♁	
	529 Apr 18 j 02:49	0°♁		greatest brilliancy	531 Dec 03 j 01:51	21°♁39'04	-4.7m
	529 May 12 j 23:22	0°♁		asc. node	531 Dec 09 j 13:28	23°♁50'30	
	529 Jun 06 j 16:20	0°♁		retrograde	531 Dec 15 j 10:06	24°♁31'21	

evening set	531 Dec 30 j 18:54	19°☾49'24		behind sun begin	534 May 28 j 20:48	7°♁56'48	
min. Earth dist.	532 Jan 04 j 04:41	17°☾11'10	0.26885 AU	behind sun end	534 May 30 j 11:58	9°♁57'03	
inferior conj	532 Jan 05 j 02:58	16°☾36'36	6°10'29		534 Jun 15 j 19:32	0°☾	
minimum elong	532 Jan 04 j 16:44	16°☾52'29	6°08'10	evening rise	534 Jul 04 j 14:00	23°☾06'12	
morning rise	532 Jan 09 j 15:01	13°☾53'10			534 Jul 10 j 04:22	0°♁	
direct	532 Jan 25 j 12:59	8°☾54'09			534 Aug 03 j 12:27	0°♁	
greatest brilliancy	532 Feb 05 j 06:08	11°☾02'06	-4.6m		534 Aug 27 j 21:03	0°♁	
	532 Mar 04 j 02:38	0°♁		desc. node	534 Sep 14 j 22:14	22°♁10'09	
morning max el	532 Mar 15 j 03:14	10°♁19'10	46°19'41		534 Sep 21 j 07:36	0°♁	
desc. node	532 Mar 30 j 03:05	25°♁36'36			534 Oct 15 j 21:38	0°♁	
	532 Apr 03 j 06:17	0°♁			534 Nov 09 j 18:17	0°☾	
	532 Apr 30 j 08:46	0°♁			534 Dec 05 j 06:04	0°♁	
	532 May 26 j 08:56	0°♁			535 Jan 01 j 09:50	0°♁	
	532 Jun 20 j 18:37	0°♁		evening max el	535 Jan 05 j 06:41	3°♁58'54	46°55'56
	532 Jul 15 j 17:19	0°☾		asc. node	535 Jan 06 j 01:14	4°♁45'51	
asc. node	532 Jul 21 j 06:15	6°☾43'54			535 Feb 04 j 13:44	0°♁	
	532 Aug 09 j 06:24	0°♁		greatest brilliancy	535 Feb 10 j 14:17	3°♁22'25	-4.6m
	532 Sep 02 j 11:33	0°♁		retrograde	535 Feb 24 j 20:53	7°♁04'57	
morning set	532 Sep 08 j 21:45	8°♁00'43		evening set	535 Mar 14 j 08:13	1°♁07'31	
	532 Sep 26 j 11:21	0°♁			535 Mar 16 j 03:56	30°♁	
max. Earth dist.	532 Oct 15 j 22:11	24°♁25'51	1.71272 AU	inferior conj	535 Mar 18 j 01:37	28°♁47'57	7°44'47
				minimum elong	535 Mar 18 j 09:20	28°♁35'45	7°43'48
superior conj	532 Oct 17 j 10:35	26°♁20'16	0°51'51	min. Earth dist.	535 Mar 17 j 20:58	28°♁55'19	0.28541 AU
minimum elong	532 Oct 17 j 20:59	26°♁52'59	0°51'26	morning rise	535 Mar 22 j 10:44	26°♁05'30	
	532 Oct 20 j 08:28	0°♁		direct	535 Apr 08 j 06:48	20°♁37'16	
desc. node	532 Nov 09 j 19:58	25°♁45'16		greatest brilliancy	535 Apr 20 j 02:21	23°♁08'14	-4.5m
	532 Nov 13 j 04:59	0°♁		desc. node	535 Apr 27 j 14:45	26°♁52'34	
evening rise	532 Nov 27 j 14:14	18°♁04'50			535 May 02 j 13:14	0°♁	
	532 Dec 07 j 02:05	0°☾		morning max el	535 May 27 j 04:46	20°♁39'14	45°46'29
	532 Dec 31 j 00:53	0°♁			535 Jun 05 j 16:38	0°♁	
	533 Jan 24 j 03:16	0°♁			535 Jul 03 j 18:34	0°♁	
	533 Feb 17 j 12:17	0°♁			535 Jul 30 j 00:41	0°☾	
asc. node	533 Mar 02 j 23:06	16°♁20'05		asc. node	535 Aug 18 j 18:11	23°☾21'58	
	533 Mar 14 j 08:12	0°♁			535 Aug 24 j 06:34	0°♁	
	533 Apr 08 j 21:24	0°♁			535 Sep 17 j 20:23	0°♁	
	533 May 05 j 17:03	0°☾			535 Oct 11 j 23:53	0°♁	
evening max el	533 May 29 j 07:46	24°☾10'20	45°21'32		535 Nov 04 j 21:54	0°♁	
	533 Jun 04 j 14:10	0°♁		morning set	535 Nov 22 j 18:10	22°♁27'31	
desc. node	533 Jun 22 j 12:32	14°♁23'54			535 Nov 28 j 17:57	0°♁	
greatest brilliancy	533 Jul 04 j 13:18	21°♁03'28	-4.5m	desc. node	535 Dec 08 j 07:40	12°♁02'57	
retrograde	533 Jul 16 j 22:40	23°♁45'47			535 Dec 22 j 14:08	0°☾	
evening set	533 Aug 03 j 06:30	18°♁09'13					
inferior conj	533 Aug 07 j 05:35	15°♁45'31	-8°-15'-3	superior conj	536 Jan 03 j 15:25	15°☾08'25	0°-57'-15
minimum elong	533 Aug 06 j 23:15	15°♁55'17	8°14'29	minimum elong	536 Jan 03 j 03:35	14°☾31'16	0°56'50
min. Earth dist.	533 Aug 07 j 15:13	15°♁30'41	0.28483 AU	max. Earth dist.	536 Jan 07 j 00:40	19°☾23'22	1.71325 AU
morning rise	533 Aug 10 j 15:47	13°♁40'10			536 Jan 15 j 11:43	0°♁	
direct	533 Aug 28 j 15:39	7°♁34'59			536 Feb 08 j 11:47	0°♁	
greatest brilliancy	533 Sep 12 j 04:52	11°♁20'26	-4.6m	evening rise	536 Feb 13 j 13:20	6°♁18'31	
	533 Oct 07 j 15:12	0°♁			536 Mar 03 j 15:38	0°♁	
asc. node	533 Oct 13 j 15:48	5°♁42'13			536 Mar 28 j 00:43	0°♁	
morning max el	533 Oct 17 j 22:54	9°♁57'42	46°39'03	asc. node	536 Mar 30 j 11:05	2°♁58'29	
	533 Nov 05 j 18:10	0°♁			536 Apr 21 j 16:31	0°♁	
	533 Dec 01 j 18:17	0°♁			536 May 16 j 16:57	0°☾	
	533 Dec 26 j 17:10	0°♁			536 Jun 11 j 05:49	0°♁	
	534 Jan 20 j 06:29	0°☾			536 Jul 07 j 15:52	0°♁	
desc. node	534 Feb 02 j 05:18	15°☾54'14		desc. node	536 Jul 20 j 00:18	13°♁27'29	
	534 Feb 13 j 16:31	0°♁			536 Aug 04 j 23:33	0°♁	
	534 Mar 10 j 01:58	0°♁		evening max el	536 Aug 09 j 22:52	4°♁52'56	46°15'00
	534 Apr 03 j 11:56	0°♁			536 Sep 10 j 04:09	0°♁	
morning set	534 Apr 23 j 01:59	24°♁02'11		greatest brilliancy	536 Sep 17 j 21:58	3°♁38'24	-4.6m
	534 Apr 27 j 22:37	0°♁		retrograde	536 Sep 28 j 09:45	5°♁38'28	
	534 May 22 j 09:28	0°♁		evening set	536 Oct 14 j 02:56	0°♁53'39	
asc. node	534 May 26 j 08:40	4°♁52'12			536 Oct 15 j 16:29	30°♁	
max. Earth dist.	534 May 28 j 18:05	7°♁48'25	1.73646 AU	inferior conj	536 Oct 19 j 01:03	27°♁59'04	-5°-19'-17
				minimum elong	536 Oct 19 j 11:11	27°♁43'40	5°16'42
superior conj	534 May 29 j 18:01	9°♁01'58	0°08'03	min. Earth dist.	536 Oct 19 j 17:02	27°♁34'47	0.26755 AU
minimum elong	534 May 29 j 16:23	8°♁56'55	0°07'58	morning rise	536 Oct 24 j 19:01	24°♁36'49	

direct	536 Nov 08 j 15:53	20°♁15'57		asc. node	539 Apr 27 j 22:54	18°♄51'55	
asc. node	536 Nov 10 j 03:32	20°♁18'37			539 May 07 j 00:46	0°♁	
greatest brilliancy	536 Nov 21 j 17:13	23°♁26'25	-4.7m		539 May 31 j 13:40	0°♁	
	536 Dec 02 j 17:32	0°♁			539 Jun 25 j 05:31	0°♁	
morning max el	536 Dec 29 j 09:12	23°♁44'38	46°55'25		539 Jul 20 j 01:44	0°♁	
	537 Jan 04 j 10:17	0°♁			539 Aug 14 j 05:09	0°♁	
	537 Jan 31 j 14:05	0°♁		desc. node	539 Aug 17 j 12:18	3°♁53'51	
	537 Feb 26 j 08:52	0°♁			539 Sep 08 j 20:42	0°♁	
desc. node	537 Mar 01 j 17:21	3°♁57'36			539 Oct 05 j 12:03	0°♁	
	537 Mar 23 j 14:42	0°♁		evening max el	539 Oct 23 j 02:14	18°♁32'44	47°18'34
	537 Apr 17 j 14:27	0°♁			539 Nov 03 j 22:46	0°♁	
	537 May 12 j 10:31	0°♁		greatest brilliancy	539 Nov 30 j 16:28	19°♁13'00	-4.7m
	537 Jun 06 j 03:11	0°♁		asc. node	539 Dec 08 j 15:27	21°♁41'35	
asc. node	537 Jun 22 j 20:30	20°♁25'43		retrograde	539 Dec 12 j 23:17	22°♁04'12	
morning set	537 Jun 29 j 14:35	28°♁42'37		evening set	539 Dec 28 j 04:47	17°♁26'46	
	537 Jun 30 j 15:47	0°♁		min. Earth dist.	540 Jan 01 j 18:12	14°♁43'54	0.26832 AU
	537 Jul 24 j 23:53	0°♁		inferior conj	540 Jan 02 j 15:53	14°♁10'21	5°53'29
max. Earth dist.	537 Aug 01 j 04:22	8°♁54'05	1.72764 AU	minimum elong	540 Jan 02 j 05:43	14°♁26'05	5°51'03
				morning rise	540 Jan 07 j 07:05	11°♁22'50	
superior conj	537 Aug 05 j 00:02	13°♁38'17	1°19'15	direct	540 Jan 23 j 01:06	6°♁28'24	
minimum elong	537 Aug 04 j 18:07	13°♁19'55	1°19'10	greatest brilliancy	540 Feb 02 j 20:30	8°♁38'44	-4.6m
	537 Aug 18 j 04:02	0°♁			540 Mar 04 j 06:57	0°♁	
evening rise	537 Sep 11 j 00:39	29°♁44'08		morning max el	540 Mar 12 j 17:02	7°♁59'02	46°21'27
	537 Sep 11 j 05:44	0°♁		desc. node	540 Mar 29 j 05:03	24°♁53'28	
	537 Oct 05 j 06:36	0°♁			540 Apr 02 j 23:39	0°♁	
desc. node	537 Oct 12 j 10:08	8°♁55'01			540 Apr 29 j 22:46	0°♁	
	537 Oct 29 j 07:54	0°♁			540 May 25 j 21:21	0°♁	
	537 Nov 22 j 10:47	0°♁			540 Jun 20 j 06:10	0°♁	
	537 Dec 16 j 17:20	0°♁			540 Jul 15 j 04:24	0°♁	
	538 Jan 10 j 08:13	0°♁		asc. node	540 Jul 20 j 08:23	6°♁16'51	
asc. node	538 Feb 02 j 13:13	27°♁30'58			540 Aug 08 j 17:15	0°♁	
	538 Feb 04 j 16:38	0°♁			540 Sep 01 j 22:19	0°♁	
	538 Mar 03 j 14:47	0°♁		morning set	540 Sep 06 j 13:08	5°♁45'21	
evening max el	538 Mar 17 j 09:37	14°♁04'29	45°44'14		540 Sep 25 j 22:07	0°♁	
	538 Apr 04 j 05:10	0°♁		max. Earth dist.	540 Oct 13 j 09:45	21°♁57'17	1.71306 AU
greatest brilliancy	538 Apr 20 j 16:54	10°♁44'37	-4.5m				
retrograde	538 May 05 j 06:59	14°♁28'27		superior conj	540 Oct 14 j 22:51	23°♁53'52	0°54'46
evening set	538 May 20 j 09:18	10°♁05'33		minimum elong	540 Oct 15 j 09:25	24°♁27'04	0°54'22
desc. node	538 May 25 j 02:37	7°♁18'14			540 Oct 19 j 19:19	0°♁	
inferior conj	538 May 26 j 18:56	6°♁15'09	0°-23'-37	desc. node	540 Nov 08 j 21:56	25°♁17'09	
minimum elong	538 May 26 j 18:04	6°♁16'30	0°23'23		540 Nov 12 j 15:55	0°♁	
min. Earth dist.	538 May 26 j 21:51	6°♁10'34	0.28977 AU	evening rise	540 Nov 25 j 00:09	15°♁30'50	
morning rise	538 Jun 02 j 02:44	2°♁26'30			540 Dec 06 j 13:06	0°♁	
	538 Jun 07 j 05:00	30°♁			540 Dec 30 j 12:01	0°♁	
direct	538 Jun 17 j 10:47	27°♁56'52			541 Jan 23 j 14:36	0°♁	
	538 Jun 28 j 04:30	0°♁			541 Feb 16 j 23:57	0°♁	
greatest brilliancy	538 Jul 01 j 04:23	1°♁13'13	-4.5m	asc. node	541 Mar 02 j 01:12	15°♁50'28	
morning max el	538 Aug 05 j 08:58	27°♁54'44	45°56'06		541 Mar 13 j 20:28	0°♁	
	538 Aug 07 j 12:34	0°♁			541 Apr 08 j 10:54	0°♁	
	538 Sep 04 j 21:59	0°♁			541 May 05 j 09:26	0°♁	
asc. node	538 Sep 15 j 06:09	11°♁44'20		evening max el	541 May 26 j 23:45	22°♁00'42	45°21'03
	538 Sep 30 j 20:50	0°♁			541 Jun 04 j 16:19	0°♁	
	538 Oct 25 j 16:50	0°♁		desc. node	541 Jun 21 j 14:34	13°♁10'09	
	538 Nov 18 j 23:31	0°♁		greatest brilliancy	541 Jul 02 j 00:49	18°♁47'56	-4.5m
	538 Dec 13 j 00:35	0°♁		retrograde	541 Jul 14 j 14:01	21°♁33'32	
desc. node	539 Jan 04 j 19:30	28°♁29'58		evening set	541 Jul 31 j 18:22	16°♁01'15	
	539 Jan 06 j 00:18	0°♁		inferior conj	541 Aug 04 j 20:47	13°♁32'23	-8°-7'-41
	539 Jan 30 j 00:40	0°♁		minimum elong	541 Aug 04 j 13:51	13°♁43'05	8°06'58
morning set	539 Feb 08 j 00:27	11°♁12'48		min. Earth dist.	541 Aug 05 j 05:10	13°♁19'28	0.28525 AU
	539 Feb 23 j 02:43	0°♁		morning rise	541 Aug 08 j 09:09	11°♁23'48	
				direct	541 Aug 26 j 08:01	5°♁21'25	
superior conj	539 Mar 19 j 11:22	0°♁12'53	-1°-16'-4	greatest brilliancy	541 Sep 09 j 20:34	9°♁06'30	-4.6m
minimum elong	539 Mar 19 j 19:40	0°♁38'33	1°15'54		541 Oct 07 j 17:22	0°♁	
	539 Mar 19 j 07:12	0°♁		asc. node	541 Oct 12 j 17:46	4°♁50'01	
max. Earth dist.	539 Mar 22 j 18:24	4°♁17'13	1.72829 AU	morning max el	541 Oct 15 j 14:32	7°♁41'12	46°37'34
	539 Apr 12 j 14:33	0°♁			541 Nov 05 j 11:10	0°♁	
evening rise	539 Apr 26 j 10:10	16°♁59'11			541 Dec 01 j 08:30	0°♁	

	541 Dec 26 j 06:05	0°♁			544 Jun 10 j 19:15	0°♈		
	542 Jan 19 j 18:36	0°♁			544 Jul 07 j 07:42	0°♁		
desc. node	542 Feb 01 j 07:30	15°♁24'35		desc. node	544 Jul 19 j 02:30	12°♁46'06		
	542 Feb 13 j 04:07	0°♁			544 Aug 04 j 21:41	0°♁		
	542 Mar 09 j 13:12	0°♁		evening max el	544 Aug 07 j 11:25	2°♁30'18	46°12'23	
	542 Apr 02 j 22:54	0°♁			544 Sep 12 j 10:17	0°♁		
morning set	542 Apr 20 j 19:13	21°♁54'39		greatest brilliancy	544 Sep 15 j 11:37	1°♁14'36	-4.6m	
	542 Apr 27 j 09:24	0°♁		retrograde	544 Sep 25 j 21:16	3°♁12'53		
	542 May 21 j 20:06	0°♁			544 Oct 08 j 16:55	30°R♁		
asc. node	542 May 25 j 10:44	4°♁25'54		evening set	544 Oct 11 j 18:36	28°♁23'39		
max. Earth dist.	542 May 26 j 17:36	6°♁00'38	1.73644 AU	inferior conj	544 Oct 16 j 13:42	25°♁33'18	-5°-37'-56	
				minimum elong	544 Oct 17 j 00:04	25°♁17'31	5°35'23	
superior conj	542 May 27 j 12:22	6°♁58'14	0°04'56	min. Earth dist.	544 Oct 17 j 06:54	25°♁07'07	0.26809 AU	
minimum elong	542 May 27 j 11:21	6°♁55'09	0°04'53	morning rise	544 Oct 22 j 05:04	22°♁14'08		
behind sun begin	542 May 26 j 13:50	5°♁49'04		direct	544 Nov 06 j 04:37	17°♁49'08		
behind sun end	542 May 28 j 08:53	8°♁01'15		asc. node	544 Nov 09 j 05:37	18°♁00'10		
	542 Jun 15 j 06:09	0°♁		greatest brilliancy	544 Nov 19 j 08:50	21°♁02'00	-4.7m	
evening rise	542 Jul 02 j 09:11	21°♁04'31			544 Dec 03 j 14:06	0°♁		
	542 Jul 09 j 15:05	0°♁		morning max el	544 Dec 26 j 21:33	21°♁15'33	46°55'44	
	542 Aug 02 j 23:25	0°♁			545 Jan 04 j 06:51	0°♁		
	542 Aug 27 j 08:25	0°♁			545 Jan 31 j 05:53	0°♁		
desc. node	542 Sep 14 j 00:16	21°♁40'30			545 Feb 25 j 22:35	0°♁		
	542 Sep 20 j 19:29	0°♁		desc. node	545 Feb 28 j 19:21	3°♁23'28		
	542 Oct 15 j 10:13	0°♁			545 Mar 23 j 03:17	0°♁		
	542 Nov 09 j 07:57	0°♁			545 Apr 17 j 02:17	0°♁		
	542 Dec 04 j 21:44	0°♁			545 May 11 j 21:52	0°♁		
evening max el	543 Jan 01 j 06:38	0°♁			545 Jun 05 j 14:14	0°♁		
asc. node	543 Jan 02 j 22:35	1°♁42'10	46°58'07	asc. node	545 Jun 21 j 22:38	19°♁58'43		
	543 Jan 05 j 03:25	3°♁55'26		morning set	545 Jun 27 j 08:33	26°♁36'57		
	543 Feb 06 j 01:36	0°♁			545 Jun 30 j 02:42	0°♁		
greatest brilliancy	543 Feb 08 j 08:13	1°♁10'05	-4.6m		545 Jul 24 j 10:46	0°♁		
retrograde	543 Feb 22 j 13:05	4°♁50'10		max. Earth dist.	545 Jul 29 j 22:36	6°♁48'08	1.72814 AU	
	543 Mar 10 j 02:46	30°R♁						
evening set	543 Mar 12 j 02:21	28°♁49'28		superior conj	545 Aug 02 j 17:43	11°♁30'30	1°18'05	
inferior conj	543 Mar 15 j 17:15	26°♁33'27	7°53'53	minimum elong	545 Aug 02 j 11:18	11°♁10'38	1°17'57	
minimum elong	543 Mar 16 j 00:30	26°♁21'59	7°53'01		545 Aug 17 j 14:59	0°♁		
min. Earth dist.	543 Mar 15 j 11:27	26°♁42'38	0.28502 AU	evening rise	545 Sep 08 j 15:46	27°♁27'11		
morning rise	543 Mar 19 j 22:57	23°♁56'00			545 Sep 10 j 16:47	0°♁		
direct	543 Apr 05 j 22:30	18°♁23'42			545 Oct 04 j 17:50	0°♁		
greatest brilliancy	543 Apr 17 j 14:22	20°♁51'26	-4.5m	desc. node	545 Oct 11 j 12:08	8°♁25'59		
desc. node	543 Apr 26 j 16:47	25°♁31'42			545 Oct 28 j 19:24	0°♁		
	543 May 03 j 07:50	0°♁			545 Nov 21 j 22:37	0°♁		
morning max el	543 May 24 j 20:12	18°♁27'32	45°46'59		545 Dec 16 j 05:38	0°♁		
	543 Jun 05 j 11:48	0°♁			546 Jan 09 j 21:16	0°♁		
	543 Jul 03 j 09:11	0°♁		asc. node	546 Feb 01 j 15:16	26°♁55'14		
	543 Jul 29 j 13:26	0°♁			546 Feb 04 j 07:12	0°♁		
asc. node	543 Aug 17 j 20:19	22°♁52'21			546 Mar 03 j 09:05	0°♁		
	543 Aug 23 j 18:25	0°♁		evening max el	546 Mar 14 j 23:52	11°♁48'12	45°46'20	
	543 Sep 17 j 07:48	0°♁			546 Apr 04 j 16:45	0°♁		
	543 Oct 11 j 11:06	0°♁		greatest brilliancy	546 Apr 18 j 07:49	8°♁33'21	-4.5m	
	543 Nov 04 j 09:03	0°♁		retrograde	546 May 02 j 23:24	12°♁19'43		
morning set	543 Nov 20 j 04:48	19°♁54'57		evening set	546 May 18 j 02:22	7°♁55'20		
	543 Nov 28 j 05:03	0°♁		inferior conj	546 May 24 j 11:23	4°♁06'01	0°-3'-54	
desc. node	543 Dec 07 j 09:47	11°♁34'37		minimum elong	546 May 24 j 11:15	4°♁06'14	0°03'52	
	543 Dec 22 j 01:13	0°♁		transit middle	546 May 24 j 11:15	4°♁06'14	0°03'52	
				transit begin	546 May 24 j 07:18	4°♁12'25		
superior conj	544 Jan 01 j 00:59	12°♁33'03	0°-54'-13	transit end	546 May 24 j 15:11	4°♁00'04		
minimum elong	543 Dec 31 j 13:20	11°♁56'27	0°53'46	desc. node	546 May 24 j 04:43	4°♁16'29		
max. Earth dist.	544 Jan 04 j 09:00	16°♁44'11	1.71287 AU	min. Earth dist.	546 May 24 j 14:41	4°♁00'50	0.28978 AU	
	544 Jan 14 j 22:47	0°♁		morning rise	546 May 30 j 19:59	0°♁16'16		
	544 Feb 07 j 22:50	0°♁			546 May 31 j 07:54	30°R♁		
evening rise	544 Feb 11 j 00:53	3°♁50'40		direct	546 Jun 15 j 02:32	25°♁47'27		
	544 Mar 03 j 02:43	0°♁		greatest brilliancy	546 Jun 28 j 20:55	29°♁04'16	-4.5m	
	544 Mar 27 j 11:57	0°♁			546 Jun 30 j 20:04	0°♁		
asc. node	544 Mar 29 j 13:04	2°♁30'09		morning max el	546 Aug 03 j 00:38	25°♁42'51	45°55'09	
	544 Apr 21 j 04:06	0°♁			546 Aug 07 j 09:50	0°♁		
	544 May 16 j 05:12	0°♁			546 Sep 04 j 13:29	0°♁		

asc. node	546 Sep 14 j 08:05	11°♈08'08		evening max el	549 May 24 j 15:58	19°♌50'12	45°20'28
	546 Sep 30 j 10:16	0°♍			549 Jun 04 j 20:45	0°♈	
	546 Oct 25 j 05:16	0°♎		desc. node	549 Jun 20 j 16:45	11°♈52'53	
	546 Nov 18 j 11:26	0°♏		greatest brilliancy	549 Jun 29 j 13:35	16°♈32'24	-4.5m
	546 Dec 12 j 12:13	0°♐		retrograde	549 Jul 12 j 05:01	19°♈19'43	
desc. node	547 Jan 03 j 21:41	28°♑01'03		evening set	549 Jul 29 j 06:08	13°♈52'13	
	547 Jan 05 j 11:43	0°♒		inferior conj	549 Aug 02 j 11:57	11°♈18'02	-7°-59'-33
	547 Jan 29 j 11:55	0°♓		minimum elong	549 Aug 02 j 04:28	11°♈29'36	7°58'41
morning set	547 Feb 05 j 11:53	8°♈43'53		min. Earth dist.	549 Aug 02 j 19:22	11°♈06'34	0.28563 AU
	547 Feb 22 j 13:51	0°♈		morning rise	549 Aug 06 j 02:38	9°♈05'47	
				direct	549 Aug 24 j 00:07	3°♈06'46	
superior conj	547 Mar 17 j 02:04	27°♉55'41	-1°-17'-37	greatest brilliancy	549 Sep 07 j 10:58	6°♈49'45	-4.6m
minimum elong	547 Mar 17 j 09:54	28°♉19'56	1°17'28		549 Oct 07 j 18:39	0°♍	
	547 Mar 18 j 18:14	0°♊		asc. node	549 Oct 11 j 19:57	3°♍58'08	
max. Earth dist.	547 Mar 20 j 08:57	1°♊59'43	1.72779 AU	morning max el	549 Oct 13 j 05:18	5°♍21'33	46°36'02
	547 Apr 12 j 01:34	0°♋			549 Nov 05 j 04:13	0°♎	
evening rise	547 Apr 24 j 03:06	14°♋49'57			549 Nov 30 j 22:55	0°♏	
asc. node	547 Apr 27 j 00:57	18°♋24'18			549 Dec 25 j 19:12	0°♐	
	547 May 06 j 11:52	0°♌			550 Jan 19 j 06:57	0°♑	
	547 May 31 j 00:57	0°♍		desc. node	550 Jan 31 j 09:29	14°♑53'32	
	547 Jun 24 j 17:11	0°♎			550 Feb 12 j 15:56	0°♒	
	547 Jul 19 j 14:03	0°♏			550 Mar 09 j 00:37	0°♓	
	547 Aug 13 j 18:30	0°♐			550 Apr 02 j 10:03	0°♈	
desc. node	547 Aug 16 j 14:18	3°♐19'56		morning set	550 Apr 18 j 12:37	19°♈47'02	
	547 Sep 08 j 11:49	0°♑			550 Apr 26 j 20:22	0°♉	
	547 Oct 05 j 06:45	0°♒			550 May 21 j 07:00	0°♊	
evening max el	547 Oct 20 j 16:15	16°♒08'26	47°17'44	max. Earth dist.	550 May 24 j 16:09	4°♊09'04	1.73645 AU
	547 Nov 04 j 05:20	0°♓		asc. node	550 May 24 j 12:54	3°♊59'04	
greatest brilliancy	547 Nov 28 j 06:37	16°♓46'01	-4.7m				
asc. node	547 Dec 07 j 17:36	19°♓27'07		superior conj	550 May 25 j 06:44	4°♊53'51	0°01'47
retrograde	547 Dec 10 j 13:09	19°♓36'48		minimum elong	550 May 25 j 06:22	4°♊52'42	0°01'46
evening set	547 Dec 25 j 15:02	15°♓03'35		behind sun begin	550 May 24 j 08:02	3°♊44'09	
min. Earth dist.	547 Dec 30 j 07:31	12°♓16'45	0.26778 AU	behind sun end	550 May 26 j 04:42	6°♊01'16	
inferior conj	547 Dec 31 j 04:56	11°♓43'44	5°35'43		550 Jun 14 j 17:04	0°♌	
minimum elong	547 Dec 30 j 18:55	11°♓59'11	5°33'14	evening rise	550 Jun 30 j 04:13	19°♌01'27	
morning rise	548 Jan 04 j 23:15	8°♓52'20			550 Jul 09 j 02:09	0°♍	
direct	548 Jan 20 j 13:55	4°♓02'28			550 Aug 02 j 10:44	0°♎	
greatest brilliancy	548 Jan 31 j 09:58	6°♓14'06	-4.6m		550 Aug 26 j 20:06	0°♏	
	548 Mar 04 j 09:51	0°♐		desc. node	550 Sep 13 j 02:16	21°♏09'48	
morning max el	548 Mar 10 j 07:38	5°♐40'02	46°22'54		550 Sep 20 j 07:41	0°♑	
desc. node	548 Mar 28 j 07:07	24°♐10'10			550 Oct 14 j 23:09	0°♒	
	548 Apr 02 j 17:01	0°♑			550 Nov 08 j 22:01	0°♓	
	548 Apr 29 j 13:03	0°♒			550 Dec 04 j 13:56	0°♈	
	548 May 25 j 10:10	0°♓		evening max el	550 Dec 31 j 13:58	29°♈23'15	47°00'18
	548 Jun 19 j 18:10	0°♌			551 Jan 01 j 04:26	0°♉	
	548 Jul 14 j 15:54	0°♍		asc. node	551 Jan 04 j 05:32	3°♉03'11	
asc. node	548 Jul 19 j 10:29	5°♌48'25		greatest brilliancy	551 Feb 06 j 03:02	28°♉58'20	-4.6m
	548 Aug 08 j 04:29	0°♎			551 Feb 08 j 09:56	0°♊	
	548 Sep 01 j 09:27	0°♏		retrograde	551 Feb 20 j 05:04	2°♊35'09	
morning set	548 Sep 04 j 04:27	3°♏28'42			551 Mar 03 j 10:41	30°♋	
	548 Sep 25 j 09:16	0°♐		evening set	551 Mar 09 j 20:29	26°♋31'38	
max. Earth dist.	548 Oct 10 j 19:37	19°♐22'14	1.71339 AU	inferior conj	551 Mar 13 j 09:03	24°♋18'57	8°02'09
				minimum elong	551 Mar 13 j 15:46	24°♋08'18	8°01'26
superior conj	548 Oct 12 j 11:14	21°♐26'43	0°57'35	min. Earth dist.	551 Mar 13 j 02:20	24°♋29'37	0.28457 AU
minimum elong	548 Oct 12 j 21:51	22°♐00'06	0°57'11	morning rise	551 Mar 17 j 11:21	21°♋46'22	
	548 Oct 19 j 06:33	0°♑		direct	551 Apr 03 j 13:48	16°♋10'16	
desc. node	548 Nov 08 j 00:04	24°♑48'25		greatest brilliancy	551 Apr 15 j 02:37	18°♋34'49	-4.5m
	548 Nov 12 j 03:13	0°♒		desc. node	551 Apr 25 j 18:53	24°♋13'27	
evening rise	548 Nov 22 j 10:12	12°♒56'04			551 May 03 j 21:42	0°♓	
	548 Dec 06 j 00:28	0°♓		morning max el	551 May 22 j 10:52	16°♓13'44	45°47'27
	548 Dec 29 j 23:27	0°♔			551 Jun 05 j 06:30	0°♈	
	549 Jan 23 j 02:12	0°♕			551 Jul 02 j 23:45	0°♉	
	549 Feb 16 j 11:53	0°♖			551 Jul 29 j 02:18	0°♊	
asc. node	549 Mar 01 j 03:10	15°♖19'36		asc. node	551 Aug 16 j 22:17	22°♊21'34	
	549 Mar 13 j 09:05	0°♗			551 Aug 23 j 06:28	0°♋	
	549 Apr 08 j 00:53	0°♘			551 Sep 16 j 19:24	0°♌	
	549 May 05 j 02:35	0°♙			551 Oct 10 j 22:30	0°♍	

	551 Nov 03 j 20:19	0°♍		retrograde	554 Apr 30 j 16:29	10°♐12'02	
morning set	551 Nov 17 j 15:22	17°♍21'42		evening set	554 May 15 j 19:47	5°♐46'00	
	551 Nov 27 j 16:17	0°♁		inferior conj	554 May 22 j 04:00	1°♐57'54	0°15'44
desc. node	551 Dec 06 j 11:52	11°♁05'53		minimum elong	554 May 22 j 04:34	1°♐56'59	0°15'34
	551 Dec 21 j 12:26	0°♁		transit middle	554 May 22 j 04:34	1°♐56'59	0°15'34
				transit begin	554 May 22 j 03:26	1°♐58'46	
superior conj	551 Dec 29 j 10:29	9°♁57'02	0°-51'-2	transit end	554 May 22 j 05:43	1°♐55'12	
minimum elong	551 Dec 28 j 23:07	9°♁21'19	0°50'36	min. Earth dist.	554 May 22 j 07:23	1°♐52'36	0.28975 AU
max. Earth dist.	552 Jan 01 j 14:03	13°♁54'15	1.71251 AU	desc. node	554 May 23 j 06:49	1°♐15'54	
	552 Jan 14 j 09:59	0°♁			554 May 25 j 07:58	30°♁	
	552 Feb 07 j 10:00	0°♁		morning rise	554 May 28 j 13:16	28°♁07'28	
evening rise	552 Feb 08 j 12:22	1°♁22'08		direct	554 Jun 12 j 18:49	23°♁39'12	
	552 Mar 02 j 13:54	0°♁		greatest brilliancy	554 Jun 26 j 13:16	26°♁56'23	-4.5m
	552 Mar 26 j 23:15	0°♁			554 Jul 02 j 10:47	0°♐	
asc. node	552 Mar 28 j 15:12	2°♁02'07		morning max el	554 Jul 31 j 17:17	23°♐34'35	45°54'12
	552 Apr 20 j 15:43	0°♐			554 Aug 07 j 05:59	0°♁	
	552 May 15 j 17:28	0°♁			554 Sep 04 j 04:28	0°♁	
	552 Jun 10 j 08:48	0°♁		asc. node	554 Sep 13 j 10:16	10°♁33'42	
	552 Jul 06 j 23:52	0°♁			554 Sep 29 j 23:22	0°♁	
desc. node	552 Jul 18 j 04:26	12°♁03'14			554 Oct 24 j 17:30	0°♁	
	552 Aug 04 j 20:53	0°♁			554 Nov 17 j 23:13	0°♍	
evening max el	552 Aug 04 j 23:31	0°♁06'21	46°09'38		554 Dec 11 j 23:44	0°♁	
greatest brilliancy	552 Sep 13 j 00:46	28°♁49'50	-4.6m	desc. node	555 Jan 02 j 23:41	27°♁31'56	
	552 Sep 16 j 22:01	0°♍			555 Jan 04 j 23:01	0°♁	
retrograde	552 Sep 23 j 08:55	0°♍47'05			555 Jan 28 j 23:01	0°♁	
	552 Sep 29 j 15:40	30°♁		morning set	555 Feb 02 j 22:56	6°♁14'08	
evening set	552 Oct 09 j 10:14	25°♁52'58			555 Feb 22 j 00:47	0°♁	
inferior conj	552 Oct 14 j 02:18	23°♁07'09	-5°-55'-50				
minimum elong	552 Oct 14 j 12:51	22°♁51'06	5°53'20	superior conj	555 Mar 14 j 16:31	25°♁38'14	-1°-19'-2
min. Earth dist.	552 Oct 14 j 20:44	22°♁39'06	0.26866 AU	minimum elong	555 Mar 14 j 23:50	26°♁00'56	1°18'55
morning rise	552 Oct 19 j 14:54	19°♁51'35		max. Earth dist.	555 Mar 18 j 00:10	29°♁44'47	1.72728 AU
direct	552 Nov 03 j 17:13	15°♁21'43			555 Mar 18 j 05:05	0°♁	
asc. node	552 Nov 08 j 07:45	15°♁46'46			555 Apr 11 j 12:23	0°♁	
greatest brilliancy	552 Nov 17 j 01:05	18°♁38'11	-4.7m	evening rise	555 Apr 21 j 20:04	12°♁41'27	
	552 Dec 04 j 05:35	0°♍		asc. node	555 Apr 26 j 03:08	17°♁57'49	
morning max el	552 Dec 24 j 10:37	18°♍48'03	46°56'06		555 May 05 j 22:44	0°♐	
	553 Jan 04 j 02:50	0°♁			555 May 30 j 11:59	0°♁	
	553 Jan 30 j 21:27	0°♁			555 Jun 24 j 04:34	0°♁	
	553 Feb 25 j 12:12	0°♁			555 Jul 19 j 02:03	0°♁	
desc. node	553 Feb 27 j 21:21	2°♁49'29			555 Aug 13 j 07:34	0°♁	
	553 Mar 22 j 15:46	0°♁		desc. node	555 Aug 15 j 16:21	2°♁47'06	
	553 Apr 16 j 14:02	0°♁			555 Sep 08 j 02:46	0°♍	
	553 May 11 j 09:07	0°♁			555 Oct 05 j 01:39	0°♁	
	553 Jun 05 j 01:11	0°♐		evening max el	555 Oct 18 j 07:00	13°♁46'44	47°16'25
asc. node	553 Jun 21 j 00:42	19°♐31'52			555 Nov 04 j 14:11	0°♁	
morning set	553 Jun 25 j 02:57	24°♐33'00		greatest brilliancy	555 Nov 25 j 20:35	14°♁18'34	-4.7m
	553 Jun 29 j 13:30	0°♁		asc. node	555 Dec 06 j 19:39	17°♁06'17	
	553 Jul 23 j 21:33	0°♁		retrograde	555 Dec 08 j 02:52	17°♁08'22	
max. Earth dist.	553 Jul 27 j 19:12	4°♁49'54	1.72868 AU	evening set	555 Dec 23 j 01:06	12°♁39'24	
				min. Earth dist.	555 Dec 27 j 20:29	9°♁48'34	0.26728 AU
superior conj	553 Jul 31 j 11:41	9°♁23'58	1°16'47	inferior conj	555 Dec 28 j 17:34	9°♁16'07	5°16'57
minimum elong	553 Jul 31 j 04:49	9°♁02'44	1°16'39	minimum elong	555 Dec 28 j 07:47	9°♁31'12	5°14'27
	553 Aug 17 j 01:50	0°♁		morning rise	556 Jan 02 j 15:01	6°♁20'48	
evening rise	553 Sep 06 j 07:08	25°♁11'11		direct	556 Jan 18 j 02:46	1°♁35'44	
	553 Sep 10 j 03:48	0°♁		greatest brilliancy	556 Jan 28 j 22:32	3°♁47'46	-4.6m
	553 Oct 04 j 05:05	0°♍			556 Mar 04 j 11:14	0°♁	
desc. node	553 Oct 10 j 14:17	7°♍57'25		morning max el	556 Mar 07 j 21:55	3°♁20'31	46°24'27
	553 Oct 28 j 06:56	0°♁		desc. node	556 Mar 27 j 09:18	23°♁28'11	
	553 Nov 21 j 10:29	0°♁			556 Apr 02 j 09:50	0°♁	
	553 Dec 15 j 17:57	0°♁			556 Apr 29 j 02:56	0°♁	
	554 Jan 09 j 10:21	0°♁			556 May 24 j 22:36	0°♁	
asc. node	554 Jan 31 j 17:15	26°♁19'17			556 Jun 19 j 05:46	0°♐	
	554 Feb 03 j 21:50	0°♁			556 Jul 14 j 03:01	0°♁	
	554 Mar 03 j 03:42	0°♁		asc. node	556 Jul 18 j 12:28	5°♁20'44	
evening max el	554 Mar 12 j 15:04	9°♁34'38	45°48'35		556 Aug 07 j 15:20	0°♁	
	554 Apr 05 j 07:57	0°♐			556 Aug 31 j 20:12	0°♁	
greatest brilliancy	554 Apr 15 j 22:44	6°♐22'53	-4.5m	morning set	556 Sep 01 j 20:19	1°♁15'09	

	556 Sep 24 j 20:02	0°♁		evening set	559 Mar 07 j 14:06	24°♁13'43	
max. Earth dist.	556 Oct 08 j 04:42	16°♁46'08	1.71376 AU	min. Earth dist.	559 Mar 10 j 17:18	22°♁15'45	0.28418 AU
superior conj	556 Oct 10 j 00:15	19°♁02'53	1°00'14	inferior conj	559 Mar 11 j 00:35	22°♁04'12	8°09'41
minimum elong	556 Oct 10 j 10:50	19°♁36'07	0°59'51	minimum elong	559 Mar 11 j 06:41	21°♁54'29	8°09'07
	556 Oct 18 j 17:23	0°♁		morning rise	559 Mar 14 j 23:32	19°♁36'22	
desc. node	556 Nov 07 j 02:10	24°♁20'41		direct	559 Apr 01 j 04:18	13°♁56'14	
	556 Nov 11 j 14:10	0°♁		greatest brilliancy	559 Apr 12 j 15:52	16°♁19'00	-4.5m
evening rise	556 Nov 19 j 20:22	10°♁22'40		desc. node	559 Apr 24 j 20:57	22°♁57'26	
	556 Dec 05 j 11:32	0°♁			559 May 04 j 07:59	0°♁	
	556 Dec 29 j 10:41	0°♁		morning max el	559 May 20 j 01:03	13°♁58'54	45°48'06
	557 Jan 22 j 13:37	0°♁			559 Jun 05 j 00:35	0°♁	
	557 Feb 15 j 23:40	0°♁			559 Jul 02 j 13:56	0°♁	
asc. node	557 Feb 28 j 05:19	14°♁49'50		asc. node	559 Jul 28 j 14:49	0°♁	
	557 Mar 12 j 21:31	0°♁			559 Aug 16 j 00:25	21°♁52'19	
	557 Apr 07 j 14:43	0°♁			559 Aug 22 j 18:10	0°♁	
	557 May 04 j 19:45	0°♁			559 Sep 16 j 06:42	0°♁	
evening max el	557 May 22 j 07:46	17°♁39'45	45°20'04		559 Oct 10 j 09:35	0°♁	
	557 Jun 05 j 02:39	0°♁			559 Nov 03 j 07:17	0°♁	
desc. node	557 Jun 19 j 18:43	10°♁34'03		morning set	559 Nov 15 j 02:27	14°♁51'03	
greatest brilliancy	557 Jun 27 j 03:16	14°♁19'21	-4.5m	desc. node	559 Nov 27 j 03:11	0°♁	
retrograde	557 Jul 09 j 19:41	17°♁07'42			559 Dec 05 j 13:53	10°♁37'56	
evening set	557 Jul 26 j 18:06	11°♁45'09			559 Dec 20 j 23:18	0°♁	
inferior conj	557 Jul 31 j 03:20	9°♁05'42	-7°-50'-44	superior conj	559 Dec 26 j 20:26	7°♁23'30	0°-47'-47
minimum elong	557 Jul 30 j 19:21	9°♁18'05	7°49'45	minimum elong	559 Dec 26 j 09:26	6°♁48'57	0°47'21
min. Earth dist.	557 Jul 31 j 10:10	8°♁55'07	0.28594 AU	max. Earth dist.	559 Dec 29 j 18:04	11°♁02'09	1.71218 AU
morning rise	557 Aug 03 j 20:25	6°♁49'34			560 Jan 13 j 20:49	0°♁	
direct	557 Aug 21 j 15:58	0°♁54'07		evening rise	560 Feb 06 j 00:03	28°♁55'11	
greatest brilliancy	557 Sep 05 j 01:12	4°♁34'31	-4.6m		560 Feb 06 j 20:51	0°♁	
	557 Oct 07 j 18:06	0°♁			560 Mar 02 j 00:49	0°♁	
asc. node	557 Oct 10 j 22:01	3°♁08'29			560 Mar 26 j 10:21	0°♁	
morning max el	557 Oct 10 j 19:17	3°♁01'38	46°34'36	asc. node	560 Mar 27 j 17:18	1°♁34'33	
	557 Nov 04 j 20:24	0°♁			560 Apr 20 j 03:12	0°♁	
	557 Nov 30 j 12:41	0°♁			560 May 15 j 05:40	0°♁	
	557 Dec 25 j 07:50	0°♁			560 Jun 09 j 22:20	0°♁	
	558 Jan 18 j 18:55	0°♁			560 Jul 06 j 16:09	0°♁	
desc. node	558 Jan 30 j 11:31	14°♁23'37		desc. node	560 Jul 17 j 06:31	11°♁20'42	
	558 Feb 12 j 03:27	0°♁		evening max el	560 Aug 02 j 11:45	27°♁43'35	46°07'09
	558 Mar 08 j 11:49	0°♁			560 Aug 04 j 20:53	0°♁	
	558 Apr 01 j 20:58	0°♁		greatest brilliancy	560 Sep 10 j 12:51	26°♁24'53	-4.6m
morning set	558 Apr 16 j 05:28	17°♁38'22		retrograde	560 Sep 20 j 21:04	28°♁22'25	
	558 Apr 26 j 07:05	0°♁		evening set	560 Oct 07 j 01:55	23°♁23'00	
	558 May 20 j 17:36	0°♁		inferior conj	560 Oct 11 j 14:55	20°♁41'47	-6°-12'-56
max. Earth dist.	558 May 22 j 13:14	2°♁13'55	1.73639 AU	minimum elong	560 Oct 12 j 01:34	20°♁25'36	6°10'31
				min. Earth dist.	560 Oct 12 j 10:16	20°♁12'22	0.26926 AU
superior conj	558 May 23 j 00:45	2°♁49'17	0°-1'-24	morning rise	560 Oct 17 j 00:37	17°♁30'21	
minimum elong	558 May 23 j 01:02	2°♁50'09	0°01'24	direct	560 Nov 01 j 06:18	12°♁55'01	
behind sun begin	558 May 22 j 02:39	1°♁41'26		asc. node	560 Nov 07 j 09:46	13°♁39'20	
behind sun end	558 May 23 j 23:25	3°♁58'52		greatest brilliancy	560 Nov 14 j 17:24	16°♁15'23	-4.7m
asc. node	558 May 23 j 14:53	3°♁32'40			560 Dec 04 j 16:51	0°♁	
	558 Jun 14 j 03:41	0°♁		morning max el	560 Dec 22 j 00:46	16°♁24'08	46°56'34
evening rise	558 Jun 27 j 23:08	16°♁59'03			561 Jan 03 j 21:58	0°♁	
	558 Jul 08 j 12:54	0°♁			561 Jan 30 j 12:31	0°♁	
	558 Aug 01 j 21:44	0°♁			561 Feb 25 j 01:25	0°♁	
	558 Aug 26 j 07:28	0°♁		desc. node	561 Feb 26 j 23:34	2°♁17'07	
desc. node	558 Sep 12 j 04:26	20°♁40'44			561 Mar 22 j 03:56	0°♁	
	558 Sep 19 j 19:32	0°♁			561 Apr 16 j 01:34	0°♁	
	558 Oct 14 j 11:44	0°♁			561 May 10 j 20:14	0°♁	
	558 Nov 08 j 11:46	0°♁			561 Jun 04 j 12:03	0°♁	
	558 Dec 04 j 05:57	0°♁		asc. node	561 Jun 20 j 02:43	19°♁05'04	
evening max el	558 Dec 29 j 04:12	27°♁02'15	47°02'07	morning set	561 Jun 22 j 21:00	22°♁28'09	
	559 Jan 01 j 02:42	0°♁			561 Jun 29 j 00:14	0°♁	
asc. node	559 Jan 03 j 07:28	2°♁10'27			561 Jul 23 j 08:15	0°♁	
greatest brilliancy	559 Feb 03 j 21:07	26°♁45'38	-4.6m	max. Earth dist.	561 Jul 25 j 15:51	2°♁52'02	1.72916 AU
	559 Feb 13 j 18:12	0°♁					
retrograde	559 Feb 17 j 20:24	0°♁		superior conj	561 Jul 29 j 05:16	7°♁16'35	1°15'22
	559 Feb 21 j 20:45	30°♁		minimum elong	561 Jul 28 j 22:01	6°♁54'07	1°15'13

	561 Aug 16 j 12:36	0°♎			564 Jan 22 j 06:43	0°♁	
evening rise	561 Sep 03 j 22:22	22°♎55'11		greatest brilliancy	564 Jan 26 j 10:53	1°♁20'27	-4.6m
	561 Sep 09 j 14:43	0°♊			564 Mar 04 j 11:34	0°♊	
	561 Oct 03 j 16:15	0°♋		morning max el	564 Mar 05 j 11:39	0°♊59'02	46°26'00
desc. node	561 Oct 09 j 16:19	7°♋28'46		desc. node	564 Mar 26 j 11:17	22°♊45'47	
	561 Oct 27 j 18:24	0°♌			564 Apr 02 j 02:29	0°♌	
	561 Nov 20 j 22:17	0°♍			564 Apr 28 j 16:48	0°♍	
	561 Dec 15 j 06:11	0°♎			564 May 24 j 11:06	0°♎	
	562 Jan 08 j 23:22	0°♏			564 Jun 18 j 17:30	0°♏	
asc. node	562 Jan 30 j 19:27	25°♏44'10			564 Jul 13 j 14:19	0°♏	
	562 Feb 03 j 12:28	0°♐		asc. node	564 Jul 17 j 14:38	4°♏53'03	
	562 Mar 02 j 22:39	0°♑			564 Aug 07 j 02:25	0°♑	
evening max el	562 Mar 10 j 06:58	7°♑23'15	45°50'47	morning set	564 Aug 30 j 11:56	28°♑59'54	
	562 Apr 06 j 04:20	0°♒			564 Aug 31 j 07:14	0°♒	
greatest brilliancy	562 Apr 13 j 13:57	4°♒12'59	-4.5m		564 Sep 24 j 07:06	0°♒	
retrograde	562 Apr 28 j 09:38	8°♒04'03		max. Earth dist.	564 Oct 05 j 10:24	13°♒58'33	1.71415 AU
evening set	562 May 13 j 13:15	3°♒36'21					
inferior conj	562 May 19 j 20:28	29°♑49'23	0°35'22	superior conj	564 Oct 07 j 13:07	16°♑37'43	1°02'46
minimum elong	562 May 19 j 21:46	29°♑47'21	0°35'00	minimum elong	564 Oct 07 j 23:35	17°♑10'35	1°02'25
	562 May 19 j 13:41	30°♒♁			564 Oct 18 j 04:32	0°♒	
min. Earth dist.	562 May 19 j 23:42	29°♑44'20	0.28977 AU	desc. node	564 Nov 06 j 04:08	23°♒51'42	
desc. node	562 May 22 j 08:48	28°♑15'28			564 Nov 11 j 01:23	0°♑	
morning rise	562 May 26 j 06:17	25°♑58'29		evening rise	564 Nov 17 j 06:17	7°♑47'40	
direct	562 Jun 10 j 11:29	21°♑30'38			564 Dec 04 j 22:51	0°♑	
greatest brilliancy	562 Jun 24 j 04:50	24°♑47'14	-4.5m		564 Dec 28 j 22:08	0°♑	
	562 Jul 03 j 13:58	0°♒			565 Jan 22 j 01:18	0°♑	
morning max el	562 Jul 29 j 10:21	21°♒27'03	45°53'10		565 Feb 15 j 11:42	0°♑	
	562 Aug 07 j 01:40	0°♓		asc. node	565 Feb 27 j 07:23	14°♑18'58	
	562 Sep 03 j 19:21	0°♈			565 Mar 12 j 10:16	0°♑	
asc. node	562 Sep 12 j 12:22	9°♈59'03			565 Apr 07 j 04:56	0°♒	
	562 Sep 29 j 12:26	0°♉			565 May 04 j 13:33	0°♓	
	562 Oct 24 j 05:42	0°♊		evening max el	565 May 19 j 22:48	15°♓26'47	45°19'43
	562 Nov 17 j 10:58	0°♋			565 Jun 05 j 11:14	0°♓	
	562 Dec 11 j 11:13	0°♌		desc. node	565 Jun 18 j 20:48	9°♓12'15	
desc. node	563 Jan 02 j 01:42	27°♌02'52		greatest brilliancy	565 Jun 24 j 16:35	12°♓05'16	-4.5m
	563 Jan 04 j 10:18	0°♍		retrograde	565 Jul 07 j 10:03	14°♓55'21	
	563 Jan 28 j 10:08	0°♎		evening set	565 Jul 24 j 06:03	9°♓37'29	
morning set	563 Jan 31 j 10:01	3°♎44'20		inferior conj	565 Jul 28 j 18:48	6°♓52'54	-7°-41'-14
	563 Feb 21 j 11:44	0°♏		minimum elong	565 Jul 28 j 10:20	7°♓06'01	7°40'06
				min. Earth dist.	565 Jul 29 j 01:19	6°♓42'47	0.28631 AU
superior conj	563 Mar 12 j 06:57	23°♌20'37	-1°-20'-19	morning rise	565 Aug 01 j 14:23	4°♓32'45	
minimum elong	563 Mar 12 j 13:43	23°♌41'34	1°20'14		565 Aug 11 j 03:25	30°♒♓	
max. Earth dist.	563 Mar 15 j 17:10	27°♌35'15	1.72675 AU	direct	565 Aug 19 j 07:29	28°♓40'43	
	563 Mar 17 j 15:56	0°♐			565 Aug 27 j 18:14	0°♓	
	563 Apr 10 j 23:12	0°♑		greatest brilliancy	565 Sep 02 j 16:29	2°♓19'45	-4.6m
evening rise	563 Apr 19 j 13:01	10°♑32'55			565 Oct 07 j 17:05	0°♑	
asc. node	563 Apr 25 j 05:07	17°♑30'39		morning max el	565 Oct 08 j 08:54	0°♑39'31	46°33'05
	563 May 05 j 09:37	0°♒		asc. node	565 Oct 10 j 00:01	2°♑18'10	
	563 May 29 j 23:06	0°♓			565 Nov 04 j 12:48	0°♓	
	563 Jun 23 j 16:07	0°♈			565 Nov 30 j 02:48	0°♈	
	563 Jul 18 j 14:18	0°♉			565 Dec 24 j 20:48	0°♉	
	563 Aug 12 j 20:57	0°♊			566 Jan 18 j 07:10	0°♊	
desc. node	563 Aug 14 j 18:30	2°♊13'43		desc. node	566 Jan 29 j 13:43	13°♊53'19	
	563 Sep 07 j 18:08	0°♋			566 Feb 11 j 15:15	0°♋	
	563 Oct 04 j 21:16	0°♌			566 Mar 07 j 23:16	0°♌	
evening max el	563 Oct 15 j 22:07	11°♌25'34	47°15'07		566 Apr 01 j 08:10	0°♍	
	563 Nov 05 j 02:17	0°♍		morning set	566 Apr 13 j 22:19	15°♍28'41	
greatest brilliancy	563 Nov 23 j 11:07	11°♍51'30	-4.7m		566 Apr 25 j 18:06	0°♎	
retrograde	563 Dec 05 j 16:20	14°♍39'11			566 May 20 j 04:31	0°♏	
asc. node	563 Dec 05 j 21:40	14°♍39'08					
evening set	563 Dec 20 j 11:23	10°♍14'31		superior conj	566 May 20 j 18:58	0°♏44'21	0°-4'-33
min. Earth dist.	563 Dec 25 j 09:37	7°♍19'34	0.26677 AU	minimum elong	566 May 20 j 19:54	0°♏47'14	0°04'32
inferior conj	563 Dec 26 j 06:09	6°♍47'57	4°57'37	behind sun begin	566 May 19 j 22:10	29°♌40'31	
minimum elong	563 Dec 25 j 20:41	7°♍02'32	4°55'05	behind sun end	566 May 21 j 17:38	1°♏53'57	
morning rise	563 Dec 31 j 06:36	3°♍48'38		max. Earth dist.	566 May 20 j 09:14	0°♏14'28	1.73631 AU
	564 Jan 09 j 04:58	30°♒♌		asc. node	566 May 22 j 16:58	3°♏05'33	
direct	564 Jan 15 j 15:35	29°♌08'34			566 Jun 13 j 14:36	0°♓	

evening rise	566 Jun 25 j 18:17	14°☿56'36			569 Feb 24 j 14:58	0°≈		
	566 Jul 07 j 23:57	0°♁		desc. node	569 Feb 26 j 01:31	1°≈42'52		
	566 Aug 01 j 09:04	0°♃			569 Mar 21 j 16:27	0°♄		
	566 Aug 25 j 19:12	0°♅			569 Apr 15 j 13:23	0°♆		
desc. node	566 Sep 11 j 06:28	20°♁09'54			569 May 10 j 07:36	0°♇		
	566 Sep 19 j 07:51	0°♈			569 Jun 03 j 23:09	0°♈		
	566 Oct 14 j 00:51	0°♉		asc. node	569 Jun 19 j 04:52	18°♁37'57		
	566 Nov 08 j 02:09	0°♊		morning set	569 Jun 20 j 15:11	20°♁23'07		
	566 Dec 03 j 22:47	0°♋			569 Jun 28 j 11:12	0°☿		
evening max el	566 Dec 26 j 17:56	24°≈38'27	47°04'10		569 Jul 22 j 19:11	0°♁		
	567 Jan 01 j 02:30	0°♌		max. Earth dist.	569 Jul 23 j 11:56	0°♁51'50	1.72960 AU	
asc. node	567 Jan 02 j 09:39	1°♌15'54						
greatest brilliancy	567 Feb 01 j 14:14	24°♌30'14	-4.6m	superior conj	569 Jul 26 j 23:11	5°♁09'27	1°13'52	
retrograde	567 Feb 15 j 11:45	28°♌03'23		minimum elong	569 Jul 26 j 15:35	4°♁45'57	1°13'41	
evening set	567 Mar 05 j 07:33	21°♌54'38			569 Aug 15 j 23:36	0°♃		
inferior conj	567 Mar 08 j 16:06	19°♌48'13	8°16'36	evening rise	569 Sep 01 j 14:07	20°♃40'06		
minimum elong	567 Mar 08 j 21:35	19°♌39'32	8°16'08		569 Sep 09 j 01:52	0°♅		
min. Earth dist.	567 Mar 08 j 08:17	20°♌00'38	0.28374 AU		569 Oct 03 j 03:37	0°♈		
morning rise	567 Mar 12 j 11:49	17°♌25'13		desc. node	569 Oct 08 j 18:20	6°♈59'32		
direct	567 Mar 29 j 18:33	11°♌40'51			569 Oct 27 j 06:02	0°♉		
greatest brilliancy	567 Apr 10 j 05:50	14°♌02'58	-4.5m		569 Nov 20 j 10:16	0°♊		
desc. node	567 Apr 23 j 23:00	21°♌42'38			569 Dec 14 j 18:42	0°≈		
	567 May 04 j 15:55	0°♋			570 Jan 08 j 12:44	0°♌		
morning max el	567 May 17 j 15:45	11°♋44'16	45°48'53	asc. node	570 Jan 29 j 21:28	25°♌07'17		
	567 Jun 04 j 18:34	0°♍			570 Feb 03 j 03:39	0°♍		
	567 Jul 02 j 04:16	0°♎			570 Mar 02 j 18:34	0°♎		
	567 Jul 28 j 03:35	0°☿		evening max el	570 Mar 07 j 23:35	5°♎12'29	45°53'05	
asc. node	567 Aug 15 j 02:31	21°☿22'07			570 Apr 07 j 09:10	0°♏		
	567 Aug 22 j 06:08	0°♁		greatest brilliancy	570 Apr 11 j 06:38	2°♏04'08	-4.5m	
	567 Sep 15 j 18:16	0°♃		retrograde	570 Apr 26 j 02:43	5°♏55'09		
	567 Oct 09 j 20:58	0°♅		evening set	570 May 11 j 06:57	1°♏25'58		
	567 Nov 02 j 18:37	0°♈			570 May 13 j 18:29	30°♏		
morning set	567 Nov 12 j 13:26	12°♈18'50		inferior conj	570 May 17 j 12:59	27°♏40'12	0°54'58	
	567 Nov 26 j 14:29	0°♉		minimum elong	570 May 17 j 14:59	27°♏37'04	0°54'23	
desc. node	567 Dec 04 j 16:00	10°♉09'00		min. Earth dist.	570 May 17 j 15:58	27°♏35'32	0.28971 AU	
	567 Dec 20 j 10:37	0°♊		desc. node	570 May 21 j 10:53	25°♏15'22		
				morning rise	570 May 23 j 23:08	23°♏48'55		
superior conj	567 Dec 24 j 05:48	4°♊46'38	0°-44'-23	direct	570 Jun 08 j 04:23	19°♏21'41		
minimum elong	567 Dec 23 j 19:17	4°♊13'33	0°43'57	greatest brilliancy	570 Jun 21 j 19:12	22°♏36'07	-4.5m	
max. Earth dist.	567 Dec 26 j 20:30	8°♊03'36	1.71190 AU		570 Jul 04 j 10:03	0°♌		
	568 Jan 13 j 08:07	0°≈		morning max el	570 Jul 27 j 02:56	19°♌18'08	45°52'09	
evening rise	568 Feb 03 j 11:10	26°≈25'07			570 Aug 06 j 20:54	0°☿		
	568 Feb 06 j 08:07	0°♌			570 Sep 03 j 10:09	0°♁		
	568 Mar 01 j 12:06	0°♍		asc. node	570 Sep 11 j 14:17	9°♁23'42		
	568 Mar 25 j 21:48	0°♎			570 Sep 29 j 01:30	0°♃		
asc. node	568 Mar 26 j 19:17	1°♎05'34			570 Oct 23 j 17:56	0°♅		
	568 Apr 19 j 15:03	0°♏			570 Nov 16 j 22:46	0°♈		
	568 May 14 j 18:16	0°☿			570 Dec 10 j 22:44	0°♉		
	568 Jun 09 j 12:18	0°♁		desc. node	571 Jan 01 j 03:53	26°♉34'14		
	568 Jul 06 j 09:01	0°♃			571 Jan 03 j 21:37	0°♊		
desc. node	568 Jul 16 j 08:43	10°♃37'08			571 Jan 27 j 21:18	0°≈		
evening max el	568 Jul 31 j 01:04	25°♃23'06	46°04'46	morning set	571 Jan 28 j 21:06	1°≈14'17		
	568 Aug 04 j 22:21	0°♅			571 Feb 20 j 22:48	0°♌		
greatest brilliancy	568 Sep 07 j 23:47	23°♅58'52	-4.6m					
retrograde	568 Sep 18 j 09:50	25°♅57'54		superior conj	571 Mar 09 j 21:04	21°♌01'28	-1°-21'-29	
evening set	568 Oct 04 j 17:48	20°♅53'10		minimum elong	571 Mar 10 j 03:11	21°♌20'25	1°21'25	
inferior conj	568 Oct 09 j 03:42	18°♅16'22	-6°-29'-5	max. Earth dist.	571 Mar 13 j 10:47	25°♌27'08	1.72624 AU	
minimum elong	568 Oct 09 j 14:21	18°♅00'12	6°26'48		571 Mar 17 j 02:55	0°♍		
min. Earth dist.	568 Oct 09 j 23:28	17°♅46'23	0.26990 AU		571 Apr 10 j 10:09	0°♎		
morning rise	568 Oct 14 j 10:23	15°♅09'24		evening rise	571 Apr 17 j 05:31	8°♎22'29		
direct	568 Oct 29 j 20:10	10°♅28'30		asc. node	571 Apr 24 j 07:11	17°♎03'22		
asc. node	568 Nov 06 j 11:49	11°♅36'46			571 May 04 j 20:38	0°♏		
greatest brilliancy	568 Nov 12 j 09:15	13°♅51'49	-4.7m		571 May 29 j 10:19	0°☿		
	568 Dec 05 j 01:30	0°♈			571 Jun 23 j 03:45	0°♁		
morning max el	568 Dec 19 j 15:41	14°♈01'19	46°56'39		571 Jul 18 j 02:39	0°♃		
	569 Jan 03 j 16:59	0°♉			571 Aug 12 j 10:29	0°♅		
	569 Jan 30 j 03:49	0°♊		desc. node	571 Aug 13 j 20:29	1°♅39'36		

	571 Sep 07 j 09:44	0°♌		574 Feb 11 j 02:44	0°♁	
	571 Oct 04 j 17:25	0°♈		574 Mar 07 j 10:24	0°♁	
evening max el	571 Oct 13 j 13:00	9°♈03'55	47°13'42	574 Mar 31 j 19:02	0°♁	
	571 Nov 05 j 18:09	0°♄		574 Apr 11 j 15:12	13°♁19'59	
greatest brilliancy	571 Nov 21 j 02:40	9°♄26'11	-4.7m	574 Apr 25 j 04:47	0°♄	
retrograde	571 Dec 03 j 05:28	12°♄10'38		574 May 18 j 05:13	28°♄15'57	1.73627 AU
asc. node	571 Dec 04 j 23:48	12°♄06'47				
evening set	571 Dec 17 j 22:04	7°♄50'11		superior conj	574 May 18 j 13:12	28°♄40'25 0°-7'-42
min. Earth dist.	571 Dec 22 j 23:19	4°♄50'56	0.26627 AU	minimum elong	574 May 18 j 14:47	28°♄45'17 0°07'38
inferior conj	571 Dec 23 j 18:55	4°♄20'44	4°37'41	behind sun begin	574 May 17 j 18:48	27°♄43'57
minimum elong	571 Dec 23 j 09:50	4°♄34'43	4°35'11	behind sun end	574 May 19 j 10:45	29°♄46'36
morning rise	571 Dec 28 j 22:13	1°♄17'21			574 May 19 j 15:07	0°♀
	571 Dec 31 j 09:06	30°♀♈		asc. node	574 May 21 j 19:07	2°♀39'35
direct	572 Jan 13 j 04:13	26°♈42'20			574 Jun 13 j 01:15	0°♄
greatest brilliancy	572 Jan 24 j 00:03	28°♈54'34	-4.6m	evening rise	574 Jun 23 j 13:27	12°♄55'02
	572 Jan 26 j 13:33	0°♄			574 Jul 07 j 10:45	0°♀
morning max el	572 Mar 03 j 00:28	28°♄35'28	46°27'23		574 Jul 31 j 20:08	0°♁
	572 Mar 04 j 10:38	0°♁			574 Aug 25 j 06:40	0°♄
desc. node	572 Mar 25 j 13:20	22°♁04'21		desc. node	574 Sep 10 j 08:28	19°♄39'56
	572 Apr 01 j 18:44	0°♁			574 Sep 18 j 19:52	0°♌
	572 Apr 28 j 06:31	0°♁			574 Oct 13 j 13:42	0°♈
	572 May 23 j 23:31	0°♄			574 Nov 07 j 16:20	0°♄
	572 Jun 18 j 05:09	0°♀			574 Dec 03 j 15:34	0°♁
asc. node	572 Jul 13 j 01:30	0°♄		evening max el	574 Dec 24 j 08:01	22°♁16'30 47°06'09
	572 Jul 16 j 16:41	4°♄25'19		asc. node	575 Jan 01 j 11:43	0°♈20'55
	572 Aug 06 j 13:22	0°♀			575 Jan 01 j 02:59	0°♈
morning set	572 Aug 28 j 03:38	26°♀45'26		greatest brilliancy	575 Jan 30 j 06:33	22°♈14'39 -4.6m
	572 Aug 30 j 18:07	0°♁		retrograde	575 Feb 13 j 03:29	25°♈48'00
	572 Sep 23 j 18:02	0°♄		evening set	575 Mar 03 j 00:43	19°♈36'44
max. Earth dist.	572 Oct 02 j 17:17	11°♄15'09	1.71459 AU	inferior conj	575 Mar 06 j 07:36	17°♈33'08 8°22'38
				minimum elong	575 Mar 06 j 12:25	17°♈25'30 8°22'17
superior conj	572 Oct 05 j 02:19	14°♄14'08	1°05'10	min. Earth dist.	575 Mar 05 j 23:01	17°♈46'44 0.28329 AU
minimum elong	572 Oct 05 j 12:37	14°♄46'27	1°04'51	morning rise	575 Mar 10 j 00:19	15°♈14'52
	572 Oct 17 j 15:32	0°♌		direct	575 Mar 27 j 08:53	9°♈26'20
desc. node	572 Nov 05 j 06:18	23°♌23'41		greatest brilliancy	575 Apr 07 j 19:54	11°♈48'14 -4.5m
	572 Nov 10 j 12:29	0°♈		desc. node	575 Apr 23 j 01:06	20°♈31'18
evening rise	572 Nov 14 j 16:31	5°♈14'08			575 May 04 j 21:01	0°♁
	572 Dec 04 j 10:02	0°♄		morning max el	575 May 15 j 07:12	9°♁32'41 45°49'42
	572 Dec 28 j 09:26	0°♁			575 Jun 04 j 11:41	0°♄
	573 Jan 21 j 12:47	0°♈			575 Jul 01 j 18:04	0°♀
	573 Feb 14 j 23:34	0°♁			575 Jul 27 j 15:56	0°♄
asc. node	573 Feb 26 j 09:22	13°♁48'24		asc. node	575 Aug 14 j 04:29	20°♄52'30
	573 Mar 11 j 22:52	0°♄			575 Aug 21 j 17:46	0°♀
	573 Apr 06 j 19:06	0°♀			575 Sep 15 j 05:31	0°♁
	573 May 04 j 07:36	0°♄			575 Oct 09 j 08:01	0°♄
evening max el	573 May 17 j 13:15	13°♄12'51	45°19'25		575 Nov 02 j 05:34	0°♌
	573 Jun 05 j 22:38	0°♀		morning set	575 Nov 10 j 00:37	9°♌48'27
desc. node	573 Jun 17 j 22:57	7°♀48'18			575 Nov 26 j 01:25	0°♈
greatest brilliancy	573 Jun 22 j 05:22	9°♀51'04	-4.5m	desc. node	575 Dec 03 j 18:05	9°♈41'12
retrograde	573 Jul 05 j 00:47	12°♀43'56			575 Dec 19 j 21:33	0°♄
evening set	573 Jul 21 j 18:05	7°♀30'26				
inferior conj	573 Jul 26 j 10:21	4°♀40'56	-7°-31'-5	superior conj	575 Dec 21 j 15:07	2°♄10'42 0°-40'-53
minimum elong	573 Jul 26 j 01:29	4°♀54'41	7°29'47	minimum elong	575 Dec 21 j 05:09	1°♄39'22 0°40'27
min. Earth dist.	573 Jul 26 j 16:38	4°♀31'11	0.28664 AU	max. Earth dist.	575 Dec 24 j 02:27	5°♄17'11 1.71167 AU
morning rise	573 Jul 30 j 08:36	2°♀16'46			576 Jan 12 j 19:03	0°♁
	573 Aug 03 j 11:37	30°♀♄		evening rise	576 Jan 31 j 22:19	23°♁56'07
direct	573 Aug 16 j 22:50	26°♄28'07			576 Feb 05 j 19:03	0°♈
	573 Aug 31 j 02:37	0°♀			576 Feb 29 j 23:05	0°♁
greatest brilliancy	573 Aug 31 j 08:53	0°♀07'24	-4.6m		576 Mar 25 j 08:57	0°♄
morning max el	573 Oct 05 j 22:43	28°♀18'59	46°31'36	asc. node	576 Mar 25 j 21:25	0°♄38'04
	573 Oct 07 j 14:51	0°♁			576 Apr 19 j 02:34	0°♀
asc. node	573 Oct 09 j 02:10	1°♁29'54			576 May 14 j 06:31	0°♄
	573 Nov 04 j 04:38	0°♄			576 Jun 09 j 02:00	0°♀
	573 Nov 29 j 16:30	0°♌			576 Jul 06 j 01:50	0°♁
	573 Dec 24 j 09:25	0°♈		desc. node	576 Jul 15 j 10:38	9°♁53'13
	574 Jan 17 j 19:08	0°♄		evening max el	576 Jul 28 j 15:10	23°♁05'29 46°02'14
desc. node	574 Jan 28 j 15:40	13°♄23'09			576 Aug 05 j 00:52	0°♄

greatest brilliancy	576 Sep 05 j 10:30	21°♁33'32	-4.6m	superior conj	579 Mar 07 j 10:53	18°♁41'58	-1°-22'-31
retrograde	576 Sep 15 j 22:41	23°♁33'53		minimum elong	579 Mar 07 j 16:17	18°♁58'44	1°22'28
evening set	576 Oct 02 j 09:42	18°♁24'07		max. Earth dist.	579 Mar 11 j 05:13	23°♁22'05	1.72570 AU
inferior conj	576 Oct 06 j 16:24	15°♁51'37	-6°-44'-36		579 Mar 16 j 13:42	0°♁	
minimum elong	576 Oct 07 j 03:00	15°♁35'33	6°42'25		579 Apr 09 j 20:56	0°♁	
min. Earth dist.	576 Oct 07 j 12:16	15°♁21'28	0.27053 AU	evening rise	579 Apr 14 j 21:51	6°♁11'57	
morning rise	576 Oct 11 j 19:51	12°♁49'15		asc. node	579 Apr 23 j 09:20	16°♁36'50	
direct	576 Oct 27 j 10:16	8°♁02'56			579 May 04 j 07:30	0°♁	
asc. node	576 Nov 05 j 13:57	9°♁39'45			579 May 28 j 21:24	0°♁	
greatest brilliancy	576 Nov 10 j 00:03	11°♁27'44	-4.7m		579 Jun 22 j 15:14	0°♁	
	576 Dec 05 j 07:22	0°♁			579 Jul 17 j 14:52	0°♁	
morning max el	576 Dec 17 j 06:26	11°♁39'06	46°56'42		579 Aug 11 j 23:54	0°♁	
	577 Jan 03 j 11:09	0°♁		desc. node	579 Aug 12 j 22:34	1°♁06'15	
	577 Jan 29 j 18:32	0°♁			579 Sep 07 j 01:21	0°♁	
	577 Feb 24 j 04:02	0°♁			579 Oct 04 j 14:05	0°♁	
desc. node	577 Feb 25 j 03:35	1°♁10'13		evening max el	579 Oct 11 j 02:37	6°♁39'28	47°11'57
	577 Mar 21 j 04:32	0°♁			579 Nov 06 j 15:26	0°♁	
	577 Apr 15 j 00:50	0°♁		greatest brilliancy	579 Nov 18 j 18:26	7°♁00'36	-4.7m
	577 May 09 j 18:38	0°♁		retrograde	579 Nov 30 j 17:40	9°♁41'17	
	577 Jun 03 j 09:54	0°♁		asc. node	579 Dec 04 j 01:51	9°♁27'31	
morning set	577 Jun 18 j 09:38	18°♁20'00		evening set	579 Dec 15 j 08:39	5°♁24'37	
asc. node	577 Jun 18 j 06:55	18°♁11'38		min. Earth dist.	579 Dec 20 j 13:12	2°♁20'52	0.26583 AU
	577 Jun 27 j 21:49	0°♁		inferior conj	579 Dec 21 j 07:26	1°♁52'46	4°16'50
max. Earth dist.	577 Jul 21 j 07:24	28°♁50'48	1.73005 AU	minimum elong	579 Dec 20 j 22:50	2°♁06'02	4°14'24
	577 Jul 22 j 05:47	0°♁			579 Dec 24 j 09:35	30°♁	
				morning rise	579 Dec 26 j 13:31	28°♁45'22	
superior conj	577 Jul 24 j 17:17	3°♁04'04	1°12'16	direct	580 Jan 10 j 16:11	24°♁15'02	
minimum elong	577 Jul 24 j 09:23	2°♁39'39	1°12'04	greatest brilliancy	580 Jan 21 j 14:15	26°♁29'03	-4.6m
	577 Aug 15 j 10:17	0°♁			580 Jan 28 j 18:39	0°♁	
evening rise	577 Aug 30 j 05:57	18°♁26'16		morning max el	580 Feb 29 j 12:22	26°♁09'15	46°28'55
	577 Sep 08 j 12:45	0°♁			580 Mar 04 j 08:51	0°♁	
	577 Oct 02 j 14:45	0°♁		desc. node	580 Mar 24 j 15:32	21°♁23'48	
desc. node	577 Oct 07 j 20:30	6°♁31'25			580 Apr 01 j 10:42	0°♁	
	577 Oct 26 j 17:29	0°♁			580 Apr 27 j 20:03	0°♁	
	577 Nov 19 j 22:03	0°♁			580 May 23 j 11:47	0°♁	
	577 Dec 14 j 06:59	0°♁			580 Jun 17 j 16:42	0°♁	
	578 Jan 08 j 01:55	0°♁			580 Jul 12 j 12:39	0°♁	
asc. node	578 Jan 28 j 23:27	24°♁30'57		asc. node	580 Jul 15 j 18:40	3°♁57'34	
	578 Feb 02 j 18:42	0°♁			580 Aug 06 j 00:17	0°♁	
	578 Mar 02 j 14:47	0°♁		morning set	580 Aug 25 j 19:42	24°♁32'19	
evening max el	578 Mar 05 j 15:59	3°♁01'53	45°55'19		580 Aug 30 j 04:58	0°♁	
greatest brilliancy	578 Apr 09 j 00:27	29°♁57'22	-4.5m		580 Sep 23 j 04:53	0°♁	
	578 Apr 09 j 02:38	0°♁		max. Earth dist.	580 Sep 30 j 04:02	8°♁44'09	1.71504 AU
retrograde	578 Apr 23 j 19:21	3°♁46'49					
	578 May 07 j 16:13	30°♁		superior conj	580 Oct 02 j 15:58	11°♁52'13	1°07'26
evening set	578 May 09 j 00:48	29°♁16'12		minimum elong	580 Oct 03 j 02:01	12°♁23'44	1°07'07
inferior conj	578 May 15 j 05:28	25°♁31'48	1°14'36		580 Oct 17 j 02:29	0°♁	
minimum elong	578 May 15 j 08:11	25°♁27'33	1°13'48	desc. node	580 Nov 04 j 08:22	22°♁55'36	
min. Earth dist.	578 May 15 j 08:24	25°♁27'12	0.28963 AU		580 Nov 09 j 23:32	0°♁	
desc. node	578 May 20 j 13:02	22°♁17'32		evening rise	580 Nov 12 j 03:02	2°♁41'40	
morning rise	578 May 21 j 15:44	21°♁40'08			580 Dec 03 j 21:14	0°♁	
direct	578 Jun 05 j 21:10	17°♁13'35			580 Dec 27 j 20:48	0°♁	
greatest brilliancy	578 Jun 19 j 08:51	20°♁24'50	-4.5m		581 Jan 21 j 00:23	0°♁	
	578 Jul 05 j 00:35	0°♁			581 Feb 14 j 11:33	0°♁	
morning max el	578 Jul 24 j 18:36	17°♁07'54	45°51'15	asc. node	581 Feb 25 j 11:32	13°♁17'59	
	578 Aug 06 j 15:16	0°♁			581 Mar 11 j 11:37	0°♁	
	578 Sep 03 j 00:28	0°♁			581 Apr 06 j 09:31	0°♁	
asc. node	578 Sep 10 j 16:30	8°♁50'18			581 May 04 j 02:13	0°♁	
	578 Sep 28 j 14:14	0°♁		evening max el	581 May 15 j 03:33	10°♁58'25	45°19'20
	578 Oct 23 j 05:56	0°♁			581 Jun 06 j 14:07	0°♁	
	578 Nov 16 j 10:23	0°♁		desc. node	581 Jun 17 j 00:55	6°♁21'05	
	578 Dec 10 j 10:07	0°♁		greatest brilliancy	581 Jun 19 j 17:11	7°♁35'31	-4.5m
desc. node	578 Dec 31 j 05:53	26°♁05'27		retrograde	581 Jul 02 j 16:02	10°♁32'29	
	579 Jan 03 j 08:48	0°♁		evening set	581 Jul 19 j 06:06	5°♁22'59	
morning set	579 Jan 26 j 07:43	28°♁43'15		inferior conj	581 Jul 24 j 01:51	2°♁28'42	-7°-20'-10
	579 Jan 27 j 08:17	0°♁		minimum elong	581 Jul 23 j 16:39	2°♁42'58	7°18'44
	579 Feb 20 j 09:39	0°♁		min. Earth dist.	581 Jul 24 j 07:44	2°♁19'36	0.28696 AU

morning rise	581 Jul 28 j 02:53	0°♁00'33		584 Jan 12 j 06:11	0°≈	
	581 Jul 28 j 03:15	30°♁03'		evening rise	584 Jan 29 j 09:44	21°≈27'16
direct	581 Aug 14 j 14:17	24°♁15'10		584 Feb 05 j 06:10	0°♁	
greatest brilliancy	581 Aug 29 j 02:09	27°♁56'08	-4.6m	584 Feb 29 j 10:17	0°♁	
	581 Sep 02 j 00:25	0°♁		asc. node	584 Mar 24 j 23:31	0°♁09'34
morning max el	581 Oct 03 j 13:25	26°♁00'37	46°30'20	584 Mar 24 j 20:22	0°♁	
	581 Oct 07 j 11:54	0°♁		584 Apr 18 j 14:25	0°♁	
asc. node	581 Oct 08 j 04:15	0°♁42'04		584 May 13 j 19:10	0°♁	
	581 Nov 03 j 20:16	0°♁		584 Jun 08 j 16:10	0°♁	
	581 Nov 29 j 06:06	0°♁		584 Jul 05 j 19:21	0°♁	
	581 Dec 23 j 22:01	0°♁		desc. node	584 Jul 14 j 12:46	9°♁08'17
	582 Jan 17 j 07:08	0°♁		evening max el	584 Jul 26 j 05:32	20°♁47'48 45°59'45
desc. node	582 Jan 27 j 17:44	12°♁53'03		584 Aug 05 j 05:24	0°♁	
	582 Feb 10 j 14:21	0°≈		greatest brilliancy	584 Sep 02 j 22:01	19°♁08'41 -4.6m
	582 Mar 06 j 21:43	0°♁		retrograde	584 Sep 13 j 11:19	21°♁09'20
	582 Mar 31 j 06:05	0°♁		evening set	584 Sep 30 j 01:43	15°♁54'49
morning set	582 Apr 09 j 07:39	11°♁09'13		inferior conj	584 Oct 04 j 05:14	13°♁26'29 -6°-59'-10
	582 Apr 24 j 15:39	0°♁		minimum elong	584 Oct 04 j 15:40	13°♁10'36 6°57'09
				min. Earth dist.	584 Oct 05 j 01:10	12°♁56'11 0.27115 AU
superior conj	582 May 16 j 07:07	26°♁34'58	0°-10'-51	morning rise	584 Oct 09 j 05:15	10°♁28'42
minimum elong	582 May 16 j 09:21	26°♁41'50	0°10'45	direct	584 Oct 25 j 00:29	5°♁37'02
behind sun begin	582 May 15 j 16:34	25°♁50'17		asc. node	584 Nov 04 j 15:59	7°♁46'25
behind sun end	582 May 17 j 02:09	27°♁33'23		greatest brilliancy	584 Nov 07 j 14:18	9°♁02'07 -4.7m
max. Earth dist.	582 May 16 j 02:02	26°♁19'20	1.73620 AU	584 Dec 05 j 11:44	0°♁	
	582 May 19 j 01:55	0°♁		morning max el	584 Dec 14 j 20:34	9°♁14'18 46°56'46
asc. node	582 May 20 j 21:06	2°♁12'34		585 Jan 03 j 05:14	0°♁	
	582 Jun 12 j 12:05	0°♁		585 Jan 29 j 09:21	0°♁	
evening rise	582 Jun 21 j 08:33	10°♁52'49		585 Feb 23 j 17:15	0°≈	
	582 Jul 06 j 21:46	0°♁		desc. node	585 Feb 24 j 05:46	0°≈37'24
	582 Jul 31 j 07:26	0°♁		585 Mar 20 j 16:48	0°♁	
	582 Aug 24 j 18:22	0°♁		585 Apr 14 j 12:31	0°♁	
desc. node	582 Sep 09 j 10:39	19°♁09'49		585 May 09 j 05:56	0°♁	
	582 Sep 18 j 08:08	0°♁		585 Jun 02 j 20:58	0°♁	
	582 Oct 13 j 02:47	0°♁		morning set	585 Jun 16 j 04:05	16°♁15'52
	582 Nov 07 j 06:47	0°♁		asc. node	585 Jun 17 j 08:57	17°♁44'19
	582 Dec 03 j 08:47	0°≈		585 Jun 27 j 08:45	0°♁	
evening max el	582 Dec 21 j 22:49	19°≈56'05	47°08'02	max. Earth dist.	585 Jul 19 j 01:18	26°♁44'05 1.73049 AU
asc. node	582 Dec 31 j 13:42	29°≈24'15		585 Jul 21 j 16:41	0°♁	
	583 Jan 01 j 04:54	0°♁				
greatest brilliancy	583 Jan 27 j 22:11	19°♁57'33	-4.6m	superior conj	585 Jul 22 j 11:23	0°♁57'49 1°10'33
retrograde	583 Feb 10 j 19:37	23°♁31'44		minimum elong	585 Jul 22 j 03:15	0°♁32'39 1°10'21
evening set	583 Feb 28 j 17:33	17°♁18'11		585 Aug 14 j 21:17	0°♁	
inferior conj	583 Mar 03 j 23:03	15°♁16'56	8°27'49	evening rise	585 Aug 27 j 21:51	16°♁11'47
minimum elong	583 Mar 04 j 03:10	15°♁10'26	8°27'34	585 Sep 07 j 23:56	0°♁	
min. Earth dist.	583 Mar 03 j 13:19	15°♁32'18	0.28287 AU	585 Oct 02 j 02:13	0°♁	
morning rise	583 Mar 07 j 12:58	13°♁03'11		desc. node	585 Oct 06 j 22:31	6°♁01'53
direct	583 Mar 24 j 23:41	7°♁10'45		585 Oct 26 j 05:15	0°♁	
greatest brilliancy	583 Apr 05 j 09:36	9°♁32'08	-4.5m	585 Nov 19 j 10:12	0°♁	
desc. node	583 Apr 22 j 03:11	19°♁21'02		585 Dec 13 j 19:40	0°≈	
	583 May 05 j 00:43	0°♁		586 Jan 07 j 15:32	0°♁	
morning max el	583 May 12 j 23:19	7°♁21'42	45°50'29	asc. node	586 Jan 28 j 01:41	23°♁54'09
	583 Jun 04 j 04:48	0°♁		586 Feb 02 j 10:16	0°♁	
	583 Jul 01 j 08:02	0°♁		586 Mar 02 j 11:57	0°♁	
	583 Jul 27 j 04:29	0°♁		evening max el	586 Mar 03 j 07:37	0°♁48'33 45°57'37
asc. node	583 Aug 13 j 06:39	20°♁22'55		greatest brilliancy	586 Apr 06 j 18:26	27°♁50'21 -4.5m
	583 Aug 21 j 05:36	0°♁		586 Apr 12 j 00:49	0°♁	
	583 Sep 14 j 17:00	0°♁		retrograde	586 Apr 21 j 11:45	1°♁38'18
	583 Oct 08 j 19:19	0°♁		586 Apr 30 j 13:20	30°♁	
	583 Nov 01 j 16:47	0°♁		evening set	586 May 06 j 18:56	27°♁06'00
morning set	583 Nov 07 j 12:11	7°♁18'29		inferior conj	586 May 12 j 22:10	23°♁23'15 1°33'54
	583 Nov 25 j 12:37	0°♁		minimum elong	586 May 13 j 01:33	23°♁17'55 1°32'55
desc. node	583 Dec 02 j 20:06	9°♁12'22		min. Earth dist.	586 May 13 j 01:17	23°♁18'21 0.28957 AU
				morning rise	586 May 19 j 08:21	19°♁31'16
superior conj	583 Dec 19 j 00:44	29°♁34'56	0°-37'-18	desc. node	586 May 19 j 14:59	19°♁22'14
minimum elong	583 Dec 18 j 15:26	29°♁05'41	0°36'55	direct	586 Jun 03 j 13:47	15°♁05'16
	583 Dec 19 j 08:42	0°♁		greatest brilliancy	586 Jun 16 j 23:00	18°♁13'31 -4.5m
max. Earth dist.	583 Dec 21 j 11:18	2°♁39'05	1.71141 AU	586 Jul 05 j 11:44	0°♁	

morning max el	586 Jul 22 j 09:41	14°♄55'21	45°50'19		589 Feb 13 j 23:46	0°♃	
	586 Aug 06 j 09:32	0°♄		asc. node	589 Feb 24 j 13:35	12°♃46'32	
	586 Sep 02 j 14:58	0°♄			589 Mar 11 j 00:39	0°♃	
asc. node	586 Sep 09 j 18:35	8°♄15'47			589 Apr 06 j 00:15	0°♄	
	586 Sep 28 j 03:12	0°♄			589 May 03 j 21:27	0°♄	
	586 Oct 22 j 18:10	0°♄		evening max el	589 May 12 j 18:43	8°♄46'02	45°19'31
	586 Nov 15 j 22:14	0°♄			589 Jun 07 j 10:51	0°♄	
	586 Dec 09 j 21:43	0°♄		desc. node	589 Jun 16 j 03:01	4°♄51'25	
desc. node	586 Dec 30 j 07:56	25°♄35'59		greatest brilliancy	589 Jun 17 j 04:41	5°♄20'05	-4.5m
	587 Jan 02 j 20:14	0°♄		retrograde	589 Jun 30 j 07:59	8°♄21'43	
morning set	587 Jan 23 j 18:13	26°♄10'46		evening set	589 Jul 16 j 18:27	3°♄16'06	
	587 Jan 26 j 19:35	0°♄		inferior conj	589 Jul 21 j 17:34	0°♄17'05	-7°-8'-44
	587 Feb 19 j 20:49	0°♄		minimum elong	589 Jul 21 j 08:04	0°♄31'47	7°07'10
				min. Earth dist.	589 Jul 21 j 22:39	0°♄09'14	0.28728 AU
superior conj	587 Mar 05 j 00:47	16°♄21'47	-1°-23'-24		589 Jul 22 j 04:37	30°♄	
minimum elong	587 Mar 05 j 05:27	16°♄36'15	1°23'22	morning rise	589 Jul 25 j 21:25	27°♄44'59	
max. Earth dist.	587 Mar 08 j 22:24	21°♄12'11	1.72509 AU	direct	589 Aug 12 j 06:20	22°♄02'59	
	587 Mar 16 j 00:45	0°♄		greatest brilliancy	589 Aug 26 j 19:18	25°♄45'21	-4.6m
	587 Apr 09 j 07:57	0°♄			589 Sep 03 j 07:12	0°♄	
evening rise	587 Apr 12 j 14:16	4°♄00'56		morning max el	589 Oct 01 j 05:11	23°♄45'09	46°28'47
asc. node	587 Apr 22 j 11:20	16°♄09'10		asc. node	589 Oct 07 j 06:16	29°♄54'42	
	587 May 03 j 18:35	0°♄			589 Oct 07 j 08:18	0°♄	
	587 May 28 j 08:43	0°♄			589 Nov 03 j 11:47	0°♄	
	587 Jun 22 j 03:01	0°♄			589 Nov 28 j 19:44	0°♄	
	587 Jul 17 j 03:25	0°♄			589 Dec 23 j 10:40	0°♄	
	587 Aug 11 j 13:44	0°♄			590 Jan 16 j 19:12	0°♄	
desc. node	587 Aug 12 j 00:41	0°♄31'56		desc. node	590 Jan 26 j 19:56	12°♄23'14	
	587 Sep 06 j 17:31	0°♄			590 Feb 10 j 02:00	0°♄	
	587 Oct 04 j 11:46	0°♄			590 Mar 06 j 09:03	0°♄	
evening max el	587 Oct 08 j 15:16	4°♄11'53	47°10'15		590 Mar 30 j 17:11	0°♄	
	587 Nov 07 j 20:59	0°♄		morning set	590 Apr 06 j 23:53	8°♄57'33	
greatest brilliancy	587 Nov 16 j 09:55	4°♄33'57	-4.7m		590 Apr 24 j 02:34	0°♄	
retrograde	587 Nov 28 j 05:48	7°♄11'31					
asc. node	587 Dec 03 j 03:53	6°♄41'36		superior conj	590 May 14 j 00:58	24°♄29'07	0°-14'00
evening set	587 Dec 12 j 19:27	2°♄57'51		minimum elong	590 May 14 j 03:51	24°♄37'58	0°13'53
	587 Dec 17 j 20:40	30°♄		behind sun begin	590 May 13 j 16:49	24°♄04'06	
min. Earth dist.	587 Dec 18 j 03:13	29°♄49'56	0.26546 AU	behind sun end	590 May 14 j 14:53	25°♄11'51	
inferior conj	587 Dec 18 j 19:59	29°♄24'08	3°55'30	max. Earth dist.	590 May 13 j 23:41	24°♄25'10	1.73609 AU
minimum elong	587 Dec 18 j 11:54	29°♄36'35	3°53'09		590 May 18 j 12:45	0°♄	
morning rise	587 Dec 24 j 04:45	26°♄13'00		asc. node	590 May 19 j 23:12	1°♄45'46	
direct	588 Jan 08 j 03:52	21°♄46'44			590 Jun 11 j 22:56	0°♄	
greatest brilliancy	588 Jan 19 j 05:16	24°♄03'38	-4.6m	evening rise	590 Jun 19 j 03:46	8°♄50'59	
	588 Jan 30 j 06:03	0°♄			590 Jul 06 j 08:44	0°♄	
morning max el	588 Feb 27 j 00:43	23°♄43'07	46°30'32		590 Jul 30 j 18:40	0°♄	
	588 Mar 04 j 06:33	0°♄			590 Aug 24 j 06:01	0°♄	
desc. node	588 Mar 23 j 17:29	20°♄42'20		desc. node	590 Sep 08 j 12:39	18°♄39'11	
	588 Apr 01 j 02:40	0°♄			590 Sep 17 j 20:25	0°♄	
	588 Apr 27 j 09:41	0°♄			590 Oct 12 j 15:59	0°♄	
	588 May 23 j 00:11	0°♄			590 Nov 06 j 21:28	0°♄	
	588 Jun 17 j 04:22	0°♄			590 Dec 03 j 02:29	0°♄	
	588 Jul 11 j 23:54	0°♄		evening max el	590 Dec 19 j 14:24	17°♄37'08	47°09'50
asc. node	588 Jul 14 j 20:53	3°♄30'04		asc. node	590 Dec 30 j 15:54	28°♄26'23	
	588 Aug 05 j 11:22	0°♄			591 Jan 01 j 08:33	0°♄	
morning set	588 Aug 23 j 11:49	22°♄18'53		greatest brilliancy	591 Jan 25 j 14:08	17°♄40'01	-4.6m
	588 Aug 29 j 16:00	0°♄		retrograde	591 Feb 08 j 11:45	21°♄14'05	
	588 Sep 22 j 15:58	0°♄		evening set	591 Feb 26 j 09:48	14°♄58'54	
max. Earth dist.	588 Sep 27 j 16:24	6°♄17'34	1.71551 AU	min. Earth dist.	591 Mar 01 j 02:57	13°♄17'09	0.28239 AU
				inferior conj	591 Mar 01 j 14:08	12°♄59'30	8°32'20
superior conj	588 Sep 30 j 05:36	9°♄29'31	1°09'34	minimum elong	591 Mar 01 j 17:31	12°♄54'10	8°32'10
minimum elong	588 Sep 30 j 15:19	10°♄00'01	1°09'17	morning rise	591 Mar 05 j 01:27	10°♄49'57	
	588 Oct 16 j 13:38	0°♄		direct	591 Mar 22 j 14:35	4°♄54'13	
desc. node	588 Nov 03 j 10:22	22°♄26'36		greatest brilliancy	591 Apr 02 j 21:56	7°♄13'50	-4.5m
	588 Nov 09 j 10:47	0°♄		desc. node	591 Apr 21 j 05:13	18°♄12'22	
evening rise	588 Nov 09 j 13:27	0°♄08'22			591 May 05 j 02:55	0°♄	
	588 Dec 03 j 08:36	0°♄		morning max el	591 May 10 j 15:18	5°♄10'24	45°51'19
	588 Dec 27 j 08:21	0°♄			591 Jun 03 j 21:33	0°♄	
	589 Jan 20 j 12:11	0°♄			591 Jun 30 j 21:48	0°♄	

	591 Jul 26 j 16:52	0°☿			594 Mar 02 j 09:45	0°♄	
asc. node	591 Aug 12 j 08:44	19°☿53'32		greatest brilliancy	594 Apr 04 j 11:38	25°♄42'10	-4.5m
	591 Aug 20 j 17:16	0°♁		retrograde	594 Apr 19 j 03:48	29°♄29'37	
	591 Sep 14 j 04:17	0°♁		evening set	594 May 04 j 12:55	24°♄55'14	
	591 Oct 08 j 06:26	0°♁		inferior conj	594 May 10 j 14:38	21°♄14'33	1°53'12
	591 Nov 01 j 03:51	0°♁		minimum elong	594 May 10 j 18:41	21°♄08'11	1°52'03
morning set	591 Nov 04 j 23:53	4°♁49'30		min. Earth dist.	594 May 10 j 18:11	21°♄08'58	0.28950 AU
	591 Nov 24 j 23:41	0°♁		morning rise	594 May 17 j 00:33	17°♄22'30	
desc. node	591 Dec 01 j 22:13	8°♁44'16		desc. node	594 May 18 j 17:06	16°♄29'02	
				direct	594 Jun 01 j 05:36	12°♄56'40	
superior conj	591 Dec 16 j 10:01	26°♁58'21	0°-33'-37	greatest brilliancy	594 Jun 14 j 13:46	16°♄03'07	-4.5m
minimum elong	591 Dec 16 j 01:29	26°♁31'30	0°33'14		594 Jul 05 j 19:44	0°♁	
	591 Dec 18 j 19:47	0°♁		morning max el	594 Jul 20 j 00:19	12°♁42'19	45°49'32
max. Earth dist.	591 Dec 18 j 19:35	29°♁59'20	1.71121 AU		594 Aug 06 j 03:06	0°☿	
	592 Jan 11 j 17:15	0°♁			594 Sep 02 j 05:00	0°♁	
evening rise	592 Jan 26 j 20:29	18°♁56'26		asc. node	594 Sep 08 j 20:31	7°♁41'56	
	592 Feb 04 j 17:14	0°♁			594 Sep 27 j 15:46	0°♁	
	592 Feb 28 j 21:25	0°♁			594 Oct 22 j 06:02	0°♁	
asc. node	592 Mar 24 j 01:29	29°♁40'59			594 Nov 15 j 09:41	0°♁	
	592 Mar 24 j 07:43	0°♁			594 Dec 09 j 08:55	0°♁	
	592 Apr 18 j 02:12	0°♁		desc. node	594 Dec 29 j 10:05	25°♁08'11	
	592 May 13 j 07:46	0°☿			595 Jan 02 j 07:14	0°♁	
	592 Jun 08 j 06:20	0°♁		morning set	595 Jan 21 j 04:49	23°♁39'48	
	592 Jul 05 j 13:03	0°♁			595 Jan 26 j 06:27	0°♁	
desc. node	592 Jul 13 j 14:55	8°♁23'27			595 Feb 19 j 07:36	0°♁	
evening max el	592 Jul 23 j 19:44	18°♁30'28	45°57'24				
	592 Aug 05 j 11:31	0°♁		superior conj	595 Mar 02 j 14:31	14°♁02'06	-1°-24'-9
greatest brilliancy	592 Aug 31 j 10:37	16°♁46'29	-4.6m	minimum elong	595 Mar 02 j 18:23	14°♁14'05	1°24'08
retrograde	592 Sep 10 j 23:41	18°♁46'31		max. Earth dist.	595 Mar 06 j 13:13	18°♁55'57	1.72454 AU
evening set	592 Sep 27 j 17:54	13°♁27'34			595 Mar 15 j 11:29	0°♁	
inferior conj	592 Oct 01 j 18:20	11°♁03'19	-7°-12'-44		595 Apr 08 j 18:41	0°♁	
minimum elong	592 Oct 02 j 04:31	10°♁47'48	7°10'54	evening rise	595 Apr 10 j 06:11	1°♁49'15	
min. Earth dist.	592 Oct 02 j 14:26	10°♁32'41	0.27176 AU	asc. node	595 Apr 21 j 13:25	15°♁42'31	
morning rise	592 Oct 06 j 14:46	8°♁10'10			595 May 03 j 05:24	0°♁	
direct	592 Oct 22 j 14:24	3°♁13'10			595 May 27 j 19:47	0°☿	
asc. node	592 Nov 03 j 18:04	5°♁59'02			595 Jun 21 j 14:34	0°♁	
greatest brilliancy	592 Nov 05 j 04:33	6°♁38'03	-4.7m		595 Jul 16 j 15:46	0°♁	
	592 Dec 05 j 14:00	0°♁		desc. node	595 Aug 11 j 02:40	29°♁57'49	
morning max el	592 Dec 12 j 09:47	6°♁48'08	46°56'31		595 Aug 11 j 03:25	0°♁	
	593 Jan 02 j 22:37	0°♁			595 Sep 06 j 09:39	0°♁	
	593 Jan 28 j 23:48	0°♁			595 Oct 04 j 09:53	0°♁	
desc. node	593 Feb 23 j 07:43	0°♁04'29		evening max el	595 Oct 06 j 03:43	1°♁44'59	47°08'38
	593 Feb 23 j 06:13	0°♁			595 Nov 09 j 14:33	0°♁	
	593 Mar 20 j 04:53	0°♁		greatest brilliancy	595 Nov 14 j 00:48	2°♁07'43	-4.7m
	593 Apr 14 j 00:00	0°♁		retrograde	595 Nov 25 j 18:20	4°♁43'14	
	593 May 08 j 17:01	0°♁		asc. node	595 Dec 02 j 06:02	3°♁51'01	
	593 Jun 02 j 07:48	0°♁		evening set	595 Dec 10 j 06:27	0°♁31'51	
morning set	593 Jun 13 j 22:12	14°♁11'29			595 Dec 11 j 05:37	30°♁♁	
asc. node	593 Jun 16 j 11:05	17°♁17'59		min. Earth dist.	595 Dec 15 j 17:07	27°♁20'25	0.26509 AU
	593 Jun 26 j 19:27	0°☿		inferior conj	595 Dec 16 j 08:30	26°♁56'48	3°33'40
max. Earth dist.	593 Jul 16 j 18:30	24°☿35'56	1.73092 AU	minimum elong	595 Dec 16 j 01:01	27°♁08'18	3°31'26
				morning rise	595 Dec 21 j 19:54	23°♁42'19	
superior conj	593 Jul 20 j 05:26	28°☿52'11	1°08'45	direct	596 Jan 05 j 15:34	19°♁19'37	
minimum elong	593 Jul 19 j 21:06	28°☿26'24	1°08'31	greatest brilliancy	596 Jan 16 j 20:09	21°♁39'38	-4.6m
	593 Jul 21 j 03:23	0°♁			596 Jan 31 j 06:29	0°♁	
	593 Aug 14 j 08:03	0°♁		morning max el	596 Feb 24 j 13:52	21°♁20'20	46°32'06
evening rise	593 Aug 25 j 13:58	13°♁58'52			596 Mar 04 j 02:56	0°♁	
	593 Sep 07 j 10:52	0°♁		desc. node	596 Mar 22 j 19:35	20°♁03'01	
	593 Oct 01 j 13:22	0°♁			596 Mar 31 j 17:56	0°♁	
desc. node	593 Oct 06 j 00:32	5°♁33'21			596 Apr 26 j 22:50	0°♁	
	593 Oct 25 j 16:41	0°♁			596 May 22 j 12:13	0°♁	
	593 Nov 18 j 22:01	0°♁			596 Jun 16 j 15:45	0°♁	
	593 Dec 13 j 08:03	0°♁			596 Jul 11 j 10:53	0°☿	
	594 Jan 07 j 04:57	0°♁		asc. node	596 Jul 13 j 22:54	3°☿02'50	
asc. node	594 Jan 27 j 03:40	23°♁17'08			596 Aug 04 j 22:09	0°♁	
	594 Feb 02 j 01:50	0°♁		morning set	596 Aug 21 j 03:45	20°♁05'51	
evening max el	594 Feb 28 j 22:16	28°♁33'03	45°59'52		596 Aug 29 j 02:44	0°♁	

	596 Sep 22 j 02:45	0°♁		inferior conj	599 Feb 27 j 05:17	10°♁42'33	8°36'07
max. Earth dist.	596 Sep 25 j 05:55	3°♁55'34	1.71598 AU	minimum elong	599 Feb 27 j 07:55	10°♁38'24	8°36'01
				morning rise	599 Mar 02 j 14:12	8°♁36'45	
superior conj	596 Sep 27 j 19:08	7°♁07'32	1°11'34	direct	599 Mar 20 j 05:40	2°♁38'29	
minimum elong	596 Sep 28 j 04:29	7°♁36'50	1°11'20	greatest brilliancy	599 Mar 31 j 09:17	4°♁55'03	-4.5m
	596 Oct 16 j 00:31	0°♁		desc. node	599 Apr 20 j 07:19	17°♁06'26	
desc. node	596 Nov 02 j 12:31	21°♁58'54			599 May 05 j 03:27	0°♁	
evening rise	596 Nov 06 j 23:57	27°♁36'10		morning max el	599 May 08 j 06:48	2°♁58'34	45°52'10
	596 Nov 08 j 21:46	0°♁			599 Jun 03 j 13:45	0°♁	
	596 Dec 02 j 19:43	0°♁			599 Jun 30 j 11:16	0°♁	
	596 Dec 26 j 19:35	0°♁			599 Jul 26 j 05:06	0°♁	
	597 Jan 19 j 23:37	0°♁		asc. node	599 Aug 11 j 10:42	19°♁24'03	
	597 Feb 13 j 11:36	0°♁			599 Aug 20 j 04:52	0°♁	
asc. node	597 Feb 23 j 15:35	12°♁16'06			599 Sep 13 j 15:33	0°♁	
	597 Mar 10 j 13:20	0°♁			599 Oct 07 j 17:33	0°♁	
	597 Apr 05 j 14:48	0°♁			599 Oct 31 j 14:55	0°♁	
	597 May 03 j 16:56	0°♁		morning set	599 Nov 02 j 11:33	2°♁20'24	
evening max el	597 May 10 j 10:44	6°♁36'30	45°19'34		599 Nov 24 j 10:45	0°♁	
	597 Jun 08 j 15:07	0°♁		desc. node	599 Dec 01 j 00:18	8°♁16'03	
greatest brilliancy	597 Jun 14 j 16:40	3°♁05'41	-4.5m				
desc. node	597 Jun 15 j 05:09	3°♁19'06		superior conj	599 Dec 13 j 19:17	24°♁21'46	0°-29'-52
retrograde	597 Jun 27 j 23:55	6°♁11'01		minimum elong	599 Dec 13 j 11:34	23°♁57'33	0°29'31
evening set	597 Jul 14 j 06:47	1°♁09'27		max. Earth dist.	599 Dec 16 j 02:49	27°♁16'25	1.71099 AU
	597 Jul 16 j 06:23	30°♁			599 Dec 18 j 06:51	0°♁	
inferior conj	597 Jul 19 j 09:09	28°♁05'39	-6°-56'-38		600 Jan 11 j 04:18	0°♁	
minimum elong	597 Jul 18 j 23:26	28°♁20'40	6°54'56	evening rise	600 Jan 24 j 07:11	16°♁25'17	
min. Earth dist.	597 Jul 19 j 13:20	27°♁59'11	0.28757 AU		600 Feb 04 j 04:19	0°♁	
morning rise	597 Jul 23 j 15:52	25°♁29'27			600 Feb 28 j 08:34	0°♁	
direct	597 Aug 09 j 22:43	19°♁51'09		asc. node	600 Mar 23 j 03:39	29°♁12'57	
greatest brilliancy	597 Aug 24 j 11:20	23°♁33'36	-4.5m		600 Mar 23 j 19:04	0°♁	
	597 Sep 04 j 05:11	0°♁			600 Apr 17 j 13:58	0°♁	
morning max el	597 Sep 28 j 21:07	21°♁30'53	46°27'13		600 May 12 j 20:21	0°♁	
asc. node	597 Oct 06 j 08:25	29°♁08'59			600 Jun 07 j 20:35	0°♁	
	597 Oct 07 j 03:53	0°♁			600 Jul 05 j 07:10	0°♁	
	597 Nov 03 j 02:51	0°♁		desc. node	600 Jul 12 j 16:51	7°♁37'20	
	597 Nov 28 j 09:02	0°♁		evening max el	600 Jul 21 j 09:04	16°♁11'00	45°54'49
	597 Dec 22 j 23:03	0°♁			600 Aug 05 j 20:10	0°♁	
	598 Jan 16 j 07:00	0°♁		greatest brilliancy	600 Aug 28 j 23:44	14°♁24'27	-4.6m
desc. node	598 Jan 25 j 21:51	11°♁53'18		retrograde	600 Sep 08 j 11:37	16°♁23'23	
	598 Feb 09 j 13:23	0°♁		evening set	600 Sep 25 j 09:59	10°♁59'54	
	598 Mar 05 j 20:05	0°♁		inferior conj	600 Sep 29 j 07:26	8°♁39'49	-7°-25'-30
	598 Mar 30 j 03:58	0°♁		minimum elong	600 Sep 29 j 17:16	8°♁24'47	7°23'49
morning set	598 Apr 04 j 16:24	6°♁47'39		min. Earth dist.	600 Sep 30 j 04:04	8°♁08'17	0.27242 AU
	598 Apr 23 j 13:12	0°♁		morning rise	600 Oct 04 j 00:10	5°♁51'24	
				direct	600 Oct 20 j 03:48	0°♁48'34	
superior conj	598 May 11 j 18:58	22°♁24'27	0°-17'-7	asc. node	600 Nov 02 j 20:10	4°♁15'02	
minimum elong	598 May 11 j 22:29	22°♁35'14	0°16'58	greatest brilliancy	600 Nov 02 j 19:39	4°♁14'25	-4.7m
max. Earth dist.	598 May 11 j 23:10	22°♁37'20	1.73600 AU		600 Dec 05 j 15:11	0°♁	
	598 May 17 j 23:20	0°♁		morning max el	600 Dec 09 j 22:27	4°♁19'49	46°56'24
asc. node	598 May 19 j 01:20	1°♁19'51					
	598 Jun 11 j 09:36	0°♁					
evening rise	598 Jun 16 j 23:01	6°♁49'48					
	598 Jul 05 j 19:35	0°♁					
	598 Jul 30 j 05:48	0°♁					
	598 Aug 23 j 17:35	0°♁					
desc. node	598 Sep 07 j 14:41	18°♁08'58					
	598 Sep 17 j 08:38	0°♁					
	598 Oct 12 j 05:10	0°♁					
	598 Nov 06 j 12:12	0°♁					
	598 Dec 02 j 20:27	0°♁					
evening max el	598 Dec 17 j 06:30	15°♁19'46	47°11'31				
asc. node	598 Dec 29 j 17:56	27°♁27'15					
	599 Jan 01 j 13:51	0°♁					
greatest brilliancy	599 Jan 23 j 07:21	15°♁24'31	-4.6m				
retrograde	599 Feb 06 j 03:52	18°♁56'41					
evening set	599 Feb 24 j 01:53	12°♁40'38					
min. Earth dist.	599 Feb 26 j 16:42	11°♁02'26	0.28184 AU				