

superior conj	8101 Feb 25 04:19	7° H 55'32	-0°36'54	desc. node	8103 Jul 28 08:53	6° Ω 18'52	
minimum elong	8101 Feb 24 19:42	7° H 28'36	0°36'26	morning rise	8103 Jul 31 15:30	4° Ω 26'21	
	8101 Mar 14 19:01	0° Υ		direct	8103 Aug 15 07:42	0° Ω 15'37	
evening rise	8101 Apr 06 08:58	28° Υ 21'12		greatest brilliancy	8103 Aug 25 03:09	2° Ω 00'19	-4.8m
	8101 Apr 07 16:26	0° B			8103 Oct 02 23:00	0° M	
	8101 May 01 14:18	0° II		morning max el	8103 Oct 03 03:04	0° M 09'41	45°46'07
	8101 May 25 15:05	0° S			8103 Nov 01 00:13	0° A	
asc. node	8101 Jun 02 11:29	9° S 44'33		asc. node	8103 Nov 18 08:10	19° A 21'49	
	8101 Jun 18 21:25	0° Ω			8103 Nov 27 14:27	0° M	
	8101 Jul 13 12:21	0° M			8103 Dec 23 01:13	0° A	
	8101 Aug 07 16:43	0° A			8104 Jan 16 20:17	0° S	
	8101 Sep 02 20:46	0° M			8104 Feb 10 05:50	0° \approx	
desc. node	8101 Sep 22 05:49	20° M 56'01			8104 Mar 05 09:25	0° H	
	8101 Oct 01 03:50	0° A		desc. node	8104 Mar 09 00:53	4° H 32'57	
evening max el	8101 Oct 06 05:06	4° A 55'31	45°40'48		8104 Mar 29 08:58	0° Υ	
	8101 Nov 07 09:13	0° S		morning set	8104 Apr 01 04:39	3° Υ 32'18	
greatest brilliancy	8101 Nov 14 08:33	2° S 59'04	-4.7m		8104 Apr 22 06:09	0° B	
retrograde	8101 Nov 23 20:24	4° S 36'52					
	8101 Dec 09 09:18	30° R A		superior conj	8104 May 11 22:53	24° B 46'01	-1°25'48
evening set	8101 Dec 10 14:07	29° A 18'59		minimum elong	8104 May 12 03:43	25° B 01'13	1°25'53
inferior conj	8101 Dec 15 02:46	26° A 33'13	-6°23'45	max. Earth dist.	8104 May 13 15:39	26° B 54'04	1.71317 AU
minimum elong	8101 Dec 15 12:53	26° A 17'25	6°21'30		8104 May 16 02:52	0° II	
min. Earth dist.	8101 Dec 15 22:53	26° A 01'46	0.28452 AU		8104 Jun 09 01:11	0° S	
morning rise	8101 Dec 20 11:10	23° A 18'02		evening rise	8104 Jun 21 06:11	15° S 14'35	
direct	8102 Jan 05 11:21	18° A 20'38		asc. node	8104 Jun 29 23:24	26° S 05'47	
asc. node	8102 Jan 13 05:42	19° A 29'03			8104 Jul 03 02:45	0° Ω	
greatest brilliancy	8102 Jan 16 14:09	20° A 37'18	-4.8m		8104 Jul 27 08:40	0° M	
	8102 Feb 01 12:29	0° S			8104 Aug 20 20:07	0° A	
morning max el	8102 Feb 24 14:05	20° S 36'13	46°34'34		8104 Sep 14 15:18	0° M	
	8102 Mar 05 16:41	0° \approx			8104 Oct 09 22:13	0° A	
	8102 Apr 01 15:38	0° H		desc. node	8104 Oct 19 17:18	11° A 24'07	
	8102 Apr 27 01:53	0° Υ			8104 Nov 04 23:44	0° S	
desc. node	8102 May 04 23:24	9° Υ 30'39			8104 Dec 02 11:11	0° \approx	
	8102 May 21 19:53	0° B		evening max el	8104 Dec 17 00:34	14° \approx 43'27	46°10'04
	8102 Jun 15 06:24	0° II			8105 Jan 02 23:43	0° H	
	8102 Jul 09 14:14	0° S		greatest brilliancy	8105 Jan 25 18:11	14° H 01'02	-4.8m
	8102 Aug 02 21:55	0° Ω		retrograde	8105 Feb 04 13:14	15° H 48'29	
asc. node	8102 Aug 25 21:28	28° Ω 19'26		asc. node	8105 Feb 09 17:20	15° H 15'48	
	8102 Aug 27 06:06	0° M		evening set	8105 Feb 19 03:18	11° H 37'15	
morning set	8102 Aug 29 08:00	2° M 33'42		inferior conj	8105 Feb 25 06:11	8° H 01'53	3°52'58
	8102 Sep 20 14:24	0° A		minimum elong	8105 Feb 24 21:54	8° H 14'35	3°50'36
				min. Earth dist.	8105 Feb 25 07:15	8° H 00'15	0.27078 AU
superior conj	8102 Oct 05 09:54	18° A 15'28	1°18'04	morning rise	8105 Mar 02 16:10	4° H 48'40	
minimum elong	8102 Oct 05 02:44	17° A 53'23	1°17'58	direct	8105 Mar 17 23:29	0° H 10'35	
max. Earth dist.	8102 Oct 05 13:27	18° A 26'25	1.73309 AU	greatest brilliancy	8105 Mar 28 04:31	2° H 08'46	-4.9m
	8102 Oct 14 22:32	0° M			8105 May 04 09:58	0° Υ	
	8102 Nov 08 06:53	0° A		morning max el	8105 May 07 12:44	3° Υ 06'10	46°59'30
evening rise	8102 Nov 10 19:47	3° A 07'26		desc. node	8105 Jun 01 11:34	29° Υ 51'19	
	8102 Dec 02 16:08	0° S			8105 Jun 01 14:40	0° B	
desc. node	8102 Dec 15 14:47	15° S 53'48			8105 Jun 27 15:52	0° II	
	8102 Dec 27 02:35	0° \approx			8105 Jul 22 22:22	0° S	
	8103 Jan 20 14:10	0° H			8105 Aug 16 21:01	0° Ω	
	8103 Feb 14 03:28	0° Υ			8105 Sep 10 15:30	0° M	
	8103 Mar 10 21:38	0° B		asc. node	8105 Sep 22 09:40	14° M 18'16	
	8103 Apr 05 04:33	0° II			8105 Oct 05 06:25	0° A	
asc. node	8103 Apr 07 14:06	2° II 47'11			8105 Oct 29 17:47	0° M	
	8103 May 01 18:44	0° S		morning set	8105 Nov 05 23:43	8° M 54'48	
evening max el	8103 May 14 20:33	13° S 40'09	46°49'04		8105 Nov 23 02:10	0° A	
	8103 Jun 01 10:05	0° Ω		max. Earth dist.	8105 Dec 10 21:21	21° A 59'48	1.72895 AU
greatest brilliancy	8103 Jun 23 10:58	14° Ω 06'56	-4.8m				
retrograde	8103 Jul 04 04:07	16° Ω 15'29		superior conj	8105 Dec 12 16:31	24° A 13'22	1°04'57
evening set	8103 Jul 19 03:17	11° Ω 52'33		minimum elong	8105 Dec 13 02:12	24° A 43'19	1°04'47
inferior conj	8103 Jul 25 07:23	8° Ω 11'44	0°46'00		8105 Dec 17 08:31	0° S	
minimum elong	8103 Jul 25 09:07	8° Ω 09'02	0°45'19		8106 Jan 10 13:30	0° \approx	
min. Earth dist.	8103 Jul 24 22:11	8° Ω 26'01	0.27821 AU	desc. node	8106 Jan 12 02:42	1° \approx 55'26	

evening rise	8106 Jan 19 22:29	11° \approx 38'16			8108 Jun 30 22:39	0° Π	
	8106 Feb 03 17:08	0° H		morning max el	8108 Jul 19 16:47	17° Π 01'50	46°27'47
	8106 Feb 27 19:33	0° Υ			8108 Aug 01 09:20	0° G	
	8106 Mar 23 21:57	0° B			8108 Aug 28 17:31	0° Ω	
	8106 Apr 17 03:07	0° Π			8108 Sep 23 19:04	0° M	
asc. node	8106 May 05 01:48	22° Π 00'37			8108 Oct 19 04:41	0° $\underline{\Omega}$	
	8106 May 11 15:32	0° G		asc. node	8108 Oct 19 21:59	0° $\underline{\Omega}$ 51'34	
	8106 Jun 05 18:01	0° Ω			8108 Nov 13 03:15	0° M	
	8106 Jul 01 23:54	0° M			8108 Dec 07 17:28	0° X	
evening max el	8106 Jul 24 22:17	24° M 05'32	46°03'30		8109 Jan 01 01:46	0° Z	
	8106 Jul 31 02:10	0° $\underline{\Omega}$		morning set	8109 Jan 14 08:42	16° Z 28'15	
desc. node	8106 Aug 24 20:25	19° $\underline{\Omega}$ 19'24			8109 Jan 25 05:58	0° \approx	
greatest brilliancy	8106 Sep 01 10:20	22° $\underline{\Omega}$ 57'15	-4.8m	desc. node	8109 Feb 08 14:41	17° \approx 53'55	
retrograde	8106 Sep 12 08:34	25° $\underline{\Omega}$ 07'10			8109 Feb 18 07:11	0° H	
evening set	8106 Sep 29 10:19	19° $\underline{\Omega}$ 32'37		max. Earth dist.	8109 Feb 19 14:09	1° H 36'48	1.71705 AU
inferior conj	8106 Oct 03 20:55	16° $\underline{\Omega}$ 48'35	-7°45'05				
minimum elong	8106 Oct 03 12:57	17° $\underline{\Omega}$ 01'05	7°44'01	superior conj	8109 Feb 22 16:25	5° H 29'00	-0°33'22
min. Earth dist.	8106 Oct 03 10:06	17° $\underline{\Omega}$ 05'32	0.29072 AU	minimum elong	8109 Feb 22 08:32	5° H 04'20	0°32'57
morning rise	8106 Oct 07 15:45	14° $\underline{\Omega}$ 28'25			8109 Mar 14 06:01	0° Υ	
direct	8106 Oct 25 09:24	8° $\underline{\Omega}$ 33'38		evening rise	8109 Apr 03 19:55	25° Υ 50'04	
greatest brilliancy	8106 Nov 04 11:18	10° $\underline{\Omega}$ 24'24	-4.7m		8109 Apr 07 03:31	0° B	
	8106 Dec 03 21:32	0° M			8109 May 01 01:30	0° Π	
morning max el	8106 Dec 13 10:18	8° M 52'28	45°50'08		8109 May 25 02:27	0° G	
asc. node	8106 Dec 15 20:01	11° M 13'42		asc. node	8109 Jun 01 13:30	9° G 15'21	
	8107 Jan 02 20:59	0° X			8109 Jun 18 09:04	0° Ω	
	8107 Jan 29 10:40	0° Z			8109 Jul 13 00:30	0° M	
	8107 Feb 23 17:16	0° \approx			8109 Aug 07 05:50	0° $\underline{\Omega}$	
	8107 Mar 20 08:22	0° H			8109 Sep 02 11:57	0° M	
desc. node	8107 Apr 06 13:07	21° H 13'42		desc. node	8109 Sep 21 07:51	20° M 13'52	
	8107 Apr 13 14:47	0° Υ			8109 Oct 01 00:48	0° X	
	8107 May 07 16:24	0° B		evening max el	8109 Oct 03 18:46	2° X 39'32	45°40'36
	8107 May 31 16:10	0° Π			8109 Nov 09 20:05	0° Z	
morning set	8107 Jun 16 20:15	20° Π 12'50		greatest brilliancy	8109 Nov 11 23:27	0° Z 46'33	-4.7m
	8107 Jun 24 16:23	0° G		retrograde	8109 Nov 21 10:55	2° Z 24'24	
	8107 Jul 18 18:33	0° Ω			8109 Dec 02 12:55	30° R X	
				evening set	8109 Dec 08 08:15	27° X 01'42	
superior conj	8107 Jul 25 17:37	8° Ω 38'46	-0°06'40	inferior conj	8109 Dec 12 18:14	24° X 19'54	-6°37'16
minimum elong	8107 Jul 25 19:12	8° Ω 43'40	0°06'42	minimum elong	8109 Dec 13 04:15	24° X 04'13	6°35'09
behind sun begin	8107 Jul 24 21:05	7° Ω 35'01		min. Earth dist.	8109 Dec 13 14:23	23° X 48'21	0.28511 AU
behind sun end	8107 Jul 26 17:19	9° Ω 52'19		morning rise	8109 Dec 17 23:45	21° X 08'38	
asc. node	8107 Jul 28 11:17	12° Ω 02'29		direct	8110 Jan 03 02:38	16° X 06'26	
max. Earth dist.	8107 Jul 28 16:55	12° Ω 19'58	1.72519 AU	asc. node	8110 Jan 12 07:37	17° X 41'13	
	8107 Aug 11 23:07	0° M		greatest brilliancy	8110 Jan 14 06:36	18° X 23'38	-4.8m
evening rise	8107 Sep 01 09:58	25° M 15'51			8110 Feb 02 02:17	0° Z	
	8107 Sep 05 06:11	0° $\underline{\Omega}$		morning max el	8110 Feb 22 04:23	18° Z 16'30	46°33'03
	8107 Sep 29 16:09	0° M			8110 Mar 05 11:40	0° \approx	
	8107 Oct 24 06:07	0° X			8110 Apr 01 06:36	0° H	
desc. node	8107 Nov 17 05:01	28° X 58'23			8110 Apr 26 15:08	0° Υ	
	8107 Nov 18 01:30	0° Z		desc. node	8110 May 04 01:31	8° Υ 58'04	
	8107 Dec 13 03:41	0° \approx			8110 May 21 08:13	0° B	
	8108 Jan 07 15:14	0° H			8110 Jun 14 18:08	0° Π	
	8108 Feb 02 20:31	0° Υ			8110 Jul 09 01:34	0° G	
evening max el	8108 Feb 28 21:49	27° Υ 51'42	46°54'15		8110 Aug 02 08:57	0° Ω	
	8108 Mar 02 01:15	0° B		asc. node	8110 Aug 24 23:24	27° Ω 52'02	
asc. node	8108 Mar 09 04:43	6° B 52'22			8110 Aug 26 16:56	0° M	
greatest brilliancy	8108 Apr 09 12:21	28° B 51'28	-4.9m	morning set	8110 Aug 27 00:24	0° M 23'01	
	8108 Apr 13 09:51	0° Π			8110 Sep 20 01:05	0° $\underline{\Omega}$	
retrograde	8108 Apr 19 08:54	0° Π 41'28					
	8108 Apr 25 04:05	30° R B		superior conj	8110 Oct 03 03:40	16° $\underline{\Omega}$ 09'36	1°16'39
evening set	8108 May 07 11:41	24° B 24'37		minimum elong	8110 Oct 02 20:04	15° $\underline{\Omega}$ 46'10	1°16'32
inferior conj	8108 May 10 00:49	22° B 50'53	9°03'19	max. Earth dist.	8110 Oct 03 07:30	16° $\underline{\Omega}$ 21'23	1.73302 AU
minimum elong	8108 May 10 04:43	22° B 44'52	9°03'00		8110 Oct 14 09:10	0° M	
min. Earth dist.	8108 May 09 23:01	22° B 53'39	0.27162 AU		8110 Nov 07 17:35	0° X	
morning rise	8108 May 12 21:50	21° B 05'32		evening rise	8110 Nov 08 13:08	1° X 00'09	
direct	8108 May 30 17:14	15° B 03'44			8110 Dec 02 03:02	0° Z	
greatest brilliancy	8108 Jun 09 05:43	16° B 46'28	-4.9m	desc. node	8110 Dec 14 16:46	15° Z 25'57	
desc. node	8108 Jun 28 23:10	28° B 25'48			8110 Dec 26 13:49	0° \approx	

	8111 Jan 20 01:50	0° H			8113 Jun 27 05:42	0° II	
	8111 Feb 13 15:45	0° Y			8113 Jul 22 10:52	0° G	
	8111 Mar 10 10:50	0° B			8113 Aug 16 08:42	0° Q	
	8111 Apr 04 19:24	0° II			8113 Sep 10 02:38	0° P	
asc. node	8111 Apr 06 16:11	2° II 09'40		asc. node	8113 Sep 21 11:42	13° P 51'08	
	8111 May 01 13:24	0° G			8113 Oct 04 17:11	0° Q	
evening max el	8111 May 12 09:55	11° G 17'16	46°50'22		8113 Oct 29 04:22	0° M	
	8111 Jun 01 20:48	0° Q		morning set	8113 Nov 03 17:08	6° M 48'14	
greatest brilliancy	8111 Jun 21 02:43	11° Q 49'32	-4.8m		8113 Nov 22 12:40	0° X	
retrograde	8111 Jul 01 19:03	13° Q 57'50		max. Earth dist.	8113 Dec 08 15:56	19° X 56'21	1.72922 AU
evening set	8111 Jul 16 19:08	9° Q 33'04					
inferior conj	8111 Jul 22 21:54	5° Q 54'33	1°08'09	superior conj	8113 Dec 10 09:04	22° X 03'35	1°07'06
minimum elong	8111 Jul 23 00:29	5° Q 50'33	1°07'13	minimum elong	8113 Dec 10 18:35	22° X 33'00	1°06'58
min. Earth dist.	8111 Jul 22 13:33	6° Q 07'30	0.27782 AU		8113 Dec 16 19:03	0° Z	
desc. node	8111 Jul 27 10:48	3° Q 09'47			8114 Jan 10 00:06	0° \approx	
morning rise	8111 Jul 29 06:19	2° Q 09'04		desc. node	8114 Jan 11 04:37	1° \approx 28'25	
	8111 Aug 02 19:46	30° R G		evening rise	8114 Jan 17 13:11	9° \approx 21'48	
direct	8111 Aug 12 21:22	27° G 58'42			8114 Feb 03 03:54	0° H	
greatest brilliancy	8111 Aug 22 17:54	29° G 44'30	-4.8m		8114 Feb 27 06:32	0° Y	
	8111 Aug 23 11:26	0° Q			8114 Mar 23 09:15	0° B	
morning max el	8111 Sep 30 18:09	27° Q 56'36	45°47'04		8114 Apr 16 14:52	0° II	
	8111 Oct 02 21:23	0° P		asc. node	8114 May 04 03:45	21° II 29'28	
	8111 Oct 31 15:45	0° Q			8114 May 11 03:57	0° G	
asc. node	8111 Nov 17 10:08	18° Q 48'14			8114 Jun 05 07:38	0° Q	
	8111 Nov 27 03:33	0° M			8114 Jul 01 16:10	0° P	
	8111 Dec 22 13:11	0° X		evening max el	8114 Jul 22 14:38	21° P 54'39	46°05'04
	8112 Jan 16 07:41	0° Z			8114 Jul 31 03:06	0° Q	
	8112 Feb 09 16:59	0° \approx		desc. node	8114 Aug 23 22:28	17° Q 56'51	
	8112 Mar 04 20:25	0° H		greatest brilliancy	8114 Aug 30 02:04	20° Q 47'28	-4.8m
desc. node	8112 Mar 08 02:54	4° H 04'54		retrograde	8114 Sep 10 00:59	22° Q 57'43	
	8112 Mar 28 19:54	0° Y		evening set	8114 Sep 26 23:29	17° Q 28'13	
morning set	8112 Mar 29 15:02	0° Y 59'58		min. Earth dist.	8114 Oct 01 01:15	14° Q 58'04	0.29044 AU
	8112 Apr 21 17:01	0° B		inferior conj	8114 Oct 01 13:09	14° Q 39'23	-7°36'11
				minimum elong	8114 Oct 01 04:44	14° Q 52'36	7°34'59
superior conj	8112 May 09 09:58	22° B 15'59	-1°26'32	morning rise	8114 Oct 05 10:13	12° Q 15'48	
minimum elong	8112 May 09 13:49	22° B 28'04	1°26'38	direct	8114 Oct 23 01:54	6° Q 25'13	
max. Earth dist.	8112 May 10 21:55	24° B 08'55	1.71296 AU	greatest brilliancy	8114 Nov 02 01:44	8° Q 14'11	-4.7m
	8112 May 15 13:41	0° II			8114 Dec 03 23:16	0° M	
	8112 Jun 08 11:59	0° G		morning max el	8114 Dec 11 01:23	6° M 40'11	45°49'06
evening rise	8112 Jun 18 18:33	12° G 49'49		asc. node	8114 Dec 14 21:55	10° M 27'34	
asc. node	8112 Jun 29 01:15	25° G 37'54			8115 Jan 02 13:13	0° X	
	8112 Jul 02 13:36	0° Q			8115 Jan 29 00:07	0° Z	
	8112 Jul 26 19:37	0° P			8115 Feb 23 05:29	0° \approx	
	8112 Aug 20 07:18	0° Q			8115 Mar 19 19:56	0° H	
	8112 Sep 14 02:59	0° M		desc. node	8115 Apr 05 15:13	20° H 45'13	
	8112 Oct 09 10:51	0° X			8115 Apr 13 01:59	0° Y	
desc. node	8112 Oct 18 19:22	10° X 52'09			8115 May 07 03:22	0° B	
	8112 Nov 04 14:10	0° Z			8115 May 31 02:59	0° II	
	8112 Dec 02 05:49	0° \approx		morning set	8115 Jun 14 09:25	17° II 50'33	
evening max el	8112 Dec 14 15:25	12° \approx 27'47	46°08'31		8115 Jun 24 03:04	0° G	
	8113 Jan 03 11:56	0° H			8115 Jul 18 05:07	0° Q	
greatest brilliancy	8113 Jan 23 06:45	11° H 38'06	-4.8m				
retrograde	8113 Feb 02 02:46	13° H 25'51		superior conj	8115 Jul 23 08:11	6° Q 22'11	-0°10'13
asc. node	8113 Feb 08 19:16	12° H 31'08		minimum elong	8115 Jul 23 10:37	6° Q 29'42	0°10'14
evening set	8113 Feb 16 15:06	9° H 16'21		behind sun begin	8115 Jul 22 15:46	5° Q 31'11	
inferior conj	8113 Feb 22 19:22	5° H 38'48	3°31'03	behind sun end	8115 Jul 24 05:27	7° Q 28'11	
minimum elong	8113 Feb 22 11:44	5° H 50'30	3°28'50	max. Earth dist.	8115 Jul 26 10:57	10° Q 14'12	1.72473 AU
min. Earth dist.	8113 Feb 22 20:55	5° H 36'26	0.27102 AU	asc. node	8115 Jul 27 13:15	11° Q 35'49	
morning rise	8113 Feb 28 08:06	2° H 21'56			8115 Aug 11 09:39	0° P	
	8113 Mar 05 03:58	30° R \approx		evening rise	8115 Aug 30 02:46	23° P 07'08	
direct	8113 Mar 15 13:42	27° \approx 47'06			8115 Sep 04 16:43	0° Q	
greatest brilliancy	8113 Mar 25 18:37	29° \approx 45'36	-4.9m		8115 Sep 29 02:50	0° M	
	8113 Mar 26 09:47	0° H			8115 Oct 23 17:07	0° X	
	8113 May 04 09:16	0° Y		desc. node	8115 Nov 16 06:57	28° X 29'42	
morning max el	8113 May 05 03:28	0° Y 45'44	46°59'31		8115 Nov 17 13:00	0° Z	
desc. node	8113 May 31 13:28	29° Y 10'28			8115 Dec 12 16:01	0° \approx	
	8113 Jun 01 07:03	0° B			8116 Jan 07 04:58	0° H	

	8116 Feb 02 12:57	0°♄		asc. node	8118 Aug 24 01:26	27°♏25'36	
evening max el	8116 Feb 26 10:53	25°♄27'28 46°53'13		morning set	8118 Aug 24 16:50	28°♏13'05	
	8116 Mar 02 01:08	0°♄			8118 Aug 26 03:31	0°♄	
asc. node	8116 Mar 08 06:50	5°♄53'40			8118 Sep 19 11:35	0°♄	
greatest brilliancy	8116 Apr 07 02:23	26°♄28'05 -4.9m					
retrograde	8116 Apr 16 21:35	28°♄17'00		superior conj	8118 Sep 30 21:20	14°♄03'49 1°15'08	
evening set	8116 May 05 01:58	21°♄59'00		minimum elong	8118 Sep 30 13:19	13°♄39'08 1°14'58	
inferior conj	8116 May 07 13:55	20°♄26'58 9°07'06		max. Earth dist.	8118 Oct 01 02:26	14°♄19'33 1.73298 AU	
minimum elong	8116 May 07 16:52	20°♄22'25 9°06'52			8118 Oct 13 19:38	0°♄	
min. Earth dist.	8116 May 07 12:01	20°♄29'55 0.27150 AU		evening rise	8118 Nov 06 06:24	28°♄53'08	
morning rise	8116 May 10 07:49	18°♄46'07			8118 Nov 07 04:08	0°♄	
direct	8116 May 28 05:46	12°♄39'56			8118 Dec 01 13:47	0°♄	
greatest brilliancy	8116 Jun 06 18:46	14°♄22'39 -4.9m		desc. node	8118 Dec 13 18:38	14°♄58'18	
desc. node	8116 Jun 28 01:09	27°♄15'46			8118 Dec 26 00:53	0°♄	
	8116 Jul 01 08:54	0°♄			8119 Jan 19 13:22	0°♄	
morning max el	8116 Jul 17 05:14	14°♄37'58 46°29'21			8119 Feb 13 03:55	0°♄	
	8116 Aug 01 03:51	0°♄			8119 Mar 09 23:58	0°♄	
	8116 Aug 28 08:00	0°♄			8119 Apr 04 10:18	0°♄	
	8116 Sep 23 07:43	0°♄		asc. node	8119 Apr 05 18:09	1°♄31'55	
asc. node	8116 Oct 18 23:56	0°♄22'40			8119 May 01 08:25	0°♄	
	8116 Oct 18 16:21	0°♄		evening max el	8119 May 10 00:21	8°♄57'37 46°51'41	
	8116 Nov 12 14:19	0°♄			8119 Jun 02 10:54	0°♄	
	8116 Dec 07 04:14	0°♄		greatest brilliancy	8119 Jun 18 18:06	9°♄32'21 -4.8m	
	8116 Dec 31 12:22	0°♄		retrograde	8119 Jun 29 10:34	11°♄40'49	
morning set	8117 Jan 11 23:36	14°♄12'39		evening set	8119 Jul 14 11:14	7°♄14'01	
	8117 Jan 24 16:33	0°♄		min. Earth dist.	8119 Jul 20 04:37	3°♄50'01 0.27745 AU	
desc. node	8117 Feb 07 16:42	17°♄27'07		inferior conj	8119 Jul 20 12:28	3°♄37'53 1°30'12	
max. Earth dist.	8117 Feb 17 01:03	29°♄07'38 1.71747 AU		minimum elong	8119 Jul 20 15:52	3°♄32'37 1°29'01	
	8117 Feb 17 17:48	0°♄		morning rise	8119 Jul 26 21:01	29°♄52'42	
				desc. node	8119 Jul 26 12:49	0°♄03'47	
superior conj	8117 Feb 20 04:51	3°♄04'35 -0°29'49			8119 Jul 26 15:36	30°♄	
minimum elong	8117 Feb 19 21:43	2°♄42'18 0°29'24		direct	8119 Aug 10 11:33	25°♄42'24	
	8117 Mar 13 16:42	0°♄		greatest brilliancy	8119 Aug 20 08:04	27°♄28'39 -4.8m	
evening rise	8117 Apr 01 07:19	23°♄21'30			8119 Aug 26 06:05	0°♄	
	8117 Apr 06 14:15	0°♄		morning max el	8119 Sep 28 10:01	25°♄45'46 45°47'52	
	8117 Apr 30 12:19	0°♄			8119 Oct 02 18:44	0°♄	
	8117 May 24 13:26	0°♄			8119 Oct 31 07:00	0°♄	
asc. node	8117 May 31 15:23	8°♄46'54		asc. node	8119 Nov 16 12:00	18°♄14'34	
	8117 Jun 17 20:22	0°♄			8119 Nov 26 16:33	0°♄	
	8117 Jul 12 12:22	0°♄			8119 Dec 22 01:08	0°♄	
	8117 Aug 06 18:45	0°♄			8120 Jan 15 19:05	0°♄	
	8117 Sep 02 03:06	0°♄			8120 Feb 09 04:06	0°♄	
desc. node	8117 Sep 20 09:55	19°♄31'53			8120 Mar 04 07:24	0°♄	
	8117 Sep 30 22:18	0°♄		desc. node	8120 Mar 07 04:53	3°♄36'54	
evening max el	8117 Oct 01 08:39	0°♄24'52 45°40'37		morning set	8120 Mar 27 01:30	28°♄28'11	
greatest brilliancy	8117 Nov 09 13:59	28°♄34'35 -4.7m			8120 Mar 28 06:47	0°♄	
	8117 Nov 15 16:35	0°♄			8120 Apr 21 03:52	0°♄	
retrograde	8117 Nov 19 01:59	0°♄13'09					
	8117 Nov 22 10:04	30°♄		superior conj	8120 May 06 21:02	19°♄45'44 -1°27'06	
evening set	8117 Dec 06 02:25	24°♄45'28		minimum elong	8120 May 06 23:50	19°♄54'33 1°27'12	
inferior conj	8117 Dec 10 09:46	22°♄07'41 -6°50'03		max. Earth dist.	8120 May 08 06:24	21°♄30'37 1.71279 AU	
minimum elong	8117 Dec 10 19:38	21°♄52'16 6°48'05			8120 May 15 00:32	0°♄	
min. Earth dist.	8117 Dec 11 05:44	21°♄36'29 0.28567 AU			8120 Jun 07 22:51	0°♄	
morning rise	8117 Dec 15 12:22	19°♄00'41		evening rise	8120 Jun 16 06:51	10°♄24'42	
direct	8117 Dec 31 18:07	13°♄53'20		asc. node	8120 Jun 28 03:17	25°♄10'23	
asc. node	8118 Jan 11 09:38	15°♄58'27			8120 Jul 02 00:29	0°♄	
greatest brilliancy	8118 Jan 11 22:58	16°♄11'12 -4.8m			8120 Jul 26 06:37	0°♄	
	8118 Feb 02 12:03	0°♄			8120 Aug 19 18:33	0°♄	
morning max el	8118 Feb 19 19:40	16°♄00'22 46°31'30			8120 Sep 13 14:46	0°♄	
	8118 Mar 05 05:49	0°♄			8120 Oct 08 23:38	0°♄	
	8118 Mar 31 21:04	0°♄		desc. node	8120 Oct 17 21:15	10°♄19'12	
	8118 Apr 26 04:01	0°♄			8120 Nov 04 04:56	0°♄	
desc. node	8118 May 03 03:21	8°♄25'32			8120 Dec 02 01:13	0°♄	
	8118 May 20 20:13	0°♄		evening max el	8120 Dec 12 06:42	10°♄12'39 46°06'54	
	8118 Jun 14 05:33	0°♄			8121 Jan 04 04:41	0°♄	
	8118 Jul 08 12:36	0°♄		greatest brilliancy	8121 Jan 20 19:54	9°♄15'28 -4.8m	
	8118 Aug 01 19:43	0°♄		retrograde	8121 Jan 30 16:03	11°♄02'39	

asc. node	8121 Feb 07 21:21	9° H 40'20		minimum elong	8123 Jul 21 01:54	4° Ω 14'14	0°13'44
evening set	8121 Feb 14 03:14	6° H 54'57		behind sun begin	8123 Jul 20 13:12	3° Ω 34'48	
inferior conj	8121 Feb 20 08:35	3° H 15'29	3°08'51	behind sun end	8123 Jul 21 14:36	4° Ω 53'41	
minimum elong	8121 Feb 20 01:40	3° H 26'07	3°06'49	max. Earth dist.	8123 Jul 24 03:14	8° Ω 01'53	1.72427 AU
min. Earth dist.	8121 Feb 20 10:51	3° H 12'00	0.27123 AU	asc. node	8123 Jul 26 15:17	11° Ω 08'15	
morning rise	8121 Feb 25 23:52	29° \approx 54'56			8123 Aug 10 20:33	0° M	
	8121 Feb 25 20:12	30° R \approx		evening rise	8123 Aug 27 19:32	20° M 57'06	
direct	8121 Mar 13 03:48	25° \approx 23'33			8123 Sep 04 03:41	0° $\underline{\Omega}$	
greatest brilliancy	8121 Mar 23 08:48	27° \approx 22'08	-4.9m		8123 Sep 28 13:56	0° M	
	8121 Mar 29 03:48	0° H			8123 Oct 23 04:30	0° X	
morning max el	8121 May 02 17:27	28° H 23'04	46°59'24	desc. node	8123 Nov 15 08:56	28° X 00'01	
	8121 May 04 07:43	0° Y			8123 Nov 17 00:55	0° Z	
desc. node	8121 May 30 15:28	28° Y 29'57			8123 Dec 12 04:48	0° \approx	
	8121 May 31 23:16	0° B			8124 Jan 06 19:16	0° H	
	8121 Jun 26 19:33	0° II			8124 Feb 02 06:13	0° Y	
	8121 Jul 21 23:28	0° E		evening max el	8124 Feb 23 23:15	22° Y 59'55	46°52'01
	8121 Aug 15 20:31	0° Ω			8124 Mar 02 02:59	0° B	
	8121 Sep 09 13:55	0° M		asc. node	8124 Mar 07 08:45	4° B 51'14	
asc. node	8121 Sep 20 13:39	13° M 23'11		greatest brilliancy	8124 Apr 04 16:15	24° B 02'11	-4.9m
	8121 Oct 04 04:07	0° $\underline{\Omega}$		retrograde	8124 Apr 14 10:05	25° B 50'16	
	8121 Oct 28 15:07	0° M		evening set	8124 May 02 15:29	19° B 31'41	
morning set	8121 Nov 01 10:39	4° M 41'30		inferior conj	8124 May 05 02:49	18° B 00'42	9°09'53
	8121 Nov 21 23:23	0° X		minimum elong	8124 May 05 04:47	17° B 57'40	9°09'42
max. Earth dist.	8121 Dec 06 08:57	17° X 47'23	1.72954 AU	min. Earth dist.	8124 May 05 00:56	18° B 03'37	0.27138 AU
				morning rise	8124 May 07 18:07	16° B 23'45	
superior conj	8121 Dec 08 01:43	19° X 53'27	1°09'09	direct	8124 May 25 17:46	10° B 13'33	
minimum elong	8121 Dec 08 11:01	20° X 22'11	1°09'02	greatest brilliancy	8124 Jun 04 07:55	11° B 56'55	-4.9m
	8121 Dec 16 05:49	0° Z		desc. node	8124 Jun 27 03:14	26° B 06'13	
	8122 Jan 09 11:00	0° \approx			8124 Jul 01 17:06	0° II	
desc. node	8122 Jan 10 06:42	1° \approx 01'03		morning max el	8124 Jul 14 17:57	12° II 13'08	46°31'03
evening rise	8122 Jan 15 03:44	7° \approx 04'00			8124 Jul 31 22:23	0° E	
	8122 Feb 02 14:58	0° H			8124 Aug 27 22:44	0° Ω	
	8122 Feb 26 17:50	0° Y			8124 Sep 22 20:42	0° M	
	8122 Mar 22 20:51	0° B		asc. node	8124 Oct 18 01:48	29° M 52'17	
	8122 Apr 16 02:54	0° II			8124 Oct 18 04:23	0° $\underline{\Omega}$	
asc. node	8122 May 03 05:39	20° II 57'17			8124 Nov 12 01:48	0° M	
	8122 May 10 16:41	0° E			8124 Dec 06 15:23	0° X	
	8122 Jun 04 21:40	0° Ω			8124 Dec 30 23:22	0° Z	
	8122 Jul 01 09:05	0° M		morning set	8125 Jan 09 14:54	11° Z 57'06	
evening max el	8122 Jul 20 06:22	19° M 41'03	46°06'33		8125 Jan 24 03:31	0° \approx	
	8122 Jul 31 05:54	0° $\underline{\Omega}$		desc. node	8125 Feb 06 18:42	16° \approx 59'05	
desc. node	8122 Aug 23 00:33	16° $\underline{\Omega}$ 30'29		max. Earth dist.	8125 Feb 14 15:05	26° \approx 47'09	1.71792 AU
greatest brilliancy	8122 Aug 27 18:21	18° $\underline{\Omega}$ 37'06	-4.8m		8125 Feb 17 04:48	0° H	
retrograde	8122 Sep 07 16:58	20° $\underline{\Omega}$ 47'09					
evening set	8122 Sep 24 12:35	15° $\underline{\Omega}$ 22'48		superior conj	8125 Feb 17 17:26	0° H 39'29	-0°26'14
min. Earth dist.	8122 Sep 28 16:47	12° $\underline{\Omega}$ 48'59	0.29013 AU	minimum elong	8125 Feb 17 11:07	0° H 19'42	0°25'50
inferior conj	8122 Sep 29 05:21	12° $\underline{\Omega}$ 29'13	-7°26'36		8125 Mar 13 03:48	0° Y	
minimum elong	8122 Sep 28 20:33	12° $\underline{\Omega}$ 43'04	7°25'15	evening rise	8125 Mar 29 18:41	20° Y 51'33	
morning rise	8122 Oct 03 04:45	10° $\underline{\Omega}$ 01'58			8125 Apr 06 01:27	0° B	
direct	8122 Oct 20 17:49	4° $\underline{\Omega}$ 15'49			8125 Apr 29 23:38	0° II	
greatest brilliancy	8122 Oct 30 16:32	6° $\underline{\Omega}$ 03'22	-4.7m		8125 May 24 00:57	0° E	
	8122 Dec 04 00:03	0° M		asc. node	8125 May 30 17:25	8° E 17'22	
morning max el	8122 Dec 08 15:36	4° M 24'57	45°48'08		8125 Jun 17 08:12	0° Ω	
asc. node	8122 Dec 13 23:58	9° M 41'40			8125 Jul 12 00:46	0° M	
	8123 Jan 02 05:31	0° X			8125 Aug 06 08:14	0° $\underline{\Omega}$	
	8123 Jan 28 13:50	0° Z			8125 Sep 01 18:58	0° M	
	8123 Feb 22 18:03	0° \approx		desc. node	8125 Sep 19 11:48	18° M 47'31	
	8123 Mar 19 07:53	0° H		evening max el	8125 Sep 28 23:24	28° M 11'01	45°40'42
desc. node	8123 Apr 04 17:08	20° H 14'49			8125 Sep 30 21:12	0° X	
	8123 Apr 12 13:34	0° Y		greatest brilliancy	8125 Nov 07 03:55	26° X 20'54	-4.7m
	8123 May 06 14:44	0° B		retrograde	8125 Nov 16 17:29	28° X 00'50	
	8123 May 30 14:08	0° II		evening set	8125 Dec 03 20:35	22° X 28'10	
morning set	8123 Jun 11 22:15	15° II 26'08		inferior conj	8125 Dec 08 01:18	19° X 54'20	-7°02'18
	8123 Jun 23 14:05	0° E		minimum elong	8125 Dec 08 10:57	19° X 39'15	7°00'26
	8123 Jul 17 16:03	0° Ω		min. Earth dist.	8125 Dec 08 20:42	19° X 24'02	0.28621 AU
				morning rise	8125 Dec 13 00:53	16° X 51'54	
superior conj	8123 Jul 20 22:39	4° Ω 04'09	-0°13'46	direct	8125 Dec 29 10:06	11° X 39'16	

greatest brilliancy	8126 Jan 09 14:47	13° ♁ 57'18	-4.8m		8128 Jul 01 11:28	0° Ω	
asc. node	8126 Jan 10 11:38	14° ♁ 18'21			8128 Jul 25 17:44	0° ♁	
	8126 Feb 02 19:33	0° ♁			8128 Aug 19 05:57	0° Ω	
morning max el	8126 Feb 17 11:46	13° ♁ 45'32	46°30'00		8128 Sep 13 02:43	0° ♁	
	8126 Mar 04 23:53	0° \approx			8128 Oct 08 12:37	0° ♁	
	8126 Mar 31 11:43	0° ♁		desc. node	8128 Oct 16 23:17	9° ♁ 46'13	
	8126 Apr 25 17:10	0° ♁			8128 Nov 03 19:58	0° ♁	
desc. node	8126 May 02 05:21	7° ♁ 52'31			8128 Dec 01 21:16	0° \approx	
	8126 May 20 08:33	0° ♁		evening max el	8128 Dec 09 21:29	7° \approx 56'16	46°05'15
	8126 Jun 13 17:22	0° ♁			8129 Jan 05 03:17	0° ♁	
	8126 Jul 08 00:02	0° ♁		greatest brilliancy	8129 Jan 18 09:42	6° ♁ 53'45	-4.8m
	8126 Aug 01 06:53	0° Ω		retrograde	8129 Jan 28 04:50	8° ♁ 39'39	
morning set	8126 Aug 22 08:59	26° Ω 01'05		asc. node	8129 Feb 06 23:17	6° ♁ 44'27	
asc. node	8126 Aug 23 03:21	26° Ω 57'42		evening set	8129 Feb 11 15:40	4° ♁ 33'30	
	8126 Aug 25 14:28	0° ♁		inferior conj	8129 Feb 17 21:54	0° ♁ 52'34	2°46'18
	8126 Sep 18 22:24	0° Ω		minimum elong	8129 Feb 17 15:45	1° ♁ 02'03	2°44'28
				min. Earth dist.	8129 Feb 18 01:18	0° ♁ 47'20	0.27145 AU
superior conj	8126 Sep 28 14:46	11° Ω 56'18	1°13'30		8129 Feb 19 08:06	30° ♁	
minimum elong	8126 Sep 28 06:23	11° Ω 30'28	1°13'18	morning rise	8129 Feb 23 15:31	27° \approx 28'21	
max. Earth dist.	8126 Sep 28 23:20	12° Ω 22'43	1.73291 AU	direct	8129 Mar 10 17:33	23° \approx 00'16	
	8126 Oct 13 06:27	0° ♁		greatest brilliancy	8129 Mar 20 23:39	24° \approx 59'30	-4.9m
evening rise	8126 Nov 03 23:42	26° ♁ 45'11			8129 Mar 30 20:24	0° ♁	
	8126 Nov 06 15:02	0° ♁		morning max el	8129 Apr 30 06:32	25° ♁ 58'18	46°59'25
	8126 Dec 01 00:53	0° ♁			8129 May 04 05:14	0° ♁	
desc. node	8126 Dec 12 20:44	14° ♁ 30'18		desc. node	8129 May 29 17:32	27° ♁ 50'24	
	8126 Dec 25 12:18	0° \approx			8129 May 31 15:05	0° ♁	
	8127 Jan 19 01:12	0° ♁			8129 Jun 26 09:08	0° ♁	
	8127 Feb 12 16:22	0° ♁			8129 Jul 21 11:52	0° ♁	
	8127 Mar 09 13:24	0° ♁			8129 Aug 15 08:12	0° Ω	
	8127 Apr 04 01:37	0° ♁			8129 Sep 09 01:06	0° ♁	
asc. node	8127 Apr 04 20:03	0° ♁ 53'01		asc. node	8129 Sep 19 15:34	12° ♁ 55'19	
	8127 May 01 04:19	0° ♁			8129 Oct 03 14:59	0° Ω	
evening max el	8127 May 07 15:38	6° ♁ 39'10	46°52'43		8129 Oct 28 01:48	0° ♁	
	8127 Jun 03 06:35	0° Ω		morning set	8129 Oct 30 04:02	2° ♁ 34'31	
greatest brilliancy	8127 Jun 16 09:16	7° Ω 13'29	-4.9m		8129 Nov 21 10:01	0° ♁	
retrograde	8127 Jun 27 01:59	9° Ω 21'51		max. Earth dist.	8129 Dec 04 01:06	15° ♁ 36'09	1.72983 AU
evening set	8127 Jul 12 03:21	4° Ω 53'04					
inferior conj	8127 Jul 18 02:48	1° Ω 19'20	1°52'26	superior conj	8129 Dec 05 18:24	17° ♁ 43'47	1°11'05
minimum elong	8127 Jul 18 07:01	1° Ω 12'49	1°50'59	minimum elong	8129 Dec 06 03:24	18° ♁ 11'39	1°10'59
min. Earth dist.	8127 Jul 17 19:21	1° Ω 30'51	0.27709 AU		8129 Dec 15 16:29	0° ♁	
	8127 Jul 20 06:28	30° ♁			8130 Jan 08 21:46	0° \approx	
morning rise	8127 Jul 24 11:17	27° ♁ 34'43		desc. node	8130 Jan 09 08:37	0° \approx 33'37	
desc. node	8127 Jul 25 14:51	26° ♁ 58'49		evening rise	8130 Jan 12 18:22	4° \approx 47'00	
direct	8127 Aug 08 02:00	23° ♁ 24'26			8130 Feb 02 01:55	0° ♁	
greatest brilliancy	8127 Aug 17 21:38	25° ♁ 10'31	-4.8m		8130 Feb 26 05:02	0° ♁	
	8127 Aug 27 23:41	0° Ω			8130 Mar 22 08:22	0° ♁	
morning max el	8127 Sep 26 01:43	23° Ω 33'32	45°48'44		8130 Apr 15 14:50	0° ♁	
	8127 Oct 02 15:40	0° ♁		asc. node	8130 May 02 07:44	20° ♁ 26'07	
	8127 Oct 30 22:15	0° Ω			8130 May 10 05:18	0° ♁	
asc. node	8127 Nov 15 14:06	17° Ω 41'09			8130 Jun 04 11:35	0° Ω	
	8127 Nov 26 05:38	0° ♁			8130 Jul 01 02:02	0° ♁	
	8127 Dec 21 13:11	0° ♁		evening max el	8130 Jul 17 21:16	17° ♁ 26'11	46°07'59
	8128 Jan 15 06:37	0° ♁			8130 Jul 31 09:59	0° Ω	
	8128 Feb 08 15:22	0° \approx		desc. node	8130 Aug 22 02:24	15° Ω 01'43	
	8128 Mar 03 18:30	0° ♁		greatest brilliancy	8130 Aug 25 10:43	16° Ω 27'33	-4.8m
desc. node	8128 Mar 06 06:48	3° ♁ 08'14		retrograde	8130 Sep 05 08:50	18° Ω 37'37	
morning set	8128 Mar 24 12:25	25° ♁ 57'28		evening set	8130 Sep 22 01:45	13° Ω 18'08	
	8128 Mar 27 17:47	0° ♁		inferior conj	8130 Sep 26 21:39	10° Ω 20'04	-7°16'16
	8128 Apr 20 14:47	0° ♁		minimum elong	8130 Sep 26 12:31	10° Ω 34'27	7°14'47
				min. Earth dist.	8130 Sep 26 08:46	10° Ω 40'21	0.28983 AU
superior conj	8128 May 04 08:23	17° ♁ 16'11	-1°27'28	morning rise	8130 Sep 30 23:28	7° Ω 49'03	
minimum elong	8128 May 04 10:06	17° ♁ 21'37	1°27'35	direct	8130 Oct 18 09:21	2° Ω 07'10	
max. Earth dist.	8128 May 05 16:36	18° ♁ 57'29	1.71261 AU	greatest brilliancy	8130 Oct 28 08:13	3° Ω 54'15	-4.7m
	8128 May 14 11:26	0° ♁			8130 Dec 03 23:24	0° ♁	
	8128 Jun 07 09:47	0° ♁		morning max el	8130 Dec 06 05:51	2° ♁ 10'27	45°47'16
evening rise	8128 Jun 13 19:11	7° ♁ 59'16		asc. node	8130 Dec 13 01:58	8° ♁ 56'56	
asc. node	8128 Jun 27 05:18	24° ♁ 42'35			8131 Jan 01 21:17	0° ♁	

	8131 Jan 28 03:10	0°☾	evening max el	8133 Sep 26 15:00	26°☾00'54	45°40'55
	8131 Feb 22 06:16	0°☾		8133 Sep 30 20:27	0°☾	
	8131 Mar 18 19:31	0°☾	greatest brilliancy	8133 Nov 04 17:33	24°☾08'56	-4.7m
desc. node	8131 Apr 03 19:03	19°☾45'26	retrograde	8133 Nov 14 09:17	25°☾50'23	
	8131 Apr 12 00:52	0°☾	evening set	8133 Dec 01 14:53	20°☾12'58	
	8131 May 06 01:48	0°☾	inferior conj	8133 Dec 05 16:58	17°☾42'50	-7°13'45
	8131 May 30 01:01	0°☾	minimum elong	8133 Dec 06 02:23	17°☾28'09	7°12'01
morning set	8131 Jun 09 11:09	13°☾02'38	min. Earth dist.	8133 Dec 06 11:26	17°☾14'01	0.28675 AU
	8131 Jun 23 00:48	0°☾	morning rise	8133 Dec 10 13:31	14°☾44'59	
	8131 Jul 17 02:38	0°☾	direct	8133 Dec 27 02:41	9°☾27'17	
			greatest brilliancy	8134 Jan 07 06:10	11°☾44'35	-4.8m
superior conj	8131 Jul 18 13:21	1°☾47'51 -0°17'17	asc. node	8134 Jan 09 13:34	12°☾43'14	
minimum elong	8131 Jul 18 17:24	2°☾00'28 0°17'13		8134 Feb 03 00:17	0°☾	
max. Earth dist.	8131 Jul 21 18:05	5°☾46'11 1.72377 AU	morning max el	8134 Feb 15 04:19	11°☾33'12	46°28'18
asc. node	8131 Jul 25 17:10	10°☾41'18		8134 Mar 04 17:09	0°☾	
	8131 Aug 10 07:05	0°☾		8134 Mar 31 01:50	0°☾	
evening rise	8131 Aug 25 12:34	18°☾48'59		8134 Apr 25 05:51	0°☾	
	8131 Sep 03 14:16	0°☾	desc. node	8134 May 01 07:26	7°☾21'04	
	8131 Sep 28 00:41	0°☾		8134 May 19 20:26	0°☾	
	8131 Oct 22 15:34	0°☾		8134 Jun 13 04:44	0°☾	
desc. node	8131 Nov 14 10:58	27°☾31'24		8134 Jul 07 11:04	0°☾	
	8131 Nov 16 12:32	0°☾		8134 Jul 31 17:39	0°☾	
	8131 Dec 11 17:19	0°☾	morning set	8134 Aug 20 01:08	23°☾50'06	
	8132 Jan 06 09:21	0°☾	asc. node	8134 Aug 22 05:17	26°☾30'58	
	8132 Feb 01 23:28	0°☾		8134 Aug 25 01:03	0°☾	
evening max el	8132 Feb 21 11:40	20°☾33'45 46°50'54		8134 Sep 18 08:51	0°☾	
	8132 Mar 02 05:48	0°☾				
asc. node	8132 Mar 06 10:43	3°☾48'30	superior conj	8134 Sep 26 08:15	9°☾50'04	1°11'45
greatest brilliancy	8132 Apr 02 05:29	21°☾36'42 -4.9m	minimum elong	8134 Sep 25 23:34	9°☾23'16	1°11'32
retrograde	8132 Apr 11 22:53	23°☾24'50	max. Earth dist.	8134 Sep 26 21:11	10°☾29'56	1.73276 AU
evening set	8132 Apr 30 04:18	17°☾06'15		8134 Oct 12 16:51	0°☾	
inferior conj	8132 May 02 15:40	15°☾35'24 9°11'29	evening rise	8134 Nov 01 17:12	24°☾39'05	
minimum elong	8132 May 02 16:39	15°☾33'54 9°11'22		8134 Nov 06 01:31	0°☾	
min. Earth dist.	8132 May 02 13:37	15°☾38'34 0.27130 AU		8134 Nov 30 11:35	0°☾	
morning rise	8132 May 05 05:02	14°☾01'30	desc. node	8134 Dec 11 22:41	14°☾03'05	
direct	8132 May 23 06:03	7°☾47'57		8134 Dec 24 23:21	0°☾	
greatest brilliancy	8132 Jun 01 20:58	9°☾32'06 -4.9m		8135 Jan 18 12:44	0°☾	
desc. node	8132 Jun 26 05:09	24°☾59'12		8135 Feb 12 04:34	0°☾	
	8132 Jul 01 22:31	0°☾		8135 Mar 09 02:40	0°☾	
morning max el	8132 Jul 12 07:45	9°☾52'00 46°32'53	asc. node	8135 Apr 03 22:09	0°☾15'03	
	8132 Jul 31 16:02	0°☾		8135 Apr 03 16:54	0°☾	
	8132 Aug 27 12:51	0°☾		8135 May 01 00:33	0°☾	
asc. node	8132 Sep 22 09:09	0°☾	evening max el	8135 May 05 07:10	4°☾22'03	46°53'44
	8132 Oct 17 03:53	29°☾24'00		8135 Jun 04 09:05	0°☾	
	8132 Oct 17 15:54	0°☾	greatest brilliancy	8135 Jun 14 00:35	4°☾55'24	-4.9m
	8132 Nov 11 12:48	0°☾	retrograde	8135 Jun 24 17:00	7°☾03'00	
	8132 Dec 06 02:07	0°☾	evening set	8135 Jul 09 19:30	2°☾32'19	
	8132 Dec 30 09:59	0°☾		8135 Jul 14 02:46	30°☾	
morning set	8133 Jan 07 06:14	9°☾42'57	inferior conj	8135 Jul 15 16:57	29°☾01'03	2°14'34
	8133 Jan 23 14:07	0°☾	minimum elong	8135 Jul 15 21:58	28°☾53'18	2°12'53
desc. node	8133 Feb 05 20:36	16°☾31'52	min. Earth dist.	8135 Jul 15 09:58	29°☾11'52	0.27672 AU
max. Earth dist.	8133 Feb 12 05:47	24°☾29'57 1.71834 AU	morning rise	8135 Jul 22 01:05	25°☾17'03	
			desc. node	8135 Jul 24 16:47	23°☾57'38	
superior conj	8133 Feb 15 05:57	28°☾15'21 -0°22'35	direct	8135 Aug 05 16:23	21°☾06'51	
minimum elong	8133 Feb 15 00:28	27°☾58'12 0°22'14	greatest brilliancy	8135 Aug 15 10:54	22°☾52'18	-4.8m
	8133 Feb 16 15:27	0°☾		8135 Aug 29 04:07	0°☾	
	8133 Mar 12 14:30	0°☾	morning max el	8135 Sep 23 16:44	21°☾20'19	45°49'41
evening rise	8133 Mar 27 06:06	18°☾23'00		8135 Oct 02 11:37	0°☾	
	8133 Apr 05 12:15	0°☾		8135 Oct 30 12:58	0°☾	
	8133 Apr 29 10:35	0°☾	asc. node	8135 Nov 14 16:02	17°☾08'18	
	8133 May 23 12:06	0°☾		8135 Nov 25 18:18	0°☾	
asc. node	8133 May 29 19:25	7°☾48'50		8135 Dec 21 00:52	0°☾	
	8133 Jun 16 19:41	0°☾		8136 Jan 14 17:48	0°☾	
	8133 Jul 11 12:50	0°☾		8136 Feb 08 02:18	0°☾	
	8133 Aug 05 21:23	0°☾		8136 Mar 03 05:19	0°☾	
	8133 Sep 01 10:33	0°☾	desc. node	8136 Mar 05 08:48	2°☾40'43	
desc. node	8133 Sep 18 13:52	18°☾04'31	morning set	8136 Mar 21 23:07	23°☾26'50	

	8136 Mar 27 04:33	0°♄	min. Earth dist.	8138 Sep 24 00:27	8°♊30'39	0.28952 AU
	8136 Apr 20 01:32	0°♌	inferior conj	8138 Sep 24 13:43	8°♊09'49	-7°05'13
			minimum elong	8138 Sep 24 04:16	8°♊24'39	7°03'36
superior conj	8136 May 01 19:21	14°♌46'00 -1°27'40	morning rise	8138 Sep 28 18:04	5°♊35'04	
minimum elong	8136 May 01 19:59	14°♌47'59 1°27'47		8138 Oct 14 11:36	30°♋♌	
max. Earth dist.	8136 May 02 23:57	16°♌15'56 1.71245 AU	direct	8138 Oct 16 00:32	29°♋57'14	
	8136 May 13 22:11	0°♍		8138 Oct 17 13:47	0°♊	
evening rise	8136 Jun 06 20:32	0°♎	greatest brilliancy	8138 Oct 26 00:03	1°♊44'33	-4.7m
asc. node	8136 Jun 11 06:57	5°♎32'35		8138 Dec 03 21:57	0°♋	
	8136 Jun 26 07:09	24°♎14'51	morning max el	8138 Dec 03 20:28	29°♊56'26	45°46'33
	8136 Jun 30 22:16	0°♏	asc. node	8138 Dec 12 03:52	8°♋12'08	
	8136 Jul 25 04:41	0°♐		8139 Jan 01 12:55	0°♌	
	8136 Aug 18 17:13	0°♑		8139 Jan 27 16:28	0°♍	
	8136 Sep 12 14:34	0°♒		8139 Feb 21 18:28	0°♎	
	8136 Oct 08 01:32	0°♓		8139 Mar 18 07:08	0°♏	
desc. node	8136 Oct 16 01:20	9°♓13'39	desc. node	8139 Apr 02 21:08	19°♏16'31	
	8136 Nov 03 11:00	0°♐		8139 Apr 11 12:10	0°♄	
	8136 Dec 01 17:39	0°♑		8139 May 05 12:53	0°♌	
evening max el	8136 Dec 07 11:28	5°♑38'55 46°03'45		8139 May 29 11:58	0°♍	
	8137 Jan 06 09:49	0°♒	morning set	8139 Jun 06 23:48	10°♍37'55	
greatest brilliancy	8137 Jan 15 23:52	4°♒33'42 -4.8m		8139 Jun 22 11:39	0°♎	
retrograde	8137 Jan 25 17:18	6°♒18'15				
asc. node	8137 Feb 06 01:14	3°♒44'59	superior conj	8139 Jul 16 03:35	29°♎29'26	-0°20'49
evening set	8137 Feb 09 04:28	2°♒12'59	minimum elong	8139 Jul 16 08:27	29°♎44'34	0°20'43
	8137 Feb 13 01:21	30°♒♑		8139 Jul 16 13:25	0°♏	
inferior conj	8137 Feb 15 11:25	28°♑31'07 2°23'37	max. Earth dist.	8139 Jul 19 06:45	3°♏23'02	1.72334 AU
minimum elong	8137 Feb 15 06:03	28°♑39'25 2°22'02	asc. node	8139 Jul 24 19:10	10°♏14'06	
min. Earth dist.	8137 Feb 15 16:08	28°♑23'52 0.27173 AU		8139 Aug 09 17:50	0°♐	
morning rise	8137 Feb 21 07:11	25°♑03'29	evening rise	8139 Aug 23 05:02	16°♐38'32	
direct	8137 Mar 08 07:04	20°♑38'10		8139 Sep 03 01:05	0°♑	
greatest brilliancy	8137 Mar 18 15:15	22°♑38'47 -4.9m		8139 Sep 27 11:40	0°♒	
	8137 Apr 01 00:09	0°♒		8139 Oct 22 02:54	0°♓	
morning max el	8137 Apr 27 19:11	23°♒32'40 46°59'10	desc. node	8139 Nov 13 12:53	27°♓01'37	
	8137 May 04 01:53	0°♄		8139 Nov 16 00:26	0°♐	
desc. node	8137 May 28 19:25	27°♄10'44		8139 Dec 11 06:11	0°♑	
	8137 May 31 06:39	0°♌		8140 Jan 05 23:52	0°♒	
	8137 Jun 25 22:36	0°♍		8140 Feb 01 17:20	0°♄	
	8137 Jul 21 00:13	0°♎	evening max el	8140 Feb 19 01:00	18°♄09'41	46°49'56
	8137 Aug 14 19:48	0°♏		8140 Mar 02 10:30	0°♌	
	8137 Sep 08 12:12	0°♐	asc. node	8140 Mar 05 12:49	2°♌44'08	
asc. node	8137 Sep 18 17:36	12°♐28'02	greatest brilliancy	8140 Mar 30 18:06	19°♌10'30	-4.9m
	8137 Oct 03 01:48	0°♑	retrograde	8140 Apr 09 12:16	20°♌59'31	
morning set	8137 Oct 27 21:12	0°♒26'54	evening set	8140 Apr 27 16:34	14°♌41'42	
	8137 Oct 27 12:27	0°♒	inferior conj	8140 Apr 30 04:37	13°♌10'02	9°12'03
	8137 Nov 20 20:36	0°♓	minimum elong	8140 Apr 30 04:36	13°♌10'04	9°11'57
max. Earth dist.	8137 Dec 01 17:21	13°♓25'21 1.73009 AU	min. Earth dist.	8140 Apr 30 01:57	13°♌14'09	0.27121 AU
			morning rise	8140 May 02 16:39	11°♌38'21	
superior conj	8137 Dec 03 11:09	15°♓34'32 1°12'55	direct	8140 May 20 19:03	5°♌22'29	
minimum elong	8137 Dec 03 19:51	16°♓01'22 1°12'50	greatest brilliancy	8140 May 30 09:30	7°♌06'48	-4.9m
	8137 Dec 15 03:06	0°♐	desc. node	8140 Jun 25 07:08	23°♌53'53	
desc. node	8138 Jan 08 10:32	0°♑06'22		8140 Jul 02 02:10	0°♍	
	8138 Jan 08 08:29	0°♒	morning max el	8140 Jul 09 22:15	7°♍32'13	46°34'25
evening rise	8138 Jan 10 09:16	2°♒31'09		8140 Jul 31 09:31	0°♎	
	8138 Feb 01 12:48	0°♒		8140 Aug 27 03:07	0°♏	
	8138 Feb 25 16:10	0°♄		8140 Sep 21 21:52	0°♐	
	8138 Mar 21 19:50	0°♌	asc. node	8140 Oct 16 05:49	28°♐54'21	
	8138 Apr 15 02:47	0°♍		8140 Oct 17 03:44	0°♑	
asc. node	8138 May 01 09:40	19°♍54'15		8140 Nov 11 00:07	0°♒	
	8138 May 09 18:01	0°♎		8140 Dec 05 13:08	0°♓	
	8138 Jun 04 01:45	0°♏		8140 Dec 29 20:52	0°♐	
	8138 Jun 30 19:32	0°♐	morning set	8141 Jan 04 21:28	7°♐27'40	
evening max el	8138 Jul 15 11:34	15°♐09'10 46°09'35		8141 Jan 23 01:00	0°♑	
	8138 Jul 31 16:24	0°♑	desc. node	8141 Feb 04 22:38	16°♑04'11	
desc. node	8138 Aug 21 04:27	13°♑29'14	max. Earth dist.	8141 Feb 09 19:33	22°♑08'56	1.71874 AU
greatest brilliancy	8138 Aug 23 02:27	14°♑16'16 -4.8m				
retrograde	8138 Sep 03 00:37	16°♑27'08	superior conj	8141 Feb 12 18:28	25°♑50'21	-0°18'53
evening set	8138 Sep 19 14:38	11°♑12'08	minimum elong	8141 Feb 12 13:52	25°♑35'58	0°18'34

	8141 Feb 16 02:23	0° H			8143 Aug 30 00:56	0° Ω	
	8141 Mar 12 01:30	0° Υ		morning max el	8143 Sep 21 06:53	19° Ω 04'20	45°50'35
evening rise	8141 Mar 24 17:41	15° Υ 54'06			8143 Oct 02 07:09	0° M	
	8141 Apr 04 23:19	0° B			8143 Oct 30 03:47	0° Ω	
	8141 Apr 28 21:45	0° Π		asc. node	8143 Nov 13 17:56	16° Ω 34'39	
	8141 May 22 23:27	0° C			8143 Nov 25 07:13	0° M	
asc. node	8141 May 28 21:18	7° C 19'22			8143 Dec 20 12:53	0° A	
	8141 Jun 16 07:24	0° Ω			8144 Jan 14 05:21	0° B	
	8141 Jul 11 01:10	0° M			8144 Feb 07 13:36	0° \approx	
	8141 Aug 05 10:56	0° Ω			8144 Mar 02 16:28	0° H	
	8141 Sep 01 02:49	0° M		desc. node	8144 Mar 04 10:48	2° H 12'05	
desc. node	8141 Sep 17 15:54	17° M 19'29		morning set	8144 Mar 19 09:43	20° H 54'51	
evening max el	8141 Sep 24 07:02	23° M 50'30	45°41'01		8144 Mar 26 15:38	0° Υ	
	8141 Sep 30 21:27	0° A			8144 Apr 19 12:36	0° B	
greatest brilliancy	8141 Nov 02 07:28	21° A 55'53	-4.7m				
retrograde	8141 Nov 12 00:48	23° A 38'12		superior conj	8144 Apr 29 06:19	12° B 14'48	-1°27'42
evening set	8141 Nov 29 09:02	17° A 56'31		minimum elong	8144 Apr 29 05:52	12° B 13'21	1°27'48
inferior conj	8141 Dec 03 08:33	15° A 29'51	-7°24'28	max. Earth dist.	8144 Apr 30 04:12	13° B 23'36	1.71231 AU
minimum elong	8141 Dec 03 17:37	15° A 15'40	7°22'55		8144 May 13 09:15	0° Π	
min. Earth dist.	8141 Dec 04 01:58	15° A 02'37	0.28725 AU		8144 Jun 06 07:36	0° C	
morning rise	8141 Dec 08 01:56	12° A 36'31		evening rise	8144 Jun 08 18:40	3° C 04'36	
direct	8141 Dec 24 19:17	7° A 14'02		asc. node	8144 Jun 25 09:12	23° C 46'44	
greatest brilliancy	8142 Jan 04 21:00	9° A 29'50	-4.8m		8144 Jun 30 09:23	0° Ω	
asc. node	8142 Jan 08 15:36	11° A 10'01			8144 Jul 24 15:53	0° M	
	8142 Feb 03 03:46	0° B			8144 Aug 18 04:43	0° Ω	
morning max el	8142 Feb 12 20:03	9° B 17'42	46°26'34		8144 Sep 12 02:39	0° M	
	8142 Mar 04 10:27	0° \approx			8144 Oct 07 14:46	0° A	
	8142 Mar 30 16:10	0° H		desc. node	8144 Oct 15 03:12	8° A 39'38	
	8142 Apr 24 18:48	0° Υ			8144 Nov 03 02:33	0° B	
desc. node	8142 Apr 30 09:15	6° Υ 47'55			8144 Dec 01 15:12	0° \approx	
	8142 May 19 08:35	0° B		evening max el	8144 Dec 05 00:37	3° \approx 18'33	46°02'05
	8142 Jun 12 16:22	0° Π			8145 Jan 08 07:43	0° H	
	8142 Jul 06 22:20	0° C		greatest brilliancy	8145 Jan 13 14:00	2° H 12'20	-4.8m
	8142 Jul 31 04:40	0° Ω		retrograde	8145 Jan 23 05:48	3° H 55'52	
morning set	8142 Aug 17 17:32	21° Ω 39'09		asc. node	8145 Feb 05 03:18	0° H 39'25	
asc. node	8142 Aug 21 07:19	26° Ω 03'48			8145 Feb 06 10:25	30° R \approx	
	8142 Aug 24 11:54	0° M		evening set	8145 Feb 06 17:25	29° \approx 50'47	
	8142 Sep 17 19:36	0° Ω		inferior conj	8145 Feb 13 00:53	26° \approx 08'32	2°00'44
				minimum elong	8145 Feb 12 20:19	26° \approx 15'34	1°59'23
superior conj	8142 Sep 24 01:47	7° Ω 42'56	1°09'54	min. Earth dist.	8145 Feb 13 07:02	25° \approx 59'03	0.27206 AU
minimum elong	8142 Sep 23 16:51	7° Ω 15'23	1°09'40	morning rise	8145 Feb 18 22:40	22° \approx 37'52	
max. Earth dist.	8142 Sep 24 18:39	8° Ω 34'56	1.73266 AU	direct	8145 Mar 05 20:21	18° \approx 14'41	
	8142 Oct 12 03:37	0° M		greatest brilliancy	8145 Mar 16 07:09	20° \approx 17'24	-4.9m
evening rise	8142 Oct 30 10:33	22° M 31'20			8145 Apr 01 20:57	0° H	
	8142 Nov 05 12:24	0° A		morning max el	8145 Apr 25 08:03	21° H 06'37	46°59'00
	8142 Nov 29 22:42	0° B			8145 May 03 22:13	0° Υ	
desc. node	8142 Dec 11 00:34	13° B 34'26		desc. node	8145 May 27 21:25	26° Υ 31'00	
	8142 Dec 24 10:49	0° \approx			8145 May 30 22:16	0° B	
	8143 Jan 18 00:41	0° H			8145 Jun 25 12:14	0° Π	
	8143 Feb 11 17:13	0° Υ			8145 Jul 20 12:43	0° C	
	8143 Mar 08 16:28	0° B			8145 Aug 14 07:35	0° Ω	
asc. node	8143 Apr 03 00:05	29° B 35'02			8145 Sep 07 23:29	0° M	
	8143 Apr 03 08:50	0° Π		asc. node	8145 Sep 17 19:32	11° M 59'54	
	8143 Apr 30 21:55	0° C			8145 Oct 02 12:45	0° Ω	
evening max el	8143 May 02 22:19	2° C 02'48	46°54'44	morning set	8145 Oct 25 14:43	28° Ω 19'58	
	8143 Jun 05 23:32	0° Ω			8145 Oct 26 23:14	0° M	
greatest brilliancy	8143 Jun 11 16:41	2° Ω 37'33	-4.9m		8145 Nov 20 07:21	0° A	
retrograde	8143 Jun 22 07:47	4° Ω 43'36		max. Earth dist.	8145 Nov 29 12:04	11° A 21'42	1.73042 AU
evening set	8143 Jul 07 12:00	0° Ω 11'04					
	8143 Jul 07 19:54	30° R C		superior conj	8145 Dec 01 04:13	13° A 25'45	1°14'36
inferior conj	8143 Jul 13 07:18	26° C 42'32	2°36'21	minimum elong	8145 Dec 01 12:33	13° A 51'29	1°14'33
minimum elong	8143 Jul 13 13:04	26° C 33'36	2°34'28		8145 Dec 14 13:53	0° B	
min. Earth dist.	8143 Jul 13 00:59	26° C 52'19	0.27631 AU	desc. node	8146 Jan 07 12:37	29° B 38'55	
morning rise	8143 Jul 19 14:48	22° C 59'12			8146 Jan 07 19:25	0° \approx	
desc. node	8143 Jul 23 18:47	21° C 00'22		evening rise	8146 Jan 08 00:20	0° \approx 15'13	
direct	8143 Aug 03 06:35	18° C 49'07			8146 Jan 31 23:57	0° H	
greatest brilliancy	8143 Aug 13 00:34	20° C 34'03	-4.8m		8146 Feb 25 03:35	0° Υ	

	8146 Mar 21 07:35	0°♄		asc. node	8148 Oct 15 07:41	28°♍24'52	
	8146 Apr 14 15:00	0°♊			8148 Oct 16 15:24	0°♊	
asc. node	8146 Apr 30 11:35	19°♊21'33			8148 Nov 10 11:15	0°♌	
	8146 May 09 07:02	0°♌			8148 Dec 04 23:58	0°♌	
	8146 Jun 03 16:17	0°♍			8148 Dec 29 07:35	0°♎	
	8146 Jun 30 13:39	0°♍		morning set	8149 Jan 02 13:24	5°♎15'12	
evening max el	8146 Jul 13 02:18	12°♍52'48 46°11'18			8149 Jan 22 11:42	0°♏	
	8146 Aug 01 01:30	0°♏		desc. node	8149 Feb 04 00:36	15°♏36'59	
desc. node	8146 Aug 20 06:31	11°♏53'22		max. Earth dist.	8149 Feb 07 09:06	19°♏48'00 1.71916 AU	
greatest brilliancy	8146 Aug 20 17:53	12°♏04'27 -4.8m					
retrograde	8146 Aug 31 17:03	14°♏16'49		superior conj	8149 Feb 10 07:36	23°♏27'59 -0°15'14	
evening set	8146 Sep 17 03:45	9°♏06'01		minimum elong	8149 Feb 10 03:53	23°♏16'23 0°14'57	
min. Earth dist.	8146 Sep 21 16:00	6°♏21'24 0.28917 AU		behind sun begin	8149 Feb 09 18:15	22°♏46'17	
inferior conj	8146 Sep 22 05:54	5°♏59'37 -6°53'37		behind sun end	8149 Feb 10 13:32	23°♏46'28	
minimum elong	8146 Sep 21 20:13	6°♏14'48 6°51'51			8149 Feb 15 13:08	0°♐	
morning rise	8146 Sep 26 12:52	3°♏21'20			8149 Mar 11 12:20	0°♑	
	8146 Oct 03 02:19	30°♐♍		evening rise	8149 Mar 22 05:28	13°♑26'19	
direct	8146 Oct 13 16:01	27°♐47'29			8149 Apr 04 10:16	0°♒	
greatest brilliancy	8146 Oct 23 15:42	29°♐35'01 -4.7m			8149 Apr 28 08:51	0°♓	
	8146 Oct 24 19:25	0°♑			8149 May 22 10:48	0°♌	
morning max el	8146 Dec 01 11:59	27°♑44'53 45°45'53		asc. node	8149 May 27 23:20	6°♌50'25	
	8146 Dec 03 19:32	0°♌			8149 Jun 15 19:06	0°♍	
asc. node	8146 Dec 11 05:55	7°♌28'28			8149 Jul 10 13:30	0°♍	
	8147 Jan 01 04:17	0°♌			8149 Aug 05 00:30	0°♎	
	8147 Jan 27 05:42	0°♎			8149 Aug 31 19:13	0°♏	
	8147 Feb 21 06:44	0°♏		desc. node	8149 Sep 16 17:47	16°♏33'56	
	8147 Mar 17 18:54	0°♐		evening max el	8149 Sep 21 22:55	21°♏40'13 45°41'13	
desc. node	8147 Apr 01 23:00	18°♐46'26			8149 Sep 30 23:31	0°♑	
	8147 Apr 10 23:37	0°♑		greatest brilliancy	8149 Oct 30 22:12	19°♑44'47 -4.7m	
	8147 May 05 00:07	0°♒		retrograde	8149 Nov 09 16:06	21°♑27'18	
	8147 May 28 23:01	0°♓		evening set	8149 Nov 27 03:21	15°♑41'43	
morning set	8147 Jun 04 12:07	8°♓11'47		inferior conj	8149 Dec 01 00:20	13°♑18'26 -7°34'36	
	8147 Jun 21 22:34	0°♌		minimum elong	8149 Dec 01 09:01	13°♑04'50 7°33'12	
				min. Earth dist.	8149 Dec 01 16:51	12°♑52'33 0.28767 AU	
superior conj	8147 Jul 13 17:35	27°♌10'03 -0°24'20		morning rise	8149 Dec 05 14:29	10°♑29'33	
minimum elong	8147 Jul 13 23:15	27°♌27'40 0°24'12		direct	8149 Dec 22 11:47	5°♑02'28	
	8147 Jul 16 00:15	0°♍		greatest brilliancy	8150 Jan 02 11:56	7°♑16'35 -4.8m	
max. Earth dist.	8147 Jul 16 20:25	1°♍02'41 1.72290 AU		asc. node	8150 Jan 07 17:35	9°♑41'08	
asc. node	8147 Jul 23 21:10	9°♍46'46			8150 Feb 03 05:13	0°♒	
	8147 Aug 09 04:39	0°♍		morning max el	8150 Feb 10 10:58	7°♒01'26 46°24'55	
evening rise	8147 Aug 20 21:36	14°♍28'08			8150 Mar 04 03:00	0°♓	
	8147 Sep 02 11:56	0°♎			8150 Mar 30 05:59	0°♐	
	8147 Sep 26 22:40	0°♏			8150 Apr 24 07:22	0°♑	
	8147 Oct 21 14:13	0°♑		desc. node	8150 Apr 29 11:16	6°♑16'20	
desc. node	8147 Nov 12 14:53	26°♑32'15			8150 May 18 20:26	0°♒	
	8147 Nov 15 12:19	0°♒			8150 Jun 12 03:47	0°♓	
	8147 Dec 10 19:03	0°♓			8150 Jul 06 09:26	0°♌	
	8148 Jan 05 14:28	0°♐			8150 Jul 30 15:31	0°♍	
	8148 Feb 01 11:36	0°♑		morning set	8150 Aug 15 09:27	19°♍27'12	
evening max el	8148 Feb 16 15:08	15°♑47'38 46°48'36		asc. node	8150 Aug 20 09:12	25°♍36'44	
	8148 Mar 02 17:25	0°♒			8150 Aug 23 22:32	0°♍	
asc. node	8148 Mar 04 14:42	1°♒37'09			8150 Sep 17 06:07	0°♎	
greatest brilliancy	8148 Mar 28 06:03	16°♒42'52 -4.9m					
retrograde	8148 Apr 07 01:43	18°♒32'58		superior conj	8150 Sep 21 19:00	5°♎35'39 1°07'57	
evening set	8148 Apr 25 03:58	12°♒17'00		minimum elong	8150 Sep 21 09:51	5°♎07'27 1°07'40	
inferior conj	8148 Apr 27 17:18	10°♒43'27 9°11'35		max. Earth dist.	8150 Sep 22 14:36	6°♎36'04 1.73249 AU	
minimum elong	8148 Apr 27 16:17	10°♒45'01 9°11'28			8150 Oct 11 14:07	0°♏	
min. Earth dist.	8148 Apr 27 13:46	10°♒48'53 0.27113 AU		evening rise	8150 Oct 28 03:50	20°♏24'17	
morning rise	8148 Apr 30 04:39	9°♒12'57			8150 Nov 04 23:02	0°♑	
direct	8148 May 18 08:14	2°♒56'05			8150 Nov 29 09:33	0°♒	
greatest brilliancy	8148 May 27 21:22	4°♒39'48 -4.9m		desc. node	8150 Dec 10 02:40	13°♒07'19	
desc. node	8148 Jun 24 09:11	22°♒49'52			8150 Dec 23 21:59	0°♓	
	8148 Jul 02 04:25	0°♓			8151 Jan 17 12:18	0°♐	
morning max el	8148 Jul 07 12:40	5°♓11'56 46°36'00			8151 Feb 11 05:31	0°♑	
	8148 Jul 31 02:39	0°♌			8151 Mar 08 05:55	0°♒	
	8148 Aug 26 17:10	0°♍		asc. node	8151 Apr 02 02:01	28°♒56'02	
	8148 Sep 21 10:24	0°♍			8151 Apr 03 00:32	0°♓	

evening max el	8151 Apr 30 12:17	29° Π 41'34	46°55'23		8153 Oct 01 23:24	0° $\underline{\Omega}$	
	8151 Apr 30 19:36	0° $\underline{\Omega}$		morning set	8153 Oct 23 07:56	26° $\underline{\Omega}$ 12'57	
	8151 Jun 08 12:07	0° Ω			8153 Oct 26 09:45	0° \mathbb{N}	
greatest brilliancy	8151 Jun 09 08:58	0° Ω 20'17	-4.9m		8153 Nov 19 17:48	0° \times	
retrograde	8151 Jun 19 21:47	2° Ω 24'22		max. Earth dist.	8153 Nov 27 08:01	9° \times 22'41	1.73070 AU
	8151 Jun 30 19:49	30° \mathbb{R} $\underline{\Omega}$					
evening set	8151 Jul 05 04:26	27° $\underline{\Omega}$ 49'35		superior conj	8153 Nov 28 21:01	11° \times 17'01	1°16'12
inferior conj	8151 Jul 10 21:29	24° $\underline{\Omega}$ 24'11	2°58'08	minimum elong	8153 Nov 29 04:56	11° \times 41'29	1°16'10
minimum elong	8151 Jul 11 03:58	24° $\underline{\Omega}$ 14'07	2°56'02		8153 Dec 14 00:23	0° $\underline{\Sigma}$	
min. Earth dist.	8151 Jul 10 16:11	24° $\underline{\Omega}$ 32'24	0.27599 AU	evening rise	8154 Jan 05 15:18	28° $\underline{\Sigma}$ 00'00	
morning rise	8151 Jul 17 04:06	20° $\underline{\Omega}$ 41'41		desc. node	8154 Jan 06 14:31	29° $\underline{\Sigma}$ 11'55	
desc. node	8151 Jul 22 20:49	18° $\underline{\Omega}$ 07'27			8154 Jan 07 06:03	0° \approx	
direct	8151 Jul 31 20:12	16° $\underline{\Omega}$ 31'15			8154 Jan 31 10:47	0° \mathbb{H}	
greatest brilliancy	8151 Aug 10 14:46	18° $\underline{\Omega}$ 16'23	-4.8m		8154 Feb 24 14:42	0° \mathbb{Y}	
	8151 Aug 30 16:16	0° Ω			8154 Mar 20 19:01	0° \mathbb{B}	
morning max el	8151 Sep 18 20:14	16° Ω 46'42	45°51'37		8154 Apr 14 02:55	0° Π	
	8151 Oct 02 01:54	0° \mathbb{P}		asc. node	8154 Apr 29 13:40	18° Π 50'23	
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asc. node	8151 Nov 12 20:01	16° $\underline{\Omega}$ 02'36			8154 Jun 03 06:33	0° Ω	
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	8151 Dec 20 00:30	0° \times		evening max el	8154 Jul 10 17:39	10° \mathbb{P} 39'16	46°12'59
	8152 Jan 13 16:31	0° $\underline{\Sigma}$			8154 Aug 01 13:11	0° $\underline{\Omega}$	
	8152 Feb 07 00:31	0° \approx		greatest brilliancy	8154 Aug 18 08:49	9° $\underline{\Omega}$ 53'02	-4.8m
	8152 Mar 02 03:14	0° \mathbb{H}		desc. node	8154 Aug 19 08:22	10° $\underline{\Omega}$ 14'52	
desc. node	8152 Mar 03 12:41	1° \mathbb{H} 44'25		retrograde	8154 Aug 29 09:53	12° $\underline{\Omega}$ 07'12	
morning set	8152 Mar 16 20:49	18° \mathbb{H} 25'40		evening set	8154 Sep 14 16:50	7° $\underline{\Omega}$ 00'26	
	8152 Mar 26 02:18	0° \mathbb{Y}		inferior conj	8154 Sep 19 21:58	3° $\underline{\Omega}$ 49'55	-6°41'14
	8152 Apr 18 23:14	0° \mathbb{B}		minimum elong	8154 Sep 19 12:07	4° $\underline{\Omega}$ 05'20	6°39'22
				min. Earth dist.	8154 Sep 19 07:13	4° $\underline{\Omega}$ 13'01	0.28885 AU
superior conj	8152 Apr 26 17:44	9° \mathbb{B} 46'25	-1°27'33	morning rise	8154 Sep 24 07:40	1° $\underline{\Omega}$ 08'00	
minimum elong	8152 Apr 26 16:11	9° \mathbb{B} 41'31	1°27'38		8154 Sep 26 07:35	30° \mathbb{R} \mathbb{P}	
max. Earth dist.	8152 Apr 27 07:18	10° \mathbb{B} 29'03	1.71220 AU	direct	8154 Oct 11 07:54	25° \mathbb{P} 38'13	
	8152 May 12 19:53	0° Π		greatest brilliancy	8154 Oct 21 06:53	27° \mathbb{P} 25'30	-4.7m
	8152 Jun 05 18:15	0° $\underline{\Omega}$			8154 Oct 27 07:39	0° $\underline{\Omega}$	
evening rise	8152 Jun 06 06:33	0° $\underline{\Omega}$ 38'26		morning max el	8154 Nov 29 04:08	25° $\underline{\Omega}$ 35'30	45°45'10
asc. node	8152 Jun 24 11:11	23° $\underline{\Omega}$ 19'41			8154 Dec 03 16:08	0° \mathbb{N}	
	8152 Jun 29 20:06	0° Ω		asc. node	8154 Dec 10 07:54	6° \mathbb{N} 45'40	
	8152 Jul 24 02:48	0° \mathbb{P}			8154 Dec 31 19:15	0° \times	
	8152 Aug 17 15:59	0° $\underline{\Omega}$			8155 Jan 26 18:37	0° $\underline{\Sigma}$	
	8152 Sep 11 14:33	0° \mathbb{N}			8155 Feb 20 18:42	0° \approx	
	8152 Oct 07 03:49	0° \times		desc. node	8155 Mar 17 06:22	0° \mathbb{H}	
desc. node	8152 Oct 14 05:15	8° \times 06'47			8155 Apr 01 00:59	18° \mathbb{H} 17'37	
	8152 Nov 02 18:01	0° $\underline{\Sigma}$			8155 Apr 10 10:48	0° \mathbb{Y}	
	8152 Dec 01 13:10	0° \approx			8155 May 04 11:05	0° \mathbb{B}	
evening max el	8152 Dec 02 13:31	0° \approx 58'51	46°00'40		8155 May 28 09:49	0° Π	
greatest brilliancy	8153 Jan 11 03:46	29° \approx 51'54	-4.8m	morning set	8155 Jun 02 00:31	5° Π 46'36	
	8153 Jan 11 13:23	0° \mathbb{H}			8155 Jun 21 09:13	0° $\underline{\Omega}$	
retrograde	8153 Jan 20 18:50	1° \mathbb{H} 35'06					
	8153 Jan 29 16:12	30° \mathbb{R} \approx		superior conj	8155 Jul 11 07:43	24° $\underline{\Omega}$ 51'45	-0°27'48
evening set	8153 Feb 04 06:37	27° \approx 29'34		minimum elong	8155 Jul 11 14:09	25° $\underline{\Omega}$ 11'45	0°27'38
asc. node	8153 Feb 04 05:14	27° \approx 31'24		max. Earth dist.	8155 Jul 14 12:17	28° $\underline{\Omega}$ 49'56	1.72243 AU
inferior conj	8153 Feb 10 14:23	23° \approx 47'15	1°37'39		8155 Jul 15 10:49	0° Ω	
minimum elong	8153 Feb 10 10:40	23° \approx 52'58	1°36'33	asc. node	8155 Jul 22 23:03	9° Ω 19'56	
min. Earth dist.	8153 Feb 10 21:48	23° \approx 35'50	0.27239 AU		8155 Aug 08 15:12	0° \mathbb{P}	
morning rise	8153 Feb 16 14:04	20° \approx 14'03		evening rise	8155 Aug 18 14:20	12° \mathbb{P} 19'08	
direct	8153 Mar 03 09:51	15° \approx 52'27			8155 Sep 01 22:32	0° $\underline{\Omega}$	
greatest brilliancy	8153 Mar 13 22:56	17° \approx 57'20	-4.9m		8155 Sep 26 09:28	0° \mathbb{N}	
	8153 Apr 02 11:48	0° \mathbb{H}			8155 Oct 21 01:23	0° \times	
morning max el	8153 Apr 22 21:56	18° \mathbb{H} 44'33	46°58'58	desc. node	8155 Nov 11 16:55	26° \times 03'15	
	8153 May 03 17:26	0° \mathbb{Y}			8155 Nov 15 00:08	0° $\underline{\Sigma}$	
desc. node	8153 May 26 23:28	25° \mathbb{Y} 53'13			8155 Dec 10 07:54	0° \approx	
	8153 May 30 13:09	0° \mathbb{B}			8156 Jan 05 05:09	0° \mathbb{H}	
	8153 Jun 25 01:15	0° Π			8156 Feb 01 06:13	0° \mathbb{Y}	
	8153 Jul 20 00:42	0° $\underline{\Omega}$		evening max el	8156 Feb 14 05:39	13° \mathbb{Y} 26'59	46°47'20
	8153 Aug 13 18:54	0° Ω			8156 Mar 03 02:43	0° \mathbb{B}	
	8153 Sep 07 10:24	0° \mathbb{P}		asc. node	8156 Mar 03 16:41	0° \mathbb{B} 29'01	
asc. node	8153 Sep 16 21:27	11° \mathbb{P} 32'46		greatest brilliancy	8156 Mar 25 18:14	14° \mathbb{B} 16'10	-4.9m




































































































































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evening set	8156 Apr 22 14:54	9°♄53'48		minimum elong	8158 Sep 19 03:09	2°♁59'54	1°05'36
inferior conj	8156 Apr 25 06:01	8°♄17'25	9°10'09	max. Earth dist.	8158 Sep 20 08:52	4°♁31'29	1.73229 AU
minimum elong	8156 Apr 25 04:03	8°♄20'28	9°10'00		8158 Oct 11 00:48	0°♌	
min. Earth dist.	8156 Apr 25 01:39	8°♄24'08	0.27101 AU	evening rise	8158 Oct 25 21:27	18°♌17'48	
morning rise	8156 Apr 27 17:15	6°♄47'05			8158 Nov 04 09:49	0°♊	
direct	8156 May 15 21:32	0°♄30'24			8158 Nov 28 20:34	0°♊	
greatest brilliancy	8156 May 25 09:10	2°♄13'04	-4.9m	desc. node	8158 Dec 09 04:37	12°♊39'09	
desc. node	8156 Jun 23 11:08	21°♄47'38			8158 Dec 23 09:22	0°♋	
	8156 Jul 02 05:08	0°♌			8159 Jan 17 00:13	0°♋	
morning max el	8156 Jul 05 02:37	2°♌50'48	46°37'33		8159 Feb 10 18:14	0°♋	
	8156 Jul 30 19:16	0°♍			8159 Mar 07 19:53	0°♋	
	8156 Aug 26 06:55	0°♎		asc. node	8159 Apr 01 04:07	28°♋15'53	
	8156 Sep 20 22:43	0°♏			8159 Apr 02 16:56	0°♌	
asc. node	8156 Oct 14 09:48	27°♏56'38		evening max el	8159 Apr 28 01:20	27°♌16'51	46°56'13
	8156 Oct 16 02:54	0°♐			8159 Apr 30 18:39	0°♍	
	8156 Nov 09 22:17	0°♑		greatest brilliancy	8159 Jun 07 01:16	28°♍01'56	-4.9m
	8156 Dec 04 10:46	0°♊			8159 Jun 15 13:49	0°♎	
	8156 Dec 28 18:19	0°♋		retrograde	8159 Jun 17 11:45	0°♎04'22	
morning set	8156 Dec 31 05:08	3°♋02'04			8159 Jun 19 09:20	30°♏♐	
	8157 Jan 21 22:26	0°♌		evening set	8159 Jul 02 20:59	25°♐26'45	
desc. node	8157 Feb 03 02:31	15°♌09'28		inferior conj	8159 Jul 08 11:40	22°♐04'54	3°19'38
max. Earth dist.	8157 Feb 04 19:51	17°♌18'18	1.71957 AU	minimum elong	8159 Jul 08 18:51	21°♐53'46	3°17'21
				min. Earth dist.	8159 Jul 08 07:27	22°♐11'26	0.27566 AU
superior conj	8157 Feb 07 20:32	21°♌04'57	-0°11'31	morning rise	8159 Jul 14 17:11	18°♐23'39	
minimum elong	8157 Feb 07 17:43	20°♌56'12	0°11'17	desc. node	8159 Jul 21 22:45	15°♐18'36	
behind sun begin	8157 Feb 06 23:40	19°♌59'53		direct	8159 Jul 29 09:26	14°♐12'16	
behind sun end	8157 Feb 08 11:46	21°♌52'32		greatest brilliancy	8159 Aug 08 05:15	15°♐58'10	-4.8m
	8157 Feb 14 23:55	0°♋			8159 Aug 31 04:01	0°♎	
	8157 Mar 10 23:12	0°♋		morning max el	8159 Sep 16 09:58	14°♎29'02	45°52'49
evening rise	8157 Mar 19 17:00	10°♋57'45			8159 Oct 01 20:26	0°♏	
	8157 Apr 03 21:13	0°♌			8159 Oct 29 08:33	0°♐	
	8157 Apr 27 19:58	0°♌		asc. node	8159 Nov 11 21:56	15°♐29'30	
	8157 May 21 22:10	0°♍			8159 Nov 24 08:26	0°♑	
asc. node	8157 May 27 01:19	6°♍21'11			8159 Dec 19 12:21	0°♊	
	8157 Jun 15 06:51	0°♎			8160 Jan 13 03:55	0°♋	
	8157 Jul 10 01:54	0°♏			8160 Feb 06 11:41	0°♌	
	8157 Aug 04 14:12	0°♐			8160 Mar 01 14:19	0°♋	
	8157 Aug 31 11:56	0°♑		desc. node	8160 Mar 02 14:44	1°♋16'13	
desc. node	8157 Sep 15 19:53	15°♑48'21		morning set	8160 Mar 14 07:45	15°♋54'52	
evening max el	8157 Sep 19 13:59	19°♑27'58	45°41'27		8160 Mar 25 13:22	0°♋	
	8157 Oct 01 03:09	0°♊			8160 Apr 18 10:18	0°♌	
greatest brilliancy	8157 Oct 28 13:22	17°♊34'19	-4.7m				
retrograde	8157 Nov 07 07:01	19°♊16'41		superior conj	8160 Apr 24 04:39	7°♌15'03	-1°27'12
evening set	8157 Nov 24 21:35	13°♊27'16		minimum elong	8160 Apr 24 01:59	7°♌06'40	1°27'17
inferior conj	8157 Nov 28 16:13	11°♊07'15	-7°43'56	max. Earth dist.	8160 Apr 24 09:41	7°♌30'55	1.71216 AU
minimum elong	8157 Nov 29 00:27	10°♊54'19	7°42'40		8160 May 12 06:57	0°♌	
min. Earth dist.	8157 Nov 29 08:05	10°♊42'21	0.28813 AU	evening rise	8160 Jun 03 17:53	28°♌09'13	
morning rise	8157 Dec 03 03:07	8°♊22'45			8160 Jun 05 05:19	0°♍	
direct	8157 Dec 20 03:54	2°♊50'56		asc. node	8160 Jun 23 13:03	22°♍50'55	
greatest brilliancy	8157 Dec 31 03:25	5°♊03'48	-4.8m		8160 Jun 29 07:14	0°♎	
asc. node	8158 Jan 06 19:31	8°♊14'47			8160 Jul 23 14:06	0°♏	
	8158 Feb 03 05:39	0°♋			8160 Aug 17 03:38	0°♐	
morning max el	8158 Feb 08 01:15	4°♋42'56	46°23'10		8160 Sep 11 02:51	0°♑	
	8158 Mar 03 19:31	0°♌			8160 Oct 06 17:20	0°♊	
	8158 Mar 29 19:55	0°♋		desc. node	8160 Oct 13 07:17	7°♊32'38	
	8158 Apr 23 20:03	0°♋			8160 Nov 02 10:04	0°♋	
desc. node	8158 Apr 28 13:22	5°♋44'35		evening max el	8160 Nov 30 03:24	28°♋41'03	45°59'25
	8158 May 18 08:24	0°♌			8160 Dec 01 12:22	0°♌	
	8158 Jun 11 15:18	0°♌		greatest brilliancy	8161 Jan 08 17:05	27°♌30'53	-4.8m
	8158 Jul 05 20:38	0°♍		retrograde	8161 Jan 18 08:36	29°♌14'22	
	8158 Jul 30 02:29	0°♎		evening set	8161 Feb 01 20:17	25°♌08'02	
morning set	8158 Aug 13 01:25	17°♎14'51		asc. node	8161 Feb 03 07:11	24°♌20'13	
asc. node	8158 Aug 19 11:10	25°♎09'29		inferior conj	8161 Feb 08 04:05	21°♌25'47	1°14'33
	8158 Aug 23 09:19	0°♏		minimum elong	8161 Feb 08 01:13	21°♌30'10	1°13'44
	8158 Sep 16 16:48	0°♐		min. Earth dist.	8161 Feb 08 12:22	21°♌13'02	0.27278 AU
				morning rise	8161 Feb 14 05:31	17°♌50'26	

direct	8161 Mar 01 00:03	13° \approx 30'05			8163 Sep 01 09:32	0° $\underline{\text{B}}$	
greatest brilliancy	8161 Mar 11 14:22	15° \approx 36'28	-4.9m		8163 Sep 25 20:37	0° M	
	8161 Apr 02 23:15	0° H			8163 Oct 20 12:54	0° A	
morning max el	8161 Apr 20 12:59	16° H 24'18	46°58'32	desc. node	8163 Nov 10 18:49	25° A 32'53	
	8161 May 03 12:37	0° Y			8163 Nov 14 12:18	0° Z	
desc. node	8161 May 26 01:22	25° Y 13'47			8163 Dec 09 21:09	0° \approx	
	8161 May 30 04:22	0° B			8164 Jan 04 20:19	0° H	
	8161 Jun 24 14:41	0° II			8164 Feb 01 01:36	0° Y	
	8161 Jul 19 13:07	0° E		evening max el	8164 Feb 11 20:11	11° Y 05'51	46°46'01
	8161 Aug 13 06:40	0° Ω		asc. node	8164 Mar 02 18:48	29° Y 18'48	
	8161 Sep 06 21:42	0° M			8164 Mar 03 15:26	0° B	
asc. node	8161 Sep 15 23:30	11° M 04'54		greatest brilliancy	8164 Mar 23 07:15	11° B 50'20	-4.9m
	8161 Oct 01 10:26	0° $\underline{\text{B}}$		retrograde	8164 Apr 02 04:15	13° B 40'34	
morning set	8161 Oct 21 01:15	24° $\underline{\text{B}}$ 05'08		evening set	8164 Apr 20 01:27	7° B 31'54	
	8161 Oct 25 20:37	0° M		inferior conj	8164 Apr 22 18:59	5° B 51'43	9°07'36
	8161 Nov 19 04:37	0° A		minimum elong	8164 Apr 22 16:02	5° B 56'15	9°07'23
max. Earth dist.	8161 Nov 25 04:55	7° A 25'32	1.73093 AU	min. Earth dist.	8164 Apr 22 14:05	5° B 59'15	0.27087 AU
				morning rise	8164 Apr 25 06:41	4° B 20'29	
superior conj	8161 Nov 26 14:05	9° A 08'00	1°17'41		8164 May 03 17:50	30° R Y	
minimum elong	8161 Nov 26 21:32	9° A 31'01	1°17'40	direct	8164 May 13 10:43	28° Y 05'05	
	8161 Dec 13 11:15	0° Z		greatest brilliancy	8164 May 22 21:32	29° Y 46'54	-4.9m
evening rise	8162 Jan 03 06:40	25° Z 45'03			8164 May 23 12:18	0° B	
desc. node	8162 Jan 05 16:27	28° Z 43'56		desc. node	8164 Jun 22 13:07	20° B 46'44	
	8162 Jan 06 17:02	0° \approx			8164 Jul 02 04:50	0° II	
	8162 Jan 30 21:58	0° H		morning max el	8164 Jul 02 15:41	0° II 26'54	46°38'53
	8162 Feb 24 02:08	0° Y			8164 Jul 30 11:48	0° E	
	8162 Mar 20 06:50	0° B			8164 Aug 25 20:50	0° Ω	
	8162 Apr 13 15:16	0° II			8164 Sep 20 11:16	0° M	
asc. node	8162 Apr 28 15:35	18° II 17'14		asc. node	8164 Oct 13 11:41	27° M 26'58	
	8162 May 08 08:59	0° E			8164 Oct 15 14:38	0° $\underline{\text{B}}$	
	8162 Jun 02 21:32	0° Ω			8164 Nov 09 09:32	0° M	
	8162 Jun 30 02:55	0° M			8164 Dec 03 21:45	0° A	
evening max el	8162 Jul 08 09:53	8° M 26'10	46°14'43		8164 Dec 28 05:11	0° Z	
	8162 Aug 02 06:00	0° $\underline{\text{B}}$		morning set	8164 Dec 28 20:53	0° Z 48'37	
greatest brilliancy	8162 Aug 15 23:55	7° $\underline{\text{B}}$ 40'03	-4.8m		8165 Jan 21 09:19	0° \approx	
desc. node	8162 Aug 18 10:27	8° $\underline{\text{B}}$ 31'12		desc. node	8165 Feb 02 04:33	14° \approx 41'54	
retrograde	8162 Aug 27 02:44	9° $\underline{\text{B}}$ 55'31		max. Earth dist.	8165 Feb 02 06:37	14° \approx 48'22	1.72002 AU
evening set	8162 Sep 12 05:57	4° $\underline{\text{B}}$ 53'02					
min. Earth dist.	8162 Sep 16 22:11	2° $\underline{\text{B}}$ 03'01	0.28845 AU	superior conj	8165 Feb 05 09:42	18° \approx 42'22	-0°07'49
inferior conj	8162 Sep 17 13:54	1° $\underline{\text{B}}$ 38'25	-6°28'14	minimum elong	8165 Feb 05 07:48	18° \approx 36'28	0°07'38
minimum elong	8162 Sep 17 03:57	1° $\underline{\text{B}}$ 53'59	6°26'16	behind sun begin	8165 Feb 04 09:41	17° \approx 27'29	
	8162 Sep 20 05:22	30° R M		behind sun end	8165 Feb 06 05:56	19° \approx 45'28	
morning rise	8162 Sep 22 02:18	28° M 52'50			8165 Feb 14 10:51	0° H	
direct	8162 Oct 08 23:58	23° M 27'27			8165 Mar 10 10:11	0° Y	
greatest brilliancy	8162 Oct 18 21:14	25° M 13'41	-4.7m	evening rise	8165 Mar 17 04:51	8° Y 29'45	
	8162 Oct 28 22:12	0° $\underline{\text{B}}$			8165 Apr 03 08:18	0° B	
morning max el	8162 Nov 26 20:13	23° $\underline{\text{B}}$ 25'00	45°44'30		8165 Apr 27 07:12	0° II	
	8162 Dec 03 12:28	0° M			8165 May 21 09:37	0° E	
asc. node	8162 Dec 09 09:49	6° M 02'16		asc. node	8165 May 26 03:14	5° E 51'33	
	8162 Dec 31 10:20	0° A			8165 Jun 14 18:41	0° Ω	
	8163 Jan 26 07:46	0° Z			8165 Jul 09 14:26	0° M	
	8163 Feb 20 06:55	0° \approx			8165 Aug 04 04:07	0° $\underline{\text{B}}$	
	8163 Mar 16 18:05	0° H			8165 Aug 31 05:09	0° M	
desc. node	8163 Mar 31 03:02	17° H 48'16		desc. node	8165 Sep 14 21:53	15° M 01'17	
	8163 Apr 09 22:12	0° Y		evening max el	8165 Sep 17 04:25	17° M 13'36	45°41'40
	8163 May 03 22:18	0° B			8165 Oct 01 08:57	0° A	
	8163 May 27 20:54	0° II		greatest brilliancy	8165 Oct 26 04:48	15° A 23'35	-4.7m
morning set	8163 May 30 12:53	3° II 20'21		retrograde	8165 Nov 04 22:00	17° A 05'56	
	8163 Jun 20 20:13	0° E		evening set	8165 Nov 22 15:42	11° A 12'45	
				inferior conj	8165 Nov 26 08:10	8° A 55'59	-7°52'26
superior conj	8163 Jul 08 21:30	22° E 31'05	-0°31'15	minimum elong	8165 Nov 26 15:54	8° A 43'49	7°51'21
minimum elong	8163 Jul 09 04:39	22° E 53'21	0°31'04	min. Earth dist.	8165 Nov 26 23:36	8° A 31'44	0.28855 AU
max. Earth dist.	8163 Jul 12 04:29	26° E 36'55	1.72200 AU	morning rise	8165 Nov 30 15:53	6° A 15'57	
	8163 Jul 14 21:46	0° Ω		direct	8165 Dec 17 19:34	0° A 39'14	
asc. node	8163 Jul 22 01:04	8° Ω 52'14		greatest brilliancy	8165 Dec 28 19:26	2° A 51'42	-4.8m
	8163 Aug 08 02:08	0° M		asc. node	8166 Jan 05 21:33	6° A 51'15	
evening rise	8163 Aug 16 06:34	10° M 07'15			8166 Feb 03 04:57	0° Z	

morning max el	8166 Feb 05 15:24	2° Z 24'13	46°21'31	desc. node	8168 Oct 12 09:10	6° X 58'41	
	8166 Mar 03 11:40	0° \approx			8168 Nov 02 02:07	0° Z	
	8166 Mar 29 09:40	0° H		evening max el	8168 Nov 27 18:07	26° Z 26'03	45°58'02
	8166 Apr 23 08:37	0° Y			8168 Dec 01 12:26	0° \approx	
desc. node	8166 Apr 27 15:09	5° Y 12'08		greatest brilliancy	8169 Jan 06 06:07	25° \approx 10'01	-4.8m
	8166 May 17 20:18	0° B		retrograde	8169 Jan 15 22:24	26° \approx 53'45	
	8166 Jun 11 02:45	0° II		evening set	8169 Jan 30 10:05	22° \approx 46'39	
	8166 Jul 05 07:45	0° E		asc. node	8169 Feb 02 09:16	21° \approx 06'18	
	8166 Jul 29 13:21	0° Ω		inferior conj	8169 Feb 05 17:37	19° \approx 04'32	0°51'18
morning set	8166 Aug 10 17:29	15° Ω 02'58		minimum elong	8169 Feb 05 15:39	19° \approx 07'35	0°50'47
asc. node	8166 Aug 18 13:12	24° Ω 42'41		min. Earth dist.	8169 Feb 06 02:37	18° \approx 50'43	0.27317 AU
	8166 Aug 22 20:01	0° P		morning rise	8169 Feb 11 20:37	15° \approx 27'17	
	8166 Sep 16 03:25	0° L		direct	8169 Feb 26 14:32	11° \approx 08'12	
				greatest brilliancy	8169 Mar 09 05:09	13° \approx 15'22	-4.9m
superior conj	8166 Sep 17 05:54	1° L 21'37	1°03'44		8169 Apr 03 07:24	0° H	
minimum elong	8166 Sep 16 20:29	0° L 52'37	1°03'26	morning max el	8169 Apr 18 04:12	14° H 05'34	46°58'04
max. Earth dist.	8166 Sep 18 01:59	2° L 23'35	1.73215 AU		8169 May 03 06:56	0° Y	
	8166 Oct 10 11:27	0° M		desc. node	8169 May 25 03:23	24° Y 36'12	
evening rise	8166 Oct 23 14:58	16° M 11'07			8169 May 29 19:01	0° B	
	8166 Nov 03 20:35	0° X			8169 Jun 24 03:40	0° II	
	8166 Nov 28 07:34	0° Z			8169 Jul 19 01:08	0° E	
desc. node	8166 Dec 08 06:31	12° Z 10'59			8169 Aug 12 18:03	0° Ω	
	8166 Dec 22 20:43	0° \approx			8169 Sep 06 08:40	0° P	
	8167 Jan 16 12:05	0° H		asc. node	8169 Sep 15 01:24	10° P 37'37	
	8167 Feb 10 06:53	0° Y			8169 Sep 30 21:06	0° L	
	8167 Mar 07 09:52	0° B		morning set	8169 Oct 18 18:42	21° L 58'47	
asc. node	8167 Mar 31 06:02	27° B 35'09			8169 Oct 25 07:07	0° M	
	8167 Apr 02 09:31	0° II			8169 Nov 18 15:05	0° X	
evening max el	8167 Apr 25 14:12	24° II 51'58	46°57'00	max. Earth dist.	8169 Nov 23 01:40	5° X 29'03	1.73117 AU
	8167 Apr 30 18:36	0° E					
greatest brilliancy	8167 Jun 04 17:08	25° E 43'09	-4.9m	superior conj	8169 Nov 24 07:13	7° X 00'17	1°19'02
retrograde	8167 Jun 15 02:00	27° E 44'37		minimum elong	8169 Nov 24 14:10	7° X 21'44	1°19'03
evening set	8167 Jun 30 13:32	23° E 03'41			8169 Dec 12 21:47	0° Z	
inferior conj	8167 Jul 06 01:45	19° E 45'43	3°40'46	evening rise	8169 Dec 31 21:56	23° Z 30'43	
minimum elong	8167 Jul 06 09:35	19° E 33'36	3°38'20	desc. node	8170 Jan 04 18:33	28° Z 17'19	
min. Earth dist.	8167 Jul 05 22:30	19° E 50'45	0.27536 AU		8170 Jan 06 03:44	0° \approx	
morning rise	8167 Jul 12 05:59	16° E 06'17			8170 Jan 30 08:53	0° H	
desc. node	8167 Jul 21 00:46	12° E 35'09			8170 Feb 23 13:20	0° Y	
direct	8167 Jul 26 22:27	11° E 53'16			8170 Mar 19 18:23	0° B	
greatest brilliancy	8167 Aug 05 19:33	13° E 40'12	-4.8m		8170 Apr 13 03:20	0° II	
	8167 Aug 31 12:25	0° Ω		asc. node	8170 Apr 27 17:31	17° II 45'01	
morning max el	8167 Sep 14 00:25	12° Ω 13'40	45°54'04		8170 May 07 21:59	0° E	
	8167 Oct 01 14:16	0° P			8170 Jun 02 12:20	0° Ω	
	8167 Oct 28 22:37	0° L			8170 Jun 29 22:16	0° P	
asc. node	8167 Nov 10 23:50	14° L 57'04		evening max el	8170 Jul 06 02:25	6° P 14'43	46°16'22
	8167 Nov 23 20:54	0° M			8170 Aug 03 04:08	0° L	
	8167 Dec 19 00:01	0° X		greatest brilliancy	8170 Aug 13 15:34	5° L 28'36	-4.8m
	8168 Jan 12 15:09	0° Z		desc. node	8170 Aug 17 12:29	6° L 44'39	
	8168 Feb 05 22:40	0° \approx		retrograde	8170 Aug 24 19:15	7° L 44'28	
	8168 Mar 01 01:10	0° H		evening set	8170 Sep 09 19:07	2° L 46'28	
desc. node	8168 Mar 01 16:42	0° H 48'29			8170 Sep 14 09:09	30° R P	
morning set	8168 Mar 11 18:44	13° H 25'03		min. Earth dist.	8170 Sep 14 13:17	29° P 53'32	0.28801 AU
	8168 Mar 25 00:11	0° Y		inferior conj	8170 Sep 15 05:45	29° P 27'46	-6°14'38
	8168 Apr 17 21:07	0° B		minimum elong	8170 Sep 14 19:45	29° P 43'25	6°12'34
				morning rise	8170 Sep 19 20:50	26° P 38'22	
superior conj	8168 Apr 21 15:30	4° B 44'16	-1°26'41	direct	8170 Oct 06 16:01	21° P 17'43	
minimum elong	8168 Apr 21 11:46	4° B 32'32	1°26'45	greatest brilliancy	8170 Oct 16 11:16	23° P 02'26	-4.7m
max. Earth dist.	8168 Apr 21 15:44	4° B 45'02	1.71216 AU		8170 Oct 30 00:27	0° L	
	8168 May 11 17:45	0° II		morning max el	8170 Nov 24 11:39	21° L 14'09	45°43'53
evening rise	8168 Jun 01 05:15	25° II 40'50			8170 Dec 03 07:41	0° M	
	8168 Jun 04 16:09	0° E		asc. node	8170 Dec 08 11:53	5° M 21'02	
asc. node	8168 Jun 22 15:07	22° E 23'30			8170 Dec 31 00:48	0° X	
	8168 Jun 28 18:08	0° Ω			8171 Jan 25 20:27	0° Z	
	8168 Jul 23 01:10	0° P			8171 Feb 19 18:46	0° \approx	
	8168 Aug 16 15:02	0° L			8171 Mar 16 05:30	0° H	
	8168 Sep 10 14:53	0° M		desc. node	8171 Mar 30 04:54	17° H 19'14	
	8168 Oct 06 06:39	0° X			8171 Apr 09 09:21	0° Y	

	8171 May 03 09:14	0°♄			8173 Oct 01 16:49	0°♁	
	8171 May 27 07:40	0°♂		greatest brilliancy	8173 Oct 23 19:39	13°♁12'49	-4.7m
morning set	8171 May 28 00:53	0°♂53'56		retrograde	8173 Nov 02 13:12	14°♁55'57	
	8171 Jun 20 06:52	0°♄		evening set	8173 Nov 20 09:36	8°♁58'51	
				inferior conj	8173 Nov 24 00:04	6°♁45'14	-8°00'16
superior conj	8171 Jul 06 11:03	20°♄10'46	-0°34'40	minimum elong	8173 Nov 24 07:15	6°♁33'57	7°59'20
minimum elong	8171 Jul 06 18:54	20°♄35'12	0°34'28	min. Earth dist.	8173 Nov 24 14:59	6°♁21'48	0.28896 AU
max. Earth dist.	8171 Jul 09 21:27	24°♄27'22	1.72153 AU	morning rise	8173 Nov 28 04:39	4°♁09'48	
	8171 Jul 14 08:22	0°♂			8173 Dec 06 17:15	30°♁	
asc. node	8171 Jul 21 03:04	8°♂25'37		direct	8173 Dec 15 11:07	28°♁27'52	
	8171 Aug 07 12:43	0°♄			8173 Dec 24 13:54	0°♁	
evening rise	8171 Aug 13 22:39	7°♄55'55		greatest brilliancy	8173 Dec 26 11:40	0°♁40'32	-4.8m
	8171 Aug 31 20:11	0°♄		asc. node	8174 Jan 04 23:33	5°♁30'53	
	8171 Sep 25 07:28	0°♄			8174 Feb 03 03:02	0°♄	
	8171 Oct 20 00:06	0°♁		morning max el	8174 Feb 03 06:17	0°♄08'05	46°20'04
desc. node	8171 Nov 09 20:50	25°♁03'49			8174 Mar 03 03:19	0°♄	
	8171 Nov 14 00:09	0°♄			8174 Mar 28 23:03	0°♄	
	8171 Dec 09 10:07	0°♄			8174 Apr 22 20:55	0°♄	
	8172 Jan 04 11:18	0°♄		desc. node	8174 Apr 26 17:12	4°♄41'13	
	8172 Jan 31 21:13	0°♄			8174 May 17 07:59	0°♄	
evening max el	8172 Feb 09 09:42	8°♄42'57	46°44'26		8174 Jun 10 14:03	0°♂	
asc. node	8172 Mar 01 20:40	28°♄06'36			8174 Jul 04 18:46	0°♄	
	8172 Mar 04 08:11	0°♄			8174 Jul 29 00:08	0°♂	
greatest brilliancy	8172 Mar 20 20:30	9°♄24'51	-4.9m	morning set	8174 Aug 08 09:07	12°♂49'54	
retrograde	8172 Mar 30 16:33	11°♄14'09		asc. node	8174 Aug 17 15:05	24°♂15'41	
evening set	8172 Apr 17 11:10	5°♄10'40			8174 Aug 22 06:36	0°♄	
inferior conj	8172 Apr 20 07:41	3°♄25'52	9°04'00				
minimum elong	8172 Apr 20 03:45	3°♄31'55	9°03'42	superior conj	8174 Sep 14 22:58	29°♄13'53	1°01'29
min. Earth dist.	8172 Apr 20 02:42	3°♄33'34	0.27077 AU	minimum elong	8174 Sep 14 13:30	28°♄44'40	1°01'08
morning rise	8172 Apr 22 20:24	1°♄52'56			8174 Sep 15 13:56	0°♄	
	8172 Apr 26 02:39	30°♄		max. Earth dist.	8174 Sep 15 19:45	0°♄17'57	1.73197 AU
direct	8172 May 10 23:06	25°♄39'24			8174 Oct 09 21:59	0°♄	
greatest brilliancy	8172 May 20 10:28	27°♄21'12	-4.9m	evening rise	8174 Oct 21 08:26	14°♄04'38	
	8172 May 26 12:28	0°♄			8174 Nov 03 07:16	0°♁	
desc. node	8172 Jun 21 15:11	19°♄47'49			8174 Nov 27 18:30	0°♄	
morning max el	8172 Jun 30 03:52	28°♄01'05	46°40'23	desc. node	8174 Dec 07 08:35	11°♄43'29	
	8172 Jul 02 03:22	0°♂			8174 Dec 22 08:01	0°♄	
	8172 Jul 30 03:47	0°♄			8175 Jan 15 23:55	0°♄	
	8172 Aug 25 10:17	0°♂			8175 Feb 09 19:31	0°♄	
	8172 Sep 19 23:25	0°♄			8175 Mar 06 23:51	0°♄	
asc. node	8172 Oct 12 13:35	26°♄58'21		asc. node	8175 Mar 30 08:00	26°♄54'41	
	8172 Oct 15 02:01	0°♄			8175 Apr 02 02:14	0°♂	
	8172 Nov 08 20:27	0°♄		evening max el	8175 Apr 23 03:44	22°♂29'20	46°57'42
	8172 Dec 03 08:26	0°♁			8175 Apr 30 19:34	0°♄	
morning set	8172 Dec 26 12:52	28°♁36'46		greatest brilliancy	8175 Jun 02 08:14	23°♄23'31	-4.9m
	8172 Dec 27 15:46	0°♄		retrograde	8175 Jun 12 16:33	25°♄24'46	
	8173 Jan 20 19:53	0°♄		evening set	8175 Jun 28 06:08	20°♄40'03	
max. Earth dist.	8173 Jan 30 19:28	12°♄25'50	1.72048 AU	inferior conj	8175 Jul 03 15:44	17°♄26'09	4°01'42
desc. node	8173 Feb 01 06:30	14°♄14'59		minimum elong	8175 Jul 04 00:10	17°♄13'08	3°59'08
				min. Earth dist.	8175 Jul 03 13:10	17°♄30'07	0.27511 AU
superior conj	8173 Feb 02 23:10	16°♄21'43	-0°04'09	morning rise	8175 Jul 09 18:31	13°♄49'01	
minimum elong	8173 Feb 02 22:11	16°♄18'40	0°03'59	desc. node	8175 Jul 20 02:47	9°♄56'55	
behind sun begin	8173 Feb 01 22:02	15°♄03'25		direct	8175 Jul 24 11:52	9°♄33'46	
behind sun end	8173 Feb 03 22:20	17°♄33'56		greatest brilliancy	8175 Aug 03 09:31	11°♄21'32	-4.8m
	8173 Feb 13 21:28	0°♄			8175 Aug 31 18:31	0°♂	
	8173 Mar 09 20:55	0°♄		morning max el	8175 Sep 11 15:48	10°♂00'16	45°55'20
evening rise	8173 Mar 14 16:53	6°♄03'16			8175 Oct 01 07:44	0°♄	
	8173 Apr 02 19:10	0°♄			8175 Oct 28 12:34	0°♄	
	8173 Apr 26 18:15	0°♂		asc. node	8175 Nov 10 01:57	14°♄25'23	
	8173 May 20 20:56	0°♄			8175 Nov 23 09:18	0°♄	
asc. node	8173 May 25 05:16	5°♄22'43			8175 Dec 18 11:37	0°♁	
	8173 Jun 14 06:23	0°♂			8176 Jan 12 02:21	0°♄	
	8173 Jul 09 02:51	0°♄			8176 Feb 05 09:40	0°♄	
	8173 Aug 03 17:59	0°♄		desc. node	8176 Feb 29 18:34	0°♄20'19	
	8173 Aug 30 22:32	0°♄			8176 Feb 29 12:04	0°♄	
desc. node	8173 Sep 13 23:46	14°♄13'47		morning set	8176 Mar 09 06:06	10°♄56'23	
evening max el	8173 Sep 14 18:24	14°♄58'47	45°42'05		8176 Mar 24 11:01	0°♄	




































































































































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				morning rise	8178 Sep 17 15:31	24°♎23'48	
superior conj	8176 Apr 19 02:39	2°♄14'23 -1°25'59		direct	8178 Oct 04 08:04	19°♎07'59	
minimum elong	8176 Apr 18 21:53	1°♄59'25 1°26'02		greatest brilliancy	8178 Oct 14 02:03	20°♎51'28	-4.7m
max. Earth dist.	8176 Apr 19 01:03	2°♄09'21 1.71213 AU			8178 Oct 30 19:50	0°♎	
	8176 May 11 04:33	0°♄		morning max el	8178 Nov 22 02:26	19°♎00'58	45°43'13
evening rise	8176 May 29 16:56	23°♄13'22			8178 Dec 03 02:40	0°♎	
	8176 Jun 04 02:59	0°♄		asc. node	8178 Dec 07 13:49	4°♎39'12	
asc. node	8176 Jun 21 17:05	21°♄55'45			8178 Dec 30 15:24	0°♄	
	8176 Jun 28 05:03	0°♄			8179 Jan 25 09:20	0°♄	
	8176 Jul 22 12:18	0°♄			8179 Feb 19 06:51	0°♄	
	8176 Aug 16 02:33	0°♎			8179 Mar 15 17:09	0°♄	
	8176 Sep 10 03:06	0°♎		desc. node	8179 Mar 29 06:53	16°♄49'44	
	8176 Oct 05 20:12	0°♄			8179 Apr 08 20:44	0°♄	
desc. node	8176 Oct 11 11:14	6°♄24'42			8179 May 02 20:27	0°♄	
	8176 Nov 01 18:35	0°♄		morning set	8179 May 25 12:47	28°♄26'09	
evening max el	8176 Nov 25 09:30	24°♄12'30 45°56'43			8179 May 26 18:44	0°♄	
	8176 Dec 01 13:50	0°♄			8179 Jun 19 17:50	0°♄	
greatest brilliancy	8177 Jan 03 19:22	22°♄49'37 -4.8m					
retrograde	8177 Jan 13 12:04	24°♄33'07		superior conj	8179 Jul 04 00:43	17°♄49'49 -0°38'02	
evening set	8177 Jan 28 00:15	20°♄25'17		minimum elong	8179 Jul 04 09:11	18°♄16'14 0°37'48	
asc. node	8177 Feb 01 11:10	17°♄50'56		max. Earth dist.	8179 Jul 07 13:11	22°♄12'57 1.72100 AU	
inferior conj	8177 Feb 03 07:16	16°♄43'22 0°28'08			8179 Jul 13 19:15	0°♄	
minimum elong	8177 Feb 03 06:11	16°♄45'02 0°27'53		asc. node	8179 Jul 20 04:56	7°♄57'42	
min. Earth dist.	8177 Feb 03 16:58	16°♄28'27 0.27356 AU			8179 Aug 06 23:34	0°♄	
morning rise	8177 Feb 09 11:36	13°♄04'15		evening rise	8179 Aug 11 14:50	5°♄44'04	
direct	8177 Feb 24 05:23	8°♄46'28			8179 Aug 31 07:05	0°♎	
greatest brilliancy	8177 Mar 06 19:52	10°♄53'50 -4.9m			8179 Sep 24 18:34	0°♎	
	8177 Apr 03 13:23	0°♄			8179 Oct 19 11:38	0°♄	
morning max el	8177 Apr 15 19:06	11°♄45'34 46°57'38		desc. node	8179 Nov 08 22:51	24°♄33'42	
	8177 May 03 00:57	0°♄			8179 Nov 13 12:24	0°♄	
desc. node	8177 May 24 05:24	23°♄58'34			8179 Dec 08 23:33	0°♄	
	8177 May 29 09:36	0°♄			8180 Jan 04 02:54	0°♄	
	8177 Jun 23 16:38	0°♄			8180 Jan 31 17:52	0°♄	
	8177 Jul 18 13:11	0°♄		evening max el	8180 Feb 06 22:20	6°♄16'55 46°42'53	
	8177 Aug 12 05:31	0°♄		asc. node	8180 Feb 29 22:40	26°♄51'31	
	8177 Sep 05 19:46	0°♄			8180 Mar 05 07:24	0°♄	
asc. node	8177 Sep 14 03:20	10°♄09'57		greatest brilliancy	8180 Mar 18 09:56	6°♄58'37 -4.9m	
	8177 Sep 30 07:57	0°♎		retrograde	8180 Mar 28 04:44	8°♄47'05	
morning set	8177 Oct 16 12:06	19°♎51'46		evening set	8180 Apr 14 20:30	2°♄49'08	
	8177 Oct 24 17:50	0°♎		inferior conj	8180 Apr 17 20:27	0°♄59'15 8°59'22	
	8177 Nov 18 01:45	0°♄		minimum elong	8180 Apr 17 15:36	1°♄06'45 8°58'56	
max. Earth dist.	8177 Nov 20 20:40	3°♄26'31 1.73137 AU		min. Earth dist.	8180 Apr 17 15:38	1°♄06'42 0.27068 AU	
					8180 Apr 19 10:57	30°♄	
superior conj	8177 Nov 22 00:22	4°♄52'03 1°20'16		morning rise	8180 Apr 20 10:44	29°♄23'53	
minimum elong	8177 Nov 22 06:47	5°♄11'50 1°20'18		direct	8180 May 08 11:13	23°♄12'34	
	8177 Dec 12 08:30	0°♄		greatest brilliancy	8180 May 18 00:04	24°♄55'16 -4.9m	
evening rise	8177 Dec 29 13:10	21°♄15'45			8180 May 28 08:17	0°♄	
desc. node	8178 Jan 03 20:25	27°♄49'25		desc. node	8180 Jun 20 17:06	18°♄48'51	
	8178 Jan 05 14:37	0°♄		morning max el	8180 Jun 27 16:12	25°♄34'23 46°41'56	
	8178 Jan 29 20:02	0°♄			8180 Jul 02 01:26	0°♄	
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	8178 Apr 12 15:43	0°♄			8180 Sep 19 11:48	0°♄	
asc. node	8178 Apr 26 19:36	17°♄12'23		asc. node	8180 Oct 11 15:41	26°♄29'32	
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	8178 Jun 02 03:31	0°♄			8180 Nov 08 07:38	0°♎	
	8178 Jun 29 18:22	0°♄			8180 Dec 02 19:24	0°♄	
evening max el	8178 Jul 03 18:36	4°♄01'56 46°18'02		morning set	8180 Dec 24 05:00	26°♄24'21	
	8178 Aug 04 11:09	0°♎			8180 Dec 27 02:41	0°♄	
greatest brilliancy	8178 Aug 11 07:54	3°♎17'46 -4.8m			8181 Jan 20 06:50	0°♄	
desc. node	8178 Aug 16 14:19	4°♎54'00		max. Earth dist.	8181 Jan 28 09:52	10°♄07'03 1.72095 AU	
retrograde	8178 Aug 22 11:27	5°♎33'18		desc. node	8181 Jan 31 08:25	13°♄46'47	
evening set	8178 Sep 07 08:38	0°♎39'44					
	8178 Sep 08 12:00	30°♄		superior conj	8181 Jan 31 12:41	14°♄00'07 -0°00'26	
min. Earth dist.	8178 Sep 12 04:59	27°♄43'31 0.28758 AU		minimum elong	8181 Jan 31 12:36	13°♄59'51 0°00'18	
inferior conj	8178 Sep 12 21:49	27°♄17'09 -6°00'34		behind sun begin	8181 Jan 30 12:02	12°♄43'17	

behind sun end	8181 Feb 01 13:10	15°  16'26		greatest brilliancy	8183 Jul 31 22:44	9°  00'55	-4.8m
	8181 Feb 13 08:28	0° 			8183 Aug 31 22:58	0° 	
	8181 Mar 09 08:00	0° 		morning max el	8183 Sep 09 07:29	7°  46'51	45°56'34
evening rise	8181 Mar 12 04:55	3°  35'52			8183 Oct 01 01:06	0° 	
	8181 Apr 02 06:23	0° 			8183 Oct 28 02:36	0° 	
	8181 Apr 26 05:40	0° 		asc. node	8183 Nov 09 03:49	13°  52'34	
	8181 May 20 08:37	0° 			8183 Nov 22 21:49	0° 	
asc. node	8181 May 24 07:13	4°  52'29			8183 Dec 17 23:21	0° 	
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	8181 Jul 08 15:43	0° 			8184 Feb 04 20:45	0° 	
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	8181 Aug 30 16:42	0° 			8184 Feb 28 23:04	0° 	
evening max el	8181 Sep 12 08:53	12°  44'29	45°42'44	morning set	8184 Mar 06 17:39	8°  47'59	
desc. node	8181 Sep 13 01:52	13°  45'18			8184 Mar 23 22:02	0° 	
	8181 Oct 02 03:57	0° 					
greatest brilliancy	8181 Oct 21 09:56	11°  40'11	-4.7m	superior conj	8184 Apr 16 13:31	29°  42'57	-1°25'07
retrograde	8181 Oct 31 05:05	12°  45'59		minimum elong	8184 Apr 16 07:45	29°  42'49	1°25'07
evening set	8181 Nov 18 03:31	6°  45'03		max. Earth dist.	8184 Apr 16 09:46	29°  31'11	1.71216 AU
inferior conj	8181 Nov 21 16:10	4°  34'21	-8°07'21		8184 Apr 16 18:56	0° 	
minimum elong	8181 Nov 21 22:46	4°  23'59	8°06'32		8184 May 10 15:34	0° 	
min. Earth dist.	8181 Nov 22 06:11	4°  12'22	0.28937 AU	evening rise	8184 May 27 03:59	20°  43'13	
morning rise	8181 Nov 25 17:48	2°  03'31			8184 Jun 03 14:01	0° 	
	8181 Nov 29 09:49	30° 		asc. node	8184 Jun 20 18:57	21°  52'03	
direct	8181 Dec 13 03:13	26°  45'16			8184 Jun 27 16:11	0° 	
greatest brilliancy	8181 Dec 24 03:49	28°  45'11	-4.8m		8184 Jul 21 23:38	0° 	
	8181 Dec 27 15:53	0° 			8184 Aug 15 14:16	0° 	
asc. node	8182 Jan 04 01:27	4°  12'28			8184 Sep 09 15:33	0° 	
morning max el	8182 Jan 31 22:11	27°  53'48	46°18'24		8184 Oct 05 10:03	0° 	
	8182 Feb 03 00:36	0° 		desc. node	8184 Oct 10 13:15	5°  49'56	
	8182 Mar 02 19:05	0° 			8184 Nov 01 11:31	0° 	
	8182 Mar 28 12:43	0° 		evening max el	8184 Nov 23 00:51	21°  58'48	45°55'29
	8182 Apr 22 09:32	0° 			8184 Dec 01 16:43	0° 	
desc. node	8182 Apr 25 19:15	4°  09'20		greatest brilliancy	8185 Jan 01 09:15	20°  53'02	-4.8m
	8182 May 16 19:59	0° 		retrograde	8185 Jan 11 01:30	22°  53'10	
	8182 Jun 10 01:39	0° 		evening set	8185 Jan 25 14:50	18°  53'04	
	8182 Jul 04 06:04	0° 		inferior conj	8185 Jan 31 21:07	14°  53'07	0°05'05
	8182 Jul 28 11:12	0° 		minimum elong	8185 Jan 31 20:55	14°  53'26	0°05'08
morning set	8182 Aug 06 00:37	10°  43'51		transit middle	8185 Jan 31 20:55	14°  53'26	0°05'08
asc. node	8182 Aug 16 17:04	23°  47'58		transit begin	8185 Jan 31 17:04	14°  53'29	
	8182 Aug 21 17:31	0° 		transit end	8185 Feb 01 00:47	14°  53'28	
				asc. node	8185 Jan 31 13:08	14°  53'26	
superior conj	8182 Sep 12 16:02	27°  45'03	0°59'08	min. Earth dist.	8185 Feb 01 07:38	14°  53'06	0.27395 AU
minimum elong	8182 Sep 12 06:33	26°  45'46	0°58'46	morning rise	8185 Feb 07 02:30	10°  53'42	
max. Earth dist.	8182 Sep 13 14:41	28°  45'53	1.73177 AU	direct	8185 Feb 21 20:04	6°  53'48	
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	8182 Oct 09 08:49	0° 			8185 Apr 03 17:18	0° 	
evening rise	8182 Oct 19 02:08	11°  58'06		morning max el	8185 Apr 13 09:00	9°  47'14	46°56'52
	8182 Nov 02 18:12	0° 			8185 May 02 18:34	0° 	
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desc. node	8182 Dec 06 10:32	11°  53'14			8185 May 29 00:05	0° 	
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asc. node	8183 Mar 29 10:04	26°  48'12		asc. node	8185 Sep 13 05:23	9°  42'39	
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evening max el	8183 Apr 20 18:17	20°  48'06	46°58'23	morning set	8185 Oct 14 05:14	17°  43'58	
	8183 Apr 30 22:25	0° 			8185 Oct 24 04:31	0° 	
greatest brilliancy	8183 May 30 22:46	21°  50'02	-4.9m		8185 Nov 17 12:24	0° 	
retrograde	8183 Jun 10 07:20	23°  50'32		max. Earth dist.	8185 Nov 18 13:32	1°  47'32	1.73156 AU
evening set	8183 Jun 25 22:47	18°  45'56					
inferior conj	8183 Jul 01 05:33	15°  50'07	4°22'20	superior conj	8185 Nov 19 17:33	2°  44'02	1°21'24
minimum elong	8183 Jul 01 14:33	14°  51'15	4°19'39	minimum elong	8185 Nov 19 23:23	3°  40'59	1°21'27
min. Earth dist.	8183 Jul 01 03:19	15°  50'34	0.27486 AU		8185 Dec 11 19:14	0° 	
morning rise	8183 Jul 07 06:41	11°  53'04		evening rise	8185 Dec 27 04:34	19°  50'12	
desc. node	8183 Jul 19 04:43	7°  52'30		desc. node	8186 Jan 02 22:23	27°  52'15	
direct	8183 Jul 22 01:43	7°  51'02			8186 Jan 05 01:29	0° 	

	8186 Jan 29 07:05	0° H			8188 Jul 01 22:07	0° II		
	8186 Feb 22 12:05	0° Y			8188 Jul 29 11:15	0° G		
	8186 Mar 18 17:53	0° B			8188 Aug 24 13:09	0° Q		
	8186 Apr 12 04:00	0° II			8188 Sep 18 23:48	0° P		
asc. node	8186 Apr 25 21:30	16° II 39'30		asc. node	8188 Oct 10 17:34	26° P 01'01		
	8186 May 07 00:37	0° G			8188 Oct 14 00:56	0° Q		
	8186 Jun 01 18:54	0° Q			8188 Nov 07 18:31	0° M		
	8186 Jun 29 15:13	0° P			8188 Dec 02 06:04	0° J		
evening max el	8186 Jul 01 09:52	1° P 46'32 46°19'35		morning set	8188 Dec 21 21:01	24° J 12'37		
	8186 Aug 06 09:48	0° Q			8188 Dec 26 13:16	0° Z		
greatest brilliancy	8186 Aug 09 00:27	1° Q 06'28 -4.8m			8189 Jan 19 17:26	0° \approx		
desc. node	8186 Aug 15 16:26	2° Q 58'43		max. Earth dist.	8189 Jan 26 02:14	7° \approx 55'29 1.72141 AU		
retrograde	8186 Aug 20 03:01	3° Q 21'22						
	8186 Sep 02 03:59	30° R P		superior conj	8189 Jan 29 02:07	11° \approx 39'19 0°03'18		
evening set	8186 Sep 04 21:59	28° P 32'01		minimum elong	8189 Jan 29 02:56	11° \approx 41'51 0°03'23		
min. Earth dist.	8186 Sep 09 20:49	25° P 32'19 0.28714 AU		behind sun begin	8189 Jan 28 02:43	10° \approx 26'27		
inferior conj	8186 Sep 10 13:39	25° P 05'56 -5°45'42		behind sun end	8189 Jan 30 03:08	12° \approx 57'16		
minimum elong	8186 Sep 10 03:44	25° P 21'28 5°43'30		desc. node	8189 Jan 30 10:28	13° \approx 20'07		
morning rise	8186 Sep 15 09:57	22° P 08'36			8189 Feb 12 19:08	0° H		
direct	8186 Oct 01 23:20	16° P 57'34			8189 Mar 08 18:45	0° Y		
greatest brilliancy	8186 Oct 11 17:11	18° P 40'31 -4.7m		evening rise	8189 Mar 09 17:07	1° Y 10'02		
	8186 Oct 31 10:14	0° Q			8189 Apr 01 17:16	0° B		
morning max el	8186 Nov 19 16:20	16° Q 45'48 45°42'42			8189 Apr 25 16:41	0° II		
	8186 Dec 02 21:01	0° M			8189 May 19 19:51	0° G		
asc. node	8186 Dec 06 15:46	3° M 58'13		asc. node	8189 May 23 09:09	4° G 23'32		
	8186 Dec 30 05:40	0° J			8189 Jun 13 06:09	0° Q		
	8187 Jan 24 21:59	0° Z			8189 Jul 08 04:09	0° P		
	8187 Feb 18 18:42	0° \approx			8189 Aug 02 22:29	0° Q		
	8187 Mar 15 04:32	0° H			8189 Aug 30 10:53	0° M		
desc. node	8187 Mar 28 08:56	16° H 21'21		evening max el	8189 Sep 10 00:13	10° M 33'17 45°43'14		
	8187 Apr 08 07:49	0° Y		desc. node	8189 Sep 12 03:52	12° M 36'47		
	8187 May 02 07:20	0° B			8189 Oct 02 18:25	0° J		
morning set	8187 May 23 00:46	25° B 59'28		greatest brilliancy	8189 Oct 18 23:43	8° J 49'49 -4.7m		
	8187 May 26 05:31	0° II		retrograde	8189 Oct 28 21:14	10° J 36'36		
	8187 Jun 19 04:32	0° G		evening set	8189 Nov 15 21:09	4° J 32'12		
				inferior conj	8189 Nov 19 08:08	2° J 24'02 -8°13'38		
superior conj	8187 Jul 01 14:16	15° G 29'15 -0°41'20		minimum elong	8189 Nov 19 14:08	2° J 14'37 8°12'57		
minimum elong	8187 Jul 01 23:19	15° G 57'29 0°41'05		min. Earth dist.	8189 Nov 19 20:54	2° J 04'02 0.28976 AU		
max. Earth dist.	8187 Jul 05 02:25	19° G 51'28 1.72055 AU		morning rise	8189 Nov 23 06:57	29° M 57'38		
	8187 Jul 13 05:55	0° Q			8189 Nov 23 05:22	30° R M		
asc. node	8187 Jul 19 06:59	7° Q 30'56		direct	8189 Dec 10 19:45	24° M 05'47		
	8187 Aug 06 10:14	0° P		greatest brilliancy	8189 Dec 21 19:20	26° M 18'02 -4.8m		
evening rise	8187 Aug 09 06:38	3° P 31'31			8189 Dec 29 10:34	0° J		
	8187 Aug 30 17:49	0° Q		asc. node	8190 Jan 03 03:30	2° J 57'31		
	8187 Sep 24 05:31	0° M		morning max el	8190 Jan 29 14:26	25° J 41'37 46°16'44		
	8187 Oct 18 23:00	0° J			8190 Feb 02 21:01	0° Z		
desc. node	8187 Nov 08 00:46	24° J 03'53			8190 Mar 02 10:13	0° \approx		
	8187 Nov 13 00:29	0° Z			8190 Mar 28 01:52	0° H		
	8187 Dec 08 12:51	0° \approx			8190 Apr 21 21:42	0° Y		
	8188 Jan 03 18:28	0° H		desc. node	8190 Apr 24 21:04	3° Y 38'00		
	8188 Jan 31 14:53	0° Y			8190 May 16 07:33	0° B		
evening max el	8188 Feb 04 10:51	3° Y 51'39 46°41'30			8190 Jun 09 12:48	0° II		
asc. node	8188 Feb 29 00:47	25° Y 35'34			8190 Jul 03 16:54	0° G		
	8188 Mar 06 14:42	0° B			8190 Jul 27 21:47	0° Q		
greatest brilliancy	8188 Mar 15 23:11	4° B 33'31 -4.9m		morning set	8190 Aug 03 16:29	8° Q 23'24		
retrograde	8188 Mar 25 17:19	6° B 21'56		asc. node	8190 Aug 15 19:05	23° Q 21'53		
evening set	8188 Apr 12 05:37	0° B 29'42			8190 Aug 21 03:57	0° P		
	8188 Apr 13 01:26	30° R Y						
inferior conj	8188 Apr 15 09:23	28° Y 34'23 8°53'40		superior conj	8190 Sep 10 09:17	24° P 58'06 0°56'41		
minimum elong	8188 Apr 15 03:39	28° Y 43'13 8°53'06		minimum elong	8190 Sep 09 23:50	24° P 28'59 0°56'19		
min. Earth dist.	8188 Apr 15 04:33	28° Y 41'50 0.27058 AU		max. Earth dist.	8190 Sep 11 11:44	26° P 19'45 1.73161 AU		
morning rise	8188 Apr 18 01:42	26° Y 56'05			8190 Sep 14 11:08	0° Q		
direct	8188 May 05 23:33	20° Y 47'28			8190 Oct 08 19:14	0° M		
greatest brilliancy	8188 May 15 13:40	22° Y 31'16 -4.9m		evening rise	8190 Oct 16 19:55	9° M 53'03		
	8188 May 29 13:25	0° B			8190 Nov 02 04:46	0° J		
desc. node	8188 Jun 19 19:07	17° B 53'06			8190 Nov 26 16:29	0° Z		
morning max el	8188 Jun 25 05:15	23° B 10'58 46°43'24		desc. node	8190 Dec 05 12:28	10° Z 47'19		

	8190 Dec 21 06:47	0°♊			8193 Sep 04 17:48	0°♎	
	8191 Jan 14 23:52	0°♋		asc. node	8193 Sep 12 07:16	9°♎15'15	
	8191 Feb 08 21:17	0°♌			8193 Sep 29 05:28	0°♏	
	8191 Mar 06 04:36	0°♍		morning set	8193 Oct 11 22:45	15°♏37'48	
asc. node	8191 Mar 28 11:59	25°♍31'25			8193 Oct 23 15:02	0°♐	
	8191 Apr 01 13:08	0°♎		max. Earth dist.	8193 Nov 16 06:45	29°♐10'14	1.73176 AU
evening max el	8191 Apr 18 09:27	17°♎49'30	46°58'59		8193 Nov 16 22:53	0°♑	
	8191 May 01 02:27	0°♏					
greatest brilliancy	8191 May 28 13:29	18°♏42'02	-4.9m	superior conj	8193 Nov 17 11:13	0°♑38'03	1°22'23
retrograde	8191 Jun 07 22:11	20°♏43'09		minimum elong	8193 Nov 17 16:26	0°♑54'07	1°22'27
evening set	8191 Jun 23 15:38	15°♏50'59			8193 Dec 11 05:48	0°♒	
inferior conj	8191 Jun 28 19:25	12°♏45'15	4°42'31	evening rise	8193 Dec 24 20:20	16°♒48'49	
minimum elong	8191 Jun 29 04:54	12°♏30'37	4°39'45	desc. node	8194 Jan 02 00:28	26°♒55'08	
min. Earth dist.	8191 Jun 28 17:22	12°♏48'24	0.27456 AU		8194 Jan 04 12:15	0°♓	
morning rise	8191 Jul 04 18:35	9°♏13'45			8194 Jan 28 18:06	0°♋	
desc. node	8191 Jul 18 06:46	4°♏56'04			8194 Feb 21 23:26	0°♌	
direct	8191 Jul 19 15:52	4°♏53'47			8194 Mar 18 05:39	0°♍	
greatest brilliancy	8191 Jul 29 11:33	6°♏41'03	-4.8m		8194 Apr 11 16:22	0°♎	
	8191 Sep 01 01:06	0°♏		asc. node	8194 Apr 24 23:28	16°♎06'34	
morning max el	8191 Sep 06 22:39	5°♏33'34	45°57'50		8194 May 06 14:04	0°♏	
	8191 Sep 30 17:34	0°♐			8194 Jun 01 10:32	0°♏	
	8191 Oct 27 16:02	0°♑		evening max el	8194 Jun 29 00:11	29°♏28'39	46°21'13
asc. node	8191 Nov 08 05:45	13°♑21'23			8194 Jun 29 12:50	0°♐	
	8191 Nov 22 09:53	0°♒		greatest brilliancy	8194 Aug 06 17:01	28°♐55'00	-4.8m
	8191 Dec 17 10:43	0°♑			8194 Aug 09 21:57	0°♑	
	8192 Jan 11 00:39	0°♒		desc. node	8194 Aug 14 18:26	0°♑59'08	
	8192 Feb 04 07:35	0°♓		retrograde	8194 Aug 17 18:37	1°♑09'39	
desc. node	8192 Feb 27 22:36	29°♓24'57			8194 Aug 25 09:24	30°♒♎	
	8192 Feb 28 09:49	0°♋		evening set	8194 Sep 02 11:28	26°♎24'00	
morning set	8192 Mar 04 05:10	6°♋00'23		min. Earth dist.	8194 Sep 07 12:52	23°♎20'57	0.28667 AU
	8192 Mar 23 08:45	0°♌		inferior conj	8194 Sep 08 05:31	22°♎54'50	-5°30'19
max. Earth dist.	8192 Apr 13 16:33	26°♌47'52	1.71218 AU	minimum elong	8194 Sep 07 19:44	23°♎10'11	5°28'04
				morning rise	8194 Sep 13 04:24	19°♎53'42	
superior conj	8192 Apr 14 00:19	27°♌12'15	-1°24'04	direct	8194 Sep 29 14:14	14°♎47'04	
minimum elong	8192 Apr 13 17:36	26°♌51'10	1°24'03	greatest brilliancy	8194 Oct 09 08:51	16°♎30'15	-4.7m
	8192 Apr 16 05:39	0°♍			8194 Oct 31 20:48	0°♏	
	8192 May 10 02:18	0°♎		morning max el	8194 Nov 17 06:28	14°♏31'25	45°42'28
evening rise	8192 May 24 14:57	18°♎13'32			8194 Dec 02 14:50	0°♐	
	8192 Jun 03 00:48	0°♏		asc. node	8194 Dec 05 17:49	3°♐18'13	
asc. node	8192 Jun 19 21:01	20°♏59'42			8194 Dec 29 19:44	0°♑	
	8192 Jun 27 03:04	0°♏			8195 Jan 24 10:33	0°♒	
	8192 Jul 21 10:42	0°♐			8195 Feb 18 06:33	0°♓	
	8192 Aug 15 01:43	0°♑			8195 Mar 14 16:00	0°♋	
	8192 Sep 09 03:43	0°♒		desc. node	8195 Mar 27 10:48	15°♋51'54	
	8192 Oct 04 23:39	0°♑			8195 Apr 07 19:04	0°♌	
desc. node	8192 Oct 09 15:09	5°♑15'43			8195 May 01 18:25	0°♍	
	8192 Nov 01 04:26	0°♒		morning set	8195 May 20 12:13	23°♒30'24	
evening max el	8192 Nov 20 15:20	19°♒43'51	45°54'02		8195 May 25 16:28	0°♎	
	8192 Dec 01 20:59	0°♓			8195 Jun 18 15:25	0°♏	
greatest brilliancy	8192 Dec 29 23:41	18°♓12'36	-4.8m				
retrograde	8193 Jan 08 14:28	19°♓53'54		superior conj	8195 Jun 29 03:30	13°♓07'04	-0°44'34
evening set	8193 Jan 23 05:37	15°♓44'07		minimum elong	8195 Jun 29 13:05	13°♓37'00	0°44'19
inferior conj	8193 Jan 29 11:03	12°♓03'37	-0°17'55	max. Earth dist.	8195 Jul 02 13:53	17°♓23'57	1.72006 AU
minimum elong	8193 Jan 29 11:44	12°♓02'34	0°17'34		8195 Jul 12 16:44	0°♏	
min. Earth dist.	8193 Jan 29 22:45	11°♓45'32	0.27439 AU	asc. node	8195 Jul 18 08:57	7°♏03'28	
asc. node	8193 Jan 30 15:13	11°♓20'07			8195 Aug 05 21:03	0°♐	
morning rise	8193 Feb 04 17:15	8°♓21'02		evening rise	8195 Aug 06 22:18	1°♐18'07	
direct	8193 Feb 19 10:19	4°♓05'35			8195 Aug 30 04:43	0°♑	
greatest brilliancy	8193 Mar 02 02:28	6°♓13'49	-4.9m		8195 Sep 23 16:38	0°♒	
	8193 Apr 03 19:30	0°♋			8195 Oct 18 10:32	0°♑	
morning max el	8193 Apr 10 21:59	6°♋58'50	46°56'10	desc. node	8195 Nov 07 02:48	23°♑34'01	
	8193 May 02 11:39	0°♌			8195 Nov 12 12:44	0°♒	
desc. node	8193 May 22 09:21	22°♌44'13			8195 Dec 08 02:21	0°♓	
	8193 May 28 14:14	0°♍			8196 Jan 03 10:21	0°♋	
	8193 Jun 22 18:21	0°♎			8196 Jan 31 12:50	0°♌	
	8193 Jul 17 13:10	0°♏		evening max el	8196 Feb 01 23:39	1°♌26'57	46°39'56
	8193 Aug 11 04:22	0°♏		asc. node	8196 Feb 28 02:37	24°♌15'59	

	8196 Mar 08 13:38	0°♄			8198 Jul 27 08:50	0°♎	
greatest brilliancy	8196 Mar 13 11:31	2°♄06'25	-4.9m	morning set	8198 Aug 01 07:53	6°♎08'24	
retrograde	8196 Mar 23 06:08	3°♄55'35		asc. node	8198 Aug 14 20:58	22°♎53'53	
	8196 Apr 06 07:10	30°♄♂			8198 Aug 20 14:52	0°♎	
evening set	8196 Apr 09 14:08	28°♂09'12					
inferior conj	8196 Apr 12 22:07	26°♂07'54	8°46'45	superior conj	8198 Sep 08 01:59	22°♎48'01	0°54'08
minimum elong	8196 Apr 12 15:32	26°♂18'01	8°46'03	minimum elong	8198 Sep 07 16:40	22°♎19'16	0°53'45
min. Earth dist.	8196 Apr 12 16:59	26°♂15'47	0.27055 AU	max. Earth dist.	8198 Sep 09 08:52	24°♎23'21	1.73137 AU
morning rise	8196 Apr 15 16:57	24°♂26'02			8198 Sep 13 21:59	0°♎	
direct	8196 May 03 12:13	18°♂20'38			8198 Oct 08 06:06	0°♎	
greatest brilliancy	8196 May 13 02:48	20°♂05'13	-4.9m	evening rise	8198 Oct 14 13:22	7°♎45'33	
	8196 May 30 11:19	0°♄			8198 Nov 01 15:46	0°♄	
desc. node	8196 Jun 18 21:09	16°♄57'11			8198 Nov 26 03:45	0°♄	
morning max el	8196 Jun 22 19:09	20°♄48'16	46°44'52	desc. node	8198 Dec 04 14:32	10°♄18'50	
	8196 Jul 01 18:38	0°♄			8198 Dec 20 18:27	0°♄	
	8196 Jul 29 02:48	0°♄			8199 Jan 14 12:08	0°♄	
	8196 Aug 24 02:34	0°♎			8199 Feb 08 10:27	0°♂	
	8196 Sep 18 12:02	0°♎			8199 Mar 05 19:19	0°♄	
asc. node	8196 Oct 09 19:29	25°♎31'49		asc. node	8199 Mar 27 13:59	24°♄48'54	
	8196 Oct 13 12:28	0°♎			8199 Apr 01 07:16	0°♄	
	8196 Nov 07 05:39	0°♎		evening max el	8199 Apr 16 00:22	15°♄29'22	46°59'20
	8196 Dec 01 17:00	0°♄			8199 May 01 08:51	0°♄	
morning set	8196 Dec 19 13:31	22°♄01'43		greatest brilliancy	8199 May 26 04:24	16°♄21'04	-4.9m
	8196 Dec 26 00:06	0°♄		retrograde	8199 Jun 05 12:30	18°♄21'12	
	8197 Jan 19 04:14	0°♄		evening set	8199 Jun 21 08:31	13°♄25'27	
max. Earth dist.	8197 Jan 23 19:54	5°♄47'21	1.72183 AU	inferior conj	8199 Jun 26 09:10	10°♄23'49	5°02'14
				minimum elong	8199 Jun 26 19:05	10°♄08'31	4°59'26
superior conj	8197 Jan 26 16:04	9°♄19'33	0°06'56	min. Earth dist.	8199 Jun 26 07:26	10°♄26'30	0.27434 AU
minimum elong	8197 Jan 26 17:46	9°♄24'49	0°06'58	morning rise	8199 Jul 02 06:06	6°♄55'19	
behind sun begin	8197 Jan 25 19:22	8°♄15'06		direct	8199 Jul 17 05:53	2°♄32'55	
behind sun end	8197 Jan 27 16:09	10°♄34'33		desc. node	8199 Jul 17 08:44	2°♄32'56	
desc. node	8197 Jan 29 12:24	12°♄52'24		greatest brilliancy	8199 Jul 27 00:28	4°♄19'23	-4.8m
	8197 Feb 12 06:00	0°♄			8199 Sep 01 02:36	0°♎	
evening rise	8197 Mar 07 05:44	28°♄44'51		morning max el	8199 Sep 04 12:53	3°♎16'05	45°59'02
	8197 Mar 08 05:44	0°♂			8199 Sep 30 10:20	0°♎	
	8197 Apr 01 04:26	0°♄			8199 Oct 27 05:53	0°♎	
	8197 Apr 25 04:05	0°♄		asc. node	8199 Nov 07 07:52	12°♄49'20	
	8197 May 19 07:32	0°♄			8199 Nov 21 22:21	0°♎	
asc. node	8197 May 22 11:11	3°♄53'36			8199 Dec 16 22:28	0°♄	
	8197 Jun 12 18:18	0°♎			8200 Jan 10 12:01	0°♄	
	8197 Jul 07 17:10	0°♎			8200 Feb 03 18:45	0°♄	
	8197 Aug 02 13:14	0°♎		desc. node	8200 Feb 27 00:29	28°♄56'14	
	8197 Aug 30 06:05	0°♎			8200 Feb 27 20:54	0°♄	
evening max el	8197 Sep 07 16:10	8°♎22'19	45°43'56	morning set	8200 Mar 02 16:54	3°♄32'27	
desc. node	8197 Sep 11 05:45	11°♎45'52			8200 Mar 23 19:47	0°♂	
	8197 Oct 03 14:44	0°♄					
greatest brilliancy	8197 Oct 16 13:37	6°♄37'38	-4.7m	superior conj	8200 Apr 12 11:32	24°♂42'02	-1°22'51
retrograde	8197 Oct 26 13:31	8°♄26'02		minimum elong	8200 Apr 12 03:58	24°♂18'16	1°22'48
evening set	8197 Nov 13 14:39	2°♄18'45		max. Earth dist.	8200 Apr 11 21:02	23°♂56'29	1.71219 AU
inferior conj	8197 Nov 17 00:06	0°♄12'42	-8°19'17		8200 Apr 16 16:39	0°♄	
minimum elong	8197 Nov 17 05:28	0°♄04'17	8°18'44		8200 May 10 13:18	0°♄	
	8197 Nov 17 08:12	30°♄♎		evening rise	8200 May 23 02:14	15°♄43'57	
min. Earth dist.	8197 Nov 17 11:21	29°♎55'05	0.29007 AU		8200 Jun 03 11:50	0°♄	
morning rise	8197 Nov 20 20:11	27°♎50'30		asc. node	8200 Jun 19 22:59	20°♄31'12	
direct	8197 Dec 08 12:30	21°♎54'23			8200 Jun 27 14:14	0°♎	
greatest brilliancy	8197 Dec 19 10:07	24°♎05'08	-4.8m		8200 Jul 21 22:07	0°♎	
	8197 Dec 30 16:10	0°♄			8200 Aug 15 13:34	0°♎	
asc. node	8198 Jan 02 05:29	1°♄43'46			8200 Sep 09 16:21	0°♎	
morning max el	8198 Jan 27 06:44	23°♄28'50	46°15'13		8200 Oct 05 13:52	0°♄	
	8198 Feb 02 17:05	0°♄		desc. node	8200 Oct 09 17:12	4°♄40'22	
	8198 Mar 02 01:24	0°♄			8200 Nov 01 22:15	0°♄	
	8198 Mar 27 15:10	0°♄		evening max el	8200 Nov 19 04:50	17°♄25'23	45°52'49
	8198 Apr 21 10:04	0°♂			8200 Dec 03 03:53	0°♄	
desc. node	8198 Apr 23 23:07	3°♂06'42		greatest brilliancy	8200 Dec 28 14:20	15°♄53'57	-4.8m
	8198 May 15 19:25	0°♄		retrograde	8201 Jan 07 03:18	17°♄33'58	
	8198 Jun 09 00:19	0°♄		evening set	8201 Jan 21 20:33	13°♄22'23	
	8198 Jul 03 04:10	0°♄		inferior conj	8201 Jan 28 01:00	9°♄43'19	-0°40'42

minimum elong	8201 Jan 28 02:33	9°  40'56	0°40'05	evening rise	8203 Aug 05 14:06	29°  05'16	
min. Earth dist.	8201 Jan 28 14:01	9°  23'10	0.27483 AU		8203 Aug 06 07:48	0° 	
asc. node	8201 Jan 30 17:07	8°  04'45			8203 Aug 30 15:33	0° 	
morning rise	8201 Feb 03 07:49	5°  59'25			8203 Sep 24 03:43	0° 	
direct	8201 Feb 18 00:11	1°  44'22			8203 Oct 18 22:06	0° 	
greatest brilliancy	8201 Feb 28 18:32	3°  54'07	-4.9m	desc. node	8203 Nov 07 04:47	23°  3'56	
	8201 Apr 04 20:39	0° 			8203 Nov 13 01:05	0° 	
morning max el	8201 Apr 09 11:00	4°  33'41	46°55'35		8203 Dec 08 16:01	0° 	
	8201 May 03 04:38	0° 			8204 Jan 04 02:36	0° 	
desc. node	8201 May 22 11:20	22°  07'11		evening max el	8204 Jan 31 13:21	29°  04'30	46°38'31
	8201 May 29 04:26	0° 			8204 Feb 01 11:47	0° 	
	8201 Jun 23 07:09	0° 		asc. node	8204 Feb 28 04:39	22°  05'47	
	8201 Jul 18 01:10	0° 		greatest brilliancy	8204 Mar 11 23:24	29°  03'56	-4.9m
	8201 Aug 11 15:51	0° 			8204 Mar 13 00:07	0° 	
	8201 Sep 05 04:57	0° 		retrograde	8204 Mar 21 19:30	1°  29'11	
asc. node	8201 Sep 12 09:13	8°  07'23			8204 Mar 30 07:13	30°  07'00	
	8201 Sep 29 16:22	0° 		evening set	8204 Apr 07 22:29	25°  04'55	
morning set	8201 Oct 10 15:54	13°  29'34		inferior conj	8204 Apr 11 10:46	23°  04'21	8°38'59
	8201 Oct 24 01:50	0° 		minimum elong	8204 Apr 11 03:24	23°  05'24	8°38'06
max. Earth dist.	8201 Nov 14 23:59	27°  02'03	1.73197 AU	min. Earth dist.	8204 Apr 11 05:03	23°  05'08	0.27048 AU
				morning rise	8204 Apr 14 08:22	21°  05'34	
superior conj	8201 Nov 16 04:29	28°  03'00	1°23'15	direct	8204 May 02 01:15	15°  05'40	
minimum elong	8201 Nov 16 09:04	28°  04'10	1°23'20	greatest brilliancy	8204 May 11 15:16	17°  03'37	-4.9m
	8201 Nov 17 09:39	0° 			8204 Jun 01 03:27	0° 	
	8201 Dec 11 16:39	0° 		desc. node	8204 Jun 18 23:05	16°  02'36	
evening rise	8201 Dec 23 11:46	14°  34'27		morning max el	8204 Jun 21 09:34	18°  27'16	46°46'13
desc. node	8202 Jan 02 02:19	26°  32'52			8204 Jul 02 14:21	0° 	
	8202 Jan 04 23:16	0° 			8204 Jul 29 17:57	0° 	
	8202 Jan 29 05:22	0° 			8204 Aug 24 15:41	0° 	
	8202 Feb 22 10:59	0° 			8204 Sep 19 00:02	0° 	
	8202 Mar 18 17:37	0° 		asc. node	8204 Oct 09 21:35	25°  03'47	
	8202 Apr 12 04:59	0° 			8204 Oct 13 23:47	0° 	
asc. node	8202 Apr 25 01:32	15°  03'24			8204 Nov 07 16:35	0° 	
	8202 May 07 03:47	0° 			8204 Dec 02 03:45	0° 	
	8202 Jun 02 02:30	0° 		morning set	8204 Dec 18 05:56	19°  25'04	
evening max el	8202 Jun 27 14:13	27°  09'55	46°22'58		8204 Dec 26 10:49	0° 	
	8202 Jun 30 11:20	0° 			8205 Jan 19 14:58	0° 	
greatest brilliancy	8202 Aug 05 09:01	26°  04'43	-4.8m	max. Earth dist.	8205 Jan 22 11:11	3°  32'07	1.72226 AU
desc. node	8202 Aug 14 20:18	28°  05'48					
retrograde	8202 Aug 16 10:31	28°  05'57		superior conj	8205 Jan 25 05:47	6°  59'20	0°10'34
evening set	8202 Sep 01 01:03	24°  05'24		minimum elong	8205 Jan 25 08:21	7°  07'17	0°10'35
min. Earth dist.	8202 Sep 06 04:45	21°  09'31	0.28626 AU	behind sun begin	8205 Jan 24 13:39	6°  09'06	
inferior conj	8202 Sep 06 21:23	20°  04'30	-5°14'26	behind sun end	8205 Jan 26 03:02	8°  05'29	
minimum elong	8202 Sep 06 11:46	20°  05'32	5°12'09	desc. node	8205 Jan 29 14:21	12°  24'51	
morning rise	8202 Sep 11 22:52	17°  03'48			8205 Feb 12 16:48	0° 	
direct	8202 Sep 28 05:10	12°  03'10		evening rise	8205 Mar 05 17:57	26°  03'43	
greatest brilliancy	8202 Oct 08 00:40	14°  01'57	-4.7m		8205 Mar 08 16:39	0° 	
	8202 Nov 02 04:41	0° 			8205 Apr 01 15:29	0° 	
morning max el	8202 Nov 15 21:22	12°  01'25	45°42'07		8205 Apr 25 15:18	0° 	
	8202 Dec 03 08:26	0° 			8205 May 19 19:03	0° 	
asc. node	8202 Dec 05 19:46	2°  03'53		asc. node	8205 May 22 13:08	3°  03'57	
	8202 Dec 30 09:50	0° 			8205 Jun 13 06:17	0° 	
	8203 Jan 24 23:12	0° 			8205 Jul 08 06:01	0° 	
	8203 Feb 18 18:28	0° 			8205 Aug 03 03:54	0° 	
	8203 Mar 15 03:31	0° 			8205 Aug 31 01:29	0° 	
desc. node	8203 Mar 27 12:49	15°  02'50		evening max el	8205 Sep 06 08:28	6°  03'05	45°44'40
	8203 Apr 08 06:19	0° 		desc. node	8205 Sep 11 07:53	10°  05'37	
	8203 May 02 05:30	0° 			8205 Oct 05 17:51	0° 	
morning set	8203 May 18 23:34	21°  00'55		greatest brilliancy	8205 Oct 15 04:11	4°  27'31	-4.7m
	8203 May 26 03:26	0° 		retrograde	8205 Oct 25 05:39	6°  21'47	
	8203 Jun 19 02:18	0° 		evening set	8205 Nov 12 08:04	0° 	
					8205 Nov 12 12:55	30°  00'00	
superior conj	8203 Jun 27 16:45	10°  04'54	-0°47'45	inferior conj	8205 Nov 15 16:15	28°  02'56	-8°24'11
minimum elong	8203 Jun 28 02:50	11°  06'22	0°47'29	minimum elong	8205 Nov 15 20:56	27°  05'35	8°23'43
max. Earth dist.	8203 Jul 01 00:37	14°  05'44	1.71957 AU	min. Earth dist.	8205 Nov 16 02:00	27°  04'38	0.29036 AU
	8203 Jul 13 03:31	0° 		morning rise	8205 Nov 19 09:44	25°  04'28	
asc. node	8203 Jul 18 10:50	6°  03'50		direct	8205 Dec 07 05:23	19°  04'43	

greatest brilliancy	8205 Dec 18 00:41	21° \mathbb{M} 53'16	-4.8m		8208 Jul 21 09:14	0° \mathbb{M}	
	8206 Jan 01 12:56	0° \mathbb{A}			8208 Aug 15 01:05	0° \mathbb{A}	
asc. node	8206 Jan 02 07:25	0° \mathbb{A} 33'08			8208 Sep 09 04:41	0° \mathbb{M}	
morning max el	8206 Jan 25 22:23	21° \mathbb{A} 15'19	46°13'23		8208 Oct 05 03:48	0° \mathbb{A}	
	8206 Feb 03 12:17	0° \mathbb{Z}		desc. node	8208 Oct 08 19:12	4° \mathbb{A} 05'49	
	8206 Mar 02 16:12	0° \approx			8208 Nov 01 15:58	0° \mathbb{Z}	
	8206 Mar 28 04:14	0° \mathbb{H}		evening max el	8208 Nov 16 18:11	15° \mathbb{Z} 08'09	45°51'45
	8206 Apr 21 22:14	0° \mathbb{Y}			8208 Dec 03 12:33	0° \approx	
desc. node	8206 Apr 24 01:09	2° \mathbb{Y} 35'51		greatest brilliancy	8208 Dec 26 04:54	13° \approx 37'17	-4.8m
	8206 May 16 07:01	0° \mathbb{B}		retrograde	8209 Jan 04 16:43	15° \approx 16'41	
	8206 Jun 09 11:32	0° \mathbb{I}		evening set	8209 Jan 19 11:53	11° \approx 02'41	
	8206 Jul 03 15:05	0° \mathbb{E}		inferior conj	8209 Jan 25 15:12	7° \approx 25'24	-1°03'10
	8206 Jul 27 19:33	0° \mathbb{Q}		minimum elong	8209 Jan 25 17:36	7° \approx 21'41	1°02'17
morning set	8206 Jul 30 23:17	3° \mathbb{Q} 54'27		min. Earth dist.	8209 Jan 26 05:27	7° \approx 03'21	0.27532 AU
asc. node	8206 Aug 14 22:57	22° \mathbb{Q} 27'10		asc. node	8209 Jan 29 19:06	4° \approx 53'26	
	8206 Aug 21 01:27	0° \mathbb{M}		morning rise	8209 Jan 31 22:30	3° \approx 40'41	
					8209 Feb 10 06:34	30° \mathbb{R} \mathbb{Z}	
superior conj	8206 Sep 06 18:49	20° \mathbb{M} 39'21	0°51'31	direct	8209 Feb 15 14:15	29° \mathbb{Z} 25'21	
minimum elong	8206 Sep 06 09:40	20° \mathbb{M} 11'07	0°51'06		8209 Feb 21 01:15	0° \approx	
max. Earth dist.	8206 Sep 08 05:26	22° \mathbb{M} 26'12	1.73110 AU	greatest brilliancy	8209 Feb 26 10:53	1° \approx 36'59	-4.9m
	8206 Sep 14 08:30	0° \mathbb{A}			8209 Apr 04 20:02	0° \mathbb{H}	
	8206 Oct 08 16:38	0° \mathbb{M}		morning max el	8209 Apr 07 00:59	2° \mathbb{H} 12'26	46°54'46
evening rise	8206 Oct 13 07:03	5° \mathbb{M} 39'49			8209 May 02 20:54	0° \mathbb{Y}	
	8206 Nov 02 02:24	0° \mathbb{A}		desc. node	8209 May 21 13:12	21° \mathbb{Y} 30'57	
	8206 Nov 26 14:38	0° \mathbb{Z}			8209 May 28 18:11	0° \mathbb{B}	
desc. node	8206 Dec 04 16:27	9° \mathbb{Z} 51'02			8209 Jun 22 19:39	0° \mathbb{I}	
	8206 Dec 21 05:47	0° \approx			8209 Jul 17 12:54	0° \mathbb{E}	
	8207 Jan 15 00:08	0° \mathbb{H}			8209 Aug 11 03:03	0° \mathbb{Q}	
	8207 Feb 08 23:27	0° \mathbb{Y}			8209 Sep 04 15:46	0° \mathbb{M}	
	8207 Mar 06 10:02	0° \mathbb{B}		asc. node	8209 Sep 11 11:15	8° \mathbb{M} 20'43	
asc. node	8207 Mar 27 16:02	24° \mathbb{B} 06'29			8209 Sep 29 02:56	0° \mathbb{A}	
	8207 Apr 02 01:42	0° \mathbb{I}		morning set	8209 Oct 08 08:58	11° \mathbb{A} 22'10	
evening max el	8207 Apr 14 14:29	13° \mathbb{I} 07'26	46°59'36		8209 Oct 23 12:16	0° \mathbb{M}	
	8207 May 02 17:33	0° \mathbb{E}		max. Earth dist.	8209 Nov 12 19:16	25° \mathbb{M} 01'17	1.73216 AU
greatest brilliancy	8207 May 24 19:54	14° \mathbb{E} 01'00	-4.9m				
retrograde	8207 Jun 04 02:16	15° \mathbb{E} 59'23		superior conj	8209 Nov 13 21:55	26° \mathbb{M} 23'31	1°24'01
evening set	8207 Jun 20 01:23	11° \mathbb{E} 00'05		minimum elong	8209 Nov 14 01:51	26° \mathbb{M} 35'40	1°24'06
inferior conj	8207 Jun 24 22:49	8° \mathbb{E} 02'50	5°21'36		8209 Nov 16 20:05	0° \mathbb{A}	
minimum elong	8207 Jun 25 09:05	7° \mathbb{E} 46'58	5°18'47		8209 Dec 11 03:11	0° \mathbb{Z}	
min. Earth dist.	8207 Jun 24 21:38	8° \mathbb{E} 04'40	0.27407 AU	evening rise	8209 Dec 21 03:37	12° \mathbb{Z} 22'32	
morning rise	8207 Jun 30 17:11	4° \mathbb{E} 37'32		desc. node	8210 Jan 01 04:17	26° \mathbb{Z} 00'01	
direct	8207 Jul 15 19:11	0° \mathbb{E} 12'30			8210 Jan 04 09:57	0° \approx	
desc. node	8207 Jul 17 10:41	0° \mathbb{E} 15'41			8210 Jan 28 16:16	0° \mathbb{H}	
greatest brilliancy	8207 Jul 25 13:34	1° \mathbb{E} 58'31	-4.8m		8210 Feb 21 22:11	0° \mathbb{Y}	
	8207 Sep 02 02:23	0° \mathbb{Q}			8210 Mar 18 05:15	0° \mathbb{B}	
morning max el	8207 Sep 03 02:15	0° \mathbb{Q} 57'28	46°00'24		8210 Apr 11 17:19	0° \mathbb{I}	
	8207 Oct 01 02:20	0° \mathbb{M}		asc. node	8210 Apr 24 03:26	15° \mathbb{I} 00'32	
	8207 Oct 27 19:10	0° \mathbb{A}			8210 May 06 17:19	0° \mathbb{E}	
asc. node	8207 Nov 07 09:41	12° \mathbb{A} 17'56			8210 Jun 01 18:31	0° \mathbb{Q}	
	8207 Nov 22 10:19	0° \mathbb{M}		evening max el	8210 Jun 25 04:59	24° \mathbb{Q} 53'25	46°24'40
	8207 Dec 17 09:44	0° \mathbb{A}			8210 Jun 30 10:41	0° \mathbb{M}	
	8208 Jan 10 22:55	0° \mathbb{Z}		greatest brilliancy	8210 Aug 03 00:32	24° \mathbb{M} 29'51	-4.8m
	8208 Feb 04 05:29	0° \approx		desc. node	8210 Aug 13 22:24	26° \mathbb{M} 46'07	
desc. node	8208 Feb 27 02:32	28° \approx 29'11		retrograde	8210 Aug 14 02:51	26° \mathbb{M} 46'09	
	8208 Feb 28 07:36	0° \mathbb{H}		evening set	8210 Aug 29 14:38	22° \mathbb{M} 06'25	
morning set	8208 Feb 29 04:46	1° \mathbb{H} 06'07		min. Earth dist.	8210 Sep 03 20:16	18° \mathbb{M} 58'13	0.28580 AU
	8208 Mar 23 06:30	0° \mathbb{Y}		inferior conj	8210 Sep 04 13:03	18° \mathbb{M} 32'00	-4°57'51
max. Earth dist.	8208 Apr 08 23:08	20° \mathbb{Y} 58'32	1.71231 AU	minimum elong	8210 Sep 04 03:41	18° \mathbb{M} 46'37	4°55'33
				morning rise	8210 Sep 09 17:10	15° \mathbb{M} 23'58	
superior conj	8208 Apr 09 22:30	22° \mathbb{Y} 11'59	-1°21'29	direct	8210 Sep 25 20:10	10° \mathbb{M} 25'12	
minimum elong	8208 Apr 09 14:08	21° \mathbb{Y} 45'39	1°21'22	greatest brilliancy	8210 Oct 05 15:51	12° \mathbb{M} 09'21	-4.7m
	8208 Apr 16 03:23	0° \mathbb{B}			8210 Nov 02 09:57	0° \mathbb{A}	
	8208 May 10 00:03	0° \mathbb{I}		morning max el	8210 Nov 13 13:03	10° \mathbb{A} 08'10	45°41'54
evening rise	8208 May 20 12:54	13° \mathbb{I} 13'11			8210 Dec 03 01:20	0° \mathbb{M}	
	8208 Jun 02 22:38	0° \mathbb{E}		asc. node	8210 Dec 04 21:42	1° \mathbb{M} 58'50	
asc. node	8208 Jun 19 00:51	20° \mathbb{E} 03'16			8210 Dec 29 23:29	0° \mathbb{A}	
	8208 Jun 27 01:08	0° \mathbb{Q}			8211 Jan 24 11:29	0° \mathbb{Z}	

	8211 Feb 18 06:04	0°♊	evening max el	8213 Sep 04 00:23	4°♍02'30	45°45'13
	8211 Mar 14 14:43	0°♋	desc. node	8213 Sep 10 09:49	10°♍03'37	
desc. node	8211 Mar 26 14:48	14°♋54'35		8213 Oct 07 09:29	0°♌	
	8211 Apr 07 17:16	0°♍	greatest brilliancy	8213 Oct 12 19:22	2°♌17'29	-4.7m
	8211 May 01 16:18	0°♎	retrograde	8213 Oct 22 21:10	4°♌06'57	
morning set	8211 May 16 11:11	18°♎33'04		8213 Nov 06 10:57	30°♌	
	8211 May 25 14:09	0°♏	evening set	8213 Nov 10 01:13	27°♌55'55	
	8211 Jun 18 12:57	0°♐	inferior conj	8213 Nov 13 08:24	25°♌52'47	-8°28'22
			minimum elong	8213 Nov 13 12:22	25°♌46'32	8°28'00
superior conj	8211 Jun 25 05:54	8°♐22'56 -0°50'51	min. Earth dist.	8213 Nov 13 17:01	25°♌39'12	0.29061 AU
minimum elong	8211 Jun 25 16:23	8°♐55'41 0°50'34	morning rise	8213 Nov 16 23:27	23°♌37'43	
max. Earth dist.	8211 Jun 28 12:20	12°♐27'43 1.71917 AU	direct	8213 Dec 04 21:53	17°♌34'39	
	8211 Jul 12 14:09	0°♑	greatest brilliancy	8213 Dec 15 15:34	19°♌41'18	-4.8m
asc. node	8211 Jul 17 12:53	6°♑09'08	asc. node	8214 Jan 01 09:27	29°♌24'14	
evening rise	8211 Aug 03 05:36	26°♑51'50		8214 Jan 02 04:28	0°♌	
	8211 Aug 05 18:26	0°♒	morning max el	8214 Jan 23 13:04	18°♌59'11	46°11'41
	8211 Aug 30 02:18	0°♓		8214 Feb 03 07:02	0°♋	
	8211 Sep 23 14:42	0°♍		8214 Mar 02 06:53	0°♊	
	8211 Oct 18 09:32	0°♌		8214 Mar 27 17:16	0°♋	
desc. node	8211 Nov 06 06:41	22°♌33'59		8214 Apr 21 10:26	0°♍	
	8211 Nov 12 13:18	0°♎	desc. node	8214 Apr 23 02:57	2°♍04'11	
	8211 Dec 08 05:38	0°♏		8214 May 15 18:43	0°♎	
	8212 Jan 03 18:57	0°♋		8214 Jun 08 22:52	0°♏	
evening max el	8212 Jan 29 04:06	26°♋45'27 46°37'01		8214 Jul 03 02:07	0°♐	
	8212 Feb 01 11:30	0°♍		8214 Jul 27 06:23	0°♑	
asc. node	8212 Feb 27 06:44	21°♍30'15	morning set	8214 Jul 28 14:48	1°♑40'27	
greatest brilliancy	8212 Mar 09 11:29	27°♍12'36 -4.9m	asc. node	8214 Aug 14 00:57	22°♑00'12	
retrograde	8212 Mar 19 09:00	29°♍03'34		8214 Aug 20 12:08	0°♒	
evening set	8212 Apr 05 06:54	23°♍29'52				
inferior conj	8212 Apr 08 23:33	21°♍15'49 8°30'14	superior conj	8214 Sep 04 11:44	18°♒30'34	0°48'49
minimum elong	8212 Apr 08 15:29	21°♍28'11 8°29'10	minimum elong	8214 Sep 04 02:49	18°♒03'02	0°48'25
min. Earth dist.	8212 Apr 08 17:14	21°♍25'29 0.27038 AU	max. Earth dist.	8214 Sep 06 01:04	20°♒25'48	1.73084 AU
morning rise	8212 Apr 12 00:08	19°♍25'37		8214 Sep 13 19:09	0°♓	
direct	8212 Apr 29 14:40	13°♍28'42		8214 Oct 08 03:20	0°♍	
greatest brilliancy	8212 May 09 03:31	15°♍12'36 -4.9m	evening rise	8214 Oct 11 00:44	3°♍33'32	
	8212 Jun 01 15:07	0°♎		8214 Nov 01 13:16	0°♌	
desc. node	8212 Jun 18 01:05	15°♎09'57		8214 Nov 26 01:47	0°♎	
morning max el	8212 Jun 18 23:46	16°♎06'27 46°47'27	desc. node	8214 Dec 03 18:24	9°♎22'38	
	8212 Jul 02 09:15	0°♏		8214 Dec 20 17:23	0°♏	
	8212 Jul 29 08:44	0°♐		8215 Jan 14 12:24	0°♋	
	8212 Aug 24 04:37	0°♑		8215 Feb 08 12:44	0°♍	
	8212 Sep 18 11:55	0°♒		8215 Mar 06 01:07	0°♎	
asc. node	8212 Oct 08 23:26	24°♒35'03	asc. node	8215 Mar 26 17:55	23°♎22'29	
	8212 Oct 13 11:04	0°♓		8215 Apr 01 20:49	0°♏	
	8212 Nov 07 03:30	0°♍	evening max el	8215 Apr 12 03:39	10°♏42'26	46°59'47
	8212 Dec 01 14:28	0°♌		8215 May 03 05:39	0°♐	
morning set	8212 Dec 15 22:24	17°♌40'49	greatest brilliancy	8215 May 22 11:48	11°♐40'35	-4.9m
	8212 Dec 25 21:27	0°♎	retrograde	8215 Jun 01 15:43	13°♐36'59	
	8213 Jan 19 01:38	0°♏	evening set	8215 Jun 17 18:21	8°♐33'42	
max. Earth dist.	8213 Jan 20 01:22	1°♏13'46 1.72269 AU	inferior conj	8215 Jun 22 12:31	5°♐41'13	5°40'23
			minimum elong	8215 Jun 22 23:04	5°♐24'53	5°37'34
superior conj	8213 Jan 22 19:46	4°♏40'17 0°14'09	min. Earth dist.	8215 Jun 22 12:12	5°♐41'42	0.27382 AU
minimum elong	8213 Jan 22 23:09	4°♏50'47 0°14'08	morning rise	8215 Jun 28 04:05	2°♐19'24	
behind sun begin	8213 Jan 22 11:19	4°♏13'57		8215 Jul 02 23:15	30°♒	
behind sun end	8213 Jan 23 10:59	5°♏27'37	direct	8215 Jul 13 08:03	27°♒51'09	
desc. node	8213 Jan 28 16:22	11°♏57'50	desc. node	8215 Jul 16 12:44	28°♒03'00	
	8213 Feb 12 03:33	0°♋	greatest brilliancy	8215 Jul 23 03:15	29°♒37'29	-4.8m
evening rise	8213 Mar 03 06:27	23°♋53'38		8215 Jul 24 04:03	0°♐	
	8213 Mar 08 03:32	0°♍	morning max el	8215 Aug 31 15:27	28°♐37'32	46°01'54
	8213 Apr 01 02:31	0°♎		8215 Sep 02 01:23	0°♑	
	8213 Apr 25 02:31	0°♏		8215 Sep 30 18:18	0°♒	
	8213 May 19 06:32	0°♐		8215 Oct 27 08:35	0°♓	
asc. node	8213 May 21 15:04	2°♐54'21	asc. node	8215 Nov 06 11:41	11°♓46'17	
	8213 Jun 12 18:15	0°♑		8215 Nov 21 22:32	0°♍	
	8213 Jul 07 18:56	0°♒		8215 Dec 16 21:19	0°♌	
	8213 Aug 02 18:45	0°♓		8216 Jan 10 10:10	0°♋	
	8213 Aug 30 21:37	0°♍		8216 Feb 03 16:36	0°♊	

desc. node	8216 Feb 26 04:29	28°00'51		desc. node	8218 Aug 13 00:24	24°03'57	
morning set	8216 Feb 26 16:41	28°38'55		evening set	8218 Aug 27 04:19	19°05'43	
	8216 Feb 27 18:38	0°		min. Earth dist.	8218 Sep 01 11:29	16°45'31	0.28533 AU
	8216 Mar 22 17:30	0°		inferior conj	8218 Sep 02 04:36	16°18'51	-4°40'38
max. Earth dist.	8216 Apr 06 03:38	18°07'15	1.71246 AU	minimum elong	8218 Sep 01 19:33	16°32'57	4°38'22
				morning rise	8218 Sep 07 11:17	13°07'35	
superior conj	8216 Apr 07 09:28	19°41'01	-1°19'55	direct	8218 Sep 23 11:29	8°12'40	
minimum elong	8216 Apr 07 00:20	19°12'18	1°19'47	greatest brilliancy	8218 Oct 03 06:26	9°56'35	-4.7m
	8216 Apr 15 14:23	0°			8218 Nov 02 13:53	0°	
	8216 May 09 11:05	0°		morning max el	8218 Nov 11 05:15	7°58'04	45°41'46
evening rise	8216 May 17 23:39	10°41'41			8218 Dec 02 18:18	0°	
	8216 Jun 02 09:46	0°		asc. node	8218 Dec 03 23:45	1°19'22	
asc. node	8216 Jun 18 02:55	19°34'53			8218 Dec 29 13:23	0°	
	8216 Jun 26 12:24	0°			8219 Jan 24 00:05	0°	
	8216 Jul 20 20:44	0°			8219 Feb 17 18:01	0°	
	8216 Aug 14 13:00	0°			8219 Mar 14 02:18	0°	
	8216 Sep 08 17:26	0°		desc. node	8219 Mar 25 16:42	14°24'43	
	8216 Oct 04 18:17	0°			8219 Apr 07 04:38	0°	
desc. node	8216 Oct 07 21:07	3°29'48			8219 May 01 03:32	0°	
	8216 Nov 01 10:35	0°		morning set	8219 May 13 22:20	16°02'25	
evening max el	8216 Nov 14 07:45	12°50'25	45°50'38		8219 May 25 01:17	0°	
	8216 Dec 04 01:07	0°			8219 Jun 17 23:59	0°	
greatest brilliancy	8216 Dec 23 18:45	11°18'22	-4.8m				
retrograde	8217 Jan 02 06:27	12°57'48		superior conj	8219 Jun 22 18:35	5°58'14	-0°53'53
evening set	8217 Jan 17 03:15	8°40'57		minimum elong	8219 Jun 23 05:25	6°32'05	0°53'37
inferior conj	8217 Jan 23 05:15	5°05'39	-1°25'40	max. Earth dist.	8219 Jun 26 02:00	10°06'15	1.71873 AU
minimum elong	8217 Jan 23 08:29	5°00'40	1°24'30		8219 Jul 12 01:07	0°	
min. Earth dist.	8217 Jan 23 20:32	4°42'04	0.27585 AU	asc. node	8219 Jul 16 14:49	5°41'04	
asc. node	8217 Jan 28 21:10	1°42'15		evening rise	8219 Jul 31 20:50	24°36'26	
morning rise	8217 Jan 29 12:53	1°20'36			8219 Aug 05 05:25	0°	
	8217 Feb 01 04:16	30°			8219 Aug 29 13:24	0°	
direct	8217 Feb 13 04:36	27°04'29			8219 Sep 23 02:05	0°	
greatest brilliancy	8217 Feb 24 02:58	29°17'56	-4.9m		8219 Oct 17 21:22	0°	
	8217 Feb 25 19:43	0°		desc. node	8219 Nov 05 08:45	22°03'23	
morning max el	8217 Apr 04 15:52	29°52'06	46°54'01		8219 Nov 12 01:56	0°	
	8217 Apr 04 19:00	0°			8219 Dec 07 19:42	0°	
	8217 May 02 13:20	0°			8220 Jan 03 11:54	0°	
desc. node	8217 May 20 15:18	20°54'26		evening max el	8220 Jan 26 18:51	24°25'34	46°35'20
	8217 May 28 08:12	0°			8220 Feb 01 12:46	0°	
	8217 Jun 22 08:27	0°		asc. node	8220 Feb 26 08:34	20°01'56	
	8217 Jul 17 00:58	0°		greatest brilliancy	8220 Mar 06 23:47	24°45'29	-4.9m
	8217 Aug 10 14:37	0°		retrograde	8220 Mar 16 21:55	26°36'24	
	8217 Sep 04 02:59	0°		evening set	8220 Apr 02 15:07	21°09'46	
asc. node	8217 Sep 10 13:08	7°52'22		min. Earth dist.	8220 Apr 06 05:38	18°59'04	0.27031 AU
	8217 Sep 28 13:54	0°		inferior conj	8220 Apr 06 12:13	18°48'56	8°20'23
morning set	8217 Oct 06 02:11	9°14'01		minimum elong	8220 Apr 06 03:32	19°02'18	8°19'10
	8217 Oct 22 23:04	0°		morning rise	8220 Apr 09 16:01	16°53'51	
max. Earth dist.	8217 Nov 10 16:31	23°05'25	1.73233 AU	direct	8220 Apr 27 03:54	11°02'03	
				greatest brilliancy	8220 May 06 16:11	12°45'28	-4.9m
superior conj	8217 Nov 11 15:30	24°16'20	1°24'38		8220 Jun 02 00:20	0°	
minimum elong	8217 Nov 11 18:45	24°26'22	1°24'44	morning max el	8220 Jun 16 13:10	13°42'11	46°48'36
	8217 Nov 16 06:53	0°		desc. node	8220 Jun 17 03:08	14°17'08	
	8217 Dec 10 14:05	0°			8220 Jul 02 04:06	0°	
evening rise	8217 Dec 18 19:38	10°09'57			8220 Jul 28 23:40	0°	
desc. node	8217 Dec 31 06:22	25°32'17			8220 Aug 23 17:44	0°	
	8218 Jan 03 21:03	0°			8220 Sep 18 00:01	0°	
	8218 Jan 28 03:37	0°		asc. node	8220 Oct 08 01:23	24°05'58	
	8218 Feb 21 09:52	0°			8220 Oct 12 22:33	0°	
	8218 Mar 17 17:25	0°			8220 Nov 06 14:38	0°	
	8218 Apr 11 06:11	0°			8220 Dec 01 01:24	0°	
asc. node	8218 Apr 23 05:24	14°26'22		morning set	8220 Dec 13 15:04	15°30'26	
	8218 May 06 07:26	0°			8220 Dec 25 08:18	0°	
	8218 Jun 01 11:16	0°		max. Earth dist.	8221 Jan 17 14:11	28°50'43	1.72308 AU
evening max el	8218 Jun 22 20:31	22°37'38	46°26'25		8221 Jan 18 12:29	0°	
	8218 Jun 30 11:40	0°					
greatest brilliancy	8218 Jul 31 15:46	22°15'20	-4.8m	superior conj	8221 Jan 20 10:11	2°22'03	0°17'42
retrograde	8218 Aug 11 19:25	24°32'42		minimum elong	8221 Jan 20 14:20	2°34'59	0°17'37

desc. node	8221 Jan 27 18:18	11° \approx 29'58		desc. node	8223 Jul 15 14:42	25° Π 56'09	
	8221 Feb 11 14:29	0° H		greatest brilliancy	8223 Jul 20 17:20	27° Π 17'31	-4.8m
evening rise	8221 Feb 28 19:16	21° H 29'07			8223 Jul 26 22:14	0° G	
	8221 Mar 07 14:35	0° Y		morning max el	8223 Aug 29 05:27	26° G 19'45	46°03'23
	8221 Mar 31 13:44	0° B			8223 Sep 01 23:19	0° Ω	
	8221 Apr 24 13:57	0° Π			8223 Sep 30 09:54	0° M	
	8221 May 18 18:16	0° G			8223 Oct 26 21:45	0° A	
asc. node	8221 May 20 17:07	2° G 24'23		asc. node	8223 Nov 05 13:45	11° A 15'25	
	8221 Jun 12 06:32	0° Ω			8223 Nov 21 10:30	0° M	
	8221 Jul 07 08:11	0° M			8223 Dec 16 08:39	0° X	
	8221 Aug 02 10:04	0° A			8224 Jan 09 21:11	0° Z	
	8221 Aug 30 18:40	0° M			8224 Feb 03 03:28	0° \approx	
evening max el	8221 Sep 01 15:23	1° M 49'03	45°45'56	morning set	8224 Feb 24 04:48	26° \approx 13'06	
desc. node	8221 Sep 09 11:45	9° M 10'02		desc. node	8224 Feb 25 06:23	27° \approx 32'57	
	8221 Oct 10 02:33	0° X			8224 Feb 27 05:27	0° H	
greatest brilliancy	8221 Oct 10 10:49	0° X 07'19	-4.7m		8224 Mar 22 04:17	0° Y	
retrograde	8221 Oct 20 12:27	1° X 56'57		max. Earth dist.	8224 Apr 03 10:41	15° Y 24'39	1.71259 AU
	8221 Oct 30 11:17	30° R M					
evening set	8221 Nov 07 18:06	25° M 44'39		superior conj	8224 Apr 04 20:38	17° Y 11'24	-1°18'12
inferior conj	8221 Nov 11 00:34	23° M 42'28	-8°31'45	minimum elong	8224 Apr 04 10:51	16° Y 40'37	1°18'02
minimum elong	8221 Nov 11 03:48	23° M 37'23	8°31'28		8224 Apr 15 01:09	0° B	
min. Earth dist.	8221 Nov 11 08:22	23° M 30'11	0.29084 AU		8224 May 08 21:51	0° Π	
morning rise	8221 Nov 14 13:26	21° M 30'28		evening rise	8224 May 15 10:44	8° Π 12'12	
direct	8221 Dec 02 13:54	15° M 24'17			8224 Jun 01 20:35	0° G	
greatest brilliancy	8221 Dec 13 07:03	17° M 29'46	-4.8m	asc. node	8224 Jun 17 04:52	19° G 07'09	
asc. node	8221 Dec 31 11:26	28° M 16'47			8224 Jun 25 23:21	0° Ω	
	8222 Jan 02 16:09	0° X			8224 Jul 20 07:55	0° M	
morning max el	8222 Jan 21 03:24	16° X 41'56	46°10'12		8224 Aug 14 00:39	0° A	
	8222 Feb 03 01:23	0° Z			8224 Sep 08 05:58	0° M	
	8222 Mar 01 21:25	0° \approx			8224 Oct 04 08:38	0° X	
	8222 Mar 27 06:13	0° H		desc. node	8224 Oct 06 23:12	2° X 54'45	
	8222 Apr 20 22:34	0° Y			8224 Nov 01 05:23	0° Z	
desc. node	8222 Apr 22 05:03	1° Y 33'30		evening max el	8224 Nov 11 22:17	10° Z 36'09	45°49'42
	8222 May 15 06:21	0° B			8224 Dec 04 17:17	0° \approx	
	8222 Jun 08 10:10	0° Π		greatest brilliancy	8224 Dec 21 08:09	9° \approx 00'30	-4.8m
	8222 Jul 02 13:11	0° G		retrograde	8224 Dec 30 20:39	10° \approx 40'27	
morning set	8222 Jul 26 05:58	29° G 25'02		evening set	8225 Jan 14 18:57	6° \approx 20'41	
	8222 Jul 26 17:15	0° Ω		inferior conj	8225 Jan 20 19:26	2° \approx 47'21	-1°47'43
asc. node	8222 Aug 13 02:50	21° Ω 32'41		minimum elong	8225 Jan 20 23:28	2° \approx 41'08	1°46'19
	8222 Aug 19 22:53	0° M		min. Earth dist.	8225 Jan 21 11:19	2° \approx 22'51	0.27640 AU
					8225 Jan 25 10:08	30° R Z	
superior conj	8222 Sep 02 04:21	16° M 20'44	0°46'01	morning rise	8225 Jan 27 03:12	29° Z 02'21	
minimum elong	8222 Sep 01 19:43	15° M 54'04	0°45'36	asc. node	8225 Jan 27 23:02	28° Z 35'54	
max. Earth dist.	8222 Sep 03 18:38	18° M 18'54	1.73054 AU	direct	8225 Feb 10 19:42	24° Z 45'16	
	8222 Sep 13 05:50	0° A		greatest brilliancy	8225 Feb 21 18:36	26° Z 59'48	-4.9m
	8222 Oct 07 14:02	0° M			8225 Feb 28 01:39	0° \approx	
evening rise	8222 Oct 08 18:15	1° M 26'50		morning max el	8225 Apr 02 07:36	27° \approx 35'09	46°53'09
	8222 Nov 01 00:07	0° X			8225 Apr 04 16:38	0° H	
	8222 Nov 25 12:56	0° Z			8225 May 02 05:05	0° Y	
desc. node	8222 Dec 02 20:28	8° Z 54'39		desc. node	8225 May 19 17:15	20° Y 18'52	
	8222 Dec 20 05:00	0° \approx			8225 May 27 21:41	0° B	
	8223 Jan 14 00:41	0° H			8225 Jun 21 20:45	0° Π	
	8223 Feb 08 02:02	0° Y			8225 Jul 16 12:32	0° G	
	8223 Mar 05 16:15	0° B			8225 Aug 10 01:43	0° Ω	
asc. node	8223 Mar 25 19:58	22° B 38'57			8225 Sep 03 13:44	0° M	
	8223 Apr 01 16:15	0° Π		asc. node	8225 Sep 09 15:06	7° M 25'37	
evening max el	8223 Apr 09 16:21	8° Π 16'57	47°00'02		8225 Sep 28 00:25	0° A	
	8223 May 03 21:24	0° G		morning set	8225 Oct 03 19:29	7° A 07'18	
greatest brilliancy	8223 May 20 03:21	9° G 20'30	-4.9m		8225 Oct 22 09:30	0° M	
retrograde	8223 May 30 05:18	11° G 15'39		max. Earth dist.	8225 Nov 08 13:47	21° M 10'44	1.73248 AU
evening set	8223 Jun 15 11:25	6° G 07'52					
inferior conj	8223 Jun 20 02:19	3° G 20'23	5°58'24	superior conj	8225 Nov 09 09:03	22° M 10'12	1°25'08
minimum elong	8223 Jun 20 13:04	3° G 03'45	5°55'38	minimum elong	8225 Nov 09 11:38	22° M 18'07	1°25'15
min. Earth dist.	8223 Jun 20 02:49	3° G 19'37	0.27364 AU		8225 Nov 15 17:19	0° X	
morning rise	8223 Jun 25 14:55	0° G 02'33			8225 Dec 10 00:37	0° Z	
	8223 Jun 25 16:46	30° R Π		evening rise	8225 Dec 16 11:35	7° Z 58'24	
direct	8223 Jul 10 20:52	25° Π 30'19		desc. node	8225 Dec 30 08:14	25° Z 05'06	

	8226 Jan 03 07:45	0°♊			8228 Sep 17 11:43	0°♎		
	8226 Jan 27 14:34	0°♋		asc. node	8228 Oct 07 03:28	23°♎38'28		
	8226 Feb 20 21:11	0°♌			8228 Oct 12 09:38	0°♏		
	8226 Mar 17 05:13	0°♍			8228 Nov 06 01:22	0°♐		
	8226 Apr 10 18:45	0°♎			8228 Nov 30 11:57	0°♑		
asc. node	8226 Apr 22 07:28	13°♎53'31		morning set	8228 Dec 11 07:51	13°♑21'34		
	8226 May 05 21:16	0°♏			8228 Dec 24 18:48	0°♒		
	8226 Jun 01 03:50	0°♐		max. Earth dist.	8229 Jan 15 03:20	26°♒29'40	1.72355 AU	
evening max el	8226 Jun 20 12:57	20°♐25'29	46°28'14		8229 Jan 17 23:02	0°♓		
	8226 Jun 30 13:18	0°♑						
greatest brilliancy	8226 Jul 29 07:21	20°♑03'02	-4.8m	superior conj	8229 Jan 18 00:40	0°♓05'03	0°21'11	
retrograde	8226 Aug 09 11:59	22°♑21'00		minimum elong	8229 Jan 18 05:34	0°♓20'17	0°21'05	
desc. node	8226 Aug 12 02:16	22°♑12'52		desc. node	8229 Jan 26 20:16	11°♓03'05		
evening set	8226 Aug 24 18:22	17°♑46'51			8229 Feb 11 01:08	0°♋		
min. Earth dist.	8226 Aug 30 02:48	14°♑34'48	0.28485 AU	evening rise	8229 Feb 26 07:57	19°♋05'09		
inferior conj	8226 Aug 30 20:16	14°♑07'35	-4°23'10		8229 Mar 07 01:23	0°♌		
minimum elong	8226 Aug 30 11:35	14°♑21'07	4°20'56		8229 Mar 31 00:41	0°♍		
morning rise	8226 Sep 05 05:26	10°♑53'08			8229 Apr 24 01:07	0°♎		
direct	8226 Sep 21 03:19	6°♑02'14			8229 May 18 05:47	0°♏		
greatest brilliancy	8226 Sep 30 20:48	7°♑45'20	-4.7m	asc. node	8229 May 19 19:03	1°♏54'47		
	8226 Nov 02 15:32	0°♑			8229 Jun 11 18:37	0°♐		
morning max el	8226 Nov 08 21:14	5°♑48'59	45°41'30		8229 Jul 06 21:19	0°♑		
	8226 Dec 02 10:27	0°♒			8229 Aug 02 01:22	0°♒		
asc. node	8226 Dec 03 01:40	0°♒41'14		evening max el	8229 Aug 30 05:47	29°♒34'52	45°46'48	
	8226 Dec 29 02:44	0°♓			8229 Aug 30 16:10	0°♓		
	8227 Jan 23 12:12	0°♔		desc. node	8229 Sep 08 13:53	8°♓16'37		
	8227 Feb 17 05:30	0°♕		greatest brilliancy	8229 Oct 08 02:12	27°♓58'06	-4.7m	
	8227 Mar 13 13:25	0°♋		retrograde	8229 Oct 18 04:02	29°♓48'27		
desc. node	8227 Mar 24 18:44	13°♋56'43		evening set	8229 Nov 05 10:44	23°♓35'11		
	8227 Apr 06 15:34	0°♌		inferior conj	8229 Nov 08 16:54	21°♓33'35	-8°34'23	
	8227 Apr 30 14:20	0°♍		minimum elong	8229 Nov 08 19:21	21°♓29'43	8°34'10	
morning set	8227 May 11 09:24	13°♍32'46		min. Earth dist.	8229 Nov 08 23:53	21°♓22'34	0.29104 AU	
	8227 May 24 12:00	0°♎		morning rise	8229 Nov 12 03:52	19°♓24'22		
	8227 Jun 17 10:37	0°♏		direct	8229 Nov 30 05:44	13°♓15'14		
				greatest brilliancy	8229 Dec 10 23:07	15°♓20'20	-4.8m	
superior conj	8227 Jun 20 07:17	3°♏34'42	-0°56'49	asc. node	8229 Dec 30 13:22	27°♓12'02		
minimum elong	8227 Jun 20 18:24	4°♏09'24	0°56'34		8230 Jan 03 00:13	0°♑		
max. Earth dist.	8227 Jun 23 16:18	7°♏47'50	1.71827 AU	morning max el	8230 Jan 18 17:53	14°♑26'02	46°08'37	
	8227 Jul 11 11:41	0°♐			8230 Feb 02 18:59	0°♒		
asc. node	8227 Jul 15 16:44	5°♐14'09			8230 Mar 01 11:35	0°♓		
evening rise	8227 Jul 29 12:06	22°♐22'21			8230 Mar 26 18:57	0°♋		
	8227 Aug 04 15:59	0°♑			8230 Apr 20 10:33	0°♌		
	8227 Aug 29 00:04	0°♒		desc. node	8230 Apr 21 07:03	1°♌02'57		
	8227 Sep 22 13:00	0°♓			8230 May 14 17:50	0°♍		
	8227 Oct 17 08:47	0°♔			8230 Jun 07 21:19	0°♎		
desc. node	8227 Nov 04 10:45	21°♔33'50			8230 Jul 02 00:05	0°♏		
	8227 Nov 11 14:12	0°♕		morning set	8230 Jul 23 20:52	27°♕09'08		
	8227 Dec 07 09:29	0°♋			8230 Jul 26 03:59	0°♐		
	8228 Jan 03 04:48	0°♌		asc. node	8230 Aug 12 04:50	21°♐05'54		
evening max el	8228 Jan 24 09:05	22°♌05'38	46°33'38		8230 Aug 19 09:31	0°♑		
	8228 Feb 01 14:56	0°♌						
asc. node	8228 Feb 25 10:38	18°♌32'05		superior conj	8230 Aug 30 20:52	14°♑10'49	0°43'09	
greatest brilliancy	8228 Mar 04 12:49	22°♌20'37	-4.9m	minimum elong	8230 Aug 30 12:33	13°♑45'09	0°42'43	
retrograde	8228 Mar 14 10:25	24°♌10'48		max. Earth dist.	8230 Sep 01 11:00	16°♑08'36	1.73026 AU	
evening set	8228 Mar 30 23:28	18°♌51'20			8230 Sep 12 16:25	0°♒		
inferior conj	8228 Apr 04 01:03	16°♌23'46	8°09'41	evening rise	8230 Oct 06 11:52	29°♒20'42		
minimum elong	8228 Apr 03 15:46	16°♌38'04	8°08'15		8230 Oct 07 00:38	0°♓		
min. Earth dist.	8228 Apr 03 18:33	16°♌33'47	0.27024 AU		8230 Oct 31 10:51	0°♔		
morning rise	8228 Apr 07 08:08	14°♌23'35			8230 Nov 24 23:58	0°♕		
direct	8228 Apr 24 16:49	8°♌36'59		desc. node	8230 Dec 01 22:22	8°♕26'32		
greatest brilliancy	8228 May 04 05:37	10°♌20'31	-4.9m		8230 Dec 19 16:30	0°♋		
	8228 Jun 02 06:29	0°♍			8231 Jan 13 12:54	0°♌		
morning max el	8228 Jun 14 01:39	11°♍16'36	46°49'39		8231 Feb 07 15:23	0°♍		
desc. node	8228 Jun 16 05:04	13°♍26'08			8231 Mar 05 07:36	0°♎		
	8228 Jul 01 22:04	0°♎		asc. node	8231 Mar 24 22:00	21°♎54'31		
	8228 Jul 28 14:04	0°♏			8231 Apr 01 12:24	0°♐		
	8228 Aug 23 06:25	0°♐		evening max el	8231 Apr 07 05:10	5°♐51'29	47°00'10	

	8231 May 04 19:05	0°☿		morning set	8233 Oct 01 12:26	4°♄58'39	
greatest brilliancy	8231 May 17 18:04	6°♄58'25 -4.9m			8233 Oct 21 20:15	0°♄	
retrograde	8231 May 27 19:00	8°♄53'08		max. Earth dist.	8233 Nov 06 10:10	19°♄12'27	1.73260 AU
evening set	8231 Jun 13 04:15	3°♄40'25					
inferior conj	8231 Jun 17 15:47	0°♄58'09 6°15'58		superior conj	8233 Nov 07 02:25	20°♄02'33	1°25'32
minimum elong	8231 Jun 18 02:40	0°♄41'21 6°13'16		minimum elong	8233 Nov 07 04:17	20°♄08'19	1°25'39
min. Earth dist.	8231 Jun 17 16:48	0°♄56'34 0.27348 AU			8233 Nov 15 04:05	0°♄	
	8231 Jun 19 05:34	30°♄			8233 Dec 09 11:29	0°♄	
morning rise	8231 Jun 23 01:14	27°♄44'54		evening rise	8233 Dec 14 03:28	5°♄45'37	
direct	8231 Jul 08 09:37	23°♄08'00		desc. node	8233 Dec 29 10:12	24°♄37'17	
desc. node	8231 Jul 14 16:40	23°♄53'08			8234 Jan 02 18:47	0°♄	
greatest brilliancy	8231 Jul 18 06:49	24°♄56'03 -4.8m			8234 Jan 27 01:50	0°♄	
	8231 Jul 28 15:23	0°♄			8234 Feb 20 08:47	0°♄	
morning max el	8231 Aug 26 20:01	24°♄02'57 46°04'55			8234 Mar 16 17:18	0°♄	
	8231 Sep 01 20:34	0°♄			8234 Apr 10 07:36	0°♄	
	8231 Sep 30 01:19	0°♄		asc. node	8234 Apr 21 09:22	13°♄19'16	
	8231 Oct 26 10:53	0°♄			8234 May 05 11:30	0°♄	
asc. node	8231 Nov 04 15:35	10°♄43'48			8234 May 31 21:08	0°♄	
	8231 Nov 20 22:29	0°♄		evening max el	8234 Jun 18 05:14	18°♄11'30	46°29'43
	8231 Dec 15 20:00	0°♄			8234 Jun 30 17:09	0°♄	
	8232 Jan 09 08:13	0°♄		greatest brilliancy	8234 Jul 26 23:20	17°♄49'10	-4.8m
	8232 Feb 02 14:21	0°♄		retrograde	8234 Aug 07 03:56	20°♄06'45	
morning set	8232 Feb 21 17:18	23°♄48'29		desc. node	8234 Aug 11 04:24	19°♄47'12	
desc. node	8232 Feb 24 08:27	27°♄05'34		evening set	8234 Aug 22 08:19	15°♄35'31	
	8232 Feb 26 16:18	0°♄		inferior conj	8234 Aug 28 11:39	11°♄54'00	-4°05'00
	8232 Mar 21 15:08	0°♄		minimum elong	8234 Aug 28 03:24	12°♄06'52	4°02'50
max. Earth dist.	8232 Mar 31 20:01	12°♄49'01 1.71280 AU		min. Earth dist.	8234 Aug 27 18:08	12°♄21'19	0.28435 AU
				morning rise	8234 Sep 02 23:11	8°♄36'15	
superior conj	8232 Apr 02 07:42	14°♄41'09 -1°16'20		direct	8234 Sep 18 18:52	3°♄49'38	
minimum elong	8232 Apr 01 21:21	14°♄08'36 1°16'07		greatest brilliancy	8234 Sep 28 10:58	5°♄31'44	-4.7m
	8232 Apr 14 12:01	0°♄			8234 Nov 02 16:30	0°♄	
	8232 May 08 08:47	0°♄		morning max el	8234 Nov 06 12:02	3°♄35'36	45°41'18
evening rise	8232 May 12 21:28	5°♄41'00		asc. node	8234 Dec 02 03:40	0°♄02'23	
	8232 Jun 01 07:36	0°♄			8234 Dec 02 02:47	0°♄	
asc. node	8232 Jun 16 06:45	18°♄38'35			8234 Dec 28 16:23	0°♄	
	8232 Jun 25 10:30	0°♄			8235 Jan 23 00:39	0°♄	
	8232 Jul 19 19:19	0°♄			8235 Feb 16 17:19	0°♄	
	8232 Aug 13 12:33	0°♄			8235 Mar 13 00:52	0°♄	
	8232 Sep 07 18:49	0°♄		desc. node	8235 Mar 23 20:42	13°♄27'29	
	8232 Oct 03 23:26	0°♄			8235 Apr 06 02:47	0°♄	
desc. node	8232 Oct 06 01:09	2°♄18'23			8235 Apr 30 01:25	0°♄	
	8232 Nov 01 01:01	0°♄		morning set	8235 May 08 20:47	11°♄03'18	
evening max el	8232 Nov 09 13:36	8°♄23'17 45°48'51			8235 May 23 22:59	0°♄	
	8232 Dec 05 15:28	0°♄			8235 Jun 16 21:32	0°♄	
greatest brilliancy	8232 Dec 18 21:35	6°♄42'35 -4.8m					
retrograde	8232 Dec 28 11:02	8°♄22'53		superior conj	8235 Jun 17 20:11	1°♄10'48	-0°59'39
evening set	8233 Jan 12 10:58	4°♄00'22		minimum elong	8235 Jun 18 07:27	1°♄46'02	0°59'23
inferior conj	8233 Jan 18 09:41	0°♄29'00 -2°09'27		max. Earth dist.	8235 Jun 21 06:53	5°♄29'18	1.71785 AU
minimum elong	8233 Jan 18 14:30	0°♄21'35 2°07'51			8235 Jul 10 22:35	0°♄	
min. Earth dist.	8233 Jan 19 01:54	0°♄03'59 0.27689 AU		asc. node	8235 Jul 14 18:47	4°♄46'38	
	8233 Jan 19 04:29	30°♄		evening rise	8235 Jul 27 03:09	20°♄06'23	
morning rise	8233 Jan 24 17:21	26°♄44'15			8235 Aug 04 02:56	0°♄	
asc. node	8233 Jan 27 01:04	25°♄32'51			8235 Aug 28 11:10	0°♄	
direct	8233 Feb 08 11:08	22°♄26'20			8235 Sep 22 00:22	0°♄	
greatest brilliancy	8233 Feb 19 09:37	24°♄40'57 -4.9m			8235 Oct 16 20:40	0°♄	
	8233 Mar 01 12:44	0°♄		desc. node	8235 Nov 03 12:38	21°♄02'34	
morning max el	8233 Mar 30 23:04	25°♄17'25 46°52'05			8235 Nov 11 02:58	0°♄	
	8233 Apr 04 13:35	0°♄			8235 Dec 06 23:53	0°♄	
	8233 May 01 20:44	0°♄			8236 Jan 02 22:35	0°♄	
desc. node	8233 May 18 19:09	19°♄42'48		evening max el	8236 Jan 21 22:18	19°♄41'52	46°31'56
	8233 May 27 11:17	0°♄			8236 Feb 01 19:20	0°♄	
	8233 Jun 21 09:17	0°♄		asc. node	8236 Feb 24 12:42	16°♄57'30	
	8233 Jul 16 00:25	0°♄		greatest brilliancy	8236 Mar 02 02:13	19°♄54'50	-4.9m
	8233 Aug 09 13:07	0°♄		retrograde	8236 Mar 11 22:34	21°♄44'05	
	8233 Sep 03 00:47	0°♄		evening set	8236 Mar 28 07:49	16°♄31'34	
asc. node	8233 Sep 08 17:09	6°♄58'07		inferior conj	8236 Apr 01 13:52	13°♄57'35	7°58'05
	8233 Sep 27 11:15	0°♄		minimum elong	8236 Apr 01 04:04	14°♄12'41	7°56'27

min. Earth dist.	8236 Apr 01 07:47	14°♈06'58	0.27014 AU		8238 Oct 30 21:49	0°♊	
morning rise	8236 Apr 05 00:20	11°♈52'12			8238 Nov 24 11:16	0°♊	
direct	8236 Apr 22 05:10	6°♈10'43		desc. node	8238 Dec 01 00:21	7°♊57'53	
greatest brilliancy	8236 May 01 19:30	7°♈55'08	-4.9m		8238 Dec 19 04:18	0°♊	
	8236 Jun 02 10:58	0°♋			8239 Jan 13 01:26	0°♋	
morning max el	8236 Jun 11 13:33	8°♋48'43	46°50'52		8239 Feb 07 05:04	0°♋	
desc. node	8236 Jun 15 07:03	12°♋35'29			8239 Mar 04 23:26	0°♋	
	8236 Jul 01 15:50	0°♌		asc. node	8239 Mar 23 23:53	21°♋08'20	
	8236 Jul 28 04:32	0°♌			8239 Apr 01 09:30	0°♌	
	8236 Aug 22 19:18	0°♍		evening max el	8239 Apr 04 18:45	3°♌27'20	47°00'16
	8236 Sep 16 23:43	0°♍			8239 May 06 01:29	0°♌	
asc. node	8236 Oct 06 05:18	23°♍09'05		greatest brilliancy	8239 May 15 08:10	4°♌34'57	-4.9m
	8236 Oct 11 21:06	0°♎		retrograde	8239 May 25 09:08	6°♌29'52	
	8236 Nov 05 12:29	0°♎		evening set	8239 Jun 10 21:09	1°♌12'02	
	8236 Nov 29 22:54	0°♏			8239 Jun 12 21:43	30°♌♌	
morning set	8236 Dec 09 00:22	11°♏10'39		inferior conj	8239 Jun 15 05:11	28°♌35'04	6°33'00
	8236 Dec 24 05:41	0°♐		minimum elong	8239 Jun 15 16:09	28°♌18'10	6°30'22
max. Earth dist.	8237 Jan 12 18:44	24°♐14'28	1.72401 AU	min. Earth dist.	8239 Jun 15 06:23	28°♌33'13	0.27329 AU
				morning rise	8239 Jun 20 11:18	25°♌26'51	
superior conj	8237 Jan 15 14:58	27°♐46'26	0°24'38	direct	8239 Jul 05 22:56	20°♌45'00	
minimum elong	8237 Jan 15 20:35	28°♐03'53	0°24'31	desc. node	8239 Jul 13 18:42	21°♌54'25	
	8237 Jan 17 09:57	0°♑		greatest brilliancy	8239 Jul 15 19:42	22°♌33'22	-4.8m
desc. node	8237 Jan 25 22:17	10°♑35'14			8239 Jul 29 20:07	0°♑	
	8237 Feb 10 12:10	0°♒		morning max el	8239 Aug 24 11:09	21°♑47'21	46°06'36
evening rise	8237 Feb 23 20:39	16°♒40'10			8239 Sep 01 17:07	0°♒	
	8237 Mar 06 12:34	0°♓			8239 Sep 29 16:30	0°♒	
	8237 Mar 30 12:01	0°♓			8239 Oct 25 23:55	0°♓	
	8237 Apr 23 12:38	0°♈		asc. node	8239 Nov 03 17:35	10°♓12'42	
	8237 May 17 17:36	0°♈			8239 Nov 20 10:26	0°♈	
asc. node	8237 May 18 20:59	1°♈24'19			8239 Dec 15 07:25	0°♉	
	8237 Jun 11 06:59	0°♉			8240 Jan 08 19:22	0°♉	
	8237 Jul 06 10:45	0°♊			8240 Feb 02 01:22	0°♊	
	8237 Aug 01 17:06	0°♊		morning set	8240 Feb 19 05:49	21°♊23'34	
evening max el	8237 Aug 27 20:06	27°♊19'42	45°47'36	desc. node	8240 Feb 23 10:22	26°♊37'20	
	8237 Aug 30 14:53	0°♋			8240 Feb 26 03:16	0°♋	
desc. node	8237 Sep 07 15:48	7°♋20'41			8240 Mar 21 02:04	0°♋	
greatest brilliancy	8237 Oct 05 16:56	25°♋47'05	-4.7m	max. Earth dist.	8240 Mar 29 05:42	10°♋14'12	1.71299 AU
retrograde	8237 Oct 15 19:54	27°♋38'58					
evening set	8237 Nov 03 03:00	21°♋24'54		superior conj	8240 Mar 30 18:36	12°♋10'07	-1°14'18
inferior conj	8237 Nov 06 09:11	19°♋23'29	-8°36'14	minimum elong	8240 Mar 30 07:45	11°♋36'03	1°14'02
minimum elong	8237 Nov 06 10:51	19°♋20'50	8°36'04		8240 Apr 13 22:59	0°♌	
min. Earth dist.	8237 Nov 06 15:11	19°♋14'01	0.29127 AU		8240 May 07 19:48	0°♌	
morning rise	8237 Nov 09 18:37	17°♋16'43		evening rise	8240 May 10 08:06	3°♌09'16	
direct	8237 Nov 27 21:39	11°♋04'51			8240 May 31 18:42	0°♌	
greatest brilliancy	8237 Dec 08 15:20	13°♋10'02	-4.8m	asc. node	8240 Jun 15 08:50	18°♌10'24	
asc. node	8237 Dec 29 15:24	26°♋07'57			8240 Jun 24 21:44	0°♍	
	8238 Jan 03 06:26	0°♎			8240 Jul 19 06:47	0°♎	
morning max el	8238 Jan 16 09:02	12°♎10'48	46°07'07		8240 Aug 13 00:29	0°♎	
	8238 Feb 02 12:35	0°♏			8240 Sep 07 07:42	0°♎	
	8238 Mar 01 01:57	0°♏			8240 Oct 03 14:18	0°♏	
	8238 Mar 26 07:55	0°♐		desc. node	8240 Oct 05 03:05	1°♏42'00	
	8238 Apr 19 22:45	0°♐			8240 Oct 31 21:06	0°♏	
desc. node	8238 Apr 20 08:51	0°♐31'04		evening max el	8240 Nov 07 05:07	6°♏11'20	45°47'52
	8238 May 14 05:34	0°♑			8240 Dec 06 21:55	0°♑	
	8238 Jun 07 08:41	0°♑		greatest brilliancy	8240 Dec 16 11:27	4°♑25'45	-4.8m
	8238 Jul 01 11:12	0°♒		retrograde	8240 Dec 26 01:10	6°♑05'40	
morning set	8238 Jul 21 12:05	24°♒53'30		evening set	8241 Jan 10 03:14	1°♑40'29	
	8238 Jul 25 14:54	0°♓			8241 Jan 13 00:57	30°♒♒	
asc. node	8238 Aug 11 06:50	20°♓38'40		inferior conj	8241 Jan 16 00:04	28°♓11'07	-2°30'54
	8238 Aug 18 20:17	0°♔		minimum elong	8241 Jan 16 05:36	28°♓02'34	2°29'05
				min. Earth dist.	8241 Jan 16 16:41	27°♓45'26	0.27746 AU
superior conj	8238 Aug 28 13:40	12°♔01'20	0°40'13	morning rise	8241 Jan 22 07:22	24°♓26'39	
minimum elong	8238 Aug 28 05:43	11°♔36'47	0°39'49	asc. node	8241 Jan 26 03:05	22°♓34'07	
max. Earth dist.	8238 Aug 30 04:56	14°♔02'38	1.72998 AU	direct	8241 Feb 06 02:38	20°♓07'53	
	8238 Sep 12 03:08	0°♕		greatest brilliancy	8241 Feb 17 00:44	22°♓22'11	-4.8m
evening rise	8238 Oct 04 05:48	27°♕15'06			8241 Mar 02 13:37	0°♕	
	8238 Oct 06 11:25	0°♖		morning max el	8241 Mar 28 13:48	22°♕57'39	46°50'55

	8241 Apr 04 09:55	0° H			8243 Dec 06 14:01	0° \approx	
	8241 May 01 12:12	0° Y			8244 Jan 02 16:15	0° H	
desc. node	8241 May 17 21:13	19° Y 07'22		evening max el	8244 Jan 19 10:43	17° H 17'45	46°30'12
	8241 May 27 00:46	0° B			8244 Feb 02 01:02	0° Y	
	8241 Jun 20 21:43	0° II		asc. node	8244 Feb 23 14:31	15° Y 20'27	
	8241 Jul 15 12:11	0° G		greatest brilliancy	8244 Feb 28 15:24	17° Y 30'11	-4.9m
	8241 Aug 09 00:24	0° Q		retrograde	8244 Mar 09 10:49	19° Y 19'01	
	8241 Sep 02 11:43	0° M		evening set	8244 Mar 25 16:13	14° Y 12'50	
asc. node	8241 Sep 07 18:59	6° M 30'23		inferior conj	8244 Mar 30 02:45	11° Y 32'40	7°45'23
	8241 Sep 26 21:57	0° A		minimum elong	8244 Mar 29 16:32	11° Y 48'24	7°43'34
morning set	8241 Sep 29 05:41	2° A 51'19		min. Earth dist.	8244 Mar 29 21:08	11° Y 41'19	0.27016 AU
	8241 Oct 21 06:49	0° L		morning rise	8244 Apr 02 16:48	9° Y 21'59	
max. Earth dist.	8241 Nov 04 05:47	17° L 12'24	1.73267 AU	direct	8244 Apr 19 17:31	3° Y 45'19	
				greatest brilliancy	8244 Apr 29 09:51	5° Y 31'13	-4.9m
superior conj	8241 Nov 04 20:14	17° L 56'57	1°25'48		8244 Jun 02 13:31	0° B	
minimum elong	8241 Nov 04 21:23	18° L 00'30	1°25'54	morning max el	8244 Jun 09 02:08	6° B 22'58	46°51'56
	8241 Nov 14 14:39	0° J		desc. node	8244 Jun 14 09:05	11° B 46'12	
	8241 Dec 08 22:09	0° Z			8244 Jul 01 09:03	0° II	
evening rise	8241 Dec 11 19:47	3° Z 34'49			8244 Jul 27 18:38	0° G	
desc. node	8241 Dec 28 12:17	24° Z 10'20			8244 Aug 22 07:52	0° Q	
	8242 Jan 02 05:39	0° \approx			8244 Sep 16 11:22	0° M	
	8242 Jan 26 12:59	0° H		asc. node	8244 Oct 05 07:17	22° M 41'10	
	8242 Feb 19 20:20	0° Y			8244 Oct 11 08:12	0° A	
	8242 Mar 16 05:23	0° B			8244 Nov 04 23:15	0° L	
	8242 Apr 09 20:29	0° II			8244 Nov 29 09:28	0° J	
asc. node	8242 Apr 20 11:20	12° II 45'11		morning set	8244 Dec 06 17:12	9° J 01'53	
	8242 May 05 01:49	0° G			8244 Dec 23 16:11	0° Z	
	8242 May 31 14:41	0° Q		max. Earth dist.	8245 Jan 10 12:34	22° Z 08'06	1.72441 AU
evening max el	8242 Jun 15 20:32	15° Q 55'19	46°31'18				
	8242 Jun 30 22:40	0° M		superior conj	8245 Jan 13 05:51	25° Z 30'51	0°28'01
greatest brilliancy	8242 Jul 24 15:58	15° M 36'30	-4.8m	minimum elong	8245 Jan 13 12:07	25° Z 50'21	0°27'52
retrograde	8242 Aug 04 19:29	17° M 52'59			8245 Jan 16 20:29	0° \approx	
desc. node	8242 Aug 10 06:19	17° M 17'04		desc. node	8245 Jan 25 00:12	10° \approx 08'25	
evening set	8242 Aug 19 22:28	13° M 24'30			8245 Feb 09 22:47	0° H	
min. Earth dist.	8242 Aug 25 09:53	10° M 07'55	0.28381 AU	evening rise	8245 Feb 21 10:03	14° H 18'50	
inferior conj	8242 Aug 26 03:04	9° M 41'05	-3°46'22		8245 Mar 05 23:18	0° Y	
minimum elong	8242 Aug 25 19:18	9° M 53'12	3°44'18		8245 Mar 29 22:56	0° B	
morning rise	8242 Aug 31 16:50	6° M 20'02			8245 Apr 22 23:48	0° II	
direct	8242 Sep 16 09:59	1° M 37'39			8245 May 17 05:10	0° G	
greatest brilliancy	8242 Sep 26 01:39	3° M 19'10	-4.7m	asc. node	8245 May 17 23:02	0° G 54'59	
	8242 Nov 02 15:56	0° A			8245 Jun 10 19:11	0° Q	
morning max el	8242 Nov 04 02:06	1° A 21'14	45°41'21		8245 Jul 06 00:05	0° M	
asc. node	8242 Dec 01 05:40	29° A 24'53			8245 Aug 01 08:54	0° A	
	8242 Dec 01 18:29	0° L		evening max el	8245 Aug 25 10:52	25° A 06'20	45°48'40
	8242 Dec 28 05:33	0° J			8245 Aug 30 14:20	0° L	
	8243 Jan 22 12:41	0° Z		desc. node	8245 Sep 06 17:44	6° L 24'16	
	8243 Feb 16 04:47	0° \approx		greatest brilliancy	8245 Oct 03 07:08	23° L 36'15	-4.7m
	8243 Mar 12 12:03	0° H		retrograde	8245 Oct 13 12:17	25° L 30'13	
desc. node	8243 Mar 22 22:35	12° H 58'44		evening set	8245 Oct 31 18:54	19° L 15'44	
	8243 Apr 05 13:49	0° Y		inferior conj	8245 Nov 04 01:21	17° L 14'01	-8°37'23
	8243 Apr 29 12:21	0° B		minimum elong	8245 Nov 04 02:16	17° L 12'35	8°37'15
morning set	8243 May 06 07:34	8° B 32'21		min. Earth dist.	8245 Nov 04 06:01	17° L 06'41	0.29143 AU
	8243 May 23 09:49	0° II		morning rise	8245 Nov 07 09:34	15° L 09'21	
				direct	8245 Nov 25 13:49	8° L 55'15	
superior conj	8243 Jun 15 08:32	28° II 45'47	-1°02'23	greatest brilliancy	8245 Dec 06 06:53	11° L 00'04	-4.8m
minimum elong	8243 Jun 15 19:53	29° II 21'16	1°02'09	asc. node	8245 Dec 28 17:23	25° L 06'19	
	8243 Jun 16 08:16	0° G			8246 Jan 03 10:11	0° J	
max. Earth dist.	8243 Jun 18 18:42	3° G 02'41	1.71738 AU	morning max el	8246 Jan 14 01:07	9° J 59'12	46°05'47
	8243 Jul 10 09:16	0° Q			8246 Feb 02 05:22	0° Z	
asc. node	8243 Jul 13 20:42	4° Q 19'24			8246 Feb 28 15:42	0° \approx	
evening rise	8243 Jul 24 17:44	17° Q 49'36			8246 Mar 25 20:20	0° H	
	8243 Aug 03 13:39	0° M		desc. node	8246 Apr 19 10:58	0° Y 01'34	
	8243 Aug 27 22:01	0° A			8246 Apr 19 10:27	0° Y	
	8243 Sep 21 11:30	0° L			8246 May 13 16:50	0° B	
	8243 Oct 16 08:17	0° J			8246 Jun 06 19:40	0° II	
desc. node	8243 Nov 02 14:41	20° J 32'39			8246 Jun 30 21:59	0° G	
	8243 Nov 10 15:28	0° Z		morning set	8246 Jul 19 02:48	22° G 37'02	

	8246 Jul 25 01:33	0°♈	evening set	8249 Jan 07 19:37	29°♊20'43	
asc. node	8246 Aug 10 08:43	20°♈11'48	inferior conj	8249 Jan 13 14:26	25°♊53'43	-2°52'00
	8246 Aug 18 06:50	0°♉	minimum elong	8249 Jan 13 20:39	25°♊44'04	2°49'59
			min. Earth dist.	8249 Jan 14 07:40	25°♊26'58	0.27798 AU
superior conj	8246 Aug 26 05:47	9°♉50'21 0°37'10	morning rise	8249 Jan 19 21:05	22°♊09'36	
minimum elong	8246 Aug 25 22:16	9°♉27'08 0°36'46	asc. node	8249 Jan 25 04:59	19°♊40'00	
max. Earth dist.	8246 Aug 27 23:01	11°♉57'47 1.72970 AU	direct	8249 Feb 03 17:35	17°♊49'51	
	8246 Sep 11 13:37	0°♊	greatest brilliancy	8249 Feb 14 16:02	20°♊03'59	-4.8m
evening rise	8246 Oct 01 23:15	25°♊08'45		8249 Mar 03 07:44	0°♋	
	8246 Oct 05 21:56	0°♋	morning max el	8249 Mar 26 03:38	20°♋36'01	46°49'48
	8246 Oct 30 08:31	0°♌		8249 Apr 04 05:27	0°♌	
	8246 Nov 23 22:18	0°♍		8249 May 01 03:16	0°♍	
desc. node	8246 Nov 30 02:23	7°♍30'15	desc. node	8249 May 16 23:10	18°♍32'24	
	8246 Dec 18 15:50	0°♎		8249 May 26 13:58	0°♎	
	8247 Jan 12 13:43	0°♏		8249 Jun 20 09:53	0°♏	
	8247 Feb 06 18:31	0°♐		8249 Jul 14 23:42	0°♐	
	8247 Mar 04 15:04	0°♑		8249 Aug 08 11:29	0°♑	
asc. node	8247 Mar 23 01:57	20°♑23'25		8249 Sep 01 22:29	0°♒	
	8247 Apr 01 06:47	0°♒	asc. node	8249 Sep 06 20:58	6°♒03'34	
evening max el	8247 Apr 02 09:18	1°♒07'11 47°00'24		8249 Sep 26 08:33	0°♓	
	8247 May 07 20:37	0°♓	morning set	8249 Sep 26 22:49	0°♓43'53	
greatest brilliancy	8247 May 12 21:53	2°♓12'52 -4.9m		8249 Oct 20 17:21	0°♔	
retrograde	8247 May 22 23:33	4°♓08'10	max. Earth dist.	8249 Nov 01 23:13	15°♔05'39	1.73278 AU
	8247 Jun 06 08:56	30°♔♊				
evening set	8247 Jun 08 14:12	28°♔45'19	superior conj	8249 Nov 02 13:53	15°♔50'54	1°25'55
inferior conj	8247 Jun 12 18:41	26°♔13'26 6°49'09	minimum elong	8249 Nov 02 14:19	15°♔52'13	1°26'03
minimum elong	8247 Jun 13 05:40	25°♔56'33 6°46'37		8249 Nov 14 01:14	0°♕	
min. Earth dist.	8247 Jun 12 19:38	26°♔11'58 0.27315 AU		8249 Dec 08 08:50	0°♖	
morning rise	8247 Jun 17 21:19	23°♔10'28	evening rise	8249 Dec 09 11:49	1°♖23'12	
direct	8247 Jul 03 12:48	18°♔23'41	desc. node	8249 Dec 27 14:08	23°♖42'39	
desc. node	8247 Jul 12 20:40	20°♔01'34		8250 Jan 01 16:31	0°♗	
greatest brilliancy	8247 Jul 13 08:08	20°♔11'23 -4.8m		8250 Jan 26 00:08	0°♘	
	8247 Jul 30 16:27	0°♗		8250 Feb 19 07:53	0°♙	
morning max el	8247 Aug 22 02:24	19°♗32'42 46°07'58		8250 Mar 15 17:30	0°♚	
	8247 Sep 01 12:44	0°♘		8250 Apr 09 09:25	0°♛	
	8247 Sep 29 07:17	0°♙	asc. node	8250 Apr 19 13:23	12°♛11'14	
	8247 Oct 25 12:40	0°♚		8250 May 04 16:15	0°♜	
asc. node	8247 Nov 02 19:38	9°♚42'26		8250 May 31 08:33	0°♝	
	8247 Nov 19 22:09	0°♞	evening max el	8250 Jun 13 11:05	13°♝37'20	46°32'58
	8247 Dec 14 18:34	0°♟		8250 Jul 01 06:18	0°♞	
	8248 Jan 08 06:14	0°♠	greatest brilliancy	8250 Jul 22 08:57	13°♞24'31	-4.8m
	8248 Feb 01 12:08	0°♑	retrograde	8250 Aug 02 10:52	15°♞39'53	
morning set	8248 Feb 16 18:28	19°♑00'01	desc. node	8250 Aug 09 08:15	14°♞42'33	
desc. node	8248 Feb 22 12:16	26°♑09'51	evening set	8250 Aug 17 12:54	11°♞13'36	
	8248 Feb 25 13:58	0°♒	min. Earth dist.	8250 Aug 23 02:00	7°♞54'46	0.28331 AU
	8248 Mar 20 12:45	0°♓	inferior conj	8250 Aug 23 18:38	7°♞28'47	-3°27'27
max. Earth dist.	8248 Mar 26 13:38	7°♓34'46 1.71313 AU	minimum elong	8250 Aug 23 11:23	7°♞40'06	3°25'29
			morning rise	8250 Aug 29 10:31	4°♞04'34	
superior conj	8248 Mar 28 05:47	9°♓40'51 -1°12'07		8250 Sep 08 15:56	30°♞♊	
minimum elong	8248 Mar 27 18:33	9°♓05'36 1°11'49	direct	8250 Sep 14 00:44	29°♞26'04	
	8248 Apr 13 09:40	0°♔		8250 Sep 19 12:51	0°♞	
	8248 May 07 06:31	0°♕	greatest brilliancy	8250 Sep 23 16:58	1°♞07'38	-4.7m
evening rise	8248 May 07 19:01	0°♕39'16	morning max el	8250 Nov 01 15:55	29°♞06'07	45°41'18
	8248 May 31 05:29	0°♖		8250 Nov 02 14:23	0°♗	
asc. node	8248 Jun 14 10:45	17°♖42'39	asc. node	8250 Nov 30 07:36	28°♗47'15	
	8248 Jun 24 08:40	0°♘		8250 Dec 01 10:03	0°♔	
	8248 Jul 18 18:00	0°♙		8250 Dec 27 18:48	0°♕	
	8248 Aug 12 12:16	0°♚		8251 Jan 22 00:51	0°♖	
	8248 Sep 06 20:32	0°♛		8251 Feb 15 16:22	0°♗	
	8248 Oct 03 05:18	0°♜		8251 Mar 11 23:20	0°♘	
desc. node	8248 Oct 04 05:10	1°♜05'53	desc. node	8251 Mar 22 00:39	12°♘30'18	
	8248 Oct 31 17:51	0°♝		8251 Apr 05 00:55	0°♙	
evening max el	8248 Nov 04 20:09	3°♝58'19 45°46'55		8251 Apr 28 23:21	0°♚	
	8248 Dec 08 18:37	0°♞	morning set	8251 May 03 18:12	6°♚00'36	
greatest brilliancy	8248 Dec 14 01:55	2°♞09'49 -4.8m		8251 May 22 20:44	0°♛	
retrograde	8248 Dec 23 14:45	3°♞48'43				
	8249 Jan 06 14:15	30°♞♊	superior conj	8251 Jun 12 20:57	26°♞20'31	-1°05'01

minimum elong	8251 Jun 13 08:18	26° Π 56'03	1°04'48	asc. node	8253 Dec 27 19:18	24° Π 05'17	
	8251 Jun 15 19:07	0° \mathfrak{D}			8254 Jan 03 12:38	0° \mathfrak{A}	
max. Earth dist.	8251 Jun 16 03:28	0° \mathfrak{D} 26'08	1.71692 AU	morning max el	8254 Jan 11 17:33	7° \mathfrak{A} 47'48	46°04'13
	8251 Jul 09 20:05	0° Ω			8254 Feb 01 22:12	0° \mathfrak{Z}	
asc. node	8251 Jul 12 22:37	3° Ω 51'45			8254 Feb 28 05:46	0° \approx	
evening rise	8251 Jul 22 08:22	15° Ω 32'35			8254 Mar 25 09:11	0° \mathfrak{H}	
	8251 Aug 03 00:30	0° \mathfrak{M}		desc. node	8254 Apr 18 12:56	29° \mathfrak{H} 30'12	
	8251 Aug 27 08:59	0° $\underline{\mathfrak{A}}$			8254 Apr 18 22:37	0° \mathfrak{Y}	
	8251 Sep 20 22:45	0° \mathfrak{M}			8254 May 13 04:33	0° \mathfrak{B}	
	8251 Oct 15 20:05	0° \mathfrak{A}			8254 Jun 06 07:04	0° Π	
desc. node	8251 Nov 01 16:41	20° \mathfrak{A} 01'53			8254 Jun 30 09:10	0° \mathfrak{D}	
	8251 Nov 10 04:16	0° \mathfrak{Z}		morning set	8254 Jul 16 17:26	20° \mathfrak{D} 19'11	
	8251 Dec 06 04:38	0° \approx			8254 Jul 24 12:33	0° Ω	
	8252 Jan 02 10:47	0° \mathfrak{H}		asc. node	8254 Aug 09 10:43	19° Ω 44'16	
evening max el	8252 Jan 16 23:23	14° \mathfrak{H} 53'22	46°28'32		8254 Aug 17 17:44	0° \mathfrak{M}	
	8252 Feb 02 09:41	0° \mathfrak{Y}					
asc. node	8252 Feb 22 16:37	13° \mathfrak{Y} 38'47		superior conj	8254 Aug 23 21:55	7° \mathfrak{M} 38'16	0°34'05
greatest brilliancy	8252 Feb 26 04:08	15° \mathfrak{Y} 03'50	-4.9m	minimum elong	8254 Aug 23 14:54	7° \mathfrak{M} 16'32	0°33'41
retrograde	8252 Mar 06 23:28	16° \mathfrak{Y} 52'55		max. Earth dist.	8254 Aug 25 18:46	9° \mathfrak{M} 56'51	1.72939 AU
evening set	8252 Mar 23 00:34	11° \mathfrak{Y} 52'38			8254 Sep 11 00:28	0° $\underline{\mathfrak{A}}$	
inferior conj	8252 Mar 27 15:30	9° \mathfrak{Y} 06'31	7°31'46	evening rise	8254 Sep 29 16:55	23° $\underline{\mathfrak{A}}$ 01'56	
minimum elong	8252 Mar 27 04:55	9° \mathfrak{Y} 22'46	7°29'47		8254 Oct 05 08:50	0° \mathfrak{M}	
min. Earth dist.	8252 Mar 27 10:10	9° \mathfrak{Y} 14'44	0.27015 AU		8254 Oct 29 19:35	0° \mathfrak{A}	
morning rise	8252 Mar 31 09:13	6° \mathfrak{Y} 50'40			8254 Nov 23 09:41	0° \mathfrak{Z}	
direct	8252 Apr 17 06:02	1° \mathfrak{Y} 18'43		desc. node	8254 Nov 29 04:18	7° \mathfrak{Z} 01'11	
greatest brilliancy	8252 Apr 26 23:46	3° \mathfrak{Y} 06'00	-4.9m		8254 Dec 18 03:45	0° \approx	
	8252 Jun 02 14:56	0° \mathfrak{B}			8255 Jan 12 02:25	0° \mathfrak{H}	
morning max el	8252 Jun 06 15:34	3° \mathfrak{B} 58'41	46°53'01		8255 Feb 06 08:29	0° \mathfrak{Y}	
desc. node	8252 Jun 13 11:02	10° \mathfrak{B} 56'55			8255 Mar 04 07:30	0° \mathfrak{B}	
	8252 Jul 01 02:08	0° Π		asc. node	8255 Mar 22 03:57	19° \mathfrak{B} 35'52	
	8252 Jul 27 08:49	0° \mathfrak{D}		evening max el	8255 Mar 31 00:10	28° \mathfrak{B} 45'55	47°00'12
	8252 Aug 21 20:35	0° Ω			8255 Apr 01 05:39	0° Π	
	8252 Sep 15 23:13	0° \mathfrak{M}		greatest brilliancy	8255 May 10 11:55	29° Π 48'54	-4.9m
asc. node	8252 Oct 04 09:20	22° \mathfrak{M} 12'51			8255 May 11 00:25	0° \mathfrak{D}	
	8252 Oct 10 19:30	0° $\underline{\mathfrak{A}}$		retrograde	8255 May 20 13:42	1° \mathfrak{D} 43'43	
	8252 Nov 04 10:13	0° \mathfrak{M}			8255 May 29 17:31	30° \mathfrak{R} Π	
	8252 Nov 28 20:17	0° \mathfrak{A}		evening set	8255 Jun 06 07:08	26° Π 16'13	
morning set	8252 Dec 04 10:12	6° \mathfrak{A} 52'49		inferior conj	8255 Jun 10 07:59	23° Π 49'24	7°04'42
	8252 Dec 23 03:00	0° \mathfrak{Z}		minimum elong	8255 Jun 10 18:51	23° Π 32'40	7°02'20
max. Earth dist.	8253 Jan 08 07:12	20° \mathfrak{Z} 03'15	1.72487 AU	min. Earth dist.	8255 Jun 10 08:43	23° Π 48'16	0.27296 AU
				morning rise	8255 Jun 15 06:48	20° Π 51'50	
superior conj	8253 Jan 10 20:38	23° \mathfrak{Z} 13'57	0°31'21	direct	8255 Jul 01 02:23	16° Π 00'14	
minimum elong	8253 Jan 11 03:32	23° \mathfrak{Z} 35'21	0°31'11	greatest brilliancy	8255 Jul 10 20:08	17° Π 46'46	-4.8m
	8253 Jan 16 07:22	0° \approx		desc. node	8255 Jul 11 22:38	18° Π 11'02	
desc. node	8253 Jan 24 02:11	9° \approx 40'39			8255 Jul 31 08:21	0° \mathfrak{D}	
	8253 Feb 09 09:48	0° \mathfrak{H}		morning max el	8255 Aug 19 16:47	17° \mathfrak{D} 14'29	46°09'27
evening rise	8253 Feb 18 23:09	11° \mathfrak{H} 55'24			8255 Sep 01 08:14	0° Ω	
	8253 Mar 05 10:27	0° \mathfrak{Y}			8255 Sep 28 22:15	0° \mathfrak{M}	
	8253 Mar 29 10:15	0° \mathfrak{B}			8255 Oct 25 01:41	0° $\underline{\mathfrak{A}}$	
	8253 Apr 22 11:21	0° Π		asc. node	8255 Nov 01 21:28	9° $\underline{\mathfrak{A}}$ 10'35	
	8253 May 16 17:06	0° \mathfrak{D}			8255 Nov 19 10:09	0° \mathfrak{M}	
asc. node	8253 May 17 00:57	0° \mathfrak{D} 24'09			8255 Dec 14 06:02	0° \mathfrak{A}	
	8253 Jun 10 07:46	0° Ω			8256 Jan 07 17:25	0° \mathfrak{Z}	
	8253 Jul 05 13:51	0° \mathfrak{M}			8256 Jan 31 23:11	0° \approx	
	8253 Aug 01 01:18	0° $\underline{\mathfrak{A}}$		morning set	8256 Feb 14 07:38	16° \approx 37'08	
evening max el	8253 Aug 23 02:45	22° $\underline{\mathfrak{A}}$ 54'47	45°49'49	desc. node	8256 Feb 21 14:22	25° \approx 42'03	
	8253 Aug 30 15:18	0° \mathfrak{M}			8256 Feb 25 00:58	0° \mathfrak{H}	
desc. node	8253 Sep 05 19:53	5° \mathfrak{M} 26'12			8256 Mar 19 23:46	0° \mathfrak{Y}	
greatest brilliancy	8253 Sep 30 21:19	21° \mathfrak{M} 24'53	-4.7m	max. Earth dist.	8256 Mar 23 19:45	4° \mathfrak{Y} 48'38	1.71339 AU
retrograde	8253 Oct 11 05:08	23° \mathfrak{M} 20'54					
evening set	8253 Oct 29 10:35	17° \mathfrak{M} 06'45		superior conj	8256 Mar 25 17:08	7° \mathfrak{Y} 11'05	-1°09'48
inferior conj	8253 Nov 01 17:39	15° \mathfrak{M} 04'05	-8°37'44	minimum elong	8256 Mar 25 05:39	6° \mathfrak{Y} 35'03	1°09'29
minimum elong	8253 Nov 01 17:47	15° \mathfrak{M} 03'52	8°37'37		8256 Apr 12 20:45	0° \mathfrak{B}	
min. Earth dist.	8253 Nov 01 20:40	14° \mathfrak{M} 59'21	0.29155 AU	evening rise	8256 May 05 05:37	28° \mathfrak{B} 06'49	
morning rise	8253 Nov 05 00:58	13° \mathfrak{M} 00'57			8256 May 06 17:40	0° Π	
direct	8253 Nov 23 06:30	6° \mathfrak{M} 45'26			8256 May 30 16:44	0° \mathfrak{D}	
greatest brilliancy	8253 Dec 03 21:47	8° \mathfrak{M} 48'58	-4.8m	asc. node	8256 Jun 13 12:40	17° \mathfrak{D} 13'28	

	8256 Jun 23 20:03	0°♌			8258 Dec 01 01:29	0°♍
	8256 Jul 18 05:41	0°♍			8258 Dec 27 07:58	0°♎
	8256 Aug 12 00:29	0°♎			8259 Jan 21 12:58	0°♏
	8256 Sep 06 09:50	0°♏			8259 Feb 15 03:57	0°♐
	8256 Oct 02 20:54	0°♐			8259 Mar 11 10:36	0°♑
desc. node	8256 Oct 03 07:07	0°♐28'06		desc. node	8259 Mar 21 02:35	12°♑01'28
	8256 Oct 31 15:42	0°♑			8259 Apr 04 12:01	0°♒
evening max el	8256 Nov 02 10:34	1°♑43'06	45°46'04		8259 Apr 28 10:18	0°♓
greatest brilliancy	8256 Dec 11 17:06	29°♑54'32	-4.8m	morning set	8259 May 01 05:11	3°♓29'59
	8256 Dec 11 23:48	0°♒			8259 May 22 07:35	0°♔
retrograde	8256 Dec 21 04:20	1°♒32'12				
	8256 Dec 29 23:52	30°♒♑		superior conj	8259 Jun 10 09:33	23°♔55'55 -1°07'30
evening set	8257 Jan 05 12:22	27°♑01'02		minimum elong	8259 Jun 10 20:51	24°♔31'15 1°07'19
inferior conj	8257 Jan 11 05:08	23°♑36'49	-3°12'27	max. Earth dist.	8259 Jun 13 11:22	27°♔46'54 1.71653 AU
minimum elong	8257 Jan 11 11:59	23°♑26'09	3°10'18		8259 Jun 15 05:55	0°♕
min. Earth dist.	8257 Jan 11 23:16	23°♑08'38	0.27850 AU		8259 Jul 09 06:53	0°♌
morning rise	8257 Jan 17 10:54	19°♑53'18		asc. node	8259 Jul 12 00:41	3°♌24'35
asc. node	8257 Jan 24 07:01	16°♑51'03		evening rise	8259 Jul 19 22:59	13°♌15'27
direct	8257 Feb 01 08:20	15°♑32'09			8259 Aug 02 11:22	0°♍
greatest brilliancy	8257 Feb 12 08:02	17°♑46'49	-4.8m		8259 Aug 26 20:00	0°♎
	8257 Mar 03 21:18	0°♏			8259 Sep 20 10:04	0°♏
morning max el	8257 Mar 23 17:10	18°♏13'14	46°48'37		8259 Oct 15 07:56	0°♐
	8257 Apr 04 00:35	0°♑		desc. node	8259 Oct 31 18:35	19°♐30'46
	8257 Apr 30 18:22	0°♒			8259 Nov 09 17:06	0°♑
desc. node	8257 May 16 01:05	17°♒56'45			8259 Dec 05 19:21	0°♒
	8257 May 26 03:21	0°♓			8260 Jan 02 05:41	0°♑
	8257 Jun 19 22:21	0°♔		evening max el	8260 Jan 14 13:05	12°♑32'13 46°26'57
	8257 Jul 14 11:33	0°♕			8260 Feb 02 21:04	0°♒
	8257 Aug 07 22:52	0°♌		asc. node	8260 Feb 21 18:38	11°♒53'46
	8257 Sep 01 09:33	0°♍		greatest brilliancy	8260 Feb 23 16:28	12°♒37'51 -4.9m
asc. node	8257 Sep 05 23:01	5°♍35'59		retrograde	8260 Mar 04 12:46	14°♒27'43
morning set	8257 Sep 24 15:45	28°♍34'55		evening set	8260 Mar 20 09:13	9°♒33'00
	8257 Sep 25 19:24	0°♎		inferior conj	8260 Mar 25 04:22	6°♒41'08 7°17'23
	8257 Oct 20 04:07	0°♏		minimum elong	8260 Mar 24 17:31	6°♒57'46 7°15'13
max. Earth dist.	8257 Oct 30 16:39	12°♏58'21	1.73288 AU	min. Earth dist.	8260 Mar 24 23:03	6°♒49'17 0.27014 AU
				morning rise	8260 Mar 29 01:46	4°♒20'11
superior conj	8257 Oct 31 07:34	13°♏44'20	1°25'56		8260 Apr 07 10:52	30°♒♑
minimum elong	8257 Oct 31 07:18	13°♏43'28	1°26'04	direct	8260 Apr 14 19:09	28°♑53'03
	8257 Nov 13 12:00	0°♐			8260 Apr 22 09:46	0°♒
evening rise	8257 Dec 07 04:07	29°♐11'53		greatest brilliancy	8260 Apr 24 13:18	0°♒41'09 -4.9m
	8257 Dec 07 19:43	0°♑			8260 Jun 02 14:49	0°♓
desc. node	8257 Dec 26 16:08	23°♑14'53		morning max el	8260 Jun 04 06:04	1°♓37'50 46°54'04
	8258 Jan 01 03:35	0°♒		desc. node	8260 Jun 12 13:02	10°♓09'19
	8258 Jan 25 11:29	0°♑			8260 Jun 30 18:36	0°♔
	8258 Feb 18 19:36	0°♒			8260 Jul 26 22:37	0°♕
	8258 Mar 15 05:44	0°♓			8260 Aug 21 09:02	0°♌
	8258 Apr 08 22:32	0°♔			8260 Sep 15 10:53	0°♍
asc. node	8258 Apr 18 15:17	11°♔36'17		asc. node	8260 Oct 03 11:11	21°♔44'20
	8258 May 04 06:59	0°♕			8260 Oct 10 06:40	0°♎
	8258 May 31 03:06	0°♌			8260 Nov 03 21:04	0°♏
evening max el	8258 Jun 11 00:59	11°♌16'57	46°34'24		8260 Nov 28 06:58	0°♐
	8258 Jul 01 17:18	0°♍		morning set	8260 Dec 02 03:07	4°♐44'07
greatest brilliancy	8258 Jul 20 01:32	11°♍10'36	-4.8m		8260 Dec 22 13:37	0°♑
retrograde	8258 Jul 31 02:07	13°♍25'19		max. Earth dist.	8261 Jan 06 01:32	17°♑58'07 1.72526 AU
desc. node	8258 Aug 08 10:22	12°♍01'15				
evening set	8258 Aug 15 03:13	9°♍00'42		superior conj	8261 Jan 08 11:26	20°♑57'48 0°34'37
inferior conj	8258 Aug 21 09:57	5°♍14'58	-3°08'00	minimum elong	8261 Jan 08 18:54	21°♑20'57 0°34'26
minimum elong	8258 Aug 21 03:17	5°♍25'23	3°06'09		8261 Jan 15 18:02	0°♒
min. Earth dist.	8258 Aug 20 18:02	5°♍39'49	0.28283 AU	desc. node	8261 Jan 23 04:12	9°♒13'41
morning rise	8258 Aug 27 03:55	1°♍47'51			8261 Feb 08 20:35	0°♑
	8258 Aug 30 16:42	30°♍♌		evening rise	8261 Feb 16 12:22	9°♑33'07
direct	8258 Sep 11 14:57	27°♌12'47			8261 Mar 04 21:23	0°♒
greatest brilliancy	8258 Sep 21 08:28	28°♌55'06	-4.7m		8261 Mar 28 21:21	0°♓
	8258 Sep 24 05:05	0°♍			8261 Apr 21 22:42	0°♔
morning max el	8258 Oct 30 06:14	26°♍51'34	45°41'30	asc. node	8261 May 16 02:55	29°♔54'11
	8258 Nov 02 12:11	0°♎			8261 May 16 04:49	0°♕
asc. node	8258 Nov 29 09:36	28°♎09'46			8261 Jun 09 20:07	0°♌

	8261 Jul 05 03:25	0°♍		desc. node	8264 Feb 20 16:16	25°♊14'40	
	8261 Jul 31 17:39	0°♊			8264 Feb 24 11:39	0°♋	
evening max el	8261 Aug 20 19:16	20°♊45'39 45°50'48			8264 Mar 19 10:26	0°♌	
	8261 Aug 30 17:16	0°♋		max. Earth dist.	8264 Mar 21 00:27	1°♌59'16	1.71362 AU
desc. node	8261 Sep 04 21:46	4°♋27'04					
greatest brilliancy	8261 Sep 28 11:41	19°♋14'23 -4.7m		superior conj	8264 Mar 23 04:19	4°♌42'01 -1°07'21	
retrograde	8261 Oct 08 21:40	21°♋11'54		minimum elong	8264 Mar 22 16:39	4°♌05'25 1°06'59	
evening set	8261 Oct 27 01:55	14°♋58'52			8264 Apr 12 07:27	0°♍	
inferior conj	8261 Oct 30 09:53	12°♋54'41 -8°37'27		evening rise	8264 May 02 16:07	25°♍35'19	
minimum elong	8261 Oct 30 09:14	12°♋55'41 8°37'20			8264 May 06 04:26	0°♎	
min. Earth dist.	8261 Oct 30 11:15	12°♋52'31 0.29164 AU			8264 May 30 03:36	0°♏	
morning rise	8261 Nov 02 16:34	10°♋52'30		asc. node	8264 Jun 12 14:44	16°♏45'56	
direct	8261 Nov 20 23:20	4°♋36'20			8264 Jun 23 07:05	0°♐	
greatest brilliancy	8261 Dec 01 12:15	6°♋37'55 -4.7m			8264 Jul 17 17:00	0°♑	
asc. node	8261 Dec 26 21:22	23°♋06'37			8264 Aug 11 12:23	0°♒	
	8262 Jan 03 13:25	0°♓			8264 Sep 05 22:50	0°♋	
morning max el	8262 Jan 09 09:40	5°♓36'29 46°02'43		desc. node	8264 Oct 02 09:05	29°♋51'17	
	8262 Feb 01 14:25	0°♑			8264 Oct 02 12:16	0°♌	
	8262 Feb 27 19:22	0°♒		evening max el	8264 Oct 31 00:05	29°♌27'01 45°45'14	
	8262 Mar 24 21:35	0°♋			8264 Oct 31 13:55	0°♍	
desc. node	8262 Apr 17 14:47	28°♋59'44		greatest brilliancy	8264 Dec 09 07:54	27°♍39'50 -4.8m	
	8262 Apr 18 10:21	0°♌		retrograde	8264 Dec 18 17:48	29°♍16'48	
	8262 May 12 15:52	0°♍		evening set	8265 Jan 03 05:06	24°♍41'49	
	8262 Jun 05 18:06	0°♎		inferior conj	8265 Jan 08 19:44	21°♍20'42 -3°32'35	
	8262 Jun 29 19:58	0°♏		minimum elong	8265 Jan 09 03:10	21°♍09'08 3°30'19	
morning set	8262 Jul 14 08:16	18°♏03'01		min. Earth dist.	8265 Jan 09 14:52	20°♍50'58 0.27910 AU	
	8262 Jul 23 23:12	0°♐		morning rise	8265 Jan 15 00:28	17°♍38'14	
asc. node	8262 Aug 08 12:43	19°♐17'49		asc. node	8265 Jan 23 09:02	14°♍07'39	
	8262 Aug 17 04:14	0°♑		direct	8265 Jan 29 22:54	13°♍14'55	
				greatest brilliancy	8265 Feb 10 00:34	15°♍31'01 -4.8m	
superior conj	8262 Aug 21 14:12	5°♑27'44 0°30'56			8265 Mar 04 07:06	0°♒	
minimum elong	8262 Aug 21 07:42	5°♑07'38 0°30'33		morning max el	8265 Mar 21 07:00	15°♒51'52 46°47'30	
max. Earth dist.	8262 Aug 23 15:40	8°♑00'41 1.72906 AU			8265 Apr 03 18:58	0°♋	
	8262 Sep 10 10:56	0°♒			8265 Apr 30 08:59	0°♌	
evening rise	8262 Sep 27 10:41	20°♒56'29		desc. node	8265 May 15 03:09	17°♌22'45	
	8262 Oct 04 19:22	0°♋			8265 May 25 16:18	0°♍	
	8262 Oct 29 06:20	0°♌			8265 Jun 19 10:23	0°♎	
	8262 Nov 22 20:48	0°♍			8265 Jul 13 22:59	0°♏	
desc. node	8262 Nov 28 06:18	6°♍33'17			8265 Aug 07 09:53	0°♐	
	8262 Dec 17 15:23	0°♒			8265 Aug 31 20:17	0°♑	
	8263 Jan 11 14:50	0°♋		asc. node	8265 Sep 05 00:51	5°♑08'50	
	8263 Feb 05 22:14	0°♌		morning set	8265 Sep 22 08:38	26°♑26'48	
	8263 Mar 03 23:49	0°♍			8265 Sep 25 05:57	0°♒	
asc. node	8263 Mar 21 05:51	18°♍48'36			8265 Oct 19 14:34	0°♋	
evening max el	8263 Mar 28 14:28	26°♍24'28 46°59'56		max. Earth dist.	8265 Oct 28 11:01	10°♋54'52 1.73295 AU	
	8263 Apr 01 05:00	0°♎					
greatest brilliancy	8263 May 08 02:27	27°♎26'39 -4.9m		superior conj	8265 Oct 29 01:22	11°♋39'04 1°25'50	
retrograde	8263 May 18 03:16	29°♎20'10		minimum elong	8265 Oct 29 00:22	11°♋36'00 1°25'56	
evening set	8263 Jun 04 00:04	23°♎48'11			8265 Nov 12 22:27	0°♌	
inferior conj	8263 Jun 07 21:15	21°♎26'28 7°19'37		evening rise	8265 Dec 04 20:36	27°♌02'16	
minimum elong	8263 Jun 08 07:55	21°♎10'01 7°17'23			8265 Dec 07 06:16	0°♍	
min. Earth dist.	8263 Jun 07 22:04	21°♎25'12 0.27279 AU		desc. node	8265 Dec 25 18:11	22°♍48'09	
morning rise	8263 Jun 12 16:00	18°♎34'22			8265 Dec 31 14:21	0°♒	
direct	8263 Jun 28 15:38	13°♎37'45			8266 Jan 24 22:35	0°♋	
greatest brilliancy	8263 Jul 08 08:34	15°♎23'28 -4.8m			8266 Feb 18 07:07	0°♌	
desc. node	8263 Jul 11 00:43	16°♎25'47			8266 Mar 14 17:51	0°♍	
	8263 Jul 31 19:44	0°♏			8266 Apr 08 11:33	0°♎	
morning max el	8263 Aug 17 06:18	14°♏55'04 46°11'04		asc. node	8266 Apr 17 17:17	11°♎02'00	
	8263 Sep 01 02:44	0°♐			8266 May 03 21:42	0°♏	
	8263 Sep 28 12:34	0°♑			8266 May 30 21:54	0°♐	
	8263 Oct 24 14:10	0°♒		evening max el	8266 Jun 08 14:52	8°♐57'14 46°36'05	
asc. node	8263 Oct 31 23:30	8°♒40'45			8266 Jul 02 07:40	0°♑	
	8263 Nov 18 21:42	0°♋		greatest brilliancy	8266 Jul 17 17:28	8°♑56'29 -4.8m	
	8263 Dec 13 17:07	0°♌		retrograde	8266 Jul 28 17:40	11°♑11'21	
	8264 Jan 07 04:16	0°♍		desc. node	8266 Aug 07 12:17	9°♑15'49	
	8264 Jan 31 09:55	0°♒		evening set	8266 Aug 12 17:37	6°♑47'47	
morning set	8264 Feb 11 20:34	14°♒14'30		min. Earth dist.	8266 Aug 18 09:47	3°♑25'24 0.28236 AU	

inferior conj	8266 Aug 19 01:10	3° \cap 01'28	-2°48'01			8269 Jan 15 04:44	0° \approx	
minimum elong	8266 Aug 18 19:07	3° \cap 10'53	2°46'20	desc. node		8269 Jan 22 06:05	8° \approx 46'16	
	8266 Aug 24 01:05	30° κ Ω				8269 Feb 08 07:23	0° \mathcal{H}	
morning rise	8266 Aug 24 21:08	29° Ω 31'48		evening rise		8269 Feb 14 01:50	7° \mathcal{H} 11'38	
direct	8266 Sep 09 05:10	24° Ω 59'39				8269 Mar 04 08:19	0° Υ	
greatest brilliancy	8266 Sep 18 23:47	26° Ω 42'54	-4.7m			8269 Mar 28 08:29	0° \mathcal{B}	
	8266 Sep 26 10:53	0° \cap				8269 Apr 21 10:07	0° Π	
morning max el	8266 Oct 27 21:30	24° \cap 40'00	45°41'49	asc. node		8269 May 15 04:58	29° Π 24'02	
	8266 Nov 02 08:55	0° $\underline{\Omega}$				8269 May 15 16:40	0° \mathcal{G}	
asc. node	8266 Nov 28 11:36	27° $\underline{\Omega}$ 33'25				8269 Jun 09 08:41	0° Ω	
	8266 Nov 30 16:26	0° \mathcal{M}				8269 Jul 04 17:18	0° \cap	
	8266 Dec 26 20:48	0° \mathcal{A}				8269 Jul 31 10:32	0° $\underline{\Omega}$	
	8267 Jan 21 00:49	0° \mathcal{Z}		evening max el		8269 Aug 18 11:41	18° $\underline{\Omega}$ 35'33	45°51'56
	8267 Feb 14 15:18	0° \approx				8269 Aug 30 21:02	0° \mathcal{M}	
	8267 Mar 10 21:42	0° \mathcal{H}		desc. node		8269 Sep 03 23:44	3° \mathcal{M} 26'12	
desc. node	8267 Mar 20 04:28	11° \mathcal{H} 33'01		greatest brilliancy		8269 Sep 26 02:42	17° \mathcal{M} 04'11	-4.7m
	8267 Apr 03 22:59	0° Υ		retrograde		8269 Oct 06 13:47	19° \mathcal{M} 02'26	
	8267 Apr 27 21:11	0° \mathcal{B}		evening set		8269 Oct 24 17:02	12° \mathcal{M} 51'11	
morning set	8267 Apr 28 15:40	0° \mathcal{B} 58'05		inferior conj		8269 Oct 28 02:08	10° \mathcal{M} 45'01	-8°36'28
	8267 May 21 18:22	0° Π		minimum elong		8269 Oct 28 00:45	10° \mathcal{M} 47'13	8°36'19
				min. Earth dist.		8269 Oct 28 02:05	10° \mathcal{M} 45'06	0.29168 AU
superior conj	8267 Jun 07 21:35	21° Π 29'41	-1°09'54	morning rise		8269 Oct 31 08:30	8° \mathcal{M} 43'11	
minimum elong	8267 Jun 08 08:43	22° Π 04'31	1°09'44	direct		8269 Nov 18 16:04	2° \mathcal{M} 27'02	
max. Earth dist.	8267 Jun 10 19:30	25° Π 08'36	1.71613 AU	greatest brilliancy		8269 Nov 29 02:43	4° \mathcal{M} 26'28	-4.7m
	8267 Jun 14 16:38	0° \mathcal{G}		asc. node		8269 Dec 25 23:20	22° \mathcal{M} 08'42	
	8267 Jul 08 17:35	0° Ω				8270 Jan 03 13:12	0° \mathcal{A}	
asc. node	8267 Jul 11 02:35	2° Ω 57'17		morning max el		8270 Jan 07 01:03	3° \mathcal{A} 23'02	46°01'13
evening rise	8267 Jul 17 13:11	10° Ω 57'26				8270 Feb 01 06:30	0° \mathcal{Z}	
	8267 Aug 01 22:07	0° \cap				8270 Feb 27 08:59	0° \approx	
	8267 Aug 26 06:54	0° $\underline{\Omega}$				8270 Mar 24 10:03	0° \mathcal{H}	
	8267 Sep 19 21:17	0° \mathcal{M}		desc. node		8270 Apr 16 16:52	28° \mathcal{H} 29'44	
	8267 Oct 14 19:44	0° \mathcal{A}				8270 Apr 17 22:09	0° Υ	
desc. node	8267 Oct 30 20:39	19° \mathcal{A} 00'18				8270 May 12 03:16	0° \mathcal{B}	
	8267 Nov 09 05:56	0° \mathcal{Z}				8270 Jun 05 05:15	0° Π	
	8267 Dec 05 10:08	0° \approx				8270 Jun 29 06:57	0° \mathcal{G}	
	8268 Jan 02 00:58	0° \mathcal{H}		morning set		8270 Jul 11 22:54	15° \mathcal{G} 45'30	
evening max el	8268 Jan 12 03:34	10° \mathcal{H} 13'41	46°25'21			8270 Jul 23 10:02	0° Ω	
	8268 Feb 03 12:05	0° Υ		asc. node		8270 Aug 07 14:35	18° Ω 50'19	
asc. node	8268 Feb 20 20:29	10° Υ 04'48				8270 Aug 16 14:58	0° \cap	
greatest brilliancy	8268 Feb 21 04:24	10° Υ 11'57	-4.9m					
retrograde	8268 Mar 02 02:07	12° Υ 02'37		superior conj		8270 Aug 19 06:09	3° \cap 15'25	0°27'43
evening set	8268 Mar 17 18:02	7° Υ 13'23		minimum elong		8270 Aug 19 00:14	2° \cap 57'07	0°27'21
inferior conj	8268 Mar 22 17:09	4° Υ 15'50	7°02'06	max. Earth dist.		8270 Aug 21 11:16	5° \cap 59'40	1.72870 AU
minimum elong	8268 Mar 22 06:09	4° Υ 32'42	6°59'47			8270 Sep 09 21:37	0° $\underline{\Omega}$	
min. Earth dist.	8268 Mar 22 11:44	4° Υ 24'08	0.27017 AU	evening rise		8270 Sep 25 04:06	18° $\underline{\Omega}$ 49'17	
morning rise	8268 Mar 26 18:16	1° Υ 49'39				8270 Oct 04 06:08	0° \mathcal{M}	
	8268 Mar 30 02:35	30° κ \mathcal{H}				8270 Oct 28 17:19	0° \mathcal{A}	
direct	8268 Apr 12 08:42	26° \mathcal{H} 27'35				8270 Nov 22 08:08	0° \mathcal{Z}	
greatest brilliancy	8268 Apr 22 02:29	28° \mathcal{H} 15'49	-4.9m	desc. node		8270 Nov 27 08:19	6° \mathcal{Z} 04'39	
	8268 Apr 26 06:28	0° Υ				8270 Dec 17 03:17	0° \approx	
morning max el	8268 Jun 01 20:43	29° Υ 17'08	46°54'51			8271 Jan 11 03:35	0° \mathcal{H}	
	8268 Jun 02 13:46	0° \mathcal{B}				8271 Feb 05 12:22	0° Υ	
desc. node	8268 Jun 11 15:03	9° \mathcal{B} 22'13				8271 Mar 03 16:41	0° \mathcal{B}	
	8268 Jun 30 10:53	0° Π		asc. node		8271 Mar 20 07:56	18° \mathcal{B} 00'27	
	8268 Jul 26 12:23	0° \mathcal{G}		evening max el		8271 Mar 26 04:04	24° \mathcal{B} 00'32	46°59'39
	8268 Aug 20 21:28	0° Ω				8271 Apr 01 05:43	0° Π	
	8268 Sep 14 22:31	0° \cap		greatest brilliancy		8271 May 05 17:26	25° Π 04'33	-4.9m
asc. node	8268 Oct 02 13:11	21° \cap 16'24		retrograde		8271 May 15 16:23	26° Π 56'31	
	8268 Oct 09 17:47	0° $\underline{\Omega}$		evening set		8271 Jun 01 17:06	21° Π 20'00	
	8268 Nov 03 07:53	0° \mathcal{M}		inferior conj		8271 Jun 05 10:41	19° Π 03'31	7°33'35
	8268 Nov 27 17:38	0° \mathcal{A}		minimum elong		8271 Jun 05 21:05	18° Π 47'27	7°31'31
morning set	8268 Nov 29 20:07	2° \mathcal{A} 35'35		min. Earth dist.		8271 Jun 05 11:50	19° Π 01'44	0.27263 AU
	8268 Dec 22 00:16	0° \mathcal{Z}		morning rise		8271 Jun 10 01:14	16° Π 17'03	
max. Earth dist.	8269 Jan 03 17:52	15° \mathcal{Z} 46'49	1.72561 AU	direct		8271 Jun 26 04:34	11° Π 15'04	
				greatest brilliancy		8271 Jul 05 21:42	13° Π 00'35	-4.8m
superior conj	8269 Jan 06 02:32	18° \mathcal{Z} 42'33	0°37'48	desc. node		8271 Jul 10 02:36	14° Π 44'02	
minimum elong	8269 Jan 06 10:29	19° \mathcal{Z} 07'14	0°37'36			8271 Aug 01 04:19	0° \mathcal{G}	

morning max el	8271 Aug 14 19:24	12°☾33'43	46°12'35	asc. node	8274 Apr 16 19:19	10°♊26'30	
	8271 Aug 31 21:02	0°♌			8274 May 03 12:59	0°☾	
	8271 Sep 28 03:02	0°♍			8274 May 30 17:38	0°♌	
	8271 Oct 24 02:55	0°♍		evening max el	8274 Jun 06 05:51	6°♌39'17	46°37'49
asc. node	8271 Oct 31 01:31	8°♌10'00			8274 Jul 03 03:32	0°♍	
	8271 Nov 18 09:32	0°♍		greatest brilliancy	8274 Jul 15 09:01	6°♍41'08	-4.8m
	8271 Dec 13 04:27	0°♎		retrograde	8274 Jul 26 09:48	8°♍56'44	
	8272 Jan 06 15:22	0°♏		desc. node	8274 Aug 06 14:12	6°♍25'33	
	8272 Jan 30 20:54	0°♏		evening set	8274 Aug 10 08:18	4°♍34'01	
morning set	8272 Feb 09 09:37	11°♏51'29		min. Earth dist.	8274 Aug 16 01:18	1°♍10'46	0.28187 AU
desc. node	8272 Feb 19 18:10	24°♏46'24		inferior conj	8274 Aug 16 16:26	0°♍47'17	-2°27'48
	8272 Feb 23 22:36	0°♐		minimum elong	8274 Aug 16 11:02	0°♍55'40	2°26'18
max. Earth dist.	8272 Mar 18 05:44	29°♐10'46	1.71390 AU		8274 Aug 17 22:55	30°♌♌	
	8272 Mar 18 21:25	0°♑		morning rise	8274 Aug 22 14:20	27°♌15'26	
				direct	8274 Sep 06 19:54	22°♌46'00	
superior conj	8272 Mar 20 15:41	2°♑12'36	-1°04'46	greatest brilliancy	8274 Sep 16 14:39	24°♌29'45	-4.7m
minimum elong	8272 Mar 20 03:55	1°♑35'41	1°04'22		8274 Sep 27 22:05	0°♍	
	8272 Apr 11 18:28	0°♒		morning max el	8274 Oct 25 13:28	22°♍29'38	45°42'02
evening rise	8272 Apr 30 02:53	23°♒03'44			8274 Nov 02 05:11	0°♍	
	8272 May 05 15:30	0°♊		asc. node	8274 Nov 27 13:31	26°♍56'22	
	8272 May 29 14:43	0°☾			8274 Nov 30 07:26	0°♍	
asc. node	8272 Jun 11 16:38	16°☾17'03			8274 Dec 26 09:50	0°♎	
	8272 Jun 22 18:21	0°♌			8275 Jan 20 12:55	0°♏	
	8272 Jul 17 04:37	0°♍			8275 Feb 14 02:55	0°♏	
	8272 Aug 11 00:37	0°♍			8275 Mar 10 09:04	0°♐	
	8272 Sep 05 12:15	0°♍		desc. node	8275 Mar 19 06:33	11°♐04'21	
desc. node	8272 Oct 01 11:08	29°♍13'22			8275 Apr 03 10:11	0°♑	
	8272 Oct 02 04:16	0°♎		morning set	8275 Apr 26 02:09	28°♑25'22	
evening max el	8272 Oct 28 13:46	27°♎10'25	45°44'35		8275 Apr 27 08:17	0°♒	
	8272 Oct 31 13:34	0°♏			8275 May 21 05:25	0°♊	
greatest brilliancy	8272 Dec 06 22:18	25°♏24'09	-4.8m				
retrograde	8272 Dec 16 07:56	27°♏01'14		superior conj	8275 Jun 05 09:30	19°♊02'02	-1°12'10
evening set	8272 Dec 31 22:06	22°♏22'01		minimum elong	8275 Jun 05 20:22	19°♊36'05	1°12'02
inferior conj	8273 Jan 06 10:31	19°♏04'10	-3°52'11	max. Earth dist.	8275 Jun 08 05:25	22°♊34'50	1.71577 AU
minimum elong	8273 Jan 06 18:30	18°♏51'46	3°49'47		8275 Jun 14 03:38	0°☾	
min. Earth dist.	8273 Jan 07 06:21	18°♏33'23	0.27970 AU		8275 Jul 08 04:35	0°♌	
morning rise	8273 Jan 12 14:05	15°♏23'17		asc. node	8275 Jul 10 04:31	2°♌29'06	
asc. node	8273 Jan 22 10:55	11°♏29'19		evening rise	8275 Jul 15 03:17	8°♌38'08	
direct	8273 Jan 27 13:46	10°♏57'17			8275 Aug 01 09:08	0°♍	
greatest brilliancy	8273 Feb 07 17:10	13°♏14'56	-4.8m		8275 Aug 25 18:03	0°♍	
	8273 Mar 04 14:33	0°♏			8275 Sep 19 08:43	0°♍	
morning max el	8273 Mar 18 21:49	13°♏32'13	46°46'16		8275 Oct 14 07:46	0°♎	
	8273 Apr 03 13:14	0°♐		desc. node	8275 Oct 29 22:36	18°♎28'48	
	8273 Apr 29 23:46	0°♑			8275 Nov 08 19:05	0°♏	
desc. node	8273 May 14 05:04	16°♑47'29			8275 Dec 05 01:24	0°♏	
	8273 May 25 05:31	0°♒			8276 Jan 01 21:11	0°♐	
	8273 Jun 18 22:41	0°♊		evening max el	8276 Jan 09 18:38	7°♐55'48	46°23'36
	8273 Jul 13 10:40	0°☾			8276 Feb 04 08:50	0°♑	
	8273 Aug 06 21:09	0°♌		greatest brilliancy	8276 Feb 18 16:41	7°♑45'44	-4.9m
	8273 Aug 31 07:16	0°♍		asc. node	8276 Feb 19 22:35	8°♑10'51	
asc. node	8273 Sep 04 02:52	4°♍41'25		retrograde	8276 Feb 28 15:13	9°♑36'33	
morning set	8273 Sep 20 01:41	24°♍18'14		evening set	8276 Mar 15 03:04	4°♑52'59	
	8273 Sep 24 16:46	0°♍		inferior conj	8276 Mar 20 05:58	1°♑49'51	6°45'58
	8273 Oct 19 01:20	0°♍		minimum elong	8276 Mar 19 18:53	2°♑06'51	6°43'32
				min. Earth dist.	8276 Mar 20 00:35	1°♑58'07	0.27018 AU
superior conj	8273 Oct 26 19:11	9°♍32'53	1°25'36		8276 Mar 23 06:19	30°♌♌	
minimum elong	8273 Oct 26 17:28	9°♍27'37	1°25'42	morning rise	8276 Mar 24 10:43	29°♌18'22	
max. Earth dist.	8273 Oct 26 06:45	8°♍54'34	1.73306 AU	direct	8276 Apr 09 22:23	24°♌01'40	
	8273 Nov 12 09:14	0°♎		greatest brilliancy	8276 Apr 19 15:41	25°♌49'45	-4.9m
evening rise	8273 Dec 02 13:08	24°♎51'47			8276 Apr 28 08:51	0°♑	
	8273 Dec 06 17:10	0°♏		morning max el	8276 May 30 10:27	26°♑53'32	46°55'30
desc. node	8273 Dec 24 20:02	22°♏19'44			8276 Jun 02 12:01	0°♒	
	8273 Dec 31 01:28	0°♏		desc. node	8276 Jun 10 16:59	8°♒35'06	
	8274 Jan 24 10:01	0°♐			8276 Jun 30 03:06	0°♊	
	8274 Feb 17 19:00	0°♑			8276 Jul 26 02:13	0°☾	
	8274 Mar 14 06:21	0°♒			8276 Aug 20 10:03	0°♌	
	8274 Apr 08 01:01	0°♊			8276 Sep 14 10:17	0°♍	

asc. node	8276 Oct 01 15:13	20° \mathbb{M} 48'07	retrograde	8279 May 13 05:11	24° \mathbb{I} 32'10	
	8276 Oct 09 05:02	0° \mathbb{L}	evening set	8279 May 30 09:50	18° \mathbb{I} 50'54	
	8276 Nov 02 18:49	0° \mathbb{M}	inferior conj	8279 Jun 02 23:54	16° \mathbb{I} 39'45	7°46'42
	8276 Nov 27 04:24	0° \mathbb{M}	minimum elong	8279 Jun 03 09:56	16° \mathbb{I} 24'14	7°44'50
morning set	8276 Nov 27 13:23	0° \mathbb{M} 27'40	min. Earth dist.	8279 Jun 03 01:32	16° \mathbb{I} 37'14	0.27250 AU
	8276 Dec 21 11:02	0° \mathbb{Z}	morning rise	8279 Jun 07 10:08	13° \mathbb{I} 59'19	
max. Earth dist.	8277 Jan 01 09:07	13° \mathbb{Z} 31'51	direct	8279 Jun 23 16:55	8° \mathbb{I} 51'20	
		1.72602 AU	greatest brilliancy	8279 Jul 03 11:06	10° \mathbb{I} 37'27	-4.8m
superior conj	8277 Jan 03 17:56	16° \mathbb{Z} 27'57	desc. node	8279 Jul 09 04:37	13° \mathbb{I} 05'46	
minimum elong	8277 Jan 04 02:19	16° \mathbb{Z} 53'58		8279 Aug 01 10:32	0° \mathbb{G}	
	8277 Jan 14 15:35	0° \approx	morning max el	8279 Aug 12 08:22	10° \mathbb{G} 11'54	46°14'14
desc. node	8277 Jan 21 08:05	8° \approx 18'40		8279 Aug 31 14:50	0° Ω	
	8277 Feb 07 18:21	0° \mathbb{H}		8279 Sep 27 17:14	0° \mathbb{M}	
evening rise	8277 Feb 11 15:20	4° \mathbb{H} 49'43		8279 Oct 23 15:27	0° \mathbb{L}	
	8277 Mar 03 19:27	0° \mathbb{Y}	asc. node	8279 Oct 30 03:21	7° \mathbb{L} 39'13	
	8277 Mar 27 19:48	0° \mathbb{B}		8279 Nov 17 21:12	0° \mathbb{M}	
	8277 Apr 20 21:43	0° \mathbb{I}		8279 Dec 12 15:38	0° \mathbb{M}	
asc. node	8277 May 14 06:51	28° \mathbb{I} 52'57		8280 Jan 06 02:16	0° \mathbb{Z}	
	8277 May 15 04:42	0° \mathbb{G}		8280 Jan 30 07:39	0° \approx	
	8277 Jun 08 21:26	0° Ω	morning set	8280 Feb 06 23:13	9° \approx 30'50	
	8277 Jul 04 07:27	0° \mathbb{M}	desc. node	8280 Feb 18 20:15	24° \approx 19'25	
	8277 Jul 31 03:55	0° \mathbb{L}		8280 Feb 23 09:20	0° \mathbb{H}	
evening max el	8277 Aug 16 03:25	16° \mathbb{L} 23'14	max. Earth dist.	8280 Mar 15 14:56	26° \mathbb{H} 35'21	1.71424 AU
	8277 Aug 31 02:56	0° \mathbb{M}				
desc. node	8277 Sep 03 01:52	2° \mathbb{M} 23'52	superior conj	8280 Mar 18 03:19	29° \mathbb{H} 44'45	-1°02'04
greatest brilliancy	8277 Sep 23 18:23	14° \mathbb{M} 54'24	minimum elong	8280 Mar 17 15:33	29° \mathbb{H} 07'51	1°01'39
retrograde	8277 Oct 04 05:35	16° \mathbb{M} 52'54		8280 Mar 18 08:10	0° \mathbb{Y}	
evening set	8277 Oct 22 07:51	10° \mathbb{M} 44'08		8280 Apr 11 05:17	0° \mathbb{B}	
inferior conj	8277 Oct 25 18:29	8° \mathbb{M} 35'30	evening rise	8280 Apr 27 13:40	20° \mathbb{B} 32'50	
minimum elong	8277 Oct 25 16:19	8° \mathbb{M} 38'55		8280 May 05 02:23	0° \mathbb{I}	
min. Earth dist.	8277 Oct 25 17:19	8° \mathbb{M} 37'19		8280 May 29 01:43	0° \mathbb{G}	
morning rise	8277 Oct 29 00:48	6° \mathbb{M} 33'32	asc. node	8280 Jun 10 18:34	15° \mathbb{G} 48'36	
direct	8277 Nov 16 08:24	0° \mathbb{M} 17'57		8280 Jun 22 05:32	0° Ω	
greatest brilliancy	8277 Nov 26 17:40	2° \mathbb{M} 15'44		8280 Jul 16 16:08	0° \mathbb{M}	
asc. node	8277 Dec 25 01:15	21° \mathbb{M} 12'08		8280 Aug 10 12:46	0° \mathbb{L}	
	8278 Jan 03 11:52	0° \mathbb{M}		8280 Sep 05 01:39	0° \mathbb{M}	
morning max el	8278 Jan 04 15:25	1° \mathbb{M} 07'15	desc. node	8280 Sep 30 13:05	28° \mathbb{M} 35'18	
	8278 Jan 31 22:18	0° \mathbb{Z}		8280 Oct 01 20:23	0° \mathbb{M}	
	8278 Feb 26 22:30	0° \approx	evening max el	8280 Oct 26 03:52	24° \mathbb{M} 55'30	45°44'03
	8278 Mar 23 22:30	0° \mathbb{H}		8280 Oct 31 14:09	0° \mathbb{Z}	
desc. node	8278 Apr 15 18:49	27° \mathbb{H} 59'08	greatest brilliancy	8280 Dec 04 12:10	23° \mathbb{Z} 08'39	-4.8m
	8278 Apr 17 10:01	0° \mathbb{Y}	retrograde	8280 Dec 13 22:35	24° \mathbb{Z} 46'24	
	8278 May 11 14:45	0° \mathbb{B}	evening set	8280 Dec 29 15:11	20° \mathbb{Z} 02'49	
	8278 Jun 04 16:28	0° \mathbb{I}	inferior conj	8281 Jan 04 01:14	16° \mathbb{Z} 48'20	-4°11'20
	8278 Jun 28 17:58	0° \mathbb{G}	minimum elong	8281 Jan 04 09:43	16° \mathbb{Z} 35'11	4°08'52
morning set	8278 Jul 09 13:07	13° \mathbb{G} 26'36	min. Earth dist.	8281 Jan 04 21:24	16° \mathbb{Z} 17'04	0.28028 AU
	8278 Jul 22 20:53	0° Ω	morning rise	8281 Jan 10 03:28	13° \mathbb{Z} 09'31	
asc. node	8278 Aug 06 16:36	18° Ω 23'11	asc. node	8281 Jan 21 12:59	8° \mathbb{Z} 56'59	
	8278 Aug 16 01:43	0° \mathbb{M}	direct	8281 Jan 25 05:02	8° \mathbb{Z} 40'30	
			greatest brilliancy	8281 Feb 05 09:08	10° \mathbb{Z} 59'14	-4.8m
superior conj	8278 Aug 16 21:52	1° \mathbb{M} 02'20		8281 Mar 04 19:20	0° \approx	
minimum elong	8278 Aug 16 16:35	0° \mathbb{M} 45'59	morning max el	8281 Mar 16 13:20	11° \approx 15'41	46°45'07
max. Earth dist.	8278 Aug 19 05:20	3° \mathbb{M} 53'54		8281 Apr 03 06:39	0° \mathbb{H}	
	8278 Sep 09 08:21	0° \mathbb{L}		8281 Apr 29 13:59	0° \mathbb{Y}	
evening rise	8278 Sep 22 21:27	16° \mathbb{L} 41'46	desc. node	8281 May 13 07:00	16° \mathbb{Y} 13'37	
	8278 Oct 03 16:56	0° \mathbb{M}		8281 May 24 18:17	0° \mathbb{B}	
	8278 Oct 28 04:18	0° \mathbb{M}		8281 Jun 18 10:38	0° \mathbb{I}	
	8278 Nov 21 19:27	0° \mathbb{Z}		8281 Jul 12 22:05	0° \mathbb{G}	
desc. node	8278 Nov 26 10:13	5° \mathbb{Z} 35'53		8281 Aug 06 08:11	0° Ω	
	8278 Dec 16 15:08	0° \approx		8281 Aug 30 18:01	0° \mathbb{M}	
	8279 Jan 10 16:18	0° \mathbb{H}	asc. node	8281 Sep 03 04:52	4° \mathbb{M} 14'39	
	8279 Feb 05 02:33	0° \mathbb{Y}	morning set	8281 Sep 17 18:19	22° \mathbb{M} 09'07	
	8279 Mar 03 09:51	0° \mathbb{B}		8281 Sep 24 03:20	0° \mathbb{L}	
asc. node	8279 Mar 19 09:54	17° \mathbb{B} 11'18		8281 Oct 18 11:49	0° \mathbb{M}	
evening max el	8279 Mar 23 16:35	21° \mathbb{B} 33'50	max. Earth dist.	8281 Oct 24 03:46	6° \mathbb{M} 59'04	1.73313 AU
	8279 Apr 01 07:48	0° \mathbb{I}				
greatest brilliancy	8279 May 03 08:15	22° \mathbb{I} 41'32	superior conj	8281 Oct 24 12:39	7° \mathbb{M} 26'29	1°25'15

minimum elong	8281 Oct 24 10:15	7° \mathbb{M} 19'04	1°25'21	direct	8284 Apr 07 11:38	21° \mathbb{H} 36'53	
	8281 Nov 11 19:45	0° \mathbb{A}		greatest brilliancy	8284 Apr 17 05:19	23° \mathbb{H} 25'05	-4.9m
evening rise	8281 Nov 30 05:34	22° \mathbb{A} 41'51			8284 Apr 29 17:48	0° \mathbb{Y}	
	8281 Dec 06 03:48	0° \mathbb{Z}		morning max el	8284 May 27 23:12	24° \mathbb{Y} 28'35	46°56'20
desc. node	8281 Dec 23 22:03	21° \mathbb{Z} 52'42			8284 Jun 02 08:57	0° \mathbb{B}	
	8281 Dec 30 12:20	0° \approx		desc. node	8284 Jun 09 19:00	7° \mathbb{B} 50'12	
	8282 Jan 23 21:11	0° \mathbb{H}			8284 Jun 29 18:33	0° \mathbb{I}	
	8282 Feb 17 06:34	0° \mathbb{Y}			8284 Jul 25 15:27	0° \mathbb{G}	
	8282 Mar 13 18:29	0° \mathbb{B}			8284 Aug 19 22:06	0° \mathbb{Q}	
	8282 Apr 07 14:06	0° \mathbb{I}			8284 Sep 13 21:38	0° \mathbb{P}	
asc. node	8282 Apr 15 21:13	9° \mathbb{I} 51'54		asc. node	8284 Sep 30 17:02	20° \mathbb{P} 20'17	
	8282 May 03 03:58	0° \mathbb{G}			8284 Oct 08 15:56	0° \mathbb{L}	
	8282 May 30 13:30	0° \mathbb{Q}			8284 Nov 02 05:27	0° \mathbb{M}	
evening max el	8282 Jun 03 21:30	4° \mathbb{Q} 24'09	46°39'17	morning set	8284 Nov 25 06:27	28° \mathbb{M} 19'54	
	8282 Jul 04 06:17	0° \mathbb{P}			8284 Nov 26 14:55	0° \mathbb{A}	
greatest brilliancy	8282 Jul 13 00:14	4° \mathbb{P} 25'58	-4.8m		8284 Dec 20 21:32	0° \mathbb{Z}	
retrograde	8282 Jul 24 01:51	6° \mathbb{P} 42'08		max. Earth dist.	8284 Dec 29 23:36	11° \mathbb{Z} 15'23	1.72642 AU
desc. node	8282 Aug 05 16:20	3° \mathbb{P} 30'56					
evening set	8282 Aug 07 23:01	2° \mathbb{P} 20'16		superior conj	8285 Jan 01 09:14	14° \mathbb{Z} 13'59	0°43'56
	8282 Aug 11 23:11	30° \mathbb{R} \mathbb{Q}		minimum elong	8285 Jan 01 18:00	14° \mathbb{Z} 41'09	0°43'44
min. Earth dist.	8282 Aug 13 16:26	28° \mathbb{Q} 56'25	0.28141 AU		8285 Jan 14 02:10	0° \approx	
inferior conj	8282 Aug 14 07:28	28° \mathbb{Q} 33'06	-2°07'08	desc. node	8285 Jan 20 10:06	7° \approx 51'59	
minimum elong	8282 Aug 14 02:46	28° \mathbb{Q} 40'23	2°05'48		8285 Feb 07 05:03	0° \mathbb{H}	
morning rise	8282 Aug 20 07:12	24° \mathbb{Q} 59'14		evening rise	8285 Feb 09 04:45	2° \mathbb{H} 28'33	
direct	8282 Sep 04 10:59	20° \mathbb{Q} 32'30			8285 Mar 03 06:19	0° \mathbb{Y}	
greatest brilliancy	8282 Sep 14 04:56	22° \mathbb{Q} 16'08	-4.7m		8285 Mar 27 06:53	0° \mathbb{B}	
	8282 Sep 28 22:46	0° \mathbb{P}			8285 Apr 20 09:05	0° \mathbb{I}	
morning max el	8282 Oct 23 05:22	20° \mathbb{P} 19'44	45°42'16	asc. node	8285 May 13 08:50	28° \mathbb{I} 23'00	
	8282 Nov 02 00:33	0° \mathbb{L}			8285 May 14 16:29	0° \mathbb{G}	
asc. node	8282 Nov 26 15:31	26° \mathbb{L} 20'44			8285 Jun 08 09:55	0° \mathbb{Q}	
	8282 Nov 29 21:57	0° \mathbb{M}			8285 Jul 03 21:19	0° \mathbb{P}	
	8282 Dec 25 22:28	0° \mathbb{A}			8285 Jul 30 21:12	0° \mathbb{L}	
	8283 Jan 20 00:39	0° \mathbb{Z}		evening max el	8285 Aug 13 18:17	14° \mathbb{L} 09'57	45°54'07
	8283 Feb 13 14:11	0° \approx			8285 Aug 31 10:34	0° \mathbb{M}	
	8283 Mar 09 20:04	0° \mathbb{H}		desc. node	8285 Sep 02 03:45	1° \mathbb{M} 20'45	
desc. node	8283 Mar 18 08:27	10° \mathbb{H} 36'13		greatest brilliancy	8285 Sep 21 10:09	12° \mathbb{M} 45'47	-4.7m
	8283 Apr 02 21:01	0° \mathbb{Y}		retrograde	8285 Oct 01 21:19	14° \mathbb{M} 44'42	
morning set	8283 Apr 23 13:02	25° \mathbb{Y} 55'14		evening set	8285 Oct 19 22:27	8° \mathbb{M} 38'39	
	8283 Apr 26 18:59	0° \mathbb{B}		inferior conj	8285 Oct 23 10:56	6° \mathbb{M} 27'10	-8°32'09
	8283 May 20 16:01	0° \mathbb{I}		minimum elong	8285 Oct 23 08:00	6° \mathbb{M} 31'48	8°31'56
				min. Earth dist.	8285 Oct 23 08:54	6° \mathbb{M} 30'23	0.29166 AU
superior conj	8283 Jun 02 21:44	16° \mathbb{I} 36'46	-1°14'17	morning rise	8285 Oct 26 17:34	4° \mathbb{M} 24'35	
minimum elong	8283 Jun 03 08:16	17° \mathbb{I} 09'46	1°14'11		8285 Nov 04 08:59	30° \mathbb{R} \mathbb{L}	
max. Earth dist.	8283 Jun 05 18:43	20° \mathbb{I} 13'01	1.71541 AU	direct	8285 Nov 14 00:28	28° \mathbb{L} 09'48	
	8283 Jun 13 14:12	0° \mathbb{G}			8285 Nov 24 01:51	0° \mathbb{M}	
	8283 Jul 07 15:09	0° \mathbb{Q}		greatest brilliancy	8285 Nov 24 09:27	0° \mathbb{M} 06'45	-4.7m
asc. node	8283 Jul 09 06:34	2° \mathbb{Q} 02'38		asc. node	8285 Dec 24 03:18	20° \mathbb{M} 17'38	
evening rise	8283 Jul 12 17:31	6° \mathbb{Q} 20'24		morning max el	8286 Jan 02 05:36	28° \mathbb{M} 51'30	45°58'24
	8283 Jul 31 19:47	0° \mathbb{P}			8286 Jan 03 09:27	0° \mathbb{A}	
	8283 Aug 25 04:52	0° \mathbb{L}			8286 Jan 31 13:41	0° \mathbb{Z}	
	8283 Sep 18 19:53	0° \mathbb{M}			8286 Feb 26 11:44	0° \approx	
	8283 Oct 13 19:34	0° \mathbb{A}			8286 Mar 23 10:42	0° \mathbb{H}	
desc. node	8283 Oct 29 00:32	17° \mathbb{A} 57'59		desc. node	8286 Apr 14 20:42	27° \mathbb{H} 28'58	
	8283 Nov 08 08:02	0° \mathbb{Z}			8286 Apr 16 21:39	0° \mathbb{Y}	
	8283 Dec 04 16:35	0° \approx			8286 May 11 02:02	0° \mathbb{B}	
	8284 Jan 01 17:44	0° \mathbb{H}			8286 Jun 04 03:30	0° \mathbb{I}	
evening max el	8284 Jan 07 09:11	5° \mathbb{H} 37'36	46°21'49		8286 Jun 28 04:47	0° \mathbb{G}	
	8284 Feb 05 12:37	0° \mathbb{Y}		morning set	8286 Jul 07 03:29	11° \mathbb{G} 08'33	
greatest brilliancy	8284 Feb 16 05:34	5° \mathbb{Y} 21'14	-4.9m		8286 Jul 22 07:32	0° \mathbb{Q}	
asc. node	8284 Feb 19 00:35	6° \mathbb{Y} 13'10		asc. node	8286 Aug 05 18:35	17° \mathbb{Q} 56'33	
retrograde	8284 Feb 26 03:51	7° \mathbb{Y} 11'24					
evening set	8284 Mar 12 12:20	2° \mathbb{Y} 33'26		superior conj	8286 Aug 14 13:55	28° \mathbb{Q} 50'58	0°21'08
	8284 Mar 16 20:00	30° \mathbb{R} \mathbb{H}		minimum elong	8286 Aug 14 09:17	28° \mathbb{Q} 36'37	0°20'49
inferior conj	8284 Mar 17 18:47	29° \mathbb{H} 25'00	6°29'10		8286 Aug 15 12:14	0° \mathbb{P}	
minimum elong	8284 Mar 17 07:42	29° \mathbb{H} 42'02	6°26'38	max. Earth dist.	8286 Aug 16 22:29	1° \mathbb{P} 45'57	1.72792 AU
min. Earth dist.	8284 Mar 17 13:49	29° \mathbb{H} 32'38	0.27017 AU		8286 Sep 08 18:50	0° \mathbb{L}	
morning rise	8284 Mar 22 03:05	26° \mathbb{H} 48'10		evening rise	8286 Sep 20 15:11	14° \mathbb{L} 36'11	

	8286 Oct 03 03:32	0°♌			8289 May 24 07:16	0°♎	
	8286 Oct 27 15:08	0°♏			8289 Jun 17 22:46	0°♐	
	8286 Nov 21 06:40	0°♑			8289 Jul 12 09:41	0°♒	
desc. node	8286 Nov 25 12:15	5°♑07'46			8289 Aug 05 19:24	0°♓	
	8286 Dec 16 02:56	0°♒			8289 Aug 30 04:59	0°♐	
	8287 Jan 10 05:02	0°♓		asc. node	8289 Sep 02 06:43	3°♐46'43	
	8287 Feb 04 16:52	0°♑		morning set	8289 Sep 15 11:11	20°♐00'00	
	8287 Mar 03 03:21	0°♎			8289 Sep 23 14:08	0°♑	
asc. node	8287 Mar 18 11:48	16°♎21'16			8289 Oct 17 22:31	0°♌	
evening max el	8287 Mar 21 04:47	19°♎06'34 46°58'42					
	8287 Apr 01 11:24	0°♐		superior conj	8289 Oct 22 06:30	5°♌20'32 1°24'47	
greatest brilliancy	8287 Apr 30 22:34	20°♐18'00 -4.9m		minimum elong	8289 Oct 22 03:25	5°♌11'02 1°24'51	
retrograde	8287 May 10 18:17	22°♐08'04		max. Earth dist.	8289 Oct 22 01:22	5°♌04'41 1.73312 AU	
evening set	8287 May 28 02:30	16°♐21'41			8289 Nov 11 06:27	0°♏	
inferior conj	8287 May 31 13:06	14°♐15'57 7°59'03		evening rise	8289 Nov 27 22:27	20°♏32'44	
minimum elong	8287 May 31 22:42	14°♐01'07 7°57'23			8289 Dec 05 14:38	0°♑	
min. Earth dist.	8287 May 31 14:59	14°♐13'02 0.27239 AU		desc. node	8289 Dec 23 00:06	21°♑25'07	
morning rise	8287 Jun 04 18:57	11°♐41'56			8289 Dec 29 23:24	0°♒	
direct	8287 Jun 21 05:21	6°♐27'20			8290 Jan 23 08:37	0°♓	
greatest brilliancy	8287 Jul 01 00:24	8°♐14'16 -4.8m			8290 Feb 16 18:28	0°♑	
desc. node	8287 Jul 08 06:41	11°♐31'14			8290 Mar 13 07:02	0°♎	
	8287 Aug 01 14:41	0°♒			8290 Apr 07 03:44	0°♐	
morning max el	8287 Aug 09 22:11	7°♒52'08 46°16'07		asc. node	8290 Apr 14 23:13	9°♐16'01	
	8287 Aug 31 08:08	0°♓			8290 May 02 19:41	0°♒	
	8287 Sep 27 07:10	0°♐			8290 May 30 10:36	0°♓	
	8287 Oct 23 03:48	0°♑		evening max el	8290 Jun 01 13:22	2°♓08'06 46°40'49	
asc. node	8287 Oct 29 05:24	7°♑09'31			8290 Jul 05 21:49	0°♐	
	8287 Nov 17 08:44	0°♌		greatest brilliancy	8290 Jul 10 15:57	2°♐10'03 -4.8m	
	8287 Dec 12 02:45	0°♏		retrograde	8290 Jul 21 17:42	4°♐25'54	
	8288 Jan 05 13:11	0°♑		desc. node	8290 Aug 04 18:14	0°♐31'22	
	8288 Jan 29 18:29	0°♒		evening set	8290 Aug 05 13:54	0°♐04'58	
morning set	8288 Feb 04 12:49	7°♒10'04			8290 Aug 05 17:31	30°♒♓	
desc. node	8288 Feb 17 22:10	23°♒51'34		inferior conj	8290 Aug 11 22:24	26°♓17'27 -1°46'08	
	8288 Feb 22 20:09	0°♓		minimum elong	8290 Aug 11 18:27	26°♓23'36 1°45'02	
max. Earth dist.	8288 Mar 13 02:12	24°♓06'05 1.71456 AU		min. Earth dist.	8290 Aug 11 07:34	26°♓40'29 0.28092 AU	
				morning rise	8290 Aug 17 23:47	22°♓41'35	
superior conj	8288 Mar 15 14:42	27°♓15'49 -0°59'14		direct	8290 Sep 02 02:11	18°♓17'44	
minimum elong	8288 Mar 15 03:02	26°♓39'15 0°58'47		greatest brilliancy	8290 Sep 11 18:51	20°♓00'43 -4.7m	
	8288 Mar 17 19:02	0°♑			8290 Sep 29 17:28	0°♐	
	8288 Apr 10 16:11	0°♎		morning max el	8290 Oct 20 20:38	18°♐07'16 45°42'38	
evening rise	8288 Apr 25 00:20	18°♎01'18			8290 Nov 01 19:43	0°♑	
	8288 May 04 13:22	0°♐		asc. node	8290 Nov 25 17:32	25°♑44'31	
	8288 May 28 12:49	0°♒			8290 Nov 29 12:35	0°♌	
asc. node	8288 Jun 09 20:38	15°♒20'14			8290 Dec 25 11:17	0°♏	
	8288 Jun 21 16:50	0°♓			8291 Jan 19 12:36	0°♑	
	8288 Jul 16 03:47	0°♐			8291 Feb 13 01:43	0°♒	
	8288 Aug 10 01:04	0°♑			8291 Mar 09 07:23	0°♓	
	8288 Sep 04 15:12	0°♌		desc. node	8291 Mar 17 10:23	10°♓07'12	
desc. node	8288 Sep 29 15:04	27°♌56'56			8291 Apr 02 08:13	0°♑	
	8288 Oct 01 12:47	0°♏		morning set	8291 Apr 20 23:32	23°♑22'37	
evening max el	8288 Oct 23 18:56	22°♏43'05 45°43'36			8291 Apr 26 06:06	0°♎	
	8288 Oct 31 15:59	0°♑			8291 May 20 03:05	0°♐	
greatest brilliancy	8288 Dec 02 01:45	20°♑53'25 -4.8m					
retrograde	8288 Dec 11 13:34	22°♑32'01		superior conj	8291 May 31 09:25	14°♐08'14 -1°16'17	
evening set	8288 Dec 27 08:35	17°♑44'07		minimum elong	8291 May 31 19:30	14°♐39'50 1°16'12	
inferior conj	8289 Jan 01 16:09	14°♑32'49 -4°29'51		max. Earth dist.	8291 Jun 03 06:20	17°♐44'18 1.71504 AU	
minimum elong	8289 Jan 02 01:03	14°♑19'00 4°27'19			8291 Jun 13 01:14	0°♒	
min. Earth dist.	8289 Jan 02 12:13	14°♑01'42 0.28090 AU			8291 Jul 07 02:11	0°♓	
morning rise	8289 Jan 07 16:52	10°♑56'17		asc. node	8291 Jul 08 08:28	1°♓34'12	
asc. node	8289 Jan 20 14:57	6°♑30'24		evening rise	8291 Jul 10 07:05	3°♓59'07	
direct	8289 Jan 22 21:02	6°♑24'12			8291 Jul 31 06:53	0°♐	
greatest brilliancy	8289 Feb 03 00:43	8°♑43'02 -4.8m			8291 Aug 24 16:07	0°♑	
	8289 Mar 04 22:37	0°♒			8291 Sep 18 07:30	0°♌	
morning max el	8289 Mar 14 05:24	8°♒59'51 46°43'42			8291 Oct 13 07:50	0°♏	
	8289 Apr 03 00:02	0°♓		desc. node	8291 Oct 28 02:36	17°♏26'17	
	8289 Apr 29 04:22	0°♑			8291 Nov 07 21:29	0°♑	
desc. node	8289 May 12 09:05	15°♑39'31			8291 Dec 04 08:20	0°♒	

	8292 Jan 01 15:18	0° H			8294 Jun 03 14:43	0° II	
evening max el	8292 Jan 04 23:00	3° H 17'03 46°20'08			8294 Jun 27 15:51	0° G	
	8292 Feb 07 04:40	0° Y		morning set	8294 Jul 04 17:39	8° G 48'57	
greatest brilliancy	8292 Feb 13 19:09	2° Y 57'26 -4.9m			8294 Jul 21 18:28	0° Q	
asc. node	8292 Feb 18 02:26	4° Y 10'34		asc. node	8294 Aug 04 20:28	17° Q 28'41	
retrograde	8292 Feb 23 16:20	4° Y 46'30					
evening set	8292 Mar 09 22:06	0° Y 13'34		superior conj	8294 Aug 12 05:33	26° Q 37'10 0°17'45	
	8292 Mar 10 07:48	30° R H		minimum elong	8294 Aug 12 01:36	26° Q 24'57 0°17'28	
inferior conj	8292 Mar 15 07:54	27° H 00'22 6°11'46		max. Earth dist.	8294 Aug 14 13:33	29° Q 30'28 1.72757 AU	
minimum elong	8292 Mar 14 20:55	27° H 17'17 6°09'08			8294 Aug 14 23:05	0° M	
min. Earth dist.	8292 Mar 15 03:41	27° H 06'52 0.27022 AU			8294 Sep 08 05:41	0° A	
morning rise	8292 Mar 19 19:41	24° H 18'11		evening rise	8294 Sep 18 08:29	12° A 28'09	
direct	8292 Apr 05 00:37	19° H 11'59			8294 Oct 02 14:28	0° M	
greatest brilliancy	8292 Apr 14 19:54	21° H 01'02 -4.9m			8294 Oct 27 02:17	0° J	
	8292 Apr 30 17:46	0° Y			8294 Nov 20 18:12	0° Z	
morning max el	8292 May 25 11:26	22° Y 00'54 46°56'49		desc. node	8294 Nov 24 14:15	4° Z 38'38	
	8292 Jun 02 05:41	0° B			8294 Dec 15 15:04	0° \approx	
desc. node	8292 Jun 08 21:01	7° B 04'34			8295 Jan 09 18:07	0° H	
	8292 Jun 29 10:19	0° II			8295 Feb 04 07:35	0° Y	
	8292 Jul 25 05:08	0° G			8295 Mar 02 21:27	0° B	
	8292 Aug 19 10:38	0° Q		asc. node	8295 Mar 17 13:56	15° B 30'38	
	8292 Sep 13 09:26	0° M		evening max el	8295 Mar 18 17:52	16° B 41'19 46°58'25	
asc. node	8292 Sep 29 19:05	19° M 51'46			8295 Apr 01 16:56	0° II	
	8292 Oct 08 03:15	0° A		greatest brilliancy	8295 Apr 28 12:17	17° II 53'56 -4.9m	
	8292 Nov 01 16:28	0° M		retrograde	8295 May 08 08:03	19° II 44'23	
morning set	8292 Nov 22 23:30	26° M 10'52		evening set	8295 May 25 19:13	13° II 52'46	
	8292 Nov 26 01:50	0° J		inferior conj	8295 May 29 02:25	11° II 52'17 8°10'26	
	8292 Dec 20 08:25	0° Z		minimum elong	8295 May 29 11:32	11° II 38'14 8°08'56	
max. Earth dist.	8292 Dec 27 15:03	9° Z 00'49 1.72678 AU		min. Earth dist.	8295 May 29 04:05	11° II 49'43 0.27229 AU	
				morning rise	8295 Jun 02 03:56	9° II 24'55	
superior conj	8292 Dec 30 00:51	11° Z 59'54 0°46'53		direct	8295 Jun 18 18:23	4° II 03'37	
minimum elong	8292 Dec 30 09:57	12° Z 28'07 0°46'40		greatest brilliancy	8295 Jun 28 13:10	5° II 50'45 -4.8m	
	8293 Jan 13 13:06	0° \approx		desc. node	8295 Jul 07 08:35	10° II 00'05	
desc. node	8293 Jan 19 12:00	7° \approx 23'50			8295 Aug 01 17:15	0° G	
evening rise	8293 Feb 06 18:38	0° H 07'58		morning max el	8295 Aug 07 12:56	5° G 34'25 46°17'41	
	8293 Feb 06 16:05	0° H			8295 Aug 31 01:14	0° Q	
	8293 Mar 02 17:28	0° Y			8295 Sep 26 21:11	0° M	
	8293 Mar 26 18:16	0° B			8295 Oct 22 16:21	0° A	
	8293 Apr 19 20:47	0° II		asc. node	8295 Oct 28 07:24	6° A 39'02	
asc. node	8293 May 12 10:53	27° II 51'59			8295 Nov 16 20:29	0° M	
	8293 May 14 04:40	0° G			8295 Dec 11 14:01	0° J	
	8293 Jun 07 22:55	0° Q			8296 Jan 05 00:12	0° Z	
	8293 Jul 03 11:54	0° M			8296 Jan 29 05:25	0° \approx	
	8293 Jul 30 15:34	0° A		morning set	8296 Feb 02 02:26	4° \approx 49'07	
evening max el	8293 Aug 11 08:25	11° A 53'06 45°55'21		desc. node	8296 Feb 17 00:04	23° \approx 23'28	
	8293 Aug 31 22:05	0° M			8296 Feb 22 07:04	0° H	
desc. node	8293 Sep 01 05:44	0° M 14'26		max. Earth dist.	8296 Mar 10 13:49	21° H 37'47 1.71486 AU	
greatest brilliancy	8293 Sep 19 01:31	10° M 34'43 -4.7m					
retrograde	8293 Sep 29 13:09	12° M 34'38		superior conj	8296 Mar 13 02:05	24° H 46'43 -0°56'17	
evening set	8293 Oct 17 12:34	6° M 31'29		minimum elong	8296 Mar 12 14:37	24° H 10'44 0°55'49	
inferior conj	8293 Oct 21 03:11	4° M 16'57 -8°28'57			8296 Mar 17 05:58	0° Y	
minimum elong	8293 Oct 20 23:30	4° M 22'45 8°28'39			8296 Apr 10 03:10	0° B	
min. Earth dist.	8293 Oct 21 00:16	4° M 21'32 0.29163 AU		evening rise	8296 Apr 22 11:12	15° B 30'12	
morning rise	8293 Oct 24 10:26	2° M 13'27			8296 May 04 00:22	0° II	
	8293 Oct 28 07:24	30° R A			8296 May 27 23:54	0° G	
direct	8293 Nov 11 15:59	25° A 59'41		asc. node	8296 Jun 08 22:32	14° G 51'25	
greatest brilliancy	8293 Nov 22 01:16	27° A 56'24 -4.7m			8296 Jun 21 04:07	0° Q	
	8293 Nov 26 21:04	0° M			8296 Jul 15 15:26	0° M	
asc. node	8293 Dec 23 05:17	19° M 22'55			8296 Aug 09 13:25	0° A	
morning max el	8293 Dec 30 20:13	26° M 35'47 45°57'12			8296 Sep 04 04:56	0° M	
	8294 Jan 03 06:42	0° J		desc. node	8296 Sep 28 17:08	27° M 18'08	
	8294 Jan 31 05:10	0° Z			8296 Oct 01 05:38	0° J	
	8294 Feb 26 01:09	0° \approx		evening max el	8296 Oct 21 10:38	20° J 31'51 45°43'04	
	8294 Mar 22 23:05	0° H			8296 Oct 31 19:35	0° Z	
desc. node	8294 Apr 13 22:47	26° H 58'53		greatest brilliancy	8296 Nov 29 15:32	18° Z 38'04 -4.8m	
	8294 Apr 16 09:27	0° Y		retrograde	8296 Dec 09 04:23	20° Z 16'57	
	8294 May 10 13:29	0° B		evening set	8296 Dec 25 02:00	15° Z 25'02	

inferior conj	8296 Dec 30 06:58	12°♊16'56	-4°47'58	max. Earth dist.	8299 May 31 15:27	15°♊08'43	1.71467 AU
minimum elong	8296 Dec 30 16:14	12°♊02'32	4°45'25		8299 Jun 12 11:57	0°♊	
min. Earth dist.	8296 Dec 31 02:50	11°♊46'05	0.28148 AU		8299 Jul 06 12:54	0°♊	
morning rise	8297 Jan 05 05:55	8°♊42'49		asc. node	8299 Jul 07 10:25	1°♊06'54	
asc. node	8297 Jan 19 16:51	4°♊08'40		evening rise	8299 Jul 07 20:33	1°♊38'26	
direct	8297 Jan 20 12:57	4°♊07'49			8299 Jul 30 17:38	0°♊	
greatest brilliancy	8297 Jan 31 15:35	6°♊25'50	-4.8m		8299 Aug 24 03:01	0°♊	
	8297 Mar 05 00:22	0°♊			8299 Sep 17 18:45	0°♊	
morning max el	8297 Mar 11 20:55	6°♊42'54	46°42'13		8299 Oct 12 19:46	0°♊	
	8297 Apr 02 16:58	0°♊		desc. node	8299 Oct 27 04:33	16°♊55'19	
	8297 Apr 28 18:30	0°♊			8299 Nov 07 10:41	0°♊	
desc. node	8297 May 11 10:58	15°♊05'21			8299 Dec 04 00:02	0°♊	
	8297 May 23 20:02	0°♊			8300 Jan 01 13:29	0°♊	
	8297 Jun 17 10:44	0°♊		evening max el	8300 Jan 02 11:59	0°♊55'09	46°18'16
	8297 Jul 11 21:06	0°♊			8300 Feb 09 20:45	0°♊	
	8297 Aug 05 06:26	0°♊		greatest brilliancy	8300 Feb 11 08:47	0°♊33'47	-4.8m
	8297 Aug 29 15:45	0°♊		asc. node	8300 Feb 17 04:34	2°♊03'08	
asc. node	8297 Sep 01 08:45	3°♊19'56		retrograde	8300 Feb 21 04:28	2°♊21'48	
morning set	8297 Sep 13 04:09	17°♊51'46			8300 Mar 04 00:49	30°♊	
	8297 Sep 23 00:45	0°♊		evening set	8300 Mar 08 07:47	27°♊53'17	
	8297 Oct 17 09:05	0°♊		inferior conj	8300 Mar 13 20:49	24°♊35'54	5°53'26
				minimum elong	8300 Mar 13 10:00	24°♊52'34	5°50'46
superior conj	8297 Oct 20 00:15	3°♊14'41	1°24'12	min. Earth dist.	8300 Mar 13 17:38	24°♊40'48	0.27029 AU
minimum elong	8297 Oct 19 20:30	3°♊03'08	1°24'15	morning rise	8300 Mar 18 12:03	21°♊48'35	
max. Earth dist.	8297 Oct 19 22:06	3°♊08'03	1.73316 AU	direct	8300 Apr 03 13:03	16°♊47'01	
	8297 Nov 10 17:04	0°♊		greatest brilliancy	8300 Apr 13 10:43	18°♊37'44	-4.9m
evening rise	8297 Nov 25 15:03	18°♊22'57			8300 May 02 11:11	0°♊	
	8297 Dec 05 01:23	0°♊		morning max el	8300 May 23 23:39	19°♊34'04	46°57'28
desc. node	8297 Dec 22 01:56	20°♊57'10			8300 Jun 03 01:24	0°♊	
	8297 Dec 29 10:24	0°♊		desc. node	8300 Jun 08 22:57	6°♊20'24	
	8298 Jan 22 19:57	0°♊			8300 Jun 30 01:27	0°♊	
	8298 Feb 16 06:15	0°♊			8300 Jul 25 18:18	0°♊	
	8298 Mar 12 19:30	0°♊			8300 Aug 19 22:41	0°♊	
	8298 Apr 06 17:18	0°♊			8300 Sep 13 20:46	0°♊	
asc. node	8298 Apr 14 01:15	8°♊40'34		asc. node	8300 Sep 29 21:05	19°♊24'24	
	8298 May 02 11:25	0°♊			8300 Oct 08 14:07	0°♊	
evening max el	8298 May 30 05:01	29°♊52'04	46°42'17		8300 Nov 02 03:04	0°♊	
	8298 May 30 08:11	0°♊		morning set	8300 Nov 21 16:48	24°♊03'57	
greatest brilliancy	8298 Jul 08 08:24	29°♊55'49	-4.8m		8300 Nov 26 12:18	0°♊	
	8298 Jul 08 12:44	0°♊			8300 Dec 20 18:55	0°♊	
retrograde	8298 Jul 19 09:14	2°♊10'27		max. Earth dist.	8300 Dec 26 09:05	6°♊55'28	1.72721 AU
	8298 Jul 29 17:59	30°♊					
evening set	8298 Aug 03 05:02	27°♊50'28		superior conj	8300 Dec 28 16:37	9°♊47'31	0°49'44
desc. node	8298 Aug 03 20:12	27°♊29'28		minimum elong	8300 Dec 29 02:00	10°♊16'32	0°49'31
min. Earth dist.	8298 Aug 08 23:01	24°♊25'14	0.28040 AU		8301 Jan 13 23:41	0°♊	
inferior conj	8298 Aug 09 13:24	24°♊02'53	-1°24'54	desc. node	8301 Jan 19 14:00	6°♊57'06	
minimum elong	8298 Aug 09 10:13	24°♊07'50	1°24'02	evening rise	8301 Feb 05 08:29	27°♊48'20	
morning rise	8298 Aug 15 16:14	20°♊25'02			8301 Feb 07 02:48	0°♊	
direct	8298 Aug 30 17:06	16°♊04'11			8301 Mar 03 04:23	0°♊	
greatest brilliancy	8298 Sep 09 08:56	17°♊46'26	-4.8m		8301 Mar 27 05:24	0°♊	
	8298 Sep 30 06:49	0°♊			8301 Apr 20 08:14	0°♊	
morning max el	8298 Oct 18 10:58	15°♊53'31	45°42'55	asc. node	8301 May 12 12:46	27°♊21'27	
	8298 Nov 01 13:59	0°♊			8301 May 14 16:35	0°♊	
asc. node	8298 Nov 24 19:26	25°♊09'10			8301 Jun 08 11:38	0°♊	
	8298 Nov 29 02:45	0°♊			8301 Jul 04 02:13	0°♊	
	8298 Dec 24 23:48	0°♊			8301 Jul 31 09:54	0°♊	
	8299 Jan 19 00:20	0°♊		evening max el	8301 Aug 09 23:04	9°♊38'48	45°56'44
	8299 Feb 12 13:01	0°♊		desc. node	8301 Sep 01 07:50	29°♊08'01	
	8299 Mar 08 18:27	0°♊			8301 Sep 02 12:42	0°♊	
desc. node	8299 Mar 16 12:27	9°♊39'20		greatest brilliancy	8301 Sep 17 16:32	8°♊24'47	-4.7m
	8299 Apr 01 19:08	0°♊		retrograde	8301 Sep 28 05:37	10°♊26'27	
morning set	8299 Apr 18 09:49	20°♊50'14		evening set	8301 Oct 16 02:34	4°♊26'21	
	8299 Apr 25 16:55	0°♊		inferior conj	8301 Oct 19 19:35	2°♊08'28	-8°24'54
	8299 May 19 13:50	0°♊		minimum elong	8301 Oct 19 15:11	2°♊15'23	8°24'32
				min. Earth dist.	8301 Oct 19 15:35	2°♊14'46	0.29156 AU
superior conj	8299 May 28 21:04	11°♊40'34	-1°18'09	morning rise	8301 Oct 23 03:48	0°♊03'41	
minimum elong	8299 May 29 06:36	12°♊10'27	1°18'05		8301 Oct 23 06:14	30°♊	

direct	8301 Nov 10 07:49	23° Ω 51'19		8304 May 04 11:13	0° Π	
greatest brilliancy	8301 Nov 20 17:00	25° Ω 47'53	-4.7m	8304 May 28 10:53	0° Θ	
	8301 Nov 29 12:40	0° \mathbb{M}		asc. node	8304 Jun 09 00:29	14° Θ 23'02
asc. node	8301 Dec 23 07:12	18° \mathbb{M} 30'48			8304 Jun 21 15:19	0° Ω
morning max el	8301 Dec 29 11:45	24° \mathbb{M} 24'04	45°56'00		8304 Jul 16 03:02	0° \mathbb{M}
	8302 Jan 04 02:37	0° \mathcal{A}			8304 Aug 10 01:42	0° Ω
	8302 Jan 31 19:58	0° \mathcal{B}			8304 Sep 04 18:37	0° \mathbb{M}
	8302 Feb 26 14:04	0° \approx		desc. node	8304 Sep 28 19:03	26° \mathbb{M} 39'07
	8302 Mar 23 11:06	0° \mathcal{H}			8304 Oct 01 22:36	0° \mathcal{A}
desc. node	8302 Apr 14 00:42	26° \mathcal{H} 29'04		evening max el	8304 Oct 20 02:19	18° \mathcal{A} 21'15 45°42'39
	8302 Apr 16 20:58	0° Υ			8304 Nov 02 00:42	0° \mathcal{B}
	8302 May 11 00:41	0° \mathcal{B}		greatest brilliancy	8304 Nov 28 06:08	16° \mathcal{B} 24'48 -4.8m
	8302 Jun 04 01:41	0° Π		retrograde	8304 Dec 07 18:58	18° \mathcal{B} 03'13
	8302 Jun 28 02:36	0° Θ		evening set	8304 Dec 23 19:45	13° \mathcal{B} 07'23
morning set	8302 Jul 03 07:29	6° Θ 29'09		inferior conj	8304 Dec 28 22:02	10° \mathcal{B} 02'37 -5°05'28
	8302 Jul 22 05:03	0° Ω		minimum elong	8304 Dec 29 07:37	9° \mathcal{B} 47'42 5°02'54
asc. node	8302 Aug 04 22:30	17° Ω 02'17		min. Earth dist.	8304 Dec 29 17:54	9° \mathcal{B} 31'42 0.28202 AU
				morning rise	8305 Jan 03 18:59	6° \mathcal{B} 30'53
superior conj	8302 Aug 10 21:01	24° Ω 23'52	0°14'20	direct	8305 Jan 19 04:50	1° \mathcal{B} 53'00
minimum elong	8302 Aug 10 17:48	24° Ω 13'54	0°14'05	asc. node	8305 Jan 19 18:56	1° \mathcal{B} 53'25
behind sun begin	8302 Aug 10 06:22	23° Ω 38'30		greatest brilliancy	8305 Jan 30 06:43	4° \mathcal{B} 10'03 -4.8m
behind sun end	8302 Aug 11 05:13	24° Ω 49'17			8305 Mar 06 00:30	0° \approx
max. Earth dist.	8302 Aug 13 05:38	27° Ω 19'13	1.72719 AU	morning max el	8305 Mar 10 11:46	4° \approx 25'09 46°40'46
	8302 Aug 15 09:35	0° \mathbb{M}			8305 Apr 03 09:19	0° \mathcal{H}
	8302 Sep 08 16:11	0° Ω			8305 Apr 29 08:17	0° Υ
evening rise	8302 Sep 17 01:55	10° Ω 21'42		desc. node	8305 May 11 12:55	14° Υ 32'02
	8302 Oct 03 01:04	0° \mathbb{M}			8305 May 24 08:35	0° \mathcal{B}
	8302 Oct 27 13:04	0° \mathcal{A}			8305 Jun 17 22:34	0° Π
	8302 Nov 21 05:21	0° \mathcal{B}			8305 Jul 12 08:28	0° Θ
desc. node	8302 Nov 24 16:09	4° \mathcal{B} 10'23			8305 Aug 05 17:28	0° Ω
	8302 Dec 16 02:50	0° \approx			8305 Aug 30 02:32	0° \mathbb{M}
	8303 Jan 10 06:53	0° \mathcal{H}		asc. node	8305 Sep 01 10:44	2° \mathbb{M} 52'55
	8303 Feb 04 22:05	0° Υ		morning set	8305 Sep 11 20:47	15° \mathbb{M} 42'27
	8303 Mar 03 15:41	0° \mathcal{B}			8305 Sep 23 11:21	0° Ω
evening max el	8303 Mar 17 07:43	14° \mathcal{B} 18'42	46°57'45		8305 Oct 17 19:36	0° \mathbb{M}
asc. node	8303 Mar 17 15:52	14° \mathcal{B} 39'12				
	8303 Apr 03 00:36	0° Π		superior conj	8305 Oct 18 17:51	1° \mathbb{M} 08'34 1°23'28
greatest brilliancy	8303 Apr 27 01:18	15° Π 28'46	-4.9m	minimum elong	8305 Oct 18 13:28	0° \mathbb{M} 55'02 1°23'31
retrograde	8303 May 06 21:52	17° Π 19'44		max. Earth dist.	8305 Oct 18 17:43	1° \mathbb{M} 08'08 1.73313 AU
evening set	8303 May 24 11:27	11° Π 23'09			8305 Nov 11 03:37	0° \mathcal{A}
inferior conj	8303 May 27 15:21	9° Π 27'40	8°20'58	evening rise	8305 Nov 24 07:42	16° \mathcal{A} 13'37
minimum elong	8303 May 27 23:54	9° Π 14'30	8°19'40		8305 Dec 05 12:06	0° \mathcal{B}
min. Earth dist.	8303 May 27 16:34	9° Π 25'48	0.27220 AU	desc. node	8305 Dec 22 03:58	20° \mathcal{B} 29'54
morning rise	8303 May 31 12:25	7° Π 07'01			8305 Dec 29 21:23	0° \approx
direct	8303 Jun 17 07:32	1° Π 39'07			8306 Jan 23 07:16	0° \mathcal{H}
greatest brilliancy	8303 Jun 27 01:07	3° Π 25'47	-4.8m		8306 Feb 16 18:01	0° Υ
desc. node	8303 Jul 07 10:35	8° Π 32'04			8306 Mar 13 07:55	0° \mathcal{B}
	8303 Aug 02 18:17	0° Θ			8306 Apr 07 06:52	0° Π
morning max el	8303 Aug 06 03:47	3° Θ 17'15	46°19'25	asc. node	8306 Apr 14 03:09	8° Π 04'51
	8303 Aug 31 17:45	0° Ω			8306 May 03 03:21	0° Θ
	8303 Sep 27 10:46	0° \mathbb{M}		evening max el	8306 May 28 19:43	27° Θ 33'33 46°43'28
	8303 Oct 23 04:31	0° Ω			8306 May 31 06:38	0° Ω
asc. node	8303 Oct 28 09:13	6° Ω 09'03		greatest brilliancy	8306 Jul 07 01:11	27° Ω 41'19 -4.8m
	8303 Nov 17 07:52	0° \mathbb{M}		retrograde	8306 Jul 18 00:09	29° Ω 54'11
	8303 Dec 12 00:58	0° \mathcal{A}		evening set	8306 Aug 01 20:11	25° Ω 34'47
	8304 Jan 05 10:55	0° \mathcal{B}		desc. node	8306 Aug 03 22:17	24° Ω 23'33
	8304 Jan 29 16:02	0° \approx		min. Earth dist.	8306 Aug 07 14:49	22° Ω 08'32 0.27993 AU
morning set	8304 Jan 31 16:41	2° \approx 31'13		inferior conj	8306 Aug 08 04:17	21° Ω 47'34 -1°03'24
desc. node	8304 Feb 17 02:09	22° \approx 56'47		minimum elong	8306 Aug 08 01:54	21° Ω 51'17 1°02'46
	8304 Feb 22 17:41	0° \mathcal{H}		morning rise	8306 Aug 14 08:22	18° Ω 07'44
max. Earth dist.	8304 Mar 09 01:12	19° \mathcal{H} 09'39	1.71520 AU	direct	8306 Aug 29 07:23	13° Ω 49'36
				greatest brilliancy	8306 Sep 07 23:36	15° Ω 31'46 -4.8m
superior conj	8304 Mar 11 13:56	22° \mathcal{H} 19'58	-0°53'15		8306 Oct 01 17:00	0° \mathbb{M}
minimum elong	8304 Mar 11 02:45	21° \mathcal{H} 44'56	0°52'47	morning max el	8306 Oct 17 00:46	13° \mathbb{M} 37'46 45°43'25
	8304 Mar 17 16:39	0° Υ			8306 Nov 02 07:58	0° Ω
	8304 Apr 10 13:55	0° \mathcal{B}		asc. node	8306 Nov 24 21:27	24° Ω 34'03
evening rise	8304 Apr 20 22:09	12° \mathcal{B} 59'54			8306 Nov 29 16:52	0° \mathbb{M}

	8306 Dec 25 12:19	0°♊		desc. node	8309 Aug 31 09:42	27°♎58'25	
	8307 Jan 19 12:03	0°♋			8309 Sep 03 09:04	0°♌	
	8307 Feb 13 00:21	0°♌		greatest brilliancy	8309 Sep 15 06:54	6°♌13'08	-4.7m
	8307 Mar 09 05:34	0°♍		retrograde	8309 Sep 25 22:23	8°♌17'02	
desc. node	8307 Mar 16 14:18	9°♍10'37		evening set	8309 Oct 13 16:16	2°♌20'15	
	8307 Apr 02 06:06	0°♎		inferior conj	8309 Oct 17 11:52	29°♎58'37	-8°20'07
morning set	8307 Apr 16 20:29	18°♎18'45		minimum elong	8309 Oct 17 06:47	0°♌06'36	8°19'40
	8307 Apr 26 03:47	0°♏			8309 Oct 17 11:00	30°♏♎	
	8307 May 20 00:39	0°♐		min. Earth dist.	8309 Oct 17 06:29	0°♌07'04	0.29150 AU
				morning rise	8309 Oct 20 21:21	27°♎52'11	
superior conj	8307 May 27 09:07	9°♐13'56	-1°19'49	direct	8309 Nov 08 00:05	21°♎41'39	
minimum elong	8307 May 27 18:02	9°♐41'55	1°19'48	greatest brilliancy	8309 Nov 18 08:15	23°♎37'35	-4.7m
max. Earth dist.	8307 May 29 22:47	12°♐27'23	1.71433 AU		8309 Nov 30 16:44	0°♌	
	8307 Jun 12 22:45	0°♑		asc. node	8309 Dec 22 09:16	17°♌38'43	
evening rise	8307 Jul 06 10:08	29°♑17'44		morning max el	8309 Dec 27 04:09	22°♌13'19	45°54'48
	8307 Jul 06 23:44	0°♒			8310 Jan 03 22:26	0°♊	
asc. node	8307 Jul 07 12:28	0°♒39'37			8310 Jan 31 11:00	0°♋	
	8307 Jul 31 04:33	0°♓			8310 Feb 26 03:15	0°♌	
	8307 Aug 24 14:08	0°♑			8310 Mar 22 23:24	0°♍	
	8307 Sep 18 06:15	0°♌		desc. node	8310 Apr 13 02:36	25°♍58'20	
	8307 Oct 13 08:00	0°♊			8310 Apr 16 08:45	0°♎	
desc. node	8307 Oct 27 06:28	16°♊23'26			8310 May 10 12:10	0°♏	
	8307 Nov 08 00:13	0°♋			8310 Jun 03 12:57	0°♐	
	8307 Dec 04 16:13	0°♌			8310 Jun 27 13:41	0°♑	
evening max el	8308 Jan 01 00:46	28°♌32'35	46°16'37	morning set	8310 Jun 30 21:18	4°♑08'11	
	8308 Jan 02 12:47	0°♍			8310 Jul 21 15:59	0°♒	
greatest brilliancy	8308 Feb 09 22:08	28°♍09'40	-4.8m	asc. node	8310 Aug 04 00:26	16°♒34'32	
asc. node	8308 Feb 17 06:31	29°♍50'19					
retrograde	8308 Feb 19 17:00	29°♍57'21		superior conj	8310 Aug 08 12:25	22°♒09'16	0°10'54
evening set	8308 Mar 05 17:47	25°♍32'27		minimum elong	8310 Aug 08 09:58	22°♒01'38	0°10'40
inferior conj	8308 Mar 11 09:51	22°♍11'19	5°34'29	behind sun begin	8310 Aug 07 15:58	21°♒05'51	
minimum elong	8308 Mar 10 23:16	22°♍27'36	5°31'47	behind sun end	8310 Aug 09 03:58	22°♒57'24	
min. Earth dist.	8308 Mar 11 07:36	22°♍14'47	0.27039 AU	max. Earth dist.	8310 Aug 10 23:15	25°♒11'31	1.72680 AU
morning rise	8308 Mar 16 04:30	19°♍19'11			8310 Aug 14 20:26	0°♓	
direct	8308 Apr 01 01:47	14°♍21'41			8310 Sep 08 03:01	0°♑	
greatest brilliancy	8308 Apr 11 01:43	16°♍14'23	-4.9m	evening rise	8310 Sep 14 19:24	8°♑14'21	
	8308 May 03 00:23	0°♎			8310 Oct 02 12:00	0°♌	
morning max el	8308 May 21 13:05	17°♎09'47	46°58'11		8310 Oct 27 00:15	0°♊	
	8308 Jun 02 20:43	0°♏		desc. node	8310 Nov 20 16:58	0°♋	
desc. node	8308 Jun 08 00:57	5°♏36'33			8310 Nov 23 18:12	3°♋41'17	
	8308 Jun 29 16:34	0°♐			8310 Dec 15 15:07	0°♌	
	8308 Jul 25 07:33	0°♑			8311 Jan 09 20:13	0°♍	
	8308 Aug 19 10:53	0°♒			8311 Feb 04 13:15	0°♎	
	8308 Sep 13 08:18	0°♓			8311 Mar 03 10:51	0°♏	
asc. node	8308 Sep 28 22:54	18°♓55'45		evening max el	8311 Mar 14 22:21	11°♏57'02	46°57'09
	8308 Oct 08 01:14	0°♑		asc. node	8311 Mar 16 17:47	13°♏45'41	
	8308 Nov 01 13:57	0°♌			8311 Apr 03 11:34	0°♐	
morning set	8308 Nov 19 09:56	21°♌55'34		greatest brilliancy	8311 Apr 24 14:17	13°♐02'47	-4.9m
	8308 Nov 25 23:06	0°♊		retrograde	8311 May 04 11:41	14°♐53'59	
	8308 Dec 20 05:41	0°♋		evening set	8311 May 22 03:38	8°♐52'53	
max. Earth dist.	8308 Dec 24 04:14	4°♋52'44	1.72758 AU	inferior conj	8311 May 25 04:19	7°♐02'04	8°30'37
				minimum elong	8311 May 25 12:14	6°♐49'54	8°29'31
superior conj	8308 Dec 26 08:17	7°♋33'57	0°52'30	min. Earth dist.	8311 May 25 04:53	7°♐01'11	0.27208 AU
minimum elong	8308 Dec 26 17:52	8°♋03'36	0°52'18	morning rise	8311 May 28 20:56	4°♐48'00	
	8309 Jan 13 10:31	0°♌			8311 Jun 08 17:59	30°♏♎	
desc. node	8309 Jan 18 15:59	6°♌29'29		direct	8311 Jun 14 20:57	29°♏13'51	
evening rise	8309 Feb 02 22:25	25°♌28'18			8311 Jun 21 04:09	0°♐	
	8309 Feb 06 13:46	0°♍		greatest brilliancy	8311 Jun 24 12:49	0°♐59'24	-4.9m
	8309 Mar 02 15:33	0°♎		desc. node	8311 Jul 06 12:39	7°♐06'11	
	8309 Mar 26 16:49	0°♏			8311 Aug 02 18:32	0°♑	
	8309 Apr 19 19:59	0°♐		morning max el	8311 Aug 03 18:23	0°♑58'19	46°21'04
asc. node	8309 May 11 14:45	26°♐50'18			8311 Aug 31 10:21	0°♒	
	8309 May 14 04:48	0°♑			8311 Sep 27 00:35	0°♓	
	8309 Jun 08 00:41	0°♒			8311 Oct 22 16:57	0°♑	
	8309 Jul 03 16:59	0°♓		asc. node	8311 Oct 27 11:17	5°♑38'50	
	8309 Jul 31 05:03	0°♑			8311 Nov 16 19:33	0°♌	
evening max el	8309 Aug 07 14:33	7°♑25'48	45°58'07		8311 Dec 11 12:15	0°♊	

	8312 Jan 04 22:01	0°☾		retrograde	8314 Jul 15 14:49	27°♊37'16	
morning set	8312 Jan 29 06:48	0°≈11'37		evening set	8314 Jul 30 11:27	23°♊17'51	
	8312 Jan 29 03:04	0°≈		desc. node	8314 Aug 03 00:10	21°♊14'59	
desc. node	8312 Feb 16 04:02	22°≈28'14		inferior conj	8314 Aug 05 19:08	19°♊31'33	-0°41'44
	8312 Feb 22 04:43	0°☿		minimum elong	8314 Aug 05 17:33	19°♊34'01	0°41'21
max. Earth dist.	8312 Mar 06 09:12	16°☿29'48	1.71552 AU	min. Earth dist.	8314 Aug 05 06:45	19°♊50'49	0.27947 AU
				morning rise	8314 Aug 12 00:19	15°♊49'59	
superior conj	8312 Mar 09 01:35	19°☿51'26	-0°50'06	direct	8314 Aug 26 21:12	11°♊34'06	
minimum elong	8312 Mar 08 14:48	19°☿17'39	0°49'37	greatest brilliancy	8314 Sep 05 14:44	13°♊16'59	-4.8m
	8312 Mar 17 03:43	0°♀			8314 Oct 02 00:37	0°♏	
	8312 Apr 10 01:01	0°♄		morning max el	8314 Oct 14 14:42	11°♏21'47	45°44'00
evening rise	8312 Apr 18 08:51	10°♄27'46			8314 Nov 02 01:40	0°♄	
	8312 May 03 22:24	0°♅		asc. node	8314 Nov 23 23:26	23°♄58'42	
	8312 May 27 22:12	0°♆			8314 Nov 29 06:56	0°♍	
asc. node	8312 Jun 08 02:33	13°♆54'02			8314 Dec 25 00:51	0°♎	
	8312 Jun 21 02:52	0°♏			8315 Jan 18 23:50	0°☾	
	8312 Jul 15 15:00	0°♏			8315 Feb 12 11:44	0°≈	
	8312 Aug 09 14:25	0°♄			8315 Mar 08 16:45	0°☿	
	8312 Sep 04 08:48	0°♍		desc. node	8315 Mar 15 16:17	8°☿42'02	
desc. node	8312 Sep 27 21:03	25°♍58'59			8315 Apr 01 17:09	0°♀	
	8312 Oct 01 16:19	0°♎		morning set	8315 Apr 14 06:50	15°♀45'57	
evening max el	8312 Oct 17 17:20	16°♎08'04	45°42'14		8315 Apr 25 14:47	0°♄	
	8312 Nov 02 08:29	0°☾			8315 May 19 11:36	0°♅	
greatest brilliancy	8312 Nov 25 21:02	14°☾11'08	-4.7m				
retrograde	8312 Dec 05 08:58	15°☾48'51		superior conj	8315 May 24 20:40	6°♅45'14	-1°21'22
evening set	8312 Dec 21 13:33	10°☾48'56		minimum elong	8315 May 25 04:54	7°♅11'05	1°21'22
inferior conj	8312 Dec 26 13:10	7°☾47'42	-5°22'14	max. Earth dist.	8315 May 27 03:01	9°♅35'47	1.71402 AU
minimum elong	8312 Dec 26 22:58	7°☾32'23	5°19'42		8315 Jun 12 09:41	0°♆	
min. Earth dist.	8312 Dec 27 09:14	7°☾16'23	0.28260 AU	evening rise	8315 Jul 03 23:09	26°♆54'54	
morning rise	8313 Jan 01 07:53	4°☾18'31			8315 Jul 06 10:38	0°♏	
	8313 Jan 12 12:45	30°♀♎		asc. node	8315 Jul 06 14:21	0°♏11'31	
direct	8313 Jan 16 20:22	29°♀♎37'25			8315 Jul 30 15:31	0°♏	
asc. node	8313 Jan 18 20:53	29°♀♎42'16			8315 Aug 24 01:18	0°♄	
	8313 Jan 21 05:54	0°☾			8315 Sep 17 17:50	0°♍	
greatest brilliancy	8313 Jan 27 22:26	1°☾54'04	-4.8m		8315 Oct 12 20:19	0°♎	
	8313 Mar 06 00:01	0°≈		desc. node	8315 Oct 26 08:33	15°♎51'48	
morning max el	8313 Mar 08 01:50	2°≈04'10	46°39'13		8315 Nov 07 13:54	0°☾	
	8313 Apr 03 01:50	0°☿			8315 Dec 04 08:40	0°≈	
	8313 Apr 28 22:20	0°♀		evening max el	8315 Dec 29 14:12	26°≈12'03	46°15'06
desc. node	8313 May 10 14:59	13°♀58'08			8316 Jan 02 13:05	0°☿	
	8313 May 23 21:24	0°♄		greatest brilliancy	8316 Feb 07 10:54	25°☿45'33	-4.8m
	8313 Jun 17 10:38	0°♅		asc. node	8316 Feb 16 08:23	27°☿32'42	
	8313 Jul 11 20:03	0°♆		retrograde	8316 Feb 17 06:07	27°☿33'41	
	8313 Aug 05 04:43	0°♏		evening set	8316 Mar 03 04:07	23°☿11'52	
	8313 Aug 29 13:33	0°♏		inferior conj	8316 Mar 08 22:56	19°☿47'18	5°15'03
asc. node	8313 Aug 31 12:34	2°♏24'47		minimum elong	8316 Mar 08 12:40	20°☿03'04	5°12'21
morning set	8313 Sep 09 13:21	13°♏32'08		min. Earth dist.	8316 Mar 08 21:19	19°☿49'47	0.27053 AU
	8313 Sep 22 22:12	0°♄		morning rise	8316 Mar 13 20:56	16°☿50'40	
				direct	8316 Mar 29 15:07	11°☿57'02	
superior conj	8313 Oct 16 11:35	29°♄02'07	1°22'39	greatest brilliancy	8316 Apr 08 16:22	13°☿51'20	-4.9m
minimum elong	8313 Oct 16 06:35	28°♄46'43	1°22'40		8316 May 03 10:02	0°♀	
max. Earth dist.	8313 Oct 16 11:34	29°♄02'04	1.73308 AU	morning max el	8316 May 19 03:26	14°♀48'05	46°58'36
	8313 Oct 17 06:22	0°♍			8316 Jun 02 15:29	0°♄	
	8313 Nov 10 14:25	0°♎		desc. node	8316 Jun 07 02:58	4°♄53'21	
evening rise	8313 Nov 22 00:35	14°♎04'20			8316 Jun 29 07:28	0°♅	
	8313 Dec 04 23:02	0°☾			8316 Jul 24 20:40	0°♆	
desc. node	8313 Dec 21 06:00	20°☾02'05			8316 Aug 18 22:58	0°♏	
	8313 Dec 29 08:34	0°≈			8316 Sep 12 19:43	0°♏	
	8314 Jan 22 18:49	0°☿		asc. node	8316 Sep 28 00:58	18°♏28'10	
	8314 Feb 16 06:04	0°♀			8316 Oct 07 12:13	0°♄	
	8314 Mar 12 20:43	0°♄			8316 Nov 01 00:42	0°♍	
	8314 Apr 06 20:54	0°♅		morning set	8316 Nov 17 03:05	19°♍47'41	
asc. node	8314 Apr 13 05:10	7°♅28'17			8316 Nov 25 09:45	0°♎	
	8314 May 02 19:52	0°♆			8316 Dec 19 16:20	0°☾	
evening max el	8314 May 26 09:30	25°♆11'45	46°44'51	max. Earth dist.	8316 Dec 21 23:27	2°☾50'36	1.72792 AU
	8314 May 31 06:24	0°♏					
greatest brilliancy	8314 Jul 04 17:58	25°♏25'55	-4.8m	superior conj	8316 Dec 24 00:08	5°☾21'19	0°55'11

minimum elong	8316 Dec 24 09:52	5° S 51'27	0°54'59	morning rise	8319 May 26 05:39	2° II 30'53	
	8317 Jan 12 21:13	0° \approx			8319 May 30 21:11	30° R B	
desc. node	8317 Jan 17 17:54	6° \approx 02'04		direct	8319 Jun 12 10:23	26° B 50'50	
evening rise	8317 Jan 31 12:37	23° \approx 09'38		greatest brilliancy	8319 Jun 22 00:53	28° B 35'13	-4.9m
	8317 Feb 06 00:35	0° H			8319 Jun 25 13:32	0° II	
	8317 Mar 02 02:31	0° Y		desc. node	8319 Jul 05 14:33	5° II 44'40	
	8317 Mar 26 04:02	0° B		morning max el	8319 Aug 01 08:14	28° II 38'59	46°22'35
	8317 Apr 19 07:31	0° II			8319 Aug 02 17:04	0° S	
asc. node	8317 May 10 16:48	26° II 19'56			8319 Aug 31 02:08	0° Q	
	8317 May 13 16:51	0° S			8319 Sep 26 13:50	0° M	
	8317 Jun 07 13:39	0° Q			8319 Oct 22 04:57	0° B	
	8317 Jul 03 07:46	0° M		asc. node	8319 Oct 26 13:16	5° B 09'36	
	8317 Jul 31 00:38	0° B			8319 Nov 16 06:50	0° M	
evening max el	8317 Aug 05 06:55	5° B 15'19	45°59'34		8319 Dec 10 23:07	0° A	
desc. node	8317 Aug 30 11:44	26° B 47'35			8320 Jan 04 08:41	0° S	
	8317 Sep 04 12:49	0° M		morning set	8320 Jan 26 21:01	27° S 53'42	
greatest brilliancy	8317 Sep 12 21:22	4° M 02'09	-4.7m		8320 Jan 28 13:40	0° \approx	
retrograde	8317 Sep 23 15:18	6° M 07'59		desc. node	8320 Feb 15 05:59	22° \approx 01'11	
evening set	8317 Oct 11 05:50	0° M 15'03			8320 Feb 21 15:21	0° H	
	8317 Oct 11 15:51	30° R B		max. Earth dist.	8320 Mar 03 15:36	13° H 46'19	1.71589 AU
inferior conj	8317 Oct 15 04:09	27° B 49'20	-8°14'44				
minimum elong	8317 Oct 14 22:25	27° B 58'20	8°14'09	superior conj	8320 Mar 06 13:26	17° H 24'54	-0°46'53
min. Earth dist.	8317 Oct 14 21:13	28° B 00'13	0.29138 AU	minimum elong	8320 Mar 06 03:07	16° H 52'34	0°46'23
morning rise	8317 Oct 18 15:05	25° B 40'53			8320 Mar 16 14:23	0° Y	
direct	8317 Nov 05 16:39	19° B 32'50			8320 Apr 09 11:44	0° B	
greatest brilliancy	8317 Nov 15 22:51	21° B 27'23	-4.7m	evening rise	8320 Apr 15 19:43	7° B 57'24	
	8317 Dec 01 12:40	0° M			8320 May 03 09:10	0° II	
asc. node	8317 Dec 21 11:13	16° M 48'12			8320 May 27 09:05	0° S	
morning max el	8317 Dec 24 20:36	20° M 03'42	45°53'32	asc. node	8320 Jun 07 04:26	13° S 25'52	
	8318 Jan 03 17:20	0° A			8320 Jun 20 13:59	0° Q	
	8318 Jan 31 01:31	0° S			8320 Jul 15 02:31	0° M	
	8318 Feb 25 16:03	0° \approx			8320 Aug 09 02:42	0° B	
	8318 Mar 22 11:19	0° H			8320 Sep 03 22:38	0° M	
desc. node	8318 Apr 12 04:41	25° H 29'17		desc. node	8320 Sep 26 23:07	25° M 19'48	
	8318 Apr 15 20:11	0° Y			8320 Oct 01 09:58	0° A	
	8318 May 09 23:17	0° B		evening max el	8320 Oct 15 07:38	13° A 54'23	45°41'47
	8318 Jun 02 23:50	0° II			8320 Nov 02 18:28	0° S	
	8318 Jun 27 00:23	0° S		greatest brilliancy	8320 Nov 23 12:14	11° S 59'09	-4.7m
morning set	8318 Jun 28 11:15	1° S 48'41		retrograde	8320 Dec 02 23:04	13° S 36'19	
	8318 Jul 21 02:34	0° Q		evening set	8320 Dec 19 07:29	8° S 31'59	
asc. node	8318 Aug 03 02:21	16° Q 07'42		inferior conj	8320 Dec 24 04:28	5° S 34'31	-5°38'24
				minimum elong	8320 Dec 24 14:26	5° S 18'57	5°35'55
superior conj	8318 Aug 06 03:43	19° Q 55'08	0°07'25	min. Earth dist.	8320 Dec 25 00:53	5° S 02'39	0.28318 AU
minimum elong	8318 Aug 06 02:01	19° Q 49'55	0°07'13	morning rise	8320 Dec 29 20:49	2° S 08'15	
behind sun begin	8318 Aug 05 04:28	18° Q 43'05			8321 Jan 03 01:36	30° R A	
behind sun end	8318 Aug 06 23:35	20° Q 56'45		direct	8321 Jan 14 11:40	27° A 23'28	
max. Earth dist.	8318 Aug 08 18:03	23° Q 08'22	1.72643 AU	asc. node	8321 Jan 17 22:48	27° A 37'29	
	8318 Aug 14 06:58	0° M		greatest brilliancy	8321 Jan 25 14:47	29° A 40'30	-4.8m
	8318 Sep 07 13:34	0° B			8321 Jan 26 10:05	0° S	
evening rise	8318 Sep 12 12:41	6° B 07'14		morning max el	8321 Mar 05 15:43	29° S 44'07	46°37'40
	8318 Oct 01 22:38	0° M			8321 Mar 05 22:03	0° \approx	
	8318 Oct 26 11:07	0° A			8321 Apr 02 17:36	0° H	
	8318 Nov 20 04:14	0° S			8321 Apr 28 11:50	0° Y	
desc. node	8318 Nov 22 20:11	3° S 13'01		desc. node	8321 May 09 16:53	13° Y 25'05	
	8318 Dec 15 03:05	0° \approx			8321 May 23 09:44	0° B	
	8319 Jan 09 09:17	0° H			8321 Jun 16 22:16	0° II	
	8319 Feb 04 04:15	0° Y			8321 Jul 11 07:13	0° S	
	8319 Mar 03 06:08	0° B			8321 Aug 04 15:32	0° Q	
evening max el	8319 Mar 12 13:11	9° B 37'02	46°56'29		8321 Aug 29 00:06	0° M	
asc. node	8319 Mar 15 19:54	12° B 52'52		asc. node	8321 Aug 30 14:37	1° M 58'37	
	8319 Apr 04 01:28	0° II		morning set	8321 Sep 07 06:11	11° M 23'55	
greatest brilliancy	8319 Apr 22 03:53	10° II 39'14	-4.9m		8321 Sep 22 08:36	0° B	
retrograde	8319 May 02 01:18	12° II 30'00					
evening set	8319 May 19 19:52	6° II 25'00		superior conj	8321 Oct 14 05:33	26° B 57'38	1°21'43
inferior conj	8319 May 22 17:30	4° II 38'34	8°39'22	minimum elong	8321 Oct 13 23:58	26° B 40'25	1°21'42
minimum elong	8319 May 23 00:42	4° II 27'28	8°38'26	max. Earth dist.	8321 Oct 14 05:24	26° B 57'11	1.73309 AU
min. Earth dist.	8319 May 22 17:35	4° II 38'25	0.27193 AU		8321 Oct 16 16:44	0° M	

	8321 Nov 10 00:51	0°♈		desc. node	8324 Jun 06 04:55	4°♏10'43	
evening rise	8321 Nov 19 17:38	11°♏56'46			8324 Jun 28 22:07	0°♐	
	8321 Dec 04 09:39	0°♑			8324 Jul 24 09:39	0°♒	
desc. node	8321 Dec 20 07:51	19°♑34'43			8324 Aug 18 10:59	0°♓	
	8321 Dec 28 19:26	0°♒			8324 Sep 12 07:06	0°♈	
	8322 Jan 22 06:03	0°♈		asc. node	8324 Sep 27 02:56	18°♈00'19	
	8322 Feb 15 17:49	0°♉			8324 Oct 06 23:11	0°♉	
	8322 Mar 12 09:14	0°♊			8324 Oct 31 11:25	0°♊	
asc. node	8322 Apr 06 10:44	0°♋		morning set	8324 Nov 14 20:35	17°♋41'02	
	8322 Apr 12 07:11	6°♋52'23			8324 Nov 24 20:21	0°♌	
	8322 May 02 12:24	0°♌			8324 Dec 19 02:57	0°♍	
evening max el	8322 May 23 23:06	22°♌50'21 46°46'12		max. Earth dist.	8324 Dec 19 18:57	0°♍49'30 1.72825 AU	
	8322 May 31 06:59	0°♍					
greatest brilliancy	8322 Jul 02 10:19	23°♍10'44 -4.8m		superior conj	8324 Dec 21 16:18	3°♍09'52 0°57'45	
retrograde	8322 Jul 13 05:42	25°♍21'23		minimum elong	8324 Dec 22 02:06	3°♍40'14 0°57'34	
evening set	8322 Jul 28 02:51	21°♍01'22			8325 Jan 12 07:56	0°♎	
desc. node	8322 Aug 02 02:11	18°♍05'42		desc. node	8325 Jan 16 19:55	5°♎35'01	
inferior conj	8322 Aug 03 09:58	17°♍16'24 -0°19'51		evening rise	8325 Jan 29 02:55	20°♎51'13	
minimum elong	8322 Aug 03 09:13	17°♍17'34 0°19'44			8325 Feb 05 11:27	0°♏	
min. Earth dist.	8322 Aug 02 22:37	17°♍34'02 0.27901 AU			8325 Mar 01 13:37	0°♐	
morning rise	8322 Aug 09 16:08	13°♍33'34			8325 Mar 25 15:23	0°♑	
direct	8322 Aug 24 10:56	9°♍19'18			8325 Apr 18 19:13	0°♒	
greatest brilliancy	8322 Sep 03 05:56	11°♍03'21 -4.8m		asc. node	8325 May 09 18:41	25°♒48'35	
	8322 Oct 02 05:28	0°♓			8325 May 13 05:06	0°♓	
morning max el	8322 Oct 12 05:19	9°♓08'33 45°44'45			8325 Jun 07 02:51	0°♓	
	8322 Nov 01 18:33	0°♔			8325 Jul 02 22:57	0°♔	
asc. node	8322 Nov 23 01:21	23°♔24'28			8325 Jul 30 21:04	0°♔	
	8322 Nov 28 20:32	0°♕		evening max el	8325 Aug 02 23:30	3°♔04'39 46°00'56	
	8322 Dec 24 13:02	0°♕		desc. node	8325 Aug 29 13:50	25°♔34'02	
	8323 Jan 18 11:21	0°♖			8325 Sep 06 05:45	0°♕	
	8323 Feb 11 22:54	0°♗		greatest brilliancy	8325 Sep 10 12:20	1°♕50'58 -4.7m	
	8323 Mar 08 03:42	0°♘		retrograde	8325 Sep 21 07:49	3°♕57'53	
desc. node	8323 Mar 14 18:21	8°♘14'26			8325 Oct 05 13:03	30°♕♌	
	8323 Apr 01 03:59	0°♙		evening set	8325 Oct 08 19:12	28°♕09'22	
morning set	8323 Apr 11 17:08	13°♙13'41		inferior conj	8325 Oct 12 20:18	25°♕39'17 -8°08'36	
	8323 Apr 25 01:32	0°♚		minimum elong	8325 Oct 12 13:58	25°♕49'14 8°07'55	
	8323 May 18 22:21	0°♛		min. Earth dist.	8325 Oct 12 11:58	25°♕52'22 0.29118 AU	
				morning rise	8325 Oct 16 08:53	23°♕28'21	
superior conj	8323 May 22 08:05	4°♛16'42 -1°22'45		direct	8325 Nov 03 09:16	17°♕23'26	
minimum elong	8323 May 22 15:32	4°♛40'07 1°22'47		greatest brilliancy	8325 Nov 13 13:04	19°♕16'06 -4.7m	
max. Earth dist.	8323 May 24 08:33	6°♛48'51 1.71378 AU			8325 Dec 02 03:36	0°♖	
	8323 Jun 11 20:25	0°♜		asc. node	8325 Dec 20 13:09	15°♖58'11	
evening rise	8323 Jul 01 12:07	24°♜32'26		morning max el	8325 Dec 22 12:09	17°♖51'40 45°52'25	
asc. node	8323 Jul 05 16:19	29°♜44'10			8326 Jan 03 11:49	0°♗	
	8323 Jul 05 21:24	0°♞			8326 Jan 30 15:58	0°♘	
	8323 Jul 30 02:21	0°♞			8326 Feb 25 04:55	0°♙	
	8323 Aug 23 12:19	0°♟			8326 Mar 21 23:24	0°♚	
	8323 Sep 17 05:15	0°♠		desc. node	8326 Apr 11 06:35	24°♚58'54	
	8323 Oct 12 08:29	0°♑			8326 Apr 15 07:51	0°♛	
desc. node	8323 Oct 25 10:31	15°♑20'23			8326 May 09 10:39	0°♜	
	8323 Nov 07 03:29	0°♒			8326 Jun 02 10:59	0°♛	
	8323 Dec 04 01:14	0°♓		morning set	8326 Jun 26 00:45	29°♛26'55	
evening max el	8323 Dec 27 04:35	23°♓54'29 46°13'28			8326 Jun 26 11:22	0°♜	
	8324 Jan 02 14:30	0°♔			8326 Jul 20 13:26	0°♞	
greatest brilliancy	8324 Feb 04 23:16	23°♔21'21 -4.8m		asc. node	8326 Aug 02 04:23	15°♞40'26	
retrograde	8324 Feb 14 19:34	25°♔10'09					
asc. node	8324 Feb 15 10:32	25°♔09'41		superior conj	8326 Aug 03 18:38	17°♞39'04 0°03'54	
evening set	8324 Feb 29 14:46	20°♔51'16		minimum elong	8326 Aug 03 17:46	17°♞36'20 0°03'44	
inferior conj	8324 Mar 06 12:00	17°♔23'23 4°54'54		behind sun begin	8326 Aug 02 18:21	16°♞23'42	
minimum elong	8324 Mar 06 02:09	17°♔38'29 4°52'14		behind sun end	8326 Aug 04 17:11	18°♞48'57	
min. Earth dist.	8324 Mar 06 10:47	17°♔25'16 0.27068 AU		max. Earth dist.	8326 Aug 06 13:37	21°♞06'44 1.72602 AU	
morning rise	8324 Mar 11 13:18	14°♔22'24			8326 Aug 13 17:46	0°♟	
direct	8324 Mar 27 04:58	9°♔32'43			8326 Sep 07 00:24	0°♟	
greatest brilliancy	8324 Apr 06 06:31	11°♔27'50 -4.9m		evening rise	8326 Sep 10 05:47	3°♟58'34	
	8324 May 03 16:59	0°♙			8326 Oct 01 09:35	0°♠	
morning max el	8324 May 16 18:07	12°♙27'32 46°58'53			8326 Oct 25 22:18	0°♑	
	8324 Jun 02 09:42	0°♚			8326 Nov 19 15:50	0°♒	

desc. node	8326 Nov 21 22:05	2°♄43'40		desc. node	8329 May 08 18:50	12°♍51'23	
	8326 Dec 14 15:21	0°♊			8329 May 22 22:20	0°♋	
	8327 Jan 08 22:41	0°♌			8329 Jun 16 10:14	0°♈	
	8327 Feb 03 19:41	0°♍			8329 Jul 10 18:46	0°♎	
	8327 Mar 03 02:19	0°♏			8329 Aug 04 02:47	0°♏	
evening max el	8327 Mar 10 02:52	7°♌13'07	46°55'30		8329 Aug 28 11:08	0°♐	
asc. node	8327 Mar 14 21:49	11°♌57'26		asc. node	8329 Aug 29 16:36	1°♐30'45	
	8327 Apr 04 20:55	0°♈		morning set	8329 Sep 04 22:32	9°♐12'40	
greatest brilliancy	8327 Apr 19 17:45	8°♈14'14	-4.9m		8329 Sep 21 19:28	0°♑	
retrograde	8327 Apr 29 14:01	10°♈03'53					
evening set	8327 May 17 11:35	3°♈55'28		superior conj	8329 Oct 11 23:05	24°♑50'27	1°20'38
inferior conj	8327 May 20 06:27	2°♈13'02	8°47'07	minimum elong	8329 Oct 11 16:56	24°♑31'27	1°20'36
minimum elong	8327 May 20 12:53	2°♈03'06	8°46'21	max. Earth dist.	8329 Oct 11 23:40	24°♑52'12	1.73307 AU
min. Earth dist.	8327 May 20 06:25	2°♈13'06	0.27182 AU		8329 Oct 16 03:32	0°♒	
morning rise	8327 May 23 14:16	0°♈11'32			8329 Nov 09 11:43	0°♓	
	8327 May 23 22:05	30°♌♋		evening rise	8329 Nov 17 10:30	9°♓47'19	
direct	8327 Jun 09 23:12	24°♌25'34			8329 Dec 03 20:42	0°♑	
greatest brilliancy	8327 Jun 19 13:26	26°♌09'29	-4.9m	desc. node	8329 Dec 19 09:54	19°♑06'37	
	8327 Jun 27 19:54	0°♈			8329 Dec 28 06:46	0°♊	
desc. node	8327 Jul 04 16:35	4°♈24'12			8330 Jan 21 17:44	0°♍	
morning max el	8327 Jul 29 20:51	26°♈14'47	46°24'12		8330 Feb 15 05:59	0°♍	
	8327 Aug 02 15:19	0°♎			8330 Mar 11 22:10	0°♋	
	8327 Aug 30 18:08	0°♏			8330 Apr 06 01:01	0°♈	
	8327 Sep 26 03:25	0°♐		asc. node	8330 Apr 11 09:07	6°♈15'09	
	8327 Oct 21 17:17	0°♑			8330 May 02 05:31	0°♎	
asc. node	8327 Oct 25 15:07	4°♑38'50		evening max el	8330 May 21 12:57	20°♎28'51	46°47'29
	8327 Nov 15 18:28	0°♒			8330 May 31 09:14	0°♏	
	8327 Dec 10 10:21	0°♓		greatest brilliancy	8330 Jun 30 01:53	20°♏53'27	-4.8m
	8328 Jan 03 19:42	0°♑		retrograde	8330 Jul 10 20:57	23°♏04'12	
morning set	8328 Jan 24 11:34	25°♑35'47		evening set	8330 Jul 25 18:19	18°♏43'04	
	8328 Jan 28 00:37	0°♊		min. Earth dist.	8330 Jul 31 14:03	15°♏16'03	0.27862 AU
desc. node	8328 Feb 14 08:03	21°♊33'29		inferior conj	8330 Aug 01 00:40	14°♏59'35	0°02'14
	8328 Feb 21 02:17	0°♌		minimum elong	8330 Aug 01 00:45	14°♏59'28	0°02'05
max. Earth dist.	8328 Mar 01 00:27	11°♌09'36	1.71628 AU	transit middle	8330 Aug 01 00:45	14°♏59'28	0°02'05
				transit begin	8330 Jul 31 20:43	15°♏05'43	
superior conj	8328 Mar 04 01:39	14°♌58'40	-0°43'36	transit end	8330 Aug 01 04:47	14°♏53'13	
minimum elong	8328 Mar 03 15:51	14°♌27'58	0°43'07	desc. node	8330 Aug 01 04:15	14°♏54'03	
	8328 Mar 16 01:21	0°♍		morning rise	8330 Aug 07 07:42	11°♏15'56	
	8328 Apr 08 22:47	0°♋		direct	8330 Aug 22 00:56	7°♏02'46	
evening rise	8328 Apr 13 06:49	5°♋26'42		greatest brilliancy	8330 Aug 31 20:50	8°♏47'51	-4.8m
	8328 May 02 20:20	0°♈			8330 Oct 02 09:08	0°♐	
	8328 May 26 20:25	0°♎		morning max el	8330 Oct 09 20:44	6°♐55'49	45°45'26
asc. node	8328 Jun 06 06:24	12°♎56'33			8330 Nov 01 11:35	0°♑	
	8328 Jun 20 01:35	0°♏		asc. node	8330 Nov 22 03:23	22°♑49'25	
	8328 Jul 14 14:33	0°♐			8330 Nov 28 10:26	0°♒	
	8328 Aug 08 15:33	0°♑			8330 Dec 24 01:34	0°♓	
	8328 Sep 03 13:10	0°♒			8331 Jan 17 23:11	0°♑	
desc. node	8328 Sep 26 01:02	24°♒38'18			8331 Feb 11 10:23	0°♊	
	8328 Oct 01 04:39	0°♓			8331 Mar 07 14:57	0°♌	
evening max el	8328 Oct 12 21:06	11°♓37'15	45°41'31	desc. node	8331 Mar 13 20:11	7°♌45'08	
	8328 Nov 03 08:50	0°♑			8331 Mar 31 15:07	0°♍	
greatest brilliancy	8328 Nov 21 03:01	9°♑45'15	-4.7m	morning set	8331 Apr 09 03:37	10°♍41'09	
retrograde	8328 Nov 30 13:28	11°♑22'28			8331 Apr 24 12:35	0°♋	
evening set	8328 Dec 17 01:22	6°♑13'17			8331 May 18 09:19	0°♈	
inferior conj	8328 Dec 21 19:41	3°♑19'50	-5°54'05				
minimum elong	8328 Dec 22 05:45	3°♑04'05	5°51'39	superior conj	8331 May 19 19:43	1°♈48'03	-1°23'58
min. Earth dist.	8328 Dec 22 16:24	2°♑47'29	0.28375 AU	minimum elong	8331 May 20 02:21	2°♈08'52	1°24'02
morning rise	8328 Dec 27 09:33	29°♓56'56		max. Earth dist.	8331 May 21 17:15	4°♈11'04	1.71350 AU
	8328 Dec 27 07:23	30°♌♓			8331 Jun 11 07:22	0°♎	
direct	8329 Jan 12 02:44	25°♓07'51		evening rise	8331 Jun 29 01:20	22°♎10'04	
asc. node	8329 Jan 17 00:54	25°♓35'53		asc. node	8331 Jul 04 18:22	29°♎16'31	
greatest brilliancy	8329 Jan 23 07:18	27°♓25'53	-4.8m		8331 Jul 05 08:21	0°♏	
	8329 Jan 28 18:46	0°♑			8331 Jul 29 13:23	0°♐	
morning max el	8329 Mar 03 06:06	27°♑24'13	46°36'23		8331 Aug 22 23:36	0°♑	
	8329 Mar 05 19:41	0°♊			8331 Sep 16 16:59	0°♒	
	8329 Apr 02 09:27	0°♌			8331 Oct 11 21:02	0°♓	
	8329 Apr 28 01:31	0°♍		desc. node	8331 Oct 24 12:26	14°♓47'43	

	8331 Nov 06 17:32	0° Z			8334 Jun 01 22:03	0° II	
	8331 Dec 03 18:29	0° \approx		morning set	8334 Jun 23 14:12	27° II 05'07	
evening max el	8331 Dec 24 19:25	21° \approx 37'17	46°11'52		8334 Jun 25 22:15	0° G	
	8332 Jan 02 17:46	0° H			8334 Jul 20 00:11	0° Ω	
greatest brilliancy	8332 Feb 02 11:40	20° H 56'31	-4.8m				
retrograde	8332 Feb 12 08:55	22° H 45'33		superior conj	8334 Aug 01 09:43	15° Ω 23'45	0°00'21
asc. node	8332 Feb 14 12:27	22° H 39'58		minimum elong	8334 Aug 01 09:40	15° Ω 23'38	0°00'13
evening set	8332 Feb 27 01:38	18° H 29'38		behind sun begin	8334 Jul 31 09:51	14° Ω 09'44	
inferior conj	8332 Mar 04 00:59	14° H 58'31	4°34'11	behind sun end	8334 Aug 02 09:30	16° Ω 37'31	
minimum elong	8332 Mar 03 15:36	15° H 12'54	4°31'36	asc. node	8334 Aug 01 06:19	15° Ω 13'11	
min. Earth dist.	8332 Mar 04 00:08	14° H 59'50	0.27083 AU	max. Earth dist.	8334 Aug 04 08:08	19° Ω 02'10	1.72554 AU
morning rise	8332 Mar 09 05:25	11° H 53'14			8334 Aug 13 04:26	0° H	
direct	8332 Mar 24 18:57	7° H 07'38			8334 Sep 06 11:02	0° Ω	
greatest brilliancy	8332 Apr 03 20:16	9° H 02'56	-4.9m	evening rise	8334 Sep 07 23:05	1° Ω 51'07	
	8332 May 03 22:08	0° Y			8334 Sep 30 20:19	0° M	
morning max el	8332 May 14 08:31	10° Y 05'37	46°59'15		8334 Oct 25 09:17	0° X	
	8332 Jun 02 03:40	0° B			8334 Nov 19 03:17	0° Z	
desc. node	8332 Jun 05 06:55	3° B 28'11		desc. node	8334 Nov 21 00:08	2° Z 15'11	
	8332 Jun 28 12:42	0° II			8334 Dec 14 03:34	0° \approx	
	8332 Jul 23 22:36	0° G			8335 Jan 08 12:06	0° H	
	8332 Aug 17 22:59	0° Ω			8335 Feb 03 11:16	0° Y	
	8332 Sep 11 18:30	0° H			8335 Mar 02 23:03	0° B	
asc. node	8332 Sep 26 04:47	17° H 31'54		evening max el	8335 Mar 07 15:31	4° B 46'55	46°54'32
	8332 Oct 06 10:14	0° Ω		asc. node	8335 Mar 13 23:46	11° B 01'10	
	8332 Oct 30 22:16	0° M			8335 Apr 05 23:10	0° II	
morning set	8332 Nov 12 13:56	15° M 33'33		greatest brilliancy	8335 Apr 17 07:49	5° II 49'50	-4.9m
	8332 Nov 24 07:07	0° X		retrograde	8335 Apr 27 02:29	7° II 38'22	
max. Earth dist.	8332 Dec 17 12:16	28° X 41'18	1.72857 AU	evening set	8335 May 15 02:58	1° II 26'49	
	8332 Dec 18 13:42	0° Z			8335 May 17 11:40	30° R B	
				inferior conj	8335 May 17 19:25	29° B 48'01	8°53'48
superior conj	8332 Dec 19 08:21	0° Z 57'42	1°00'14	minimum elong	8335 May 18 01:01	29° B 39'23	8°53'12
minimum elong	8332 Dec 19 18:10	1° Z 28'03	1°00'03	min. Earth dist.	8335 May 17 19:26	29° B 48'00	0.27172 AU
	8333 Jan 11 18:46	0° \approx		morning rise	8335 May 20 23:07	27° B 52'29	
desc. node	8333 Jan 15 21:54	5° \approx 07'27		direct	8335 Jun 07 11:32	22° B 00'35	
evening rise	8333 Jan 26 17:00	18° \approx 31'51		greatest brilliancy	8335 Jun 17 02:28	23° B 44'43	-4.9m
	8333 Feb 04 22:27	0° H			8335 Jun 29 07:14	0° II	
	8333 Mar 01 00:50	0° Y		desc. node	8335 Jul 03 18:38	3° II 06'42	
	8333 Mar 25 02:52	0° B		morning max el	8335 Jul 27 09:18	23° II 50'32	46°25'58
	8333 Apr 18 07:03	0° II			8335 Aug 02 12:32	0° G	
asc. node	8333 May 08 20:42	25° II 17'14			8335 Aug 30 09:39	0° Ω	
	8333 May 12 17:28	0° G			8335 Sep 25 16:36	0° H	
	8333 Jun 06 16:11	0° Ω			8335 Oct 21 05:14	0° Ω	
	8333 Jul 02 14:18	0° H		asc. node	8335 Oct 24 17:11	4° Ω 09'46	
	8333 Jul 30 18:03	0° Ω			8335 Nov 15 05:43	0° M	
evening max el	8333 Jul 31 15:41	0° Ω 53'19	46°02'22		8335 Dec 09 21:15	0° X	
desc. node	8333 Aug 28 15:40	24° Ω 18'25			8336 Jan 03 06:26	0° Z	
greatest brilliancy	8333 Sep 08 04:01	29° Ω 41'15	-4.7m	morning set	8336 Jan 22 02:11	23° Z 18'51	
	8333 Sep 09 00:48	0° M			8336 Jan 27 11:19	0° \approx	
retrograde	8333 Sep 19 00:06	1° M 48'35		desc. node	8336 Feb 13 09:55	21° \approx 05'53	
	8333 Sep 28 12:45	30° R Ω			8336 Feb 20 13:02	0° H	
evening set	8333 Oct 06 08:39	26° Ω 04'48		max. Earth dist.	8336 Feb 27 11:07	8° H 39'09	1.71671 AU
min. Earth dist.	8333 Oct 10 03:11	23° Ω 45'03	0.29098 AU				
inferior conj	8333 Oct 10 12:40	23° Ω 30'07	-8°01'46	superior conj	8336 Mar 01 13:43	12° H 32'34	-0°40'12
minimum elong	8333 Oct 10 05:46	23° Ω 40'59	8°00'58	minimum elong	8336 Mar 01 04:30	12° H 03'43	0°39'44
morning rise	8333 Oct 14 03:03	21° Ω 16'21			8336 Mar 15 12:09	0° Y	
direct	8333 Nov 01 01:54	15° Ω 14'57			8336 Apr 08 09:37	0° B	
greatest brilliancy	8333 Nov 11 03:45	17° Ω 05'48	-4.7m	evening rise	8336 Apr 10 17:45	2° B 56'13	
	8333 Dec 02 14:34	0° M			8336 May 02 07:16	0° II	
asc. node	8333 Dec 19 15:13	15° M 09'22			8336 May 26 07:31	0° G	
morning max el	8333 Dec 20 03:02	15° M 38'01	45°51'10	asc. node	8336 Jun 05 08:27	12° G 28'16	
	8334 Jan 03 05:51	0° X			8336 Jun 19 12:57	0° Ω	
	8334 Jan 30 06:16	0° Z			8336 Jul 14 02:22	0° H	
	8334 Feb 24 17:41	0° \approx			8336 Aug 08 04:10	0° Ω	
	8334 Mar 21 11:25	0° H			8336 Sep 03 03:29	0° M	
desc. node	8334 Apr 10 08:31	24° H 28'52		desc. node	8336 Sep 25 03:03	23° M 57'44	
	8334 Apr 14 19:25	0° Y			8336 Sep 30 23:20	0° X	
	8334 May 08 21:56	0° B		evening max el	8336 Oct 10 11:05	9° X 22'55	45°41'30

	8336 Nov 04 03:05	0°♁		superior conj	8339 May 17 06:58	29°♁18'56	-1°25'01
greatest brilliancy	8336 Nov 18 17:21	7°♁32'57 -4.7m		minimum elong	8339 May 17 12:41	29°♁36'56	1°25'06
retrograde	8336 Nov 28 04:37	9°♁11'04			8339 May 17 20:02	0°♁	
evening set	8336 Dec 14 19:32	3°♁56'50		max. Earth dist.	8339 May 19 02:23	1°♁35'20	1.71330 AU
inferior conj	8336 Dec 19 11:10	1°♁07'21 -6°08'51			8339 Jun 10 18:04	0°♁	
minimum elong	8336 Dec 19 21:18	0°♁51'33 6°06'30		evening rise	8339 Jun 26 13:51	19°♁46'13	
min. Earth dist.	8336 Dec 20 07:45	0°♁35'14 0.28435 AU		asc. node	8339 Jul 03 20:13	28°♁49'00	
	8336 Dec 21 06:26	30°♁♂			8339 Jul 04 19:03	0°♁	
morning rise	8336 Dec 24 22:30	27°♁♂48'12			8339 Jul 29 00:11	0°♁	
direct	8337 Jan 09 18:24	22°♁♂54'28			8339 Aug 22 10:38	0°♁	
asc. node	8337 Jan 16 02:49	23°♁♂40'42			8339 Sep 16 04:28	0°♁	
greatest brilliancy	8337 Jan 20 23:44	25°♁♂13'17 -4.8m			8339 Oct 11 09:20	0°♁	
	8337 Jan 30 06:02	0°♁		desc. node	8339 Oct 23 14:30	14°♁♂16'17	
morning max el	8337 Feb 28 21:35	25°♁08'24 46°34'47			8339 Nov 06 07:22	0°♁	
	8337 Mar 05 16:08	0°♁			8339 Dec 03 11:40	0°♁	
	8337 Apr 02 00:47	0°♁		evening max el	8339 Dec 22 10:34	19°♁♂22'17	46°10'21
	8337 Apr 27 14:51	0°♁			8340 Jan 02 22:07	0°♁	
desc. node	8337 May 07 20:53	12°♁♂18'51		greatest brilliancy	8340 Jan 31 00:55	18°♁♂34'49	-4.8m
	8337 May 22 10:37	0°♁		retrograde	8340 Feb 09 22:11	20°♁♂23'15	
	8337 Jun 15 21:53	0°♁		asc. node	8340 Feb 13 14:22	20°♁♂06'52	
	8337 Jul 10 05:59	0°♁		evening set	8340 Feb 24 13:06	16°♁♂10'13	
	8337 Aug 03 13:41	0°♁		inferior conj	8340 Mar 01 14:17	12°♁♂36'11	4°13'15
	8337 Aug 27 21:48	0°♁		minimum elong	8340 Mar 01 05:27	12°♁♂49'46	4°10'46
asc. node	8337 Aug 28 18:26	1°♁♂03'36		min. Earth dist.	8340 Mar 01 14:01	12°♁♂36'35	0.27098 AU
morning set	8337 Sep 02 14:51	7°♁♂02'17		morning rise	8340 Mar 06 21:39	9°♁♂26'36	
	8337 Sep 21 05:58	0°♁		direct	8340 Mar 22 09:00	4°♁♂45'11	
				greatest brilliancy	8340 Apr 01 10:28	6°♁♂40'30	-4.9m
superior conj	8337 Oct 09 16:44	22°♁♂44'39 1°19'27			8340 May 04 00:54	0°♁	
minimum elong	8337 Oct 09 10:03	22°♁♂24'03 1°19'24		morning max el	8340 May 11 22:05	7°♁♂42'49	46°59'12
max. Earth dist.	8337 Oct 09 19:11	22°♁♂52'12 1.73300 AU			8340 Jun 01 20:53	0°♁	
	8337 Oct 15 13:59	0°♁		desc. node	8340 Jun 04 08:54	2°♁♂47'03	
	8337 Nov 08 22:12	0°♁			8340 Jun 28 02:53	0°♁	
evening rise	8337 Nov 15 03:43	7°♁♂40'16			8340 Jul 23 11:18	0°♁	
	8337 Dec 03 07:20	0°♁			8340 Aug 17 10:47	0°♁	
desc. node	8337 Dec 18 11:54	18°♁♂39'41			8340 Sep 11 05:43	0°♁	
	8337 Dec 27 17:39	0°♁		asc. node	8340 Sep 25 06:51	17°♁♂04'45	
	8338 Jan 21 05:01	0°♁			8340 Oct 05 21:04	0°♁	
	8338 Feb 14 17:50	0°♁			8340 Oct 30 08:53	0°♁	
	8338 Mar 11 10:52	0°♁		morning set	8340 Nov 10 07:07	13°♁♂26'19	
	8338 Apr 05 15:11	0°♁			8340 Nov 23 17:37	0°♁	
asc. node	8338 Apr 10 11:07	5°♁♂38'34		max. Earth dist.	8340 Dec 15 04:06	26°♁♂29'20	1.72887 AU
	8338 May 01 22:47	0°♁					
evening max el	8338 May 19 03:36	18°♁♂09'55 46°48'48		superior conj	8340 Dec 17 00:35	28°♁♂46'55	1°02'36
	8338 May 31 12:51	0°♁		minimum elong	8340 Dec 17 10:21	29°♁♂17'07	1°02'27
greatest brilliancy	8338 Jun 27 17:01	18°♁♂35'59 -4.8m			8340 Dec 18 00:13	0°♁	
retrograde	8338 Jul 08 12:26	20°♁♂47'02			8341 Jan 11 05:21	0°♁	
evening set	8338 Jul 23 09:49	16°♁♂24'42		desc. node	8341 Jan 14 23:47	4°♁♂40'24	
min. Earth dist.	8338 Jul 29 04:57	12°♁♂58'34 0.27820 AU		evening rise	8341 Jan 24 07:25	16°♁♂14'21	
inferior conj	8338 Jul 29 15:08	12°♁♂42'49 0°24'26			8341 Feb 04 09:10	0°♁	
minimum elong	8338 Jul 29 16:04	12°♁♂41'23 0°24'00			8341 Feb 28 11:44	0°♁	
desc. node	8338 Jul 31 06:07	11°♁♂42'45			8341 Mar 24 14:02	0°♁	
morning rise	8338 Aug 04 22:54	8°♁♂58'43			8341 Apr 17 18:35	0°♁	
direct	8338 Aug 19 15:14	4°♁♂46'28		asc. node	8341 May 07 22:43	24°♁♂46'48	
greatest brilliancy	8338 Aug 29 10:54	6°♁♂31'57 -4.8m			8341 May 12 05:35	0°♁	
	8338 Oct 02 10:48	0°♁			8341 Jun 06 05:24	0°♁	
morning max el	8338 Oct 07 12:27	4°♁♂44'52 45°46'13			8341 Jul 02 05:45	0°♁	
	8338 Nov 01 03:51	0°♁		evening max el	8341 Jul 29 06:58	28°♁♂39'34	46°03'40
asc. node	8338 Nov 21 05:20	22°♁♂15'36			8341 Jul 30 15:51	0°♁	
	8338 Nov 27 23:46	0°♁		desc. node	8341 Aug 27 17:43	23°♁♂00'29	
	8338 Dec 23 13:35	0°♁		greatest brilliancy	8341 Sep 05 20:10	27°♁♂31'30	-4.8m
	8339 Jan 17 10:32	0°♁		retrograde	8341 Sep 16 15:53	29°♁♂38'43	
	8339 Feb 10 21:22	0°♁		evening set	8341 Oct 03 21:46	23°♁♂59'54	
	8339 Mar 07 01:46	0°♁		inferior conj	8341 Oct 08 04:50	21°♁♂20'33	-7°54'15
desc. node	8339 Mar 12 22:10	7°♁♂17'36		minimum elong	8341 Oct 07 21:23	21°♁♂32'18	7°53'19
	8339 Mar 31 01:50	0°♁		min. Earth dist.	8341 Oct 07 18:36	21°♁♂36'41	0.29074 AU
morning set	8339 Apr 06 14:14	8°♁♂10'13		morning rise	8341 Oct 11 21:09	19°♁♂03'40	
	8339 Apr 23 23:18	0°♁		direct	8341 Oct 29 17:42	13°♁♂06'00	

greatest brilliancy	8341 Nov 08 18:45	14°♌55'37	-4.7m	evening rise	8344 Apr 08 04:53	0°♊26'08	
	8341 Dec 02 22:32	0°♌			8344 May 01 18:18	0°♊	
morning max el	8341 Dec 17 17:00	13°♌22'27	45°50'07		8344 May 25 18:42	0°♊	
asc. node	8341 Dec 18 17:10	14°♌21'20		asc. node	8344 Jun 04 10:19	11°♊59'14	
	8342 Jan 02 23:19	0°♊			8344 Jun 19 00:22	0°♊	
	8342 Jan 29 20:15	0°♊			8344 Jul 13 14:14	0°♊	
	8342 Feb 24 06:13	0°♊			8344 Aug 07 16:56	0°♊	
	8342 Mar 20 23:12	0°♊			8344 Sep 02 18:08	0°♌	
desc. node	8342 Apr 09 10:34	23°♋59'54		desc. node	8344 Sep 24 05:05	23°♌16'04	
	8342 Apr 14 06:46	0°♊			8344 Sep 30 18:52	0°♊	
	8342 May 08 09:00	0°♊		evening max el	8344 Oct 08 01:53	7°♊09'47	45°41'21
	8342 Jun 01 08:54	0°♊			8344 Nov 05 04:50	0°♊	
morning set	8342 Jun 21 03:44	24°♊44'02		greatest brilliancy	8344 Nov 16 07:07	5°♊18'54	-4.7m
	8342 Jun 25 08:58	0°♊		retrograde	8344 Nov 25 19:59	6°♊58'12	
	8342 Jul 19 10:49	0°♊		evening set	8344 Dec 12 13:31	1°♊38'59	
					8344 Dec 15 07:31	30°♋♊	
superior conj	8342 Jul 30 00:39	13°♊08'19	-0°03'13	inferior conj	8344 Dec 17 02:27	28°♊53'24	-6°23'06
minimum elong	8342 Jul 30 01:26	13°♊10'44	0°03'20	minimum elong	8344 Dec 17 12:33	28°♊37'39	6°20'51
behind sun begin	8342 Jul 29 01:48	11°♊57'22		min. Earth dist.	8344 Dec 17 22:34	28°♊22'02	0.28493 AU
behind sun end	8342 Jul 31 01:04	14°♊24'04		morning rise	8344 Dec 22 11:06	25°♊38'19	
asc. node	8342 Jul 31 08:14	14°♊46'17		direct	8345 Jan 07 10:20	20°♊39'47	
max. Earth dist.	8342 Aug 02 00:24	16°♊50'51	1.72513 AU	asc. node	8345 Jan 15 04:44	21°♊48'27	
	8342 Aug 12 15:03	0°♊		greatest brilliancy	8345 Jan 18 15:20	22°♊58'39	-4.8m
evening rise	8342 Sep 05 15:57	29°♊42'21			8345 Jan 31 07:29	0°♊	
	8342 Sep 05 21:41	0°♊		morning max el	8345 Feb 26 13:40	22°♊53'28	46°33'15
	8342 Sep 30 07:05	0°♌			8345 Mar 05 12:14	0°♊	
	8342 Oct 24 20:19	0°♊			8345 Apr 01 16:06	0°♊	
	8342 Nov 18 14:47	0°♊			8345 Apr 27 04:16	0°♊	
desc. node	8342 Nov 20 02:06	1°♊46'19		desc. node	8345 May 06 22:47	11°♊45'25	
	8342 Dec 13 15:50	0°♊			8345 May 21 23:02	0°♊	
	8343 Jan 08 01:37	0°♊			8345 Jun 15 09:41	0°♊	
	8343 Feb 03 03:05	0°♊			8345 Jul 09 17:22	0°♊	
	8343 Mar 02 20:28	0°♊			8345 Aug 03 00:45	0°♊	
evening max el	8343 Mar 05 03:44	2°♊19'54	46°53'41		8345 Aug 27 08:36	0°♊	
asc. node	8343 Mar 13 01:53	10°♊04'17		asc. node	8345 Aug 27 20:30	0°♊36'40	
	8343 Apr 07 12:05	0°♊		morning set	8345 Aug 31 07:25	4°♊52'12	
greatest brilliancy	8343 Apr 14 21:51	3°♊25'46	-4.9m		8345 Sep 20 16:39	0°♊	
retrograde	8343 Apr 24 15:19	5°♊13'42					
	8343 May 11 01:04	30°♋♊		superior conj	8345 Oct 07 10:27	20°♊38'22	1°18'10
evening set	8343 May 12 18:05	28°♊59'20		minimum elong	8345 Oct 07 03:16	20°♊16'15	1°18'04
inferior conj	8343 May 15 08:31	27°♊23'43	8°59'30	max. Earth dist.	8345 Oct 07 16:42	20°♊57'39	1.73299 AU
minimum elong	8343 May 15 13:13	27°♊16'28	8°59'03		8345 Oct 15 00:39	0°♌	
min. Earth dist.	8343 May 15 08:29	27°♊23'46	0.27161 AU		8345 Nov 08 08:59	0°♊	
morning rise	8343 May 18 08:23	25°♊33'55		evening rise	8345 Nov 12 20:54	5°♊32'12	
direct	8343 Jun 04 23:44	19°♊36'10			8345 Dec 02 18:18	0°♊	
greatest brilliancy	8343 Jun 14 15:36	21°♊20'52	-4.9m	desc. node	8345 Dec 17 13:46	18°♊11'17	
	8343 Jun 30 07:58	0°♊			8345 Dec 27 04:55	0°♊	
desc. node	8343 Jul 02 20:30	1°♊51'53			8346 Jan 20 16:40	0°♊	
morning max el	8343 Jul 24 22:24	21°♊28'14	46°27'39		8346 Feb 14 06:04	0°♊	
	8343 Aug 02 08:50	0°♊			8346 Mar 10 23:59	0°♊	
	8343 Aug 30 00:52	0°♊			8346 Apr 05 05:50	0°♊	
	8343 Sep 25 05:43	0°♊		asc. node	8346 Apr 09 13:07	5°♊00'41	
	8343 Oct 20 17:14	0°♊			8346 May 01 16:46	0°♊	
asc. node	8343 Oct 23 19:07	3°♊40'04		evening max el	8346 May 16 19:09	15°♊52'19	46°50'05
	8343 Nov 14 17:05	0°♌			8346 May 31 18:43	0°♊	
	8343 Dec 09 08:15	0°♊		greatest brilliancy	8346 Jun 25 08:25	16°♊18'05	-4.8m
	8344 Jan 02 17:17	0°♊		retrograde	8346 Jul 06 04:02	18°♊28'57	
morning set	8344 Jan 19 16:45	21°♊01'30		evening set	8346 Jul 21 01:37	14°♊05'31	
	8344 Jan 26 22:07	0°♊		inferior conj	8346 Jul 27 05:39	10°♊25'14	0°46'42
desc. node	8344 Feb 12 11:53	20°♊38'21		minimum elong	8346 Jul 27 07:25	10°♊22'30	0°46'00
	8344 Feb 19 23:51	0°♊		min. Earth dist.	8346 Jul 26 19:46	10°♊40'30	0.27776 AU
max. Earth dist.	8344 Feb 25 00:21	6°♊16'35	1.71713 AU	desc. node	8346 Jul 30 08:10	8°♊31'30	
				morning rise	8346 Aug 02 13:56	6°♊40'53	
superior conj	8344 Feb 28 01:45	10°♊06'08	-0°36'45	direct	8346 Aug 17 05:54	2°♊29'39	
minimum elong	8344 Feb 27 17:11	9°♊39'21	0°36'17	greatest brilliancy	8346 Aug 27 00:25	4°♊14'40	-4.8m
	8344 Mar 14 23:01	0°♊			8346 Oct 02 11:26	0°♊	
	8344 Apr 07 20:33	0°♊		morning max el	8346 Oct 05 03:58	2°♊32'43	45°46'57

	8346 Oct 31 20:06	0°♄			8349 Jul 01 21:50	0°♍	
asc. node	8346 Nov 20 07:16	21°♄41'04		evening max el	8349 Jul 26 21:36	26°♍23'15	46°05'10
	8346 Nov 27 13:19	0°♍			8349 Jul 30 14:55	0°♄	
	8346 Dec 23 01:55	0°♌		desc. node	8349 Aug 26 19:48	21°♄39'24	
	8347 Jan 16 22:17	0°♋		greatest brilliancy	8349 Sep 03 12:23	25°♄21'05	-4.8m
	8347 Feb 10 08:47	0°♊		retrograde	8349 Sep 14 07:48	27°♄28'34	
	8347 Mar 06 13:00	0°♈		evening set	8349 Oct 01 10:59	21°♄54'30	
desc. node	8347 Mar 12 00:15	6°♈49'07		inferior conj	8349 Oct 05 21:11	19°♄10'39	-7°46'05
	8347 Mar 30 12:58	0°♍		minimum elong	8349 Oct 05 13:13	19°♄23'11	7°45'00
morning set	8347 Apr 04 00:43	5°♍37'43		min. Earth dist.	8349 Oct 05 10:25	19°♄27'36	0.29048 AU
	8347 Apr 23 10:22	0°♌		morning rise	8349 Oct 09 15:36	16°♄50'31	
				direct	8349 Oct 27 09:11	10°♄56'33	
superior conj	8347 May 14 18:07	26°♌48'29	-1°25'55	greatest brilliancy	8349 Nov 06 10:25	12°♄45'45	-4.7m
minimum elong	8347 May 14 22:53	27°♌03'27	1°26'01		8349 Dec 03 04:22	0°♍	
max. Earth dist.	8347 May 16 12:05	29°♌00'21	1.71307 AU	morning max el	8349 Dec 15 07:16	11°♍07'04	45°49'14
	8347 May 17 07:04	0°♎		asc. node	8349 Dec 17 19:06	13°♍33'29	
	8347 Jun 10 05:06	0°♏			8350 Jan 02 16:37	0°♌	
evening rise	8347 Jun 24 02:19	17°♏20'59			8350 Jan 29 10:19	0°♋	
asc. node	8347 Jul 02 22:12	28°♏20'47			8350 Feb 23 18:56	0°♊	
	8347 Jul 04 06:07	0°♎			8350 Mar 20 11:16	0°♈	
	8347 Jul 28 11:21	0°♍		desc. node	8350 Apr 08 12:28	23°♈29'23	
	8347 Aug 21 22:02	0°♄			8350 Apr 13 18:27	0°♍	
	8347 Sep 15 16:19	0°♍			8350 May 07 20:25	0°♌	
	8347 Oct 10 22:01	0°♌			8350 May 31 20:07	0°♎	
desc. node	8347 Oct 22 16:27	13°♌43'20		morning set	8350 Jun 18 16:43	22°♎20'00	
	8347 Nov 05 21:43	0°♋			8350 Jun 24 20:01	0°♏	
	8347 Dec 03 05:43	0°♊			8350 Jul 18 21:46	0°♎	
evening max el	8347 Dec 20 00:59	17°♊04'11	46°08'32				
	8348 Jan 03 05:17	0°♈		superior conj	8350 Jul 27 15:18	10°♎51'01	-0°06'47
greatest brilliancy	8348 Jan 28 14:35	16°♈11'41	-4.8m	minimum elong	8350 Jul 27 16:55	10°♎56'02	0°06'51
retrograde	8348 Feb 07 10:42	17°♈58'48		behind sun begin	8350 Jul 26 18:52	9°♎47'35	
asc. node	8348 Feb 12 16:29	17°♈25'35		behind sun end	8350 Jul 28 14:58	12°♎04'28	
evening set	8348 Feb 22 00:35	13°♈48'21		asc. node	8350 Jul 30 10:16	14°♎18'49	
inferior conj	8348 Feb 28 03:25	10°♈11'53	3°51'44	max. Earth dist.	8350 Jul 30 14:50	14°♎33'01	1.72467 AU
minimum elong	8348 Feb 27 19:11	10°♈24'34	3°49'22		8350 Aug 12 01:56	0°♍	
min. Earth dist.	8348 Feb 28 04:15	10°♈10'36	0.27117 AU	evening rise	8350 Sep 03 08:52	27°♍32'53	
morning rise	8348 Mar 04 13:33	6°♈57'59			8350 Sep 05 08:35	0°♄	
direct	8348 Mar 19 22:19	2°♈20'31			8350 Sep 29 18:05	0°♍	
greatest brilliancy	8348 Mar 30 01:10	4°♈16'34	-4.9m		8350 Oct 24 07:35	0°♌	
	8348 May 04 02:54	0°♍			8350 Nov 18 02:32	0°♋	
morning max el	8348 May 09 10:41	5°♍15'53	46°59'19	desc. node	8350 Nov 19 04:02	1°♋16'42	
	8348 Jun 01 14:14	0°♌			8350 Dec 13 04:21	0°♊	
desc. node	8348 Jun 03 10:52	2°♌04'55			8351 Jan 07 15:24	0°♈	
	8348 Jun 27 17:19	0°♎			8351 Feb 02 19:18	0°♍	
	8348 Jul 23 00:16	0°♏		evening max el	8351 Mar 02 16:15	29°♍53'15	46°52'37
	8348 Aug 16 22:52	0°♎			8351 Mar 02 18:57	0°♌	
	8348 Sep 10 17:14	0°♍		asc. node	8351 Mar 12 03:46	9°♌04'54	
asc. node	8348 Sep 24 08:48	16°♍36'17			8351 Apr 09 22:36	0°♎	
	8348 Oct 05 08:13	0°♄		greatest brilliancy	8351 Apr 12 11:05	0°♎59'40	-4.9m
	8348 Oct 29 19:48	0°♍		retrograde	8351 Apr 22 04:21	2°♎47'45	
morning set	8348 Nov 08 00:38	11°♎19'06			8351 May 03 22:17	30°♎♌	
	8348 Nov 23 04:26	0°♌		evening set	8351 May 10 08:34	26°♌30'52	
max. Earth dist.	8348 Dec 12 20:40	24°♌18'44	1.72920 AU	inferior conj	8351 May 12 21:25	24°♌57'50	9°04'10
				minimum elong	8351 May 13 01:13	24°♌52'00	9°03'49
superior conj	8348 Dec 14 17:12	26°♌36'25	1°04'52	min. Earth dist.	8351 May 12 21:10	24°♌58'13	0.27156 AU
minimum elong	8348 Dec 15 02:53	27°♌06'19	1°04'44	morning rise	8351 May 15 17:53	23°♌13'19	
	8348 Dec 17 11:02	0°♋		direct	8351 Jun 02 12:11	17°♌10'01	
	8349 Jan 10 16:18	0°♊		greatest brilliancy	8351 Jun 12 04:28	18°♌55'19	-4.9m
desc. node	8349 Jan 14 01:50	4°♊12'45			8351 Jul 01 02:50	0°♎	
evening rise	8349 Jan 21 22:01	13°♊56'24		desc. node	8351 Jul 01 22:34	0°♎38'21	
	8349 Feb 03 20:19	0°♈		morning max el	8351 Jul 22 12:25	19°♎07'02	46°29'25
	8349 Feb 27 23:07	0°♍			8351 Aug 02 04:54	0°♏	
	8349 Mar 24 01:41	0°♌			8351 Aug 29 16:08	0°♎	
	8349 Apr 17 06:36	0°♎			8351 Sep 24 18:54	0°♍	
asc. node	8349 May 07 00:35	24°♎14'22			8351 Oct 20 05:18	0°♄	
	8349 May 11 18:13	0°♏		asc. node	8351 Oct 22 21:00	3°♄09'55	
	8349 Jun 05 19:08	0°♎			8351 Nov 14 04:31	0°♍	

	8351 Dec 08 19:20	0°♊		greatest brilliancy	8354 Jun 23 00:13	14°♏01'28	-4.8m
	8352 Jan 02 04:11	0°♋		retrograde	8354 Jul 03 19:19	16°♏11'17	
morning set	8352 Jan 17 07:57	18°♋46'05		evening set	8354 Jul 18 17:34	11°♏46'49	
	8352 Jan 26 08:58	0°♌		inferior conj	8354 Jul 24 20:08	8°♏08'14	1°09'01
desc. node	8352 Feb 11 13:57	20°♌11'01		minimum elong	8354 Jul 24 22:45	8°♏04'11	1°08'02
	8352 Feb 19 10:41	0°♍		min. Earth dist.	8354 Jul 24 10:48	8°♏22'41	0.27737 AU
max. Earth dist.	8352 Feb 22 15:23	3°♍59'39	1.71751 AU	desc. node	8354 Jul 29 10:13	5°♏22'26	
				morning rise	8354 Jul 31 04:41	4°♏23'37	
superior conj	8352 Feb 25 14:20	7°♍41'25	-0°33'16	direct	8354 Aug 14 20:32	0°♏13'26	
minimum elong	8352 Feb 25 06:28	7°♍16'50	0°32'49	greatest brilliancy	8354 Aug 24 14:04	1°♏57'47	-4.8m
	8352 Mar 14 09:53	0°♎			8354 Oct 02 10:44	0°♏	
evening rise	8352 Apr 05 16:28	27°♎57'25		morning max el	8354 Oct 02 18:53	0°♏19'28	45°47'41
	8352 Apr 07 07:31	0°♏			8354 Oct 31 11:53	0°♏	
	8352 May 01 05:24	0°♐		asc. node	8354 Nov 19 09:17	21°♏07'37	
	8352 May 25 06:00	0°♑			8354 Nov 27 02:31	0°♏	
asc. node	8352 Jun 03 12:19	11°♑30'11			8354 Dec 22 13:56	0°♏	
	8352 Jun 18 11:57	0°♒			8355 Jan 16 09:41	0°♋	
	8352 Jul 13 02:17	0°♓			8355 Feb 09 19:51	0°♌	
	8352 Aug 07 05:54	0°♑			8355 Mar 05 23:53	0°♍	
	8352 Sep 02 09:04	0°♒		desc. node	8355 Mar 11 02:04	6°♍20'52	
desc. node	8352 Sep 23 07:01	22°♒33'29			8355 Mar 29 23:47	0°♎	
	8352 Sep 30 15:02	0°♊		morning set	8355 Apr 01 11:22	3°♎06'49	
evening max el	8352 Oct 05 17:35	4°♊58'55	45°41'24		8355 Apr 22 21:07	0°♋	
	8352 Nov 06 17:07	0°♋					
greatest brilliancy	8352 Nov 13 20:58	3°♋05'40	-4.7m	superior conj	8355 May 12 05:35	24°♋20'04	-1°26'38
retrograde	8352 Nov 23 11:35	4°♋46'00		minimum elong	8355 May 12 09:19	24°♋31'50	1°26'44
	8352 Dec 09 05:16	30°♌♊		max. Earth dist.	8355 May 13 20:09	26°♋21'17	1.71282 AU
evening set	8352 Dec 10 07:46	29°♊22'04			8355 May 16 17:46	0°♐	
inferior conj	8352 Dec 14 17:55	26°♊40'15	-6°36'47		8355 Jun 09 15:45	0°♑	
minimum elong	8352 Dec 15 03:57	26°♊24'36	6°34'38	evening rise	8355 Jun 21 14:55	14°♑57'14	
min. Earth dist.	8352 Dec 15 13:20	26°♊09'59	0.28547 AU	asc. node	8355 Jul 02 00:15	27°♑53'56	
morning rise	8352 Dec 19 23:44	23°♊29'18			8355 Jul 03 16:48	0°♒	
direct	8353 Jan 05 02:47	18°♊26'09			8355 Jul 27 22:10	0°♓	
asc. node	8353 Jan 14 06:51	20°♊01'01			8355 Aug 21 09:07	0°♑	
greatest brilliancy	8353 Jan 16 06:32	20°♊44'12	-4.8m		8355 Sep 15 03:53	0°♒	
	8353 Feb 01 01:51	0°♋			8355 Oct 10 10:28	0°♊	
morning max el	8353 Feb 24 06:02	20°♋39'49	46°31'44	desc. node	8355 Oct 21 18:24	13°♊11'09	
	8353 Mar 05 07:34	0°♌			8355 Nov 05 11:53	0°♋	
	8353 Apr 01 07:02	0°♍			8355 Dec 02 23:47	0°♌	
	8353 Apr 26 17:24	0°♎		evening max el	8355 Dec 17 14:36	14°♌45'27	46°06'55
desc. node	8353 May 06 00:45	11°♎12'51			8356 Jan 03 14:25	0°♍	
	8353 May 21 11:14	0°♏		greatest brilliancy	8356 Jan 26 04:44	13°♍50'49	-4.8m
	8353 Jun 14 21:20	0°♐		retrograde	8356 Feb 04 23:07	15°♍36'34	
	8353 Jul 09 04:38	0°♑		asc. node	8356 Feb 11 18:23	14°♍40'45	
	8353 Aug 02 11:44	0°♒		evening set	8356 Feb 19 12:30	11°♍27'58	
asc. node	8353 Aug 26 22:26	0°♓09'27		inferior conj	8356 Feb 25 16:47	7°♍49'43	3°29'53
	8353 Aug 26 19:22	0°♑		minimum elong	8356 Feb 25 09:13	8°♍01'24	3°27'41
morning set	8353 Aug 28 23:43	2°♑41'21		min. Earth dist.	8356 Feb 25 18:58	7°♍46'21	0.27138 AU
	8353 Sep 20 03:17	0°♒		morning rise	8356 Mar 02 05:33	4°♍31'44	
					8356 Mar 16 02:17	30°♌♌	
superior conj	8353 Oct 05 03:53	18°♒31'32	1°16'45	direct	8356 Mar 17 11:30	29°♌57'41	
minimum elong	8353 Oct 04 20:16	18°♒08'00	1°16'37		8356 Mar 18 20:55	0°♍	
max. Earth dist.	8353 Oct 05 14:20	19°♒03'44	1.73289 AU	greatest brilliancy	8356 Mar 27 16:43	1°♍55'23	-4.9m
	8353 Oct 14 11:14	0°♓			8356 May 04 03:02	0°♎	
	8353 Nov 07 19:37	0°♊		morning max el	8356 May 06 23:22	2°♎50'29	46°59'26
evening rise	8353 Nov 10 14:01	3°♊24'21			8356 Jun 01 06:44	0°♋	
	8353 Dec 02 05:08	0°♋		desc. node	8356 Jun 02 12:52	1°♋24'46	
desc. node	8353 Dec 16 15:50	17°♋43'59			8356 Jun 27 07:06	0°♐	
	8353 Dec 26 16:01	0°♌			8356 Jul 22 12:40	0°♑	
	8354 Jan 20 04:10	0°♍			8356 Aug 16 10:26	0°♒	
	8354 Feb 13 18:08	0°♎			8356 Sep 10 04:17	0°♓	
	8354 Mar 10 12:56	0°♏		asc. node	8356 Sep 23 10:39	16°♓08'52	
	8354 Apr 04 20:21	0°♐			8356 Oct 04 18:56	0°♑	
asc. node	8354 Apr 08 15:04	4°♐23'16			8356 Oct 29 06:20	0°♒	
	8354 May 01 10:48	0°♑		morning set	8356 Nov 05 17:58	9°♒12'24	
evening max el	8354 May 14 10:44	13°♑35'44	46°51'08		8356 Nov 22 14:54	0°♊	
	8354 Jun 01 02:27	0°♒		max. Earth dist.	8356 Dec 10 13:27	22°♊09'52	1.72952 AU

superior conj	8356 Dec 12 09:43	24° ♄ 26'41	1°07'02	min. Earth dist.	8359 May 10 09:23	22° ♄ 34'03	0.27149 AU
minimum elong	8356 Dec 12 19:13	24° ♄ 56'05	1°06'54	morning rise	8359 May 13 03:48	20° ♄ 52'46	
	8356 Dec 16 21:30	0° ☿		direct	8359 May 31 01:11	14° ♄ 44'47	
	8357 Jan 10 02:52	0° \approx		greatest brilliancy	8359 Jun 09 16:42	16° ♄ 29'58	-4.9m
desc. node	8357 Jan 13 03:48	3° \approx 46'03		desc. node	8359 Jul 01 00:36	29° ♄ 27'51	
evening rise	8357 Jan 19 12:33	11° \approx 39'38			8359 Jul 01 16:29	0° ♄	
	8357 Feb 03 07:03	0° ♄		morning max el	8359 Jul 20 03:13	16° ♄ 48'39	46°31'04
	8357 Feb 27 10:04	0° ♄			8359 Aug 02 00:02	0° ☿	
	8357 Mar 23 12:56	0° ♄			8359 Aug 29 06:54	0° ♄	
	8357 Apr 16 18:15	0° ♄			8359 Sep 24 07:42	0° ♄	
asc. node	8357 May 06 02:38	23° ♄ 43'33			8359 Oct 19 17:02	0° ♄	
	8357 May 11 06:31	0° ☿		asc. node	8359 Oct 21 23:04	2° ♄ 41'17	
	8357 Jun 05 08:34	0° ♄			8359 Nov 13 15:38	0° ♄	
	8357 Jul 01 13:44	0° ♄			8359 Dec 08 06:08	0° ♄	
evening max el	8357 Jul 24 12:01	24° ♄ 07'43	46°06'44		8360 Jan 01 14:52	0° ☿	
	8357 Jul 30 14:27	0° ♄		morning set	8360 Jan 14 23:06	16° ☿ 31'12	
desc. node	8357 Aug 25 21:40	20° ♄ 16'45			8360 Jan 25 19:38	0° \approx	
greatest brilliancy	8357 Sep 01 03:55	23° ♄ 11'03	-4.8m	desc. node	8360 Feb 10 15:49	19° \approx 43'37	
retrograde	8357 Sep 11 23:55	25° ♄ 19'44			8360 Feb 18 21:23	0° ♄	
evening set	8357 Sep 29 00:02	19° ♄ 50'08		max. Earth dist.	8360 Feb 20 04:08	1° ♄ 36'02	1.71792 AU
min. Earth dist.	8357 Oct 03 02:04	17° ♄ 19'46	0.29024 AU				
inferior conj	8357 Oct 03 13:27	17° ♄ 01'52	-7°37'05	superior conj	8360 Feb 23 02:37	5° ♄ 16'17	-0°29'41
minimum elong	8357 Oct 03 05:02	17° ♄ 15'06	7°35'52	minimum elong	8360 Feb 22 19:32	4° ♄ 54'08	0°29'17
morning rise	8357 Oct 07 10:09	14° ♄ 38'25			8360 Mar 13 20:38	0° ♄	
direct	8357 Oct 25 00:36	8° ♄ 48'01		evening rise	8360 Apr 03 03:38	25° ♄ 27'52	
greatest brilliancy	8357 Nov 04 02:17	10° ♄ 37'17	-4.7m		8360 Apr 06 18:21	0° ♄	
	8357 Dec 03 07:48	0° ♄			8360 Apr 30 16:21	0° ♄	
morning max el	8357 Dec 12 22:24	8° ♄ 54'52	45°48'21		8360 May 24 17:07	0° ☿	
asc. node	8357 Dec 16 21:10	12° ♄ 47'40		asc. node	8360 Jun 02 14:21	11° ☿ 01'44	
	8358 Jan 02 09:12	0° ♄			8360 Jun 17 23:22	0° ♄	
	8358 Jan 28 23:56	0° ☿			8360 Jul 12 14:14	0° ♄	
	8358 Feb 23 07:16	0° \approx			8360 Aug 06 18:49	0° ♄	
	8358 Mar 19 22:55	0° ♄			8360 Sep 02 00:03	0° ♄	
desc. node	8358 Apr 07 14:26	23° ♄ 00'24		desc. node	8360 Sep 22 09:03	21° ♄ 51'06	
	8358 Apr 13 05:42	0° ♄			8360 Sep 30 11:43	0° ♄	
	8358 May 07 07:25	0° ♄		evening max el	8360 Oct 03 09:43	2° ♄ 49'35	45°41'29
	8358 May 31 06:56	0° ♄			8360 Nov 09 01:06	0° ☿	
morning set	8358 Jun 16 05:35	19° ♄ 56'39		greatest brilliancy	8360 Nov 11 11:07	0° ☿ 53'32	-4.7m
	8358 Jun 24 06:43	0° ☿		retrograde	8360 Nov 21 02:50	2° ☿ 34'23	
	8358 Jul 18 08:21	0° ♄			8360 Dec 02 12:42	30° ♄ 27'51	
				evening set	8360 Dec 08 02:03	27° ♄ 06'03	
superior conj	8358 Jul 25 05:56	8° ♄ 34'39	-0°10'21	inferior conj	8360 Dec 12 09:26	24° ♄ 27'53	-6°49'41
minimum elong	8358 Jul 25 08:24	8° ♄ 42'18	0°10'22	minimum elong	8360 Dec 12 19:20	24° ♄ 12'25	6°47'39
behind sun begin	8358 Jul 24 13:41	7° ♄ 44'08		min. Earth dist.	8360 Dec 13 04:04	23° ♄ 58'46	0.28598 AU
behind sun end	8358 Jul 26 03:07	9° ♄ 40'26		morning rise	8360 Dec 17 12:17	21° ♄ 21'00	
max. Earth dist.	8358 Jul 28 04:10	12° ♄ 12'42	1.72421 AU	direct	8361 Jan 02 19:17	16° ♄ 13'27	
asc. node	8358 Jul 29 12:11	13° ♄ 52'06		asc. node	8361 Jan 13 08:44	18° ♄ 17'51	
	8358 Aug 11 12:27	0° ♄		greatest brilliancy	8361 Jan 13 21:25	18° ♄ 29'59	-4.8m
evening rise	8358 Sep 01 01:52	25° ♄ 24'56			8361 Feb 01 15:17	0° ☿	
	8358 Sep 04 19:06	0° ♄		morning max el	8361 Feb 21 21:36	18° ☿ 24'31	46°29'58
	8358 Sep 29 04:44	0° ♄			8361 Mar 05 02:17	0° \approx	
	8358 Oct 23 18:31	0° ♄			8361 Mar 31 21:47	0° ♄	
	8358 Nov 17 13:59	0° ☿			8361 Apr 26 06:29	0° ♄	
desc. node	8358 Nov 18 06:06	0° ☿ 48'28		desc. node	8361 May 05 02:48	10° ♄ 40'36	
	8358 Dec 12 16:38	0° \approx			8361 May 20 23:25	0° ♄	
	8359 Jan 07 05:03	0° ♄			8361 Jun 14 08:57	0° ♄	
	8359 Feb 02 11:32	0° ♄			8361 Jul 08 15:52	0° ☿	
evening max el	8359 Feb 28 05:50	27° ♄ 30'12	46°51'43		8361 Aug 01 22:39	0° ♄	
	8359 Mar 02 18:03	0° ♄		asc. node	8361 Aug 26 00:19	29° ♄ 42'11	
asc. node	8359 Mar 11 05:45	8° ♄ 05'10			8361 Aug 26 06:05	0° ♄	
greatest brilliancy	8359 Apr 09 23:39	28° ♄ 33'44	-4.9m	morning set	8361 Aug 26 15:54	0° ♄ 30'16	
	8359 Apr 15 09:12	0° ♄			8361 Sep 19 13:53	0° ♄	
retrograde	8359 Apr 19 17:48	0° ♄ 22'40					
	8359 Apr 24 00:24	30° ♄ 27'51		superior conj	8361 Oct 02 21:21	16° ♄ 24'43	1°15'13
evening set	8359 May 07 22:30	24° ♄ 03'56		minimum elong	8361 Oct 02 13:19	15° ♄ 59'59	1°15'04
inferior conj	8359 May 10 10:17	22° ♄ 32'40	9°07'44	max. Earth dist.	8361 Oct 03 10:55	17° ♄ 06'34	1.73277 AU
minimum elong	8359 May 10 13:08	22° ♄ 28'16	9°07'29		8361 Oct 13 21:49	0° ♄	

	8361 Nov 07 06:17	0°♈		8364 Mar 26 10:59	0°♏	
evening rise	8361 Nov 08 07:13	1°♈16'44		8364 May 04 02:20	0°♍	
	8361 Dec 01 15:57	0°♎	morning max el	8364 May 04 12:30	0°♍25'36	46°59'24
desc. node	8361 Dec 15 17:49	17°♎16'25		8364 May 31 23:14	0°♎	
	8361 Dec 26 03:07	0°♏	desc. node	8364 Jun 01 14:52	0°♎44'12	
	8362 Jan 19 15:42	0°♏		8364 Jun 26 21:06	0°♐	
	8362 Feb 13 06:19	0°♍		8364 Jul 22 01:23	0°♏	
	8362 Mar 10 02:05	0°♎		8364 Aug 15 22:22	0°♎	
	8362 Apr 04 11:13	0°♐		8364 Sep 09 15:41	0°♐	
asc. node	8362 Apr 07 17:05	3°♐45'11	asc. node	8364 Sep 22 12:45	15°♐41'11	
	8362 May 01 05:33	0°♏		8364 Oct 04 05:59	0°♎	
evening max el	8362 May 12 01:40	11°♏16'35	46°52'09	8364 Oct 28 17:10	0°♎	
	8362 Jun 01 13:29	0°♎	morning set	8364 Nov 03 11:09	7°♎04'18	
greatest brilliancy	8362 Jun 20 16:29	11°♎44'17	-4.9m	8364 Nov 22 01:39	0°♈	
retrograde	8362 Jul 01 09:54	13°♎52'17		max. Earth dist.	8364 Dec 08 07:59	20°♈05'27 1.72984 AU
evening set	8362 Jul 16 09:32	9°♎26'40				
inferior conj	8362 Jul 22 10:27	5°♎50'11	1°31'17	superior conj	8364 Dec 10 02:14	22°♈16'03 1°09'05
minimum elong	8362 Jul 22 13:54	5°♎44'51	1°30'04	minimum elong	8364 Dec 10 11:32	22°♈44'48 1°08'59
min. Earth dist.	8362 Jul 22 01:59	6°♎03'18	0.27696 AU		8364 Dec 16 08:18	0°♎
morning rise	8362 Jul 28 18:59	2°♎05'19			8365 Jan 09 13:47	0°♏
desc. node	8362 Jul 28 12:05	2°♎14'36		desc. node	8365 Jan 12 05:41	3°♏18'01
	8362 Aug 02 05:39	30°♏		evening rise	8365 Jan 17 03:18	9°♏22'35
direct	8362 Aug 12 10:33	27°♏56'07			8365 Feb 02 18:08	0°♏
greatest brilliancy	8362 Aug 22 03:58	29°♏40'10	-4.8m		8365 Feb 26 21:22	0°♍
	8362 Aug 23 02:14	0°♎			8365 Mar 23 00:29	0°♎
morning max el	8362 Sep 30 08:45	28°♎03'05	45°48'30		8365 Apr 16 06:13	0°♐
	8362 Oct 02 09:15	0°♐		asc. node	8365 May 05 04:38	23°♐11'41
	8362 Oct 31 03:33	0°♎			8365 May 10 19:10	0°♏
asc. node	8362 Nov 18 11:15	20°♎33'50			8365 Jun 04 22:29	0°♎
	8362 Nov 26 15:45	0°♎			8365 Jul 01 06:22	0°♐
	8362 Dec 22 02:02	0°♈		evening max el	8365 Jul 22 03:02	21°♐52'15 46°08'19
	8363 Jan 15 21:10	0°♎			8365 Jul 30 15:48	0°♎
	8363 Feb 09 07:01	0°♏		desc. node	8365 Aug 24 23:43	18°♎50'05
	8363 Mar 05 10:54	0°♏		greatest brilliancy	8365 Aug 29 18:56	20°♎58'47 -4.8m
desc. node	8363 Mar 10 04:05	5°♏52'52		retrograde	8365 Sep 09 16:26	23°♎09'16
	8363 Mar 29 10:44	0°♍		evening set	8365 Sep 26 12:57	17°♎44'03
morning set	8363 Mar 29 22:02	0°♍35'24		min. Earth dist.	8365 Sep 30 17:21	15°♎10'36 0.28996 AU
	8363 Apr 22 08:04	0°♎		inferior conj	8365 Oct 01 05:36	14°♎51'22 -7°27'24
				minimum elong	8365 Sep 30 20:47	15°♎05'13 7°26'03
superior conj	8363 May 09 16:46	21°♎50'03	-1°27'09	morning rise	8365 Oct 05 04:44	12°♎24'36
minimum elong	8363 May 09 19:28	21°♎58'32	1°27'18	direct	8365 Oct 22 16:14	6°♎37'51
max. Earth dist.	8363 May 11 00:27	23°♎29'38	1.71265 AU	greatest brilliancy	8365 Nov 01 17:44	8°♎27'09 -4.7m
	8363 May 16 04:42	0°♐			8365 Dec 03 10:08	0°♎
	8363 Jun 09 02:41	0°♏		morning max el	8365 Dec 10 14:11	6°♎43'19 45°47'29
evening rise	8363 Jun 19 02:53	12°♏30'34		asc. node	8365 Dec 15 23:06	12°♎01'12
asc. node	8363 Jul 01 02:06	27°♏25'35			8366 Jan 02 01:50	0°♈
	8363 Jul 03 03:46	0°♎			8366 Jan 28 13:45	0°♎
	8363 Jul 27 09:15	0°♐			8366 Feb 22 19:52	0°♏
	8363 Aug 20 20:28	0°♎			8366 Mar 19 10:53	0°♏
	8363 Sep 14 15:44	0°♎		desc. node	8366 Apr 06 16:28	22°♏30'39
	8363 Oct 09 23:16	0°♈			8366 Apr 12 17:16	0°♍
desc. node	8363 Oct 20 20:27	12°♈38'16			8366 May 06 18:42	0°♎
	8363 Nov 05 02:30	0°♎			8366 May 30 18:02	0°♐
	8363 Dec 02 18:39	0°♏		morning set	8366 Jun 13 18:40	17°♐33'04
evening max el	8363 Dec 15 03:46	12°♏25'04	46°05'26		8366 Jun 23 17:41	0°♏
	8364 Jan 04 03:06	0°♏			8366 Jul 17 19:15	0°♎
greatest brilliancy	8364 Jan 23 18:46	11°♏29'27	-4.8m			
retrograde	8364 Feb 02 11:44	13°♏14'26		superior conj	8366 Jul 22 20:33	6°♎17'09 -0°13'53
asc. node	8364 Feb 10 20:20	11°♏50'18		minimum elong	8366 Jul 22 23:51	6°♎27'23 0°13'53
evening set	8364 Feb 17 00:44	9°♏06'56		behind sun begin	8366 Jul 22 11:26	5°♎48'50
inferior conj	8364 Feb 23 06:16	5°♏27'24	3°07'46	behind sun end	8366 Jul 23 12:15	7°♎05'57
minimum elong	8364 Feb 22 23:23	5°♏38'00	3°05'46	max. Earth dist.	8366 Jul 25 19:04	9°♎56'15 1.72381 AU
min. Earth dist.	8364 Feb 23 09:46	5°♏22'00	0.27162 AU	asc. node	8366 Jul 28 14:07	13°♎24'24
morning rise	8364 Feb 28 21:32	2°♏05'49			8366 Aug 10 23:18	0°♐
	8364 Mar 04 02:33	30°♏		evening rise	8366 Aug 29 18:46	23°♐15'28
direct	8364 Mar 15 00:46	27°♏34'32			8366 Sep 04 05:59	0°♎
greatest brilliancy	8364 Mar 25 08:34	29°♏34'24	-4.9m		8366 Sep 28 15:45	0°♎

	8366 Oct 23 05:50	0°♊		desc. node	8369 May 04 04:40	10°♍07'25	
desc. node	8366 Nov 17 08:00	0°♊18'33			8369 May 20 11:44	0°♋	
	8366 Nov 17 01:50	0°♊			8369 Jun 13 20:44	0°♈	
	8366 Dec 12 05:20	0°♋			8369 Jul 08 03:15	0°♎	
	8367 Jan 06 19:12	0°♋			8369 Aug 01 09:43	0°♏	
	8367 Feb 02 04:27	0°♌		morning set	8369 Aug 24 08:20	28°♏19'29	
evening max el	8367 Feb 25 20:17	25°♌08'24 46°50'39		asc. node	8369 Aug 25 02:23	29°♏15'08	
	8367 Mar 02 18:42	0°♋			8369 Aug 25 16:55	0°♐	
asc. node	8367 Mar 10 07:51	7°♋03'13			8369 Sep 19 00:36	0°♑	
greatest brilliancy	8367 Apr 07 12:01	26°♋06'43 -4.9m					
retrograde	8367 Apr 17 07:30	27°♋56'29		superior conj	8369 Sep 30 15:03	14°♑18'24 1°13'36	
evening set	8367 May 05 11:55	21°♋36'59		minimum elong	8369 Sep 30 06:41	13°♑52'35 1°13'25	
inferior conj	8367 May 07 23:08	20°♋06'34 9°10'20		max. Earth dist.	8369 Oct 01 06:52	15°♑07'08 1.73264 AU	
minimum elong	8367 May 08 01:02	20°♋03'40 9°10'10			8369 Oct 13 08:31	0°♒	
min. Earth dist.	8367 May 07 21:23	20°♋09'16 0.27138 AU		evening rise	8369 Nov 06 00:37	29°♒09'22	
morning rise	8367 May 10 14:10	18°♋30'31			8369 Nov 06 17:04	0°♊	
direct	8367 May 28 14:31	12°♋18'57			8369 Dec 01 02:55	0°♊	
greatest brilliancy	8367 Jun 07 04:28	14°♋03'17 -4.9m		desc. node	8369 Dec 14 19:42	16°♊48'02	
desc. node	8367 Jun 30 02:28	28°♋18'19			8369 Dec 25 14:24	0°♋	
	8367 Jul 02 02:55	0°♈			8370 Jan 19 03:25	0°♋	
morning max el	8367 Jul 17 17:50	14°♈29'10 46°32'40			8370 Feb 12 18:41	0°♌	
	8367 Aug 01 18:53	0°♎			8370 Mar 09 15:28	0°♌	
	8367 Aug 28 21:43	0°♏			8370 Apr 04 02:23	0°♈	
	8367 Sep 23 20:42	0°♐		asc. node	8370 Apr 06 19:04	3°♈06'18	
	8367 Oct 19 05:03	0°♑			8370 May 01 00:57	0°♎	
asc. node	8367 Oct 21 00:59	2°♑11'18		evening max el	8370 May 09 15:35	8°♎54'19 46°53'00	
	8367 Nov 13 03:04	0°♒			8370 Jun 02 04:32	0°♏	
	8367 Dec 07 17:15	0°♊		greatest brilliancy	8370 Jun 18 08:59	9°♏26'44 -4.9m	
	8368 Jan 01 01:49	0°♊		retrograde	8370 Jun 28 23:59	11°♏32'48	
morning set	8368 Jan 12 14:19	14°♊15'46		evening set	8370 Jul 14 01:34	7°♏05'36	
	8368 Jan 25 06:33	0°♋		min. Earth dist.	8370 Jul 19 17:26	3°♏43'01 0.27655 AU	
desc. node	8368 Feb 09 17:47	19°♋15'42		inferior conj	8370 Jul 20 00:44	3°♏31'42 1°53'31	
max. Earth dist.	8368 Feb 17 15:26	29°♋07'14 1.71834 AU		minimum elong	8370 Jul 20 04:59	3°♏25'05 1°52'03	
	8368 Feb 18 08:20	0°♋			8370 Jul 25 23:15	30°♒♎	
				morning rise	8370 Jul 26 09:01	29°♎46'49	
superior conj	8368 Feb 20 15:04	2°♋50'56 -0°26'05		desc. node	8370 Jul 27 14:09	29°♎09'01	
minimum elong	8368 Feb 20 08:48	2°♋31'21 0°25'42		direct	8370 Aug 10 00:02	25°♎38'10	
	8368 Mar 13 07:39	0°♌		greatest brilliancy	8370 Aug 19 18:22	27°♎22'40 -4.8m	
evening rise	8368 Mar 31 14:58	22°♌57'52			8370 Aug 25 21:01	0°♏	
	8368 Apr 06 05:28	0°♋		morning max el	8370 Sep 27 22:15	25°♏45'35 45°49'34	
	8368 Apr 30 03:36	0°♈			8370 Oct 02 06:53	0°♐	
	8368 May 24 04:32	0°♎			8370 Oct 30 18:57	0°♑	
asc. node	8368 Jun 01 16:13	10°♎31'56		asc. node	8370 Nov 17 13:10	20°♑00'15	
	8368 Jun 17 11:03	0°♏			8370 Nov 26 04:52	0°♒	
	8368 Jul 12 02:25	0°♐			8370 Dec 21 14:04	0°♊	
	8368 Aug 06 08:01	0°♑			8371 Jan 15 08:39	0°♊	
	8368 Sep 01 15:28	0°♒			8371 Feb 08 18:13	0°♋	
desc. node	8368 Sep 21 11:04	21°♒07'29			8371 Mar 04 21:57	0°♋	
	8368 Sep 30 09:26	0°♊		desc. node	8371 Mar 09 06:07	5°♋24'50	
evening max el	8368 Oct 01 01:27	0°♊38'29 45°41'25		morning set	8371 Mar 27 08:37	28°♋03'46	
greatest brilliancy	8368 Nov 09 01:59	28°♊41'37 -4.7m			8371 Mar 28 21:42	0°♌	
	8368 Nov 14 06:46	0°♊			8371 Apr 21 18:59	0°♋	
retrograde	8368 Nov 18 17:46	0°♊22'21					
	8368 Nov 23 02:18	30°♒♊		superior conj	8371 May 07 03:53	19°♋19'54 -1°27'31	
evening set	8368 Dec 05 20:26	24°♊49'51		minimum elong	8371 May 07 05:31	19°♋25'02 1°27'39	
inferior conj	8368 Dec 10 01:07	22°♊15'19 -7°01'50		max. Earth dist.	8371 May 08 03:40	20°♋34'38 1.71251 AU	
minimum elong	8368 Dec 10 10:48	22°♊00'09 6°59'57			8371 May 15 15:36	0°♈	
min. Earth dist.	8368 Dec 10 19:11	21°♊47'01 0.28648 AU			8371 Jun 08 13:35	0°♎	
morning rise	8368 Dec 15 00:52	19°♊12'30		evening rise	8371 Jun 16 14:45	10°♎03'41	
direct	8368 Dec 31 11:35	14°♊00'34		asc. node	8371 Jun 30 04:07	26°♎57'43	
greatest brilliancy	8369 Jan 11 12:42	16°♊15'46 -4.8m			8371 Jul 02 14:44	0°♏	
asc. node	8369 Jan 12 10:41	16°♊37'54			8371 Jul 26 20:22	0°♐	
	8369 Feb 02 01:29	0°♊			8371 Aug 20 07:50	0°♑	
morning max el	8369 Feb 19 12:17	16°♊06'26 46°28'12			8371 Sep 14 03:35	0°♒	
	8369 Mar 04 20:43	0°♋			8371 Oct 09 12:02	0°♊	
	8369 Mar 31 12:31	0°♋		desc. node	8371 Oct 19 22:24	12°♊05'15	
	8369 Apr 25 19:38	0°♌			8371 Nov 04 17:10	0°♊	




































































































































	8371 Dec 02 13:54	0°≈		morning set	8374 Jun 11 07:15	15°Ⅱ08'28	
evening max el	8371 Dec 12 16:56	10°≈05'15	46°03'54		8374 Jun 23 04:26	0°☾	
	8372 Jan 04 19:56	0°✕			8374 Jul 17 05:54	0°Ω	
greatest brilliancy	8372 Jan 21 08:05	9°✕07'32	-4.8m				
retrograde	8372 Jan 31 00:46	10°✕52'32		superior conj	8374 Jul 20 10:36	3°Ω58'33	-0°17'27
asc. node	8372 Feb 09 22:26	8°✕54'27		minimum elong	8374 Jul 20 14:44	4°Ω11'24	0°17'24
evening set	8372 Feb 14 13:08	6°✕45'32		max. Earth dist.	8374 Jul 23 11:40	7°Ω45'41	1.72338 AU
inferior conj	8372 Feb 20 19:39	3°✕04'58	2°45'18	asc. node	8374 Jul 27 16:09	12°Ω57'46	
minimum elong	8372 Feb 20 13:31	3°✕14'24	2°43'29		8374 Aug 10 09:54	0°Ⅲ	
min. Earth dist.	8372 Feb 21 00:14	2°✕57'56	0.27193 AU	evening rise	8374 Aug 27 11:18	21°Ⅲ05'41	
	8372 Feb 25 23:10	30°≈			8374 Sep 03 16:37	0°♁	
morning rise	8372 Feb 26 13:21	29°≈40'12			8374 Sep 28 02:32	0°Ⅲ	
direct	8372 Mar 12 14:17	25°≈11'11			8374 Oct 22 16:56	0°♂	
greatest brilliancy	8372 Mar 23 00:07	27°≈13'08	-4.9m	desc. node	8374 Nov 16 09:58	29°♂49'32	
	8372 Mar 29 01:18	0°✕			8374 Nov 16 13:27	0°☾	
morning max el	8372 May 02 02:33	28°✕03'09	46°59'22		8374 Dec 11 17:48	0°≈	
	8372 May 04 00:38	0°♀			8375 Jan 06 09:06	0°✕	
desc. node	8372 May 31 16:47	0°♁04'05			8375 Feb 01 21:16	0°♀	
	8372 May 31 15:21	0°♁		evening max el	8375 Feb 23 10:50	22°♀48'06	46°49'25
	8372 Jun 26 10:50	0°Ⅱ			8375 Mar 02 20:06	0°♁	
	8372 Jul 21 13:53	0°☾		asc. node	8375 Mar 09 09:44	6°♁00'27	
	8372 Aug 15 10:07	0°Ω		greatest brilliancy	8375 Apr 05 00:24	23°♁40'46	-4.9m
	8372 Sep 09 02:56	0°Ⅲ		retrograde	8375 Apr 14 20:46	25°♁30'47	
asc. node	8372 Sep 21 14:39	15°Ⅲ13'20		evening set	8375 May 03 00:42	19°♁11'38	
	8372 Oct 03 16:53	0°♁		inferior conj	8375 May 05 11:55	17°♁41'06	9°11'57
	8372 Oct 28 03:50	0°Ⅲ		minimum elong	8375 May 05 12:49	17°♁39'42	9°11'48
morning set	8372 Nov 01 04:30	4°Ⅲ57'15		min. Earth dist.	8375 May 05 09:23	17°♁44'59	0.27130 AU
	8372 Nov 21 12:13	0°♂		morning rise	8375 May 08 00:59	16°♁07'55	
max. Earth dist.	8372 Dec 06 04:39	18°♂08'18	1.73012 AU	direct	8375 May 26 03:53	9°♁53'48	
				greatest brilliancy	8375 Jun 04 16:21	11°♁37'04	-4.9m
superior conj	8372 Dec 07 19:01	20°♂06'53	1°11'00	desc. node	8375 Jun 29 04:33	27°♁11'42	
minimum elong	8372 Dec 08 04:04	20°♂34'51	1°10'56		8375 Jul 02 10:21	0°Ⅱ	
	8372 Dec 15 18:53	0°☾		morning max el	8375 Jul 15 07:32	12°Ⅱ07'46	46°34'10
	8373 Jan 09 00:28	0°≈			8375 Aug 01 13:02	0°☾	
desc. node	8373 Jan 11 07:44	2°≈51'12			8375 Aug 28 12:07	0°Ω	
evening rise	8373 Jan 14 18:20	7°≈07'07			8375 Sep 23 09:20	0°Ⅲ	
	8373 Feb 02 05:01	0°✕			8375 Oct 18 16:41	0°♁	
	8373 Feb 26 08:30	0°♀		asc. node	8375 Oct 20 02:53	1°♁42'16	
	8373 Mar 22 11:55	0°♁			8375 Nov 12 14:09	0°Ⅲ	
	8373 Apr 15 18:05	0°Ⅱ			8375 Dec 07 04:02	0°♂	
asc. node	8373 May 04 06:31	22°Ⅱ39'42			8375 Dec 31 12:29	0°☾	
	8373 May 10 07:44	0°☾		morning set	8376 Jan 10 05:44	12°☾01'58	
	8373 Jun 04 12:21	0°Ω			8376 Jan 24 17:09	0°≈	
	8373 Jun 30 23:06	0°Ⅲ		desc. node	8376 Feb 08 19:49	18°≈49'04	
evening max el	8373 Jul 19 18:41	19°Ⅲ38'58	46°09'57	max. Earth dist.	8376 Feb 15 01:50	26°≈36'54	1.71871 AU
	8373 Jul 30 18:19	0°♁			8376 Feb 17 18:55	0°✕	
desc. node	8373 Aug 24 01:45	17°♁20'57					
greatest brilliancy	8373 Aug 27 09:31	18°♁46'28	-4.8m	superior conj	8376 Feb 18 03:58	0°✕28'17	-0°22'29
retrograde	8373 Sep 07 09:11	20°♁58'54		minimum elong	8376 Feb 17 22:33	0°✕11'20	0°22'07
evening set	8373 Sep 24 01:46	15°♁38'08			8376 Mar 12 18:17	0°♀	
inferior conj	8373 Sep 28 21:35	12°♁40'58	-7°17'04	evening rise	8376 Mar 29 02:41	20°♀30'22	
minimum elong	8373 Sep 28 12:25	12°♁55'20	7°15'33		8376 Apr 05 16:13	0°♁	
min. Earth dist.	8373 Sep 28 08:13	13°♁01'54	0.28964 AU		8376 Apr 29 14:29	0°Ⅱ	
morning rise	8373 Oct 02 23:15	10°♁10'47			8376 May 23 15:38	0°☾	
direct	8373 Oct 20 08:11	4°♁27'59		asc. node	8376 May 31 18:14	10°☾03'32	
greatest brilliancy	8373 Oct 30 08:32	6°♁16'44	-4.7m		8376 Jun 16 22:27	0°Ω	
	8373 Dec 03 10:46	0°Ⅲ			8376 Jul 11 14:23	0°Ⅲ	
morning max el	8373 Dec 08 06:20	4°Ⅲ33'36	45°46'47		8376 Aug 05 21:05	0°♁	
asc. node	8373 Dec 15 01:03	11°Ⅲ16'17			8376 Sep 01 06:52	0°Ⅲ	
	8374 Jan 01 17:50	0°♂		desc. node	8376 Sep 20 12:59	20°Ⅲ23'44	
	8374 Jan 28 03:07	0°☾		evening max el	8376 Sep 28 16:01	28°Ⅲ25'13	45°41'30
	8374 Feb 22 08:05	0°≈			8376 Sep 30 07:46	0°♂	
	8374 Mar 18 22:30	0°✕		greatest brilliancy	8376 Nov 06 17:09	26°♂30'36	-4.7m
desc. node	8374 Apr 05 18:21	22°✕01'20		retrograde	8376 Nov 16 08:18	28°♂11'01	
	8374 Apr 12 04:33	0°♀		evening set	8376 Dec 03 14:39	22°♂34'14	
	8374 May 06 05:45	0°♁		inferior conj	8376 Dec 07 16:43	20°♂03'24	-7°13'27
	8374 May 30 04:55	0°Ⅱ		minimum elong	8376 Dec 08 02:06	19°♂48'40	7°11'43

min. Earth dist.	8376 Dec 08 10:27	19° ♁ 35'33	0.28696 AU		8379 Jun 08 00:15	0° ♁	
morning rise	8376 Dec 12 13:15	17° ♁ 04'51		evening rise	8379 Jun 14 02:55	7° ♁ 38'25	
direct	8376 Dec 29 03:19	11° ♁ 48'10		asc. node	8379 Jun 29 06:07	26° ♁ 30'40	
greatest brilliancy	8377 Jan 09 04:24	14° ♁ 02'44	-4.8m		8379 Jul 02 01:28	0° Ω	
asc. node	8377 Jan 11 12:48	15° ♁ 02'13			8379 Jul 26 07:14	0° ♁	
	8377 Feb 02 08:36	0° ♁			8379 Aug 19 18:59	0° Ω	
morning max el	8377 Feb 17 02:12	13° ♁ 47'19	46°26'42		8379 Sep 13 15:17	0° ♁	
	8377 Mar 04 14:21	0° \approx			8379 Oct 09 00:47	0° ♁	
	8377 Mar 31 02:42	0° ♁		desc. node	8379 Oct 19 00:21	11° ♁ 32'22	
	8377 Apr 25 08:18	0° ♁			8379 Nov 04 07:58	0° ♁	
desc. node	8377 May 03 06:39	9° ♁ 35'59			8379 Dec 02 09:42	0° \approx	
	8377 May 19 23:35	0° ♁		evening max el	8379 Dec 10 06:46	7° \approx 47'28	46°02'29
	8377 Jun 13 08:06	0° ♁			8380 Jan 05 18:36	0° ♁	
	8377 Jul 07 14:15	0° ♁		greatest brilliancy	8380 Jan 18 20:59	6° ♁ 45'29	-4.8m
	8377 Jul 31 20:29	0° Ω		retrograde	8380 Jan 28 14:20	8° ♁ 30'52	
morning set	8377 Aug 22 00:22	26° Ω 08'10		asc. node	8380 Feb 09 00:19	5° ♁ 54'08	
asc. node	8377 Aug 24 04:18	28° Ω 48'24		evening set	8380 Feb 12 01:47	4° ♁ 24'05	
	8377 Aug 25 03:30	0° ♁		inferior conj	8380 Feb 18 08:59	0° ♁ 42'37	2°22'31
	8377 Sep 18 11:04	0° Ω		minimum elong	8380 Feb 18 03:38	0° ♁ 50'50	2°20'57
				min. Earth dist.	8380 Feb 18 14:21	0° ♁ 34'23	0.27225 AU
superior conj	8377 Sep 28 08:21	12° Ω 11'35	1°11'51		8380 Feb 19 12:45	30° ♁	
minimum elong	8377 Sep 27 23:40	11° Ω 44'48	1°11'38	morning rise	8380 Feb 24 04:59	27° \approx 14'58	
max. Earth dist.	8377 Sep 29 00:24	13° Ω 01'04	1.73250 AU	direct	8380 Mar 10 04:16	22° \approx 48'03	
	8377 Oct 12 18:58	0° ♁		greatest brilliancy	8380 Mar 20 15:04	24° \approx 51'21	-4.9m
evening rise	8377 Nov 03 17:41	27° ♁ 01'50			8380 Mar 30 16:14	0° ♁	
	8377 Nov 06 03:36	0° ♁		morning max el	8380 Apr 29 17:28	25° ♁ 43'07	46°59'18
	8377 Nov 30 13:39	0° ♁			8380 May 03 22:03	0° ♁	
desc. node	8377 Dec 13 21:45	16° ♁ 20'54		desc. node	8380 May 30 18:49	29° ♁ 24'54	
	8377 Dec 25 01:28	0° \approx			8380 May 31 07:08	0° ♁	
	8378 Jan 18 14:57	0° ♁			8380 Jun 26 00:22	0° ♁	
	8378 Feb 12 06:52	0° ♁			8380 Jul 21 02:12	0° ♁	
	8378 Mar 09 04:38	0° ♁			8380 Aug 14 21:41	0° Ω	
	8378 Apr 03 17:24	0° ♁			8380 Sep 08 14:01	0° ♁	
asc. node	8378 Apr 05 21:01	2° ♁ 28'06		asc. node	8380 Sep 20 16:32	14° ♁ 45'50	
	8378 Apr 30 20:27	0° ♁			8380 Oct 03 03:40	0° Ω	
evening max el	8378 May 07 04:37	6° ♁ 31'07	46°53'58		8380 Oct 27 14:28	0° ♁	
	8378 Jun 02 23:52	0° Ω		morning set	8380 Oct 29 21:58	2° ♁ 50'41	
greatest brilliancy	8378 Jun 16 01:17	7° Ω 10'17	-4.9m		8380 Nov 20 22:47	0° ♁	
retrograde	8378 Jun 26 14:12	9° Ω 15'01		max. Earth dist.	8380 Dec 04 00:57	16° ♁ 09'55	1.73041 AU
evening set	8378 Jul 11 17:51	4° Ω 45'33					
inferior conj	8378 Jul 17 15:10	1° Ω 14'36	2°15'33	superior conj	8380 Dec 05 11:47	17° ♁ 57'34	1°12'51
minimum elong	8378 Jul 17 20:12	1° Ω 06'47	2°13'50	minimum elong	8380 Dec 05 20:31	18° ♁ 24'32	1°12'47
min. Earth dist.	8378 Jul 17 09:00	1° Ω 24'09	0.27622 AU		8380 Dec 15 05:30	0° ♁	
	8378 Jul 19 15:32	30° ♁			8381 Jan 08 11:14	0° \approx	
morning rise	8378 Jul 23 23:02	27° ♁ 30'07		desc. node	8381 Jan 10 09:41	2° \approx 23'53	
desc. node	8378 Jul 26 16:10	26° ♁ 08'53		evening rise	8381 Jan 12 09:12	4° \approx 51'04	
direct	8378 Aug 07 13:28	23° ♁ 21'18			8381 Feb 01 15:58	0° ♁	
greatest brilliancy	8378 Aug 17 09:19	25° ♁ 06'52	-4.8m		8381 Feb 25 19:41	0° ♁	
	8378 Aug 27 13:19	0° Ω			8381 Mar 21 23:26	0° ♁	
morning max el	8378 Sep 25 12:18	23° Ω 29'58	45°50'32		8381 Apr 15 06:05	0° ♁	
	8378 Oct 02 03:29	0° ♁		asc. node	8381 May 03 08:33	22° ♁ 07'52	
	8378 Oct 30 09:56	0° Ω			8381 May 09 20:28	0° ♁	
asc. node	8378 Nov 16 15:12	19° Ω 27'41			8381 Jun 04 02:26	0° Ω	
	8378 Nov 25 17:43	0° ♁			8381 Jun 30 16:11	0° ♁	
	8378 Dec 21 01:52	0° ♁		evening max el	8381 Jul 17 11:12	17° ♁ 27'54	46°11'44
	8379 Jan 14 19:55	0° ♁			8381 Jul 30 22:23	0° Ω	
	8379 Feb 08 05:12	0° \approx		desc. node	8381 Aug 23 03:38	15° Ω 49'16	
	8379 Mar 04 08:49	0° ♁		greatest brilliancy	8381 Aug 25 00:41	16° Ω 35'27	-4.8m
desc. node	8379 Mar 08 07:56	4° ♁ 56'39		retrograde	8381 Sep 05 02:12	18° Ω 49'16	
morning set	8379 Mar 24 19:16	25° ♁ 32'50		evening set	8381 Sep 21 15:00	13° Ω 33'06	
	8379 Mar 28 08:30	0° ♁		min. Earth dist.	8381 Sep 25 23:14	10° Ω 54'14	0.28930 AU
	8379 Apr 21 05:44	0° ♁		inferior conj	8381 Sep 26 13:50	10° Ω 31'24	-7°06'08
				minimum elong	8381 Sep 26 04:23	10° Ω 46'11	7°04'30
superior conj	8379 May 04 15:10	16° ♁ 50'47	-1°27'43	morning rise	8381 Sep 30 18:05	7° ♁ 57'35	
minimum elong	8379 May 04 15:41	16° ♁ 52'28	1°27'50	direct	8381 Oct 18 00:44	2° Ω 19'10	
max. Earth dist.	8379 May 05 07:25	17° ♁ 41'54	1.71236 AU	greatest brilliancy	8381 Oct 27 23:00	4° Ω 06'29	-4.7m
	8379 May 15 02:17	0° ♁			8381 Dec 03 10:15	0° ♁	

morning max el	8381 Dec 05 22:28	2° \mathbb{M} 23'52	45°45'50		8384 Aug 05 10:39	0° $\underline{\mathbb{L}}$	
asc. node	8381 Dec 14 03:07	10° \mathbb{M} 32'13			8384 Aug 31 22:56	0° \mathbb{M}	
	8382 Jan 01 09:42	0° \mathbb{A}		desc. node	8384 Sep 19 15:02	19° \mathbb{M} 38'48	
	8382 Jan 27 16:35	0° \mathbb{B}		evening max el	8384 Sep 26 06:11	26° \mathbb{M} 10'06	45°41'46
	8382 Feb 21 20:27	0° \approx			8384 Sep 30 07:27	0° \mathbb{A}	
	8382 Mar 18 10:17	0° \mathbb{H}		greatest brilliancy	8384 Nov 04 08:29	24° \mathbb{A} 19'35	-4.7m
desc. node	8382 Apr 04 20:21	21° \mathbb{H} 31'53		retrograde	8384 Nov 13 23:19	26° \mathbb{A} 00'08	
	8382 Apr 11 15:59	0° \mathbb{Y}		evening set	8384 Dec 01 09:05	20° \mathbb{A} 18'56	
	8382 May 05 16:57	0° \mathbb{B}		inferior conj	8384 Dec 05 08:39	17° \mathbb{A} 51'50	-7°24'10
	8382 May 29 15:58	0° \mathbb{I}		minimum elong	8384 Dec 05 17:43	17° \mathbb{A} 37'37	7°22'34
morning set	8382 Jun 08 19:45	12° \mathbb{I} 43'01		min. Earth dist.	8384 Dec 06 02:06	17° \mathbb{A} 24'27	0.28742 AU
	8382 Jun 22 15:23	0° \mathbb{B}		morning rise	8384 Dec 10 02:01	14° \mathbb{A} 57'43	
	8382 Jul 16 16:45	0° \mathbb{Q}		direct	8384 Dec 26 19:00	9° \mathbb{A} 36'02	
				greatest brilliancy	8385 Jan 06 20:42	11° \mathbb{A} 50'32	-4.8m
superior conj	8382 Jul 18 00:41	1° \mathbb{Q} 39'23	-0°21'01	asc. node	8385 Jan 10 14:40	13° \mathbb{A} 29'32	
minimum elong	8382 Jul 18 05:38	1° \mathbb{Q} 54'46	0°20'55		8385 Feb 02 13:44	0° \mathbb{B}	
max. Earth dist.	8382 Jul 21 05:07	5° \mathbb{Q} 37'05	1.72290 AU	morning max el	8385 Feb 14 16:29	11° \mathbb{B} 28'25	46°25'00
asc. node	8382 Jul 26 18:03	12° \mathbb{Q} 30'04			8385 Mar 04 07:56	0° \approx	
	8382 Aug 09 20:41	0° \mathbb{M}			8385 Mar 30 17:09	0° \mathbb{H}	
evening rise	8382 Aug 25 04:00	18° \mathbb{M} 55'47			8385 Apr 24 21:23	0° \mathbb{Y}	
	8382 Sep 03 03:24	0° $\underline{\mathbb{L}}$		desc. node	8385 May 02 08:42	9° \mathbb{Y} 03'21	
	8382 Sep 27 13:28	0° \mathbb{M}			8385 May 19 11:54	0° \mathbb{B}	
	8382 Oct 22 04:12	0° \mathbb{A}			8385 Jun 12 19:54	0° \mathbb{I}	
desc. node	8382 Nov 15 12:03	29° \mathbb{A} 20'19			8385 Jul 07 01:41	0° \mathbb{B}	
	8382 Nov 16 01:17	0° \mathbb{B}			8385 Jul 31 07:37	0° \mathbb{Q}	
	8382 Dec 11 06:33	0° \approx		morning set	8385 Aug 19 16:14	23° \mathbb{Q} 55'05	
	8383 Jan 05 23:27	0° \mathbb{H}		asc. node	8385 Aug 23 06:11	28° \mathbb{Q} 20'22	
	8383 Feb 01 14:50	0° \mathbb{Y}			8385 Aug 24 14:28	0° \mathbb{M}	
evening max el	8383 Feb 21 00:58	20° \mathbb{Y} 25'35	46°48'05		8385 Sep 17 21:56	0° $\underline{\mathbb{L}}$	
	8383 Mar 02 23:29	0° \mathbb{B}		superior conj	8385 Sep 26 01:46	10° $\underline{\mathbb{L}}$ 03'56	1°10'00
asc. node	8383 Mar 08 11:44	4° \mathbb{B} 55'12		minimum elong	8385 Sep 25 16:48	9° $\underline{\mathbb{L}}$ 36'17	1°09'46
greatest brilliancy	8383 Apr 02 13:25	21° \mathbb{B} 14'27	-4.9m	max. Earth dist.	8385 Sep 26 17:13	10° $\underline{\mathbb{L}}$ 51'31	1.73235 AU
retrograde	8383 Apr 12 09:33	23° \mathbb{B} 03'56			8385 Oct 12 05:49	0° \mathbb{M}	
evening set	8383 Apr 30 12:53	16° \mathbb{B} 46'22		evening rise	8385 Nov 01 11:09	24° \mathbb{M} 54'26	
inferior conj	8383 May 03 00:43	15° \mathbb{B} 14'43	9°12'30		8385 Nov 05 14:31	0° \mathbb{A}	
minimum elong	8383 May 03 00:38	15° \mathbb{B} 14'51	9°12'22		8385 Nov 30 00:44	0° \mathbb{B}	
min. Earth dist.	8383 May 02 21:42	15° \mathbb{B} 19'21	0.27119 AU	desc. node	8385 Dec 12 23:43	15° \mathbb{B} 52'32	
morning rise	8383 May 05 12:25	13° \mathbb{B} 43'26			8385 Dec 24 12:50	0° \approx	
direct	8383 May 23 16:50	7° \mathbb{B} 27'46			8386 Jan 18 02:49	0° \mathbb{H}	
greatest brilliancy	8383 Jun 02 04:38	9° \mathbb{B} 10'15	-4.9m		8386 Feb 11 19:25	0° \mathbb{Y}	
desc. node	8383 Jun 28 06:34	26° \mathbb{B} 05'51			8386 Mar 08 18:19	0° \mathbb{B}	
	8383 Jul 02 15:57	0° \mathbb{I}			8386 Apr 03 09:07	0° \mathbb{I}	
morning max el	8383 Jul 12 20:16	9° \mathbb{I} 42'56	46°35'41	asc. node	8386 Apr 04 23:02	1° \mathbb{I} 48'20	
	8383 Aug 01 07:04	0° \mathbb{B}			8386 Apr 30 17:14	0° \mathbb{B}	
	8383 Aug 28 02:37	0° \mathbb{Q}		evening max el	8386 May 04 17:41	4° \mathbb{B} 06'14	46°54'49
	8383 Sep 22 22:08	0° \mathbb{M}			8386 Jun 04 03:49	0° \mathbb{Q}	
	8383 Oct 18 04:32	0° $\underline{\mathbb{L}}$		greatest brilliancy	8386 Jun 13 16:58	4° \mathbb{Q} 50'45	-4.9m
asc. node	8383 Oct 19 04:57	1° $\underline{\mathbb{L}}$ 13'04		retrograde	8386 Jun 24 04:37	6° \mathbb{Q} 54'50	
	8383 Nov 12 01:27	0° \mathbb{M}		evening set	8386 Jul 09 10:01	2° \mathbb{Q} 22'35	
	8383 Dec 06 15:03	0° \mathbb{A}			8386 Jul 13 11:05	30° \mathbb{R} \mathbb{B}	
	8383 Dec 30 23:23	0° \mathbb{B}		inferior conj	8386 Jul 15 05:18	28° \mathbb{B} 54'55	2°37'34
morning set	8384 Jan 07 21:26	9° \mathbb{B} 48'09		minimum elong	8386 Jul 15 11:07	28° \mathbb{B} 45'55	2°35'37
	8384 Jan 24 04:03	0° \approx		min. Earth dist.	8386 Jul 15 00:06	29° \mathbb{B} 02'57	0.27590 AU
desc. node	8384 Feb 07 21:42	18° \approx 20'50		morning rise	8386 Jul 21 12:36	25° \mathbb{B} 11'25	
max. Earth dist.	8384 Feb 12 12:03	24° \approx 04'52	1.71919 AU	desc. node	8386 Jul 25 18:03	23° \mathbb{B} 10'31	
				direct	8386 Aug 05 02:42	21° \mathbb{B} 01'49	
superior conj	8384 Feb 15 16:57	28° \approx 04'45	-0°18'50	greatest brilliancy	8386 Aug 14 23:46	22° \mathbb{B} 48'31	-4.8m
minimum elong	8384 Feb 15 12:23	27° \approx 50'30	0°18'30		8386 Aug 28 18:16	0° \mathbb{Q}	
	8384 Feb 17 05:52	0° \mathbb{H}		morning max el	8386 Sep 23 02:57	21° \mathbb{Q} 14'20	45°51'41
	8384 Mar 12 05:21	0° \mathbb{Y}			8386 Oct 01 23:55	0° \mathbb{M}	
evening rise	8384 Mar 26 14:09	18° \mathbb{Y} 00'53			8386 Oct 30 01:08	0° $\underline{\mathbb{L}}$	
	8384 Apr 05 03:22	0° \mathbb{B}		asc. node	8386 Nov 15 17:08	18° $\underline{\mathbb{L}}$ 53'59	
	8384 Apr 29 01:47	0° \mathbb{I}			8386 Nov 25 06:49	0° \mathbb{M}	
	8384 May 23 03:07	0° \mathbb{B}			8386 Dec 20 13:57	0° \mathbb{A}	
asc. node	8384 May 30 20:15	9° \mathbb{B} 33'52			8387 Jan 14 07:26	0° \mathbb{B}	
	8384 Jun 16 10:17	0° \mathbb{Q}			8387 Feb 07 16:26	0° \approx	
	8384 Jul 11 02:49	0° \mathbb{M}					

	8387 Mar 03 19:55	0° H	greatest brilliancy	8389 Aug 22 16:21	14° H 23'37	-4.8m
desc. node	8387 Mar 07 09:59	4° H 28'28	retrograde	8389 Sep 02 18:34	16° H 37'40	
morning set	8387 Mar 22 06:23	23° H 02'39	evening set	8389 Sep 19 03:54	11° H 26'31	
	8387 Mar 27 19:34	0° Y	min. Earth dist.	8389 Sep 23 14:17	8° H 44'25	0.28893 AU
	8387 Apr 20 16:46	0° B	inferior conj	8389 Sep 24 05:44	8° H 20'13	-6°54'22
			minimum elong	8389 Sep 23 20:04	8° H 35'22	6°52'37
superior conj	8387 May 02 02:18	14° B 20'10 -1°27'42	morning rise	8389 Sep 28 12:35	5° H 42'34	
minimum elong	8387 May 02 01:44	14° B 18'21 1°27'50	direct	8389 Oct 15 16:53	0° H 08'53	
max. Earth dist.	8387 May 02 13:35	14° B 55'38 1.71234 AU	greatest brilliancy	8389 Oct 25 13:08	1° H 54'35	-4.7m
	8387 May 14 13:20	0° H		8389 Dec 03 08:56	0° H	
	8387 Jun 07 11:20	0° B	morning max el	8389 Dec 03 13:29	0° H 10'58	45°45'03
evening rise	8387 Jun 11 14:36	5° B 10'20	asc. node	8389 Dec 13 05:02	9° H 48'01	
asc. node	8387 Jun 28 08:00	26° B 01'49		8390 Jan 01 01:23	0° A	
	8387 Jul 01 12:36	0° B		8390 Jan 27 05:56	0° B	
	8387 Jul 25 18:31	0° H		8390 Feb 21 08:44	0° \approx	
	8387 Aug 19 06:34	0° H		8390 Mar 17 21:59	0° H	
	8387 Sep 13 03:25	0° H	desc. node	8390 Apr 03 22:22	21° H 02'44	
	8387 Oct 08 13:58	0° A		8390 Apr 11 03:18	0° Y	
desc. node	8387 Oct 18 02:26	10° A 58'42		8390 May 05 04:02	0° B	
	8387 Nov 03 23:17	0° B		8390 May 29 02:52	0° H	
	8387 Dec 02 06:27	0° \approx	morning set	8390 Jun 06 08:32	10° H 18'53	
evening max el	8387 Dec 07 21:48	5° \approx 32'09 46°01'14		8390 Jun 22 02:10	0° B	
	8388 Jan 07 02:10	0° H				
greatest brilliancy	8388 Jan 16 10:06	4° H 24'00 -4.8m	superior conj	8390 Jul 15 14:54	29° B 20'58 -0°24'30	
retrograde	8388 Jan 26 04:19	6° H 09'38	minimum elong	8390 Jul 15 20:38	29° B 38'46 0°24'24	
asc. node	8388 Feb 08 02:17	2° H 50'17		8390 Jul 16 03:27	0° B	
evening set	8388 Feb 09 15:02	2° H 03'09	max. Earth dist.	8390 Jul 18 23:04	3° B 30'19 1.72247 AU	
	8388 Feb 13 05:31	30° H	asc. node	8390 Jul 25 20:01	12° B 02'59	
inferior conj	8388 Feb 15 22:37	28° \approx 20'53 1°59'42		8390 Aug 09 07:22	0° H	
minimum elong	8388 Feb 15 18:05	28° \approx 27'51 1°58'23	evening rise	8390 Aug 22 20:32	16° H 45'28	
min. Earth dist.	8388 Feb 16 04:32	28° \approx 11'48 0.27253 AU		8390 Sep 02 14:08	0° H	
morning rise	8388 Feb 21 20:42	24° \approx 50'35		8390 Sep 27 00:23	0° H	
direct	8388 Mar 07 18:53	20° \approx 25'54		8390 Oct 21 15:27	0° A	
greatest brilliancy	8388 Mar 18 05:37	22° \approx 29'36 -4.9m	desc. node	8390 Nov 14 13:57	28° A 50'40	
	8388 Mar 31 19:15	0° H		8390 Nov 15 13:07	0° B	
morning max el	8388 Apr 27 08:31	23° H 23'31 46°58'55		8390 Dec 10 19:19	0° \approx	
	8388 May 03 18:44	0° Y		8391 Jan 05 13:51	0° H	
desc. node	8388 May 29 20:48	28° Y 45'37		8391 Feb 01 08:39	0° Y	
	8388 May 30 22:46	0° B	evening max el	8391 Feb 18 14:10	18° Y 01'15 46°46'45	
	8388 Jun 25 13:58	0° H		8391 Mar 03 04:24	0° B	
	8388 Jul 20 14:43	0° B	asc. node	8391 Mar 07 13:50	3° B 49'05	
	8388 Aug 14 09:31	0° B	greatest brilliancy	8391 Mar 31 03:08	18° B 49'35 -4.9m	
	8388 Sep 08 01:22	0° H	retrograde	8391 Apr 09 22:05	20° B 38'04	
asc. node	8388 Sep 19 18:38	14° H 18'09	evening set	8391 Apr 28 00:30	14° B 23'09	
	8388 Oct 02 14:41	0° H	inferior conj	8391 Apr 30 13:38	12° B 49'27 9°11'58	
	8388 Oct 27 01:17	0° H	minimum elong	8391 Apr 30 12:32	12° B 51'08 9°11'50	
morning set	8388 Oct 27 15:11	0° H 42'45	min. Earth dist.	8391 Apr 30 10:30	12° B 54'16 0.27105 AU	
	8388 Nov 20 09:32	0° A	morning rise	8391 May 03 00:36	11° B 19'07	
max. Earth dist.	8388 Dec 01 20:31	14° A 08'48 1.73064 AU	direct	8391 May 21 05:12	5° B 02'39	
			greatest brilliancy	8391 May 30 17:35	6° B 45'09 -4.9m	
superior conj	8388 Dec 03 04:31	15° A 47'39 1°14'34	desc. node	8391 Jun 27 08:26	25° B 02'28	
minimum elong	8388 Dec 03 12:52	16° A 13'26 1°14'32		8391 Jul 02 19:14	0° H	
	8388 Dec 14 16:18	0° B	morning max el	8391 Jul 10 08:28	7° H 17'36 46°37'17	
	8389 Jan 07 22:09	0° \approx		8391 Aug 01 00:18	0° B	
desc. node	8389 Jan 09 11:35	1° \approx 55'56		8391 Aug 27 16:38	0° B	
evening rise	8389 Jan 10 00:10	2° \approx 34'53		8391 Sep 22 10:36	0° H	
	8389 Feb 01 03:03	0° H		8391 Oct 17 16:09	0° H	
	8389 Feb 25 06:58	0° Y	asc. node	8391 Oct 18 06:52	0° H 44'05	
	8389 Mar 21 11:00	0° B		8391 Nov 11 12:34	0° H	
	8389 Apr 14 18:06	0° H		8391 Dec 06 01:54	0° A	
asc. node	8389 May 02 10:34	21° H 35'54		8391 Dec 30 10:06	0° B	
	8389 May 09 09:17	0° B	morning set	8392 Jan 05 12:55	7° B 34'20	
	8389 Jun 03 16:42	0° B		8392 Jan 23 14:42	0° \approx	
	8389 Jun 30 09:47	0° H	desc. node	8392 Feb 06 23:43	17° \approx 53'47	
evening max el	8389 Jul 15 03:36	15° H 15'44 46°13'10	max. Earth dist.	8392 Feb 10 00:36	21° \approx 41'01 1.71965 AU	
	8389 Jul 31 04:51	0° H				
desc. node	8389 Aug 22 05:43	14° H 13'14	superior conj	8392 Feb 13 05:48	25° \approx 41'46 -0°15'08	

minimum elong	8392 Feb 13 02:07	25° \approx 30'17	0°14'51	desc. node	8394 Jul 24 20:09	20° \approx 17'40	
behind sun begin	8392 Feb 12 16:12	24° \approx 59'20		direct	8394 Aug 02 16:16	18° \approx 43'12	
behind sun end	8392 Feb 13 12:03	26° \approx 01'15		greatest brilliancy	8394 Aug 12 13:34	20° \approx 30'34	-4.8m
	8392 Feb 16 16:34	0° \approx			8394 Aug 29 14:41	0° \approx	
	8392 Mar 11 16:08	0° \approx		morning max el	8394 Sep 20 18:26	19° \approx 02'07	45°52'57
evening rise	8392 Mar 24 01:44	15° \approx 32'41			8394 Oct 01 19:10	0° \approx	
	8392 Apr 04 14:16	0° \approx			8394 Oct 29 15:35	0° \approx	
	8392 Apr 28 12:48	0° \approx		asc. node	8394 Nov 14 19:04	18° \approx 21'53	
	8392 May 22 14:19	0° \approx			8394 Nov 24 19:21	0° \approx	
asc. node	8392 May 29 22:07	9° \approx 04'44			8394 Dec 20 01:33	0° \approx	
	8392 Jun 15 21:47	0° \approx			8395 Jan 13 18:35	0° \approx	
	8392 Jul 10 14:54	0° \approx			8395 Feb 07 03:22	0° \approx	
	8392 Aug 04 23:55	0° \approx			8395 Mar 03 06:44	0° \approx	
	8392 Aug 31 14:50	0° \approx		desc. node	8395 Mar 06 12:00	4° \approx 01'04	
desc. node	8392 Sep 18 17:03	18° \approx 54'10		morning set	8395 Mar 19 17:15	20° \approx 32'43	
evening max el	8392 Sep 23 20:05	23° \approx 55'22	45°41'56		8395 Mar 27 06:19	0° \approx	
	8392 Sep 30 07:54	0° \approx			8395 Apr 20 03:28	0° \approx	
greatest brilliancy	8392 Nov 01 23:11	22° \approx 08'24	-4.7m				
retrograde	8392 Nov 11 14:33	23° \approx 49'45		superior conj	8395 Apr 29 13:07	11° \approx 49'36	-1°27'32
evening set	8392 Nov 29 03:15	18° \approx 03'59		minimum elong	8395 Apr 29 11:27	11° \approx 44'21	1°27'39
inferior conj	8392 Dec 03 00:26	15° \approx 40'36	-7°34'09	max. Earth dist.	8395 Apr 29 22:31	12° \approx 19'08	1.71228 AU
minimum elong	8392 Dec 03 09:07	15° \approx 26'59	7°32'43		8395 May 14 00:01	0° \approx	
min. Earth dist.	8392 Dec 03 17:28	15° \approx 13'52	0.28792 AU		8395 Jun 06 22:02	0° \approx	
morning rise	8392 Dec 07 14:39	12° \approx 51'08		evening rise	8395 Jun 09 02:09	2° \approx 42'56	
direct	8392 Dec 24 10:30	7° \approx 24'05		asc. node	8395 Jun 27 10:00	25° \approx 34'34	
greatest brilliancy	8393 Jan 04 13:02	9° \approx 38'59	-4.8m		8395 Jun 30 23:24	0° \approx	
asc. node	8393 Jan 09 16:39	12° \approx 00'39			8395 Jul 25 05:27	0° \approx	
	8393 Feb 02 16:47	0° \approx			8395 Aug 18 17:47	0° \approx	
morning max el	8393 Feb 12 07:34	9° \approx 12'22	46°23'27		8395 Sep 12 15:10	0° \approx	
	8393 Mar 04 00:50	0° \approx			8395 Oct 08 02:47	0° \approx	
	8393 Mar 30 07:06	0° \approx		desc. node	8395 Oct 17 04:21	10° \approx 25'46	
	8393 Apr 24 10:00	0° \approx			8395 Nov 03 14:22	0° \approx	
desc. node	8393 May 01 10:35	8° \approx 31'35			8395 Dec 02 03:27	0° \approx	
	8393 May 18 23:46	0° \approx		evening max el	8395 Dec 05 13:09	3° \approx 18'53	45°59'46
	8393 Jun 12 07:17	0° \approx			8396 Jan 09 00:06	0° \approx	
	8393 Jul 06 12:41	0° \approx		greatest brilliancy	8396 Jan 13 23:19	2° \approx 03'34	-4.8m
	8393 Jul 30 18:21	0° \approx		retrograde	8396 Jan 23 17:48	3° \approx 48'47	
morning set	8393 Aug 17 08:19	21° \approx 43'52			8396 Feb 06 15:11	30° \approx	
asc. node	8393 Aug 22 08:16	27° \approx 54'15		evening set	8396 Feb 07 04:24	29° \approx 42'36	
	8393 Aug 24 00:59	0° \approx		asc. node	8396 Feb 07 04:23	29° \approx 42'37	
	8393 Sep 17 08:21	0° \approx		inferior conj	8396 Feb 13 12:07	25° \approx 59'39	1°36'39
				minimum elong	8396 Feb 13 08:26	26° \approx 05'19	1°35'35
superior conj	8393 Sep 23 19:19	7° \approx 58'00	1°08'03	min. Earth dist.	8396 Feb 13 18:45	25° \approx 49'26	0.27288 AU
minimum elong	8393 Sep 23 10:09	7° \approx 29'41	1°07'48	morning rise	8396 Feb 19 12:04	22° \approx 26'39	
max. Earth dist.	8393 Sep 24 11:59	8° \approx 49'21	1.73222 AU	direct	8396 Mar 05 09:26	18° \approx 04'12	
	8393 Oct 11 16:14	0° \approx		greatest brilliancy	8396 Mar 15 20:08	20° \approx 08'00	-4.9m
evening rise	8393 Oct 30 04:47	22° \approx 48'45			8396 Apr 01 14:51	0° \approx	
	8393 Nov 05 01:02	0° \approx		morning max el	8396 Apr 24 22:59	21° \approx 02'50	46°58'31
	8393 Nov 29 11:28	0° \approx			8396 May 03 14:36	0° \approx	
desc. node	8393 Dec 12 01:38	15° \approx 32'45		desc. node	8396 May 28 22:45	28° \approx 07'16	
	8393 Dec 23 23:56	0° \approx			8396 May 30 13:58	0° \approx	
	8394 Jan 17 14:24	0° \approx			8396 Jun 25 03:11	0° \approx	
	8394 Feb 11 07:43	0° \approx			8396 Jul 20 02:51	0° \approx	
	8394 Mar 08 07:44	0° \approx			8396 Aug 13 20:59	0° \approx	
	8394 Apr 03 00:40	0° \approx			8396 Sep 07 12:23	0° \approx	
asc. node	8394 Apr 04 01:01	1° \approx 09'14		asc. node	8396 Sep 18 20:30	13° \approx 50'47	
	8394 Apr 30 14:16	0° \approx			8396 Oct 02 01:22	0° \approx	
evening max el	8394 May 02 07:30	1° \approx 44'31	46°55'42	morning set	8396 Oct 25 08:42	28° \approx 36'46	
	8394 Jun 05 19:01	0° \approx			8396 Oct 26 11:46	0° \approx	
greatest brilliancy	8394 Jun 11 08:04	2° \approx 31'38	-4.9m		8396 Nov 19 19:57	0° \approx	
retrograde	8394 Jun 21 19:29	4° \approx 35'38		max. Earth dist.	8396 Nov 29 15:17	12° \approx 06'19	1.73085 AU
evening set	8394 Jul 07 02:17	0° \approx 00'20					
	8394 Jul 07 02:31	30° \approx		superior conj	8396 Nov 30 21:41	13° \approx 40'13	1°16'09
inferior conj	8394 Jul 12 19:19	26° \approx 36'04	2°59'23	minimum elong	8396 Dec 01 05:37	14° \approx 04'42	1°16'09
minimum elong	8394 Jul 13 01:53	26° \approx 25'57	2°57'14		8396 Dec 14 02:46	0° \approx	
min. Earth dist.	8394 Jul 12 14:47	26° \approx 43'05	0.27558 AU		8397 Jan 07 08:46	0° \approx	
morning rise	8394 Jul 19 01:52	22° \approx 54'01		evening rise	8397 Jan 07 15:27	0° \approx 20'42	

desc. node	8397 Jan 08 13:39	1°  29'24		8399 Jul 31 17:24	0° 	
	8397 Jan 31 13:52	0° 		8399 Aug 27 06:41	0° 	
	8397 Feb 24 18:03	0° 		8399 Sep 21 23:08	0° 	
	8397 Mar 20 22:28	0° 		8399 Oct 17 08:46	0°  14'53	
	8397 Apr 14 06:05	0° 		8399 Oct 17 03:48	0° 	
asc. node	8397 May 01 12:26	21°  03'42		8399 Nov 10 23:44	0° 	
	8397 May 08 22:04	0° 		8399 Dec 05 12:47	0° 	
	8397 Jun 03 06:59	0° 		8399 Dec 29 20:51	0° 	
	8397 Jun 30 03:36	0° 		8400 Jan 03 04:43	5°  21'20	
evening max el	8397 Jul 12 19:25	13°  02'33	46°14'46	8400 Jan 23 01:26	0° 	
	8397 Jul 31 13:30	0° 		8400 Feb 06 01:42	17°  26'30	
greatest brilliancy	8397 Aug 20 08:41	12°  13'13	-4.8m	max. Earth dist.	8400 Feb 07 15:39	19°  24'44 1.72008 AU
desc. node	8397 Aug 21 07:43	12°  34'30				
retrograde	8397 Aug 31 10:33	14°  26'54		superior conj	8400 Feb 10 19:08	23°  20'05 -0°11'29
evening set	8397 Sep 16 17:01	9°  20'42		minimum elong	8400 Feb 10 16:21	23°  11'24 0°11'13
min. Earth dist.	8397 Sep 21 05:50	6°  34'58	0.28851 AU	behind sun begin	8400 Feb 09 22:14	22°  14'56
inferior conj	8397 Sep 21 21:45	6°  09'59	-6°42'08	behind sun end	8400 Feb 11 10:27	24°  07'53
minimum elong	8397 Sep 21 11:54	6°  25'27	6°40'16		8400 Feb 16 03:19	0° 
morning rise	8397 Sep 26 07:11	3°  28'23			8400 Mar 11 02:58	0° 
	8397 Oct 03 06:06	30°  08'00		evening rise	8400 Mar 21 13:54	13°  06'13
direct	8397 Oct 13 08:43	27°  09'33			8400 Apr 04 01:14	0° 
greatest brilliancy	8397 Oct 23 03:48	29°  04'57	-4.7m		8400 Apr 27 23:55	0° 
	8397 Oct 23 22:01	0° 			8400 May 22 01:40	0° 
morning max el	8397 Dec 01 03:54	27°  57'21	45°44'26	asc. node	8400 May 29 00:09	8°  35'34
	8397 Dec 03 06:25	0° 			8400 Jun 15 09:31	0° 
asc. node	8397 Dec 12 07:00	9°  05'21			8400 Jul 10 03:18	0° 
	8397 Dec 31 16:34	0° 			8400 Aug 04 13:35	0° 
	8398 Jan 26 18:57	0° 			8400 Aug 31 07:20	0° 
	8398 Feb 20 20:46	0° 		desc. node	8400 Sep 17 18:58	18°  07'52
	8398 Mar 17 09:29	0° 		evening max el	8400 Sep 21 10:41	21°  14'40 45°42'26
desc. node	8398 Apr 03 00:13	20°  33'28			8400 Sep 30 09:58	0° 
	8398 Apr 10 14:31	0° 		greatest brilliancy	8400 Oct 30 13:21	19°  56'20 -4.7m
	8398 May 04 15:04	0° 		retrograde	8400 Nov 09 06:19	21°  39'12
	8398 May 28 13:47	0° 		evening set	8400 Nov 26 21:25	15°  48'53
morning set	8398 Jun 03 20:44	7°  15'24		inferior conj	8400 Nov 30 16:18	13°  29'03 -7°43'28
	8398 Jun 21 12:58	0° 		minimum elong	8400 Dec 01 00:32	13°  16'09 7°42'12
				min. Earth dist.	8400 Dec 01 08:33	13°  03'37 0.28837 AU
superior conj	8398 Jul 13 04:40	27°  01'07	-0°28'00	morning rise	8400 Dec 05 03:22	10°  44'25
minimum elong	8398 Jul 13 11:09	27°  21'19	0°27'52	direct	8400 Dec 22 02:35	5°  11'55
	8398 Jul 15 14:09	0° 		greatest brilliancy	8401 Jan 02 05:02	7°  26'56 -4.8m
max. Earth dist.	8398 Jul 16 14:33	1°  15'56	1.72196 AU	asc. node	8401 Jan 08 18:45	10°  34'33
asc. node	8398 Jul 24 22:02	11°  36'04			8401 Feb 02 18:30	0° 
	8398 Aug 08 18:01	0° 		morning max el	8401 Feb 09 23:43	6°  58'43 46°21'55
evening rise	8398 Aug 20 12:43	14°  03'14			8401 Mar 03 17:33	0° 
	8398 Sep 02 00:50	0° 			8401 Mar 29 21:04	0° 
	8398 Sep 26 11:16	0° 			8401 Apr 23 22:41	0° 
	8398 Oct 21 02:41	0° 		desc. node	8401 Apr 30 12:33	7°  09'42
desc. node	8398 Nov 13 15:54	28°  21'19			8401 May 18 11:45	0° 
	8398 Nov 15 00:54	0° 			8401 Jun 11 18:48	0° 
	8398 Dec 10 08:03	0° 			8401 Jul 05 23:54	0° 
	8399 Jan 05 04:18	0° 			8401 Jul 30 05:21	0° 
	8399 Feb 01 02:44	0° 		morning set	8401 Aug 15 00:06	19°  30'40
evening max el	8399 Feb 16 02:37	15°  09'33	46°45'20	asc. node	8401 Aug 21 10:08	27°  02'31
	8399 Mar 03 11:18	0° 			8401 Aug 23 11:50	0° 
asc. node	8399 Mar 06 15:42	2°  04'00			8401 Sep 16 19:06	0° 
greatest brilliancy	8399 Mar 28 16:41	16°  24'35	-4.9m			
retrograde	8399 Apr 07 10:25	18°  00'19		superior conj	8401 Sep 21 12:26	5°  49'37 1°06'00
evening set	8399 Apr 25 11:22	12°  00'41		minimum elong	8401 Sep 21 03:05	5°  20'46 1°05'42
inferior conj	8399 Apr 28 02:30	10°  24'01	9°10'19	max. Earth dist.	8401 Sep 22 07:22	6°  48'00 1.73207 AU
minimum elong	8399 Apr 28 00:24	10°  27'17	9°10'09		8401 Oct 11 02:58	0° 
min. Earth dist.	8399 Apr 27 23:26	10°  28'46	0.27101 AU	evening rise	8401 Oct 27 22:07	20°  14'19
morning rise	8399 Apr 30 13:26	8°  36'55			8401 Nov 04 11:51	0° 
direct	8399 May 18 17:22	2°  36'55			8401 Nov 28 22:30	0° 
greatest brilliancy	8399 May 28 07:05	4°  20'12	-4.9m	desc. node	8401 Dec 11 03:41	14°  35'55
desc. node	8399 Jun 26 10:32	24°  00'33			8401 Dec 23 11:20	0° 
	8399 Jul 02 21:15	0° 			8402 Jan 17 02:19	0° 
morning max el	8399 Jul 07 21:04	4°  15'25	46°38'51		8402 Feb 10 20:23	0° 

	8402 Mar 07 21:33	0°♄			8404 Aug 13 08:44	0°♌		
	8402 Apr 02 16:44	0°♈			8404 Sep 06 23:40	0°♍		
asc. node	8402 Apr 03 02:58	0°♈29'00		asc. node	8404 Sep 17 22:25	13°♍22'35		
evening max el	8402 Apr 29 22:21	29°♈24'50	46°56'33		8404 Oct 01 12:22	0°♌		
	8402 Apr 30 12:20	0°♌		morning set	8404 Oct 23 02:03	26°♌29'11		
	8402 Jun 08 10:40	0°♌			8404 Oct 25 22:37	0°♍		
greatest brilliancy	8402 Jun 08 22:51	0°♌11'41	-4.9m		8404 Nov 19 06:46	0°♊		
retrograde	8402 Jun 19 10:35	2°♌15'45		max. Earth dist.	8404 Nov 27 07:38	9°♊55'14	1.73108 AU	
	8402 Jun 29 23:11	30°♌♌						
evening set	8402 Jul 04 18:46	27°♌37'21		superior conj	8404 Nov 28 14:43	11°♊31'10	1°17'38	
inferior conj	8402 Jul 10 09:23	24°♌16'27	3°20'54	minimum elong	8404 Nov 28 22:11	11°♊54'14	1°17'39	
minimum elong	8402 Jul 10 16:38	24°♌05'17	3°18'35		8404 Dec 13 13:39	0°♊		
min. Earth dist.	8402 Jul 10 05:12	24°♌22'54	0.27530 AU	evening rise	8405 Jan 05 06:29	28°♊04'41		
morning rise	8402 Jul 16 14:58	20°♌36'09			8405 Jan 06 19:46	0°♋		
desc. node	8402 Jul 23 22:06	17°♌29'30		desc. node	8405 Jan 07 15:35	1°♋01'20		
direct	8402 Jul 31 06:27	16°♌23'58			8405 Jan 31 01:02	0°♋		
greatest brilliancy	8402 Aug 10 02:57	18°♌11'13	-4.8m		8405 Feb 24 05:29	0°♎		
	8402 Aug 30 06:16	0°♌			8405 Mar 20 10:15	0°♄		
morning max el	8402 Sep 18 10:13	16°♌49'29	45°54'00		8405 Apr 13 18:25	0°♈		
	8402 Oct 01 14:18	0°♍		asc. node	8405 Apr 30 14:29	20°♈30'58		
	8402 Oct 29 06:19	0°♌			8405 May 08 11:15	0°♌		
asc. node	8402 Nov 13 21:06	17°♌48'59			8405 Jun 02 21:46	0°♌		
	8402 Nov 24 08:13	0°♍			8405 Jun 29 22:13	0°♍		
	8402 Dec 19 13:29	0°♊		evening max el	8405 Jul 10 10:27	10°♍46'22	46°16'23	
	8403 Jan 13 06:02	0°♊			8405 Aug 01 01:43	0°♌		
	8403 Feb 06 14:34	0°♋		greatest brilliancy	8405 Aug 18 01:12	10°♌02'06	-4.8m	
	8403 Mar 02 17:50	0°♋		desc. node	8405 Aug 20 09:36	10°♌51'17		
desc. node	8403 Mar 05 13:48	3°♋32'07		retrograde	8405 Aug 29 02:18	12°♌15'26		
morning set	8403 Mar 17 04:23	18°♋02'44		evening set	8405 Sep 14 06:11	7°♌13'53		
	8403 Mar 26 17:21	0°♎		min. Earth dist.	8405 Sep 18 21:44	4°♌24'21	0.28809 AU	
	8403 Apr 19 14:29	0°♄		inferior conj	8405 Sep 19 13:47	3°♌59'08	-6°29'16	
				minimum elong	8405 Sep 19 03:50	4°♌14'46	6°27'17	
superior conj	8403 Apr 27 00:11	9°♄18'48	-1°27'11	morning rise	8405 Sep 24 01:49	1°♌13'31		
minimum elong	8403 Apr 26 21:26	9°♄10'09	1°27'17		8405 Sep 26 06:09	30°♌♍		
max. Earth dist.	8403 Apr 27 07:18	9°♄41'10	1.71220 AU	direct	8405 Oct 11 00:00	25°♍49'24		
	8403 May 13 11:00	0°♈		greatest brilliancy	8405 Oct 20 19:06	27°♍33'15	-4.7m	
	8403 Jun 06 09:03	0°♌			8405 Oct 26 14:21	0°♌		
evening rise	8403 Jun 06 13:52	0°♌15'04		morning max el	8405 Nov 28 17:58	25°♌41'57	45°43'45	
asc. node	8403 Jun 26 12:01	25°♌06'26			8405 Dec 03 03:29	0°♍		
	8403 Jun 30 10:28	0°♌		asc. node	8405 Dec 11 09:03	8°♍22'33		
	8403 Jul 24 16:41	0°♍			8405 Dec 31 07:54	0°♊		
	8403 Aug 18 05:20	0°♌			8406 Jan 26 08:14	0°♊		
	8403 Sep 12 03:21	0°♍			8406 Feb 20 09:05	0°♋		
	8403 Oct 07 16:09	0°♊			8406 Mar 16 21:16	0°♋		
desc. node	8403 Oct 16 06:18	9°♊51'28		desc. node	8406 Apr 02 02:15	20°♋03'57		
	8403 Nov 03 06:11	0°♊			8406 Apr 10 01:57	0°♎		
	8403 Dec 02 01:48	0°♋			8406 May 04 02:19	0°♄		
evening max el	8403 Dec 03 04:15	1°♋03'52	45°58'25		8406 May 28 00:54	0°♈		
greatest brilliancy	8404 Jan 11 13:17	29°♋43'16	-4.8m	morning set	8406 Jun 01 08:43	5°♈25'18		
	8404 Jan 12 09:38	0°♋			8406 Jun 20 23:58	0°♌		
retrograde	8404 Jan 21 06:56	1°♋27'20						
	8404 Jan 29 19:13	30°♋♋		superior conj	8406 Jul 10 18:22	24°♌40'18	-0°31'28	
evening set	8404 Feb 04 18:09	27°♋21'16		minimum elong	8406 Jul 11 01:35	25°♌02'45	0°31'18	
asc. node	8404 Feb 06 06:15	26°♋31'29		max. Earth dist.	8406 Jul 14 03:23	28°♌52'30	1.72148 AU	
inferior conj	8404 Feb 11 01:48	23°♋38'02	1°13'40		8406 Jul 15 01:04	0°♌		
minimum elong	8404 Feb 10 22:59	23°♋42'23	1°12'52	asc. node	8406 Jul 23 23:55	11°♌08'01		
min. Earth dist.	8404 Feb 11 09:26	23°♋26'16	0.27322 AU		8406 Aug 08 04:54	0°♍		
morning rise	8404 Feb 17 03:22	20°♋02'23		evening rise	8406 Aug 18 04:50	12°♍22'04		
direct	8404 Mar 02 23:44	15°♋42'08			8406 Sep 01 11:46	0°♌		
greatest brilliancy	8404 Mar 13 11:12	17°♋46'20	-4.9m		8406 Sep 25 22:22	0°♍		
	8404 Apr 02 05:48	0°♋			8406 Oct 20 14:08	0°♊		
morning max el	8404 Apr 22 12:34	18°♋39'00	46°57'58	desc. node	8406 Nov 12 17:59	27°♊51'39		
	8404 May 03 10:12	0°♎			8406 Nov 14 12:58	0°♊		
desc. node	8404 May 28 00:45	27°♎28'28			8406 Dec 09 21:09	0°♋		
	8404 May 30 05:17	0°♄			8407 Jan 04 19:14	0°♋		
	8404 Jun 24 16:38	0°♈			8407 Jan 31 21:41	0°♎		
	8404 Jul 19 15:16	0°♌		evening max el	8407 Feb 13 15:04	13°♎08'59	46°43'59	

	8407 Mar 03 21:21	0°♄			8409 Aug 22 22:34	0°♍	
asc. node	8407 Mar 05 17:42	1°♄30'15			8409 Sep 16 05:45	0°♌	
greatest brilliancy	8407 Mar 26 05:41	13°♄57'53	-4.9m				
retrograde	8407 Apr 04 22:59	15°♄45'42		superior conj	8409 Sep 19 05:28	3°♌41'17	1°03'49
evening set	8407 Apr 22 21:33	9°♄37'52		minimum elong	8409 Sep 18 20:00	3°♌12'03	1°03'30
inferior conj	8407 Apr 25 15:16	7°♄57'34	9°07'39	max. Earth dist.	8409 Sep 20 04:22	4°♌51'55	1.73190 AU
minimum elong	8407 Apr 25 12:11	8°♄02'20	9°07'24		8409 Oct 10 13:36	0°♌	
min. Earth dist.	8407 Apr 25 12:03	8°♄02'31	0.27094 AU	evening rise	8409 Oct 25 15:35	18°♌34'32	
morning rise	8407 Apr 28 02:49	6°♄26'26			8409 Nov 03 22:34	0°♌	
direct	8407 May 16 05:34	0°♄10'10			8409 Nov 28 09:26	0°♌	
greatest brilliancy	8407 May 25 20:18	1°♄54'23	-4.9m	desc. node	8409 Dec 10 05:37	14°♌29'01	
desc. node	8407 Jun 25 12:31	22°♄59'33			8409 Dec 22 22:36	0°♌	
	8407 Jul 02 22:05	0°♌			8410 Jan 16 14:06	0°♌	
morning max el	8407 Jul 05 10:27	2°♌28'47	46°40'24		8410 Feb 10 08:55	0°♌	
	8407 Jul 31 10:16	0°♌			8410 Mar 07 11:21	0°♌	
	8407 Aug 26 20:41	0°♌		asc. node	8410 Apr 02 05:00	29°♌48'48	
	8407 Sep 21 11:41	0°♌			8410 Apr 02 08:59	0°♌	
asc. node	8407 Oct 16 10:50	29°♌45'54		evening max el	8410 Apr 27 13:46	27°♌06'32	46°57'11
	8407 Oct 16 15:31	0°♌			8410 Apr 30 11:19	0°♌	
	8407 Nov 10 10:57	0°♌		greatest brilliancy	8410 Jun 06 13:47	27°♌51'35	-4.9m
	8407 Dec 04 23:45	0°♌		retrograde	8410 Jun 17 01:21	29°♌55'01	
	8407 Dec 29 07:41	0°♌		evening set	8410 Jul 02 11:14	25°♌13'44	
morning set	8407 Dec 31 20:38	3°♌08'32		inferior conj	8410 Jul 07 23:14	21°♌56'18	3°42'20
	8408 Jan 22 12:15	0°♌		minimum elong	8410 Jul 08 07:08	21°♌44'06	3°39'51
desc. node	8408 Feb 05 03:35	16°♌58'28		min. Earth dist.	8410 Jul 07 19:25	22°♌02'11	0.27498 AU
max. Earth dist.	8408 Feb 05 07:29	17°♌10'36	1.72056 AU	morning rise	8410 Jul 14 03:33	18°♌17'55	
				desc. node	8410 Jul 23 00:00	14°♌46'02	
superior conj	8408 Feb 08 08:19	20°♌57'36	-0°07'47	direct	8410 Jul 28 20:34	14°♌04'29	
minimum elong	8408 Feb 08 06:27	20°♌51'45	0°07'33	greatest brilliancy	8410 Aug 07 15:50	15°♌51'07	-4.8m
behind sun begin	8408 Feb 07 08:18	19°♌42'42			8410 Aug 30 17:45	0°♌	
behind sun end	8408 Feb 09 04:36	22°♌00'50		morning max el	8410 Sep 16 01:10	14°♌35'16	45°55'06
	8408 Feb 15 14:13	0°♌			8410 Oct 01 08:41	0°♌	
	8408 Mar 10 13:58	0°♌			8410 Oct 28 20:35	0°♌	
evening rise	8408 Mar 19 01:46	10°♌38'30		asc. node	8410 Nov 12 23:02	17°♌16'43	
	8408 Apr 03 12:20	0°♌			8410 Nov 23 20:45	0°♌	
	8408 Apr 27 11:10	0°♌			8410 Dec 19 01:07	0°♌	
	8408 May 21 13:07	0°♌			8411 Jan 12 17:12	0°♌	
asc. node	8408 May 28 02:09	8°♌06'04			8411 Feb 06 01:29	0°♌	
	8408 Jun 14 21:20	0°♌			8411 Mar 02 04:38	0°♌	
	8408 Jul 09 15:49	0°♌		desc. node	8411 Mar 04 15:52	3°♌04'51	
	8408 Aug 04 03:25	0°♌		morning set	8411 Mar 14 15:50	15°♌34'45	
	8408 Aug 31 00:12	0°♌			8411 Mar 26 04:06	0°♌	
desc. node	8408 Sep 16 21:01	17°♌21'09			8411 Apr 19 01:12	0°♌	
evening max el	8408 Sep 19 02:15	19°♌30'19	45°42'58				
	8408 Sep 30 13:38	0°♌		superior conj	8411 Apr 24 11:18	6°♌49'02	-1°26'39
greatest brilliancy	8408 Oct 28 03:05	17°♌44'04	-4.7m	minimum elong	8411 Apr 24 07:29	6°♌37'00	1°26'44
retrograde	8408 Nov 06 22:23	19°♌28'45		max. Earth dist.	8411 Apr 24 14:21	6°♌58'38	1.71219 AU
evening set	8408 Nov 24 15:30	13°♌34'14			8411 May 12 21:45	0°♌	
inferior conj	8408 Nov 28 08:10	11°♌17'41	-7°52'06	evening rise	8411 Jun 04 01:10	27°♌46'31	
minimum elong	8408 Nov 28 15:56	11°♌05'31	7°50'58		8411 Jun 05 19:50	0°♌	
min. Earth dist.	8408 Nov 28 23:13	10°♌54'06	0.28880 AU	asc. node	8411 Jun 25 13:52	24°♌38'27	
morning rise	8408 Dec 02 16:08	8°♌37'50			8411 Jun 29 21:20	0°♌	
direct	8408 Dec 19 19:09	3°♌00'14			8411 Jul 24 03:42	0°♌	
greatest brilliancy	8408 Dec 30 20:18	5°♌14'29	-4.8m		8411 Aug 17 16:39	0°♌	
asc. node	8409 Jan 07 20:36	9°♌11'14			8411 Sep 11 15:18	0°♌	
	8409 Feb 02 18:51	0°♌			8411 Oct 07 05:19	0°♌	
morning max el	8409 Feb 07 16:10	4°♌46'15	46°20'13	desc. node	8411 Oct 15 08:23	9°♌18'12	
	8409 Mar 03 09:56	0°♌			8411 Nov 02 21:55	0°♌	
	8409 Mar 29 10:55	0°♌		evening max el	8411 Nov 30 18:35	28°♌47'59	45°57'01
	8409 Apr 23 11:21	0°♌			8411 Dec 02 00:42	0°♌	
desc. node	8409 Apr 29 14:36	7°♌28'01		greatest brilliancy	8412 Jan 09 03:47	27°♌24'48	-4.8m
	8409 May 17 23:43	0°♌		retrograde	8412 Jan 18 19:42	29°♌07'27	
	8409 Jun 11 06:18	0°♌		evening set	8412 Feb 02 08:11	25°♌01'02	
	8409 Jul 05 11:03	0°♌		asc. node	8412 Feb 05 08:15	23°♌18'59	
	8409 Jul 29 16:15	0°♌		inferior conj	8412 Feb 08 15:35	21°♌18'04	0°50'33
morning set	8409 Aug 12 15:45	17°♌17'21		minimum elong	8412 Feb 08 13:39	21°♌21'04	0°50'04
asc. node	8409 Aug 20 12:03	26°♌59'14		min. Earth dist.	8412 Feb 09 00:31	21°♌04'16	0.27356 AU

morning rise	8412 Feb 14 18:33	17° \approx 39'58	evening rise	8414 Aug 15 21:07	10° \approx 11'35
direct	8412 Feb 29 13:38	13° \approx 21'32		8414 Aug 31 22:20	0° \approx
greatest brilliancy	8412 Mar 11 02:51	15° \approx 26'50 -4.9m		8414 Sep 25 09:08	0° \approx
	8412 Apr 02 16:20	0° \approx		8414 Oct 20 01:15	0° \approx
morning max el	8412 Apr 20 01:21	16° \approx 14'26 46°57'29	desc. node	8414 Nov 11 19:52	27° \approx 22'25
	8412 May 03 04:46	0° \approx		8414 Nov 14 00:42	0° \approx
desc. node	8412 May 27 02:43	26° \approx 51'07		8414 Dec 09 09:58	0° \approx
	8412 May 29 19:57	0° \approx		8415 Jan 04 10:00	0° \approx
	8412 Jun 24 05:36	0° \approx		8415 Jan 31 16:46	0° \approx
	8412 Jul 19 03:18	0° \approx	evening max el	8415 Feb 11 04:11	10° \approx 45'23 46°42'36
	8412 Aug 12 20:08	0° \approx		8415 Mar 04 10:14	0° \approx
	8412 Sep 06 10:38	0° \approx	asc. node	8415 Mar 04 19:47	0° \approx 18'39
asc. node	8412 Sep 17 00:29	12° \approx 55'52	greatest brilliancy	8415 Mar 23 18:07	11° \approx 31'40 -4.9m
	8412 Sep 30 23:00	0° \approx	retrograde	8415 Apr 02 12:05	13° \approx 20'18
morning set	8412 Oct 20 19:15	24° \approx 22'11	evening set	8415 Apr 20 07:14	7° \approx 16'50
	8412 Oct 25 09:04	0° \approx	inferior conj	8415 Apr 23 04:03	5° \approx 32'06 9°03'50
	8412 Nov 18 17:12	0° \approx	minimum elong	8415 Apr 23 00:01	5° \approx 38'19 9°03'30
max. Earth dist.	8412 Nov 25 00:20	7° \approx 46'26 1.73132 AU	min. Earth dist.	8415 Apr 23 00:25	5° \approx 37'42 0.27086 AU
			morning rise	8415 Apr 25 16:49	3° \approx 59'20
superior conj	8412 Nov 26 07:49	9° \approx 23'36 1°19'00		8415 May 03 06:25	30° \approx 11'35
minimum elong	8412 Nov 26 14:47	9° \approx 45'05 1°19'02	direct	8415 May 13 18:23	27° \approx 44'29
	8412 Dec 13 00:09	0° \approx	greatest brilliancy	8415 May 23 09:07	29° \approx 29'14 -4.9m
evening rise	8413 Jan 02 21:46	25° \approx 50'35		8415 May 24 18:27	0° \approx
	8413 Jan 06 06:24	0° \approx	desc. node	8415 Jun 24 14:24	22° \approx 00'50
desc. node	8413 Jan 06 17:29	0° \approx 34'15		8415 Jul 02 21:17	0° \approx
	8413 Jan 30 11:53	0° \approx	morning max el	8415 Jul 03 00:40	0° \approx 08'25 46°42'03
	8413 Feb 23 16:34	0° \approx		8415 Jul 31 02:21	0° \approx
	8413 Mar 19 21:41	0° \approx		8415 Aug 26 10:08	0° \approx
	8413 Apr 13 06:21	0° \approx		8415 Sep 20 23:48	0° \approx
asc. node	8413 Apr 29 16:29	19° \approx 59'25	asc. node	8415 Oct 15 12:43	29° \approx 17'22
	8413 May 08 00:03	0° \approx		8415 Oct 16 02:53	0° \approx
	8413 Jun 02 12:14	0° \approx		8415 Nov 09 21:53	0° \approx
	8413 Jun 29 16:49	0° \approx		8415 Dec 04 10:26	0° \approx
evening max el	8413 Jul 08 00:51	8° \approx 29'45 46°17'54		8415 Dec 28 18:15	0° \approx
	8413 Aug 01 17:31	0° \approx	morning set	8415 Dec 29 12:44	0° \approx 57'09
greatest brilliancy	8413 Aug 15 17:28	7° \approx 51'26 -4.8m		8416 Jan 21 22:49	0° \approx
desc. node	8413 Aug 19 11:42	9° \approx 05'18	max. Earth dist.	8416 Feb 02 23:42	14° \approx 58'33 1.72099 AU
retrograde	8413 Aug 26 18:02	10° \approx 04'58	desc. node	8416 Feb 04 05:37	16° \approx 31'44
evening set	8413 Sep 11 19:23	5° \approx 07'35			
min. Earth dist.	8413 Sep 16 13:44	2° \approx 14'23 0.28769 AU	superior conj	8416 Feb 05 21:38	18° \approx 36'26 -0°04'05
inferior conj	8413 Sep 17 05:48	1° \approx 49'11 -6°15'37	minimum elong	8416 Feb 05 20:41	18° \approx 33'26 0°03'55
minimum elong	8413 Sep 16 19:47	2° \approx 04'54 6°13'33	behind sun begin	8416 Feb 04 20:33	17° \approx 18'15
	8413 Sep 20 04:04	30° \approx 11'35	behind sun end	8416 Feb 06 20:49	19° \approx 48'39
morning rise	8413 Sep 21 20:30	28° \approx 59'39		8416 Feb 15 00:51	0° \approx
direct	8413 Oct 08 15:03	23° \approx 39'56		8416 Mar 10 00:43	0° \approx
greatest brilliancy	8413 Oct 18 10:59	25° \approx 24'07 -4.7m	evening rise	8416 Mar 16 13:50	8° \approx 12'07
	8413 Oct 28 05:22	0° \approx		8416 Apr 02 23:13	0° \approx
morning max el	8413 Nov 26 08:21	23° \approx 28'30 45°43'16		8416 Apr 26 22:12	0° \approx
	8413 Dec 02 23:24	0° \approx		8416 May 21 00:23	0° \approx
asc. node	8413 Dec 10 10:58	7° \approx 41'04	asc. node	8416 May 27 04:01	7° \approx 36'49
	8413 Dec 30 22:35	0° \approx		8416 Jun 14 08:59	0° \approx
	8414 Jan 25 21:01	0° \approx		8416 Jul 09 04:08	0° \approx
	8414 Feb 19 20:56	0° \approx		8416 Aug 03 17:05	0° \approx
	8414 Mar 16 08:37	0° \approx		8416 Aug 30 17:04	0° \approx
desc. node	8414 Apr 01 04:14	19° \approx 35'24	desc. node	8416 Sep 15 23:02	16° \approx 34'24
	8414 Apr 09 13:01	0° \approx	evening max el	8416 Sep 16 18:25	17° \approx 21'15 45°43'24
	8414 May 03 13:10	0° \approx		8416 Sep 30 18:47	0° \approx
	8414 May 27 11:36	0° \approx	greatest brilliancy	8416 Oct 25 17:05	15° \approx 33'03 -4.7m
morning set	8414 May 29 20:57	2° \approx 59'47	retrograde	8416 Nov 04 14:29	17° \approx 19'03
	8414 Jun 20 10:33	0° \approx	evening set	8416 Nov 22 09:35	11° \approx 20'52
			inferior conj	8416 Nov 26 00:08	9° \approx 07'12 -7°59'57
superior conj	8414 Jul 08 08:19	22° \approx 21'31 -0°34'51	minimum elong	8416 Nov 26 07:24	8° \approx 55'50 7°58'57
minimum elong	8414 Jul 08 16:12	22° \approx 46'06 0°34'40	min. Earth dist.	8416 Nov 26 13:53	8° \approx 45'41 0.28920 AU
max. Earth dist.	8414 Jul 11 15:46	26° \approx 29'01 1.72102 AU	morning rise	8416 Nov 30 05:03	6° \approx 31'54
	8414 Jul 14 11:34	0° \approx	direct	8416 Dec 17 12:03	0° \approx 49'37
asc. node	8414 Jul 23 01:54	10° \approx 41'33	greatest brilliancy	8416 Dec 28 11:15	3° \approx 02'18 -4.8m
	8414 Aug 07 15:23	0° \approx	asc. node	8417 Jan 06 22:36	7° \approx 51'19

	8417 Feb 02 17:54	0°☾			8419 Oct 06 18:50	0°☿	
morning max el	8417 Feb 05 08:19	2°☾33'34 46°18'29		desc. node	8419 Oct 14 10:19	8°☿43'44	
	8417 Mar 03 01:53	0°☾			8419 Nov 02 14:07	0°☾	
	8417 Mar 29 00:30	0°☿		evening max el	8419 Nov 28 07:58	26°☾29'29 45°55'41	
	8417 Apr 22 23:49	0°☿			8419 Dec 02 00:51	0°☾	
desc. node	8417 Apr 28 16:29	6°☿56'21		greatest brilliancy	8420 Jan 06 18:14	25°☾05'59 -4.8m	
	8417 May 17 11:32	0°☿		retrograde	8420 Jan 16 08:32	26°☾47'36	
	8417 Jun 10 17:41	0°☿		evening set	8420 Jan 30 22:29	22°☾40'04	
	8417 Jul 04 22:07	0°☿		asc. node	8420 Feb 04 10:20	20°☾04'14	
	8417 Jul 29 03:04	0°☿		inferior conj	8420 Feb 06 05:30	18°☾57'48 0°27'31	
morning set	8417 Aug 10 07:36	15°☿04'53		minimum elong	8420 Feb 06 04:27	18°☾59'27 0°27'19	
asc. node	8417 Aug 19 14:07	26°☿32'42		min. Earth dist.	8420 Feb 06 15:49	18°☾41'53 0.27398 AU	
	8417 Aug 22 09:12	0°☿		morning rise	8420 Feb 12 09:43	15°☾17'39	
	8417 Sep 15 16:17	0°☿		direct	8420 Feb 27 03:28	11°☾00'18	
				greatest brilliancy	8420 Mar 08 19:07	13°☾07'27 -4.9m	
superior conj	8417 Sep 16 22:45	1°☿34'00 1°01'34			8420 Apr 03 00:28	0°☿	
minimum elong	8417 Sep 16 13:13	1°☿04'37 1°01'15		morning max el	8420 Apr 17 14:30	13°☿49'37 46°56'55	
max. Earth dist.	8417 Sep 18 02:31	2°☿59'40 1.73168 AU			8420 May 02 23:16	0°☿	
	8417 Oct 10 00:07	0°☿		desc. node	8420 May 26 04:41	26°☿12'56	
evening rise	8417 Oct 23 09:20	16°☿28'54			8420 May 29 10:50	0°☿	
	8417 Nov 03 09:12	0°☿			8420 Jun 23 18:50	0°☿	
	8417 Nov 27 20:19	0°☿			8420 Jul 18 15:36	0°☿	
desc. node	8417 Dec 09 07:33	14°☿01'09			8420 Aug 12 07:50	0°☿	
	8417 Dec 22 09:53	0°☿			8420 Sep 05 21:54	0°☿	
	8418 Jan 16 01:56	0°☿		asc. node	8420 Sep 16 02:22	12°☿27'30	
	8418 Feb 09 21:33	0°☿			8420 Sep 30 09:59	0°☿	
	8418 Mar 07 01:17	0°☿		morning set	8420 Oct 18 12:30	22°☿14'12	
asc. node	8418 Apr 01 06:57	29°☿07'55			8420 Oct 24 19:54	0°☿	
	8418 Apr 02 01:32	0°☿			8420 Nov 18 03:58	0°☿	
evening max el	8418 Apr 25 04:40	24°☿46'45 46°57'40		max. Earth dist.	8420 Nov 22 18:25	5°☿40'51 1.73152 AU	
	8418 Apr 30 11:23	0°☿					
greatest brilliancy	8418 Jun 04 05:10	25°☿31'44 -4.9m		superior conj	8420 Nov 24 01:11	7°☿15'50 1°20'14	
retrograde	8418 Jun 14 15:38	27°☿33'45		minimum elong	8420 Nov 24 07:37	7°☿35'40 1°20'18	
evening set	8418 Jun 30 03:51	22°☿49'34			8420 Dec 12 10:58	0°☿	
inferior conj	8418 Jul 05 13:02	19°☿35'45 4°03'24		evening rise	8420 Dec 31 13:24	23°☿36'50	
minimum elong	8418 Jul 05 21:33	19°☿22'36 4°00'47		desc. node	8421 Jan 05 19:34	0°☿06'51	
min. Earth dist.	8418 Jul 05 09:49	19°☿40'43 0.27468 AU			8421 Jan 05 17:21	0°☿	
morning rise	8418 Jul 11 15:47	15°☿59'19			8421 Jan 29 23:02	0°☿	
desc. node	8418 Jul 22 02:08	12°☿07'17			8421 Feb 23 04:02	0°☿	
direct	8418 Jul 26 10:26	11°☿44'33			8421 Mar 19 09:33	0°☿	
greatest brilliancy	8418 Aug 05 04:59	13°☿30'36 -4.8m			8421 Apr 12 18:48	0°☿	
	8418 Aug 31 02:21	0°☿		asc. node	8421 Apr 28 18:21	19°☿25'53	
morning max el	8418 Sep 13 15:16	12°☿18'30 45°56'24			8421 May 07 13:25	0°☿	
	8418 Oct 01 02:41	0°☿			8421 Jun 02 03:25	0°☿	
	8418 Oct 28 10:45	0°☿			8421 Jun 29 12:34	0°☿	
asc. node	8418 Nov 12 00:58	16°☿44'28		evening max el	8421 Jul 05 15:04	6°☿11'04 46°19'36	
	8418 Nov 23 09:14	0°☿			8421 Aug 02 16:00	0°☿	
	8418 Dec 18 12:47	0°☿		greatest brilliancy	8421 Aug 13 08:59	5°☿38'02 -4.8m	
	8419 Jan 12 04:27	0°☿		desc. node	8421 Aug 18 13:41	7°☿13'20	
	8419 Feb 05 12:34	0°☿		retrograde	8421 Aug 24 09:56	7°☿52'37	
	8419 Mar 01 15:38	0°☿		evening set	8421 Sep 09 08:26	2°☿58'56	
desc. node	8419 Mar 03 17:53	2°☿36'50		min. Earth dist.	8421 Sep 14 05:17	0°☿02'35 0.28728 AU	
morning set	8419 Mar 12 03:09	13°☿05'45			8421 Sep 14 06:56	30°☿	
	8419 Mar 25 15:03	0°☿		inferior conj	8421 Sep 14 21:35	29°☿37'04 -6°01'20	
	8419 Apr 18 12:07	0°☿		minimum elong	8421 Sep 14 11:33	29°☿52'46 5°59'11	
				morning rise	8421 Sep 19 14:59	26°☿43'52	
superior conj	8419 Apr 21 22:14	4°☿18'08 -1°25'56		direct	8421 Oct 06 06:01	21°☿28'13	
minimum elong	8419 Apr 21 17:23	4°☿02'53 1°26'00		greatest brilliancy	8421 Oct 16 02:35	23°☿12'57 -4.7m	
max. Earth dist.	8419 Apr 21 18:17	4°☿05'42 1.71218 AU			8421 Oct 29 09:24	0°☿	
	8419 May 12 08:41	0°☿		morning max el	8421 Nov 23 23:30	21°☿15'31 45°43'00	
evening rise	8419 Jun 01 12:13	25°☿16'29			8421 Dec 02 19:14	0°☿	
	8419 Jun 05 06:49	0°☿		asc. node	8421 Dec 09 12:58	6°☿58'59	
asc. node	8419 Jun 24 15:54	24°☿10'24			8421 Dec 30 13:31	0°☿	
	8419 Jun 29 08:26	0°☿			8422 Jan 25 10:04	0°☿	
	8419 Jul 23 14:59	0°☿			8422 Feb 19 09:06	0°☿	
	8419 Aug 17 04:16	0°☿			8422 Mar 15 20:18	0°☿	
	8419 Sep 11 03:33	0°☿		desc. node	8422 Mar 31 06:07	19°☿05'31	

	8422 Apr 09 00:26	0°♿		desc. node	8424 Sep 15 00:58	15°♎45'15	
	8422 May 03 00:26	0°♄			8424 Oct 01 02:54	0°♊	
	8422 May 26 22:46	0°♂		greatest brilliancy	8424 Oct 23 07:35	13°♊21'13	-4.7m
morning set	8422 May 27 08:38	0°♂30'57		retrograde	8424 Nov 02 06:03	15°♊07'47	
	8422 Jun 19 21:36	0°♄		evening set	8424 Nov 20 03:24	9°♊06'27	
				inferior conj	8424 Nov 23 16:01	6°♊55'25	-8°07'07
superior conj	8422 Jul 05 21:37	19°♄59'05	-0°38'14	minimum elong	8424 Nov 23 22:41	6°♊44'57	8°06'16
minimum elong	8422 Jul 06 06:10	20°♄25'44	0°38'02	min. Earth dist.	8424 Nov 24 04:30	6°♊35'48	0.28955 AU
max. Earth dist.	8422 Jul 09 03:22	24°♄01'23	1.72057 AU	morning rise	8424 Nov 27 17:51	4°♊24'28	
	8422 Jul 13 22:32	0°♂			8424 Dec 06 22:25	30°♎	
asc. node	8422 Jul 22 03:55	10°♂13'42		direct	8424 Dec 15 04:40	28°♎37'48	
	8422 Aug 07 02:21	0°♎			8424 Dec 23 17:49	0°♊	
evening rise	8422 Aug 13 12:55	7°♎58'10		greatest brilliancy	8424 Dec 26 01:56	0°♊48'33	-4.8m
	8422 Aug 31 09:23	0°♄		asc. node	8425 Jan 06 00:42	6°♊32'48	
	8422 Sep 24 20:23	0°♎			8425 Feb 02 16:26	0°♄	
	8422 Oct 19 12:53	0°♊		morning max el	8425 Feb 02 23:32	0°♄17'35	46°16'49
desc. node	8422 Nov 10 21:51	26°♊51'58			8425 Mar 02 17:53	0°♌	
	8422 Nov 13 12:59	0°♄			8425 Mar 28 14:13	0°♋	
	8422 Dec 08 23:19	0°♌			8425 Apr 22 12:23	0°♿	
	8423 Jan 04 01:22	0°♋		desc. node	8425 Apr 27 18:29	6°♿24'35	
	8423 Jan 31 12:46	0°♿			8425 May 16 23:26	0°♄	
evening max el	8423 Feb 08 18:12	8°♿23'24	46°41'19		8425 Jun 10 05:09	0°♂	
asc. node	8423 Mar 03 21:39	29°♿03'40			8425 Jul 04 09:17	0°♄	
	8423 Mar 05 03:58	0°♄			8425 Jul 28 14:03	0°♂	
greatest brilliancy	8423 Mar 21 05:57	9°♄04'12	-4.9m	morning set	8425 Aug 07 23:19	12°♂51'21	
retrograde	8423 Mar 31 01:33	10°♄54'04		asc. node	8425 Aug 18 16:00	26°♂04'55	
evening set	8423 Apr 17 16:31	4°♄55'36			8425 Aug 21 20:03	0°♎	
inferior conj	8423 Apr 20 16:52	3°♄05'40	8°59'00				
minimum elong	8423 Apr 20 11:55	3°♄13'17	8°58'33	superior conj	8425 Sep 14 15:43	29°♎25'02	0°59'13
min. Earth dist.	8423 Apr 20 12:24	3°♄12'32	0.27082 AU	minimum elong	8425 Sep 14 06:12	28°♎55'42	0°58'51
morning rise	8423 Apr 23 07:20	1°♄30'31			8425 Sep 15 03:03	0°♄	
	8423 Apr 25 21:35	30°♎♿		max. Earth dist.	8425 Sep 15 22:34	1°♄00'13	1.73147 AU
direct	8423 May 11 07:44	25°♿18'05			8425 Oct 09 10:53	0°♎	
greatest brilliancy	8423 May 20 21:26	27°♿02'27	-4.9m	evening rise	8425 Oct 21 02:41	14°♎21'19	
	8423 May 27 13:12	0°♄			8425 Nov 02 20:04	0°♊	
desc. node	8423 Jun 23 16:32	21°♄02'40			8425 Nov 27 07:26	0°♄	
morning max el	8423 Jun 30 15:13	27°♄47'25	46°43'21	desc. node	8425 Dec 08 09:37	13°♄33'02	
	8423 Jul 02 20:04	0°♂			8425 Dec 21 21:24	0°♌	
	8423 Jul 30 18:43	0°♄			8426 Jan 15 14:01	0°♋	
	8423 Aug 25 24:00	0°♂			8426 Feb 09 10:27	0°♿	
	8423 Sep 20 12:21	0°♎			8426 Mar 06 15:31	0°♄	
asc. node	8423 Oct 14 14:39	28°♎47'45		asc. node	8426 Mar 31 08:57	28°♄26'27	
	8423 Oct 15 14:40	0°♄			8426 Apr 01 18:30	0°♂	
	8423 Nov 09 09:12	0°♎		evening max el	8426 Apr 22 18:41	22°♂24'37	46°58'14
	8423 Dec 03 21:30	0°♊			8426 Apr 30 12:39	0°♄	
morning set	8423 Dec 27 04:50	28°♊44'38		greatest brilliancy	8426 Jun 01 21:08	23°♄12'58	-4.9m
	8423 Dec 28 05:13	0°♄		retrograde	8426 Jun 12 05:35	25°♄13'10	
	8424 Jan 21 09:46	0°♌		evening set	8426 Jun 27 20:43	20°♄25'54	
max. Earth dist.	8424 Jan 31 14:09	12°♌39'59	1.72137 AU	inferior conj	8426 Jul 03 03:04	17°♄15'59	4°23'53
				minimum elong	8426 Jul 03 12:07	17°♄02'00	4°21'10
superior conj	8424 Feb 03 11:12	16°♌15'00	-0°00'22	min. Earth dist.	8426 Jul 03 00:38	17°♄19'45	0.27439 AU
minimum elong	8424 Feb 03 11:09	16°♌14'50	0°00'14	morning rise	8426 Jul 09 03:58	13°♄41'41	
behind sun begin	8424 Feb 02 10:41	14°♌58'36		desc. node	8426 Jul 21 04:04	9°♄34'51	
behind sun end	8424 Feb 04 11:38	17°♌31'06		direct	8426 Jul 24 00:00	9°♄25'17	
desc. node	8424 Feb 03 07:35	16°♌03'43		greatest brilliancy	8426 Aug 02 18:47	11°♄11'14	-4.8m
	8424 Feb 14 11:50	0°♋			8426 Aug 31 08:25	0°♂	
	8424 Mar 09 11:45	0°♿		morning max el	8426 Sep 11 04:41	9°♂59'58	45°57'33
evening rise	8424 Mar 14 02:12	5°♿45'50			8426 Sep 30 20:17	0°♎	
	8424 Apr 02 10:22	0°♄			8426 Oct 28 00:49	0°♄	
	8424 Apr 26 09:30	0°♂		asc. node	8426 Nov 11 03:00	16°♄12'21	
	8424 May 20 11:57	0°♄			8426 Nov 22 21:44	0°♎	
asc. node	8424 May 26 06:04	7°♄07'09			8426 Dec 18 00:29	0°♊	
	8424 Jun 13 20:59	0°♂			8427 Jan 11 15:44	0°♄	
	8424 Jul 08 16:55	0°♎			8427 Feb 04 23:38	0°♌	
	8424 Aug 03 07:20	0°♄			8427 Mar 01 02:36	0°♋	
	8424 Aug 30 10:49	0°♎		desc. node	8427 Mar 02 19:41	2°♋08'13	
evening max el	8424 Sep 14 10:24	15°♎10'13	45°43'53	morning set	8427 Mar 09 14:23	10°♋36'31	

	8427 Mar 25 01:58	0°♄	evening set	8429 Sep 06 21:49	0°♅51'42	
	8427 Apr 17 23:01	0°♄		8429 Sep 08 09:32	30°♄♂	
superior conj	8427 Apr 19 09:13	1°♄47'31 -1°25'03	min. Earth dist.	8429 Sep 11 20:39	27°♄52'51	0.28683 AU
minimum elong	8427 Apr 19 03:24	1°♄29'12 1°25'05	inferior conj	8429 Sep 12 13:29	27°♄26'34	-5°46'37
max. Earth dist.	8427 Apr 18 19:32	1°♄04'28 1.71219 AU	minimum elong	8429 Sep 12 03:31	27°♄42'08	5°44'23
	8427 May 11 19:34	0°♂	morning rise	8429 Sep 17 09:36	24°♄29'53	
evening rise	8427 May 29 23:24	22°♂47'05	direct	8429 Oct 03 21:26	19°♄18'18	
	8427 Jun 04 17:44	0°♄	greatest brilliancy	8429 Oct 13 17:41	21°♄03'04	-4.7m
asc. node	8427 Jun 23 17:54	23°♄42'38		8429 Oct 30 04:53	0°♅	
	8427 Jun 28 19:23	0°♂	morning max el	8429 Nov 21 15:27	19°♅06'05	45°42'35
	8427 Jul 23 02:05	0°♄		8429 Dec 02 13:57	0°♄	
	8427 Aug 16 15:44	0°♅	asc. node	8429 Dec 08 14:59	6°♄18'47	
	8427 Sep 10 15:43	0°♄		8429 Dec 30 03:51	0°♄	
	8427 Oct 06 08:21	0°♄		8430 Jan 24 22:42	0°♄	
desc. node	8427 Oct 13 12:17	8°♄09'28		8430 Feb 18 20:54	0°♄	
	8427 Nov 02 06:34	0°♄	desc. node	8430 Mar 15 07:39	0°♄	
evening max el	8427 Nov 25 21:03	24°♄10'35 45°54'27		8430 Mar 30 08:09	18°♄37'01	
	8427 Dec 02 02:12	0°♄		8430 Apr 08 11:32	0°♄	
greatest brilliancy	8428 Jan 04 08:22	22°♄47'04 -4.8m	morning set	8430 May 02 11:22	0°♄	
retrograde	8428 Jan 13 21:48	24°♄28'15		8430 May 24 20:11	28°♄02'50	
evening set	8428 Jan 28 12:56	20°♄19'03		8430 May 26 09:33	0°♂	
inferior conj	8428 Feb 03 19:24	16°♄37'50 0°04'35		8430 Jun 19 08:17	0°♄	
minimum elong	8428 Feb 03 19:13	16°♄38'07 0°04'40	superior conj	8430 Jul 03 10:49	17°♄37'21 -0°41'33	
transit middle	8428 Feb 03 19:13	16°♄38'07 0°04'40	minimum elong	8430 Jul 03 19:59	18°♄05'55 0°41'20	
transit begin	8428 Feb 03 15:19	16°♄44'08	max. Earth dist.	8430 Jul 06 16:19	21°♄38'59	1.72013 AU
transit end	8428 Feb 03 23:07	16°♄32'05		8430 Jul 13 09:10	0°♂	
asc. node	8428 Feb 03 12:11	16°♄48'58	asc. node	8430 Jul 21 05:47	9°♂46'32	
min. Earth dist.	8428 Feb 04 06:56	16°♄20'00 0.27443 AU		8430 Aug 06 12:57	0°♄	
morning rise	8428 Feb 10 00:43	12°♄56'08	evening rise	8430 Aug 11 04:47	5°♄46'03	
direct	8428 Feb 24 17:19	8°♄39'16		8430 Aug 30 20:02	0°♅	
greatest brilliancy	8428 Mar 06 11:19	10°♄48'31 -4.9m		8430 Sep 24 07:12	0°♄	
	8428 Apr 03 06:06	0°♄		8430 Oct 19 00:04	0°♄	
morning max el	8428 Apr 15 04:25	11°♄27'18 46°56'20	desc. node	8430 Nov 09 23:56	26°♄23'09	
	8428 May 02 17:09	0°♄		8430 Nov 13 00:49	0°♄	
desc. node	8428 May 25 06:42	25°♄35'42		8430 Dec 08 12:20	0°♄	
	8428 May 29 01:21	0°♄		8431 Jan 03 16:34	0°♄	
	8428 Jun 23 07:47	0°♂		8431 Jan 31 09:06	0°♄	
	8428 Jul 18 03:36	0°♄	evening max el	8431 Feb 06 08:52	6°♄03'56	46°39'46
	8428 Aug 11 19:12	0°♂	asc. node	8431 Mar 02 23:41	27°♄47'14	
	8428 Sep 05 08:49	0°♄		8431 Mar 06 03:32	0°♄	
asc. node	8428 Sep 15 04:17	12°♄00'17	greatest brilliancy	8431 Mar 18 17:55	6°♄37'33	-4.9m
	8428 Sep 29 20:39	0°♅	retrograde	8431 Mar 28 14:54	8°♄28'03	
morning set	8428 Oct 16 05:54	20°♅07'40	evening set	8431 Apr 15 01:23	2°♄35'31	
	8428 Oct 24 06:26	0°♄	inferior conj	8431 Apr 18 05:32	0°♄39'46	8°53'10
	8428 Nov 17 14:29	0°♄	minimum elong	8431 Apr 17 23:43	0°♄48'42	8°52'35
max. Earth dist.	8428 Nov 20 14:02	3°♄40'47 1.73176 AU	min. Earth dist.	8431 Apr 18 00:19	0°♄47'47	0.27074 AU
				8431 Apr 19 07:28	30°♄♂	
superior conj	8428 Nov 21 18:34	5°♄08'52 1°21'21	morning rise	8431 Apr 20 22:07	29°♄01'27	
minimum elong	8428 Nov 22 00:26	5°♄26'59 1°21'26	direct	8431 May 08 21:03	22°♄52'26	
	8428 Dec 11 21:33	0°♄	greatest brilliancy	8431 May 18 09:25	24°♄35'54	-4.9m
evening rise	8428 Dec 29 04:58	21°♄23'33		8431 May 29 05:49	0°♄	
desc. node	8429 Jan 04 21:28	29°♄39'36	desc. node	8431 Jun 22 18:28	20°♄06'19	
	8429 Jan 05 04:04	0°♄	morning max el	8431 Jun 28 05:09	25°♄25'55	46°44'37
	8429 Jan 29 09:58	0°♄		8431 Jul 02 17:33	0°♂	
	8429 Feb 22 15:16	0°♄		8431 Jul 30 10:22	0°♄	
	8429 Mar 18 21:12	0°♄		8431 Aug 25 13:19	0°♂	
	8429 Apr 12 07:02	0°♂		8431 Sep 20 00:25	0°♄	
asc. node	8429 Apr 27 20:25	18°♂53'35	asc. node	8431 Oct 13 16:42	28°♄19'44	
	8429 May 07 02:37	0°♄		8431 Oct 15 01:59	0°♅	
	8429 Jun 01 18:30	0°♂		8431 Nov 08 20:04	0°♄	
	8429 Jun 29 08:32	0°♄		8431 Dec 03 08:05	0°♄	
evening max el	8429 Jul 03 06:10	3°♄55'42 46°21'26	morning set	8431 Dec 24 21:21	26°♄34'52	
	8429 Aug 03 22:16	0°♅		8431 Dec 27 15:42	0°♄	
greatest brilliancy	8429 Aug 11 00:19	3°♅25'51 -4.8m		8432 Jan 20 20:16	0°♄	
desc. node	8429 Aug 17 15:35	5°♅18'43	max. Earth dist.	8432 Jan 29 03:27	10°♄19'14	1.72182 AU
retrograde	8429 Aug 22 02:39	5°♅41'55				

superior conj	8432 Feb 01 01:04	13° \approx 55'52	0°03'19	min. Earth dist.	8434 Jun 30 15:20	14° \approx 57'22	0.27414 AU
minimum elong	8432 Feb 01 01:54	13° \approx 58'26	0°03'25	morning rise	8434 Jul 06 15:33	11° \approx 23'28	
behind sun begin	8432 Jan 31 01:46	12° \approx 43'20		desc. node	8434 Jul 20 05:58	7° \approx 06'41	
behind sun end	8432 Feb 02 02:01	15° \approx 13'33		direct	8434 Jul 21 12:49	7° \approx 04'44	
desc. node	8432 Feb 02 09:29	15° \approx 36'46		greatest brilliancy	8434 Jul 31 08:41	8° \approx 51'18	-4.8m
	8432 Feb 13 22:26	0° \approx			8434 Aug 31 12:29	0° \approx	
	8432 Mar 08 22:30	0° \approx		morning max el	8434 Sep 08 17:50	7° \approx 40'42	45°58'57
evening rise	8432 Mar 11 14:27	3° \approx 20'11			8434 Sep 30 13:21	0° \approx	
	8432 Apr 01 21:14	0° \approx			8434 Oct 27 14:35	0° \approx	
	8432 Apr 25 20:33	0° \approx		asc. node	8434 Nov 10 04:55	15° \approx 40'35	
	8432 May 19 23:15	0° \approx			8434 Nov 22 09:59	0° \approx	
asc. node	8432 May 25 08:03	6° \approx 38'08			8434 Dec 17 11:57	0° \approx	
	8432 Jun 13 08:44	0° \approx			8435 Jan 11 02:48	0° \approx	
	8432 Jul 08 05:25	0° \approx			8435 Feb 04 10:29	0° \approx	
	8432 Aug 02 21:22	0° \approx			8435 Feb 28 13:20	0° \approx	
	8432 Aug 30 04:33	0° \approx		desc. node	8435 Mar 01 21:46	1° \approx 41'15	
evening max el	8432 Sep 12 01:59	12° \approx 59'21	45°44'28	morning set	8435 Mar 07 02:17	8° \approx 10'10	
desc. node	8432 Sep 14 03:01	14° \approx 56'44			8435 Mar 24 12:39	0° \approx	
	8432 Oct 01 13:13	0° \approx		max. Earth dist.	8435 Apr 16 00:14	28° \approx 14'45	1.71231 AU
greatest brilliancy	8432 Oct 20 23:01	11° \approx 12'03	-4.7m				
retrograde	8432 Oct 30 21:31	12° \approx 58'39		superior conj	8435 Apr 16 20:32	29° \approx 18'33	-1°24'01
evening set	8432 Nov 17 21:20	6° \approx 54'34		minimum elong	8435 Apr 16 13:46	28° \approx 57'16	1°23'59
inferior conj	8432 Nov 21 08:11	4° \approx 45'57	-8°13'36		8435 Apr 17 09:43	0° \approx	
minimum elong	8432 Nov 21 14:13	4° \approx 36'26	8°12'53		8435 May 11 06:20	0° \approx	
min. Earth dist.	8432 Nov 21 19:40	4° \approx 27'52	0.28984 AU	evening rise	8435 May 27 10:32	20° \approx 17'47	
morning rise	8432 Nov 25 07:02	2° \approx 19'10			8435 Jun 04 04:34	0° \approx	
	8432 Nov 29 11:11	30° \approx		asc. node	8435 Jun 22 19:45	23° \approx 14'31	
direct	8432 Dec 12 21:04	26° \approx 28'21			8435 Jun 28 06:19	0° \approx	
greatest brilliancy	8432 Dec 23 17:02	28° \approx 37'24	-4.8m		8435 Jul 22 13:12	0° \approx	
	8432 Dec 26 22:39	0° \approx			8435 Aug 16 03:14	0° \approx	
asc. node	8433 Jan 05 02:31	5° \approx 17'59			8435 Sep 10 03:57	0° \approx	
morning max el	8433 Jan 31 14:00	28° \approx 01'27	46°15'06		8435 Oct 05 22:00	0° \approx	
	8433 Feb 02 13:28	0° \approx		desc. node	8435 Oct 12 14:20	7° \approx 35'09	
	8433 Mar 02 09:09	0° \approx			8435 Nov 01 23:18	0° \approx	
	8433 Mar 28 03:27	0° \approx		evening max el	8435 Nov 23 10:51	21° \approx 53'45	45°53'24
	8433 Apr 22 00:37	0° \approx			8435 Dec 02 04:56	0° \approx	
desc. node	8433 Apr 26 20:29	5° \approx 53'46		greatest brilliancy	8436 Jan 01 22:09	20° \approx 28'21	-4.8m
	8433 May 16 11:04	0° \approx		retrograde	8436 Jan 11 11:43	22° \approx 09'40	
	8433 Jun 09 16:23	0° \approx		evening set	8436 Jan 26 03:43	17° \approx 58'29	
	8433 Jul 03 20:14	0° \approx		inferior conj	8436 Feb 01 09:23	14° \approx 18'30	-0°18'19
	8433 Jul 28 00:47	0° \approx		minimum elong	8436 Feb 01 10:04	14° \approx 17'25	0°17'58
morning set	8433 Aug 05 14:41	10° \approx 37'30		min. Earth dist.	8436 Feb 01 21:51	13° \approx 59'17	0.27486 AU
asc. node	8433 Aug 17 17:56	25° \approx 38'11		asc. node	8436 Feb 02 14:13	13° \approx 34'03	
	8433 Aug 21 06:38	0° \approx		morning rise	8436 Feb 07 15:39	10° \approx 35'43	
				direct	8436 Feb 22 07:40	6° \approx 19'00	
superior conj	8433 Sep 12 08:33	27° \approx 16'32	0°56'45	greatest brilliancy	8436 Mar 04 03:02	8° \approx 29'51	-4.9m
minimum elong	8433 Sep 11 23:06	26° \approx 47'22	0°56'23		8436 Apr 03 09:35	0° \approx	
max. Earth dist.	8433 Sep 13 16:59	28° \approx 56'36	1.73122 AU	morning max el	8436 Apr 12 19:25	9° \approx 08'22	46°55'45
	8433 Sep 14 13:32	0° \approx			8436 May 02 10:27	0° \approx	
	8433 Oct 08 21:22	0° \approx		desc. node	8436 May 24 08:39	24° \approx 58'58	
evening rise	8433 Oct 18 20:07	12° \approx 14'53			8436 May 28 15:35	0° \approx	
	8433 Nov 02 06:40	0° \approx			8436 Jun 22 20:35	0° \approx	
	8433 Nov 26 18:16	0° \approx			8436 Jul 17 15:36	0° \approx	
desc. node	8433 Dec 07 11:32	13° \approx 05'27			8436 Aug 11 06:39	0° \approx	
	8433 Dec 21 08:36	0° \approx			8436 Sep 04 19:53	0° \approx	
	8434 Jan 15 01:46	0° \approx		asc. node	8436 Sep 14 06:22	11° \approx 33'07	
	8434 Feb 08 23:02	0° \approx			8436 Sep 29 07:26	0° \approx	
	8434 Mar 06 05:34	0° \approx		morning set	8436 Oct 13 22:54	17° \approx 59'24	
asc. node	8434 Mar 30 10:58	27° \approx 45'10			8436 Oct 23 17:05	0° \approx	
	8434 Apr 01 11:37	0° \approx			8436 Nov 17 01:07	0° \approx	
evening max el	8434 Apr 20 07:37	19° \approx 59'53	46°58'26	max. Earth dist.	8436 Nov 18 11:08	1° \approx 44'59	1.73195 AU
	8434 Apr 30 15:17	0° \approx					
greatest brilliancy	8434 May 30 13:00	20° \approx 53'16	-4.9m	superior conj	8436 Nov 19 11:38	3° \approx 00'37	1°22'22
retrograde	8434 Jun 09 18:58	22° \approx 51'38		minimum elong	8436 Nov 19 16:54	3° \approx 16'51	1°22'27
evening set	8434 Jun 25 13:20	18° \approx 00'47			8436 Dec 11 08:14	0° \approx	
inferior conj	8434 Jun 30 16:44	14° \approx 55'12	4°44'13	evening rise	8436 Dec 26 20:27	19° \approx 09'49	
minimum elong	8434 Jul 01 02:16	14° \approx 40'28	4°41'25	desc. node	8437 Jan 03 23:22	29° \approx 12'00	

	8437 Jan 04 14:54	0°♊		morning max el	8439 Jun 25 18:10	23°♊01'20	46°46'00
	8437 Jan 28 21:01	0°♋			8439 Jul 02 14:30	0°♌	
	8437 Feb 22 02:36	0°♍			8439 Jul 30 01:59	0°♍	
	8437 Mar 18 08:55	0°♎			8439 Aug 25 02:44	0°♎	
	8437 Apr 11 19:20	0°♏			8439 Sep 19 12:41	0°♐	
asc. node	8437 Apr 26 22:24	18°♏20'54		asc. node	8439 Oct 12 18:35	27°♐50'24	
	8437 May 06 15:54	0°♑			8439 Oct 14 13:35	0°♑	
	8437 Jun 01 09:48	0°♒			8439 Nov 08 07:15	0°♒	
	8437 Jun 29 05:18	0°♓			8439 Dec 02 19:04	0°♓	
evening max el	8437 Jun 30 22:02	1°♓41'50	46°23'01	morning set	8439 Dec 22 13:34	24°♓22'57	
	8437 Aug 05 20:01	0°♈			8439 Dec 27 02:35	0°♈	
greatest brilliancy	8437 Aug 08 15:24	1°♈12'19	-4.8m		8440 Jan 20 07:10	0°♉	
desc. node	8437 Aug 16 17:40	3°♈18'29		max. Earth dist.	8440 Jan 26 15:38	7°♉53'56	1.72226 AU
retrograde	8437 Aug 19 19:16	3°♈29'32					
	8437 Sep 02 01:21	30°♋♐		superior conj	8440 Jan 29 14:46	11°♉35'10	0°06'58
evening set	8437 Sep 04 11:05	28°♐42'52		minimum elong	8440 Jan 29 16:28	11°♉40'27	0°07'02
min. Earth dist.	8437 Sep 09 11:42	25°♐41'36	0.28640 AU	behind sun begin	8440 Jan 28 18:12	10°♉31'10	
inferior conj	8437 Sep 10 05:08	25°♐14'26	-5°31'02	behind sun end	8440 Jan 30 14:44	12°♉49'45	
minimum elong	8437 Sep 09 19:18	25°♐29'45	5°28'47	desc. node	8440 Feb 01 11:30	15°♉09'05	
morning rise	8437 Sep 15 03:59	22°♐14'11			8440 Feb 13 09:24	0°♊	
direct	8437 Oct 01 13:05	17°♐06'50			8440 Mar 08 09:34	0°♋	
greatest brilliancy	8437 Oct 11 08:07	18°♐51'01	-4.7m	evening rise	8440 Mar 09 02:37	0°♋53'20	
	8437 Oct 30 19:54	0°♌			8440 Apr 01 08:27	0°♌	
morning max el	8437 Nov 19 07:26	16°♌55'48	45°42'12		8440 Apr 25 07:56	0°♍	
	8437 Dec 02 08:31	0°♍			8440 May 19 10:54	0°♎	
asc. node	8437 Dec 07 16:54	5°♍37'51		asc. node	8440 May 24 09:55	6°♎07'44	
	8437 Dec 29 18:16	0°♏			8440 Jun 12 20:49	0°♏	
	8438 Jan 24 11:29	0°♐			8440 Jul 07 18:17	0°♐	
	8438 Feb 18 08:52	0°♑			8440 Aug 02 11:49	0°♑	
	8438 Mar 14 19:10	0°♒			8440 Aug 29 23:02	0°♒	
desc. node	8438 Mar 29 10:06	18°♒07'47		evening max el	8440 Sep 09 16:35	10°♒45'10	45°44'58
	8438 Apr 07 22:47	0°♓		desc. node	8440 Sep 13 05:00	14°♒06'18	
	8438 May 01 22:26	0°♈			8440 Oct 02 03:44	0°♓	
morning set	8438 May 22 08:06	25°♈35'22		greatest brilliancy	8440 Oct 18 14:28	9°♓01'41	-4.7m
	8438 May 25 20:29	0°♉		retrograde	8440 Oct 28 12:41	10°♓48'21	
	8438 Jun 18 19:07	0°♊		evening set	8440 Nov 15 14:55	4°♓41'39	
				inferior conj	8440 Nov 19 00:18	2°♓35'10	-8°19'15
superior conj	8438 Jul 01 00:16	15°♊15'52	-0°44'47	minimum elong	8440 Nov 19 05:41	2°♓26'41	8°18'39
minimum elong	8438 Jul 01 09:57	15°♊46'05	0°44'33	min. Earth dist.	8440 Nov 19 11:07	2°♓18'07	0.29017 AU
max. Earth dist.	8438 Jul 04 08:01	19°♊24'40	1.71970 AU	morning rise	8440 Nov 22 20:20	0°♓12'21	
	8438 Jul 12 19:56	0°♋			8440 Nov 23 04:35	30°♋♌	
asc. node	8438 Jul 20 07:48	9°♋19'19		direct	8440 Dec 10 12:57	24°♌17'18	
	8438 Aug 05 23:45	0°♌		greatest brilliancy	8440 Dec 21 08:50	26°♌25'31	-4.8m
evening rise	8438 Aug 08 20:42	3°♌33'24			8440 Dec 28 19:45	0°♍	
	8438 Aug 30 06:57	0°♍		asc. node	8441 Jan 04 04:35	4°♍04'07	
	8438 Sep 23 18:20	0°♎		morning max el	8441 Jan 29 04:13	25°♍43'05	46°13'30
	8438 Oct 18 11:36	0°♏			8441 Feb 02 10:22	0°♎	
desc. node	8438 Nov 09 01:47	25°♏52'32			8441 Mar 02 00:42	0°♏	
	8438 Nov 12 13:04	0°♐			8441 Mar 27 17:00	0°♐	
	8438 Dec 08 01:49	0°♑			8441 Apr 21 13:09	0°♑	
	8439 Jan 03 08:23	0°♒		desc. node	8441 Apr 25 22:23	5°♑21'36	
	8439 Jan 31 06:32	0°♓			8441 May 15 23:01	0°♒	
evening max el	8439 Feb 03 23:19	3°♓43'01	46°38'12		8441 Jun 09 03:56	0°♓	
asc. node	8439 Mar 02 01:45	26°♓27'25			8441 Jul 03 07:31	0°♈	
	8439 Mar 07 13:05	0°♈			8441 Jul 27 11:50	0°♉	
greatest brilliancy	8439 Mar 16 06:31	4°♈10'48	-4.9m	morning set	8441 Aug 03 06:10	8°♉22'52	
retrograde	8439 Mar 26 03:48	6°♈01'00		asc. node	8441 Aug 16 19:59	25°♉10'51	
evening set	8439 Apr 12 10:03	0°♉15'03			8441 Aug 20 17:30	0°♊	
	8439 Apr 12 20:09	30°♋♐					
inferior conj	8439 Apr 15 18:14	28°♐13'06	8°46'22	superior conj	8441 Sep 10 01:37	25°♐07'50	0°54'13
minimum elong	8439 Apr 15 11:36	28°♐23'18	8°45'38	minimum elong	8441 Sep 09 16:16	24°♐38'59	0°53'50
min. Earth dist.	8439 Apr 15 12:39	28°♐21'40	0.27063 AU	max. Earth dist.	8441 Sep 11 10:36	26°♐49'37	1.73095 AU
morning rise	8439 Apr 18 13:13	26°♐31'01			8441 Sep 14 00:18	0°♑	
direct	8439 May 06 10:06	20°♐26'04			8441 Oct 08 08:09	0°♒	
greatest brilliancy	8439 May 15 21:52	22°♐08'54	-4.9m	evening rise	8441 Oct 16 13:51	10°♒08'26	
	8439 May 30 10:26	0°♓			8441 Nov 01 17:36	0°♓	
desc. node	8439 Jun 21 20:22	19°♓10'20			8441 Nov 26 05:30	0°♈	

desc. node	8441 Dec 06 13:29	12°♄36'44		8444 Aug 10 18:11	0°♊	
	8441 Dec 20 20:15	0°♊		8444 Sep 04 07:02	0°♊	
	8442 Jan 14 14:01	0°♋		asc. node	8444 Sep 13 08:12	11°♊04'52
	8442 Feb 08 12:11	0°♌			8444 Sep 28 18:20	0°♊
	8442 Mar 05 20:15	0°♍		morning set	8444 Oct 11 16:10	15°♊51'44
asc. node	8442 Mar 29 12:55	27°♍01'56			8444 Oct 23 03:50	0°♋
	8442 Apr 01 05:32	0°♎			8444 Nov 16 11:49	0°♋
evening max el	8442 Apr 17 20:05	17°♎32'59	46°58'51	max. Earth dist.	8444 Nov 16 08:36	29°♎50'05 1.73209 AU
	8442 Apr 30 20:05	0°♏				
greatest brilliancy	8442 May 28 04:32	18°♏32'12	-4.9m	superior conj	8444 Nov 17 05:08	0°♋53'27 1°23'14
retrograde	8442 Jun 07 08:41	20°♏29'24		minimum elong	8444 Nov 17 09:46	1°♋07'44 1°23'21
evening set	8442 Jun 23 06:05	15°♏34'24			8444 Dec 10 18:59	0°♌
inferior conj	8442 Jun 28 06:27	12°♏33'28	5°04'02	evening rise	8444 Dec 24 12:24	16°♌57'21
minimum elong	8442 Jun 28 16:24	12°♏18'05	5°01'11	desc. node	8445 Jan 03 01:27	28°♌44'49
min. Earth dist.	8442 Jun 28 05:59	12°♏34'12	0.27391 AU		8445 Jan 04 01:48	0°♍
morning rise	8442 Jul 04 02:59	9°♏04'51			8445 Jan 28 08:09	0°♋
direct	8442 Jul 19 01:29	4°♏43'02			8445 Feb 21 14:05	0°♌
desc. node	8442 Jul 19 08:06	4°♏43'07			8445 Mar 17 20:51	0°♍
greatest brilliancy	8442 Jul 28 22:42	6°♏30'36	-4.8m		8445 Apr 11 07:53	0°♎
	8442 Aug 31 15:15	0°♏		asc. node	8445 Apr 26 00:16	17°♎47'05
morning max el	8442 Sep 06 08:01	5°♏22'59	46°00'30		8445 May 06 05:31	0°♏
	8442 Sep 30 06:21	0°♐			8445 Jun 01 01:34	0°♏
	8442 Oct 27 04:26	0°♑		evening max el	8445 Jun 28 14:27	29°♏28'50 46°24'47
asc. node	8442 Nov 09 06:51	15°♑08'17			8445 Jun 29 03:00	0°♐
	8442 Nov 21 22:24	0°♒		greatest brilliancy	8445 Aug 06 07:01	28°♐59'15 -4.8m
	8442 Dec 16 23:39	0°♓			8445 Aug 09 05:24	0°♑
	8443 Jan 10 14:09	0°♓		desc. node	8445 Aug 15 19:37	1°♑13'34
	8443 Feb 03 21:40	0°♊		retrograde	8445 Aug 17 11:46	1°♑16'52
	8443 Feb 28 00:26	0°♋			8445 Aug 25 10:28	30°♒♐
desc. node	8443 Feb 28 23:44	1°♋12'42		evening set	8445 Sep 02 00:37	26°♐33'52
morning set	8443 Mar 04 13:56	5°♋41'53		min. Earth dist.	8445 Sep 07 02:52	23°♐30'12 0.28590 AU
	8443 Mar 23 23:43	0°♌		inferior conj	8445 Sep 07 20:48	23°♐02'13 -5°15'01
max. Earth dist.	8443 Apr 13 07:07	25°♌30'38	1.71241 AU	minimum elong	8445 Sep 07 11:10	23°♐17'15 5°12'44
				morning rise	8445 Sep 12 22:17	19°♐58'25
superior conj	8443 Apr 14 07:24	26°♌47'00	-1°22'46	direct	8445 Sep 29 04:56	14°♐55'33
minimum elong	8443 Apr 13 23:44	26°♌22'54	1°22'43	greatest brilliancy	8445 Oct 08 22:13	16°♐38'33 -4.7m
	8443 Apr 16 20:47	0°♍			8445 Oct 31 06:58	0°♑
	8443 May 10 17:24	0°♎		morning max el	8445 Nov 16 23:09	14°♑45'07 45°41'54
evening rise	8443 May 24 21:25	17°♎46'49			8445 Dec 02 02:31	0°♒
	8443 Jun 03 15:40	0°♏		asc. node	8445 Dec 06 18:53	4°♒57'46
asc. node	8443 Jun 21 21:48	22°♏46'11			8445 Dec 29 08:25	0°♓
	8443 Jun 27 17:31	0°♏			8446 Jan 24 00:03	0°♓
	8443 Jul 22 00:36	0°♐			8446 Feb 17 20:40	0°♊
	8443 Aug 15 15:02	0°♑			8446 Mar 14 06:35	0°♋
	8443 Sep 09 16:28	0°♒		desc. node	8446 Mar 28 11:59	17°♋38'36
	8443 Oct 05 11:58	0°♓			8446 Apr 07 09:59	0°♌
desc. node	8443 Oct 11 16:15	6°♓59'43			8446 May 01 09:30	0°♍
	8443 Nov 01 16:33	0°♔		morning set	8446 May 19 19:33	23°♔06'21
evening max el	8443 Nov 21 01:33	19°♔38'59	45°52'21		8446 May 25 07:26	0°♎
	8443 Dec 02 09:32	0°♕			8446 Jun 18 05:58	0°♏
greatest brilliancy	8443 Dec 30 11:24	18°♕09'00	-4.8m			
retrograde	8444 Jan 09 01:52	19°♕50'44		superior conj	8446 Jun 28 13:07	12°♕52'19 -0°47'59
evening set	8444 Jan 23 18:47	15°♕37'28		minimum elong	8446 Jun 28 23:17	13°♕24'01 0°47'45
inferior conj	8444 Jan 29 23:23	11°♕58'41	-0°41'06	max. Earth dist.	8446 Jul 01 22:54	17°♕07'34 1.71923 AU
minimum elong	8444 Jan 30 00:57	11°♕56'16	0°40'27		8446 Jul 12 06:43	0°♏
min. Earth dist.	8444 Jan 30 12:28	11°♕38'31	0.27538 AU	asc. node	8446 Jul 19 09:47	8°♏52'02
asc. node	8444 Feb 01 16:15	10°♕19'22			8446 Aug 05 10:32	0°♐
morning rise	8444 Feb 05 06:26	8°♕15'05		evening rise	8446 Aug 06 12:02	1°♐18'57
direct	8444 Feb 19 22:39	3°♕58'20			8446 Aug 29 17:48	0°♑
greatest brilliancy	8444 Mar 01 18:23	6°♕10'01	-4.9m		8446 Sep 23 05:24	0°♒
	8444 Apr 03 11:58	0°♋			8446 Oct 17 23:04	0°♓
morning max el	8444 Apr 10 11:09	6°♋50'20	46°54'56	desc. node	8446 Nov 08 03:48	25°♓22'41
	8444 May 02 03:47	0°♌			8446 Nov 12 01:15	0°♔
desc. node	8444 May 23 10:36	24°♌21'27			8446 Dec 07 15:15	0°♕
	8444 May 28 06:00	0°♍			8447 Jan 03 00:12	0°♋
	8444 Jun 22 09:35	0°♎			8447 Jan 31 04:26	0°♌
	8444 Jul 17 03:43	0°♏		evening max el	8447 Feb 01 13:15	1°♌21'47 46°36'37

asc. node	8447 Mar 01 03:36	25°♈05'44			8449 Jul 02 18:21	0°♎	
	8447 Mar 09 14:20	0°♌			8449 Jul 26 22:30	0°♏	
greatest brilliancy	8447 Mar 13 19:42	1°♌45'59	-4.9m	morning set	8449 Jul 31 21:32	6°♏08'51	
retrograde	8447 Mar 23 16:17	3°♌35'25		asc. node	8449 Aug 15 21:51	24°♏44'01	
	8447 Apr 06 01:37	30°♌♈			8449 Aug 20 04:02	0°♐	
evening set	8447 Apr 09 18:41	27°♈56'25					
inferior conj	8447 Apr 13 07:09	25°♈47'59	8°38'28	superior conj	8449 Sep 07 18:26	22°♐59'16	0°51'36
minimum elong	8447 Apr 12 23:45	25°♈59'23	8°37'35	minimum elong	8449 Sep 07 09:15	22°♐30'56	0°51'12
min. Earth dist.	8447 Apr 13 01:35	25°♈56'34	0.27057 AU	max. Earth dist.	8449 Sep 09 02:58	24°♐39'42	1.73072 AU
morning rise	8447 Apr 16 04:52	24°♈01'36			8449 Sep 13 10:46	0°♑	
direct	8447 May 03 22:54	18°♈01'00			8449 Oct 07 18:37	0°♒	
greatest brilliancy	8447 May 13 11:16	19°♈43'56	-4.9m	evening rise	8449 Oct 14 07:22	8°♒02'23	
	8447 May 31 06:55	0°♌			8449 Nov 01 04:12	0°♑	
desc. node	8447 Jun 20 22:29	18°♌16'25			8449 Nov 25 16:21	0°♒	
morning max el	8447 Jun 23 06:36	20°♌35'31	46°47'08	desc. node	8449 Dec 05 15:32	12°♑09'31	
	8447 Jul 02 10:39	0°♐			8449 Dec 20 07:31	0°♑	
	8447 Jul 29 17:18	0°♎			8450 Jan 14 01:53	0°♑	
	8447 Aug 24 15:58	0°♏			8450 Feb 08 00:59	0°♈	
	8447 Sep 19 00:46	0°♐			8450 Mar 05 10:40	0°♌	
asc. node	8447 Oct 11 20:32	27°♐21'54		asc. node	8450 Mar 28 14:54	26°♌19'43	
	8447 Oct 14 00:56	0°♑			8450 Mar 31 23:23	0°♐	
	8447 Nov 07 18:11	0°♒		evening max el	8450 Apr 15 09:24	15°♐09'43	46°59'18
	8447 Dec 02 05:45	0°♑			8450 May 01 02:13	0°♎	
morning set	8447 Dec 20 06:00	22°♑12'35		greatest brilliancy	8450 May 25 19:32	16°♎12'11	-4.9m
	8447 Dec 26 13:12	0°♒		retrograde	8450 Jun 04 22:57	18°♎09'05	
	8448 Jan 19 17:47	0°♑		evening set	8450 Jun 20 23:00	13°♎09'33	
max. Earth dist.	8448 Jan 24 04:49	5°♑32'37	1.72268 AU	inferior conj	8450 Jun 25 20:16	10°♎13'25	5°23'08
				minimum elong	8450 Jun 26 06:34	9°♎57'31	5°20'17
superior conj	8448 Jan 27 04:58	9°♑16'58	0°10'34	min. Earth dist.	8450 Jun 25 20:22	10°♎13'15	0.27371 AU
minimum elong	8448 Jan 27 07:31	9°♑24'53	0°10'35	morning rise	8450 Jul 01 14:21	6°♎48'24	
behind sun begin	8448 Jan 26 12:52	8°♑26'55		direct	8450 Jul 16 14:39	2°♎22'58	
behind sun end	8448 Jan 28 02:09	10°♑22'52		desc. node	8450 Jul 18 10:01	2°♎26'48	
desc. node	8448 Jan 31 13:29	14°♑42'08		greatest brilliancy	8450 Jul 26 12:26	4°♎11'20	-4.8m
	8448 Feb 12 20:05	0°♑			8450 Aug 31 16:00	0°♏	
evening rise	8448 Mar 06 15:23	28°♑29'26		morning max el	8450 Sep 03 23:08	3°♏08'52	46°01'53
	8448 Mar 07 20:20	0°♈			8450 Sep 29 22:34	0°♐	
	8448 Mar 31 19:19	0°♌			8450 Oct 26 17:48	0°♑	
	8448 Apr 24 19:00	0°♐		asc. node	8450 Nov 08 08:53	14°♑37'24	
	8448 May 18 22:16	0°♎			8450 Nov 21 10:26	0°♒	
asc. node	8448 May 23 12:00	5°♎38'52			8450 Dec 16 10:59	0°♑	
	8448 Jun 12 08:41	0°♏			8451 Jan 10 01:06	0°♒	
	8448 Jul 07 07:00	0°♐			8451 Feb 03 08:26	0°♑	
	8448 Aug 02 02:14	0°♑			8451 Feb 27 11:06	0°♑	
	8448 Aug 29 17:48	0°♒		desc. node	8451 Feb 28 01:34	0°♑45'08	
evening max el	8448 Sep 07 06:50	8°♒30'41	45°45'42	morning set	8451 Mar 02 01:49	3°♑15'44	
desc. node	8448 Sep 12 06:57	13°♒15'23			8451 Mar 23 10:22	0°♈	
	8448 Oct 02 22:51	0°♑		max. Earth dist.	8451 Apr 10 16:06	22°♈54'25	1.71253 AU
greatest brilliancy	8448 Oct 16 05:39	6°♑51'52	-4.7m				
retrograde	8448 Oct 26 04:10	8°♑39'20		superior conj	8451 Apr 11 18:20	24°♈16'54	-1°21'22
evening set	8448 Nov 13 08:19	2°♑30'09		minimum elong	8451 Apr 11 09:52	23°♈50'18	1°21'17
inferior conj	8448 Nov 16 16:30	0°♑25'37	-8°24'07		8451 Apr 16 07:27	0°♌	
minimum elong	8448 Nov 16 21:11	0°♑18'13	8°23'38		8451 May 10 04:06	0°♐	
min. Earth dist.	8448 Nov 17 02:38	0°♑09'39	0.29046 AU	evening rise	8451 May 22 08:25	15°♐17'21	
	8448 Nov 17 08:46	30°♒♒			8451 Jun 03 02:23	0°♎	
morning rise	8448 Nov 20 09:56	28°♒06'39		asc. node	8451 Jun 20 23:46	22°♎18'49	
direct	8448 Dec 08 04:39	22°♒07'24			8451 Jun 27 04:19	0°♏	
greatest brilliancy	8448 Dec 19 01:00	24°♒15'30	-4.8m		8451 Jul 21 11:36	0°♐	
	8448 Dec 30 01:33	0°♑			8451 Aug 15 02:27	0°♑	
asc. node	8449 Jan 03 06:38	2°♑53'32			8451 Sep 09 04:41	0°♒	
morning max el	8449 Jan 26 19:00	23°♑27'29	46°11'59		8451 Oct 05 01:44	0°♑	
	8449 Feb 02 06:08	0°♒		desc. node	8451 Oct 10 18:16	6°♑25'10	
	8449 Mar 01 15:37	0°♑			8451 Nov 01 09:52	0°♒	
	8449 Mar 27 06:01	0°♑		evening max el	8451 Nov 18 17:05	17°♒27'04	45°51'17
	8449 Apr 21 01:12	0°♈			8451 Dec 02 15:49	0°♑	
desc. node	8449 Apr 25 00:22	4°♈51'07		greatest brilliancy	8451 Dec 28 00:52	15°♑51'01	-4.8m
	8449 May 15 10:29	0°♌		retrograde	8452 Jan 06 15:58	17°♑32'46	
	8449 Jun 08 15:02	0°♐		evening set	8452 Jan 21 10:07	13°♑17'36	

inferior conj	8452 Jan 27 13:27	9° \approx 40'04	-1°03'37	asc. node	8454 Jul 18 11:39	8° Ω 24'34	
minimum elong	8452 Jan 27 15:52	9° \approx 36'21	1°02'43	evening rise	8454 Aug 04 03:17	29° Ω 04'19	
min. Earth dist.	8452 Jan 28 03:02	9° \approx 19'07	0.27584 AU		8454 Aug 04 21:16	0° Π	
asc. node	8452 Jan 31 18:07	7° \approx 07'30			8454 Aug 29 04:37	0° Ω	
morning rise	8452 Feb 02 21:00	5° \approx 55'47			8454 Sep 22 16:25	0° Π	
direct	8452 Feb 17 13:55	1° \approx 39'10			8454 Oct 17 10:30	0° \mathcal{A}	
greatest brilliancy	8452 Feb 28 09:19	3° \approx 50'57	-4.9m	desc. node	8454 Nov 07 05:52	24° \mathcal{A} 53'03	
	8452 Apr 03 12:29	0° \mathcal{H}			8454 Nov 11 13:27	0° \mathcal{B}	
morning max el	8452 Apr 08 02:21	4° \mathcal{H} 32'18	46°53'57		8454 Dec 07 04:48	0° \approx	
	8452 May 01 20:22	0° Υ			8455 Jan 02 16:23	0° \mathcal{H}	
desc. node	8452 May 22 12:38	23° Υ 45'40		evening max el	8455 Jan 30 02:13	28° \mathcal{H} 57'46	46°34'53
	8452 May 27 19:54	0° \mathcal{B}			8455 Jan 31 03:25	0° Υ	
	8452 Jun 21 22:09	0° Π		asc. node	8455 Feb 28 05:40	23° Υ 40'51	
	8452 Jul 16 15:28	0° \mathcal{B}		greatest brilliancy	8455 Mar 11 09:04	29° Υ 20'31	-4.9m
	8452 Aug 10 05:22	0° Ω			8455 Mar 13 10:10	0° \mathcal{B}	
	8452 Sep 03 17:49	0° Π		retrograde	8455 Mar 21 04:25	1° \mathcal{B} 09'05	
asc. node	8452 Sep 12 10:10	10° Π 38'07			8455 Mar 28 16:49	30° \mathcal{R} Υ	
	8452 Sep 28 04:54	0° Ω		evening set	8455 Apr 07 03:00	25° Υ 37'04	
morning set	8452 Oct 09 09:31	13° Ω 45'17		inferior conj	8455 Apr 10 19:57	23° Υ 22'07	8°29'36
	8452 Oct 22 14:17	0° Π		minimum elong	8455 Apr 10 11:48	23° Υ 34'39	8°28'31
max. Earth dist.	8452 Nov 14 04:32	27° Π 51'16	1.73226 AU	min. Earth dist.	8455 Apr 10 14:39	23° Υ 30'16	0.27051 AU
				morning rise	8455 Apr 13 20:38	21° Υ 31'10	
superior conj	8452 Nov 14 22:38	28° Π 47'05	1°23'59	direct	8455 May 01 11:07	15° Υ 34'57	
minimum elong	8452 Nov 15 02:37	28° Π 59'21	1°24'07	greatest brilliancy	8455 May 11 01:07	17° Υ 18'52	-4.9m
	8452 Nov 15 22:16	0° \mathcal{A}			8455 May 31 22:20	0° \mathcal{B}	
	8452 Dec 10 05:32	0° \mathcal{B}		desc. node	8455 Jun 20 00:27	17° \mathcal{B} 22'57	
evening rise	8452 Dec 22 04:09	14° \mathcal{B} 44'55		morning max el	8455 Jun 20 18:42	18° \mathcal{B} 08'29	46°48'22
desc. node	8453 Jan 02 03:22	28° \mathcal{B} 17'42			8455 Jul 02 06:14	0° Π	
	8453 Jan 03 12:30	0° \approx			8455 Jul 29 08:26	0° \mathcal{B}	
	8453 Jan 27 19:06	0° \mathcal{H}			8455 Aug 24 05:09	0° Ω	
	8453 Feb 21 01:21	0° Υ			8455 Sep 18 12:52	0° Π	
	8453 Mar 17 08:32	0° \mathcal{B}		asc. node	8455 Oct 10 22:34	26° Π 53'26	
	8453 Apr 10 20:14	0° Π			8455 Oct 13 12:22	0° Ω	
asc. node	8453 Apr 25 02:21	17° Π 14'26			8455 Nov 07 05:12	0° Π	
	8453 May 05 19:00	0° \mathcal{B}			8455 Dec 01 16:33	0° \mathcal{A}	
	8453 May 31 17:21	0° Ω		morning set	8455 Dec 17 22:36	20° \mathcal{A} 02'24	
evening max el	8453 Jun 26 06:41	27° Ω 15'47	46°26'25		8455 Dec 25 23:55	0° \mathcal{B}	
	8453 Jun 29 01:21	0° Π			8456 Jan 19 04:33	0° \approx	
greatest brilliancy	8453 Aug 03 23:18	26° Π 47'21	-4.8m	max. Earth dist.	8456 Jan 21 20:29	3° \approx 18'41	1.72316 AU
desc. node	8453 Aug 14 21:34	29° Π 04'23					
retrograde	8453 Aug 15 03:49	29° Π 04'28		superior conj	8456 Jan 24 19:13	6° \approx 58'34	0°14'07
evening set	8453 Aug 30 14:17	24° Π 25'11		minimum elong	8456 Jan 24 22:35	7° \approx 09'01	0°14'07
min. Earth dist.	8453 Sep 04 18:21	21° Π 18'46	0.28539 AU	behind sun begin	8456 Jan 24 10:46	6° \approx 32'16	
inferior conj	8453 Sep 05 12:25	20° Π 50'32	-4°58'30	behind sun end	8456 Jan 25 10:25	7° \approx 45'47	
minimum elong	8453 Sep 05 03:02	21° Π 05'11	4°56'13	desc. node	8456 Jan 30 15:23	14° \approx 14'28	
morning rise	8453 Sep 10 16:26	17° Π 43'03			8456 Feb 12 06:57	0° \mathcal{H}	
direct	8453 Sep 26 20:33	12° Π 44'51		evening rise	8456 Mar 04 04:02	26° \mathcal{H} 04'37	
greatest brilliancy	8453 Oct 06 12:30	14° Π 26'43	-4.7m		8456 Mar 07 07:19	0° Υ	
	8453 Oct 31 14:47	0° Ω			8456 Mar 31 06:27	0° \mathcal{B}	
morning max el	8453 Nov 14 13:52	12° Ω 32'35	45°41'35		8456 Apr 24 06:20	0° Π	
	8453 Dec 01 19:55	0° Π			8456 May 18 09:55	0° \mathcal{B}	
asc. node	8453 Dec 05 20:55	4° Π 18'45		asc. node	8456 May 22 13:56	5° \mathcal{B} 08'46	
	8453 Dec 28 22:19	0° \mathcal{A}			8456 Jun 11 20:49	0° Ω	
	8454 Jan 23 12:30	0° \mathcal{B}			8456 Jul 06 20:00	0° Π	
	8454 Feb 17 08:24	0° \approx			8456 Aug 01 17:03	0° Ω	
	8454 Mar 13 17:56	0° \mathcal{H}			8456 Aug 29 13:24	0° Π	
desc. node	8454 Mar 27 14:04	17° \mathcal{H} 10'16		evening max el	8456 Sep 04 21:14	6° Π 15'52	45°46'31
	8454 Apr 06 21:06	0° Υ		desc. node	8456 Sep 11 09:01	12° Π 23'06	
	8454 Apr 30 20:27	0° \mathcal{B}			8456 Oct 04 01:37	0° \mathcal{A}	
morning set	8454 May 17 06:48	20° \mathcal{B} 37'06		greatest brilliancy	8456 Oct 13 20:11	4° \mathcal{A} 40'34	-4.7m
	8454 May 24 18:15	0° Π		retrograde	8456 Oct 23 20:03	6° \mathcal{A} 29'39	
	8454 Jun 17 16:43	0° \mathcal{B}		evening set	8456 Nov 11 01:22	0° \mathcal{A} 18'10	
					8456 Nov 11 13:19	30° \mathcal{R} Π	
superior conj	8454 Jun 26 01:57	10° \mathcal{B} 28'55	-0°51'06	inferior conj	8456 Nov 14 08:37	28° Π 15'14	-8°28'16
minimum elong	8454 Jun 26 12:30	11° \mathcal{B} 01'53	0°50'52	minimum elong	8456 Nov 14 12:36	28° Π 08'59	8°27'54
max. Earth dist.	8454 Jun 29 13:00	14° \mathcal{B} 48'14	1.71878 AU	min. Earth dist.	8456 Nov 14 17:46	28° Π 00'51	0.29072 AU
	8454 Jul 11 17:27	0° Ω		morning rise	8456 Nov 17 23:42	26° Π 00'01	




































































































































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greatest brilliancy	8456 Dec 16 16:58	22° \mathbb{M} 04'46	-4.8m	8459 Jul 20 23:06	0° \mathbb{M}	
	8456 Dec 30 23:18	0° \mathcal{A}		8459 Aug 14 14:22	0° \mathcal{E}	
asc. node	8457 Jan 02 08:28	1° \mathcal{A} 43'51		8459 Sep 08 17:26	0° \mathbb{M}	
morning max el	8457 Jan 24 10:30	21° \mathcal{A} 13'14	46°10'30	8459 Oct 04 16:06	0° \mathcal{A}	
	8457 Feb 02 01:34	0° \mathcal{B}		8459 Oct 09 20:18	5° \mathcal{A} 49'12	
	8457 Mar 01 06:35	0° \approx		8459 Nov 01 04:03	0° \mathcal{B}	
	8457 Mar 26 19:15	0° \mathcal{H}		8459 Nov 16 08:36	15° \mathcal{B} 14'00	45°50'14
	8457 Apr 20 13:33	0° \mathcal{Y}		8459 Dec 03 01:10	0° \approx	
desc. node	8457 Apr 24 02:23	4° \mathcal{Y} 19'45		8459 Dec 25 14:53	13° \approx 32'51	-4.8m
	8457 May 14 22:18	0° \mathcal{B}		8460 Jan 04 05:46	15° \approx 13'56	
	8457 Jun 08 02:30	0° \mathbb{I}		8460 Jan 19 01:44	10° \approx 56'53	
	8457 Jul 02 05:33	0° \mathcal{E}		8460 Jan 25 03:37	7° \approx 20'47	-1°25'56
	8457 Jul 26 09:29	0° \mathcal{O}		8460 Jan 25 06:52	7° \approx 15'46	1°24'46
morning set	8457 Jul 29 12:33	3° \mathcal{O} 52'42		8460 Jan 25 17:51	6° \approx 58'47	0.27630 AU
asc. node	8457 Aug 14 23:48	24° \mathcal{O} 16'32		8460 Jan 30 20:11	3° \approx 56'45	
	8457 Aug 19 14:52	0° \mathbb{M}		8460 Jan 31 11:24	3° \approx 35'52	
				8460 Feb 09 10:57	30° \mathcal{R} \mathcal{B}	
superior conj	8457 Sep 05 11:00	20° \mathbb{M} 48'55	0°48'52	8460 Feb 15 05:03	29° \mathcal{B} 19'24	
minimum elong	8457 Sep 05 02:02	20° \mathbb{M} 21'13	0°48'27	8460 Feb 21 02:20	0° \approx	
max. Earth dist.	8457 Sep 06 20:55	22° \mathbb{M} 33'39	1.73048 AU	8460 Feb 26 00:22	1° \approx 31'02	-4.9m
	8457 Sep 12 21:32	0° \mathcal{E}		8460 Apr 03 12:16	0° \mathcal{H}	
	8457 Oct 07 05:26	0° \mathbb{M}		8460 Apr 05 16:42	2° \mathcal{H} 11'08	46°53'04
evening rise	8457 Oct 12 00:56	5° \mathbb{M} 55'27		8460 May 01 12:57	0° \mathcal{Y}	
	8457 Oct 31 15:10	0° \mathcal{A}		8460 May 21 14:34	23° \mathcal{Y} 08'54	
	8457 Nov 25 03:35	0° \mathcal{B}		8460 May 27 09:57	0° \mathcal{B}	
desc. node	8457 Dec 04 17:26	11° \mathcal{B} 40'43		8460 Jun 21 10:57	0° \mathbb{I}	
	8457 Dec 19 19:09	0° \approx		8460 Jul 16 03:30	0° \mathcal{E}	
	8458 Jan 13 14:07	0° \mathcal{H}		8460 Aug 09 16:55	0° \mathcal{O}	
	8458 Feb 07 14:12	0° \mathcal{Y}		8460 Sep 03 05:01	0° \mathbb{M}	
	8458 Mar 05 01:36	0° \mathcal{B}		8460 Sep 11 12:14	10° \mathbb{M} 10'26	
asc. node	8458 Mar 27 16:56	25° \mathcal{B} 35'49		8460 Sep 27 15:51	0° \mathcal{E}	
	8458 Mar 31 18:08	0° \mathbb{I}		8460 Oct 07 02:41	11° \mathcal{E} 37'02	
evening max el	8458 Apr 12 23:30	12° \mathbb{I} 47'10	46°59'30	8460 Oct 22 01:07	0° \mathbb{M}	
	8458 May 01 11:37	0° \mathcal{E}		8460 Nov 11 23:07	25° \mathbb{M} 47'17	1.73237 AU
greatest brilliancy	8458 May 23 09:41	13° \mathcal{E} 49'09	-4.9m			
retrograde	8458 Jun 02 13:15	15° \mathcal{E} 46'12		8460 Nov 12 16:04	26° \mathbb{M} 39'33	1°24'38
evening set	8458 Jun 18 15:45	10° \mathcal{E} 42'00		8460 Nov 12 19:22	26° \mathbb{M} 49'44	1°24'46
inferior conj	8458 Jun 23 09:45	7° \mathcal{E} 50'44	5°41'57	8460 Nov 15 09:03	0° \mathcal{A}	
minimum elong	8458 Jun 23 20:21	7° \mathcal{E} 34'25	5°39'07	8460 Dec 09 16:23	0° \mathcal{B}	
min. Earth dist.	8458 Jun 23 10:07	7° \mathcal{E} 50'10	0.27353 AU	8460 Dec 19 19:56	12° \mathcal{B} 31'37	
morning rise	8458 Jun 29 01:10	4° \mathcal{E} 29'48		8461 Jan 01 05:17	27° \mathcal{B} 49'34	
direct	8458 Jul 14 04:10	0° \mathcal{E} 00'27		8461 Jan 02 23:32	0° \approx	
desc. node	8458 Jul 17 11:57	0° \mathcal{E} 13'24		8461 Jan 27 06:24	0° \mathcal{H}	
greatest brilliancy	8458 Jul 24 01:22	1° \mathcal{E} 48'58	-4.8m	8461 Feb 20 12:58	0° \mathcal{Y}	
	8458 Aug 31 16:10	0° \mathcal{O}		8461 Mar 16 20:35	0° \mathcal{B}	
morning max el	8458 Sep 01 14:30	0° \mathcal{O} 53'48	46°03'20	8461 Apr 10 08:55	0° \mathbb{I}	
	8458 Sep 29 14:57	0° \mathbb{M}		8461 Apr 24 04:19	16° \mathbb{I} 40'30	
	8458 Oct 26 07:27	0° \mathcal{E}		8461 May 05 08:50	0° \mathcal{E}	
asc. node	8458 Nov 07 10:48	14° \mathcal{E} 05'10		8461 May 31 09:39	0° \mathcal{O}	
	8458 Nov 20 22:47	0° \mathbb{M}		8461 Jun 23 22:03	24° \mathcal{O} 59'42	46°27'53
	8458 Dec 15 22:40	0° \mathcal{A}		8461 Jun 29 00:59	0° \mathbb{M}	
	8459 Jan 09 12:26	0° \mathcal{B}		8461 Aug 01 15:56	24° \mathbb{M} 34'51	-4.8m
	8459 Feb 02 19:33	0° \approx		8461 Aug 12 19:21	26° \mathbb{M} 51'02	
	8459 Feb 26 22:08	0° \mathcal{H}		8461 Aug 13 23:38	26° \mathbb{M} 49'23	
desc. node	8459 Feb 27 03:40	0° \mathcal{H} 17'16		8461 Aug 28 04:04	22° \mathbb{M} 15'11	
morning set	8459 Feb 27 14:12	0° \mathcal{H} 50'08		8461 Sep 02 10:15	19° \mathbb{M} 05'46	0.28490 AU
	8459 Mar 22 21:22	0° \mathcal{Y}		8461 Sep 03 04:03	18° \mathbb{M} 37'55	-4°41'25
max. Earth dist.	8459 Apr 08 02:04	20° \mathcal{Y} 20'17	1.71267 AU	8461 Sep 02 19:00	18° \mathbb{M} 52'05	4°39'08
				8461 Sep 08 10:32	15° \mathbb{M} 26'44	
superior conj	8459 Apr 09 05:31	21° \mathcal{Y} 46'35	-1°19'48	8461 Sep 24 11:45	10° \mathbb{M} 33'06	
minimum elong	8459 Apr 08 20:21	21° \mathcal{Y} 17'44	1°19'41	8461 Oct 04 03:34	12° \mathbb{M} 14'31	-4.7m
	8459 Apr 15 18:28	0° \mathcal{B}		8461 Oct 31 20:43	0° \mathcal{E}	
	8459 May 09 15:10	0° \mathbb{I}		8461 Nov 12 03:51	10° \mathcal{E} 17'12	45°41'22
evening rise	8459 May 19 19:24	12° \mathbb{I} 46'36		8461 Dec 01 13:15	0° \mathbb{M}	
	8459 Jun 02 13:31	0° \mathcal{E}		8461 Dec 04 22:48	3° \mathbb{M} 38'52	
asc. node	8459 Jun 20 01:39	21° \mathcal{E} 49'47		8461 Dec 28 12:18	0° \mathcal{A}	






































































































































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	8462 Feb 16 20:17	0°☾			8464 Oct 05 15:24	0°☾	
	8462 Mar 13 05:27	0°☾		greatest brilliancy	8464 Oct 11 10:12	2°☾29'34	-4.7m
desc. node	8462 Mar 26 15:58	16°☾40'49		retrograde	8464 Oct 21 12:30	4°☾20'49	
	8462 Apr 06 08:24	0°☾			8464 Nov 05 12:19	30°☾	
	8462 Apr 30 07:34	0°☾		evening set	8464 Nov 08 18:18	28°☾07'22	
morning set	8462 May 14 18:11	18°☾07'33		inferior conj	8464 Nov 12 00:53	26°☾05'35	-8°31'43
	8462 May 24 05:15	0°☾		minimum elong	8464 Nov 12 04:08	26°☾00'28	8°31'24
	8462 Jun 17 03:36	0°☾		min. Earth dist.	8464 Nov 12 08:40	25°☾53'21	0.29098 AU
				morning rise	8464 Nov 15 13:52	23°☾53'46	
superior conj	8462 Jun 23 15:04	8°☾06'02	-0°54'06	direct	8464 Dec 03 13:05	17°☾46'48	
minimum elong	8462 Jun 24 01:57	8°☾40'00	0°53'51	greatest brilliancy	8464 Dec 14 08:40	19°☾54'28	-4.8m
max. Earth dist.	8462 Jun 27 01:47	12°☾24'25	1.71829 AU		8464 Dec 31 15:08	0°☾	
	8462 Jul 11 04:17	0°☾		asc. node	8465 Jan 01 10:32	0°☾36'54	
asc. node	8462 Jul 17 13:41	7°☾57'12		morning max el	8465 Jan 22 02:52	19°☾01'36	46°08'57
evening rise	8462 Aug 01 18:42	26°☾49'46			8465 Feb 01 20:19	0°☾	
	8462 Aug 04 08:07	0°☾			8465 Feb 28 21:14	0°☾	
	8462 Aug 28 15:34	0°☾			8465 Mar 26 08:13	0°☾	
	8462 Sep 22 03:36	0°☾			8465 Apr 20 01:39	0°☾	
	8462 Oct 16 22:08	0°☾		desc. node	8465 Apr 23 04:17	3°☾48'40	
desc. node	8462 Nov 06 07:42	24°☾22'07			8465 May 14 09:54	0°☾	
	8462 Nov 11 01:52	0°☾			8465 Jun 07 13:46	0°☾	
	8462 Dec 06 18:38	0°☾			8465 Jul 01 16:35	0°☾	
	8463 Jan 02 08:59	0°☾			8465 Jul 25 20:19	0°☾	
evening max el	8463 Jan 27 14:35	26°☾32'09	46°33'14	morning set	8465 Jul 27 03:36	1°☾37'02	
	8463 Jan 31 03:36	0°☾		asc. node	8465 Aug 14 01:51	23°☾49'50	
asc. node	8463 Feb 27 07:41	22°☾12'44			8465 Aug 19 01:32	0°☾	
greatest brilliancy	8463 Mar 08 22:08	26°☾54'25	-4.9m				
retrograde	8463 Mar 18 16:41	28°☾42'47		superior conj	8465 Sep 03 03:38	18°☾39'18	0°46'04
evening set	8463 Apr 04 11:13	23°☾17'20		minimum elong	8465 Sep 02 18:56	18°☾12'25	0°45'39
inferior conj	8463 Apr 08 08:44	20°☾55'58	8°19'43	max. Earth dist.	8465 Sep 04 16:37	20°☾33'31	1.73019 AU
minimum elong	8463 Apr 07 23:57	21°☾09'30	8°18'26		8465 Sep 12 08:05	0°☾	
min. Earth dist.	8463 Apr 08 03:44	21°☾03'41	0.27048 AU		8465 Oct 06 16:01	0°☾	
morning rise	8463 Apr 11 12:39	19°☾00'18		evening rise	8465 Oct 09 18:44	3°☾49'57	
direct	8463 Apr 28 23:24	13°☾08'22			8465 Oct 31 01:54	0°☾	
greatest brilliancy	8463 May 08 15:09	14°☾53'44	-4.9m		8465 Nov 24 14:35	0°☾	
	8463 Jun 01 09:59	0°☾		desc. node	8465 Dec 03 19:25	11°☾12'47	
morning max el	8463 Jun 18 07:30	15°☾42'53	46°49'47		8465 Dec 19 06:35	0°☾	
desc. node	8463 Jun 19 02:20	16°☾30'06			8466 Jan 13 02:13	0°☾	
	8463 Jul 02 01:19	0°☾			8466 Feb 07 03:20	0°☾	
	8463 Jul 28 23:23	0°☾			8466 Mar 04 16:33	0°☾	
	8463 Aug 23 18:14	0°☾		asc. node	8466 Mar 26 18:52	24°☾51'43	
	8463 Sep 18 00:53	0°☾			8466 Mar 31 13:10	0°☾	
asc. node	8463 Oct 10 00:26	26°☾24'34		evening max el	8466 Apr 10 14:08	10°☾26'34	46°59'39
	8463 Oct 12 23:46	0°☾			8466 May 01 23:56	0°☾	
	8463 Nov 06 16:12	0°☾		greatest brilliancy	8466 May 20 23:35	11°☾26'28	-4.9m
	8463 Dec 01 03:22	0°☾		retrograde	8466 May 31 03:34	13°☾23'33	
morning set	8463 Dec 15 15:13	17°☾52'12		evening set	8466 Jun 16 08:34	8°☾14'47	
	8463 Dec 25 10:40	0°☾		inferior conj	8466 Jun 20 23:07	5°☾28'18	6°00'16
	8464 Jan 18 15:19	0°☾		minimum elong	8466 Jun 21 09:57	5°☾11'38	5°57'26
max. Earth dist.	8464 Jan 19 14:06	1°☾10'49	1.72361 AU	min. Earth dist.	8466 Jun 20 23:30	5°☾27'43	0.27336 AU
				morning rise	8466 Jun 26 11:37	2°☾11'42	
superior conj	8464 Jan 22 09:28	4°☾40'09	0°17'40		8466 Jun 30 22:21	30°☾	
minimum elong	8464 Jan 22 13:37	4°☾53'04	0°17'37	direct	8466 Jul 11 17:57	27°☾38'24	
desc. node	8464 Jan 29 17:26	13°☾47'18		desc. node	8466 Jul 16 14:05	28°☾05'41	
	8464 Feb 11 17:47	0°☾		greatest brilliancy	8466 Jul 21 13:47	29°☾26'20	-4.8m
evening rise	8464 Mar 01 16:48	23°☾40'21			8466 Jul 23 01:57	0°☾	
	8464 Mar 06 18:16	0°☾		morning max el	8466 Aug 30 05:35	28°☾38'38	46°04'50
	8464 Mar 30 17:34	0°☾			8466 Aug 31 15:01	0°☾	
	8464 Apr 23 17:41	0°☾			8466 Sep 29 06:45	0°☾	
	8464 May 17 21:35	0°☾			8466 Oct 25 20:40	0°☾	
asc. node	8464 May 21 15:50	4°☾38'29		asc. node	8466 Nov 06 12:45	13°☾34'10	
	8464 Jun 11 08:57	0°☾			8466 Nov 20 10:45	0°☾	
	8464 Jul 06 09:02	0°☾			8466 Dec 15 09:59	0°☾	
	8464 Aug 01 07:56	0°☾			8467 Jan 08 23:24	0°☾	
	8464 Aug 29 09:23	0°☾			8467 Feb 02 06:22	0°☾	
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


































































































































desc. node	8467 Feb 26 05:36	29° \approx 49'48	evening set	8469 Aug 25 17:48	20° \cap 05'03
	8467 Feb 26 08:53	0° H	min. Earth dist.	8469 Aug 31 02:09	16° \cap 52'47 0.28440 AU
	8467 Mar 22 08:07	0° Y	inferior conj	8469 Aug 31 19:31	16° \cap 25'38 -4°23'42
max. Earth dist.	8467 Apr 05 08:50	17° Y 36'55 1.71280 AU	minimum elong	8469 Aug 31 10:50	16° \cap 39'13 4°21'28
			morning rise	8469 Sep 06 04:24	13° \cap 10'53
superior conj	8467 Apr 06 16:32	19° Y 16'31 -1°18'05	direct	8469 Sep 22 02:18	8° \cap 21'28
minimum elong	8467 Apr 06 06:42	18° Y 45'39 1°17'54	greatest brilliancy	8469 Oct 01 18:56	10° \cap 03'09 -4.7m
	8467 Apr 15 05:14	0° B		8469 Nov 01 00:21	0° $\underline{\text{A}}$
	8467 May 09 01:57	0° II	morning max el	8469 Nov 09 17:41	8° $\underline{\text{A}}$ 02'16 45°41'20
evening rise	8467 May 17 06:06	10° II 15'44		8469 Dec 01 05:53	0° \cap
	8467 Jun 02 00:21	0° E	asc. node	8469 Dec 04 00:50	3° \cap 00'43
asc. node	8467 Jun 19 03:42	21° E 22'13		8469 Dec 28 01:50	0° A
	8467 Jun 26 02:31	0° Ω		8470 Jan 22 13:15	0° B
	8467 Jul 20 10:18	0° \cap		8470 Feb 16 07:47	0° \approx
	8467 Aug 14 02:02	0° $\underline{\text{A}}$		8470 Mar 12 16:35	0° H
	8467 Sep 08 05:55	0° \cap	desc. node	8470 Mar 25 17:52	16° H 12'31
	8467 Oct 04 06:15	0° A		8470 Apr 05 19:20	0° Y
desc. node	8467 Oct 08 22:13	5° A 13'39		8470 Apr 29 18:23	0° B
	8467 Oct 31 22:14	0° B	morning set	8470 May 12 05:15	15° B 37'50
evening max el	8467 Nov 13 23:20	13° B 00'23 45°49'15		8470 May 23 15:58	0° II
	8467 Dec 03 12:59	0° \approx		8470 Jun 16 14:16	0° E
greatest brilliancy	8467 Dec 23 05:27	11° \approx 16'58 -4.8m			
retrograde	8468 Jan 01 19:12	12° \approx 56'55	superior conj	8470 Jun 21 03:43	5° E 42'16 -0°57'02
evening set	8468 Jan 16 17:38	8° \approx 37'40	minimum elong	8470 Jun 21 14:50	6° E 17'01 0°56'48
inferior conj	8468 Jan 22 17:58	5° \approx 03'22 -1°47'57	max. Earth dist.	8470 Jun 24 11:02	9° E 50'08 1.71785 AU
minimum elong	8468 Jan 22 21:59	4° \approx 57'07 1°46'32		8470 Jul 10 14:55	0° Ω
min. Earth dist.	8468 Jan 23 09:02	4° \approx 40'00 0.27680 AU	asc. node	8470 Jul 16 15:39	7° Ω 30'19
morning rise	8468 Jan 29 01:44	1° \approx 17'55	evening rise	8470 Jul 30 09:31	24° Ω 34'02
asc. node	8468 Jan 29 22:12	0° \approx 50'43		8470 Aug 03 18:46	0° \cap
	8468 Jan 31 15:03	30° K B		8470 Aug 28 02:18	0° $\underline{\text{A}}$
direct	8468 Feb 12 19:50	27° B 01'19		8470 Sep 21 14:35	0° \cap
greatest brilliancy	8468 Feb 23 15:59	29° B 13'13 -4.9m		8470 Oct 16 09:35	0° A
	8468 Feb 25 13:01	0° \approx	desc. node	8470 Nov 05 09:44	23° A 52'16
	8468 Apr 03 10:40	0° H		8470 Nov 10 14:10	0° B
morning max el	8468 Apr 03 06:12	29° \approx 48'45 46°51'58		8470 Dec 06 08:23	0° \approx
	8468 May 01 04:58	0° Y		8471 Jan 02 01:38	0° H
desc. node	8468 May 20 16:31	22° Y 33'19	evening max el	8471 Jan 25 03:26	24° H 08'59 46°31'47
	8468 May 26 23:37	0° B		8471 Jan 31 04:33	0° Y
	8468 Jun 20 23:23	0° II	asc. node	8471 Feb 26 09:35	20° Y 42'37
	8468 Jul 15 15:12	0° E	greatest brilliancy	8471 Mar 06 10:38	24° Y 29'09 -4.9m
	8468 Aug 09 04:06	0° Ω	retrograde	8471 Mar 16 05:34	26° Y 18'13
	8468 Sep 02 15:52	0° \cap	evening set	8471 Apr 01 19:32	20° Y 58'57
asc. node	8468 Sep 10 14:03	9° \cap 43'05	inferior conj	8471 Apr 05 21:38	18° Y 31'15 8°08'50
	8468 Sep 27 02:28	0° $\underline{\text{A}}$	minimum elong	8471 Apr 05 12:16	18° Y 45'38 8°07'22
morning set	8468 Oct 04 19:39	9° $\underline{\text{A}}$ 29'11	min. Earth dist.	8471 Apr 05 16:32	18° Y 39'05 0.27046 AU
	8468 Oct 21 11:36	0° \cap	morning rise	8471 Apr 09 04:59	16° Y 30'42
max. Earth dist.	8468 Nov 09 15:55	23° \cap 38'50 1.73246 AU	direct	8471 Apr 26 12:12	10° Y 43'16
			greatest brilliancy	8471 May 06 04:45	12° Y 29'37 -4.9m
superior conj	8468 Nov 10 09:36	24° \cap 33'21 1°25'09		8471 Jun 01 18:07	0° B
minimum elong	8468 Nov 10 12:11	24° \cap 41'22 1°25'17	morning max el	8471 Jun 15 21:18	13° B 20'42 46°50'52
	8468 Nov 14 19:30	0° A	desc. node	8471 Jun 18 04:28	15° B 39'45
	8468 Dec 09 02:54	0° B		8471 Jul 01 19:39	0° II
evening rise	8468 Dec 17 11:54	10° B 20'09		8471 Jul 28 13:58	0° E
desc. node	8468 Dec 31 07:21	27° B 23'03		8471 Aug 23 07:05	0° Ω
	8469 Jan 02 10:12	0° \approx		8471 Sep 17 12:44	0° \cap
	8469 Jan 26 17:20	0° H	asc. node	8471 Oct 09 02:25	25° \cap 56'31
	8469 Feb 20 00:15	0° Y		8471 Oct 12 10:58	0° $\underline{\text{A}}$
	8469 Mar 16 08:20	0° B		8471 Nov 06 03:02	0° \cap
	8469 Apr 09 21:23	0° II		8471 Nov 30 14:00	0° A
asc. node	8469 Apr 23 06:12	16° II 07'00	morning set	8471 Dec 13 07:44	15° A 42'15
	8469 May 04 22:33	0° E		8471 Dec 24 21:15	0° B
	8469 May 31 02:00	0° Ω	max. Earth dist.	8472 Jan 17 07:51	29° B 03'49 1.72401 AU
evening max el	8469 Jun 21 12:17	22° Ω 41'18 46°29'28		8472 Jan 18 01:56	0° \approx
	8469 Jun 29 01:30	0° \cap			
greatest brilliancy	8469 Jul 30 08:29	22° \cap 22'31 -4.8m	superior conj	8472 Jan 19 23:45	2° \approx 22'18 0°21'11
retrograde	8469 Aug 10 10:33	24° \cap 37'59	minimum elong	8472 Jan 20 04:39	2° \approx 37'34 0°21'06
desc. node	8469 Aug 13 01:35	24° \cap 29'44	desc. node	8472 Jan 28 19:21	13° \approx 20'10

	8472 Feb 11 04:29	0° H		greatest brilliancy	8474 Jul 19 02:12	27° II 04'04	-4.8m
evening rise	8472 Feb 28 05:46	21° H 17'20			8474 Jul 25 17:04	0° G	
	8472 Mar 06 05:03	0° Y		morning max el	8474 Aug 27 19:48	26° G 21'29	46°06'11
	8472 Mar 30 04:29	0° B			8474 Aug 31 12:49	0° Q	
	8472 Apr 23 04:48	0° II			8474 Sep 28 22:18	0° M	
	8472 May 17 09:02	0° G			8474 Oct 25 09:52	0° L	
asc. node	8472 May 20 17:55	4° G 09'26		asc. node	8474 Nov 05 14:46	13° L 03'09	
	8472 Jun 10 20:56	0° Q			8474 Nov 19 22:48	0° M	
	8472 Jul 05 21:59	0° M			8474 Dec 14 21:25	0° X	
	8472 Jul 31 22:56	0° L			8475 Jan 08 10:30	0° Z	
	8472 Aug 29 06:03	0° M			8475 Feb 01 17:18	0° \approx	
evening max el	8472 Aug 31 04:20	1° M 53'02	45°48'22	morning set	8475 Feb 22 14:48	25° \approx 59'53	
desc. node	8472 Sep 09 12:56	10° M 36'03		desc. node	8475 Feb 25 07:27	29° \approx 21'31	
	8472 Oct 08 04:04	0° X			8475 Feb 25 19:46	0° H	
greatest brilliancy	8472 Oct 09 00:07	0° X 18'19	-4.7m		8475 Mar 21 19:01	0° Y	
retrograde	8472 Oct 19 05:01	2° X 11'29		max. Earth dist.	8475 Apr 02 12:55	14° Y 44'41	1.71297 AU
	8472 Oct 29 16:52	30° R M					
evening set	8472 Nov 06 10:48	25° M 56'49		superior conj	8475 Apr 04 03:32	16° Y 46'00	-1°16'11
inferior conj	8472 Nov 09 16:59	23° M 55'33	-8°34'22	minimum elong	8475 Apr 03 17:09	16° Y 13'24	1°15'59
minimum elong	8472 Nov 09 19:30	23° M 51'35	8°34'07		8475 Apr 14 16:10	0° B	
min. Earth dist.	8472 Nov 09 23:06	23° M 45'56	0.29119 AU		8475 May 08 12:54	0° II	
morning rise	8472 Nov 13 04:08	21° M 46'37		evening rise	8475 May 14 16:45	7° II 44'07	
direct	8472 Dec 01 05:48	15° M 36'50			8475 Jun 01 11:21	0° G	
greatest brilliancy	8472 Dec 11 23:27	17° M 43'06	-4.8m	asc. node	8475 Jun 18 05:39	20° G 53'52	
asc. node	8472 Dec 31 12:35	29° M 31'43			8475 Jun 25 13:37	0° Q	
	8473 Jan 01 02:53	0° X			8475 Jul 19 21:38	0° M	
morning max el	8473 Jan 19 19:09	16° X 50'02	46°07'21		8475 Aug 13 13:49	0° L	
	8473 Feb 01 14:34	0° Z			8475 Sep 07 18:35	0° M	
	8473 Feb 28 11:40	0° \approx			8475 Oct 03 20:44	0° X	
	8473 Mar 25 21:03	0° H		desc. node	8475 Oct 08 00:13	4° X 37'37	
	8473 Apr 19 13:38	0° Y			8475 Oct 31 17:10	0° Z	
desc. node	8473 Apr 22 06:15	3° Y 18'10		evening max el	8475 Nov 11 13:21	10° Z 44'19	45°48'11
	8473 May 13 21:22	0° B			8475 Dec 04 05:23	0° \approx	
	8473 Jun 07 00:54	0° II		greatest brilliancy	8475 Dec 20 20:27	9° \approx 00'47	-4.8m
	8473 Jul 01 03:29	0° G		retrograde	8475 Dec 30 08:28	10° \approx 39'29	
morning set	8473 Jul 24 18:48	29° G 22'06		evening set	8476 Jan 14 09:42	6° \approx 17'32	
	8473 Jul 25 07:01	0° Q		inferior conj	8476 Jan 20 08:23	2° \approx 45'29	-2°09'35
asc. node	8473 Aug 13 03:41	23° Q 22'39		minimum elong	8476 Jan 20 13:11	2° \approx 38'02	2°07'57
	8473 Aug 18 12:07	0° M		min. Earth dist.	8476 Jan 21 00:34	2° \approx 20'21	0.27732 AU
					8476 Jan 24 21:12	30° R Z	
superior conj	8473 Aug 31 20:07	16° M 29'13	0°43'11	morning rise	8476 Jan 26 15:55	28° Z 59'48	
minimum elong	8473 Aug 31 11:45	16° M 03'23	0°42'46	asc. node	8476 Jan 29 00:03	27° Z 47'48	
max. Earth dist.	8473 Sep 02 13:01	18° M 35'36	1.72994 AU	direct	8476 Feb 10 10:17	24° Z 42'32	
	8473 Sep 11 18:39	0° L		greatest brilliancy	8476 Feb 21 08:10	26° Z 55'28	-4.8m
	8473 Oct 06 02:38	0° M			8476 Feb 27 18:23	0° \approx	
evening rise	8473 Oct 07 12:15	1° M 43'30		morning max el	8476 Mar 31 19:22	27° \approx 24'40	46°50'53
	8473 Oct 30 12:40	0° X			8476 Apr 03 08:31	0° H	
	8473 Nov 24 01:39	0° Z			8476 Apr 30 21:00	0° Y	
desc. node	8473 Dec 02 21:27	10° Z 44'48		desc. node	8476 May 19 18:33	21° Y 57'23	
	8473 Dec 18 18:07	0° \approx			8476 May 26 13:26	0° B	
	8474 Jan 12 14:28	0° H			8476 Jun 20 12:02	0° II	
	8474 Feb 06 16:40	0° Y			8476 Jul 15 03:06	0° G	
	8474 Mar 04 07:48	0° B			8476 Aug 08 15:30	0° Q	
asc. node	8474 Mar 25 20:52	24° B 07'01			8476 Sep 02 02:54	0° M	
	8474 Mar 31 08:51	0° II		asc. node	8476 Sep 09 16:02	9° M 15'37	
evening max el	8474 Apr 08 05:04	8° II 06'33	46°59'48		8476 Sep 26 13:17	0° L	
	8474 May 02 16:26	0° G		morning set	8476 Oct 02 12:57	7° L 21'43	
greatest brilliancy	8474 May 18 14:06	9° G 04'48	-4.9m		8476 Oct 20 22:18	0° M	
retrograde	8474 May 28 17:49	11° G 01'09		max. Earth dist.	8476 Nov 07 09:28	21° M 32'00	1.73262 AU
evening set	8474 Jun 14 01:37	5° G 48'09					
inferior conj	8474 Jun 18 12:40	3° G 06'26	6°17'47	superior conj	8476 Nov 08 03:26	22° M 27'26	1°25'32
minimum elong	8474 Jun 18 23:38	2° G 49'33	6°15'02	minimum elong	8476 Nov 08 05:20	22° M 33'17	1°25'41
min. Earth dist.	8474 Jun 18 13:04	3° G 05'49	0.27313 AU		8476 Nov 14 06:13	0° X	
morning rise	8474 Jun 23 21:57	29° II 54'15			8476 Dec 08 13:43	0° Z	
	8474 Jun 23 17:49	30° R II		evening rise	8476 Dec 15 04:05	8° Z 08'29	
direct	8474 Jul 09 07:46	25° II 17'10		desc. node	8476 Dec 30 09:15	26° Z 54'59	
desc. node	8474 Jul 15 15:57	26° II 03'29			8477 Jan 01 21:14	0° \approx	

	8477 Jan 26 04:37	0° H		asc. node	8479 Oct 08 04:26	25° H 27'42	
	8477 Feb 19 11:54	0° Y			8479 Oct 11 22:27	0° L	
	8477 Mar 15 20:28	0° B			8479 Nov 05 14:08	0° M	
	8477 Apr 09 10:16	0° II			8479 Nov 30 00:54	0° X	
asc. node	8477 Apr 22 08:17	15° II 32'47		morning set	8479 Dec 11 00:49	13° X 33'23	
	8477 May 04 12:47	0° E			8479 Dec 24 08:06	0° Z	
	8477 May 30 19:05	0° Q		max. Earth dist.	8480 Jan 15 01:57	26° Z 57'13	1.72443 AU
evening max el	8477 Jun 19 02:11	20° Q 20'59	46°31'09				
	8477 Jun 29 03:47	0° P		superior conj	8480 Jan 17 14:34	0° \approx 05'26	0°24'36
greatest brilliancy	8477 Jul 28 00:58	20° P 09'09	-4.8m	minimum elong	8480 Jan 17 20:10	0° \approx 22'50	0°24'30
retrograde	8477 Aug 08 02:11	22° P 24'29			8480 Jan 17 12:49	0° \approx	
desc. node	8477 Aug 12 03:32	22° P 04'39		desc. node	8480 Jan 27 21:17	12° \approx 52'15	
evening set	8477 Aug 23 07:49	17° P 53'53			8480 Feb 10 15:27	0° H	
inferior conj	8477 Aug 29 11:06	14° P 12'47	-4°05'37	evening rise	8480 Feb 25 18:58	18° H 54'04	
minimum elong	8477 Aug 29 02:49	14° P 25'43	4°03'27		8480 Mar 05 16:10	0° Y	
min. Earth dist.	8477 Aug 28 18:09	14° P 39'15	0.28389 AU		8480 Mar 29 15:48	0° B	
morning rise	8477 Sep 03 22:20	10° P 54'51			8480 Apr 22 16:22	0° II	
direct	8477 Sep 19 16:48	6° P 09'11			8480 May 16 20:55	0° E	
greatest brilliancy	8477 Sep 29 10:32	7° P 51'36	-4.7m	asc. node	8480 May 19 19:50	3° E 38'32	
	8477 Nov 01 02:35	0° L			8480 Jun 10 09:22	0° Q	
morning max el	8477 Nov 07 08:15	5° L 48'33	45°41'24		8480 Jul 05 11:25	0° P	
	8477 Nov 30 22:25	0° M			8480 Jul 31 14:33	0° L	
asc. node	8477 Dec 03 02:49	2° M 22'12		evening max el	8480 Aug 28 20:45	29° L 42'43	45°49'21
	8477 Dec 27 15:30	0° X			8480 Aug 29 03:52	0° M	
	8478 Jan 22 01:42	0° Z		desc. node	8480 Sep 08 15:00	9° M 40'15	
	8478 Feb 15 19:39	0° \approx		greatest brilliancy	8480 Oct 06 14:47	28° M 07'18	-4.7m
	8478 Mar 12 04:07	0° H			8480 Oct 15 17:21	0° X	
desc. node	8478 Mar 24 19:56	15° H 43'31		retrograde	8480 Oct 16 21:30	0° X 01'36	
	8478 Apr 05 06:39	0° Y			8480 Oct 18 01:28	30° R M	
	8478 Apr 29 05:33	0° B		evening set	8480 Nov 04 03:12	23° M 46'33	
morning set	8478 May 09 16:04	13° B 06'09		inferior conj	8480 Nov 07 09:13	21° M 45'17	-8°36'21
	8478 May 23 03:03	0° II		minimum elong	8480 Nov 07 10:58	21° M 42'31	8°36'10
	8478 Jun 16 01:17	0° E		min. Earth dist.	8480 Nov 07 13:42	21° M 38'13	0.29131 AU
				morning rise	8480 Nov 10 18:45	19° M 38'46	
superior conj	8478 Jun 18 16:11	3° E 16'46	-0°59'52	direct	8480 Nov 28 22:37	13° M 26'53	
minimum elong	8478 Jun 19 03:30	3° E 52'08	0°59'40	greatest brilliancy	8480 Dec 09 13:47	15° M 30'58	-4.8m
max. Earth dist.	8478 Jun 21 19:35	7° E 12'29	1.71743 AU	asc. node	8480 Dec 30 14:24	28° M 27'29	
	8478 Jul 10 01:55	0° Q			8481 Jan 01 11:38	0° X	
asc. node	8478 Jul 15 17:32	7° Q 01'59		morning max el	8481 Jan 17 11:02	14° X 37'16	46°05'49
evening rise	8478 Jul 28 00:19	22° Q 17'07			8481 Feb 01 08:28	0° Z	
	8478 Aug 03 05:47	0° P			8481 Feb 28 02:03	0° \approx	
	8478 Aug 27 13:24	0° L			8481 Mar 25 09:59	0° H	
	8478 Sep 21 01:54	0° M			8481 Apr 19 01:49	0° Y	
	8478 Oct 15 21:22	0° X		desc. node	8481 Apr 21 08:16	2° Y 47'08	
desc. node	8478 Nov 04 11:47	23° X 21'36			8481 May 13 09:07	0° B	
	8478 Nov 10 02:48	0° Z			8481 Jun 06 12:21	0° II	
	8478 Dec 05 22:33	0° \approx			8481 Jun 30 14:41	0° E	
	8479 Jan 01 18:59	0° H		morning set	8481 Jul 22 09:33	27° E 04'50	
evening max el	8479 Jan 22 17:08	21° H 46'55	46°30'05		8481 Jul 24 18:00	0° Q	
	8479 Jan 31 07:27	0° Y		asc. node	8481 Aug 12 05:41	22° Q 55'10	
asc. node	8479 Feb 25 11:37	19° Y 07'48			8481 Aug 17 22:58	0° P	
greatest brilliancy	8479 Mar 03 22:37	22° Y 01'40	-4.9m				
retrograde	8479 Mar 13 18:53	23° Y 51'41		superior conj	8481 Aug 29 12:16	14° P 17'24	0°40'13
evening set	8479 Mar 30 03:42	18° Y 38'40		minimum elong	8481 Aug 29 04:18	13° P 52'46	0°39'48
inferior conj	8479 Apr 03 10:21	16° Y 04'30	7°56'54	max. Earth dist.	8481 Aug 31 09:37	16° P 37'31	1.72963 AU
minimum elong	8479 Apr 03 00:29	16° Y 19'38	7°55'15		8481 Sep 11 05:27	0° L	
min. Earth dist.	8479 Apr 03 04:58	16° Y 12'44	0.27046 AU	evening rise	8481 Oct 05 05:44	29° L 36'12	
morning rise	8479 Apr 06 21:15	13° Y 58'56			8481 Oct 05 13:28	0° M	
direct	8479 Apr 24 01:18	8° Y 16'18			8481 Oct 29 23:40	0° X	
greatest brilliancy	8479 May 03 17:46	10° Y 03'02	-4.9m		8481 Nov 23 12:55	0° Z	
	8479 Jun 02 00:34	0° B		desc. node	8481 Dec 01 23:21	10° Z 15'57	
morning max el	8479 Jun 13 11:40	10° B 58'32	46°51'58		8481 Dec 18 05:48	0° \approx	
desc. node	8479 Jun 17 06:22	14° B 48'24			8482 Jan 12 02:49	0° H	
	8479 Jul 01 14:00	0° II			8482 Feb 06 06:07	0° Y	
	8479 Jul 28 04:46	0° E			8482 Mar 03 23:18	0° B	
	8479 Aug 22 20:11	0° Q		asc. node	8482 Mar 24 22:53	23° B 21'38	
	8479 Sep 17 00:51	0° P			8482 Mar 31 05:13	0° II	




































































































































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	8482 May 03 15:07	0° 		morning set	8484 Sep 30 05:46	5°  13'00	
greatest brilliancy	8482 May 16 04:58	6°  42'30	-4.9m		8484 Oct 20 08:53	0° 	
retrograde	8482 May 26 07:18	8°  37'20		max. Earth dist.	8484 Nov 05 04:09	19°  12'06	1.73274 AU
evening set	8482 Jun 11 18:33	3°  20'05					
inferior conj	8482 Jun 16 02:02	0°  43'18	6°34'44	superior conj	8484 Nov 05 20:53	20°  12'04	1°25'48
minimum elong	8482 Jun 16 13:02	0°  26'19	6°32'06	minimum elong	8484 Nov 05 22:04	20°  12'22	1°25'57
min. Earth dist.	8482 Jun 16 02:46	0°  42'09	0.27297 AU		8484 Nov 13 16:46	0° 	
	8482 Jun 17 06:09	30°  11			8484 Dec 08 00:21	0° 	
morning rise	8482 Jun 21 07:50	27°  13'54		evening rise	8484 Dec 12 20:07	5°  35'58	
direct	8482 Jul 06 21:00	22°  15'27		desc. node	8484 Dec 29 11:11	26°  37'35	
desc. node	8482 Jul 14 17:56	24°  10'48			8485 Jan 01 08:04	0° 	
greatest brilliancy	8482 Jul 16 14:59	24°  14'04	-4.8m		8485 Jan 25 15:44	0° 	
	8482 Jul 27 09:15	0° 			8485 Feb 18 23:20	0° 	
morning max el	8482 Aug 25 09:05	24°  00'55	46°07'41		8485 Mar 15 08:22	0° 	
	8482 Aug 31 10:10	0° 			8485 Apr 08 22:53	0° 	
	8482 Sep 28 13:50	0° 		asc. node	8485 Apr 21 10:14	14°  15'11	
	8482 Oct 24 23:06	0° 			8485 May 04 02:45	0° 	
asc. node	8482 Nov 04 16:41	12°  13'14			8485 May 30 12:03	0° 	
	8482 Nov 19 10:53	0° 		evening max el	8485 Jun 16 16:27	18°  02'48	46°32'43
	8482 Dec 14 08:53	0° 			8485 Jun 29 07:10	0° 	
	8483 Jan 07 21:37	0° 		greatest brilliancy	8485 Jul 25 16:37	17°  15'27	-4.8m
	8483 Feb 01 04:14	0° 		retrograde	8485 Aug 05 18:05	20°  11'25	
morning set	8483 Feb 20 03:42	23°  36'33		desc. node	8485 Aug 11 05:37	19°  13'53	
desc. node	8483 Feb 24 09:34	28°  54'16		evening set	8485 Aug 20 21:48	15°  14'39	
	8483 Feb 25 06:37	0° 		min. Earth dist.	8485 Aug 26 09:48	12°  12'05	0.28345 AU
	8483 Mar 21 05:51	0° 		inferior conj	8485 Aug 27 02:30	12°  12'05	-3°46'57
max. Earth dist.	8483 Mar 30 18:02	11°  56'06	1.71318 AU	minimum elong	8485 Aug 26 18:42	12°  12'15	3°44'52
				morning rise	8485 Sep 01 16:05	8°  13'11	
superior conj	8483 Apr 01 15:07	14°  17'39	-1°14'10	direct	8485 Sep 17 07:25	3°  15'54	
minimum elong	8483 Apr 01 04:17	13°  13'39	1°13'55	greatest brilliancy	8485 Sep 27 01:52	5°  14'02	-4.7m
	8483 Apr 14 03:01	0° 			8485 Nov 01 03:16	0° 	
	8483 May 07 23:48	0° 		morning max el	8485 Nov 04 23:42	3°  15'25	45°41'29
evening rise	8483 May 12 03:40	5°  13'29			8485 Nov 30 14:27	0° 	
	8483 May 31 22:20	0° 		asc. node	8485 Dec 02 04:44	1°  14'42	
asc. node	8483 Jun 17 07:32	20°  25'14			8485 Dec 27 04:50	0° 	
	8483 Jun 25 00:46	0° 			8486 Jan 21 13:49	0° 	
	8483 Jul 19 09:04	0° 			8486 Feb 15 07:09	0° 	
	8483 Aug 13 01:44	0° 			8486 Mar 11 15:18	0° 	
	8483 Sep 07 07:25	0° 		desc. node	8486 Mar 23 21:50	15°  15'03	
	8483 Oct 03 11:27	0° 			8486 Apr 04 17:37	0° 	
desc. node	8483 Oct 07 02:16	4°  10'18		morning set	8486 Apr 28 16:22	0° 	
	8483 Oct 31 12:40	0° 			8486 May 07 03:05	10°  36'12	
evening max el	8483 Nov 09 02:44	8°  26'51	45°47'20		8486 May 22 13:44	0° 	
	8483 Dec 05 03:24	0° 			8486 Jun 15 11:54	0° 	
greatest brilliancy	8483 Dec 18 11:15	6°  44'44	-4.8m				
retrograde	8483 Dec 27 22:01	8°  22'46		superior conj	8486 Jun 16 04:53	0°  53'09	-1°02'36
evening set	8484 Jan 12 01:56	3°  57'32		minimum elong	8486 Jun 16 16:17	1°  28'52	1°02'23
inferior conj	8484 Jan 17 22:50	0°  28'07	-2°30'55	max. Earth dist.	8486 Jun 19 06:01	4°  41'57	1.71701 AU
minimum elong	8484 Jan 18 04:22	0°  19'32	2°29'05		8486 Jul 09 12:29	0° 	
min. Earth dist.	8484 Jan 18 16:08	0°  11'16	0.27784 AU	asc. node	8486 Jul 14 19:34	6°  13'28	
	8484 Jan 18 16:57	30°  13		evening rise	8486 Jul 25 15:21	20°  12'10	
morning rise	8484 Jan 24 05:59	26°  34'23			8486 Aug 02 16:22	0° 	
asc. node	8484 Jan 28 02:09	24°  34'10			8486 Aug 27 00:06	0° 	
direct	8484 Feb 08 00:34	22°  34'07			8486 Sep 20 12:53	0° 	
greatest brilliancy	8484 Feb 19 00:37	24°  38'43	-4.8m		8486 Oct 15 08:53	0° 	
	8484 Feb 29 04:55	0° 		desc. node	8486 Nov 03 13:39	22°  15'09	
morning max el	8484 Mar 29 09:21	25°  03'24	46°50'02		8486 Nov 09 15:13	0° 	
	8484 Apr 03 05:19	0° 			8486 Dec 05 12:35	0° 	
	8484 Apr 30 12:29	0° 			8487 Jan 01 12:22	0° 	
desc. node	8484 May 18 20:29	21°  12'16		evening max el	8487 Jan 20 07:43	19°  15'28	46°28'31
	8484 May 26 02:49	0° 			8487 Jan 31 11:34	0° 	
	8484 Jun 20 00:20	0° 		asc. node	8487 Feb 24 13:39	17°  13'04	
	8484 Jul 14 14:45	0° 		greatest brilliancy	8487 Mar 01 10:33	19°  13'33	-4.9m
	8484 Aug 08 02:43	0° 		retrograde	8487 Mar 11 08:15	21°  12'16	
	8484 Sep 01 13:49	0° 		evening set	8487 Mar 27 12:03	16°  19'35	
asc. node	8484 Sep 08 18:04	8°  14'38		inferior conj	8487 Mar 31 23:04	13°  13'01	7°44'14

minimum elong	8487 Mar 31 12:47	13°  54'46	7°42'23		8489 Oct 04 23:58	0° 	
min. Earth dist.	8487 Mar 31 17:22	13°  47'45	0.27043 AU		8489 Oct 29 10:19	0° 	
morning rise	8487 Apr 04 13:33	11°  28'16			8489 Nov 22 23:52	0° 	
direct	8487 Apr 21 14:45	5°  50'49		desc. node	8489 Dec 01 01:22	9°  348'15	
greatest brilliancy	8487 May 01 06:30	7°  37'19	-4.9m		8489 Dec 17 17:16	0° 	
	8487 Jun 02 04:27	0° 			8490 Jan 11 15:02	0° 	
morning max el	8487 Jun 11 02:03	8°  37'48	46°53'03		8490 Feb 05 19:33	0° 	
desc. node	8487 Jun 16 08:19	13°  59'26			8490 Mar 03 14:54	0° 	
	8487 Jul 01 07:24	0° 		asc. node	8490 Mar 24 00:49	22°  35'49	
	8487 Jul 27 18:53	0° 			8490 Mar 31 02:06	0° 	
	8487 Aug 22 08:42	0° 		evening max el	8490 Apr 03 08:19	3°  19'25	46°59'23
	8487 Sep 16 12:26	0° 			8490 May 04 22:11	0° 	
asc. node	8487 Oct 07 06:18	24°  59'48		greatest brilliancy	8490 May 13 20:16	4°  21'13	-4.9m
	8487 Oct 11 09:29	0° 		retrograde	8490 May 23 20:25	6°  14'14	
	8487 Nov 05 00:51	0° 		evening set	8490 Jun 09 11:30	0° 	
	8487 Nov 29 11:28	0° 			8490 Jun 10 22:51	30°  R 	
morning set	8487 Dec 08 17:42	11°  24'52		inferior conj	8490 Jun 13 15:26	28°  120'53	6°51'04
	8487 Dec 23 18:37	0° 		minimum elong	8490 Jun 14 02:23	28°  103'57	6°48'31
max. Earth dist.	8488 Jan 12 17:27	24°  343'40	1.72482 AU	min. Earth dist.	8490 Jun 13 16:45	28°  118'51	0.27279 AU
				morning rise	8490 Jun 18 17:29	25°  118'08	
superior conj	8488 Jan 15 05:10	27°  348'58	0°27'59	direct	8490 Jul 04 09:41	20°  132'14	
minimum elong	8488 Jan 15 11:26	28°  308'25	0°27'52	desc. node	8490 Jul 13 20:03	22°  111'35	
	8488 Jan 16 23:22	0° 		greatest brilliancy	8490 Jul 14 04:16	22°  118'37	-4.8m
desc. node	8488 Jan 26 23:20	12°  25'43			8490 Jul 28 12:52	0° 	
	8488 Feb 10 02:05	0° 		morning max el	8490 Aug 22 22:09	21°  40'21	46°09'18
evening rise	8488 Feb 23 07:55	16°  31'10			8490 Aug 31 06:28	0° 	
	8488 Mar 05 02:55	0° 			8490 Sep 28 04:51	0° 	
	8488 Mar 29 02:45	0° 			8490 Oct 24 11:58	0° 	
	8488 Apr 22 03:33	0° 		asc. node	8490 Nov 03 18:37	12°  01'14	
	8488 May 16 08:27	0° 			8490 Nov 18 22:40	0° 	
asc. node	8488 May 18 21:45	3°  208'46			8490 Dec 13 20:04	0° 	
	8488 Jun 09 21:27	0° 			8491 Jan 07 08:31	0° 	
	8488 Jul 05 00:32	0° 			8491 Jan 31 15:01	0° 	
	8488 Jul 31 05:54	0° 		morning set	8491 Feb 17 16:24	21°  22'54	
evening max el	8488 Aug 26 12:52	27°  233'00	45°50'18	desc. node	8491 Feb 23 11:28	28°  226'38	
	8488 Aug 29 01:59	0° 			8491 Feb 24 17:23	0° 	
desc. node	8488 Sep 07 16:59	8°  144'35			8491 Mar 20 16:39	0° 	
greatest brilliancy	8488 Oct 04 05:56	25°  158'14	-4.7m	max. Earth dist.	8491 Mar 27 23:02	9°  07'15	1.71344 AU
retrograde	8488 Oct 14 13:26	27°  153'01					
evening set	8488 Nov 01 19:18	21°  138'15		superior conj	8491 Mar 30 02:14	11°  47'57	-1°11'59
inferior conj	8488 Nov 05 01:30	19°  136'27	-8°37'37	minimum elong	8491 Mar 29 15:01	11°  12'46	1°11'41
minimum elong	8488 Nov 05 02:29	19°  134'54	8°37'28		8491 Apr 13 13:50	0° 	
min. Earth dist.	8488 Nov 05 04:40	19°  131'28	0.29145 AU		8491 May 07 10:38	0° 	
morning rise	8488 Nov 08 09:41	17°  131'46		evening rise	8491 May 09 14:07	2°  141'36	
direct	8488 Nov 26 15:20	11°  118'18			8491 May 31 09:15	0° 	
greatest brilliancy	8488 Dec 07 04:29	13°  120'16	-4.8m	asc. node	8491 Jun 16 09:35	19°  257'23	
asc. node	8488 Dec 29 16:30	27°  126'18			8491 Jun 24 11:50	0° 	
	8489 Jan 01 17:32	0° 			8491 Jul 18 20:25	0° 	
morning max el	8489 Jan 15 02:07	12°  23'21	46°04'11		8491 Aug 12 13:35	0° 	
	8489 Feb 01 01:43	0° 			8491 Sep 06 20:13	0° 	
	8489 Feb 27 16:03	0° 			8491 Oct 03 02:12	0° 	
	8489 Mar 24 22:34	0° 		desc. node	8491 Oct 06 04:11	3°  24'46	
	8489 Apr 18 13:39	0° 			8491 Oct 31 08:33	0° 	
desc. node	8489 Apr 20 10:11	2°  16'48		evening max el	8491 Nov 06 16:25	6°  310'55	45°46'40
	8489 May 12 20:29	0° 			8491 Dec 06 09:18	0° 	
	8489 Jun 05 23:25	0° 		greatest brilliancy	8491 Dec 16 01:31	4°  29'09	-4.8m
	8489 Jun 30 01:31	0° 		retrograde	8491 Dec 25 12:11	6°  207'19	
morning set	8489 Jul 20 00:22	24°  248'43		evening set	8492 Jan 09 18:26	1°  238'21	
	8489 Jul 24 04:39	0° 			8492 Jan 12 14:45	30°  R 	
asc. node	8489 Aug 11 07:42	22°  228'45		inferior conj	8492 Jan 15 13:28	28°  311'42	-2°51'46
	8489 Aug 17 09:29	0° 		minimum elong	8492 Jan 15 19:41	28°  302'05	2°49'45
				min. Earth dist.	8492 Jan 16 07:33	27°  343'41	0.27842 AU
superior conj	8489 Aug 27 04:38	12°  107'12	0°37'12	morning rise	8492 Jan 21 20:05	24°  327'04	
minimum elong	8489 Aug 26 21:06	11°  143'55	0°36'47	asc. node	8492 Jan 27 04:07	21°  356'26	
max. Earth dist.	8489 Aug 29 05:08	14°  137'08	1.72926 AU	direct	8492 Feb 05 15:22	20°  306'33	
	8489 Sep 10 15:54	0° 		greatest brilliancy	8492 Feb 16 17:04	22°  322'45	-4.8m
evening rise	8489 Oct 02 23:25	27°  230'36			8492 Mar 01 05:13	0° 	

morning max el	8492 Mar 27 00:27	22°  44'58	46°48'51		8494 Nov 09 04:00	0° 	
	8492 Apr 03 01:30	0° 			8494 Dec 05 03:02	0° 	
	8492 Apr 30 03:53	0° 			8495 Jan 01 06:25	0° 	
desc. node	8492 May 17 22:27	20°  47'04		evening max el	8495 Jan 17 22:54	17°  10'38	46°26'58
	8492 May 25 16:16	0° 			8495 Jan 31 17:51	0° 	
	8492 Jun 19 12:42	0° 		asc. node	8495 Feb 23 15:32	15°  49'41	
	8492 Jul 14 02:27	0° 		greatest brilliancy	8495 Feb 26 23:04	17°  10'11	-4.9m
	8492 Aug 07 13:58	0° 		retrograde	8495 Mar 08 21:28	19°  00'57	
	8492 Sep 01 00:45	0° 		evening set	8495 Mar 24 20:51	14°  00'41	
asc. node	8492 Sep 07 19:54	8°  20'55		inferior conj	8495 Mar 29 12:03	11°  13'50	7°30'43
	8492 Sep 25 10:43	0° 		minimum elong	8495 Mar 29 01:28	11°  30'05	7°28'42
morning set	8492 Sep 27 22:42	3°  04'29		min. Earth dist.	8495 Mar 29 06:13	11°  22'47	0.27041 AU
	8492 Oct 19 19:29	0° 		morning rise	8495 Apr 02 06:09	8°  57'41	
max. Earth dist.	8492 Nov 03 00:24	17°  30'50	1.73283 AU	direct	8495 Apr 19 04:25	3°  25'46	
				greatest brilliancy	8495 Apr 28 19:37	5°  11'51	-4.9m
superior conj	8492 Nov 03 14:35	18°  14'35	1°25'57		8495 Jun 02 06:59	0° 	
minimum elong	8492 Nov 03 15:03	18°  16'02	1°26'05	morning max el	8495 Jun 08 15:47	6°  14'38	46°53'45
	8492 Nov 13 03:21	0° 		desc. node	8495 Jun 15 10:26	13°  10'55	
	8492 Dec 07 11:02	0° 			8495 Jul 01 00:48	0° 	
evening rise	8492 Dec 10 12:35	3°  34'45			8495 Jul 27 09:17	0° 	
desc. node	8492 Dec 28 13:15	26°  00'31			8495 Aug 21 21:36	0° 	
	8492 Dec 31 18:56	0° 			8495 Sep 16 00:25	0° 	
	8493 Jan 25 02:53	0° 		asc. node	8495 Oct 06 08:18	24°  11'05	
	8493 Feb 18 10:52	0° 			8495 Oct 10 20:53	0° 	
	8493 Mar 14 20:26	0° 			8495 Nov 04 11:54	0° 	
	8493 Apr 08 11:49	0° 			8495 Nov 28 22:21	0° 	
asc. node	8493 Apr 20 12:08	14°  12'24'29		morning set	8495 Dec 06 10:32	9°  15'19	
	8493 May 03 17:10	0° 			8495 Dec 23 05:28	0° 	
	8493 May 30 05:46	0° 		max. Earth dist.	8496 Jan 10 07:14	22°  23'48	1.72521 AU
evening max el	8493 Jun 14 07:41	15°  04'58	46°34'25				
	8493 Jun 29 12:54	0° 		superior conj	8496 Jan 12 20:02	25°  32'26	0°31'19
greatest brilliancy	8493 Jul 23 07:54	15°  10'13	-4.8m	minimum elong	8496 Jan 13 02:54	25°  53'45	0°31'10
retrograde	8493 Aug 03 10:19	17°  10'04			8496 Jan 16 10:15	0° 	
desc. node	8493 Aug 10 07:31	16°  10'07		desc. node	8496 Jan 26 01:14	11°  11'57'41	
evening set	8493 Aug 18 11:53	13°  10'02			8496 Feb 09 13:02	0° 	
min. Earth dist.	8493 Aug 24 01:03	10°  12'03	0.28295 AU	evening rise	8496 Feb 20 21:11	14°  11'08'20	
inferior conj	8493 Aug 24 17:44	9°  10'46'07	-3°27'46		8496 Mar 04 14:00	0° 	
minimum elong	8493 Aug 24 10:28	9°  10'26	3°25'48		8496 Mar 28 14:00	0° 	
morning rise	8493 Aug 30 09:37	6°  12'23'31			8496 Apr 21 15:03	0° 	
direct	8493 Sep 14 22:17	1°  14'43'31		asc. node	8496 May 15 20:17	0° 	
greatest brilliancy	8493 Sep 24 16:26	3°  16'26'48	-4.7m		8496 May 17 23:50	2°  16'38'36	
	8493 Nov 01 02:59	0° 			8496 Jun 09 09:54	0° 	
morning max el	8493 Nov 02 15:49	1°  16'27'26	45°41'38		8496 Jul 04 14:08	0° 	
	8493 Nov 30 06:22	0° 			8496 Jul 30 22:01	0° 	
asc. node	8493 Dec 01 06:46	1°  16'06'52		evening max el	8496 Aug 24 04:21	25°  16'20'03	45°51'12
	8493 Dec 26 18:11	0° 			8496 Aug 29 01:44	0° 	
	8494 Jan 21 02:02	0° 		desc. node	8496 Sep 06 18:55	7°  16'45'59	
	8494 Feb 14 18:47	0° 		greatest brilliancy	8496 Oct 01 21:33	23°  16'47'59	-4.7m
	8494 Mar 11 02:36	0° 		retrograde	8496 Oct 12 04:58	25°  16'42'57	
desc. node	8494 Mar 22 23:45	14°  16'46'12		evening set	8496 Oct 30 11:02	19°  16'29'03	
	8494 Apr 04 04:44	0° 		inferior conj	8496 Nov 02 17:47	17°  16'26'18	-8°38'09
	8494 Apr 28 03:23	0° 		minimum elong	8496 Nov 02 17:59	17°  16'25'59	8°38'00
morning set	8494 May 04 13:59	8°  16'05'10		min. Earth dist.	8496 Nov 02 19:57	17°  16'22'52	0.29152 AU
	8494 May 22 00:42	0° 		morning rise	8496 Nov 06 00:55	15°  16'23'00	
				direct	8496 Nov 24 07:30	9°  16'08'25	
superior conj	8494 Jun 13 17:05	28°  16'26'51	-1°05'14	greatest brilliancy	8496 Dec 04 19:39	11°  16'08'55	-4.7m
minimum elong	8494 Jun 14 04:30	29°  16'02'35	1°05'02	asc. node	8496 Dec 28 18:31	26°  16'25'20	
	8494 Jun 14 22:50	0° 			8497 Jan 01 21:54	0° 	
max. Earth dist.	8494 Jun 16 17:01	2°  16'12'00	1.71664 AU	morning max el	8497 Jan 12 16:25	10°  16'12'06'30	46°02'40
	8494 Jul 08 23:25	0° 			8497 Jan 31 18:56	0° 	
asc. node	8494 Jul 13 21:31	6°  16'07'36			8497 Feb 27 06:13	0° 	
evening rise	8494 Jul 23 05:46	17°  16'04'44'11			8497 Mar 24 11:22	0° 	
	8494 Aug 02 03:18	0° 			8497 Apr 18 01:44	0° 	
	8494 Aug 26 11:09	0° 		desc. node	8497 Apr 19 12:10	1°  16'45'52	
	8494 Sep 20 00:13	0° 			8497 May 12 08:08	0° 	
	8494 Oct 14 20:45	0° 			8497 Jun 05 10:45	0° 	
desc. node	8494 Nov 02 15:41	22°  16'12'01'16			8497 Jun 29 12:37	0° 	

morning set	8497 Jul 17 15:14	22° ♊ 31'48		8500 Jan 06 03:42	30° ♋ ♊	
	8497 Jul 23 15:35	0° ♋		evening set	8500 Jan 07 11:02	29° ♊ 18'05
asc. node	8497 Aug 10 09:33	22° ♋ 00'49		inferior conj	8500 Jan 13 04:01	25° ♊ 54'16 -3°12'21
	8497 Aug 16 20:19	0° ♋		minimum elong	8500 Jan 13 10:52	25° ♊ 43'39 3°10'11
				min. Earth dist.	8500 Jan 13 22:33	25° ♊ 25'35 0.27900 AU
superior conj	8497 Aug 24 20:53	9° ♋ 55'36 0°34'06		morning rise	8500 Jan 19 09:55	22° ♊ 10'50
minimum elong	8497 Aug 24 13:51	9° ♋ 33'50 0°33'42		asc. node	8500 Jan 26 06:00	19° ♊ 07'36
max. Earth dist.	8497 Aug 26 22:38	12° ♋ 29'23 1.72894 AU		direct	8500 Feb 03 06:41	17° ♊ 48'13
	8497 Sep 10 02:44	0° ♋		greatest brilliancy	8500 Feb 14 08:56	20° ♊ 05'28 -4.8m
evening rise	8497 Sep 30 16:51	25° ♋ 23'04			8500 Mar 02 23:24	0° ♋
	8497 Oct 04 10:51	0° ♋		morning max el	8500 Mar 25 16:06	20° ♋ 27'36 46°47'39
	8497 Oct 28 21:21	0° ♋			8500 Apr 03 21:14	0° ♋
	8497 Nov 22 11:13	0° ♋			8500 Apr 30 19:10	0° ♋
desc. node	8497 Nov 30 03:22	9° ♋ 19'26		desc. node	8500 May 18 00:29	20° ♋ 11'58
	8497 Dec 17 05:06	0° ♋			8500 May 26 05:42	0° ♋
	8498 Jan 11 03:40	0° ♋			8500 Jun 20 01:07	0° ♋
	8498 Feb 05 09:25	0° ♋			8500 Jul 14 14:14	0° ♋
	8498 Mar 03 07:04	0° ♋			8500 Aug 08 01:18	0° ♋
asc. node	8498 Mar 23 02:51	21° ♋ 48'39			8500 Sep 01 11:46	0° ♋
	8498 Mar 31 00:08	0° ♋		asc. node	8500 Sep 07 21:55	7° ♋ 53'31
evening max el	8498 Mar 31 20:54	0° ♋ 52'35 46°59'12			8500 Sep 25 21:30	0° ♋
	8498 May 06 20:44	0° ♋		morning set	8500 Sep 26 15:45	0° ♋ 56'08
greatest brilliancy	8498 May 11 11:29	1° ♋ 58'56 -4.9m			8500 Oct 20 06:10	0° ♋
retrograde	8498 May 21 09:34	3° ♋ 50'36				
	8498 Jun 04 07:25	30° ♋ ♋		superior conj	8500 Nov 02 08:17	16° ♋ 08'11 1°25'58
evening set	8498 Jun 07 04:30	28° ♋ 24'02		minimum elong	8500 Nov 02 08:01	16° ♋ 07'24 1°26'07
inferior conj	8498 Jun 11 04:52	25° ♋ 57'49 7°06'30		max. Earth dist.	8500 Nov 01 22:04	15° ♋ 36'42 1.73293 AU
minimum elong	8498 Jun 11 15:43	25° ♋ 41'03 7°04'06			8500 Nov 13 14:03	0° ♋
min. Earth dist.	8498 Jun 11 06:51	25° ♋ 54'44 0.27263 AU			8500 Dec 07 21:51	0° ♋
morning rise	8498 Jun 16 03:04	23° ♋ 00'21		evening rise	8500 Dec 09 04:56	1° ♋ 35'50
direct	8498 Jul 01 22:10	18° ♋ 09'08		desc. node	8500 Dec 28 15:08	25° ♋ 32'26
greatest brilliancy	8498 Jul 11 17:52	19° ♋ 56'14 -4.8m			8501 Jan 01 05:58	0° ♋
desc. node	8498 Jul 12 21:54	20° ♋ 21'57			8501 Jan 25 14:11	0° ♋
	8498 Jul 29 09:20	0° ♋			8501 Feb 18 22:32	0° ♋
morning max el	8498 Aug 20 11:35	19° ♋ 19'51 46°10'56			8501 Mar 15 08:38	0° ♋
	8498 Aug 31 02:24	0° ♋			8501 Apr 09 00:52	0° ♋
	8498 Sep 27 19:57	0° ♋		asc. node	8501 Apr 20 14:13	13° ♋ 50'05
	8498 Oct 24 01:04	0° ♋			8501 May 04 07:47	0° ♋
asc. node	8498 Nov 02 20:39	11° ♋ 30'10			8501 May 30 23:56	0° ♋
	8498 Nov 18 10:44	0° ♋		evening max el	8501 Jun 12 23:38	13° ♋ 30'52 46°36'01
	8498 Dec 13 07:34	0° ♋			8501 Jun 30 21:00	0° ♋
	8499 Jan 06 19:41	0° ♋		greatest brilliancy	8501 Jul 21 23:19	13° ♋ 24'58 -4.8m
	8499 Jan 31 02:03	0° ♋		retrograde	8501 Aug 02 02:30	15° ♋ 42'13
morning set	8499 Feb 15 05:12	18° ♋ 48'57		desc. node	8501 Aug 10 09:31	14° ♋ 18'07
desc. node	8499 Feb 22 13:20	27° ♋ 58'09		evening set	8501 Aug 17 02:07	11° ♋ 17'00
	8499 Feb 24 04:22	0° ♋		min. Earth dist.	8501 Aug 22 16:09	7° ♋ 57'47 0.28243 AU
	8499 Mar 20 03:38	0° ♋		inferior conj	8501 Aug 23 08:52	7° ♋ 31'49 -3°08'07
max. Earth dist.	8499 Mar 25 07:32	6° ♋ 28'44 1.71373 AU		minimum elong	8501 Aug 23 02:10	7° ♋ 42'13 3°06'17
				morning rise	8501 Aug 29 02:54	4° ♋ 05'37
superior conj	8499 Mar 27 13:25	9° ♋ 17'51 -1°09'39			8501 Sep 08 13:22	30° ♋ ♋
minimum elong	8499 Mar 27 01:55	8° ♋ 41'44 1°09'19		direct	8501 Sep 13 13:27	29° ♋ 30'03
	8499 Apr 13 00:52	0° ♋			8501 Sep 18 16:49	0° ♋
	8499 May 06 21:42	0° ♋		greatest brilliancy	8501 Sep 23 06:29	1° ♋ 12'52 -4.7m
evening rise	8499 May 07 00:49	0° ♋ 09'47		morning max el	8501 Nov 01 07:36	29° ♋ 16'56 45°41'47
	8499 May 30 20:23	0° ♋			8501 Nov 02 01:35	0° ♋
asc. node	8499 Jun 15 11:32	19° ♋ 28'30			8501 Nov 30 21:56	0° ♋
	8499 Jun 23 23:07	0° ♋		asc. node	8501 Dec 01 08:44	0° ♋ 29'46
	8499 Jul 18 07:57	0° ♋			8501 Dec 27 07:23	0° ♋
	8499 Aug 12 01:39	0° ♋			8502 Jan 21 14:11	0° ♋
	8499 Sep 06 09:16	0° ♋			8502 Feb 15 06:24	0° ♋
	8499 Oct 02 17:23	0° ♋			8502 Mar 11 13:55	0° ♋
desc. node	8499 Oct 05 06:12	2° ♋ 47'35		desc. node	8502 Mar 23 01:49	14° ♋ 17'43
	8499 Oct 31 05:27	0° ♋			8502 Apr 04 15:50	0° ♋
evening max el	8499 Nov 04 06:54	3° ♋ 56'12 45°45'55			8502 Apr 28 14:21	0° ♋
	8499 Dec 08 06:03	0° ♋		morning set	8502 May 03 00:39	5° ♋ 33'39
greatest brilliancy	8499 Dec 13 15:12	2° ♋ 12'05 -4.8m			8502 May 22 11:35	0° ♋
retrograde	8499 Dec 23 02:41	3° ♋ 50'52				

superior conj	8502 Jun 12 05:08	26° Π 00'20	-1°07'44	greatest brilliancy	8504 Dec 03 11:26	8° \mathbb{M} 59'21	-4.7m
minimum elong	8502 Jun 12 16:27	26° Π 35'47	1°07'35	asc. node	8504 Dec 28 20:21	25° \mathbb{M} 26'31	
	8502 Jun 15 09:40	0° \mathfrak{S}			8505 Jan 03 00:07	0° \mathfrak{A}	
max. Earth dist.	8502 Jun 15 06:19	29° Π 49'32	1.71626 AU	morning max el	8505 Jan 11 06:43	7° \mathfrak{A} 50'46	46°01'21
	8502 Jul 09 10:13	0° Ω			8505 Feb 01 11:24	0° \mathfrak{Z}	
asc. node	8502 Jul 13 23:24	5° Ω 39'48			8505 Feb 27 19:51	0° \approx	
evening rise	8502 Jul 21 20:03	15° Ω 26'01			8505 Mar 24 23:46	0° \mathfrak{H}	
	8502 Aug 02 14:07	0° \mathbb{M}			8505 Apr 18 13:29	0° \mathcal{Y}	
	8502 Aug 26 22:06	0° $\underline{\mathfrak{A}}$		desc. node	8505 Apr 19 14:08	1° \mathcal{Y} 15'53	
	8502 Sep 20 11:26	0° \mathbb{M}			8505 May 12 19:30	0° \mathfrak{B}	
	8502 Oct 15 08:30	0° \mathfrak{A}			8505 Jun 05 21:50	0° Π	
desc. node	8502 Nov 02 17:43	21° \mathfrak{A} 49'50			8505 Jun 29 23:27	0° \mathfrak{S}	
	8502 Nov 09 16:41	0° \mathfrak{Z}		morning set	8505 Jul 16 05:38	20° \mathfrak{S} 14'06	
	8502 Dec 05 17:30	0° \approx			8505 Jul 24 02:14	0° Ω	
	8503 Jan 02 00:46	0° \mathfrak{H}		asc. node	8505 Aug 10 11:34	21° Ω 34'17	
evening max el	8503 Jan 16 13:12	14° \mathfrak{H} 51'03	46°25'06		8505 Aug 17 06:51	0° \mathbb{M}	
	8503 Feb 02 02:35	0° \mathcal{Y}					
asc. node	8503 Feb 23 17:35	14° \mathcal{Y} 04'28		superior conj	8505 Aug 23 12:51	7° \mathbb{M} 44'04	0°30'56
greatest brilliancy	8503 Feb 25 11:56	14° \mathcal{Y} 44'51	-4.9m	minimum elong	8505 Aug 23 06:20	7° \mathbb{M} 23'57	0°30'33
retrograde	8503 Mar 07 09:52	16° \mathcal{Y} 34'52		max. Earth dist.	8505 Aug 25 15:09	10° \mathbb{M} 19'38	1.72858 AU
evening set	8503 Mar 23 05:27	11° \mathcal{Y} 41'06			8505 Sep 10 13:13	0° $\underline{\mathfrak{A}}$	
inferior conj	8503 Mar 28 00:47	8° \mathcal{Y} 48'07	7°16'08	evening rise	8505 Sep 29 10:17	23° $\underline{\mathfrak{A}}$ 16'33	
minimum elong	8503 Mar 27 13:57	9° \mathcal{Y} 04'47	7°13'59		8505 Oct 04 21:24	0° \mathbb{M}	
min. Earth dist.	8503 Mar 27 19:18	8° \mathcal{Y} 56'33	0.27039 AU		8505 Oct 29 08:05	0° \mathfrak{A}	
morning rise	8503 Mar 31 22:30	6° \mathcal{Y} 26'26			8505 Nov 22 22:15	0° \mathfrak{Z}	
direct	8503 Apr 17 17:25	1° \mathcal{Y} 00'05		desc. node	8505 Nov 30 05:15	8° \mathfrak{Z} 51'16	
greatest brilliancy	8503 Apr 27 09:14	2° \mathcal{Y} 46'25	-4.9m		8505 Dec 17 16:39	0° \approx	
	8503 Jun 03 08:04	0° \mathfrak{B}			8506 Jan 11 15:59	0° \mathfrak{H}	
morning max el	8503 Jun 07 04:13	3° \mathfrak{B} 48'16	46°54'36		8506 Feb 05 23:00	0° \mathcal{Y}	
desc. node	8503 Jun 15 12:18	12° \mathfrak{B} 22'53			8506 Mar 03 23:05	0° \mathfrak{B}	
	8503 Jul 01 17:41	0° Π		asc. node	8506 Mar 23 04:51	21° \mathfrak{B} 01'55	
	8503 Jul 27 23:18	0° \mathfrak{S}		evening max el	8506 Mar 30 09:23	28° \mathfrak{B} 26'38	46°58'52
	8503 Aug 22 10:09	0° Ω			8506 Mar 31 22:35	0° Π	
	8503 Sep 16 12:06	0° \mathbb{M}		greatest brilliancy	8506 May 10 01:47	29° Π 36'05	-4.9m
asc. node	8503 Oct 06 10:17	24° \mathbb{M} 03'05			8506 May 11 05:47	0° \mathfrak{S}	
	8503 Oct 11 08:02	0° $\underline{\mathfrak{A}}$		retrograde	8506 May 19 22:50	1° \mathfrak{S} 27'20	
	8503 Nov 04 22:43	0° \mathbb{M}			8506 May 28 09:17	30° \mathfrak{R} Π	
	8503 Nov 29 08:59	0° \mathfrak{A}		evening set	8506 Jun 05 21:15	25° \mathfrak{I} 55'30	
morning set	8503 Dec 05 03:35	7° \mathfrak{A} 07'11		inferior conj	8506 Jun 09 18:06	23° \mathfrak{I} 34'47	7°21'12
	8503 Dec 23 16:03	0° \mathfrak{Z}		minimum elong	8506 Jun 10 04:45	23° \mathfrak{I} 18'21	7°18'58
max. Earth dist.	8504 Jan 08 21:41	20° \mathfrak{Z} 06'58	1.72563 AU	min. Earth dist.	8506 Jun 09 20:29	23° \mathfrak{I} 31'06	0.27253 AU
				morning rise	8506 Jun 14 12:19	20° \mathfrak{I} 43'09	
superior conj	8504 Jan 11 11:13	23° \mathfrak{Z} 17'46	0°34'34	direct	8506 Jun 30 10:42	15° \mathfrak{I} 45'55	
minimum elong	8504 Jan 11 18:38	23° \mathfrak{Z} 40'46	0°34'23	greatest brilliancy	8506 Jul 10 07:12	17° \mathfrak{I} 33'53	-4.8m
	8504 Jan 16 20:51	0° \approx		desc. node	8506 Jul 12 23:54	18° \mathfrak{I} 36'57	
desc. node	8504 Jan 26 03:10	11° \approx 30'33			8506 Jul 31 00:21	0° \mathfrak{S}	
	8504 Feb 09 23:45	0° \mathfrak{H}		morning max el	8506 Aug 19 01:47	17° \mathfrak{S} 01'46	46°12'41
evening rise	8504 Feb 19 10:33	11° \mathfrak{H} 46'39			8506 Aug 31 21:28	0° Ω	
	8504 Mar 05 00:54	0° \mathcal{Y}			8506 Sep 28 10:31	0° \mathbb{M}	
	8504 Mar 29 01:06	0° \mathfrak{B}			8506 Oct 24 13:42	0° $\underline{\mathfrak{A}}$	
	8504 Apr 22 02:23	0° Π		asc. node	8506 Nov 02 22:33	10° $\underline{\mathfrak{A}}$ 59'55	
	8504 May 16 07:59	0° \mathfrak{S}			8506 Nov 18 22:21	0° \mathbb{M}	
asc. node	8504 May 18 01:44	2° \mathfrak{S} 08'22			8506 Dec 13 18:39	0° \mathfrak{A}	
	8504 Jun 09 22:12	0° Ω			8507 Jan 07 06:29	0° \mathfrak{Z}	
	8504 Jul 05 03:37	0° \mathbb{M}			8507 Jan 31 12:43	0° \approx	
	8504 Jul 31 14:05	0° $\underline{\mathfrak{A}}$		morning set	8507 Feb 13 18:31	16° \approx 27'44	
evening max el	8504 Aug 22 18:51	23° $\underline{\mathfrak{A}}$ 05'32	45°52'14	desc. node	8507 Feb 22 15:26	27° \approx 31'30	
	8504 Aug 30 02:15	0° \mathbb{M}			8507 Feb 24 15:00	0° \mathfrak{H}	
desc. node	8504 Sep 06 20:59	6° \mathbb{M} 47'17			8507 Mar 20 14:16	0° \mathcal{Y}	
greatest brilliancy	8504 Sep 30 13:08	21° \mathbb{M} 38'34	-4.7m	max. Earth dist.	8507 Mar 23 18:46	3° \mathcal{Y} 59'58	1.71399 AU
retrograde	8504 Oct 10 20:34	23° \mathbb{M} 34'04					
evening set	8504 Oct 29 02:24	17° \mathbb{M} 21'22		superior conj	8507 Mar 26 00:58	6° \mathcal{Y} 50'04	-1°07'12
inferior conj	8504 Nov 01 10:05	15° \mathbb{M} 17'15	-8°37'50	minimum elong	8507 Mar 25 13:17	6° \mathcal{Y} 13'24	1°06'51
minimum elong	8504 Nov 01 09:29	15° \mathbb{M} 18'11	8°37'42		8507 Apr 13 11:30	0° \mathfrak{B}	
min. Earth dist.	8504 Nov 01 11:26	15° \mathbb{M} 15'07	0.29158 AU	evening rise	8507 May 05 11:50	27° \mathfrak{B} 40'07	
morning rise	8504 Nov 04 16:33	13° \mathbb{M} 14'51			8507 May 07 08:24	0° Π	
direct	8504 Nov 22 23:15	6° \mathbb{M} 59'26			8507 May 31 07:11	0° \mathfrak{S}	

asc. node	8507 Jun 15 13:26	19°  00'31	asc. node	8509 Nov 30 10:38	29°  53'12
	8507 Jun 24 10:06	0° 		8509 Nov 30 13:06	0° 
	8507 Jul 18 19:14	0° 		8509 Dec 26 20:20	0° 
	8507 Aug 12 13:27	0° 		8510 Jan 21 02:06	0° 
	8507 Sep 06 22:06	0° 		8510 Feb 14 17:48	0° 
	8507 Oct 03 08:27	0° 		8510 Mar 11 01:01	0° 
desc. node	8507 Oct 05 08:13	2°  11'02	desc. node	8510 Mar 22 03:41	13°  49'11
	8507 Nov 01 02:42	0° 		8510 Apr 04 02:47	0° 
evening max el	8507 Nov 02 22:08	1°  34'27 45°45'20		8510 Apr 28 01:11	0° 
greatest brilliancy	8507 Dec 12 04:41	29°  56'21 -4.8m	morning set	8510 Apr 30 11:25	3°  02'46
	8507 Dec 12 09:06	0° 		8510 May 21 22:21	0° 
retrograde	8507 Dec 21 17:23	1°  35'46			
	8507 Dec 30 15:47	30° 	superior conj	8510 Jun 09 17:24	23°  13'51 -1°10'07
evening set	8508 Jan 06 03:53	26°  59'16	minimum elong	8510 Jun 10 04:32	24°  10'45 1°09'59
inferior conj	8508 Jan 11 18:38	23°  38'11 -3°32'27	max. Earth dist.	8510 Jun 12 19:10	27°  12'57 1.71583 AU
minimum elong	8508 Jan 12 02:05	23°  26'38 3°30'08		8510 Jun 14 20:22	0° 
min. Earth dist.	8508 Jan 12 13:16	23°  09'19 0.27957 AU		8510 Jul 08 20:52	0° 
morning rise	8508 Jan 17 23:36	19°  35'11	asc. node	8510 Jul 13 01:27	5°  13'00
asc. node	8508 Jan 26 08:06	16°  32'50	evening rise	8510 Jul 19 10:28	13°  08'36
direct	8508 Feb 01 22:28	15°  31'25		8510 Aug 02 00:48	0° 
greatest brilliancy	8508 Feb 13 00:15	17°  48'46 -4.8m		8510 Aug 26 08:56	0° 
	8508 Mar 03 12:27	0° 		8510 Sep 19 22:36	0° 
morning max el	8508 Mar 23 07:59	18°  12'02 46°46'29		8510 Oct 14 20:14	0° 
	8508 Apr 03 16:00	0° 	desc. node	8510 Nov 01 19:34	21°  18'52
	8508 Apr 30 09:52	0° 		8510 Nov 09 05:25	0° 
desc. node	8508 May 17 02:22	19°  37'46		8510 Dec 05 08:05	0° 
	8508 May 25 18:38	0° 		8511 Jan 01 19:33	0° 
	8508 Jun 19 13:07	0° 	evening max el	8511 Jan 14 02:39	12°  29'42 46°23'21
	8508 Jul 14 01:39	0° 		8511 Feb 02 14:13	0° 
	8508 Aug 07 12:19	0° 	asc. node	8511 Feb 22 19:35	12°  15'31
	8508 Aug 31 22:30	0° 	greatest brilliancy	8511 Feb 23 01:21	12°  10'40 -4.9m
asc. node	8508 Sep 06 23:55	7°  10'26'51	retrograde	8511 Mar 04 22:02	14°  09'41
morning set	8508 Sep 24 08:38	28°  14'48'01	evening set	8511 Mar 20 14:23	9°  21'52
	8508 Sep 25 08:02	0° 	inferior conj	8511 Mar 25 13:43	6°  23'14 7°00'54
	8508 Oct 19 16:35	0° 	minimum elong	8511 Mar 25 02:43	6°  40'11 6°58'35
			min. Earth dist.	8511 Mar 25 08:53	6°  30'42 0.27041 AU
superior conj	8508 Oct 31 01:50	14°  10'02'10 1°25'52	morning rise	8511 Mar 29 15:01	3°  56'04
minimum elong	8508 Oct 31 00:52	13°  15'59'12 1°26'01		8511 Apr 06 21:52	30° 
max. Earth dist.	8508 Oct 30 19:28	13°  14'42'32 1.73297 AU	direct	8511 Apr 15 06:07	28°  14'34'54
	8508 Nov 13 00:28	0° 		8511 Apr 23 21:09	0° 
evening rise	8508 Dec 06 21:16	29°  25'42	greatest brilliancy	8511 Apr 24 23:38	0°  22'15 -4.9m
	8508 Dec 07 08:24	0° 		8511 Jun 03 07:58	0° 
desc. node	8508 Dec 27 17:05	25°  05'22	morning max el	8511 Jun 04 16:18	1°  20'48 46°55'28
	8508 Dec 31 16:44	0° 	desc. node	8511 Jun 14 14:17	11°  35'50
	8509 Jan 25 01:15	0° 		8511 Jul 01 10:16	0° 
	8509 Feb 18 10:00	0° 		8511 Jul 27 13:11	0° 
	8509 Mar 14 20:39	0° 		8511 Aug 21 22:38	0° 
	8509 Apr 08 13:45	0° 		8511 Sep 15 23:44	0° 
asc. node	8509 Apr 19 16:08	13°  15'50	asc. node	8511 Oct 05 12:10	23°  10'34'48
	8509 May 03 22:16	0° 		8511 Oct 10 19:09	0° 
	8509 May 30 18:10	0° 		8511 Nov 04 09:33	0° 
evening max el	8509 Jun 10 15:50	11°  17'17 46°37'32		8511 Nov 28 19:42	0° 
	8509 Jul 01 07:28	0° 	morning set	8511 Dec 02 20:42	4°  18'58'57
greatest brilliancy	8509 Jul 19 15:13	11°  11'21 -4.8m		8511 Dec 23 02:43	0° 
retrograde	8509 Jul 30 18:27	13°  10'28'16	max. Earth dist.	8512 Jan 06 13:26	17°  35'51 1.72604 AU
desc. node	8509 Aug 09 11:34	11°  10'33'26			
evening set	8509 Aug 14 16:43	9°  04'52	superior conj	8512 Jan 09 02:29	21°  30'07 0°37'44
min. Earth dist.	8509 Aug 20 07:31	5°  10'44'17 0.28193 AU	minimum elong	8512 Jan 09 10:25	21°  30'40 0°37'33
inferior conj	8509 Aug 21 00:07	5°  18'30 -2°48'15		8512 Jan 16 07:34	0° 
minimum elong	8509 Aug 20 18:03	5°  17'56 2°46'33	desc. node	8512 Jan 25 05:13	11°  33'03'29
morning rise	8509 Aug 26 20:10	1°  10'49'41		8512 Feb 09 10:35	0° 
	8509 Aug 30 11:30	30° 	evening rise	8512 Feb 17 00:02	9°  14'25'09
direct	8509 Sep 11 04:57	27°  17'39		8512 Mar 04 11:53	0° 
greatest brilliancy	8509 Sep 20 20:42	28°  15'59'41 -4.7m		8512 Mar 28 12:18	0° 
	8509 Sep 23 12:50	0° 		8512 Apr 21 13:52	0° 
morning max el	8509 Oct 29 22:46	27°  10'05'22 45°41'53		8512 May 15 19:52	0° 
	8509 Nov 01 23:05	0° 	asc. node	8512 May 17 03:39	1° 

	8512 Jun 09 10:45	0°♈		morning set	8515 Feb 11 08:00	14°♊06'01	
	8512 Jul 04 17:23	0°♍		desc. node	8515 Feb 21 17:20	27°♊03'02	
	8512 Jul 31 06:38	0°♊			8515 Feb 24 02:02	0°♋	
evening max el	8512 Aug 20 09:08	20°♊50'06	45°53'28		8515 Mar 20 01:19	0°♌	
	8512 Aug 30 04:14	0°♌		max. Earth dist.	8515 Mar 21 05:19	1°♌27'49	1.71428 AU
desc. node	8512 Sep 05 22:57	5°♌46'46					
greatest brilliancy	8512 Sep 28 04:17	19°♌28'35	-4.7m	superior conj	8515 Mar 23 12:19	4°♌20'20	-1°04'37
retrograde	8512 Oct 08 12:36	21°♌25'29		minimum elong	8515 Mar 23 00:34	3°♌43'28	1°04'12
evening set	8512 Oct 26 17:35	15°♌14'07			8515 Apr 12 22:35	0°♍	
inferior conj	8512 Oct 30 02:32	13°♌08'16	-8°36'50	evening rise	8515 May 02 22:28	25°♍07'54	
minimum elong	8512 Oct 30 01:09	13°♌10'28	8°36'41		8515 May 06 19:32	0°♎	
min. Earth dist.	8512 Oct 30 02:53	13°♌07'43	0.29164 AU		8515 May 30 18:26	0°♏	
morning rise	8512 Nov 02 08:41	11°♌06'28		asc. node	8515 Jun 14 15:29	18°♏31'42	
direct	8512 Nov 20 15:09	4°♌50'24			8515 Jun 23 21:32	0°♐	
greatest brilliancy	8512 Dec 01 03:36	6°♌50'14	-4.7m		8515 Jul 18 06:59	0°♑	
asc. node	8512 Dec 27 22:28	24°♌29'11			8515 Aug 12 01:47	0°♒	
	8513 Jan 03 01:09	0°♓			8515 Sep 06 11:32	0°♌	
morning max el	8513 Jan 08 21:46	5°♓36'25	45°59'59		8515 Oct 03 00:16	0°♔	
	8513 Feb 01 03:49	0°♚		desc. node	8515 Oct 04 10:09	1°♔32'31	
	8513 Feb 27 09:38	0°♛		evening max el	8515 Oct 31 13:49	29°♔32'35	45°44'49
	8513 Mar 24 12:22	0°♋			8515 Nov 01 01:19	0°♚	
	8513 Apr 18 01:26	0°♌		greatest brilliancy	8515 Dec 09 18:41	27°♚40'36	-4.8m
desc. node	8513 Apr 18 16:04	0°♌45'04		retrograde	8515 Dec 19 08:04	29°♚20'00	
	8513 May 12 07:03	0°♍		evening set	8516 Jan 03 21:02	24°♚40'02	
	8513 Jun 05 09:07	0°♎		inferior conj	8516 Jan 09 09:25	21°♚21'41	-3°51'59
	8513 Jun 29 10:32	0°♏		minimum elong	8516 Jan 09 17:24	21°♚09'17	3°49'35
morning set	8513 Jul 13 19:51	17°♏54'50		min. Earth dist.	8516 Jan 10 04:03	20°♚52'46	0.28012 AU
	8513 Jul 23 13:10	0°♐		morning rise	8516 Jan 15 13:12	17°♚41'11	
asc. node	8513 Aug 09 13:33	21°♐06'46		asc. node	8516 Jan 25 10:02	13°♚47'19	
	8513 Aug 16 17:41	0°♑		direct	8516 Jan 30 14:21	13°♚14'27	
				greatest brilliancy	8516 Feb 10 15:18	15°♚31'06	-4.8m
superior conj	8513 Aug 21 04:45	5°♑31'23	0°27'43		8516 Mar 03 22:31	0°♛	
minimum elong	8513 Aug 20 22:49	5°♑13'01	0°27'20	morning max el	8516 Mar 20 23:11	15°♛53'42	46°45'01
max. Earth dist.	8513 Aug 23 06:56	8°♑06'36	1.72821 AU		8516 Apr 03 10:44	0°♋	
	8513 Sep 10 00:00	0°♊			8516 Apr 30 00:51	0°♌	
evening rise	8513 Sep 27 03:52	21°♊09'43		desc. node	8516 May 16 04:22	19°♌02'37	
	8513 Oct 04 08:13	0°♌			8516 May 25 07:59	0°♍	
	8513 Oct 28 19:04	0°♍			8516 Jun 19 01:33	0°♎	
	8513 Nov 22 09:34	0°♎			8516 Jul 13 13:30	0°♏	
desc. node	8513 Nov 29 07:18	8°♎22'43			8516 Aug 06 23:45	0°♐	
	8513 Dec 17 04:31	0°♏			8516 Aug 31 09:38	0°♑	
	8514 Jan 11 04:43	0°♋		asc. node	8516 Sep 06 01:45	6°♑58'25	
	8514 Feb 05 13:06	0°♌		morning set	8516 Sep 22 01:22	26°♑38'11	
	8514 Mar 03 15:49	0°♍			8516 Sep 24 18:58	0°♊	
asc. node	8514 Mar 22 06:47	20°♍13'04			8516 Oct 19 03:26	0°♋	
evening max el	8514 Mar 27 22:38	26°♍01'37	46°58'38				
	8514 Mar 31 22:31	0°♎		superior conj	8516 Oct 28 19:26	11°♎54'59	1°25'39
greatest brilliancy	8514 May 07 15:25	27°♎11'27	-4.9m	minimum elong	8516 Oct 28 17:46	11°♎49'51	1°25'46
retrograde	8514 May 17 12:35	29°♎03'02		max. Earth dist.	8516 Oct 28 15:06	11°♎41'38	1.73298 AU
evening set	8514 Jun 03 14:01	23°♎25'45			8516 Nov 12 11:20	0°♔	
inferior conj	8514 Jun 07 07:18	21°♎10'29	7°35'08	evening rise	8516 Dec 04 13:44	27°♔14'46	
minimum elong	8514 Jun 07 17:41	20°♎54'30	7°33'04		8516 Dec 06 19:22	0°♚	
min. Earth dist.	8514 Jun 07 09:37	21°♎06'55	0.27244 AU	desc. node	8516 Dec 26 19:10	24°♚37'36	
morning rise	8514 Jun 11 21:25	18°♎25'01			8516 Dec 31 03:53	0°♛	
direct	8514 Jun 27 23:49	13°♎21'32			8517 Jan 24 12:40	0°♋	
greatest brilliancy	8514 Jul 07 19:58	15°♎09'45	-4.8m		8517 Feb 17 21:49	0°♌	
desc. node	8514 Jul 12 02:02	16°♎55'00			8517 Mar 14 09:04	0°♍	
	8514 Jul 31 12:02	0°♏			8517 Apr 08 03:07	0°♎	
morning max el	8514 Aug 16 16:43	14°♏44'16	46°14'19	asc. node	8517 Apr 18 18:05	12°♎40'12	
	8514 Aug 31 16:26	0°♐			8517 May 03 13:25	0°♏	
	8514 Sep 28 01:19	0°♑			8517 May 30 13:29	0°♐	
	8514 Oct 24 02:38	0°♊		evening max el	8517 Jun 08 07:16	8°♐59'59	46°38'56
asc. node	8514 Nov 02 00:30	10°♊28'46			8517 Jul 01 22:35	0°♑	
	8514 Nov 18 10:18	0°♌		greatest brilliancy	8517 Jul 17 07:38	8°♑56'19	-4.8m
	8514 Dec 13 06:03	0°♍		retrograde	8517 Jul 28 09:48	11°♑11'59	
	8515 Jan 06 17:37	0°♎		desc. node	8517 Aug 08 13:29	8°♑41'49	
	8515 Jan 30 23:45	0°♏		evening set	8517 Aug 12 07:15	6°♑50'20	

min. Earth dist.	8517 Aug 17 23:01	3° \cap 28'12	0.28142 AU	minimum elong	8520 Jan 07 02:02	19° Z 13'50	0°40'40
inferior conj	8517 Aug 18 15:08	3° \cap 03'06	-2°27'51		8520 Jan 15 18:22	0° \approx	
minimum elong	8517 Aug 18 09:45	3° \cap 11'30	2°26'20	desc. node	8520 Jan 24 07:07	10° \approx 35'39	
	8517 Aug 23 16:40	30° R Ω			8520 Feb 08 21:29	0° H	
morning rise	8517 Aug 24 13:02	29° Ω 31'38		evening rise	8520 Feb 14 13:37	7° H 03'52	
direct	8517 Sep 08 19:48	25° Ω 03'13			8520 Mar 03 22:56	0° Y	
greatest brilliancy	8517 Sep 18 11:01	26° Ω 44'40	-4.7m		8520 Mar 27 23:30	0° B	
	8517 Sep 25 20:51	0° \cap			8520 Apr 21 01:18	0° II	
morning max el	8517 Oct 27 12:49	24° \cap 49'43	45°42'06		8520 May 15 07:41	0° G	
	8517 Nov 01 20:19	0° L		asc. node	8520 May 16 05:45	1° G 07'46	
asc. node	8517 Nov 29 12:42	29° L 16'14			8520 Jun 08 23:15	0° Ω	
	8517 Nov 30 04:27	0° M			8520 Jul 04 07:14	0° \cap	
	8517 Dec 26 09:33	0° J			8520 Jul 30 23:30	0° L	
	8518 Jan 20 14:18	0° Z		evening max el	8520 Aug 17 23:54	18° L 35'45	45°54'36
	8518 Feb 14 05:27	0° \approx			8520 Aug 30 07:54	0° M	
	8518 Mar 10 12:21	0° H		desc. node	8520 Sep 05 00:54	4° M 44'22	
desc. node	8518 Mar 21 05:38	13° H 20'12		greatest brilliancy	8520 Sep 25 18:48	17° M 17'19	-4.7m
	8518 Apr 03 13:56	0° Y		retrograde	8520 Oct 06 05:00	19° M 16'14	
morning set	8518 Apr 27 22:12	0° B 31'14		evening set	8520 Oct 24 08:15	13° M 06'36	
	8518 Apr 27 12:15	0° B		inferior conj	8520 Oct 27 18:47	10° M 58'33	-8°35'03
	8518 May 21 09:22	0° II		minimum elong	8520 Oct 27 16:38	11° M 01'56	8°34'51
				min. Earth dist.	8520 Oct 27 17:52	10° M 59'58	0.29168 AU
superior conj	8518 Jun 07 05:27	21° II 07'49	-1°12'23	morning rise	8520 Oct 31 00:59	8° M 56'52	
minimum elong	8518 Jun 07 16:19	21° II 41'50	1°12'15	direct	8520 Nov 18 07:07	2° M 40'42	
max. Earth dist.	8518 Jun 10 05:09	24° II 52'26	1.71546 AU	greatest brilliancy	8520 Nov 28 19:11	4° M 40'17	-4.7m
	8518 Jun 14 07:22	0° G		asc. node	8520 Dec 27 00:26	23° M 32'43	
	8518 Jul 08 07:51	0° Ω			8521 Jan 03 00:59	0° J	
asc. node	8518 Jul 12 03:23	4° Ω 44'52		morning max el	8521 Jan 06 13:27	3° J 23'52	45°58'40
evening rise	8518 Jul 17 00:17	10° Ω 48'17			8521 Jan 31 19:52	0° Z	
	8518 Aug 01 11:49	0° \cap			8521 Feb 26 23:13	0° \approx	
	8518 Aug 25 20:05	0° L			8521 Mar 24 00:48	0° H	
	8518 Sep 19 10:04	0° M		desc. node	8521 Apr 17 18:03	0° Y 14'51	
	8518 Oct 14 08:18	0° J			8521 Apr 17 13:14	0° Y	
desc. node	8518 Oct 31 21:39	20° J 47'36			8521 May 11 18:26	0° B	
	8518 Nov 08 18:31	0° Z			8521 Jun 04 20:11	0° II	
	8518 Dec 04 23:10	0° \approx			8521 Jun 28 21:22	0° G	
	8519 Jan 01 15:09	0° H		morning set	8521 Jul 11 10:24	15° G 37'20	
evening max el	8519 Jan 11 15:28	10° H 06'20	46°21'44		8521 Jul 22 23:51	0° Ω	
	8519 Feb 03 06:02	0° Y		asc. node	8521 Aug 08 15:25	20° Ω 39'39	
greatest brilliancy	8519 Feb 20 14:54	9° Y 56'31	-4.9m		8521 Aug 16 04:17	0° \cap	
asc. node	8519 Feb 21 21:29	10° Y 22'00					
retrograde	8519 Mar 02 10:27	11° Y 44'54		superior conj	8521 Aug 18 20:47	3° \cap 19'42	0°24'26
evening set	8519 Mar 17 23:38	7° Y 02'23		minimum elong	8521 Aug 18 15:28	3° \cap 03'13	0°24'05
inferior conj	8519 Mar 23 02:48	3° Y 58'39	6°44'57	max. Earth dist.	8521 Aug 21 00:17	5° \cap 59'06	1.72791 AU
minimum elong	8519 Mar 22 15:43	4° Y 15'44	6°42'29		8521 Sep 09 10:35	0° L	
min. Earth dist.	8519 Mar 22 22:40	4° Y 05'02	0.27042 AU	evening rise	8521 Sep 24 21:29	19° L 03'32	
morning rise	8519 Mar 27 07:41	1° Y 26'12			8521 Oct 03 18:52	0° M	
	8519 Mar 29 21:56	30° R H			8521 Oct 28 05:54	0° J	
direct	8519 Apr 12 18:39	26° H 09'54			8521 Nov 21 20:45	0° Z	
greatest brilliancy	8519 Apr 22 14:20	27° H 58'49	-4.9m	desc. node	8521 Nov 28 09:18	7° Z 54'31	
	8519 Apr 27 08:09	0° Y			8521 Dec 16 16:16	0° \approx	
morning max el	8519 Jun 02 04:47	28° Y 54'23	46°56'11		8522 Jan 10 17:19	0° H	
	8519 Jun 03 06:49	0° B			8522 Feb 05 03:08	0° Y	
desc. node	8519 Jun 13 16:23	10° B 49'47			8522 Mar 03 08:37	0° B	
	8519 Jul 01 02:35	0° II		asc. node	8522 Mar 21 08:49	19° B 24'20	
	8519 Jul 27 03:02	0° G		evening max el	8522 Mar 25 12:56	23° B 39'59	46°58'21
	8519 Aug 21 11:11	0° Ω			8522 Mar 31 23:18	0° II	
	8519 Sep 15 11:30	0° \cap		greatest brilliancy	8522 May 05 04:50	24° II 47'31	-4.9m
asc. node	8519 Oct 04 14:10	23° \cap 06'24		retrograde	8522 May 15 02:45	26° II 39'34	
	8519 Oct 10 06:25	0° L		evening set	8522 Jun 01 06:51	20° II 57'04	
	8519 Nov 03 20:31	0° M		inferior conj	8522 Jun 04 20:31	18° II 47'08	7°48'19
	8519 Nov 28 06:30	0° J		minimum elong	8522 Jun 05 06:35	18° II 31'41	7°46'25
morning set	8519 Nov 30 13:32	2° J 49'37		min. Earth dist.	8522 Jun 04 22:25	18° II 44'12	0.27229 AU
	8519 Dec 22 13:29	0° Z		morning rise	8522 Jun 09 06:25	16° II 08'04	
max. Earth dist.	8520 Jan 04 07:00	15° Z 46'06	1.72645 AU	direct	8522 Jun 25 13:21	10° II 58'30	
				greatest brilliancy	8522 Jul 05 07:59	12° II 46'03	-4.8m
superior conj	8520 Jan 06 17:39	18° Z 47'52	0°40'51	desc. node	8522 Jul 11 03:51	15° II 17'45	

	8522 Jul 31 20:04	0°☾			8525 Apr 07 16:13	0°♊		
morning max el	8522 Aug 14 07:43	12°☾28'21	46°15'58	asc. node	8525 Apr 17 20:09	12°♊05'52		
	8522 Aug 31 10:24	0°♌			8525 May 03 04:22	0°☾		
	8522 Sep 27 15:29	0°♍			8525 May 30 08:55	0°♌		
	8522 Oct 23 15:06	0°♎		evening max el	8525 Jun 05 21:41	6°♌41'10	46°40'17	
asc. node	8522 Nov 01 02:31	9°♎59'00			8525 Jul 02 18:12	0°♍		
	8522 Nov 17 21:53	0°♏		greatest brilliancy	8525 Jul 15 00:33	6°♍42'49	-4.8m	
	8522 Dec 12 17:08	0°♐		retrograde	8525 Jul 26 00:47	8°♍56'51		
	8523 Jan 06 04:27	0°♑		desc. node	8525 Aug 07 15:29	5°♍46'54		
	8523 Jan 30 10:28	0°♒		evening set	8525 Aug 09 21:57	4°♍36'34		
morning set	8523 Feb 08 21:28	11°♒45'22		min. Earth dist.	8525 Aug 15 14:54	1°♍12'47	0.28088 AU	
desc. node	8523 Feb 20 19:14	26°♒35'36		inferior conj	8525 Aug 16 06:10	0°♍48'59	-2°07'04	
	8523 Feb 23 12:44	0°♓		minimum elong	8525 Aug 16 01:29	0°♍56'17	2°05'46	
max. Earth dist.	8523 Mar 18 14:51	28°♓53'35	1.71458 AU		8525 Aug 17 13:42	30°♓♌		
	8523 Mar 19 12:02	0°♈		morning rise	8525 Aug 22 05:45	27°♌14'58		
				direct	8525 Sep 06 10:03	22°♌49'53		
superior conj	8523 Mar 20 23:37	1°♈51'35	-1°01'53	greatest brilliancy	8525 Sep 16 01:51	24°♌31'26	-4.7m	
minimum elong	8523 Mar 20 11:53	1°♈14'48	1°01'27		8525 Sep 27 08:12	0°♍		
	8523 Apr 12 09:20	0°♉		morning max el	8525 Oct 25 02:24	22°♍34'22	45°42'34	
evening rise	8523 Apr 30 09:06	22°♉36'35			8525 Nov 01 16:13	0°♎		
	8523 May 06 06:21	0°♊		asc. node	8525 Nov 28 14:38	28°♎40'46		
	8523 May 30 05:20	0°☾			8525 Nov 29 19:03	0°♏		
asc. node	8523 Jun 13 17:24	18°☾03'35			8525 Dec 25 22:10	0°♐		
	8523 Jun 23 08:35	0°♌			8526 Jan 20 02:01	0°♑		
	8523 Jul 17 18:19	0°♍			8526 Feb 13 16:42	0°♒		
	8523 Aug 11 13:40	0°♎			8526 Mar 09 23:22	0°♓		
	8523 Sep 06 00:33	0°♏		desc. node	8526 Mar 20 07:42	12°♓52'30		
	8523 Oct 02 15:48	0°♐			8526 Apr 03 00:48	0°♈		
desc. node	8523 Oct 03 12:11	0°♐55'25		morning set	8526 Apr 25 08:36	27°♈59'22		
evening max el	8523 Oct 29 05:17	27°♐21'34	45°44'06		8526 Apr 26 23:01	0°♉		
	8523 Nov 01 00:22	0°♑			8526 May 20 20:04	0°♊		
greatest brilliancy	8523 Dec 07 09:21	25°♑26'50	-4.8m					
retrograde	8523 Dec 16 22:17	27°♑05'30		superior conj	8526 Jun 04 17:18	18°♊41'05	-1°14'30	
evening set	8524 Jan 01 14:21	22°♑22'03		minimum elong	8526 Jun 05 03:46	19°♊13'55	1°14'25	
inferior conj	8524 Jan 07 00:18	19°♑06'39	-4°11'07	max. Earth dist.	8526 Jun 07 12:21	22°♊11'16	1.71509 AU	
minimum elong	8524 Jan 07 08:46	18°♑53'29	4°08'37		8526 Jun 13 18:01	0°☾		
min. Earth dist.	8524 Jan 07 19:12	18°♑37'15	0.28069 AU		8526 Jul 07 18:29	0°♌		
morning rise	8524 Jan 13 02:38	15°♑27'41		asc. node	8526 Jul 11 05:17	4°♌17'36		
asc. node	8524 Jan 24 11:56	11°♑15'59		evening rise	8526 Jul 14 13:58	8°♌28'27		
direct	8524 Jan 28 05:56	10°♑58'54			8526 Jul 31 22:31	0°♍		
greatest brilliancy	8524 Feb 08 06:39	13°♑14'56	-4.8m		8526 Aug 25 06:57	0°♎		
	8524 Mar 04 05:23	0°♒			8526 Sep 18 21:14	0°♏		
morning max el	8524 Mar 18 13:28	13°♒34'11	46°43'33		8526 Oct 13 20:01	0°♐		
	8524 Apr 03 04:34	0°♓		desc. node	8526 Oct 30 23:39	20°♐17'17		
	8524 Apr 29 15:14	0°♈			8526 Nov 08 07:17	0°♑		
desc. node	8524 May 15 06:24	18°♈28'58			8526 Dec 04 13:58	0°♒		
	8524 May 24 20:48	0°♉			8527 Jan 01 10:53	0°♓		
	8524 Jun 18 13:30	0°♊		evening max el	8527 Jan 09 04:11	7°♓44'04	46°20'01	
	8524 Jul 13 00:54	0°☾			8527 Feb 04 02:45	0°♈		
	8524 Aug 06 10:44	0°♌		greatest brilliancy	8527 Feb 18 03:54	7°♈32'25	-4.8m	
	8524 Aug 30 20:18	0°♍		asc. node	8527 Feb 20 23:33	8°♈24'32		
asc. node	8524 Sep 05 03:47	6°♍32'02		retrograde	8527 Feb 27 23:07	9°♈20'48		
morning set	8524 Sep 19 18:28	24°♍30'56		evening set	8527 Mar 15 08:55	4°♈42'52		
	8524 Sep 24 05:24	0°♎		inferior conj	8527 Mar 20 15:47	1°♈34'22	6°27'57	
	8524 Oct 18 13:46	0°♏		minimum elong	8527 Mar 20 04:42	1°♈51'24	6°25'24	
				min. Earth dist.	8527 Mar 20 12:17	1°♈39'45	0.27052 AU	
superior conj	8524 Oct 26 13:24	9°♏50'33	1°25'19		8527 Mar 23 05:33	30°♓♈		
minimum elong	8524 Oct 26 11:02	9°♏43'15	1°25'25	morning rise	8527 Mar 25 00:18	28°♓56'48		
max. Earth dist.	8524 Oct 26 10:15	9°♏40'51	1.73300 AU	direct	8527 Apr 10 07:25	23°♓44'57		
	8524 Nov 11 21:43	0°♐		greatest brilliancy	8527 Apr 20 04:59	25°♓35'36	-4.9m	
evening rise	8524 Dec 02 06:28	25°♐06'01			8527 Apr 29 06:55	0°♈		
	8524 Dec 06 05:53	0°♑		morning max el	8527 May 30 18:15	26°♈30'42	46°56'56	
desc. node	8524 Dec 25 21:02	24°♑10'27			8527 Jun 03 04:38	0°♉		
	8524 Dec 30 14:38	0°♒		desc. node	8527 Jun 12 18:16	10°♉04'06		
	8525 Jan 23 23:44	0°♓			8527 Jun 30 18:28	0°♊		
	8525 Feb 17 09:18	0°♈			8527 Jul 26 16:34	0°☾		
	8525 Mar 13 21:10	0°♉			8527 Aug 20 23:27	0°♌		

	8527 Sep 14 23:00	0°♍		greatest brilliancy	8530 May 02 18:06	22°♊22'58	-4.9m
asc. node	8527 Oct 03 16:09	22°♍38'40		retrograde	8530 May 12 16:36	24°♊14'58	
	8527 Oct 09 17:26	0°♌		evening set	8530 May 29 23:28	18°♊27'34	
	8527 Nov 03 07:14	0°♍		inferior conj	8530 Jun 02 09:34	16°♊22'41	8°00'33
	8527 Nov 27 17:03	0°♌		minimum elong	8530 Jun 02 19:12	16°♊07'52	7°58'51
morning set	8527 Nov 28 06:49	0°♌42'26		min. Earth dist.	8530 Jun 02 11:01	16°♊20'27	0.27221 AU
	8527 Dec 21 23:58	0°♋		morning rise	8530 Jun 06 15:05	13°♊49'56	
max. Earth dist.	8528 Jan 02 03:01	13°♋46'45	1.72683 AU	direct	8530 Jun 23 02:51	8°♊34'23	
				greatest brilliancy	8530 Jul 02 19:48	10°♊20'43	-4.8m
superior conj	8528 Jan 04 09:17	16°♋34'56	0°43'52	desc. node	8530 Jul 10 05:54	13°♊43'07	
minimum elong	8528 Jan 04 18:03	17°♋02'07	0°43'40		8530 Aug 01 02:14	0°♏	
	8528 Jan 15 04:55	0°♏		morning max el	8530 Aug 11 22:08	10°♏09'42	46°17'31
desc. node	8528 Jan 23 09:04	10°♏08'49			8530 Aug 31 04:19	0°♏	
	8528 Feb 08 08:10	0°♎			8530 Sep 27 05:49	0°♍	
evening rise	8528 Feb 12 03:37	4°♎44'38			8530 Oct 23 03:45	0°♌	
	8528 Mar 03 09:48	0°♎		asc. node	8530 Oct 31 04:26	9°♌28'14	
	8528 Mar 27 10:37	0°♎			8530 Nov 17 09:38	0°♍	
	8528 Apr 20 12:42	0°♎			8530 Dec 12 04:23	0°♌	
	8528 May 14 19:31	0°♏			8531 Jan 05 15:27	0°♋	
asc. node	8528 May 15 07:38	0°♏37'11			8531 Jan 29 21:22	0°♏	
	8528 Jun 08 11:49	0°♏		morning set	8531 Feb 06 11:15	9°♏25'08	
	8528 Jul 03 21:12	0°♍		desc. node	8531 Feb 19 21:18	26°♏08'11	
	8528 Jul 30 16:41	0°♌			8531 Feb 22 23:35	0°♎	
evening max el	8528 Aug 15 15:27	16°♌23'30	45°55'55	max. Earth dist.	8531 Mar 15 22:40	26°♎13'41	1.71484 AU
	8528 Aug 30 13:23	0°♍					
desc. node	8528 Sep 04 02:58	3°♍40'47		superior conj	8531 Mar 18 11:25	29°♎24'05	-0°59'04
greatest brilliancy	8528 Sep 23 09:06	15°♍06'09	-4.7m	minimum elong	8531 Mar 17 23:48	28°♎47'41	0°58'38
retrograde	8528 Oct 03 21:50	17°♍07'10			8531 Mar 18 22:52	0°♎	
evening set	8528 Oct 21 22:39	10°♍59'47			8531 Apr 11 20:12	0°♎	
inferior conj	8528 Oct 25 11:01	8°♍49'02	-8°32'33	evening rise	8531 Apr 27 20:07	20°♎06'05	
minimum elong	8528 Oct 25 08:07	8°♍53'35	8°32'19		8531 May 05 17:18	0°♎	
min. Earth dist.	8528 Oct 25 08:35	8°♍52'51	0.29164 AU		8531 May 29 16:26	0°♏	
morning rise	8528 Oct 28 17:36	6°♍47'01		asc. node	8531 Jun 12 19:19	17°♏34'48	
direct	8528 Nov 15 23:28	0°♍31'25			8531 Jun 22 19:54	0°♏	
greatest brilliancy	8528 Nov 26 10:06	2°♍30'02	-4.7m		8531 Jul 17 05:59	0°♍	
asc. node	8528 Dec 26 02:18	22°♍37'39			8531 Aug 11 01:57	0°♌	
	8529 Jan 02 23:33	0°♌			8531 Sep 05 14:05	0°♍	
morning max el	8529 Jan 04 05:52	1°♌13'44	45°57'30		8531 Oct 02 08:03	0°♌	
	8529 Jan 31 11:28	0°♋		desc. node	8531 Oct 02 14:11	0°♌16'37	
	8529 Feb 26 12:30	0°♏		evening max el	8531 Oct 26 19:49	25°♌07'07	45°43'32
	8529 Mar 23 13:02	0°♎			8531 Nov 01 01:03	0°♋	
desc. node	8529 Apr 16 20:02	29°♎44'54		greatest brilliancy	8531 Dec 05 00:23	23°♋12'29	-4.8m
	8529 Apr 17 00:55	0°♎		retrograde	8531 Dec 14 12:02	24°♋50'08	
	8529 May 11 05:47	0°♎		evening set	8531 Dec 30 07:42	20°♋02'52	
	8529 Jun 04 07:17	0°♎		inferior conj	8532 Jan 04 15:11	16°♋50'46	-4°29'45
	8529 Jun 28 08:17	0°♏		minimum elong	8532 Jan 05 00:04	16°♋36'55	4°27'11
morning set	8529 Jul 09 00:24	13°♏17'42		min. Earth dist.	8532 Jan 05 10:37	16°♋20'28	0.28123 AU
	8529 Jul 22 10:38	0°♏		morning rise	8532 Jan 10 15:50	13°♋13'33	
asc. node	8529 Aug 07 17:26	20°♏12'44		asc. node	8532 Jan 23 14:04	8°♋48'35	
	8529 Aug 15 14:58	0°♍		direct	8532 Jan 25 21:01	8°♋42'16	
				greatest brilliancy	8532 Feb 05 22:27	10°♋58'20	-4.8m
superior conj	8529 Aug 16 12:13	1°♍05'47	0°21'05		8532 Mar 04 10:31	0°♏	
minimum elong	8529 Aug 16 07:33	0°♍51'22	0°20'46	morning max el	8532 Mar 16 03:17	11°♏12'34	46°42'17
max. Earth dist.	8529 Aug 18 18:46	3°♍54'40	1.72755 AU		8532 Apr 02 22:16	0°♎	
	8529 Sep 08 21:15	0°♌			8532 Apr 29 05:40	0°♎	
evening rise	8529 Sep 22 14:46	16°♌56'04		desc. node	8532 May 14 08:15	17°♎54'21	
	8529 Oct 03 05:36	0°♍			8532 May 24 09:45	0°♎	
	8529 Oct 27 16:49	0°♌			8532 Jun 18 01:38	0°♎	
	8529 Nov 21 08:02	0°♋			8532 Jul 12 12:30	0°♏	
desc. node	8529 Nov 27 11:10	7°♋25'43			8532 Aug 05 22:00	0°♏	
	8529 Dec 16 04:06	0°♏			8532 Aug 30 07:18	0°♍	
	8530 Jan 10 06:01	0°♎		asc. node	8532 Sep 04 05:46	6°♍04'23	
	8530 Feb 04 17:17	0°♎		morning set	8532 Sep 17 11:07	22°♍21'00	
	8530 Mar 03 01:44	0°♎			8532 Sep 23 16:15	0°♌	
asc. node	8530 Mar 20 10:50	18°♎34'43			8532 Oct 18 00:32	0°♍	
evening max el	8530 Mar 23 03:34	21°♎19'13	46°57'48				
	8530 Apr 01 01:27	0°♎		superior conj	8532 Oct 24 06:58	7°♍43'34	1°24'50

minimum elong	8532 Oct 24 03:54	7°♍34'09	1°24'56	morning rise	8535 Mar 22 16:47	26°♎26'13	
max. Earth dist.	8532 Oct 24 03:31	7°♍32'58	1.73301 AU	direct	8535 Apr 07 20:35	21°♎18'45	
	8532 Nov 11 08:30	0°♊		greatest brilliancy	8535 Apr 17 19:03	23°♎10'37	-4.9m
evening rise	8532 Nov 29 22:50	22°♊55'07			8535 Apr 30 15:08	0°♎	
	8532 Dec 05 16:49	0°♊		morning max el	8535 May 28 08:43	24°♎08'38	46°57'38
desc. node	8532 Dec 24 23:00	23°♊42'24			8535 Jun 03 02:03	0°♎	
	8532 Dec 30 01:46	0°♋		desc. node	8535 Jun 11 20:15	9°♎18'22	
	8533 Jan 23 11:12	0°♋			8535 Jun 30 10:25	0°♎	
	8533 Feb 16 21:12	0°♎			8535 Jul 26 06:15	0°♎	
	8533 Mar 13 09:42	0°♎			8535 Aug 20 11:54	0°♎	
	8533 Apr 07 05:45	0°♎			8535 Sep 14 10:43	0°♎	
asc. node	8533 Apr 16 22:04	11°♎29'56		asc. node	8535 Oct 02 18:02	22°♎09'54	
	8533 May 02 19:47	0°♎			8535 Oct 09 04:41	0°♎	
	8533 May 30 05:13	0°♎			8535 Nov 02 18:13	0°♎	
evening max el	8533 Jun 03 11:24	4°♎19'52	46°41'43	morning set	8535 Nov 25 23:59	28°♎33'58	
	8533 Jul 03 21:33	0°♎			8535 Nov 27 03:55	0°♎	
greatest brilliancy	8533 Jul 12 17:12	4°♎28'13	-4.8m		8535 Dec 21 10:49	0°♎	
retrograde	8533 Jul 23 15:42	6°♎41'12		max. Earth dist.	8535 Dec 30 22:00	11°♎43'08	1.72720 AU
desc. node	8533 Aug 06 17:31	2°♎47'21					
evening set	8533 Aug 07 12:50	2°♎21'32		superior conj	8536 Jan 02 00:42	14°♎20'12	0°46'49
	8533 Aug 11 13:48	30°♎		minimum elong	8536 Jan 02 09:48	14°♎48'23	0°46'38
inferior conj	8533 Aug 13 21:15	28°♎34'05	-1°46'09		8536 Jan 14 15:50	0°♎	
minimum elong	8533 Aug 13 17:18	28°♎40'15	1°45'03	desc. node	8536 Jan 22 11:07	9°♎41'12	
min. Earth dist.	8533 Aug 13 06:55	28°♎56'24	0.28042 AU		8536 Feb 07 19:12	0°♎	
morning rise	8533 Aug 19 22:24	24°♎57'46		evening rise	8536 Feb 09 17:17	2°♎23'25	
direct	8533 Sep 04 00:06	20°♎35'26			8536 Mar 02 21:00	0°♎	
greatest brilliancy	8533 Sep 13 17:14	22°♎17'45	-4.8m		8536 Mar 26 22:02	0°♎	
	8533 Sep 28 09:46	0°♎			8536 Apr 20 00:24	0°♎	
morning max el	8533 Oct 22 16:34	20°♎19'01	45°42'58	asc. node	8536 May 14 09:35	0°♎05'53	
	8533 Nov 01 12:02	0°♎			8536 May 14 07:40	0°♎	
asc. node	8533 Nov 27 16:33	28°♎04'05			8536 Jun 08 00:44	0°♎	
	8533 Nov 29 09:58	0°♎			8536 Jul 03 11:33	0°♎	
	8533 Dec 25 11:12	0°♎			8536 Jul 30 10:27	0°♎	
	8534 Jan 19 14:08	0°♎		evening max el	8536 Aug 13 07:56	14°♎13'01	45°57'20
	8534 Feb 13 04:19	0°♎			8536 Aug 30 21:20	0°♎	
	8534 Mar 09 10:42	0°♎		desc. node	8536 Sep 03 04:55	2°♎34'56	
desc. node	8534 Mar 19 09:33	12°♎23'04		greatest brilliancy	8536 Sep 20 23:35	12°♎55'03	-4.7m
	8534 Apr 02 12:00	0°♎		retrograde	8536 Oct 01 14:41	14°♎57'49	
morning set	8534 Apr 22 18:59	25°♎26'17		evening set	8536 Oct 19 12:54	8°♎53'21	
	8534 Apr 26 10:08	0°♎		inferior conj	8536 Oct 23 03:20	6°♎39'23	-8°29'20
	8534 May 20 07:07	0°♎		minimum elong	8536 Oct 22 23:42	6°♎45'05	8°29'02
				min. Earth dist.	8536 Oct 22 23:14	6°♎45'50	0.29160 AU
superior conj	8534 Jun 02 05:16	16°♎13'41	-1°16'28	morning rise	8536 Oct 26 10:34	4°♎36'28	
minimum elong	8534 Jun 02 15:19	16°♎45'11	1°16'25		8536 Nov 04 15:28	30°♎	
max. Earth dist.	8534 Jun 04 17:42	19°♎23'10	1.71471 AU	direct	8536 Nov 13 16:14	28°♎22'11	
	8534 Jun 13 04:59	0°♎			8536 Nov 23 02:33	0°♎	
	8534 Jul 07 05:25	0°♎		greatest brilliancy	8536 Nov 24 00:33	0°♎19'01	-4.7m
asc. node	8534 Jul 10 07:20	3°♎49'59		asc. node	8536 Dec 25 04:25	21°♎43'37	
evening rise	8534 Jul 12 03:49	6°♎08'18		morning max el	8537 Jan 01 22:11	29°♎02'49	45°56'03
	8534 Jul 31 09:30	0°♎			8537 Jan 02 21:30	0°♎	
	8534 Aug 24 18:06	0°♎			8537 Jan 31 03:08	0°♎	
	8534 Sep 18 08:45	0°♎			8537 Feb 26 02:00	0°♎	
	8534 Oct 13 08:10	0°♎			8537 Mar 23 01:31	0°♎	
desc. node	8534 Oct 30 01:30	19°♎45'03		desc. node	8537 Apr 15 21:57	29°♎14'05	
	8534 Nov 07 20:35	0°♎			8537 Apr 16 12:49	0°♎	
	8534 Dec 04 05:30	0°♎			8537 May 10 17:18	0°♎	
	8535 Jan 01 07:50	0°♎			8537 Jun 03 18:32	0°♎	
evening max el	8535 Jan 06 17:42	5°♎22'41	46°18'27		8537 Jun 27 19:21	0°♎	
	8535 Feb 05 08:09	0°♎		morning set	8537 Jul 06 14:21	10°♎57'28	
greatest brilliancy	8535 Feb 15 16:18	5°♎06'28	-4.8m		8537 Jul 21 21:33	0°♎	
asc. node	8535 Feb 20 01:31	6°♎20'48		asc. node	8537 Aug 06 19:24	19°♎45'13	
retrograde	8535 Feb 25 12:14	6°♎55'28					
evening set	8535 Mar 12 18:21	2°♎21'44		superior conj	8537 Aug 14 03:41	28°♎51'31	0°17'42
	8535 Mar 16 19:08	30°♎		minimum elong	8537 Aug 13 23:44	28°♎39'17	0°17'23
inferior conj	8535 Mar 18 04:39	29°♎08'42	6°10'17		8537 Aug 15 01:47	0°♎	
minimum elong	8535 Mar 17 17:39	29°♎25'35	6°07'39	max. Earth dist.	8537 Aug 16 14:05	1°♎52'24	1.72716 AU
min. Earth dist.	8535 Mar 18 01:30	29°♎13'33	0.27062 AU		8537 Sep 08 08:01	0°♎	

evening rise	8537 Sep 20 08:13	14° Ω 48'44		desc. node	8540 May 13 10:16	17° Υ 20'31	
	8537 Oct 02 16:24	0° \mathbb{M}			8540 May 23 22:34	0° \mathcal{B}	
	8537 Oct 27 03:49	0° \mathcal{A}			8540 Jun 17 13:40	0° \mathbb{I}	
	8537 Nov 20 19:25	0° \mathcal{Z}			8540 Jul 12 00:01	0° \mathcal{E}	
desc. node	8537 Nov 26 13:14	6° \mathcal{Z} 57'10			8540 Aug 05 09:06	0° Ω	
	8537 Dec 15 16:06	0° \approx			8540 Aug 29 18:06	0° \mathbb{M}	
	8538 Jan 09 18:58	0° \mathcal{H}		asc. node	8540 Sep 03 07:36	5° \mathbb{M} 36'55	
	8538 Feb 04 07:50	0° Υ		morning set	8540 Sep 15 03:40	20° \mathbb{M} 11'23	
	8538 Mar 02 19:30	0° \mathcal{B}			8540 Sep 23 02:51	0° $\underline{\Omega}$	
asc. node	8538 Mar 19 12:44	17° \mathcal{B} 43'06			8540 Oct 17 11:04	0° \mathbb{M}	
evening max el	8538 Mar 20 17:56	18° \mathcal{B} 56'56	46°57'10				
	8538 Apr 01 05:33	0° \mathbb{I}		superior conj	8540 Oct 22 00:41	5° \mathbb{M} 37'50	1°24'15
greatest brilliancy	8538 Apr 30 07:58	19° \mathbb{I} 58'20	-4.9m	minimum elong	8540 Oct 21 20:58	5° \mathbb{M} 26'22	1°24'20
retrograde	8538 May 10 05:57	21° \mathbb{I} 49'24		max. Earth dist.	8540 Oct 21 21:04	5° \mathbb{M} 26'41	1.73301 AU
evening set	8538 May 27 15:58	15° \mathbb{I} 57'36			8540 Nov 10 19:04	0° \mathcal{A}	
inferior conj	8538 May 30 22:34	13° \mathbb{I} 57'42	8°12'00	evening rise	8540 Nov 27 15:39	20° \mathcal{A} 46'23	
minimum elong	8538 May 31 07:40	13° \mathbb{I} 43'40	8°10'30		8540 Dec 05 03:29	0° \mathcal{Z}	
min. Earth dist.	8538 May 30 23:48	13° \mathbb{I} 55'48	0.27207 AU	desc. node	8540 Dec 24 01:03	23° \mathcal{Z} 15'29	
morning rise	8538 Jun 03 23:31	11° \mathbb{I} 31'17			8540 Dec 29 12:38	0° \approx	
direct	8538 Jun 20 15:58	6° \mathbb{I} 09'50			8541 Jan 22 22:21	0° \mathcal{H}	
greatest brilliancy	8538 Jun 30 07:53	7° \mathbb{I} 55'11	-4.8m		8541 Feb 16 08:50	0° Υ	
desc. node	8538 Jul 09 07:58	12° \mathbb{I} 11'32			8541 Mar 12 22:01	0° \mathcal{B}	
	8538 Aug 01 06:29	0° \mathcal{E}			8541 Apr 06 19:09	0° \mathbb{I}	
morning max el	8538 Aug 09 11:35	7° \mathcal{E} 48'28	46°19'07	asc. node	8541 Apr 16 00:01	10° \mathbb{I} 54'25	
	8538 Aug 30 21:50	0° Ω			8541 May 02 11:17	0° \mathcal{E}	
	8538 Sep 26 19:57	0° \mathbb{M}			8541 May 30 02:06	0° Ω	
asc. node	8538 Oct 22 16:17	0° $\underline{\Omega}$		evening max el	8541 Jun 01 01:07	1° Ω 58'44	46°43'06
	8538 Oct 30 06:22	8° $\underline{\Omega}$ 57'50			8541 Jul 05 12:55	0° \mathbb{M}	
	8538 Nov 16 21:16	0° \mathbb{M}		greatest brilliancy	8541 Jul 10 09:20	2° \mathbb{M} 12'44	-4.8m
	8538 Dec 11 15:32	0° \mathcal{A}		retrograde	8541 Jul 21 06:50	4° \mathbb{M} 25'21	
	8539 Jan 05 02:23	0° \mathcal{Z}		evening set	8541 Aug 05 03:40	0° \mathbb{M} 05'48	
	8539 Jan 29 08:14	0° \approx			8541 Aug 05 07:55	30° $\mathcal{R}\Omega$	
morning set	8539 Feb 04 01:11	7° \approx 05'31		desc. node	8541 Aug 05 19:25	29° Ω 44'06	
desc. node	8539 Feb 18 23:12	25° \approx 40'14		min. Earth dist.	8541 Aug 10 22:38	26° Ω 39'50	0.27995 AU
	8539 Feb 22 10:27	0° \mathcal{H}		inferior conj	8541 Aug 11 12:07	26° Ω 18'54	-1°24'50
max. Earth dist.	8539 Mar 13 04:23	23° \mathcal{H} 27'10	1.71521 AU	minimum elong	8541 Aug 11 08:56	26° Ω 23'51	1°23'57
				morning rise	8541 Aug 17 14:45	22° Ω 40'45	
superior conj	8539 Mar 15 23:06	26° \mathcal{H} 56'07	-0°56'08	direct	8541 Sep 01 13:52	18° Ω 20'40	
minimum elong	8539 Mar 15 11:42	26° \mathcal{H} 20'26	0°55'40	greatest brilliancy	8541 Sep 11 08:22	20° Ω 04'04	-4.8m
	8539 Mar 18 09:46	0° Υ			8541 Sep 29 04:15	0° \mathbb{M}	
	8539 Apr 11 07:09	0° \mathcal{B}		morning max el	8541 Oct 20 07:28	18° \mathbb{M} 06'15	45°43'33
evening rise	8539 Apr 25 06:41	17° \mathcal{B} 33'58			8541 Nov 01 06:54	0° $\underline{\Omega}$	
	8539 May 05 04:19	0° \mathbb{I}		asc. node	8541 Nov 26 18:37	27° $\underline{\Omega}$ 29'05	
	8539 May 29 03:33	0° \mathcal{E}			8541 Nov 29 00:19	0° \mathbb{M}	
asc. node	8539 Jun 11 21:23	17° \mathcal{E} 06'25			8541 Dec 24 23:45	0° \mathcal{A}	
	8539 Jun 22 07:12	0° Ω			8542 Jan 19 01:48	0° \mathcal{Z}	
	8539 Jul 16 17:37	0° \mathbb{M}			8542 Feb 12 15:31	0° \approx	
	8539 Aug 10 14:13	0° $\underline{\Omega}$			8542 Mar 08 21:38	0° \mathcal{H}	
	8539 Sep 05 03:36	0° \mathbb{M}		desc. node	8542 Mar 18 11:30	11° \mathcal{H} 55'16	
desc. node	8539 Oct 01 16:06	29° \mathbb{M} 37'39			8542 Apr 01 22:48	0° Υ	
	8539 Oct 02 00:25	0° \mathcal{A}		morning set	8542 Apr 20 05:39	22° Υ 55'24	
evening max el	8539 Oct 24 09:52	22° \mathcal{A} 52'10	45°43'08		8542 Apr 25 20:52	0° \mathcal{B}	
	8539 Nov 01 02:43	0° \mathcal{Z}			8542 May 19 17:49	0° \mathbb{I}	
greatest brilliancy	8539 Dec 02 15:39	20° \mathcal{Z} 59'43	-4.8m				
retrograde	8539 Dec 12 02:06	22° \mathcal{Z} 36'46		superior conj	8542 May 30 17:04	13° \mathbb{I} 46'36	-1°18'18
evening set	8539 Dec 28 01:22	17° \mathcal{Z} 45'17		minimum elong	8542 May 31 02:35	14° \mathbb{I} 16'28	1°18'17
inferior conj	8540 Jan 02 06:23	14° \mathcal{Z} 36'46	-4°47'32	max. Earth dist.	8542 Jun 02 00:13	16° \mathbb{I} 39'38	1.71445 AU
minimum elong	8540 Jan 02 15:38	14° \mathcal{Z} 22'21	4°44'59		8542 Jun 12 15:39	0° \mathcal{E}	
min. Earth dist.	8540 Jan 03 02:27	14° \mathcal{Z} 05'28	0.28181 AU		8542 Jul 06 16:06	0° Ω	
morning rise	8540 Jan 08 05:13	11° \mathcal{Z} 01'40		asc. node	8542 Jul 09 09:15	3° Ω 22'43	
asc. node	8540 Jan 22 15:58	6° \mathcal{Z} 28'12		evening rise	8542 Jul 09 17:11	3° Ω 47'24	
direct	8540 Jan 23 12:07	6° \mathcal{Z} 27'21			8542 Jul 30 20:15	0° \mathbb{M}	
greatest brilliancy	8540 Feb 03 14:59	8° \mathcal{Z} 44'13	-4.8m		8542 Aug 24 05:01	0° $\underline{\Omega}$	
	8540 Mar 04 13:27	0° \approx			8542 Sep 17 19:59	0° \mathbb{M}	
morning max el	8540 Mar 13 17:17	8° \approx 52'11	46°40'47		8542 Oct 12 20:02	0° \mathcal{A}	
	8540 Apr 02 15:24	0° \mathcal{H}		desc. node	8542 Oct 29 03:35	19° \mathcal{A} 14'29	
	8540 Apr 28 19:52	0° Υ			8542 Nov 07 09:37	0° \mathcal{Z}	

	8542 Dec 03 20:51	0°♊			8545 May 10 04:26	0°♋		
	8543 Jan 01 05:02	0°♌			8545 Jun 03 05:24	0°♍		
evening max el	8543 Jan 04 08:25	3°♌05'47	46°16'57		8545 Jun 27 06:02	0°♎		
	8543 Feb 07 01:14	0°♏		morning set	8545 Jul 04 04:34	8°♎39'09		
greatest brilliancy	8543 Feb 13 04:39	2°♏42'33	-4.8m		8545 Jul 21 08:06	0°♏		
asc. node	8543 Feb 19 03:27	4°♏14'03		asc. node	8545 Aug 05 21:16	19°♏18'29		
retrograde	8543 Feb 23 01:51	4°♏32'17						
evening set	8543 Mar 10 04:20	0°♏02'40		superior conj	8545 Aug 11 19:14	26°♏38'30	0°14'17	
	8543 Mar 10 06:16	30°♌♌		minimum elong	8545 Aug 11 16:01	26°♏28'32	0°14'00	
inferior conj	8543 Mar 15 17:45	26°♌45'15	5°52'06	behind sun begin	8545 Aug 11 04:21	25°♏52'22		
minimum elong	8543 Mar 15 06:55	27°♌01'52	5°49'24	behind sun end	8545 Aug 12 03:41	27°♏04'42		
min. Earth dist.	8543 Mar 15 14:44	26°♌49'53	0.27069 AU	max. Earth dist.	8545 Aug 14 09:45	29°♏52'11	1.72679 AU	
morning rise	8543 Mar 20 09:24	23°♌57'59			8545 Aug 14 12:16	0°♐		
direct	8543 Apr 05 10:25	18°♌55'05			8545 Sep 07 18:30	0°♑		
greatest brilliancy	8543 Apr 15 08:47	20°♌47'22	-4.9m	evening rise	8545 Sep 18 01:34	12°♑41'54		
	8543 May 01 13:18	0°♑			8545 Oct 02 02:58	0°♒		
morning max el	8543 May 25 23:33	21°♑49'13	46°58'04		8545 Oct 26 14:36	0°♓		
	8543 Jun 02 22:07	0°♋			8545 Nov 20 06:35	0°♌		
desc. node	8543 Jun 10 22:20	8°♋35'02		desc. node	8545 Nov 25 15:13	6°♌29'06		
	8543 Jun 30 01:37	0°♍			8545 Dec 15 03:53	0°♎		
	8543 Jul 25 19:26	0°♎			8546 Jan 09 07:43	0°♏		
	8543 Aug 19 23:59	0°♏			8546 Feb 03 22:13	0°♑		
	8543 Sep 13 22:06	0°♐			8546 Mar 02 13:20	0°♋		
asc. node	8543 Oct 01 20:02	21°♐42'30		evening max el	8546 Mar 18 07:36	16°♋33'46	46°56'26	
	8543 Oct 08 15:36	0°♑		asc. node	8546 Mar 18 14:48	16°♋51'52		
	8543 Nov 02 04:50	0°♒			8546 Apr 01 11:06	0°♍		
morning set	8543 Nov 23 17:09	26°♒26'44		greatest brilliancy	8546 Apr 27 22:26	17°♒35'26	-4.9m	
	8543 Nov 26 14:23	0°♓		retrograde	8546 May 07 18:49	19°♒25'06		
	8543 Dec 20 21:16	0°♌		evening set	8546 May 25 08:30	13°♒29'04		
max. Earth dist.	8543 Dec 28 16:02	9°♌37'54	1.72754 AU	inferior conj	8546 May 28 11:44	11°♒34'04	8°22'33	
				minimum elong	8546 May 28 20:14	11°♒20'56	8°21'14	
superior conj	8543 Dec 30 16:20	12°♌07'29	0°49'40	min. Earth dist.	8546 May 28 13:04	11°♒32'02	0.27193 AU	
minimum elong	8543 Dec 31 01:42	12°♌36'29	0°49'30	morning rise	8546 Jun 01 08:06	9°♒14'03		
	8544 Jan 14 02:21	0°♎		direct	8546 Jun 18 04:44	3°♒46'28		
desc. node	8544 Jan 21 12:59	9°♎14'14		greatest brilliancy	8546 Jun 27 20:41	5°♒31'30	-4.9m	
evening rise	8544 Feb 07 07:17	0°♏04'26		desc. node	8546 Jul 08 09:49	10°♒43'51		
	8544 Feb 07 05:52	0°♌			8546 Aug 01 08:38	0°♎		
	8544 Mar 02 07:50	0°♑		morning max el	8546 Aug 07 00:23	5°♎26'23	46°20'46	
	8544 Mar 26 09:02	0°♋			8546 Aug 30 14:37	0°♏		
	8544 Apr 19 11:41	0°♍			8546 Sep 26 09:40	0°♐		
asc. node	8544 May 13 11:40	29°♍36'21		asc. node	8546 Oct 22 04:31	0°♑		
	8544 May 13 19:23	0°♎			8546 Oct 29 08:23	8°♑28'17		
	8544 Jun 07 13:16	0°♏			8546 Nov 16 08:43	0°♒		
	8544 Jul 03 01:38	0°♐			8546 Dec 11 02:34	0°♓		
	8544 Jul 30 04:17	0°♑			8547 Jan 04 13:12	0°♌		
evening max el	8544 Aug 11 00:38	12°♑03'45	45°58'31		8547 Jan 28 18:57	0°♎		
	8544 Aug 31 07:52	0°♒		morning set	8547 Feb 01 15:08	4°♎46'23		
desc. node	8544 Sep 02 06:54	1°♒28'00		desc. node	8547 Feb 18 01:07	25°♎12'56		
greatest brilliancy	8544 Sep 18 14:41	10°♒45'04	-4.7m		8547 Feb 21 21:08	0°♏		
retrograde	8544 Sep 29 07:04	12°♒48'42		max. Earth dist.	8547 Mar 10 12:16	20°♏48'01	1.71559 AU	
evening set	8544 Oct 17 02:53	6°♒47'51						
inferior conj	8544 Oct 20 19:35	4°♒30'16	-8°25'28	superior conj	8547 Mar 13 10:50	24°♏29'00	-0°53'06	
minimum elong	8544 Oct 20 15:14	4°♒37'05	8°25'04	minimum elong	8547 Mar 12 23:44	23°♏54'12	0°52'37	
min. Earth dist.	8544 Oct 20 14:02	4°♒38'58	0.29148 AU		8547 Mar 17 20:29	0°♑		
morning rise	8544 Oct 24 03:41	2°♒25'56			8547 Apr 10 17:56	0°♋		
	8544 Oct 28 10:53	30°♌♑		evening rise	8547 Apr 22 17:27	15°♋02'59		
direct	8544 Nov 11 08:55	26°♑13'40			8547 May 04 15:12	0°♍		
greatest brilliancy	8544 Nov 21 14:50	28°♑08'25	-4.7m		8547 May 28 14:34	0°♎		
	8544 Nov 26 01:12	0°♒		asc. node	8547 Jun 10 23:17	16°♎37'53		
asc. node	8544 Dec 24 06:22	20°♒51'10			8547 Jun 21 18:24	0°♏		
morning max el	8544 Dec 30 13:39	26°♒50'57	45°54'44		8547 Jul 16 05:09	0°♐		
	8545 Jan 02 18:15	0°♓			8547 Aug 10 02:25	0°♑		
	8545 Jan 30 18:10	0°♌			8547 Sep 04 17:09	0°♒		
	8545 Feb 25 15:01	0°♎		desc. node	8547 Sep 30 18:11	28°♒58'54		
	8545 Mar 22 13:34	0°♏			8547 Oct 01 17:03	0°♓		
desc. node	8545 Apr 14 23:56	28°♏44'42		evening max el	8547 Oct 21 23:29	20°♓36'19	45°42'40	
	8545 Apr 16 00:19	0°♑			8547 Nov 01 05:57	0°♌		

greatest brilliancy	8547 Nov 30 06:14	18° Z 45'53	-4.7m	superior conj	8550 May 28 04:33	11° II 17'36	-1°20'00
retrograde	8547 Dec 09 16:22	20° Z 23'06		minimum elong	8550 May 28 13:26	11° II 45'30	1°20'00
evening set	8547 Dec 25 18:57	15° Z 26'55		max. Earth dist.	8550 May 30 09:41	14° II 04'22	1.71416 AU
inferior conj	8547 Dec 30 21:26	12° Z 22'10	-5°04'59		8550 Jun 12 02:35	0° Z	
minimum elong	8547 Dec 31 06:59	12° Z 07'18	5°02'25		8550 Jul 06 03:03	0° Z	
min. Earth dist.	8547 Dec 31 17:59	11° Z 50'09	0.28241 AU	evening rise	8550 Jul 07 06:27	1° Z 25'17	
morning rise	8548 Jan 05 18:19	8° Z 49'44		asc. node	8550 Jul 08 11:09	2° Z 54'34	
direct	8548 Jan 21 03:09	4° Z 11'44			8550 Jul 30 07:17	0° II	
asc. node	8548 Jan 21 17:53	4° Z 12'11			8550 Aug 23 16:15	0° Z	
greatest brilliancy	8548 Feb 01 07:37	6° Z 29'54	-4.8m		8550 Sep 17 07:35	0° II	
	8548 Mar 04 15:01	0° Z			8550 Oct 12 08:16	0° Z	
morning max el	8548 Mar 11 07:53	6° Z 33'15	46°39'27	desc. node	8550 Oct 28 05:35	18° Z 42'34	
	8548 Apr 02 08:12	0° II			8550 Nov 06 23:04	0° Z	
	8548 Apr 28 09:53	0° Y			8550 Dec 03 12:47	0° Z	
desc. node	8548 May 12 12:18	16° Y 47'02			8551 Jan 01 03:28	0° II	
	8548 May 23 11:18	0° Z		evening max el	8551 Jan 01 23:24	0° II 48'42	46°15'15
	8548 Jun 17 01:39	0° II			8551 Feb 09 21:59	0° Y	
	8548 Jul 11 11:29	0° Z		greatest brilliancy	8551 Feb 10 17:00	0° Y 17'22	-4.8m
	8548 Aug 04 20:12	0° Z		asc. node	8551 Feb 18 05:30	2° Y 00'26	
	8548 Aug 29 04:55	0° II		retrograde	8551 Feb 20 15:02	2° Y 07'15	
asc. node	8548 Sep 02 09:38	5° II 10'01			8551 Mar 02 20:06	30° R II	
morning set	8548 Sep 12 20:21	18° II 01'56		evening set	8551 Mar 07 14:26	27° II 41'45	
	8548 Sep 22 13:30	0° Z		inferior conj	8551 Mar 13 06:42	24° II 20'05	5°33'06
	8548 Oct 16 21:39	0° II		minimum elong	8551 Mar 12 20:08	24° II 36'18	5°30'24
				min. Earth dist.	8551 Mar 13 03:58	24° II 24'17	0.27080 AU
superior conj	8548 Oct 19 18:30	3° II 32'14	1°23'33	morning rise	8551 Mar 18 01:46	21° II 27'56	
minimum elong	8548 Oct 19 14:08	3° II 18'45	1°23'36	direct	8551 Apr 03 00:23	16° II 29'47	
max. Earth dist.	8548 Oct 19 16:28	3° II 25'56	1.73303 AU	greatest brilliancy	8551 Apr 12 22:28	18° II 22'08	-4.9m
	8548 Nov 10 05:42	0° Z			8551 May 02 06:32	0° Y	
evening rise	8548 Nov 25 08:36	18° Z 37'50		morning max el	8551 May 23 13:36	19° Y 26'12	46°58'27
	8548 Dec 04 14:15	0° Z			8551 Jun 02 18:08	0° Z	
desc. node	8548 Dec 23 02:56	22° Z 47'37		desc. node	8551 Jun 10 00:12	7° Z 50'10	
	8548 Dec 28 23:40	0° Z			8551 Jun 29 17:05	0° II	
	8549 Jan 22 09:44	0° II			8551 Jul 25 08:54	0° Z	
	8549 Feb 15 20:41	0° Y			8551 Aug 19 12:22	0° Z	
	8549 Mar 12 10:33	0° Z			8551 Sep 13 09:48	0° II	
	8549 Apr 06 08:49	0° II		asc. node	8551 Sep 30 22:01	21° II 13'56	
asc. node	8549 Apr 15 02:05	10° II 18'36			8551 Oct 08 02:53	0° Z	
	8549 May 02 03:09	0° Z			8551 Nov 01 15:51	0° II	
evening max el	8549 May 29 15:25	29° Z 38'44	46°44'32	morning set	8551 Nov 21 10:31	24° II 18'54	
	8549 May 29 23:54	0° Z			8551 Nov 26 01:14	0° Z	
greatest brilliancy	8549 Jul 08 00:50	29° Z 55'56	-4.8m		8551 Dec 20 08:06	0° Z	
	8549 Jul 08 05:04	0° II		max. Earth dist.	8551 Dec 26 08:45	7° Z 27'32	1.72786 AU
retrograde	8549 Jul 18 22:20	2° II 08'49					
	8549 Jul 29 05:30	30° R II		superior conj	8551 Dec 28 08:19	9° Z 54'47	0°52'26
evening set	8549 Aug 02 18:39	27° Z 48'59		minimum elong	8551 Dec 28 17:53	10° Z 24'22	0°52'15
desc. node	8549 Aug 04 21:28	26° Z 37'07			8552 Jan 13 13:15	0° Z	
min. Earth dist.	8549 Aug 08 14:01	24° Z 22'44	0.27950 AU	desc. node	8552 Jan 20 14:58	8° Z 46'32	
inferior conj	8549 Aug 09 02:53	24° Z 02'48	-1°03'07	evening rise	8552 Feb 04 21:27	27° Z 44'52	
minimum elong	8549 Aug 09 00:30	24° Z 06'30	1°02'30		8552 Feb 06 16:54	0° II	
morning rise	8549 Aug 15 06:55	20° Z 23'11			8552 Mar 01 19:03	0° Y	
direct	8549 Aug 30 04:00	16° Z 04'56			8552 Mar 25 20:30	0° Z	
greatest brilliancy	8549 Sep 08 23:06	17° Z 49'12	-4.8m		8552 Apr 18 23:28	0° II	
	8549 Sep 29 18:17	0° II		asc. node	8552 May 12 13:32	29° II 04'27	
morning max el	8549 Oct 17 23:06	15° II 54'41	45°44'12		8552 May 13 07:41	0° Z	
	8549 Nov 01 01:29	0° Z			8552 Jun 07 02:23	0° Z	
asc. node	8549 Nov 25 20:32	26° Z 53'24			8552 Jul 02 16:24	0° II	
	8549 Nov 28 14:43	0° II			8552 Jul 29 23:05	0° Z	
	8549 Dec 24 12:27	0° Z		evening max el	8552 Aug 08 16:29	9° Z 50'56	45°59'48
	8550 Jan 18 13:41	0° Z			8552 Aug 31 22:50	0° II	
	8550 Feb 12 02:59	0° Z		desc. node	8552 Sep 01 08:57	0° II 18'04	
	8550 Mar 08 08:53	0° II		greatest brilliancy	8552 Sep 16 06:20	8° II 34'24	-4.7m
desc. node	8550 Mar 17 13:35	11° II 26'49		retrograde	8552 Sep 26 22:59	10° II 38'18	
	8550 Apr 01 09:56	0° Y		evening set	8552 Oct 14 16:40	4° II 41'29	
morning set	8550 Apr 17 16:03	20° Y 22'37		inferior conj	8552 Oct 18 11:50	2° II 19'58	-8°20'51
	8550 Apr 25 07:55	0° Z		minimum elong	8552 Oct 18 06:49	2° II 27'52	8°20'22
	8550 May 19 04:47	0° II		min. Earth dist.	8552 Oct 18 05:13	2° II 30'22	0.29134 AU

morning rise	8552 Oct 21 21:03	0° \mathbb{M} 13'45		evening rise	8555 Apr 10 04:56	0° \mathcal{B}	
	8552 Oct 22 06:11	30° $\mathcal{R}\mathcal{A}$			8555 Apr 20 04:39	12° \mathcal{B} 32'50	
direct	8552 Nov 09 01:16	24° \mathcal{A} 03'55			8555 May 04 02:17	0° \mathbb{I}	
greatest brilliancy	8552 Nov 19 05:34	25° \mathcal{A} 56'59	-4.7m		8555 May 28 01:48	0° \mathcal{G}	
	8552 Nov 27 19:58	0° \mathbb{M}		asc. node	8555 Jun 10 01:14	16° \mathcal{G} 08'49	
asc. node	8552 Dec 23 08:15	19° \mathbb{M} 58'21			8555 Jun 21 05:50	0° \mathcal{Q}	
morning max el	8552 Dec 28 04:15	24° \mathbb{M} 35'41	45°53'34		8555 Jul 15 16:58	0° \mathbb{M}	
	8553 Jan 02 14:46	0° \mathcal{X}			8555 Aug 09 14:58	0° \mathcal{A}	
	8553 Jan 30 09:24	0° \mathcal{Z}			8555 Sep 04 07:07	0° \mathbb{M}	
	8553 Feb 25 04:18	0° \approx		desc. node	8555 Sep 29 20:10	28° \mathbb{M} 18'43	
	8553 Mar 22 01:56	0° \mathcal{H}			8555 Oct 01 10:18	0° \mathcal{X}	
desc. node	8553 Apr 14 01:55	28° \mathcal{H} 14'09		evening max el	8555 Oct 19 13:34	18° \mathcal{X} 21'07	45°42'28
	8553 Apr 15 12:10	0° \mathcal{Y}			8555 Nov 01 11:17	0° \mathcal{Z}	
	8553 May 09 15:57	0° \mathcal{B}		greatest brilliancy	8555 Nov 27 20:19	16° \mathcal{Z} 31'26	-4.7m
	8553 Jun 02 16:43	0° \mathbb{I}		retrograde	8555 Dec 07 07:21	18° \mathcal{Z} 09'31	
	8553 Jun 26 17:10	0° \mathcal{G}		evening set	8555 Dec 23 12:44	13° \mathcal{Z} 08'26	
morning set	8553 Jul 01 18:16	6° \mathcal{G} 17'39		inferior conj	8555 Dec 28 12:37	10° \mathcal{Z} 07'29	-5°21'50
	8553 Jul 20 19:07	0° \mathcal{Q}		minimum elong	8555 Dec 28 22:25	9° \mathcal{Z} 52'14	5°19'15
asc. node	8553 Aug 04 23:19	18° \mathcal{Q} 50'59		min. Earth dist.	8555 Dec 29 09:13	9° \mathcal{Z} 35'25	0.28301 AU
				morning rise	8556 Jan 03 07:26	6° \mathcal{Z} 38'08	
superior conj	8553 Aug 09 10:23	24° \mathcal{Q} 22'55	0°10'49	direct	8556 Jan 18 18:43	1° \mathcal{Z} 56'05	
minimum elong	8553 Aug 09 07:56	24° \mathcal{Q} 15'19	0°10'34	asc. node	8556 Jan 20 20:00	2° \mathcal{Z} 01'06	
behind sun begin	8553 Aug 08 13:48	23° \mathcal{Q} 19'06		greatest brilliancy	8556 Jan 29 23:55	4° \mathcal{Z} 15'12	-4.8m
behind sun end	8553 Aug 10 02:05	25° \mathcal{Q} 11'33			8556 Mar 04 15:28	0° \approx	
max. Earth dist.	8553 Aug 12 03:57	27° \mathcal{Q} 46'06	1.72635 AU	morning max el	8556 Mar 08 23:37	4° \approx 16'54	46°38'06
	8553 Aug 13 23:11	0° \mathbb{M}			8556 Apr 02 00:48	0° \mathcal{H}	
	8553 Sep 07 05:22	0° \mathcal{A}			8556 Apr 27 23:52	0° \mathcal{Y}	
evening rise	8553 Sep 15 18:40	10° \mathcal{A} 33'06		desc. node	8556 May 11 14:10	16° \mathcal{Y} 12'58	
	8553 Oct 01 13:56	0° \mathbb{M}			8556 May 22 24:00	0° \mathcal{B}	
	8553 Oct 26 01:48	0° \mathcal{X}			8556 Jun 16 13:37	0° \mathbb{I}	
	8553 Nov 19 18:12	0° \mathcal{Z}			8556 Jul 10 22:58	0° \mathcal{G}	
desc. node	8553 Nov 24 17:06	5° \mathcal{Z} 59'26			8556 Aug 04 07:19	0° \mathcal{Q}	
	8553 Dec 14 16:07	0° \approx			8556 Aug 28 15:48	0° \mathbb{M}	
	8554 Jan 08 20:55	0° \mathcal{H}		asc. node	8556 Sep 01 11:36	4° \mathbb{M} 42'38	
	8554 Feb 03 13:06	0° \mathcal{Y}		morning set	8556 Sep 10 12:58	15° \mathbb{M} 52'00	
	8554 Mar 02 07:56	0° \mathcal{B}			8556 Sep 22 00:14	0° \mathcal{A}	
evening max el	8554 Mar 15 20:09	14° \mathcal{B} 06'57	46°55'39		8556 Oct 16 08:20	0° \mathbb{M}	
asc. node	8554 Mar 17 16:47	15° \mathcal{B} 58'37					
	8554 Apr 01 19:23	0° \mathbb{I}		superior conj	8556 Oct 17 12:10	1° \mathbb{M} 25'48	1°22'43
greatest brilliancy	8554 Apr 25 12:48	15° \mathbb{I} 11'21	-4.9m	minimum elong	8556 Oct 17 07:10	1° \mathbb{M} 10'23	1°22'46
retrograde	8554 May 05 07:27	16° \mathbb{I} 59'53		max. Earth dist.	8556 Oct 17 12:48	1° \mathbb{M} 27'46	1.73303 AU
evening set	8554 May 23 00:47	10° \mathbb{I} 59'34			8556 Nov 09 16:24	0° \mathcal{X}	
inferior conj	8554 May 26 00:53	9° \mathbb{I} 09'19	8°32'04	evening rise	8556 Nov 23 01:27	16° \mathcal{X} 28'53	
minimum elong	8554 May 26 08:44	8° \mathbb{I} 57'11	8°30'56		8556 Dec 04 01:05	0° \mathcal{Z}	
min. Earth dist.	8554 May 26 02:27	9° \mathbb{I} 06'54	0.27186 AU	desc. node	8556 Dec 22 04:55	22° \mathcal{Z} 19'54	
morning rise	8554 May 29 16:45	6° \mathbb{I} 55'45			8556 Dec 28 10:43	0° \approx	
direct	8554 Jun 15 17:10	1° \mathbb{I} 21'38			8557 Jan 21 21:09	0° \mathcal{H}	
greatest brilliancy	8554 Jun 25 10:03	3° \mathbb{I} 07'08	-4.9m		8557 Feb 15 08:36	0° \mathcal{Y}	
desc. node	8554 Jul 07 11:53	9° \mathbb{I} 18'09			8557 Mar 11 23:11	0° \mathcal{B}	
	8554 Aug 01 09:58	0° \mathcal{G}			8557 Apr 05 22:35	0° \mathbb{I}	
morning max el	8554 Aug 04 13:15	3° \mathcal{G} 02'55	46°22'28	asc. node	8557 Apr 14 04:00	9° \mathbb{I} 42'04	
	8554 Aug 30 07:33	0° \mathcal{Q}			8557 May 01 19:13	0° \mathcal{G}	
	8554 Sep 25 23:39	0° \mathbb{M}		evening max el	8557 May 27 06:42	27° \mathcal{G} 21'34	46°45'59
	8554 Oct 21 17:02	0° \mathcal{A}			8557 May 29 22:26	0° \mathcal{Q}	
asc. node	8554 Oct 28 10:18	7° \mathcal{A} 57'33		greatest brilliancy	8557 Jul 05 16:01	27° \mathcal{Q} 39'23	-4.8m
	8554 Nov 15 20:26	0° \mathbb{M}		retrograde	8557 Jul 16 14:11	29° \mathcal{Q} 52'48	
	8554 Dec 10 13:51	0° \mathcal{X}		evening set	8557 Jul 31 09:56	25° \mathcal{Q} 32'39	
	8555 Jan 04 00:17	0° \mathcal{Z}		desc. node	8557 Aug 03 23:29	23° \mathcal{Q} 28'57	
	8555 Jan 28 05:56	0° \approx		min. Earth dist.	8557 Aug 06 05:08	22° \mathcal{Q} 06'39	0.27906 AU
morning set	8555 Jan 30 05:20	2° \approx 27'13		inferior conj	8557 Aug 06 17:43	21° \mathcal{Q} 47'11	-0°41'22
desc. node	8555 Feb 17 03:12	24° \approx 45'16		minimum elong	8557 Aug 06 16:08	21° \mathcal{Q} 49'38	0°41'01
	8555 Feb 21 08:06	0° \mathcal{H}		morning rise	8557 Aug 12 22:59	18° \mathcal{Q} 06'24	
max. Earth dist.	8555 Mar 07 22:47	18° \mathcal{H} 16'20	1.71595 AU	direct	8557 Aug 27 18:49	13° \mathcal{Q} 49'54	
				greatest brilliancy	8557 Sep 06 13:22	15° \mathcal{Q} 34'19	-4.8m
superior conj	8555 Mar 10 22:55	22° \mathcal{H} 02'09	-0°49'58		8557 Sep 30 04:30	0° \mathbb{M}	
minimum elong	8555 Mar 10 12:09	21° \mathcal{H} 28'28	0°49'29	morning max el	8557 Oct 15 15:06	13° \mathbb{M} 44'22	45°44'43
	8555 Mar 17 07:26	0° \mathcal{Y}			8557 Oct 31 19:30	0° \mathcal{A}	




































































































































asc. node	8557 Nov 24 22:28	26°♊18'15		8560 Jul 29 17:59	0°♊	
	8557 Nov 28 04:52	0°♋	evening max el	8560 Aug 06 07:35	7°♊37'15	46°01'12
	8557 Dec 24 00:59	0°♌	desc. node	8560 Aug 31 10:55	29°♊07'19	
	8558 Jan 18 01:24	0°♍		8560 Sep 01 18:09	0°♋	
	8558 Feb 11 14:16	0°♎	greatest brilliancy	8560 Sep 13 22:23	6°♋25'32	-4.7m
	8558 Mar 07 19:58	0°♏	retrograde	8560 Sep 24 14:51	8°♋29'39	
desc. node	8558 Mar 16 15:25	10°♏58'11	evening set	8560 Oct 12 06:22	2°♋37'06	
	8558 Mar 31 20:54	0°♐	inferior conj	8560 Oct 16 04:13	0°♋11'29	-8°15'29
morning set	8558 Apr 15 02:28	17°♐50'27	minimum elong	8560 Oct 15 22:32	0°♋20'27	8°14'55
	8558 Apr 24 18:49	0°♑	min. Earth dist.	8560 Oct 15 20:46	0°♋23'15	0.29116 AU
	8558 May 18 15:37	0°♒		8560 Oct 16 11:31	30°♑♊	
superior conj	8558 May 25 16:06	8°♒49'09	morning rise	8560 Oct 19 14:48	28°♑♊03'05	
minimum elong	8558 May 26 00:17	9°♒14'51	direct	8560 Nov 06 17:14	21°♑♊55'58	
max. Earth dist.	8558 May 27 20:13	11°♒32'50	greatest brilliancy	8560 Nov 16 20:57	23°♑♊47'59	-4.7m
	8558 Jun 11 13:22	0°♓		8560 Nov 29 00:15	0°♋	
evening rise	8558 Jul 04 19:47	29°♓03'52	asc. node	8560 Dec 22 10:23	19°♋08'28	
	8558 Jul 05 13:49	0°♌	morning max el	8560 Dec 25 18:17	22°♋20'27	45°52'22
asc. node	8558 Jul 07 13:13	2°♌27'32		8561 Jan 02 10:07	0°♌	
	8558 Jul 29 18:06	0°♍		8561 Jan 30 00:01	0°♍	
	8558 Aug 23 03:14	0°♎		8561 Feb 24 17:09	0°♎	
	8558 Sep 16 18:56	0°♏	desc. node	8561 Mar 21 13:54	0°♏	
	8558 Oct 11 20:19	0°♐		8561 Apr 13 03:50	27°♏44'37	
desc. node	8558 Oct 27 07:27	18°♐10'45		8561 Apr 14 23:37	0°♐	
	8558 Nov 06 12:24	0°♑		8561 May 09 03:04	0°♑	
	8558 Dec 03 04:45	0°♒		8561 Jun 02 03:37	0°♒	
evening max el	8558 Dec 30 14:19	28°♒32'14	morning set	8561 Jun 26 03:55	0°♓	
	8559 Jan 01 02:35	0°♏		8561 Jun 29 07:45	3°♓56'36	
greatest brilliancy	8559 Feb 08 06:04	27°♏54'12	asc. node	8561 Jul 20 05:45	0°♌	
asc. node	8559 Feb 17 07:28	29°♏42'36		8561 Aug 04 01:15	18°♌24'12	
retrograde	8559 Feb 18 03:57	29°♏43'28	superior conj	8561 Aug 07 01:30	22°♌08'15	0°07'20
evening set	8559 Mar 05 00:58	25°♏21'59	minimum elong	8561 Aug 06 23:51	22°♌03'07	0°07'06
inferior conj	8559 Mar 10 19:49	21°♏56'23	behind sun begin	8561 Aug 06 02:11	20°♌55'56	
minimum elong	8559 Mar 10 09:36	22°♏12'05	behind sun end	8561 Aug 07 21:31	23°♌10'17	
min. Earth dist.	8559 Mar 10 17:37	21°♏59'46	max. Earth dist.	8561 Aug 09 19:41	25°♌33'22	1.72591 AU
morning rise	8559 Mar 15 18:09	18°♏59'21		8561 Aug 13 09:44	0°♍	
direct	8559 Mar 31 14:09	14°♏05'59		8561 Sep 06 15:54	0°♎	
greatest brilliancy	8559 Apr 10 12:34	15°♏58'28	evening rise	8561 Sep 13 11:49	8°♎25'29	
	8559 May 02 18:58	0°♐		8561 Oct 01 00:31	0°♏	
morning max el	8559 May 21 02:46	17°♐01'47		8561 Oct 25 12:36	0°♐	
	8559 Jun 02 13:15	0°♑		8561 Nov 19 05:24	0°♑	
desc. node	8559 Jun 09 02:14	7°♑07'10	desc. node	8561 Nov 23 19:11	5°♑31'38	
	8559 Jun 29 08:02	0°♒		8561 Dec 14 03:58	0°♒	
	8559 Jul 24 21:59	0°♓		8562 Jan 08 09:48	0°♏	
	8559 Aug 19 00:23	0°♌		8562 Feb 03 03:51	0°♐	
	8559 Sep 12 21:08	0°♍		8562 Mar 02 02:43	0°♑	
asc. node	8559 Sep 29 23:53	20°♍46'13	evening max el	8562 Mar 13 08:16	11°♑39'53	46°54'50
	8559 Oct 07 13:46	0°♎	asc. node	8562 Mar 16 18:43	15°♑04'55	
	8559 Nov 01 02:28	0°♏		8562 Apr 02 06:17	0°♒	
morning set	8559 Nov 19 03:56	22°♏12'20	greatest brilliancy	8562 Apr 23 02:43	12°♒47'12	-4.9m
	8559 Nov 25 11:45	0°♐	retrograde	8562 May 02 20:13	14°♒35'14	
	8559 Dec 19 18:37	0°♑	evening set	8562 May 20 16:39	8°♒30'40	
max. Earth dist.	8559 Dec 24 00:02	5°♑13'43	inferior conj	8562 May 23 13:53	6°♒44'56	8°40'32
superior conj	8559 Dec 26 00:22	7°♑43'18	minimum elong	8562 May 23 21:00	6°♒33'57	8°39'36
minimum elong	8559 Dec 26 10:04	8°♑13'17	min. Earth dist.	8562 May 23 15:31	6°♒42'25	0.27180 AU
	8560 Jan 12 23:51	0°♒	morning rise	8562 May 27 01:21	4°♒37'55	
desc. node	8560 Jan 19 17:00	8°♒19'52		8562 Jun 06 01:14	30°♓♑	
evening rise	8560 Feb 02 11:30	25°♒26'01	direct	8562 Jun 13 05:24	28°♓57'02	
	8560 Feb 06 03:38	0°♏		8562 Jun 20 15:42	0°♒	
	8560 Mar 01 05:58	0°♐	greatest brilliancy	8562 Jun 22 23:11	0°♒43'16	-4.9m
	8560 Mar 25 07:39	0°♑	desc. node	8562 Jul 06 13:56	7°♒56'04	
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asc. node	8560 May 11 15:31	28°♒33'50	morning max el	8562 Aug 02 02:33	0°♓41'22	46°24'10
	8560 May 12 19:42	0°♓		8562 Aug 29 23:47	0°♌	
	8560 Jun 06 15:17	0°♌		8562 Sep 25 13:08	0°♍	
	8560 Jul 02 07:00	0°♎	asc. node	8562 Oct 27 12:15	7°♎28'04	

	8562 Nov 15 07:46	0°♍			8565 May 29 22:00	0°♌	
	8562 Dec 10 00:45	0°♊		greatest brilliancy	8565 Jul 03 07:22	25°♌22'19	-4.8m
	8563 Jan 03 10:58	0°♊		retrograde	8565 Jul 14 05:41	27°♌35'24	
morning set	8563 Jan 27 19:49	0°≈10'10		evening set	8565 Jul 29 01:09	23°♌15'04	
	8563 Jan 27 16:32	0°≈		desc. node	8565 Aug 03 01:22	20°♌18'01	
desc. node	8563 Feb 16 05:04	24°≈18'02		inferior conj	8565 Aug 04 08:12	19°♌30'23	-0°19'18
	8563 Feb 20 18:42	0°♋		minimum elong	8565 Aug 04 07:27	19°♌31'32	0°19'12
max. Earth dist.	8563 Mar 05 11:48	15°♋53'29	1.71637 AU	min. Earth dist.	8565 Aug 03 19:56	19°♌49'22	0.27860 AU
				morning rise	8565 Aug 10 14:31	15°♌48'32	
superior conj	8563 Mar 08 10:52	19°♋35'55	-0°46'44	direct	8565 Aug 25 09:33	11°♌33'56	
minimum elong	8563 Mar 08 00:34	19°♋03'40	0°46'16	greatest brilliancy	8565 Sep 04 02:54	13°♌17'50	-4.8m
	8563 Mar 16 18:06	0°♐			8565 Sep 30 12:02	0°♐	
	8563 Apr 09 15:41	0°♏		morning max el	8565 Oct 13 06:15	11°♐31'56	45°45'17
evening rise	8563 Apr 17 15:35	10°♏02'37			8565 Oct 31 13:03	0°♏	
	8563 May 03 13:08	0°♐		asc. node	8565 Nov 24 00:32	25°♏43'51	
	8563 May 27 12:46	0°♑			8565 Nov 27 18:49	0°♍	
asc. node	8563 Jun 09 03:17	15°♑40'50			8565 Dec 23 13:23	0°♊	
	8563 Jun 20 17:01	0°♌			8566 Jan 17 13:01	0°♊	
	8563 Jul 15 04:33	0°♐			8566 Feb 11 01:28	0°≈	
	8563 Aug 09 03:18	0°♏			8566 Mar 07 06:57	0°♋	
desc. node	8563 Sep 03 20:57	0°♍		desc. node	8566 Mar 15 17:23	10°♋30'18	
	8563 Sep 28 22:05	27°♍38'44			8566 Mar 31 07:45	0°♐	
	8563 Oct 01 03:38	0°♊		morning set	8566 Apr 12 13:15	15°♐19'49	
evening max el	8563 Oct 17 04:34	16°♊09'03	45°42'23		8566 Apr 24 05:36	0°♏	
	8563 Nov 01 18:23	0°♊			8566 May 18 02:22	0°♐	
greatest brilliancy	8563 Nov 25 10:06	14°♊17'56	-4.7m				
retrograde	8563 Dec 04 22:44	15°♊57'06		superior conj	8566 May 23 03:42	6°♐21'05	-1°22'53
evening set	8563 Dec 21 06:39	10°♊51'15		minimum elong	8566 May 23 11:06	6°♐44'21	1°22'57
inferior conj	8563 Dec 26 03:50	7°♊54'01	-5°37'58	max. Earth dist.	8566 May 25 06:51	9°♐01'44	1.71361 AU
minimum elong	8563 Dec 26 13:49	7°♊38'29	5°35'26		8566 Jun 11 00:07	0°♑	
min. Earth dist.	8563 Dec 27 00:04	7°♊22'32	0.28357 AU	evening rise	8566 Jul 02 08:43	26°♑41'03	
morning rise	8563 Dec 31 20:26	4°♊28'03			8566 Jul 05 00:36	0°♌	
	8564 Jan 12 14:37	30°♋♊		asc. node	8566 Jul 06 15:07	1°♌59'52	
direct	8564 Jan 16 10:47	29°♊41'59			8566 Jul 29 04:59	0°♐	
asc. node	8564 Jan 19 21:54	29°♊56'08			8566 Aug 22 14:19	0°♏	
	8564 Jan 20 08:41	0°♊			8566 Sep 16 06:24	0°♍	
greatest brilliancy	8564 Jan 27 15:28	2°♊01'05	-4.8m		8566 Oct 11 08:31	0°♊	
	8564 Mar 04 14:21	0°≈		desc. node	8566 Oct 26 09:32	17°♊39'10	
morning max el	8564 Mar 06 15:40	2°≈02'39	46°36'32		8566 Nov 06 01:58	0°♊	
	8564 Apr 01 16:47	0°♋			8566 Dec 02 21:08	0°≈	
	8564 Apr 27 13:29	0°♐		evening max el	8566 Dec 28 04:26	26°≈13'33	46°11'55
desc. node	8564 May 10 16:11	15°♐40'11			8567 Jan 01 02:56	0°♋	
	8564 May 22 12:28	0°♏		greatest brilliancy	8567 Feb 05 19:52	25°♋31'48	-4.8m
	8564 Jun 16 01:24	0°♐		retrograde	8567 Feb 15 16:32	27°♋19'48	
	8564 Jul 10 10:16	0°♑		asc. node	8567 Feb 16 09:25	27°♋19'12	
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asc. node	8564 Aug 28 02:29	0°♐		inferior conj	8567 Mar 08 09:00	19°♋32'57	4°53'37
morning set	8564 Aug 31 13:27	4°♐15'30		minimum elong	8567 Mar 07 23:12	19°♋48'05	4°50'58
	8564 Sep 08 05:15	13°♐41'39		min. Earth dist.	8567 Mar 08 07:45	19°♋34'53	0.27100 AU
	8564 Sep 21 10:47	0°♏		morning rise	8567 Mar 13 10:27	16°♋31'09	
				direct	8567 Mar 29 03:17	11°♋42'18	
superior conj	8564 Oct 15 05:35	29°♏19'11	1°21'46	greatest brilliancy	8567 Apr 08 03:12	13°♋35'34	-4.9m
minimum elong	8564 Oct 14 24:00	29°♏01'56	1°21'47		8567 May 03 04:06	0°♐	
max. Earth dist.	8564 Oct 15 09:49	29°♏32'13	1.73300 AU	morning max el	8567 May 18 15:06	14°♐35'19	46°58'59
	8564 Oct 15 18:50	0°♍			8567 Jun 02 07:47	0°♏	
	8564 Nov 09 02:56	0°♊		desc. node	8567 Jun 08 04:17	6°♏24'57	
evening rise	8564 Nov 20 18:17	14°♊20'20			8567 Jun 28 22:47	0°♐	
	8564 Dec 03 11:45	0°♊			8567 Jul 24 11:01	0°♑	
desc. node	8564 Dec 21 06:56	21°♊52'52			8567 Aug 18 12:28	0°♌	
	8564 Dec 27 21:36	0°≈			8567 Sep 12 08:37	0°♐	
	8565 Jan 21 08:23	0°♋		asc. node	8567 Sep 29 01:55	20°♐18'26	
	8565 Feb 14 20:20	0°♐			8567 Oct 07 00:50	0°♏	
	8565 Mar 11 11:40	0°♏			8567 Oct 31 13:17	0°♍	
	8565 Apr 05 12:19	0°♐		morning set	8567 Nov 16 21:01	20°♍04'11	
asc. node	8565 Apr 13 05:59	9°♐05'54			8567 Nov 24 22:26	0°♊	
	8565 May 01 11:28	0°♑			8567 Dec 19 05:18	0°♊	
evening max el	8565 May 24 22:20	25°♑05'07	46°47'11	max. Earth dist.	8567 Dec 21 15:52	3°♊01'08	1.72857 AU




































































































































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minimum elong	8567 Dec 24 02:05	6°30'13	0°57'32	morning rise	8570 May 24 10:00	2°11'18	43
	8568 Jan 12 10:38	0°			8570 May 28 14:08	30°	18
desc. node	8568 Jan 18 18:51	7°	52'02	direct	8570 Jun 10 17:58	26°	31'07
evening rise	8568 Jan 31 01:36	23°	06'47	greatest brilliancy	8570 Jun 20 11:42	28°	17'42 -4.9m
	8568 Feb 05 14:35	0°			8570 Jun 24 15:22	0°	
	8568 Feb 29 17:05	0°		desc. node	8570 Jul 05 15:45	6°	11'35'22
	8568 Mar 24 18:59	0°		morning max el	8570 Jul 30 16:47	28°	11'21'17 46°26'05
	8568 Apr 17 22:36	0°			8570 Aug 01 08:40	0°	
asc. node	8568 May 10 17:35	28°	11'03'05		8570 Aug 29 15:56	0°	
	8568 May 12 07:51	0°			8570 Sep 25 02:42	0°	
	8568 Jun 06 04:21	0°			8570 Oct 20 17:25	0°	
	8568 Jul 01 21:53	0°		asc. node	8570 Oct 26 14:16	6°	11'58'06
	8568 Jul 29 13:38	0°			8570 Nov 14 19:21	0°	
evening max el	8568 Aug 03 21:57	5°	11'21'11 46°02'28		8570 Dec 09 11:59	0°	
desc. node	8568 Aug 30 12:52	27°	11'53'42		8571 Jan 02 22:00	0°	
	8568 Sep 02 21:21	0°		morning set	8571 Jan 25 10:21	27°	11'52'15
greatest brilliancy	8568 Sep 11 14:11	4°	11'15'13 -4.7m		8571 Jan 27 03:30	0°	
retrograde	8568 Sep 22 06:43	6°	11'19'59	desc. node	8571 Feb 15 07:01	23°	11'49'58
evening set	8568 Oct 09 19:45	0°			8571 Feb 20 05:39	0°	
	8568 Oct 10 16:45	30°	11'15	max. Earth dist.	8571 Mar 03 01:40	13°	11'32'20 1.71676 AU
inferior conj	8568 Oct 13 20:32	28°	11'01'53 -8°09'23				
minimum elong	8568 Oct 13 14:12	28°	11'51 8°08'41	superior conj	8571 Mar 05 22:45	17°	11'08'30 -0°43'26
min. Earth dist.	8568 Oct 13 12:21	28°	11'44'46 0.29101 AU	minimum elong	8571 Mar 05 12:59	16°	11'37'56 0°42'57
morning rise	8568 Oct 17 08:44	25°	11'51'01		8571 Mar 16 05:06	0°	
direct	8568 Nov 04 08:45	19°	11'46'39		8571 Apr 09 02:47	0°	
greatest brilliancy	8568 Nov 14 12:44	21°	11'38'22 -4.7m	evening rise	8571 Apr 15 02:34	7°	11'31'31
	8568 Nov 29 21:16	0°			8571 May 03 00:21	0°	
asc. node	8568 Dec 21 12:17	18°	11'18'03		8571 May 27 00:06	0°	
morning max el	8568 Dec 23 08:39	20°	11'05'06 45°51'17	asc. node	8571 Jun 08 05:09	15°	11'11'09
	8569 Jan 02 05:17	0°			8571 Jun 20 04:34	0°	
	8569 Jan 29 14:46	0°			8571 Jul 14 16:29	0°	
	8569 Feb 24 06:11	0°			8571 Aug 08 15:59	0°	
	8569 Mar 21 02:06	0°			8571 Sep 03 11:10	0°	
desc. node	8569 Apr 12 05:49	27°	11'14'32	desc. node	8571 Sep 28 00:09	26°	11'58'04
	8569 Apr 14 11:19	0°			8571 Sep 30 21:38	0°	
	8569 May 08 14:26	0°		evening max el	8571 Oct 14 20:22	13°	11'58'18 45°42'12
	8569 Jun 01 14:44	0°			8571 Nov 02 04:36	0°	
	8569 Jun 25 14:52	0°		greatest brilliancy	8571 Nov 23 00:00	12°	11'30'43'03 -4.7m
morning set	8569 Jun 26 21:30	1°	11'35'37	retrograde	8571 Dec 02 14:06	13°	11'34'54
	8569 Jul 19 16:34	0°		evening set	8571 Dec 19 00:44	8°	11'33'33
asc. node	8569 Aug 03 03:08	17°	11'56'41	inferior conj	8571 Dec 23 19:10	5°	11'39'52 -5°53'31
				minimum elong	8571 Dec 24 05:16	5°	11'24'09 5°51'03
superior conj	8569 Aug 04 16:53	19°	11'53'46 0°03'51	min. Earth dist.	8571 Dec 24 14:51	5°	11'09'14 0.28415 AU
minimum elong	8569 Aug 04 16:00	19°	11'51'04 0°03'39	morning rise	8571 Dec 29 09:20	2°	11'17'20
behind sun begin	8569 Aug 03 16:32	18°	11'38'15		8572 Jan 02 21:35	30°	11'17
behind sun end	8569 Aug 05 15:29	21°	11'03'53	direct	8572 Jan 14 03:12	27°	11'17'20
max. Earth dist.	8569 Aug 07 10:54	23°	11'18'31 1.72550 AU	asc. node	8572 Jan 18 23:50	27°	11'17'54'58
	8569 Aug 12 20:28	0°		greatest brilliancy	8572 Jan 25 06:37	29°	11'17'45'29 -4.8m
	8569 Sep 06 02:38	0°			8572 Jan 25 21:03	0°	
evening rise	8569 Sep 11 05:08	6°	11'17'45	morning max el	8572 Mar 04 07:39	29°	11'17'47'10 46°34'55
	8569 Sep 30 11:23	0°			8572 Mar 04 12:47	0°	
	8569 Oct 24 23:44	0°			8572 Apr 01 08:54	0°	
	8569 Nov 18 16:57	0°			8572 Apr 27 03:20	0°	
desc. node	8569 Nov 22 21:06	5°	11'30'21'16	desc. node	8572 May 09 18:11	15°	11'17'06'31
	8569 Dec 13 16:12	0°			8572 May 22 01:12	0°	
	8570 Jan 07 23:09	0°			8572 Jun 15 13:27	0°	
	8570 Feb 02 19:09	0°			8572 Jul 09 21:52	0°	
	8570 Mar 01 22:28	0°			8572 Aug 03 05:31	0°	
evening max el	8570 Mar 10 20:54	9°	11'13'12 46°54'00		8572 Aug 27 13:29	0°	
asc. node	8570 Mar 15 20:45	14°	11'09'18	asc. node	8572 Aug 30 15:30	3°	11'17'48'03
	8570 Apr 02 21:32	0°		morning set	8572 Sep 05 21:52	11°	11'17'31'19
greatest brilliancy	8570 Apr 20 15:58	10°	11'21'05 -4.9m		8572 Sep 20 21:36	0°	
retrograde	8570 Apr 30 09:25	12°	11'09'26				
evening set	8570 May 18 08:14	6°	11'00'39	superior conj	8572 Oct 12 23:23	27°	11'12'55 1°20'43
inferior conj	8570 May 21 02:46	4°	11'19'10 8°48'11	minimum elong	8572 Oct 12 17:14	26°	11'15'57 1°20'42
minimum elong	8570 May 21 09:06	4°	11'09'26 8°47'26	max. Earth dist.	8572 Oct 13 07:40	27°	11'15'38'27 1.73291 AU

	8572 Oct 15 05:35	0°♌		greatest brilliancy	8575 Apr 05 18:40	11°♋13'11	-4.9m
	8572 Nov 08 13:43	0°♊			8575 May 03 10:59	0°♊	
evening rise	8572 Nov 18 11:30	12°♊12'10		morning max el	8575 May 16 03:37	12°♊08'28	46°59'12
	8572 Dec 02 22:41	0°♊			8575 Jun 02 02:08	0°♊	
desc. node	8572 Dec 20 08:50	21°♊24'28		desc. node	8575 Jun 07 06:08	5°♊41'56	
	8572 Dec 27 08:49	0°♊			8575 Jun 28 13:34	0°♊	
	8573 Jan 20 20:00	0°♋			8575 Jul 24 00:08	0°♋	
	8573 Feb 14 08:29	0°♊			8575 Aug 18 00:37	0°♋	
	8573 Mar 11 00:35	0°♋			8575 Sep 11 20:09	0°♋	
	8573 Apr 05 02:32	0°♊		asc. node	8575 Sep 28 03:51	19°♋50'14	
asc. node	8573 Apr 12 08:01	8°♊28'37			8575 Oct 06 11:57	0°♋	
	8573 May 01 04:23	0°♋			8575 Oct 31 00:07	0°♌	
evening max el	8573 May 22 13:45	22°♋47'02	46°48'20	morning set	8575 Nov 14 14:21	17°♌56'37	
	8573 May 29 23:08	0°♌			8575 Nov 24 09:08	0°♊	
greatest brilliancy	8573 Jun 30 23:25	23°♌05'05	-4.8m		8575 Dec 18 15:59	0°♊	
retrograde	8573 Jul 11 20:52	25°♌16'52		max. Earth dist.	8575 Dec 19 09:50	0°♊55'13	1.72888 AU
evening set	8573 Jul 26 16:35	20°♌56'24					
inferior conj	8573 Aug 01 22:42	17°♌12'42	0°02'58	superior conj	8575 Dec 21 08:45	3°♊20'18	1°00'09
minimum elong	8573 Aug 01 22:48	17°♌12'32	0°02'47	minimum elong	8575 Dec 21 18:33	3°♊50'39	1°00'00
transit middle	8573 Aug 01 22:48	17°♌12'32	0°02'47		8576 Jan 11 21:24	0°♊	
transit begin	8573 Aug 01 18:48	17°♌18'44		desc. node	8576 Jan 17 20:52	7°♊24'51	
transit end	8573 Aug 02 02:49	17°♌06'20		evening rise	8576 Jan 28 16:17	20°♊49'44	
min. Earth dist.	8573 Aug 01 11:03	17°♌30'44	0.27813 AU		8576 Feb 05 01:28	0°♋	
desc. node	8573 Aug 02 03:26	17°♌05'22			8576 Feb 29 04:11	0°♊	
morning rise	8573 Aug 08 05:50	13°♌29'47			8576 Mar 24 06:20	0°♋	
direct	8573 Aug 23 00:05	9°♌17'09			8576 Apr 17 10:20	0°♊	
greatest brilliancy	8573 Sep 01 16:39	11°♌00'27	-4.8m	asc. node	8576 May 09 19:26	27°♊31'16	
	8573 Sep 30 17:37	0°♋			8576 May 11 20:10	0°♋	
morning max el	8573 Oct 10 20:40	9°♋16'57	45°46'03		8576 Jun 05 17:37	0°♌	
	8573 Oct 31 06:26	0°♌			8576 Jul 01 13:05	0°♋	
asc. node	8573 Nov 23 02:25	25°♌08'45			8576 Jul 29 10:01	0°♌	
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	8573 Dec 23 01:52	0°♊		desc. node	8576 Aug 29 14:56	26°♌37'51	
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	8574 Feb 10 12:53	0°♊		greatest brilliancy	8576 Sep 09 05:25	2°♌03'56	-4.8m
	8574 Mar 06 18:11	0°♋		retrograde	8576 Sep 19 22:55	4°♌10'08	
desc. node	8574 Mar 14 19:26	10°♋01'50			8576 Oct 04 14:39	30°♋♌	
	8574 Mar 30 18:54	0°♊		evening set	8576 Oct 07 08:55	28°♌26'00	
morning set	8574 Apr 09 23:43	12°♊47'17		min. Earth dist.	8576 Oct 11 03:42	26°♌06'08	0.29081 AU
	8574 Apr 23 16:41	0°♋		inferior conj	8576 Oct 11 12:43	25°♌51'57	-8°02'36
	8574 May 17 13:23	0°♊		minimum elong	8576 Oct 11 05:48	26°♌02'50	8°01'46
				morning rise	8576 Oct 15 02:45	23°♌38'28	
superior conj	8574 May 20 15:00	3°♊51'16	-1°24'06	direct	8576 Nov 02 00:10	17°♌36'56	
minimum elong	8574 May 20 21:33	4°♊11'50	1°24'11	greatest brilliancy	8576 Nov 12 04:24	19°♌28'41	-4.7m
max. Earth dist.	8574 May 22 14:31	6°♊20'28	1.71334 AU		8576 Nov 30 12:46	0°♌	
	8574 Jun 10 11:06	0°♋		asc. node	8576 Dec 20 14:12	17°♌28'50	
evening rise	8574 Jun 29 21:17	24°♋16'20		morning max el	8576 Dec 20 23:56	17°♌52'26	45°50'27
	8574 Jul 04 11:37	0°♌			8577 Jan 01 23:48	0°♊	
asc. node	8574 Jul 05 17:02	1°♌31'33			8577 Jan 29 05:09	0°♊	
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	8574 Aug 22 01:38	0°♌			8577 Mar 20 14:02	0°♋	
	8574 Sep 15 18:06	0°♌		desc. node	8577 Apr 11 07:47	26°♋45'01	
	8574 Oct 10 20:55	0°♊			8577 Apr 13 22:47	0°♊	
desc. node	8574 Oct 25 11:31	17°♊06'48			8577 May 08 01:38	0°♋	
	8574 Nov 05 15:46	0°♊			8577 Jun 01 01:46	0°♊	
	8574 Dec 02 13:53	0°♊		morning set	8577 Jun 24 10:40	29°♊12'50	
evening max el	8574 Dec 25 17:43	23°♊52'57	46°10'14		8577 Jun 25 01:46	0°♋	
	8575 Jan 01 04:34	0°♋			8577 Jul 19 03:21	0°♌	
greatest brilliancy	8575 Feb 03 09:50	23°♋09'34	-4.8m				
retrograde	8575 Feb 13 04:54	24°♋56'22		superior conj	8577 Aug 02 07:32	17°♌37'06	0°00'14
asc. node	8575 Feb 15 11:27	24°♋50'10		minimum elong	8577 Aug 02 07:30	17°♌37'01	0°00'06
evening set	8575 Feb 27 22:51	20°♋41'19		behind sun begin	8577 Aug 01 07:55	16°♌23'49	
inferior conj	8575 Mar 05 22:18	17°♋09'34	4°33'05	behind sun end	8577 Aug 03 07:06	18°♌50'13	
minimum elong	8575 Mar 05 12:58	17°♋23'57	4°30'30	asc. node	8577 Aug 02 05:12	17°♌29'51	
min. Earth dist.	8575 Mar 05 22:16	17°♋09'36	0.27119 AU	max. Earth dist.	8577 Aug 05 01:03	21°♌00'23	1.72508 AU
morning rise	8575 Mar 11 02:47	14°♋03'08			8577 Aug 12 07:09	0°♋	
direct	8575 Mar 26 16:16	9°♋18'12			8577 Sep 05 13:18	0°♌	

evening rise	8577 Sep 08 21:59	4°♌08'48		morning max el	8580 Mar 01 22:56	27°♊30'59	46°33'20
	8577 Sep 29 22:10	0°♌			8580 Mar 04 09:58	0°♊	
	8577 Oct 24 10:46	0°♌			8580 Apr 01 00:22	0°♌	
	8577 Nov 18 04:25	0°♊			8580 Apr 26 16:39	0°♌	
desc. node	8577 Nov 21 23:02	4°♊33'16		desc. node	8580 May 08 20:03	14°♌33'53	
	8577 Dec 13 04:19	0°♊			8580 May 21 13:26	0°♌	
	8578 Jan 07 12:21	0°♌			8580 Jun 15 01:00	0°♌	
	8578 Feb 02 10:22	0°♌			8580 Jul 09 08:58	0°♌	
	8578 Mar 01 18:23	0°♌			8580 Aug 02 16:18	0°♌	
evening max el	8578 Mar 08 10:38	6°♌50'42	46°53'14		8580 Aug 27 00:05	0°♌	
asc. node	8578 Mar 14 22:45	13°♌13'46		asc. node	8580 Aug 29 17:26	3°♌21'28	
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greatest brilliancy	8578 Apr 18 04:41	7°♌55'57	-4.9m		8580 Sep 20 08:05	0°♌	
retrograde	8578 Apr 27 23:13	9°♌45'08					
evening set	8578 May 15 23:38	3°♌32'35		superior conj	8580 Oct 10 16:52	25°♌06'42	1°19'32
inferior conj	8578 May 18 15:48	1°♌54'44	8°54'45	minimum elong	8580 Oct 10 10:11	24°♌46'05	1°19'29
minimum elong	8578 May 18 21:20	1°♌46'15	8°54'08	max. Earth dist.	8580 Oct 11 03:28	25°♌39'21	1.73284 AU
min. Earth dist.	8578 May 18 16:31	1°♌53'40	0.27168 AU		8580 Oct 14 16:01	0°♌	
morning rise	8578 May 21 19:04	0°♌00'23			8580 Nov 08 00:11	0°♌	
	8578 May 21 19:19	30°♌		evening rise	8580 Nov 16 04:19	10°♌03'45	
direct	8578 Jun 08 07:15	24°♌06'40			8580 Dec 02 09:18	0°♌	
greatest brilliancy	8578 Jun 17 23:54	25°♌52'49	-4.9m	desc. node	8580 Dec 19 10:50	20°♌57'26	
	8578 Jun 26 17:34	0°♌			8580 Dec 26 19:43	0°♌	
desc. node	8578 Jul 04 17:52	5°♌18'40			8581 Jan 20 07:17	0°♌	
morning max el	8578 Jul 28 07:47	26°♌03'40	46°27'38		8581 Feb 13 20:19	0°♌	
	8578 Aug 01 06:30	0°♌			8581 Mar 10 13:12	0°♌	
	8578 Aug 29 07:40	0°♌			8581 Apr 04 16:29	0°♌	
	8578 Sep 24 16:00	0°♌		asc. node	8581 Apr 11 09:56	7°♌51'55	
	8578 Oct 20 05:28	0°♌			8581 Apr 30 21:09	0°♌	
asc. node	8578 Oct 25 16:09	6°♌28'26		evening max el	8581 May 20 04:34	20°♌28'51	46°49'32
	8578 Nov 14 06:42	0°♌			8581 May 30 00:56	0°♌	
	8578 Dec 08 22:56	0°♌		greatest brilliancy	8581 Jun 28 16:02	20°♌50'17	-4.8m
	8579 Jan 02 08:46	0°♌		retrograde	8581 Jul 09 11:41	23°♌00'18	
morning set	8579 Jan 23 01:05	25°♌35'55		evening set	8581 Jul 24 08:20	18°♌39'23	
	8579 Jan 26 14:10	0°♌		min. Earth dist.	8581 Jul 30 02:37	15°♌13'45	0.27769 AU
desc. node	8579 Feb 14 09:05	23°♌23'10		inferior conj	8581 Jul 30 13:23	14°♌57'03	0°25'09
	8579 Feb 19 16:18	0°♌		minimum elong	8581 Jul 30 14:20	14°♌55'34	0°24'41
max. Earth dist.	8579 Feb 28 13:49	11°♌06'53	1.71709 AU	desc. node	8581 Aug 01 05:26	13°♌55'12	
				morning rise	8581 Aug 05 21:06	11°♌13'06	
superior conj	8579 Mar 03 11:02	14°♌43'20	-0°40'04	direct	8581 Aug 20 14:16	7°♌02'15	
minimum elong	8579 Mar 03 01:52	14°♌14'38	0°39'35	greatest brilliancy	8581 Aug 30 06:59	8°♌45'19	-4.8m
	8579 Mar 15 15:47	0°♌			8581 Sep 30 20:44	0°♌	
	8579 Apr 08 13:30	0°♌		morning max el	8581 Oct 08 10:35	7°♌01'49	45°46'39
evening rise	8579 Apr 12 14:01	5°♌03'02			8581 Oct 30 23:03	0°♌	
	8579 May 02 11:09	0°♌		asc. node	8581 Nov 22 04:23	24°♌35'00	
	8579 May 26 11:03	0°♌			8581 Nov 26 22:18	0°♌	
asc. node	8579 Jun 07 07:08	14°♌42'57			8581 Dec 22 14:00	0°♌	
	8579 Jun 19 15:46	0°♌			8582 Jan 16 12:13	0°♌	
	8579 Jul 14 04:09	0°♌			8582 Feb 09 23:57	0°♌	
	8579 Aug 08 04:29	0°♌			8582 Mar 06 05:04	0°♌	
	8579 Sep 03 01:21	0°♌		desc. node	8582 Mar 13 21:17	9°♌33'49	
desc. node	8579 Sep 27 02:08	26°♌17'14			8582 Mar 30 05:41	0°♌	
	8579 Sep 30 15:53	0°♌		morning set	8582 Apr 07 10:03	10°♌15'28	
evening max el	8579 Oct 12 12:12	11°♌48'08	45°42'05		8582 Apr 23 03:23	0°♌	
	8579 Nov 02 18:03	0°♌			8582 May 17 00:03	0°♌	
greatest brilliancy	8579 Nov 20 14:23	9°♌51'22	-4.7m				
retrograde	8579 Nov 30 05:01	11°♌31'13		superior conj	8582 May 18 02:23	1°♌22'45	-1°25'08
evening set	8579 Dec 16 18:49	6°♌16'36		minimum elong	8582 May 18 08:00	1°♌40'24	1°25'15
inferior conj	8579 Dec 21 10:26	3°♌26'32	-6°08'35	max. Earth dist.	8582 May 19 18:53	3°♌29'59	1.71307 AU
minimum elong	8579 Dec 21 20:34	3°♌10'42	6°06'11		8582 Jun 09 21:44	0°♌	
min. Earth dist.	8579 Dec 22 05:40	2°♌56'30	0.28468 AU	evening rise	8582 Jun 27 09:55	21°♌52'52	
morning rise	8579 Dec 26 21:57	0°♌07'26			8582 Jul 03 22:16	0°♌	
	8579 Dec 27 03:13	30°♌		asc. node	8582 Jul 04 19:05	1°♌04'50	
direct	8580 Jan 11 19:20	25°♌13'36			8582 Jul 28 02:50	0°♌	
asc. node	8580 Jan 18 01:57	25°♌59'07			8582 Aug 21 12:33	0°♌	
greatest brilliancy	8580 Jan 22 21:29	27°♌30'25	-4.8m		8582 Sep 15 05:26	0°♌	
	8580 Jan 28 05:49	0°♌			8582 Oct 10 09:04	0°♌	

desc. node	8582 Oct 24 13:24	16°  34'52		8585 May 07 12:51	0° 	
	8582 Nov 05 05:26	0° 		8585 May 31 12:47	0° 	
	8582 Dec 02 06:47	0° 		morning set	8585 Jun 21 23:44	26°  49'45
evening max el	8582 Dec 23 06:43	21°  32'22	46°08'39		8585 Jun 24 12:38	0° 
	8583 Jan 01 07:29	0° 			8585 Jul 18 14:06	0° 
greatest brilliancy	8583 Jan 31 23:28	20°  47'28	-4.8m			
retrograde	8583 Feb 10 17:27	22°  33'45		superior conj	8585 Jul 30 22:12	15°  20'23 -0°03'22
asc. node	8583 Feb 14 13:25	22°  16'01		minimum elong	8585 Jul 30 23:02	15°  22'57 0°03'28
evening set	8583 Feb 25 10:05	18°  20'47		behind sun begin	8585 Jul 29 23:21	14°  20'25
inferior conj	8583 Mar 03 11:31	14°  46'45	4°11'59	behind sun end	8585 Jul 31 22:42	16°  23'6'28
minimum elong	8583 Mar 03 02:43	15°  00'17	4°09'31	asc. node	8585 Aug 01 07:06	17°  20'31
min. Earth dist.	8583 Mar 03 12:39	14°  45'00	0.27139 AU	max. Earth dist.	8585 Aug 02 16:32	18°  24'18 1.72466 AU
morning rise	8583 Mar 08 18:58	11°  36'09			8585 Aug 11 17:50	0° 
direct	8583 Mar 24 05:14	6°  54'34			8585 Sep 04 23:59	0° 
greatest brilliancy	8583 Apr 03 10:06	8°  51'40	-4.9m	evening rise	8585 Sep 06 15:03	2°  20'29
	8583 May 03 15:26	0° 			8585 Sep 29 08:57	0° 
morning max el	8583 May 13 16:57	9°  44'32	46°59'25		8585 Oct 23 21:47	0° 
	8583 Jun 01 19:44	0° 			8585 Nov 17 15:52	0° 
desc. node	8583 Jun 06 08:12	5°  00'56		desc. node	8585 Nov 21 01:07	4°  20'44
	8583 Jun 28 03:53	0° 			8585 Dec 12 16:31	0° 
	8583 Jul 23 12:53	0° 			8586 Jan 07 01:46	0° 
	8583 Aug 17 12:26	0° 			8586 Feb 02 02:00	0° 
	8583 Sep 11 07:21	0° 			8586 Mar 01 15:19	0° 
asc. node	8583 Sep 27 05:45	19°  22'49		evening max el	8586 Mar 06 01:16	4°  29'35 46°52'14
	8583 Oct 05 22:45	0° 		asc. node	8586 Mar 14 00:40	12°  21'53
	8583 Oct 30 10:41	0° 			8586 Apr 04 20:48	0° 
morning set	8583 Nov 12 07:44	15°  24'58		greatest brilliancy	8586 Apr 15 17:14	5°  29'25 -4.9m
	8583 Nov 23 19:38	0° 		retrograde	8586 Apr 25 12:52	7°  21'9'05
max. Earth dist.	8583 Dec 17 04:51	28°  52'56	1.72925 AU	evening set	8586 May 13 14:30	1°  20'38
	8583 Dec 18 02:32	0° 			8586 May 15 08:18	30° 
				inferior conj	8586 May 16 04:37	29°  28'48 9°00'20
superior conj	8583 Dec 19 01:05	1°  20'44	1°02'32	minimum elong	8586 May 16 09:16	29°  21'39 8°59'52
minimum elong	8583 Dec 19 10:51	1°  39'57	1°02'23	min. Earth dist.	8586 May 16 04:33	29°  28'54 0.27158 AU
	8584 Jan 11 08:03	0° 		morning rise	8586 May 19 04:06	27°  40'07
desc. node	8584 Jan 16 22:54	6°  58'03		direct	8586 Jun 05 20:33	21°  41'01
evening rise	8584 Jan 26 06:44	18°  32'19		greatest brilliancy	8586 Jun 15 11:31	23°  26'08 -4.9m
	8584 Feb 04 12:17	0° 			8586 Jun 28 03:28	0° 
	8584 Feb 28 15:10	0° 		desc. node	8586 Jul 03 19:54	4°  20'37
	8584 Mar 23 17:35	0° 		morning max el	8586 Jul 25 22:16	23°  24'10 46°29'14
	8584 Apr 16 21:58	0° 			8586 Aug 01 03:43	0° 
asc. node	8584 May 08 21:26	27°  21'00'18			8586 Aug 28 23:15	0° 
	8584 May 11 08:23	0° 			8586 Sep 24 05:19	0° 
	8584 Jun 05 06:50	0° 			8586 Oct 19 17:35	0° 
	8584 Jul 01 04:20	0° 		asc. node	8586 Oct 24 18:08	5°  25'8'45
	8584 Jul 29 06:53	0° 			8586 Nov 13 18:08	0° 
evening max el	8584 Jul 30 03:38	0°  25'14	46°05'38		8586 Dec 08 10:00	0° 
desc. node	8584 Aug 28 16:54	25°  20'21			8587 Jan 01 19:38	0° 
greatest brilliancy	8584 Sep 06 20:13	29°  25'59	-4.8m	morning set	8587 Jan 20 16:12	23°  20'26
	8584 Sep 07 03:46	0° 			8587 Jan 26 00:59	0° 
retrograde	8584 Sep 17 15:43	2°  21'14		desc. node	8587 Feb 13 10:56	22°  25'55'12
	8584 Sep 27 16:58	30°  21'18			8587 Feb 19 03:09	0° 
evening set	8584 Oct 04 22:06	26°  21'18		max. Earth dist.	8587 Feb 26 00:05	8°  34'57 1.71752 AU
inferior conj	8584 Oct 09 05:01	23°  24'53	-7°55'00			
minimum elong	8584 Oct 08 21:34	23°  25'36	7°54'03	superior conj	8587 Feb 28 23:26	12°  31'56 -0°36'37
min. Earth dist.	8584 Oct 08 18:51	23°  25'51	0.29059 AU	minimum elong	8587 Feb 28 14:55	11°  31'21 0°36'10
morning rise	8584 Oct 12 21:07	21°  26'36			8587 Mar 15 02:43	0° 
direct	8584 Oct 30 16:08	15°  28'12			8587 Apr 08 00:33	0° 
greatest brilliancy	8584 Nov 09 19:41	17°  29'34	-4.7m	evening rise	8587 Apr 10 01:08	2°  32'31
	8584 Nov 30 23:55	0° 			8587 May 01 22:18	0° 
morning max el	8584 Dec 18 16:05	15°  24'28	45°49'24		8587 May 25 22:20	0° 
asc. node	8584 Dec 19 16:20	16°  24'18		asc. node	8587 Jun 06 09:10	14°  25'13'52
	8585 Jan 01 17:43	0° 			8587 Jun 19 03:19	0° 
	8585 Jan 28 19:23	0° 			8587 Jul 13 16:10	0° 
	8585 Feb 23 07:41	0° 			8587 Aug 07 17:21	0° 
	8585 Mar 20 02:00	0° 			8587 Sep 02 15:57	0° 
desc. node	8585 Apr 10 09:44	26°  21'52		desc. node	8587 Sep 26 04:04	25°  25'35'09
	8585 Apr 13 10:18	0° 			8587 Sep 30 10:53	0° 

evening max el	8587 Oct 10 03:43	9° ♊ 36'30	45°42'02		8590 Apr 22 14:24	0° ♋	
	8587 Nov 03 12:23	0° ♌					
greatest brilliancy	8587 Nov 18 05:32	7° ♍ 39'30	-4.7m	superior conj	8590 May 15 13:58	28° ♎ 53'50	-1°26'00
retrograde	8587 Nov 27 19:39	9° ♍ 18'53		minimum elong	8590 May 15 18:38	29° ♎ 08'30	1°26'08
evening set	8587 Dec 14 13:10	4° ♍ 00'03			8590 May 16 11:02	0° ♏	
inferior conj	8587 Dec 19 02:02	1° ♍ 13'42	-6°22'48	max. Earth dist.	8590 May 16 23:00	0° ♏ 37'35	1.71292 AU
minimum elong	8587 Dec 19 12:09	0° ♍ 57'52	6°20'30		8590 Jun 09 08:45	0° ♐	
min. Earth dist.	8587 Dec 19 21:02	0° ♍ 43'57	0.28518 AU	evening rise	8590 Jun 24 22:24	19° ♐ 27'39	
	8587 Dec 21 01:16	30° ♎ ♊			8590 Jul 03 09:21	0° ♑	
morning rise	8587 Dec 24 10:44	27° ♎ 58'07		asc. node	8590 Jul 03 20:59	0° ♑ 36'15	
direct	8588 Jan 09 11:22	23° ♎ 00'22			8590 Jul 27 14:01	0° ♒	
asc. node	8588 Jan 17 03:49	24° ♎ 07'37			8590 Aug 20 23:57	0° ♒	
greatest brilliancy	8588 Jan 20 13:00	25° ♎ 16'12	-4.8m		8590 Sep 14 17:15	0° ♓	
	8588 Jan 29 18:05	0° ♓			8590 Oct 09 21:42	0° ♓	
morning max el	8588 Feb 28 13:20	25° ♓ 12'09	46°31'37	desc. node	8590 Oct 23 15:30	16° ♓ 02'16	
	8588 Mar 04 06:36	0° ♈			8590 Nov 04 19:39	0° ♓	
	8588 Mar 31 15:52	0° ♈			8590 Dec 02 00:25	0° ♈	
	8588 Apr 26 06:13	0° ♉		evening max el	8590 Dec 20 20:11	19° ♈ 12'19	46°07'13
desc. node	8588 May 07 22:06	14° ♉ 00'51			8591 Jan 01 12:31	0° ♈	
	8588 May 21 02:00	0° ♉		greatest brilliancy	8591 Jan 29 12:46	18° ♈ 24'39	-4.8m
	8588 Jun 14 12:58	0° ♊		retrograde	8591 Feb 08 06:45	20° ♈ 11'06	
	8588 Jul 08 20:29	0° ♊		asc. node	8591 Feb 13 15:23	19° ♈ 36'11	
	8588 Aug 02 03:30	0° ♊		evening set	8591 Feb 22 21:46	15° ♈ 59'42	
	8588 Aug 26 11:02	0° ♋		inferior conj	8591 Mar 01 00:56	12° ♈ 23'40	3°50'33
asc. node	8588 Aug 28 19:18	2° ♋ 53'29		minimum elong	8591 Feb 28 16:43	12° ♈ 36'17	3°48'13
morning set	8588 Sep 01 06:35	7° ♋ 10'14		min. Earth dist.	8591 Mar 01 02:57	12° ♈ 20'33	0.27159 AU
	8588 Sep 19 18:54	0° ♌		morning rise	8591 Mar 06 11:13	9° ♈ 09'19	
				direct	8591 Mar 21 18:49	4° ♈ 30'44	
superior conj	8588 Oct 08 10:25	22° ♌ 59'40	1°18'14	greatest brilliancy	8591 Apr 01 01:21	6° ♈ 29'42	-4.9m
minimum elong	8588 Oct 08 03:15	22° ♌ 37'34	1°18'10		8591 May 03 18:23	0° ♉	
max. Earth dist.	8588 Oct 08 22:05	23° ♌ 35'38	1.73273 AU	morning max el	8591 May 11 07:21	7° ♉ 22'51	46°59'35
	8588 Oct 14 02:47	0° ♌			8591 Jun 01 13:10	0° ♉	
	8588 Nov 07 11:00	0° ♍		desc. node	8591 Jun 05 10:13	4° ♉ 19'38	
evening rise	8588 Nov 13 21:24	7° ♍ 55'12			8591 Jun 27 18:17	0° ♊	
	8588 Dec 01 20:16	0° ♍			8591 Jul 23 01:50	0° ♊	
desc. node	8588 Dec 18 12:50	20° ♍ 29'23			8591 Aug 17 00:32	0° ♊	
	8588 Dec 26 06:56	0° ♎			8591 Sep 10 18:54	0° ♋	
	8589 Jan 19 18:54	0° ♎		asc. node	8591 Sep 26 07:47	18° ♋ 54'37	
	8589 Feb 13 08:28	0° ♎			8591 Oct 05 09:54	0° ♌	
	8589 Mar 10 02:11	0° ♏			8591 Oct 29 21:36	0° ♌	
	8589 Apr 04 06:56	0° ♏		morning set	8591 Nov 10 00:57	13° ♌ 41'49	
asc. node	8589 Apr 10 11:56	7° ♏ 14'07			8591 Nov 23 06:27	0° ♍	
	8589 Apr 30 14:46	0° ♐		max. Earth dist.	8591 Dec 15 01:10	26° ♍ 53'56	1.72955 AU
evening max el	8589 May 17 18:19	18° ♐ 06'16	46°50'24				
	8589 May 30 05:06	0° ♑		superior conj	8591 Dec 16 17:21	28° ♍ 58'11	1°04'48
greatest brilliancy	8589 Jun 26 08:41	18° ♑ 33'01	-4.8m	minimum elong	8591 Dec 17 03:02	29° ♍ 28'07	1°04'41
retrograde	8589 Jul 07 01:55	20° ♑ 41'08			8591 Dec 17 13:21	0° ♒	
evening set	8589 Jul 21 23:57	16° ♑ 19'17			8592 Jan 10 18:58	0° ♒	
inferior conj	8589 Jul 28 03:48	12° ♑ 38'53	0°47'30	desc. node	8592 Jan 16 00:44	6° ♒ 29'49	
minimum elong	8589 Jul 28 05:36	12° ♑ 36'04	0°46'46	evening rise	8592 Jan 23 21:19	16° ♒ 14'35	
min. Earth dist.	8589 Jul 27 18:17	12° ♑ 53'38	0.27727 AU		8592 Feb 03 23:20	0° ♓	
desc. node	8589 Jul 31 07:20	10° ♑ 43'08			8592 Feb 28 02:25	0° ♓	
morning rise	8589 Aug 03 11:53	8° ♑ 54'07			8592 Mar 23 05:06	0° ♔	
direct	8589 Aug 18 03:44	4° ♑ 44'33			8592 Apr 16 09:52	0° ♔	
greatest brilliancy	8589 Aug 27 21:41	6° ♑ 28'18	-4.8m	asc. node	8592 May 07 23:30	26° ♔ 28'53	
	8589 Sep 30 23:00	0° ♒			8592 May 10 20:50	0° ♕	
morning max el	8589 Oct 06 00:11	4° ♒ 44'16	45°47'34		8592 Jun 04 20:19	0° ♑	
	8589 Oct 30 15:49	0° ♒			8592 Jun 30 20:00	0° ♒	
asc. node	8589 Nov 21 06:26	24° ♒ 00'39		evening max el	8592 Jul 27 19:44	28° ♒ 38'56	46°07'04
	8589 Nov 26 12:04	0° ♓			8592 Jul 29 04:50	0° ♓	
	8589 Dec 22 02:26	0° ♓		desc. node	8592 Aug 27 18:51	23° ♓ 59'20	
	8590 Jan 15 23:58	0° ♓		greatest brilliancy	8592 Sep 04 10:45	27° ♓ 40'33	-4.8m
	8590 Feb 09 11:20	0° ♔		retrograde	8592 Sep 15 08:34	29° ♓ 50'45	
	8590 Mar 05 16:15	0° ♔		evening set	8592 Oct 02 11:03	24° ♓ 15'21	
desc. node	8590 Mar 12 23:16	9° ♔ 05'17		inferior conj	8592 Oct 06 21:08	21° ♓ 32'19	-7°46'43
	8590 Mar 29 16:46	0° ♕		minimum elong	8592 Oct 06 13:10	21° ♓ 44'48	7°45'38
morning set	8590 Apr 04 20:52	7° ♕ 44'11		min. Earth dist.	8592 Oct 06 09:39	21° ♓ 50'19	0.29035 AU

morning rise	8592 Oct 10 15:26	19°  12'59			8595 Mar 14 13:34	0° 	
direct	8592 Oct 28 08:22	13°  18'10			8595 Apr 07 11:29	0° 	
greatest brilliancy	8592 Nov 07 10:20	15°  08'34	-4.7m	evening rise	8595 Apr 07 12:15	0°  02'26	
	8592 Dec 01 08:31	0° 			8595 May 01 09:21	0° 	
morning max el	8592 Dec 16 08:27	13°  32'21	45°48'28		8595 May 25 09:33	0° 	
asc. node	8592 Dec 18 18:12	15°  33'29		asc. node	8595 Jun 05 11:03	13°  04'35	
	8593 Jan 01 11:30	0° 			8595 Jun 18 14:47	0° 	
	8593 Jan 28 09:37	0° 			8595 Jul 13 04:05	0° 	
	8593 Feb 22 20:27	0° 			8595 Aug 07 06:08	0° 	
	8593 Mar 19 14:00	0° 			8595 Sep 02 06:31	0° 	
desc. node	8593 Apr 09 11:42	25°  34'52'27		desc. node	8595 Sep 25 06:09	24°  33'31	
	8593 Apr 12 21:52	0° 			8595 Sep 30 06:12	0° 	
	8593 May 07 00:09	0° 		evening max el	8595 Oct 07 18:11	7°  22'50	45°41'54
	8593 May 30 23:53	0° 			8595 Nov 04 13:07	0° 	
morning set	8593 Jun 19 13:03	24°  27'12		greatest brilliancy	8595 Nov 15 20:42	5°  27'56	-4.7m
	8593 Jun 23 23:34	0° 		retrograde	8595 Nov 25 10:01	7°  06'59	
	8593 Jul 18 00:53	0° 		evening set	8595 Dec 12 07:25	1°  43'40	
					8595 Dec 15 03:56	30° 	
superior conj	8593 Jul 28 13:00	13°  03'50	-0°06'54	inferior conj	8595 Dec 16 17:35	29°  01'11	-6°36'21
minimum elong	8593 Jul 28 14:40	13°  09'00	0°06'59	minimum elong	8595 Dec 17 03:36	28°  45'29	6°34'11
behind sun begin	8593 Jul 27 16:39	12°  00'34		min. Earth dist.	8595 Dec 17 12:34	28°  31'26	0.28571 AU
behind sun end	8593 Jul 29 12:41	14°  01'24		morning rise	8595 Dec 21 23:22	25°  49'24	
asc. node	8593 Jul 31 09:01	16°  03'52		direct	8596 Jan 07 02:58	20°  47'14	
max. Earth dist.	8593 Jul 31 10:36	16°  03'59	1.72426 AU	asc. node	8596 Jan 16 05:48	22°  47'20'24	
	8593 Aug 11 04:34	0° 		greatest brilliancy	8596 Jan 18 05:08	23°  47'02'56	-4.8m
evening rise	8593 Sep 04 08:09	29°  51'59			8596 Jan 30 19:32	0° 	
	8593 Sep 04 10:45	0° 		morning max el	8596 Feb 26 03:18	22°  52'26	46°30'01
	8593 Sep 28 19:52	0° 			8596 Mar 04 02:30	0° 	
	8593 Oct 23 08:58	0° 			8596 Mar 31 07:01	0° 	
	8593 Nov 17 03:30	0° 			8596 Apr 25 19:29	0° 	
desc. node	8593 Nov 20 03:02	3°  35'17		desc. node	8596 May 07 00:05	13°  28'26	
	8593 Dec 12 04:53	0° 			8596 May 20 14:16	0° 	
	8594 Jan 06 15:22	0° 			8596 Jun 14 00:37	0° 	
	8594 Feb 01 17:57	0° 			8596 Jul 08 07:44	0° 	
	8594 Mar 01 13:01	0° 			8596 Aug 01 14:27	0° 	
evening max el	8594 Mar 03 15:53	2°  08'26	46°51'08		8596 Aug 25 21:46	0° 	
asc. node	8594 Mar 13 02:44	11°  08'17'03		asc. node	8596 Aug 27 21:22	2°  47'26'49	
	8594 Apr 06 12:24	0° 		morning set	8596 Aug 29 22:50	4°  59'23	
greatest brilliancy	8594 Apr 13 06:06	3°  22'03'18	-4.9m		8596 Sep 19 05:28	0° 	
retrograde	8594 Apr 23 02:05	4°  22'52'48					
	8594 May 08 19:22	30° 		superior conj	8596 Oct 06 04:05	20°  53'46	1°16'51
evening set	8594 May 11 04:57	28°  35'24		minimum elong	8596 Oct 05 20:28	20°  53'01'17	1°16'44
inferior conj	8594 May 13 17:26	27°  02'53	9°04'57	max. Earth dist.	8596 Oct 06 15:54	21°  53'01'13	1.73260 AU
minimum elong	8594 May 13 21:09	26°  05'09	9°04'36		8596 Oct 13 13:17	0° 	
min. Earth dist.	8594 May 13 16:44	27°  03'57	0.27148 AU		8596 Nov 06 21:33	0° 	
morning rise	8594 May 16 13:26	25°  08'19'16		evening rise	8596 Nov 11 14:39	5°  48'02	
direct	8594 Jun 03 09:46	19°  08'15'27			8596 Dec 01 06:59	0° 	
greatest brilliancy	8594 Jun 12 23:22	20°  08'59'28	-4.9m	desc. node	8596 Dec 17 14:44	20°  01'42	
	8594 Jun 29 03:41	0° 			8596 Dec 25 17:58	0° 	
desc. node	8594 Jul 02 21:43	2°  22'50'09			8597 Jan 19 06:21	0° 	
morning max el	8594 Jul 23 11:54	21°  22'33	46°30'53		8597 Feb 12 20:30	0° 	
	8594 Aug 01 00:08	0° 			8597 Mar 09 15:04	0° 	
	8594 Aug 28 14:33	0° 			8597 Apr 03 21:20	0° 	
	8594 Sep 23 18:27	0° 		asc. node	8597 Apr 09 13:58	6°  23'36'48	
	8594 Oct 19 05:36	0° 			8597 Apr 30 08:30	0° 	
asc. node	8594 Oct 23 20:08	5°  29'22		evening max el	8597 May 15 07:23	15°  04'42'45	46°51'27
	8594 Nov 13 05:32	0° 			8597 May 30 10:49	0° 	
	8594 Dec 07 21:03	0° 		greatest brilliancy	8597 Jun 24 00:49	16°  01'15'50	-4.9m
	8595 Jan 01 06:30	0° 		retrograde	8597 Jul 04 16:09	18°  02'22'50	
morning set	8595 Jan 18 07:10	21°  04'29		evening set	8597 Jul 19 15:37	13°  02'59'22	
	8595 Jan 25 11:46	0° 		inferior conj	8597 Jul 25 18:07	10°  02'21'18	1°09'54
desc. node	8595 Feb 12 12:55	22°  00'27'42		minimum elong	8597 Jul 25 20:46	10°  02'17'11	1°08'54
	8595 Feb 18 13:56	0° 		min. Earth dist.	8597 Jul 25 09:49	10°  02'34'09	0.27689 AU
max. Earth dist.	8595 Feb 23 08:56	5°  38'58	1.71792 AU	desc. node	8597 Jul 30 09:24	7°  02'33'11	
				morning rise	8597 Aug 01 02:25	6°  02'36'10	
superior conj	8595 Feb 26 11:46	9°  38'52'44	-0°33'07	direct	8597 Aug 15 17:01	2°  02'27'13	
minimum elong	8595 Feb 26 04:00	9°  38'28'26	0°32'41	greatest brilliancy	8597 Aug 25 12:36	4°  02'12'14	-4.8m

	8597 Sep 30 23:30	0°♎		8600 May 11 09:07	0°♏	
morning max el	8597 Oct 03 14:23	2°♎29'00 45°48'38		8600 Jun 05 09:41	0°♏	
	8597 Oct 30 07:52	0°♏		8600 Jul 01 11:40	0°♎	
asc. node	8597 Nov 20 08:18	23°♏27'02	evening max el	8600 Jul 26 12:12	26°♎28'10 46°08'42	
	8597 Nov 26 01:20	0°♎		8600 Jul 30 03:22	0°♏	
	8597 Dec 21 14:25	0°♎	desc. node	8600 Aug 27 20:54	22°♏36'44	
	8598 Jan 15 11:20	0°♎	greatest brilliancy	8600 Sep 03 01:43	25°♏29'30 -4.8m	
	8598 Feb 08 22:24	0°♎	retrograde	8600 Sep 14 01:14	27°♏40'55	
	8598 Mar 05 03:10	0°♎	evening set	8600 Oct 01 00:02	22°♏10'21	
desc. node	8598 Mar 12 01:18	8°♎37'42	min. Earth dist.	8600 Oct 05 00:26	19°♏42'36 0.29005 AU	
	8598 Mar 29 03:35	0°♎	inferior conj	8600 Oct 05 13:13	19°♏22'34 -7°37'51	
morning set	8598 Apr 02 07:19	5°♎12'30	minimum elong	8600 Oct 05 04:49	19°♏35'45 7°36'37	
	8598 Apr 22 01:10	0°♎	morning rise	8600 Oct 09 09:48	16°♏59'55	
			direct	8600 Oct 27 00:49	11°♏09'08	
superior conj	8598 May 13 01:05	26°♏24'12 -1°26'42	greatest brilliancy	8600 Nov 06 00:35	12°♏57'57 -4.7m	
minimum elong	8598 May 13 04:44	26°♏35'42 1°26'50		8600 Dec 02 14:15	0°♎	
max. Earth dist.	8598 May 14 03:32	27°♏47'22 1.71275 AU	morning max el	8600 Dec 15 00:17	11°♎21'58 45°47'32	
	8598 May 15 21:45	0°♎	asc. node	8600 Dec 18 20:10	15°♎07'27	
	8598 Jun 08 19:28	0°♏		8601 Jan 02 04:31	0°♎	
evening rise	8598 Jun 22 10:32	17°♏02'21		8601 Jan 28 23:23	0°♎	
asc. node	8598 Jul 02 22:55	0°♏08'49		8601 Feb 23 08:48	0°♎	
	8598 Jul 02 20:05	0°♏		8601 Mar 20 01:39	0°♎	
	8598 Jul 27 00:52	0°♎	desc. node	8601 Apr 09 13:39	25°♎16'30	
	8598 Aug 20 11:01	0°♏		8601 Apr 13 09:07	0°♎	
	8598 Sep 14 04:46	0°♎		8601 May 07 11:10	0°♎	
	8598 Oct 09 10:04	0°♎		8601 May 31 10:45	0°♎	
desc. node	8598 Oct 22 17:26	15°♎30'09	morning set	8601 Jun 18 02:01	22°♎04'09	
	8598 Nov 04 09:37	0°♎		8601 Jun 24 10:18	0°♏	
	8598 Dec 01 18:01	0°♎		8601 Jul 18 11:30	0°♏	
evening max el	8598 Dec 18 10:22	16°♎55'25 46°05'48				
	8599 Jan 01 19:07	0°♎	superior conj	8601 Jul 27 03:19	10°♏46'15 -0°10'29	
greatest brilliancy	8599 Jan 27 01:20	16°♎02'18 -4.8m	minimum elong	8601 Jul 27 05:50	10°♏54'03 0°10'32	
retrograde	8599 Feb 05 20:17	17°♎49'22	behind sun begin	8601 Jul 26 11:17	9°♏56'23	
asc. node	8599 Feb 12 17:25	16°♎51'35	behind sun end	8601 Jul 28 00:23	11°♏51'43	
evening set	8599 Feb 20 09:39	13°♎39'17	max. Earth dist.	8601 Jul 30 04:49	14°♏34'35 1.72381 AU	
inferior conj	8599 Feb 26 14:12	10°♎01'19 3°28'44	asc. node	8601 Jul 31 11:03	16°♏08'32	
minimum elong	8599 Feb 26 06:39	10°♎12'56 3°26'32		8601 Aug 11 15:06	0°♎	
min. Earth dist.	8599 Feb 26 16:49	9°♎57'19 0.27186 AU	evening rise	8601 Sep 03 00:49	27°♎42'44	
morning rise	8599 Mar 04 03:16	6°♎43'27		8601 Sep 04 21:18	0°♏	
direct	8599 Mar 19 08:55	2°♎07'46		8601 Sep 29 06:32	0°♎	
greatest brilliancy	8599 Mar 29 16:02	4°♎07'50 -4.9m		8601 Oct 23 19:55	0°♎	
	8599 May 03 19:38	0°♎		8601 Nov 17 14:56	0°♎	
morning max el	8599 May 08 22:15	5°♎03'06 46°59'32	desc. node	8601 Nov 20 04:57	3°♎06'25	
	8599 Jun 01 06:00	0°♎		8601 Dec 12 17:05	0°♎	
desc. node	8599 Jun 04 12:04	3°♎39'00		8602 Jan 07 04:52	0°♎	
	8599 Jun 27 08:17	0°♎				
	8599 Jul 22 14:25	0°♏				
	8599 Aug 16 12:16	0°♏				
	8599 Sep 10 06:03	0°♎				
asc. node	8599 Sep 25 09:43	18°♎27'17				
	8599 Oct 04 20:41	0°♏				
	8599 Oct 29 08:10	0°♎				
morning set	8599 Nov 07 18:16	11°♎35'00				
	8599 Nov 22 16:55	0°♎				
max. Earth dist.	8599 Dec 12 21:10	24°♎55'00 1.72980 AU				
superior conj	8599 Dec 14 09:53	26°♎48'30 1°06'57				
minimum elong	8599 Dec 14 19:25	27°♎17'59 1°06'52				
	8599 Dec 16 23:49	0°♎				
	8600 Jan 10 05:31	0°♎				
desc. node	8600 Jan 15 02:45	6°♎03'16				
evening rise	8600 Jan 21 12:09	13°♎58'47				
	8600 Feb 03 10:02	0°♎				
	8600 Feb 27 13:20	0°♎				
	8600 Mar 23 16:20	0°♎				
	8600 Apr 16 21:31	0°♎				
asc. node	8600 May 08 01:20	25°♎57'23				