

superior conj	4101 Feb 28 20:22	10° H 02'21	-1°18'25	minimum elong	4103 Jul 23 13:31	2° Ω 36'59	3°48'46
minimum elong	4101 Feb 28 10:55	9° H 32'40	1°18'13	min. Earth dist.	4103 Jul 23 13:27	2° Ω 37'06	0.28936 AU
max. Earth dist.	4101 Mar 03 00:58	12° H 47'38	1.71227 AU		4103 Jul 27 19:11	30° R E	
	4101 Mar 16 17:44	0° Y		morning rise	4103 Jul 29 11:21	29° E 01'30	
	4101 Apr 09 17:04	0° B		direct	4103 Aug 14 09:52	24° E 09'40	
evening rise	4101 Apr 10 12:26	1° B 00'25		greatest brilliancy	4103 Aug 24 15:12	26° E 01'47	-4.7m
	4101 May 03 20:27	0° II			4103 Sep 02 04:35	0° Ω	
asc. node	4101 May 12 10:43	10° II 36'58		morning max el	4103 Oct 02 06:18	24° Ω 02'41	45°50'32
	4101 May 28 05:17	0° E			4103 Oct 08 07:34	0° M	
	4101 Jun 21 20:54	0° Ω		asc. node	4103 Oct 28 05:43	21° M 03'02	
	4101 Jul 16 21:37	0° M			4103 Nov 05 06:19	0° E	
	4101 Aug 11 12:17	0° E			4103 Dec 01 01:51	0° M	
desc. node	4101 Sep 01 00:46	23° E 15'41			4103 Dec 25 21:46	0° A	
	4101 Sep 07 03:22	0° M			4104 Jan 19 05:51	0° B	
	4101 Oct 06 00:25	0° A			4104 Feb 12 08:09	0° \approx	
evening max el	4101 Oct 06 07:07	0° A 16'10	46°07'46	desc. node	4104 Feb 16 19:56	5° \approx 36'32	
greatest brilliancy	4101 Nov 15 07:16	29° A 19'07	-4.8m		4104 Mar 07 08:00	0° H	
	4101 Nov 17 14:53	0° B			4104 Mar 31 07:29	0° Y	
retrograde	4101 Nov 24 14:32	0° B 55'07		morning set	4104 Apr 05 05:44	6° Y 09'34	
	4101 Dec 01 09:18	30° R A			4104 Apr 24 08:17	0° B	
evening set	4101 Dec 09 09:04	26° A 41'55					
inferior conj	4101 Dec 15 07:30	23° A 13'38	-1°59'56	superior conj	4104 May 14 11:44	25° B 02'37	-0°56'12
minimum elong	4101 Dec 15 12:01	23° A 06'45	1°58'30	minimum elong	4104 May 14 22:01	25° B 34'29	0°55'49
min. Earth dist.	4101 Dec 15 21:04	22° A 52'54	0.26880 AU	max. Earth dist.	4104 May 17 21:56	29° B 17'24	1.72578 AU
morning rise	4101 Dec 21 14:15	19° A 32'39			4104 May 18 11:41	0° II	
asc. node	4101 Dec 23 03:17	18° A 44'59		asc. node	4104 Jun 08 22:29	26° II 31'15	
direct	4102 Jan 04 23:35	15° A 26'01			4104 Jun 11 18:11	0° E	
greatest brilliancy	4102 Jan 15 17:27	17° A 36'04	-4.9m	evening rise	4104 Jun 21 15:00	12° E 09'06	
	4102 Feb 04 11:43	0° B			4104 Jul 06 03:40	0° Ω	
morning max el	4102 Feb 24 14:05	18° B 35'19	46°58'40		4104 Jul 30 16:10	0° M	
	4102 Mar 07 12:19	0° \approx			4104 Aug 24 08:30	0° E	
	4102 Apr 03 07:59	0° H			4104 Sep 18 06:33	0° M	
desc. node	4102 Apr 13 17:49	12° H 05'56		desc. node	4104 Sep 28 12:46	12° M 14'13	
	4102 Apr 28 21:58	0° Y			4104 Oct 13 13:03	0° A	
	4102 May 23 23:58	0° B			4104 Nov 08 08:54	0° B	
	4102 Jun 17 20:44	0° II			4104 Dec 05 07:54	0° \approx	
	4102 Jul 12 14:36	0° E		evening max el	4104 Dec 18 05:32	13° \approx 26'29	47°04'52
asc. node	4102 Aug 04 20:04	28° E 17'33			4105 Jan 04 22:29	0° H	
	4102 Aug 06 05:37	0° Ω		asc. node	4105 Jan 19 15:04	10° H 43'56	
morning set	4102 Aug 26 09:55	24° Ω 43'04		greatest brilliancy	4105 Jan 27 19:45	14° H 42'51	-4.9m
	4102 Aug 30 17:04	0° M		retrograde	4105 Feb 06 23:03	16° H 40'50	
	4102 Sep 24 00:51	0° E		evening set	4105 Feb 23 13:36	11° H 15'40	
max. Earth dist.	4102 Sep 29 01:04	6° E 11'55	1.72907 AU	min. Earth dist.	4105 Feb 26 22:07	9° H 14'12	0.26969 AU
				inferior conj	4105 Feb 27 14:40	8° H 48'44	8°08'12
superior conj	4102 Oct 01 21:09	9° E 42'41	1°25'04	minimum elong	4105 Feb 27 06:03	9° H 01'59	8°07'01
minimum elong	4102 Oct 01 22:19	9° E 46'18	1°25'04	morning rise	4105 Mar 02 22:43	6° H 47'15	
	4102 Oct 18 05:51	0° M		direct	4105 Mar 20 02:43	1° H 04'47	
evening rise	4102 Nov 08 07:34	26° M 10'59		greatest brilliancy	4105 Mar 29 07:10	2° H 40'58	-4.9m
	4102 Nov 11 09:15	0° A			4105 May 05 23:49	0° Y	
desc. node	4102 Nov 24 10:36	16° A 14'34		morning max el	4105 May 09 01:18	2° Y 59'07	46°28'10
	4102 Dec 05 11:53	0° B		desc. node	4105 May 11 05:31	5° Y 08'38	
	4102 Dec 29 14:19	0° \approx			4105 Jun 03 18:49	0° B	
	4103 Jan 22 17:42	0° H			4105 Jun 30 09:40	0° II	
	4103 Feb 16 00:56	0° Y			4105 Jul 26 03:54	0° E	
	4103 Mar 12 17:36	0° B			4105 Aug 20 10:00	0° Ω	
asc. node	4103 Mar 17 12:48	5° B 44'25		asc. node	4105 Sep 01 07:58	14° Ω 19'51	
	4103 Apr 07 05:38	0° II			4105 Sep 14 06:21	0° M	
	4103 May 04 11:06	0° E			4105 Oct 08 18:20	0° E	
evening max el	4103 May 14 02:00	9° E 45'08	45°57'22		4105 Nov 01 23:53	0° M	
	4103 Jun 06 09:33	0° Ω		morning set	4105 Nov 03 09:20	1° M 43'57	
greatest brilliancy	4103 Jun 21 07:49	8° Ω 27'03	-4.7m		4105 Nov 26 01:16	0° A	
retrograde	4103 Jul 02 08:54	10° Ω 40'33		max. Earth dist.	4105 Dec 09 15:36	17° A 00'46	1.71589 AU
desc. node	4103 Jul 07 03:09	10° Ω 13'20					
evening set	4103 Jul 17 15:49	6° Ω 09'26		superior conj	4105 Dec 11 21:48	19° A 50'32	0°23'50
inferior conj	4103 Jul 23 21:16	2° Ω 24'50	-3°50'49	minimum elong	4105 Dec 12 03:31	20° A 08'25	0°23'33

	4105 Dec 20 00:17	0° Z		morning max el	4108 Jul 20 05:01	13° II 57'04	45°47'46
desc. node	4105 Dec 21 22:20	2° Z 24'24			4108 Aug 05 04:54	0° G	
	4106 Jan 12 22:00	0° \approx			4108 Sep 01 17:36	0° Ω	
evening rise	4106 Jan 21 11:11	10° \approx 44'19			4108 Sep 27 17:43	0° M	
	4106 Feb 05 19:22	0° H		asc. node	4108 Sep 28 19:57	1° M 17'09	
	4106 Mar 01 18:02	0° Y			4108 Oct 22 20:39	0° $\underline{\Omega}$	
	4106 Mar 25 20:38	0° B			4108 Nov 16 09:47	0° M	
asc. node	4106 Apr 14 00:49	23° B 36'03			4108 Dec 10 14:22	0° Z	
	4106 Apr 19 06:35	0° II			4109 Jan 03 14:05	0° Z	
	4106 May 14 04:04	0° G		greatest brilliancy	4109 Jan 09 12:26	7° Z 26'25	-3.9m
	4106 Jun 08 20:02	0° Ω		morning set	4109 Jan 15 18:54	15° Z 18'49	
	4106 Jul 05 22:46	0° M		desc. node	4109 Jan 18 10:06	18° Z 37'20	
evening max el	4106 Jul 23 18:35	18° M 03'30	45°29'36		4109 Jan 27 11:21	0° \approx	
desc. node	4106 Aug 03 14:59	27° M 57'09			4109 Feb 20 07:42	0° H	
	4106 Aug 06 01:00	0° $\underline{\Omega}$					
greatest brilliancy	4106 Aug 31 12:07	15° $\underline{\Omega}$ 55'59	-4.7m	superior conj	4109 Feb 26 06:49	7° H 29'55	-1°16'38
retrograde	4106 Sep 10 09:06	17° $\underline{\Omega}$ 40'41		minimum elong	4109 Feb 25 20:43	6° H 58'12	1°16'24
evening set	4106 Sep 28 11:29	11° $\underline{\Omega}$ 34'25		max. Earth dist.	4109 Feb 28 03:04	9° H 49'01	1.71201 AU
inferior conj	4106 Oct 01 17:09	9° $\underline{\Omega}$ 34'43	-8°38'44		4109 Mar 16 04:40	0° Y	
minimum elong	4106 Oct 01 18:11	9° $\underline{\Omega}$ 33'07	8°38'43	evening rise	4109 Apr 08 00:07	28° Y 33'02	
min. Earth dist.	4106 Oct 02 06:14	9° $\underline{\Omega}$ 14'18	0.28745 AU		4109 Apr 09 03:59	0° B	
morning rise	4106 Oct 05 00:44	7° $\underline{\Omega}$ 31'55			4109 May 03 07:24	0° II	
direct	4106 Oct 23 05:31	1° $\underline{\Omega}$ 19'51		asc. node	4109 May 11 12:40	10° II 09'05	
greatest brilliancy	4106 Nov 03 03:48	3° $\underline{\Omega}$ 31'45	-4.8m		4109 May 27 16:23	0° G	
asc. node	4106 Nov 24 17:25	17° $\underline{\Omega}$ 13'24			4109 Jun 21 08:22	0° Ω	
	4106 Dec 08 18:54	0° M			4109 Jul 16 09:47	0° M	
morning max el	4106 Dec 12 09:02	3° M 33'22	46°32'15		4109 Aug 11 01:45	0° $\underline{\Omega}$	
	4107 Jan 05 23:51	0° Z		desc. node	4109 Aug 31 02:53	22° $\underline{\Omega}$ 39'07	
	4107 Jan 31 19:05	0° Z			4109 Sep 06 19:33	0° M	
	4107 Feb 25 16:34	0° \approx		evening max el	4109 Oct 03 19:40	27° M 54'34	46°05'45
desc. node	4107 Mar 16 07:55	22° \approx 48'07			4109 Oct 06 00:11	0° Z	
	4107 Mar 22 04:30	0° H		greatest brilliancy	4109 Nov 12 20:40	26° Z 56'11	-4.8m
	4107 Apr 15 12:29	0° Y		retrograde	4109 Nov 22 02:56	28° Z 31'36	
	4107 May 09 19:39	0° B		evening set	4109 Dec 06 23:48	24° Z 15'03	
	4107 Jun 03 03:38	0° II		inferior conj	4109 Dec 12 20:26	20° Z 49'31	-2°22'48
morning set	4107 Jun 16 22:41	16° II 58'51		minimum elong	4109 Dec 13 01:46	20° Z 41'24	2°21'09
	4107 Jun 27 12:44	0° G		min. Earth dist.	4109 Dec 13 11:28	20° Z 26'35	0.26932 AU
asc. node	4107 Jul 07 10:16	12° G 10'18		morning rise	4109 Dec 19 02:56	17° Z 08'52	
	4107 Jul 21 22:17	0° Ω		asc. node	4109 Dec 22 05:13	15° Z 37'07	
				direct	4110 Jan 02 12:40	13° Z 00'37	
superior conj	4107 Jul 24 00:46	2° Ω 35'11	0°38'19	greatest brilliancy	4110 Jan 13 08:50	15° Z 12'54	-4.9m
minimum elong	4107 Jul 23 17:34	2° Ω 13'01	0°38'00		4110 Feb 04 22:56	0° Z	
max. Earth dist.	4107 Jul 23 22:32	2° Ω 28'20	1.73495 AU	morning max el	4110 Feb 22 04:08	16° Z 11'50	46°58'49
	4107 Aug 15 07:34	0° M			4110 Mar 07 07:25	0° \approx	
evening rise	4107 Aug 29 01:07	16° M 53'54			4110 Apr 02 23:03	0° H	
	4107 Sep 08 16:34	0° $\underline{\Omega}$		desc. node	4110 Apr 12 19:47	11° H 30'11	
	4107 Oct 03 02:07	0° M			4110 Apr 28 11:12	0° Y	
desc. node	4107 Oct 27 00:41	29° M 21'59			4110 May 23 12:07	0° B	
	4107 Oct 27 13:06	0° Z			4110 Jun 17 08:12	0° II	
	4107 Nov 21 02:13	0° Z			4110 Jul 12 01:38	0° G	
	4107 Dec 15 18:41	0° \approx		asc. node	4110 Aug 03 22:10	27° G 51'05	
	4108 Jan 09 18:36	0° H			4110 Aug 05 16:22	0° Ω	
	4108 Feb 04 13:25	0° Y		morning set	4110 Aug 24 03:37	22° Ω 37'21	
asc. node	4108 Feb 17 03:00	13° Y 56'39			4110 Aug 30 03:41	0° M	
evening max el	4108 Feb 29 14:23	27° Y 03'26	46°58'17		4110 Sep 23 11:28	0° $\underline{\Omega}$	
	4108 Mar 03 12:49	0° B		max. Earth dist.	4110 Sep 26 21:08	4° $\underline{\Omega}$ 12'36	1.72949 AU
greatest brilliancy	4108 Apr 09 15:19	27° B 56'47	-4.9m				
retrograde	4108 Apr 20 02:37	29° B 59'49		superior conj	4110 Sep 29 14:30	7° $\underline{\Omega}$ 34'55	1°25'11
evening set	4108 May 06 14:55	24° B 40'37		minimum elong	4110 Sep 29 14:57	7° $\underline{\Omega}$ 36'19	1°25'12
inferior conj	4108 May 11 05:05	21° B 51'14	6°06'52		4110 Oct 17 16:32	0° M	
minimum elong	4108 May 11 15:19	21° B 35'10	6°04'36	evening rise	4110 Nov 05 22:26	23° M 54'29	
min. Earth dist.	4108 May 11 02:23	21° B 55'29	0.28068 AU		4110 Nov 10 20:04	0° Z	
morning rise	4108 May 16 16:09	18° B 32'53		desc. node	4110 Nov 23 12:30	15° Z 46'28	
direct	4108 Jun 01 07:08	13° B 49'38			4110 Dec 04 22:54	0° Z	
desc. node	4108 Jun 07 17:12	14° B 36'11			4110 Dec 29 01:37	0° \approx	
greatest brilliancy	4108 Jun 11 00:03	15° B 33'19	-4.8m		4111 Jan 22 05:21	0° H	
	4108 Jul 04 13:31	0° II			4111 Feb 15 13:05	0° Y	

	4111 Mar 12 06:35	0°♄		4113 Aug 19 21:26	0°♌	
asc. node	4111 Mar 16 14:52	5°♄11'14	asc. node	4113 Aug 31 10:03	13°♌52'23	
	4111 Apr 06 20:17	0°♊		4113 Sep 13 17:19	0°♎	
	4111 May 04 06:02	0°♉		4113 Oct 08 05:03	0°♏	
evening max el	4111 May 11 17:48	7°♉33'03 45°59'26	morning set	4113 Nov 01 01:03	29°♏30'32	
	4111 Jun 07 04:46	0°♌		4113 Nov 01 10:32	0°♎	
greatest brilliancy	4111 Jun 18 23:27	6°♌17'14 -4.7m		4113 Nov 25 11:58	0°♎	
retrograde	4111 Jun 30 01:59	8°♌32'03	max. Earth dist.	4113 Dec 06 23:58	14°♎23'08 1.71631 AU	
desc. node	4111 Jul 06 05:08	7°♌46'38				
evening set	4111 Jul 15 07:00	4°♌02'19	superior conj	4113 Dec 09 10:30	17°♎26'21 0°27'24	
min. Earth dist.	4111 Jul 21 05:26	0°♌28'59 0.28914 AU	minimum elong	4113 Dec 09 16:57	17°♎46'31 0°27'06	
inferior conj	4111 Jul 21 13:36	0°♌16'12 -3°32'56		4113 Dec 19 11:05	0°♎	
minimum elong	4111 Jul 21 06:20	0°♌27'35 3°30'58	desc. node	4113 Dec 21 00:23	1°♎56'58	
	4111 Jul 21 23:57	30°♋♉		4114 Jan 12 08:53	0°♎	
morning rise	4111 Jul 27 05:52	26°♉50'08	evening rise	4114 Jan 18 21:56	8°♎13'04	
direct	4111 Aug 12 02:05	22°♉01'18		4114 Feb 05 06:20	0°♋	
greatest brilliancy	4111 Aug 22 06:45	23°♉53'13 -4.7m		4114 Mar 01 05:08	0°♎	
	4111 Sep 03 09:35	0°♌		4114 Mar 25 07:57	0°♄	
morning max el	4111 Sep 29 22:56	21°♌54'42 45°49'33	asc. node	4114 Apr 13 02:45	23°♄06'34	
	4111 Oct 08 03:05	0°♎		4114 Apr 18 18:16	0°♊	
asc. node	4111 Oct 27 07:41	20°♎25'23		4114 May 13 16:29	0°♉	
	4111 Nov 04 21:00	0°♏		4114 Jun 08 09:54	0°♌	
	4111 Nov 30 14:44	0°♎		4114 Jul 05 16:07	0°♎	
	4111 Dec 25 09:47	0°♎	evening max el	4114 Jul 21 09:47	15°♎51'40 45°29'27	
	4112 Jan 18 17:24	0°♎	desc. node	4114 Aug 02 17:10	27°♎00'28	
	4112 Feb 11 19:25	0°♎		4114 Aug 06 08:23	0°♏	
desc. node	4112 Feb 15 22:05	5°♎08'14	greatest brilliancy	4114 Aug 29 02:42	13°♏44'44 -4.7m	
	4112 Mar 06 19:03	0°♋	retrograde	4114 Sep 07 23:47	15°♏29'42	
	4112 Mar 30 18:22	0°♎	evening set	4114 Sep 26 02:25	9°♏24'13	
morning set	4112 Apr 02 17:26	3°♎42'09	inferior conj	4114 Sep 29 08:49	7°♏23'16 -8°38'58	
	4112 Apr 23 19:02	0°♄	minimum elong	4114 Sep 29 09:01	7°♏22'58 8°38'58	
			min. Earth dist.	4114 Sep 29 21:05	7°♏04'06 0.28785 AU	
superior conj	4112 May 12 01:58	22°♄44'39 -0°58'53	morning rise	4114 Oct 02 15:28	5°♏21'37	
minimum elong	4112 May 12 12:26	23°♄17'08 0°58'31		4114 Oct 14 07:08	30°♋♎	
max. Earth dist.	4112 May 15 13:33	27°♄03'57 1.72528 AU	direct	4114 Oct 20 21:16	29°♎08'01	
	4112 May 17 22:21	0°♊		4114 Oct 27 15:52	0°♏	
asc. node	4112 Jun 08 00:29	26°♊04'33	greatest brilliancy	4114 Oct 31 19:03	1°♏18'42 -4.8m	
	4112 Jun 11 04:50	0°♉	asc. node	4114 Nov 23 19:24	16°♏11'09	
evening rise	4112 Jun 19 07:49	10°♉00'28		4114 Dec 08 17:27	0°♎	
	4112 Jul 05 14:23	0°♌	morning max el	4114 Dec 09 22:54	1°♎13'31 46°30'36	
	4112 Jul 30 03:03	0°♎		4115 Jan 05 15:48	0°♎	
	4112 Aug 23 19:46	0°♏		4115 Jan 31 08:46	0°♎	
	4112 Sep 17 18:29	0°♎		4115 Feb 25 05:07	0°♎	
desc. node	4112 Sep 27 14:46	11°♎43'32	desc. node	4115 Mar 15 09:53	22°♎17'15	
	4112 Oct 13 02:07	0°♎		4115 Mar 21 16:23	0°♋	
	4112 Nov 07 23:56	0°♎		4115 Apr 14 23:55	0°♎	
	4112 Dec 05 03:12	0°♎		4115 May 09 06:44	0°♄	
evening max el	4112 Dec 15 20:34	11°♎06'07 47°03'37		4115 Jun 02 14:27	0°♊	
	4113 Jan 05 10:34	0°♋	morning set	4115 Jun 14 15:15	14°♊49'13	
asc. node	4113 Jan 18 17:13	9°♋10'10		4115 Jun 26 23:22	0°♉	
greatest brilliancy	4113 Jan 25 08:25	12°♋15'17 -4.9m	asc. node	4115 Jul 06 12:20	11°♉44'04	
retrograde	4113 Feb 04 12:35	14°♋13'27		4115 Jul 21 08:51	0°♌	
evening set	4113 Feb 20 22:10	8°♋55'06				
min. Earth dist.	4113 Feb 24 10:24	6°♋48'08 0.26927 AU	superior conj	4115 Jul 21 18:31	0°♌29'43 0°35'26	
inferior conj	4113 Feb 25 03:20	6°♋22'04 7°57'30	minimum elong	4115 Jul 21 11:43	0°♌08'50 0°35'06	
minimum elong	4113 Feb 24 18:10	6°♋36'11 7°56'06	max. Earth dist.	4115 Jul 21 17:48	0°♌27'31 1.73487 AU	
morning rise	4113 Feb 28 14:26	4°♋16'12		4115 Aug 14 18:09	0°♎	
	4113 Mar 09 13:17	30°♋♎	evening rise	4115 Aug 26 19:27	14°♎49'52	
direct	4113 Mar 17 15:44	28°♎39'00		4115 Sep 08 03:18	0°♏	
	4113 Mar 26 01:06	0°♋		4115 Oct 02 13:05	0°♎	
greatest brilliancy	4113 Mar 26 19:13	0°♋14'37 -4.9m	desc. node	4115 Oct 26 02:39	28°♎53'22	
	4113 May 05 23:31	0°♎		4115 Oct 27 00:26	0°♎	
morning max el	4113 May 06 15:06	0°♎38'20 46°29'40		4115 Nov 20 14:04	0°♎	
desc. node	4113 May 10 07:31	4°♎18'57		4115 Dec 15 07:19	0°♎	
	4113 Jun 03 11:07	0°♄		4116 Jan 09 08:32	0°♋	
	4113 Jun 29 23:16	0°♊		4116 Feb 04 05:52	0°♎	
	4113 Jul 25 16:09	0°♉	asc. node	4116 Feb 16 05:00	13°♎11'54	

evening max el	4116 Feb 27 03:53	24° Υ 40'21	46°59'43			4118 Sep 22 22:11	0° $\underline{\Omega}$	
	4116 Mar 03 12:27	0° \mathcal{B}		max. Earth dist.		4118 Sep 24 17:37	2° $\underline{\Omega}$ 14'16	1.72988 AU
greatest brilliancy	4116 Apr 07 08:03	25° \mathcal{B} 41'03	-4.9m					
retrograde	4116 Apr 17 17:22	27° \mathcal{B} 42'45		superior conj		4118 Sep 27 07:50	5° $\underline{\Omega}$ 26'45	1°25'12
evening set	4116 May 04 08:57	22° \mathcal{B} 19'24		minimum elong		4118 Sep 27 07:34	5° $\underline{\Omega}$ 25'57	1°25'13
inferior conj	4116 May 08 20:02	19° \mathcal{B} 34'44	6°22'33			4118 Oct 17 03:20	0° \mathcal{M}	
minimum elong	4116 May 09 06:17	19° \mathcal{B} 18'37	6°20'22	evening rise		4118 Nov 03 13:26	21° \mathcal{M} 37'58	
min. Earth dist.	4116 May 08 17:36	19° \mathcal{B} 38'33	0.28036 AU			4118 Nov 10 07:03	0° \mathcal{X}	
morning rise	4116 May 14 03:58	16° \mathcal{B} 20'36		desc. node		4118 Nov 22 14:35	15° \mathcal{X} 18'26	
direct	4116 May 29 20:55	11° \mathcal{B} 33'33				4118 Dec 04 10:07	0° \mathcal{Z}	
desc. node	4116 Jun 06 19:15	12° \mathcal{B} 43'32				4118 Dec 28 13:05	0° \approx	
greatest brilliancy	4116 Jun 08 14:29	13° \mathcal{B} 17'26	-4.8m			4119 Jan 21 17:09	0° \mathcal{H}	
	4116 Jul 04 21:08	0° \mathcal{I}				4119 Feb 15 01:21	0° Υ	
morning max el	4116 Jul 17 19:15	11° \mathcal{I} 41'50	45°48'38			4119 Mar 11 19:42	0° \mathcal{B}	
	4116 Aug 04 22:34	0° \mathcal{E}		asc. node		4119 Mar 15 16:48	4° \mathcal{B} 37'20	
	4116 Sep 01 07:37	0° \mathcal{Q}				4119 Apr 06 11:12	0° \mathcal{I}	
	4116 Sep 27 06:11	0° \mathcal{M}				4119 May 04 01:41	0° \mathcal{E}	
asc. node	4116 Sep 27 21:48	0° \mathcal{M} 46'04		evening max el		4119 May 09 10:25	5° \mathcal{E} 22'32	46°01'21
	4116 Oct 22 08:19	0° $\underline{\Omega}$				4119 Jun 08 07:39	0° \mathcal{Q}	
	4116 Nov 15 21:03	0° \mathcal{M}		greatest brilliancy		4119 Jun 16 15:22	4° \mathcal{Q} 07'05	-4.7m
	4116 Dec 10 01:24	0° \mathcal{X}		retrograde		4119 Jun 27 19:02	6° \mathcal{Q} 22'36	
	4117 Jan 03 01:01	0° \mathcal{Z}		desc. node		4119 Jul 05 07:17	5° \mathcal{Q} 14'23	
greatest brilliancy	4117 Jan 08 23:34	7° \mathcal{Z} 27'05	-3.9m	evening set		4119 Jul 12 22:24	1° \mathcal{Q} 54'20	
morning set	4117 Jan 13 05:53	12° \mathcal{Z} 48'15				4119 Jul 16 04:51	30° \mathcal{R} \mathcal{E}	
desc. node	4117 Jan 17 12:14	18° \mathcal{Z} 09'45		inferior conj		4119 Jul 19 05:56	28° \mathcal{E} 06'41	-3°14'38
	4117 Jan 26 22:14	0° \approx		minimum elong		4119 Jul 18 23:11	28° \mathcal{E} 17'15	3°12'46
	4117 Feb 19 18:36	0° \mathcal{H}		min. Earth dist.		4119 Jul 18 21:24	28° \mathcal{E} 20'02	0.28891 AU
				morning rise		4119 Jul 25 00:17	24° \mathcal{E} 37'58	
superior conj	4117 Feb 23 17:16	4° \mathcal{H} 57'42	-1°14'41	direct		4119 Aug 09 18:41	19° \mathcal{E} 52'14	
minimum elong	4117 Feb 23 06:36	4° \mathcal{H} 24'09	1°14'24	greatest brilliancy		4119 Aug 19 21:55	21° \mathcal{E} 43'21	-4.7m
max. Earth dist.	4117 Feb 25 05:50	6° \mathcal{H} 52'40	1.71185 AU			4119 Sep 04 06:58	0° \mathcal{Q}	
	4117 Mar 15 15:34	0° Υ		morning max el		4119 Sep 27 15:23	19° \mathcal{Q} 45'41	45°48'34
evening rise	4117 Apr 05 11:30	26° Υ 04'44				4119 Oct 07 22:17	0° \mathcal{M}	
	4117 Apr 08 14:54	0° \mathcal{B}		asc. node		4119 Oct 26 09:45	19° \mathcal{M} 47'44	
	4117 May 02 18:23	0° \mathcal{I}				4119 Nov 04 11:44	0° $\underline{\Omega}$	
asc. node	4117 May 10 14:39	9° \mathcal{I} 41'12				4119 Nov 30 03:44	0° \mathcal{M}	
	4117 May 27 03:32	0° \mathcal{E}				4119 Dec 24 21:59	0° \mathcal{X}	
	4117 Jun 20 19:54	0° \mathcal{Q}				4120 Jan 18 05:09	0° \mathcal{Z}	
	4117 Jul 15 22:03	0° \mathcal{M}				4120 Feb 11 06:53	0° \approx	
	4117 Aug 10 15:24	0° $\underline{\Omega}$		desc. node		4120 Feb 15 00:01	4° \approx 38'36	
desc. node	4117 Aug 30 04:51	22° $\underline{\Omega}$ 01'44				4120 Mar 06 06:18	0° \mathcal{H}	
	4117 Sep 06 12:04	0° \mathcal{M}				4120 Mar 30 05:25	0° Υ	
evening max el	4117 Oct 01 09:04	25° \mathcal{M} 35'10	46°03'47	morning set		4120 Mar 31 05:25	1° Υ 15'02	
	4117 Oct 06 01:11	0° \mathcal{X}				4120 Apr 23 05:58	0° \mathcal{B}	
greatest brilliancy	4117 Nov 10 09:32	24° \mathcal{X} 32'54	-4.8m					
retrograde	4117 Nov 19 15:51	26° \mathcal{X} 08'21		superior conj		4120 May 09 16:23	20° \mathcal{B} 26'40	-1°01'28
evening set	4117 Dec 04 14:45	21° \mathcal{X} 48'16		minimum elong		4120 May 10 02:58	20° \mathcal{B} 59'30	1°01'06
inferior conj	4117 Dec 10 09:24	18° \mathcal{X} 25'33	-2°45'19	max. Earth dist.		4120 May 13 07:42	24° \mathcal{B} 57'39	1.72479 AU
minimum elong	4117 Dec 10 15:29	18° \mathcal{X} 16'16	2°43'28			4120 May 17 09:12	0° \mathcal{I}	
min. Earth dist.	4117 Dec 11 01:33	18° \mathcal{X} 00'56	0.26983 AU	asc. node		4120 Jun 07 02:36	25° \mathcal{I} 37'36	
morning rise	4117 Dec 16 15:27	14° \mathcal{X} 45'44				4120 Jun 10 15:41	0° \mathcal{E}	
asc. node	4117 Dec 21 07:19	12° \mathcal{X} 34'03		evening rise		4120 Jun 17 00:44	7° \mathcal{E} 51'24	
direct	4117 Dec 31 02:27	10° \mathcal{X} 35'34				4120 Jul 05 01:20	0° \mathcal{Q}	
greatest brilliancy	4118 Jan 10 23:41	12° \mathcal{X} 49'28	-4.9m			4120 Jul 29 14:13	0° \mathcal{M}	
	4118 Feb 05 07:07	0° \mathcal{Z}				4120 Aug 23 07:20	0° $\underline{\Omega}$	
morning max el	4118 Feb 19 18:58	13° \mathcal{Z} 50'37	46°58'55			4120 Sep 17 06:46	0° \mathcal{M}	
	4118 Mar 07 01:58	0° \approx		desc. node		4120 Sep 26 16:44	11° \mathcal{M} 11'49	
	4118 Apr 02 13:55	0° \mathcal{H}				4120 Oct 12 15:35	0° \mathcal{X}	
desc. node	4118 Apr 11 21:46	10° \mathcal{H} 54'40				4120 Nov 07 15:30	0° \mathcal{Z}	
	4118 Apr 28 00:22	0° Υ				4120 Dec 04 23:24	0° \approx	
	4118 May 23 00:19	0° \mathcal{B}		evening max el		4120 Dec 13 11:19	8° \approx 44'11	47°02'10
	4118 Jun 16 19:46	0° \mathcal{I}				4121 Jan 06 03:11	0° \mathcal{H}	
	4118 Jul 11 12:46	0° \mathcal{E}		asc. node		4121 Jan 17 19:15	7° \mathcal{H} 31'46	
asc. node	4118 Aug 03 00:12	27° \mathcal{E} 24'03		greatest brilliancy		4121 Jan 22 21:47	9° \mathcal{H} 47'39	-4.9m
	4118 Aug 05 03:14	0° \mathcal{Q}		retrograde		4121 Feb 02 01:44	11° \mathcal{H} 45'02	
morning set	4118 Aug 21 21:13	20° \mathcal{Q} 30'58		evening set		4121 Feb 18 06:49	6° \mathcal{H} 33'45	
	4118 Aug 29 14:26	0° \mathcal{M}		min. Earth dist.		4121 Feb 21 23:14	4° \mathcal{H} 20'36	0.26884 AU

inferior conj	4121 Feb 22 16:03	3° H 54'40	7°45'53	max. Earth dist.	4123 Jul 19 13:23	28° G 26'54	1.73476 AU
minimum elong	4121 Feb 22 06:25	4° H 09'31	7°44'17		4123 Jul 20 19:40	0° Ω	
morning rise	4121 Feb 26 06:18	1° H 44'04			4123 Aug 14 05:00	0° M	
	4121 Mar 01 09:16	30° R \approx		evening rise	4123 Aug 24 14:11	12° M 46'18	
direct	4121 Mar 15 04:28	26° \approx 12'25			4123 Sep 07 14:18	0° $\underline{\Omega}$	
greatest brilliancy	4121 Mar 24 07:57	27° \approx 47'56	-4.9m		4123 Oct 02 00:22	0° M	
	4121 Mar 29 15:19	0° H		desc. node	4123 Oct 25 04:45	28° M 24'07	
morning max el	4121 May 04 04:02	28° H 14'30	46°31'19		4123 Oct 26 12:07	0° J	
	4121 May 05 22:30	0° Y			4123 Nov 20 02:18	0° Z	
desc. node	4121 May 09 09:35	3° Y 29'38			4123 Dec 14 20:22	0° \approx	
	4121 Jun 03 03:21	0° B			4124 Jan 08 22:55	0° H	
	4121 Jun 29 12:58	0° II			4124 Feb 03 22:57	0° Y	
	4121 Jul 25 04:34	0° G		asc. node	4124 Feb 15 06:57	12° Y 25'26	
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asc. node	4121 Aug 30 11:57	13° Ω 23'29			4124 Mar 03 13:37	0° B	
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	4121 Oct 07 16:07	0° $\underline{\Omega}$		retrograde	4124 Apr 15 08:17	25° B 24'35	
morning set	4121 Oct 29 16:52	27° $\underline{\Omega}$ 16'22		evening set	4124 May 02 02:56	19° B 56'38	
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	4121 Nov 24 22:59	0° J		minimum elong	4124 May 06 21:07	17° B 00'51	6°35'37
max. Earth dist.	4121 Dec 04 08:36	11° J 45'26	1.71675 AU	min. Earth dist.	4124 May 06 08:35	17° B 20'30	0.28006 AU
				morning rise	4124 May 11 15:34	14° B 07'27	
superior conj	4121 Dec 06 23:25	15° J 02'01	0°30'54	direct	4124 May 27 10:38	9° B 15'57	
minimum elong	4121 Dec 07 06:32	15° J 24'16	0°30'34	desc. node	4124 Jun 05 21:22	10° B 54'02	
	4121 Dec 18 22:10	0° Z		greatest brilliancy	4124 Jun 06 04:52	11° B 00'22	-4.8m
desc. node	4121 Dec 20 02:28	1° Z 28'43			4124 Jul 05 02:53	0° II	
	4122 Jan 11 20:04	0° \approx		morning max el	4124 Jul 15 10:21	9° II 27'50	45°49'45
evening rise	4122 Jan 16 08:52	5° \approx 41'25			4124 Aug 04 16:06	0° G	
	4122 Feb 04 17:39	0° H			4124 Aug 31 21:42	0° Ω	
	4122 Feb 28 16:35	0° Y		asc. node	4124 Sep 26 23:57	0° M 15'22	
	4122 Mar 24 19:38	0° B			4124 Sep 26 18:45	0° M	
asc. node	4122 Apr 12 04:48	22° B 36'22			4124 Oct 21 20:09	0° $\underline{\Omega}$	
	4122 Apr 18 06:20	0° II			4124 Nov 15 08:31	0° M	
	4122 May 13 05:15	0° G			4124 Dec 09 12:42	0° J	
	4122 Jun 08 00:11	0° Ω			4125 Jan 02 12:14	0° Z	
	4122 Jul 05 10:09	0° M		greatest brilliancy	4125 Jan 08 16:13	7° Z 44'08	-3.9m
evening max el	4122 Jul 19 00:14	13° M 37'21	45°29'19	morning set	4125 Jan 10 16:46	10° Z 16'34	
desc. node	4122 Aug 01 19:05	26° M 01'11		desc. node	4125 Jan 16 14:13	17° Z 40'47	
	4122 Aug 06 18:56	0° $\underline{\Omega}$			4125 Jan 26 09:24	0° \approx	
greatest brilliancy	4122 Aug 26 17:18	11° $\underline{\Omega}$ 32'50	-4.7m		4125 Feb 19 05:44	0° H	
retrograde	4122 Sep 05 14:35	13° $\underline{\Omega}$ 18'28					
evening set	4122 Sep 23 17:10	7° $\underline{\Omega}$ 13'59		superior conj	4125 Feb 21 03:21	2° H 23'27	-1°12'33
inferior conj	4122 Sep 27 00:40	5° $\underline{\Omega}$ 11'25	-8°38'26	minimum elong	4125 Feb 20 16:11	1° H 48'19	1°12'14
minimum elong	4122 Sep 27 00:03	5° $\underline{\Omega}$ 12'23	8°38'26	max. Earth dist.	4125 Feb 22 11:19	4° H 03'59	1.71169 AU
min. Earth dist.	4122 Sep 27 12:18	4° $\underline{\Omega}$ 53'12	0.28828 AU		4125 Mar 15 02:42	0° Y	
morning rise	4122 Sep 30 06:45	3° $\underline{\Omega}$ 10'26		evening rise	4125 Apr 02 22:42	23° Y 35'04	
	4122 Oct 06 01:08	30° R M			4125 Apr 08 02:03	0° B	
direct	4122 Oct 18 12:55	26° M 55'32			4125 May 02 05:36	0° II	
greatest brilliancy	4122 Oct 29 11:12	29° M 06'00	-4.8m	asc. node	4125 May 09 16:47	9° II 13'00	
	4122 Oct 31 15:33	0° $\underline{\Omega}$			4125 May 26 14:57	0° G	
asc. node	4122 Nov 22 21:30	15° $\underline{\Omega}$ 09'40			4125 Jun 20 07:42	0° Ω	
morning max el	4122 Dec 07 12:58	28° $\underline{\Omega}$ 53'11	46°29'02		4125 Jul 15 10:34	0° M	
	4122 Dec 08 15:33	0° M			4125 Aug 10 05:17	0° $\underline{\Omega}$	
	4123 Jan 05 07:52	0° J		desc. node	4125 Aug 29 06:52	21° $\underline{\Omega}$ 23'54	
	4123 Jan 30 22:39	0° Z			4125 Sep 06 04:59	0° M	
	4123 Feb 24 17:55	0° \approx		evening max el	4125 Sep 28 23:21	23° M 17'59	46°01'50
desc. node	4123 Mar 14 11:52	21° \approx 45'29			4125 Oct 06 03:34	0° J	
	4123 Mar 21 04:32	0° H		greatest brilliancy	4125 Nov 07 21:54	22° J 09'26	-4.8m
	4123 Apr 14 11:38	0° Y		retrograde	4125 Nov 17 05:03	23° J 45'13	
	4123 May 08 18:07	0° B		evening set	4125 Dec 02 06:01	19° J 21'37	
	4123 Jun 02 01:34	0° II		inferior conj	4125 Dec 07 22:28	16° J 01'35	-3°07'27
morning set	4123 Jun 12 07:57	12° II 39'00		minimum elong	4125 Dec 08 05:16	15° J 51'13	3°05'24
	4123 Jun 26 10:18	0° G		min. Earth dist.	4125 Dec 08 15:21	15° J 35'52	0.27041 AU
asc. node	4123 Jul 05 14:23	11° G 16'51		morning rise	4125 Dec 14 03:50	12° J 22'54	
				asc. node	4125 Dec 20 09:20	9° J 36'15	
superior conj	4123 Jul 19 12:33	28° G 24'20	0°32'30	direct	4125 Dec 28 16:49	8° J 10'43	
minimum elong	4123 Jul 19 06:12	28° G 04'48	0°32'12	greatest brilliancy	4126 Jan 08 14:11	10° J 25'19	-4.9m





































































































































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morning max el	4126 Feb 17 10:10	11°♁29'41	46°58'47		4128 Sep 16 19:00	0°♁	
	4126 Mar 06 20:19	0°♁		desc. node	4128 Sep 25 18:52	10°♁40'52	
	4126 Apr 02 04:48	0°♁			4128 Oct 12 04:59	0°♁	
desc. node	4126 Apr 10 23:55	10°♁19'17			4128 Nov 07 07:02	0°♁	
	4126 Apr 27 13:37	0°♁			4128 Dec 04 19:52	0°♁	
	4126 May 22 12:36	0°♁		evening max el	4128 Dec 11 01:09	6°♁21'01	47°00'44
	4126 Jun 16 07:25	0°♁			4129 Jan 07 00:47	0°♁	
	4126 Jul 11 00:01	0°♁		asc. node	4129 Jan 16 21:09	5°♁50'35	
asc. node	4126 Aug 02 02:08	26°♁56'20		greatest brilliancy	4129 Jan 20 11:31	7°♁21'33	-4.9m
	4126 Aug 04 14:13	0°♁		retrograde	4129 Jan 30 14:18	9°♁17'46	
morning set	4126 Aug 19 15:00	18°♁24'55		evening set	4129 Feb 15 15:33	4°♁13'24	
	4126 Aug 29 01:15	0°♁		min. Earth dist.	4129 Feb 19 12:29	1°♁53'43	0.26849 AU
	4126 Sep 22 08:58	0°♁		inferior conj	4129 Feb 20 04:52	1°♁28'27	7°33'12
max. Earth dist.	4126 Sep 22 13:09	0°♁12'57	1.73020 AU	minimum elong	4129 Feb 19 18:50	1°♁43'55	7°31'26
					4129 Feb 22 14:40	30°♁	
superior conj	4126 Sep 25 01:31	3°♁19'35	1°25'06	morning rise	4129 Feb 23 22:23	29°♁12'54	
minimum elong	4126 Sep 25 00:33	3°♁16'36	1°25'05	direct	4129 Mar 12 16:52	23°♁46'45	
	4126 Oct 16 14:10	0°♁		greatest brilliancy	4129 Mar 21 21:29	25°♁22'51	-4.9m
evening rise	4126 Nov 01 04:50	19°♁22'46			4129 Mar 31 15:03	0°♁	
	4126 Nov 09 18:01	0°♁		morning max el	4129 May 01 16:12	25°♁48'58	46°32'45
desc. node	4126 Nov 21 16:41	14°♁50'29			4129 May 05 20:24	0°♁	
	4126 Dec 03 21:20	0°♁		desc. node	4129 May 08 11:38	2°♁41'27	
	4126 Dec 28 00:36	0°♁			4129 Jun 02 19:13	0°♁	
	4127 Jan 21 05:03	0°♁			4129 Jun 29 02:27	0°♁	
	4127 Feb 14 13:47	0°♁			4129 Jul 24 16:48	0°♁	
	4127 Mar 11 09:05	0°♁			4129 Aug 18 20:37	0°♁	
asc. node	4127 Mar 14 18:54	4°♁03'15		asc. node	4129 Aug 29 14:03	12°♁55'48	
	4127 Apr 06 02:30	0°♁			4129 Sep 12 15:38	0°♁	
	4127 May 03 22:09	0°♁			4129 Oct 07 02:56	0°♁	
evening max el	4127 May 07 02:58	3°♁11'16	46°03'19	morning set	4129 Oct 27 08:36	25°♁02'41	
	4127 Jun 09 22:48	0°♁			4129 Oct 31 08:17	0°♁	
greatest brilliancy	4127 Jun 14 07:40	1°♁56'47	-4.8m		4129 Nov 24 09:45	0°♁	
retrograde	4127 Jun 25 11:36	4°♁12'12		max. Earth dist.	4129 Dec 01 19:05	9°♁14'25	1.71715 AU
desc. node	4127 Jul 04 09:13	2°♁36'43					
	4127 Jul 10 03:11	30°♁		superior conj	4129 Dec 04 12:35	12°♁39'20	0°34'19
evening set	4127 Jul 10 13:49	29°♁45'30		minimum elong	4129 Dec 04 20:19	13°♁03'31	0°33'58
inferior conj	4127 Jul 16 22:03	25°♁56'27	-2°55'53		4129 Dec 18 08:58	0°♁	
minimum elong	4127 Jul 16 15:52	26°♁06'08	2°54'09	desc. node	4129 Dec 19 04:26	1°♁00'58	
min. Earth dist.	4127 Jul 16 13:22	26°♁10'04	0.28863 AU		4130 Jan 11 06:56	0°♁	
morning rise	4127 Jul 22 18:21	22°♁25'01		evening rise	4130 Jan 13 20:11	3°♁12'11	
direct	4127 Aug 07 11:09	17°♁42'36			4130 Feb 04 04:35	0°♁	
greatest brilliancy	4127 Aug 17 12:48	19°♁32'35	-4.7m		4130 Feb 28 03:42	0°♁	
	4127 Sep 04 22:56	0°♁			4130 Mar 24 07:00	0°♁	
morning max el	4127 Sep 25 07:01	17°♁34'41	45°47'47	asc. node	4130 Apr 11 06:53	22°♁07'09	
	4127 Oct 07 16:56	0°♁			4130 Apr 17 18:07	0°♁	
asc. node	4127 Oct 25 11:49	19°♁10'33			4130 May 12 17:50	0°♁	
	4127 Nov 04 02:11	0°♁			4130 Jun 07 14:24	0°♁	
	4127 Nov 29 16:31	0°♁			4130 Jul 05 04:26	0°♁	
	4127 Dec 24 09:58	0°♁		evening max el	4130 Jul 16 14:15	11°♁22'29	45°29'23
	4128 Jan 17 16:43	0°♁		desc. node	4130 Jul 31 21:07	25°♁01'13	
	4128 Feb 10 18:14	0°♁			4130 Aug 07 08:52	0°♁	
desc. node	4128 Feb 14 02:02	4°♁09'31		greatest brilliancy	4130 Aug 24 07:14	9°♁20'37	-4.7m
	4128 Mar 05 17:28	0°♁		retrograde	4130 Sep 03 05:37	11°♁07'44	
morning set	4128 Mar 28 16:52	28°♁46'14		evening set	4130 Sep 21 07:22	5°♁04'27	
	4128 Mar 29 16:27	0°♁		inferior conj	4130 Sep 24 16:19	2°♁59'51	-8°37'06
	4128 Apr 22 16:52	0°♁		minimum elong	4130 Sep 24 14:54	3°♁02'04	8°37'04
				min. Earth dist.	4130 Sep 25 03:11	2°♁42'53	0.28868 AU
superior conj	4128 May 07 06:13	18°♁06'48	-1°03'59	morning rise	4130 Sep 27 22:16	0°♁59'11	
minimum elong	4128 May 07 16:49	18°♁39'43	1°03'37		4130 Sep 29 14:04	30°♁	
max. Earth dist.	4128 May 11 01:29	22°♁50'14	1.72426 AU	direct	4130 Oct 16 04:27	24°♁43'18	
	4128 May 16 20:02	0°♁		greatest brilliancy	4130 Oct 27 03:21	26°♁54'05	-4.8m
asc. node	4128 Jun 06 04:32	25°♁10'16			4130 Nov 02 17:16	0°♁	
	4128 Jun 10 02:30	0°♁		asc. node	4130 Nov 21 23:30	14°♁10'08	
evening rise	4128 Jun 14 17:03	5°♁40'33		morning max el	4130 Dec 05 03:36	26°♁35'15	46°27'35
	4128 Jul 04 12:13	0°♁			4130 Dec 08 12:31	0°♁	
	4128 Jul 29 01:19	0°♁			4131 Jan 04 23:19	0°♁	

	4131 Jan 30 12:02	0°♁			4133 Sep 05 21:59	0°♍	
	4131 Feb 24 06:13	0°♊		evening max el	4133 Sep 26 14:06	21°♍02'41	45°59'50
desc. node	4131 Mar 13 14:00	21°♊15'41			4133 Oct 06 07:18	0°♌	
	4131 Mar 20 16:11	0°♋		greatest brilliancy	4133 Nov 05 10:28	19°♌47'05	-4.8m
	4131 Apr 13 22:52	0°♌		retrograde	4133 Nov 14 18:06	21°♌22'38	
	4131 May 08 05:04	0°♍		evening set	4133 Nov 29 21:26	16°♌55'42	
	4131 Jun 01 12:18	0°♎		inferior conj	4133 Dec 05 11:31	13°♌38'25	-3°29'06
morning set	4131 Jun 10 00:26	10°♎29'03		minimum elong	4133 Dec 05 18:58	13°♌27'01	3°26'54
	4131 Jun 25 20:52	0°♏		min. Earth dist.	4133 Dec 06 05:02	13°♌11'41	0.27097 AU
asc. node	4131 Jul 04 16:20	10°♏50'24		morning rise	4133 Dec 11 15:55	10°♌00'55	
				asc. node	4133 Dec 19 11:17	6°♌44'27	
superior conj	4131 Jul 17 06:11	26°♏18'38	0°29'29	direct	4133 Dec 26 07:09	5°♌46'50	
minimum elong	4131 Jul 17 00:19	26°♏00'37	0°29'13	greatest brilliancy	4134 Jan 06 04:18	8°♌01'25	-4.9m
max. Earth dist.	4131 Jul 17 08:37	26°♏26'08	1.73469 AU		4134 Feb 05 17:05	0°♋	
	4131 Jul 20 06:11	0°♌		morning max el	4134 Feb 15 00:35	9°♋07'36	46°58'32
	4131 Aug 13 15:33	0°♍			4134 Mar 06 13:56	0°♊	
evening rise	4131 Aug 22 08:31	10°♍42'35			4134 Apr 01 19:14	0°♋	
	4131 Sep 07 01:00	0°♎		desc. node	4134 Apr 10 01:51	9°♋44'19	
	4131 Oct 01 11:20	0°♏			4134 Apr 27 02:28	0°♌	
desc. node	4131 Oct 24 06:46	27°♏55'36			4134 May 22 00:30	0°♍	
	4131 Oct 25 23:30	0°♌			4134 Jun 15 18:42	0°♎	
	4131 Nov 19 14:16	0°♋			4134 Jul 10 10:53	0°♏	
	4131 Dec 14 09:10	0°♊		asc. node	4134 Aug 01 04:15	26°♏30'11	
	4132 Jan 08 13:05	0°♋			4134 Aug 04 00:52	0°♌	
	4132 Feb 03 15:54	0°♌		morning set	4134 Aug 17 08:56	16°♌20'21	
asc. node	4132 Feb 14 09:06	11°♌40'15			4134 Aug 28 11:48	0°♍	
evening max el	4132 Feb 22 07:20	19°♌54'55	47°02'46	max. Earth dist.	4134 Sep 20 06:53	28°♍06'48	1.73058 AU
	4132 Mar 03 15:29	0°♍			4134 Sep 21 19:31	0°♎	
greatest brilliancy	4132 Apr 02 15:30	21°♍06'35	-4.9m				
retrograde	4132 Apr 12 23:45	23°♍08'20		superior conj	4134 Sep 22 19:13	1°♎13'16	1°24'51
evening set	4132 Apr 29 21:00	17°♍35'32		minimum elong	4134 Sep 22 17:33	1°♎08'07	1°24'51
inferior conj	4132 May 04 01:49	15°♍00'46	6°52'04		4134 Oct 16 00:49	0°♏	
minimum elong	4132 May 04 11:59	14°♍44'51	6°50'05	evening rise	4134 Oct 29 20:03	17°♏07'34	
min. Earth dist.	4132 May 03 23:14	15°♍04'49	0.27977 AU		4134 Nov 09 04:51	0°♌	
morning rise	4132 May 09 03:12	11°♍56'22		desc. node	4134 Nov 20 18:35	14°♌22'25	
direct	4132 May 25 00:59	7°♍00'06			4134 Dec 03 08:24	0°♋	
greatest brilliancy	4132 Jun 03 18:53	8°♍44'40	-4.8m		4134 Dec 27 11:59	0°♊	
desc. node	4132 Jun 04 23:17	9°♍10'13			4135 Jan 20 16:48	0°♋	
	4132 Jul 05 06:06	0°♎			4135 Feb 14 02:07	0°♌	
morning max el	4132 Jul 13 02:15	7°♎17'02	45°50'37		4135 Mar 10 22:23	0°♍	
	4132 Aug 04 08:51	0°♏		asc. node	4135 Mar 13 20:55	3°♍29'20	
	4132 Aug 31 11:19	0°♌			4135 Apr 05 17:50	0°♎	
asc. node	4132 Sep 26 02:00	29°♌45'19			4135 May 03 19:04	0°♏	
	4132 Sep 26 06:58	0°♍		evening max el	4135 May 04 19:05	0°♏59'26	46°05'23
	4132 Oct 21 07:39	0°♎		greatest brilliancy	4135 Jun 12 00:49	29°♏48'32	-4.8m
	4132 Nov 14 19:39	0°♏			4135 Jun 12 13:00	0°♌	
	4132 Dec 08 23:38	0°♌		retrograde	4135 Jun 23 03:58	2°♌03'09	
	4133 Jan 01 23:05	0°♋		desc. node	4135 Jul 03 11:13	29°♏56'04	
greatest brilliancy	4133 Jan 07 21:42	7°♋27'19	-3.9m		4135 Jul 03 07:19	30°♒♏	
morning set	4133 Jan 08 03:42	7°♋46'08		evening set	4135 Jul 08 05:39	27°♏37'51	
desc. node	4133 Jan 15 16:12	17°♋12'55		min. Earth dist.	4135 Jul 14 05:49	24°♏01'17	0.28832 AU
	4133 Jan 25 20:15	0°♊		inferior conj	4135 Jul 14 14:26	23°♏47'46	-2°37'04
				minimum elong	4135 Jul 14 08:51	23°♏56'32	2°35'29
superior conj	4133 Feb 18 13:25	29°♊50'05	-1°10'16	morning rise	4135 Jul 20 12:30	20°♏13'37	
minimum elong	4133 Feb 18 01:51	29°♊13'44	1°09'55	direct	4135 Aug 05 03:27	15°♏34'34	
	4133 Feb 18 16:34	0°♋		greatest brilliancy	4135 Aug 15 04:09	17°♏23'30	-4.7m
max. Earth dist.	4133 Feb 19 18:34	1°♋21'48	1.71153 AU		4135 Sep 05 10:19	0°♌	
	4133 Mar 14 13:29	0°♌		morning max el	4135 Sep 22 21:48	15°♌22'27	45°46'51
evening rise	4133 Mar 31 10:03	21°♌06'59			4135 Oct 07 10:52	0°♍	
	4133 Apr 07 12:49	0°♍		asc. node	4135 Oct 24 13:46	18°♍33'50	
	4133 May 01 16:25	0°♎			4135 Nov 03 16:20	0°♎	
asc. node	4133 May 08 18:44	8°♎45'33			4135 Nov 29 05:11	0°♏	
	4133 May 26 01:58	0°♏			4135 Dec 23 21:55	0°♌	
	4133 Jun 19 19:08	0°♌			4136 Jan 17 04:17	0°♋	
	4133 Jul 14 22:46	0°♍			4136 Feb 10 05:32	0°♊	
	4133 Aug 09 19:00	0°♎		desc. node	4136 Feb 13 04:11	3°♊40'58	
desc. node	4133 Aug 28 08:59	20°♎46'42			4136 Mar 05 04:34	0°♋	

morning set	4136 Mar 26 04:03	26° Υ 16'46	evening set	4138 Sep 18 21:32	2° Ω 55'49
	4136 Mar 29 03:24	0° Υ	inferior conj	4138 Sep 22 08:16	0° Ω 48'42 -8°34'57
	4136 Apr 22 03:43	0° Υ	minimum elong	4138 Sep 22 06:04	0° Ω 52'07 8°34'54
			min. Earth dist.	4138 Sep 22 17:56	0° Ω 33'37 0.28904 AU
superior conj	4136 May 04 20:02	15° Υ 46'59 -1°06'23		4138 Sep 23 15:31	30° Υ 17
minimum elong	4136 May 05 06:35	16° Υ 19'47 1°06'03	morning rise	4138 Sep 25 14:26	28° Υ 47'53
max. Earth dist.	4136 May 08 18:11	20° Υ 39'30 1.72370 AU	direct	4138 Oct 13 20:32	22° Υ 31'39
	4136 May 16 06:50	0° Π	greatest brilliancy	4138 Oct 24 19:10	24° Υ 42'17 -4.8m
asc. node	4136 Jun 05 06:34	24° Π 43'19		4138 Nov 04 02:03	0° Ω
	4136 Jun 09 13:17	0° Ω	asc. node	4138 Nov 21 01:30	13° Ω 11'50
evening rise	4136 Jun 12 09:22	3° Ω 29'48	morning max el	4138 Dec 02 19:12	24° Ω 19'47 46°25'59
	4136 Jul 03 23:03	0° Ω		4138 Dec 08 08:53	0° Ω
	4136 Jul 28 12:21	0° Υ		4139 Jan 04 14:45	0° Υ
	4136 Aug 22 06:20	0° Ω		4139 Jan 30 01:35	0° Ω
	4136 Sep 16 07:14	0° Ω		4139 Feb 23 18:50	0° \approx
desc. node	4136 Sep 24 20:50	10° Ω 09'30	desc. node	4139 Mar 12 15:58	20° \approx 44'09
	4136 Oct 11 18:30	0° Υ		4139 Mar 20 04:14	0° Υ
	4136 Nov 06 22:54	0° Ω		4139 Apr 13 10:30	0° Υ
	4136 Dec 04 17:18	0° \approx		4139 May 07 16:23	0° Υ
evening max el	4136 Dec 08 13:59	3° \approx 54'40 46°59'03		4139 May 31 23:22	0° Π
	4137 Jan 08 07:11	0° Υ	morning set	4139 Jun 07 16:36	8° Π 17'01
asc. node	4137 Jan 15 23:19	4° Υ 04'31		4139 Jun 25 07:47	0° Ω
greatest brilliancy	4137 Jan 18 01:17	4° Υ 54'17 -4.9m	asc. node	4139 Jul 03 18:26	10° Ω 23'23
retrograde	4137 Jan 28 02:24	6° Υ 49'19			
evening set	4137 Feb 13 00:03	1° Υ 51'32	superior conj	4139 Jul 14 23:41	24° Ω 11'29 0°26'26
	4137 Feb 16 03:06	30° Υ 17	minimum elong	4139 Jul 14 18:21	23° Ω 55'05 0°26'10
min. Earth dist.	4137 Feb 17 01:45	29° \approx 25'13 0.26813 AU	max. Earth dist.	4139 Jul 15 05:27	24° Ω 29'15 1.73457 AU
inferior conj	4137 Feb 17 17:27	29° \approx 01'01 7°19'31		4139 Jul 19 17:01	0° Ω
minimum elong	4137 Feb 17 07:05	29° \approx 16'59 7°17'34		4139 Aug 13 02:26	0° Υ
morning rise	4137 Feb 21 14:19	26° \approx 40'31	evening rise	4139 Aug 20 03:04	8° Υ 38'30
direct	4137 Mar 10 04:39	21° \approx 19'37		4139 Sep 06 12:02	0° Ω
greatest brilliancy	4137 Mar 19 11:13	22° \approx 57'03 -4.9m		4139 Sep 30 22:37	0° Ω
	4137 Apr 01 23:39	0° Υ	desc. node	4139 Oct 23 08:44	27° Ω 26'06
morning max el	4137 Apr 29 04:09	23° Υ 22'18 46°34'23		4139 Oct 25 11:10	0° Υ
	4137 May 05 17:40	0° Υ		4139 Nov 19 02:31	0° Ω
desc. node	4137 May 07 13:37	1° Υ 53'29		4139 Dec 13 22:19	0° \approx
	4137 Jun 02 10:57	0° Υ		4140 Jan 08 03:45	0° Υ
	4137 Jun 28 15:55	0° Π		4140 Feb 03 09:42	0° Υ
	4137 Jul 24 05:02	0° Ω	asc. node	4140 Feb 13 11:05	10° Υ 52'23
	4137 Aug 18 08:08	0° Ω	evening max el	4140 Feb 19 22:16	17° Υ 34'24 47°03'58
asc. node	4137 Aug 28 16:07	12° Ω 27'49		4140 Mar 03 19:42	0° Υ
	4137 Sep 12 02:43	0° Υ	greatest brilliancy	4140 Mar 31 06:15	18° Υ 46'38 -4.9m
	4137 Oct 06 13:49	0° Ω	retrograde	4140 Apr 10 15:15	20° Υ 49'01
morning set	4137 Oct 25 00:45	22° Ω 50'09	evening set	4140 Apr 27 14:45	15° Υ 11'32
	4137 Oct 30 19:07	0° Ω	inferior conj	4140 May 01 16:21	12° Υ 41'36 7°05'57
	4137 Nov 23 20:39	0° Υ	minimum elong	4140 May 02 02:22	12° Υ 25'57 7°04'06
max. Earth dist.	4137 Nov 29 08:37	6° Υ 52'30 1.71765 AU	min. Earth dist.	4140 May 01 13:09	12° Υ 46'36 0.27946 AU
			morning rise	4140 May 06 14:16	9° Υ 42'36
superior conj	4137 Dec 02 01:58	10° Υ 16'52 0°37'39	direct	4140 May 22 15:27	4° Υ 41'30
minimum elong	4137 Dec 02 10:14	10° Υ 42'44 0°37'17	greatest brilliancy	4140 Jun 01 07:57	6° Υ 25'31 -4.8m
	4137 Dec 17 19:58	0° Ω	desc. node	4140 Jun 04 01:22	7° Υ 27'57
desc. node	4137 Dec 18 06:30	0° Ω 33'01		4140 Jul 05 08:31	0° Π
	4138 Jan 10 18:02	0° \approx	morning max el	4140 Jul 10 18:04	5° Π 04'28 45°51'38
evening rise	4138 Jan 11 07:24	0° \approx 41'54		4140 Aug 04 01:45	0° Ω
	4138 Feb 03 15:50	0° Υ		4140 Aug 31 01:12	0° Ω
	4138 Feb 27 15:07	0° Υ	asc. node	4140 Sep 25 03:53	29° Ω 13'51
	4138 Mar 23 18:40	0° Υ		4140 Sep 25 19:28	0° Υ
asc. node	4138 Apr 10 08:49	21° Υ 36'38		4140 Oct 20 19:27	0° Ω
	4138 Apr 17 06:12	0° Π		4140 Nov 14 07:04	0° Ω
	4138 May 12 06:45	0° Ω		4140 Dec 08 10:51	0° Υ
	4138 Jun 07 05:02	0° Ω		4141 Jan 01 10:13	0° Ω
	4138 Jul 04 23:27	0° Υ	morning set	4141 Jan 05 15:21	5° Ω 17'12
evening max el	4138 Jul 14 05:02	9° Υ 09'06 45°29'41	desc. node	4141 Jan 14 18:20	16° Ω 44'39
desc. node	4138 Jul 30 23:16	23° Υ 59'37		4141 Jan 25 07:21	0° \approx
	4138 Aug 08 03:47	0° Ω			
greatest brilliancy	4138 Aug 21 20:57	7° Ω 08'17 -4.7m	superior conj	4141 Feb 15 23:45	27° \approx 16'37 -1°07'50
retrograde	4138 Aug 31 21:37	8° Ω 57'31	minimum elong	4141 Feb 15 11:56	26° \approx 39'27 1°07'28



































































































































max. Earth dist.	4141 Feb 17 03:43	28° \approx 44'37	1.71144 AU	morning max el	4143 Sep 20 11:58	13° Ω 07'33	45°46'07
	4141 Feb 18 03:41	0° \mathbb{H}			4143 Oct 07 04:44	0° \mathbb{H}	
	4141 Mar 14 00:38	0° \mathbb{Y}		asc. node	4143 Oct 23 15:52	17° \mathbb{H} 56'55	
evening rise	4141 Mar 28 21:12	18° \mathbb{Y} 36'56			4143 Nov 03 06:37	0° $\underline{\mathbb{A}}$	
	4141 Apr 06 24:00	0° \mathbb{B}			4143 Nov 28 17:59	0° \mathbb{M}	
	4141 May 01 03:42	0° \mathbb{I}			4143 Dec 23 10:00	0° \mathbb{J}	
asc. node	4141 May 07 20:44	8° \mathbb{I} 16'49			4144 Jan 16 15:59	0° \mathbb{Z}	
	4141 May 25 13:28	0° \mathbb{E}			4144 Feb 09 16:58	0° \approx	
	4141 Jun 19 07:04	0° Ω		desc. node	4144 Feb 12 06:05	3° \approx 11'12	
	4141 Jul 14 11:30	0° \mathbb{H}			4144 Mar 04 15:48	0° \mathbb{H}	
	4141 Aug 09 09:17	0° $\underline{\mathbb{A}}$		morning set	4144 Mar 23 15:24	23° \mathbb{H} 47'20	
desc. node	4141 Aug 27 10:55	20° $\underline{\mathbb{A}}$ 07'29			4144 Mar 28 14:28	0° \mathbb{Y}	
	4141 Sep 05 15:48	0° \mathbb{M}			4144 Apr 21 14:40	0° \mathbb{B}	
evening max el	4141 Sep 24 04:42	18° \mathbb{M} 46'02	45°57'54				
	4141 Oct 06 13:24	0° \mathbb{J}		superior conj	4144 May 02 10:03	13° \mathbb{B} 27'29	-1°08'39
greatest brilliancy	4141 Nov 02 23:47	17° \mathbb{J} 25'05	-4.8m	minimum elong	4144 May 02 20:29	13° \mathbb{B} 59'56	1°08'21
retrograde	4141 Nov 12 06:49	18° \mathbb{J} 59'40		max. Earth dist.	4144 May 06 09:59	18° \mathbb{B} 25'39	1.72315 AU
evening set	4141 Nov 27 13:10	14° \mathbb{J} 29'27			4144 May 15 17:43	0° \mathbb{I}	
inferior conj	4141 Dec 03 00:45	11° \mathbb{J} 15'07	-3°50'08	asc. node	4144 Jun 04 08:40	24° \mathbb{I} 16'16	
minimum elong	4141 Dec 03 08:49	11° \mathbb{J} 02'48	3°47'49		4144 Jun 09 00:10	0° \mathbb{E}	
min. Earth dist.	4141 Dec 03 19:04	10° \mathbb{J} 47'06	0.27151 AU	evening rise	4144 Jun 10 01:40	1° \mathbb{E} 18'35	
morning rise	4141 Dec 09 03:53	7° \mathbb{J} 38'55			4144 Jul 03 10:03	0° Ω	
asc. node	4141 Dec 18 13:24	3° \mathbb{J} 57'46			4144 Jul 27 23:36	0° \mathbb{H}	
direct	4141 Dec 23 21:18	3° \mathbb{J} 22'52			4144 Aug 21 18:03	0° $\underline{\mathbb{A}}$	
greatest brilliancy	4142 Jan 03 18:39	5° \mathbb{J} 37'23	-4.9m		4144 Sep 15 19:44	0° \mathbb{M}	
	4142 Feb 05 19:34	0° \mathbb{Z}		desc. node	4144 Sep 23 22:49	9° \mathbb{M} 37'28	
morning max el	4142 Feb 12 14:05	6° \mathbb{Z} 42'33	46°58'18		4144 Oct 11 08:19	0° \mathbb{J}	
	4142 Mar 06 07:25	0° \approx			4144 Nov 06 15:11	0° \mathbb{Z}	
	4142 Apr 01 09:45	0° \mathbb{H}			4144 Dec 04 15:39	0° \approx	
desc. node	4142 Apr 09 03:52	9° \mathbb{H} 08'56		evening max el	4144 Dec 06 02:12	1° \approx 26'46	46°57'28
	4142 Apr 26 15:32	0° \mathbb{Y}			4145 Jan 10 03:34	0° \mathbb{H}	
	4142 May 21 12:44	0° \mathbb{B}		asc. node	4145 Jan 15 01:18	2° \mathbb{H} 13'46	
	4142 Jun 15 06:23	0° \mathbb{I}		greatest brilliancy	4145 Jan 15 14:47	2° \mathbb{H} 26'23	-4.9m
	4142 Jul 09 22:11	0° \mathbb{E}		retrograde	4145 Jan 25 14:47	4° \mathbb{H} 20'51	
asc. node	4142 Jul 31 06:17	26° \mathbb{E} 02'31			4145 Feb 09 10:19	30° \mathbb{R} \approx	
	4142 Aug 03 11:54	0° Ω		evening set	4145 Feb 10 08:37	29° \approx 28'59	
morning set	4142 Aug 15 02:30	14° Ω 13'27		min. Earth dist.	4145 Feb 14 14:57	26° \approx 56'25	0.26780 AU
	4142 Aug 27 22:42	0° \mathbb{H}		inferior conj	4145 Feb 15 06:00	26° \approx 33'18	7°04'58
max. Earth dist.	4142 Sep 17 23:58	25° \mathbb{H} 57'45	1.73092 AU	minimum elong	4145 Feb 14 19:23	26° \approx 49'37	7°02'50
				morning rise	4145 Feb 19 06:18	24° \approx 07'59	
superior conj	4142 Sep 20 12:47	29° \mathbb{H} 05'36	1°24'29	direct	4145 Mar 07 16:24	18° \approx 52'00	
minimum elong	4142 Sep 20 10:27	28° \mathbb{H} 58'22	1°24'30	greatest brilliancy	4145 Mar 17 00:57	20° \approx 31'05	-4.9m
	4142 Sep 21 06:23	0° $\underline{\mathbb{A}}$			4145 Apr 02 23:08	0° \mathbb{H}	
	4142 Oct 15 11:46	0° \mathbb{M}		morning max el	4145 Apr 26 16:55	20° \mathbb{H} 57'34	46°36'09
evening rise	4142 Oct 27 11:22	14° \mathbb{M} 51'49			4145 May 05 14:11	0° \mathbb{Y}	
	4142 Nov 08 16:00	0° \mathbb{J}		desc. node	4145 May 06 15:41	1° \mathbb{Y} 06'31	
desc. node	4142 Nov 19 20:41	13° \mathbb{J} 53'58			4145 Jun 02 02:22	0° \mathbb{B}	
	4142 Dec 02 19:48	0° \mathbb{Z}			4145 Jun 28 05:12	0° \mathbb{I}	
	4142 Dec 26 23:39	0° \approx			4145 Jul 23 17:11	0° \mathbb{E}	
	4143 Jan 20 04:49	0° \mathbb{H}			4145 Aug 17 19:37	0° Ω	
	4143 Feb 13 14:40	0° \mathbb{Y}		asc. node	4145 Aug 27 18:01	11° Ω 59'16	
	4143 Mar 10 11:58	0° \mathbb{B}			4145 Sep 11 13:50	0° \mathbb{H}	
asc. node	4143 Mar 12 22:52	2° \mathbb{B} 54'30			4145 Oct 06 00:45	0° $\underline{\mathbb{A}}$	
	4143 Apr 05 09:35	0° \mathbb{I}		morning set	4145 Oct 22 16:44	20° $\underline{\mathbb{A}}$ 37'05	
evening max el	4143 May 02 10:06	28° \mathbb{I} 43'57	46°07'12		4145 Oct 30 06:00	0° \mathbb{M}	
	4143 May 03 17:04	0° \mathbb{E}			4145 Nov 23 07:32	0° \mathbb{J}	
greatest brilliancy	4143 Jun 09 18:08	27° \mathbb{E} 38'57	-4.8m	max. Earth dist.	4145 Nov 26 23:50	4° \mathbb{J} 35'54	1.71810 AU
retrograde	4143 Jun 20 19:48	29° \mathbb{E} 52'32					
desc. node	4143 Jul 02 13:22	27° \mathbb{E} 09'06		superior conj	4145 Nov 29 15:13	7° \mathbb{J} 54'05	0°40'55
evening set	4143 Jul 05 21:25	25° \mathbb{E} 28'13		minimum elong	4145 Nov 29 23:58	8° \mathbb{J} 21'29	0°40'32
inferior conj	4143 Jul 12 06:39	21° \mathbb{E} 37'32	-2°17'51	desc. node	4145 Dec 17 08:33	0° \mathbb{Z} 05'08	
minimum elong	4143 Jul 12 01:42	21° \mathbb{E} 45'18	2°16'26		4145 Dec 17 06:55	0° \mathbb{Z}	
min. Earth dist.	4143 Jul 11 22:30	21° \mathbb{E} 50'20	0.28806 AU	evening rise	4146 Jan 08 18:38	28° \mathbb{Z} 11'56	
morning rise	4143 Jul 18 06:22	18° \mathbb{E} 00'44			4146 Jan 10 05:06	0° \approx	
direct	4143 Aug 02 19:09	13° \mathbb{E} 24'44			4146 Feb 03 03:02	0° \mathbb{H}	
greatest brilliancy	4143 Aug 12 20:02	15° \mathbb{E} 13'26	-4.7m		4146 Feb 27 02:29	0° \mathbb{Y}	
	4143 Sep 05 19:15	0° Ω			4146 Mar 23 06:16	0° \mathbb{B}	

asc. node	4146 Apr 09 10:52	21°♄06'43		4148 Oct 20 06:53	0°♎
	4146 Apr 16 18:14	0°♈		4148 Nov 13 18:11	0°♎
	4146 May 11 19:35	0°♊		4148 Dec 07 21:50	0°♏
	4146 Jun 06 19:39	0°♋		4148 Dec 31 21:09	0°♐
	4146 Jul 04 18:49	0°♌	morning set	4149 Jan 03 02:45	2°♐48'07
evening max el	4146 Jul 11 20:30	6°♌57'52 45°29'55	desc. node	4149 Jan 13 20:17	16°♐16'31
desc. node	4146 Jul 30 01:09	22°♌56'16		4149 Jan 24 18:16	0°♑
	4146 Aug 09 05:26	0°♎			
greatest brilliancy	4146 Aug 19 10:13	4°♎55'42 -4.7m	superior conj	4149 Feb 13 09:42	24°♑42'43 -1°05'15
retrograde	4146 Aug 29 13:45	6°♎47'08	minimum elong	4149 Feb 12 21:43	24°♑05'03 1°04'51
evening set	4146 Sep 16 11:18	0°♎47'37	max. Earth dist.	4149 Feb 14 10:38	26°♑01'11 1.71129 AU
	4146 Sep 17 18:45	30°♏♌		4149 Feb 17 14:34	0°♏
inferior conj	4146 Sep 20 00:03	28°♏37'24 -8°32'06		4149 Mar 13 11:29	0°♏
minimum elong	4146 Sep 19 21:06	28°♏42'01 8°31'59	evening rise	4149 Mar 26 08:00	16°♏06'36
min. Earth dist.	4146 Sep 20 08:18	28°♏24'33 0.28941 AU		4149 Apr 06 10:51	0°♏
morning rise	4146 Sep 23 06:46	26°♏35'54		4149 Apr 30 14:39	0°♈
direct	4146 Oct 11 12:57	20°♏19'58	asc. node	4149 May 06 22:51	7°♈49'26
greatest brilliancy	4146 Oct 22 10:20	22°♏29'44 -4.8m		4149 May 25 00:39	0°♊
	4146 Nov 05 01:29	0°♎		4149 Jun 18 18:41	0°♋
asc. node	4146 Nov 20 03:34	12°♎14'55		4149 Jul 13 23:55	0°♌
morning max el	4146 Nov 30 11:20	22°♎05'53 46°24'24		4149 Aug 08 23:18	0°♍
	4146 Dec 08 04:36	0°♎	desc. node	4149 Aug 26 12:58	19°♎29'25
	4147 Jan 04 05:53	0°♏		4149 Sep 05 09:32	0°♎
	4147 Jan 29 14:53	0°♐	evening max el	4149 Sep 21 18:31	16°♎28'50 45°55'53
	4147 Feb 23 07:12	0°♑		4149 Oct 06 21:12	0°♏
desc. node	4147 Mar 11 17:57	20°♑13'22	greatest brilliancy	4149 Oct 31 13:29	15°♏04'58 -4.8m
	4147 Mar 19 16:02	0°♏	retrograde	4149 Nov 09 19:04	16°♏38'15
	4147 Apr 12 21:54	0°♏	evening set	4149 Nov 25 05:02	12°♏04'25
	4147 May 07 03:29	0°♏	inferior conj	4149 Nov 30 14:06	8°♏53'19 -4°10'36
	4147 May 31 10:13	0°♈	minimum elong	4149 Nov 30 22:40	8°♏40'09 4°08'12
morning set	4147 Jun 05 08:52	6°♈05'53	min. Earth dist.	4149 Dec 01 09:28	8°♏23'35 0.27213 AU
	4147 Jun 24 18:27	0°♊	morning rise	4149 Dec 06 15:41	5°♏18'33
asc. node	4147 Jul 02 20:25	9°♊56'47	asc. node	4149 Dec 17 15:22	1°♏17'51
			direct	4149 Dec 21 11:03	1°♏00'02
superior conj	4147 Jul 12 17:16	22°♊05'21 0°23'20	greatest brilliancy	4150 Jan 01 09:41	3°♏15'08 -4.9m
minimum elong	4147 Jul 12 12:29	21°♊50'39 0°23'06		4150 Feb 05 20:28	0°♐
max. Earth dist.	4147 Jul 13 04:02	22°♊38'29 1.73443 AU	morning max el	4150 Feb 10 03:05	4°♐16'38 46°57'57
	4147 Jul 19 03:37	0°♋		4150 Mar 06 00:21	0°♑
	4147 Aug 12 13:03	0°♌		4150 Mar 31 23:53	0°♏
evening rise	4147 Aug 17 21:46	6°♌35'42	desc. node	4150 Apr 08 05:59	8°♏34'50
	4147 Sep 05 22:49	0°♎		4150 Apr 26 04:15	0°♏
	4147 Sep 30 09:42	0°♎		4150 May 21 00:34	0°♏
desc. node	4147 Oct 22 10:50	26°♎57'28		4150 Jun 14 17:39	0°♈
	4147 Oct 24 22:42	0°♏		4150 Jul 09 09:05	0°♊
	4147 Nov 18 14:41	0°♐	asc. node	4150 Jul 30 08:12	25°♊35'45
	4147 Dec 13 11:25	0°♑		4150 Aug 02 22:34	0°♋
	4148 Jan 07 18:23	0°♏	morning set	4150 Aug 12 20:17	12°♋08'21
	4148 Feb 03 03:38	0°♏		4150 Aug 27 09:14	0°♌
asc. node	4148 Feb 12 13:01	10°♏04'28	max. Earth dist.	4150 Sep 15 17:26	23°♌51'00 1.73125 AU
evening max el	4148 Feb 17 13:40	15°♏15'51 47°05'16			
	4148 Mar 04 01:26	0°♏	superior conj	4150 Sep 18 06:47	27°♌00'29 1°24'02
greatest brilliancy	4148 Mar 28 21:08	16°♏27'49 -4.9m	minimum elong	4150 Sep 18 03:47	26°♌51'14 1°24'00
retrograde	4148 Apr 08 06:47	18°♏30'23		4150 Sep 20 16:53	0°♎
evening set	4148 Apr 25 08:34	12°♏48'28		4150 Oct 14 22:22	0°♎
inferior conj	4148 Apr 29 06:54	10°♏23'15 7°19'17	evening rise	4150 Oct 25 03:14	12°♎39'03
minimum elong	4148 Apr 29 16:42	10°♏07'56 7°17'33		4150 Nov 08 02:47	0°♏
min. Earth dist.	4148 Apr 29 02:53	10°♏29'31 0.27912 AU	desc. node	4150 Nov 18 22:45	13°♏26'40
morning rise	4148 May 04 01:09	7°♏29'43		4150 Dec 02 06:51	0°♐
direct	4148 May 20 06:07	2°♏23'57		4150 Dec 26 11:01	0°♑
greatest brilliancy	4148 May 29 20:35	4°♏06'39 -4.8m		4151 Jan 19 16:36	0°♏
desc. node	4148 Jun 03 03:26	5°♏50'18		4151 Feb 13 03:05	0°♏
	4148 Jul 05 09:08	0°♈		4151 Mar 10 01:28	0°♏
morning max el	4148 Jul 08 09:37	2°♈52'12 45°52'40	asc. node	4151 Mar 12 00:57	2°♏20'24
	4148 Aug 03 17:56	0°♊		4151 Apr 05 01:22	0°♈
	4148 Aug 30 14:36	0°♋	evening max el	4151 Apr 30 00:26	26°♈27'27 46°09'21
asc. node	4148 Sep 24 06:01	28°♋44'16		4151 May 03 15:40	0°♊
	4148 Sep 25 07:34	0°♌	greatest brilliancy	4151 Jun 07 11:20	25°♊30'09 -4.8m

retrograde	4151 Jun 18 11:50	27°  43'16	superior conj	4153 Nov 27 04:55	5°  33'11	0°44'04
desc. node	4151 Jul 01 15:16	24°  19'40	minimum elong	4153 Nov 27 14:05	6°  01'52	0°43'41
evening set	4151 Jul 03 13:25	23°  19'19	desc. node	4153 Dec 16 10:31	29°  37'26	
inferior conj	4151 Jul 09 22:57	19°  28'29 -1°58'25		4153 Dec 16 17:43	0°  3	
minimum elong	4151 Jul 09 18:40	19°  35'13 1°57'10	evening rise	4154 Jan 06 06:21	25°  34'00	
min. Earth dist.	4151 Jul 09 15:20	19°  40'27 0.28778 AU		4154 Jan 09 16:00	0°  ≈	
morning rise	4151 Jul 16 00:13	15°  49'22		4154 Feb 02 14:04	0°  ✕	
direct	4151 Jul 31 10:32	11°  15'57		4154 Feb 26 13:41	0°  Y	
greatest brilliancy	4151 Aug 10 12:21	13°  05'02 -4.7m		4154 Mar 22 17:45	0°  8	
	4151 Sep 06 01:10	0°  Ω	asc. node	4154 Apr 08 12:56	20°  37'04	
morning max el	4151 Sep 18 02:47	10°  Ω55'24 45°45'34		4154 Apr 16 06:12	0°  Π	
	4151 Oct 06 21:46	0°  ⌚		4154 May 11 08:29	0°  ⊕	
asc. node	4151 Oct 22 17:52	17°  ⌚21'13		4154 Jun 06 10:30	0°  Ω	
	4151 Nov 02 20:20	0°  ♎		4154 Jul 04 14:50	0°  ⌚	
	4151 Nov 28 06:20	0°  ♍	evening max el	4154 Jul 09 12:55	4°  ⌚48'54	45°30'20
	4151 Dec 22 21:42	0°  ✕	desc. node	4154 Jul 29 03:14	21°  ⌚51'42	
	4152 Jan 16 03:19	0°  3		4154 Aug 10 17:51	0°  ♎	
	4152 Feb 09 04:05	0°  ≈	greatest brilliancy	4154 Aug 16 23:54	2°  ♎43'58	-4.7m
desc. node	4152 Feb 11 08:08	2°  ≈42'51	retrograde	4154 Aug 27 05:50	4°  ♎37'05	
	4152 Mar 04 02:46	0°  ✕		4154 Sep 11 17:52	30°  ⌚	
morning set	4152 Mar 21 02:14	21°  ✕16'48	evening set	4154 Sep 14 01:01	28°  ⌚40'21	
	4152 Mar 28 01:19	0°  Y	inferior conj	4154 Sep 17 15:59	26°  ⌚26'39	-8°28'36
	4152 Apr 21 01:27	0°  8	minimum elong	4154 Sep 17 12:18	26°  ⌚32'23	8°28'24
			min. Earth dist.	4154 Sep 17 22:41	26°  ⌚16'10	0.28969 AU
superior conj	4152 Apr 29 23:31	11°  806'44 -1°10'51	morning rise	4154 Sep 20 23:28	24°  ⌚23'56	
minimum elong	4152 Apr 30 09:44	11°  838'33 1°10'33	direct	4154 Oct 09 05:43	18°  ⌚09'04	
max. Earth dist.	4152 May 03 22:09	16°  801'01 1.72257 AU	greatest brilliancy	4154 Oct 20 00:58	20°  ⌚17'05	-4.8m
	4152 May 15 04:25	0°  Π		4154 Nov 05 18:33	0°  ♎	
asc. node	4152 Jun 03 10:36	23°  II49'20	asc. node	4154 Nov 19 05:35	11°  ♎19'18	
evening rise	4152 Jun 07 17:30	29°  II06'34	morning max el	4154 Nov 28 03:25	19°  ♎52'18	46°22'43
	4152 Jun 08 10:51	0°  ⊕		4154 Dec 07 23:40	0°  ♍	
	4152 Jul 02 20:49	0°  Ω		4155 Jan 03 20:45	0°  ✕	
	4152 Jul 27 10:37	0°  ⌚		4155 Jan 29 04:03	0°  3	
	4152 Aug 21 05:33	0°  ♎		4155 Feb 22 19:27	0°  ≈	
	4152 Sep 15 08:02	0°  ♍	desc. node	4155 Mar 10 20:06	19°  ≈43'23	
desc. node	4152 Sep 23 00:56	9°  ♍06'30		4155 Mar 19 03:44	0°  ✕	
	4152 Oct 10 21:58	0°  ✕		4155 Apr 12 09:14	0°  Y	
	4152 Nov 06 07:23	0°  3		4155 May 06 14:31	0°  8	
evening max el	4152 Dec 03 15:14	29°  302'16 46°55'57		4155 May 30 21:03	0°  Π	
	4152 Dec 04 14:27	0°  ≈	morning set	4155 Jun 03 01:08	3°  Π54'41	
greatest brilliancy	4153 Jan 13 03:45	29°  ≈59'14 -4.9m		4155 Jun 24 05:10	0°  ⊕	
	4153 Jan 13 04:35	0°  ✕	asc. node	4155 Jul 01 22:25	9°  ⊕30'01	
asc. node	4153 Jan 14 03:13	0°  ✕19'48				
retrograde	4153 Jan 23 03:47	1°  ✕53'56	superior conj	4155 Jul 10 10:42	19°  ⊕58'26	0°20'11
	4153 Feb 01 18:24	30°  ⌚≈	minimum elong	4155 Jul 10 06:31	19°  ⊕45'32	0°19'59
evening set	4153 Feb 07 17:27	27°  ≈07'24	max. Earth dist.	4155 Jul 11 02:20	20°  ⊕46'30	1.73427 AU
min. Earth dist.	4153 Feb 12 04:00	24°  ≈29'15 0.26754 AU		4155 Jul 18 14:17	0°  Ω	
inferior conj	4153 Feb 12 18:39	24°  ≈06'47 6°49'30		4155 Aug 11 23:47	0°  ⌚	
minimum elong	4153 Feb 12 07:53	24°  ≈23'18 6°47'12	evening rise	4155 Aug 15 16:17	4°  ⌚32'02	
morning rise	4153 Feb 16 22:29	21°  ≈36'44		4155 Sep 05 09:42	0°  ♎	
direct	4153 Mar 05 04:44	16°  ≈25'32		4155 Sep 29 20:52	0°  ♍	
greatest brilliancy	4153 Mar 14 14:26	18°  ≈05'52 -4.9m	desc. node	4155 Oct 21 12:51	26°  ♍28'21	
	4153 Apr 03 16:09	0°  ✕		4155 Oct 24 10:19	0°  ✕	
morning max el	4153 Apr 24 06:53	18°  ✕36'13 46°37'39		4155 Nov 18 02:58	0°  3	
	4153 May 05 09:55	0°  Y		4155 Dec 13 00:41	0°  ≈	
desc. node	4153 May 05 17:44	0°  Y20'37		4156 Jan 07 09:17	0°  ✕	
	4153 Jun 01 17:29	0°  8		4156 Feb 02 22:05	0°  Y	
	4153 Jun 27 18:18	0°  Π	asc. node	4156 Feb 11 15:12	9°  Y16'11	
	4153 Jul 23 05:09	0°  ⊕	evening max el	4156 Feb 15 05:11	12°  Y57'13	47°06'25
	4153 Aug 17 06:55	0°  Ω		4156 Mar 04 09:31	0°  8	
asc. node	4153 Aug 26 20:08	11°  Ω32'00	greatest brilliancy	4156 Mar 26 12:43	14°  809'48	-4.9m
	4153 Sep 11 00:45	0°  ⌚	retrograde	4156 Apr 05 22:05	16°  811'41	
	4153 Oct 05 11:30	0°  ♎	evening set	4156 Apr 23 02:30	10°  825'43	
morning set	4153 Oct 20 08:59	18°  ♎25'26	inferior conj	4156 Apr 26 21:35	8°  805'05	7°31'47
	4153 Oct 29 16:42	0°  ♍	minimum elong	4156 Apr 27 07:06	7°  850'12	7°30'12
	4153 Nov 22 18:17	0°  ✕	min. Earth dist.	4156 Apr 26 16:57	8°  812'20	0.27877 AU
max. Earth dist.	4153 Nov 24 14:33	2°  ✕18'18 1.71851 AU	morning rise	4156 May 01 12:02	5°  816'57	

direct	4156 May 17 20:47	0°♄06'40		desc. node	4158 Nov 18 00:41	12°♂57'43	
greatest brilliancy	4156 May 27 09:26	1°♄47'55	-4.8m		4158 Dec 01 18:16	0°♄	
desc. node	4156 Jun 02 05:23	4°♄15'57			4158 Dec 25 22:45	0°♂	
	4156 Jul 05 08:43	0°♄			4159 Jan 19 04:45	0°♂	
morning max el	4156 Jul 06 00:25	0°♄37'41	45°53'36		4159 Feb 12 15:54	0°♂	
	4156 Aug 03 10:02	0°♄			4159 Mar 09 15:27	0°♄	
	4156 Aug 30 04:05	0°♄		asc. node	4159 Mar 11 02:59	1°♄44'50	
asc. node	4156 Sep 23 08:03	28°♄13'49			4159 Apr 04 17:50	0°♄	
	4156 Sep 24 19:50	0°♄		evening max el	4159 Apr 27 14:47	24°♄09'44	46°11'30
	4156 Oct 19 18:30	0°♄			4159 May 03 15:48	0°♄	
	4156 Nov 13 05:27	0°♄		greatest brilliancy	4159 Jun 05 04:00	23°♄19'19	-4.8m
	4156 Dec 07 08:56	0°♄		retrograde	4159 Jun 16 04:11	25°♄32'40	
	4156 Dec 31 08:13	0°♄		desc. node	4159 Jun 30 17:20	21°♄25'01	
morning set	4156 Dec 31 14:16	0°♄18'59		evening set	4159 Jul 01 05:27	21°♄08'38	
desc. node	4157 Jan 12 22:18	15°♄48'07		inferior conj	4159 Jul 07 15:08	17°♄17'59	-1°38'41
	4157 Jan 24 05:20	0°♂		minimum elong	4159 Jul 07 11:32	17°♄23'38	1°37'38
				min. Earth dist.	4159 Jul 07 07:56	17°♄29'16	0.28750 AU
superior conj	4157 Feb 10 19:47	22°♂08'40	-1°02'32	morning rise	4159 Jul 13 17:52	13°♄36'56	
minimum elong	4157 Feb 10 07:45	21°♂30'48	1°02'06	direct	4159 Jul 29 01:44	9°♄05'38	
max. Earth dist.	4157 Feb 11 14:27	23°♂07'22	1.71120 AU	greatest brilliancy	4159 Aug 08 04:31	10°♄55'23	-4.7m
	4157 Feb 17 01:38	0°♂			4159 Sep 06 05:35	0°♄	
	4157 Mar 12 22:33	0°♂		morning max el	4159 Sep 15 18:21	8°♄44'02	45°45'03
evening rise	4157 Mar 23 18:50	13°♂35'35			4159 Oct 06 14:52	0°♄	
	4157 Apr 05 21:56	0°♄		asc. node	4159 Oct 21 19:51	16°♄44'32	
	4157 Apr 30 01:50	0°♄			4159 Nov 02 10:21	0°♄	
asc. node	4157 May 06 00:47	7°♄20'55			4159 Nov 27 19:04	0°♄	
	4157 May 24 12:03	0°♄			4159 Dec 22 09:48	0°♄	
	4157 Jun 18 06:32	0°♄			4160 Jan 15 15:03	0°♄	
	4157 Jul 13 12:40	0°♄			4160 Feb 08 15:34	0°♂	
	4157 Aug 08 13:47	0°♄		desc. node	4160 Feb 10 10:16	2°♂13'39	
desc. node	4157 Aug 25 15:04	18°♄50'07			4160 Mar 03 14:05	0°♂	
	4157 Sep 05 04:05	0°♄		morning set	4160 Mar 18 12:51	18°♄44'29	
evening max el	4157 Sep 19 07:41	14°♄09'14	45°53'57		4160 Mar 27 12:31	0°♂	
	4157 Oct 07 08:20	0°♄			4160 Apr 20 12:33	0°♄	
greatest brilliancy	4157 Oct 29 03:35	12°♄44'41	-4.8m				
retrograde	4157 Nov 07 07:24	14°♄16'45		superior conj	4160 Apr 27 12:50	8°♄44'22	-1°12'54
evening set	4157 Nov 22 21:07	9°♄38'47		minimum elong	4160 Apr 27 22:48	9°♄15'23	1°12'39
inferior conj	4157 Nov 28 03:37	6°♄31'20	-4°30'27	max. Earth dist.	4160 May 01 09:17	13°♄32'02	1.72205 AU
minimum elong	4157 Nov 28 12:40	6°♄17'27	4°27'58		4160 May 14 15:28	0°♄	
min. Earth dist.	4157 Nov 29 00:14	5°♄59'40	0.27274 AU	asc. node	4160 Jun 02 12:39	23°♄21'35	
morning rise	4157 Dec 04 03:28	2°♄58'26		evening rise	4160 Jun 05 09:18	26°♄53'15	
	4157 Dec 10 18:41	30°♄			4160 Jun 07 21:54	0°♄	
asc. node	4157 Dec 16 17:21	28°♄43'17			4160 Jul 02 07:57	0°♄	
direct	4157 Dec 19 00:36	28°♄36'51			4160 Jul 26 22:01	0°♄	
	4157 Dec 27 13:15	0°♄			4160 Aug 20 17:25	0°♄	
greatest brilliancy	4157 Dec 30 01:20	0°♄53'21	-4.9m		4160 Sep 14 20:44	0°♄	
	4158 Feb 05 20:26	0°♄		desc. node	4160 Sep 22 02:55	8°♄33'54	
morning max el	4158 Feb 07 16:07	1°♄50'13	46°57'33		4160 Oct 10 12:07	0°♄	
	4158 Mar 05 17:11	0°♂			4160 Nov 06 00:21	0°♄	
	4158 Mar 31 14:08	0°♂		evening max el	4160 Dec 01 05:12	26°♄38'52	46°54'15
desc. node	4158 Apr 07 07:56	7°♄59'35			4160 Dec 04 14:54	0°♂	
	4158 Apr 25 17:09	0°♂		greatest brilliancy	4161 Jan 10 16:09	27°♂29'38	-4.9m
	4158 May 20 12:39	0°♄		asc. node	4161 Jan 13 05:24	28°♂19'22	
	4158 Jun 14 05:12	0°♄		retrograde	4161 Jan 20 17:00	29°♂24'49	
	4158 Jul 08 20:16	0°♄		evening set	4161 Feb 05 02:12	24°♂43'33	
asc. node	4158 Jul 29 10:20	25°♄08'44		min. Earth dist.	4161 Feb 09 16:37	22°♂00'10	0.26725 AU
	4158 Aug 02 09:31	0°♄		inferior conj	4161 Feb 10 07:03	21°♂38'05	6°33'01
morning set	4158 Aug 10 14:07	10°♄02'25		minimum elong	4161 Feb 09 20:13	21°♂54'40	6°30'36
	4158 Aug 26 20:04	0°♄		morning rise	4161 Feb 14 14:26	19°♂03'20	
max. Earth dist.	4158 Sep 13 12:03	21°♄46'50	1.73163 AU	direct	4161 Mar 02 17:20	13°♂57'07	
				greatest brilliancy	4161 Mar 12 03:14	15°♂38'09	-4.9m
superior conj	4158 Sep 16 00:46	24°♄54'15	1°23'26		4161 Apr 04 05:29	0°♂	
minimum elong	4158 Sep 15 21:07	24°♄43'00	1°23'24	morning max el	4161 Apr 21 21:14	16°♄14'44	46°39'07
	4158 Sep 20 03:44	0°♄		desc. node	4161 May 04 19:44	29°♄34'11	
	4158 Oct 14 09:20	0°♄			4161 May 05 05:27	0°♂	
evening rise	4158 Oct 22 19:04	10°♄25'08			4161 Jun 01 08:43	0°♄	
	4158 Nov 07 13:57	0°♄			4161 Jun 27 07:37	0°♄	

	4161 Jul 22 17:24	0°☿		asc. node	4164 Feb 10 17:08	8°♄26'03	
	4161 Aug 16 18:31	0°♌		evening max el	4164 Feb 12 19:48	10°♄35'47	47°07'15
asc. node	4161 Aug 25 22:11	11°♌03'30			4164 Mar 04 20:51	0°♄	
	4161 Sep 10 11:59	0°♍		greatest brilliancy	4164 Mar 24 04:36	11°♄50'57	-4.9m
	4161 Oct 04 22:32	0°♎		retrograde	4164 Apr 03 12:34	13°♄51'28	
morning set	4161 Oct 18 01:29	16°♎13'47		evening set	4164 Apr 20 20:06	8°♄01'41	
	4161 Oct 29 03:41	0°♏		inferior conj	4164 Apr 24 12:01	5°♄45'39	7°43'34
max. Earth dist.	4161 Nov 22 04:03	29°♏56'09	1.71896 AU	minimum elong	4164 Apr 24 21:10	5°♄31'20	7°42'10
	4161 Nov 22 05:17	0°♐		min. Earth dist.	4164 Apr 24 07:07	5°♄53'19	0.27842 AU
				morning rise	4164 Apr 28 22:32	3°♄02'59	
superior conj	4161 Nov 24 18:47	3°♐12'05	0°47'08		4164 May 04 23:18	30°♄	
minimum elong	4161 Nov 25 04:17	3°♐41'44	0°46'44	direct	4164 May 15 10:44	27°♄48'04	
desc. node	4161 Dec 15 12:37	29°♐09'13		greatest brilliancy	4164 May 24 22:38	29°♄28'25	-4.8m
	4161 Dec 16 04:50	0°♑			4164 May 26 09:40	0°♄	
evening rise	4162 Jan 03 17:53	23°♑14'27		desc. node	4164 Jun 01 07:28	2°♄44'05	
	4162 Jan 09 03:15	0°♒		morning max el	4164 Jul 03 14:13	28°♄20'08	45°54'41
	4162 Feb 02 01:28	0°♓			4164 Jul 05 07:27	0°♄	
	4162 Feb 26 01:16	0°♈			4164 Aug 03 01:54	0°♄	
	4162 Mar 22 05:35	0°♉			4164 Aug 29 17:28	0°♌	
asc. node	4162 Apr 07 14:53	20°♉05'59		asc. node	4164 Sep 22 09:57	27°♌43'08	
	4162 Apr 15 18:31	0°♊			4164 Sep 24 08:01	0°♍	
	4162 May 10 21:46	0°♋			4164 Oct 19 06:03	0°♎	
	4162 Jun 06 01:50	0°♌			4164 Nov 12 16:40	0°♏	
evening max el	4162 Jul 04 11:53	0°♍			4164 Dec 06 19:59	0°♐	
desc. node	4162 Jul 07 05:26	2°♍39'18	45°30'42	morning set	4164 Dec 29 02:12	27°♐51'27	
	4162 Jul 28 05:21	20°♍44'39			4164 Dec 30 19:11	0°♑	
	4162 Aug 13 03:46	0°♎		desc. node	4165 Jan 12 00:26	15°♑20'26	
greatest brilliancy	4162 Aug 14 14:13	0°♎32'10	-4.7m		4165 Jan 23 16:17	0°♒	
retrograde	4162 Aug 24 21:34	2°♎26'13					
	4162 Sep 05 00:37	30°♎		superior conj	4165 Feb 08 06:11	19°♒36'03	-0°59'41
evening set	4162 Sep 11 14:31	26°♎33'00		minimum elong	4165 Feb 07 18:12	18°♒58'21	0°59'16
inferior conj	4162 Sep 15 07:54	24°♎15'22	-8°24'18	max. Earth dist.	4165 Feb 08 17:37	20°♒12'01	1.71115 AU
minimum elong	4162 Sep 15 03:31	24°♎22'13	8°24'01		4165 Feb 16 12:34	0°♓	
min. Earth dist.	4162 Sep 15 13:18	24°♎06'55	0.28992 AU		4165 Mar 12 09:29	0°♈	
morning rise	4162 Sep 18 16:27	22°♎10'54		evening rise	4165 Mar 21 05:40	11°♈04'55	
direct	4162 Oct 06 22:23	15°♎57'51			4165 Apr 05 08:56	0°♉	
greatest brilliancy	4162 Oct 17 15:26	18°♎03'46	-4.8m		4165 Apr 29 12:57	0°♊	
	4162 Nov 06 07:28	0°♏		asc. node	4165 May 05 02:49	6°♊52'50	
asc. node	4162 Nov 18 07:35	10°♏24'20			4165 May 23 23:25	0°♋	
morning max el	4162 Nov 25 18:38	17°♏36'19	46°21'02		4165 Jun 17 18:22	0°♌	
	4162 Dec 07 18:22	0°♐			4165 Jul 13 01:22	0°♍	
	4163 Jan 03 11:34	0°♑			4165 Aug 08 04:19	0°♎	
	4163 Jan 28 17:18	0°♒		desc. node	4165 Aug 24 17:00	18°♎10'18	
	4163 Feb 22 07:53	0°♓			4165 Sep 04 23:00	0°♏	
desc. node	4163 Mar 09 22:02	19°♓12'05		evening max el	4165 Sep 16 20:25	11°♏49'06	45°52'08
	4163 Mar 18 15:39	0°♈			4165 Oct 07 22:59	0°♐	
	4163 Apr 11 20:47	0°♉		greatest brilliancy	4165 Oct 26 17:15	10°♐24'28	-4.8m
	4163 May 06 01:45	0°♊		retrograde	4165 Nov 04 20:00	11°♐56'03	
	4163 May 30 08:03	0°♋		evening set	4165 Nov 20 13:15	7°♐13'27	
morning set	4163 May 31 17:03	1°♋41'50		inferior conj	4165 Nov 25 17:07	4°♐09'54	-4°49'40
	4163 Jun 23 16:01	0°♌		minimum elong	4165 Nov 26 02:34	3°♐55'24	4°47'10
asc. node	4163 Jul 01 00:31	9°♌03'10		min. Earth dist.	4165 Nov 26 14:52	3°♐36'31	0.27338 AU
				morning rise	4165 Dec 01 15:05	0°♐39'26	
superior conj	4163 Jul 08 03:54	17°♌50'21	0°17'00		4165 Dec 02 20:36	30°♐	
minimum elong	4163 Jul 08 00:20	17°♌39'24	0°16'50	asc. node	4165 Dec 15 19:29	26°♐14'46	
max. Earth dist.	4163 Jul 09 00:21	18°♌53'18	1.73408 AU	direct	4165 Dec 16 14:12	26°♐14'02	
	4163 Jul 18 01:07	0°♍		greatest brilliancy	4165 Dec 27 17:04	28°♐32'26	-4.9m
	4163 Aug 11 10:40	0°♎			4165 Dec 30 23:58	0°♑	
evening rise	4163 Aug 13 10:42	2°♎27'38		morning max el	4166 Feb 05 05:57	29°♑26'35	46°57'22
	4163 Sep 04 20:44	0°♏			4166 Feb 05 19:05	0°♒	
	4163 Sep 29 08:11	0°♐			4166 Mar 05 09:24	0°♓	
desc. node	4163 Oct 20 14:49	25°♐58'48			4166 Mar 31 03:54	0°♈	
	4163 Oct 23 22:03	0°♑		desc. node	4166 Apr 06 09:57	7°♈25'41	
	4163 Nov 17 15:21	0°♒			4166 Apr 25 05:40	0°♉	
	4163 Dec 12 14:03	0°♓			4166 May 20 00:25	0°♊	
	4164 Jan 07 00:24	0°♔			4166 Jun 13 16:29	0°♋	
	4164 Feb 02 17:05	0°♈			4166 Jul 08 07:13	0°♌	

asc. node	4166 Jul 28 12:21	24°  42'05		min. Earth dist.	4169 Feb 07 05:13	19°  32'00	0.26698 AU
	4166 Aug 01 20:13	0°  0		inferior conj	4169 Feb 07 19:22	19°  10'22	6°15'46
morning set	4166 Aug 08 07:45	7°  56'39		minimum elong	4169 Feb 07 08:34	19°  26'54	6°13'14
	4166 Aug 26 06:38	0°  0		morning rise	4169 Feb 12 06:15	16°  30'51	
max. Earth dist.	4166 Sep 11 08:33	19°  09'16	1.73197 AU	direct	4169 Feb 28 06:16	11°  29'50	
				greatest brilliancy	4169 Mar 09 15:54	13°  11'05	-4.9m
superior conj	4166 Sep 13 18:35	22°  04'25	1°22'42		4169 Apr 04 14:55	0°  0	
minimum elong	4166 Sep 13 14:19	22°  35'16	1°22'40	morning max el	4169 Apr 19 11:16	13°  05'36	46°40'40
	4166 Sep 19 14:19	0°  0		desc. node	4169 May 03 21:48	28°  04'49'51	
	4166 Oct 13 20:02	0°  0			4169 May 04 23:59	0°  0	
evening rise	4166 Oct 20 10:59	8°  00'12'26			4169 May 31 23:16	0°  0	
	4166 Nov 07 00:51	0°  0			4169 Jun 26 20:19	0°  0	
desc. node	4166 Nov 17 02:47	12°  00'30'07			4169 Jul 22 05:06	0°  0	
	4166 Dec 01 05:26	0°  0			4169 Aug 16 05:38	0°  0	
	4166 Dec 25 10:13	0°  0		asc. node	4169 Aug 25 00:05	10°  00'36'04	
	4167 Jan 18 16:38	0°  0			4169 Sep 09 22:46	0°  0	
	4167 Feb 12 04:24	0°  0			4169 Oct 04 09:10	0°  0	
	4167 Mar 09 05:07	0°  0		morning set	4169 Oct 15 17:59	14°  03'22	
asc. node	4167 Mar 10 04:57	1°  00'10'08			4169 Oct 28 14:17	0°  0	
	4167 Apr 04 10:06	0°  0		max. Earth dist.	4169 Nov 19 15:29	27°  00'28'49	1.71941 AU
evening max el	4167 Apr 25 05:52	21°  00'55'13	46°13'38		4169 Nov 21 15:55	0°  0	
	4167 May 03 16:32	0°  0					
greatest brilliancy	4167 Jun 02 20:06	21°  00'09'02	-4.8m	superior conj	4169 Nov 22 08:45	0°  0	0°50'06
retrograde	4167 Jun 13 20:56	23°  00'23'16		minimum elong	4169 Nov 22 18:30	1°  00'22'58	0°49'43
evening set	4167 Jun 28 21:42	18°  00'58'50		desc. node	4169 Dec 14 14:39	28°  00'00'42'01	
desc. node	4167 Jun 29 19:25	18°  00'28'33			4169 Dec 15 15:34	0°  0	
inferior conj	4167 Jul 05 07:21	15°  00'08'32	-1°18'49	evening rise	4170 Jan 01 05:24	20°  00'00'34'6'05	
minimum elong	4167 Jul 05 04:27	15°  00'13'05	1°17'58		4170 Jan 08 14:07	0°  0	
min. Earth dist.	4167 Jul 05 00:19	15°  00'19'32	0.28725 AU		4170 Feb 01 12:30	0°  0	
morning rise	4167 Jul 11 11:28	11°  00'25'54			4170 Feb 25 12:30	0°  0	
direct	4167 Jul 26 17:26	6°  00'56'22			4170 Mar 21 17:06	0°  0	
greatest brilliancy	4167 Aug 05 20:30	8°  00'46'38	-4.7m	asc. node	4170 Apr 06 16:57	19°  00'00'36'18	
	4167 Sep 06 07:51	0°  0			4170 Apr 15 06:31	0°  0	
morning max el	4167 Sep 13 10:48	6°  00'35'57	45°44'30		4170 May 10 10:44	0°  0	
	4167 Oct 06 07:13	0°  0			4170 Jun 05 16:55	0°  0	
asc. node	4167 Oct 20 21:57	16°  00'09'35			4170 Jul 04 09:03	0°  0	
	4167 Nov 01 23:51	0°  0		evening max el	4170 Jul 04 21:24	0°  0	45°31'08
	4167 Nov 27 07:21	0°  0		desc. node	4170 Jul 27 07:14	19°  00'00'36'58	
	4167 Dec 21 21:28	0°  0		greatest brilliancy	4170 Aug 12 05:10	28°  00'00'22'51	-4.7m
	4168 Jan 15 02:22	0°  0			4170 Aug 18 14:52	0°  0	
	4168 Feb 08 02:40	0°  0		retrograde	4170 Aug 22 13:02	0°  0	17'20
desc. node	4168 Feb 09 12:10	1°  00'44'52			4170 Aug 26 09:20	30°  00'00'00'00'00	
	4168 Mar 03 01:00	0°  0		evening set	4170 Sep 09 04:02	24°  00'00'27'57	
morning set	4168 Mar 15 23:40	16°  00'00'13'56		inferior conj	4170 Sep 13 00:04	22°  00'00'06'07	-8°19'20
	4168 Mar 26 23:18	0°  0		minimum elong	4170 Sep 12 18:59	22°  00'00'14'04	8°18'57
	4168 Apr 19 23:13	0°  0		min. Earth dist.	4170 Sep 13 04:28	21°  00'00'59'13	0.29015 AU
				morning rise	4170 Sep 16 09:52	19°  00'00'59'29	
superior conj	4168 Apr 25 02:21	6°  00'00'23'53	-1°14'50	direct	4170 Oct 04 14:54	13°  00'00'00'48'33	
minimum elong	4168 Apr 25 12:00	6°  00'00'53'54	1°14'36	greatest brilliancy	4170 Oct 15 06:45	15°  00'00'00'52'52	-4.8m
max. Earth dist.	4168 Apr 28 22:23	11°  00'00'10'27	1.72151 AU		4170 Nov 06 16:30	0°  0	
	4168 May 14 02:03	0°  0		asc. node	4170 Nov 17 09:40	9°  00'00'00'31'43	
asc. node	4168 Jun 01 14:45	22°  00'00'00'55'28		morning max el	4170 Nov 23 09:06	15°  00'00'00'19'29	46°19'17
evening rise	4168 Jun 03 01:19	24°  00'00'00'00'42'03			4170 Dec 07 12:15	0°  0	
	4168 Jun 07 08:29	0°  0			4171 Jan 03 01:55	0°  0	
	4168 Jul 01 18:40	0°  0			4171 Jan 28 06:09	0°  0	
	4168 Jul 26 09:01	0°  0			4171 Feb 21 19:57	0°  0	
	4168 Aug 20 04:56	0°  0		desc. node	4171 Mar 09 00:03	18°  00'00'00'42'04	
	4168 Sep 14 09:06	0°  0			4171 Mar 18 03:14	0°  0	
desc. node	4168 Sep 21 04:54	8°  00'00'00'00'02'25			4171 Apr 11 08:00	0°  0	
	4168 Oct 10 01:59	0°  0			4171 May 05 12:42	0°  0	
	4168 Nov 05 17:11	0°  0		morning set	4171 May 29 08:57	29°  00'00'00'00'00'39'39	
evening max el	4168 Nov 28 19:52	24°  00'00'00'00'00'18'34	46°52'28		4171 May 29 18:47	0°  0	
	4168 Dec 04 16:03	0°  0			4171 Jun 23 02:37	0°  0	
greatest brilliancy	4169 Jan 08 04:28	25°  00'00'00'00'00'01'14	-4.9m	asc. node	4171 Jun 30 02:30	8°  00'00'00'00'00'36'48	
asc. node	4169 Jan 12 07:22	26°  00'00'00'00'00'00'14'56					
retrograde	4169 Jan 18 06:07	26°  00'00'00'00'00'00'56'36		superior conj	4171 Jul 05 21:16	15°  00'00'00'00'00'43'45	0°13'48
evening set	4169 Feb 02 11:08	22°  00'00'00'00'00'00'20'36		minimum elong	4171 Jul 05 18:21	15°  00'00'00'00'00'34'46	0°13'39

behind sun begin	4171 Jul 05 06:29	14°☿58'17		morning rise	4173 Nov 29 02:45	28°♄21'39	
behind sun end	4171 Jul 06 06:12	16°☿11'15		direct	4173 Dec 14 04:34	23°♄52'00	
max. Earth dist.	4171 Jul 06 21:16	16°☿57'35	1.73381 AU	asc. node	4173 Dec 14 21:27	23°♄52'35	
	4171 Jul 17 11:38	0°♌		greatest brilliancy	4173 Dec 25 08:37	26°♄11'53	-4.9m
	4171 Aug 10 21:13	0°♍			4174 Jan 01 22:26	0°♌	
evening rise	4171 Aug 11 05:22	0°♍25'02		morning max el	4174 Feb 02 20:51	27°♌05'28	46°56'48
	4171 Sep 04 07:27	0°♎			4174 Feb 05 16:58	0°♌	
	4171 Sep 28 19:13	0°♏			4174 Mar 05 01:31	0°♍	
desc. node	4171 Oct 19 16:56	25°♏30'18			4174 Mar 30 17:46	0°♎	
	4171 Oct 23 09:36	0°♏		desc. node	4174 Apr 05 12:04	6°♎51'39	
	4171 Nov 17 03:37	0°♐			4174 Apr 24 18:20	0°♏	
	4171 Dec 12 03:24	0°♑			4174 May 19 12:21	0°♐	
	4172 Jan 06 15:34	0°♒			4174 Jun 13 03:54	0°♑	
	4172 Feb 02 12:28	0°♓			4174 Jul 07 18:17	0°☿	
asc. node	4172 Feb 09 19:08	7°♓35'39		asc. node	4174 Jul 27 14:16	24°☿14'42	
evening max el	4172 Feb 10 09:20	8°♓11'50	47°08'05		4174 Aug 01 07:04	0°♌	
	4172 Mar 05 11:48	0°♈		morning set	4174 Aug 06 01:20	5°♌50'10	
greatest brilliancy	4172 Mar 21 20:35	9°♈32'22	-4.9m		4174 Aug 25 17:22	0°♍	
retrograde	4172 Apr 01 02:41	11°♈31'32		max. Earth dist.	4174 Sep 09 05:45	17°♍53'26	1.73225 AU
evening set	4172 Apr 18 13:33	5°♈37'50					
inferior conj	4172 Apr 22 02:25	3°♈26'26	7°54'42	superior conj	4174 Sep 11 12:31	20°♍42'28	1°21'53
minimum elong	4172 Apr 22 11:05	3°♈12'49	7°53'27	minimum elong	4174 Sep 11 07:41	20°♍27'31	1°21'49
min. Earth dist.	4172 Apr 21 21:28	3°♈34'11	0.27807 AU		4174 Sep 19 01:03	0°♎	
morning rise	4172 Apr 26 08:53	0°♈49'26			4174 Oct 13 06:52	0°♏	
	4172 Apr 27 19:29	30°♏♑		evening rise	4174 Oct 18 03:15	6°♏00'28	
direct	4172 May 13 00:09	25°♑29'23			4174 Nov 06 11:53	0°♏	
greatest brilliancy	4172 May 22 12:22	27°♑09'37	-4.8m	desc. node	4174 Nov 16 04:49	12°♏02'01	
	4172 May 29 02:07	0°♈			4174 Nov 30 16:43	0°♐	
desc. node	4172 May 31 09:33	1°♈15'39			4174 Dec 24 21:51	0°♑	
morning max el	4172 Jul 01 03:54	26°♈02'31	45°55'59		4175 Jan 18 04:45	0°♒	
	4172 Jul 05 05:09	0°♑			4175 Feb 11 17:16	0°♓	
	4172 Aug 02 17:21	0°☿			4175 Mar 08 19:16	0°♈	
	4172 Aug 29 06:34	0°♌		asc. node	4175 Mar 09 07:02	0°♈34'31	
asc. node	4172 Sep 21 12:06	27°♌13'53			4175 Apr 04 03:05	0°♑	
	4172 Sep 23 19:57	0°♍		evening max el	4175 Apr 22 21:37	19°♑41'05	46°15'53
	4172 Oct 18 17:23	0°♎			4175 May 03 19:11	0°☿	
	4172 Nov 12 03:42	0°♏		greatest brilliancy	4175 May 31 11:51	18°☿56'56	-4.8m
	4172 Dec 06 06:56	0°♏		retrograde	4175 Jun 11 13:41	21°☿12'02	
morning set	4172 Dec 26 14:07	25°♏23'58		evening set	4175 Jun 26 13:57	16°☿47'12	
	4172 Dec 30 06:07	0°♐		desc. node	4175 Jun 28 21:20	15°☿27'53	
desc. node	4173 Jan 11 02:22	14°♐52'12		inferior conj	4175 Jul 02 23:18	12°☿57'14	-0°58'40
	4173 Jan 23 03:13	0°♑		minimum elong	4175 Jul 02 21:07	13°☿00'38	0°58'00
				min. Earth dist.	4175 Jul 02 16:11	13°☿08'22	0.28698 AU
superior conj	4173 Feb 05 16:15	17°♑02'24	-0°56'43	morning rise	4175 Jul 09 04:42	9°☿13'15	
minimum elong	4173 Feb 05 04:25	16°♑25'10	0°56'15	direct	4175 Jul 24 09:27	4°☿45'26	
max. Earth dist.	4173 Feb 05 20:01	17°♑14'15	1.71115 AU	greatest brilliancy	4175 Aug 03 11:39	6°☿35'32	-4.7m
	4173 Feb 15 23:30	0°♒			4175 Sep 06 09:11	0°♌	
	4173 Mar 11 20:25	0°♓		morning max el	4175 Sep 11 03:24	4°♌27'20	45°44'02
evening rise	4173 Mar 18 16:11	8°♓33'13			4175 Oct 05 23:37	0°♍	
	4173 Apr 04 19:55	0°♈		asc. node	4175 Oct 19 23:56	15°♍33'43	
	4173 Apr 29 00:05	0°♑			4175 Nov 01 13:30	0°♎	
asc. node	4173 May 04 04:55	6°♑24'54			4175 Nov 26 19:48	0°♏	
	4173 May 23 10:49	0°☿			4175 Dec 21 09:18	0°♏	
	4173 Jun 17 06:14	0°♌			4176 Jan 14 13:53	0°♐	
	4173 Jul 12 14:10	0°♍			4176 Feb 07 13:58	0°♑	
	4173 Aug 07 19:00	0°♎		desc. node	4176 Feb 08 14:13	1°♑15'54	
desc. node	4173 Aug 23 19:05	17°♎30'38			4176 Mar 02 12:12	0°♒	
	4173 Sep 04 18:22	0°♏		morning set	4176 Mar 13 10:12	13°♒41'30	
evening max el	4173 Sep 14 09:35	9°♏30'38	45°50'33		4176 Mar 26 10:24	0°♓	
	4173 Oct 08 18:19	0°♏			4176 Apr 19 10:15	0°♈	
greatest brilliancy	4173 Oct 24 06:13	8°♏04'28	-4.8m				
retrograde	4173 Nov 02 09:16	9°♏36'29		superior conj	4176 Apr 22 15:13	4°♈00'00	-1°16'40
evening set	4173 Nov 18 05:37	4°♏48'53		minimum elong	4176 Apr 23 00:25	4°♈28'41	1°16'27
inferior conj	4173 Nov 23 06:48	1°♏34'12	-5°08'06	max. Earth dist.	4176 Apr 26 12:00	8°♈49'05	1.72100 AU
minimum elong	4173 Nov 23 16:34	1°♏34'14	5°05'36		4176 May 13 13:02	0°♑	
min. Earth dist.	4173 Nov 24 05:11	1°♏14'54	0.27408 AU	evening rise	4176 May 31 16:35	22°♑27'15	
	4173 Nov 26 06:35	30°♑♒		asc. node	4176 May 31 16:39	22°♑27'27	

	4176 Jun 06 19:28	0°☿			4179 Feb 21 08:18	0°♊	
	4176 Jul 01 05:47	0°♋		desc. node	4179 Mar 08 02:11	18°♊11'34	
	4176 Jul 25 20:26	0°♌			4179 Mar 17 15:04	0°♋	
	4176 Aug 19 16:54	0°♍			4179 Apr 10 19:28	0°♌	
	4176 Sep 13 21:58	0°♎			4179 May 04 23:53	0°♍	
desc. node	4176 Sep 20 07:00	7°♎29'53		morning set	4179 May 27 00:51	27°♍16'31	
	4176 Oct 09 16:25	0°♏			4179 May 29 05:47	0°♎	
	4176 Nov 05 10:45	0°♐			4179 Jun 22 13:31	0°☿	
evening max el	4176 Nov 26 10:42	21°♐58'03	46°50'44	asc. node	4179 Jun 29 04:30	8°☿09'28	
	4176 Dec 04 18:54	0°♑					
greatest brilliancy	4177 Jan 05 17:13	22°♑33'06	-4.9m	superior conj	4179 Jul 03 14:31	13°☿35'42	0°10'34
asc. node	4177 Jan 11 09:18	24°♑05'02		minimum elong	4179 Jul 03 12:16	13°☿28'46	0°10'27
retrograde	4177 Jan 15 19:01	24°♑28'01		behind sun begin	4179 Jul 02 18:45	12°☿34'53	
evening set	4177 Jan 30 20:30	19°♑57'14		behind sun end	4179 Jul 04 05:46	14°☿22'39	
inferior conj	4177 Feb 05 07:51	16°♑42'28	5°57'53	max. Earth dist.	4179 Jul 04 16:13	14°☿54'48	1.73361 AU
minimum elong	4177 Feb 04 21:10	16°♑58'50	5°55'16		4179 Jul 16 22:31	0°♋	
min. Earth dist.	4177 Feb 04 18:11	17°♑03'24	0.26672 AU	evening rise	4179 Aug 08 23:47	28°♋20'34	
morning rise	4177 Feb 09 22:07	13°♑58'08			4179 Aug 10 08:10	0°♌	
direct	4177 Feb 25 19:16	9°♑02'30			4179 Sep 03 18:34	0°♍	
greatest brilliancy	4177 Mar 07 04:54	10°♑43'50	-4.9m		4179 Sep 28 06:39	0°♎	
	4177 Apr 04 22:06	0°♋		desc. node	4179 Oct 18 18:54	25°♎00'13	
morning max el	4177 Apr 17 00:23	11°♋29'05	46°41'52		4179 Oct 22 21:33	0°♏	
desc. node	4177 May 02 23:50	28°♋04'59			4179 Nov 16 16:18	0°♐	
	4177 May 04 18:28	0°♌			4179 Dec 11 17:11	0°♑	
	4177 May 31 14:05	0°♍			4180 Jan 06 07:18	0°♋	
	4177 Jun 26 09:26	0°♎			4180 Feb 02 08:45	0°♌	
	4177 Jul 21 17:14	0°☿		evening max el	4180 Feb 07 22:28	5°♌46'05	47°09'02
	4177 Aug 15 17:10	0°♋		asc. node	4180 Feb 08 21:17	6°♌43'57	
asc. node	4177 Aug 24 02:13	10°♋08'01			4180 Mar 06 08:14	0°♍	
	4177 Sep 09 09:58	0°♌		greatest brilliancy	4180 Mar 19 12:23	7°♍13'01	-4.9m
	4177 Oct 03 20:13	0°♍		retrograde	4180 Mar 29 17:05	9°♍11'31	
morning set	4177 Oct 13 10:18	11°♍51'15		evening set	4180 Apr 16 07:01	3°♍13'46	
	4177 Oct 28 01:17	0°♎		inferior conj	4180 Apr 19 16:56	1°♍07'02	8°04'59
max. Earth dist.	4177 Nov 17 01:42	24°♎56'28	1.71986 AU	minimum elong	4180 Apr 20 01:07	0°♍54'13	8°03'53
				min. Earth dist.	4180 Apr 19 11:52	1°♍14'59	0.27771 AU
superior conj	4177 Nov 19 22:55	28°♎32'28	0°52'58		4180 Apr 21 11:55	30°♋♌	
minimum elong	4177 Nov 20 08:51	29°♎03'29	0°52'35	morning rise	4180 Apr 23 19:25	28°♌35'54	
	4177 Nov 21 02:58	0°♏		direct	4180 May 10 13:31	23°♌10'24	
desc. node	4177 Dec 13 16:36	28°♏13'20		greatest brilliancy	4180 May 20 02:21	24°♌51'01	-4.8m
	4177 Dec 15 02:41	0°♐		desc. node	4180 May 30 11:28	29°♌49'51	
evening rise	4177 Dec 29 17:10	18°♐17'29			4180 May 30 18:09	0°♍	
	4178 Jan 08 01:20	0°♑		morning max el	4180 Jun 28 18:03	23°♍45'33	45°57'13
	4178 Jan 31 23:51	0°♋			4180 Jul 05 02:13	0°♎	
	4178 Feb 25 00:02	0°♌			4180 Aug 02 08:47	0°☿	
	4178 Mar 21 04:56	0°♍			4180 Aug 28 19:49	0°♋	
asc. node	4178 Apr 05 18:59	19°♍05'29		asc. node	4180 Sep 20 14:05	26°♋43'24	
	4178 Apr 14 18:54	0°♎			4180 Sep 23 08:07	0°♌	
	4178 May 10 00:12	0°☿			4180 Oct 18 04:59	0°♍	
	4178 Jun 05 08:44	0°♋			4180 Nov 11 15:00	0°♎	
evening max el	4178 Jul 02 12:26	28°♋16'18	45°31'34		4180 Dec 05 18:06	0°♏	
	4178 Jul 04 07:47	0°♌		morning set	4180 Dec 24 02:04	22°♏56'05	
desc. node	4178 Jul 26 09:19	18°♌26'02			4180 Dec 29 17:16	0°♐	
greatest brilliancy	4178 Aug 09 20:19	26°♌11'50	-4.7m	desc. node	4181 Jan 10 04:24	14°♐23'42	
retrograde	4178 Aug 20 04:11	28°♌06'44			4181 Jan 22 14:21	0°♑	
evening set	4178 Sep 06 17:14	22°♌21'20					
inferior conj	4178 Sep 10 16:07	19°♌55'12	-8°13'40	superior conj	4181 Feb 03 02:16	14°♑27'55	-0°53'36
minimum elong	4178 Sep 10 10:23	20°♌04'11	8°13'10	minimum elong	4181 Feb 02 14:40	13°♑51'24	0°53'08
min. Earth dist.	4178 Sep 10 19:48	19°♌49'25	0.29036 AU	max. Earth dist.	4181 Feb 03 00:45	14°♑23'07	1.71118 AU
morning rise	4178 Sep 14 03:26	17°♌46'05			4181 Feb 15 10:38	0°♋	
direct	4178 Oct 02 06:47	11°♌37'27			4181 Mar 11 07:33	0°♌	
greatest brilliancy	4178 Oct 12 22:29	13°♌40'59	-4.8m	evening rise	4181 Mar 16 02:48	6°♌01'15	
	4178 Nov 06 23:37	0°♍			4181 Apr 04 07:05	0°♍	
asc. node	4178 Nov 16 11:40	8°♍38'32			4181 Apr 28 11:20	0°♎	
morning max el	4178 Nov 20 22:52	12°♍59'39	46°17'39	asc. node	4181 May 03 06:50	5°♎56'05	
	4178 Dec 07 06:10	0°♎			4181 May 22 22:18	0°☿	
	4179 Jan 02 16:31	0°♏			4181 Jun 16 18:13	0°♋	
	4179 Jan 27 19:18	0°♐			4181 Jul 12 03:08	0°♌	

	4181 Aug 07 10:01	0°♄		desc. node	4184 Feb 07 16:22	0°♁47'29
desc. node	4181 Aug 22 21:09	16°♄50'00			4184 Mar 01 23:16	0°♁
	4181 Sep 04 14:34	0°♄		morning set	4184 Mar 10 20:32	11°♁08'53
evening max el	4181 Sep 11 23:37	7°♄13'48 45°48'51			4184 Mar 25 21:22	0°♁
	4181 Oct 09 21:12	0°♁			4184 Apr 18 21:08	0°♁
greatest brilliancy	4181 Oct 21 18:43	5°♁43'26 -4.8m				
retrograde	4181 Oct 30 22:55	7°♁16'09		superior conj	4184 Apr 20 03:59	1°♁36'14 -1°18'21
evening set	4181 Nov 15 22:02	2°♁23'40		minimum elong	4184 Apr 20 12:40	2°♁03'18 1°18'11
	4181 Nov 19 23:20	30°♄		max. Earth dist.	4184 Apr 24 03:34	6°♁34'12 1.72048 AU
inferior conj	4181 Nov 20 20:23	29°♄27'47 -5°26'00			4184 May 12 23:52	0°♄
minimum elong	4181 Nov 21 06:26	29°♄12'25 5°23'32		evening rise	4184 May 29 07:52	20°♄12'52
min. Earth dist.	4181 Nov 21 19:02	28°♄53'08 0.27478 AU		asc. node	4184 May 30 18:44	22°♄00'27
morning rise	4181 Nov 26 14:08	26°♄03'31			4184 Jun 06 06:18	0°♄
direct	4181 Dec 11 19:18	21°♄29'31			4184 Jun 30 16:43	0°♄
asc. node	4181 Dec 13 23:24	21°♄35'12			4184 Jul 25 07:39	0°♄
greatest brilliancy	4181 Dec 22 23:27	23°♄50'01 -4.9m			4184 Aug 19 04:37	0°♄
	4182 Jan 03 06:07	0°♁			4184 Sep 13 10:36	0°♄
morning max el	4182 Jan 31 12:05	24°♁45'00 46°56'12		desc. node	4184 Sep 19 08:59	6°♄57'46
	4182 Feb 05 14:12	0°♄			4184 Oct 09 06:41	0°♁
	4182 Mar 04 17:28	0°♁			4184 Nov 05 04:27	0°♄
	4182 Mar 30 07:34	0°♁		evening max el	4184 Nov 24 00:42	19°♄35'55 46°48'36
desc. node	4182 Apr 04 14:01	6°♁17'08			4184 Dec 04 23:16	0°♁
	4182 Apr 24 06:58	0°♁		greatest brilliancy	4185 Jan 03 06:29	20°♁05'31 -4.9m
	4182 May 19 00:15	0°♁		asc. node	4185 Jan 10 11:28	21°♁49'36
	4182 Jun 12 15:17	0°♄		retrograde	4185 Jan 13 07:15	21°♁59'06
	4182 Jul 07 05:18	0°♄		evening set	4185 Jan 28 05:53	17°♁33'27
asc. node	4182 Jul 26 16:25	23°♄48'11		inferior conj	4185 Feb 02 20:11	14°♁14'30 5°39'00
	4182 Jul 31 17:51	0°♄		minimum elong	4185 Feb 02 09:43	14°♁30'33 5°36'21
morning set	4182 Aug 03 19:18	3°♄45'05		min. Earth dist.	4185 Feb 02 07:29	14°♁33'57 0.26648 AU
	4182 Aug 25 04:04	0°♄		morning rise	4185 Feb 07 13:47	11°♁25'15
max. Earth dist.	4182 Sep 07 03:29	15°♄59'23 1.73257 AU		direct	4185 Feb 23 07:32	6°♁34'56
				greatest brilliancy	4185 Mar 04 18:26	8°♁16'59 -4.9m
superior conj	4182 Sep 09 06:40	18°♄37'18 1°20'57			4185 Apr 05 03:01	0°♁
minimum elong	4182 Sep 09 01:16	18°♄20'38 1°20'52		morning max el	4185 Apr 14 12:22	9°♁01'58 46°43'14
	4182 Sep 18 11:47	0°♄		desc. node	4185 May 02 01:51	27°♁21'17
	4182 Oct 12 17:45	0°♄			4185 May 04 12:16	0°♁
evening rise	4182 Oct 15 19:36	3°♄48'41			4185 May 31 04:28	0°♁
	4182 Nov 05 22:58	0°♁			4185 Jun 25 22:09	0°♄
desc. node	4182 Nov 15 06:45	11°♁33'22			4185 Jul 21 05:00	0°♄
	4182 Nov 30 04:04	0°♄			4185 Aug 15 04:21	0°♄
	4182 Dec 24 09:33	0°♁		asc. node	4185 Aug 23 04:13	9°♄40'36
	4183 Jan 17 16:55	0°♁			4185 Sep 08 20:49	0°♄
	4183 Feb 11 06:11	0°♁			4185 Oct 03 06:53	0°♄
asc. node	4183 Mar 08 09:01	29°♁58'31		morning set	4185 Oct 11 03:10	9°♄41'57
	4183 Mar 08 09:31	0°♁			4185 Oct 27 11:55	0°♄
	4183 Apr 03 20:21	0°♄		max. Earth dist.	4185 Nov 14 14:36	22°♄33'43 1.72037 AU
evening max el	4183 Apr 20 14:03	17°♄28'49 46°18'08				
	4183 May 03 23:21	0°♄		superior conj	4185 Nov 17 13:38	26°♄15'19 0°55'42
greatest brilliancy	4183 May 29 04:19	16°♄46'18 -4.8m		minimum elong	4185 Nov 17 23:41	26°♄46'40 0°55'19
retrograde	4183 Jun 09 06:39	19°♄01'27			4185 Nov 20 13:38	0°♁
evening set	4183 Jun 24 06:36	14°♄36'26		desc. node	4185 Dec 12 18:43	27°♁46'10
desc. node	4183 Jun 27 23:25	12°♄26'20			4185 Dec 14 13:30	0°♄
inferior conj	4183 Jun 30 15:25	10°♄46'50 -0°38'24		evening rise	4185 Dec 27 05:11	15°♄50'36
minimum elong	4183 Jun 30 14:00	10°♄49'04 0°37'59			4186 Jan 07 12:19	0°♁
min. Earth dist.	4183 Jun 30 08:10	10°♄58'12 0.28665 AU			4186 Jan 31 11:00	0°♁
morning rise	4183 Jul 06 21:54	7°♄01'38			4186 Feb 24 11:22	0°♁
direct	4183 Jul 22 01:50	2°♄35'43			4186 Mar 20 16:35	0°♁
greatest brilliancy	4183 Aug 01 02:28	4°♄24'56 -4.7m		asc. node	4186 Apr 04 20:56	18°♁34'56
	4183 Sep 06 08:57	0°♄			4186 Apr 14 07:07	0°♄
morning max el	4183 Sep 08 19:33	2°♄18'30 45°43'31			4186 May 09 13:31	0°♄
	4183 Oct 05 15:29	0°♄			4186 Jun 05 00:29	0°♄
asc. node	4183 Oct 19 01:56	14°♄58'44		evening max el	4186 Jun 30 02:54	26°♄02'29 45°32'13
	4183 Nov 01 02:53	0°♄			4186 Jul 04 07:03	0°♄
	4183 Nov 26 08:06	0°♄		desc. node	4186 Jul 25 11:27	17°♄14'27
	4183 Dec 20 21:04	0°♁		greatest brilliancy	4186 Aug 07 11:29	24°♄02'13 -4.7m
	4184 Jan 14 01:19	0°♄		retrograde	4186 Aug 17 19:50	25°♄58'07
	4184 Feb 07 01:12	0°♁		evening set	4186 Sep 04 06:30	20°♄16'36

inferior conj	4186 Sep 08 08:23	17° \mathbb{M} 46'08	-8°07'15	superior conj	4189 Jan 31 12:45	11° \approx 56'02	-0°50'24
minimum elong	4186 Sep 08 02:02	17° \mathbb{M} 56'05	8°06'38	minimum elong	4189 Jan 31 01:29	11° \approx 20'35	0°49'57
min. Earth dist.	4186 Sep 08 11:24	17° \mathbb{M} 41'24	0.29052 AU	max. Earth dist.	4189 Jan 31 09:53	11° \approx 47'02	1.71124 AU
morning rise	4186 Sep 11 21:26	15° \mathbb{M} 34'21			4189 Feb 14 21:23	0° \mathbb{H}	
direct	4186 Sep 29 22:33	9° \mathbb{M} 28'09			4189 Mar 10 18:21	0° \mathbb{Y}	
greatest brilliancy	4186 Oct 10 14:41	11° \mathbb{M} 31'33	-4.8m	evening rise	4189 Mar 13 13:40	3° \mathbb{Y} 31'02	
	4186 Nov 07 03:53	0° $\underline{\mathbf{L}}$			4189 Apr 03 17:59	0° \mathbb{B}	
asc. node	4186 Nov 15 13:40	7° $\underline{\mathbf{L}}$ 47'59			4189 Apr 27 22:23	0° \mathbb{I}	
morning max el	4186 Nov 18 13:12	10° $\underline{\mathbf{L}}$ 42'56	46°16'10	asc. node	4189 May 02 08:54	5° \mathbb{I} 28'18	
	4186 Dec 06 23:09	0° \mathbb{M}			4189 May 22 09:38	0° \mathbb{E}	
	4187 Jan 02 06:28	0° \mathbb{A}			4189 Jun 16 06:04	0° \mathbb{O}	
	4187 Jan 27 07:58	0° \mathbb{Z}			4189 Jul 11 16:01	0° \mathbb{M}	
	4187 Feb 20 20:17	0° \approx			4189 Aug 07 01:03	0° $\underline{\mathbf{L}}$	
desc. node	4187 Mar 07 04:07	17° \approx 41'26		desc. node	4189 Aug 21 23:07	16° $\underline{\mathbf{L}}$ 09'18	
	4187 Mar 17 02:37	0° \mathbb{H}			4189 Sep 04 11:11	0° \mathbb{M}	
	4187 Apr 10 06:40	0° \mathbb{Y}		evening max el	4189 Sep 09 14:27	4° \mathbb{M} 59'48	45°47'20
	4187 May 04 10:50	0° \mathbb{B}			4189 Oct 11 10:35	0° \mathbb{A}	
morning set	4187 May 24 16:14	25° \mathbb{B} 02'27		greatest brilliancy	4189 Oct 19 07:19	3° \mathbb{A} 23'56	-4.8m
	4187 May 28 16:31	0° \mathbb{I}		retrograde	4189 Oct 28 12:46	4° \mathbb{A} 57'06	
	4187 Jun 22 00:07	0° \mathbb{E}		evening set	4189 Nov 13 14:43	29° \mathbb{M} 59'57	
asc. node	4187 Jun 28 06:35	7° \mathbb{E} 43'23			4189 Nov 13 14:42	30° \mathbb{R} \mathbb{M}	
				inferior conj	4189 Nov 18 10:09	27° \mathbb{M} 07'48	-5°43'15
superior conj	4187 Jul 01 07:30	11° \mathbb{E} 27'47	0°07'18	minimum elong	4189 Nov 18 20:23	26° \mathbb{M} 52'07	5°40'48
minimum elong	4187 Jul 01 05:56	11° \mathbb{E} 22'57	0°07'13	min. Earth dist.	4189 Nov 19 08:46	26° \mathbb{M} 33'07	0.27544 AU
behind sun begin	4187 Jun 30 09:12	10° \mathbb{E} 19'09		morning rise	4189 Nov 24 01:27	23° \mathbb{M} 46'54	
behind sun end	4187 Jul 02 02:40	12° \mathbb{E} 26'46		direct	4189 Dec 09 10:21	19° \mathbb{M} 08'43	
max. Earth dist.	4187 Jul 02 10:33	12° \mathbb{E} 51'02	1.73336 AU	asc. node	4189 Dec 13 01:34	19° \mathbb{M} 24'29	
	4187 Jul 16 09:04	0° \mathbb{O}		greatest brilliancy	4189 Dec 20 13:44	21° \mathbb{M} 28'47	-4.9m
evening rise	4187 Aug 06 18:17	26° \mathbb{O} 17'21			4190 Jan 04 04:20	0° \mathbb{A}	
	4187 Aug 09 18:46	0° \mathbb{M}		morning max el	4190 Jan 29 03:22	22° \mathbb{A} 25'50	46°55'38
	4187 Sep 03 05:21	0° $\underline{\mathbf{L}}$			4190 Feb 05 10:17	0° \mathbb{Z}	
	4187 Sep 27 17:45	0° \mathbb{M}			4190 Mar 04 08:46	0° \approx	
desc. node	4187 Oct 17 20:55	24° \mathbb{M} 31'26			4190 Mar 29 20:53	0° \mathbb{H}	
	4187 Oct 22 09:07	0° \mathbb{A}		desc. node	4190 Apr 03 16:03	5° \mathbb{H} 44'10	
	4187 Nov 16 04:36	0° \mathbb{Z}			4190 Apr 23 19:13	0° \mathbb{Y}	
	4187 Dec 11 06:36	0° \approx			4190 May 18 11:52	0° \mathbb{B}	
	4188 Jan 05 22:46	0° \mathbb{H}			4190 Jun 12 02:29	0° \mathbb{I}	
	4188 Feb 02 05:15	0° \mathbb{Y}			4190 Jul 06 16:11	0° \mathbb{E}	
evening max el	4188 Feb 05 11:47	3° \mathbb{Y} 21'51	47°09'39	asc. node	4190 Jul 25 18:24	23° \mathbb{E} 21'30	
asc. node	4188 Feb 07 23:12	5° \mathbb{Y} 51'48			4190 Jul 31 04:31	0° \mathbb{O}	
	4188 Mar 07 11:54	0° \mathbb{B}		morning set	4190 Aug 01 12:56	1° \mathbb{O} 39'21	
greatest brilliancy	4188 Mar 17 03:17	4° \mathbb{B} 52'42	-4.9m		4190 Aug 24 14:38	0° \mathbb{M}	
retrograde	4188 Mar 27 07:32	6° \mathbb{B} 51'22		max. Earth dist.	4190 Sep 04 23:54	14° \mathbb{M} 01'41	1.73281 AU
evening set	4188 Apr 14 00:00	0° \mathbb{B} 49'27					
	4188 Apr 15 08:23	30° \mathbb{R} \mathbb{Y}		superior conj	4190 Sep 07 00:33	16° \mathbb{M} 31'42	1°19'53
inferior conj	4188 Apr 17 07:10	28° \mathbb{Y} 47'11	8°14'22	minimum elong	4190 Sep 06 18:37	16° \mathbb{M} 13'25	1°19'47
minimum elong	4188 Apr 17 14:48	28° \mathbb{Y} 35'16	8°13'27		4190 Sep 17 22:23	0° $\underline{\mathbf{L}}$	
min. Earth dist.	4188 Apr 17 01:42	28° \mathbb{Y} 55'44	0.27740 AU		4190 Oct 12 04:29	0° \mathbb{M}	
morning rise	4188 Apr 21 05:44	26° \mathbb{Y} 22'06		evening rise	4190 Oct 13 11:49	1° \mathbb{M} 37'03	
direct	4188 May 08 02:55	20° \mathbb{Y} 50'51			4190 Nov 05 09:54	0° \mathbb{A}	
greatest brilliancy	4188 May 17 15:49	22° \mathbb{Y} 31'47	-4.8m	desc. node	4190 Nov 14 08:53	11° \mathbb{A} 05'44	
desc. node	4188 May 29 13:35	28° \mathbb{Y} 27'14			4190 Nov 29 15:17	0° \mathbb{Z}	
	4188 May 31 21:59	0° \mathbb{B}			4190 Dec 23 21:07	0° \approx	
morning max el	4188 Jun 26 08:52	21° \mathbb{B} 30'29	45°58'36		4191 Jan 17 04:58	0° \mathbb{H}	
	4188 Jul 04 22:24	0° \mathbb{I}			4191 Feb 10 18:57	0° \mathbb{Y}	
	4188 Aug 01 23:45	0° \mathbb{E}		asc. node	4191 Mar 07 11:02	29° \mathbb{Y} 23'04	
	4188 Aug 28 08:40	0° \mathbb{O}			4191 Mar 07 23:40	0° \mathbb{B}	
asc. node	4188 Sep 19 16:01	26° \mathbb{O} 13'48			4191 Apr 03 13:42	0° \mathbb{I}	
	4188 Sep 22 19:55	0° \mathbb{M}		evening max el	4191 Apr 18 06:10	15° \mathbb{I} 16'13	46°20'09
	4188 Oct 17 16:13	0° $\underline{\mathbf{L}}$			4191 May 04 05:15	0° \mathbb{E}	
	4188 Nov 11 01:57	0° \mathbb{M}		greatest brilliancy	4191 May 26 21:10	14° \mathbb{E} 36'12	-4.8m
	4188 Dec 05 04:55	0° \mathbb{A}		retrograde	4191 Jun 06 23:01	16° \mathbb{E} 50'32	
morning set	4188 Dec 21 14:45	20° \mathbb{A} 31'40		evening set	4191 Jun 21 23:17	12° \mathbb{E} 25'15	
	4188 Dec 29 04:02	0° \mathbb{Z}		desc. node	4191 Jun 27 01:30	9° \mathbb{E} 23'02	
desc. node	4189 Jan 09 06:31	13° \mathbb{Z} 56'36		inferior conj	4191 Jun 28 07:25	8° \mathbb{E} 36'12	-0°18'00
	4189 Jan 22 01:06	0° \approx		minimum elong	4191 Jun 28 06:45	8° \mathbb{E} 37'15	0°17'48
				min. Earth dist.	4191 Jun 28 00:17	8° \mathbb{E} 47'23	0.28636 AU

morning rise	4191 Jul 04 14:47	4°☿49'41			4194 Feb 23 22:56	0°♄	
direct	4191 Jul 19 18:00	0°☿25'43			4194 Mar 20 04:28	0°♄	
greatest brilliancy	4191 Jul 29 17:21	2°☿13'54 -4.7m	asc. node		4194 Apr 03 23:01	18°♄04'06	
	4191 Sep 06 07:47	0°♁			4194 Apr 13 19:35	0°♁	
morning max el	4191 Sep 06 10:49	0°♁07'14 45°43'03			4194 May 09 03:09	0°☿	
	4191 Oct 05 07:09	0°♊			4194 Jun 04 16:42	0°♁	
asc. node	4191 Oct 18 04:02	14°♊24'15	evening max el		4194 Jun 27 17:26	23°♁48'21 45°32'59	
	4191 Oct 31 16:10	0°♊			4194 Jul 04 07:39	0°♊	
	4191 Nov 25 20:18	0°♋	desc. node		4194 Jul 24 13:19	15°♊59'51	
	4191 Dec 20 08:43	0°♌	greatest brilliancy		4194 Aug 05 01:56	21°♊51'12 -4.7m	
	4192 Jan 13 12:39	0°♍	retrograde		4194 Aug 15 11:51	23°♊48'53	
desc. node	4192 Feb 06 18:14	0°♎18'25	evening set		4194 Sep 01 19:32	18°♊11'07	
	4192 Feb 06 12:21	0°♎	inferior conj		4194 Sep 06 00:35	15°♊36'13 -8°00'03	
	4192 Mar 01 10:18	0°♏	minimum elong		4194 Sep 05 17:39	15°♊47'03 7°59'19	
morning set	4192 Mar 08 06:59	8°♏36'42	min. Earth dist.		4194 Sep 06 02:44	15°♊32'49 0.29073 AU	
	4192 Mar 25 08:17	0°♄	morning rise		4194 Sep 09 15:37	13°♊21'34	
			direct		4194 Sep 27 14:28	7°♊17'49	
superior conj	4192 Apr 17 16:58	29°♄13'19 -1°19'53	greatest brilliancy		4194 Oct 08 06:56	9°♊21'20 -4.8m	
minimum elong	4192 Apr 18 01:04	29°♄38'35 1°19'45			4194 Nov 07 06:57	0°♊	
	4192 Apr 18 07:55	0°♄	asc. node		4194 Nov 14 15:46	6°♊57'25	
max. Earth dist.	4192 Apr 21 19:36	4°♄20'58 1.71992 AU	morning max el		4194 Nov 16 04:28	8°♊27'31 46°14'36	
	4192 May 12 10:36	0°♁			4194 Dec 06 16:14	0°♋	
evening rise	4192 May 26 23:12	17°♁58'46			4195 Jan 01 20:42	0°♌	
asc. node	4192 May 29 20:50	21°♁33'42			4195 Jan 26 20:55	0°♍	
	4192 Jun 05 17:05	0°☿			4195 Feb 20 08:31	0°♎	
	4192 Jun 30 03:40	0°♁	desc. node		4195 Mar 06 06:10	17°♎10'54	
	4192 Jul 24 18:56	0°♊			4195 Mar 16 14:23	0°♏	
	4192 Aug 18 16:28	0°♋			4195 Apr 09 18:07	0°♄	
	4192 Sep 12 23:26	0°♌			4195 May 03 22:01	0°♄	
desc. node	4192 Sep 18 10:59	6°♌25'11	morning set		4195 May 22 07:36	22°♄47'21	
	4192 Oct 08 21:15	0°♌			4195 May 28 03:32	0°♁	
	4192 Nov 04 22:42	0°♍			4195 Jun 21 11:01	0°☿	
evening max el	4192 Nov 21 13:39	17°♍11'01 46°46'36	asc. node		4195 Jun 27 08:34	7°☿16'01	
	4192 Dec 05 05:43	0°♎					
greatest brilliancy	4192 Dec 31 20:12	17°♎38'21 -4.9m	superior conj		4195 Jun 29 00:35	9°☿19'14 0°04'02	
asc. node	4193 Jan 09 13:24	19°♎28'28	minimum elong		4195 Jun 28 23:43	9°☿16'33 0°03'58	
retrograde	4193 Jan 10 19:05	19°♎30'18	behind sun begin		4195 Jun 28 01:13	8°☿07'17	
evening set	4193 Jan 25 15:29	15°♎09'06	behind sun end		4195 Jun 29 22:13	10°☿25'49	
inferior conj	4193 Jan 31 08:34	11°♎46'34 5°19'30	max. Earth dist.		4195 Jun 30 05:27	10°☿48'05 1.73309 AU	
minimum elong	4193 Jan 30 22:22	12°♎02'12 5°16'49			4195 Jul 15 19:55	0°♁	
min. Earth dist.	4193 Jan 30 21:10	12°♎04'02 0.26627 AU	evening rise		4195 Aug 04 12:58	24°♁13'58	
morning rise	4193 Feb 05 05:24	8°♎52'31			4195 Aug 09 05:40	0°♊	
direct	4193 Feb 20 19:24	4°♎07'01			4195 Sep 02 16:26	0°♋	
greatest brilliancy	4193 Mar 02 08:36	5°♎50'38 -4.9m			4195 Sep 27 05:12	0°♌	
	4193 Apr 05 06:14	0°♏	desc. node		4195 Oct 16 23:02	24°♌01'41	
morning max el	4193 Apr 12 00:08	6°♏33'55 46°44'41			4195 Oct 21 21:08	0°♌	
desc. node	4193 May 01 03:54	26°♏38'08			4195 Nov 15 17:24	0°♍	
	4193 May 04 05:44	0°♄			4195 Dec 10 20:37	0°♎	
	4193 May 30 18:43	0°♄			4196 Jan 05 14:59	0°♏	
	4193 Jun 25 10:50	0°♁			4196 Feb 02 03:00	0°♄	
	4193 Jul 20 16:49	0°☿	evening max el		4196 Feb 03 01:54	0°♄58'27 47°10'28	
	4193 Aug 14 15:39	0°♁	asc. node		4196 Feb 07 01:13	4°♄57'37	
asc. node	4193 Aug 22 06:10	9°♁12'36			4196 Mar 09 04:42	0°♄	
	4193 Sep 08 07:50	0°♊	greatest brilliancy		4196 Mar 14 17:36	2°♄30'31 -4.9m	
	4193 Oct 02 17:47	0°♋	retrograde		4196 Mar 24 22:33	4°♄29'56	
morning set	4193 Oct 08 19:44	7°♋31'02			4196 Apr 08 22:49	30°♄♄	
	4193 Oct 26 22:47	0°♌	evening set		4196 Apr 11 16:49	28°♄23'58	
max. Earth dist.	4193 Nov 12 04:45	20°♌14'12 1.72085 AU	inferior conj		4196 Apr 14 21:19	26°♄25'55 8°23'01	
			minimum elong		4196 Apr 15 04:20	26°♄14'59 8°22'15	
superior conj	4193 Nov 15 04:06	23°♌56'42 0°58'21	min. Earth dist.		4196 Apr 14 15:01	26°♄35'43 0.27706 AU	
minimum elong	4193 Nov 15 14:12	24°♌28'12 0°57'58	morning rise		4196 Apr 18 16:00	24°♄06'56	
	4193 Nov 20 00:33	0°♌	direct		4196 May 05 16:42	18°♄30'04	
desc. node	4193 Dec 11 20:45	27°♌18'03	greatest brilliancy		4196 May 15 04:35	20°♄10'37 -4.8m	
	4193 Dec 14 00:31	0°♍	desc. node		4196 May 28 15:39	27°♄06'17	
evening rise	4193 Dec 24 17:03	13°♍22'48			4196 Jun 01 18:49	0°♄	
	4194 Jan 06 23:29	0°♎	morning max el		4196 Jun 24 00:25	19°♄16'11 45°59'59	
	4194 Jan 30 22:20	0°♏			4196 Jul 04 18:20	0°♁	

	4196 Aug 01 14:51	0°☿		asc. node	4199 Mar 06 13:06	28°♄46'19	
	4196 Aug 27 21:46	0°♌			4199 Mar 07 14:24	0°♄	
asc. node	4196 Sep 18 18:11	25°♌44'04			4199 Apr 03 07:57	0°♈	
	4196 Sep 22 07:59	0°♍		evening max el	4199 Apr 15 21:33	13°♈00'19	46°22'17
	4196 Oct 17 03:44	0°♎			4199 May 04 14:11	0°☿	
	4196 Nov 10 13:14	0°♏		greatest brilliancy	4199 May 24 14:38	12°☿25'32	-4.8m
	4196 Dec 04 16:08	0°♐		retrograde	4199 Jun 04 14:57	14°☿38'27	
morning set	4196 Dec 19 03:15	18°♐05'24		evening set	4199 Jun 19 16:05	10°☿12'45	
	4196 Dec 28 15:14	0°♑		inferior conj	4199 Jun 25 23:24	6°☿24'39	0°02'25
desc. node	4197 Jan 08 08:28	13°♑27'31		minimum elong	4199 Jun 25 23:29	6°☿24'30	0°02'23
	4197 Jan 21 12:18	0°♒		transit middle	4199 Jun 25 23:29	6°☿24'30	0°02'23
				transit begin	4199 Jun 25 19:29	6°☿30'48	
superior conj	4197 Jan 28 22:43	9°♒21'04 -0°47'04		transit end	4199 Jun 26 03:30	6°☿18'13	
minimum elong	4197 Jan 28 11:55	8°♒47'06 0°46'36		min. Earth dist.	4199 Jun 25 16:41	6°☿35'11	0.28602 AU
max. Earth dist.	4197 Jan 28 18:24	9°♒07'31 1.71129 AU		desc. node	4199 Jun 26 03:24	6°☿18'22	
	4197 Feb 14 08:35	0°♈		morning rise	4199 Jul 02 07:27	2°☿36'54	
	4197 Mar 10 05:35	0°♄			4199 Jul 07 23:06	30°♈♈	
evening rise	4197 Mar 11 00:01	0°♄57'49		direct	4199 Jul 17 09:36	28°♈14'49	
	4197 Apr 03 05:16	0°♄			4199 Jul 27 05:50	0°☿	
	4197 Apr 27 09:49	0°♈		greatest brilliancy	4199 Jul 27 08:31	0°☿02'18	-4.7m
asc. node	4197 May 01 10:59	4°♈59'24		morning max el	4199 Sep 04 01:27	27°☿53'50	45°42'43
	4197 May 21 21:20	0°☿			4199 Sep 06 05:56	0°♌	
	4197 Jun 15 18:19	0°♌			4199 Oct 04 22:46	0°♍	
	4197 Jul 11 05:21	0°♍		asc. node	4199 Oct 17 06:01	13°♍49'14	
	4197 Aug 06 16:38	0°♎			4199 Oct 31 05:31	0°♎	
desc. node	4197 Aug 21 01:11	15°♎27'37			4199 Nov 25 08:36	0°♏	
	4197 Sep 04 08:52	0°♏			4199 Dec 19 20:27	0°♐	
evening max el	4197 Sep 07 05:35	2°♏45'49 45°45'49		desc. node	4200 Jan 13 00:06	0°♑	
	4197 Oct 13 21:37	0°♐			4200 Feb 05 23:38	0°♒	
greatest brilliancy	4197 Oct 16 20:22	1°♐04'40 -4.8m			4200 Mar 01 21:28	0°♈	
retrograde	4197 Oct 26 02:18	2°♐37'41		morning set	4200 Mar 06 17:14	6°♈03'17	
	4197 Nov 06 15:10	30°♏♏			4200 Mar 25 19:22	0°♄	
evening set	4197 Nov 11 07:35	27°♏36'07					
inferior conj	4197 Nov 16 00:05	24°♏47'39 -5°59'34		superior conj	4200 Apr 16 05:33	26°♄48'24 -1°21'18	
minimum elong	4197 Nov 16 10:25	24°♏31'46 5°57'13		minimum elong	4200 Apr 16 12:59	27°♄11'37 1°21'10	
min. Earth dist.	4197 Nov 16 22:43	24°♏12'53 0.27613 AU			4200 Apr 18 18:57	0°♄	
morning rise	4197 Nov 21 12:43	21°♏30'05		max. Earth dist.	4200 Apr 20 08:06	1°♄55'54 1.71937 AU	
direct	4197 Dec 07 01:27	16°♏47'45			4200 May 12 21:34	0°♈	
asc. node	4197 Dec 12 03:30	17°♏18'16		evening rise	4200 May 25 13:56	15°♈42'01	
greatest brilliancy	4197 Dec 18 04:05	19°♏06'56 -4.9m		asc. node	4200 May 29 22:44	21°♈05'42	
	4198 Jan 04 21:15	0°♐			4200 Jun 06 04:04	0°☿	
morning max el	4198 Jan 26 17:59	20°♐03'45 46°54'43			4200 Jun 30 14:48	0°♌	
	4198 Feb 05 06:16	0°♑			4200 Jul 25 06:22	0°♍	
	4198 Mar 04 00:22	0°♒			4200 Aug 19 04:29	0°♎	
	4198 Mar 29 10:35	0°♈			4200 Sep 13 12:26	0°♏	
desc. node	4198 Apr 02 18:09	5°♈10'09		desc. node	4200 Sep 18 13:05	5°♏52'31	
	4198 Apr 23 07:52	0°♄			4200 Oct 09 12:05	0°♐	
	4198 May 17 23:50	0°♄			4200 Nov 05 17:26	0°♑	
	4198 Jun 11 13:57	0°♈			4200 Nov 20 02:15	14°♑45'32 46°44'42	
	4198 Jul 06 03:20	0°☿		evening max el	4200 Dec 06 14:32	0°♒	
asc. node	4198 Jul 24 20:22	22°☿53'51			4200 Dec 30 09:59	15°♒11'43 -4.9m	
morning set	4198 Jul 30 06:41	29°☿33'08		greatest brilliancy	4201 Jan 09 07:10	17°♒02'31	
	4198 Jul 30 15:27	0°♌		retrograde	4201 Jan 09 15:23	17°♒02'22	
	4198 Aug 24 01:29	0°♍		asc. node	4201 Jan 24 01:29	12°♒44'56	
max. Earth dist.	4198 Sep 02 18:54	11°♍58'49 1.73303 AU		evening set	4201 Jan 29 21:08	9°♒19'24 4°59'29	
				inferior conj	4201 Jan 29 11:17	9°♒34'29 4°56'47	
superior conj	4198 Sep 04 18:44	14°♍26'16 1°18'43		minimum elong	4201 Jan 29 11:03	9°♒34'50 0.26612 AU	
minimum elong	4198 Sep 04 12:20	14°♍06'32 1°18'36		min. Earth dist.	4201 Feb 03 21:08	6°♒20'54	
	4198 Sep 17 09:15	0°♎		morning rise	4201 Feb 19 07:17	1°♒39'39	
evening rise	4198 Oct 11 04:28	29°♎25'58		direct	4201 Feb 28 23:06	3°♒25'18 -4.9m	
	4198 Oct 11 15:28	0°♏		greatest brilliancy	4201 Apr 06 07:54	0°♈	
	4198 Nov 04 21:04	0°♐		morning max el	4201 Apr 10 12:45	4°♈07'56 46°45'58	
desc. node	4198 Nov 13 10:53	10°♐37'02		desc. node	4201 May 01 05:56	25°♈55'25	
	4198 Nov 29 02:44	0°♑			4201 May 04 22:51	0°♄	
	4198 Dec 23 08:58	0°♒			4201 May 31 08:54	0°♄	
	4199 Jan 16 17:22	0°♈			4201 Jun 25 23:33	0°♈	
	4199 Feb 10 08:11	0°♄					

	4201 Jul 21 04:39	0°☿			4204 Feb 03 01:14	0°♁	
	4201 Aug 15 02:57	0°♊		asc. node	4204 Feb 07 03:23	4°♁03'39	
asc. node	4201 Aug 22 08:19	8°♊45'15			4204 Mar 12 22:11	0°♂	
	4201 Sep 08 18:49	0°♎		greatest brilliancy	4204 Mar 13 07:47	0°♂09'06	-4.9m
	4201 Oct 03 04:36	0°♌		retrograde	4204 Mar 23 13:47	2°♂09'07	
morning set	4201 Oct 07 12:23	5°♌20'38			4204 Apr 02 18:17	30°♎♁	
	4201 Oct 27 09:34	0°♍		evening set	4204 Apr 10 09:26	25°♁59'42	
max. Earth dist.	4201 Nov 10 20:45	18°♍00'38	1.72134 AU	inferior conj	4204 Apr 13 11:24	24°♁05'28	8°30'53
				minimum elong	4204 Apr 13 17:45	23°♁55'34	8°30'16
superior conj	4201 Nov 13 18:48	21°♍39'03	1°00'52	min. Earth dist.	4204 Apr 13 04:06	24°♁16'51	0.27668 AU
minimum elong	4201 Nov 14 04:54	22°♍10'31	1°00'31	morning rise	4204 Apr 17 02:16	21°♁52'23	
	4201 Nov 20 11:24	0°♏		direct	4204 May 04 06:47	16°♁10'24	
desc. node	4201 Dec 11 22:41	26°♏49'51		greatest brilliancy	4204 May 13 16:45	17°♁49'50	-4.8m
	4201 Dec 14 11:29	0°♐		desc. node	4204 May 28 17:33	25°♁48'53	
evening rise	4201 Dec 23 05:20	10°♐56'34			4204 Jun 03 09:43	0°♂	
	4202 Jan 07 10:34	0°♑		morning max el	4204 Jun 22 15:51	17°♂02'49	46°01'18
	4202 Jan 31 09:34	0°♒			4204 Jul 05 13:13	0°♈	
	4202 Feb 24 10:20	0°♉			4204 Aug 02 05:21	0°☿	
	4202 Mar 20 16:13	0°♊			4204 Aug 28 10:24	0°♊	
asc. node	4202 Apr 04 01:04	17°♊33'35		asc. node	4204 Sep 18 20:08	25°♊14'47	
	4202 Apr 14 07:59	0°♈			4204 Sep 22 19:40	0°♎	
	4202 May 09 16:46	0°☿			4204 Oct 17 14:55	0°♌	
	4202 Jun 05 09:08	0°♊			4204 Nov 11 00:09	0°♍	
evening max el	4202 Jun 26 08:58	21°♊36'55	45°33'50		4204 Dec 05 02:57	0°♏	
	4202 Jul 05 09:30	0°♎		morning set	4204 Dec 17 15:56	15°♏41'06	
desc. node	4202 Jul 24 15:26	14°♎43'38			4204 Dec 29 02:02	0°♐	
greatest brilliancy	4202 Aug 03 16:03	19°♎40'07	-4.7m	desc. node	4205 Jan 08 10:31	13°♐00'03	
retrograde	4202 Aug 14 04:23	21°♎40'00			4205 Jan 21 23:06	0°♑	
evening set	4202 Aug 31 08:35	16°♎06'10					
inferior conj	4202 Sep 04 16:48	13°♎26'42	-7°52'17	superior conj	4205 Jan 27 08:50	6°♑47'56	-0°43'39
minimum elong	4202 Sep 04 09:20	13°♎38'22	7°51'24	minimum elong	4205 Jan 26 22:35	6°♑15'41	0°43'11
min. Earth dist.	4202 Sep 04 17:49	13°♎25'07	0.29087 AU	max. Earth dist.	4205 Jan 27 02:07	6°♑26'46	1.71138 AU
morning rise	4202 Sep 08 09:59	11°♎09'04			4205 Feb 14 19:25	0°♒	
direct	4202 Sep 26 06:46	5°♎08'10		evening rise	4205 Mar 09 10:24	28°♒25'46	
greatest brilliancy	4202 Oct 06 22:37	7°♎11'18	-4.8m		4205 Mar 10 16:27	0°♉	
	4202 Nov 08 08:14	0°♌			4205 Apr 03 16:12	0°♊	
asc. node	4202 Nov 14 17:45	6°♌08'14			4205 Apr 27 20:51	0°♈	
morning max el	4202 Nov 14 20:35	6°♌15'12	46°13'01	asc. node	4205 May 01 12:55	4°♈31'14	
	4202 Dec 07 08:43	0°♍			4205 May 22 08:38	0°☿	
	4203 Jan 02 10:32	0°♏			4205 Jun 16 06:11	0°♊	
	4203 Jan 27 09:33	0°♐			4205 Jul 11 18:21	0°♎	
	4203 Feb 20 20:28	0°♑			4205 Aug 07 08:03	0°♌	
desc. node	4203 Mar 06 08:15	16°♑41'14		desc. node	4205 Aug 21 03:15	14°♌46'29	
	4203 Mar 17 01:52	0°♒			4205 Sep 05 07:01	0°♍	
	4203 Apr 10 05:15	0°♉		evening max el	4205 Sep 05 20:19	0°♍31'51	45°44'11
	4203 May 04 08:55	0°♊		greatest brilliancy	4205 Oct 15 10:03	28°♍47'12	-4.8m
morning set	4203 May 20 23:03	20°♊33'19			4205 Oct 20 11:33	0°♏	
	4203 May 28 14:16	0°♈		retrograde	4205 Oct 24 15:17	0°♏19'29	
	4203 Jun 21 21:39	0°☿			4205 Oct 28 16:56	30°♎♁	
asc. node	4203 Jun 27 10:35	6°☿49'31		evening set	4205 Nov 10 00:31	25°♎13'34	
				inferior conj	4205 Nov 14 14:06	22°♎28'55	-6°15'13
superior conj	4203 Jun 27 17:33	7°☿11'02	0°00'42	minimum elong	4205 Nov 15 00:27	22°♎12'59	6°12'58
minimum elong	4203 Jun 27 17:23	7°☿10'30	0°00'41	min. Earth dist.	4205 Nov 15 13:01	21°♎53'37	0.27680 AU
behind sun begin	4203 Jun 26 18:20	5°☿59'30		morning rise	4205 Nov 19 23:51	19°♎14'51	
behind sun end	4203 Jun 28 16:27	8°☿21'31		direct	4205 Dec 05 16:11	14°♎28'11	
max. Earth dist.	4203 Jun 29 01:30	8°☿49'22	1.73286 AU	asc. node	4205 Dec 12 05:30	15°♎18'08	
	4203 Jul 16 06:31	0°♊		greatest brilliancy	4205 Dec 16 18:56	16°♎46'59	-4.9m
evening rise	4203 Aug 03 07:30	22°♊10'46			4206 Jan 06 09:19	0°♏	
	4203 Aug 09 16:19	0°♎		morning max el	4206 Jan 25 07:35	17°♏40'18	46°53'47
	4203 Sep 03 03:17	0°♌			4206 Feb 06 01:11	0°♐	
	4203 Sep 27 16:24	0°♍			4206 Mar 04 15:17	0°♑	
desc. node	4203 Oct 17 00:59	23°♍32'24			4206 Mar 29 23:45	0°♒	
	4203 Oct 22 08:53	0°♏		desc. node	4206 Apr 02 20:05	4°♒36'59	
	4203 Nov 16 05:58	0°♐			4206 Apr 23 20:04	0°♉	
	4203 Dec 11 10:26	0°♑			4206 May 18 11:23	0°♊	
	4204 Jan 06 07:08	0°♒			4206 Jun 12 01:03	0°♈	
evening max el	4204 Feb 01 17:09	28°♒38'47	47°11'06		4206 Jul 06 14:05	0°☿	

asc. node	4206 Jul 24 22:30	22°☿27'59		asc. node	4209 Jan 08 17:32	14°♊29'43	
morning set	4206 Jul 29 00:31	27°☿28'20		evening set	4209 Jan 21 11:21	10°♊19'38	
	4206 Jul 31 02:00	0°♌		inferior conj	4209 Jan 27 09:22	6°♊51'29	4°38'30
	4206 Aug 24 11:58	0°♍		minimum elong	4209 Jan 26 23:58	7°♊05'51	4°35'51
max. Earth dist.	4206 Sep 01 13:19	9°♍55'25	1.73328 AU	min. Earth dist.	4209 Jan 27 00:33	7°♊04'58	0.26603 AU
				morning rise	4209 Feb 01 12:33	3°♊48'48	
superior conj	4206 Sep 03 13:00	12°♍22'22	1°17'28		4209 Feb 10 12:50	30°♋	
minimum elong	4206 Sep 03 06:09	12°♍01'16	1°17'19	direct	4209 Feb 16 19:11	29°♋11'21	
	4206 Sep 17 19:47	0°♎			4209 Feb 23 06:22	0°♋	
evening rise	4206 Oct 09 21:09	27°♎16'08		greatest brilliancy	4209 Feb 26 13:15	0°♋59'08	-4.9m
	4206 Oct 12 02:08	0°♏			4209 Apr 06 08:15	0°♌	
	4206 Nov 05 07:58	0°♐		morning max el	4209 Apr 08 02:08	1°♌43'56	46°47'20
desc. node	4206 Nov 13 12:51	10°♐09'04		desc. node	4209 Apr 30 07:56	25°♌13'27	
	4206 Nov 29 13:55	0°♑			4209 May 04 15:31	0°♍	
	4206 Dec 23 20:32	0°♒			4209 May 30 22:47	0°♎	
	4207 Jan 17 05:28	0°♓			4209 Jun 25 12:01	0°♏	
	4207 Feb 10 21:09	0°♑			4209 Jul 20 16:19	0°☿	
asc. node	4207 Mar 06 15:05	28°♑10'11			4209 Aug 14 14:07	0°♌	
	4207 Mar 08 04:56	0°♒		asc. node	4209 Aug 21 10:17	8°♌17'41	
	4207 Apr 04 02:16	0°♏			4209 Sep 08 05:40	0°♍	
evening max el	4207 Apr 14 12:01	10°♏42'58	46°24'22		4209 Oct 02 15:17	0°♎	
	4207 May 06 01:45	0°☿		morning set	4209 Oct 05 05:19	3°♎11'34	
greatest brilliancy	4207 May 23 08:13	10°☿15'40	-4.8m		4209 Oct 26 20:13	0°♏	
retrograde	4207 Jun 03 06:37	12°☿27'15		max. Earth dist.	4209 Nov 08 14:04	15°♏51'39	1.72182 AU
evening set	4207 Jun 18 08:58	8°☿00'38					
inferior conj	4207 Jun 24 15:21	4°☿13'57	0°23'00	superior conj	4209 Nov 11 09:49	19°♏22'48	1°03'16
minimum elong	4207 Jun 24 16:12	4°☿12'36	0°22'44	minimum elong	4209 Nov 11 19:50	19°♏53'59	1°02'56
min. Earth dist.	4207 Jun 24 09:22	4°☿23'20	0.28569 AU		4209 Nov 19 22:08	0°♐	
desc. node	4207 Jun 26 05:31	3°☿14'09		desc. node	4209 Dec 11 00:49	26°♐22'31	
morning rise	4207 Jun 30 23:54	0°☿25'10			4209 Dec 13 22:22	0°♑	
	4207 Jul 01 18:42	30°♑		evening rise	4209 Dec 20 17:46	8°♑31'07	
direct	4207 Jul 16 00:40	26°♑04'33			4210 Jan 06 21:37	0°♒	
greatest brilliancy	4207 Jul 26 00:10	27°♑52'06	-4.7m		4210 Jan 30 20:48	0°♓	
	4207 Jul 31 02:58	0°☿			4210 Feb 23 21:48	0°♑	
morning max el	4207 Sep 02 15:54	25°☿40'59	45°42'32		4210 Mar 20 04:03	0°♒	
	4207 Sep 07 02:50	0°♌		asc. node	4210 Apr 03 02:59	17°♒02'30	
	4207 Oct 05 13:46	0°♍			4210 Apr 13 20:28	0°♏	
asc. node	4207 Oct 17 08:00	13°♍15'30			4210 May 09 06:33	0°☿	
	4207 Oct 31 18:26	0°♎			4210 Jun 05 01:53	0°♌	
	4207 Nov 25 20:34	0°♏		evening max el	4210 Jun 24 01:09	19°♌26'59	45°34'46
	4207 Dec 20 07:56	0°♐			4210 Jul 05 12:56	0°♍	
	4208 Jan 13 11:19	0°♑		desc. node	4210 Jul 23 17:31	13°♍24'51	
desc. node	4208 Feb 05 22:26	29°♑21'37		greatest brilliancy	4210 Aug 01 06:05	17°♍28'51	-4.7m
	4208 Feb 06 10:41	0°♒		retrograde	4210 Aug 11 20:57	19°♍30'45	
	4208 Mar 01 08:24	0°♓		evening set	4210 Aug 28 21:33	14°♍01'04	
morning set	4208 Mar 04 03:09	3°♓29'33		inferior conj	4210 Sep 02 08:56	11°♍16'52	-7°43'49
	4208 Mar 25 06:11	0°♑		minimum elong	4210 Sep 02 01:00	11°♍29'16	7°42'48
				min. Earth dist.	4210 Sep 02 08:38	11°♍17'19	0.29097 AU
superior conj	4208 Apr 13 17:55	24°♑23'38	-1°22'33	morning rise	4210 Sep 06 04:24	8°♍55'58	
minimum elong	4208 Apr 14 00:37	24°♑44'32	1°22'27	direct	4210 Sep 23 23:24	2°♍58'20	
max. Earth dist.	4208 Apr 17 18:22	29°♑24'41	1.71884 AU	greatest brilliancy	4210 Oct 04 13:38	5°♍00'22	-4.8m
	4208 Apr 18 05:41	0°♒			4210 Nov 08 08:18	0°♎	
	4208 May 12 08:17	0°♏		morning max el	4210 Nov 12 12:57	4°♎03'44	46°11'32
evening rise	4208 May 23 04:29	13°♏25'27		asc. node	4210 Nov 13 19:46	5°♎19'58	
asc. node	4208 May 29 00:49	20°♏38'54			4210 Dec 07 00:54	0°♏	
	4208 Jun 05 14:50	0°☿			4211 Jan 02 00:15	0°♐	
	4208 Jun 30 01:43	0°♌			4211 Jan 26 22:09	0°♑	
	4208 Jul 24 17:36	0°♍			4211 Feb 20 08:27	0°♒	
	4208 Aug 18 16:17	0°♎		desc. node	4211 Mar 05 10:11	16°♒10'52	
	4208 Sep 13 01:15	0°♏			4211 Mar 16 13:27	0°♓	
desc. node	4208 Sep 17 15:03	5°♏20'05			4211 Apr 09 16:32	0°♑	
	4208 Oct 09 02:50	0°♐			4211 May 03 19:58	0°♒	
	4208 Nov 05 12:30	0°♑		morning set	4211 May 18 14:02	18°♒17'15	
evening max el	4208 Nov 17 14:45	12°♑20'25	46°42'36		4211 May 28 01:09	0°♏	
	4208 Dec 07 02:19	0°♒			4211 Jun 21 08:24	0°☿	
greatest brilliancy	4208 Dec 27 23:00	12°♒43'57	-4.9m				
retrograde	4209 Jan 06 19:21	14°♒34'15		superior conj	4211 Jun 25 10:04	5°☿00'54	-0°02'41

minimum elong	4211 Jun 25 10:39	5°02'43	0°02'39	asc. node	4213 Dec 11 07:38	13°12'21'49	
behind sun begin	4211 Jun 24 11:42	3°05'51'59		greatest brilliancy	4213 Dec 14 10:26	14°12'26'59	-4.9m
behind sun end	4211 Jun 26 09:36	6°06'13'26			4214 Jan 06 18:42	0°00'00'	
asc. node	4211 Jun 26 12:40	6°06'22'52		morning max el	4214 Jan 22 20:54	15°00'15'07	46°53'05
max. Earth dist.	4211 Jun 26 23:09	6°06'55'10	1.73258 AU		4214 Feb 05 19:57	0°00'00'	
	4211 Jul 15 17:14	0°00'00'			4214 Mar 04 06:18	0°00'00'	
evening rise	4211 Aug 01 01:51	20°00'06'37			4214 Mar 29 13:05	0°00'00'	
	4211 Aug 09 03:08	0°00'00'		desc. node	4214 Apr 01 22:08	4°00'03'38	
	4211 Sep 02 14:20	0°00'00'			4214 Apr 23 08:27	0°00'00'	
	4211 Sep 27 03:49	0°00'00'			4214 May 17 23:10	0°00'00'	
desc. node	4211 Oct 16 03:00	23°00'02'41			4214 Jun 11 12:25	0°00'00'	
	4211 Oct 21 20:50	0°00'00'			4214 Jul 06 01:09	0°00'00'	
	4211 Nov 15 18:43	0°00'00'		asc. node	4214 Jul 24 00:27	22°00'00'26	
	4211 Dec 11 00:29	0°00'00'		morning set	4214 Jul 26 18:10	25°00'21'51	
	4212 Jan 05 23:40	0°00'00'			4214 Jul 30 12:54	0°00'00'	
evening max el	4212 Jan 30 08:40	26°00'19'22	47°11'27		4214 Aug 23 22:47	0°00'00'	
	4212 Feb 03 00:33	0°00'00'		max. Earth dist.	4214 Aug 30 07:39	7°00'50'44	1.73352 AU
asc. node	4212 Feb 06 05:16	3°00'07'33					
greatest brilliancy	4212 Mar 10 22:03	27°00'46'55	-4.9m	superior conj	4214 Sep 01 07:09	10°00'17'05	1°16'05
retrograde	4212 Mar 21 04:32	29°00'46'55		minimum elong	4214 Aug 31 23:53	9°00'54'41	1°15'55
evening set	4212 Apr 08 01:43	23°00'34'39			4214 Sep 17 06:38	0°00'00'	
min. Earth dist.	4212 Apr 10 17:09	21°00'56'37	0.27630 AU	evening rise	4214 Oct 07 13:53	25°00'05'32	
inferior conj	4212 Apr 11 01:23	21°00'43'47	8°37'53		4214 Oct 11 13:07	0°00'00'	
minimum elong	4212 Apr 11 07:02	21°00'35'00	8°37'24		4214 Nov 04 19:12	0°00'00'	
morning rise	4212 Apr 14 12:32	19°00'36'15		desc. node	4214 Nov 12 14:58	9°00'00'40'31	
direct	4212 May 01 20:55	13°00'49'37			4214 Nov 29 01:28	0°00'00'	
greatest brilliancy	4212 May 11 04:56	15°00'27'39	-4.8m		4214 Dec 23 08:30	0°00'00'	
desc. node	4212 May 27 19:41	24°00'33'11			4215 Jan 16 18:00	0°00'00'	
	4212 Jun 03 21:18	0°00'00'			4215 Feb 10 10:30	0°00'00'	
morning max el	4212 Jun 20 06:37	14°00'46'41	46°02'36	asc. node	4215 Mar 05 17:05	27°00'33'02	
	4212 Jul 05 07:57	0°00'00'			4215 Mar 07 19:54	0°00'00'	
	4212 Aug 01 19:57	0°00'00'			4215 Apr 03 21:17	0°00'00'	
	4212 Aug 27 23:12	0°00'00'		evening max el	4215 Apr 12 02:05	8°00'23'58	46°26'33
asc. node	4212 Sep 17 22:06	24°00'44'50			4215 May 06 17:37	0°00'00'	
	4212 Sep 22 07:32	0°00'00'		greatest brilliancy	4215 May 21 01:23	8°00'04'45	-4.8m
	4212 Oct 17 02:19	0°00'00'		retrograde	4215 May 31 22:32	10°00'15'50	
	4212 Nov 10 11:20	0°00'00'		evening set	4215 Jun 16 02:06	5°00'47'41	
	4212 Dec 04 14:02	0°00'00'		inferior conj	4215 Jun 22 07:27	2°00'02'47	0°43'29
morning set	4212 Dec 15 05:00	13°00'00'17'12		minimum elong	4215 Jun 22 09:04	2°00'00'15	0°42'59
	4212 Dec 28 13:03	0°00'00'		min. Earth dist.	4215 Jun 22 02:11	2°00'11'03	0.28542 AU
desc. node	4213 Jan 07 12:36	12°00'33'1'59		desc. node	4215 Jun 25 07:34	0°00'00'10'42	
	4213 Jan 21 10:07	0°00'00'			4215 Jun 25 14:37	30°00'00'00'00'	
				morning rise	4215 Jun 28 16:23	28°00'13'21	
superior conj	4213 Jan 24 19:29	4°00'00'15'48	-0°40'10	direct	4215 Jul 13 15:45	23°00'15'33'5	
minimum elong	4213 Jan 24 09:51	3°00'00'45'31	0°39'44	greatest brilliancy	4215 Jul 23 16:27	25°00'14'52	-4.7m
max. Earth dist.	4213 Jan 24 08:01	3°00'00'39'46	1.71143 AU		4215 Aug 01 21:02	0°00'00'	
	4213 Feb 14 06:26	0°00'00'		morning max el	4215 Aug 31 07:09	23°00'29'00	45°42'23
evening rise	4213 Mar 06 21:05	25°00'00'53'56			4215 Sep 06 23:27	0°00'00'	
	4213 Mar 10 03:32	0°00'00'			4215 Oct 05 04:57	0°00'00'	
	4213 Apr 03 03:22	0°00'00'		asc. node	4215 Oct 16 10:06	12°00'00'41'13	
	4213 Apr 27 08:11	0°00'00'			4215 Oct 31 07:36	0°00'00'	
asc. node	4213 Apr 30 14:58	4°00'00'02'34			4215 Nov 25 08:48	0°00'00'	
	4213 May 21 20:17	0°00'00'			4215 Dec 19 19:41	0°00'00'	
	4213 Jun 15 18:27	0°00'00'			4216 Jan 12 22:49	0°00'00'	
	4213 Jul 11 07:49	0°00'00'		desc. node	4216 Feb 05 00:18	28°00'35'1'52	
	4213 Aug 07 00:06	0°00'00'			4216 Feb 05 22:02	0°00'00'	
desc. node	4213 Aug 20 05:12	14°00'00'03'35			4216 Feb 29 19:39	0°00'00'	
evening max el	4213 Sep 03 10:06	28°00'00'14'41	45°42'40	morning set	4216 Mar 01 13:05	0°00'00'54'47	
	4213 Sep 05 06:32	0°00'00'			4216 Mar 24 17:19	0°00'00'	
greatest brilliancy	4213 Oct 13 00:00	26°00'00'29'17	-4.8m				
retrograde	4213 Oct 22 04:06	28°00'00'00'50		superior conj	4216 Apr 11 06:25	21°00'58'15	-1°23'39
evening set	4213 Nov 07 17:31	22°00'00'50'14		minimum elong	4216 Apr 11 12:20	22°00'16'42	1°23'35
inferior conj	4213 Nov 12 04:13	20°00'00'09'36	-6°30'10	max. Earth dist.	4216 Apr 15 03:00	26°00'47'25	1.71828 AU
minimum elong	4213 Nov 12 14:30	19°00'00'53'42	6°28'01		4216 Apr 17 16:42	0°00'00'	
min. Earth dist.	4213 Nov 13 03:38	19°00'00'33'27	0.27748 AU		4216 May 11 19:15	0°00'00'	
morning rise	4213 Nov 17 10:56	16°00'00'59'16		evening rise	4216 May 20 19:15	11°00'00'08'46	
direct	4213 Dec 03 06:32	12°00'00'07'44		asc. node	4216 May 28 02:53	20°00'00'11'22	

	4216 Jun 05 01:51	0°☿			4219 Jan 01 14:02	0°♊	
	4216 Jun 29 12:55	0°♋			4219 Jan 26 10:51	0°♌	
	4216 Jul 24 05:08	0°♍			4219 Feb 19 20:32	0°♎	
	4216 Aug 18 04:27	0°♏		desc. node	4219 Mar 04 12:17	15°♏40'42	
	4216 Sep 12 14:31	0°♐			4219 Mar 16 01:06	0°♑	
desc. node	4216 Sep 16 17:04	4°♐46'40			4219 Apr 09 03:54	0°♒	
	4216 Oct 08 18:09	0°♓			4219 May 03 07:07	0°♈	
	4216 Nov 05 08:28	0°♉		morning set	4219 May 16 04:56	16°♈00'35	
evening max el	4216 Nov 15 04:07	9°♉56'55 46°40'37			4219 May 27 12:08	0°♊	
	4216 Dec 07 18:29	0°♋			4219 Jun 20 19:16	0°☿	
greatest brilliancy	4216 Dec 25 11:30	10°♋15'03 -4.9m					
retrograde	4217 Jan 04 08:03	12°♋05'29		superior conj	4219 Jun 23 02:40	2°☿50'46 -0°06'01	
asc. node	4217 Jan 07 19:27	11°♋50'36		minimum elong	4219 Jun 23 03:59	2°☿54'49 0°05'58	
evening set	4217 Jan 18 21:35	7°♋53'23		behind sun begin	4219 Jun 22 06:12	1°☿47'41	
inferior conj	4217 Jan 24 21:39	4°♋22'50 4°16'57		behind sun end	4219 Jun 24 01:46	4°☿01'56	
minimum elong	4217 Jan 24 12:45	4°♋36'23 4°14'24		max. Earth dist.	4219 Jun 24 21:08	5°☿01'38 1.73224 AU	
min. Earth dist.	4217 Jan 24 13:46	4°♋34'50 0.26596 AU		asc. node	4219 Jun 25 14:38	5°☿55'32	
morning rise	4217 Jan 30 03:55	1°♋16'17			4219 Jul 15 04:02	0°♋	
	4217 Feb 01 14:04	30°♋♊		evening rise	4219 Jul 29 20:23	18°♋02'50	
direct	4217 Feb 14 07:52	26°♊42'25			4219 Aug 08 13:59	0°♍	
greatest brilliancy	4217 Feb 24 03:01	28°♊31'46 -4.9m			4219 Sep 02 01:23	0°♏	
	4217 Feb 27 17:09	0°♋			4219 Sep 26 15:15	0°♐	
morning max el	4217 Apr 05 16:25	29°♋21'22 46°48'38		desc. node	4219 Oct 15 05:08	22°♐33'18	
	4217 Apr 06 07:50	0°♌			4219 Oct 21 08:51	0°♓	
desc. node	4217 Apr 29 10:01	24°♌31'22			4219 Nov 15 07:36	0°♉	
	4217 May 04 08:09	0°♍			4219 Dec 10 14:45	0°♋	
	4217 May 30 12:46	0°♈			4220 Jan 05 16:37	0°♌	
	4217 Jun 25 00:38	0°♊		evening max el	4220 Jan 27 23:34	23°♌57'54 47°11'43	
	4217 Jul 20 04:07	0°☿			4220 Feb 03 01:06	0°♍	
	4217 Aug 14 01:26	0°♋		asc. node	4220 Feb 05 07:19	2°♍10'20	
asc. node	4217 Aug 20 12:15	7°♋49'35		greatest brilliancy	4220 Mar 08 12:49	25°♍24'54 -4.9m	
	4217 Sep 07 16:43	0°♍		retrograde	4220 Mar 18 18:45	27°♍24'08	
	4217 Oct 02 02:13	0°♏		evening set	4220 Apr 05 17:38	21°♍09'45	
morning set	4217 Oct 02 22:24	1°♏02'21		inferior conj	4220 Apr 08 15:19	19°♍21'47 8°43'56	
	4217 Oct 26 07:08	0°♐		minimum elong	4220 Apr 08 20:10	19°♍14'12 8°43'36	
max. Earth dist.	4217 Nov 06 06:01	13°♐37'42 1.72227 AU		min. Earth dist.	4220 Apr 08 06:25	19°♍35'40 0.27591 AU	
				morning rise	4220 Apr 11 22:54	17°♍19'25	
superior conj	4217 Nov 09 00:57	17°♐06'12 1°05'34		direct	4220 Apr 29 10:40	11°♍28'31	
minimum elong	4217 Nov 09 10:48	17°♐36'52 1°05'15		greatest brilliancy	4220 May 08 17:31	13°♍05'31 -4.8m	
	4217 Nov 19 09:08	0°♓		desc. node	4220 May 26 21:44	23°♍19'29	
desc. node	4217 Dec 10 02:50	25°♓54'08			4220 Jun 04 05:54	0°♈	
	4217 Dec 13 09:29	0°♉		morning max el	4220 Jun 17 20:25	12°♈27'59 46°03'57	
evening rise	4217 Dec 18 06:11	6°♉05'00			4220 Jul 05 02:11	0°♊	
	4218 Jan 06 08:53	0°♋			4220 Aug 01 10:21	0°☿	
	4218 Jan 30 08:15	0°♌			4220 Aug 27 11:52	0°♋	
	4218 Feb 23 09:30	0°♍		asc. node	4220 Sep 17 00:15	24°♋15'47	
	4218 Mar 19 16:09	0°♈			4220 Sep 21 19:17	0°♍	
asc. node	4218 Apr 02 05:05	16°♈31'12			4220 Oct 16 13:35	0°♏	
	4218 Apr 13 09:15	0°♊			4220 Nov 09 22:23	0°♐	
	4218 May 08 20:40	0°☿			4220 Dec 04 01:00	0°♓	
	4218 Jun 04 19:08	0°♋		morning set	4220 Dec 12 18:09	10°♓53'51	
evening max el	4218 Jun 21 17:57	17°♋18'14 45°35'48			4220 Dec 28 00:01	0°♉	
	4218 Jul 05 18:17	0°♍		desc. node	4221 Jan 06 14:34	12°♉03'38	
desc. node	4218 Jul 22 19:25	12°♍03'27			4221 Jan 20 21:06	0°♋	
greatest brilliancy	4218 Jul 29 20:45	15°♍18'34 -4.7m		max. Earth dist.	4221 Jan 21 10:22	0°♋41'42 1.71158 AU	
retrograde	4218 Aug 09 13:31	17°♍21'50					
evening set	4218 Aug 26 10:48	11°♍56'36		superior conj	4221 Jan 22 05:54	1°♋43'09 -0°36'35	
inferior conj	4218 Aug 31 01:18	9°♍07'34 -7°34'43		minimum elong	4221 Jan 21 20:59	1°♋15'05 0°36'11	
minimum elong	4218 Aug 30 16:57	9°♍20'37 7°33'35			4221 Feb 13 17:28	0°♌	
min. Earth dist.	4218 Aug 30 23:43	9°♍10'03 0.29104 AU		evening rise	4221 Mar 04 07:15	23°♌20'31	
morning rise	4218 Sep 03 23:06	6°♍43'09			4221 Mar 09 14:36	0°♍	
direct	4218 Sep 21 16:31	0°♍49'14			4221 Apr 02 14:30	0°♈	
greatest brilliancy	4218 Oct 02 04:32	2°♍49'32 -4.8m			4221 Apr 26 19:29	0°♊	
	4218 Nov 08 07:26	0°♏		asc. node	4221 Apr 29 17:03	3°♊34'08	
morning max el	4218 Nov 10 04:54	1°♏51'00 46°09'49			4221 May 21 07:54	0°☿	
asc. node	4218 Nov 12 21:52	4°♏32'22			4221 Jun 15 06:43	0°♋	
	4218 Dec 06 17:00	0°♐			4221 Jul 10 21:18	0°♍	

	4221 Aug 06 16:17	0°♄			4224 Feb 05 09:00	0°♁
desc. node	4221 Aug 19 07:18	13°♄21'01	morning set		4224 Feb 27 23:11	28°♁21'36
evening max el	4221 Aug 31 23:15	25°♄56'43 45°41'22			4224 Feb 29 06:30	0°♁
	4221 Sep 05 06:53	0°♄			4224 Mar 24 04:07	0°♁
greatest brilliancy	4221 Oct 10 13:56	24°♄12'39 -4.8m				
retrograde	4221 Oct 19 17:22	25°♄44'03	superior conj	4224 Apr 08 18:36	19°♁32'39 -1°24'35	
evening set	4221 Nov 05 10:40	20°♄28'29	minimum elong	4224 Apr 08 23:40	19°♁48'29 1°24'33	
inferior conj	4221 Nov 09 18:34	17°♄52'00 -6°44'07	max. Earth dist.	4224 Apr 12 11:30	24°♁10'30 1.71783 AU	
minimum elong	4221 Nov 10 04:45	17°♄36'16 6°42'07		4224 Apr 17 03:27	0°♁	
min. Earth dist.	4221 Nov 10 18:24	17°♄15'11 0.27818 AU		4224 May 11 05:59	0°♁	
morning rise	4221 Nov 14 22:14	14°♄45'46	evening rise	4224 May 18 09:30	8°♁51'12	
direct	4221 Nov 30 20:55	9°♄48'54	asc. node	4224 May 27 04:49	19°♁44'06	
asc. node	4221 Dec 10 09:33	11°♄31'13		4224 Jun 04 12:38	0°♁	
greatest brilliancy	4221 Dec 12 02:26	12°♄09'11 -4.9m		4224 Jun 28 23:52	0°♁	
	4222 Jan 07 01:05	0°♁		4224 Jul 23 16:26	0°♁	
morning max el	4222 Jan 20 10:37	12°♁51'48 46°52'07		4224 Aug 17 16:23	0°♁	
	4222 Feb 05 14:01	0°♁		4224 Sep 12 03:35	0°♄	
	4222 Mar 03 20:59	0°♁	desc. node	4224 Sep 15 19:11	4°♄14'10	
	4222 Mar 29 02:13	0°♁		4224 Oct 08 09:22	0°♁	
desc. node	4222 Apr 01 00:14	3°♁30'52		4224 Nov 05 04:41	0°♁	
	4222 Apr 22 20:41	0°♁	evening max el	4224 Nov 12 18:32	7°♁37'16 46°38'44	
	4222 May 17 10:46	0°♁		4224 Dec 08 15:18	0°♁	
	4222 Jun 10 23:35	0°♁	greatest brilliancy	4224 Dec 22 23:50	7°♁47'46 -4.9m	
	4222 Jul 05 12:01	0°♁	retrograde	4225 Jan 01 21:07	9°♁38'28	
asc. node	4222 Jul 23 02:27	21°♁33'37	asc. node	4225 Jan 06 21:28	9°♁07'24	
morning set	4222 Jul 24 11:37	23°♁15'17	evening set	4225 Jan 16 08:18	5°♁28'53	
	4222 Jul 29 23:35	0°♁	inferior conj	4225 Jan 22 10:04	1°♁56'00 3°55'05	
	4222 Aug 23 09:25	0°♁	minimum elong	4225 Jan 22 01:45	2°♁08'39 3°52'38	
max. Earth dist.	4222 Aug 28 02:45	5°♁48'59 1.73374 AU	min. Earth dist.	4225 Jan 22 02:52	2°♁06'57 0.26588 AU	
				4225 Jan 25 15:12	30°♁	
superior conj	4222 Aug 30 01:19	8°♁12'25 1°14'35	morning rise	4225 Jan 27 19:16	28°♁45'48	
minimum elong	4222 Aug 29 17:40	7°♁48'53 1°14'25	direct	4225 Feb 11 21:03	24°♁15'42	
	4222 Sep 16 17:17	0°♁	greatest brilliancy	4225 Feb 21 16:18	26°♁05'42 -4.9m	
evening rise	4222 Oct 05 06:54	22°♁56'39		4225 Mar 01 21:48	0°♁	
	4222 Oct 10 23:53	0°♄	morning max el	4225 Apr 03 06:42	27°♁00'23 46°49'38	
	4222 Nov 04 06:09	0°♁		4225 Apr 06 05:50	0°♁	
desc. node	4222 Nov 11 16:59	9°♁12'37	desc. node	4225 Apr 28 12:03	23°♁50'58	
	4222 Nov 28 12:43	0°♁		4225 May 04 00:01	0°♁	
	4222 Dec 22 20:11	0°♁		4225 May 30 02:16	0°♁	
	4223 Jan 16 06:15	0°♁		4225 Jun 24 12:54	0°♁	
	4223 Feb 09 23:42	0°♁		4225 Jul 19 15:38	0°♁	
asc. node	4223 Mar 04 19:11	26°♁56'24		4225 Aug 13 12:29	0°♁	
	4223 Mar 07 10:52	0°♁	asc. node	4225 Aug 19 14:25	7°♁22'54	
	4223 Apr 03 16:44	0°♁		4225 Sep 07 03:28	0°♁	
evening max el	4223 Apr 09 16:17	6°♁05'27 46°28'44	morning set	4225 Sep 30 15:14	28°♁53'22	
	4223 May 07 15:04	0°♁		4225 Oct 01 12:50	0°♁	
greatest brilliancy	4223 May 18 17:46	5°♁52'40 -4.8m		4225 Oct 25 17:45	0°♄	
retrograde	4223 May 29 14:38	8°♁04'01	max. Earth dist.	4225 Nov 03 20:04	11°♄18'52 1.72272 AU	
evening set	4223 Jun 13 19:05	3°♁33'54				
inferior conj	4223 Jun 19 23:14	29°♁51'03 1°04'02	superior conj	4225 Nov 06 16:02	14°♄50'30 1°07'44	
minimum elong	4223 Jun 20 01:36	29°♁47'20 1°03'20	minimum elong	4225 Nov 07 01:39	15°♄20'25 1°07'28	
	4223 Jun 19 17:31	30°♁		4225 Nov 18 19:50	0°♁	
min. Earth dist.	4223 Jun 19 18:25	29°♁58'36 0.28514 AU	desc. node	4225 Dec 09 04:47	25°♁26'28	
desc. node	4223 Jun 24 09:29	27°♁08'04		4225 Dec 12 20:18	0°♁	
morning rise	4223 Jun 26 08:27	26°♁01'26	evening rise	4225 Dec 15 18:37	3°♁39'52	
direct	4223 Jul 11 06:41	21°♁42'00		4226 Jan 05 19:50	0°♁	
greatest brilliancy	4223 Jul 21 08:10	23°♁31'06 -4.7m		4226 Jan 29 19:20	0°♁	
	4223 Aug 03 01:53	0°♁		4226 Feb 22 20:49	0°♁	
morning max el	4223 Aug 28 22:59	21°♁19'01 45°42'20		4226 Mar 19 03:51	0°♁	
	4223 Sep 06 19:10	0°♁	asc. node	4226 Apr 01 07:07	16°♁00'55	
	4223 Oct 04 19:40	0°♁		4226 Apr 12 21:41	0°♁	
asc. node	4223 Oct 15 12:05	12°♁07'36		4226 May 08 10:31	0°♁	
	4223 Oct 30 20:24	0°♁		4226 Jun 04 12:26	0°♁	
	4223 Nov 24 20:40	0°♄	evening max el	4226 Jun 19 10:28	15°♄09'21 45°36'39	
	4223 Dec 19 07:04	0°♁		4226 Jul 06 01:36	0°♁	
	4224 Jan 12 09:55	0°♁	desc. node	4226 Jul 21 21:33	10°♁39'59	
desc. node	4224 Feb 04 02:26	28°♁24'10	greatest brilliancy	4226 Jul 27 12:00	13°♁09'10 -4.7m	

retrograde	4226 Aug 07 05:33	15° \mathbb{M} 12'54		max. Earth dist.	4229 Jan 18 14:07	27° \mathbb{Z} 48'22	1.71176 AU
evening set	4226 Aug 23 23:53	9° \mathbb{M} 52'27					
inferior conj	4226 Aug 28 17:31	6° \mathbb{M} 58'28	-7°24'58	superior conj	4229 Jan 19 16:15	29° \mathbb{Z} 10'29	-0°32'56
minimum elong	4226 Aug 28 08:47	7° \mathbb{M} 12'08	7°23'42	minimum elong	4229 Jan 19 08:05	28° \mathbb{Z} 44'49	0°32'33
min. Earth dist.	4226 Aug 28 14:56	7° \mathbb{M} 02'31	0.29107 AU		4229 Jan 20 08:00	0° \approx	
morning rise	4226 Sep 01 17:43	4° \mathbb{M} 30'17			4229 Feb 13 04:25	0° \mathbb{H}	
	4226 Sep 11 04:46	30° \mathbb{R} 0		evening rise	4229 Mar 01 17:27	20° \mathbb{H} 47'21	
direct	4226 Sep 19 09:15	28° \mathbb{Q} 40'27			4229 Mar 09 01:36	0° \mathbb{Y}	
	4226 Sep 27 20:35	0° \mathbb{M}			4229 Apr 02 01:35	0° \mathbb{B}	
greatest brilliancy	4226 Sep 29 19:25	0° \mathbb{M} 38'57	-4.7m		4229 Apr 26 06:41	0° \mathbb{I}	
morning max el	4226 Nov 07 19:38	29° \mathbb{M} 36'01	46°08'10	asc. node	4229 Apr 28 18:59	3° \mathbb{I} 05'30	
	4226 Nov 08 05:23	0° \mathbb{L}			4229 May 20 19:25	0° \mathbb{G}	
asc. node	4226 Nov 11 23:51	3° \mathbb{L} 45'53			4229 Jun 14 18:52	0° \mathbb{Q}	
	4226 Dec 06 08:34	0° \mathbb{M}			4229 Jul 10 10:46	0° \mathbb{M}	
	4227 Jan 01 03:26	0° \mathbb{J}			4229 Aug 06 08:39	0° \mathbb{L}	
	4227 Jan 25 23:13	0° \mathbb{Z}		desc. node	4229 Aug 18 09:21	12° \mathbb{L} 37'54	
	4227 Feb 19 08:16	0° \approx		evening max el	4229 Aug 29 12:26	23° \mathbb{L} 39'04	45°39'59
desc. node	4227 Mar 03 14:20	15° \approx 11'21			4229 Sep 05 08:31	0° \mathbb{M}	
	4227 Mar 15 12:25	0° \mathbb{H}		greatest brilliancy	4229 Oct 08 03:16	21° \mathbb{M} 55'17	-4.8m
	4227 Apr 08 14:54	0° \mathbb{Y}		retrograde	4229 Oct 17 07:02	23° \mathbb{M} 27'14	
	4227 May 02 17:54	0° \mathbb{B}		evening set	4229 Nov 03 03:43	18° \mathbb{M} 06'26	
morning set	4227 May 13 20:05	13° \mathbb{B} 45'43		inferior conj	4229 Nov 07 08:52	15° \mathbb{M} 34'03	-6°57'18
	4227 May 26 22:45	0° \mathbb{I}		minimum elong	4229 Nov 07 18:52	15° \mathbb{M} 18'38	6°55'27
	4227 Jun 20 05:48	0° \mathbb{G}		min. Earth dist.	4229 Nov 08 08:53	14° \mathbb{M} 57'02	0.27891 AU
				morning rise	4229 Nov 12 09:26	12° \mathbb{M} 32'20	
superior conj	4227 Jun 20 19:23	0° \mathbb{G} 41'52	-0°09'19	direct	4229 Nov 28 11:35	7° \mathbb{M} 29'39	
minimum elong	4227 Jun 20 21:25	0° \mathbb{G} 48'10	0°09'14	asc. node	4229 Dec 09 11:35	9° \mathbb{M} 44'29	
behind sun begin	4227 Jun 20 02:13	29° \mathbb{I} 48'56		greatest brilliancy	4229 Dec 09 18:18	9° \mathbb{M} 51'06	-4.9m
behind sun end	4227 Jun 21 16:38	1° \mathbb{G} 47'23			4230 Jan 07 05:36	0° \mathbb{J}	
max. Earth dist.	4227 Jun 22 18:45	3° \mathbb{G} 07'51	1.73194 AU	morning max el	4230 Jan 18 01:06	10° \mathbb{J} 30'16	46°51'12
asc. node	4227 Jun 24 16:40	5° \mathbb{G} 29'20			4230 Feb 05 07:46	0° \mathbb{Z}	
	4227 Jul 14 14:34	0° \mathbb{Q}			4230 Mar 03 11:34	0° \approx	
evening rise	4227 Jul 27 14:47	15° \mathbb{Q} 59'21			4230 Mar 28 15:19	0° \mathbb{H}	
	4227 Aug 08 00:38	0° \mathbb{M}		desc. node	4230 Mar 31 02:10	2° \mathbb{H} 57'34	
	4227 Sep 01 12:16	0° \mathbb{L}			4230 Apr 22 08:54	0° \mathbb{Y}	
	4227 Sep 26 02:32	0° \mathbb{M}			4230 May 16 22:24	0° \mathbb{B}	
desc. node	4227 Oct 14 07:04	22° \mathbb{M} 03'45			4230 Jun 10 10:46	0° \mathbb{I}	
	4227 Oct 20 20:45	0° \mathbb{J}			4230 Jul 04 22:54	0° \mathbb{G}	
	4227 Nov 14 20:23	0° \mathbb{Z}		morning set	4230 Jul 22 05:27	21° \mathbb{G} 09'51	
	4227 Dec 10 05:01	0° \approx		asc. node	4230 Jul 22 04:35	21° \mathbb{G} 07'12	
	4228 Jan 05 09:45	0° \mathbb{H}			4230 Jul 29 10:18	0° \mathbb{Q}	
evening max el	4228 Jan 25 13:32	21° \mathbb{H} 34'30	47°11'56		4230 Aug 22 20:04	0° \mathbb{M}	
	4228 Feb 03 02:41	0° \mathbb{Y}		max. Earth dist.	4230 Aug 26 00:35	3° \mathbb{M} 55'38	1.73397 AU
asc. node	4228 Feb 04 09:28	1° \mathbb{Y} 12'37					
greatest brilliancy	4228 Mar 06 04:09	23° \mathbb{Y} 04'03	-4.9m	superior conj	4230 Aug 27 19:46	6° \mathbb{M} 08'39	1°13'01
retrograde	4228 Mar 16 08:37	25° \mathbb{Y} 02'05		minimum elong	4230 Aug 27 11:48	5° \mathbb{M} 44'07	1°12'49
evening set	4228 Apr 03 09:18	18° \mathbb{Y} 46'09			4230 Sep 16 04:00	0° \mathbb{L}	
inferior conj	4228 Apr 06 05:19	17° \mathbb{Y} 00'40	8°49'11	evening rise	4230 Oct 03 00:13	20° \mathbb{L} 48'28	
minimum elong	4228 Apr 06 09:20	16° \mathbb{Y} 54'24	8°48'57		4230 Oct 10 10:45	0° \mathbb{M}	
min. Earth dist.	4228 Apr 05 20:02	17° \mathbb{Y} 15'10	0.27547 AU		4230 Nov 03 17:17	0° \mathbb{J}	
morning rise	4228 Apr 09 09:32	15° \mathbb{Y} 03'12		desc. node	4230 Nov 10 18:57	8° \mathbb{J} 43'59	
direct	4228 Apr 26 23:55	9° \mathbb{Y} 08'15			4230 Nov 28 00:13	0° \mathbb{Z}	
greatest brilliancy	4228 May 06 06:37	10° \mathbb{Y} 44'47	-4.8m		4230 Dec 22 08:07	0° \approx	
desc. node	4228 May 25 23:40	22° \mathbb{Y} 08'41			4231 Jan 15 18:48	0° \mathbb{H}	
	4228 Jun 04 11:39	0° \mathbb{B}			4231 Feb 09 13:12	0° \mathbb{Y}	
morning max el	4228 Jun 15 09:27	10° \mathbb{B} 08'08	46°05'24	asc. node	4231 Mar 03 21:10	26° \mathbb{Y} 18'34	
	4228 Jul 04 19:39	0° \mathbb{I}			4231 Mar 07 02:15	0° \mathbb{B}	
	4228 Aug 01 00:20	0° \mathbb{G}			4231 Apr 03 13:01	0° \mathbb{I}	
	4228 Aug 27 00:16	0° \mathbb{Q}		evening max el	4231 Apr 07 07:14	3° \mathbb{I} 48'16	46°30'59
asc. node	4228 Sep 16 02:12	23° \mathbb{Q} 46'34			4231 May 08 21:11	0° \mathbb{G}	
	4228 Sep 21 06:54	0° \mathbb{M}		greatest brilliancy	4231 May 16 09:54	3° \mathbb{G} 39'46	-4.8m
	4228 Oct 16 00:47	0° \mathbb{L}		retrograde	4231 May 27 07:12	5° \mathbb{G} 51'41	
	4228 Nov 09 09:22	0° \mathbb{M}		evening set	4231 Jun 11 12:17	1° \mathbb{G} 19'28	
	4228 Dec 03 11:53	0° \mathbb{J}			4231 Jun 13 19:21	30° \mathbb{R} II	
morning set	4228 Dec 10 07:12	8° \mathbb{J} 30'26		inferior conj	4231 Jun 17 15:01	27° \mathbb{I} 38'45	1°24'38
	4228 Dec 27 10:53	0° \mathbb{Z}		minimum elong	4231 Jun 17 18:08	27° \mathbb{I} 33'52	1°23'41
desc. node	4229 Jan 05 16:38	11° \mathbb{Z} 35'55		min. Earth dist.	4231 Jun 17 10:20	27° \mathbb{I} 46'04	0.28482 AU

desc. node	4231 Jun 23 11:38	24°II06'56			4233 Dec 12 07:26	0°Z	
morning rise	4231 Jun 24 00:22	23°II49'23		evening rise	4233 Dec 13 07:29	1°Z15'10	
direct	4231 Jul 08 22:09	19°II30'02			4234 Jan 05 07:09	0°≈	
greatest brilliancy	4231 Jul 18 23:21	21°II19'25	-4.7m		4234 Jan 29 06:52	0°X	
	4231 Aug 03 22:57	0°G			4234 Feb 22 08:38	0°Y	
morning max el	4231 Aug 26 15:26	19°G10'22	45°42'23		4234 Mar 18 16:07	0°X	
	4231 Sep 06 14:23	0°Q		asc. node	4234 Mar 31 09:04	15°X28'45	
	4231 Oct 04 10:18	0°P			4234 Apr 12 10:41	0°II	
asc. node	4231 Oct 14 14:06	11°P33'53			4234 May 08 01:01	0°G	
	4231 Oct 30 09:15	0°L			4234 Jun 04 06:37	0°Q	
	4231 Nov 24 08:42	0°M		evening max el	4234 Jun 17 02:07	12°Q57'04	45°37'41
	4231 Dec 18 18:42	0°X			4234 Jul 06 12:17	0°P	
	4232 Jan 11 21:21	0°Z		desc. node	4234 Jul 20 23:36	9°P12'35	
desc. node	4232 Feb 03 04:31	27°Z55'12		greatest brilliancy	4234 Jul 25 04:00	10°P59'39	-4.7m
	4232 Feb 04 20:18	0°≈		retrograde	4234 Aug 04 21:24	13°P03'21	
morning set	4232 Feb 25 08:56	25°≈46'21		evening set	4234 Aug 21 13:10	7°P47'34	
	4232 Feb 28 17:42	0°X		inferior conj	4234 Aug 26 09:53	4°P48'53	-7°14'44
	4232 Mar 23 15:12	0°Y		minimum elong	4234 Aug 26 00:51	5°P03'05	7°13'18
				min. Earth dist.	4234 Aug 26 06:43	4°P53'52	0.29105 AU
superior conj	4232 Apr 06 06:25	17°Y04'53	-1°25'23	morning rise	4234 Aug 30 12:31	2°P16'49	
minimum elong	4232 Apr 06 10:34	17°Y17'53	1°25'21		4234 Sep 03 15:48	30°RQ	
max. Earth dist.	4232 Apr 09 22:25	21°Y40'08	1.71735 AU	direct	4234 Sep 17 01:29	26°Q31'07	
	4232 Apr 16 14:28	0°X		greatest brilliancy	4234 Sep 27 10:54	28°Q28'21	-4.7m
	4232 May 10 17:00	0°II			4234 Oct 01 03:39	0°P	
evening rise	4232 May 15 23:37	6°II32'17		morning max el	4234 Nov 05 09:49	27°P19'02	46°06'45
asc. node	4232 May 26 06:54	19°II16'29			4234 Nov 08 02:48	0°L	
	4232 Jun 03 23:43	0°G		asc. node	4234 Nov 11 01:52	2°L59'31	
	4232 Jun 28 11:06	0°Q			4234 Dec 06 00:09	0°M	
	4232 Jul 23 04:01	0°P			4234 Dec 31 16:58	0°X	
	4232 Aug 17 04:35	0°L			4235 Jan 25 11:46	0°Z	
	4232 Sep 11 16:58	0°M			4235 Feb 18 20:17	0°≈	
desc. node	4232 Sep 14 21:08	3°M40'32		desc. node	4235 Mar 02 16:16	14°≈40'33	
	4232 Oct 08 01:03	0°X			4235 Mar 15 00:05	0°X	
	4232 Nov 05 01:54	0°Z			4235 Apr 08 02:20	0°Y	
evening max el	4232 Nov 10 09:06	5°Z17'18	46°36'29		4235 May 02 05:09	0°X	
	4232 Dec 09 20:40	0°≈		morning set	4235 May 11 10:35	11°X27'17	
greatest brilliancy	4232 Dec 20 12:15	5°≈19'16	-4.9m		4235 May 26 09:50	0°II	
retrograde	4232 Dec 30 09:47	7°≈09'28					
asc. node	4233 Jan 05 23:37	6°≈16'08		superior conj	4235 Jun 18 11:37	28°II30'14	-0°12'41
evening set	4233 Jan 13 19:07	3°≈02'23		minimum elong	4235 Jun 18 14:23	28°II38'47	0°12'32
	4233 Jan 19 00:47	30°RZ		behind sun begin	4235 Jun 17 23:48	27°II53'46	
inferior conj	4233 Jan 19 22:17	29°Z27'17	3°32'32	behind sun end	4235 Jun 19 04:59	29°II23'47	
minimum elong	4233 Jan 19 14:38	29°Z38'55	3°30'14		4235 Jun 19 16:44	0°G	
min. Earth dist.	4233 Jan 19 16:01	29°Z36'49	0.26587 AU	max. Earth dist.	4235 Jun 20 14:26	1°G06'52	1.73155 AU
morning rise	4233 Jan 25 10:16	26°Z13'20		asc. node	4235 Jun 23 18:45	5°G02'03	
direct	4233 Feb 09 10:06	21°Z47'06			4235 Jul 14 01:29	0°Q	
greatest brilliancy	4233 Feb 19 05:36	23°Z37'30	-4.9m	evening rise	4235 Jul 25 08:55	13°Q53'56	
	4233 Mar 03 09:28	0°≈			4235 Aug 07 11:39	0°P	
morning max el	4233 Mar 31 20:09	24°≈35'27	46°50'40		4235 Aug 31 23:31	0°L	
	4233 Apr 06 03:39	0°X			4235 Sep 25 14:11	0°M	
desc. node	4233 Apr 27 14:03	23°X09'25		desc. node	4235 Oct 13 09:06	21°M33'34	
	4233 May 03 16:08	0°Y			4235 Oct 20 08:58	0°X	
	4233 May 29 16:05	0°X			4235 Nov 14 09:30	0°Z	
	4233 Jun 24 01:29	0°II			4235 Dec 09 19:37	0°≈	
	4233 Jul 19 03:28	0°G			4236 Jan 05 03:26	0°X	
	4233 Aug 12 23:50	0°Q		evening max el	4236 Jan 23 02:25	19°X07'41	47°11'54
asc. node	4233 Aug 18 16:21	6°Q54'32		asc. node	4236 Feb 03 11:21	0°Y12'13	
	4233 Sep 06 14:31	0°P			4236 Feb 03 06:04	0°Y	
morning set	4233 Sep 28 08:33	26°P45'00		greatest brilliancy	4236 Mar 03 19:10	20°Y41'28	-4.9m
	4233 Sep 30 23:44	0°L		retrograde	4236 Mar 13 22:09	22°Y38'37	
	4233 Oct 25 04:38	0°M		evening set	4236 Apr 01 00:20	16°Y21'30	
max. Earth dist.	4233 Nov 01 10:05	8°M59'12	1.72318 AU	inferior conj	4236 Apr 03 19:09	14°Y37'56	8°53'24
				minimum elong	4236 Apr 03 22:18	14°Y33'00	8°53'15
superior conj	4233 Nov 04 07:47	12°M36'05	1°09'46	min. Earth dist.	4236 Apr 03 09:39	14°Y52'46	0.27512 AU
minimum elong	4233 Nov 04 17:07	13°M05'08	1°09'31	morning rise	4236 Apr 06 20:25	12°Y44'53	
	4233 Nov 18 06:49	0°X		direct	4236 Apr 24 12:41	6°Y45'57	
desc. node	4233 Dec 08 06:55	24°X58'28		greatest brilliancy	4236 May 03 20:05	8°Y22'46	-4.8m

desc. node	4236 May 25 01:48	20° Υ 58'40			4239 Jan 15 07:21	0° H		
	4236 Jun 04 16:07	0° B			4239 Feb 09 02:42	0° Υ		
morning max el	4236 Jun 12 22:38	7° B 46'58	46°06'57	asc. node	4239 Mar 02 23:11	25° Υ 40'56		
	4236 Jul 04 13:14	0° II			4239 Mar 06 17:42	0° B		
	4236 Jul 31 14:34	0° G			4239 Apr 03 09:44	0° II		
	4236 Aug 26 12:56	0° Ω		evening max el	4239 Apr 04 23:00	1° II 33'41	46°33'13	
asc. node	4236 Sep 15 04:11	23° Ω 16'40			4239 May 10 17:05	0° G		
	4236 Sep 20 18:44	0° M		greatest brilliancy	4239 May 14 01:52	1° G 27'17	-4.8m	
	4236 Oct 15 12:10	0° L		retrograde	4239 May 24 23:53	3° G 39'35		
	4236 Nov 08 20:32	0° M			4239 Jun 07 12:52	30° R II		
	4236 Dec 02 22:58	0° A		evening set	4239 Jun 09 05:39	29° II 05'20		
morning set	4236 Dec 07 20:44	6° A 08'02		inferior conj	4239 Jun 15 06:47	25° II 26'38	1°45'09	
	4236 Dec 26 21:55	0° B		minimum elong	4239 Jun 15 10:38	25° II 20'37	1°43'59	
desc. node	4237 Jan 04 18:42	11° B 07'43		min. Earth dist.	4239 Jun 15 01:59	25° II 34'09	0.28455 AU	
max. Earth dist.	4237 Jan 15 21:54	25° B 07'17	1.71194 AU	morning rise	4239 Jun 21 16:06	21° II 37'44		
				desc. node	4239 Jun 22 13:37	21° II 09'04		
superior conj	4237 Jan 17 03:08	26° B 39'08	-0°29'15	direct	4239 Jul 06 14:04	17° II 18'26		
minimum elong	4237 Jan 16 19:46	26° B 16'01	0°28'54	greatest brilliancy	4239 Jul 16 13:59	19° II 07'17	-4.7m	
	4237 Jan 19 19:02	0° \approx			4239 Aug 04 14:29	0° G		
	4237 Feb 12 15:29	0° H		morning max el	4239 Aug 24 07:56	17° G 01'57	45°42'16	
evening rise	4237 Feb 27 04:11	18° H 15'34			4239 Sep 06 09:04	0° Ω		
	4237 Mar 08 12:44	0° Υ			4239 Oct 04 00:43	0° M		
	4237 Apr 01 12:48	0° B		asc. node	4239 Oct 13 16:11	11° M 00'41		
	4237 Apr 25 18:06	0° II			4239 Oct 29 21:58	0° L		
asc. node	4237 Apr 27 21:04	2° II 36'44			4239 Nov 23 20:35	0° M		
	4237 May 20 07:13	0° G			4239 Dec 18 06:09	0° A		
	4237 Jun 14 07:23	0° Ω			4240 Jan 11 08:35	0° B		
	4237 Jul 10 00:40	0° M		desc. node	4240 Feb 02 06:24	27° B 26'14		
	4237 Aug 06 01:39	0° L			4240 Feb 04 07:24	0° \approx		
desc. node	4237 Aug 17 11:18	11° L 53'12		morning set	4240 Feb 22 18:47	23° \approx 12'01		
evening max el	4237 Aug 27 02:19	21° L 22'37	45°38'53		4240 Feb 28 04:41	0° H		
	4237 Sep 05 11:56	0° M			4240 Mar 23 02:05	0° Υ		
greatest brilliancy	4237 Oct 05 16:02	19° M 37'09	-4.8m					
retrograde	4237 Oct 14 21:18	21° M 10'15		superior conj	4240 Apr 03 18:18	14° Υ 37'54	-1°26'01	
evening set	4237 Oct 31 20:49	15° M 44'13		minimum elong	4240 Apr 03 21:29	14° Υ 47'52	1°25'59	
inferior conj	4237 Nov 04 23:12	13° M 15'51	-7°09'52	max. Earth dist.	4240 Apr 07 10:52	19° Υ 15'03	1.71685 AU	
minimum elong	4237 Nov 05 08:57	13° M 00'49	7°08'09		4240 Apr 16 01:16	0° B		
min. Earth dist.	4237 Nov 05 22:56	12° M 39'16	0.27962 AU		4240 May 10 03:46	0° II		
morning rise	4237 Nov 09 20:33	10° M 18'53		evening rise	4240 May 13 13:47	4° II 14'10		
direct	4237 Nov 26 02:41	5° M 10'20		asc. node	4240 May 25 08:58	18° II 49'35		
greatest brilliancy	4237 Dec 07 09:32	7° M 32'14	-4.9m		4240 Jun 03 10:33	0° G		
asc. node	4237 Dec 08 13:43	8° M 01'32			4240 Jun 27 22:07	0° Ω		
	4238 Jan 07 08:29	0° A			4240 Jul 22 15:24	0° M		
morning max el	4238 Jan 15 16:40	8° A 11'28	46°50'20		4240 Aug 16 16:40	0° L		
	4238 Feb 05 01:09	0° B			4240 Sep 11 06:19	0° M		
	4238 Mar 03 01:58	0° \approx		desc. node	4240 Sep 13 23:09	3° M 07'16		
	4238 Mar 28 04:17	0° H			4240 Oct 07 16:50	0° A		
desc. node	4238 Mar 30 04:13	2° H 24'51			4240 Nov 04 23:44	0° B		
	4238 Apr 21 21:02	0° Υ		evening max el	4240 Nov 07 23:21	2° B 57'11	46°34'19	
	4238 May 16 09:59	0° B			4240 Dec 11 14:24	0° \approx		
	4238 Jun 09 21:59	0° II		greatest brilliancy	4240 Dec 18 01:21	2° \approx 52'29	-4.9m	
	4238 Jul 04 09:52	0° G		retrograde	4240 Dec 27 22:02	4° \approx 41'19		
morning set	4238 Jul 19 22:54	19° G 02'54		asc. node	4241 Jan 05 01:30	3° \approx 20'02		
asc. node	4238 Jul 21 06:32	20° G 39'52		evening set	4241 Jan 11 06:14	0° \approx 36'34		
	4238 Jul 28 21:06	0° Ω			4241 Jan 12 09:01	30° R B		
	4238 Aug 22 06:48	0° M		inferior conj	4241 Jan 17 10:33	26° B 59'41	3°09'34	
max. Earth dist.	4238 Aug 23 22:43	2° M 02'53	1.73416 AU	minimum elong	4241 Jan 17 03:38	27° B 10'15	3°07'27	
				min. Earth dist.	4241 Jan 17 05:35	27° B 07'17	0.26585 AU	
superior conj	4238 Aug 25 13:46	4° M 03'09	1°11'19	morning rise	4241 Jan 23 01:06	23° B 41'59		
minimum elong	4238 Aug 25 05:30	3° M 37'42	1°11'06	direct	4241 Feb 06 22:44	19° B 19'33		
	4238 Sep 15 14:46	0° L		greatest brilliancy	4241 Feb 16 19:20	21° B 10'39	-4.9m	
evening rise	4238 Sep 30 17:15	18° L 39'16			4241 Mar 04 10:23	0° \approx		
	4238 Oct 09 21:39	0° M		morning max el	4241 Mar 29 08:44	22° \approx 09'10	46°51'38	
	4238 Nov 03 04:26	0° A			4241 Apr 06 00:20	0° H		
desc. node	4238 Nov 09 21:03	8° A 15'48		desc. node	4241 Apr 26 16:08	22° H 29'28		
	4238 Nov 27 11:43	0° B			4241 May 03 07:39	0° Υ		
	4238 Dec 21 20:04	0° \approx			4241 May 29 05:25	0° B		

	4241 Jun 23 13:38	0°♄			4243 Dec 09 10:11	0°♁	
	4241 Jul 18 14:54	0°♁			4244 Jan 04 21:20	0°♄	
	4241 Aug 12 10:48	0°♂		evening max el	4244 Jan 20 15:13	16°♄41'14	47°11'59
asc. node	4241 Aug 17 18:21	6°♂27'26		asc. node	4244 Feb 02 13:24	29°♄11'19	
	4241 Sep 06 01:14	0°♄			4244 Feb 03 10:58	0°♄	
morning set	4241 Sep 26 01:40	24°♄36'53		greatest brilliancy	4244 Mar 01 09:47	18°♄18'50	-4.9m
	4241 Sep 30 10:22	0°♁		retrograde	4244 Mar 11 11:57	20°♄15'47	
	4241 Oct 24 15:18	0°♄		evening set	4244 Mar 29 14:49	13°♄57'52	
max. Earth dist.	4241 Oct 29 22:58	6°♄36'51	1.72367 AU	inferior conj	4244 Apr 01 08:52	12°♄15'43	8°56'39
				minimum elong	4244 Apr 01 11:08	12°♄12'10	8°56'34
superior conj	4241 Nov 01 23:22	10°♄22'00	1°11'42	min. Earth dist.	4244 Mar 31 22:58	12°♄31'08	0.27473 AU
minimum elong	4241 Nov 02 08:21	10°♄49'58	1°11'27	morning rise	4244 Apr 04 07:35	10°♄26'39	
	4241 Nov 17 17:34	0°♄		direct	4244 Apr 22 01:20	4°♄24'07	
desc. node	4241 Dec 07 08:55	24°♄30'51		greatest brilliancy	4244 May 01 09:18	6°♄01'24	-4.8m
evening rise	4241 Dec 10 20:07	28°♄50'42		desc. node	4244 May 24 03:50	19°♄51'26	
	4241 Dec 11 18:18	0°♁			4244 Jun 04 18:25	0°♄	
	4242 Jan 04 18:10	0°♁		morning max el	4244 Jun 10 12:36	5°♄28'45	46°08'33
	4242 Jan 28 18:05	0°♄			4244 Jul 04 06:00	0°♄	
	4242 Feb 21 20:09	0°♄			4244 Jul 31 04:14	0°♁	
	4242 Mar 18 04:03	0°♄			4244 Aug 26 01:09	0°♂	
asc. node	4242 Mar 30 11:09	14°♄58'00		asc. node	4244 Sep 14 06:18	22°♂48'22	
	4242 Apr 11 23:24	0°♄			4244 Sep 20 06:09	0°♄	
	4242 May 07 15:17	0°♁			4244 Oct 14 23:11	0°♁	
	4242 Jun 04 00:47	0°♂			4244 Nov 08 07:21	0°♄	
evening max el	4242 Jun 14 17:05	10°♂44'18	45°38'52		4244 Dec 02 09:43	0°♄	
	4242 Jul 07 01:51	0°♄		morning set	4244 Dec 05 10:25	3°♄47'08	
desc. node	4242 Jul 20 01:31	7°♄43'28			4244 Dec 26 08:42	0°♁	
greatest brilliancy	4242 Jul 22 19:59	8°♄51'24	-4.7m	desc. node	4245 Jan 03 20:39	10°♁39'53	
retrograde	4242 Aug 02 13:11	10°♄55'28		max. Earth dist.	4245 Jan 13 07:17	22°♁31'48	1.71218 AU
evening set	4242 Aug 19 02:31	5°♄43'57					
inferior conj	4242 Aug 24 02:20	2°♄40'52	-7°03'46	superior conj	4245 Jan 14 13:43	24°♁07'29	-0°25'29
minimum elong	4242 Aug 23 17:02	2°♄55'30	7°02'13	minimum elong	4245 Jan 14 07:14	23°♁47'07	0°25'10
min. Earth dist.	4242 Aug 23 22:47	2°♄46'27	0.29105 AU		4245 Jan 19 05:52	0°♁	
morning rise	4242 Aug 28 07:30	0°♄04'51			4245 Feb 12 02:23	0°♄	
	4242 Aug 28 10:46	30°♄♂		evening rise	4245 Feb 24 14:27	15°♄42'54	
direct	4242 Sep 14 17:25	24°♂23'06			4245 Mar 07 23:40	0°♄	
greatest brilliancy	4242 Sep 25 03:02	26°♂19'53	-4.7m		4245 Mar 31 23:48	0°♄	
	4242 Oct 02 23:58	0°♄			4245 Apr 25 05:17	0°♄	
morning max el	4242 Nov 02 23:59	25°♄03'03	46°05'13	asc. node	4245 Apr 26 23:06	2°♄08'34	
	4242 Nov 07 23:07	0°♁			4245 May 19 18:46	0°♁	
asc. node	4242 Nov 10 03:57	2°♁14'51			4245 Jun 13 19:40	0°♂	
	4242 Dec 05 15:15	0°♄			4245 Jul 09 14:23	0°♄	
	4242 Dec 31 06:09	0°♄			4245 Aug 05 18:38	0°♁	
	4243 Jan 25 00:00	0°♁		desc. node	4245 Aug 16 13:25	11°♁09'16	
	4243 Feb 18 07:57	0°♁		evening max el	4245 Aug 24 17:23	19°♁10'14	45°37'54
desc. node	4243 Mar 01 18:23	14°♁11'26			4245 Sep 05 16:35	0°♄	
	4243 Mar 14 11:23	0°♄		greatest brilliancy	4245 Oct 03 04:43	17°♄20'45	-4.8m
	4243 Apr 07 13:22	0°♄		retrograde	4245 Oct 12 11:58	18°♄55'02	
	4243 May 01 15:59	0°♄		evening set	4245 Oct 29 14:05	13°♄24'10	
morning set	4243 May 09 00:54	9°♄09'26		inferior conj	4245 Nov 02 13:45	10°♄59'31	-7°21'27
	4243 May 25 20:30	0°♄		minimum elong	4245 Nov 02 23:13	10°♄44'56	7°19'54
				min. Earth dist.	4245 Nov 03 12:51	10°♄23'54	0.28032 AU
superior conj	4243 Jun 16 03:55	26°♄19'52	-0°16'00	morning rise	4245 Nov 07 07:54	8°♄07'15	
minimum elong	4243 Jun 16 07:24	26°♄30'39	0°15'50	direct	4245 Nov 23 18:24	2°♄53'07	
behind sun begin	4243 Jun 16 04:43	26°♄22'20		greatest brilliancy	4245 Dec 05 00:16	5°♄14'25	-4.8m
behind sun end	4243 Jun 16 10:06	26°♄38'58		asc. node	4245 Dec 07 15:36	6°♄23'31	
max. Earth dist.	4243 Jun 18 08:01	29°♄00'33	1.73116 AU		4246 Jan 07 09:33	0°♄	
	4243 Jun 19 03:19	0°♁		morning max el	4246 Jan 13 08:35	5°♄54'35	46°49'07
asc. node	4243 Jun 22 20:42	4°♁35'27			4246 Feb 04 17:58	0°♁	
	4243 Jul 13 12:02	0°♂			4246 Mar 02 16:07	0°♁	
evening rise	4243 Jul 23 03:10	11°♂50'07			4246 Mar 27 17:07	0°♄	
	4243 Aug 06 22:17	0°♄		desc. node	4246 Mar 29 06:18	1°♄52'34	
	4243 Aug 31 10:23	0°♁			4246 Apr 21 09:03	0°♄	
	4243 Sep 25 01:28	0°♄			4246 May 15 21:26	0°♄	
desc. node	4243 Oct 12 11:13	21°♄04'38			4246 Jun 09 09:02	0°♄	
	4243 Oct 19 20:53	0°♄			4246 Jul 03 20:38	0°♁	
	4243 Nov 13 22:25	0°♁		morning set	4246 Jul 17 16:24	16°♁56'42	

asc. node	4246 Jul 20 08:31	20°☿13'18			4249 Jan 04 22:21	30°♄☿	
	4246 Jul 28 07:43	0°♄		evening set	4249 Jan 08 17:48	28°♄10'58	
	4246 Aug 21 17:23	0°♄		inferior conj	4249 Jan 14 23:04	24°♄32'54	2°46'24
max. Earth dist.	4246 Aug 21 20:55	0°♄10'54	1.73431 AU	minimum elong	4249 Jan 14 16:55	24°♄42'19	2°44'30
				min. Earth dist.	4249 Jan 14 19:44	24°♄38'00	0.26586 AU
superior conj	4246 Aug 23 07:57	1°♄58'45	1°09'32	morning rise	4249 Jan 20 15:58	21°♄11'36	
minimum elong	4246 Aug 22 23:27	1°♄32'35	1°09'18	direct	4249 Feb 04 11:05	16°♄52'34	
	4246 Sep 15 01:23	0°♄		greatest brilliancy	4249 Feb 14 09:51	18°♄45'05	-4.9m
evening rise	4246 Sep 28 10:39	16°♄31'46			4249 Mar 05 04:37	0°♄	
	4246 Oct 09 08:24	0°♄		morning max el	4249 Mar 26 20:52	19°♄41'35	46°52'34
	4246 Nov 02 15:25	0°♄			4249 Apr 05 20:22	0°♄	
desc. node	4246 Nov 08 23:03	7°♄47'48		desc. node	4249 Apr 25 18:09	21°♄49'32	
	4246 Nov 26 23:03	0°♄			4249 May 02 23:02	0°♄	
	4246 Dec 21 07:53	0°♄			4249 May 28 18:49	0°♄	
	4247 Jan 14 19:49	0°♄			4249 Jun 23 01:56	0°♄	
	4247 Feb 08 16:15	0°♄			4249 Jul 18 02:31	0°♄	
asc. node	4247 Mar 02 01:15	25°♄03'08			4249 Aug 11 21:58	0°♄	
	4247 Mar 06 09:23	0°♄		asc. node	4249 Aug 16 20:29	6°♄00'09	
evening max el	4247 Apr 02 15:13	29°♄19'47	46°35'19		4249 Sep 05 12:08	0°♄	
	4247 Apr 03 07:20	0°♄		morning set	4249 Sep 23 18:45	22°♄28'12	
greatest brilliancy	4247 May 11 18:26	29°♄14'58	-4.8m		4249 Sep 29 21:09	0°♄	
	4247 May 13 21:49	0°♄			4249 Oct 24 02:07	0°♄	
retrograde	4247 May 22 16:22	1°♄26'41		max. Earth dist.	4249 Oct 27 13:51	4°♄20'13	1.72417 AU
	4247 May 31 02:18	30°♄♄					
evening set	4247 Jun 06 23:07	26°♄50'35		superior conj	4249 Oct 30 15:10	8°♄08'10	1°13'30
inferior conj	4247 Jun 12 22:26	23°♄14'02	2°05'34	minimum elong	4249 Oct 30 23:46	8°♄34'54	1°13'17
minimum elong	4247 Jun 13 03:00	23°♄06'53	2°04'13		4249 Nov 17 04:29	0°♄	
min. Earth dist.	4247 Jun 12 17:37	23°♄21'36	0.28421 AU	desc. node	4249 Dec 06 10:53	24°♄02'36	
morning rise	4247 Jun 19 07:29	19°♄25'39		evening rise	4249 Dec 08 09:08	26°♄26'59	
desc. node	4247 Jun 21 15:34	18°♄13'52			4249 Dec 11 05:22	0°♄	
direct	4247 Jul 04 05:51	15°♄06'34			4250 Jan 04 05:23	0°♄	
greatest brilliancy	4247 Jul 14 04:10	16°♄54'18	-4.7m		4250 Jan 28 05:30	0°♄	
	4247 Aug 05 02:03	0°♄			4250 Feb 21 07:50	0°♄	
morning max el	4247 Aug 21 23:47	14°♄52'04	45°42'13		4250 Mar 17 16:11	0°♄	
	4247 Sep 06 03:11	0°♄		asc. node	4250 Mar 29 13:11	14°♄26'29	
	4247 Oct 03 14:54	0°♄			4250 Apr 11 12:20	0°♄	
asc. node	4247 Oct 12 18:09	10°♄27'31			4250 May 07 05:54	0°♄	
	4247 Oct 29 10:32	0°♄			4250 Jun 03 19:45	0°♄	
	4247 Nov 23 08:21	0°♄		evening max el	4250 Jun 12 07:52	8°♄30'09	45°39'59
	4247 Dec 17 17:32	0°♄			4250 Jul 07 20:48	0°♄	
	4248 Jan 10 19:45	0°♄		desc. node	4250 Jul 19 03:40	6°♄10'23	
desc. node	4248 Feb 01 08:32	26°♄58'19		greatest brilliancy	4250 Jul 20 11:33	6°♄41'30	-4.7m
	4248 Feb 03 18:26	0°♄		retrograde	4250 Jul 31 05:14	8°♄46'39	
morning set	4248 Feb 20 04:56	20°♄38'44		evening set	4250 Aug 16 15:51	3°♄39'03	
	4248 Feb 27 15:38	0°♄		inferior conj	4250 Aug 21 18:46	0°♄31'47	-6°52'08
	4248 Mar 22 12:58	0°♄		minimum elong	4250 Aug 21 09:13	0°♄46'46	6°50'28
				min. Earth dist.	4250 Aug 21 14:50	0°♄37'58	0.29104 AU
superior conj	4248 Apr 01 06:04	12°♄10'22	-1°26'28		4250 Aug 22 15:02	30°♄♄	
minimum elong	4248 Apr 01 08:16	12°♄17'14	1°26'28	morning rise	4250 Aug 26 02:31	27°♄51'57	
max. Earth dist.	4248 Apr 04 23:11	16°♄49'20	1.71640 AU	direct	4250 Sep 12 09:13	22°♄13'56	
	4248 Apr 15 12:08	0°♄		greatest brilliancy	4250 Sep 22 19:27	24°♄10'53	-4.7m
	4248 May 09 14:39	0°♄			4250 Oct 04 06:32	0°♄	
evening rise	4248 May 11 03:27	1°♄54'04		morning max el	4250 Oct 31 14:53	22°♄48'11	46°03'50
asc. node	4248 May 24 10:53	18°♄21'51			4250 Nov 07 19:06	0°♄	
	4248 Jun 02 21:30	0°♄		asc. node	4250 Nov 09 05:55	1°♄29'44	
	4248 Jun 27 09:14	0°♄			4250 Dec 05 06:23	0°♄	
	4248 Jul 22 02:54	0°♄			4250 Dec 30 19:29	0°♄	
	4248 Aug 16 04:54	0°♄			4251 Jan 24 12:26	0°♄	
	4248 Sep 10 19:53	0°♄			4251 Feb 17 19:51	0°♄	
desc. node	4248 Sep 13 01:16	2°♄33'49		desc. node	4251 Feb 28 20:26	13°♄41'18	
	4248 Oct 07 08:59	0°♄			4251 Mar 13 22:56	0°♄	
	4248 Nov 04 22:30	0°♄			4251 Apr 07 00:40	0°♄	
evening max el	4248 Nov 05 13:02	0°♄35'38	46°32'07		4251 May 01 03:03	0°♄	
	4248 Dec 14 10:03	0°♄		morning set	4251 May 06 15:23	6°♄51'07	
greatest brilliancy	4248 Dec 15 15:12	0°♄26'52	-4.9m		4251 May 25 07:25	0°♄	
retrograde	4248 Dec 25 09:57	2°♄13'52					
asc. node	4249 Jan 04 03:33	0°♄18'54		superior conj	4251 Jun 13 20:19	24°♄08'59	-0°19'17

minimum elong	4251 Jun 14 00:31	24° Π 21'57	0°19'06	asc. node	4253 Dec 06 17:41	4° \mathbb{M} 47'45	
max. Earth dist.	4251 Jun 16 01:12	26° Π 52'07	1.73081 AU		4254 Jan 07 09:53	0° \mathbb{X}	
	4251 Jun 18 14:09	0° \mathbb{S}		morning max el	4254 Jan 10 23:52	3° \mathbb{X} 35'07	46°47'55
asc. node	4251 Jun 21 22:46	4° \mathbb{S} 08'29			4254 Feb 04 10:50	0° \mathbb{Z}	
	4251 Jul 12 22:53	0° Ω			4254 Mar 02 06:25	0° \approx	
evening rise	4251 Jul 20 21:29	9° Ω 45'32			4254 Mar 27 06:08	0° \mathbb{H}	
	4251 Aug 06 09:16	0° \mathbb{M}		desc. node	4254 Mar 28 08:17	1° \mathbb{H} 19'15	
	4251 Aug 30 21:38	0° $\underline{\mathbb{A}}$			4254 Apr 20 21:17	0° \mathbb{Y}	
	4251 Sep 24 13:07	0° \mathbb{M}			4254 May 15 09:09	0° \mathbb{B}	
desc. node	4251 Oct 11 13:09	20° \mathbb{M} 34'06			4254 Jun 08 20:22	0° Π	
	4251 Oct 19 09:11	0° \mathbb{X}			4254 Jul 03 07:42	0° \mathbb{S}	
	4251 Nov 13 11:43	0° \mathbb{Z}		morning set	4254 Jul 15 10:04	14° \mathbb{S} 50'06	
	4251 Dec 09 01:13	0° \approx		asc. node	4254 Jul 19 10:40	19° \mathbb{S} 46'21	
	4252 Jan 04 16:00	0° \mathbb{H}			4254 Jul 27 18:37	0° Ω	
evening max el	4252 Jan 18 04:59	14° \mathbb{H} 16'28	47°11'58	max. Earth dist.	4254 Aug 19 18:40	28° Ω 16'46	1.73444 AU
asc. node	4252 Feb 01 15:32	28° \mathbb{H} 08'06					
	4252 Feb 03 18:26	0° \mathbb{Y}		superior conj	4254 Aug 21 02:16	29° Ω 54'00	1°07'39
greatest brilliancy	4252 Feb 27 23:50	15° \mathbb{Y} 54'31	-4.9m	minimum elong	4254 Aug 20 17:35	29° Ω 27'18	1°07'24
retrograde	4252 Mar 09 02:16	17° \mathbb{Y} 51'59			4254 Aug 21 04:13	0° \mathbb{M}	
evening set	4252 Mar 27 04:47	11° \mathbb{Y} 33'50			4254 Sep 14 12:16	0° $\underline{\mathbb{A}}$	
inferior conj	4252 Mar 29 22:34	9° \mathbb{Y} 52'19	8°58'54	evening rise	4254 Sep 26 04:09	14° $\underline{\mathbb{A}}$ 23'42	
minimum elong	4252 Mar 29 23:56	9° \mathbb{Y} 50'13	8°58'53		4254 Oct 08 19:28	0° \mathbb{M}	
min. Earth dist.	4252 Mar 29 11:59	10° \mathbb{Y} 08'47	0.27434 AU		4254 Nov 02 02:46	0° \mathbb{X}	
morning rise	4252 Apr 01 19:12	8° \mathbb{Y} 06'42		desc. node	4254 Nov 08 01:03	7° \mathbb{X} 18'46	
direct	4252 Apr 19 14:26	2° \mathbb{Y} 01'11			4254 Nov 26 10:46	0° \mathbb{Z}	
greatest brilliancy	4252 Apr 28 22:03	3° \mathbb{Y} 38'33	-4.8m		4254 Dec 20 20:03	0° \approx	
desc. node	4252 May 23 05:46	18° \mathbb{Y} 44'55			4255 Jan 14 08:39	0° \mathbb{H}	
	4252 Jun 04 19:40	0° \mathbb{B}			4255 Feb 08 06:11	0° \mathbb{Y}	
morning max el	4252 Jun 08 03:28	3° \mathbb{B} 11'51	46°10'12	asc. node	4255 Mar 01 03:13	24° \mathbb{Y} 23'53	
	4252 Jul 03 22:45	0° Π			4255 Mar 06 01:35	0° \mathbb{B}	
	4252 Jul 30 18:07	0° \mathbb{S}		evening max el	4255 Mar 31 06:50	27° \mathbb{B} 03'26	46°37'20
	4252 Aug 25 13:39	0° Ω			4255 Apr 03 06:06	0° Π	
asc. node	4252 Sep 13 08:16	22° Ω 18'30		greatest brilliancy	4255 May 09 11:30	27° Π 02'12	-4.8m
	4252 Sep 19 17:56	0° \mathbb{M}		retrograde	4255 May 20 08:15	29° Π 12'33	
	4252 Oct 14 10:34	0° $\underline{\mathbb{A}}$		evening set	4255 Jun 04 16:39	24° Π 34'35	
	4252 Nov 07 18:33	0° \mathbb{M}		inferior conj	4255 Jun 10 14:02	21° Π 00'26	2°25'54
	4252 Dec 01 20:49	0° \mathbb{X}		minimum elong	4255 Jun 10 19:17	20° Π 52'12	2°24'22
morning set	4252 Dec 03 00:16	1° \mathbb{X} 25'45		min. Earth dist.	4255 Jun 10 09:30	21° Π 07'32	0.28388 AU
	4252 Dec 25 19:48	0° \mathbb{Z}		morning rise	4255 Jun 16 22:32	17° Π 12'33	
desc. node	4253 Jan 02 22:46	10° \mathbb{Z} 11'41		desc. node	4255 Jun 20 17:44	15° Π 20'51	
max. Earth dist.	4253 Jan 10 18:28	20° \mathbb{Z} 01'07	1.71240 AU	direct	4255 Jul 01 21:17	12° Π 53'40	
				greatest brilliancy	4255 Jul 11 18:38	14° Π 40'29	-4.7m
superior conj	4253 Jan 12 00:24	21° \mathbb{Z} 35'11	-0°21'40		4255 Aug 05 10:55	0° \mathbb{S}	
minimum elong	4253 Jan 11 18:51	21° \mathbb{Z} 17'44	0°21'24	morning max el	4255 Aug 19 14:45	12° \mathbb{S} 39'17	45°42'21
	4253 Jan 18 17:01	0° \approx			4255 Sep 05 21:06	0° Ω	
	4253 Feb 11 13:35	0° \mathbb{H}			4255 Oct 03 05:08	0° \mathbb{M}	
evening rise	4253 Feb 22 00:50	13° \mathbb{H} 09'31		asc. node	4255 Oct 11 20:11	9° \mathbb{M} 54'08	
	4253 Mar 07 10:56	0° \mathbb{Y}			4255 Oct 28 23:13	0° $\underline{\mathbb{A}}$	
	4253 Mar 31 11:10	0° \mathbb{B}			4255 Nov 22 20:18	0° \mathbb{M}	
	4253 Apr 24 16:51	0° Π			4255 Dec 17 05:08	0° \mathbb{X}	
asc. node	4253 Apr 26 01:03	1° Π 38'58			4256 Jan 10 07:10	0° \mathbb{Z}	
	4253 May 19 06:43	0° \mathbb{S}		desc. node	4256 Jan 31 10:36	26° \mathbb{Z} 29'24	
	4253 Jun 13 08:21	0° Ω			4256 Feb 03 05:43	0° \approx	
	4253 Jul 09 04:34	0° \mathbb{M}		morning set	4256 Feb 17 14:40	18° \approx 03'19	
	4253 Aug 05 12:23	0° $\underline{\mathbb{A}}$			4256 Feb 27 02:48	0° \mathbb{H}	
desc. node	4253 Aug 15 15:27	10° $\underline{\mathbb{A}}$ 23'19			4256 Mar 22 00:02	0° \mathbb{Y}	
evening max el	4253 Aug 22 09:00	16° $\underline{\mathbb{A}}$ 58'01	45°36'45				
	4253 Sep 05 23:59	0° \mathbb{M}		superior conj	4256 Mar 29 17:32	9° \mathbb{Y} 41'19	-1°26'45
greatest brilliancy	4253 Sep 30 17:32	15° \mathbb{M} 03'18	-4.8m	minimum elong	4256 Mar 29 18:42	9° \mathbb{Y} 44'58	1°26'45
retrograde	4253 Oct 10 02:14	16° \mathbb{M} 38'18		max. Earth dist.	4256 Apr 02 10:11	14° \mathbb{Y} 18'55	1.71592 AU
evening set	4253 Oct 27 07:15	11° \mathbb{M} 03'01			4256 Apr 14 23:10	0° \mathbb{B}	
inferior conj	4253 Oct 31 04:17	8° \mathbb{M} 41'53	-7°32'18	evening rise	4256 May 08 16:52	29° \mathbb{B} 32'37	
minimum elong	4253 Oct 31 13:21	8° \mathbb{M} 27'53	7°30'55		4256 May 09 01:41	0° Π	
min. Earth dist.	4253 Nov 01 02:41	8° \mathbb{M} 07'17	0.28099 AU	asc. node	4256 May 23 13:00	17° Π 54'16	
morning rise	4253 Nov 04 19:05	5° \mathbb{M} 54'16			4256 Jun 02 08:36	0° \mathbb{S}	
direct	4253 Nov 21 10:12	0° \mathbb{M} 34'47			4256 Jun 26 20:32	0° Ω	
greatest brilliancy	4253 Dec 02 14:40	2° \mathbb{M} 54'53	-4.8m		4256 Jul 21 14:36	0° \mathbb{M}	

	4256 Aug 15 17:20	0°♌		desc. node	4259 Feb 27 22:22	13°♏11'29	
	4256 Sep 10 09:39	0°♍			4259 Mar 13 10:18	0°♏	
desc. node	4256 Sep 12 03:14	1°♍59'30			4259 Apr 06 11:48	0°♏	
	4256 Oct 07 01:29	0°♎			4259 Apr 30 13:59	0°♏	
evening max el	4256 Nov 03 01:38	28°♎11'18	46°29'47	morning set	4259 May 04 05:20	4°♏31'27	
	4256 Nov 04 22:23	0°♏			4259 May 24 18:11	0°♐	
greatest brilliancy	4256 Dec 13 04:56	28°♏00'31	-4.9m				
retrograde	4256 Dec 22 21:29	29°♏45'52		superior conj	4259 Jun 11 12:13	21°♐56'59	-0°22'36
asc. node	4257 Jan 03 05:41	27°♏11'23		minimum elong	4259 Jun 11 17:08	22°♐12'09	0°22'22
evening set	4257 Jan 06 05:24	25°♏43'59		max. Earth dist.	4259 Jun 13 18:54	24°♐45'44	1.73042 AU
inferior conj	4257 Jan 12 11:27	22°♏05'19	2°22'49		4259 Jun 18 00:49	0°♑	
minimum elong	4257 Jan 12 06:06	22°♏13'29	2°21'08	asc. node	4259 Jun 21 00:50	3°♑41'58	
min. Earth dist.	4257 Jan 12 10:00	22°♏07'33	0.26595 AU		4259 Jul 12 09:33	0°♒	
morning rise	4257 Jan 18 06:35	18°♏40'43		evening rise	4259 Jul 18 15:32	7°♒40'48	
direct	4257 Feb 01 23:08	14°♏24'22			4259 Aug 05 20:03	0°♓	
greatest brilliancy	4257 Feb 12 00:53	16°♏19'16	-4.9m		4259 Aug 30 08:41	0°♑	
	4257 Mar 05 18:37	0°♒			4259 Sep 24 00:35	0°♒	
morning max el	4257 Mar 24 09:07	17°♒13'33	46°53'33	desc. node	4259 Oct 10 15:12	20°♒04'26	
	4257 Apr 05 16:00	0°♓			4259 Oct 18 21:18	0°♓	
desc. node	4257 Apr 24 20:10	21°♓09'38			4259 Nov 13 00:52	0°♓	
	4257 May 02 14:19	0°♓			4259 Dec 08 16:08	0°♓	
	4257 May 28 08:10	0°♔			4260 Jan 04 10:46	0°♓	
	4257 Jun 22 14:13	0°♐		evening max el	4260 Jan 15 19:37	11°♓55'08	47°11'53
	4257 Jul 17 14:07	0°♑		asc. node	4260 Jan 31 17:26	27°♓03'53	
	4257 Aug 11 09:08	0°♒			4260 Feb 04 04:02	0°♓	
asc. node	4257 Aug 15 22:25	5°♒32'14		greatest brilliancy	4260 Feb 25 13:11	13°♓30'24	-4.9m
	4257 Sep 04 23:02	0°♓		retrograde	4260 Mar 06 16:51	15°♓28'50	
morning set	4257 Sep 21 12:01	20°♓20'05		evening set	4260 Mar 24 18:11	9°♓11'11	
	4257 Sep 29 07:57	0°♑		min. Earth dist.	4260 Mar 27 00:37	7°♓47'28	0.27398 AU
	4257 Oct 23 12:54	0°♒		inferior conj	4260 Mar 27 12:11	7°♓29'30	9°00'16
max. Earth dist.	4257 Oct 25 07:05	2°♒11'05	1.72464 AU	minimum elong	4260 Mar 27 12:38	7°♓28'49	9°00'15
				morning rise	4260 Mar 30 07:13	5°♓46'32	
superior conj	4257 Oct 28 07:15	5°♒55'25	1°15'09		4260 Apr 13 00:44	30°♓♏	
minimum elong	4257 Oct 28 15:26	6°♒20'49	1°14'58	direct	4260 Apr 17 03:59	29°♓38'58	
	4257 Nov 16 15:21	0°♓			4260 Apr 21 09:28	0°♓	
evening rise	4257 Dec 05 22:28	24°♓04'32		greatest brilliancy	4260 Apr 26 10:20	1°♓15'47	-4.8m
desc. node	4257 Dec 05 13:02	23°♓35'04		desc. node	4260 May 22 07:56	17°♓41'13	
	4257 Dec 10 16:22	0°♓			4260 Jun 04 19:27	0°♔	
	4258 Jan 03 16:34	0°♒		morning max el	4260 Jun 05 18:47	0°♔56'39	46°11'42
	4258 Jan 27 16:55	0°♓			4260 Jul 03 14:56	0°♐	
	4258 Feb 20 19:34	0°♓			4260 Jul 30 07:35	0°♑	
	4258 Mar 17 04:24	0°♔			4260 Aug 25 01:47	0°♒	
asc. node	4258 Mar 28 15:08	13°♔54'31		asc. node	4260 Sep 12 10:16	21°♒49'50	
	4258 Apr 11 01:23	0°♐			4260 Sep 19 05:21	0°♓	
	4258 May 06 20:43	0°♑			4260 Oct 13 21:36	0°♑	
	4258 Jun 03 15:13	0°♒			4260 Nov 07 05:23	0°♒	
evening max el	4258 Jun 09 22:48	6°♒16'34	45°41'21	morning set	4260 Nov 30 14:17	29°♒05'56	
	4258 Jul 08 22:38	0°♓			4260 Dec 01 07:36	0°♓	
greatest brilliancy	4258 Jul 18 02:28	4°♓31'03	-4.7m		4260 Dec 25 06:34	0°♓	
desc. node	4258 Jul 18 05:40	4°♓34'01		desc. node	4261 Jan 02 00:47	9°♓44'14	
retrograde	4258 Jul 28 21:44	6°♓37'59		max. Earth dist.	4261 Jan 08 03:29	17°♓24'48	1.71258 AU
evening set	4258 Aug 14 05:11	1°♓34'00					
	4258 Aug 16 20:30	30°♓♒		superior conj	4261 Jan 09 11:23	19°♓05'00	-0°17'51
inferior conj	4258 Aug 19 11:06	28°♒22'42	-6°39'59	minimum elong	4261 Jan 09 06:47	18°♓50'34	0°17'37
minimum elong	4258 Aug 19 01:23	28°♒37'56	6°38'11		4261 Jan 18 03:48	0°♒	
min. Earth dist.	4258 Aug 19 06:34	28°♒29'48	0.29101 AU		4261 Feb 11 00:24	0°♓	
morning rise	4258 Aug 23 21:31	25°♒39'09		evening rise	4261 Feb 19 11:29	10°♓38'12	
direct	4258 Sep 10 01:09	20°♒04'44			4261 Mar 06 21:48	0°♓	
greatest brilliancy	4258 Sep 20 11:38	22°♒01'56	-4.7m		4261 Mar 30 22:08	0°♔	
	4258 Oct 05 04:25	0°♓			4261 Apr 24 04:02	0°♐	
morning max el	4258 Oct 29 06:41	20°♓36'08	46°02'36	asc. node	4261 Apr 25 03:09	1°♐11'02	
	4258 Nov 07 14:20	0°♑			4261 May 18 18:20	0°♑	
asc. node	4258 Nov 08 07:59	0°♑45'52			4261 Jun 12 20:45	0°♒	
	4258 Dec 04 21:08	0°♒			4261 Jul 08 18:33	0°♓	
	4258 Dec 30 08:30	0°♓			4261 Aug 05 06:08	0°♑	
	4259 Jan 24 00:35	0°♓		desc. node	4261 Aug 14 17:24	9°♑37'35	
	4259 Feb 17 07:31	0°♒		evening max el	4261 Aug 20 00:20	14°♑46'19	45°35'43

	4261 Sep 06 09:26	0°♌			4264 Mar 21 10:50	0°♍	
greatest brilliancy	4261 Sep 28 06:56	12°♌48'04	-4.8m				
retrograde	4261 Oct 07 16:08	14°♌23'12		superior conj	4264 Mar 27 05:02	7°♍13'15	-1°26'53
evening set	4261 Oct 25 00:27	8°♌43'50		minimum elong	4264 Mar 27 05:08	7°♍13'33	1°26'52
inferior conj	4261 Oct 28 18:57	6°♌26'03	-7°42'23	max. Earth dist.	4264 Mar 30 17:37	11°♍38'15	1.71541 AU
minimum elong	4261 Oct 29 03:33	6°♌12'43	7°41'10		4264 Apr 14 09:54	0°♌	
min. Earth dist.	4261 Oct 29 16:47	5°♌52'14	0.28164 AU	evening rise	4264 May 06 06:19	27°♌12'15	
morning rise	4261 Nov 02 06:20	3°♌42'59			4264 May 08 12:24	0°♌	
	4261 Nov 09 21:52	30°♌		asc. node	4264 May 22 15:03	17°♌27'35	
direct	4261 Nov 19 01:52	28°♌18'15			4264 Jun 01 19:21	0°♌	
	4261 Nov 28 13:18	0°♌			4264 Jun 26 07:29	0°♌	
greatest brilliancy	4261 Nov 30 05:19	0°♌37'04	-4.8m		4264 Jul 21 01:58	0°♌	
asc. node	4261 Dec 05 19:48	3°♌16'37			4264 Aug 15 05:30	0°♌	
	4262 Jan 07 08:43	0°♌			4264 Sep 09 23:15	0°♌	
morning max el	4262 Jan 08 14:24	1°♌14'53	46°46'42	desc. node	4264 Sep 11 05:16	1°♌26'00	
	4262 Feb 04 02:59	0°♌			4264 Oct 06 18:01	0°♌	
	4262 Mar 01 20:09	0°♌		evening max el	4264 Oct 31 14:04	25°♌47'37	46°27'37
	4262 Mar 26 18:37	0°♌			4264 Nov 04 23:06	0°♌	
desc. node	4262 Mar 27 10:19	0°♌47'39		greatest brilliancy	4264 Dec 10 18:17	25°♌34'47	-4.9m
	4262 Apr 20 09:00	0°♍		retrograde	4264 Dec 20 09:23	27°♌19'16	
	4262 May 14 20:21	0°♌		asc. node	4265 Jan 02 07:34	24°♌00'34	
	4262 Jun 08 07:14	0°♌		evening set	4265 Jan 03 17:19	23°♌17'37	
	4262 Jul 02 18:21	0°♌		inferior conj	4265 Jan 09 23:54	19°♌38'45	1°58'59
morning set	4262 Jul 13 03:42	12°♌44'37		minimum elong	4265 Jan 09 19:24	19°♌45'37	1°57'33
asc. node	4262 Jul 18 12:35	19°♌19'55		min. Earth dist.	4265 Jan 10 00:07	19°♌38'26	0.26611 AU
	4262 Jul 27 05:08	0°♌		morning rise	4265 Jan 15 21:09	16°♌11'21	
max. Earth dist.	4262 Aug 17 14:23	26°♌17'33	1.73455 AU	direct	4265 Jan 30 11:25	11°♌57'00	
				greatest brilliancy	4265 Feb 09 15:54	13°♌54'25	-4.9m
superior conj	4262 Aug 18 20:31	27°♌50'17	1°05'41		4265 Mar 06 04:44	0°♌	
minimum elong	4262 Aug 18 11:42	27°♌23'09	1°05'24	morning max el	4265 Mar 21 22:20	14°♌48'29	46°54'27
	4262 Aug 20 14:40	0°♌			4265 Apr 05 10:53	0°♌	
	4262 Sep 13 22:46	0°♌		desc. node	4265 Apr 23 22:14	20°♌30'46	
evening rise	4262 Sep 23 21:35	12°♌16'43			4265 May 02 05:13	0°♌	
	4262 Oct 08 06:08	0°♌			4265 May 27 21:13	0°♌	
	4262 Nov 01 13:44	0°♌			4265 Jun 22 02:12	0°♌	
desc. node	4262 Nov 07 03:09	6°♌51'14			4265 Jul 17 01:26	0°♌	
	4262 Nov 25 22:08	0°♌			4265 Aug 10 20:01	0°♌	
	4262 Dec 20 07:55	0°♌		asc. node	4265 Aug 15 00:26	5°♌05'23	
	4263 Jan 13 21:11	0°♌			4265 Sep 04 09:43	0°♌	
	4263 Feb 07 19:52	0°♌		morning set	4265 Sep 19 05:26	18°♌13'04	
asc. node	4263 Feb 28 05:17	23°♌45'44			4265 Sep 28 18:34	0°♌	
	4263 Mar 05 17:39	0°♌			4265 Oct 22 23:34	0°♌	
evening max el	4263 Mar 28 21:43	24°♌46'29	46°39'25	max. Earth dist.	4265 Oct 23 01:26	0°♌05'50	1.72513 AU
	4263 Apr 03 05:15	0°♌					
greatest brilliancy	4263 May 07 04:56	24°♌51'31	-4.8m	superior conj	4265 Oct 25 23:23	3°♌43'11	1°16'42
retrograde	4263 May 17 23:46	27°♌00'21		minimum elong	4265 Oct 26 07:05	4°♌07'07	1°16'32
evening set	4263 Jun 02 10:27	22°♌20'12			4265 Nov 16 02:06	0°♌	
inferior conj	4263 Jun 08 05:49	18°♌48'48	2°45'58	evening rise	4265 Dec 03 11:46	21°♌42'22	
minimum elong	4263 Jun 08 11:44	18°♌39'32	2°44'14	desc. node	4265 Dec 04 15:01	23°♌07'21	
min. Earth dist.	4263 Jun 08 01:49	18°♌55'06	0.28356 AU		4265 Dec 10 03:16	0°♌	
morning rise	4263 Jun 14 13:33	15°♌01'34			4266 Jan 03 03:40	0°♌	
desc. node	4263 Jun 19 19:42	12°♌34'13			4266 Jan 27 04:16	0°♌	
direct	4263 Jun 29 12:30	10°♌42'35			4266 Feb 20 07:15	0°♌	
greatest brilliancy	4263 Jul 09 09:49	12°♌29'03	-4.7m		4266 Mar 16 16:35	0°♌	
	4263 Aug 05 16:40	0°♌		asc. node	4266 Mar 27 17:15	13°♌23'04	
morning max el	4263 Aug 17 05:21	10°♌26'46	45°42'27		4266 Apr 10 14:28	0°♌	
	4263 Sep 05 14:11	0°♌			4266 May 06 11:39	0°♌	
	4263 Oct 02 18:50	0°♌			4266 Jun 03 11:11	0°♌	
asc. node	4263 Oct 10 22:16	9°♌22'07		evening max el	4266 Jun 07 14:43	4°♌05'43	45°42'55
	4263 Oct 28 11:29	0°♌			4266 Jul 10 10:59	0°♌	
	4263 Nov 22 07:52	0°♌		greatest brilliancy	4266 Jul 15 17:13	2°♌21'06	-4.7m
	4263 Dec 16 16:21	0°♌		desc. node	4266 Jul 17 07:37	2°♌54'53	
	4264 Jan 09 18:13	0°♌		retrograde	4266 Jul 26 14:44	4°♌30'06	
desc. node	4264 Jan 30 12:29	26°♌00'57			4266 Aug 10 21:10	30°♌	
	4264 Feb 02 16:39	0°♌		evening set	4266 Aug 11 18:50	29°♌29'40	
morning set	4264 Feb 15 00:18	15°♌28'34		inferior conj	4266 Aug 17 03:34	26°♌14'24	-6°27'17
	4264 Feb 26 13:39	0°♌		minimum elong	4266 Aug 16 17:45	26°♌29'45	6°25'23

min. Earth dist.	4266 Aug 16 22:06	26°Ω22'58	0.29094 AU	behind sun end	4269 Jan 07 08:46	17°Ω06'42	
morning rise	4266 Aug 21 16:41	23°Ω27'11			4269 Jan 17 14:54	0°≈	
direct	4266 Sep 07 17:44	17°Ω56'33			4269 Feb 10 11:34	0°✕	
greatest brilliancy	4266 Sep 18 03:20	19°Ω53'21	-4.7m	evening rise	4269 Feb 16 21:47	8°✕04'37	
	4266 Oct 05 20:16	0°♐			4269 Mar 06 09:02	0°Υ	
morning max el	4266 Oct 26 23:04	18°♐26'06	46°01'08		4269 Mar 30 09:29	0°♄	
asc. node	4266 Nov 07 10:03	0°♌02'54			4269 Apr 23 15:37	0°♊	
	4266 Nov 07 08:57	0°♌		asc. node	4269 Apr 24 05:10	0°♊41'38	
	4266 Dec 04 11:42	0°♌			4269 May 18 06:21	0°♋	
	4266 Dec 29 21:28	0°♌			4269 Jun 12 09:37	0°♌	
	4267 Jan 23 12:45	0°♋			4269 Jul 08 09:05	0°♐	
	4267 Feb 16 19:13	0°≈			4269 Aug 05 00:46	0°♌	
desc. node	4267 Feb 27 00:30	12°≈42'09		desc. node	4269 Aug 13 19:31	8°♌50'27	
	4267 Mar 12 21:42	0°✕		evening max el	4269 Aug 17 14:59	12°♌31'50	45°34'49
	4267 Apr 05 22:58	0°Υ			4269 Sep 06 22:43	0°♌	
	4267 Apr 30 00:59	0°♄		greatest brilliancy	4269 Sep 25 21:04	10°♌33'06	-4.7m
morning set	4267 May 01 19:01	2°♄10'42		retrograde	4269 Oct 05 05:57	12°♌08'01	
	4267 May 24 05:03	0°♊		evening set	4269 Oct 22 17:44	6°♌24'44	
				inferior conj	4269 Oct 26 09:51	4°♌10'13	-7°51'38
superior conj	4267 Jun 09 03:58	19°♊44'01	-0°25'54	minimum elong	4269 Oct 26 17:57	3°♌57'38	7°50'33
minimum elong	4267 Jun 09 09:34	20°♊01'18	0°25'38	min. Earth dist.	4269 Oct 27 07:20	3°♌36'53	0.28225 AU
max. Earth dist.	4267 Jun 11 13:40	22°♊42'11	1.73003 AU	morning rise	4269 Oct 30 17:52	1°♌31'41	
	4267 Jun 17 11:35	0°♋			4269 Nov 02 11:32	30°♌♌	
asc. node	4267 Jun 20 02:47	3°♋14'47		direct	4269 Nov 16 17:10	26°♌01'43	
	4267 Jul 11 20:19	0°♌		greatest brilliancy	4269 Nov 27 20:31	28°♌19'46	-4.8m
evening rise	4267 Jul 16 09:36	5°♌35'45			4269 Dec 01 13:58	0°♌	
	4267 Aug 05 06:55	0°♐		asc. node	4269 Dec 04 21:41	1°♌47'53	
	4267 Aug 29 19:48	0°♌		morning max el	4270 Jan 06 03:56	28°♌51'30	46°45'20
	4267 Sep 23 12:08	0°♌			4270 Jan 07 06:53	0°♌	
desc. node	4267 Oct 09 17:18	19°♌34'42			4270 Feb 03 19:11	0°♋	
	4267 Oct 18 09:34	0°♌			4270 Mar 01 10:09	0°≈	
	4267 Nov 12 14:15	0°♋			4270 Mar 26 07:28	0°✕	
	4267 Dec 08 07:29	0°≈		desc. node	4270 Mar 26 12:24	0°✕14'57	
	4268 Jan 04 06:23	0°✕			4270 Apr 19 21:10	0°Υ	
evening max el	4268 Jan 13 10:48	9°✕34'10	47°11'33		4270 May 14 08:01	0°♄	
asc. node	4268 Jan 30 19:31	25°✕57'14			4270 Jun 07 18:33	0°♊	
	4268 Feb 04 17:35	0°Υ			4270 Jul 02 05:26	0°♋	
greatest brilliancy	4268 Feb 23 02:25	11°Υ04'42	-4.9m	morning set	4270 Jul 10 20:55	10°♋36'26	
retrograde	4268 Mar 04 07:07	13°Υ03'41		asc. node	4270 Jul 17 14:37	18°♋52'33	
evening set	4268 Mar 22 06:50	6°Υ47'39			4270 Jul 26 16:04	0°♌	
min. Earth dist.	4268 Mar 24 12:57	5°Υ24'26	0.27357 AU	max. Earth dist.	4270 Aug 15 08:33	24°♌12'18	1.73465 AU
inferior conj	4268 Mar 25 01:32	5°Υ04'54	9°00'35				
minimum elong	4268 Mar 25 01:04	5°Υ05'38	9°00'35	superior conj	4270 Aug 16 14:35	25°♌44'41	1°03'37
morning rise	4268 Mar 27 19:27	3°Υ23'42		minimum elong	4270 Aug 16 05:40	25°♌17'16	1°03'19
	4268 Apr 03 02:13	30°♌♌			4270 Aug 20 01:33	0°♐	
direct	4268 Apr 14 17:34	27°♌15'14			4270 Sep 13 09:43	0°♌	
greatest brilliancy	4268 Apr 23 22:09	28°♌51'00	-4.8m	evening rise	4270 Sep 21 15:05	10°♌08'40	
	4268 Apr 26 22:57	0°Υ			4270 Oct 07 17:15	0°♌	
desc. node	4268 May 21 09:56	16°Υ37'49			4270 Nov 01 01:06	0°♌	
morning max el	4268 Jun 03 09:18	28°Υ38'32	46°13'12	desc. node	4270 Nov 06 05:07	6°♌22'06	
	4268 Jun 04 18:33	0°♄			4270 Nov 25 09:51	0°♋	
	4268 Jul 03 07:07	0°♊			4270 Dec 19 20:07	0°≈	
	4268 Jul 29 21:12	0°♋			4271 Jan 13 10:07	0°✕	
	4268 Aug 24 14:07	0°♌			4271 Feb 07 10:04	0°Υ	
asc. node	4268 Sep 11 12:23	21°♌20'55		asc. node	4271 Feb 27 07:20	23°Υ05'49	
	4268 Sep 18 16:58	0°♐			4271 Mar 05 10:30	0°♄	
	4268 Oct 13 08:49	0°♌		evening max el	4271 Mar 26 11:31	22°♄24'56	46°41'17
	4268 Nov 06 16:24	0°♌			4271 Apr 03 06:18	0°♊	
morning set	4268 Nov 28 04:38	26°♌46'39		greatest brilliancy	4271 May 04 22:05	22°♊37'55	-4.8m
	4268 Nov 30 18:34	0°♌		retrograde	4271 May 15 14:58	24°♊45'31	
	4268 Dec 24 17:35	0°♋		evening set	4271 May 31 04:01	20°♊02'40	
desc. node	4269 Jan 01 02:45	9°♋15'47		inferior conj	4271 Jun 05 21:17	16°♊34'27	3°05'58
max. Earth dist.	4269 Jan 05 10:06	14°♋40'11	1.71286 AU	minimum elong	4271 Jun 06 03:50	16°♊24'11	3°04'05
				min. Earth dist.	4271 Jun 05 17:59	16°♊39'38	0.28325 AU
superior conj	4269 Jan 06 22:30	16°♋34'28	-0°14'00	morning rise	4271 Jun 12 04:05	12°♊48'15	
minimum elong	4269 Jan 06 18:54	16°♋23'08	0°13'49	desc. node	4271 Jun 18 21:39	9°♊49'02	
behind sun begin	4269 Jan 06 05:01	15°♋39'33		direct	4271 Jun 27 02:58	8°♊28'36	

greatest brilliancy	4271 Jul 07 01:10	10° Π 15'29	-4.7m			4274 Mar 16 04:55	0° \mathcal{B}	
	4271 Aug 05 21:16	0° \mathfrak{D}		asc. node		4274 Mar 26 19:14	12° \mathcal{B} 50'52	
morning max el	4271 Aug 14 19:44	8° \mathfrak{D} 11'58	45°42'43			4274 Apr 10 03:42	0° Π	
	4271 Sep 05 07:27	0° \mathcal{Q}				4274 May 06 02:54	0° \mathfrak{D}	
	4271 Oct 02 08:52	0° \mathfrak{M}				4274 Jun 03 08:02	0° \mathcal{Q}	
asc. node	4271 Oct 10 00:14	8° \mathfrak{M} 48'36		evening max el		4274 Jun 05 07:17	1° \mathcal{Q} 55'51	45°44'16
	4271 Oct 28 00:07	0° \mathfrak{L}				4274 Jul 12 21:16	0° \mathfrak{M}	
	4271 Nov 21 19:48	0° \mathfrak{M}		greatest brilliancy		4274 Jul 13 08:11	0° \mathfrak{M} 10'28	-4.7m
	4271 Dec 16 03:55	0° \mathcal{A}		desc. node		4274 Jul 16 09:46	1° \mathfrak{M} 11'19	
	4272 Jan 09 05:34	0° \mathfrak{B}		retrograde		4274 Jul 24 07:37	2° \mathfrak{M} 20'54	
desc. node	4272 Jan 29 14:39	25° \mathfrak{B} 32'31				4274 Aug 04 04:25	30° \mathcal{R} \mathcal{Q}	
	4272 Feb 02 03:52	0° \approx		evening set		4274 Aug 09 08:28	27° \mathcal{Q} 24'13	
morning set	4272 Feb 12 10:23	12° \approx 54'16		inferior conj		4274 Aug 14 19:53	24° \mathcal{Q} 04'53	-6°13'51
	4272 Feb 26 00:47	0° \mathcal{H}		minimum elong		4274 Aug 14 10:02	24° \mathcal{Q} 20'18	6°11'53
	4272 Mar 20 21:55	0° \mathcal{Y}		min. Earth dist.		4274 Aug 14 13:24	24° \mathcal{Q} 15'02	0.29087 AU
				morning rise		4274 Aug 19 11:42	21° \mathcal{Q} 13'56	
superior conj	4272 Mar 24 16:34	4° \mathcal{Y} 44'17	-1°26'48	direct		4274 Sep 05 10:35	15° \mathcal{Q} 47'22	
minimum elong	4272 Mar 24 15:36	4° \mathcal{Y} 41'15	1°26'49	greatest brilliancy		4274 Sep 15 18:24	17° \mathcal{Q} 43'01	-4.7m
max. Earth dist.	4272 Mar 27 23:39	8° \mathcal{Y} 52'05	1.71502 AU			4274 Oct 06 08:28	0° \mathfrak{M}	
	4272 Apr 13 20:59	0° \mathcal{B}		morning max el		4274 Oct 24 15:14	16° \mathfrak{M} 14'58	45°59'42
evening rise	4272 May 03 19:26	24° \mathcal{B} 49'34		asc. node		4274 Nov 06 12:01	29° \mathfrak{M} 19'32	
	4272 May 07 23:30	0° Π				4274 Nov 07 03:20	0° \mathfrak{L}	
asc. node	4272 May 21 16:57	16° Π 59'05				4274 Dec 04 02:17	0° \mathfrak{M}	
	4272 Jun 01 06:33	0° \mathfrak{D}				4274 Dec 29 10:30	0° \mathcal{A}	
	4272 Jun 25 18:54	0° \mathcal{Q}				4275 Jan 23 01:00	0° \mathfrak{B}	
	4272 Jul 20 13:50	0° \mathfrak{M}				4275 Feb 16 07:00	0° \approx	
	4272 Aug 14 18:11	0° \mathfrak{L}		desc. node		4275 Feb 26 02:30	12° \approx 12'10	
	4272 Sep 09 13:28	0° \mathfrak{M}				4275 Mar 12 09:09	0° \mathcal{H}	
desc. node	4272 Sep 10 07:20	0° \mathfrak{M} 51'03				4275 Apr 05 10:10	0° \mathcal{Y}	
	4272 Oct 06 11:21	0° \mathcal{A}		morning set		4275 Apr 29 09:03	29° \mathcal{Y} 50'56	
evening max el	4272 Oct 29 02:57	23° \mathcal{A} 24'06	46°25'32			4275 Apr 29 11:57	0° \mathcal{B}	
	4272 Nov 05 01:40	0° \mathfrak{B}				4275 May 23 15:52	0° Π	
greatest brilliancy	4272 Dec 08 07:08	23° \mathfrak{B} 07'38	-4.9m					
retrograde	4272 Dec 17 21:56	24° \mathfrak{B} 51'56		superior conj		4275 Jun 06 19:55	17° Π 31'46	-0°29'08
evening set	4273 Jan 01 05:30	20° \mathfrak{B} 50'07		minimum elong		4275 Jun 07 02:11	17° Π 51'05	0°28'51
asc. node	4273 Jan 01 09:39	20° \mathfrak{B} 44'37		max. Earth dist.		4275 Jun 09 10:48	20° Π 45'59	1.72964 AU
inferior conj	4273 Jan 07 12:19	17° \mathfrak{B} 11'17	1°34'52			4275 Jun 16 22:20	0° \mathfrak{D}	
minimum elong	4273 Jan 07 08:42	17° \mathfrak{B} 16'47	1°33'43	asc. node		4275 Jun 19 04:51	2° \mathfrak{D} 48'04	
min. Earth dist.	4273 Jan 07 13:53	17° \mathfrak{B} 08'54	0.26625 AU			4275 Jul 11 07:06	0° \mathcal{Q}	
morning rise	4273 Jan 13 11:32	13° \mathfrak{B} 41'35		evening rise		4275 Jul 14 03:45	3° \mathcal{Q} 30'55	
direct	4273 Jan 28 00:07	9° \mathfrak{B} 28'54				4275 Aug 04 17:51	0° \mathfrak{M}	
greatest brilliancy	4273 Feb 07 06:16	11° \mathfrak{B} 28'17	-4.9m			4275 Aug 29 07:00	0° \mathfrak{L}	
	4273 Mar 06 12:21	0° \approx				4275 Sep 22 23:47	0° \mathfrak{M}	
morning max el	4273 Mar 19 12:22	12° \approx 25'04	46°55'20	desc. node		4275 Oct 08 19:13	19° \mathfrak{M} 04'02	
	4273 Apr 05 05:27	0° \mathcal{H}				4275 Oct 17 21:57	0° \mathcal{A}	
desc. node	4273 Apr 23 00:15	19° \mathcal{H} 51'38				4275 Nov 12 03:49	0° \mathfrak{B}	
	4273 May 01 20:07	0° \mathcal{Y}				4275 Dec 07 23:06	0° \approx	
	4273 May 27 10:26	0° \mathcal{B}				4276 Jan 04 02:38	0° \mathcal{H}	
	4273 Jun 21 14:27	0° Π		evening max el		4276 Jan 11 01:46	7° \mathcal{H} 12'35	47°11'05
	4273 Jul 16 13:03	0° \mathfrak{D}		asc. node		4276 Jan 29 21:36	24° \mathcal{H} 48'46	
	4273 Aug 10 07:15	0° \mathcal{Q}				4276 Feb 05 11:41	0° \mathcal{Y}	
asc. node	4273 Aug 14 02:34	4° \mathcal{Q} 37'49		greatest brilliancy		4276 Feb 20 16:09	8° \mathcal{Y} 39'34	-4.9m
	4273 Sep 03 20:43	0° \mathfrak{M}		retrograde		4276 Mar 01 21:02	10° \mathcal{Y} 38'19	
morning set	4273 Sep 16 22:34	16° \mathfrak{M} 04'19		evening set		4276 Mar 19 18:58	4° \mathcal{Y} 25'05	
	4273 Sep 28 05:28	0° \mathfrak{L}		min. Earth dist.		4276 Mar 22 01:31	3° \mathcal{Y} 01'09	0.27310 AU
max. Earth dist.	4273 Oct 20 19:52	28° \mathfrak{L} 00'04	1.72559 AU	inferior conj		4276 Mar 22 14:52	2° \mathcal{Y} 40'25	8°59'58
	4273 Oct 22 10:30	0° \mathfrak{M}		minimum elong		4276 Mar 22 13:28	2° \mathcal{Y} 42'36	8°59'57
				morning rise		4276 Mar 25 08:07	1° \mathcal{Y} 00'11	
superior conj	4273 Oct 23 15:21	1° \mathfrak{M} 29'38	1°18'08			4276 Mar 27 00:54	30° \mathcal{R} \mathcal{H}	
minimum elong	4273 Oct 23 22:30	1° \mathfrak{M} 51'52	1°17'59	direct		4276 Apr 12 07:01	24° \mathcal{H} 51'48	
	4273 Nov 15 13:09	0° \mathcal{A}		greatest brilliancy		4276 Apr 21 10:10	26° \mathcal{H} 26'31	-4.8m
evening rise	4273 Dec 01 01:04	19° \mathcal{A} 19'22				4276 Apr 29 09:21	0° \mathcal{Y}	
desc. node	4273 Dec 03 16:58	22° \mathcal{A} 38'41		desc. node		4276 May 20 11:52	15° \mathcal{Y} 36'20	
	4273 Dec 09 14:27	0° \mathfrak{B}		morning max el		4276 May 31 22:50	26° \mathcal{Y} 18'23	46°14'51
	4274 Jan 02 15:02	0° \approx				4276 Jun 04 16:29	0° \mathcal{B}	
	4274 Jan 26 15:50	0° \mathcal{H}				4276 Jul 02 22:48	0° Π	
	4274 Feb 19 19:07	0° \mathcal{Y}				4276 Jul 29 10:29	0° \mathfrak{D}	

	4276 Aug 24 02:13	0°♈		4279 Feb 07 00:08	0°♑
asc. node	4276 Sep 10 14:19	20°♈51'54	asc. node	4279 Feb 26 09:18	22°♑26'10
	4276 Sep 18 04:25	0°♐		4279 Mar 05 03:21	0°♐
	4276 Oct 12 19:55	0°♑	evening max el	4279 Mar 24 00:57	20°♐03'28 46°43'20
	4276 Nov 06 03:21	0°♒		4279 Apr 03 08:14	0°♑
morning set	4276 Nov 25 18:52	24°♒27'17	greatest brilliancy	4279 May 02 14:53	20°♑24'56 -4.8m
	4276 Nov 30 05:27	0°♑	retrograde	4279 May 13 06:34	22°♑32'02
	4276 Dec 24 04:29	0°♒	evening set	4279 May 28 21:45	17°♑45'59
desc. node	4276 Dec 31 04:52	8°♒48'11	inferior conj	4279 Jun 03 12:49	14°♑21'15 3°25'40
max. Earth dist.	4277 Jan 02 15:31	11°♒52'14 1.71314 AU	minimum elong	4279 Jun 03 19:57	14°♑10'03 3°23'39
			min. Earth dist.	4279 Jun 03 10:03	14°♑25'35 0.28295 AU
superior conj	4277 Jan 04 09:36	14°♒04'19 -0°10'07	morning rise	4279 Jun 09 18:31	10°♑36'34
minimum elong	4277 Jan 04 06:59	13°♒56'07 0°10'00	desc. node	4279 Jun 17 23:50	7°♑09'48
behind sun begin	4277 Jan 03 10:23	12°♒51'27	direct	4279 Jun 24 17:26	6°♑15'39
behind sun end	4277 Jan 05 03:35	15°♒00'48	greatest brilliancy	4279 Jul 04 16:37	8°♑03'19 -4.7m
	4277 Jan 17 01:52	0°♑		4279 Aug 05 23:34	0°♑
	4277 Feb 09 22:35	0°♑	morning max el	4279 Aug 12 10:58	6°♑00'32 45°43'13
evening rise	4277 Feb 14 08:02	5°♑31'21		4279 Sep 04 23:50	0°♈
	4277 Mar 05 20:07	0°♑		4279 Oct 01 22:16	0°♐
	4277 Mar 29 20:41	0°♐	asc. node	4279 Oct 09 02:14	8°♐16'49
asc. node	4277 Apr 23 07:06	0°♑12'32		4279 Oct 27 12:13	0°♑
	4277 Apr 23 03:02	0°♑		4279 Nov 21 07:18	0°♒
	4277 May 17 18:11	0°♑		4279 Dec 15 15:07	0°♑
	4277 Jun 11 22:14	0°♈		4280 Jan 08 16:37	0°♒
	4277 Jul 07 23:26	0°♐	desc. node	4280 Jan 28 16:41	25°♒04'32
	4277 Aug 04 19:30	0°♑		4280 Feb 01 14:49	0°♑
desc. node	4277 Aug 12 21:32	8°♑03'17	morning set	4280 Feb 09 20:08	10°♑19'43
evening max el	4277 Aug 15 04:47	10°♑16'21 45°33'50		4280 Feb 25 11:39	0°♑
	4277 Sep 07 15:58	0°♒		4280 Mar 20 08:44	0°♑
greatest brilliancy	4277 Sep 23 11:14	8°♒19'01 -4.7m			
retrograde	4277 Oct 02 19:44	9°♒53'57	superior conj	4280 Mar 22 03:38	2°♑14'36 -1°26'34
evening set	4277 Oct 20 10:49	4°♒06'44	minimum elong	4280 Mar 22 01:36	2°♑08'13 1°26'34
inferior conj	4277 Oct 24 00:49	1°♒55'20 -7°59'53	max. Earth dist.	4280 Mar 25 05:11	6°♑05'11 1.71461 AU
minimum elong	4277 Oct 24 08:22	1°♒43'36 7°58'59		4280 Apr 13 07:45	0°♐
min. Earth dist.	4277 Oct 24 22:07	1°♒22'14 0.28291 AU	evening rise	4280 May 01 08:19	22°♐27'08
	4277 Oct 27 03:39	30°♑		4280 May 07 10:16	0°♑
morning rise	4277 Oct 28 05:34	29°♑21'18	asc. node	4280 May 20 19:05	16°♑32'19
direct	4277 Nov 14 08:09	23°♑45'49		4280 May 31 17:24	0°♑
greatest brilliancy	4277 Nov 25 12:24	26°♑03'59 -4.8m		4280 Jun 25 05:58	0°♈
	4277 Dec 03 08:42	0°♒		4280 Jul 20 01:21	0°♐
asc. node	4277 Dec 03 23:46	0°♒22'50		4280 Aug 14 06:32	0°♑
morning max el	4278 Jan 03 17:29	26°♒28'39 46°44'04	desc. node	4280 Sep 09 09:19	0°♒17'03
	4278 Jan 07 04:04	0°♑		4280 Sep 09 03:20	0°♒
	4278 Feb 03 10:55	0°♒		4280 Oct 06 04:29	0°♑
	4278 Feb 28 23:47	0°♑	evening max el	4280 Oct 26 16:42	21°♑04'32 46°23'23
desc. node	4278 Mar 25 14:21	29°♑42'50		4280 Nov 05 05:08	0°♒
	4278 Mar 25 19:59	0°♑	greatest brilliancy	4280 Dec 05 19:31	20°♒41'39 -4.9m
	4278 Apr 19 08:59	0°♑	retrograde	4280 Dec 15 10:47	22°♒26'00
	4278 May 13 19:22	0°♐	evening set	4280 Dec 29 18:01	18°♒23'49
	4278 Jun 07 05:33	0°♑	asc. node	4280 Dec 31 11:44	17°♒26'44
	4278 Jul 01 16:11	0°♑	inferior conj	4281 Jan 05 00:46	14°♒45'00 1°10'40
morning set	4278 Jul 08 14:23	8°♑30'04	minimum elong	4281 Jan 04 22:03	14°♒49'08 1°09'48
asc. node	4278 Jul 16 16:44	18°♑26'29	min. Earth dist.	4281 Jan 05 03:25	14°♒40'58 0.26649 AU
	4278 Jul 26 02:38	0°♈	morning rise	4281 Jan 11 01:47	11°♒13'14
max. Earth dist.	4278 Aug 13 03:52	22°♈11'48 1.73474 AU	direct	4281 Jan 25 13:30	7°♒02'03
			greatest brilliancy	4281 Feb 04 20:19	9°♒02'38 -4.9m
superior conj	4278 Aug 14 09:01	23°♈41'28 1°01'28		4281 Mar 06 17:31	0°♑
minimum elong	4278 Aug 14 00:04	23°♈13'55 1°01'10	morning max el	4281 Mar 17 02:57	10°♑03'36 46°56'01
	4278 Aug 19 12:03	0°♐		4281 Apr 04 23:22	0°♑
	4278 Sep 12 20:17	0°♑	desc. node	4281 Apr 22 02:16	19°♑13'29
evening rise	4278 Sep 19 09:04	8°♑03'19		4281 May 01 10:37	0°♑
	4278 Oct 07 04:01	0°♒		4281 May 26 23:17	0°♐
	4278 Oct 31 12:11	0°♑		4281 Jun 21 02:19	0°♑
desc. node	4278 Nov 05 07:09	5°♑54'02		4281 Jul 16 00:18	0°♑
	4278 Nov 24 21:20	0°♒		4281 Aug 09 18:06	0°♈
	4278 Dec 19 08:07	0°♑	asc. node	4281 Aug 13 04:28	4°♈10'42
	4279 Jan 12 22:53	0°♑		4281 Sep 03 07:21	0°♐

morning set	4281 Sep 14 16:08	13° \cap 58'04		evening set	4284 Mar 17 06:45	2° Υ 04'30	
	4281 Sep 27 16:01	0° $\underline{\cap}$		min. Earth dist.	4284 Mar 19 14:34	0° Υ 38'32	0.27270 AU
max. Earth dist.	4281 Oct 18 13:43	25° $\underline{\cap}$ 53'44	1.72599 AU	inferior conj	4284 Mar 20 04:23	0° Υ 17'04	8°58'23
				minimum elong	4284 Mar 20 02:02	0° Υ 20'43	8°58'18
superior conj	4281 Oct 21 07:56	29° $\underline{\cap}$ 19'17	1°19'24		4284 Mar 20 15:22	30° \mathbb{R} \mathbb{H}	
minimum elong	4281 Oct 21 14:32	29° $\underline{\cap}$ 39'47	1°19'18	morning rise	4284 Mar 22 21:30	28° \mathbb{H} 36'55	
	4281 Oct 21 21:03	0° \mathbb{M}		direct	4284 Apr 09 20:07	22° \mathbb{H} 29'16	
	4281 Nov 14 23:47	0° \mathbb{J}		greatest brilliancy	4284 Apr 18 23:03	24° \mathbb{H} 03'28	-4.8m
evening rise	4281 Nov 28 14:57	16° \mathbb{J} 59'31			4284 Apr 30 22:25	0° Υ	
desc. node	4281 Dec 02 19:08	22° \mathbb{J} 11'55		desc. node	4284 May 19 14:03	14° Υ 37'04	
	4281 Dec 09 01:14	0° \mathbb{Z}		morning max el	4284 May 29 11:43	23° Υ 56'28	46°16'19
	4282 Jan 02 02:03	0° \approx			4284 Jun 04 13:36	0° \mathbb{B}	
	4282 Jan 26 03:08	0° \mathbb{H}			4284 Jul 02 14:17	0° \mathbb{I}	
	4282 Feb 19 06:46	0° Υ			4284 Jul 28 23:42	0° \mathbb{G}	
	4282 Mar 15 17:07	0° \mathbb{B}			4284 Aug 23 14:16	0° \mathbb{Q}	
asc. node	4282 Mar 25 21:12	12° \mathbb{B} 18'57		asc. node	4284 Sep 09 16:21	20° \mathbb{Q} 23'23	
	4282 Apr 09 16:54	0° \mathbb{I}			4284 Sep 17 15:49	0° \mathbb{M}	
	4282 May 05 18:12	0° \mathbb{G}			4284 Oct 12 06:57	0° $\underline{\cap}$	
evening max el	4282 Jun 02 23:55	29° \mathbb{G} 46'39	45°45'47		4284 Nov 05 14:13	0° \mathbb{M}	
	4282 Jun 03 05:24	0° \mathbb{Q}		morning set	4284 Nov 23 09:17	22° \mathbb{M} 08'38	
greatest brilliancy	4282 Jul 10 23:54	28° \mathbb{Q} 01'27	-4.7m		4284 Nov 29 16:17	0° \mathbb{J}	
desc. node	4282 Jul 15 11:45	29° \mathbb{Q} 24'42			4284 Dec 23 15:21	0° \mathbb{Z}	
	4282 Jul 18 17:35	0° \mathbb{M}		desc. node	4284 Dec 30 06:53	8° \mathbb{Z} 20'28	
retrograde	4282 Jul 22 00:18	0° \mathbb{M} 12'20		max. Earth dist.	4284 Dec 30 21:48	9° \mathbb{Z} 07'16	1.71341 AU
	4282 Jul 25 05:38	30° \mathbb{R} \mathbb{Q}					
evening set	4282 Aug 06 22:18	25° \mathbb{Q} 19'33		superior conj	4285 Jan 01 21:08	11° \mathbb{Z} 35'47	-0°06'17
min. Earth dist.	4282 Aug 12 04:57	22° \mathbb{Q} 07'39	0.29072 AU	minimum elong	4285 Jan 01 19:31	11° \mathbb{Z} 30'43	0°06'12
inferior conj	4282 Aug 12 12:14	21° \mathbb{Q} 56'15	-6°00'04	behind sun begin	4284 Dec 31 19:29	10° \mathbb{Z} 15'19	
minimum elong	4282 Aug 12 02:24	22° \mathbb{Q} 11'39	5°58'00	behind sun end	4285 Jan 02 19:32	12° \mathbb{Z} 46'09	
morning rise	4282 Aug 17 06:40	19° \mathbb{Q} 01'25			4285 Jan 16 12:45	0° \approx	
direct	4282 Sep 03 03:25	13° \mathbb{Q} 39'12			4285 Feb 09 09:30	0° \mathbb{H}	
greatest brilliancy	4282 Sep 13 09:14	15° \mathbb{Q} 33'14	-4.7m	evening rise	4285 Feb 11 18:45	2° \mathbb{H} 59'52	
	4282 Oct 06 17:04	0° \mathbb{M}			4285 Mar 05 07:05	0° Υ	
morning max el	4282 Oct 22 06:50	14° \mathbb{M} 03'27	45°58'25		4285 Mar 29 07:49	0° \mathbb{B}	
asc. node	4282 Nov 05 14:04	28° \mathbb{M} 37'57		asc. node	4285 Apr 22 09:14	29° \mathbb{B} 44'00	
	4282 Nov 06 20:55	0° $\underline{\cap}$			4285 Apr 22 14:27	0° \mathbb{I}	
	4282 Dec 03 16:20	0° \mathbb{M}			4285 May 17 06:05	0° \mathbb{G}	
	4282 Dec 28 23:05	0° \mathbb{J}			4285 Jun 11 11:04	0° \mathbb{Q}	
	4283 Jan 22 12:51	0° \mathbb{Z}			4285 Jul 07 14:08	0° \mathbb{M}	
	4283 Feb 15 18:27	0° \approx			4285 Aug 04 14:59	0° $\underline{\cap}$	
desc. node	4283 Feb 25 04:28	11° \approx 43'03		desc. node	4285 Aug 11 23:31	7° $\underline{\cap}$ 14'45	
	4283 Mar 11 20:21	0° \mathbb{H}		evening max el	4285 Aug 12 18:13	7° $\underline{\cap}$ 59'33	45°33'06
	4283 Apr 04 21:10	0° Υ			4285 Sep 08 15:41	0° \mathbb{M}	
morning set	4283 Apr 26 22:30	27° Υ 29'43		greatest brilliancy	4285 Sep 21 01:01	6° \mathbb{M} 04'11	-4.7m
	4283 Apr 28 22:48	0° \mathbb{B}		retrograde	4285 Sep 30 09:53	7° \mathbb{M} 39'47	
	4283 May 23 02:35	0° \mathbb{I}		evening set	4285 Oct 18 03:42	1° \mathbb{M} 48'37	
					4285 Oct 21 03:00	30° \mathbb{R} $\underline{\cap}$	
superior conj	4283 Jun 04 11:18	15° \mathbb{I} 17'56	-0°32'22	inferior conj	4285 Oct 21 15:46	29° $\underline{\cap}$ 40'11	-8°07'25
minimum elong	4283 Jun 04 18:11	15° \mathbb{I} 39'13	0°32'04	minimum elong	4285 Oct 21 22:42	29° $\underline{\cap}$ 29'25	8°06'40
max. Earth dist.	4283 Jun 07 07:23	18° \mathbb{I} 48'21	1.72919 AU	min. Earth dist.	4285 Oct 22 12:46	29° $\underline{\cap}$ 07'35	0.28355 AU
	4283 Jun 16 08:59	0° \mathbb{G}		morning rise	4285 Oct 25 17:22	27° $\underline{\cap}$ 10'47	
asc. node	4283 Jun 18 06:54	2° \mathbb{G} 21'37		direct	4285 Nov 11 23:03	21° $\underline{\cap}$ 29'34	
	4283 Jul 10 17:46	0° \mathbb{Q}		greatest brilliancy	4285 Nov 23 04:20	23° $\underline{\cap}$ 48'17	-4.8m
evening rise	4283 Jul 11 21:24	1° \mathbb{Q} 24'55		asc. node	4285 Dec 03 01:53	29° $\underline{\cap}$ 00'24	
	4283 Aug 04 04:38	0° \mathbb{M}			4285 Dec 04 14:06	0° \mathbb{M}	
	4283 Aug 28 18:03	0° $\underline{\cap}$		morning max el	4286 Jan 01 07:57	24° \mathbb{M} 08'00	46°42'53
	4283 Sep 22 11:19	0° \mathbb{M}			4286 Jan 07 00:38	0° \mathbb{J}	
desc. node	4283 Oct 07 21:17	18° \mathbb{M} 34'16			4286 Feb 03 02:29	0° \mathbb{Z}	
	4283 Oct 17 10:13	0° \mathbb{J}			4286 Feb 28 13:20	0° \approx	
	4283 Nov 11 17:15	0° \mathbb{Z}		desc. node	4286 Mar 24 16:26	29° \approx 11'11	
	4283 Dec 07 14:39	0° \approx			4286 Mar 25 08:27	0° \mathbb{H}	
	4284 Jan 03 23:08	0° \mathbb{H}			4286 Apr 18 20:46	0° Υ	
evening max el	4284 Jan 08 15:57	4° \mathbb{H} 50'00	47°10'32		4286 May 13 06:44	0° \mathbb{B}	
asc. node	4284 Jan 28 23:30	23° \mathbb{H} 39'11			4286 Jun 06 16:37	0° \mathbb{I}	
	4284 Feb 06 11:27	0° Υ			4286 Jul 01 03:02	0° \mathbb{G}	
greatest brilliancy	4284 Feb 18 06:26	6° Υ 16'12	-4.9m	morning set	4286 Jul 06 07:43	6° \mathbb{G} 22'41	
retrograde	4284 Feb 28 10:36	8° Υ 14'05		asc. node	4286 Jul 15 18:39	17° \mathbb{G} 59'19	

	4286 Jul 25 13:23	0°♈		morning rise	4289 Jan 08 15:44	8°♊43'49	
max. Earth dist.	4286 Aug 10 23:45	20°♈12'17	1.73486 AU	direct	4289 Jan 23 02:57	4°♊34'17	
				greatest brilliancy	4289 Feb 02 09:54	6°♊35'19	-4.9m
superior conj	4286 Aug 12 03:10	21°♈36'40	0°59'14		4289 Mar 06 21:15	0°♊	
minimum elong	4286 Aug 11 18:13	21°♈09'05	0°58'54	morning max el	4289 Mar 14 17:09	7°♊40'13	46°56'33
	4286 Aug 18 22:46	0°♎			4289 Apr 04 17:13	0°♋	
	4286 Sep 12 07:05	0°♊		desc. node	4289 Apr 21 04:22	18°♋35'00	
evening rise	4286 Sep 17 02:48	5°♊56'39			4289 May 01 01:16	0°♌	
	4286 Oct 06 15:01	0°♌			4289 May 26 12:21	0°♍	
	4286 Oct 30 23:29	0°♌			4289 Jun 20 14:27	0°♎	
desc. node	4286 Nov 04 09:15	5°♌25'30			4289 Jul 15 11:49	0°♏	
	4286 Nov 24 09:02	0°♏			4289 Aug 09 05:15	0°♐	
	4286 Dec 18 20:22	0°♑		asc. node	4289 Aug 12 06:32	3°♐43'07	
	4287 Jan 12 11:56	0°♋			4289 Sep 02 18:19	0°♑	
	4287 Feb 06 14:32	0°♌		morning set	4289 Sep 12 09:43	11°♑50'56	
asc. node	4287 Feb 25 11:22	21°♌46'00			4289 Sep 27 02:56	0°♊	
	4287 Mar 04 20:43	0°♍		max. Earth dist.	4289 Oct 16 05:20	23°♊39'18	1.72645 AU
evening max el	4287 Mar 21 15:12	17°♋43'39	46°45'29				
	4287 Apr 03 11:51	0°♎		superior conj	4289 Oct 19 00:28	27°♎07'35	1°20'34
greatest brilliancy	4287 Apr 30 07:04	18°♎10'59	-4.8m	minimum elong	4289 Oct 19 06:28	27°♎26'12	1°20'29
retrograde	4287 May 10 22:39	20°♎18'23			4289 Oct 21 08:01	0°♏	
evening set	4287 May 26 15:38	15°♎28'48			4289 Nov 14 10:51	0°♐	
inferior conj	4287 Jun 01 04:23	12°♎07'38	3°45'02	evening rise	4289 Nov 26 04:31	14°♐37'21	
minimum elong	4287 Jun 01 12:04	11°♎55'36	3°42'54	desc. node	4289 Dec 01 21:05	21°♐43'04	
min. Earth dist.	4287 Jun 01 01:46	12°♎11'43	0.28268 AU		4289 Dec 08 12:29	0°♑	
morning rise	4287 Jun 07 08:52	8°♎24'58			4290 Jan 01 13:29	0°♒	
desc. node	4287 Jun 17 01:47	4°♎35'35			4290 Jan 25 14:50	0°♋	
direct	4287 Jun 22 08:21	4°♎02'15			4290 Feb 18 18:49	0°♌	
greatest brilliancy	4287 Jul 02 07:39	5°♎50'19	-4.7m		4290 Mar 15 05:43	0°♍	
	4287 Aug 06 00:46	0°♏		asc. node	4290 Mar 24 23:18	11°♍46'17	
morning max el	4287 Aug 10 03:09	3°♏50'39	45°43'32		4290 Apr 09 06:32	0°♎	
	4287 Sep 04 16:15	0°♐			4290 May 05 10:06	0°♏	
	4287 Oct 01 11:55	0°♑		evening max el	4290 May 31 16:19	27°♏35'46	45°47'19
asc. node	4287 Oct 08 04:21	7°♑44'26			4290 Jun 03 04:03	0°♐	
	4287 Oct 27 00:38	0°♊		greatest brilliancy	4290 Jul 08 16:19	25°♐52'27	-4.7m
	4287 Nov 20 19:06	0°♌		desc. node	4290 Jul 14 13:43	27°♐33'33	
	4287 Dec 15 02:35	0°♌		retrograde	4290 Jul 19 16:38	28°♐03'08	
	4288 Jan 08 03:54	0°♏		evening set	4290 Aug 04 12:23	23°♐14'12	
desc. node	4288 Jan 27 18:35	24°♏35'21		inferior conj	4290 Aug 10 04:42	19°♐47'12	-5°45'48
	4288 Feb 01 02:00	0°♑		minimum elong	4290 Aug 09 18:57	20°♐02'31	5°43'40
morning set	4288 Feb 07 05:55	7°♑44'33		min. Earth dist.	4290 Aug 09 21:00	19°♐59'19	0.29056 AU
	4288 Feb 24 22:47	0°♋		morning rise	4290 Aug 15 01:42	16°♐48'24	
				direct	4290 Aug 31 19:56	11°♐30'40	
superior conj	4288 Mar 19 14:38	29°♋43'46	-1°26'10	greatest brilliancy	4290 Sep 11 00:26	13°♐23'12	-4.7m
minimum elong	4288 Mar 19 11:32	29°♋34'01	1°26'08		4290 Oct 06 23:34	0°♑	
	4288 Mar 19 19:49	0°♌		morning max el	4290 Oct 19 21:32	11°♑48'54	45°56'59
max. Earth dist.	4288 Mar 22 12:05	3°♌21'37	1.71422 AU	asc. node	4290 Nov 04 16:08	27°♑55'54	
	4288 Apr 12 18:47	0°♍			4290 Nov 06 14:30	0°♊	
evening rise	4288 Apr 28 21:15	20°♍04'02			4290 Dec 03 06:40	0°♌	
	4288 May 06 21:18	0°♎			4290 Dec 28 12:04	0°♌	
asc. node	4288 May 19 21:06	16°♎04'25			4291 Jan 22 01:08	0°♏	
	4288 May 31 04:30	0°♏			4291 Feb 15 06:19	0°♑	
	4288 Jun 24 17:19	0°♐		desc. node	4291 Feb 24 06:36	11°♑13'13	
	4288 Jul 19 13:12	0°♑			4291 Mar 11 07:55	0°♋	
	4288 Aug 13 19:17	0°♊			4291 Apr 04 08:29	0°♌	
desc. node	4288 Sep 08 11:22	29°♊41'49		morning set	4291 Apr 24 11:47	25°♌06'58	
	4288 Sep 08 17:46	0°♌			4291 Apr 28 09:56	0°♍	
	4288 Oct 05 22:31	0°♌			4291 May 22 13:35	0°♎	
evening max el	4288 Oct 24 07:18	18°♌45'49	46°21'14				
	4288 Nov 05 11:05	0°♏		superior conj	4291 Jun 02 02:44	13°♎03'23	-0°35'34
greatest brilliancy	4288 Dec 03 07:59	18°♏14'40	-4.9m	minimum elong	4291 Jun 02 10:13	13°♎26'29	0°35'14
retrograde	4288 Dec 12 23:36	19°♏58'39		max. Earth dist.	4291 Jun 05 02:51	16°♎46'16	1.72872 AU
evening set	4288 Dec 27 06:46	15°♏56'13			4291 Jun 15 19:56	0°♏	
asc. node	4288 Dec 30 13:38	14°♏05'14		asc. node	4291 Jun 17 08:51	1°♏53'52	
inferior conj	4289 Jan 02 13:10	12°♏17'32	0°46'23	evening rise	4291 Jul 09 15:10	29°♏18'18	
minimum elong	4289 Jan 02 11:23	12°♏20'15	0°45'48		4291 Jul 10 04:44	0°♐	
min. Earth dist.	4289 Jan 02 16:51	12°♏11'55	0.26671 AU		4291 Aug 03 15:43	0°♑	

	4291 Aug 28 05:24	0°♌	morning max el	4293 Dec 29 23:22	21°♌50'10	46°41'31
	4291 Sep 21 23:09	0°♍		4294 Jan 06 20:30	0°♌	
desc. node	4291 Oct 06 23:24	18°♍03'43		4294 Feb 02 17:51	0°♍	
	4291 Oct 16 22:51	0°♌		4294 Feb 28 02:52	0°♎	
	4291 Nov 11 07:11	0°♍	desc. node	4294 Mar 23 18:28	28°♎39'04	
	4291 Dec 07 06:55	0°♎		4294 Mar 24 21:01	0°♌	
	4292 Jan 03 20:58	0°♌		4294 Apr 18 08:42	0°♍	
evening max el	4292 Jan 06 05:13	2°♌23'29 47°09'49		4294 May 12 18:13	0°♌	
asc. node	4292 Jan 28 01:37	22°♌26'18		4294 Jun 06 03:46	0°♍	
	4292 Feb 07 21:59	0°♍		4294 Jun 30 13:56	0°♎	
greatest brilliancy	4292 Feb 15 21:03	3°♍51'05 -4.9m	morning set	4294 Jul 04 00:51	4°♎14'34	
retrograde	4292 Feb 25 23:41	5°♍47'46	asc. node	4294 Jul 14 20:43	17°♎32'31	
	4292 Mar 14 06:13	30°♌		4294 Jul 25 00:07	0°♍	
evening set	4292 Mar 14 17:48	29°♌42'36	max. Earth dist.	4294 Aug 08 21:34	18°♍18'48 1.73493 AU	
min. Earth dist.	4292 Mar 17 03:48	28°♌13'23 0.27226 AU				
inferior conj	4292 Mar 17 17:41	27°♌51'48 8°55'46	superior conj	4294 Aug 09 21:17	19°♍31'44 0°56'54	
minimum elong	4292 Mar 17 14:25	27°♌56'52 8°55'36	minimum elong	4294 Aug 09 12:21	19°♍04'16 0°56'34	
morning rise	4292 Mar 20 11:11	26°♌10'59		4294 Aug 18 09:29	0°♎	
direct	4292 Apr 07 08:23	20°♌04'39		4294 Sep 11 17:52	0°♌	
greatest brilliancy	4292 Apr 16 12:14	21°♌39'09 -4.9m	evening rise	4294 Sep 14 20:48	3°♌50'54	
	4292 May 02 01:15	0°♍		4294 Oct 06 01:59	0°♍	
desc. node	4292 May 18 16:02	13°♍37'47		4294 Oct 30 10:44	0°♌	
morning max el	4292 May 27 00:11	21°♍32'26 46°17'59	desc. node	4294 Nov 03 11:12	4°♌56'43	
	4292 Jun 04 10:19	0°♌		4294 Nov 23 20:40	0°♍	
	4292 Jul 02 05:46	0°♍		4294 Dec 18 08:32	0°♎	
	4292 Jul 28 13:02	0°♎		4295 Jan 12 00:56	0°♌	
	4292 Aug 23 02:28	0°♍		4295 Feb 06 05:02	0°♍	
asc. node	4292 Sep 08 18:27	19°♍54'32	asc. node	4295 Feb 24 13:25	21°♍05'24	
	4292 Sep 17 03:22	0°♎		4295 Mar 04 14:29	0°♌	
	4292 Oct 11 18:09	0°♌	evening max el	4295 Mar 19 06:21	15°♌25'53 46°47'21	
	4292 Nov 05 01:14	0°♍		4295 Apr 03 17:32	0°♍	
morning set	4292 Nov 21 00:03	19°♍50'39	greatest brilliancy	4295 Apr 27 22:49	15°♍55'41 -4.8m	
	4292 Nov 29 03:17	0°♌	retrograde	4295 May 08 14:54	18°♍03'27	
	4292 Dec 23 02:24	0°♍	evening set	4295 May 24 09:24	13°♍10'20	
max. Earth dist.	4292 Dec 28 06:59	6°♍30'45 1.71380 AU	inferior conj	4295 May 29 19:38	9°♍52'48 4°04'20	
desc. node	4292 Dec 29 08:52	7°♍51'55	minimum elong	4295 May 30 03:51	9°♍39'58 4°02'05	
			min. Earth dist.	4295 May 29 16:58	9°♍56'58 0.28239 AU	
superior conj	4292 Dec 30 08:41	9°♍06'40 -0°02'25	morning rise	4295 Jun 04 22:43	6°♍12'31	
minimum elong	4292 Dec 30 08:04	9°♍04'44 0°02'23	desc. node	4295 Jun 16 03:45	2°♍05'21	
behind sun begin	4292 Dec 29 06:37	7°♍44'54	direct	4295 Jun 19 23:23	1°♍47'52	
behind sun end	4292 Dec 31 09:31	10°♍24'36	greatest brilliancy	4295 Jun 29 21:49	3°♍35'45 -4.7m	
	4293 Jan 15 23:53	0°♎		4295 Aug 06 00:43	0°♎	
	4293 Feb 08 20:42	0°♌	morning max el	4295 Aug 07 19:35	1°♎41'29 45°44'00	
evening rise	4293 Feb 09 05:10	0°♌26'36		4295 Sep 04 08:15	0°♍	
	4293 Mar 04 18:23	0°♍		4295 Oct 01 01:16	0°♎	
	4293 Mar 28 19:14	0°♌	asc. node	4295 Oct 07 06:18	7°♎12'19	
asc. node	4293 Apr 21 11:14	29°♌14'19		4295 Oct 26 12:47	0°♌	
	4293 Apr 22 02:07	0°♍		4295 Nov 20 06:40	0°♍	
	4293 May 16 18:13	0°♎		4295 Dec 14 13:50	0°♌	
	4293 Jun 11 00:07	0°♍		4296 Jan 07 14:57	0°♍	
	4293 Jul 07 05:08	0°♎	desc. node	4296 Jan 26 20:45	24°♍07'45	
	4293 Aug 04 11:10	0°♌		4296 Jan 31 12:57	0°♎	
evening max el	4293 Aug 10 08:25	5°♌44'32 45°32'33	morning set	4296 Feb 04 16:16	5°♎11'57	
desc. node	4293 Aug 11 01:38	6°♌25'33		4296 Feb 24 09:40	0°♌	
	4293 Sep 10 00:44	0°♍				
greatest brilliancy	4293 Sep 18 14:25	3°♍49'25 -4.7m	superior conj	4296 Mar 17 01:45	27°♌13'54 -1°25'34	
retrograde	4293 Sep 28 00:47	5°♍26'27	minimum elong	4296 Mar 16 21:35	27°♌00'50 1°25'33	
	4293 Oct 15 01:11	30°♌		4296 Mar 19 06:40	0°♍	
evening set	4293 Oct 15 20:36	29°♌31'29	max. Earth dist.	4296 Mar 19 22:02	0°♍48'14 1.71391 AU	
inferior conj	4293 Oct 19 06:58	27°♌25'45 -8°14'06		4296 Apr 12 05:38	0°♌	
minimum elong	4293 Oct 19 13:15	27°♌15'59 8°13'29	evening rise	4296 Apr 26 10:00	17°♌40'44	
min. Earth dist.	4293 Oct 20 03:18	26°♌54'11 0.28416 AU		4296 May 06 08:10	0°♍	
morning rise	4293 Oct 23 05:35	25°♌00'54	asc. node	4296 May 18 23:03	15°♍36'43	
direct	4293 Nov 09 14:36	19°♌14'10		4296 May 30 15:28	0°♎	
greatest brilliancy	4293 Nov 20 20:07	21°♌33'13 -4.8m		4296 Jun 24 04:32	0°♍	
asc. node	4293 Dec 02 03:45	27°♌40'40		4296 Jul 19 00:54	0°♎	
	4293 Dec 05 11:10	0°♍		4296 Aug 13 07:53	0°♌	

desc. node	4296 Sep 07 13:26	29° Ω 07'14		morning set	4299 Apr 22 01:06	22° Υ 45'29
	4296 Sep 08 08:05	0° \mathbb{L}			4299 Apr 27 20:38	0° \mathcal{B}
	4296 Oct 05 16:39	0° \mathcal{A}			4299 May 22 00:10	0° \mathbb{I}
evening max el	4296 Oct 21 22:04	16° \mathcal{A} 28'35	46°19'02			
	4296 Nov 05 18:50	0° \mathcal{B}		superior conj	4299 May 30 18:17	10° \mathbb{I} 50'27 -0°38'42
greatest brilliancy	4296 Nov 30 21:08	15° \mathcal{B} 49'59	-4.9m	minimum elong	4299 May 31 02:18	11° \mathbb{I} 15'15 0°38'20
retrograde	4296 Dec 10 12:12	17° \mathcal{B} 32'49		max. Earth dist.	4299 Jun 02 20:58	14° \mathbb{I} 41'21 1.72824 AU
evening set	4296 Dec 24 19:58	13° \mathcal{B} 30'07			4299 Jun 15 06:27	0° \mathcal{G}
asc. node	4296 Dec 29 15:45	10° \mathcal{B} 43'35		asc. node	4299 Jun 16 10:58	1° \mathcal{G} 27'55
inferior conj	4296 Dec 31 01:46	9° \mathcal{B} 51'50	0°22'03	evening rise	4299 Jul 07 08:54	27° \mathcal{G} 12'52
minimum elong	4296 Dec 31 00:55	9° \mathcal{B} 53'08	0°21'47		4299 Jul 09 15:18	0° Ω
min. Earth dist.	4296 Dec 31 06:46	9° \mathcal{B} 44'13	0.26693 AU		4299 Aug 03 02:26	0° \mathbb{P}
morning rise	4297 Jan 06 05:37	6° \mathcal{B} 16'09			4299 Aug 27 16:24	0° \mathcal{L}
direct	4297 Jan 20 16:19	2° \mathcal{B} 08'18			4299 Sep 21 10:39	0° \mathbb{L}
greatest brilliancy	4297 Jan 30 23:56	4° \mathcal{B} 09'50	-4.9m	desc. node	4299 Oct 06 01:18	17° \mathbb{L} 33'34
	4297 Mar 06 22:56	0° \approx			4299 Oct 16 11:10	0° \mathcal{A}
morning max el	4297 Mar 12 06:36	5° \approx 16'08	46°57'04		4299 Nov 10 20:50	0° \mathcal{B}
	4297 Apr 04 10:14	0° \mathcal{H}			4299 Dec 06 23:00	0° \approx
desc. node	4297 Apr 20 06:20	17° \mathcal{H} 57'44		evening max el	4300 Jan 03 17:52	29° \approx 56'48 47°09'03
	4297 Apr 30 15:22	0° Υ			4300 Jan 03 19:08	0° \mathcal{H}
	4297 May 26 00:59	0° \mathcal{B}		asc. node	4300 Jan 27 03:41	21° \mathcal{H} 12'22
	4297 Jun 20 02:14	0° \mathbb{I}			4300 Feb 10 01:13	0° Υ
	4297 Jul 14 23:03	0° \mathcal{G}		greatest brilliancy	4300 Feb 13 11:17	1° Υ 26'22 -4.9m
	4297 Aug 08 16:08	0° Ω		retrograde	4300 Feb 23 12:40	3° Υ 22'25
asc. node	4297 Aug 11 08:39	3° Ω 16'35			4300 Mar 08 10:39	30° \mathcal{R} \mathcal{H}
	4297 Sep 02 04:58	0° \mathbb{P}		evening set	4300 Mar 13 04:10	27° \mathcal{H} 22'01
morning set	4297 Sep 10 03:10	9° \mathbb{P} 44'22		min. Earth dist.	4300 Mar 15 16:56	25° \mathcal{H} 48'51 0.27186 AU
	4297 Sep 26 13:30	0° \mathcal{L}		inferior conj	4300 Mar 16 06:51	25° \mathcal{H} 27'15 8°51'59
max. Earth dist.	4297 Oct 13 20:09	21° \mathcal{L} 23'38	1.72689 AU	minimum elong	4300 Mar 16 02:41	25° \mathcal{H} 33'44 8°51'44
				morning rise	4300 Mar 19 01:18	23° \mathcal{H} 45'04
superior conj	4297 Oct 16 17:05	24° \mathcal{L} 57'23	1°21'36	direct	4300 Apr 05 20:29	17° \mathcal{H} 40'25
minimum elong	4297 Oct 16 22:26	25° \mathcal{L} 14'00	1°21'31	greatest brilliancy	4300 Apr 15 01:33	19° \mathcal{H} 15'47 -4.9m
	4297 Oct 20 18:36	0° \mathbb{L}			4300 May 03 20:29	0° Υ
	4297 Nov 13 21:34	0° \mathcal{A}		desc. node	4300 May 18 18:00	12° Υ 40'51
evening rise	4297 Nov 23 18:18	12° \mathcal{A} 17'06		morning max el	4300 May 25 13:18	19° Υ 10'57 46°19'50
desc. node	4297 Nov 30 23:05	21° \mathcal{A} 15'30			4300 Jun 05 05:57	0° \mathcal{B}
	4297 Dec 07 23:22	0° \mathcal{B}			4300 Jul 02 20:37	0° \mathbb{I}
	4298 Jan 01 00:36	0° \approx			4300 Jul 29 01:52	0° \mathcal{G}
	4298 Jan 25 02:12	0° \mathcal{H}			4300 Aug 23 14:14	0° Ω
	4298 Feb 18 06:30	0° Υ		asc. node	4300 Sep 08 20:23	19° Ω 26'17
	4298 Mar 14 17:56	0° \mathcal{B}			4300 Sep 17 14:33	0° \mathbb{P}
asc. node	4298 Mar 24 01:19	11° \mathcal{B} 14'30			4300 Oct 12 05:01	0° \mathcal{L}
	4298 Apr 08 19:50	0° \mathbb{I}			4300 Nov 05 11:59	0° \mathbb{L}
	4298 May 05 01:48	0° \mathcal{G}		morning set	4300 Nov 19 14:46	17° \mathbb{L} 33'28
evening max el	4298 May 29 07:52	25° \mathcal{G} 23'53	45°48'43		4300 Nov 29 14:00	0° \mathcal{A}
	4298 Jun 03 03:11	0° Ω			4300 Dec 23 13:09	0° \mathcal{B}
greatest brilliancy	4298 Jul 06 08:59	23° Ω 44'30	-4.7m	max. Earth dist.	4300 Dec 26 18:37	4° \mathcal{B} 02'56 1.71414 AU
desc. node	4298 Jul 13 15:51	25° Ω 39'18				
retrograde	4298 Jul 17 08:34	25° Ω 54'52		superior conj	4300 Dec 28 20:11	6° \mathcal{B} 38'26 0°01'31
evening set	4298 Aug 02 02:32	21° Ω 09'25		minimum elong	4300 Dec 28 20:34	6° \mathcal{B} 39'39 0°01'29
inferior conj	4298 Aug 07 21:10	17° Ω 39'08	-5°30'54	behind sun begin	4300 Dec 27 19:05	5° \mathcal{B} 19'42
minimum elong	4298 Aug 07 11:33	17° Ω 54'16	5°28'44	behind sun end	4300 Dec 29 22:03	7° \mathcal{B} 59'36
min. Earth dist.	4298 Aug 07 13:26	17° Ω 51'18	0.29040 AU	desc. node	4300 Dec 29 11:00	7° \mathcal{B} 24'55
morning rise	4298 Aug 12 20:41	14° Ω 36'22			4301 Jan 16 10:41	0° \approx
direct	4298 Aug 29 11:57	9° Ω 22'56		evening rise	4301 Feb 07 15:43	27° \approx 54'50
greatest brilliancy	4298 Sep 08 16:20	11° Ω 14'48	-4.7m		4301 Feb 09 07:34	0° \mathcal{H}
	4298 Oct 07 03:33	0° \mathbb{P}			4301 Mar 05 05:22	0° Υ
morning max el	4298 Oct 17 11:50	9° \mathbb{P} 34'29	45°55'45		4301 Mar 29 06:23	0° \mathcal{B}
asc. node	4298 Nov 03 18:07	27° \mathbb{P} 15'18		asc. node	4301 Apr 21 13:11	28° \mathcal{B} 45'20
	4298 Nov 06 07:16	0° \mathcal{L}			4301 Apr 22 13:32	0° \mathbb{I}
	4298 Dec 02 20:24	0° \mathbb{L}			4301 May 17 06:07	0° \mathcal{G}
	4298 Dec 28 00:30	0° \mathcal{A}			4301 Jun 11 12:57	0° Ω
	4299 Jan 21 12:55	0° \mathcal{B}			4301 Jul 07 20:01	0° \mathbb{P}
	4299 Feb 14 17:43	0° \approx			4301 Aug 05 07:41	0° \mathcal{L}
desc. node	4299 Feb 23 08:35	10° \approx 44'13		evening max el	4301 Aug 08 23:22	3° \mathcal{L} 32'17 45°32'00
	4299 Mar 10 19:03	0° \mathcal{H}		desc. node	4301 Aug 11 03:38	5° \mathcal{L} 36'06
	4299 Apr 03 19:23	0° Υ			4301 Sep 13 01:48	0° \mathbb{L}

greatest brilliancy	4301 Sep 17 03:03	1° \mathbb{M} 34'37	-4.7m		4304 Feb 24 20:41	0° \mathbb{H}	
retrograde	4301 Sep 26 15:54	3° \mathbb{M} 13'32					
	4301 Oct 09 12:21	30° \mathbb{R} $\underline{\mathbb{A}}$		superior conj	4304 Mar 15 12:24	24° \mathbb{H} 42'12	-1°24'48
evening set	4301 Oct 14 13:12	27° $\underline{\mathbb{A}}$ 15'09		minimum elong	4304 Mar 15 07:13	24° \mathbb{H} 25'56	1°24'45
inferior conj	4301 Oct 17 22:02	25° $\underline{\mathbb{A}}$ 11'39	-8°19'58	max. Earth dist.	4304 Mar 18 08:13	28° \mathbb{H} 15'08	1.71354 AU
minimum elong	4301 Oct 18 03:40	25° $\underline{\mathbb{A}}$ 02'54	8°19'29		4304 Mar 19 17:38	0° \mathbb{Y}	
min. Earth dist.	4301 Oct 18 17:22	24° $\underline{\mathbb{A}}$ 41'40	0.28479 AU		4304 Apr 12 16:34	0° \mathbb{B}	
morning rise	4301 Oct 21 17:52	22° $\underline{\mathbb{A}}$ 51'05		evening rise	4304 Apr 24 22:18	15° \mathbb{B} 15'42	
direct	4301 Nov 08 06:34	16° $\underline{\mathbb{A}}$ 59'14			4304 May 06 19:07	0° \mathbb{I}	
greatest brilliancy	4301 Nov 19 11:18	19° $\underline{\mathbb{A}}$ 17'56	-4.8m	asc. node	4304 May 19 01:10	15° \mathbb{I} 09'14	
asc. node	4301 Dec 02 05:53	26° $\underline{\mathbb{A}}$ 24'09			4304 May 31 02:33	0° \mathbb{G}	
	4301 Dec 07 02:38	0° \mathbb{M}			4304 Jun 24 15:54	0° Ω	
morning max el	4301 Dec 28 15:26	19° \mathbb{M} 34'30	46°40'08		4304 Jul 19 12:47	0° \mathbb{N}	
	4302 Jan 07 15:40	0° \mathbb{A}			4304 Aug 13 20:41	0° $\underline{\mathbb{A}}$	
	4302 Feb 03 08:50	0° \mathbb{B}		desc. node	4304 Sep 07 15:24	28° $\underline{\mathbb{A}}$ 31'47	
	4302 Feb 28 16:05	0° \approx			4304 Sep 08 22:41	0° \mathbb{M}	
desc. node	4302 Mar 23 20:27	28° \approx 07'35			4304 Oct 06 11:20	0° \mathbb{A}	
	4302 Mar 25 09:16	0° \mathbb{H}		evening max el	4304 Oct 20 11:59	14° \mathbb{A} 09'09	46°16'48
	4302 Apr 18 20:22	0° \mathbb{Y}			4304 Nov 07 05:31	0° \mathbb{B}	
	4302 May 13 05:29	0° \mathbb{B}		greatest brilliancy	4304 Nov 29 10:36	13° \mathbb{B} 25'25	-4.8m
	4302 Jun 06 14:44	0° \mathbb{I}		retrograde	4304 Dec 08 23:58	15° \mathbb{B} 06'34	
	4302 Jul 01 00:40	0° \mathbb{G}		evening set	4304 Dec 23 09:19	11° \mathbb{B} 03'11	
morning set	4302 Jul 02 17:59	2° \mathbb{G} 06'53		inferior conj	4304 Dec 29 14:21	7° \mathbb{B} 25'46	-0°02'14
asc. node	4302 Jul 14 22:48	17° \mathbb{G} 06'15		minimum elong	4304 Dec 29 14:27	7° \mathbb{B} 25'38	0°02'11
	4302 Jul 25 10:42	0° Ω		transit middle	4304 Dec 29 14:27	7° \mathbb{B} 25'38	0°02'11
max. Earth dist.	4302 Aug 07 20:40	16° Ω 29'42	1.73496 AU	transit begin	4304 Dec 29 10:24	7° \mathbb{B} 31'48	
				transit end	4304 Dec 29 18:29	7° \mathbb{B} 19'28	
superior conj	4302 Aug 08 15:23	17° Ω 27'17	0°54'29	asc. node	4304 Dec 29 17:48	7° \mathbb{B} 20'30	
minimum elong	4302 Aug 08 06:33	17° Ω 00'06	0°54'09	min. Earth dist.	4304 Dec 29 20:57	7° \mathbb{B} 15'41	0.26723 AU
	4302 Aug 18 20:02	0° \mathbb{N}		morning rise	4305 Jan 04 19:12	3° \mathbb{B} 48'12	
	4302 Sep 12 04:31	0° $\underline{\mathbb{A}}$			4305 Jan 15 08:27	30° \mathbb{R} \mathbb{A}	
evening rise	4302 Sep 13 14:54	1° $\underline{\mathbb{A}}$ 45'57		direct	4305 Jan 19 05:19	29° \mathbb{A} 41'37	
	4302 Oct 06 12:51	0° \mathbb{M}			4305 Jan 23 03:36	0° \mathbb{B}	
	4302 Oct 30 21:55	0° \mathbb{A}		greatest brilliancy	4305 Jan 29 14:38	1° \mathbb{B} 44'20	-4.9m
desc. node	4302 Nov 03 13:15	4° \mathbb{A} 28'25			4305 Mar 07 23:44	0° \approx	
	4302 Nov 24 08:17	0° \mathbb{B}		morning max el	4305 Mar 10 19:07	2° \approx 48'30	46°57'28
	4302 Dec 18 20:44	0° \approx			4305 Apr 05 03:17	0° \mathbb{H}	
	4303 Jan 12 14:02	0° \mathbb{H}		desc. node	4305 Apr 20 08:22	17° \mathbb{H} 20'01	
	4303 Feb 06 19:40	0° \mathbb{Y}			4305 May 01 05:37	0° \mathbb{Y}	
asc. node	4303 Feb 24 15:23	20° \mathbb{Y} 24'18			4305 May 26 13:49	0° \mathbb{B}	
	4303 Mar 05 08:36	0° \mathbb{B}			4305 Jun 20 14:11	0° \mathbb{I}	
evening max el	4303 Mar 17 22:07	13° \mathbb{B} 09'45	46°49'17		4305 Jul 15 10:28	0° \mathbb{G}	
	4303 Apr 05 01:26	0° \mathbb{I}			4305 Aug 09 03:12	0° Ω	
greatest brilliancy	4303 Apr 26 14:33	13° \mathbb{I} 40'27	-4.8m	asc. node	4305 Aug 11 10:32	2° Ω 48'38	
retrograde	4303 May 07 07:00	15° \mathbb{I} 48'11			4305 Sep 02 15:52	0° \mathbb{N}	
evening set	4303 May 23 03:15	10° \mathbb{I} 51'37		morning set	4305 Sep 08 20:34	7° \mathbb{N} 36'54	
inferior conj	4303 May 28 10:48	7° \mathbb{I} 37'42	4°23'17		4305 Sep 27 00:19	0° $\underline{\mathbb{A}}$	
minimum elong	4303 May 28 19:30	7° \mathbb{I} 24'07	4°20'57	max. Earth dist.	4305 Oct 12 11:21	19° $\underline{\mathbb{A}}$ 08'25	1.72731 AU
min. Earth dist.	4303 May 28 07:56	7° \mathbb{I} 42'11	0.28208 AU				
morning rise	4303 Jun 03 12:13	3° \mathbb{I} 59'57		superior conj	4305 Oct 15 09:56	22° $\underline{\mathbb{A}}$ 47'14	1°22'30
	4303 Jun 13 21:48	30° \mathbb{R} \mathbb{B}		minimum elong	4305 Oct 15 14:38	23° $\underline{\mathbb{A}}$ 01'48	1°22'27
desc. node	4303 Jun 16 05:56	29° \mathbb{B} 40'02			4305 Oct 21 05:26	0° \mathbb{M}	
direct	4303 Jun 18 14:40	29° \mathbb{B} 33'21			4305 Nov 14 08:30	0° \mathbb{A}	
	4303 Jun 23 10:24	0° \mathbb{I}		evening rise	4305 Nov 22 08:26	9° \mathbb{A} 57'21	
greatest brilliancy	4303 Jun 28 11:32	1° \mathbb{I} 20'22	-4.7m	desc. node	4305 Dec 01 01:13	20° \mathbb{A} 47'38	
morning max el	4303 Aug 06 11:42	29° \mathbb{I} 31'33	45°44'30		4305 Dec 08 10:29	0° \mathbb{B}	
	4303 Aug 06 23:37	0° \mathbb{G}			4306 Jan 01 11:57	0° \approx	
	4303 Sep 04 23:57	0° Ω			4306 Jan 25 13:50	0° \mathbb{H}	
	4303 Oct 01 14:30	0° \mathbb{N}			4306 Feb 18 18:31	0° \mathbb{Y}	
asc. node	4303 Oct 07 08:19	6° \mathbb{N} 40'40			4306 Mar 15 06:35	0° \mathbb{B}	
	4303 Oct 27 00:53	0° $\underline{\mathbb{A}}$		asc. node	4306 Mar 24 03:16	10° \mathbb{B} 41'20	
	4303 Nov 20 18:12	0° \mathbb{M}			4306 Apr 09 09:39	0° \mathbb{I}	
	4303 Dec 15 01:06	0° \mathbb{A}			4306 May 05 18:13	0° \mathbb{G}	
	4304 Jan 08 02:05	0° \mathbb{B}		evening max el	4306 May 27 22:32	23° \mathbb{G} 08'31	45°50'23
desc. node	4304 Jan 26 22:45	23° \mathbb{B} 39'13			4306 Jun 04 03:57	0° Ω	
	4304 Feb 01 00:01	0° \approx		greatest brilliancy	4306 Jul 05 01:21	21° Ω 34'55	-4.7m
morning set	4304 Feb 03 02:17	2° \approx 37'55		desc. node	4306 Jul 13 17:48	23° Ω 39'32	

retrograde	4306 Jul 16 00:26	23°Ω45'31		superior conj	4308 Dec 26 07:55	4°☾09'47	0°05'22
evening set	4306 Jul 31 16:42	19°Ω02'58		minimum elong	4308 Dec 26 09:17	4°☾14'03	0°05'18
min. Earth dist.	4306 Aug 06 05:54	15°Ω41'51	0.29024 AU	behind sun begin	4308 Dec 25 08:56	2°☾57'41	
inferior conj	4306 Aug 06 13:33	15°Ω29'49	-5°15'31	behind sun end	4308 Dec 27 09:37	5°☾30'25	
minimum elong	4306 Aug 06 04:06	15°Ω44'41	5°13'19	desc. node	4308 Dec 28 12:58	6°☾56'12	
morning rise	4306 Aug 11 15:34	12°Ω23'17			4309 Jan 15 21:49	0°≈	
direct	4306 Aug 28 03:38	7°Ω13'43		evening rise	4309 Feb 05 02:34	25°≈23'01	
greatest brilliancy	4306 Sep 07 08:46	9°Ω05'47	-4.7m		4309 Feb 08 18:46	0°✕	
	4306 Oct 08 06:23	0°♍			4309 Mar 04 16:38	0°Υ	
morning max el	4306 Oct 16 02:22	7°♍19'35	45°54'40		4309 Mar 28 17:48	0°♄	
asc. node	4306 Nov 03 20:10	26°♍34'22		asc. node	4309 Apr 20 15:18	28°♄16'01	
	4306 Nov 07 00:05	0°♊			4309 Apr 22 01:14	0°♈	
	4306 Dec 03 10:20	0°♌			4309 May 16 18:20	0°♊	
	4306 Dec 28 13:11	0°♈			4309 Jun 11 02:12	0°♌	
	4307 Jan 22 00:58	0°☾			4309 Jul 07 11:30	0°♍	
	4307 Feb 15 05:23	0°≈			4309 Aug 05 05:25	0°♊	
desc. node	4307 Feb 23 10:32	10°≈14'18		evening max el	4309 Aug 06 15:07	1°♊20'58	45°31'33
	4307 Mar 11 06:28	0°✕		desc. node	4309 Aug 10 05:37	4°♊44'39	
	4307 Apr 04 06:37	0°Υ		greatest brilliancy	4309 Sep 14 15:52	29°♊19'26	-4.7m
morning set	4307 Apr 20 13:59	20°Υ21'19			4309 Sep 16 22:16	0°♌	
	4307 Apr 28 07:43	0°♄		retrograde	4309 Sep 24 07:09	0°♌59'57	
	4307 May 22 11:09	0°♈			4309 Oct 01 09:30	30°♌♊	
				evening set	4309 Oct 12 05:42	24°♊58'51	
superior conj	4307 May 29 09:24	8°♈34'50	-0°41'47	inferior conj	4309 Oct 15 13:15	22°♊57'02	-8°24'58
minimum elong	4307 May 29 17:56	9°♈01'15	0°41'26	minimum elong	4309 Oct 15 18:11	22°♊49'23	8°24'37
max. Earth dist.	4307 Jun 01 12:39	12°♈27'37	1.72776 AU	min. Earth dist.	4309 Oct 16 07:16	22°♊29'05	0.28537 AU
	4307 Jun 15 17:23	0°♊		morning rise	4309 Oct 19 06:27	20°♊40'23	
asc. node	4307 Jun 16 12:58	1°♊00'24		direct	4309 Nov 05 22:55	14°♊44'05	
evening rise	4307 Jul 06 02:15	25°♊05'03		greatest brilliancy	4309 Nov 17 01:58	17°♊01'27	-4.8m
	4307 Jul 10 02:15	0°♌		asc. node	4309 Dec 01 07:56	25°♊09'07	
	4307 Aug 03 13:31	0°♍			4309 Dec 07 14:31	0°♌	
	4307 Aug 28 03:49	0°♊		morning max el	4309 Dec 26 07:23	17°♌17'53	46°38'35
	4307 Sep 21 22:37	0°♌			4310 Jan 07 10:37	0°♈	
desc. node	4307 Oct 06 03:22	17°♌02'39			4310 Feb 02 23:56	0°☾	
	4307 Oct 16 24:00	0°♈			4310 Feb 28 05:29	0°≈	
	4307 Nov 11 11:02	0°☾		desc. node	4310 Mar 22 22:30	27°≈35'38	
	4307 Dec 07 15:45	0°≈			4310 Mar 24 21:44	0°✕	
evening max el	4308 Jan 02 06:57	27°≈30'28	47°08'24		4310 Apr 18 08:14	0°Υ	
	4308 Jan 04 18:35	0°✕			4310 May 12 16:56	0°♄	
asc. node	4308 Jan 27 05:34	19°✕55'11			4310 Jun 06 01:52	0°♈	
greatest brilliancy	4308 Feb 12 00:52	29°✕00'16	-4.9m	morning set	4310 Jun 30 11:18	29°♈59'04	
	4308 Feb 15 03:53	0°Υ			4310 Jun 30 11:36	0°♊	
retrograde	4308 Feb 22 02:09	0°Υ56'40		asc. node	4310 Jul 14 00:43	16°♊38'46	
	4308 Feb 28 20:01	30°♌♈			4310 Jul 24 21:31	0°♌	
evening set	4308 Mar 10 14:14	25°♌01'13					
min. Earth dist.	4308 Mar 13 05:51	23°♌24'06	0.27148 AU	superior conj	4310 Aug 06 09:28	15°♌22'00	0°52'00
inferior conj	4308 Mar 13 20:06	23°♌02'01	8°47'14	minimum elong	4310 Aug 06 00:47	14°♌55'18	0°51'39
minimum elong	4308 Mar 13 15:03	23°♌09'51	8°46'52	max. Earth dist.	4310 Aug 05 19:19	14°♌38'29	1.73499 AU
morning rise	4308 Mar 16 15:58	21°♌17'57			4310 Aug 18 06:50	0°♍	
direct	4308 Apr 03 09:02	15°♌15'28		evening rise	4310 Sep 11 08:56	29°♍40'01	
greatest brilliancy	4308 Apr 12 14:41	16°♌51'34	-4.9m		4310 Sep 11 15:25	0°♊	
	4308 May 04 11:12	0°Υ			4310 Oct 05 23:57	0°♌	
desc. node	4308 May 17 20:09	11°Υ44'41			4310 Oct 30 09:20	0°♈	
morning max el	4308 May 23 03:28	16°Υ50'53	46°21'28	desc. node	4310 Nov 02 15:20	3°♈59'33	
	4308 Jun 05 01:27	0°♄			4310 Nov 23 20:09	0°☾	
	4308 Jul 02 11:43	0°♈			4310 Dec 18 09:14	0°≈	
	4308 Jul 28 15:03	0°♊			4311 Jan 12 03:28	0°✕	
	4308 Aug 23 02:22	0°♌			4311 Feb 06 10:44	0°Υ	
asc. node	4308 Sep 07 22:26	18°♌57'14		asc. node	4311 Feb 23 17:27	19°Υ42'25	
	4308 Sep 17 02:05	0°♍			4311 Mar 05 03:23	0°♄	
	4308 Oct 11 16:13	0°♊		evening max el	4311 Mar 15 14:07	10°♄53'29	46°51'11
	4308 Nov 04 23:04	0°♌			4311 Apr 05 12:22	0°♈	
morning set	4308 Nov 17 05:36	15°♌15'40		greatest brilliancy	4311 Apr 24 06:54	11°♌25'51	-4.8m
	4308 Nov 29 01:05	0°♈		retrograde	4311 May 04 22:56	13°♌32'50	
	4308 Dec 23 00:16	0°☾		evening set	4311 May 20 21:21	8°♌33'04	
max. Earth dist.	4308 Dec 24 06:26	1°☾34'35	1.71446 AU	inferior conj	4311 May 26 02:09	5°♌22'49	4°41'44
				minimum elong	4311 May 26 11:14	5°♌08'35	4°39'22

min. Earth dist.	4311 May 25 23:07	5° Π 27'33	0.28174 AU		4313 Oct 20 16:11	0° \mathbb{M}	
morning rise	4311 Jun 01 01:39	1° Π 47'40			4313 Nov 13 19:22	0° \mathbb{A}	
	4311 Jun 04 15:20	30° \mathbb{R} 8		evening rise	4313 Nov 19 22:43	7° \mathbb{A} 38'25	
desc. node	4311 Jun 15 07:50	27° \mathbb{B} 20'18		desc. node	4313 Nov 30 03:11	20° \mathbb{A} 19'27	
direct	4311 Jun 16 06:03	27° \mathbb{B} 19'17			4313 Dec 07 21:33	0° \mathbb{B}	
greatest brilliancy	4311 Jun 26 01:19	29° \mathbb{B} 05'05	-4.8m		4313 Dec 31 23:14	0° \approx	
	4311 Jun 28 11:11	0° Π			4314 Jan 25 01:24	0° \mathbb{H}	
morning max el	4311 Aug 04 03:08	27° Π 19'47	45°44'53		4314 Feb 18 06:28	0° \mathbb{Y}	
	4311 Aug 06 21:37	0° \mathbb{E}			4314 Mar 14 19:11	0° \mathbb{B}	
	4311 Sep 04 15:31	0° Ω		asc. node	4314 Mar 23 05:23	10° \mathbb{B} 08'51	
	4311 Oct 01 03:46	0° \mathbb{M}			4314 Apr 08 23:30	0° Π	
asc. node	4311 Oct 06 10:24	6° \mathbb{M} 08'53			4314 May 05 10:49	0° \mathbb{E}	
	4311 Oct 26 13:05	0° \mathbb{L}		evening max el	4314 May 25 13:16	20° \mathbb{E} 53'44	45°52'09
	4311 Nov 20 05:51	0° \mathbb{M}			4314 Jun 04 05:51	0° Ω	
	4311 Dec 14 12:27	0° \mathbb{A}		greatest brilliancy	4314 Jul 02 17:22	19° Ω 25'34	-4.7m
	4312 Jan 07 13:17	0° \mathbb{B}		desc. node	4314 Jul 12 19:49	21° Ω 36'18	
desc. node	4312 Jan 26 00:41	23° \mathbb{B} 10'17		retrograde	4314 Jul 13 16:54	21° Ω 37'12	
	4312 Jan 31 11:09	0° \approx		evening set	4314 Jul 29 07:07	16° Ω 57'07	
morning set	4312 Jan 31 12:20	0° \approx 03'45		inferior conj	4314 Aug 04 06:03	13° Ω 21'26	-4°59'46
	4312 Feb 24 07:47	0° \mathbb{H}		minimum elong	4314 Aug 03 20:48	13° Ω 35'56	4°57'33
				min. Earth dist.	4314 Aug 03 22:17	13° Ω 33'37	0.29005 AU
superior conj	4312 Mar 12 23:02	22° \mathbb{H} 10'06	-1°23'51	morning rise	4314 Aug 09 10:33	10° Ω 11'28	
minimum elong	4312 Mar 12 16:53	21° \mathbb{H} 50'48	1°23'47	direct	4314 Aug 25 19:23	5° Ω 05'28	
max. Earth dist.	4312 Mar 15 16:19	25° \mathbb{H} 35'07	1.71318 AU	greatest brilliancy	4314 Sep 05 01:16	6° Ω 58'04	-4.7m
	4312 Mar 19 04:42	0° \mathbb{Y}			4314 Oct 08 07:21	0° \mathbb{M}	
	4312 Apr 12 03:35	0° \mathbb{B}		morning max el	4314 Oct 13 17:38	5° \mathbb{M} 07'33	45°53'36
evening rise	4312 Apr 22 10:31	12° \mathbb{B} 49'57		asc. node	4314 Nov 02 22:13	25° \mathbb{M} 54'44	
	4312 May 06 06:08	0° Π			4314 Nov 06 16:17	0° \mathbb{L}	
asc. node	4312 May 18 03:10	14° Π 41'18			4314 Dec 02 23:55	0° \mathbb{M}	
	4312 May 30 13:39	0° \mathbb{E}			4314 Dec 28 01:38	0° \mathbb{A}	
	4312 Jun 24 03:16	0° Ω			4315 Jan 21 12:50	0° \mathbb{B}	
	4312 Jul 19 00:41	0° \mathbb{M}			4315 Feb 14 16:54	0° \approx	
	4312 Aug 13 09:35	0° \mathbb{L}		desc. node	4315 Feb 22 12:43	9° \approx 45'32	
desc. node	4312 Sep 06 17:27	27° \mathbb{L} 56'18			4315 Mar 10 17:42	0° \mathbb{H}	
	4312 Sep 08 13:29	0° \mathbb{M}			4315 Apr 03 17:38	0° \mathbb{Y}	
	4312 Oct 06 06:36	0° \mathbb{A}		morning set	4315 Apr 18 02:30	17° \mathbb{Y} 56'35	
evening max el	4312 Oct 18 01:08	11° \mathbb{A} 47'44	46°14'30		4315 Apr 27 18:36	0° \mathbb{B}	
	4312 Nov 07 19:53	0° \mathbb{B}			4315 May 21 21:55	0° Π	
greatest brilliancy	4312 Nov 27 00:28	11° \mathbb{B} 01'24	-4.8m				
retrograde	4312 Dec 06 11:37	12° \mathbb{B} 40'54		superior conj	4315 May 27 00:20	6° Π 19'13	-0°44'51
evening set	4312 Dec 20 22:57	8° \mathbb{B} 36'13		minimum elong	4315 May 27 09:20	6° Π 47'08	0°44'28
inferior conj	4312 Dec 27 03:05	5° \mathbb{B} 00'10	-0°26'16	max. Earth dist.	4315 May 30 03:35	10° Π 12'09	1.72729 AU
minimum elong	4312 Dec 27 04:06	4° \mathbb{B} 58'37	0°25'56		4315 Jun 15 04:07	0° \mathbb{E}	
min. Earth dist.	4312 Dec 27 11:27	4° \mathbb{B} 47'22	0.26756 AU	asc. node	4315 Jun 15 14:56	0° \mathbb{E} 33'22	
asc. node	4312 Dec 28 19:41	3° \mathbb{B} 58'16		evening rise	4315 Jul 03 19:37	22° \mathbb{E} 57'57	
morning rise	4313 Jan 02 08:44	1° \mathbb{B} 21'05			4315 Jul 09 13:00	0° Ω	
	4313 Jan 05 02:01	30° \mathbb{R} \mathbb{A}			4315 Aug 03 00:23	0° \mathbb{M}	
direct	4313 Jan 16 18:00	27° \mathbb{A} 15'13			4315 Aug 27 14:58	0° \mathbb{L}	
greatest brilliancy	4313 Jan 27 05:52	29° \mathbb{A} 19'50	-4.9m		4315 Sep 21 10:18	0° \mathbb{M}	
	4313 Jan 28 21:36	0° \mathbb{B}		desc. node	4315 Oct 05 05:28	16° \mathbb{M} 32'44	
	4313 Mar 07 23:20	0° \approx			4315 Oct 16 12:32	0° \mathbb{A}	
morning max el	4313 Mar 08 07:24	0° \approx 20'21	46°57'49		4315 Nov 11 01:02	0° \mathbb{B}	
	4313 Apr 04 19:57	0° \mathbb{H}			4315 Dec 07 08:32	0° \approx	
desc. node	4313 Apr 19 10:28	16° \mathbb{H} 42'52		evening max el	4315 Dec 30 20:54	25° \approx 07'00	47°07'31
	4313 Apr 30 19:41	0° \mathbb{Y}			4316 Jan 04 18:54	0° \mathbb{H}	
	4313 May 26 02:31	0° \mathbb{B}		asc. node	4316 Jan 26 07:42	18° \mathbb{H} 36'15	
	4313 Jun 20 02:02	0° Π		greatest brilliancy	4316 Feb 09 13:45	26° \mathbb{H} 33'23	-4.9m
	4313 Jul 14 21:46	0° \mathbb{E}		retrograde	4316 Feb 19 15:55	28° \mathbb{H} 30'39	
	4313 Aug 08 14:09	0° Ω		evening set	4316 Mar 07 23:44	22° \mathbb{H} 40'36	
asc. node	4313 Aug 10 12:38	2° Ω 21'45		inferior conj	4316 Mar 11 09:06	20° \mathbb{H} 36'27	8°41'26
	4313 Sep 02 02:37	0° \mathbb{M}		minimum elong	4316 Mar 11 03:13	20° \mathbb{H} 45'33	8°40'55
morning set	4313 Sep 06 14:17	5° \mathbb{M} 30'48		min. Earth dist.	4316 Mar 10 18:14	20° \mathbb{H} 59'25	0.27109 AU
	4313 Sep 26 11:01	0° \mathbb{L}		morning rise	4316 Mar 14 06:50	18° \mathbb{H} 49'54	
max. Earth dist.	4313 Oct 10 04:44	17° \mathbb{L} 00'22	1.72779 AU	direct	4316 Mar 31 21:55	12° \mathbb{H} 50'24	
				greatest brilliancy	4316 Apr 10 03:07	14° \mathbb{H} 26'40	-4.9m
superior conj	4313 Oct 13 03:02	20° \mathbb{L} 38'13	1°23'16		4316 May 04 21:58	0° \mathbb{Y}	
minimum elong	4313 Oct 13 07:04	20° \mathbb{L} 50'45	1°23'14	desc. node	4316 May 16 22:08	10° \mathbb{Y} 49'54	

morning max el	4316 May 20 17:55	14° Υ 32'12	46°23'06		4318 Dec 17 21:24	0° \approx	
	4316 Jun 04 20:08	0° \mathcal{B}			4319 Jan 11 16:34	0° \mathcal{H}	
	4316 Jul 02 02:20	0° Π			4319 Feb 06 01:34	0° Υ	
	4316 Jul 28 03:49	0° \mathcal{E}		asc. node	4319 Feb 22 19:30	19° Υ 01'07	
	4316 Aug 22 14:09	0° Ω			4319 Mar 04 22:19	0° \mathcal{B}	
asc. node	4316 Sep 07 00:31	18° Ω 29'18		evening max el	4319 Mar 13 05:03	8° \mathcal{B} 35'12	46°52'45
	4316 Sep 16 13:15	0° \mathcal{M}			4319 Apr 06 02:46	0° Π	
	4316 Oct 11 03:05	0° $\underline{\mathcal{A}}$		greatest brilliancy	4319 Apr 21 23:37	9° Π 11'41	-4.8m
	4316 Nov 04 09:47	0° \mathcal{M}		retrograde	4319 May 02 14:06	11° Π 17'11	
morning set	4316 Nov 14 20:57	13° \mathcal{M} 00'43		evening set	4319 May 18 15:21	6° Π 14'07	
	4316 Nov 28 11:48	0° \mathcal{A}		inferior conj	4319 May 23 17:17	3° Π 07'45	4°59'59
max. Earth dist.	4316 Dec 21 18:26	29° \mathcal{A} 08'02	1.71482 AU	minimum elong	4319 May 24 02:44	2° Π 52'56	4°57'34
	4316 Dec 22 11:01	0° \mathcal{B}		min. Earth dist.	4319 May 23 14:26	3° Π 12'14	0.28143 AU
					4319 May 28 21:01	30° \mathcal{R} \mathcal{B}	
superior conj	4316 Dec 23 19:59	1° \mathcal{B} 43'21	0°09'09	morning rise	4319 May 29 14:37	29° \mathcal{B} 35'19	
minimum elong	4316 Dec 23 22:18	1° \mathcal{B} 50'35	0°09'03	direct	4319 Jun 13 20:55	25° \mathcal{B} 04'54	
behind sun begin	4316 Dec 23 00:55	0° \mathcal{B} 43'33		desc. node	4319 Jun 14 09:52	25° \mathcal{B} 05'14	
behind sun end	4316 Dec 24 19:40	2° \mathcal{B} 57'38		greatest brilliancy	4319 Jun 23 15:26	26° \mathcal{B} 49'56	-4.8m
desc. node	4316 Dec 27 14:58	6° \mathcal{B} 28'40			4319 Jun 30 19:07	0° Π	
	4317 Jan 15 08:39	0° \approx		morning max el	4319 Aug 01 17:27	25° Π 05'31	45°45'25
evening rise	4317 Feb 02 13:19	22° \approx 51'44			4319 Aug 06 18:40	0° \mathcal{E}	
	4317 Feb 08 05:41	0° \mathcal{H}			4319 Sep 04 06:39	0° Ω	
	4317 Mar 04 03:40	0° Υ			4319 Sep 30 16:42	0° \mathcal{M}	
	4317 Mar 28 05:01	0° \mathcal{B}		asc. node	4319 Oct 05 12:22	5° \mathcal{M} 37'33	
asc. node	4317 Apr 19 17:16	27° \mathcal{B} 46'55			4319 Oct 26 01:00	0° $\underline{\mathcal{A}}$	
	4317 Apr 21 12:43	0° Π			4319 Nov 19 17:14	0° \mathcal{M}	
	4317 May 16 06:22	0° \mathcal{E}			4319 Dec 13 23:33	0° \mathcal{A}	
	4317 Jun 10 15:19	0° Ω			4320 Jan 07 00:13	0° \mathcal{B}	
	4317 Jul 07 02:57	0° \mathcal{M}		greatest brilliancy	4320 Jan 12 00:55	6° \mathcal{B} 18'01	-3.9m
evening max el	4317 Aug 04 07:01	29° \mathcal{M} 10'46	45°31'07	desc. node	4320 Jan 25 02:51	22° \mathcal{B} 42'57	
	4317 Aug 05 03:41	0° $\underline{\mathcal{A}}$		morning set	4320 Jan 28 22:51	27° \mathcal{B} 31'56	
desc. node	4317 Aug 09 07:45	3° $\underline{\mathcal{A}}$ 53'24			4320 Jan 30 21:59	0° \approx	
greatest brilliancy	4317 Sep 12 05:21	27° $\underline{\mathcal{A}}$ 06'05	-4.7m		4320 Feb 23 18:34	0° \mathcal{H}	
retrograde	4317 Sep 21 22:07	28° $\underline{\mathcal{A}}$ 47'26					
evening set	4317 Oct 09 22:01	22° $\underline{\mathcal{A}}$ 44'23		superior conj	4320 Mar 10 10:02	19° \mathcal{H} 40'09	-1°22'45
inferior conj	4317 Oct 13 04:31	20° $\underline{\mathcal{A}}$ 43'50	-8°29'20	minimum elong	4320 Mar 10 02:57	19° \mathcal{H} 17'54	1°22'38
minimum elong	4317 Oct 13 08:42	20° $\underline{\mathcal{A}}$ 37'20	8°29'05	max. Earth dist.	4320 Mar 12 23:03	22° \mathcal{H} 51'49	1.71286 AU
min. Earth dist.	4317 Oct 13 21:18	20° $\underline{\mathcal{A}}$ 17'44	0.28587 AU		4320 Mar 18 15:27	0° Υ	
morning rise	4317 Oct 16 19:13	18° $\underline{\mathcal{A}}$ 30'43			4320 Apr 11 14:20	0° \mathcal{B}	
direct	4317 Nov 03 15:15	12° $\underline{\mathcal{A}}$ 30'34		evening rise	4320 Apr 19 22:44	10° \mathcal{B} 25'01	
greatest brilliancy	4317 Nov 14 16:22	14° $\underline{\mathcal{A}}$ 46'05	-4.8m		4320 May 05 16:55	0° Π	
asc. node	4317 Nov 30 09:50	23° $\underline{\mathcal{A}}$ 57'19		asc. node	4320 May 17 05:07	14° Π 13'47	
	4317 Dec 07 22:41	0° \mathcal{M}			4320 May 30 00:36	0° \mathcal{E}	
morning max el	4317 Dec 23 22:21	15° \mathcal{M} 00'17	46°37'04		4320 Jun 23 14:31	0° Ω	
	4318 Jan 07 04:36	0° \mathcal{A}			4320 Jul 18 12:30	0° \mathcal{M}	
	4318 Feb 02 14:24	0° \mathcal{B}			4320 Aug 12 22:25	0° $\underline{\mathcal{A}}$	
	4318 Feb 27 18:26	0° \approx		desc. node	4320 Sep 05 19:31	27° $\underline{\mathcal{A}}$ 21'01	
desc. node	4318 Mar 22 00:33	27° \approx 04'41			4320 Sep 08 04:21	0° \mathcal{M}	
	4318 Mar 24 09:50	0° \mathcal{H}			4320 Oct 06 02:18	0° \mathcal{A}	
	4318 Apr 17 19:49	0° Υ		evening max el	4320 Oct 15 13:23	9° \mathcal{A} 24'46	46°12'19
	4318 May 12 04:07	0° \mathcal{B}			4320 Nov 08 14:50	0° \mathcal{B}	
	4318 Jun 05 12:45	0° Π		greatest brilliancy	4320 Nov 24 14:12	8° \mathcal{B} 37'46	-4.8m
morning set	4318 Jun 28 04:12	27° Π 50'49		retrograde	4320 Dec 03 23:34	10° \mathcal{B} 16'03	
	4318 Jun 29 22:15	0° \mathcal{E}		evening set	4320 Dec 18 12:45	6° \mathcal{B} 09'23	
asc. node	4318 Jul 13 02:48	16° \mathcal{E} 12'34		inferior conj	4320 Dec 24 15:48	2° \mathcal{B} 35'08	-0°50'20
	4318 Jul 24 08:04	0° Ω		minimum elong	4320 Dec 24 17:44	2° \mathcal{B} 32'11	0°49'42
max. Earth dist.	4318 Aug 03 16:42	12° Ω 44'14	1.73498 AU	min. Earth dist.	4320 Dec 25 01:58	2° \mathcal{B} 19'37	0.26792 AU
				asc. node	4320 Dec 27 21:51	0° \mathcal{B} 37'10	
superior conj	4318 Aug 04 03:19	13° Ω 16'53	0°49'26		4320 Dec 28 23:20	30° \mathcal{R} \mathcal{A}	
minimum elong	4318 Aug 03 18:50	12° Ω 50'47	0°49'05	morning rise	4320 Dec 30 22:04	28° \mathcal{A} 55'04	
	4318 Aug 17 17:23	0° \mathcal{M}		direct	4321 Jan 14 06:33	24° \mathcal{A} 49'09	
evening rise	4318 Sep 09 02:55	27° \mathcal{M} 34'48		greatest brilliancy	4321 Jan 24 21:14	26° \mathcal{A} 56'10	-4.9m
	4318 Sep 11 02:04	0° $\underline{\mathcal{A}}$			4321 Jan 31 08:18	0° \mathcal{B}	
	4318 Oct 05 10:48	0° \mathcal{M}		morning max el	4321 Mar 05 20:20	27° \mathcal{B} 54'32	46°58'23
	4318 Oct 29 20:29	0° \mathcal{A}			4321 Mar 07 21:40	0° \approx	
desc. node	4318 Nov 01 17:17	3° \mathcal{A} 31'10			4321 Apr 04 12:01	0° \mathcal{H}	
	4318 Nov 23 07:42	0° \mathcal{B}		desc. node	4321 Apr 18 12:26	16° \mathcal{H} 06'30	

	4321 Apr 30 09:20	0°♄			4324 Jan 04 20:40	0°♄	
	4321 May 25 14:54	0°♄		asc. node	4324 Jan 25 09:44	17°♄14'00	
	4321 Jun 19 13:41	0°♄		greatest brilliancy	4324 Feb 07 02:19	24°♄05'34	-4.9m
	4321 Jul 14 08:56	0°♄		retrograde	4324 Feb 17 05:48	26°♄03'41	
	4321 Aug 08 01:01	0°♄		evening set	4324 Mar 05 08:57	20°♄19'31	
asc. node	4321 Aug 09 14:42	1°♄54'59		inferior conj	4324 Mar 08 22:00	18°♄09'58	8°34'37
	4321 Sep 01 13:18	0°♄		minimum elong	4324 Mar 08 15:21	18°♄20'14	8°33'57
morning set	4321 Sep 04 07:43	3°♄24'01		min. Earth dist.	4324 Mar 08 06:23	18°♄34'04	0.27068 AU
	4321 Sep 25 21:38	0°♄		morning rise	4324 Mar 11 21:56	16°♄20'22	
max. Earth dist.	4321 Oct 07 23:55	14°♄58'05	1.72823 AU	direct	4324 Mar 29 11:07	10°♄24'38	
				greatest brilliancy	4324 Apr 07 15:03	12°♄00'22	-4.9m
superior conj	4321 Oct 10 19:54	18°♄28'43	1°23'55		4324 May 05 06:07	0°♄	
minimum elong	4321 Oct 10 23:15	18°♄39'05	1°23'53	desc. node	4324 May 16 00:07	9°♄55'47	
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	4321 Nov 13 06:11	0°♄			4324 Jun 04 14:29	0°♄	
evening rise	4321 Nov 17 12:58	5°♄19'40			4324 Jul 01 16:52	0°♄	
desc. node	4321 Nov 29 05:10	19°♄51'33			4324 Jul 27 16:36	0°♄	
	4321 Dec 07 08:34	0°♄			4324 Aug 22 01:59	0°♄	
	4321 Dec 31 10:30	0°♄		asc. node	4324 Sep 06 02:27	18°♄00'31	
	4322 Jan 24 12:56	0°♄			4324 Sep 16 00:35	0°♄	
	4322 Feb 17 18:22	0°♄			4324 Oct 10 14:09	0°♄	
	4322 Mar 14 07:44	0°♄			4324 Nov 03 20:47	0°♄	
asc. node	4322 Mar 22 07:22	9°♄36'19		morning set	4324 Nov 12 12:15	10°♄44'51	
	4322 Apr 08 13:17	0°♄			4324 Nov 27 22:46	0°♄	
	4322 May 05 03:33	0°♄		max. Earth dist.	4324 Dec 19 03:59	26°♄33'04	1.71517 AU
evening max el	4322 May 23 04:25	18°♄40'30	45°53'53				
	4322 Jun 04 09:07	0°♄		superior conj	4324 Dec 21 08:01	29°♄16'05	0°12'56
greatest brilliancy	4322 Jun 30 08:51	17°♄15'42	-4.7m	minimum elong	4324 Dec 21 11:14	29°♄26'10	0°12'46
retrograde	4322 Jul 11 09:47	19°♄28'51		behind sun begin	4324 Dec 20 19:24	28°♄36'31	
desc. node	4322 Jul 11 21:57	19°♄28'32		behind sun end	4324 Dec 22 03:05	0°♄15'50	
evening set	4322 Jul 26 21:38	14°♄50'54			4324 Dec 21 22:02	0°♄	
inferior conj	4322 Aug 01 22:27	11°♄12'47	-4°43'23	desc. node	4324 Dec 26 17:06	6°♄00'44	
minimum elong	4322 Aug 01 13:30	11°♄26'47	4°41'11		4325 Jan 14 19:44	0°♄	
min. Earth dist.	4322 Aug 01 14:20	11°♄25'29	0.28991 AU	evening rise	4325 Jan 30 23:55	20°♄19'12	
morning rise	4322 Aug 07 05:29	7°♄59'31			4325 Feb 07 16:52	0°♄	
direct	4322 Aug 23 11:28	2°♄56'53			4325 Mar 03 15:00	0°♄	
greatest brilliancy	4322 Sep 02 17:23	4°♄49'44	-4.7m		4325 Mar 27 16:31	0°♄	
	4322 Oct 08 07:14	0°♄		asc. node	4325 Apr 18 19:15	27°♄16'57	
morning max el	4322 Oct 11 09:46	2°♄57'30	45°52'31		4325 Apr 21 00:31	0°♄	
asc. node	4322 Nov 02 00:11	25°♄15'01			4325 May 15 18:42	0°♄	
	4322 Nov 06 08:17	0°♄			4325 Jun 10 04:45	0°♄	
	4322 Dec 02 13:27	0°♄			4325 Jul 06 18:51	0°♄	
	4322 Dec 27 14:05	0°♄		evening max el	4325 Aug 01 22:30	26°♄59'08	45°30'42
	4323 Jan 21 00:42	0°♄			4325 Aug 05 03:05	0°♄	
	4323 Feb 14 04:25	0°♄		desc. node	4325 Aug 08 09:44	3°♄00'26	
desc. node	4323 Feb 21 14:39	9°♄15'52		greatest brilliancy	4325 Sep 09 19:29	24°♄53'18	-4.7m
	4323 Mar 10 04:58	0°♄		retrograde	4325 Sep 19 12:48	26°♄34'58	
	4323 Apr 03 04:41	0°♄		evening set	4325 Oct 07 14:15	20°♄30'29	
morning set	4323 Apr 15 15:09	15°♄32'04		inferior conj	4325 Oct 10 20:02	18°♄30'42	-8°32'49
	4323 Apr 27 05:28	0°♄		minimum elong	4325 Oct 10 23:28	18°♄25'21	8°32'38
	4323 May 21 08:41	0°♄		min. Earth dist.	4325 Oct 11 11:51	18°♄06'02	0.28640 AU
				morning rise	4325 Oct 14 08:31	16°♄20'35	
superior conj	4323 May 24 15:28	4°♄04'10	-0°47'49	direct	4325 Nov 01 07:23	10°♄16'59	
minimum elong	4323 May 25 00:54	4°♄33'24	0°47'25	greatest brilliancy	4325 Nov 12 07:22	12°♄30'52	-4.8m
max. Earth dist.	4323 May 27 20:28	8°♄02'40	1.72680 AU	asc. node	4325 Nov 29 11:59	22°♄47'07	
asc. node	4323 Jun 14 17:03	0°♄06'51			4325 Dec 08 04:56	0°♄	
	4323 Jun 14 14:49	0°♄		morning max el	4325 Dec 21 12:41	12°♄39'55	46°35'26
evening rise	4323 Jul 01 13:14	20°♄51'37			4326 Jan 06 22:37	0°♄	
	4323 Jul 08 23:45	0°♄			4326 Feb 02 05:07	0°♄	
	4323 Aug 02 11:19	0°♄			4326 Feb 27 07:40	0°♄	
	4323 Aug 27 02:15	0°♄		desc. node	4326 Mar 21 02:32	26°♄32'34	
	4323 Sep 20 22:11	0°♄			4326 Mar 23 22:14	0°♄	
desc. node	4323 Oct 04 07:22	16°♄01'40			4326 Apr 17 07:41	0°♄	
	4323 Oct 16 01:20	0°♄			4326 May 11 15:36	0°♄	
	4323 Nov 10 15:22	0°♄			4326 Jun 04 23:57	0°♄	
	4323 Dec 07 01:50	0°♄		morning set	4326 Jun 25 21:17	25°♄42'03	
evening max el	4323 Dec 28 11:32	22°♄44'54	47°06'35		4326 Jun 29 09:14	0°♄	




































































































































asc. node	4326 Jul 12 04:53	15°♄45'28		inferior conj	4328 Dec 22 04:43	0°♁10'08	-1°14'03
	4326 Jul 23 18:54	0°♌		minimum elong	4328 Dec 22 07:32	0°♁05'49	1°13'08
					4328 Dec 22 11:21	30°♌♌	
superior conj	4326 Aug 01 21:31	11°♌12'00	0°46'48	min. Earth dist.	4328 Dec 22 16:19	29°♌52'27	0.26838 AU
minimum elong	4326 Aug 01 13:16	10°♌46'39	0°46'28	asc. node	4328 Dec 26 23:51	27°♌18'36	
max. Earth dist.	4326 Aug 01 12:58	10°♌45'44	1.73491 AU	morning rise	4328 Dec 28 11:26	26°♌29'34	
	4326 Aug 17 04:11	0°♍		direct	4329 Jan 11 19:46	22°♌23'00	
evening rise	4326 Sep 06 21:20	25°♍30'09		greatest brilliancy	4329 Jan 22 12:31	24°♌32'10	-4.9m
	4326 Sep 10 12:59	0°♎			4329 Feb 01 22:05	0°♁	
	4326 Oct 04 21:56	0°♍		morning max el	4329 Mar 03 10:29	25°♁30'39	46°58'36
	4326 Oct 29 07:57	0°♌			4329 Mar 07 19:34	0°♍	
desc. node	4326 Oct 31 19:22	3°♌02'11			4329 Apr 04 04:17	0°♋	
	4326 Nov 22 19:40	0°♁		desc. node	4329 Apr 17 14:29	15°♋29'14	
	4326 Dec 17 10:03	0°♍			4329 Apr 29 23:18	0°♍	
	4327 Jan 11 06:15	0°♋			4329 May 25 03:37	0°♌	
	4327 Feb 05 17:05	0°♍			4329 Jun 19 01:38	0°♌	
asc. node	4327 Feb 21 21:27	18°♍17'40			4329 Jul 13 20:23	0°♁	
	4327 Mar 04 18:19	0°♌			4329 Aug 07 12:08	0°♌	
evening max el	4327 Mar 10 18:53	6°♌12'38	46°54'24	asc. node	4329 Aug 08 16:37	1°♌26'54	
	4327 Apr 06 22:58	0°♌			4329 Sep 01 00:14	0°♍	
greatest brilliancy	4327 Apr 19 16:34	6°♌56'17	-4.8m	morning set	4329 Sep 02 01:17	1°♍16'54	
retrograde	4327 Apr 30 04:59	9°♌00'12			4329 Sep 25 08:30	0°♎	
evening set	4327 May 16 09:23	3°♌53'31		max. Earth dist.	4329 Oct 05 20:13	12°♎58'39	1.72861 AU
inferior conj	4327 May 21 08:24	0°♌51'22	5°17'45				
minimum elong	4327 May 21 18:08	0°♌36'04	5°15'20	superior conj	4329 Oct 08 13:06	16°♎19'36	1°24'26
min. Earth dist.	4327 May 21 05:56	0°♌55'14	0.28110 AU	minimum elong	4329 Oct 08 15:44	16°♎27'47	1°24'25
	4327 May 22 17:12	30°♌♌			4329 Oct 19 13:43	0°♍	
morning rise	4327 May 27 03:20	27°♌21'55			4329 Nov 12 17:11	0°♌	
direct	4327 Jun 11 11:13	22°♌49'02		evening rise	4329 Nov 15 03:46	3°♌02'10	
desc. node	4327 Jun 13 12:01	22°♌53'49		desc. node	4329 Nov 28 07:19	19°♌23'39	
greatest brilliancy	4327 Jun 21 05:58	24°♌33'56	-4.8m		4329 Dec 06 19:45	0°♁	
	4327 Jul 02 07:56	0°♌			4329 Dec 30 21:56	0°♍	
morning max el	4327 Jul 30 07:30	22°♌49'24	45°46'13		4330 Jan 24 00:39	0°♋	
	4327 Aug 06 15:24	0°♁			4330 Feb 17 06:33	0°♍	
	4327 Sep 03 21:53	0°♌			4330 Mar 13 20:39	0°♌	
	4327 Sep 30 05:50	0°♍		asc. node	4330 Mar 21 09:20	9°♌02'38	
asc. node	4327 Oct 04 14:24	5°♍05'46			4330 Apr 08 03:36	0°♌	
	4327 Oct 25 13:07	0°♎			4330 May 04 21:03	0°♁	
	4327 Nov 19 04:51	0°♍		evening max el	4330 May 20 20:20	16°♁27'55	45°55'49
	4327 Dec 13 10:55	0°♌			4330 Jun 04 14:47	0°♌	
	4328 Jan 06 11:30	0°♁		greatest brilliancy	4330 Jun 28 00:16	15°♌04'39	-4.7m
greatest brilliancy	4328 Jan 15 10:15	11°♁12'53	-3.9m	retrograde	4330 Jul 09 02:49	17°♌19'06	
desc. node	4328 Jan 24 04:50	22°♁13'50		desc. node	4330 Jul 10 23:52	17°♌14'54	
morning set	4328 Jan 26 09:05	24°♁57'55		evening set	4330 Jul 24 12:13	12°♌43'21	
	4328 Jan 30 09:14	0°♍		inferior conj	4330 Jul 30 14:42	9°♌02'52	-4°26'34
	4328 Feb 23 05:47	0°♋		minimum elong	4330 Jul 30 06:05	9°♌16'20	4°24'24
				min. Earth dist.	4330 Jul 30 06:02	9°♌16'25	0.28969 AU
superior conj	4328 Mar 07 20:28	17°♋07'04	-1°21'26	morning rise	4330 Aug 05 00:09	5°♌46'29	
minimum elong	4328 Mar 07 12:30	16°♋42'00	1°21'18	direct	4330 Aug 21 03:48	0°♌47'17	
max. Earth dist.	4328 Mar 10 01:18	19°♋53'02	1.71257 AU	greatest brilliancy	4330 Aug 31 08:42	2°♌39'41	-4.7m
	4328 Mar 18 02:37	0°♍			4330 Oct 08 06:16	0°♍	
	4328 Apr 11 01:29	0°♌		morning max el	4330 Oct 09 02:15	0°♍47'59	45°51'33
evening rise	4328 Apr 17 10:25	7°♌57'04		asc. node	4330 Nov 01 02:17	24°♍35'44	
	4328 May 05 04:06	0°♌			4330 Nov 06 00:08	0°♎	
asc. node	4328 May 16 07:15	13°♌45'42			4330 Dec 02 02:56	0°♍	
	4328 May 29 11:56	0°♁			4330 Dec 27 02:29	0°♌	
	4328 Jun 23 02:09	0°♌			4331 Jan 20 12:33	0°♁	
	4328 Jul 18 00:41	0°♍			4331 Feb 13 15:55	0°♍	
	4328 Aug 12 11:38	0°♎		desc. node	4331 Feb 20 16:39	8°♍46'28	
desc. node	4328 Sep 04 21:29	26°♎44'25			4331 Mar 09 16:14	0°♋	
	4328 Sep 07 19:39	0°♍			4331 Apr 02 15:48	0°♍	
	4328 Oct 05 22:48	0°♌		morning set	4331 Apr 13 03:30	13°♍06'12	
evening max el	4328 Oct 13 02:02	7°♌02'38	46°10'19		4331 Apr 26 16:29	0°♌	
	4328 Nov 09 16:39	0°♁			4331 May 20 19:37	0°♌	
greatest brilliancy	4328 Nov 22 03:26	6°♁13'44	-4.8m				
retrograde	4328 Dec 01 12:08	7°♁51'38		superior conj	4331 May 22 05:59	1°♌46'35	-0°50'44
evening set	4328 Dec 16 02:56	3°♁42'23		minimum elong	4331 May 22 15:47	2°♌16'59	0°50'21

max. Earth dist.	4331 May 25 13:32	5° Π 53'05	1.72634 AU	morning max el	4333 Dec 19 02:23	10° Π 18'46	46°33'53
asc. node	4331 Jun 13 19:03	29° Π 39'28			4334 Jan 06 15:56	0° \mathcal{X}	
	4331 Jun 14 01:42	0° \mathfrak{G}			4334 Feb 01 19:22	0° \mathfrak{Z}	
evening rise	4331 Jun 29 06:12	18° \mathfrak{G} 42'45			4334 Feb 26 20:30	0° \approx	
	4331 Jul 08 10:39	0° Ω		desc. node	4334 Mar 20 04:35	26° \approx 01'42	
	4331 Aug 01 22:23	0° Π			4334 Mar 23 10:16	0° \mathcal{H}	
	4331 Aug 26 13:40	0° $\underline{\mathfrak{L}}$			4334 Apr 16 19:11	0° \mathcal{Y}	
	4331 Sep 20 10:10	0° \mathcal{M}			4334 May 11 02:42	0° \mathcal{B}	
desc. node	4331 Oct 03 09:28	15° \mathcal{M} 30'55			4334 Jun 04 10:46	0° Π	
	4331 Oct 15 14:16	0° \mathcal{X}		morning set	4334 Jun 23 14:16	23° Π 33'54	
	4331 Nov 10 05:51	0° \mathfrak{Z}			4334 Jun 28 19:52	0° \mathfrak{G}	
	4331 Dec 06 19:25	0° \approx		asc. node	4334 Jul 11 06:47	15° \mathfrak{G} 18'44	
evening max el	4331 Dec 26 02:34	20° \approx 24'14	47°05'38		4334 Jul 23 05:28	0° Ω	
	4332 Jan 04 23:41	0° \mathcal{H}					
asc. node	4332 Jan 24 11:40	15° \mathcal{H} 49'27		superior conj	4334 Jul 30 15:28	9° Ω 07'12	0°44'06
greatest brilliancy	4332 Feb 04 15:20	21° \mathcal{H} 39'08	-4.9m	minimum elong	4334 Jul 30 07:31	8° Ω 42'45	0°43'46
retrograde	4332 Feb 14 19:37	23° \mathcal{H} 37'24		max. Earth dist.	4334 Jul 30 07:36	8° Ω 43'01	1.73490 AU
evening set	4332 Mar 02 18:08	17° \mathcal{H} 59'47			4334 Aug 16 14:46	0° Π	
inferior conj	4332 Mar 06 11:03	15° \mathcal{H} 44'23	8°26'48	evening rise	4334 Sep 04 15:25	23° Π 25'17	
minimum elong	4332 Mar 06 03:40	15° \mathcal{H} 55'46	8°25'58		4334 Sep 09 23:40	0° $\underline{\mathfrak{L}}$	
min. Earth dist.	4332 Mar 05 18:49	16° \mathcal{H} 09'25	0.27028 AU		4334 Oct 04 08:49	0° \mathcal{M}	
morning rise	4332 Mar 09 13:25	13° \mathcal{H} 51'10			4334 Oct 28 19:10	0° \mathcal{X}	
direct	4332 Mar 27 00:27	7° \mathcal{H} 59'57		desc. node	4334 Oct 30 21:24	2° \mathcal{X} 33'56	
greatest brilliancy	4332 Apr 05 03:13	9° \mathcal{H} 34'52	-4.9m		4334 Nov 22 07:23	0° \mathfrak{Z}	
	4332 May 05 11:46	0° \mathcal{Y}			4334 Dec 16 22:28	0° \approx	
desc. node	4332 May 15 02:17	9° \mathcal{Y} 03'24			4335 Jan 10 19:43	0° \mathcal{H}	
morning max el	4332 May 15 22:09	9° \mathcal{Y} 52'10	46°26'15		4335 Feb 05 08:28	0° \mathcal{Y}	
	4332 Jun 04 08:22	0° \mathcal{B}		asc. node	4335 Feb 20 23:32	17° \mathcal{Y} 35'05	
	4332 Jul 01 07:16	0° Π			4335 Mar 04 14:30	0° \mathcal{B}	
	4332 Jul 27 05:22	0° \mathfrak{G}		evening max el	4335 Mar 08 08:15	3° \mathcal{B} 49'55	46°56'08
	4332 Aug 21 13:48	0° Ω			4335 Apr 08 01:45	0° Π	
asc. node	4332 Sep 05 04:32	17° Ω 32'11		greatest brilliancy	4335 Apr 17 09:21	4° Π 41'52	-4.8m
	4332 Sep 15 11:51	0° Π		retrograde	4335 Apr 27 20:02	6° Π 44'47	
	4332 Oct 10 01:08	0° $\underline{\mathfrak{L}}$		evening set	4335 May 14 03:28	1° Π 34'05	
	4332 Nov 03 07:38	0° \mathcal{M}			4335 May 16 18:01	30° \mathcal{R} \mathcal{B}	
morning set	4332 Nov 10 03:28	8° \mathcal{M} 29'06		inferior conj	4335 May 18 23:33	28° \mathcal{B} 36'24	5°34'54
	4332 Nov 27 09:37	0° \mathcal{X}		minimum elong	4335 May 19 09:32	28° \mathcal{B} 20'45	5°32'31
max. Earth dist.	4332 Dec 16 11:30	23° \mathcal{X} 52'10	1.71553 AU	min. Earth dist.	4335 May 18 21:26	28° \mathcal{B} 39'44	0.28078 AU
				morning rise	4335 May 24 15:57	25° \mathcal{B} 10'24	
superior conj	4332 Dec 18 20:17	26° \mathcal{X} 50'04	0°16'40	direct	4335 Jun 09 01:12	20° \mathcal{B} 34'27	
minimum elong	4332 Dec 19 00:23	27° \mathcal{X} 02'54	0°16'28	desc. node	4335 Jun 12 13:54	20° \mathcal{B} 48'43	
	4332 Dec 21 08:55	0° \mathfrak{Z}		greatest brilliancy	4335 Jun 18 20:41	22° \mathcal{B} 19'41	-4.8m
desc. node	4332 Dec 25 19:03	5° \mathfrak{Z} 32'40			4335 Jul 03 09:06	0° Π	
	4333 Jan 14 06:40	0° \approx		morning max el	4335 Jul 27 22:05	20° Π 35'50	45°46'55
evening rise	4333 Jan 28 10:48	17° \approx 48'04			4335 Aug 06 10:57	0° \mathfrak{G}	
	4333 Feb 07 03:52	0° \mathcal{H}			4335 Sep 03 12:32	0° Ω	
	4333 Mar 03 02:05	0° \mathcal{Y}			4335 Sep 29 18:34	0° Π	
	4333 Mar 27 03:47	0° \mathcal{B}		asc. node	4335 Oct 03 16:28	4° Π 35'04	
asc. node	4333 Apr 17 21:23	26° \mathcal{B} 48'11			4335 Oct 25 00:55	0° $\underline{\mathfrak{L}}$	
	4333 Apr 20 12:05	0° Π			4335 Nov 18 16:09	0° \mathcal{M}	
	4333 May 15 06:53	0° \mathfrak{G}			4335 Dec 12 21:57	0° \mathcal{X}	
	4333 Jun 09 18:08	0° Ω			4336 Jan 05 22:25	0° \mathfrak{Z}	
	4333 Jul 06 10:55	0° Π		greatest brilliancy	4336 Jan 16 08:17	13° \mathfrak{Z} 03'10	-3.9m
evening max el	4333 Jul 30 13:07	24° Π 45'30	45°30'19	desc. node	4336 Jan 23 06:46	21° \mathfrak{Z} 45'45	
	4333 Aug 05 03:35	0° $\underline{\mathfrak{L}}$		morning set	4336 Jan 23 19:20	22° \mathfrak{Z} 25'12	
desc. node	4333 Aug 07 11:44	2° $\underline{\mathfrak{L}}$ 06'29			4336 Jan 29 20:06	0° \approx	
greatest brilliancy	4333 Sep 07 10:01	22° $\underline{\mathfrak{L}}$ 40'57	-4.7m		4336 Feb 22 16:37	0° \mathcal{H}	
retrograde	4333 Sep 17 03:12	24° $\underline{\mathfrak{L}}$ 22'41					
evening set	4333 Oct 05 06:01	18° $\underline{\mathfrak{L}}$ 17'17		superior conj	4336 Mar 05 06:51	14° \mathcal{H} 34'55	-1°19'58
inferior conj	4333 Oct 08 11:28	16° $\underline{\mathfrak{L}}$ 17'53	-8°35'26	minimum elong	4336 Mar 04 22:04	14° \mathcal{H} 07'18	1°19'48
minimum elong	4333 Oct 08 14:06	16° $\underline{\mathfrak{L}}$ 13'46	8°35'20	max. Earth dist.	4336 Mar 07 03:47	16° \mathcal{H} 56'06	1.71233 AU
min. Earth dist.	4333 Oct 09 02:38	15° $\underline{\mathfrak{L}}$ 54'12	0.28688 AU		4336 Mar 17 13:25	0° \mathcal{Y}	
morning rise	4333 Oct 11 22:01	14° $\underline{\mathfrak{L}}$ 10'23			4336 Apr 10 12:15	0° \mathcal{B}	
direct	4333 Oct 29 22:47	8° $\underline{\mathfrak{L}}$ 03'36		evening rise	4336 Apr 14 22:09	5° \mathcal{B} 30'25	
greatest brilliancy	4333 Nov 09 22:45	10° $\underline{\mathfrak{L}}$ 16'38	-4.8m		4336 May 04 14:54	0° Π	
asc. node	4333 Nov 28 14:01	21° $\underline{\mathfrak{L}}$ 39'09		asc. node	4336 May 15 09:14	13° Π 18'24	
	4333 Dec 08 08:56	0° \mathcal{M}			4336 May 28 22:51	0° \mathfrak{G}	

	4336 Jun 22 13:22	0°♈		4338 Dec 01 16:04	0°♍
	4336 Jul 17 12:29	0°♍		4338 Dec 26 14:41	0°♊
	4336 Aug 12 00:34	0°♊		4339 Jan 20 00:15	0°♎
desc. node	4336 Sep 03 23:33	26°♊08'49		4339 Feb 13 03:17	0°♏
	4336 Sep 07 10:51	0°♍	desc. node	4339 Feb 19 18:47	8°♏17'52
	4336 Oct 05 19:45	0°♊		4339 Mar 09 03:21	0°♋
evening max el	4336 Oct 10 15:35	4°♊43'34 46°08'13		4339 Apr 02 02:44	0°♌
	4336 Nov 11 04:40	0°♎	morning set	4339 Apr 10 15:35	10°♌40'07
greatest brilliancy	4336 Nov 19 16:04	3°♎49'38 -4.8m		4339 Apr 26 03:17	0°♍
retrograde	4336 Nov 29 01:00	5°♎27'33			
evening set	4336 Dec 13 17:11	1°♎15'37	superior conj	4339 May 19 20:25	29°♎29'19 -0°53'35
	4336 Dec 15 23:27	30°♋♊	minimum elong	4339 May 20 06:31	0°♏00'41 0°53'12
inferior conj	4336 Dec 19 17:25	27°♊45'26 -1°37'37		4339 May 20 06:18	0°♏
minimum elong	4336 Dec 19 21:08	27°♊39'48 1°36'26	max. Earth dist.	4339 May 23 08:08	3°♏48'54 1.72585 AU
min. Earth dist.	4336 Dec 20 06:09	27°♊26'03 0.26883 AU	asc. node	4339 Jun 12 21:00	29°♏12'36
morning rise	4336 Dec 26 00:25	24°♊04'49		4339 Jun 13 12:22	0°♐
asc. node	4336 Dec 26 01:45	24°♊03'01	evening rise	4339 Jun 26 23:12	16°♐34'32
direct	4337 Jan 09 09:19	19°♊57'22		4339 Jul 07 21:20	0°♈
greatest brilliancy	4337 Jan 20 03:01	22°♊07'59 -4.9m		4339 Aug 01 09:14	0°♍
	4337 Feb 03 00:18	0°♎		4339 Aug 26 00:52	0°♊
morning max el	4337 Mar 01 01:18	23°♎09'40 46°58'47		4339 Sep 19 21:59	0°♍
	4337 Mar 07 16:18	0°♏	desc. node	4339 Oct 02 11:32	15°♍00'44
	4337 Apr 03 19:52	0°♋		4339 Oct 15 03:03	0°♊
desc. node	4337 Apr 16 16:33	14°♋53'31		4339 Nov 09 20:19	0°♎
	4337 Apr 29 12:44	0°♌		4339 Dec 06 13:21	0°♏
	4337 May 24 15:53	0°♍	evening max el	4339 Dec 23 17:00	18°♏01'57 47°04'14
	4337 Jun 18 13:09	0°♏		4340 Jan 05 04:33	0°♋
	4337 Jul 13 07:25	0°♐	asc. node	4340 Jan 23 13:46	14°♋21'28
	4337 Aug 06 22:52	0°♈	greatest brilliancy	4340 Feb 02 04:46	19°♋12'13 -4.9m
asc. node	4337 Aug 07 18:43	1°♈00'36	retrograde	4340 Feb 12 08:37	21°♋09'36
morning set	4337 Aug 30 19:02	29°♈11'38	evening set	4340 Feb 29 02:48	15°♋39'07
	4337 Aug 31 10:47	0°♍	inferior conj	4340 Mar 03 23:45	13°♋17'38 8°17'59
	4337 Sep 24 19:00	0°♊	minimum elong	4340 Mar 03 15:41	13°♋30'05 8°16'57
max. Earth dist.	4337 Oct 03 16:14	10°♊59'21 1.72904 AU	min. Earth dist.	4340 Mar 03 07:28	13°♋42'46 0.26986 AU
			morning rise	4340 Mar 07 04:48	11°♋20'19
superior conj	4337 Oct 06 06:20	14°♊11'37 1°24'49	direct	4340 Mar 24 13:01	5°♋34'03
minimum elong	4337 Oct 06 08:16	14°♊17'36 1°24'50	greatest brilliancy	4340 Apr 02 15:45	7°♋08'42 -4.9m
	4337 Oct 19 00:19	0°♍		4340 May 05 15:38	0°♌
	4337 Nov 12 03:56	0°♊	morning max el	4340 May 13 10:41	7°♌27'59 46°27'52
evening rise	4337 Nov 12 18:23	0°♊44'56	desc. node	4340 May 14 04:12	8°♌11'18
desc. node	4337 Nov 27 09:15	18°♊55'50		4340 Jun 04 01:48	0°♍
	4337 Dec 06 06:44	0°♎		4340 Jun 30 21:24	0°♏
	4337 Dec 30 09:08	0°♏		4340 Jul 26 17:54	0°♐
	4338 Jan 23 12:10	0°♋		4340 Aug 21 01:27	0°♈
	4338 Feb 16 18:29	0°♌	asc. node	4340 Sep 04 06:34	17°♈04'08
	4338 Mar 13 09:20	0°♍		4340 Sep 14 23:00	0°♍
asc. node	4338 Mar 20 11:26	8°♍30'07		4340 Oct 09 12:01	0°♊
	4338 Apr 07 17:44	0°♏		4340 Nov 02 18:25	0°♍
	4338 May 04 14:34	0°♐	morning set	4340 Nov 07 19:08	6°♍15'05
evening max el	4338 May 18 13:05	14°♐18'23 45°57'45		4340 Nov 26 20:24	0°♊
	4338 Jun 04 22:11	0°♈	max. Earth dist.	4340 Dec 13 20:24	21°♊15'55 1.71596 AU
greatest brilliancy	4338 Jun 25 16:13	12°♈55'25 -4.7m			
retrograde	4338 Jul 06 19:50	15°♈10'28	superior conj	4340 Dec 16 09:00	24°♊25'40 0°20'19
desc. node	4338 Jul 10 01:54	14°♈57'47	minimum elong	4340 Dec 16 13:55	24°♊41'05 0°20'05
evening set	4338 Jul 22 03:07	10°♈37'02		4340 Dec 20 19:45	0°♎
inferior conj	4338 Jul 28 07:02	6°♈54'14 -4°09'27	desc. node	4340 Dec 24 21:04	5°♎04'58
minimum elong	4338 Jul 27 22:49	7°♈07'06 4°07'19		4341 Jan 13 17:36	0°♏
min. Earth dist.	4338 Jul 27 21:50	7°♈08'37 0.28943 AU	evening rise	4341 Jan 25 21:43	15°♏17'00
morning rise	4338 Aug 02 18:50	3°♈34'44		4341 Feb 06 14:56	0°♋
	4338 Aug 10 14:44	30°♋♐		4341 Mar 02 13:18	0°♌
direct	4338 Aug 18 20:29	28°♐39'13		4341 Mar 26 15:11	0°♍
	4338 Aug 27 10:18	0°♈	asc. node	4341 Apr 16 23:19	26°♍18'24
greatest brilliancy	4338 Aug 28 23:33	0°♈30'23 -4.7m		4341 Apr 19 23:48	0°♏
morning max el	4338 Oct 06 18:23	28°♈38'50 45°50'27		4341 May 14 19:13	0°♐
	4338 Oct 08 03:55	0°♍		4341 Jun 09 07:42	0°♈
asc. node	4338 Oct 31 04:17	23°♍57'30		4341 Jul 06 03:20	0°♍
	4338 Nov 05 15:25	0°♊	evening max el	4341 Jul 28 03:18	22°♍30'50 45°30'07

	4341 Aug 05 05:23	0°♌		desc. node	4344 Jan 22 08:57	21°♊17'40	
desc. node	4341 Aug 06 13:50	1°♌11'39			4344 Jan 29 07:12	0°♊	
greatest brilliancy	4341 Sep 05 00:31	20°♌28'55 -4.7m			4344 Feb 22 03:40	0°♊	
retrograde	4341 Sep 14 17:55	22°♌11'21					
evening set	4341 Oct 02 21:38	16°♌05'13		superior conj	4344 Mar 02 17:34	12°♋03'01 -1°18'20	
inferior conj	4341 Oct 06 03:08	14°♌05'50 -8°37'17		minimum elong	4344 Mar 02 08:03	11°♋33'05 1°18'07	
minimum elong	4341 Oct 06 04:57	14°♌02'59 8°37'14		max. Earth dist.	4344 Mar 04 10:20	14°♋11'09 1.71212 AU	
min. Earth dist.	4341 Oct 06 17:44	13°♌43'02 0.28734 AU			4344 Mar 17 00:26	0°♋	
morning rise	4341 Oct 09 12:04	12°♌00'40			4344 Apr 09 23:16	0°♋	
direct	4341 Oct 27 14:14	5°♌50'48		evening rise	4344 Apr 12 10:04	3°♋03'27	
greatest brilliancy	4341 Nov 07 14:49	8°♌03'48 -4.8m			4344 May 04 02:01	0°♋	
asc. node	4341 Nov 27 15:54	20°♌32'53		asc. node	4344 May 14 11:11	12°♋50'01	
	4341 Dec 08 11:13	0°♌			4344 May 28 10:09	0°♋	
morning max el	4341 Dec 16 16:34	7°♌59'02 46°32'27			4344 Jun 22 00:59	0°♌	
	4342 Jan 06 08:52	0°♌			4344 Jul 17 00:43	0°♌	
	4342 Feb 01 09:31	0°♌			4344 Aug 11 13:57	0°♌	
	4342 Feb 26 09:22	0°♌		desc. node	4344 Sep 03 01:36	25°♌31'48	
desc. node	4342 Mar 19 06:37	25°♌30'24			4344 Sep 07 02:39	0°♌	
	4342 Mar 22 22:26	0°♌			4344 Oct 05 17:51	0°♌	
	4342 Apr 16 06:52	0°♌		evening max el	4344 Oct 08 06:00	2°♌25'59 46°06'13	
	4342 May 10 14:02	0°♌			4344 Nov 13 12:31	0°♌	
	4342 Jun 03 21:48	0°♌		greatest brilliancy	4344 Nov 17 04:36	1°♌25'07 -4.8m	
morning set	4342 Jun 21 06:54	21°♌23'56		retrograde	4344 Nov 26 14:06	3°♌03'00	
	4342 Jun 28 06:42	0°♌			4344 Dec 08 23:16	30°♌	
asc. node	4342 Jul 10 08:53	14°♌52'04		evening set	4344 Dec 11 07:47	28°♌48'24	
	4342 Jul 22 16:12	0°♌		inferior conj	4344 Dec 17 06:16	25°♌20'17 -2°00'53	
				minimum elong	4344 Dec 17 10:49	25°♌13'21 1°59'27	
superior conj	4342 Jul 28 09:17	7°♌01'28 0°41'20		min. Earth dist.	4344 Dec 17 19:55	24°♌59'29 0.26929 AU	
minimum elong	4342 Jul 28 01:39	6°♌38'01 0°41'00		morning rise	4344 Dec 23 13:15	21°♌39'47	
max. Earth dist.	4342 Jul 28 02:48	6°♌41'32 1.73485 AU		asc. node	4344 Dec 25 03:55	20°♌50'11	
	4342 Aug 16 01:31	0°♌		direct	4345 Jan 06 23:23	17°♌31'27	
evening rise	4342 Sep 02 09:42	21°♌20'35		greatest brilliancy	4345 Jan 17 17:13	19°♌42'42 -4.9m	
	4342 Sep 09 10:31	0°♌			4345 Feb 03 19:54	0°♌	
	4342 Oct 03 19:55	0°♌		morning max el	4345 Feb 26 16:17	20°♌48'18 46°58'59	
	4342 Oct 28 06:36	0°♌			4345 Mar 07 12:39	0°♌	
desc. node	4342 Oct 29 23:21	2°♌04'47			4345 Apr 03 11:28	0°♌	
	4342 Nov 21 19:18	0°♌		desc. node	4345 Apr 15 18:31	14°♌16'57	
	4342 Dec 16 11:04	0°♌			4345 Apr 29 02:19	0°♌	
	4343 Jan 10 09:25	0°♌			4345 May 24 04:21	0°♌	
	4343 Feb 05 00:14	0°♌			4345 Jun 18 00:58	0°♌	
asc. node	4343 Feb 20 01:33	16°♌51'13			4345 Jul 12 18:48	0°♌	
	4343 Mar 04 11:37	0°♌			4345 Aug 06 09:57	0°♌	
evening max el	4343 Mar 05 21:47	1°♌26'55 46°57'37		asc. node	4345 Aug 06 20:46	0°♌33'05	
	4343 Apr 09 17:11	0°♌		morning set	4345 Aug 28 12:41	27°♌04'59	
greatest brilliancy	4343 Apr 15 01:27	2°♌25'11 -4.9m			4345 Aug 30 21:41	0°♌	
retrograde	4343 Apr 25 11:15	4°♌27'48			4345 Sep 24 05:50	0°♌	
	4343 May 10 12:04	30°♌		max. Earth dist.	4345 Oct 01 10:40	8°♌54'16 1.72940 AU	
evening set	4343 May 11 21:26	29°♌12'38					
inferior conj	4343 May 16 14:32	26°♌19'40 5°51'43		superior conj	4345 Oct 03 23:34	12°♌02'43 1°25'06	
minimum elong	4343 May 17 00:42	26°♌03'45 5°49'22		minimum elong	4345 Oct 04 00:47	12°♌06'29 1°25'06	
min. Earth dist.	4343 May 16 12:37	26°♌22'41 0.28051 AU			4345 Oct 18 11:13	0°♌	
morning rise	4343 May 22 04:15	22°♌57'35		evening rise	4345 Nov 10 09:07	28°♌27'07	
direct	4343 Jun 06 15:10	18°♌17'54			4345 Nov 11 15:00	0°♌	
desc. node	4343 Jun 11 15:58	18°♌46'42		desc. node	4345 Nov 26 11:16	18°♌27'20	
greatest brilliancy	4343 Jun 16 11:14	20°♌03'41 -4.8m			4345 Dec 05 18:01	0°♌	
	4343 Jul 04 04:17	0°♌			4345 Dec 29 20:41	0°♌	
morning max el	4343 Jul 25 13:30	18°♌23'03 45°47'48			4346 Jan 23 00:01	0°♌	
	4343 Aug 06 06:21	0°♌			4346 Feb 16 06:48	0°♌	
	4343 Sep 03 03:18	0°♌			4346 Mar 12 22:24	0°♌	
	4343 Sep 29 07:28	0°♌		asc. node	4346 Mar 19 13:24	7°♌56'10	
asc. node	4343 Oct 02 18:26	4°♌03'27			4346 Apr 07 08:17	0°♌	
	4343 Oct 24 12:54	0°♌			4346 May 04 08:47	0°♌	
	4343 Nov 18 03:39	0°♌		evening max el	4346 May 16 05:44	12°♌07'42 45°59'33	
	4343 Dec 12 09:14	0°♌			4346 Jun 05 08:50	0°♌	
	4344 Jan 05 09:34	0°♌		greatest brilliancy	4346 Jun 23 08:42	10°♌45'51 -4.7m	
greatest brilliancy	4344 Jan 16 20:41	14°♌22'27 -3.9m		retrograde	4346 Jul 04 12:27	13°♌00'39	
morning set	4344 Jan 21 06:14	19°♌53'46		desc. node	4346 Jul 09 04:01	12°♌34'46	

evening set	4346 Jul 19 18:13	8°Ω29'32			4348 Dec 20 06:47	0°Ξ	
inferior conj	4346 Jul 25 23:23	4°Ω44'36 -3°51'54		desc. node	4348 Dec 23 23:12	4°Ξ37'00	
minimum elong	4346 Jul 25 15:36	4°Ω56'47 3°49'51			4349 Jan 13 04:43	0°≈	
min. Earth dist.	4346 Jul 25 13:59	4°Ω59'20 0.28919 AU		evening rise	4349 Jan 23 08:36	12°≈45'28	
morning rise	4346 Jul 31 13:23	1°Ω21'51			4349 Feb 06 02:09	0°℥	
	4346 Aug 03 02:48	30°℞			4349 Mar 02 00:40	0°Υ	
direct	4346 Aug 16 13:04	26°Ω30'10			4349 Mar 26 02:44	0°Ϡ	
greatest brilliancy	4346 Aug 26 14:39	28°Ω20'01 -4.7m		asc. node	4349 Apr 16 01:19	25°Ϡ48'16	
	4346 Aug 30 17:07	0°Ω			4349 Apr 19 11:42	0°Π	
morning max el	4346 Oct 04 09:51	26°Ω26'57 45°49'25			4349 May 14 07:46	0°Ω	
	4346 Oct 08 01:15	0°℞			4349 Jun 08 21:34	0°Ω	
asc. node	4346 Oct 30 06:16	23°℞18'29			4349 Jul 05 20:11	0°℞	
	4346 Nov 05 06:51	0°♁		evening max el	4349 Jul 25 17:27	20°℞15'54 45°30'04	
	4346 Dec 01 05:27	0°ℳ			4349 Aug 05 08:49	0°♁	
	4346 Dec 26 03:07	0°♁		desc. node	4349 Aug 05 15:50	0°♁15'07	
	4347 Jan 19 12:10	0°Ξ		greatest brilliancy	4349 Sep 02 14:12	18°♁15'52 -4.7m	
	4347 Feb 12 14:53	0°≈		retrograde	4349 Sep 12 09:01	19°♁59'58	
desc. node	4347 Feb 18 20:43	7°≈47'48		evening set	4349 Sep 30 12:52	13°♁53'20	
	4347 Mar 08 14:44	0°℥		inferior conj	4349 Oct 03 18:47	11°♁53'29 -8°38'21	
	4347 Apr 01 13:57	0°Υ		minimum elong	4349 Oct 03 19:48	11°♁51'54 8°38'20	
morning set	4347 Apr 08 03:38	8°Υ12'57		min. Earth dist.	4349 Oct 04 08:34	11°♁31'59 0.28783 AU	
	4347 Apr 25 14:21	0°Ϡ		morning rise	4349 Oct 07 02:31	9°♁50'14	
				direct	4349 Oct 25 05:53	3°♁37'40	
superior conj	4347 May 17 10:55	27°Ϡ11'24 -0°56'22		greatest brilliancy	4349 Nov 05 06:57	5°♁50'57 -4.8m	
minimum elong	4347 May 17 21:16	27°Ϡ43'30 0°55'58		asc. node	4349 Nov 26 18:05	19°♁28'22	
	4347 May 19 17:16	0°Π			4349 Dec 08 12:20	0°ℳ	
max. Earth dist.	4347 May 21 03:03	1°Π44'44 1.72530 AU		morning max el	4349 Dec 14 07:39	5°ℳ41'14 46°30'56	
asc. node	4347 Jun 11 23:07	28°Π45'31			4350 Jan 06 01:40	0°♁	
	4347 Jun 12 23:16	0°Ω			4350 Jan 31 23:40	0°Ξ	
evening rise	4347 Jun 24 16:13	14°Ω25'34			4350 Feb 25 22:16	0°≈	
	4347 Jul 07 08:18	0°Ω		desc. node	4350 Mar 18 08:37	24°≈58'52	
	4347 Jul 31 20:24	0°℞			4350 Mar 22 10:36	0°℥	
	4347 Aug 25 12:25	0°♁			4350 Apr 15 18:32	0°Υ	
	4347 Sep 19 10:10	0°ℳ			4350 May 10 01:21	0°Ϡ	
desc. node	4347 Oct 01 13:26	14°ℳ28'54			4350 Jun 03 08:51	0°Π	
	4347 Oct 14 16:15	0°♁		morning set	4350 Jun 18 23:28	19°Π13'34	
	4347 Nov 09 11:16	0°Ξ			4350 Jun 27 17:33	0°Ω	
	4347 Dec 06 07:59	0°≈		asc. node	4350 Jul 09 10:55	14°Ω25'07	
evening max el	4347 Dec 21 06:33	15°≈36'50 47°02'54			4350 Jul 22 02:57	0°Ω	
	4348 Jan 05 11:46	0°℥					
asc. node	4348 Jan 22 15:47	12°℥49'40		superior conj	4350 Jul 26 03:08	4°Ω55'46 0°38'30	
greatest brilliancy	4348 Jan 30 18:41	16°℥45'23 -4.9m		minimum elong	4350 Jul 25 19:52	4°Ω33'24 0°38'10	
retrograde	4348 Feb 09 21:12	18°℥41'31		max. Earth dist.	4350 Jul 25 23:05	4°Ω43'18 1.73478 AU	
evening set	4348 Feb 26 11:31	13°℥18'09			4350 Aug 15 12:15	0°℞	
min. Earth dist.	4348 Feb 29 20:38	11°℥15'17 0.26947 AU		evening rise	4350 Aug 31 04:12	19°℞16'39	
inferior conj	4348 Mar 01 12:35	10°℥50'37 8°08'11			4350 Sep 08 21:21	0°♁	
minimum elong	4348 Mar 01 03:54	11°℥04'02 8°06'57			4350 Oct 03 06:58	0°ℳ	
morning rise	4348 Mar 04 20:30	8°℥48'53			4350 Oct 27 18:02	0°♁	
direct	4348 Mar 22 01:10	3°℥07'35		desc. node	4350 Oct 29 01:27	1°♁36'09	
greatest brilliancy	4348 Mar 31 05:09	4°℥42'50 -4.9m			4350 Nov 21 07:16	0°Ξ	
	4348 May 05 18:09	0°Υ			4350 Dec 15 23:47	0°≈	
morning max el	4348 May 10 22:55	5°Υ02'14 46°29'34			4351 Jan 09 23:17	0°℥	
desc. node	4348 May 13 06:15	7°Υ19'46			4351 Feb 04 16:18	0°Υ	
	4348 Jun 03 19:05	0°Ϡ		asc. node	4351 Feb 19 03:31	16°Υ06'29	
	4348 Jun 30 11:35	0°Π		evening max el	4351 Mar 03 12:12	29°Υ06'06 46°59'18	
	4348 Jul 26 06:33	0°Ω			4351 Mar 04 09:33	0°Ϡ	
	4348 Aug 20 13:15	0°Ω			4351 Apr 12 08:48	0°Π	
asc. node	4348 Sep 03 08:31	16°Ω35'16		greatest brilliancy	4351 Apr 12 16:48	0°Π07'37 -4.9m	
	4348 Sep 14 10:20	0°℞		retrograde	4351 Apr 23 02:49	2°Π10'41	
	4348 Oct 08 23:07	0°♁			4351 May 03 10:24	30°℞Ϡ	
	4348 Nov 02 05:26	0°ℳ		evening set	4351 May 09 15:23	26°Ϡ50'51	
morning set	4348 Nov 05 10:42	4°ℳ00'03		inferior conj	4351 May 14 05:24	24°Ϡ02'38 6°08'03	
	4348 Nov 26 07:24	0°♁		minimum elong	4351 May 14 15:41	23°Ϡ46'33 6°05'44	
max. Earth dist.	4348 Dec 11 06:33	18°♁42'58 1.71638 AU		min. Earth dist.	4351 May 14 03:17	24°Ϡ05'56 0.28023 AU	
				morning rise	4351 May 19 16:16	20°Ϡ44'55	
superior conj	4348 Dec 13 21:38	22°♁00'25 0°23'56		direct	4351 Jun 04 05:35	16°Ϡ01'11	
minimum elong	4348 Dec 14 03:21	22°♁18'18 0°23'40		desc. node	4351 Jun 10 18:06	16°Ϡ49'17	

greatest brilliancy	4351 Jun 14 01:09	17°  47'04	-4.8m		4353 Dec 05 04:58	0° 	
	4351 Jul 04 18:29	0° 			4353 Dec 29 07:53	0° 	
morning max el	4351 Jul 23 05:38	16°  12'14	45°48'41		4354 Jan 22 11:33	0° 	
	4351 Aug 06 01:07	0° 			4354 Feb 15 18:51	0° 	
	4351 Sep 02 17:47	0° 			4354 Mar 12 11:17	0° 	
	4351 Sep 28 20:09	0° 		asc. node	4354 Mar 18 15:24	7°  22'54	
asc. node	4351 Oct 01 20:27	3°  32'30			4354 Apr 06 22:45	0° 	
	4351 Oct 24 00:41	0° 			4354 May 04 03:13	0° 	
	4351 Nov 17 14:59	0° 		evening max el	4354 May 13 21:39	9°  55'35	46°01'26
	4351 Dec 11 20:21	0° 			4354 Jun 05 22:49	0° 	
	4352 Jan 04 20:37	0° 		greatest brilliancy	4354 Jun 21 01:43	8°  03'22	-4.7m
greatest brilliancy	4352 Jan 16 22:09	15°  07'52	-3.9m	retrograde	4354 Jul 02 04:31	10°  05'1'25	
morning set	4352 Jan 18 16:59	17°  02'16		desc. node	4354 Jul 08 05:56	10°  07'32	
desc. node	4352 Jan 21 10:54	20°  03'49'15		evening set	4354 Jul 17 09:24	6°  02'23	
	4352 Jan 28 18:12	0° 		inferior conj	4354 Jul 23 15:42	2°  03'5'43	-3°33'56
	4352 Feb 21 14:38	0° 		minimum elong	4354 Jul 23 08:24	2°  04'7'10	3°31'58
				min. Earth dist.	4354 Jul 23 06:26	2°  05'0'16	0.28892 AU
superior conj	4352 Feb 29 03:41	9°  02'29'26	-1°16'31		4354 Jul 27 20:55	30°  08'05	
minimum elong	4352 Feb 28 17:30	8°  03'57'23	1°16'16	morning rise	4354 Jul 29 07:46	29°  09'09'43	
max. Earth dist.	4352 Mar 01 18:08	11°  04'30'20	1.71193 AU	direct	4354 Aug 14 05:10	24°  10'21'50	
	4352 Mar 16 11:22	0° 		greatest brilliancy	4354 Aug 24 06:11	26°  11'05'2	-4.7m
	4352 Apr 09 10:12	0° 			4354 Sep 01 13:46	0° 	
evening rise	4352 Apr 09 21:24	0°  35'00		morning max el	4354 Oct 02 00:24	24°  02'13'48	45°48'27
	4352 May 03 12:59	0° 			4354 Oct 07 21:28	0° 	
asc. node	4352 May 13 13:19	12°  02'22'37		asc. node	4354 Oct 29 08:21	22°  03'41'04	
	4352 May 27 21:17	0° 			4354 Nov 04 21:44	0° 	
	4352 Jun 21 12:28	0° 			4354 Nov 30 18:24	0° 	
	4352 Jul 16 12:49	0° 			4354 Dec 25 15:08	0° 	
	4352 Aug 11 03:16	0° 			4355 Jan 18 23:40	0° 	
desc. node	4352 Sep 02 03:34	24°  05'45'55			4355 Feb 12 02:04	0° 	
	4352 Sep 06 18:28	0° 		desc. node	4355 Feb 17 22:44	7°  08'19'18	
	4352 Oct 05 16:31	0° 			4355 Mar 08 01:43	0° 	
evening max el	4352 Oct 05 20:54	0°  07'10'33	46°04'15		4355 Apr 01 00:48	0° 	
greatest brilliancy	4352 Nov 14 17:22	29°  08'02'23	-4.8m	morning set	4355 Apr 05 15:31	5°  05'46'19	
	4352 Nov 18 04:53	0° 			4355 Apr 25 01:06	0° 	
retrograde	4352 Nov 24 02:57	0°  03'39'45					
	4352 Nov 29 20:45	30°  08'00'00		superior conj	4355 May 15 01:10	24°  08'53'35	-0°59'03
evening set	4352 Dec 08 22:42	26°  08'22'38		minimum elong	4355 May 15 11:40	25°  09'26'11	0°58'40
inferior conj	4352 Dec 14 19:15	22°  09'56'38	-2°23'46	max. Earth dist.	4355 May 18 19:51	29°  10'08'34'58	1.72477 AU
minimum elong	4352 Dec 15 00:36	22°  10'48'28	2°22'06		4355 May 19 03:55	0° 	
min. Earth dist.	4352 Dec 15 09:46	22°  11'34'28	0.26978 AU	asc. node	4355 Jun 11 01:07	28°  12'02'18'57	
morning rise	4352 Dec 21 01:56	19°  12'16'21			4355 Jun 12 09:52	0° 	
asc. node	4352 Dec 24 05:53	17°  13'43'06		evening rise	4355 Jun 22 08:47	12°  03'05'16'06	
direct	4353 Jan 04 13:36	15°  14'07'11			4355 Jul 06 18:58	0° 	
greatest brilliancy	4353 Jan 15 07:26	17°  15'18'33	-4.9m		4355 Jul 31 07:16	0° 	
	4353 Feb 04 10:07	0° 			4355 Aug 24 23:40	0° 	
morning max el	4353 Feb 24 06:29	18°  16'25'34	46°58'50		4355 Sep 18 22:03	0° 	
	4353 Mar 07 08:10	0° 		desc. node	4355 Sep 30 15:33	13°  04'05'58'37	
	4353 Apr 03 02:41	0° 			4355 Oct 14 05:12	0° 	
desc. node	4353 Apr 14 20:34	13°  05'00'41'20			4355 Nov 09 02:04	0° 	
	4353 Apr 28 15:37	0° 			4355 Dec 06 02:42	0° 	
	4353 May 23 16:35	0° 		evening max el	4355 Dec 18 19:25	13°  05'08'11'13	47°01'37
	4353 Jun 17 12:31	0° 			4356 Jan 05 20:59	0° 	
	4353 Jul 12 05:53	0° 		asc. node	4356 Jan 21 17:44	11°  06'00'00'15'50	
asc. node	4353 Aug 05 22:40	0°  07'05'56		greatest brilliancy	4356 Jan 28 08:44	14°  07'00'00'20'07	-4.9m
	4353 Aug 05 20:44	0° 		retrograde	4356 Feb 07 09:47	16°  08'00'00'15'18	
morning set	4353 Aug 26 06:19	24°  09'59'08		evening set	4356 Feb 23 20:17	10°  09'00'00'58'43	
	4353 Aug 30 08:18	0° 		min. Earth dist.	4356 Feb 27 10:02	8°  10'00'00'49'20	0.26909 AU
	4353 Sep 23 16:26	0° 		inferior conj	4356 Feb 28 01:33	8°  11'00'00'25'24	7°57'22
max. Earth dist.	4353 Sep 29 03:11	6°  12'44'06	1.72975 AU	minimum elong	4356 Feb 27 16:19	8°  12'00'00'39'39	7°55'57
				morning rise	4356 Mar 02 12:31	6°  13'00'00'00'19'09	
superior conj	4353 Oct 01 17:01	9°  13'55'22	1°25'15	direct	4356 Mar 19 13:13	0° 	
minimum elong	4353 Oct 01 17:31	9°  14'56'54	1°25'14	greatest brilliancy	4356 Mar 28 19:00	2°  15'00'00'00'19'11	-4.9m
	4353 Oct 17 21:52	0° 			4356 May 05 18:43	0° 	
evening rise	4353 Nov 08 00:09	26°  16'11'13		morning max el	4356 May 08 11:26	2°  17'00'00'38'19	46°31'10
	4353 Nov 11 01:47	0° 		desc. node	4356 May 12 08:23	6°  18'00'00'30'43	
desc. node	4353 Nov 25 13:23	18°  19'00'09			4356 Jun 03 11:36	0° 	

	4356 Jun 30 01:15	0°♄		evening max el	4359 Mar 01 03:37	26°♄48'00	47°00'50
	4356 Jul 25 18:49	0°♅			4359 Mar 04 08:15	0°♄	
	4356 Aug 20 00:43	0°♆		greatest brilliancy	4359 Apr 10 07:56	27°♄50'07	-4.9m
asc. node	4356 Sep 02 10:36	16°♆07'47		retrograde	4359 Apr 20 18:41	29°♄53'41	
	4356 Sep 13 21:19	0°♇		evening set	4359 May 07 09:24	24°♄29'23	
	4356 Oct 08 09:52	0°♈		inferior conj	4359 May 11 20:15	21°♄45'50	6°23'43
	4356 Nov 01 16:06	0°♉		minimum elong	4359 May 12 06:36	21°♄29'40	6°21'30
morning set	4356 Nov 03 02:18	1°♉46'15		min. Earth dist.	4359 May 11 17:38	21°♄49'55	0.27990 AU
	4356 Nov 25 18:04	0°♊		morning rise	4359 May 17 04:06	18°♄32'45	
max. Earth dist.	4356 Dec 08 19:13	16°♊18'49	1.71682 AU	direct	4359 Jun 01 20:24	13°♄45'01	
				desc. node	4359 Jun 09 19:58	14°♄56'35	
superior conj	4356 Dec 11 10:24	19°♊36'33	0°27'30	greatest brilliancy	4359 Jun 11 14:25	15°♄30'09	-4.8m
minimum elong	4356 Dec 11 16:50	19°♊56'44	0°27'12		4359 Jul 05 04:47	0°♄	
	4356 Dec 19 17:31	0°♋		morning max el	4359 Jul 20 21:47	14°♄02'00	45°49'33
desc. node	4356 Dec 23 01:08	4°♋09'23			4359 Aug 05 19:13	0°♅	
	4357 Jan 12 15:33	0°♌			4359 Sep 02 07:58	0°♆	
evening rise	4357 Jan 20 19:44	10°♌15'41			4359 Sep 28 08:41	0°♇	
	4357 Feb 05 13:05	0°♍		asc. node	4359 Sep 30 22:32	3°♇02'03	
	4357 Mar 01 11:42	0°♎			4359 Oct 23 12:24	0°♈	
	4357 Mar 25 13:57	0°♏			4359 Nov 17 02:17	0°♉	
asc. node	4357 Apr 15 03:27	25°♏19'38			4359 Dec 11 07:26	0°♊	
	4357 Apr 18 23:16	0°♐			4360 Jan 04 07:37	0°♋	
	4357 May 13 20:01	0°♑		morning set	4360 Jan 16 03:52	14°♋51'20	
	4357 Jun 08 11:12	0°♒		desc. node	4360 Jan 20 12:53	20°♋21'03	
	4357 Jul 05 13:04	0°♓			4360 Jan 28 05:11	0°♌	
evening max el	4357 Jul 23 08:22	18°♓03'41	45°30'06		4360 Feb 21 01:35	0°♍	
desc. node	4357 Aug 04 17:50	29°♓18'07					
	4357 Aug 05 13:44	0°♎		superior conj	4360 Feb 26 13:48	6°♍55'47	-1°14'31
greatest brilliancy	4357 Aug 31 03:31	16°♎03'24	-4.7m	minimum elong	4360 Feb 26 03:03	6°♍21'59	1°14'15
retrograde	4357 Sep 10 00:47	17°♎49'38		max. Earth dist.	4360 Feb 28 03:04	8°♍53'00	1.71176 AU
evening set	4357 Sep 28 03:51	11°♎42'59			4360 Mar 15 22:19	0°♎	
inferior conj	4357 Oct 01 10:30	9°♎42'06	-8°38'32	evening rise	4360 Apr 07 08:42	28°♎06'07	
minimum elong	4357 Oct 01 10:44	9°♎41'45	8°38'32		4360 Apr 08 21:10	0°♏	
min. Earth dist.	4357 Oct 01 23:05	9°♎22'30	0.28828 AU		4360 May 03 00:02	0°♐	
morning rise	4357 Oct 04 17:26	7°♎40'15		asc. node	4360 May 12 15:17	11°♐54'35	
direct	4357 Oct 22 22:01	1°♎25'41			4360 May 27 08:28	0°♑	
greatest brilliancy	4357 Nov 02 22:39	3°♎38'47	-4.8m		4360 Jun 20 23:57	0°♒	
asc. node	4357 Nov 25 20:05	18°♎26'00			4360 Jul 16 00:58	0°♓	
	4357 Dec 08 11:54	0°♏			4360 Aug 10 16:41	0°♔	
morning max el	4357 Dec 11 23:28	3°♏26'23	46°29'19	desc. node	4360 Sep 01 05:39	24°♔17'54	
	4358 Jan 05 17:52	0°♑			4360 Sep 06 10:36	0°♕	
	4358 Jan 31 13:26	0°♒		evening max el	4360 Oct 03 11:24	27°♕53'57	46°02'06
	4358 Feb 25 10:51	0°♓			4360 Oct 05 16:19	0°♖	
desc. node	4358 Mar 17 10:40	24°♓28'21		greatest brilliancy	4360 Nov 12 06:47	26°♖40'13	-4.8m
	4358 Mar 21 22:29	0°♔		retrograde	4360 Nov 21 15:23	28°♖16'24	
	4358 Apr 15 05:56	0°♕		evening set	4360 Dec 06 13:54	23°♖56'38	
	4358 May 09 12:22	0°♖		inferior conj	4360 Dec 12 08:22	20°♖33'03	-2°46'12
	4358 Jun 02 19:36	0°♗		minimum elong	4360 Dec 12 14:28	20°♖23'42	2°44'20
morning set	4358 Jun 16 16:16	17°♗04'42		min. Earth dist.	4360 Dec 12 23:58	20°♖09'10	0.27029 AU
	4358 Jun 27 04:09	0°♘		morning rise	4360 Dec 18 14:28	16°♖53'03	
asc. node	4358 Jul 08 12:52	13°♘58'40		asc. node	4360 Dec 23 07:50	14°♖40'25	
	4358 Jul 21 13:29	0°♙		direct	4361 Jan 02 03:29	12°♖42'54	
				greatest brilliancy	4361 Jan 12 22:03	14°♖54'37	-4.9m
superior conj	4358 Jul 23 21:04	2°♙50'55	0°35'37		4361 Feb 04 20:53	0°♗	
minimum elong	4358 Jul 23 14:12	2°♙29'49	0°35'18	morning max el	4361 Feb 21 19:37	15°♗59'46	46°58'38
max. Earth dist.	4358 Jul 23 20:59	2°♙50'41	1.73474 AU		4361 Mar 07 03:15	0°♘	
	4358 Aug 14 22:49	0°♙			4361 Apr 02 17:49	0°♔	
evening rise	4358 Aug 28 22:45	17°♙13'27		desc. node	4361 Apr 13 22:39	13°♔05'40	
	4358 Sep 08 08:02	0°♚			4361 Apr 28 04:58	0°♕	
	4358 Oct 02 17:53	0°♛			4361 May 23 04:56	0°♖	
	4358 Oct 27 05:20	0°♜			4361 Jun 17 00:13	0°♗	
desc. node	4358 Oct 28 03:29	1°♜07'47			4361 Jul 11 17:07	0°♘	
	4358 Nov 20 19:07	0°♝		asc. node	4361 Aug 05 00:48	29°♘39'04	
	4358 Dec 15 12:26	0°♞			4361 Aug 05 07:39	0°♙	
	4359 Jan 09 13:09	0°♟		morning set	4361 Aug 24 00:12	22°♙53'38	
	4359 Feb 04 08:31	0°♠			4361 Aug 29 19:04	0°♚	
asc. node	4359 Feb 18 05:37	15°♠21'44			4361 Sep 23 03:09	0°♛	

max. Earth dist.	4361 Sep 26 19:56	4°♌34'21	1.73014 AU	minimum elong	4364 Feb 25 04:28	6°♎12'35	7°43'47
				morning rise	4364 Feb 29 04:27	3°♎46'45	
superior conj	4361 Sep 29 10:46	7°♌48'34	1°25'15		4364 Mar 07 19:21	30°♎	
minimum elong	4361 Sep 29 10:32	7°♌47'53	1°25'16	direct	4364 Mar 17 01:11	28°♎14'58	
	4361 Oct 17 08:41	0°♌		greatest brilliancy	4364 Mar 26 08:30	29°♎52'54	-4.9m
evening rise	4361 Nov 05 15:21	23°♌55'20			4364 Mar 26 16:48	0°♎	
	4361 Nov 10 12:47	0°♌			4364 May 05 18:51	0°♎	
desc. node	4361 Nov 24 15:19	17°♌31'36		morning max el	4364 May 06 00:28	0°♎13'53	46°32'51
	4361 Dec 04 16:12	0°♌		desc. node	4364 May 11 10:18	5°♎40'18	
	4361 Dec 28 19:23	0°♌			4364 Jun 03 04:20	0°♎	
	4362 Jan 21 23:25	0°♎			4364 Jun 29 15:17	0°♎	
	4362 Feb 15 07:13	0°♎			4364 Jul 25 07:28	0°♎	
	4362 Mar 12 00:32	0°♎			4364 Aug 19 12:34	0°♎	
asc. node	4362 Mar 17 17:30	6°♎48'50		asc. node	4364 Sep 01 12:38	15°♎38'57	
	4362 Apr 06 13:44	0°♎			4364 Sep 13 08:43	0°♎	
	4362 May 03 22:31	0°♎			4364 Oct 07 21:01	0°♎	
evening max el	4362 May 11 12:36	7°♎40'00	46°03'18	morning set	4364 Oct 31 18:19	29°♎32'42	
	4362 Jun 06 18:19	0°♎			4364 Nov 01 03:07	0°♎	
greatest brilliancy	4362 Jun 18 18:52	6°♎27'51	-4.8m		4364 Nov 25 05:04	0°♌	
retrograde	4362 Jun 29 20:22	8°♎41'14		max. Earth dist.	4364 Dec 06 10:38	14°♌02'23	1.71725 AU
desc. node	4362 Jul 07 08:00	7°♎34'21					
evening set	4362 Jul 15 00:41	4°♎13'51		superior conj	4364 Dec 08 23:34	17°♌12'59	0°30'58
inferior conj	4362 Jul 21 07:59	0°♎25'55	-3°15'38	minimum elong	4364 Dec 09 06:40	17°♌35'15	0°30'39
minimum elong	4362 Jul 21 01:12	0°♎36'34	3°13'46		4364 Dec 19 04:35	0°♌	
min. Earth dist.	4362 Jul 20 23:06	0°♎39'52	0.28862 AU	desc. node	4364 Dec 22 03:10	3°♌41'04	
	4362 Jul 22 00:29	30°♎			4365 Jan 12 02:43	0°♌	
morning rise	4362 Jul 27 02:01	26°♎56'53		evening rise	4365 Jan 18 07:07	7°♌45'36	
direct	4362 Aug 11 20:48	22°♎12'27			4365 Feb 05 00:24	0°♎	
greatest brilliancy	4362 Aug 21 22:12	24°♎01'25	-4.7m		4365 Feb 28 23:10	0°♎	
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morning max el	4362 Sep 29 14:37	21°♎59'11	45°47'42	asc. node	4365 Apr 14 05:22	24°♎48'48	
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	4362 Nov 04 12:39	0°♎			4365 Jun 08 01:30	0°♎	
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	4363 Jan 18 11:30	0°♌		desc. node	4365 Aug 03 19:56	28°♎18'34	
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desc. node	4363 Feb 17 00:53	6°♌50'01		greatest brilliancy	4365 Aug 28 16:38	13°♎49'26	-4.7m
	4363 Mar 07 13:04	0°♎		retrograde	4365 Sep 07 16:43	15°♎37'44	
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morning set	4363 Apr 03 02:57	3°♎16'56		inferior conj	4365 Sep 29 02:07	7°♎29'18	-8°38'02
	4363 Apr 24 12:11	0°♎		minimum elong	4365 Sep 29 01:33	7°♎30'12	8°38'03
				min. Earth dist.	4365 Sep 29 13:12	7°♎12'04	0.28866 AU
superior conj	4363 May 12 15:09	22°♎33'46	-1°01'39	morning rise	4365 Oct 02 08:32	5°♎28'21	
minimum elong	4363 May 13 01:45	23°♎06'43	1°01'17		4365 Oct 14 08:11	30°♎	
max. Earth dist.	4363 May 16 10:47	27°♎18'15	1.72423 AU	direct	4365 Oct 20 14:26	29°♎12'33	
	4363 May 18 14:55	0°♎			4365 Oct 27 01:13	0°♎	
asc. node	4363 Jun 10 03:04	27°♎51'06		greatest brilliancy	4365 Oct 31 13:31	1°♎24'35	-4.8m
	4363 Jun 11 20:52	0°♎		asc. node	4365 Nov 24 22:00	17°♎23'54	
evening rise	4363 Jun 20 01:10	10°♎04'52			4365 Dec 08 10:49	0°♎	
	4363 Jul 06 06:01	0°♎		morning max el	4365 Dec 09 15:30	1°♎11'24	46°27'50
	4363 Jul 30 18:31	0°♎			4366 Jan 05 10:04	0°♌	
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desc. node	4363 Sep 29 17:36	13°♎27'03		desc. node	4366 Mar 16 12:41	23°♌56'51	
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evening max el	4363 Dec 16 07:54	10°♌43'37	47°00'07		4366 Jun 02 06:45	0°♎	
	4364 Jan 06 10:11	0°♎		morning set	4366 Jun 14 08:34	14°♎53'00	
asc. node	4364 Jan 20 19:51	9°♎36'48			4366 Jun 26 15:08	0°♎	
greatest brilliancy	4364 Jan 25 22:01	11°♎51'52	-4.9m	asc. node	4366 Jul 07 14:58	13°♎31'34	
retrograde	4364 Feb 04 22:17	13°♎46'53			4366 Jul 21 00:23	0°♎	
evening set	4364 Feb 21 04:37	8°♎36'41					
min. Earth dist.	4364 Feb 24 23:00	6°♎20'59	0.26877 AU	superior conj	4366 Jul 21 14:28	0°♎43'19	0°32'39
inferior conj	4364 Feb 25 14:11	5°♎57'35	7°45'24	minimum elong	4366 Jul 21 08:04	0°♎23'37	0°32'20

max. Earth dist.	4366 Jul 21 19:31	0°♌58'50	1.73464 AU		4369 Mar 06 21:47	0°♏	
	4366 Aug 14 09:43	0°♍			4369 Apr 02 08:38	0°♏	
evening rise	4366 Aug 26 17:00	15°♍08'14		desc. node	4369 Apr 13 00:34	12°♏30'08	
	4366 Sep 07 19:04	0°♎			4369 Apr 27 18:04	0°♐	
	4366 Oct 02 05:09	0°♎			4369 May 22 17:04	0°♑	
	4366 Oct 26 16:59	0°♏			4369 Jun 16 11:45	0°♒	
desc. node	4366 Oct 27 05:25	0°♏38'01			4369 Jul 11 04:15	0°♓	
	4366 Nov 20 07:18	0°♐		asc. node	4369 Aug 04 02:49	29°♓12'03	
	4366 Dec 15 01:22	0°♑			4369 Aug 04 18:31	0°♌	
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retrograde	4367 Apr 18 10:11	27°♑35'05		minimum elong	4369 Sep 27 03:19	5°♎38'19	1°25'09
evening set	4367 May 05 03:19	22°♑06'33			4369 Oct 16 19:28	0°♎	
inferior conj	4367 May 09 10:55	19°♑27'33	6°38'54	evening rise	4369 Nov 03 06:26	21°♎39'22	
minimum elong	4367 May 09 21:14	19°♑11'26	6°36'47		4369 Nov 09 23:43	0°♏	
min. Earth dist.	4367 May 09 07:44	19°♑32'32	0.27961 AU	desc. node	4369 Nov 23 17:21	17°♏03'37	
morning rise	4367 May 14 15:32	16°♑19'12			4369 Dec 04 03:22	0°♐	
direct	4367 May 30 11:16	11°♑27'29			4369 Dec 28 06:49	0°♑	
desc. node	4367 Jun 08 22:03	13°♑06'52			4370 Jan 21 11:12	0°♒	
greatest brilliancy	4367 Jun 09 03:25	13°♑11'25	-4.8m		4370 Feb 14 19:31	0°♐	
	4367 Jul 05 12:51	0°♒			4370 Mar 11 13:41	0°♑	
morning max el	4367 Jul 18 13:06	11°♒48'35	45°50'22	asc. node	4370 Mar 16 19:27	6°♑14'47	
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asc. node	4367 Sep 30 00:29	2°♍30'35			4370 Jun 07 20:13	0°♌	
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morning set	4368 Jan 13 15:04	12°♐21'04			4370 Jul 16 06:26	30°♒♓	
desc. node	4368 Jan 19 15:02	19°♐52'59		min. Earth dist.	4370 Jul 18 15:53	28°♓30'37	0.28838 AU
	4368 Jan 27 16:15	0°♑		inferior conj	4370 Jul 19 00:24	28°♓17'15	-2°57'07
	4368 Feb 20 12:35	0°♒		minimum elong	4370 Jul 18 18:11	28°♓27'01	2°55'22
				morning rise	4370 Jul 24 20:22	24°♓45'27	
superior conj	4368 Feb 24 00:18	4°♒23'16	-1°12'24	direct	4370 Aug 09 12:21	20°♓03'58	
minimum elong	4368 Feb 23 13:07	3°♒48'05	1°12'05	greatest brilliancy	4370 Aug 19 14:46	21°♓53'29	-4.7m
max. Earth dist.	4368 Feb 25 10:50	6°♒11'51	1.71156 AU		4370 Sep 03 18:12	0°♌	
	4368 Mar 15 09:17	0°♐		morning max el	4370 Sep 27 05:34	19°♌46'54	45°46'54
evening rise	4368 Apr 04 20:12	25°♐37'42			4370 Oct 07 12:23	0°♍	
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asc. node	4368 May 11 17:15	11°♒26'21			4370 Nov 29 20:22	0°♎	
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	4368 Jun 20 11:36	0°♌			4371 Jan 17 23:03	0°♐	
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evening max el	4368 Oct 01 00:45	25°♎34'12	46°00'03	morning set	4371 Mar 31 14:19	0°♐48'07	
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greatest brilliancy	4368 Nov 09 20:36	24°♏18'17	-4.8m				
retrograde	4368 Nov 19 03:21	25°♏52'56		superior conj	4371 May 10 05:18	20°♏15'28	-1°04'08
evening set	4368 Dec 04 05:08	21°♏30'05		minimum elong	4371 May 10 15:57	20°♏48'33	1°03'47
inferior conj	4368 Dec 09 21:26	18°♏09'20	-3°08'14	max. Earth dist.	4371 May 14 00:23	24°♏58'21	1.72365 AU
minimum elong	4368 Dec 10 04:14	17°♏58'54	3°06'11		4371 May 18 01:35	0°♒	
min. Earth dist.	4368 Dec 10 14:25	17°♏43'17	0.27081 AU	asc. node	4371 Jun 09 05:12	27°♒24'57	
morning rise	4368 Dec 16 02:40	14°♏29'53			4371 Jun 11 07:28	0°♓	
asc. node	4368 Dec 22 09:59	11°♏42'02		evening rise	4371 Jun 17 17:49	7°♓55'39	
direct	4368 Dec 30 16:48	10°♏18'12			4371 Jul 05 16:42	0°♌	
greatest brilliancy	4369 Jan 10 13:08	12°♏31'03	-4.9m		4371 Jul 30 05:26	0°♍	
	4369 Feb 05 04:51	0°♐			4371 Aug 23 22:38	0°♎	
morning max el	4369 Feb 19 08:10	13°♐32'18	46°58'40		4371 Sep 17 22:21	0°♎	




























































































































desc. node	4371 Sep 28 19:30	12°♌55'43		desc. node	4374 Mar 15 14:42	23°♏26'26	
	4371 Oct 13 07:43	0°♊			4374 Mar 20 22:26	0°♋	
	4371 Nov 08 08:39	0°♌			4374 Apr 14 05:00	0°♍	
	4371 Dec 05 18:19	0°♎			4374 May 08 10:46	0°♏	
evening max el	4371 Dec 13 20:59	8°♏18'34	46°58'41		4374 Jun 01 17:32	0°♐	
	4372 Jan 07 03:17	0°♋		morning set	4374 Jun 12 00:54	12°♐42'34	
asc. node	4372 Jan 19 21:50	7°♋54'41			4374 Jun 26 01:45	0°♑	
greatest brilliancy	4372 Jan 23 10:40	9°♋23'47	-4.9m	asc. node	4374 Jul 06 16:59	13°♑05'20	
retrograde	4372 Feb 02 11:22	11°♋19'21					
evening set	4372 Feb 18 12:58	6°♋15'11		superior conj	4374 Jul 19 08:04	28°♑37'29	0°29'38
min. Earth dist.	4372 Feb 22 11:35	3°♋53'43	0.26846 AU	minimum elong	4374 Jul 19 02:09	28°♑19'18	0°29'21
inferior conj	4372 Feb 23 02:44	3°♋30'27	7°32'35	max. Earth dist.	4374 Jul 19 17:56	29°♑07'50	1.73447 AU
minimum elong	4372 Feb 22 16:36	3°♋46'01	7°30'46		4374 Jul 20 10:53	0°♒	
morning rise	4372 Feb 26 20:24	1°♋15'00			4374 Aug 13 20:13	0°♓	
	4372 Feb 29 01:34	30°♋		evening rise	4374 Aug 24 11:34	13°♓05'20	
direct	4372 Mar 14 13:30	25°♋48'00			4374 Sep 07 05:39	0°♈	
greatest brilliancy	4372 Mar 23 21:26	27°♋26'51	-4.9m		4374 Oct 01 16:00	0°♉	
	4372 Mar 29 20:59	0°♋		desc. node	4374 Oct 26 07:33	0°♊10'03	
morning max el	4372 May 03 14:31	27°♋53'00	46°34'36		4374 Oct 26 04:15	0°♋	
	4372 May 05 17:29	0°♍			4374 Nov 19 19:11	0°♌	
desc. node	4372 May 10 12:21	4°♍52'08			4374 Dec 14 14:06	0°♎	
	4372 Jun 02 20:20	0°♏			4375 Jan 08 17:24	0°♋	
	4372 Jun 29 04:42	0°♐			4375 Feb 03 17:55	0°♍	
	4372 Jul 24 19:33	0°♑		asc. node	4375 Feb 16 09:35	13°♍49'19	
asc. node	4372 Aug 18 23:54	0°♒		evening max el	4375 Feb 24 10:18	22°♍10'38	47°03'20
	4372 Aug 31 14:35	15°♒11'20			4375 Mar 04 09:02	0°♏	
	4372 Sep 12 19:38	0°♓		greatest brilliancy	4375 Apr 05 14:52	23°♏14'19	-4.9m
	4372 Oct 07 07:44	0°♈		retrograde	4375 Apr 16 01:12	25°♏16'47	
morning set	4372 Oct 29 10:21	27°♈20'25		evening set	4375 May 02 21:15	19°♏44'13	
	4372 Oct 31 13:46	0°♉		inferior conj	4375 May 07 01:32	17°♏09'51	6°53'35
	4372 Nov 24 15:45	0°♊		minimum elong	4375 May 07 11:46	16°♏53'51	6°51'34
max. Earth dist.	4372 Dec 04 00:24	11°♊41'46	1.71768 AU	min. Earth dist.	4375 May 06 21:59	17°♏15'25	0.27926 AU
				morning rise	4375 May 12 02:40	14°♏06'18	
superior conj	4372 Dec 06 12:38	14°♊50'08	0°34'24	direct	4375 May 28 01:50	9°♏10'37	
minimum elong	4372 Dec 06 20:22	15°♊14'18	0°34'03	greatest brilliancy	4375 Jun 06 16:28	10°♏53'18	-4.8m
	4372 Dec 18 15:21	0°♌		desc. node	4375 Jun 08 00:11	11°♏21'57	
desc. node	4372 Dec 21 05:17	3°♌13'59			4375 Jul 05 18:12	0°♐	
	4373 Jan 11 13:35	0°♎		morning max el	4375 Jul 16 03:35	9°♐33'53	45°51'20
evening rise	4373 Jan 15 18:17	5°♎15'54			4375 Aug 05 06:30	0°♑	
	4373 Feb 04 11:23	0°♋			4375 Sep 01 12:07	0°♒	
	4373 Feb 28 10:17	0°♍			4375 Sep 27 09:39	0°♓	
	4373 Mar 24 12:59	0°♏		asc. node	4375 Sep 29 02:31	2°♓00'37	
asc. node	4373 Apr 13 07:23	24°♏19'18			4375 Oct 22 11:44	0°♈	
	4373 Apr 17 23:05	0°♐			4375 Nov 16 00:48	0°♉	
	4373 May 12 21:18	0°♑			4375 Dec 10 05:36	0°♊	
	4373 Jun 07 15:27	0°♒			4376 Jan 03 05:38	0°♋	
	4373 Jul 05 00:28	0°♓		morning set	4376 Jan 11 02:20	9°♌51'46	
evening max el	4373 Jul 18 16:18	13°♓43'20	45°30'30	desc. node	4376 Jan 18 16:59	19°♌25'02	
desc. node	4373 Aug 02 21:54	27°♓19'13			4376 Jan 27 03:06	0°♎	
	4373 Aug 06 07:11	0°♈			4376 Feb 19 23:27	0°♋	
greatest brilliancy	4373 Aug 26 06:19	11°♈38'20	-4.7m				
retrograde	4373 Sep 05 08:41	13°♈28'09		superior conj	4376 Feb 21 10:28	1°♋50'08	-1°10'06
evening set	4373 Sep 23 09:02	7°♈23'42		minimum elong	4376 Feb 20 22:55	1°♋13'48	1°09'45
inferior conj	4373 Sep 26 18:02	5°♈18'57	-8°36'50	max. Earth dist.	4376 Feb 22 14:00	3°♋16'42	1.71143 AU
minimum elong	4373 Sep 26 16:41	5°♈21'04	8°36'48		4376 Mar 14 20:09	0°♍	
min. Earth dist.	4373 Sep 27 03:30	5°♈04'11	0.28903 AU	evening rise	4376 Apr 02 07:02	23°♍07'31	
morning rise	4373 Sep 30 00:14	3°♈18'14			4376 Apr 07 19:03	0°♏	
	4373 Oct 06 01:35	30°♈			4376 May 01 22:04	0°♐	
direct	4373 Oct 18 07:18	27°♓02'01		asc. node	4376 May 10 19:22	10°♐58'59	
greatest brilliancy	4373 Oct 29 04:06	29°♓12'03	-4.8m		4376 May 26 06:52	0°♑	
	4373 Oct 31 03:04	0°♈			4376 Jun 19 23:06	0°♒	
asc. node	4373 Nov 24 00:09	16°♈25'11			4376 Jul 15 01:32	0°♓	
morning max el	4373 Dec 07 07:23	28°♈57'24	46°26'01		4376 Aug 09 20:01	0°♈	
	4373 Dec 08 08:22	0°♉		desc. node	4376 Aug 30 09:39	23°♈02'15	
	4374 Jan 05 01:40	0°♊			4376 Sep 05 19:51	0°♉	
	4374 Jan 30 16:49	0°♌		evening max el	4376 Sep 28 13:39	23°♉14'37	45°58'11
	4374 Feb 24 12:05	0°♎			4376 Oct 05 19:33	0°♊	

greatest brilliancy	4376 Nov 07 10:41	21°♄58'25	-4.8m	superior conj	4379 May 07 19:04	17°♄55'15	-1°06'33
retrograde	4376 Nov 16 15:43	23°♄31'54		minimum elong	4379 May 08 05:40	18°♄28'12	1°06'12
evening set	4376 Dec 01 20:48	19°♄05'22		max. Earth dist.	4379 May 11 12:48	22°♄34'08	1.72316 AU
inferior conj	4376 Dec 07 10:52	15°♄47'48	-3°29'34		4379 May 17 12:26	0°♄	
minimum elong	4376 Dec 07 18:19	15°♄36'23	3°27'23	asc. node	4379 Jun 08 07:09	26°♄57'28	
min. Earth dist.	4376 Dec 08 05:14	15°♄19'38	0.27139 AU		4379 Jun 10 18:19	0°♄	
morning rise	4376 Dec 13 15:05	12°♄09'21		evening rise	4379 Jun 15 09:55	5°♄43'56	
asc. node	4376 Dec 21 11:56	8°♄51'29			4379 Jul 05 03:38	0°♄	
direct	4376 Dec 28 06:12	7°♄55'26			4379 Jul 29 16:35	0°♄	
greatest brilliancy	4377 Jan 08 04:52	10°♄09'58	-4.9m		4379 Aug 23 10:13	0°♄	
	4377 Feb 05 10:08	0°♄			4379 Sep 17 10:38	0°♄	
morning max el	4377 Feb 16 21:18	11°♄06'55	46°58'23	desc. node	4379 Sep 27 21:38	12°♄24'20	
	4377 Mar 06 15:44	0°♄			4379 Oct 12 21:13	0°♄	
	4377 Apr 01 23:15	0°♄			4379 Nov 08 00:21	0°♄	
desc. node	4377 Apr 12 02:39	11°♄55'19			4379 Dec 05 15:06	0°♄	
	4377 Apr 27 07:07	0°♄		evening max el	4379 Dec 11 11:15	5°♄56'19	46°57'20
	4377 May 22 05:12	0°♄			4380 Jan 08 02:25	0°♄	
	4377 Jun 15 23:15	0°♄		asc. node	4380 Jan 18 23:48	6°♄08'38	
	4377 Jul 10 15:18	0°♄		greatest brilliancy	4380 Jan 20 23:11	6°♄55'41	-4.9m
asc. node	4377 Aug 03 04:44	28°♄44'56		retrograde	4380 Jan 31 01:00	8°♄51'54	
	4377 Aug 04 05:17	0°♄		evening set	4380 Feb 15 21:38	3°♄53'44	
morning set	4377 Aug 19 11:21	18°♄41'06		min. Earth dist.	4380 Feb 20 00:07	1°♄26'54	0.26811 AU
	4377 Aug 28 16:25	0°♄		inferior conj	4380 Feb 20 15:25	1°♄03'27	7°18'50
	4377 Sep 22 00:29	0°♄		minimum elong	4380 Feb 20 04:59	1°♄19'26	7°16'51
max. Earth dist.	4377 Sep 22 07:57	0°♄23'06	1.73088 AU		4380 Feb 22 08:58	30°♄	
				morning rise	4380 Feb 24 12:32	28°♄43'17	
superior conj	4377 Sep 24 21:58	3°♄34'43	1°24'55	direct	4380 Mar 12 02:26	23°♄21'27	
minimum elong	4377 Sep 24 20:21	3°♄29'43	1°24'55	greatest brilliancy	4380 Mar 21 09:58	25°♄00'27	-4.9m
	4377 Oct 16 06:10	0°♄			4380 Mar 31 17:33	0°♄	
evening rise	4377 Oct 31 22:03	19°♄25'29		morning max el	4380 May 01 04:53	25°♄32'43	46°36'03
	4377 Nov 09 10:34	0°♄			4380 May 05 15:19	0°♄	
desc. node	4377 Nov 22 19:27	16°♄36'09		desc. node	4380 May 09 14:29	4°♄04'44	
	4377 Dec 03 14:24	0°♄			4380 Jun 02 12:14	0°♄	
	4377 Dec 27 18:08	0°♄			4380 Jun 28 18:17	0°♄	
	4378 Jan 20 22:55	0°♄			4380 Jul 24 07:56	0°♄	
	4378 Feb 14 07:49	0°♄			4380 Aug 18 11:34	0°♄	
	4378 Mar 11 02:56	0°♄		asc. node	4380 Aug 30 16:40	14°♄43'07	
asc. node	4378 Mar 15 21:28	5°♄40'36			4380 Sep 12 06:53	0°♄	
	4378 Apr 05 19:46	0°♄			4380 Oct 06 18:45	0°♄	
	4378 May 03 14:19	0°♄		morning set	4380 Oct 27 02:20	25°♄07'13	
evening max el	4378 May 06 17:20	3°♄07'12	46°07'21		4380 Oct 31 00:42	0°♄	
	4378 Jun 09 10:05	0°♄			4380 Nov 24 02:42	0°♄	
greatest brilliancy	4378 Jun 14 03:58	2°♄08'28	-4.8m	max. Earth dist.	4380 Dec 01 12:33	9°♄15'25	1.71810 AU
retrograde	4378 Jun 25 05:02	4°♄22'31					
desc. node	4378 Jul 05 12:00	2°♄15'42		superior conj	4380 Dec 04 01:53	12°♄27'05	0°37'44
evening set	4378 Jul 10 07:43	29°♄56'42		minimum elong	4380 Dec 04 10:09	12°♄52'55	0°37'22
	4378 Jul 10 05:18	30°♄			4380 Dec 18 02:23	0°♄	
inferior conj	4378 Jul 16 16:34	26°♄07'19	-2°38'05	desc. node	4380 Dec 20 07:12	2°♄45'24	
minimum elong	4378 Jul 16 10:57	26°♄16'07	2°36'29		4381 Jan 11 00:44	0°♄	
min. Earth dist.	4378 Jul 16 08:16	26°♄20'19	0.28812 AU	evening rise	4381 Jan 13 05:36	2°♄45'51	
morning rise	4378 Jul 22 14:24	22°♄33'07			4381 Feb 03 22:37	0°♄	
direct	4378 Aug 07 03:44	17°♄54'13			4381 Feb 27 21:39	0°♄	
greatest brilliancy	4378 Aug 17 06:55	19°♄44'22	-4.7m		4381 Mar 24 00:33	0°♄	
	4378 Sep 04 10:33	0°♄		asc. node	4381 Apr 12 09:30	23°♄49'25	
morning max el	4378 Sep 24 21:14	17°♄36'07	45°46'16		4381 Apr 17 11:04	0°♄	
	4378 Oct 07 07:03	0°♄			4381 May 12 10:06	0°♄	
asc. node	4378 Oct 26 14:27	20°♄49'11			4381 Jun 07 05:55	0°♄	
	4378 Nov 03 17:42	0°♄			4381 Jul 04 19:00	0°♄	
	4378 Nov 29 09:11	0°♄		evening max el	4381 Jul 16 08:31	11°♄33'07	45°30'35
	4378 Dec 24 03:26	0°♄		desc. node	4381 Aug 01 23:56	26°♄17'00	
	4379 Jan 17 10:36	0°♄			4381 Aug 06 21:10	0°♄	
	4379 Feb 10 12:11	0°♄		greatest brilliancy	4381 Aug 23 20:38	9°♄26'14	-4.7m
desc. node	4379 Feb 15 04:49	5°♄52'06		retrograde	4381 Sep 03 00:05	11°♄16'40	
	4379 Mar 06 11:16	0°♄		evening set	4381 Sep 20 23:11	5°♄14'32	
morning set	4379 Mar 29 01:37	28°♄18'50		inferior conj	4381 Sep 24 09:49	3°♄07'01	-8°34'51
	4379 Mar 30 09:56	0°♄		minimum elong	4381 Sep 24 07:42	3°♄10'20	8°34'47
	4379 Apr 23 09:52	0°♄		min. Earth dist.	4381 Sep 24 18:04	2°♄54'08	0.28935 AU

morning rise	4381 Sep 27 16:08	1°♌05'55			4384 Apr 07 06:15	0°♎	
	4381 Sep 29 12:45	30°♏♏			4384 May 01 09:21	0°♐	
direct	4381 Oct 15 23:47	24°♏50'02		asc. node	4384 May 09 21:20	10°♐30'05	
greatest brilliancy	4381 Oct 26 18:39	26°♏58'00 -4.8m			4384 May 25 18:19	0°♑	
	4381 Nov 02 06:30	0°♒			4384 Jun 19 10:54	0°♒	
asc. node	4381 Nov 23 02:08	15°♒26'09			4384 Jul 14 14:05	0°♓	
morning max el	4381 Dec 04 22:12	26°♒39'39 46°24'18			4384 Aug 09 10:04	0°♒	
	4381 Dec 08 05:35	0°♓		desc. node	4384 Aug 29 11:45	22°♒23'35	
	4382 Jan 04 17:25	0°♑			4384 Sep 05 13:13	0°♓	
	4382 Jan 30 06:32	0°♑		evening max el	4384 Sep 26 02:18	20°♓53'22 45°56'12	
	4382 Feb 24 00:47	0°♒			4384 Oct 05 23:48	0°♑	
desc. node	4382 Mar 14 16:45	22°♒55'17		greatest brilliancy	4384 Nov 05 00:11	19°♑36'20 -4.8m	
	4382 Mar 20 10:29	0°♒		retrograde	4384 Nov 14 04:16	21°♑09'20	
	4382 Apr 13 16:36	0°♓		evening set	4384 Nov 29 12:23	16°♑38'35	
	4382 May 07 22:03	0°♎		inferior conj	4384 Dec 05 00:07	13°♑24'30 -3°50'36	
	4382 Jun 01 04:34	0°♐		minimum elong	4384 Dec 05 08:10	13°♑12'10 3°48'17	
morning set	4382 Jun 09 17:26	10°♐31'49		min. Earth dist.	4384 Dec 05 19:46	12°♑54'24 0.27201 AU	
	4382 Jun 25 12:39	0°♑		morning rise	4384 Dec 11 03:07	9°♑47'36	
asc. node	4382 Jul 05 18:55	12°♑37'57		asc. node	4384 Dec 20 13:53	6°♑04'34	
				direct	4384 Dec 25 19:34	5°♑30'46	
superior conj	4382 Jul 17 01:43	26°♑30'51 0°26'35		greatest brilliancy	4385 Jan 05 20:26	7°♑47'19 -4.9m	
minimum elong	4382 Jul 16 20:21	26°♑14'18 0°26'19			4385 Feb 05 14:07	0°♑	
max. Earth dist.	4382 Jul 17 15:34	27°♑13'27 1.73434 AU		morning max el	4385 Feb 14 11:15	8°♑42'33 46°58'13	
	4382 Jul 19 21:44	0°♒			4385 Mar 06 09:36	0°♒	
	4382 Aug 13 07:05	0°♓			4385 Apr 01 13:58	0°♒	
evening rise	4382 Aug 22 06:03	11°♓00'54		desc. node	4385 Apr 11 04:43	11°♒20'00	
	4382 Sep 06 16:41	0°♒			4385 Apr 26 20:18	0°♓	
	4382 Oct 01 03:18	0°♓			4385 May 21 17:29	0°♎	
desc. node	4382 Oct 25 09:33	29°♓40'24			4385 Jun 15 10:56	0°♐	
	4382 Oct 25 15:59	0°♑			4385 Jul 10 02:34	0°♑	
	4382 Nov 19 07:30	0°♑		asc. node	4385 Aug 02 06:52	28°♑17'54	
	4382 Dec 14 03:16	0°♒			4385 Aug 03 16:16	0°♒	
	4383 Jan 08 07:59	0°♒		morning set	4385 Aug 17 05:10	16°♒35'07	
	4383 Feb 03 11:25	0°♓			4385 Aug 28 03:15	0°♓	
asc. node	4383 Feb 15 11:41	13°♓01'36		max. Earth dist.	4385 Sep 20 05:02	28°♓26'32 1.73125 AU	
evening max el	4383 Feb 22 00:39	19°♓48'22 47°04'29			4385 Sep 21 11:18	0°♒	
	4383 Mar 04 11:43	0°♎					
greatest brilliancy	4383 Apr 03 07:17	20°♎56'38 -4.9m		superior conj	4385 Sep 22 15:52	1°♒28'15 1°24'34	
retrograde	4383 Apr 13 15:54	22°♎57'34		minimum elong	4385 Sep 22 13:33	1°♒21'07 1°24'34	
evening set	4383 Apr 30 15:14	17°♎21'01			4385 Oct 15 17:05	0°♓	
inferior conj	4383 May 04 16:15	14°♎51'22 7°07'30		evening rise	4385 Oct 29 13:48	17°♓11'20	
minimum elong	4383 May 05 02:19	14°♎35'36 7°05'37			4385 Nov 08 21:40	0°♑	
min. Earth dist.	4383 May 04 12:36	14°♎57'04 0.27890 AU		desc. node	4385 Nov 21 21:24	16°♑07'17	
morning rise	4383 May 09 13:44	11°♎52'46			4385 Dec 03 01:45	0°♑	
direct	4383 May 25 15:52	6°♎52'56			4385 Dec 27 05:47	0°♒	
greatest brilliancy	4383 Jun 04 06:00	8°♎34'50 -4.8m			4386 Jan 20 10:57	0°♒	
desc. node	4383 Jun 07 02:03	9°♎39'53			4386 Feb 13 20:25	0°♓	
	4383 Jul 05 22:00	0°♐			4386 Mar 10 16:30	0°♎	
morning max el	4383 Jul 13 17:25	7°♐16'41 45°52'21		asc. node	4386 Mar 14 23:33	5°♎05'47	
	4383 Aug 04 23:42	0°♑			4386 Apr 05 11:21	0°♐	
	4383 Sep 01 02:07	0°♒			4386 May 03 11:31	0°♑	
	4383 Sep 26 22:13	0°♓		evening max el	4386 May 04 08:45	0°♑52'36 46°09'31	
asc. node	4383 Sep 28 04:35	1°♓29'44			4386 Jun 11 22:47	0°♒	
	4383 Oct 21 23:36	0°♒		greatest brilliancy	4386 Jun 11 19:56	29°♑57'16 -4.8m	
	4383 Nov 15 12:18	0°♓		retrograde	4386 Jun 22 21:58	2°♒12'20	
	4383 Dec 09 16:55	0°♑			4386 Jul 03 09:37	30°♏♑	
	4384 Jan 02 16:51	0°♑		desc. node	4386 Jul 04 14:05	29°♑29'12	
morning set	4384 Jan 08 13:34	7°♑21'15		evening set	4386 Jul 07 23:27	27°♑46'56	
desc. node	4384 Jan 17 18:59	18°♑56'16		inferior conj	4386 Jul 14 08:46	23°♑57'04 -2°18'47	
	4384 Jan 26 14:16	0°♒		minimum elong	4386 Jul 14 03:47	24°♑04'53 2°17'21	
				min. Earth dist.	4386 Jul 14 00:26	24°♑10'08 0.28784 AU	
superior conj	4384 Feb 18 20:35	29°♒15'54 -1°07'39		morning rise	4386 Jul 20 08:24	20°♑20'48	
minimum elong	4384 Feb 18 08:45	28°♒38'43 1°07'17		direct	4386 Aug 04 19:34	15°♑44'16	
	4384 Feb 19 10:36	0°♒		greatest brilliancy	4386 Aug 14 22:33	17°♑34'35 -4.7m	
max. Earth dist.	4384 Feb 19 15:58	0°♒16'54 1.71133 AU			4386 Sep 04 22:46	0°♒	
	4384 Mar 14 07:19	0°♓		morning max el	4386 Sep 22 13:47	15°♒27'31 45°45'41	
evening rise	4384 Mar 30 17:52	20°♓36'16			4386 Oct 07 01:17	0°♓	

asc. node	4386 Oct 25 16:25	20° \mathbb{M} 12'17		4389 May 11 22:54	0° \mathfrak{C}	
	4386 Nov 03 08:03	0° \mathfrak{L}		4389 Jun 06 20:24	0° \mathcal{O}	
	4386 Nov 28 22:00	0° \mathbb{L}		4389 Jul 04 13:48	0° \mathbb{M}	
	4386 Dec 23 15:31	0° \mathfrak{A}	evening max el	4389 Jul 14 00:07	9° \mathbb{M} 22'01	45°30'51
	4387 Jan 16 22:18	0° \mathfrak{Z}	desc. node	4389 Aug 01 02:01	25° \mathbb{M} 14'15	
	4387 Feb 09 23:38	0° \approx		4389 Aug 07 15:23	0° \mathfrak{L}	
desc. node	4387 Feb 14 06:58	5° \approx 23'06	greatest brilliancy	4389 Aug 21 11:35	7° \mathfrak{L} 15'53	-4.7m
	4387 Mar 05 22:33	0° \mathfrak{H}	retrograde	4389 Aug 31 15:15	9° \mathfrak{L} 06'38	
morning set	4387 Mar 26 12:31	25° \mathfrak{H} 47'43	evening set	4389 Sep 18 13:16	3° \mathfrak{L} 07'15	
	4387 Mar 29 21:04	0° \mathfrak{Y}	inferior conj	4389 Sep 22 01:50	0° \mathfrak{L} 56'38	-8°32'07
	4387 Apr 22 20:51	0° \mathfrak{C}	minimum elong	4389 Sep 21 22:57	1° \mathfrak{L} 01'09	8°32'00
			min. Earth dist.	4389 Sep 22 09:10	0° \mathfrak{L} 45'08	0.28962 AU
superior conj	4387 May 05 08:31	15° \mathfrak{C} 33'46	-1°08'50	4389 Sep 23 14:03	30° \mathfrak{R} \mathbb{M}	
minimum elong	4387 May 05 19:01	16° \mathfrak{C} 06'24	1°08'32	morning rise	4389 Sep 25 08:32	28° \mathbb{M} 54'39
max. Earth dist.	4387 May 09 02:45	20° \mathfrak{C} 14'23	1.72264 AU	direct	4389 Oct 13 15:56	22° \mathbb{M} 39'30
	4387 May 16 23:20	0° \mathbb{I}		greatest brilliancy	4389 Oct 24 09:56	24° \mathbb{M} 46'02
asc. node	4387 Jun 07 09:09	26° \mathbb{I} 30'02			4389 Nov 03 15:39	0° \mathfrak{L}
	4387 Jun 10 05:13	0° \mathfrak{C}		asc. node	4389 Nov 22 04:05	14° \mathfrak{L} 29'27
evening rise	4387 Jun 13 02:00	3° \mathfrak{C} 32'02		morning max el	4389 Dec 02 12:26	24° \mathfrak{L} 21'36
	4387 Jul 04 14:37	0° \mathcal{O}			4389 Dec 08 01:42	0° \mathbb{L}
	4387 Jul 29 03:48	0° \mathbb{M}			4390 Jan 04 08:33	0° \mathfrak{A}
	4387 Aug 22 21:49	0° \mathfrak{L}			4390 Jan 29 19:47	0° \mathfrak{Z}
	4387 Sep 16 22:56	0° \mathbb{L}			4390 Feb 23 13:05	0° \approx
desc. node	4387 Sep 26 23:40	11° \mathbb{L} 52'44		desc. node	4390 Mar 13 18:46	22° \approx 25'02
	4387 Oct 12 10:45	0° \mathfrak{A}			4390 Mar 19 22:13	0° \mathfrak{H}
	4387 Nov 07 16:13	0° \mathfrak{Z}			4390 Apr 13 03:57	0° \mathfrak{Y}
	4387 Dec 05 12:37	0° \approx			4390 May 07 09:06	0° \mathfrak{C}
evening max el	4387 Dec 09 02:07	3° \approx 35'39	46°55'36		4390 May 31 15:24	0° \mathbb{I}
	4388 Jan 09 10:46	0° \mathfrak{H}		morning set	4390 Jun 07 09:30	8° \mathbb{I} 20'09
asc. node	4388 Jan 18 01:54	4° \mathfrak{H} 17'51			4390 Jun 24 23:19	0° \mathfrak{C}
greatest brilliancy	4388 Jan 18 11:34	4° \mathfrak{H} 26'51	-4.9m	asc. node	4390 Jul 04 21:03	12° \mathfrak{C} 11'52
retrograde	4388 Jan 28 14:13	6° \mathfrak{H} 23'14				
evening set	4388 Feb 13 06:10	1° \mathfrak{H} 31'16		superior conj	4390 Jul 14 19:05	24° \mathfrak{C} 24'05
	4388 Feb 15 20:21	30° \mathfrak{R} \approx		minimum elong	4390 Jul 14 14:16	24° \mathfrak{C} 09'17
min. Earth dist.	4388 Feb 17 12:35	28° \approx 58'45	0.26781 AU	max. Earth dist.	4390 Jul 15 11:31	25° \mathfrak{C} 14'38
inferior conj	4388 Feb 18 03:51	28° \approx 35'21	7°04'01		4390 Jul 19 08:18	0° \mathcal{O}
minimum elong	4388 Feb 17 17:11	28° \approx 51'41	7°01'53		4390 Aug 12 17:40	0° \mathbb{M}
morning rise	4388 Feb 22 04:29	26° \approx 10'16		evening rise	4390 Aug 20 00:26	8° \mathbb{M} 57'11
direct	4388 Mar 09 15:24	20° \approx 53'57			4390 Sep 06 03:24	0° \mathfrak{L}
greatest brilliancy	4388 Mar 18 22:24	22° \approx 32'49	-4.9m		4390 Sep 30 14:19	0° \mathbb{L}
	4388 Apr 02 00:24	0° \mathfrak{H}		desc. node	4390 Oct 24 11:30	29° \mathbb{L} 11'31
morning max el	4388 Apr 28 18:43	23° \mathfrak{H} 10'35	46°37'33		4390 Oct 25 03:24	0° \mathfrak{A}
	4388 May 05 12:30	0° \mathfrak{Y}			4390 Nov 18 19:30	0° \mathfrak{Z}
desc. node	4388 May 08 16:24	3° \mathfrak{Y} 17'14			4390 Dec 13 16:07	0° \approx
	4388 Jun 02 03:55	0° \mathfrak{C}			4391 Jan 07 22:17	0° \mathfrak{H}
	4388 Jun 28 07:41	0° \mathbb{I}			4391 Feb 03 04:47	0° \mathfrak{Y}
	4388 Jul 23 20:08	0° \mathfrak{C}		asc. node	4391 Feb 14 13:42	12° \mathfrak{Y} 14'18
	4388 Aug 17 23:04	0° \mathcal{O}		evening max el	4391 Feb 19 14:02	17° \mathfrak{Y} 24'53
asc. node	4388 Aug 29 18:42	14° \mathcal{O} 15'15			4391 Mar 04 15:29	0° \mathfrak{C}
	4388 Sep 11 17:58	0° \mathbb{M}		greatest brilliancy	4391 Mar 31 23:34	18° \mathfrak{C} 39'32
	4388 Oct 06 05:36	0° \mathfrak{L}		retrograde	4391 Apr 11 06:15	20° \mathfrak{C} 39'06
morning set	4388 Oct 24 18:49	22° \mathfrak{L} 56'07		evening set	4391 Apr 28 09:02	14° \mathfrak{C} 58'19
	4388 Oct 30 11:27	0° \mathbb{L}		inferior conj	4391 May 02 06:52	12° \mathfrak{C} 33'31
	4388 Nov 23 13:27	0° \mathfrak{A}		minimum elong	4391 May 02 16:40	12° \mathfrak{C} 18'08
max. Earth dist.	4388 Nov 28 23:40	6° \mathfrak{A} 46'31	1.71852 AU	min. Earth dist.	4391 May 02 03:22	12° \mathfrak{C} 39'00
				morning rise	4391 May 07 00:35	9° \mathfrak{C} 40'07
superior conj	4388 Dec 01 15:45	10° \mathfrak{A} 06'43	0°40'58	direct	4391 May 23 05:24	4° \mathfrak{C} 35'29
minimum elong	4388 Dec 02 00:28	10° \mathfrak{A} 33'58	0°40'35	greatest brilliancy	4391 Jun 01 20:07	6° \mathfrak{C} 17'28
	4388 Dec 17 13:14	0° \mathfrak{Z}		desc. node	4391 Jun 06 04:10	8° \mathfrak{C} 02'22
desc. node	4388 Dec 19 09:17	2° \mathfrak{Z} 17'55			4391 Jul 05 23:57	0° \mathbb{I}
	4389 Jan 10 11:42	0° \approx		morning max el	4391 Jul 11 07:22	5° \mathbb{I} 00'12
evening rise	4389 Jan 10 17:14	0° \approx 17'21			4391 Aug 04 16:15	0° \mathfrak{C}
	4389 Feb 03 09:44	0° \mathfrak{H}			4391 Aug 31 15:39	0° \mathcal{O}
	4389 Feb 27 08:56	0° \mathfrak{Y}			4391 Sep 26 10:21	0° \mathbb{M}
	4389 Mar 23 12:06	0° \mathfrak{C}		asc. node	4391 Sep 27 06:33	0° \mathbb{M} 59'45
asc. node	4389 Apr 11 11:25	23° \mathfrak{C} 18'59			4391 Oct 21 11:01	0° \mathfrak{L}
	4389 Apr 16 23:03	0° \mathbb{I}			4391 Nov 14 23:22	0° \mathbb{L}

	4391 Dec 09 03:49	0°♊			4394 Jun 22 04:19	30°♋	
	4392 Jan 02 03:41	0°♋		desc. node	4394 Jul 03 16:08	26°♌39'50	
morning set	4392 Jan 06 01:11	4°♋53'09		evening set	4394 Jul 05 15:23	25°♌37'57	
desc. node	4392 Jan 16 21:07	18°♋29'04		min. Earth dist.	4394 Jul 11 16:23	22°♌00'59	0.28757 AU
	4392 Jan 26 01:03	0°♌		inferior conj	4394 Jul 12 00:56	21°♌47'38	-1°59'19
				minimum elong	4394 Jul 11 20:36	21°♌54'24	1°58'03
superior conj	4392 Feb 16 07:02	26°♌44'02	-1°05'04	morning rise	4394 Jul 18 02:13	18°♌09'23	
minimum elong	4392 Feb 15 19:03	26°♌06'20	1°04'40	direct	4394 Aug 02 11:52	13°♌35'14	
max. Earth dist.	4392 Feb 16 19:23	27°♌22'53	1.71125 AU	greatest brilliancy	4394 Aug 12 13:43	15°♌25'04	-4.7m
	4392 Feb 18 21:20	0°♍			4394 Sep 05 07:27	0°♎	
	4392 Mar 13 18:03	0°♍		morning max el	4394 Sep 20 06:29	13°♎20'02	45°45'00
evening rise	4392 Mar 28 05:01	18°♍07'24			4394 Oct 06 18:50	0°♏	
	4392 Apr 06 17:01	0°♎		asc. node	4394 Oct 24 18:25	19°♏36'29	
	4392 Apr 30 20:13	0°♏			4394 Nov 02 22:02	0°♐	
asc. node	4392 May 08 23:20	10°♏02'35			4394 Nov 28 10:30	0°♑	
	4392 May 25 05:23	0°♐			4394 Dec 23 03:17	0°♒	
	4392 Jun 18 22:24	0°♑			4395 Jan 16 09:40	0°♓	
	4392 Jul 14 02:22	0°♒			4395 Feb 09 10:47	0°♌	
	4392 Aug 08 23:54	0°♌		desc. node	4395 Feb 13 08:51	4°♌54'15	
desc. node	4392 Aug 28 13:46	21°♌45'28			4395 Mar 05 09:34	0°♍	
	4392 Sep 05 06:32	0°♍		morning set	4395 Mar 23 23:23	23°♍17'19	
evening max el	4392 Sep 23 15:39	18°♍35'20	45°54'30		4395 Mar 29 07:56	0°♎	
	4392 Oct 06 05:22	0°♎			4395 Apr 22 07:37	0°♏	
greatest brilliancy	4392 Nov 02 13:10	17°♎15'42	-4.8m				
retrograde	4392 Nov 11 17:27	18°♎48'56		superior conj	4395 May 02 21:58	13°♏12'48	-1°11'01
evening set	4392 Nov 27 04:17	14°♎13'41		minimum elong	4395 May 03 08:16	13°♏44'54	1°10'44
inferior conj	4392 Dec 02 13:33	11°♎03'07	-4°10'55	max. Earth dist.	4395 May 06 18:11	17°♏59'48	1.72210 AU
minimum elong	4392 Dec 02 22:08	10°♎49'58	4°08'31		4395 May 16 10:00	0°♐	
min. Earth dist.	4392 Dec 03 10:03	10°♎31'44	0.27265 AU	asc. node	4395 Jun 06 11:17	26°♐03'42	
morning rise	4392 Dec 08 15:10	7°♎28'15			4395 Jun 09 15:52	0°♑	
asc. node	4392 Dec 19 16:04	3°♎25'22		evening rise	4395 Jun 10 18:03	1°♑20'45	
direct	4392 Dec 23 09:48	3°♎08'05			4395 Jul 04 01:23	0°♒	
greatest brilliancy	4393 Jan 03 11:48	5°♎26'14	-4.9m		4395 Jul 28 14:47	0°♓	
	4393 Feb 05 15:56	0°♓			4395 Aug 22 09:16	0°♌	
morning max el	4393 Feb 12 02:21	6°♓22'32	46°57'59		4395 Sep 16 11:09	0°♍	
	4393 Mar 06 02:37	0°♌		desc. node	4395 Sep 26 01:34	11°♌21'01	
	4393 Apr 01 04:03	0°♍			4395 Oct 12 00:17	0°♎	
desc. node	4393 Apr 10 06:39	10°♍45'49			4395 Nov 07 08:15	0°♏	
	4393 Apr 26 08:57	0°♎			4395 Dec 05 10:48	0°♐	
	4393 May 21 05:17	0°♏		evening max el	4395 Dec 06 16:49	1°♐15'04	46°53'55
	4393 Jun 14 22:10	0°♐			4396 Jan 11 10:14	0°♑	
	4393 Jul 09 13:26	0°♑		greatest brilliancy	4396 Jan 16 00:27	1°♑59'15	-4.9m
asc. node	4393 Aug 01 08:53	27°♑51'28		asc. node	4396 Jan 17 03:53	2°♑23'04	
	4393 Aug 03 02:54	0°♒		retrograde	4396 Jan 26 03:02	3°♑54'57	
morning set	4393 Aug 14 22:52	14°♒29'43			4396 Feb 09 01:47	30°♒	
	4393 Aug 27 13:46	0°♓		evening set	4396 Feb 10 14:56	29°♓09'14	
max. Earth dist.	4393 Sep 18 02:08	26°♓30'59	1.73157 AU	min. Earth dist.	4396 Feb 15 01:24	26°♓30'44	0.26750 AU
				inferior conj	4396 Feb 15 16:18	26°♓07'52	6°48'29
superior conj	4393 Sep 20 09:35	29°♓22'14	1°24'06	minimum elong	4396 Feb 15 05:31	26°♓24'26	6°46'10
minimum elong	4393 Sep 20 06:37	29°♓13'05	1°24'05	morning rise	4396 Feb 19 20:24	23°♓37'42	
	4393 Sep 20 21:48	0°♌		direct	4396 Mar 07 04:08	18°♓27'03	
	4393 Oct 15 03:40	0°♍		greatest brilliancy	4396 Mar 16 11:19	20°♓06'00	-4.9m
evening rise	4393 Oct 27 05:30	14°♍58'10			4396 Apr 02 22:32	0°♎	
	4393 Nov 08 08:25	0°♎		morning max el	4396 Apr 26 07:42	20°♎46'29	46°38'57
desc. node	4393 Nov 20 23:27	15°♎39'54			4396 May 05 08:50	0°♏	
	4393 Dec 02 12:44	0°♓		desc. node	4396 May 07 18:29	2°♏31'13	
	4393 Dec 26 17:07	0°♌			4396 Jun 01 19:15	0°♍	
	4394 Jan 19 22:42	0°♍			4396 Jun 27 20:54	0°♎	
	4394 Feb 13 08:45	0°♎			4396 Jul 23 08:12	0°♏	
	4394 Mar 10 05:50	0°♏			4396 Aug 17 10:28	0°♐	
asc. node	4394 Mar 14 01:31	4°♏31'29		asc. node	4396 Aug 28 20:39	13°♏47'23	
	4394 Apr 05 02:47	0°♐			4396 Sep 11 04:58	0°♑	
evening max el	4394 May 02 00:55	28°♐41'02	46°11'40		4396 Oct 05 16:25	0°♒	
	4394 May 03 09:02	0°♑		morning set	4396 Oct 22 11:04	20°♑44'21	
greatest brilliancy	4394 Jun 09 11:48	27°♑47'03	-4.8m		4396 Oct 29 22:13	0°♓	
	4394 Jun 19 01:17	0°♒			4396 Nov 23 00:16	0°♌	
retrograde	4394 Jun 20 14:57	0°♒02'54		max. Earth dist.	4396 Nov 26 09:06	4°♒12'18	1.71899 AU

superior conj	4396 Nov 29 05:28	7°  45'48	0°44'07	direct	4399 May 20 18:44	2°  16'16	
minimum elong	4396 Nov 29 14:35	8°  14'17	0°43'44	greatest brilliancy	4399 May 30 10:05	3°  58'43	-4.8m
	4396 Dec 17 00:08	0°  3		desc. node	4399 Jun 05 06:15	6°  27'11	
desc. node	4396 Dec 18 11:22	1°  350'20			4399 Jul 06 00:57	0°  II	
evening rise	4397 Jan 08 04:35	27°  347'55		morning max el	4399 Jul 08 21:53	2°  II44'05	45°54'42
	4397 Jan 09 22:43	0°  ≈			4399 Aug 04 08:49	0°  ☾	
	4397 Feb 02 20:52	0°  ✕			4399 Aug 31 05:23	0°  Ω	
	4397 Feb 26 20:14	0°  Υ			4399 Sep 25 22:44	0°  ♍	
	4397 Mar 22 23:41	0°  ♄		asc. node	4399 Sep 26 08:35	0°  ♍29'09	
asc. node	4397 Apr 10 13:27	22°  ♄48'48			4399 Oct 20 22:42	0°  ♌	
	4397 Apr 16 11:07	0°  II			4399 Nov 14 10:43	0°  ♍	
	4397 May 11 11:50	0°  ☾			4399 Dec 08 15:01	0°  ♄	
	4397 Jun 06 11:07	0°  Ω			4400 Jan 01 14:49	0°  3	
	4397 Jul 04 09:11	0°  ♍		morning set	4400 Jan 03 12:55	2°  324'30	
evening max el	4397 Jul 11 14:53	7°  ♍08'41	45°31'13	desc. node	4400 Jan 15 23:03	18°  300'10	
desc. node	4397 Jul 31 04:00	24°  ♍09'34			4400 Jan 25 12:10	0°  ≈	
	4397 Aug 08 16:19	0°  ♌					
greatest brilliancy	4397 Aug 19 02:30	5°  ♌05'21	-4.7m	superior conj	4400 Feb 13 17:07	24°  ≈09'40	-1°02'20
retrograde	4397 Aug 29 06:20	6°  ♌56'43		minimum elong	4400 Feb 13 05:04	23°  ≈31'47	1°01'54
evening set	4397 Sep 16 03:02	1°  ♌00'17		max. Earth dist.	4400 Feb 14 00:40	24°  ≈33'24	1.71125 AU
	4397 Sep 17 18:37	30°  ♍♍			4400 Feb 18 08:29	0°  ✕	
inferior conj	4397 Sep 19 17:52	28°  ♍46'17	-8°28'38		4400 Mar 13 05:13	0°  Υ	
minimum elong	4397 Sep 19 14:13	28°  ♍52'00	8°28'27	evening rise	4400 Mar 25 15:41	15°  Υ35'36	
min. Earth dist.	4397 Sep 20 00:28	28°  ♍35'56	0.28990 AU		4400 Apr 06 04:13	0°  ♄	
morning rise	4397 Sep 23 01:16	26°  ♍43'04			4400 Apr 30 07:29	0°  II	
direct	4397 Oct 11 07:44	20°  ♍28'48		asc. node	4400 May 08 01:26	9°  II34'06	
greatest brilliancy	4397 Oct 22 01:50	22°  ♍34'44	-4.8m		4400 May 24 16:52	0°  ☾	
	4397 Nov 04 15:23	0°  ♌			4400 Jun 18 10:19	0°  Ω	
asc. node	4397 Nov 21 06:15	13°  ♌34'04			4400 Jul 13 15:09	0°  ♍	
morning max el	4397 Nov 30 02:26	22°  ♌02'33	46°21'02		4400 Aug 08 14:19	0°  ♌	
	4397 Dec 07 21:24	0°  ♍		desc. node	4400 Aug 27 15:44	21°  ♌05'39	
	4398 Jan 03 23:43	0°  ♄			4400 Sep 05 00:44	0°  ♍	
	4398 Jan 29 09:11	0°  3		evening max el	4400 Sep 21 06:00	16°  ♍18'46	45°52'54
	4398 Feb 23 01:33	0°  ≈			4400 Oct 06 13:46	0°  ♄	
desc. node	4398 Mar 12 20:46	21°  ≈54'12		greatest brilliancy	4400 Oct 31 01:41	14°  ♄54'01	-4.8m
	4398 Mar 19 10:06	0°  ✕		retrograde	4400 Nov 09 07:02	16°  ♄27'51	
	4398 Apr 12 15:25	0°  Υ		evening set	4400 Nov 24 20:24	11°  ♄48'14	
	4398 May 06 20:18	0°  ♄		inferior conj	4400 Nov 30 03:03	8°  ♄41'03	-4°30'38
	4398 May 31 02:24	0°  II		minimum elong	4400 Nov 30 12:06	8°  ♄27'12	4°28'11
morning set	4398 Jun 05 01:23	6°  II07'18		min. Earth dist.	4400 Nov 30 23:57	8°  ♄09'06	0.27328 AU
	4398 Jun 24 10:10	0°  ☾		morning rise	4400 Dec 06 03:05	5°  ♄08'34	
asc. node	4398 Jul 03 23:02	11°  ☾44'40		asc. node	4400 Dec 18 17:58	0°  ♄51'27	
				direct	4400 Dec 21 00:32	0°  ♄45'05	
superior conj	4398 Jul 12 12:25	22°  ☾16'36	0°20'20	greatest brilliancy	4401 Jan 01 02:28	3°  ♄03'44	-4.9m
minimum elong	4398 Jul 12 08:12	22°  ☾03'37	0°20'06		4401 Feb 05 16:50	0°  3	
max. Earth dist.	4398 Jul 13 06:00	23°  ☾10'42	1.73393 AU	morning max el	4401 Feb 09 17:41	4°  302'15	46°57'27
	4398 Jul 18 19:05	0°  Ω			4401 Mar 05 19:43	0°  ≈	
	4398 Aug 12 04:27	0°  ♍			4401 Mar 31 18:28	0°  ✕	
evening rise	4398 Aug 17 18:54	6°  ♍53'10		desc. node	4401 Apr 09 08:44	10°  ✕10'56	
	4398 Sep 05 14:20	0°  ♌			4401 Apr 25 22:01	0°  Υ	
	4398 Sep 30 01:32	0°  ♍			4401 May 20 17:31	0°  ♄	
desc. node	4398 Oct 23 13:38	28°  ♍42'29			4401 Jun 14 09:50	0°  II	
	4398 Oct 24 15:04	0°  ♄			4401 Jul 09 00:41	0°  ☾	
	4398 Nov 18 07:48	0°  3		asc. node	4401 Jul 31 10:48	27°  ☾23'37	
	4398 Dec 13 05:22	0°  ≈			4401 Aug 02 13:55	0°  Ω	
	4399 Jan 07 13:08	0°  ✕		morning set	4401 Aug 12 16:25	12°  Ω22'48	
	4399 Feb 02 23:01	0°  Υ			4401 Aug 27 00:41	0°  ♍	
asc. node	4399 Feb 13 15:40	11°  Υ24'49		max. Earth dist.	4401 Sep 15 22:32	24°  ♍32'07	1.73187 AU
evening max el	4399 Feb 17 03:11	14°  Υ59'27	47°06'30				
	4399 Mar 04 21:47	0°  ♄		superior conj	4401 Sep 18 03:17	27°  ♍14'59	1°23'31
greatest brilliancy	4399 Mar 29 15:16	16°  ♄20'10	-4.9m	minimum elong	4401 Sep 17 23:41	27°  ♍03'52	1°23'29
retrograde	4399 Apr 08 20:39	18°  ♄19'09			4401 Sep 20 08:43	0°  ♌	
evening set	4399 Apr 26 02:38	12°  ♄33'50			4401 Oct 14 14:40	0°  ♍	
inferior conj	4399 Apr 29 21:18	10° ♄14'03	7°33'15	evening rise	4401 Oct 24 21:20	12° ♍44'11	
minimum elong	4399 Apr 30 06:48	9° ♄59'10	7°31'41		4401 Nov 07 19:34	0° ♄	
min. Earth dist.	4399 Apr 29 17:48	10° ♄19'32	0.27828 AU	desc. node	4401 Nov 20 01:31	15° ♄11'19	
morning rise	4399 May 04 11:11	7° ♄26'15			4401 Dec 02 00:07	0° 3	

	4401 Dec 26 04:48	0°♊			4404 Jul 22 20:24	0°♎		
	4402 Jan 19 10:49	0°♋			4404 Aug 16 22:02	0°♏		
	4402 Feb 12 21:29	0°♌		asc. node	4404 Aug 27 22:45	13°♏19'23		
	4402 Mar 09 19:40	0°♍			4404 Sep 10 16:09	0°♐		
asc. node	4402 Mar 13 03:31	3°♍55'57			4404 Oct 05 03:22	0°♑		
	4402 Apr 04 18:56	0°♒		morning set	4404 Oct 20 03:19	18°♑32'10		
evening max el	4402 Apr 29 17:31	26°♒28'53 46°13'44			4404 Oct 29 09:06	0°♓		
	4402 May 03 08:03	0°♈			4404 Nov 22 11:12	0°♈		
greatest brilliancy	4402 Jun 07 04:09	25°♈35'44 -4.8m		max. Earth dist.	4404 Nov 23 21:01	1°♈45'31 1.71949 AU		
retrograde	4402 Jun 18 07:38	27°♈51'31						
desc. node	4402 Jul 02 18:02	23°♈45'19		superior conj	4404 Nov 26 19:21	5°♈25'04 0°47'10		
evening set	4402 Jul 03 07:25	23°♈27'09		minimum elong	4404 Nov 27 04:49	5°♈54'36 0°46'47		
inferior conj	4402 Jul 09 16:58	19°♈36'27 -1°39'33			4404 Dec 16 11:11	0°♉		
minimum elong	4402 Jul 09 13:20	19°♈42'09 1°38'28		desc. node	4404 Dec 17 13:16	1°♉21'41		
min. Earth dist.	4402 Jul 09 08:19	19°♈50'00 0.28725 AU		evening rise	4405 Jan 05 16:10	25°♉18'50		
morning rise	4402 Jul 15 19:46	15°♈56'17			4405 Jan 09 09:53	0°♊		
direct	4402 Jul 31 04:13	11°♈24'45			4405 Feb 02 08:08	0°♋		
greatest brilliancy	4402 Aug 10 04:30	13°♈13'35 -4.7m			4405 Feb 26 07:39	0°♌		
	4402 Sep 05 14:12	0°♏			4405 Mar 22 11:20	0°♍		
morning max el	4402 Sep 17 22:16	11°♏09'17 45°44'18		asc. node	4405 Apr 09 15:34	22°♍18'43		
	4402 Oct 06 12:24	0°♎			4405 Apr 15 23:14	0°♒		
asc. node	4402 Oct 23 20:31	19°♎00'12			4405 May 11 00:50	0°♈		
	4402 Nov 02 12:13	0°♑			4405 Jun 06 02:00	0°♏		
	4402 Nov 27 23:16	0°♓			4405 Jul 04 05:12	0°♐		
	4402 Dec 22 15:20	0°♈		evening max el	4405 Jul 09 05:19	4°♐54'27 45°31'36		
	4403 Jan 15 21:19	0°♉		desc. node	4405 Jul 30 06:01	23°♐03'12		
	4403 Feb 08 22:12	0°♊			4405 Aug 10 03:40	0°♑		
desc. node	4403 Feb 12 10:55	4°♊25'05		greatest brilliancy	4405 Aug 16 17:11	2°♑54'29 -4.7m		
	4403 Mar 04 20:48	0°♋		retrograde	4405 Aug 26 21:50	4°♑47'10		
morning set	4403 Mar 21 10:28	20°♋46'46			4405 Sep 11 18:55	30°♒♐		
	4403 Mar 28 19:03	0°♌		evening set	4405 Sep 13 16:41	28°♒53'43		
	4403 Apr 21 18:38	0°♍		inferior conj	4405 Sep 17 10:02	26°♒36'07 -8°24'24		
				minimum elong	4405 Sep 17 05:40	26°♒42'58 8°24'07		
superior conj	4403 Apr 30 11:21	10°♍50'45 -1°13'05		min. Earth dist.	4405 Sep 17 15:52	26°♒26'58 0.29018 AU		
minimum elong	4403 Apr 30 21:22	11°♍21'56 1°12'49		morning rise	4405 Sep 20 18:30	24°♒31'20		
max. Earth dist.	4403 May 04 10:37	15°♍47'23 1.72159 AU		direct	4405 Oct 08 23:33	18°♒18'14		
	4403 May 15 20:58	0°♒		greatest brilliancy	4405 Oct 19 18:14	20°♒24'18 -4.8m		
asc. node	4403 Jun 05 13:13	25°♒35'46			4405 Nov 05 08:50	0°♑		
evening rise	4403 Jun 08 09:46	29°♒07'20		asc. node	4405 Nov 20 08:11	12°♑39'25		
	4403 Jun 09 02:51	0°♈		morning max el	4405 Nov 27 16:56	19°♑44'59 46°19'24		
	4403 Jul 03 12:28	0°♏			4405 Dec 07 16:31	0°♓		
	4403 Jul 28 02:07	0°♐			4406 Jan 03 14:39	0°♈		
	4403 Aug 21 21:02	0°♑			4406 Jan 28 22:28	0°♉		
	4403 Sep 15 23:44	0°♒			4406 Feb 22 13:57	0°♊		
desc. node	4403 Sep 25 03:42	10°♒48'58		desc. node	4406 Mar 11 22:49	21°♒23'39		
	4403 Oct 11 14:16	0°♈			4406 Mar 18 21:55	0°♋		
	4403 Nov 07 00:54	0°♉			4406 Apr 12 02:50	0°♌		
evening max el	4403 Dec 04 06:48	28°♉51'52 46°52'07			4406 May 06 07:25	0°♍		
	4403 Dec 05 10:17	0°♊			4406 May 30 13:17	0°♒		
greatest brilliancy	4404 Jan 13 14:03	29°♊31'53 -4.9m		morning set	4406 Jun 02 17:29	3°♒55'22		
	4404 Jan 14 22:58	0°♋			4406 Jun 23 20:53	0°♈		
asc. node	4404 Jan 16 05:52	0°♋23'03		asc. node	4406 Jul 03 01:00	11°♈17'52		
retrograde	4404 Jan 23 15:24	1°♋26'14						
	4404 Feb 01 00:10	30°♒♊		superior conj	4406 Jul 10 05:58	20°♈10'10 0°17'10		
evening set	4404 Feb 07 23:56	26°♒46'35		minimum elong	4406 Jul 10 02:21	19°♈59'04 0°16'59		
min. Earth dist.	4404 Feb 12 14:46	24°♒01'53 0.26718 AU		max. Earth dist.	4406 Jul 11 01:14	21°♈09'28 1.73375 AU		
inferior conj	4404 Feb 13 04:52	23°♒40'13 6°32'09			4406 Jul 18 05:43	0°♏		
minimum elong	4404 Feb 12 18:01	23°♒56'52 6°29'42			4406 Aug 11 15:09	0°♐		
morning rise	4404 Feb 17 12:21	21°♒04'57		evening rise	4406 Aug 15 13:36	4°♐50'13		
direct	4404 Mar 04 16:25	15°♒59'53			4406 Sep 05 01:11	0°♑		
greatest brilliancy	4404 Mar 14 00:54	17°♒39'35 -4.9m			4406 Sep 29 12:41	0°♒		
	4404 Apr 03 15:02	0°♋		desc. node	4406 Oct 22 15:37	28°♒13'17		
morning max el	4404 Apr 23 19:40	18°♋19'27 46°40'23			4406 Oct 24 02:41	0°♈		
	4404 May 05 04:37	0°♌			4406 Nov 17 20:03	0°♉		
desc. node	4404 May 06 20:34	1°♌45'45			4406 Dec 12 18:36	0°♊		
	4404 Jun 01 10:29	0°♍			4407 Jan 07 04:02	0°♋		
	4404 Jun 27 10:10	0°♒			4407 Feb 02 17:36	0°♌		

asc. node	4407 Feb 12 17:45	10° Υ 35'16		asc. node	4409 Jul 30 12:56	26° \mathfrak{C} 57'27	
evening max el	4407 Feb 14 16:50	12° Υ 35'42	47°07'28		4409 Aug 02 00:34	0° Ω	
	4407 Mar 05 06:22	0° \mathfrak{C}		morning set	4409 Aug 10 10:19	10° Ω 18'03	
greatest brilliancy	4407 Mar 27 06:21	14° \mathfrak{C} 00'15	-4.9m		4409 Aug 26 11:12	0° \mathfrak{M}	
retrograde	4407 Apr 06 11:29	15° \mathfrak{C} 59'31		max. Earth dist.	4409 Sep 13 18:28	22° \mathfrak{M} 33'08	1.73213 AU
evening set	4407 Apr 23 20:10	10° \mathfrak{C} 09'30					
inferior conj	4407 Apr 27 11:41	7° \mathfrak{C} 54'43	7°45'07	superior conj	4409 Sep 15 21:24	25° \mathfrak{M} 10'19	1°22'49
minimum elong	4407 Apr 27 20:50	7° \mathfrak{C} 40'26	7°43'41	minimum elong	4409 Sep 15 17:11	24° \mathfrak{M} 57'17	1°22'46
min. Earth dist.	4407 Apr 27 07:52	8° \mathfrak{C} 00'41	0.27794 AU		4409 Sep 19 19:13	0° \mathfrak{C}	
morning rise	4407 May 01 21:42	5° \mathfrak{C} 12'53			4409 Oct 14 01:16	0° \mathfrak{M}	
	4407 May 16 20:23	30° \mathfrak{K} Υ		evening rise	4409 Oct 22 13:33	10° \mathfrak{M} 32'36	
direct	4407 May 18 08:23	29° Υ 57'18			4409 Nov 07 06:22	0° \mathfrak{X}	
	4407 May 19 20:41	0° \mathfrak{C}		desc. node	4409 Nov 19 03:28	14° \mathfrak{X} 43'26	
greatest brilliancy	4407 May 27 23:34	1° \mathfrak{C} 40'00	-4.8m		4409 Dec 01 11:11	0° \mathfrak{C}	
desc. node	4407 Jun 04 08:07	4° \mathfrak{C} 55'43			4409 Dec 25 16:13	0° \approx	
	4407 Jul 06 00:27	0° \mathfrak{I}			4410 Jan 18 22:40	0° \mathfrak{K}	
morning max el	4407 Jul 06 13:10	0° \mathfrak{I} 30'35	45°56'03		4410 Feb 12 09:59	0° Υ	
	4407 Aug 04 00:45	0° \mathfrak{C}			4410 Mar 09 09:17	0° \mathfrak{C}	
	4407 Aug 30 18:40	0° Ω		asc. node	4410 Mar 12 05:36	3° \mathfrak{C} 21'21	
asc. node	4407 Sep 25 10:38	29° Ω 59'31			4410 Apr 04 11:00	0° \mathfrak{I}	
	4407 Sep 25 10:48	0° \mathfrak{M}		evening max el	4410 Apr 27 09:31	24° \mathfrak{I} 16'02	46°15'46
	4407 Oct 20 10:09	0° \mathfrak{C}			4410 May 03 07:43	0° \mathfrak{C}	
	4407 Nov 13 21:51	0° \mathfrak{M}		greatest brilliancy	4410 Jun 04 21:09	23° \mathfrak{C} 25'59	-4.8m
	4407 Dec 08 02:00	0° \mathfrak{X}		retrograde	4410 Jun 15 23:52	25° \mathfrak{C} 40'50	
morning set	4408 Jan 01 00:50	29° \mathfrak{X} 57'11		evening set	4410 Jun 30 23:36	21° \mathfrak{C} 17'01	
	4408 Jan 01 01:43	0° \mathfrak{C}		desc. node	4410 Jul 01 20:09	20° \mathfrak{C} 48'14	
desc. node	4408 Jan 15 01:05	17° \mathfrak{C} 32'20		inferior conj	4410 Jul 07 09:00	17° \mathfrak{C} 26'11	-1°19'27
	4408 Jan 24 23:03	0° \approx		minimum elong	4410 Jul 07 06:04	17° \mathfrak{C} 30'46	1°18'36
				min. Earth dist.	4410 Jul 07 00:32	17° \mathfrak{C} 39'27	0.28691 AU
superior conj	4408 Feb 11 03:07	21° \approx 35'50	-0°59'28	morning rise	4410 Jul 13 13:05	13° \mathfrak{C} 44'03	
minimum elong	4408 Feb 10 15:07	20° \approx 58'04	0°59'01	direct	4410 Jul 28 20:15	9° \mathfrak{C} 15'11	
max. Earth dist.	4408 Feb 11 08:49	21° \approx 53'47	1.71127 AU	greatest brilliancy	4410 Aug 07 19:28	11° \mathfrak{C} 03'03	-4.7m
	4408 Feb 17 19:23	0° \mathfrak{K}			4410 Sep 05 18:23	0° Ω	
	4408 Mar 12 16:09	0° Υ		morning max el	4410 Sep 15 13:14	8° Ω 57'41	45°43'52
evening rise	4408 Mar 23 02:20	13° Υ 04'28			4410 Oct 06 05:07	0° \mathfrak{M}	
	4408 Apr 05 15:11	0° \mathfrak{C}		asc. node	4410 Oct 22 22:27	18° \mathfrak{M} 25'03	
	4408 Apr 29 18:32	0° \mathfrak{I}			4410 Nov 02 01:49	0° \mathfrak{C}	
asc. node	4408 May 07 03:22	9° \mathfrak{I} 05'49			4410 Nov 27 11:33	0° \mathfrak{M}	
	4408 May 24 04:07	0° \mathfrak{C}			4410 Dec 22 02:59	0° \mathfrak{X}	
	4408 Jun 17 21:59	0° Ω			4411 Jan 15 08:38	0° \mathfrak{C}	
	4408 Jul 13 03:39	0° \mathfrak{M}		desc. node	4411 Feb 08 09:20	0° \approx	
	4408 Aug 08 04:31	0° \mathfrak{C}			4411 Feb 11 13:02	3° \approx 56'56	
desc. node	4408 Aug 26 17:50	20° \mathfrak{C} 26'58			4411 Mar 04 07:48	0° \mathfrak{K}	
	4408 Sep 04 18:57	0° \mathfrak{M}		morning set	4411 Mar 18 20:58	18° \mathfrak{K} 15'05	
evening max el	4408 Sep 18 20:53	14° \mathfrak{M} 04'41	45°51'08		4411 Mar 28 05:54	0° Υ	
	4408 Oct 07 00:35	0° \mathfrak{X}			4411 Apr 21 05:22	0° \mathfrak{C}	
greatest brilliancy	4408 Oct 28 14:16	12° \mathfrak{X} 33'40	-4.8m				
retrograde	4408 Nov 06 20:34	14° \mathfrak{X} 07'41		superior conj	4411 Apr 28 00:17	8° \mathfrak{C} 28'02	-1°15'02
evening set	4408 Nov 22 12:42	9° \mathfrak{X} 23'53		minimum elong	4411 Apr 28 09:55	8° \mathfrak{C} 58'04	1°14'48
inferior conj	4408 Nov 27 16:35	6° \mathfrak{X} 20'02	-4°49'51	max. Earth dist.	4411 May 02 02:23	13° \mathfrak{C} 33'40	1.72104 AU
minimum elong	4408 Nov 28 02:03	6° \mathfrak{X} 05'33	4°47'21		4411 May 15 07:39	0° \mathfrak{I}	
min. Earth dist.	4408 Nov 28 13:44	5° \mathfrak{X} 47'40	0.27395 AU	asc. node	4411 Jun 04 15:13	25° \mathfrak{I} 08'54	
morning rise	4408 Dec 03 14:46	2° \mathfrak{X} 50'01		evening rise	4411 Jun 06 01:06	26° \mathfrak{I} 53'30	
	4408 Dec 09 18:31	30° \mathfrak{K} \mathfrak{M}			4411 Jun 08 13:33	0° \mathfrak{C}	
asc. node	4408 Dec 17 19:58	28° \mathfrak{M} 24'05			4411 Jul 02 23:17	0° Ω	
direct	4408 Dec 18 15:26	28° \mathfrak{M} 23'17			4411 Jul 27 13:10	0° \mathfrak{M}	
	4408 Dec 27 19:33	0° \mathfrak{X}			4411 Aug 21 08:32	0° \mathfrak{C}	
greatest brilliancy	4408 Dec 29 16:48	0° \mathfrak{X} 41'38	-4.9m		4411 Sep 15 12:01	0° \mathfrak{M}	
	4409 Feb 05 16:18	0° \mathfrak{C}		desc. node	4411 Sep 24 05:43	10° \mathfrak{M} 17'36	
morning max el	4409 Feb 07 08:34	1° \mathfrak{C} 41'37	46°56'51		4411 Oct 11 03:58	0° \mathfrak{X}	
	4409 Mar 05 12:12	0° \approx			4411 Nov 06 17:24	0° \mathfrak{C}	
	4409 Mar 31 08:25	0° \mathfrak{K}		evening max el	4411 Dec 01 19:36	26° \mathfrak{C} 27'02	46°50'10
desc. node	4409 Apr 08 10:47	9° \mathfrak{K} 37'06			4411 Dec 05 10:21	0° \approx	
	4409 Apr 25 10:40	0° Υ		greatest brilliancy	4412 Jan 11 03:40	27° \approx 05'16	-4.9m
	4409 May 20 05:22	0° \mathfrak{C}		asc. node	4412 Jan 15 07:58	28° \approx 18'53	
	4409 Jun 13 21:08	0° \mathfrak{I}		retrograde	4412 Jan 21 03:15	28° \approx 58'18	
	4409 Jul 08 11:36	0° \mathfrak{C}		evening set	4412 Feb 05 08:57	24° \approx 24'01	

min. Earth dist.	4412 Feb 10 04:18	21° \approx 33'09	0.26696 AU	behind sun begin	4414 Jul 07 08:24	17° \approx 17'17	
inferior conj	4412 Feb 10 17:20	21° \approx 13'07	6°14'46	behind sun end	4414 Jul 08 07:35	18° \approx 28'36	
minimum elong	4412 Feb 10 06:32	21° \approx 29'43	6°12'13	max. Earth dist.	4414 Jul 08 20:47	19° \approx 09'16	1.73355 AU
morning rise	4412 Feb 15 04:17	18° \approx 32'47			4414 Jul 17 16:20	0° Ω	
direct	4412 Mar 02 04:17	13° \approx 32'50			4414 Aug 11 01:48	0° Π	
greatest brilliancy	4412 Mar 11 15:01	15° \approx 14'06	-4.9m	evening rise	4414 Aug 13 07:58	2° Π 46'24	
	4412 Apr 04 03:14	0° X			4414 Sep 04 12:02	0° Ω	
morning max el	4412 Apr 21 07:30	15° X 52'13	46°41'50		4414 Sep 28 23:51	0° Π	
	4412 May 04 23:41	0° Υ		desc. node	4414 Oct 21 17:34	27° Π 44'00	
desc. node	4412 May 05 22:29	1° Υ 00'50			4414 Oct 23 14:18	0° X	
	4412 Jun 01 01:20	0° B			4414 Nov 17 08:19	0° B	
	4412 Jun 26 23:07	0° Π			4414 Dec 12 07:50	0° \approx	
	4412 Jul 22 08:19	0° \approx			4415 Jan 06 18:59	0° X	
	4412 Aug 16 09:19	0° Ω			4415 Feb 02 12:25	0° Υ	
asc. node	4412 Aug 27 00:44	12° Ω 51'51		asc. node	4415 Feb 11 19:46	9° Υ 45'17	
	4412 Sep 10 03:03	0° Π		evening max el	4415 Feb 12 07:24	10° Υ 14'55	47°08'26
	4412 Oct 04 14:04	0° Ω			4415 Mar 05 17:38	0° B	
morning set	4412 Oct 17 19:51	16° Ω 21'40		greatest brilliancy	4415 Mar 24 20:46	11° B 40'11	-4.9m
	4412 Oct 28 19:43	0° Π		retrograde	4415 Apr 04 02:45	13° B 40'15	
max. Earth dist.	4412 Nov 21 11:59	29° Π 29'12	1.71994 AU	evening set	4415 Apr 21 13:37	7° B 45'35	
	4412 Nov 21 21:51	0° X		inferior conj	4415 Apr 25 02:06	5° B 35'31	7°56'04
				minimum elong	4415 Apr 25 10:50	5° B 21'55	7°54'49
superior conj	4412 Nov 24 09:43	3° X 06'48	0°50'07	min. Earth dist.	4415 Apr 24 21:31	5° B 42'40	0.27766 AU
minimum elong	4412 Nov 24 19:26	3° X 37'10	0°49'43	morning rise	4415 Apr 29 08:14	2° B 59'43	
	4412 Dec 15 21:55	0° B			4415 May 05 03:49	30° R Υ	
desc. node	4412 Dec 16 15:22	0° B 54'37		direct	4415 May 15 22:40	27° Υ 38'34	
evening rise	4413 Jan 03 04:14	22° B 52'24		greatest brilliancy	4415 May 25 12:37	29° Υ 20'48	-4.8m
	4413 Jan 08 20:44	0° \approx			4415 May 27 07:22	0° B	
	4413 Feb 01 19:09	0° X		desc. node	4415 Jun 03 10:17	3° B 27'52	
	4413 Feb 25 18:52	0° Υ		morning max el	4415 Jul 04 04:56	28° B 17'57	45°57'12
	4413 Mar 21 22:52	0° B			4415 Jul 05 23:02	0° Π	
asc. node	4413 Apr 08 17:27	21° B 48'19			4415 Aug 03 16:33	0° \approx	
	4413 Apr 15 11:17	0° Π			4415 Aug 30 07:59	0° Ω	
	4413 May 10 13:50	0° \approx		asc. node	4415 Sep 24 12:36	29° Ω 29'21	
	4413 Jun 05 17:00	0° Ω			4415 Sep 24 22:55	0° Π	
	4413 Jul 04 01:47	0° Π			4415 Oct 19 21:39	0° Ω	
evening max el	4413 Jul 06 19:48	2° Π 40'40	45°32'12		4415 Nov 13 09:02	0° Π	
desc. node	4413 Jul 29 08:06	21° Π 55'22			4415 Dec 07 13:02	0° X	
	4413 Aug 12 10:14	0° Ω		morning set	4415 Dec 29 12:58	27° X 30'27	
greatest brilliancy	4413 Aug 14 07:11	0° Ω 42'59	-4.7m		4415 Dec 31 12:42	0° B	
retrograde	4413 Aug 24 13:46	2° Ω 37'40		desc. node	4416 Jan 14 03:12	17° B 04'30	
	4413 Sep 05 03:42	30° R Π			4416 Jan 24 10:00	0° \approx	
evening set	4413 Sep 11 05:56	26° Π 47'18					
inferior conj	4413 Sep 15 02:00	24° Π 25'49	-8°19'24	superior conj	4416 Feb 08 13:25	19° \approx 02'48	-0°56'28
minimum elong	4413 Sep 14 20:57	24° Π 33'43	8°19'01	minimum elong	4416 Feb 08 01:35	18° \approx 25'33	0°56'01
min. Earth dist.	4413 Sep 15 06:49	24° Π 18'17	0.29042 AU	max. Earth dist.	4416 Feb 08 17:35	19° \approx 15'55	1.71122 AU
morning rise	4413 Sep 18 11:49	22° Π 19'11			4416 Feb 17 06:19	0° X	
direct	4413 Oct 06 15:26	16° Π 07'31			4416 Mar 12 03:05	0° Υ	
greatest brilliancy	4413 Oct 17 10:10	18° Π 13'39	-4.8m	evening rise	4416 Mar 20 13:19	10° Υ 34'18	
	4413 Nov 05 21:41	0° Ω			4416 Apr 05 02:09	0° B	
asc. node	4413 Nov 19 10:09	11° Ω 46'19			4416 Apr 29 05:37	0° Π	
morning max el	4413 Nov 25 08:19	17° Ω 30'14	46°18'02	asc. node	4416 May 06 05:24	8° Π 37'45	
	4413 Dec 07 10:57	0° Π			4416 May 23 15:26	0° \approx	
	4414 Jan 03 05:12	0° X			4416 Jun 17 09:49	0° Ω	
	4414 Jan 28 11:24	0° B			4416 Jul 12 16:24	0° Π	
	4414 Feb 22 02:02	0° \approx			4416 Aug 07 19:06	0° Ω	
desc. node	4414 Mar 11 00:50	20° \approx 53'39		desc. node	4416 Aug 25 19:50	19° Ω 46'54	
	4414 Mar 18 09:30	0° X			4416 Sep 04 13:55	0° Π	
	4414 Apr 11 14:05	0° Υ		evening max el	4416 Sep 16 11:40	11° Π 49'43	45°49'24
	4414 May 05 18:26	0° B			4416 Oct 07 15:29	0° X	
	4414 May 30 00:07	0° Π		greatest brilliancy	4416 Oct 26 03:24	10° X 13'32	-4.8m
morning set	4414 May 31 09:02	1° Π 41'45		retrograde	4416 Nov 04 09:38	11° X 46'59	
	4414 Jun 23 07:34	0° \approx		evening set	4416 Nov 20 05:07	6° X 59'07	
asc. node	4414 Jul 02 03:07	10° \approx 51'34		inferior conj	4416 Nov 25 06:10	3° X 58'44	-5°08'24
				minimum elong	4416 Nov 25 15:57	3° X 43'43	5°05'54
superior conj	4414 Jul 07 22:57	18° \approx 02'03	0°13'55	min. Earth dist.	4416 Nov 26 03:42	3° X 25'41	0.27460 AU
minimum elong	4414 Jul 07 20:00	17° \approx 52'57	0°13'46	morning rise	4416 Dec 01 02:13	0° X 31'13	

	4416 Dec 02 01:26	30° \mathbb{M}			4419 Jun 08 00:32	0° \mathfrak{C}		
direct	4416 Dec 16 06:06	26° \mathbb{M} 01'09			4419 Jul 02 10:21	0° \mathcal{O}		
asc. node	4416 Dec 16 22:07	26° \mathbb{M} 01'42			4419 Jul 27 00:29	0° \mathfrak{M}		
greatest brilliancy	4416 Dec 27 07:12	28° \mathbb{M} 19'03 -4.9m			4419 Aug 20 20:21	0° \mathfrak{A}		
	4416 Dec 31 00:45	0° \mathfrak{A}			4419 Sep 15 00:44	0° \mathbb{M}		
morning max el	4417 Feb 04 22:37	29° \mathfrak{A} 18'16 46°56'17		desc. node	4419 Sep 23 07:39	9° \mathbb{M} 44'46		
	4417 Feb 05 15:01	0° \mathfrak{B}			4419 Oct 10 18:14	0° \mathfrak{A}		
	4417 Mar 05 04:34	0° \approx			4419 Nov 06 10:43	0° \mathfrak{B}		
	4417 Mar 30 22:22	0° \mathfrak{H}		evening max el	4419 Nov 29 07:52	23° \mathfrak{B} 59'48 46°48'17		
desc. node	4417 Apr 07 12:43	9° \mathfrak{H} 02'42			4419 Dec 05 12:12	0° \approx		
	4417 Apr 24 23:21	0° \mathcal{Y}		greatest brilliancy	4420 Jan 08 17:07	24° \approx 37'12 -4.9m		
	4417 May 19 17:16	0° \mathfrak{B}		asc. node	4420 Jan 14 09:56	26° \approx 08'12		
	4417 Jun 13 08:31	0° \mathbb{I}		retrograde	4420 Jan 18 15:22	26° \approx 29'25		
	4417 Jul 07 22:39	0° \mathfrak{C}		evening set	4420 Feb 02 18:06	21° \approx 59'47		
asc. node	4417 Jul 29 14:55	26° \mathfrak{C} 30'15		min. Earth dist.	4420 Feb 07 17:47	19° \approx 03'14 0.26676 AU		
	4417 Aug 01 11:26	0° \mathcal{O}		inferior conj	4420 Feb 08 05:47	18° \approx 44'50 5°56'40		
morning set	4417 Aug 08 04:08	8° \mathcal{O} 12'24		minimum elong	4420 Feb 07 19:04	19° \approx 01'15 5°54'02		
	4417 Aug 25 21:59	0° \mathfrak{M}		morning rise	4420 Feb 12 20:09	15° \approx 59'44		
max. Earth dist.	4417 Sep 11 12:22	20° \mathfrak{M} 27'07 1.73242 AU		direct	4420 Feb 28 16:04	11° \approx 04'25		
				greatest brilliancy	4420 Mar 09 05:11	12° \approx 47'37 -4.9m		
superior conj	4417 Sep 13 15:24	23° \mathfrak{M} 04'31 1°21'59			4420 Apr 04 12:43	0° \mathfrak{H}		
minimum elong	4417 Sep 13 10:36	22° \mathfrak{M} 49'42 1°21'56		morning max el	4420 Apr 18 20:10	13° \mathfrak{H} 25'56 46°43'19		
	4417 Sep 19 06:00	0° \mathfrak{A}			4420 May 04 18:37	0° \mathcal{Y}		
	4417 Oct 13 12:09	0° \mathbb{M}		desc. node	4420 May 05 00:37	0° \mathcal{Y} 16'08		
evening rise	4417 Oct 20 05:35	8° \mathbb{M} 19'43			4420 May 31 16:20	0° \mathfrak{B}		
	4417 Nov 06 17:26	0° \mathfrak{A}			4420 Jun 26 12:18	0° \mathbb{I}		
desc. node	4417 Nov 18 05:32	14° \mathfrak{A} 15'08			4420 Jul 21 20:28	0° \mathfrak{C}		
	4417 Nov 30 22:32	0° \mathfrak{B}			4420 Aug 15 20:50	0° \mathcal{O}		
	4417 Dec 25 03:56	0° \approx		asc. node	4420 Aug 26 02:43	12° \mathcal{O} 23'33		
	4418 Jan 18 10:51	0° \mathfrak{H}			4420 Sep 09 14:11	0° \mathfrak{M}		
	4418 Feb 11 22:49	0° \mathcal{Y}			4420 Oct 04 01:02	0° \mathfrak{A}		
	4418 Mar 08 23:17	0° \mathfrak{B}		morning set	4420 Oct 15 12:34	14° \mathfrak{A} 10'55		
asc. node	4418 Mar 11 07:33	2° \mathfrak{B} 45'26			4420 Oct 28 06:41	0° \mathbb{M}		
	4418 Apr 04 03:35	0° \mathbb{I}		max. Earth dist.	4420 Nov 19 04:00	27° \mathbb{M} 15'01 1.72045 AU		
evening max el	4418 Apr 25 00:44	22° \mathbb{I} 00'39 46°17'55			4420 Nov 21 08:53	0° \mathfrak{A}		
	4418 May 03 08:42	0° \mathfrak{C}						
greatest brilliancy	4418 Jun 02 14:44	21° \mathfrak{C} 16'45 -4.8m		superior conj	4420 Nov 22 00:04	0° \mathfrak{A} 47'23 0°52'58		
retrograde	4418 Jun 13 15:54	23° \mathfrak{C} 30'21		minimum elong	4420 Nov 22 09:59	1° \mathfrak{A} 18'19 0°52'35		
evening set	4418 Jun 28 16:10	19° \mathfrak{C} 06'41			4420 Dec 15 09:03	0° \mathfrak{B}		
desc. node	4418 Jun 30 22:11	17° \mathfrak{C} 49'08		desc. node	4420 Dec 15 17:28	0° \mathfrak{B} 26'18		
min. Earth dist.	4418 Jul 04 17:15	15° \mathfrak{C} 28'44 0.28659 AU		evening rise	4420 Dec 31 16:08	20° \mathfrak{B} 24'13		
inferior conj	4418 Jul 05 01:16	15° \mathfrak{C} 16'09 -0°59'29			4421 Jan 08 07:59	0° \approx		
minimum elong	4418 Jul 04 23:04	15° \mathfrak{C} 19'36 0°58'50			4421 Feb 01 06:32	0° \mathfrak{H}		
morning rise	4418 Jul 11 06:29	11° \mathfrak{C} 32'07			4421 Feb 25 06:28	0° \mathcal{Y}		
direct	4418 Jul 26 12:05	7° \mathfrak{C} 05'41			4421 Mar 21 10:47	0° \mathfrak{B}		
greatest brilliancy	4418 Aug 05 11:10	8° \mathfrak{C} 53'04 -4.7m		asc. node	4421 Apr 07 19:31	21° \mathfrak{B} 17'18		
	4418 Sep 05 21:09	0° \mathcal{O}			4421 Apr 14 23:44	0° \mathbb{I}		
morning max el	4418 Sep 13 03:45	6° \mathcal{O} 44'12 45°43'18			4421 May 10 03:15	0° \mathfrak{C}		
	4418 Oct 05 21:52	0° \mathfrak{M}			4421 Jun 05 08:33	0° \mathcal{O}		
asc. node	4418 Oct 22 00:30	17° \mathfrak{M} 49'26			4421 Jul 03 23:25	0° \mathfrak{M}		
	4418 Nov 01 15:39	0° \mathfrak{A}		evening max el	4421 Jul 04 11:25	0° \mathfrak{M} 29'00 45°33'01		
	4418 Nov 27 00:07	0° \mathbb{M}		desc. node	4421 Jul 28 10:05	20° \mathfrak{M} 45'04		
	4418 Dec 21 14:55	0° \mathfrak{A}		greatest brilliancy	4421 Aug 11 21:07	28° \mathfrak{M} 31'25 -4.7m		
	4419 Jan 14 20:15	0° \mathfrak{B}			4421 Aug 17 06:20	0° \mathfrak{A}		
	4419 Feb 07 20:45	0° \approx		retrograde	4421 Aug 22 06:27	0° \mathfrak{A} 28'22		
desc. node	4419 Feb 10 14:56	3° \approx 27'15			4421 Aug 27 03:33	30° \mathfrak{R} \mathfrak{M}		
	4419 Mar 03 19:04	0° \mathfrak{H}		evening set	4421 Sep 08 19:20	24° \mathfrak{M} 41'26		
morning set	4419 Mar 16 07:17	15° \mathfrak{H} 41'47		inferior conj	4421 Sep 12 18:15	22° \mathfrak{M} 15'47 -8°13'43		
	4419 Mar 27 17:03	0° \mathcal{Y}		minimum elong	4421 Sep 12 12:33	22° \mathfrak{M} 24'41 8°13'14		
	4419 Apr 20 16:25	0° \mathfrak{B}		min. Earth dist.	4421 Sep 12 21:40	22° \mathfrak{M} 10'26 0.29062 AU		
				morning rise	4421 Sep 16 05:39	20° \mathfrak{M} 06'56		
superior conj	4419 Apr 25 13:17	6° \mathfrak{B} 04'35 -1°16'51		direct	4421 Oct 04 07:58	13° \mathfrak{M} 57'18		
minimum elong	4419 Apr 25 22:29	6° \mathfrak{B} 33'15 1°16'39		greatest brilliancy	4421 Oct 15 01:37	16° \mathfrak{M} 02'39 -4.8m		
max. Earth dist.	4419 Apr 29 15:50	11° \mathfrak{B} 11'42 1.72044 AU			4421 Nov 06 07:20	0° \mathfrak{A}		
	4419 May 14 18:38	0° \mathbb{I}		asc. node	4421 Nov 18 12:20	10° \mathfrak{A} 54'15		
evening rise	4419 Jun 03 16:32	24° \mathbb{I} 39'06		morning max el	4421 Nov 23 00:37	15° \mathfrak{A} 17'23 46°16'21		
asc. node	4419 Jun 03 17:21	24° \mathbb{I} 41'37			4421 Dec 07 05:13	0° \mathbb{M}		

	4422 Jan 02 19:56	0°♊		4424 Jun 16 21:49	0°♎
	4422 Jan 28 00:39	0°♋		4424 Jul 12 05:20	0°♐
	4422 Feb 21 14:28	0°♌		4424 Aug 07 09:56	0°♑
desc. node	4422 Mar 10 02:52	20°♌22'39	desc. node	4424 Aug 24 21:50	19°♑06'18
	4422 Mar 17 21:25	0°♍		4424 Sep 04 09:26	0°♒
	4422 Apr 11 01:38	0°♎	evening max el	4424 Sep 14 02:07	9°♒34'08 45°47'50
	4422 May 05 05:43	0°♏		4424 Oct 08 11:08	0°♊
morning set	4422 May 29 00:31	29°♏27'00	greatest brilliancy	4424 Oct 23 17:25	7°♊55'23 -4.8m
	4422 May 29 11:12	0°♐	retrograde	4424 Nov 01 22:34	9°♊27'51
	4422 Jun 22 18:31	0°♑	evening set	4424 Nov 17 21:54	4°♊35'53
asc. node	4422 Jul 01 05:05	10°♑24'00	inferior conj	4424 Nov 22 20:10	1°♊39'10 -5°26'02
			minimum elong	4424 Nov 23 06:10	1°♊23'44 5°23'35
superior conj	4422 Jul 05 16:00	15°♑53'12 0°10'40	min. Earth dist.	4424 Nov 23 18:14	1°♊05'11 0.27522 AU
minimum elong	4422 Jul 05 13:43	15°♑46'10 0°10'33		4424 Nov 25 13:00	30°♒♒
behind sun begin	4422 Jul 04 20:15	14°♑52'25	morning rise	4424 Nov 28 13:51	28°♒14'19
behind sun end	4422 Jul 06 07:10	16°♑39'55	direct	4424 Dec 13 20:33	23°♒40'45
max. Earth dist.	4422 Jul 06 17:34	17°♑11'55 1.73332 AU	asc. node	4424 Dec 16 00:01	23°♒46'14
	4422 Jul 17 03:12	0°♎	greatest brilliancy	4424 Dec 24 22:13	25°♒58'33 -4.9m
	4422 Aug 10 12:42	0°♏		4425 Jan 01 20:59	0°♊
evening rise	4422 Aug 11 02:36	0°♏42'41	morning max el	4425 Feb 02 12:01	26°♊53'48 46°55'28
	4422 Sep 03 23:05	0°♐		4425 Feb 05 12:39	0°♋
	4422 Sep 28 11:11	0°♑		4425 Mar 04 20:35	0°♌
desc. node	4422 Oct 20 19:44	27°♑14'50		4425 Mar 30 12:12	0°♍
	4422 Oct 23 02:06	0°♊	desc. node	4425 Apr 06 14:49	8°♍28'53
	4422 Nov 16 20:49	0°♋		4425 Apr 24 12:02	0°♎
	4422 Dec 11 21:26	0°♌		4425 May 19 05:12	0°♏
	4423 Jan 06 10:30	0°♍		4425 Jun 12 19:56	0°♐
	4423 Feb 02 08:16	0°♎		4425 Jul 07 09:43	0°♑
evening max el	4423 Feb 09 22:43	7°♎54'42 47°09'10	asc. node	4425 Jul 28 16:53	26°♑02'59
asc. node	4423 Feb 10 21:45	8°♎53'01		4425 Jul 31 22:15	0°♎
	4423 Mar 06 09:36	0°♏	morning set	4425 Aug 05 21:40	6°♎05'57
greatest brilliancy	4423 Mar 22 11:03	9°♏18'15 -4.9m		4425 Aug 25 08:42	0°♏
retrograde	4423 Apr 01 17:56	11°♏18'46	max. Earth dist.	4425 Sep 09 05:54	18°♏20'14 1.73268 AU
evening set	4423 Apr 19 06:46	5°♏19'56			
inferior conj	4423 Apr 22 16:13	3°♏14'21 8°06'22	superior conj	4425 Sep 11 09:22	20°♏58'54 1°21'03
minimum elong	4423 Apr 23 00:26	3°♏01'33 8°05'17	minimum elong	4425 Sep 11 04:00	20°♏42'23 1°20'59
min. Earth dist.	4423 Apr 22 10:40	3°♏23'01 0.27731 AU		4425 Sep 18 16:43	0°♐
morning rise	4423 Apr 26 18:22	0°♏44'38		4425 Oct 12 22:57	0°♑
	4423 Apr 28 01:27	30°♒♎	evening rise	4425 Oct 17 21:51	6°♑07'58
direct	4423 May 13 12:53	25°♎18'12		4425 Nov 06 04:23	0°♊
greatest brilliancy	4423 May 23 00:47	26°♎59'10 -4.8m	desc. node	4425 Nov 17 07:35	13°♊47'12
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desc. node	4423 Jun 02 12:20	2°♏01'42		4425 Dec 24 15:28	0°♌
morning max el	4423 Jul 01 20:16	26°♏03'29 45°58'25		4426 Jan 17 22:50	0°♍
	4423 Jul 05 21:00	0°♐		4426 Feb 11 11:30	0°♎
	4423 Aug 03 08:17	0°♑		4426 Mar 08 13:16	0°♏
	4423 Aug 29 21:20	0°♎	asc. node	4426 Mar 10 09:36	2°♏10'03
asc. node	4423 Sep 23 14:38	28°♎59'11		4426 Apr 03 20:25	0°♐
	4423 Sep 24 11:05	0°♏	evening max el	4426 Apr 22 15:03	19°♐42'46 46°19'52
	4423 Oct 19 09:12	0°♐		4426 May 03 11:11	0°♑
	4423 Nov 12 20:16	0°♑	greatest brilliancy	4426 May 31 08:05	19°♑06'18 -4.8m
	4423 Dec 07 00:07	0°♊	retrograde	4426 Jun 11 07:34	21°♑18'52
morning set	4423 Dec 27 01:30	25°♊04'46	evening set	4426 Jun 26 08:30	16°♑54'51
	4423 Dec 30 23:44	0°♋	desc. node	4426 Jun 30 00:07	14°♑46'35
desc. node	4424 Jan 13 05:08	16°♋35'51	inferior conj	4426 Jul 02 17:12	13°♑05'06 -0°39'09
	4424 Jan 23 21:03	0°♌	minimum elong	4426 Jul 02 15:45	13°♑07'23 0°38'43
			min. Earth dist.	4426 Jul 02 09:54	13°♑16'34 0.28628 AU
superior conj	4424 Feb 05 23:39	16°♌29'06 -0°53'22	morning rise	4426 Jul 08 23:25	9°♑19'26
minimum elong	4424 Feb 05 12:06	15°♌52'47 0°52'54	direct	4426 Jul 24 03:07	4°♑55'01
max. Earth dist.	4424 Feb 06 00:27	16°♌31'38 1.71127 AU	greatest brilliancy	4426 Aug 03 03:02	6°♑42'44 -4.7m
	4424 Feb 16 17:25	0°♍		4426 Sep 05 22:27	0°♎
	4424 Mar 11 14:13	0°♎	morning max el	4426 Sep 10 18:07	4°♎30'32 45°43'00
evening rise	4424 Mar 17 23:45	8°♎01'37		4426 Oct 05 14:08	0°♏
	4424 Apr 04 13:19	0°♏	asc. node	4426 Oct 21 02:36	17°♏14'44
	4424 Apr 28 16:53	0°♐		4426 Nov 01 05:09	0°♐
asc. node	4424 May 05 07:30	8°♐09'20		4426 Nov 26 12:23	0°♑
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


































































































































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	4427 Feb 07 07:51	0°♊	evening set	4429 Sep 06 08:26	22°♎36'10	
desc. node	4427 Feb 09 17:00	2°♊59'02	inferior conj	4429 Sep 10 10:17	20°♎05'59	-8°07'21
	4427 Mar 03 06:00	0°♋	minimum elong	4429 Sep 10 03:58	20°♎15'51	8°06'45
morning set	4427 Mar 13 17:54	13°♋10'24	min. Earth dist.	4429 Sep 10 12:16	20°♎02'53	0.29080 AU
	4427 Mar 27 03:52	0°♌	morning rise	4429 Sep 13 23:27	17°♎54'33	
	4427 Apr 20 03:09	0°♍	direct	4429 Oct 02 00:41	11°♎47'30	
			greatest brilliancy	4429 Oct 12 16:24	13°♎51'24	-4.8m
superior conj	4427 Apr 23 02:21	3°♍42'10 -1°18'31		4429 Nov 06 14:01	0°♏	
minimum elong	4427 Apr 23 11:02	4°♍09'15 1°18'20	asc. node	4429 Nov 17 14:15	10°♏03'19	
max. Earth dist.	4427 Apr 27 02:58	8°♍43'23 1.71994 AU	morning max el	4429 Nov 20 16:44	13°♏05'11	46°14'42
	4427 May 14 05:22	0°♐		4429 Dec 06 22:43	0°♑	
evening rise	4427 Jun 01 07:40	22°♐24'28		4430 Jan 02 10:06	0°♒	
asc. node	4427 Jun 02 19:17	24°♐14'25		4430 Jan 27 13:23	0°♓	
	4427 Jun 07 11:18	0°♑		4430 Feb 21 02:26	0°♊	
	4427 Jul 01 21:14	0°♒	desc. node	4430 Mar 09 04:54	19°♊52'57	
	4427 Jul 26 11:38	0°♓		4430 Mar 17 08:54	0°♋	
	4427 Aug 20 08:00	0°♏		4430 Apr 10 12:47	0°♌	
	4427 Sep 14 13:16	0°♐		4430 May 04 16:35	0°♍	
desc. node	4427 Sep 22 09:47	9°♐13'12	morning set	4430 May 26 16:12	27°♍14'09	
	4427 Oct 10 08:22	0°♑		4430 May 28 21:50	0°♐	
	4427 Nov 06 04:04	0°♒		4430 Jun 22 05:01	0°♑	
evening max el	4427 Nov 26 20:42	21°♒35'11 46°46'31	asc. node	4430 Jun 30 07:04	9°♑57'49	
	4427 Dec 05 15:04	0°♓				
greatest brilliancy	4428 Jan 06 06:11	22°♓09'59 -4.9m	superior conj	4430 Jul 03 09:06	13°♑45'47	0°07'24
asc. node	4428 Jan 13 11:57	23°♓53'28	minimum elong	4430 Jul 03 07:30	13°♑40'52	0°07'19
retrograde	4428 Jan 16 04:04	24°♓02'03	behind sun begin	4430 Jul 02 10:46	12°♑37'02	
evening set	4428 Jan 31 03:32	19°♓36'29	behind sun end	4430 Jul 04 04:13	14°♑44'41	
inferior conj	4428 Feb 05 18:16	16°♓17'53 5°37'52	max. Earth dist.	4430 Jul 04 16:06	15°♑21'16	1.73309 AU
minimum elong	4428 Feb 05 07:45	16°♓33'57 5°35'10		4430 Jul 16 13:40	0°♒	
min. Earth dist.	4428 Feb 05 07:06	16°♓34'56 0.26656 AU	evening rise	4430 Aug 08 21:11	28°♒39'55	
morning rise	4428 Feb 10 12:01	13°♓28'18		4430 Aug 09 23:15	0°♓	
direct	4428 Feb 26 04:13	8°♓37'20		4430 Sep 03 09:49	0°♏	
greatest brilliancy	4428 Mar 06 18:59	10°♓22'14 -4.9m		4430 Sep 27 22:16	0°♐	
	4428 Apr 04 19:00	0°♋	desc. node	4430 Oct 19 21:41	26°♐45'51	
morning max el	4428 Apr 16 09:49	11°♋03'35 46°44'45		4430 Oct 22 13:39	0°♑	
desc. node	4428 May 04 02:40	29°♋33'14		4430 Nov 16 09:05	0°♒	
	4428 May 04 12:32	0°♌		4430 Dec 11 10:49	0°♓	
	4428 May 31 06:42	0°♍		4431 Jan 06 01:52	0°♋	
	4428 Jun 26 01:02	0°♐		4431 Feb 02 04:20	0°♌	
	4428 Jul 21 08:15	0°♑	evening max el	4431 Feb 07 14:00	5°♌35'18	47°09'47
	4428 Aug 15 08:03	0°♒	asc. node	4431 Feb 09 23:50	8°♌01'06	
asc. node	4428 Aug 25 04:49	11°♒56'23		4431 Mar 07 06:27	0°♍	
	4428 Sep 09 01:03	0°♓	greatest brilliancy	4431 Mar 20 01:50	6°♍57'47	-4.9m
	4428 Oct 03 11:42	0°♏	retrograde	4431 Mar 30 08:47	8°♍57'52	
morning set	4428 Oct 13 05:03	12°♏00'28	evening set	4431 Apr 16 23:48	2°♍55'22	
	4428 Oct 27 17:18	0°♐	inferior conj	4431 Apr 20 06:18	0°♍54'03	8°16'00
max. Earth dist.	4428 Nov 16 20:24	25°♐03'13 1.72090 AU	minimum elong	4431 Apr 20 13:57	0°♍42'06	8°15'04
			min. Earth dist.	4431 Apr 19 23:58	1°♍03'56	0.27693 AU
superior conj	4428 Nov 19 14:19	28°♐28'44 0°55'43		4431 Apr 21 17:04	30°♎♌	
minimum elong	4428 Nov 20 00:21	29°♐00'04 0°55'21	morning rise	4431 Apr 24 04:22	28°♌30'15	
	4428 Nov 20 19:34	0°♑	direct	4431 May 11 02:59	22°♌58'50	
desc. node	4428 Dec 14 19:22	29°♑58'32	greatest brilliancy	4431 May 20 13:00	24°♌38'20	-4.8m
	4428 Dec 14 19:50	0°♒		4431 May 31 13:14	0°♍	
evening rise	4428 Dec 29 04:06	17°♒57'23	desc. node	4431 Jun 01 14:12	0°♍39'06	
	4429 Jan 07 18:53	0°♓	morning max el	4431 Jun 29 10:49	23°♍48'06	45°59'44
	4429 Jan 31 17:34	0°♋		4431 Jul 05 17:43	0°♐	
	4429 Feb 24 17:41	0°♌		4431 Aug 02 23:21	0°♑	
	4429 Mar 20 22:18	0°♍		4431 Aug 29 10:13	0°♒	
asc. node	4429 Apr 06 21:37	20°♍47'44	asc. node	4431 Sep 22 16:42	28°♒30'03	
	4429 Apr 14 11:45	0°♐		4431 Sep 23 22:55	0°♓	
	4429 May 09 16:17	0°♑		4431 Oct 18 20:30	0°♏	
	4429 Jun 04 23:51	0°♒		4431 Nov 12 07:17	0°♐	
evening max el	4429 Jul 02 03:47	28°♒20'11 45°33'38		4431 Dec 06 11:00	0°♑	
	4429 Jul 03 21:27	0°♓	morning set	4431 Dec 24 13:49	22°♑39'05	
desc. node	4429 Jul 27 12:06	19°♓33'29		4431 Dec 30 10:34	0°♒	
greatest brilliancy	4429 Aug 09 11:01	26°♓20'23 -4.7m	desc. node	4432 Jan 12 07:12	16°♒08'17	

	4432 Jan 23 07:53	0°♊	minimum elong	4434 Jun 30 08:31	10°♊55'20	0°18'28
			min. Earth dist.	4434 Jun 30 02:32	11°♊04'43	0.28596 AU
superior conj	4432 Feb 03 09:46	13°♊55'55 -0°50'09	morning rise	4434 Jul 06 16:20	7°♊07'21	
minimum elong	4432 Feb 02 22:35	13°♊20'46 0°49'40	direct	4434 Jul 21 18:03	2°♊44'22	
max. Earth dist.	4432 Feb 03 05:04	13°♊41'10 1.71130 AU	greatest brilliancy	4434 Jul 31 19:07	4°♊32'49	-4.7m
	4432 Feb 16 04:15	0°♋		4434 Sep 05 22:26	0°♋	
	4432 Mar 11 01:05	0°♋	morning max el	4434 Sep 08 09:31	2°♋19'29	45°42'50
evening rise	4432 Mar 15 10:06	5°♋29'27		4434 Oct 05 06:04	0°♌	
	4432 Apr 04 00:15	0°♌	asc. node	4434 Oct 20 04:31	16°♌39'51	
	4432 Apr 28 03:55	0°♌		4434 Oct 31 18:31	0°♌	
asc. node	4432 May 04 09:25	7°♌41'05		4434 Nov 26 00:38	0°♍	
	4432 May 22 14:15	0°♍		4434 Dec 20 14:17	0°♍	
	4432 Jun 16 09:36	0°♎		4435 Jan 13 19:00	0°♎	
	4432 Jul 11 18:05	0°♎		4435 Feb 06 19:08	0°♎	
	4432 Aug 07 00:40	0°♏	desc. node	4435 Feb 08 19:06	2°♏30'17	
desc. node	4432 Aug 23 23:56	18°♏26'16		4435 Mar 02 17:09	0°♋	
	4432 Sep 04 05:17	0°♍	morning set	4435 Mar 11 03:56	10°♋36'24	
evening max el	4432 Sep 11 15:30	7°♍16'35 45°46'06		4435 Mar 26 14:53	0°♋	
	4432 Oct 09 13:47	0°♌		4435 Apr 19 14:06	0°♌	
greatest brilliancy	4432 Oct 21 07:26	5°♌37'23 -4.8m				
retrograde	4432 Oct 30 11:09	7°♌08'53	superior conj	4435 Apr 20 14:55	1°♌17'30	-1°20'04
evening set	4432 Nov 15 14:34	2°♌12'19	minimum elong	4435 Apr 20 22:59	1°♌42'42	1°19'55
	4432 Nov 19 07:44	30°♍	max. Earth dist.	4435 Apr 24 12:06	6°♌08'15	1.71939 AU
inferior conj	4432 Nov 20 10:01	29°♍19'33 -5°43'09		4435 May 13 16:15	0°♌	
minimum elong	4432 Nov 20 20:12	29°♍03'51 5°40'44	evening rise	4435 May 29 22:34	20°♌08'38	
min. Earth dist.	4432 Nov 21 08:56	28°♍44'13 0.27592 AU	asc. node	4435 Jun 01 21:17	23°♌47'01	
morning rise	4432 Nov 26 01:10	25°♍57'42		4435 Jun 06 22:12	0°♍	
direct	4432 Dec 11 10:32	21°♍19'53		4435 Jul 01 08:15	0°♎	
asc. node	4432 Dec 15 02:03	21°♍35'33		4435 Jul 25 22:56	0°♎	
greatest brilliancy	4432 Dec 22 13:51	23°♍38'35 -4.9m		4435 Aug 19 19:50	0°♏	
	4433 Jan 03 03:19	0°♌		4435 Sep 14 02:01	0°♍	
morning max el	4433 Jan 31 01:13	24°♌28'41 46°54'50	desc. node	4435 Sep 21 11:46	8°♍40'41	
	4433 Feb 05 09:33	0°♎		4435 Oct 09 22:46	0°♌	
	4433 Mar 04 12:17	0°♊		4435 Nov 05 21:55	0°♎	
	4433 Mar 30 01:48	0°♋	evening max el	4435 Nov 24 10:22	19°♎12'34	46°44'34
desc. node	4433 Apr 05 16:52	7°♋55'26		4435 Dec 05 19:50	0°♊	
	4433 Apr 24 00:29	0°♋	greatest brilliancy	4436 Jan 03 18:28	19°♊41'07	-4.9m
	4433 May 18 16:57	0°♌	asc. node	4436 Jan 12 14:02	21°♊32'00	
	4433 Jun 12 07:11	0°♌	retrograde	4436 Jan 13 16:55	21°♊33'32	
	4433 Jul 06 20:38	0°♍	evening set	4436 Jan 28 13:02	17°♊11'39	
asc. node	4433 Jul 27 19:01	25°♍36'39	inferior conj	4436 Feb 03 06:33	13°♊49'30	5°18'08
	4433 Jul 31 08:58	0°♎	minimum elong	4436 Feb 02 20:20	14°♊05'05	5°15'26
morning set	4433 Aug 03 15:26	4°♎00'32	min. Earth dist.	4436 Feb 02 20:02	14°♊05'32	0.26645 AU
	4433 Aug 24 19:17	0°♎	morning rise	4436 Feb 08 03:43	10°♊55'32	
max. Earth dist.	4433 Sep 07 00:55	16°♎18'18 1.73295 AU	direct	4436 Feb 23 16:53	6°♊08'50	
			greatest brilliancy	4436 Mar 04 08:21	7°♊54'52	-4.9m
superior conj	4433 Sep 09 03:37	18°♎54'37 1°20'01		4436 Apr 04 23:50	0°♋	
minimum elong	4433 Sep 08 21:44	18°♎36'28 1°19'55	morning max el	4436 Apr 14 00:14	8°♋41'45	46°46'06
	4433 Sep 18 03:18	0°♏	desc. node	4436 May 03 04:35	28°♋49'12	
	4433 Oct 12 09:39	0°♍		4436 May 04 06:31	0°♋	
evening rise	4433 Oct 15 14:28	3°♍57'37		4436 May 30 21:17	0°♌	
	4433 Nov 05 15:20	0°♌		4436 Jun 25 13:59	0°♌	
desc. node	4433 Nov 16 09:32	13°♌18'57		4436 Jul 20 20:15	0°♍	
	4433 Nov 29 21:01	0°♎		4436 Aug 14 19:27	0°♎	
	4433 Dec 24 03:08	0°♊	asc. node	4436 Aug 24 06:48	11°♎28'12	
	4434 Jan 17 10:58	0°♋		4436 Sep 08 12:07	0°♎	
	4434 Feb 11 00:22	0°♋		4436 Oct 02 22:37	0°♏	
	4434 Mar 08 03:27	0°♌	morning set	4436 Oct 10 21:56	9°♏50'38	
asc. node	4434 Mar 09 11:39	1°♌34'13		4436 Oct 27 04:10	0°♍	
	4434 Apr 03 13:37	0°♌	max. Earth dist.	4436 Nov 14 11:40	22°♍47'12	1.72133 AU
evening max el	4434 Apr 20 05:02	17°♌24'08 46°22'04				
	4434 May 03 15:16	0°♍	superior conj	4436 Nov 17 05:09	26°♍11'20	0°58'21
greatest brilliancy	4434 May 29 01:01	16°♍55'28 -4.8m	minimum elong	4436 Nov 17 15:15	26°♍42'48	0°57'59
retrograde	4434 Jun 08 23:36	19°♍07'48		4436 Nov 20 06:29	0°♌	
evening set	4434 Jun 24 01:03	14°♍42'51	desc. node	4436 Dec 13 21:27	29°♌30'41	
desc. node	4434 Jun 29 02:14	11°♍42'46		4436 Dec 14 06:50	0°♎	
inferior conj	4434 Jun 30 09:13	10°♍54'15 -0°18'39	evening rise	4436 Dec 26 16:31	15°♎31'20	

	4437 Jan 07 06:01	0°♊		morning max el	4439 Jun 27 00:39	21°♊29'34	46°00'58
	4437 Jan 31 04:54	0°♋			4439 Jul 05 14:13	0°♌	
	4437 Feb 24 05:16	0°♍			4439 Aug 02 14:39	0°♎	
	4437 Mar 20 10:13	0°♎			4439 Aug 28 23:25	0°♏	
asc. node	4437 Apr 05 23:30	20°♏16'09		asc. node	4439 Sep 21 18:39	27°♏59'34	
	4437 Apr 14 00:14	0°♐			4439 Sep 23 11:03	0°♑	
	4437 May 09 05:52	0°♑			4439 Oct 18 08:04	0°♒	
	4437 Jun 04 15:50	0°♒			4439 Nov 11 18:34	0°♓	
evening max el	4437 Jun 29 20:31	26°♒11'07	45°34'29		4439 Dec 05 22:09	0°♈	
	4437 Jul 03 20:54	0°♓		morning set	4439 Dec 22 02:25	20°♈13'22	
desc. node	4437 Jul 26 14:11	18°♓18'59			4439 Dec 29 21:41	0°♉	
greatest brilliancy	4437 Aug 07 01:36	24°♓09'29	-4.7m	desc. node	4440 Jan 11 09:16	15°♉39'52	
retrograde	4437 Aug 17 15:02	26°♓09'22			4440 Jan 22 19:00	0°♊	
evening set	4437 Sep 03 21:40	20°♓30'40					
inferior conj	4437 Sep 08 02:29	17°♓55'47	-8°00'23	superior conj	4440 Jan 31 20:15	11°♊23'02	-0°46'50
minimum elong	4437 Sep 07 19:37	18°♓06'32	7°59'39	minimum elong	4440 Jan 31 09:31	10°♊49'17	0°46'22
min. Earth dist.	4437 Sep 08 03:10	17°♓54'43	0.29092 AU	max. Earth dist.	4440 Jan 31 07:39	10°♊43'24	1.71135 AU
morning rise	4437 Sep 11 17:33	15°♓41'22			4440 Feb 15 15:23	0°♋	
direct	4437 Sep 29 17:37	9°♓37'27			4440 Mar 10 12:13	0°♌	
greatest brilliancy	4437 Oct 10 07:05	11°♓39'24	-4.8m	evening rise	4440 Mar 12 20:45	2°♌57'23	
	4437 Nov 06 18:58	0°♑			4440 Apr 03 11:24	0°♍	
asc. node	4437 Nov 16 16:16	9°♑12'44			4440 Apr 27 15:13	0°♎	
morning max el	4437 Nov 18 08:27	10°♑51'16	46°13'06	asc. node	4440 May 03 11:29	7°♎12'28	
	4437 Dec 06 16:07	0°♒			4440 May 22 01:50	0°♏	
	4438 Jan 02 00:24	0°♓			4440 Jun 15 21:45	0°♐	
	4438 Jan 27 02:19	0°♔			4440 Jul 11 07:16	0°♑	
	4438 Feb 20 14:38	0°♕			4440 Aug 06 15:58	0°♒	
desc. node	4438 Mar 08 06:54	19°♕22'16		desc. node	4440 Aug 23 01:55	17°♒44'23	
	4438 Mar 16 20:40	0°♋			4440 Sep 04 02:10	0°♓	
	4438 Apr 10 00:15	0°♌		evening max el	4440 Sep 09 04:32	4°♓57'27	45°44'39
	4438 May 04 03:50	0°♍			4440 Oct 11 04:08	0°♔	
morning set	4438 May 24 07:31	24°♔58'45		greatest brilliancy	4440 Oct 18 21:15	3°♔18'53	-4.8m
	4438 May 28 08:54	0°♎		retrograde	4440 Oct 28 00:11	4°♔50'09	
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asc. node	4438 Jun 29 09:11	9°♏30'44		evening set	4440 Nov 13 07:26	29°♓48'32	
				inferior conj	4440 Nov 18 00:05	26°♓59'55	-5°59'26
superior conj	4438 Jul 01 01:48	11°♏35'50	0°04'05	minimum elong	4440 Nov 18 10:22	26°♓44'04	5°57'05
minimum elong	4438 Jul 01 00:55	11°♏33'04	0°04'03	min. Earth dist.	4440 Nov 18 23:43	26°♓23'29	0.27663 AU
behind sun begin	4438 Jun 30 02:23	10°♏23'42		morning rise	4440 Nov 23 12:36	23°♓41'33	
behind sun end	4438 Jul 01 23:26	12°♏42'27		direct	4440 Dec 09 00:43	18°♓58'53	
max. Earth dist.	4438 Jul 02 13:53	13°♏26'57	1.73280 AU	asc. node	4440 Dec 14 04:11	19°♓29'46	
	4438 Jul 16 00:32	0°♐		greatest brilliancy	4440 Dec 20 05:54	21°♓19'05	-4.9m
evening rise	4438 Aug 06 15:29	26°♐35'09			4441 Jan 04 01:27	0°♈	
	4438 Aug 09 10:10	0°♑		morning max el	4441 Jan 28 15:08	22°♈04'55	46°54'07
	4438 Sep 02 20:56	0°♒			4441 Feb 05 06:00	0°♉	
	4438 Sep 27 09:42	0°♓			4441 Mar 04 03:59	0°♊	
desc. node	4438 Oct 18 23:39	26°♓15'48			4441 Mar 29 15:30	0°♋	
	4438 Oct 22 01:36	0°♔		desc. node	4441 Apr 04 18:46	7°♋21'07	
	4438 Nov 15 21:47	0°♕			4441 Apr 23 13:04	0°♌	
	4438 Dec 11 00:39	0°♖			4441 May 18 04:49	0°♍	
	4439 Jan 05 17:48	0°♋			4441 Jun 11 18:35	0°♎	
	4439 Feb 02 01:21	0°♌			4441 Jul 06 07:43	0°♏	
evening max el	4439 Feb 05 04:45	3°♌13'43	47°10'15	asc. node	4441 Jul 26 20:58	25°♏09'11	
asc. node	4439 Feb 09 01:50	7°♌07'13			4441 Jul 30 19:51	0°♐	
	4439 Mar 08 11:37	0°♍		morning set	4441 Aug 01 09:05	1°♐54'08	
greatest brilliancy	4439 Mar 17 17:07	4°♍37'11	-4.9m		4441 Aug 24 06:06	0°♑	
retrograde	4439 Mar 27 23:06	6°♍36'12		max. Earth dist.	4441 Sep 04 20:42	14°♑18'01	1.73322 AU
evening set	4439 Apr 14 16:45	0°♍30'27					
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inferior conj	4439 Apr 17 20:30	28°♌33'09	8°24'38	minimum elong	4441 Sep 06 15:21	16°♑29'30	1°18'44
minimum elong	4439 Apr 18 03:32	28°♌22'09	8°23'52		4441 Sep 17 14:07	0°♒	
min. Earth dist.	4439 Apr 17 13:43	28°♌43'46	0.27658 AU		4441 Oct 11 20:34	0°♓	
morning rise	4439 Apr 21 14:33	26°♌15'04		evening rise	4441 Oct 13 07:04	1°♓46'41	
direct	4439 May 08 16:53	20°♌38'44			4441 Nov 05 02:27	0°♈	
greatest brilliancy	4439 May 18 01:57	22°♌17'16	-4.8m	desc. node	4441 Nov 15 11:37	12°♈50'40	
desc. node	4439 May 31 16:23	29°♌18'36			4441 Nov 29 08:26	0°♉	
	4439 Jun 01 16:53	0°♍			4441 Dec 23 14:56	0°♊	

	4442 Jan 16 23:16	0° H			4444 Jul 20 08:05	0° G		
	4442 Feb 10 13:26	0° Y			4444 Aug 14 06:42	0° Q		
	4442 Mar 07 17:55	0° B		asc. node	4444 Aug 23 08:47	11° Q 00'31		
asc. node	4442 Mar 08 13:36	0° B 57'24			4444 Sep 07 23:01	0° P		
	4442 Apr 03 07:20	0° II			4444 Oct 02 09:22	0° A		
evening max el	4442 Apr 17 19:40	15° II 06'46	46°24'22	morning set	4444 Oct 08 14:54	7° A 41'32		
	4442 May 03 21:25	0° G			4444 Oct 26 14:56	0° M		
greatest brilliancy	4442 May 26 17:21	14° G 43'46	-4.8m	max. Earth dist.	4444 Nov 12 00:40	20° M 24'35	1.72180 AU	
retrograde	4442 Jun 06 16:05	16° G 56'38						
evening set	4442 Jun 21 17:47	12° G 30'24		superior conj	4444 Nov 14 20:02	23° M 54'28	1°00'52	
inferior conj	4442 Jun 28 01:13	8° G 43'09	0°01'49	minimum elong	4444 Nov 15 06:05	24° M 25'47	1°00'31	
minimum elong	4442 Jun 28 01:17	8° G 43'02	0°01'47		4444 Nov 19 17:18	0° A		
transit middle	4442 Jun 28 01:17	8° G 43'02	0°01'47	desc. node	4444 Dec 12 23:32	29° A 03'04		
transit begin	4442 Jun 27 21:16	8° G 49'21			4444 Dec 13 17:45	0° Z		
transit end	4442 Jun 28 05:19	8° G 36'44		evening rise	4444 Dec 24 04:41	13° Z 04'48		
min. Earth dist.	4442 Jun 27 18:53	8° G 53'04	0.28567 AU		4445 Jan 06 17:04	0° \approx		
desc. node	4442 Jun 28 04:13	8° G 38'27			4445 Jan 30 16:07	0° H		
morning rise	4442 Jul 04 09:08	4° G 55'27			4445 Feb 23 16:42	0° Y		
direct	4442 Jul 19 09:19	0° G 33'27			4445 Mar 19 22:00	0° B		
greatest brilliancy	4442 Jul 29 10:56	2° G 22'34	-4.7m	asc. node	4445 Apr 05 01:35	19° B 45'41		
	4442 Sep 05 21:27	0° Q			4445 Apr 13 12:36	0° II		
morning max el	4442 Sep 06 01:47	0° Q 10'18	45°42'34		4445 May 08 19:23	0° G		
	4442 Oct 04 21:52	0° P			4445 Jun 04 07:55	0° Q		
asc. node	4442 Oct 19 06:34	16° P 05'06		evening max el	4445 Jun 27 12:49	24° Q 01'26	45°35'19	
	4442 Oct 31 07:54	0° A			4445 Jul 03 21:14	0° P		
	4442 Nov 25 12:56	0° M		desc. node	4445 Jul 25 16:10	17° P 02'41		
	4442 Dec 20 02:02	0° A		greatest brilliancy	4445 Aug 04 16:52	22° P 00'03	-4.7m	
	4443 Jan 13 06:27	0° Z		retrograde	4445 Aug 15 06:54	24° P 00'23		
	4443 Feb 06 06:24	0° \approx		evening set	4445 Sep 01 10:51	18° P 26'20		
desc. node	4443 Feb 07 21:00	2° \approx 00'59		inferior conj	4445 Sep 05 18:45	15° P 46'37	-7°52'40	
	4443 Mar 02 04:17	0° H		minimum elong	4445 Sep 05 11:21	15° P 58'13	7°51'48	
morning set	4443 Mar 08 13:53	8° H 02'07		min. Earth dist.	4445 Sep 05 18:25	15° P 47'08	0.29099 AU	
	4443 Mar 26 01:56	0° Y		morning rise	4445 Sep 09 11:49	13° P 28'57		
				direct	4445 Sep 27 10:13	7° P 28'31		
superior conj	4443 Apr 18 03:18	28° Y 52'03	-1°21'28	greatest brilliancy	4445 Oct 07 22:03	9° P 28'41	-4.8m	
minimum elong	4443 Apr 18 10:43	29° Y 15'13	1°21'21		4445 Nov 06 21:45	0° A		
	4443 Apr 19 01:04	0° B		asc. node	4445 Nov 15 18:24	8° A 24'04		
max. Earth dist.	4443 Apr 21 21:39	3° B 34'09	1.71887 AU	morning max el	4445 Nov 15 23:05	8° A 35'36	46°11'24	
	4443 May 13 03:10	0° II			4445 Dec 06 08:55	0° M		
evening rise	4443 May 27 13:22	17° II 52'25			4446 Jan 01 14:22	0° A		
asc. node	4443 May 31 23:24	23° II 19'55			4446 Jan 26 15:01	0° Z		
	4443 Jun 06 09:07	0° G			4446 Feb 20 02:38	0° \approx		
	4443 Jun 30 19:16	0° Q		desc. node	4446 Mar 07 08:57	18° \approx 52'20		
	4443 Jul 25 10:14	0° P			4446 Mar 16 08:13	0° H		
	4443 Aug 19 07:41	0° A			4446 Apr 09 11:29	0° Y		
	4443 Sep 13 14:52	0° M			4446 May 03 14:48	0° B		
desc. node	4443 Sep 20 13:43	8° M 07'50		morning set	4446 May 21 22:35	22° B 43'26		
	4443 Oct 09 13:23	0° A			4446 May 27 19:41	0° II		
	4443 Nov 05 16:16	0° Z			4446 Jun 21 02:35	0° G		
evening max el	4443 Nov 22 00:55	16° Z 52'11	46°42'38	asc. node	4446 Jun 28 11:07	9° G 03'55		
	4443 Dec 06 02:42	0° \approx						
greatest brilliancy	4444 Jan 01 06:41	17° \approx 12'28	-4.9m	superior conj	4446 Jun 28 18:27	9° G 26'29	0°00'45	
retrograde	4444 Jan 11 05:55	19° \approx 05'04		minimum elong	4446 Jun 28 18:17	9° G 25'58	0°00'43	
asc. node	4444 Jan 11 15:59	19° \approx 04'51		behind sun begin	4446 Jun 27 19:11	8° G 14'49		
evening set	4444 Jan 25 22:52	14° \approx 46'54		behind sun end	4446 Jun 29 17:22	10° G 37'07		
inferior conj	4444 Jan 31 18:50	11° \approx 21'22	4°57'48	max. Earth dist.	4446 Jun 30 10:35	11° G 30'06	1.73249 AU	
minimum elong	4444 Jan 31 09:00	11° \approx 36'22	4°55'07		4446 Jul 15 11:09	0° Q		
min. Earth dist.	4444 Jan 31 08:53	11° \approx 36'32	0.26631 AU	evening rise	4446 Aug 04 09:49	24° Q 31'15		
morning rise	4444 Feb 05 19:17	8° \approx 23'06			4446 Aug 08 20:51	0° P		
direct	4444 Feb 21 05:56	3° \approx 40'54			4446 Sep 02 07:47	0° A		
greatest brilliancy	4444 Mar 01 21:23	5° \approx 27'25	-4.9m		4446 Sep 26 20:51	0° M		
	4444 Apr 05 02:47	0° H		desc. node	4446 Oct 18 01:49	25° M 47'16		
morning max el	4444 Apr 11 14:23	6° H 19'39	46°47'13		4446 Oct 21 13:15	0° A		
desc. node	4444 May 02 06:43	28° H 06'42			4446 Nov 15 10:13	0° Z		
	4444 May 03 23:58	0° Y			4446 Dec 10 14:20	0° \approx		
	4444 May 30 11:36	0° B			4447 Jan 05 09:44	0° H		
	4444 Jun 25 02:44	0° II			4447 Feb 01 22:56	0° Y		



































































































































evening max el	4447 Feb 02 18:30	0° Υ 49'52	47°10'34	asc. node	4449 Jul 25 22:56	24° \mathfrak{G} 42'40	
asc. node	4447 Feb 08 03:48	6° Υ 12'31		morning set	4449 Jul 30 02:35	29° \mathfrak{G} 48'04	
	4447 Mar 10 05:53	0° \mathfrak{B}			4449 Jul 30 06:28	0° \mathcal{O}	
greatest brilliancy	4447 Mar 15 08:35	2° \mathfrak{B} 16'43	-4.9m		4449 Aug 23 16:36	0° \mathfrak{M}	
retrograde	4447 Mar 25 12:54	4° \mathfrak{B} 14'27		max. Earth dist.	4449 Sep 02 18:10	12° \mathfrak{M} 23'51	1.73348 AU
	4447 Apr 09 02:33	30° \mathfrak{K} Υ					
evening set	4447 Apr 12 09:17	28° Υ 05'48		superior conj	4449 Sep 04 15:47	14° \mathfrak{M} 44'24	1°17'35
inferior conj	4447 Apr 15 10:32	26° Υ 12'16	8°32'25	minimum elong	4449 Sep 04 08:56	14° \mathfrak{M} 23'19	1°17'27
minimum elong	4447 Apr 15 16:52	26° Υ 02'22	8°31'49		4449 Sep 17 00:39	0° \mathfrak{L}	
min. Earth dist.	4447 Apr 15 03:31	26° Υ 23'14	0.27620 AU	evening rise	4449 Oct 10 23:50	29° \mathfrak{L} 37'08	
morning rise	4447 Apr 19 00:38	23° Υ 59'54			4449 Oct 11 07:14	0° \mathfrak{M}	
direct	4447 May 06 06:01	18° Υ 18'34			4449 Nov 04 13:21	0° \mathfrak{X}	
greatest brilliancy	4447 May 15 15:16	19° Υ 56'51	-4.8m	desc. node	4449 Nov 14 13:39	12° \mathfrak{X} 23'00	
desc. node	4447 May 30 18:25	28° Υ 00'56			4449 Nov 28 19:36	0° \mathfrak{Z}	
	4447 Jun 02 12:49	0° \mathfrak{B}			4449 Dec 23 02:26	0° \approx	
morning max el	4447 Jun 24 13:52	19° \mathfrak{B} 10'10	46°02'19		4450 Jan 16 11:16	0° \mathfrak{H}	
	4447 Jul 05 09:44	0° \mathfrak{I}			4450 Feb 10 02:13	0° Υ	
	4447 Aug 02 05:25	0° \mathfrak{G}			4450 Mar 07 08:13	0° \mathfrak{B}	
	4447 Aug 28 12:12	0° \mathcal{O}		asc. node	4450 Mar 07 15:41	0° \mathfrak{B} 21'43	
asc. node	4447 Sep 20 20:42	27° \mathcal{O} 30'26			4450 Apr 03 01:09	0° \mathfrak{I}	
	4447 Sep 22 22:49	0° \mathfrak{M}		evening max el	4450 Apr 15 11:13	12° \mathfrak{I} 52'22	46°26'31
	4447 Oct 17 19:17	0° \mathfrak{L}			4450 May 04 05:45	0° \mathfrak{G}	
	4447 Nov 11 05:29	0° \mathfrak{M}		greatest brilliancy	4450 May 24 09:18	12° \mathfrak{G} 31'54	-4.8m
	4447 Dec 05 08:57	0° \mathfrak{X}		retrograde	4450 Jun 04 08:47	14° \mathfrak{G} 45'30	
morning set	4447 Dec 19 15:23	17° \mathfrak{X} 49'55		evening set	4450 Jun 19 10:37	10° \mathfrak{G} 17'54	
	4447 Dec 29 08:27	0° \mathfrak{Z}		inferior conj	4450 Jun 25 17:07	6° \mathfrak{G} 32'01	0°22'24
desc. node	4448 Jan 10 11:13	15° \mathfrak{Z} 12'07		minimum elong	4450 Jun 25 17:57	6° \mathfrak{G} 30'43	0°22'09
	4448 Jan 22 05:48	0° \approx		min. Earth dist.	4450 Jun 25 10:51	6° \mathfrak{G} 41'49	0.28538 AU
max. Earth dist.	4448 Jan 28 11:33	7° \approx 50'46	1.71151 AU	desc. node	4450 Jun 27 06:12	5° \mathfrak{G} 34'12	
				morning rise	4450 Jul 02 01:41	2° \mathfrak{G} 43'51	
superior conj	4448 Jan 29 06:45	8° \approx 51'09	-0°43'25		4450 Jul 08 00:44	30° \mathfrak{K} \mathfrak{I}	
minimum elong	4448 Jan 28 20:34	8° \approx 19'07	0°42'59	direct	4450 Jul 17 01:06	28° \mathfrak{I} 22'42	
	4448 Feb 15 02:13	0° \mathfrak{H}			4450 Jul 26 12:01	0° \mathfrak{G}	
	4448 Mar 09 23:05	0° Υ		greatest brilliancy	4450 Jul 27 02:11	0° \mathfrak{G} 11'57	-4.7m
evening rise	4448 Mar 10 07:06	0° Υ 25'09		morning max el	4450 Sep 03 18:20	28° \mathfrak{G} 02'30	45°42'21
	4448 Apr 02 22:20	0° \mathfrak{B}			4450 Sep 05 19:18	0° \mathcal{O}	
	4448 Apr 27 02:17	0° \mathfrak{I}			4450 Oct 04 13:10	0° \mathfrak{M}	
asc. node	4448 May 02 13:32	6° \mathfrak{I} 44'38		asc. node	4450 Oct 18 08:40	15° \mathfrak{M} 31'27	
	4448 May 21 13:11	0° \mathfrak{G}			4450 Oct 30 20:56	0° \mathfrak{L}	
	4448 Jun 15 09:39	0° \mathcal{O}			4450 Nov 25 00:57	0° \mathfrak{M}	
	4448 Jul 10 20:14	0° \mathfrak{M}			4450 Dec 19 13:33	0° \mathfrak{X}	
	4448 Aug 06 07:11	0° \mathfrak{L}			4451 Jan 12 17:41	0° \mathfrak{Z}	
desc. node	4448 Aug 22 03:56	17° \mathfrak{L} 02'56			4451 Feb 05 17:25	0° \approx	
	4448 Sep 03 23:27	0° \mathfrak{M}		desc. node	4451 Feb 06 23:06	1° \approx 33'00	
evening max el	4448 Sep 06 17:51	2° \mathfrak{M} 40'08	45°43'18		4451 Mar 01 15:09	0° \mathfrak{H}	
	4448 Oct 13 15:15	0° \mathfrak{X}		morning set	4451 Mar 06 00:18	5° \mathfrak{H} 30'03	
greatest brilliancy	4448 Oct 16 10:29	1° \mathfrak{X} 01'06	-4.8m		4451 Mar 25 12:42	0° Υ	
retrograde	4448 Oct 25 13:49	2° \mathfrak{X} 32'57					
	4448 Nov 05 23:17	30° \mathfrak{K} \mathfrak{M}		superior conj	4451 Apr 15 15:53	26° Υ 27'51	-1°22'42
evening set	4448 Nov 11 00:22	27° \mathfrak{M} 26'06		minimum elong	4451 Apr 15 22:35	26° Υ 48'48	1°22'37
inferior conj	4448 Nov 15 14:11	24° \mathfrak{M} 41'39	-6°14'56		4451 Apr 18 11:47	0° \mathfrak{B}	
minimum elong	4448 Nov 16 00:31	24° \mathfrak{M} 25'45	6°12'41	max. Earth dist.	4451 Apr 19 10:20	1° \mathfrak{B} 10'26	1.71841 AU
min. Earth dist.	4448 Nov 16 14:09	24° \mathfrak{M} 04'46	0.27732 AU		4451 May 12 13:52	0° \mathfrak{I}	
morning rise	4448 Nov 20 23:59	21° \mathfrak{M} 27'14		evening rise	4451 May 25 04:11	15° \mathfrak{I} 36'42	
direct	4448 Dec 06 15:18	16° \mathfrak{M} 39'21		asc. node	4451 May 31 01:20	22° \mathfrak{I} 52'47	
asc. node	4448 Dec 13 06:03	17° \mathfrak{M} 30'02			4451 Jun 05 19:51	0° \mathfrak{G}	
greatest brilliancy	4448 Dec 17 21:34	19° \mathfrak{M} 00'47	-4.9m		4451 Jun 30 06:09	0° \mathcal{O}	
	4449 Jan 04 17:14	0° \mathfrak{X}			4451 Jul 24 21:25	0° \mathfrak{M}	
morning max el	4449 Jan 26 05:56	19° \mathfrak{X} 44'43	46°53'22		4451 Aug 18 19:27	0° \mathfrak{L}	
	4449 Feb 05 01:22	0° \mathfrak{Z}			4451 Sep 13 03:39	0° \mathfrak{M}	
	4449 Mar 03 19:04	0° \approx		desc. node	4451 Sep 19 15:52	7° \mathfrak{M} 35'51	
	4449 Mar 29 04:46	0° \mathfrak{H}			4451 Oct 09 04:02	0° \mathfrak{X}	
desc. node	4449 Apr 03 20:54	6° \mathfrak{H} 48'32			4451 Nov 05 10:56	0° \mathfrak{Z}	
	4449 Apr 23 01:19	0° Υ		evening max el	4451 Nov 19 15:43	14° \mathfrak{Z} 32'55	46°40'34
	4449 May 17 16:24	0° \mathfrak{B}			4451 Dec 06 11:55	0° \approx	
	4449 Jun 11 05:43	0° \mathfrak{I}		greatest brilliancy	4451 Dec 29 19:23	14° \approx 44'57	-4.9m
	4449 Jul 05 18:32	0° \mathfrak{G}		retrograde	4452 Jan 08 18:40	16° \approx 36'57	

asc. node	4452 Jan 10 18:02	16°  32'11		behind sun end	4454 Jun 27 10:55	8°  30'19	
evening set	4452 Jan 23 09:03	12°  22'32		asc. node	4454 Jun 27 13:09	8°  37'12	
inferior conj	4452 Jan 29 07:10	8°  53'47	4°36'56	max. Earth dist.	4454 Jun 28 06:31	9°  30'42	1.73215 AU
minimum elong	4452 Jan 28 21:48	9°  08'07	4°34'18		4454 Jul 14 21:52	0° 	
min. Earth dist.	4452 Jan 28 22:03	9°  07'43	0.26616 AU	evening rise	4454 Aug 02 04:25	22°  27'50	
morning rise	4452 Feb 03 10:43	5°  51'14			4454 Aug 08 07:39	0° 	
direct	4452 Feb 18 18:58	1°  13'41			4454 Sep 01 18:47	0° 	
greatest brilliancy	4452 Feb 28 10:35	3°  00'30	-4.9m		4454 Sep 26 08:13	0° 	
	4452 Apr 05 04:03	0° 		desc. node	4454 Oct 17 03:45	25°  17'25	
morning max el	4452 Apr 09 03:35	3°  55'38	46°48'27		4454 Oct 21 01:09	0° 	
desc. node	4452 May 01 08:45	27°  25'01			4454 Nov 14 22:55	0° 	
	4452 May 03 16:49	0° 			4454 Dec 10 04:21	0° 	
	4452 May 30 01:34	0° 			4455 Jan 05 02:11	0° 	
	4452 Jun 24 15:16	0° 		evening max el	4455 Jan 31 07:19	28°  22'59	47°10'49
	4452 Jul 19 19:46	0° 			4455 Feb 01 21:39	0° 	
	4452 Aug 13 17:52	0° 		asc. node	4455 Feb 07 05:55	5° 	
asc. node	4452 Aug 22 10:53	10°  23'19		greatest brilliancy	4455 Mar 12 23:53	29°  54'58	-4.9m
	4452 Sep 07 09:53	0° 			4455 Mar 13 05:23	0° 	
	4452 Oct 01 20:06	0° 		retrograde	4455 Mar 23 02:38	1°  51'50	
morning set	4452 Oct 06 07:50	5°  23'32			4455 Apr 01 15:27	30° 	
	4452 Oct 26 01:38	0° 		evening set	4455 Apr 10 01:28	25° 	
max. Earth dist.	4452 Nov 09 13:18	18°  01'06	1.72228 AU	min. Earth dist.	4455 Apr 12 17:21	24° 	0.27584 AU
				inferior conj	4455 Apr 13 00:30	23°  50'21	8°39'23
superior conj	4452 Nov 12 11:05	21°  38'21	1°03'16	minimum elong	4455 Apr 13 06:04	23°  41'39	8°38'55
minimum elong	4452 Nov 12 21:02	22°  09'20	1°02'57	morning rise	4455 Apr 16 10:49	21° 	
	4452 Nov 19 04:04	0° 		direct	4455 May 03 18:52	15° 	
desc. node	4452 Dec 12 01:27	28°  23'45		greatest brilliancy	4455 May 13 04:52	17° 	-4.8m
	4452 Dec 13 04:39	0° 		desc. node	4455 May 29 20:19	26° 	
evening rise	4452 Dec 21 17:00	10°  38'50			4455 Jun 03 04:03	0° 	
	4453 Jan 06 04:08	0° 		morning max el	4455 Jun 22 03:27	16° 	46°03'57
	4453 Jan 30 03:22	0° 			4455 Jul 05 04:57	0° 	
	4453 Feb 23 04:10	0° 			4455 Aug 01 20:11	0° 	
	4453 Mar 19 09:47	0° 			4455 Aug 28 01:06	0° 	
asc. node	4453 Apr 04 03:40	19°  15'13		asc. node	4455 Sep 19 22:46	27°  20'46	
	4453 Apr 13 00:58	0° 			4455 Sep 22 10:47	0° 	
	4453 May 08 08:55	0° 			4455 Oct 17 06:44	0° 	
	4453 Jun 04 00:12	0° 			4455 Nov 10 16:42	0° 	
evening max el	4453 Jun 25 04:18	21°  24'50	45°36'05		4455 Dec 04 20:03	0° 	
	4453 Jul 03 22:48	0° 		morning set	4455 Dec 17 04:23	15° 	
desc. node	4453 Jul 24 18:13	15°  24'09			4455 Dec 28 19:32	0° 	
greatest brilliancy	4453 Aug 02 08:36	19°  21'05	-4.7m	desc. node	4456 Jan 09 13:19	14° 	
retrograde	4453 Aug 12 22:32	21°  21'38			4456 Jan 21 16:54	0° 	
evening set	4453 Aug 30 00:05	16°  22'11		max. Earth dist.	4456 Jan 25 18:23	5° 	1.71167 AU
inferior conj	4453 Sep 03 11:08	13°  27'42	-7°44'20				
minimum elong	4453 Sep 03 03:15	13°  27'05	7°43'20	superior conj	4456 Jan 26 17:07	6° 	-0°39'55
min. Earth dist.	4453 Sep 03 10:09	13°  27'15	0.29107 AU	minimum elong	4456 Jan 26 07:33	5° 	0°39'29
morning rise	4453 Sep 07 06:22	11°  27'33			4456 Feb 14 13:21	0° 	
direct	4453 Sep 25 02:28	5°  27'39		evening rise	4456 Mar 07 17:28	27° 	
greatest brilliancy	4453 Oct 05 13:52	7°  27'50	-4.8m		4456 Mar 09 10:15	0° 	
	4453 Nov 06 23:12	0° 			4456 Apr 02 09:36	0° 	
morning max el	4453 Nov 13 13:03	6°  27'06	46°09'48		4456 Apr 26 13:43	0° 	
asc. node	4453 Nov 14 20:19	7°  27'24		asc. node	4456 May 01 15:29	6° 	
	4453 Dec 06 01:28	0° 			4456 May 21 00:55	0° 	
	4454 Jan 01 04:16	0° 			4456 Jun 14 21:56	0° 	
	4454 Jan 26 03:43	0° 			4456 Jul 10 09:35	0° 	
	4454 Feb 19 14:41	0° 			4456 Aug 05 22:53	0° 	
desc. node	4454 Mar 06 10:59	18°  22'08		desc. node	4456 Aug 21 06:03	16° 	
	4454 Mar 15 19:51	0° 			4456 Sep 03 21:51	0° 	
	4454 Apr 08 22:49	0° 		evening max el	4456 Sep 04 07:56	0° 	45°42'02
	4454 May 03 01:53	0° 		greatest brilliancy	4456 Oct 13 23:11	28° 	-4.8m
morning set	4454 May 19 13:48	20°  28'07			4456 Oct 19 12:23	0° 	
	4454 May 27 06:33	0° 		retrograde	4456 Oct 23 04:01	0° 	
	4454 Jun 20 13:20	0° 			4456 Oct 26 18:05	30° 	
				evening set	4456 Nov 08 17:27	25° 	
superior conj	4454 Jun 26 11:21	7°  28'43	-0°02'36	inferior conj	4456 Nov 13 04:25	22° 	-6°29'41
minimum elong	4454 Jun 26 11:56	7°  28'29	0°02'36	minimum elong	4456 Nov 13 14:43	22° 	6°27'33
behind sun begin	4454 Jun 25 12:56	6°  28'38		min. Earth dist.	4456 Nov 14 04:15	21° 	0.27805 AU

morning rise	4456 Nov 18 11:22	19° \mathbb{M} 12'32		evening rise	4459 May 22 18:26	13° \mathbb{II} 18'05	
direct	4456 Dec 04 06:32	14° \mathbb{M} 19'20		asc. node	4459 May 30 03:22	22° \mathbb{II} 24'54	
asc. node	4456 Dec 12 08:08	15° \mathbb{M} 34'07			4459 Jun 05 06:57	0° \mathcal{C}	
greatest brilliancy	4456 Dec 15 12:50	16° \mathbb{M} 41'14	-4.9m		4459 Jun 29 17:24	0° Ω	
	4457 Jan 05 05:31	0° \mathcal{A}			4459 Jul 24 09:00	0° \mathbb{M}	
morning max el	4457 Jan 23 21:32	17° \mathcal{A} 25'32	46°52'27		4459 Aug 18 07:38	0° Ω	
	4457 Feb 04 20:39	0° \mathcal{B}			4459 Sep 12 16:51	0° \mathbb{M}	
	4457 Mar 03 10:23	0° \approx		desc. node	4459 Sep 18 17:50	7° \mathbb{M} 02'10	
	4457 Mar 28 18:18	0° \mathcal{H}			4459 Oct 08 19:08	0° \mathcal{A}	
desc. node	4457 Apr 02 22:56	6° \mathcal{H} 14'39			4459 Nov 05 06:19	0° \mathcal{B}	
	4457 Apr 22 13:51	0° \mathcal{Y}		evening max el	4459 Nov 17 05:49	12° \mathcal{B} 11'31	46°38'29
	4457 May 17 04:19	0° \mathcal{B}			4459 Dec 07 00:31	0° \approx	
	4457 Jun 10 17:13	0° \mathbb{II}		greatest brilliancy	4459 Dec 27 08:32	12° \approx 17'40	-4.9m
	4457 Jul 05 05:44	0° \mathcal{C}		retrograde	4460 Jan 06 06:53	14° \approx 08'22	
asc. node	4457 Jul 25 01:05	24° \mathcal{C} 15'32		asc. node	4460 Jan 09 20:05	13° \approx 52'59	
morning set	4457 Jul 27 20:13	27° \mathcal{C} 41'17		evening set	4460 Jan 20 19:32	9° \approx 57'24	
	4457 Jul 29 17:27	0° Ω		inferior conj	4460 Jan 26 19:35	6° \approx 25'51	4°15'31
	4457 Aug 23 03:28	0° \mathbb{M}		minimum elong	4460 Jan 26 10:44	6° \approx 39'22	4°12'58
max. Earth dist.	4457 Aug 31 16:28	10° \mathbb{M} 31'11	1.73366 AU	min. Earth dist.	4460 Jan 26 11:36	6° \approx 38'03	0.26609 AU
				morning rise	4460 Feb 01 02:05	3° \approx 18'55	
superior conj	4457 Sep 02 10:01	12° \mathbb{M} 39'11	1°16'13		4460 Feb 08 13:01	30° \mathcal{R} \mathcal{B}	
minimum elong	4457 Sep 02 02:45	12° \mathbb{M} 16'49	1°16'03	direct	4460 Feb 16 07:33	28° \mathcal{B} 45'51	
	4457 Sep 16 11:30	0° Ω			4460 Feb 24 07:38	0° \approx	
evening rise	4457 Oct 08 16:53	27° Ω 27'32		greatest brilliancy	4460 Feb 26 00:27	0° \approx 33'26	-4.9m
	4457 Oct 10 18:13	0° \mathbb{M}			4460 Apr 05 04:31	0° \mathcal{H}	
	4457 Nov 04 00:34	0° \mathcal{A}		morning max el	4460 Apr 06 15:53	1° \mathcal{H} 28'05	46°49'27
desc. node	4457 Nov 13 15:38	11° \mathcal{A} 54'06		desc. node	4460 Apr 30 10:41	26° \mathcal{H} 42'21	
	4457 Nov 28 07:09	0° \mathcal{B}			4460 May 03 09:47	0° \mathcal{Y}	
	4457 Dec 22 14:23	0° \approx			4460 May 29 15:46	0° \mathcal{B}	
	4458 Jan 15 23:46	0° \mathcal{H}			4460 Jun 24 04:03	0° \mathbb{II}	
	4458 Feb 09 15:34	0° \mathcal{Y}			4460 Jul 19 07:42	0° \mathcal{C}	
asc. node	4458 Mar 06 17:42	29° \mathcal{Y} 44'07			4460 Aug 13 05:16	0° Ω	
	4458 Mar 06 23:11	0° \mathcal{B}		asc. node	4460 Aug 21 12:52	10° Ω 05'05	
	4458 Apr 02 19:57	0° \mathbb{II}			4460 Sep 06 20:59	0° \mathbb{M}	
evening max el	4458 Apr 13 03:06	10° \mathbb{II} 37'16	46°28'41		4460 Oct 01 07:03	0° Ω	
	4458 May 04 17:56	0° \mathcal{C}		morning set	4460 Oct 04 00:42	3° Ω 22'38	
greatest brilliancy	4458 May 22 01:18	10° \mathcal{C} 18'29	-4.8m		4460 Oct 25 12:33	0° \mathbb{M}	
retrograde	4458 Jun 02 01:20	12° \mathcal{C} 32'15		max. Earth dist.	4460 Nov 07 02:21	15° \mathbb{M} 38'19	1.72272 AU
evening set	4458 Jun 17 03:27	8° \mathcal{C} 03'25					
inferior conj	4458 Jun 23 08:46	4° \mathcal{C} 18'53	0°43'12	superior conj	4460 Nov 10 02:24	19° \mathbb{M} 22'36	1°05'33
minimum elong	4458 Jun 23 10:22	4° \mathcal{C} 16'22	0°42'42	minimum elong	4460 Nov 10 12:13	19° \mathbb{M} 53'09	1°05'14
min. Earth dist.	4458 Jun 23 02:26	4° \mathcal{C} 28'46	0.28506 AU		4460 Nov 18 15:00	0° \mathcal{A}	
desc. node	4458 Jun 26 08:19	2° \mathcal{C} 28'14		desc. node	4460 Dec 11 03:34	28° \mathcal{A} 07'12	
morning rise	4458 Jun 29 17:50	0° \mathcal{C} 30'24			4460 Dec 12 15:40	0° \mathcal{B}	
	4458 Jun 30 16:42	30° \mathcal{R} \mathbb{II}		evening rise	4460 Dec 19 05:41	8° \mathcal{B} 13'48	
direct	4458 Jul 14 16:58	26° \mathbb{II} 10'09			4461 Jan 05 15:18	0° \approx	
greatest brilliancy	4458 Jul 24 16:41	27° \mathbb{II} 58'46	-4.7m		4461 Jan 29 14:43	0° \mathcal{H}	
	4458 Jul 29 13:51	0° \mathcal{C}			4461 Feb 22 15:47	0° \mathcal{Y}	
morning max el	4458 Sep 01 10:34	25° \mathcal{C} 52'42	45°42'16		4461 Mar 18 21:46	0° \mathcal{B}	
	4458 Sep 05 16:49	0° Ω		asc. node	4461 Apr 03 05:33	18° \mathcal{B} 43'24	
	4458 Oct 04 04:36	0° \mathbb{M}			4461 Apr 12 13:37	0° \mathbb{II}	
asc. node	4458 Oct 17 10:35	14° \mathbb{M} 56'29			4461 May 07 22:51	0° \mathcal{C}	
	4458 Oct 30 10:12	0° Ω			4461 Jun 03 17:06	0° Ω	
	4458 Nov 24 13:13	0° \mathbb{M}		evening max el	4461 Jun 22 18:51	19° Ω 35'04	45°37'02
	4458 Dec 19 01:19	0° \mathcal{A}			4461 Jul 04 02:14	0° \mathbb{M}	
	4459 Jan 12 05:12	0° \mathcal{B}		desc. node	4461 Jul 23 20:15	14° \mathbb{M} 22'14	
	4459 Feb 05 04:47	0° \approx		greatest brilliancy	4461 Jul 31 00:03	17° \mathbb{M} 40'50	-4.7m
desc. node	4459 Feb 06 01:11	1° \approx 03'55		retrograde	4461 Aug 10 14:07	19° \mathbb{M} 42'05	
	4459 Mar 01 02:25	0° \mathcal{H}		evening set	4461 Aug 27 13:07	14° \mathbb{M} 16'58	
morning set	4459 Mar 03 10:15	2° \mathcal{H} 55'15		inferior conj	4461 Sep 01 03:22	11° \mathbb{M} 27'54	-7°35'20
	4459 Mar 24 23:52	0° \mathcal{Y}		minimum elong	4461 Aug 31 19:03	11° \mathbb{M} 40'58	7°34'11
				min. Earth dist.	4461 Sep 01 01:52	11° \mathbb{M} 30'16	0.29112 AU
superior conj	4459 Apr 13 03:51	24° \mathcal{Y} 00'27	-1°23'48	morning rise	4461 Sep 05 00:54	9° \mathbb{M} 03'13	
minimum elong	4459 Apr 13 09:44	24° \mathcal{Y} 18'50	1°23'44	direct	4461 Sep 22 18:11	3° \mathbb{M} 09'46	
max. Earth dist.	4459 Apr 16 23:55	28° \mathcal{Y} 48'14	1.71791 AU	greatest brilliancy	4461 Oct 03 05:59	5° \mathbb{M} 08'43	-4.8m
	4459 Apr 17 22:53	0° \mathcal{B}			4461 Nov 06 23:35	0° Ω	
	4459 May 12 00:56	0° \mathbb{II}		morning max el	4461 Nov 11 03:14	4° Ω 00'46	46°08'24

asc. node	4461 Nov 13 22:23	6° Ω 47'29		4464 Jun 14 09:56	0° Ω	
	4461 Dec 05 17:49	0° \mathbb{M}		4464 Jul 09 22:46	0° \mathbb{M}	
	4461 Dec 31 18:03	0° \mathbb{X}		4464 Aug 05 14:36	0° Ω	
	4462 Jan 25 16:19	0° \mathbb{Z}		desc. node	4464 Aug 20 08:00	15° Ω 37'42
	4462 Feb 19 02:38	0° \approx		evening max el	4464 Sep 01 22:52	28° Ω 10'53 45°40'48
desc. node	4462 Mar 05 12:59	17° \approx 52'04			4464 Sep 03 20:57	0° \mathbb{M}
	4462 Mar 15 07:24	0° \mathbb{X}		greatest brilliancy	4464 Oct 11 11:43	26° \mathbb{M} 24'22 -4.8m
	4462 Apr 08 10:04	0° \mathbb{Y}		retrograde	4464 Oct 20 18:15	27° \mathbb{M} 58'08
	4462 May 02 12:56	0° \mathbb{X}		evening set	4464 Nov 06 10:29	22° \mathbb{M} 41'08
morning set	4462 May 17 04:37	18° \mathbb{X} 11'22		inferior conj	4464 Nov 10 18:34	20° \mathbb{M} 04'30 -6°43'47
	4462 May 26 17:26	0° \mathbb{II}		minimum elong	4464 Nov 11 04:45	19° \mathbb{M} 48'49 6°41'46
	4462 Jun 20 00:07	0° \mathbb{E}		min. Earth dist.	4464 Nov 11 17:59	19° \mathbb{M} 28'28 0.27876 AU
				morning rise	4464 Nov 15 22:31	16° \mathbb{M} 58'35
superior conj	4462 Jun 24 03:50	5° \mathbb{E} 07'23 -0°05'58		direct	4464 Dec 01 21:58	12° \mathbb{M} 00'13
minimum elong	4462 Jun 24 05:08	5° \mathbb{E} 11'24 0°05'54		asc. node	4464 Dec 11 10:14	13° \mathbb{M} 43'13
behind sun begin	4462 Jun 23 07:17	4° \mathbb{E} 04'05		greatest brilliancy	4464 Dec 13 03:18	14° \mathbb{M} 21'32 -4.9m
behind sun end	4462 Jun 25 02:58	6° \mathbb{E} 18'42			4465 Jan 05 14:17	0° \mathbb{X}
max. Earth dist.	4462 Jun 25 23:58	7° \mathbb{E} 23'25 1.73182 AU		morning max el	4465 Jan 21 13:04	15° \mathbb{X} 07'10 46°51'27
asc. node	4462 Jun 26 15:16	8° \mathbb{E} 10'32			4465 Feb 04 15:07	0° \mathbb{Z}
	4462 Jul 14 08:37	0° Ω			4465 Mar 03 01:09	0° \approx
evening rise	4462 Jul 30 22:33	20° Ω 22'59			4465 Mar 28 07:21	0° \mathbb{X}
	4462 Aug 07 18:28	0° \mathbb{M}		desc. node	4465 Apr 02 00:51	5° \mathbb{X} 41'42
	4462 Sep 01 05:48	0° Ω			4465 Apr 22 01:56	0° \mathbb{Y}
	4462 Sep 25 19:35	0° \mathbb{M}			4465 May 16 15:46	0° \mathbb{X}
desc. node	4462 Oct 16 05:44	24° \mathbb{M} 47'35			4465 Jun 10 04:14	0° \mathbb{II}
	4462 Oct 20 13:05	0° \mathbb{X}			4465 Jul 04 16:27	0° \mathbb{E}
	4462 Nov 14 11:41	0° \mathbb{Z}		asc. node	4465 Jul 24 03:01	23° \mathbb{E} 49'03
	4462 Dec 09 18:27	0° \approx		morning set	4465 Jul 25 13:59	25° \mathbb{E} 36'15
	4463 Jan 04 18:46	0° \mathbb{X}			4465 Jul 29 04:00	0° Ω
evening max el	4463 Jan 28 20:21	25° \mathbb{X} 57'24 47°11'13			4465 Aug 22 13:57	0° \mathbb{M}
	4463 Feb 01 21:04	0° \mathbb{Y}		max. Earth dist.	4465 Aug 29 13:56	8° \mathbb{M} 37'06 1.73387 AU
asc. node	4463 Feb 06 07:55	4° \mathbb{Y} 19'24				
greatest brilliancy	4463 Mar 10 14:32	27° \mathbb{Y} 33'23 -4.9m		superior conj	4465 Aug 31 04:11	10° \mathbb{M} 34'57 1°14'45
retrograde	4463 Mar 20 16:48	29° \mathbb{Y} 30'25		minimum elong	4465 Aug 30 20:33	10° \mathbb{M} 11'25 1°14'33
evening set	4463 Apr 07 17:25	23° \mathbb{Y} 16'08			4465 Sep 15 22:01	0° Ω
inferior conj	4463 Apr 10 14:32	21° \mathbb{Y} 29'20 8°45'22		evening rise	4465 Oct 06 09:46	25° Ω 18'29
minimum elong	4463 Apr 10 19:20	21° \mathbb{Y} 21'51 8°45'01			4465 Oct 10 04:52	0° \mathbb{M}
min. Earth dist.	4463 Apr 10 06:54	21° \mathbb{Y} 41'14 0.27551 AU			4465 Nov 03 11:28	0° \mathbb{X}
morning rise	4463 Apr 13 21:23	19° \mathbb{Y} 28'02		desc. node	4465 Nov 12 17:42	11° \mathbb{X} 26'34
direct	4463 May 01 08:01	13° \mathbb{Y} 36'20			4465 Nov 27 18:22	0° \mathbb{Z}
greatest brilliancy	4463 May 10 18:14	15° \mathbb{Y} 15'24 -4.8m			4465 Dec 22 02:01	0° \approx
desc. node	4463 May 28 22:30	25° \mathbb{Y} 31'34			4466 Jan 15 11:58	0° \mathbb{X}
	4463 Jun 03 15:05	0° \mathbb{X}			4466 Feb 09 04:40	0° \mathbb{Y}
morning max el	4463 Jun 19 17:54	14° \mathbb{X} 33'55 46°05'23		asc. node	4466 Mar 05 19:39	29° \mathbb{Y} 07'09
	4463 Jul 04 23:29	0° \mathbb{II}			4466 Mar 06 13:56	0° \mathbb{X}
	4463 Aug 01 10:41	0° \mathbb{E}			4466 Apr 02 14:46	0° \mathbb{II}
	4463 Aug 27 13:49	0° Ω		evening max el	4466 Apr 10 19:16	8° \mathbb{II} 24'09 46°30'55
asc. node	4463 Sep 19 00:43	26° Ω 31'12			4466 May 05 09:16	0° \mathbb{E}
	4463 Sep 21 22:33	0° \mathbb{M}		greatest brilliancy	4466 May 19 18:09	8° \mathbb{E} 07'55 -4.8m
	4463 Oct 16 18:00	0° Ω		retrograde	4466 May 30 17:53	10° \mathbb{E} 20'58
	4463 Nov 10 03:42	0° \mathbb{M}		evening set	4466 Jun 14 20:42	5° \mathbb{E} 51'02
	4463 Dec 04 06:57	0° \mathbb{X}		inferior conj	4466 Jun 21 00:40	2° \mathbb{E} 07'59 1°03'48
morning set	4463 Dec 14 17:23	13° \mathbb{X} 02'09		minimum elong	4466 Jun 21 03:01	2° \mathbb{E} 04'16 1°03'05
	4463 Dec 28 06:25	0° \mathbb{Z}		min. Earth dist.	4466 Jun 20 18:22	2° \mathbb{E} 17'50 0.28471 AU
desc. node	4464 Jan 08 15:21	14° \mathbb{Z} 16'10			4466 Jun 24 11:40	30° \mathbb{R} \mathbb{II}
	4464 Jan 21 03:49	0° \approx		desc. node	4466 Jun 25 10:17	29° \mathbb{II} 26'31
max. Earth dist.	4464 Jan 23 03:20	2° \approx 29'23 1.71181 AU		morning rise	4466 Jun 27 09:58	28° \mathbb{II} 19'13
				direct	4466 Jul 12 08:59	24° \mathbb{II} 00'02
superior conj	4464 Jan 24 03:31	3° \approx 45'28 -0°36'20		greatest brilliancy	4466 Jul 22 07:13	25° \mathbb{II} 47'33 -4.7m
minimum elong	4464 Jan 23 18:38	3° \approx 17'32 0°35'55			4466 Jul 31 08:06	0° \mathbb{E}
	4464 Feb 14 00:15	0° \mathbb{X}		morning max el	4466 Aug 30 02:08	23° \mathbb{E} 42'56 45°42'01
evening rise	4464 Mar 05 04:04	25° \mathbb{X} 20'31			4466 Sep 05 12:56	0° Ω
	4464 Mar 08 21:09	0° \mathbb{Y}			4466 Oct 03 19:21	0° \mathbb{M}
	4464 Apr 01 20:32	0° \mathbb{X}		asc. node	4466 Oct 16 12:39	14° \mathbb{M} 23'26
	4464 Apr 26 00:48	0° \mathbb{II}			4466 Oct 29 22:58	0° Ω
asc. node	4464 Apr 30 17:33	5° \mathbb{II} 47'27			4466 Nov 24 01:05	0° \mathbb{M}
	4464 May 20 12:19	0° \mathbb{E}			4466 Dec 18 12:44	0° \mathbb{X}

	4467 Jan 11 16:21	0°☾		desc. node	4469 Jul 22 22:15	12°☾58'54	
	4467 Feb 04 15:46	0°☾		greatest brilliancy	4469 Jul 28 15:22	15°☾31'47	-4.7m
desc. node	4467 Feb 05 03:05	0°☾35'30		retrograde	4469 Aug 08 06:25	17°☾34'27	
morning set	4467 Feb 28 20:03	0°☾21'15		evening set	4469 Aug 25 02:24	12°☾13'21	
	4467 Feb 28 13:17	0°☾		inferior conj	4469 Aug 29 19:52	9°☾19'52	-7°25'39
	4467 Mar 24 10:40	0°☾		minimum elong	4469 Aug 29 11:09	9°☾33'31	7°24'23
				min. Earth dist.	4469 Aug 29 17:42	9°☾23'16	0.29115 AU
superior conj	4467 Apr 10 15:48	21°☾34'07	-1°24'45	morning rise	4469 Sep 02 19:49	6°☾51'40	
minimum elong	4467 Apr 10 20:48	21°☾49'45	1°24'42	direct	4469 Sep 20 10:06	1°☾01'38	
max. Earth dist.	4467 Apr 14 12:58	26°☾25'28	1.71738 AU	greatest brilliancy	4469 Sep 30 22:18	3°☾00'39	-4.7m
	4467 Apr 17 09:37	0°☾			4469 Nov 06 22:21	0°☾	
	4467 May 11 11:37	0°☾		morning max el	4469 Nov 08 18:21	1°☾47'07	46°06'54
evening rise	4467 May 20 08:39	11°☾00'30		asc. node	4469 Nov 13 00:29	6°☾01'34	
asc. node	4467 May 29 05:29	21°☾58'29			4469 Dec 05 09:34	0°☾	
	4467 Jun 04 17:38	0°☾			4469 Dec 31 07:31	0°☾	
	4467 Jun 29 04:12	0°☾			4470 Jan 25 04:44	0°☾	
	4467 Jul 23 20:07	0°☾			4470 Feb 18 14:29	0°☾	
	4467 Aug 17 19:22	0°☾		desc. node	4470 Mar 04 15:01	17°☾22'21	
	4467 Sep 12 05:42	0°☾			4470 Mar 14 18:52	0°☾	
desc. node	4467 Sep 17 19:48	6°☾29'39			4470 Apr 07 21:15	0°☾	
	4467 Oct 08 10:03	0°☾			4470 May 01 23:52	0°☾	
	4467 Nov 05 01:56	0°☾		morning set	4470 May 14 19:04	15°☾53'44	
evening max el	4467 Nov 14 19:01	9°☾48'47	46°36'13		4470 May 26 04:12	0°☾	
	4467 Dec 07 16:55	0°☾			4470 Jun 19 10:46	0°☾	
greatest brilliancy	4467 Dec 24 22:14	9°☾51'38	-4.9m				
retrograde	4468 Jan 03 18:37	11°☾40'33		superior conj	4470 Jun 21 20:10	2°☾56'57	-0°09'19
asc. node	4468 Jan 08 22:03	11°☾08'19		minimum elong	4470 Jun 21 22:12	3°☾03'16	0°09'13
evening set	4468 Jan 18 06:08	7°☾32'27		behind sun begin	4470 Jun 21 02:55	2°☾03'48	
inferior conj	4468 Jan 24 07:56	3°☾58'44	3°53'27	behind sun end	4470 Jun 22 17:29	4°☾02'43	
minimum elong	4468 Jan 23 23:41	4°☾11'21	3°51'01	max. Earth dist.	4470 Jun 23 17:20	5°☾16'14	1.73148 AU
min. Earth dist.	4468 Jan 24 01:31	4°☾08'33	0.26604 AU	asc. node	4470 Jun 25 17:11	7°☾43'40	
morning rise	4468 Jan 29 17:15	0°☾47'35			4470 Jul 13 19:16	0°☾	
	4468 Jan 31 04:58	30°☾		evening rise	4470 Jul 28 16:51	18°☾19'03	
direct	4468 Feb 13 19:34	26°☾18'33			4470 Aug 07 05:11	0°☾	
greatest brilliancy	4468 Feb 23 14:50	28°☾07'44	-4.9m		4470 Aug 31 16:41	0°☾	
	4468 Feb 28 00:55	0°☾			4470 Sep 25 06:48	0°☾	
morning max el	4468 Apr 04 03:40	29°☾00'01	46°50'33	desc. node	4470 Oct 15 07:54	24°☾18'48	
	4468 Apr 05 03:32	0°☾			4470 Oct 20 00:52	0°☾	
desc. node	4468 Apr 29 12:50	26°☾01'50			4470 Nov 14 00:23	0°☾	
	4468 May 03 02:03	0°☾			4470 Dec 09 08:35	0°☾	
	4468 May 29 05:28	0°☾			4471 Jan 04 11:41	0°☾	
	4468 Jun 23 16:23	0°☾		evening max el	4471 Jan 26 10:11	23°☾33'29	47°11'16
	4468 Jul 18 19:12	0°☾			4471 Feb 01 21:46	0°☾	
	4468 Aug 12 16:15	0°☾		asc. node	4471 Feb 05 09:53	3°☾20'33	
asc. node	4468 Aug 20 14:51	9°☾38'07		greatest brilliancy	4471 Mar 08 04:23	25°☾09'33	-4.9m
	4468 Sep 06 07:40	0°☾		retrograde	4471 Mar 18 07:13	27°☾07'15	
	4468 Sep 30 17:37	0°☾		evening set	4471 Apr 05 08:37	20°☾50'42	
morning set	4468 Oct 01 17:54	1°☾14'58		inferior conj	4471 Apr 08 04:11	19°☾06'29	8°50'23
	4468 Oct 24 23:07	0°☾		minimum elong	4471 Apr 08 08:10	19°☾00'18	8°50'09
max. Earth dist.	4468 Nov 04 17:45	13°☾23'55	1.72326 AU	min. Earth dist.	4471 Apr 07 19:47	19°☾19'33	0.27516 AU
				morning rise	4471 Apr 11 07:50	17°☾10'16	
superior conj	4468 Nov 07 17:57	17°☾08'34	1°07'43	direct	4471 Apr 28 21:13	11°☾13'57	
minimum elong	4468 Nov 08 03:32	17°☾38'25	1°07'25	greatest brilliancy	4471 May 08 06:42	12°☾52'49	-4.8m
	4468 Nov 18 01:40	0°☾		desc. node	4471 May 28 00:29	24°☾19'42	
desc. node	4468 Dec 10 05:37	27°☾39'54			4471 Jun 03 23:28	0°☾	
	4468 Dec 12 02:28	0°☾		morning max el	4471 Jun 17 08:52	12°☾17'52	46°06'57
evening rise	4468 Dec 16 18:22	5°☾49'32			4471 Jul 04 17:38	0°☾	
	4469 Jan 05 02:16	0°☾			4471 Aug 01 01:02	0°☾	
	4469 Jan 29 01:54	0°☾			4471 Aug 27 02:28	0°☾	
	4469 Feb 22 03:12	0°☾		asc. node	4471 Sep 18 02:45	26°☾02'01	
	4469 Mar 18 09:34	0°☾			4471 Sep 21 10:18	0°☾	
asc. node	4469 Apr 02 07:40	18°☾12'53			4471 Oct 16 05:14	0°☾	
	4469 Apr 12 02:05	0°☾			4471 Nov 09 14:40	0°☾	
	4469 May 07 12:40	0°☾			4471 Dec 03 17:49	0°☾	
	4469 Jun 03 10:03	0°☾		morning set	4471 Dec 12 07:09	10°☾41'09	
evening max el	4469 Jun 20 09:32	17°☾21'36	45°38'14		4471 Dec 27 17:18	0°☾	
	4469 Jul 04 07:01	0°☾		desc. node	4472 Jan 07 17:18	13°☾48'07	

max. Earth dist.	4472 Jan 20 14:07	29°  58'03	1.71203 AU	desc. node	4474 Jun 24 12:15	26°  24'14	
	4472 Jan 20 14:44	0° 		morning rise	4474 Jun 25 01:39	26°  05'51	
				direct	4474 Jul 10 00:25	21°  47'39	
superior conj	4472 Jan 21 14:16	1°  13'59 -0°32'42		greatest brilliancy	4474 Jul 19 21:58	23°  34'23	-4.7m
minimum elong	4472 Jan 21 06:10	0°  48'29 0°32'19			4474 Aug 01 14:08	0° 	
	4472 Feb 13 11:14	0° 		morning max el	4474 Aug 27 16:46	21°  29'16	45°41'57
evening rise	4472 Mar 02 14:32	22°  48'02			4474 Sep 05 08:59	0° 	
	4472 Mar 08 08:12	0° 			4474 Oct 03 10:20	0° 	
	4472 Apr 01 07:42	0° 		asc. node	4474 Oct 15 14:44	13°  49'27	
	4472 Apr 25 12:08	0° 			4474 Oct 29 12:02	0° 	
asc. node	4472 Apr 29 19:36	5°  18'45			4474 Nov 23 13:15	0° 	
	4472 May 19 23:59	0° 			4474 Dec 18 00:26	0° 	
	4472 Jun 13 22:13	0° 			4475 Jan 11 03:46	0° 	
	4472 Jul 09 12:16	0° 		desc. node	4475 Feb 04 05:11	0°  06'48	
	4472 Aug 05 06:48	0° 			4475 Feb 04 03:01	0° 	
desc. node	4472 Aug 19 10:01	14°  25'42		morning set	4475 Feb 26 06:17	27°  47'40	
evening max el	4472 Aug 30 14:24	25°  58'44 45°39'40			4475 Feb 28 00:25	0° 	
	4472 Sep 03 21:20	0° 			4475 Mar 23 21:43	0° 	
greatest brilliancy	4472 Oct 09 00:56	24°  07'24 -4.8m					
retrograde	4472 Oct 18 08:26	25°  41'25		superior conj	4475 Apr 08 04:01	19°  07'45 -1°25'30	
evening set	4472 Nov 04 03:50	20°  19'53		minimum elong	4475 Apr 08 08:07	19°  20'33 1°25'29	
inferior conj	4472 Nov 08 09:01	17°  47'00 -6°57'02		max. Earth dist.	4475 Apr 12 00:50	23°  05'58'06 1.71690 AU	
minimum elong	4472 Nov 08 19:02	17°  31'33 6°55'10			4475 Apr 16 20:37	0° 	
min. Earth dist.	4472 Nov 09 07:59	17°  11'34 0.27940 AU			4475 May 10 22:37	0° 	
morning rise	4472 Nov 13 09:48	14°  45'19		evening rise	4475 May 17 22:45	8°  41'20	
direct	4472 Nov 29 13:33	9°  42'04		asc. node	4475 May 28 07:23	21°  30'18	
greatest brilliancy	4472 Dec 10 17:37	12°  02'05 -4.9m			4475 Jun 04 04:42	0° 	
asc. node	4472 Dec 10 12:07	11°  56'40			4475 Jun 28 15:27	0° 	
	4473 Jan 05 20:32	0° 			4475 Jul 23 07:44	0° 	
morning max el	4473 Jan 19 04:06	12°  47'36 46°50'19			4475 Aug 17 07:38	0° 	
	4473 Feb 04 09:10	0° 			4475 Sep 11 19:06	0° 	
	4473 Mar 02 15:50	0° 		desc. node	4475 Sep 16 21:56	5°  56'03	
	4473 Mar 27 20:32	0° 			4475 Oct 08 01:38	0° 	
desc. node	4473 Apr 01 02:59	5°  08'56			4475 Nov 04 22:39	0° 	
	4473 Apr 21 14:15	0° 		evening max el	4475 Nov 12 07:30	7°  23'18 46°34'04	
	4473 May 16 03:32	0° 			4475 Dec 08 15:37	0° 	
	4473 Jun 09 15:36	0° 		greatest brilliancy	4475 Dec 22 12:00	7°  24'38 -4.9m	
	4473 Jul 04 03:31	0° 		retrograde	4476 Jan 01 06:22	9°  12'05	
morning set	4473 Jul 23 07:24	23°  29'08		asc. node	4476 Jan 08 00:05	8°  16'45	
asc. node	4473 Jul 23 05:01	23°  21'50		evening set	4476 Jan 15 16:59	5°  06'03	
	4473 Jul 28 14:52	0° 		inferior conj	4476 Jan 21 20:19	1°  30'46 3°30'57	
	4473 Aug 22 00:43	0° 		minimum elong	4476 Jan 21 12:43	1°  42'23 3°28'40	
max. Earth dist.	4473 Aug 27 10:22	6°  39'01 1.73402 AU		min. Earth dist.	4476 Jan 21 15:35	1°  37'59 0.26601 AU	
					4476 Jan 24 08:04	30° 	
superior conj	4473 Aug 28 22:12	8°  29'21 1°13'09		morning rise	4476 Jan 27 08:20	28°  15'47	
minimum elong	4473 Aug 28 14:14	8°  04'50 1°12'58		direct	4476 Feb 11 07:26	23°  35'00'08	
	4473 Sep 15 08:50	0° 		greatest brilliancy	4476 Feb 21 05:34	25°  41'34 -4.9m	
evening rise	4473 Oct 04 02:45	23°  28'54			4476 Mar 01 02:28	0° 	
	4473 Oct 09 15:50	0° 		morning max el	4476 Apr 01 16:04	26°  32'35 46°51'47	
	4473 Nov 02 22:39	0° 			4476 Apr 05 01:55	0° 	
desc. node	4473 Nov 11 19:43	10°  47'56		desc. node	4476 Apr 28 14:50	25°  42'39	
	4473 Nov 27 05:50	0° 			4476 May 02 18:17	0° 	
	4473 Dec 21 13:52	0° 			4476 May 28 19:18	0° 	
	4474 Jan 15 00:23	0° 			4476 Jun 23 04:57	0° 	
	4474 Feb 08 18:02	0° 			4476 Jul 18 07:02	0° 	
asc. node	4474 Mar 04 21:45	28°  09'38			4476 Aug 12 03:37	0° 	
	4474 Mar 06 05:06	0° 		asc. node	4476 Aug 19 16:57	9°  10'16	
	4474 Apr 02 10:29	0° 			4476 Sep 05 18:46	0° 	
evening max el	4474 Apr 08 10:46	6°  08'03 46°32'47		morning set	4476 Sep 29 10:49	29°  05'11	
	4474 May 06 07:01	0° 			4476 Sep 30 04:35	0° 	
greatest brilliancy	4474 May 17 11:21	5°  55'49 -4.8m			4476 Oct 24 10:04	0° 	
retrograde	4474 May 28 09:38	8°  07'21		max. Earth dist.	4476 Nov 02 10:48	11°  13'31 1.72375 AU	
evening set	4474 Jun 12 13:50	3°  36'10					
inferior conj	4474 Jun 18 16:19	29°  54'55 1°24'30		superior conj	4476 Nov 05 09:19	14°  52'53 1°09'45	
minimum elong	4474 Jun 18 19:26	29°  50'01 1°23'33		minimum elong	4476 Nov 05 18:38	15°  21'53 1°09'30	
min. Earth dist.	4474 Jun 18 10:27	0° 	0.28438 AU		4476 Nov 17 12:40	0° 	
	4474 Jun 18 13:04	30° 		desc. node	4476 Dec 09 07:31	27°  47'11'06	

	4476 Dec 11 13:37	0° Z		desc. node	4479 May 27 02:26	23° Y 09'28	
evening rise	4476 Dec 14 07:06	3° Z 24'31			4479 Jun 04 05:38	0° X	
	4477 Jan 04 13:35	0° \approx		morning max el	4479 Jun 15 00:08	10° X 02'10	46°08'32
	4477 Jan 28 13:25	0° X			4479 Jul 04 11:29	0° II	
	4477 Feb 21 14:57	0° Y			4479 Jul 31 15:19	0° G	
	4477 Mar 17 21:41	0° X			4479 Aug 26 15:07	0° Q	
asc. node	4477 Apr 01 09:42	17° X 41'11		asc. node	4479 Sep 17 04:49	25° Q 32'41	
	4477 Apr 11 14:53	0° II			4479 Sep 20 22:06	0° M	
	4477 May 07 02:52	0° G			4479 Oct 15 16:35	0° L	
	4477 Jun 03 03:39	0° Q			4479 Nov 09 01:48	0° M	
evening max el	4477 Jun 18 00:47	15° Q 08'40	45°39'21		4479 Dec 03 04:54	0° X	
	4477 Jul 04 14:28	0° M		morning set	4479 Dec 09 20:43	8° X 18'59	
desc. node	4477 Jul 22 00:17	11° M 31'42			4479 Dec 27 04:22	0° Z	
greatest brilliancy	4477 Jul 26 05:55	13° M 20'36	-4.7m	desc. node	4480 Jan 06 19:25	13° Z 20'04	
retrograde	4477 Aug 05 22:59	15° M 25'17		max. Earth dist.	4480 Jan 17 22:29	27° Z 18'44	1.71219 AU
evening set	4477 Aug 22 15:30	10° M 08'07					
inferior conj	4477 Aug 27 12:11	7° M 10'10	-7°15'15	superior conj	4480 Jan 19 00:49	28° Z 41'28	-0°28'59
minimum elong	4477 Aug 27 03:08	7° M 24'20	7°13'51	minimum elong	4480 Jan 18 17:33	28° Z 18'37	0°28'38
min. Earth dist.	4477 Aug 27 09:09	7° M 14'55	0.29120 AU		4480 Jan 20 01:48	0° \approx	
morning rise	4477 Aug 31 14:41	4° M 38'23			4480 Feb 12 22:19	0° X	
	4477 Sep 10 12:50	30° R Q		evening rise	4480 Feb 29 00:49	20° X 14'42	
direct	4477 Sep 18 02:14	28° Q 51'47			4480 Mar 07 19:19	0° Y	
	4477 Sep 25 23:01	0° M			4480 Mar 31 18:55	0° X	
greatest brilliancy	4477 Sep 28 14:17	0° M 50'46	-4.7m		4480 Apr 24 23:33	0° II	
morning max el	4477 Nov 06 10:20	29° M 34'29	46°05'29	asc. node	4480 Apr 28 21:32	4° II 49'27	
	4477 Nov 06 20:44	0° L			4480 May 19 11:43	0° G	
asc. node	4477 Nov 12 02:23	5° L 14'33			4480 Jun 13 10:34	0° Q	
	4477 Dec 05 01:28	0° M			4480 Jul 09 01:52	0° M	
	4477 Dec 30 21:12	0° X			4480 Aug 04 23:14	0° L	
	4478 Jan 24 17:23	0° Z		desc. node	4480 Aug 18 12:09	14° L 10'12	
desc. node	4478 Feb 18 02:33	0° \approx		evening max el	4480 Aug 28 05:27	23° L 45'32	45°38'27
	4478 Mar 03 17:05	16° \approx 52'03			4480 Sep 03 22:54	0° M	
	4478 Mar 14 06:34	0° X		greatest brilliancy	4480 Oct 06 14:32	21° M 51'04	-4.8m
	4478 Apr 07 08:39	0° Y		retrograde	4480 Oct 15 21:57	23° M 24'49	
	4478 May 01 11:02	0° X		evening set	4480 Nov 01 21:06	17° M 58'54	
morning set	4478 May 12 09:39	13° X 35'39		inferior conj	4480 Nov 05 23:30	15° M 29'42	-7°09'26
	4478 May 25 15:10	0° II		minimum elong	4480 Nov 06 09:15	15° M 14'38	7°07'43
	4478 Jun 18 21:38	0° G		min. Earth dist.	4480 Nov 06 22:16	14° M 54'29	0.28010 AU
				morning rise	4480 Nov 10 20:59	12° M 32'14	
superior conj	4478 Jun 19 12:38	0° G 46'15	-0°12'38	direct	4480 Nov 27 04:54	7° M 23'56	
minimum elong	4478 Jun 19 15:25	0° G 54'50	0°12'31	greatest brilliancy	4480 Dec 08 08:29	9° M 43'04	-4.8m
behind sun begin	4478 Jun 19 00:42	0° G 09'28		asc. node	4480 Dec 09 14:12	10° M 13'55	
behind sun end	4478 Jun 20 06:07	1° G 40'12			4481 Jan 06 00:59	0° X	
max. Earth dist.	4478 Jun 21 12:28	3° G 13'46	1.73114 AU	morning max el	4481 Jan 16 18:16	10° X 25'22	46°49'08
asc. node	4478 Jun 24 19:14	7° G 16'34			4481 Feb 04 02:57	0° Z	
	4478 Jul 13 06:07	0° Q			4481 Mar 02 06:27	0° \approx	
evening rise	4478 Jul 26 11:19	16° Q 15'00			4481 Mar 27 09:37	0° X	
	4478 Aug 06 16:07	0° M		desc. node	4481 Mar 31 04:59	4° X 35'56	
	4478 Aug 31 03:51	0° L			4481 Apr 21 02:27	0° Y	
	4478 Sep 24 18:22	0° M			4481 May 15 15:10	0° X	
desc. node	4478 Oct 14 09:49	23° M 48'13			4481 Jun 09 02:50	0° II	
	4478 Oct 19 13:02	0° X			4481 Jul 03 14:28	0° G	
	4478 Nov 13 13:28	0° Z		morning set	4481 Jul 21 01:01	21° G 22'56	
	4478 Dec 08 23:09	0° \approx		asc. node	4481 Jul 22 07:08	22° G 55'18	
	4479 Jan 04 05:11	0° X			4481 Jul 28 01:36	0° Q	
evening max el	4479 Jan 24 00:57	21° X 11'28	47°11'24		4481 Aug 21 11:21	0° M	
	4479 Feb 02 00:00	0° Y		max. Earth dist.	4481 Aug 25 05:35	4° M 37'41	1.73414 AU
asc. node	4479 Feb 04 11:59	2° Y 20'12					
greatest brilliancy	4479 Mar 05 17:58	22° Y 45'02	-4.9m	superior conj	4481 Aug 26 16:33	6° M 25'20	1°11'29
retrograde	4479 Mar 15 21:58	24° Y 43'30		minimum elong	4481 Aug 26 08:19	5° M 59'58	1°11'16
evening set	4479 Apr 02 23:30	18° Y 25'22			4481 Sep 14 19:30	0° L	
inferior conj	4479 Apr 05 17:50	16° Y 43'04	8°54'35	evening rise	4481 Oct 01 20:08	21° L 01'07	
minimum elong	4479 Apr 05 20:57	16° Y 38'14	8°54'27		4481 Oct 09 02:39	0° M	
min. Earth dist.	4479 Apr 05 08:25	16° Y 57'43	0.27478 AU		4481 Nov 02 09:43	0° X	
morning rise	4479 Apr 08 18:33	14° Y 51'29		desc. node	4481 Nov 10 21:43	10° X 29'37	
direct	4479 Apr 26 10:51	8° Y 51'13			4481 Nov 26 17:14	0° Z	
greatest brilliancy	4479 May 05 18:45	10° Y 29'15	-4.8m		4481 Dec 21 01:43	0° \approx	

	4482 Jan 14 12:52	0° H		4484 Jun 22 17:11	0° II	
	4482 Feb 08 07:29	0° Y		4484 Jul 17 18:30	0° G	
asc. node	4482 Mar 03 23:45	27° Y 51'42		4484 Aug 11 14:37	0° Q	
	4482 Mar 05 20:27	0° B	asc. node	4484 Aug 18 18:56	8° Q 43'09	
	4482 Apr 02 06:41	0° II		4484 Sep 05 05:30	0° P	
evening max el	4482 Apr 06 01:16	3° II 49'41 46°34'52	morning set	4484 Sep 27 04:01	26° P 57'25	
	4482 May 07 12:43	0° G		4484 Sep 29 15:12	0° A	
greatest brilliancy	4482 May 15 04:54	3° G 44'38 -4.8m		4484 Oct 23 20:39	0° M	
retrograde	4482 May 26 01:09	5° G 54'37	max. Earth dist.	4484 Oct 31 04:42	9° M 06'57 1.72418 AU	
evening set	4482 Jun 10 07:11	1° G 21'46				
	4482 Jun 12 15:28	30° R II	superior conj	4484 Nov 03 01:10	12° M 39'50 1°11'40	
inferior conj	4482 Jun 16 08:05	27° II 42'44 1°45'03	minimum elong	4484 Nov 03 10:10	13° M 07'51 1°11'26	
minimum elong	4482 Jun 16 11:56	27° II 36'41 1°43'53		4484 Nov 16 23:19	0° A	
min. Earth dist.	4482 Jun 16 02:54	27° II 50'52 0.28404 AU	desc. node	4484 Dec 08 09:40	26° A 44'16	
morning rise	4482 Jun 22 17:13	23° II 53'33		4484 Dec 11 00:22	0° Z	
desc. node	4482 Jun 23 14:24	23° II 25'24	evening rise	4484 Dec 11 20:25	1° Z 02'36	
direct	4482 Jul 07 15:24	19° II 35'58		4485 Jan 04 00:30	0° \approx	
greatest brilliancy	4482 Jul 17 13:19	21° II 22'36 -4.7m		4485 Jan 28 00:32	0° H	
	4482 Aug 02 11:28	0° G		4485 Feb 21 02:22	0° Y	
morning max el	4482 Aug 25 07:19	19° G 16'07 45°42'05		4485 Mar 17 09:31	0° B	
	4482 Sep 05 04:08	0° Q	asc. node	4485 Mar 31 11:37	17° B 09'55	
	4482 Oct 03 00:50	0° P		4485 Apr 11 03:28	0° II	
asc. node	4482 Oct 14 16:37	13° P 16'02		4485 May 06 16:58	0° G	
	4482 Oct 29 00:43	0° A		4485 Jun 02 21:24	0° Q	
	4482 Nov 23 01:05	0° M	evening max el	4485 Jun 15 16:56	12° Q 58'47 45°40'41	
	4482 Dec 17 11:50	0° A		4485 Jul 05 00:14	0° P	
	4483 Jan 10 14:57	0° Z	desc. node	4485 Jul 21 02:21	10° P 02'38	
desc. node	4483 Feb 03 07:15	29° Z 38'38	greatest brilliancy	4485 Jul 23 20:22	11° P 10'24 -4.7m	
	4483 Feb 03 14:04	0° \approx	retrograde	4485 Aug 03 15:52	13° P 17'09	
morning set	4483 Feb 23 16:01	25° \approx 12'55	evening set	4485 Aug 20 04:46	8° P 03'59	
	4483 Feb 27 11:24	0° H	inferior conj	4485 Aug 25 04:31	5° P 01'34 -7°04'23	
	4483 Mar 23 08:38	0° Y	minimum elong	4485 Aug 24 19:12	5° P 16'09 7°02'50	
			min. Earth dist.	4485 Aug 25 00:21	5° P 08'05 0.29119 AU	
superior conj	4483 Apr 05 15:42	16° Y 40'05 -1°26'08	morning rise	4485 Aug 29 09:37	2° P 26'11	
minimum elong	4483 Apr 05 18:49	16° Y 49'51 1°26'06		4485 Sep 02 20:49	30° R Q	
max. Earth dist.	4483 Apr 09 08:40	21° Y 18'32 1.71639 AU	direct	4485 Sep 15 18:52	26° Q 43'17	
	4483 Apr 16 07:27	0° B	greatest brilliancy	4485 Sep 26 05:39	28° Q 41'31 -4.7m	
	4483 May 10 09:24	0° II		4485 Sep 29 11:03	0° P	
evening rise	4483 May 15 12:21	6° II 21'18	morning max el	4485 Nov 04 02:55	27° P 24'46 46°04'03	
asc. node	4483 May 27 09:27	21° II 03'18		4485 Nov 06 17:47	0° A	
	4483 Jun 03 15:31	0° G	asc. node	4485 Nov 11 04:28	4° A 29'58	
	4483 Jun 28 02:27	0° Q		4485 Dec 04 16:41	0° M	
	4483 Jul 22 19:06	0° P		4485 Dec 30 10:21	0° A	
	4483 Aug 16 19:38	0° A		4486 Jan 24 05:33	0° Z	
	4483 Sep 11 08:15	0° M		4486 Feb 17 14:09	0° \approx	
desc. node	4483 Sep 15 23:54	5° M 22'49	desc. node	4486 Mar 02 19:04	16° \approx 22'54	
	4483 Oct 07 17:01	0° A		4486 Mar 13 17:49	0° H	
	4483 Nov 04 19:32	0° Z		4486 Apr 06 19:38	0° Y	
evening max el	4483 Nov 09 20:05	4° Z 59'46 46°32'01		4486 Apr 30 21:49	0° B	
	4483 Dec 09 21:46	0° \approx	morning set	4486 May 10 00:02	11° B 17'58	
greatest brilliancy	4483 Dec 20 01:15	4° \approx 58'48 -4.9m		4486 May 25 01:50	0° II	
retrograde	4483 Dec 29 18:35	6° \approx 45'39				
asc. node	4484 Jan 07 02:09	5° \approx 21'20	superior conj	4486 Jun 17 04:43	28° II 35'08 -0°15'59	
evening set	4484 Jan 13 04:13	2° \approx 40'53	minimum elong	4486 Jun 17 08:14	28° II 45'59 0°15'49	
	4484 Jan 17 20:17	30° R Z	behind sun begin	4486 Jun 17 05:17	28° II 36'53	
inferior conj	4484 Jan 19 08:50	29° Z 04'24 3°08'10	behind sun end	4486 Jun 17 11:11	28° II 55'06	
minimum elong	4484 Jan 19 01:57	29° Z 14'55 3°06'03		4486 Jun 18 08:13	0° G	
min. Earth dist.	4484 Jan 19 05:35	29° Z 09'21 0.26609 AU	max. Earth dist.	4486 Jun 19 08:09	1° G 13'50 1.73080 AU	
morning rise	4484 Jan 24 23:28	25° Z 46'00	asc. node	4486 Jun 23 21:21	6° G 50'33	
direct	4484 Feb 08 19:45	21° Z 23'05		4486 Jul 12 16:40	0° Q	
greatest brilliancy	4484 Feb 18 20:24	23° Z 16'52 -4.9m	evening rise	4486 Jul 24 05:26	14° Q 10'46	
	4484 Mar 02 11:01	0° \approx		4486 Aug 06 02:44	0° P	
morning max el	4484 Mar 30 05:40	24° \approx 08'52 46°52'46		4486 Aug 30 14:41	0° A	
	4484 Apr 04 23:13	0° H		4486 Sep 24 05:35	0° M	
desc. node	4484 Apr 27 16:47	24° H 40'21	desc. node	4486 Oct 13 11:50	23° M 18'58	
	4484 May 02 10:03	0° Y		4486 Oct 19 00:54	0° A	
	4484 May 28 08:47	0° B		4486 Nov 13 02:16	0° Z	




























































































































	4486 Dec 08 13:30	0°♊		asc. node	4489 Jul 21 09:05	22°♊28'36	
	4487 Jan 03 22:36	0°♋			4489 Jul 27 12:13	0°♌	
evening max el	4487 Jan 21 16:30	18°♋52'42	47°11'26		4489 Aug 20 21:56	0°♍	
	4487 Feb 02 03:10	0°♎		max. Earth dist.	4489 Aug 22 23:50	2°♍33'31	1.73431 AU
asc. node	4487 Feb 03 13:59	1°♎19'36					
greatest brilliancy	4487 Mar 03 07:45	20°♎22'19	-4.9m	superior conj	4489 Aug 24 10:53	4°♍21'23	1°09'43
retrograde	4487 Mar 13 12:35	22°♎21'05		minimum elong	4489 Aug 24 02:24	3°♍55'17	1°09'28
evening set	4487 Mar 31 14:06	16°♎02'17			4489 Sep 14 06:09	0°♎	
inferior conj	4487 Apr 03 07:36	14°♎21'12	8°57'51	evening rise	4489 Sep 29 13:26	18°♎53'13	
minimum elong	4487 Apr 03 09:51	14°♎17'43	8°57'46		4489 Oct 08 13:27	0°♏	
min. Earth dist.	4487 Apr 02 21:09	14°♎37'27	0.27440 AU		4489 Nov 01 20:45	0°♐	
morning rise	4487 Apr 06 05:45	12°♎33'30		desc. node	4489 Nov 09 23:48	10°♐01'42	
direct	4487 Apr 24 00:50	6°♎30'13			4489 Nov 26 04:36	0°♑	
greatest brilliancy	4487 May 03 06:48	8°♎06'57	-4.8m		4489 Dec 20 13:33	0°♒	
desc. node	4487 May 26 04:36	22°♎02'52			4490 Jan 14 01:21	0°♓	
	4487 Jun 04 09:20	0°♈			4490 Feb 07 21:02	0°♈	
morning max el	4487 Jun 12 14:53	7°♈46'11	46°09'54	asc. node	4490 Mar 03 01:43	27°♈13'19	
	4487 Jul 04 04:36	0°♉			4490 Mar 05 12:00	0°♉	
	4487 Jul 31 05:11	0°♊			4490 Apr 02 03:36	0°♊	
	4487 Aug 26 03:28	0°♋		evening max el	4490 Apr 03 15:09	1°♊29'34	46°36'56
asc. node	4487 Sep 16 06:46	25°♋03'50			4490 May 09 08:31	0°♋	
	4487 Sep 20 09:36	0°♌		greatest brilliancy	4490 May 12 22:09	1°♋32'47	-4.8m
	4487 Oct 15 03:38	0°♍		retrograde	4490 May 23 16:40	3°♋41'47	
	4487 Nov 08 12:38	0°♎			4490 Jun 06 08:52	30°♌♊	
	4487 Dec 02 15:40	0°♏		evening set	4490 Jun 08 00:33	29°♊06'43	
morning set	4487 Dec 07 10:24	5°♏58'13		inferior conj	4490 Jun 13 23:47	25°♊30'21	2°05'31
	4487 Dec 26 15:09	0°♑		minimum elong	4490 Jun 14 04:21	25°♊23'11	2°04'10
desc. node	4488 Jan 05 21:27	12°♑52'38		min. Earth dist.	4490 Jun 13 19:22	25°♊37'17	0.28372 AU
max. Earth dist.	4488 Jan 15 03:59	24°♑31'18	1.71238 AU	morning rise	4490 Jun 20 08:34	21°♊41'27	
				desc. node	4490 Jun 22 16:21	20°♊29'54	
superior conj	4488 Jan 16 11:37	26°♑10'41	-0°25'14	direct	4490 Jul 05 06:01	17°♊23'53	
minimum elong	4488 Jan 16 05:14	25°♑50'37	0°24'55	greatest brilliancy	4490 Jul 15 05:00	19°♊11'07	-4.7m
	4488 Jan 19 12:36	0°♒			4490 Aug 03 03:17	0°♋	
	4488 Feb 12 09:08	0°♓		morning max el	4490 Aug 22 22:05	17°♋03'21	45°42'14
evening rise	4488 Feb 26 11:17	17°♓42'40			4490 Sep 04 22:47	0°♌	
	4488 Mar 07 06:12	0°♈			4490 Oct 02 15:15	0°♍	
	4488 Mar 31 05:53	0°♉		asc. node	4490 Oct 13 18:45	12°♍43'09	
	4488 Apr 24 10:41	0°♊			4490 Oct 28 13:28	0°♎	
asc. node	4488 Apr 27 23:38	4°♊21'34			4490 Nov 22 13:02	0°♏	
	4488 May 18 23:12	0°♋			4490 Dec 16 23:21	0°♐	
	4488 Jun 12 22:44	0°♌			4491 Jan 10 02:13	0°♑	
	4488 Jul 08 15:23	0°♍		desc. node	4491 Feb 02 09:11	29°♑09'47	
	4488 Aug 04 15:49	0°♎			4491 Feb 03 01:12	0°♒	
desc. node	4488 Aug 17 14:06	13°♎25'43		morning set	4491 Feb 21 01:40	22°♒37'41	
evening max el	4488 Aug 25 19:51	21°♎31'13	45°37'18		4491 Feb 26 22:27	0°♓	
	4488 Sep 04 01:47	0°♏			4491 Mar 22 19:38	0°♈	
greatest brilliancy	4488 Oct 04 04:40	19°♏36'05	-4.8m				
retrograde	4488 Oct 13 11:22	21°♏09'25		superior conj	4491 Apr 03 03:17	14°♈11'45	-1°26'34
evening set	4488 Oct 30 14:27	15°♏39'06		minimum elong	4491 Apr 03 05:23	14°♈18'19	1°26'34
inferior conj	4488 Nov 03 14:11	13°♏13'38	-7°21'04	max. Earth dist.	4491 Apr 06 14:33	18°♈32'27	1.71594 AU
minimum elong	4488 Nov 03 23:35	12°♏59'03	7°19'31		4491 Apr 15 18:25	0°♉	
min. Earth dist.	4488 Nov 04 12:56	12°♏38'22	0.28076 AU		4491 May 09 20:20	0°♊	
morning rise	4488 Nov 08 08:19	10°♏20'33		evening rise	4491 May 13 01:54	4°♊00'36	
direct	4488 Nov 24 19:54	5°♏06'59		asc. node	4491 May 26 11:33	20°♊35'52	
greatest brilliancy	4488 Dec 05 23:59	7°♏25'54	-4.8m		4491 Jun 03 02:30	0°♋	
asc. node	4488 Dec 08 16:18	8°♏35'53			4491 Jun 27 13:36	0°♌	
	4489 Jan 06 03:26	0°♐			4491 Jul 22 06:37	0°♍	
morning max el	4489 Jan 14 07:48	8°♐02'15	46°47'55		4491 Aug 16 07:51	0°♎	
	4489 Feb 03 20:06	0°♑			4491 Sep 10 21:43	0°♏	
	4489 Mar 01 20:41	0°♒		desc. node	4491 Sep 15 01:54	4°♏48'54	
	4489 Mar 26 22:26	0°♓			4491 Oct 07 08:56	0°♐	
desc. node	4489 Mar 30 06:56	4°♓03'27			4491 Nov 04 17:36	0°♑	
	4489 Apr 20 14:27	0°♈		evening max el	4491 Nov 07 09:19	2°♑37'04	46°29'54
	4489 May 15 02:37	0°♉			4491 Dec 11 18:42	0°♒	
	4489 Jun 08 13:54	0°♊		greatest brilliancy	4491 Dec 17 13:53	2°♒31'07	-4.9m
	4489 Jul 03 01:15	0°♋		retrograde	4491 Dec 27 07:10	4°♒17'56	
morning set	4489 Jul 18 18:39	19°♋17'07		asc. node	4492 Jan 06 04:07	2°♒19'08	

evening set	4492 Jan 10 15:34	0°≈14'04		minimum elong	4494 Jun 15 00:49	26°Ⅱ35'13	0°19'08
	4492 Jan 11 02:06	30°ⅤⅢ		max. Earth dist.	4494 Jun 17 05:23	29°Ⅱ17'27	1.73043 AU
inferior conj	4492 Jan 16 21:11	26°Ⅲ36'37	2°44'48		4494 Jun 17 19:10	0°Ⅲ	
minimum elong	4492 Jan 16 15:03	26°Ⅲ45'56	2°42'53	asc. node	4494 Jun 22 23:15	6°Ⅲ22'41	
min. Earth dist.	4492 Jan 16 19:08	26°Ⅲ39'44	0.26617 AU		4494 Jul 12 03:37	0°Ⅱ	
morning rise	4492 Jan 22 14:19	23°Ⅲ15'10		evening rise	4494 Jul 21 23:29	12°Ⅱ05'03	
direct	4492 Feb 06 08:32	18°Ⅲ54'48			4494 Aug 05 13:46	0°Ⅳ	
greatest brilliancy	4492 Feb 16 10:33	20°Ⅲ50'25	-4.9m		4494 Aug 30 01:56	0°Ⅲ	
	4492 Mar 03 10:52	0°≈			4494 Sep 23 17:14	0°Ⅳ	
morning max el	4492 Mar 27 19:48	21°≈45'48	46°53'40	desc. node	4494 Oct 12 13:58	22°Ⅳ48'53	
	4492 Apr 04 20:01	0°Ⅴ			4494 Oct 18 13:10	0°Ⅴ	
desc. node	4492 Apr 26 18:58	24°Ⅴ00'32			4494 Nov 12 15:32	0°Ⅲ	
	4492 May 02 01:48	0°Ⅳ			4494 Dec 08 04:26	0°≈	
	4492 May 27 22:23	0°Ⅲ			4495 Jan 03 16:57	0°Ⅴ	
	4492 Jun 22 05:37	0°Ⅱ		evening max el	4495 Jan 19 07:24	16°Ⅴ30'36	47°11'05
	4492 Jul 17 06:13	0°Ⅲ			4495 Feb 02 08:55	0°Ⅳ	
	4492 Aug 11 01:53	0°Ⅱ		asc. node	4495 Feb 02 15:58	0°Ⅳ15'42	
asc. node	4492 Aug 17 20:56	8°Ⅱ15'21		greatest brilliancy	4495 Feb 28 21:50	17°Ⅳ57'34	-4.9m
	4492 Sep 04 16:30	0°Ⅳ		retrograde	4495 Mar 11 02:27	19°Ⅳ55'48	
morning set	4492 Sep 24 21:20	24°Ⅳ49'20		evening set	4495 Mar 29 03:55	13°Ⅳ37'27	
	4492 Sep 29 02:04	0°Ⅲ		inferior conj	4495 Mar 31 21:04	11°Ⅳ56'45	9°00'06
	4492 Oct 23 07:31	0°Ⅳ		minimum elong	4495 Mar 31 22:24	11°Ⅳ54'40	9°00'05
max. Earth dist.	4492 Oct 28 22:33	6°Ⅳ59'20	1.72466 AU	min. Earth dist.	4495 Mar 31 09:56	12°Ⅳ14'05	0.27399 AU
				morning rise	4495 Apr 03 17:04	10°Ⅳ12'12	
superior conj	4492 Oct 31 17:01	10°Ⅳ25'56	1°13'28	direct	4495 Apr 21 14:16	4°Ⅳ06'44	
minimum elong	4492 Nov 01 01:38	10°Ⅳ52'44	1°13'15	greatest brilliancy	4495 Apr 30 19:01	5°Ⅳ42'27	-4.8m
	4492 Nov 16 10:17	0°Ⅴ		desc. node	4495 May 25 06:35	20°Ⅳ55'59	
desc. node	4492 Dec 07 11:41	26°Ⅴ15'52			4495 Jun 04 12:08	0°Ⅲ	
evening rise	4492 Dec 09 09:30	28°Ⅴ38'51		morning max el	4495 Jun 10 04:23	5°Ⅲ25'24	46°11'23
	4492 Dec 10 11:30	0°Ⅲ			4495 Jul 03 21:51	0°Ⅱ	
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	4493 Jan 27 12:04	0°Ⅴ			4495 Aug 25 16:07	0°Ⅱ	
	4493 Feb 20 14:09	0°Ⅳ		asc. node	4495 Sep 15 08:50	24°Ⅱ34'16	
	4493 Mar 16 21:44	0°Ⅲ			4495 Sep 19 21:27	0°Ⅳ	
asc. node	4493 Mar 30 13:44	16°Ⅲ38'06			4495 Oct 14 15:02	0°Ⅲ	
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evening max el	4493 Jun 13 09:38	10°Ⅱ49'01	45°41'59		4495 Dec 26 02:14	0°Ⅲ	
	4493 Jul 05 14:06	0°Ⅳ		desc. node	4496 Jan 04 23:23	12°Ⅲ23'53	
desc. node	4493 Jul 20 04:20	8°Ⅳ29'17		max. Earth dist.	4496 Jan 12 08:38	21°Ⅲ40'17	1.71264 AU
greatest brilliancy	4493 Jul 21 11:14	8°Ⅳ59'33	-4.7m				
retrograde	4493 Aug 01 08:36	11°Ⅳ07'39		superior conj	4496 Jan 13 22:44	23°Ⅲ39'55	-0°21'27
evening set	4493 Aug 17 18:06	5°Ⅳ58'45		minimum elong	4496 Jan 13 17:15	23°Ⅲ22'45	0°21'11
inferior conj	4493 Aug 22 20:48	2°Ⅳ51'49	-6°52'50		4496 Jan 18 23:44	0°≈	
minimum elong	4493 Aug 22 11:17	3°Ⅳ06'44	6°51'10		4496 Feb 11 20:19	0°Ⅴ	
min. Earth dist.	4493 Aug 22 15:31	3°Ⅳ00'06	0.29112 AU	evening rise	4496 Feb 23 21:41	15°Ⅴ09'16	
morning rise	4493 Aug 27 04:32	0°Ⅳ12'39			4496 Mar 06 17:27	0°Ⅳ	
	4493 Aug 27 13:10	30°ⅤⅡ			4496 Mar 30 17:16	0°Ⅲ	
direct	4493 Sep 13 11:44	24°Ⅱ33'54			4496 Apr 23 22:15	0°Ⅱ	
greatest brilliancy	4493 Sep 23 20:27	26°Ⅱ30'39	-4.7m	asc. node	4496 Apr 27 01:40	3°Ⅱ52'06	
	4493 Oct 01 10:15	0°Ⅳ			4496 May 18 11:07	0°Ⅲ	
morning max el	4493 Nov 01 18:52	25°Ⅳ12'45	46°02'34		4496 Jun 12 11:20	0°Ⅱ	
	4493 Nov 06 14:29	0°Ⅲ			4496 Jul 08 05:26	0°Ⅳ	
asc. node	4493 Nov 10 06:34	3°Ⅲ45'05			4496 Aug 04 09:10	0°Ⅲ	
	4493 Dec 04 08:03	0°Ⅳ		desc. node	4496 Aug 16 16:08	12°Ⅲ39'49	
	4493 Dec 29 23:48	0°Ⅴ		evening max el	4496 Aug 23 09:20	19°Ⅲ13'43	45°36'15
	4494 Jan 23 18:06	0°Ⅲ			4496 Sep 04 06:53	0°Ⅳ	
	4494 Feb 17 02:12	0°≈		greatest brilliancy	4496 Oct 01 18:47	17°Ⅳ20'13	-4.8m
desc. node	4494 Mar 01 21:07	15°≈52'34		retrograde	4496 Oct 11 01:00	18°Ⅳ53'32	
	4494 Mar 13 05:30	0°Ⅴ		evening set	4496 Oct 28 07:44	13°Ⅳ18'37	
	4494 Apr 06 07:02	0°Ⅳ		inferior conj	4496 Nov 01 04:55	10°Ⅳ56'57	-7°31'54
	4494 Apr 30 09:00	0°Ⅲ		minimum elong	4496 Nov 01 13:56	10°Ⅳ42'57	7°30'31
morning set	4494 May 07 14:07	8°Ⅲ58'03		min. Earth dist.	4496 Nov 02 03:45	10°Ⅳ21'32	0.28141 AU
	4494 May 24 12:51	0°Ⅱ		morning rise	4496 Nov 05 19:41	8°Ⅳ08'28	
				direct	4496 Nov 22 10:35	2°Ⅳ49'13	
superior conj	4494 Jun 14 20:35	26°Ⅱ22'07	-0°19'20	greatest brilliancy	4496 Dec 03 15:53	5°Ⅳ08'42	-4.8m

asc. node	4496 Dec 07 18:11	7°♍00'22		4499 Jun 27 00:44	0°♏	
	4497 Jan 06 04:45	0°♈		4499 Jul 21 18:09	0°♎	
morning max el	4497 Jan 11 21:28	5°♈38'53	46°46'51	4499 Aug 15 20:04	0°♌	
	4497 Feb 03 13:07	0°♊		4499 Sep 10 11:13	0°♍	
	4497 Mar 01 10:58	0°♐		desc. node	4499 Sep 14 04:02	4°♍15'24
	4497 Mar 26 11:25	0°♋			4499 Oct 07 01:01	0°♈
desc. node	4497 Mar 29 09:04	3°♋30'57			4499 Nov 04 16:25	0°♊
	4497 Apr 20 02:40	0°♑		evening max el	4499 Nov 04 23:22	0°♊16'57 46°27'48
	4497 May 14 14:20	0°♉			4499 Dec 14 22:00	0°♐
	4497 Jun 08 01:14	0°♊		greatest brilliancy	4499 Dec 15 02:08	0°♐03'38 -4.9m
	4497 Jul 02 12:18	0°♋		retrograde	4499 Dec 24 19:58	1°♐50'34
morning set	4497 Jul 16 11:59	17°♋09'31			4500 Jan 03 08:11	30°♋♊
asc. node	4497 Jul 20 11:06	22°♋01'21		asc. node	4500 Jan 05 06:10	29°♊12'15
	4497 Jul 26 23:05	0°♏		evening set	4500 Jan 08 03:14	27°♊47'33
	4497 Aug 20 08:44	0°♎		inferior conj	4500 Jan 14 09:29	24°♊09'08 2°21'04
max. Earth dist.	4497 Aug 20 19:06	0°♎31'55	1.73446 AU	minimum elong	4500 Jan 14 04:11	24°♊17'12 2°19'25
				min. Earth dist.	4500 Jan 14 08:25	24°♊10'46 0.26628 AU
superior conj	4497 Aug 22 05:00	2°♎16'16	1°07'50	morning rise	4500 Jan 20 04:58	20°♊44'53
minimum elong	4497 Aug 21 20:19	1°♎49'32	1°07'34	direct	4500 Feb 03 21:47	16°♊27'01
	4497 Sep 13 16:59	0°♌		greatest brilliancy	4500 Feb 14 00:12	18°♊23'37 -4.9m
evening rise	4497 Sep 27 06:49	16°♌45'04			4500 Mar 05 04:21	0°♐
	4497 Oct 08 00:27	0°♍		morning max el	4500 Mar 26 10:13	19°♐23'55 46°54'38
	4497 Nov 01 08:00	0°♈			4500 Apr 05 15:59	0°♋
desc. node	4497 Nov 09 01:47	9°♈32'44		desc. node	4500 Apr 26 20:54	23°♋21'02
	4497 Nov 25 16:11	0°♊			4500 May 02 17:05	0°♑
	4497 Dec 20 01:35	0°♐			4500 May 28 11:38	0°♉
	4498 Jan 13 14:01	0°♋			4500 Jun 22 17:45	0°♊
	4498 Feb 07 10:46	0°♑			4500 Jul 17 17:40	0°♋
asc. node	4498 Mar 02 03:50	26°♑34'51			4500 Aug 11 12:55	0°♏
	4498 Mar 05 03:52	0°♉		asc. node	4500 Aug 17 23:02	7°♏48'24
evening max el	4498 Apr 01 05:01	29°♉09'06	46°38'55		4500 Sep 05 03:17	0°♎
	4498 Apr 02 01:22	0°♊		morning set	4500 Sep 23 14:41	22°♎42'00
greatest brilliancy	4498 May 10 14:41	29°♊19'25	-4.8m		4500 Sep 29 12:44	0°♌
	4498 May 12 12:46	0°♋			4500 Oct 23 18:11	0°♍
retrograde	4498 May 21 08:26	1°♋28'18		max. Earth dist.	4500 Oct 27 15:04	4°♍48'23 1.72509 AU
	4498 May 29 21:00	30°♋♊				
evening set	4498 Jun 05 17:58	26°♊50'31		superior conj	4500 Oct 30 08:58	8°♍13'08 1°15'09
inferior conj	4498 Jun 11 15:24	23°♊17'05	2°25'55	minimum elong	4500 Oct 30 17:08	8°♍38'31 1°14'57
minimum elong	4498 Jun 11 20:40	23°♊08'50	2°24'21		4500 Nov 16 21:01	0°♈
min. Earth dist.	4498 Jun 11 11:33	23°♊23'08	0.28343 AU	evening rise	4500 Dec 07 22:40	26°♈16'10
morning rise	4498 Jun 17 23:43	19°♊28'57		desc. node	4500 Dec 07 13:37	25°♈47'55
desc. node	4498 Jun 21 18:20	17°♊37'26			4500 Dec 10 22:24	0°♊
direct	4498 Jul 02 20:41	15°♊10'48			4501 Jan 03 22:56	0°♐
greatest brilliancy	4498 Jul 12 20:38	16°♊58'55	-4.7m		4501 Jan 27 23:24	0°♋
	4498 Aug 03 15:19	0°♋			4501 Feb 21 01:45	0°♑
morning max el	4498 Aug 20 13:38	14°♋52'04	45°42'30		4501 Mar 17 09:46	0°♉
	4498 Sep 04 17:07	0°♏		asc. node	4501 Mar 30 15:46	16°♉06'46
	4498 Oct 02 05:35	0°♎			4501 Apr 11 05:18	0°♊
asc. node	4498 Oct 12 20:47	12°♎10'07			4501 May 06 22:02	0°♋
	4498 Oct 28 02:11	0°♌			4501 Jun 03 10:39	0°♏
	4498 Nov 22 00:57	0°♍		evening max el	4501 Jun 12 02:20	8°♏40'24 45°43'17
	4498 Dec 16 10:51	0°♈			4501 Jul 07 07:55	0°♎
	4499 Jan 09 13:30	0°♊		greatest brilliancy	4501 Jul 20 02:52	6°♎50'59 -4.7m
desc. node	4499 Feb 01 11:16	28°♊41'22		desc. node	4501 Jul 20 06:22	6°♎54'14
	4499 Feb 02 12:20	0°♐		retrograde	4501 Jul 31 01:08	8°♎59'36
morning set	4499 Feb 18 11:40	20°♐03'31		evening set	4501 Aug 16 07:43	3°♎55'06
	4499 Feb 26 09:29	0°♋		inferior conj	4501 Aug 21 13:17	0°♎43'40 -6°40'43
	4499 Mar 22 06:34	0°♑		minimum elong	4501 Aug 21 03:36	0°♎58'51 6°38'58
				min. Earth dist.	4501 Aug 21 07:06	0°♎53'23 0.29104 AU
superior conj	4499 Mar 31 15:04	11°♑44'09	-1°26'50		4501 Aug 22 17:11	30°♋♏
minimum elong	4499 Mar 31 16:08	11°♑47'30	1°26'51	morning rise	4501 Aug 25 23:36	28°♏00'34
max. Earth dist.	4499 Apr 03 22:05	15°♑51'41	1.71550 AU	direct	4501 Sep 12 04:45	22°♏26'12
	4499 Apr 15 05:17	0°♉		greatest brilliancy	4501 Sep 22 11:31	24°♏21'16 -4.7m
	4499 May 09 07:12	0°♊			4501 Oct 03 17:12	0°♎
evening rise	4499 May 10 15:37	1°♊40'36		morning max el	4501 Oct 31 10:10	23°♎00'08 46°01'03
asc. node	4499 May 25 13:28	20°♊08'06			4501 Nov 07 10:09	0°♌
	4499 Jun 02 13:26	0°♋		asc. node	4501 Nov 10 08:27	3°♌01'18

	4501 Dec 04 22:52	0°♌		desc. node	4504 Aug 16 18:14	11°♊54'50	
	4501 Dec 30 12:49	0°♊		evening max el	4504 Aug 21 22:38	16°♊57'21	45°35'26
	4502 Jan 24 06:15	0°♊			4504 Sep 05 13:24	0°♌	
	4502 Feb 17 13:51	0°♊		greatest brilliancy	4504 Sep 30 08:24	15°♌05'38	-4.7m
desc. node	4502 Mar 01 23:09	15°♊23'19		retrograde	4504 Oct 09 15:09	16°♌39'44	
	4502 Mar 13 16:49	0°♋		evening set	4504 Oct 27 01:00	11°♌00'04	
	4502 Apr 06 18:06	0°♋		inferior conj	4504 Oct 30 19:47	8°♌42'03	-7°41'46
	4502 Apr 30 19:51	0°♋		minimum elong	4504 Oct 31 04:22	8°♌28'44	7°40'33
morning set	4502 May 06 04:10	6°♋38'58		min. Earth dist.	4504 Oct 31 18:25	8°♌06'59	0.28211 AU
	4502 May 24 23:33	0°♌		morning rise	4504 Nov 04 07:18	5°♌58'21	
				direct	4504 Nov 21 01:37	0°♌33'08	
superior conj	4502 Jun 13 12:35	24°♌10'38	-0°22'38	greatest brilliancy	4504 Dec 02 07:59	2°♌53'25	-4.8m
minimum elong	4502 Jun 13 17:31	24°♌25'54	0°22'24	asc. node	4504 Dec 07 20:17	5°♌29'52	
max. Earth dist.	4502 Jun 16 02:50	27°♌22'50	1.72998 AU		4505 Jan 07 04:28	0°♊	
	4502 Jun 18 05:45	0°♍		morning max el	4505 Jan 10 12:03	3°♊18'55	46°45'37
asc. node	4502 Jun 23 01:20	5°♍56'33			4505 Feb 04 05:32	0°♊	
	4502 Jul 12 14:10	0°♎			4505 Mar 02 00:52	0°♊	
evening rise	4502 Jul 20 17:41	10°♎01'02			4505 Mar 27 00:03	0°♋	
	4502 Aug 06 00:24	0°♎		desc. node	4505 Mar 29 11:03	2°♋58'57	
	4502 Aug 30 12:48	0°♏			4505 Apr 20 14:34	0°♋	
	4502 Sep 24 04:33	0°♏			4505 May 15 01:43	0°♌	
desc. node	4502 Oct 12 15:53	22°♏19'10			4505 Jun 08 12:15	0°♌	
	4502 Oct 19 01:09	0°♊			4505 Jul 02 23:03	0°♍	
	4502 Nov 13 04:32	0°♊		morning set	4505 Jul 15 05:12	15°♍02'21	
	4502 Dec 08 19:10	0°♊		asc. node	4505 Jul 20 13:12	21°♍35'12	
	4503 Jan 04 11:19	0°♋			4505 Jul 27 09:39	0°♎	
evening max el	4503 Jan 17 21:10	14°♋06'40	47°10'40	max. Earth dist.	4505 Aug 19 15:33	28°♎34'47	1.73456 AU
asc. node	4503 Feb 02 18:04	29°♋11'38					
	4503 Feb 03 16:24	0°♋		superior conj	4505 Aug 20 23:12	0°♎12'13	1°05'51
greatest brilliancy	4503 Feb 27 12:20	15°♋34'15	-4.9m	minimum elong	4505 Aug 20 14:22	29°♎45'01	1°05'35
retrograde	4503 Mar 09 15:47	17°♋31'24			4505 Aug 20 19:14	0°♎	
evening set	4503 Mar 27 17:08	11°♋14'23			4505 Sep 14 03:32	0°♏	
inferior conj	4503 Mar 30 10:30	9°♋33'16	9°01'22	evening rise	4505 Sep 26 00:32	14°♏38'59	
minimum elong	4503 Mar 30 10:53	9°♋32'40	9°01'23		4505 Oct 08 11:08	0°♏	
min. Earth dist.	4503 Mar 29 23:01	9°♋51'10	0.27359 AU		4505 Nov 01 18:56	0°♊	
morning rise	4503 Apr 02 04:48	7°♋51'09		desc. node	4505 Nov 09 03:48	9°♊04'52	
direct	4503 Apr 20 03:08	1°♋44'00			4505 Nov 26 03:30	0°♊	
greatest brilliancy	4503 Apr 29 07:52	3°♋19'23	-4.8m		4505 Dec 20 13:24	0°♊	
desc. node	4503 May 25 08:32	19°♋51'48			4506 Jan 14 02:33	0°♋	
	4503 Jun 05 13:04	0°♌			4506 Feb 08 00:26	0°♋	
morning max el	4503 Jun 08 17:04	3°♌03'26	46°13'04	asc. node	4506 Mar 02 05:48	25°♋56'07	
	4503 Jul 04 14:20	0°♌			4506 Mar 05 19:50	0°♌	
	4503 Jul 31 08:53	0°♍		evening max el	4506 Mar 30 19:24	26°♌50'18	46°41'03
	4503 Aug 26 04:14	0°♎			4506 Apr 02 23:51	0°♌	
asc. node	4503 Sep 15 10:52	24°♎06'04		greatest brilliancy	4506 May 09 06:37	27°♌05'30	-4.8m
	4503 Sep 20 08:48	0°♎		retrograde	4506 May 20 00:31	29°♌14'49	
	4503 Oct 15 01:58	0°♏		evening set	4506 Jun 04 11:23	24°♌34'02	
	4503 Nov 08 10:36	0°♏		inferior conj	4506 Jun 10 06:49	21°♌03'36	2°46'09
	4503 Dec 02 13:30	0°♊		minimum elong	4506 Jun 10 12:45	20°♌54'19	2°44'25
morning set	4503 Dec 03 14:32	1°♊18'08		min. Earth dist.	4506 Jun 10 03:09	21°♌09'20	0.28315 AU
	4503 Dec 26 12:59	0°♊		morning rise	4506 Jun 16 14:31	17°♌16'42	
desc. node	4504 Jan 05 01:31	11°♊56'49		desc. node	4506 Jun 21 20:29	14°♌48'55	
max. Earth dist.	4504 Jan 10 14:19	18°♊53'37	1.71292 AU	direct	4506 Jul 01 11:38	12°♌57'34	
				greatest brilliancy	4506 Jul 11 11:35	14°♌46'07	-4.7m
superior conj	4504 Jan 12 09:47	21°♊10'08	-0°17'38		4506 Aug 05 00:03	0°♍	
minimum elong	4504 Jan 12 05:16	20°♊55'57	0°17'24	morning max el	4506 Aug 19 05:52	12°♍42'51	45°42'50
	4504 Jan 19 10:30	0°♊			4506 Sep 05 10:48	0°♎	
	4504 Feb 12 07:08	0°♋			4506 Oct 02 19:34	0°♎	
evening rise	4504 Feb 22 07:59	12°♋36'45		asc. node	4506 Oct 12 22:41	11°♎37'27	
	4504 Mar 07 04:22	0°♋			4506 Oct 28 14:35	0°♏	
	4504 Mar 31 04:17	0°♌			4506 Nov 22 12:36	0°♏	
	4504 Apr 24 09:29	0°♌			4506 Dec 16 22:06	0°♊	
asc. node	4504 Apr 27 03:36	3°♌23'22			4507 Jan 10 00:33	0°♊	
	4504 May 18 22:43	0°♍		desc. node	4507 Feb 01 13:20	28°♊13'22	
	4504 Jun 12 23:40	0°♎			4507 Feb 02 23:19	0°♊	
	4504 Jul 08 19:12	0°♎		morning set	4507 Feb 16 21:32	17°♊29'20	
	4504 Aug 05 02:23	0°♏			4507 Feb 26 20:25	0°♋	

	4507 Mar 22 17:27	0°♿		min. Earth dist.	4509 Aug 18 22:53	28°♌44'53	0.29093 AU
				morning rise	4509 Aug 23 18:30	25°♌47'10	
superior conj	4507 Mar 30 02:16	9°♿14'41 -1°26'56		direct	4509 Sep 09 21:02	20°♌17'16	
minimum elong	4507 Mar 30 02:17	9°♿14'45 1°26'57		greatest brilliancy	4509 Sep 20 02:45	22°♌10'58	-4.7m
max. Earth dist.	4507 Apr 02 06:32	13°♿13'47 1.71511 AU			4509 Oct 04 15:55	0°♍	
	4507 Apr 15 16:07	0°♌		morning max el	4509 Oct 29 00:30	20°♍44'26	45°59'39
evening rise	4507 May 09 04:41	29°♌18'38			4509 Nov 07 05:31	0°♎	
	4507 May 09 18:00	0°♍		asc. node	4509 Nov 09 10:35	2°♎18'02	
asc. node	4507 May 25 15:31	19°♍40'54			4509 Dec 04 13:43	0°♏	
	4507 Jun 03 00:20	0°♎			4509 Dec 30 01:56	0°♐	
	4507 Jun 27 11:51	0°♏			4510 Jan 23 18:30	0°♑	
	4507 Jul 22 05:40	0°♐			4510 Feb 17 01:36	0°♒	
	4507 Aug 16 08:20	0°♑		desc. node	4510 Mar 01 01:08	14°♒53'33	
	4507 Sep 11 00:48	0°♒			4510 Mar 13 04:12	0°♓	
desc. node	4507 Sep 14 05:58	3°♒41'17			4510 Apr 06 05:15	0°♿	
	4507 Oct 07 17:18	0°♓			4510 Apr 30 06:50	0°♌	
evening max el	4507 Nov 03 14:01	27°♓58'57 46°25'46		morning set	4510 May 03 18:06	4°♌19'02	
	4507 Nov 05 16:04	0°♑			4510 May 24 10:26	0°♍	
greatest brilliancy	4507 Dec 13 14:39	27°♑37'36 -4.9m					
retrograde	4507 Dec 23 08:51	29°♑24'09		superior conj	4510 Jun 11 04:19	21°♍57'34 -0°25'56	
asc. node	4508 Jan 05 08:12	26°♑01'57		minimum elong	4510 Jun 11 09:57	22°♍14'57 0°25'41	
evening set	4508 Jan 06 15:22	25°♑21'58		max. Earth dist.	4510 Jun 13 22:05	25°♍20'40 1.72958 AU	
inferior conj	4508 Jan 12 21:58	21°♑42'42 1°57'20			4510 Jun 17 16:35	0°♎	
minimum elong	4508 Jan 12 17:31	21°♑49'29 1°55'55		asc. node	4510 Jun 22 03:23	5°♎29'31	
min. Earth dist.	4508 Jan 12 21:51	21°♑42'53 0.26641 AU			4510 Jul 12 00:59	0°♏	
morning rise	4508 Jan 18 19:34	18°♑15'41		evening rise	4510 Jul 18 11:25	7°♏54'42	
direct	4508 Feb 02 11:14	14°♑00'28			4510 Aug 05 11:20	0°♐	
greatest brilliancy	4508 Feb 12 13:47	15°♑57'24 -4.9m			4510 Aug 29 23:59	0°♑	
	4508 Mar 05 17:14	0°♒			4510 Sep 23 16:11	0°♒	
morning max el	4508 Mar 24 00:08	17°♒00'50 46°55'12		desc. node	4510 Oct 11 17:55	21°♒48'47	
	4508 Apr 05 11:21	0°♓			4510 Oct 18 13:30	0°♓	
desc. node	4508 Apr 25 22:53	22°♓41'55			4510 Nov 12 17:58	0°♑	
	4508 May 02 08:13	0°♿			4510 Dec 08 10:24	0°♒	
	4508 May 28 00:53	0°♌			4511 Jan 04 06:28	0°♓	
	4508 Jun 22 05:56	0°♍		evening max el	4511 Jan 15 10:17	11°♓40'23 47°10'22	
	4508 Jul 17 05:11	0°♎		asc. node	4511 Feb 01 20:03	28°♓05'11	
	4508 Aug 11 00:01	0°♏			4511 Feb 04 02:51	0°♿	
asc. node	4508 Aug 17 00:59	7°♏20'51		greatest brilliancy	4511 Feb 25 03:08	13°♿10'58 -4.9m	
	4508 Sep 04 14:09	0°♐		retrograde	4511 Mar 07 05:09	15°♿07'12	
morning set	4508 Sep 21 07:53	20°♐34'00		evening set	4511 Mar 25 06:02	8°♿52'08	
	4508 Sep 28 23:29	0°♑		min. Earth dist.	4511 Mar 27 12:25	7°♿28'15 0.27317 AU	
	4508 Oct 23 04:55	0°♒		inferior conj	4511 Mar 28 00:09	7°♿09'58 9°01'44	
max. Earth dist.	4508 Oct 25 05:25	2°♒30'32 1.72550 AU		minimum elong	4511 Mar 27 23:35	7°♿10'51 9°01'44	
				morning rise	4511 Mar 30 17:17	5°♿29'35	
superior conj	4508 Oct 28 01:06	6°♒00'42 1°16'41			4511 Apr 12 00:19	30°♓♌	
minimum elong	4508 Oct 28 08:47	6°♒24'34 1°16'32		direct	4511 Apr 17 15:45	29°♓21'16	
	4508 Nov 16 07:50	0°♓			4511 Apr 23 10:51	0°♿	
evening rise	4508 Dec 05 12:07	23°♓54'14		greatest brilliancy	4511 Apr 26 21:11	0°♿56'54 -4.8m	
desc. node	4508 Dec 06 15:45	25°♓20'27		desc. node	4511 May 24 10:43	18°♿49'33	
	4508 Dec 10 09:21	0°♑			4511 Jun 05 12:58	0°♌	
	4509 Jan 03 10:03	0°♒		morning max el	4511 Jun 06 05:53	0°♌41'14 46°14'36	
	4509 Jan 27 10:43	0°♓			4511 Jul 04 06:45	0°♍	
	4509 Feb 20 13:22	0°♿			4511 Jul 30 22:38	0°♎	
	4509 Mar 16 21:54	0°♌			4511 Aug 25 16:40	0°♏	
asc. node	4509 Mar 29 17:40	15°♌34'38		asc. node	4511 Sep 14 12:49	23°♏36'30	
	4509 Apr 10 18:20	0°♍			4511 Sep 19 20:29	0°♐	
	4509 May 06 12:52	0°♎			4511 Oct 14 13:17	0°♑	
	4509 Jun 03 06:10	0°♏			4511 Nov 07 21:43	0°♒	
evening max el	4509 Jun 09 18:16	6°♏28'51 45°44'35		morning set	4511 Dec 01 04:35	28°♒57'36	
	4509 Jul 08 09:00	0°♐			4511 Dec 02 00:34	0°♓	
greatest brilliancy	4509 Jul 17 19:03	4°♐41'46 -4.7m			4511 Dec 26 00:04	0°♑	
desc. node	4509 Jul 19 08:25	5°♐14'35		desc. node	4512 Jan 04 03:31	11°♑28'14	
retrograde	4509 Jul 28 17:07	6°♐50'12		max. Earth dist.	4512 Jan 07 22:48	16°♑14'43 1.71322 AU	
evening set	4509 Aug 13 21:15	1°♐50'03					
	4509 Aug 16 22:47	30°♓♏		superior conj	4512 Jan 09 20:51	18°♑39'18 -0°13'47	
inferior conj	4509 Aug 19 05:36	28°♏34'20 -6°28'05		minimum elong	4512 Jan 09 17:19	18°♑28'11 0°13'35	
minimum elong	4509 Aug 18 19:48	28°♏49'43 6°26'12		behind sun begin	4512 Jan 09 02:54	17°♑42'58	

behind sun end	4512 Jan 10 07:43	19°  13'24		greatest brilliancy	4514 Jul 09 01:55	12°  32'20	-4.7m
	4512 Jan 18 21:37	0° 			4514 Aug 05 06:28	0° 	
	4512 Feb 11 18:18	0° 		morning max el	4514 Aug 16 22:19	10°  33'46	45°43'06
evening rise	4512 Feb 19 18:29	10°  03'50			4514 Sep 05 04:17	0° 	
	4512 Mar 06 15:34	0° 			4514 Oct 02 09:39	0° 	
	4512 Mar 30 15:35	0° 		asc. node	4514 Oct 12 00:49	11°  04'49	
	4512 Apr 23 20:57	0° 			4514 Oct 28 03:15	0° 	
asc. node	4512 Apr 26 05:42	2°  15'42			4514 Nov 22 00:33	0° 	
	4512 May 18 10:35	0° 			4514 Dec 16 09:41	0° 	
	4512 Jun 12 12:19	0° 			4515 Jan 09 11:56	0° 	
	4512 Jul 08 09:29	0° 		desc. node	4515 Jan 31 15:17	27°  34'07	
	4512 Aug 04 20:29	0° 			4515 Feb 02 10:35	0° 	
desc. node	4512 Aug 15 20:11	11°  07'29		morning set	4515 Feb 14 07:23	14°  35'15	
evening max el	4512 Aug 19 12:48	14°  41'53	45°34'36		4515 Feb 26 07:36	0° 	
	4512 Sep 05 23:13	0° 			4515 Mar 22 04:35	0° 	
greatest brilliancy	4512 Sep 27 21:26	12°  09'14	-4.7m				
retrograde	4512 Oct 07 05:51	14°  02'43		superior conj	4515 Mar 27 13:19	6°  43'56	-1°26'52
evening set	4512 Oct 24 18:07	8°  40'25		minimum elong	4515 Mar 27 12:15	6°  40'35	1°26'52
inferior conj	4512 Oct 28 10:37	6°  02'54	-7°50'52	max. Earth dist.	4515 Mar 30 16:45	10°  40'30	1.71472 AU
minimum elong	4512 Oct 28 18:43	6°  02'13	7°49'49		4515 Apr 15 03:12	0° 	
min. Earth dist.	4512 Oct 29 08:40	5°  01'40	0.28279 AU	evening rise	4515 May 06 17:42	26°  55'37	
morning rise	4512 Nov 01 18:55	3°  07'00			4515 May 09 05:06	0° 	
	4512 Nov 09 11:16	30°  08'00		asc. node	4515 May 24 17:36	19°  12'58	
direct	4512 Nov 18 17:03	28°  15'52			4515 Jun 02 11:29	0° 	
	4512 Nov 28 08:13	0° 			4515 Jun 26 23:11	0° 	
greatest brilliancy	4512 Nov 29 23:30	0°  36'27	-4.8m		4515 Jul 21 17:23	0° 	
asc. node	4512 Dec 06 22:21	4°  01'14			4515 Aug 15 20:47	0° 	
	4513 Jan 07 03:37	0° 			4515 Sep 10 14:41	0° 	
morning max el	4513 Jan 08 03:32	1°  00'14	46°44'21	desc. node	4515 Sep 13 08:00	3°  06'47	
	4513 Feb 03 22:02	0° 			4515 Oct 07 10:07	0° 	
	4513 Mar 01 14:59	0° 		evening max el	4515 Nov 01 04:31	25°  39'49	46°23'26
	4513 Mar 26 12:58	0° 			4515 Nov 05 17:17	0° 	
desc. node	4513 Mar 28 13:01	2°  02'58		greatest brilliancy	4515 Dec 11 03:48	25°  11'15	-4.9m
	4513 Apr 20 02:44	0° 		retrograde	4515 Dec 20 21:12	26°  35'26	
	4513 May 14 13:21	0° 		evening set	4516 Jan 04 03:41	22°  35'03	
	4513 Jun 07 23:30	0° 		asc. node	4516 Jan 04 10:10	22°  34'25	
	4513 Jul 02 10:01	0° 		inferior conj	4516 Jan 10 10:24	19°  15'19	1°33'18
morning set	4513 Jul 12 22:46	12°  55'27		minimum elong	4516 Jan 10 06:51	19°  20'45	1°32'09
asc. node	4513 Jul 19 15:08	21°  50'44		min. Earth dist.	4516 Jan 10 11:39	19°  13'25	0.26657 AU
	4513 Jul 26 20:30	0° 		morning rise	4516 Jan 16 09:51	15°  34'30	
max. Earth dist.	4513 Aug 17 13:51	26°  04'25	1.73471 AU	direct	4516 Jan 31 00:15	11°  32'53	
				greatest brilliancy	4516 Feb 10 03:47	13°  30'28	-4.9m
superior conj	4513 Aug 18 17:32	28°  07'37	1°03'49		4516 Mar 06 03:12	0° 	
minimum elong	4513 Aug 18 08:36	27°  04'06	1°03'30	morning max el	4516 Mar 21 13:00	14°  34'10	46°55'48
	4513 Aug 20 06:03	0° 			4516 Apr 05 06:26	0° 	
	4513 Sep 13 14:26	0° 		desc. node	4516 Apr 25 01:04	22°  03'06	
evening rise	4513 Sep 23 18:18	12°  32'00			4516 May 01 23:21	0° 	
	4513 Oct 07 22:12	0° 			4516 May 27 14:11	0° 	
	4513 Nov 01 06:16	0° 			4516 Jun 21 18:12	0° 	
desc. node	4513 Nov 08 05:54	8°  36'07			4516 Jul 16 16:49	0° 	
	4513 Nov 25 15:12	0° 			4516 Aug 10 11:13	0° 	
	4513 Dec 20 01:37	0° 		asc. node	4516 Aug 16 03:01	6°  05'14	
	4514 Jan 13 15:31	0° 			4516 Sep 04 01:04	0° 	
	4514 Feb 07 14:37	0° 		morning set	4516 Sep 19 01:32	18°  07'16	
asc. node	4514 Mar 01 07:47	25°  01'59			4516 Sep 28 10:17	0° 	
	4514 Mar 05 12:26	0° 			4516 Oct 22 15:44	0° 	
evening max el	4514 Mar 28 10:57	24°  33'25	46°43'12	max. Earth dist.	4516 Oct 22 20:27	0°  14'40	1.72598 AU
	4514 Apr 02 23:42	0° 					
greatest brilliancy	4514 May 06 22:37	24°  15'04	-4.8m	superior conj	4516 Oct 25 17:43	3°  49'37	1°18'06
retrograde	4514 May 17 17:05	27°  00'44		minimum elong	4516 Oct 26 00:53	4°  01'53	1°17'58
evening set	4514 Jun 02 05:05	22°  17'05			4516 Nov 15 18:46	0° 	
inferior conj	4514 Jun 07 22:22	18°  49'39	3°06'10	evening rise	4516 Dec 03 01:47	21°  32'40	
minimum elong	4514 Jun 08 04:56	18°  39'23	3°04'17	desc. node	4516 Dec 05 17:47	24°  35'12	
min. Earth dist.	4514 Jun 07 18:35	18° 55'33	0.28281 AU		4516 Dec 09 20:28	0°	
morning rise	4514 Jun 14 05:15	15° 04'19			4517 Jan 02 21:22	0°	
desc. node	4514 Jun 20 22:25	12° 05'05			4517 Jan 26 22:15	0°	
direct	4514 Jun 29 03:08	10° 04'11			4517 Feb 20 01:13	0°	

	4517 Mar 16 10:15	0°♄		4519 Aug 25 04:51	0°♋
asc. node	4517 Mar 28 19:48	15°♄02'41	asc. node	4519 Sep 13 14:55	23°♋07'59
	4517 Apr 10 07:36	0°♄		4519 Sep 19 07:57	0°♄
	4517 May 06 04:02	0°♄		4519 Oct 14 00:21	0°♄
	4517 Jun 03 02:22	0°♋		4519 Nov 07 08:36	0°♌
evening max el	4517 Jun 07 09:31	4°♋15'22 45°46'00	morning set	4519 Nov 28 19:17	26°♌40'04
	4517 Jul 09 20:29	0°♄		4519 Dec 01 11:22	0°♌
greatest brilliancy	4517 Jul 15 11:41	2°♄33'07 -4.7m		4519 Dec 25 10:51	0°♌
desc. node	4517 Jul 18 10:25	3°♄31'35	desc. node	4520 Jan 03 05:30	11°♌00'33
retrograde	4517 Jul 26 09:07	4°♄41'25	max. Earth dist.	4520 Jan 05 11:05	13°♌48'42 1.71354 AU
evening set	4517 Aug 11 11:03	29°♋45'15			
	4517 Aug 11 00:36	30°♋♋	superior conj	4520 Jan 07 08:26	16°♌11'02 -0°09'57
inferior conj	4517 Aug 16 22:07	26°♋25'44 -6°14'55	minimum elong	4520 Jan 07 05:52	16°♌02'59 0°09'49
minimum elong	4517 Aug 16 12:17	26°♋41'11 6°12'56	behind sun begin	4520 Jan 06 09:04	14°♌57'40
min. Earth dist.	4517 Aug 16 15:14	26°♋36'32 0.29078 AU	behind sun end	4520 Jan 08 02:40	17°♌08'18
morning rise	4517 Aug 21 13:35	23°♋34'32		4520 Jan 18 08:26	0°♌
direct	4517 Sep 07 12:58	18°♋08'56		4520 Feb 11 05:12	0°♌
greatest brilliancy	4517 Sep 17 18:44	20°♋02'03 -4.7m	evening rise	4520 Feb 17 05:15	7°♌32'35
	4517 Oct 05 08:26	0°♄		4520 Mar 06 02:35	0°♌
morning max el	4517 Oct 26 14:41	18°♄28'51 45°58'24		4520 Mar 30 02:44	0°♌
	4517 Nov 07 00:11	0°♄		4520 Apr 23 08:20	0°♄
asc. node	4517 Nov 08 12:37	1°♄35'32	asc. node	4520 Apr 25 07:43	2°♄25'38
	4517 Dec 04 04:17	0°♌		4520 May 17 22:22	0°♄
	4517 Dec 29 14:56	0°♌		4520 Jun 12 00:55	0°♋
	4518 Jan 23 06:44	0°♌		4520 Jul 07 23:43	0°♄
	4518 Feb 16 13:23	0°♌		4520 Aug 04 14:47	0°♄
desc. node	4518 Feb 28 03:13	14°♌23'54	desc. node	4520 Aug 14 22:14	10°♌20'24
	4518 Mar 12 15:40	0°♌	evening max el	4520 Aug 17 03:51	12°♌29'26 45°33'57
	4518 Apr 05 16:28	0°♌		4520 Sep 06 11:56	0°♌
	4518 Apr 29 17:52	0°♌	greatest brilliancy	4520 Sep 25 10:16	10°♌33'53 -4.7m
morning set	4518 May 01 07:34	1°♌57'21	retrograde	4520 Oct 04 20:56	12°♌10'53
	4518 May 23 21:20	0°♄	evening set	4520 Oct 22 11:15	6°♌22'22
			inferior conj	4520 Oct 26 01:33	4°♌10'54 -7°59'20
superior conj	4518 Jun 08 19:53	19°♄44'00 -0°29'13	minimum elong	4520 Oct 26 09:06	3°♌59'12 7°58'25
minimum elong	4518 Jun 09 02:10	20°♄03'25 0°28'55	min. Earth dist.	4520 Oct 26 22:42	3°♌38'09 0.28341 AU
max. Earth dist.	4518 Jun 11 15:43	23°♄13'33 1.72913 AU	morning rise	4520 Oct 30 06:38	1°♌36'54
	4518 Jun 17 03:23	0°♄		4520 Nov 02 03:49	30°♌♌
asc. node	4518 Jun 21 05:20	5°♄02'12	direct	4520 Nov 16 08:56	26°♌00'12
	4518 Jul 11 11:46	0°♋	greatest brilliancy	4520 Nov 27 14:23	28°♌20'11 -4.8m
evening rise	4518 Jul 16 05:13	5°♋48'39		4520 Dec 01 07:32	0°♌
	4518 Aug 04 22:13	0°♄	asc. node	4520 Dec 06 00:15	2°♌36'38
	4518 Aug 29 11:07	0°♄	morning max el	4521 Jan 05 19:40	28°♌44'46 46°43'08
	4518 Sep 23 03:44	0°♌		4521 Jan 07 01:19	0°♌
desc. node	4518 Oct 10 20:04	21°♌19'15		4521 Feb 03 13:46	0°♌
	4518 Oct 18 01:43	0°♌		4521 Mar 01 04:31	0°♌
	4518 Nov 12 07:15	0°♌		4521 Mar 26 01:24	0°♌
	4518 Dec 08 01:37	0°♌	desc. node	4521 Mar 27 15:09	1°♌54'52
	4519 Jan 04 02:01	0°♌		4521 Apr 19 14:30	0°♌
evening max el	4519 Jan 12 22:55	9°♌13'14 47°09'44		4521 May 14 00:41	0°♌
asc. node	4519 Jan 31 22:02	26°♌56'52		4521 Jun 07 10:29	0°♄
	4519 Feb 04 16:54	0°♌		4521 Jul 01 20:46	0°♄
greatest brilliancy	4519 Feb 22 17:23	10°♌46'18 -4.9m	morning set	4521 Jul 10 15:54	10°♄47'56
retrograde	4519 Mar 04 18:26	12°♌42'09	asc. node	4521 Jul 18 17:11	20°♄41'22
evening set	4519 Mar 22 17:59	6°♌29'39		4521 Jul 26 07:05	0°♋
min. Earth dist.	4519 Mar 25 01:33	5°♌04'10 0.27281 AU	max. Earth dist.	4521 Aug 15 12:40	24°♋52'29 1.73478 AU
inferior conj	4519 Mar 25 13:30	4°♌45'36 9°00'56			
minimum elong	4519 Mar 25 12:00	4°♌47'57 9°00'53	superior conj	4521 Aug 16 11:27	26°♋02'37 1°01'38
morning rise	4519 Mar 28 06:07	3°♌06'07	minimum elong	4521 Aug 16 02:27	25°♋34'55 1°01'20
	4519 Apr 02 21:05	30°♌♌		4521 Aug 19 16:35	0°♄
direct	4519 Apr 15 04:02	26°♌57'12		4521 Sep 13 01:02	0°♄
greatest brilliancy	4519 Apr 24 10:26	28°♌33'32 -4.8m	evening rise	4521 Sep 21 11:55	10°♄25'30
	4519 Apr 28 03:19	0°♌		4521 Oct 07 08:58	0°♌
desc. node	4519 May 23 12:40	17°♌48'01		4521 Oct 31 17:17	0°♌
morning max el	4519 Jun 03 19:21	28°♌20'18 46°16'20	desc. node	4521 Nov 07 07:51	8°♌07'55
	4519 Jun 05 11:54	0°♌		4521 Nov 25 02:35	0°♌
	4519 Jul 03 22:49	0°♄		4521 Dec 19 13:30	0°♌
	4519 Jul 30 12:07	0°♄		4522 Jan 13 04:07	0°♌

	4522 Feb 07 04:25	0°♄	morning set	4524 Sep 16 18:51	16°♄20'12	
asc. node	4522 Feb 28 09:55	24°♄37'25		4524 Sep 27 20:51	0°♄	
	4522 Mar 05 04:48	0°♄	max. Earth dist.	4524 Oct 20 11:41	28°♄00'12	1.72644 AU
evening max el	4522 Mar 26 02:53	22°♄18'45 46°45'02		4524 Oct 22 02:18	0°♄	
	4522 Apr 03 00:10	0°♄				
greatest brilliancy	4522 May 04 14:37	22°♄37'20 -4.8m	superior conj	4524 Oct 23 10:04	1°♄38'34 1°19'24	
retrograde	4522 May 15 09:17	24°♄46'41	minimum elong	4524 Oct 23 16:40	1°♄59'02 1°19'16	
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asc. node	4522 Oct 11 02:51	10°♄32'59	evening max el	4525 Jun 05 00:12	2°♄01'28 45°47'29	
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desc. node	4523 Jan 30 17:22	27°♄16'28		4525 Aug 04 10:58	30°♄	
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minimum elong	4523 Mar 24 22:33	4°♄08'46 1°26'37	greatest brilliancy	4525 Sep 15 11:14	17°♄54'15 -4.7m	
max. Earth dist.	4523 Mar 28 04:16	8°♄12'34 1.71431 AU		4525 Oct 05 20:33	0°♄	
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asc. node	4523 May 23 19:32	18°♄45'47		4525 Dec 03 18:36	0°♄	
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greatest brilliancy	4523 Dec 08 17:29	22°♄46'45 -4.9m				
retrograde	4523 Dec 18 08:58	24°♄30'05	superior conj	4526 Jun 06 11:33	17°♄31'09 -0°32'26	
evening set	4524 Jan 01 16:17	20°♄28'59	minimum elong	4526 Jun 06 18:28	17°♄52'31 0°32'07	
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morning rise	4524 Jan 13 23:59	13°♄16'50	evening rise	4526 Jul 13 23:08	3°♄43'35	
direct	4524 Jan 28 12:51	9°♄06'26		4526 Aug 04 08:57	0°♄	
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morning max el	4524 Mar 19 01:20	12°♄07'12 46°56'32	desc. node	4526 Oct 09 21:57	20°♄48'54	
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	4524 Jul 16 04:03	0°♄	asc. node	4527 Jan 31 00:09	25°♄46'53	
	4524 Aug 09 22:06	0°♄		4527 Feb 05 11:41	0°♄	
asc. node	4524 Aug 15 05:06	6°♄26'37	greatest brilliancy	4527 Feb 20 06:57	8°♄20'45 -4.9m	
	4524 Sep 03 11:44	0°♄	retrograde	4527 Mar 02 08:07	10°♄17'03	







































































































































evening set	4527 Mar 20 05:18	4° Υ 07'36			4529 Jul 25 17:54	0° Ω	
min. Earth dist.	4527 Mar 22 14:17	2° Υ 40'14	0.27244 AU	max. Earth dist.	4529 Aug 13 10:51	22° Ω 59'55	1.73480 AU
inferior conj	4527 Mar 23 02:45	2° Υ 20'56	8°59'05				
minimum elong	4527 Mar 23 00:18	2° Υ 24'44	8°59'00	superior conj	4529 Aug 14 05:39	23° Ω 57'46	0°59'24
morning rise	4527 Mar 25 19:24	0° Υ 41'37		minimum elong	4529 Aug 13 20:39	23° Ω 30'05	0°59'05
	4527 Mar 26 23:20	30° \Re \mathfrak{H}			4529 Aug 19 03:21	0° \mathfrak{M}	
direct	4527 Apr 12 16:40	24° \mathfrak{H} 32'50			4529 Sep 12 11:50	0° $\underline{\Omega}$	
greatest brilliancy	4527 Apr 21 23:13	26° \mathfrak{H} 09'37	-4.9m	evening rise	4529 Sep 19 05:54	8° $\underline{\Omega}$ 19'29	
	4527 Apr 30 10:06	0° Υ			4529 Oct 06 19:56	0° \mathfrak{M}	
desc. node	4527 May 22 14:40	16° Υ 48'07			4529 Oct 31 04:32	0° \mathfrak{H}	
morning max el	4527 Jun 01 09:46	26° Υ 01'45	46°18'06	desc. node	4529 Nov 06 09:53	7° \mathfrak{H} 39'15	
	4527 Jun 05 09:52	0° \mathfrak{B}			4529 Nov 24 14:16	0° \mathfrak{B}	
	4527 Jul 03 14:34	0° Π			4529 Dec 19 01:45	0° \approx	
	4527 Jul 30 01:27	0° \mathfrak{G}			4530 Jan 12 17:11	0° \mathfrak{H}	
	4527 Aug 24 16:56	0° Ω			4530 Feb 06 18:49	0° Υ	
asc. node	4527 Sep 12 16:56	22° Ω 39'22		asc. node	4530 Feb 27 11:53	23° Υ 56'28	
	4527 Sep 18 19:22	0° \mathfrak{M}			4530 Mar 04 22:02	0° \mathfrak{B}	
	4527 Oct 13 11:25	0° $\underline{\Omega}$		evening max el	4530 Mar 23 18:35	20° \mathfrak{B} 01'49	46°46'57
	4527 Nov 06 19:32	0° \mathfrak{M}			4530 Apr 03 02:34	0° Π	
morning set	4527 Nov 26 09:49	24° \mathfrak{M} 21'44		greatest brilliancy	4530 May 02 07:16	20° Π 22'55	-4.8m
	4527 Nov 30 22:17	0° \mathfrak{H}		retrograde	4530 May 13 01:03	22° Π 31'05	
	4527 Dec 24 21:47	0° \mathfrak{B}		evening set	4530 May 28 16:31	17° Π 41'58	
desc. node	4528 Jan 02 07:37	10° \mathfrak{B} 32'45		inferior conj	4530 Jun 03 04:58	14° Π 20'43	3°45'42
max. Earth dist.	4528 Jan 02 22:23	11° \mathfrak{B} 19'03	1.71384 AU	minimum elong	4530 Jun 03 12:42	14° Π 08'37	3°43'32
				min. Earth dist.	4530 Jun 03 01:13	14° Π 26'35	0.28217 AU
superior conj	4528 Jan 04 19:38	13° \mathfrak{B} 41'04	-0°06'04	morning rise	4530 Jun 09 09:29	10° Π 38'42	
minimum elong	4528 Jan 04 18:04	13° \mathfrak{B} 36'10	0°05'59	desc. node	4530 Jun 19 02:33	6° Π 50'20	
behind sun begin	4528 Jan 03 17:57	12° \mathfrak{B} 20'29		direct	4530 Jun 24 09:51	6° Π 16'39	
behind sun end	4528 Jan 05 18:11	14° \mathfrak{B} 51'52		greatest brilliancy	4530 Jul 04 05:46	8° Π 02'43	-4.7m
	4528 Jan 17 19:26	0° \approx			4530 Aug 05 13:35	0° \mathfrak{G}	
	4528 Feb 10 16:16	0° \mathfrak{H}		morning max el	4530 Aug 12 05:25	6° \mathfrak{G} 11'15	45°43'45
evening rise	4528 Feb 14 15:39	4° \mathfrak{H} 59'42			4530 Sep 04 14:02	0° Ω	
	4528 Mar 05 13:44	0° Υ			4530 Oct 01 13:08	0° \mathfrak{M}	
	4528 Mar 29 14:00	0° \mathfrak{B}		asc. node	4530 Oct 10 04:45	10° \mathfrak{M} 00'01	
	4528 Apr 22 19:50	0° Π			4530 Oct 27 03:58	0° $\underline{\Omega}$	
asc. node	4528 Apr 24 09:39	1° Π 56'13			4530 Nov 20 23:52	0° \mathfrak{M}	
	4528 May 17 10:18	0° \mathfrak{G}			4530 Dec 15 08:18	0° \mathfrak{H}	
	4528 Jun 11 13:41	0° Ω			4531 Jan 08 10:13	0° \mathfrak{B}	
	4528 Jul 07 14:14	0° \mathfrak{M}		desc. node	4531 Jan 29 19:24	26° \mathfrak{B} 47'35	
	4528 Aug 04 09:38	0° $\underline{\Omega}$			4531 Feb 01 08:42	0° \approx	
desc. node	4528 Aug 14 00:21	9° $\underline{\Omega}$ 32'29		morning set	4531 Feb 09 03:32	9° \approx 46'48	
evening max el	4528 Aug 14 19:41	10° $\underline{\Omega}$ 18'47	45°33'22		4531 Feb 25 05:35	0° \mathfrak{H}	
	4528 Sep 07 05:01	0° \mathfrak{M}			4531 Mar 21 02:26	0° Υ	
greatest brilliancy	4528 Sep 22 23:11	8° \mathfrak{M} 18'56	-4.7m				
retrograde	4528 Oct 02 11:51	9° \mathfrak{M} 57'09		superior conj	4531 Mar 22 11:36	1° Υ 44'04	-1°26'11
evening set	4528 Oct 20 04:20	4° \mathfrak{M} 04'55		minimum elong	4531 Mar 22 08:23	1° Υ 34'01	1°26'10
inferior conj	4528 Oct 23 16:37	1° \mathfrak{M} 56'10	-8°06'49	max. Earth dist.	4531 Mar 25 12:26	5° Υ 32'38	1.71392 AU
minimum elong	4528 Oct 23 23:36	1° \mathfrak{M} 45'20	8°06'03		4531 Apr 14 00:58	0° \mathfrak{B}	
min. Earth dist.	4528 Oct 24 12:41	1° \mathfrak{M} 25'04	0.28405 AU	evening rise	4531 May 01 19:16	22° \mathfrak{B} 09'01	
	4528 Oct 26 20:14	30° \Re $\underline{\Omega}$			4531 May 08 02:53	0° Π	
morning rise	4528 Oct 27 18:36	29° $\underline{\Omega}$ 26'38		asc. node	4531 May 22 21:36	18° Π 17'48	
direct	4528 Nov 14 01:14	23° $\underline{\Omega}$ 44'49			4531 Jun 01 09:28	0° \mathfrak{G}	
greatest brilliancy	4528 Nov 25 05:00	26° $\underline{\Omega}$ 03'23	-4.8m		4531 Jun 25 21:37	0° Ω	
	4528 Dec 03 02:07	0° \mathfrak{M}			4531 Jul 20 16:42	0° \mathfrak{M}	
asc. node	4528 Dec 05 02:22	1° \mathfrak{M} 14'41			4531 Aug 14 21:42	0° $\underline{\Omega}$	
morning max el	4529 Jan 03 11:27	26° \mathfrak{M} 27'41	46°41'35		4531 Sep 09 18:38	0° \mathfrak{M}	
	4529 Jan 06 22:34	0° \mathfrak{H}		desc. node	4531 Sep 11 12:01	1° \mathfrak{M} 57'39	
	4529 Feb 03 05:38	0° \mathfrak{B}			4531 Oct 06 20:31	0° \mathfrak{H}	
	4529 Feb 28 18:18	0° \approx		evening max el	4531 Oct 27 07:11	20° \mathfrak{H} 57'21	46°19'03
	4529 Mar 25 14:06	0° \mathfrak{H}			4531 Nov 05 23:28	0° \mathfrak{B}	
desc. node	4529 Mar 26 17:06	1° \mathfrak{H} 22'16		greatest brilliancy	4531 Dec 06 07:27	20° \mathfrak{B} 22'22	-4.9m
	4529 Apr 19 02:31	0° Υ		retrograde	4531 Dec 15 20:45	22° \mathfrak{B} 04'06	
	4529 May 13 12:13	0° \mathfrak{B}		evening set	4531 Dec 30 05:17	18° \mathfrak{B} 02'33	
	4529 Jun 06 21:40	0° Π		asc. node	4532 Jan 02 14:16	16° \mathfrak{B} 08'28	
	4529 Jul 01 07:43	0° \mathfrak{G}		inferior conj	4532 Jan 05 11:41	14° \mathfrak{B} 23'30	0°45'00
morning set	4529 Jul 08 09:11	8° \mathfrak{G} 40'13		minimum elong	4532 Jan 05 09:57	14° \mathfrak{B} 26'09	0°44'27
asc. node	4529 Jul 17 19:16	20° \mathfrak{G} 14'25		min. Earth dist.	4532 Jan 05 16:29	14° \mathfrak{B} 16'11	0.26701 AU

morning rise	4532 Jan 11 14:11	10° Z 48'42		evening rise	4534 Jul 11 16:43	1° Q 36'37	
direct	4532 Jan 26 01:27	6° Z 39'47			4534 Aug 03 19:58	0° M	
greatest brilliancy	4532 Feb 05 09:49	8° Z 40'54	-4.9m		4534 Aug 28 09:26	0° L	
	4532 Mar 06 15:07	0° \approx			4534 Sep 22 03:01	0° M	
morning max el	4532 Mar 16 13:51	9° \approx 39'27	46°57'01	desc. node	4534 Oct 08 24:00	20° M 18'24	
	4532 Apr 04 18:44	0° H			4534 Oct 17 02:30	0° Z	
desc. node	4532 Apr 23 04:59	20° H 46'17			4534 Nov 11 10:25	0° Z	
	4532 May 01 04:39	0° Y			4534 Dec 07 09:01	0° \approx	
	4532 May 26 16:11	0° B			4535 Jan 03 19:11	0° H	
	4532 Jun 20 18:18	0° II		evening max el	4535 Jan 08 02:35	4° H 24'57	47°08'45
	4532 Jul 15 15:42	0° G		asc. node	4535 Jan 30 02:07	24° H 34'15	
	4532 Aug 09 09:19	0° Q			4535 Feb 06 13:23	0° Y	
asc. node	4532 Aug 14 07:03	5° Q 58'31		greatest brilliancy	4535 Feb 17 20:00	5° Y 54'29	-4.9m
	4532 Sep 02 22:43	0° M		retrograde	4535 Feb 27 22:19	7° Y 51'45	
morning set	4532 Sep 14 12:10	14° M 12'08		evening set	4535 Mar 17 16:12	1° Y 46'07	
	4532 Sep 27 07:44	0° L		min. Earth dist.	4535 Mar 20 02:43	0° Y 16'38	0.27205 AU
max. Earth dist.	4532 Oct 18 04:43	25° L 50'16	1.72689 AU	inferior conj	4535 Mar 20 16:02	29° H 56'03	8°56'17
				minimum elong	4535 Mar 20 12:39	0° Y 01'16	8°56'08
superior conj	4532 Oct 21 02:42	29° L 27'22	1°20'33		4535 Mar 20 13:28	30° R H	
minimum elong	4532 Oct 21 08:42	29° L 46'00	1°20'28	morning rise	4535 Mar 23 09:14	28° H 16'11	
	4532 Oct 21 13:13	0° M		direct	4535 Apr 10 05:51	22° H 08'33	
	4532 Nov 14 16:29	0° Z		greatest brilliancy	4535 Apr 19 11:27	23° H 45'03	-4.9m
evening rise	4532 Nov 28 05:19	16° Z 51'14			4535 May 01 21:45	0° Y	
desc. node	4532 Dec 03 21:51	23° Z 56'30		desc. node	4535 May 21 16:49	15° Y 49'52	
	4532 Dec 08 18:29	0° Z		morning max el	4535 May 30 00:43	23° Y 44'21	46°19'41
	4533 Jan 01 19:46	0° \approx			4535 Jun 05 07:04	0° B	
	4533 Jan 25 21:08	0° H			4535 Jul 03 06:10	0° II	
	4533 Feb 19 00:47	0° Y			4535 Jul 29 14:48	0° G	
	4533 Mar 15 10:54	0° B			4535 Aug 24 05:07	0° Q	
asc. node	4533 Mar 26 23:44	13° B 58'04		asc. node	4535 Sep 11 18:54	22° Q 10'12	
	4533 Apr 09 10:11	0° II			4535 Sep 18 06:54	0° M	
	4533 May 05 10:41	0° G			4535 Oct 12 22:36	0° L	
evening max el	4533 Jun 02 15:05	29° G 46'40	45°49'07		4535 Nov 06 06:32	0° M	
	4533 Jun 02 20:33	0° Q		morning set	4535 Nov 24 00:33	22° M 04'00	
greatest brilliancy	4533 Jul 10 19:13	28° Q 13'57	-4.7m		4535 Nov 30 09:13	0° Z	
desc. node	4533 Jul 16 14:29	29° Q 54'18			4535 Dec 24 08:45	0° Z	
	4533 Jul 17 02:57	0° M		max. Earth dist.	4535 Dec 31 08:36	8° Z 46'07	1.71416 AU
retrograde	4533 Jul 21 17:38	0° M 24'21		desc. node	4536 Jan 01 09:36	10° Z 04'31	
	4533 Jul 26 06:05	30° R Q					
evening set	4533 Aug 06 14:44	25° Q 34'37		superior conj	4536 Jan 02 07:08	11° Z 12'05	-0°02'12
inferior conj	4533 Aug 12 07:00	22° Q 08'20	-5°46'46	minimum elong	4536 Jan 02 06:35	11° Z 10'19	0°02'09
minimum elong	4533 Aug 11 21:13	22° Q 23'41	5°44'38	behind sun begin	4536 Jan 01 05:09	9° Z 50'35	
min. Earth dist.	4533 Aug 11 23:40	22° Q 19'50	0.29054 AU	behind sun end	4536 Jan 03 08:00	12° Z 30'04	
morning rise	4533 Aug 17 03:43	19° Q 09'38			4536 Jan 17 06:27	0° \approx	
direct	4533 Sep 02 20:30	13° Q 51'36			4536 Feb 10 03:21	0° H	
greatest brilliancy	4533 Sep 13 03:32	15° Q 45'19	-4.7m	evening rise	4536 Feb 12 02:18	2° H 27'29	
	4533 Oct 06 05:53	0° M			4536 Mar 05 00:54	0° Y	
morning max el	4533 Oct 21 21:04	14° M 02'45	45°55'59		4536 Mar 29 01:16	0° B	
asc. node	4533 Nov 06 16:41	0° L 11'46			4536 Apr 22 07:18	0° II	
	4533 Nov 06 12:16	0° L		asc. node	4536 Apr 23 11:47	1° II 27'25	
	4533 Dec 03 09:01	0° M			4536 May 16 22:14	0° G	
	4533 Dec 28 16:40	0° Z			4536 Jun 11 02:31	0° Q	
	4534 Jan 22 06:57	0° Z			4536 Jul 07 04:56	0° M	
	4534 Feb 15 12:40	0° \approx			4536 Aug 04 05:06	0° L	
desc. node	4534 Feb 26 07:13	13° \approx 24'41		evening max el	4536 Aug 12 11:31	8° L 07'56	45°32'40
	4534 Mar 11 14:21	0° H		desc. node	4536 Aug 13 02:15	8° L 43'03	
	4534 Apr 04 14:44	0° Y			4536 Sep 08 04:19	0° M	
morning set	4534 Apr 26 10:15	27° Y 13'07		greatest brilliancy	4536 Sep 20 12:43	6° M 04'35	-4.7m
	4534 Apr 28 15:49	0° B		retrograde	4536 Sep 30 02:24	7° M 43'21	
	4534 May 22 19:01	0° II		evening set	4536 Oct 17 21:16	1° M 48'04	
					4536 Oct 20 19:57	30° R L	
superior conj	4534 Jun 04 02:56	15° II 16'33	-0°35'37	inferior conj	4536 Oct 21 07:45	29° L 41'40	-8°13'31
minimum elong	4534 Jun 04 10:27	15° II 39'49	0°35'18	minimum elong	4536 Oct 21 14:05	29° L 31'49	8°12'55
max. Earth dist.	4534 Jun 06 23:26	18° II 48'22	1.72823 AU	min. Earth dist.	4536 Oct 22 02:49	29° L 12'02	0.28462 AU
	4534 Jun 16 00:54	0° G		morning rise	4536 Oct 25 06:40	27° L 16'23	
asc. node	4534 Jun 19 09:28	4° G 08'36		direct	4536 Nov 11 17:21	21° L 29'53	
	4534 Jul 10 09:17	0° Q		greatest brilliancy	4536 Nov 22 19:34	23° L 46'47	-4.8m

asc. node	4536 Dec 04 04:24	29°♊55'19		4539 Jul 20 04:17	0°♍	
	4536 Dec 04 07:12	0°♌		4539 Aug 14 10:08	0°♌	
morning max el	4537 Jan 01 02:12	24°♌08'27	46°40'02	4539 Sep 09 08:42	0°♌	
	4537 Jan 06 18:58	0°♌		4539 Sep 10 14:06	1°♌23'18	
	4537 Feb 02 21:07	0°♌		4539 Oct 06 14:10	0°♌	
	4537 Feb 28 07:51	0°♌		4539 Oct 24 19:32	18°♌34'15	46°16'47
	4537 Mar 25 02:37	0°♌		4539 Nov 06 05:11	0°♌	
desc. node	4537 Mar 25 19:06	0°♌50'15		greatest brilliancy	4539 Dec 03 20:54	17°♌57'41 -4.8m
	4537 Apr 18 14:23	0°♌		retrograde	4539 Dec 13 08:35	19°♌38'24
	4537 May 12 23:36	0°♌		evening set	4539 Dec 27 18:16	15°♌35'41
	4537 Jun 06 08:42	0°♌		asc. node	4540 Jan 01 16:14	12°♌46'22
	4537 Jun 30 18:30	0°♌		inferior conj	4540 Jan 03 00:13	11°♌57'40 0°20'44
morning set	4537 Jul 06 02:31	6°♌33'04		minimum elong	4540 Jan 02 23:25	11°♌58'54 0°20'28
asc. node	4537 Jul 16 21:11	19°♌47'28		min. Earth dist.	4540 Jan 03 06:48	11°♌47'38 0.26731 AU
	4537 Jul 25 04:33	0°♌		morning rise	4540 Jan 09 04:01	8°♌21'05
				direct	4540 Jan 23 13:54	4°♌12'59
superior conj	4537 Aug 11 23:48	21°♌53'16	0°57'05	greatest brilliancy	4540 Feb 03 01:05	6°♌16'40 -4.9m
minimum elong	4537 Aug 11 14:51	21°♌25'46	0°56'45		4540 Mar 06 18:09	0°♌
max. Earth dist.	4537 Aug 11 07:53	21°♌04'18	1.73484 AU	morning max el	4540 Mar 14 02:50	7°♌13'39 46°57'37
	4537 Aug 18 13:59	0°♌			4540 Apr 04 12:08	0°♌
	4537 Sep 11 22:33	0°♌		desc. node	4540 Apr 22 07:10	20°♌09'18
evening rise	4537 Sep 16 23:45	6°♌13'28			4540 Apr 30 18:56	0°♌
	4537 Oct 06 06:49	0°♌			4540 May 26 04:56	0°♌
	4537 Oct 30 15:42	0°♌			4540 Jun 20 06:09	0°♌
desc. node	4537 Nov 05 11:58	7°♌11'04			4540 Jul 15 02:59	0°♌
	4537 Nov 24 01:50	0°♌			4540 Aug 08 20:12	0°♌
	4537 Dec 18 13:53	0°♌		asc. node	4540 Aug 13 09:04	5°♌31'40
	4538 Jan 12 06:08	0°♌			4540 Sep 02 09:21	0°♌
	4538 Feb 06 09:09	0°♌		morning set	4540 Sep 12 05:42	12°♌05'49
asc. node	4538 Feb 26 13:51	23°♌15'47			4540 Sep 26 18:16	0°♌
	4538 Mar 04 15:22	0°♌		max. Earth dist.	4540 Oct 16 00:17	23°♌49'21 1.72735 AU
evening max el	4538 Mar 21 09:28	17°♌43'13	46°48'43			
	4538 Apr 03 06:18	0°♌		superior conj	4540 Oct 18 19:30	27°♌17'48 1°21'35
greatest brilliancy	4538 Apr 30 00:20	18°♌09'23	-4.8m	minimum elong	4540 Oct 19 00:54	27°♌34'33 1°21'31
retrograde	4538 May 10 16:13	20°♌15'55			4540 Oct 20 23:48	0°♌
evening set	4538 May 26 10:21	15°♌24'00			4540 Nov 14 03:11	0°♌
inferior conj	4538 May 31 20:15	12°♌06'15	4°05'00	evening rise	4540 Nov 25 19:28	14°♌32'15
minimum elong	4538 Jun 01 04:29	11°♌53'20	4°02'45	desc. node	4540 Dec 02 23:50	23°♌28'56
min. Earth dist.	4538 May 31 16:54	12°♌11'29	0.28182 AU		4540 Dec 08 05:23	0°♌
morning rise	4538 Jun 06 23:10	8°♌26'03			4541 Jan 01 06:52	0°♌
desc. node	4538 Jun 18 04:29	4°♌20'23			4541 Jan 25 08:29	0°♌
direct	4538 Jun 22 00:37	4°♌02'52			4541 Feb 18 12:30	0°♌
greatest brilliancy	4538 Jul 01 20:12	5°♌48'26	-4.7m		4541 Mar 14 23:10	0°♌
	4538 Aug 05 14:41	0°♌		asc. node	4541 Mar 26 01:52	13°♌26'29
morning max el	4538 Aug 09 19:41	3°♌57'07	45°44'12		4541 Apr 08 23:29	0°♌
	4538 Sep 04 06:16	0°♌			4541 May 05 02:13	0°♌
	4538 Oct 01 02:34	0°♌		evening max el	4541 May 31 06:34	27°♌34'20 45°50'49
asc. node	4538 Oct 09 06:53	9°♌28'37			4541 Jun 02 18:45	0°♌
	4538 Oct 26 16:08	0°♌		greatest brilliancy	4541 Jul 08 10:21	26°♌03'50 -4.7m
	4538 Nov 20 11:26	0°♌		desc. node	4541 Jul 15 16:29	27°♌59'43
	4538 Dec 14 19:32	0°♌		retrograde	4541 Jul 19 10:31	28°♌15'59
	4539 Jan 07 21:17	0°♌		evening set	4541 Aug 04 04:42	23°♌29'07
desc. node	4539 Jan 28 21:21	26°♌19'16		inferior conj	4541 Aug 09 23:20	19°♌59'41 -5°31'53
	4539 Jan 31 19:40	0°♌		minimum elong	4541 Aug 09 13:40	20°♌14'49 5°29'42
morning set	4539 Feb 06 13:28	7°♌12'51		min. Earth dist.	4541 Aug 09 15:25	20°♌12'04 0.29038 AU
	4539 Feb 24 16:29	0°♌		morning rise	4541 Aug 14 22:42	16°♌57'28
				direct	4541 Aug 31 12:40	11°♌43'06
superior conj	4539 Mar 19 22:26	29°♌13'26	-1°25'35	greatest brilliancy	4541 Sep 10 19:20	13°♌36'50 -4.7m
minimum elong	4539 Mar 19 18:11	29°♌00'05	1°25'32		4541 Oct 06 12:09	0°♌
	4539 Mar 20 13:16	0°♌		morning max el	4541 Oct 19 13:16	11°♌53'08 45°54'54
max. Earth dist.	4539 Mar 22 18:28	2°♌46'57	1.71356 AU	asc. node	4541 Nov 05 18:41	29°♌31'15
	4539 Apr 13 11:47	0°♌			4541 Nov 06 05:24	0°♌
evening rise	4539 Apr 29 07:35	19°♌44'15			4541 Dec 02 22:54	0°♌
	4539 May 07 13:44	0°♌			4541 Dec 28 05:13	0°♌
asc. node	4539 May 21 23:39	17°♌50'31			4542 Jan 21 18:49	0°♌
	4539 May 31 20:25	0°♌			4542 Feb 15 00:08	0°♌
	4539 Jun 25 08:46	0°♌		desc. node	4542 Feb 25 09:18	12°♌55'46

	4542 Mar 11 01:33	0° H		desc. node	4544 Aug 12 04:21	7° L 53'29	
	4542 Apr 04 01:43	0° Y			4544 Sep 09 12:31	0° M	
morning set	4542 Apr 23 23:06	24° Y 49'48		greatest brilliancy	4544 Sep 18 02:52	3° M 51'25	-4.7m
	4542 Apr 28 02:38	0° B		retrograde	4544 Sep 27 16:38	5° M 30'13	
	4542 May 22 05:41	0° II			4544 Oct 14 19:16	30° R L	
				evening set	4544 Oct 15 14:03	29° L 32'11	
superior conj	4542 Jun 01 17:57	13° II 01'37	-0°38'48	inferior conj	4544 Oct 18 22:57	27° L 27'53	-8°19'32
minimum elong	4542 Jun 02 02:03	13° II 26'40	0°38'26	minimum elong	4544 Oct 19 04:35	27° L 19'05	8°19'03
max. Earth dist.	4542 Jun 04 16:59	16° II 41'25	1.72779 AU	min. Earth dist.	4544 Oct 19 17:20	26° L 59'15	0.28517 AU
	4542 Jun 15 11:30	0° E		morning rise	4544 Oct 22 18:55	25° L 06'38	
asc. node	4542 Jun 18 11:22	3° E 41'45		direct	4544 Nov 09 09:03	19° L 15'31	
evening rise	4542 Jul 09 10:13	29° E 30'12		greatest brilliancy	4544 Nov 20 10:37	21° L 31'13	-4.8m
	4542 Jul 09 19:54	0° L		asc. node	4544 Dec 03 06:19	28° L 38'26	
	4542 Aug 03 06:44	0° M			4544 Dec 05 04:06	0° M	
	4542 Aug 27 20:29	0° L		morning max el	4544 Dec 29 16:07	21° M 47'28	46°38'41
	4542 Sep 21 14:32	0° M			4545 Jan 06 14:36	0° X	
desc. node	4542 Oct 08 02:08	19° M 48'57			4545 Feb 02 12:13	0° Z	
	4542 Oct 16 14:46	0° X			4545 Feb 27 21:08	0° \approx	
	4542 Nov 10 23:55	0° Z		desc. node	4545 Mar 24 21:14	0° H 19'12	
	4542 Dec 07 00:50	0° \approx			4545 Mar 24 14:57	0° H	
	4543 Jan 03 16:39	0° H			4545 Apr 18 02:06	0° Y	
evening max el	4543 Jan 05 17:26	2° H 04'04	47°07'53		4545 May 12 10:54	0° B	
asc. node	4543 Jan 29 04:07	23° H 19'53			4545 Jun 05 19:42	0° II	
	4543 Feb 08 01:26	0° Y			4545 Jun 30 05:17	0° E	
greatest brilliancy	4543 Feb 15 08:42	3° Y 27'55	-4.9m	morning set	4545 Jul 03 19:35	4° E 25'05	
retrograde	4543 Feb 25 12:16	5° Y 25'54		asc. node	4545 Jul 15 23:16	19° E 21'01	
	4543 Mar 14 02:47	30° R H			4545 Jul 24 15:12	0° L	
evening set	4543 Mar 15 02:25	29° H 24'57		max. Earth dist.	4545 Aug 09 03:16	19° L 03'45	1.73484 AU
min. Earth dist.	4543 Mar 17 14:52	27° H 52'37	0.27166 AU				
inferior conj	4543 Mar 18 05:02	27° H 30'44	8°52'28	superior conj	4545 Aug 09 17:47	19° L 48'23	0°54'41
minimum elong	4543 Mar 18 00:46	27° H 37'19	8°52'12	minimum elong	4545 Aug 09 08:56	19° L 21'11	0°54'20
morning rise	4543 Mar 20 23:16	25° H 49'27			4545 Aug 18 00:36	0° M	
direct	4543 Apr 07 19:11	19° H 44'00			4545 Sep 11 09:14	0° L	
greatest brilliancy	4543 Apr 16 23:20	21° H 19'45	-4.9m	evening rise	4545 Sep 14 17:38	4° L 07'37	
	4543 May 02 23:01	0° Y			4545 Oct 05 17:42	0° M	
desc. node	4543 May 20 18:45	14° Y 52'34			4545 Oct 30 02:54	0° X	
morning max el	4543 May 27 15:05	21° Y 25'44	46°21'17	desc. node	4545 Nov 04 13:55	6° X 42'26	
	4543 Jun 05 03:25	0° B			4545 Nov 23 13:28	0° Z	
	4543 Jul 02 21:20	0° II			4545 Dec 18 02:05	0° \approx	
	4543 Jul 29 03:49	0° E			4546 Jan 11 19:08	0° H	
	4543 Aug 23 17:01	0° L			4546 Feb 05 23:34	0° Y	
asc. node	4543 Sep 10 20:58	21° L 42'04		asc. node	4546 Feb 25 15:59	22° Y 35'22	
	4543 Sep 17 18:11	0° M			4546 Mar 04 08:59	0° B	
	4543 Oct 12 09:33	0° L		evening max el	4546 Mar 18 23:19	15° B 22'15	46°50'26
	4543 Nov 05 17:19	0° M			4546 Apr 03 11:47	0° II	
morning set	4543 Nov 21 15:38	19° M 48'05		greatest brilliancy	4546 Apr 27 17:27	15° II 56'00	-4.8m
	4543 Nov 29 19:56	0° X		retrograde	4546 May 08 07:17	18° II 01'08	
	4543 Dec 23 19:28	0° Z		evening set	4546 May 24 04:20	13° II 05'55	
max. Earth dist.	4543 Dec 28 17:29	6° Z 09'47	1.71447 AU	inferior conj	4546 May 29 11:39	9° II 51'59	4°23'58
				minimum elong	4546 May 29 20:21	9° II 38'20	4°21'37
superior conj	4543 Dec 30 19:08	8° Z 45'27	0°01'41	min. Earth dist.	4546 May 29 08:52	9° II 56'21	0.28153 AU
minimum elong	4543 Dec 30 19:33	8° Z 46'47	0°01'40	morning rise	4546 Jun 04 12:48	6° II 13'55	
behind sun begin	4543 Dec 29 18:10	7° Z 27'11		desc. node	4546 Jun 17 06:32	1° II 55'34	
behind sun end	4543 Dec 31 20:57	10° Z 06'24		direct	4546 Jun 19 15:07	1° II 49'00	
desc. node	4543 Dec 31 11:35	9° Z 37'03		greatest brilliancy	4546 Jun 29 11:20	3° II 34'45	-4.8m
	4544 Jan 16 17:14	0° \approx			4546 Aug 05 14:43	0° E	
evening rise	4544 Feb 09 13:08	29° \approx 56'33		morning max el	4546 Aug 07 10:04	1° E 42'48	45°44'44
	4544 Feb 09 14:14	0° H			4546 Sep 03 22:20	0° L	
	4544 Mar 04 11:53	0° Y			4546 Sep 30 15:59	0° M	
	4544 Mar 28 12:25	0° B		asc. node	4546 Oct 08 08:54	8° M 56'42	
	4544 Apr 21 18:42	0° II			4546 Oct 26 04:21	0° L	
asc. node	4544 Apr 22 13:45	0° II 58'27			4546 Nov 19 23:01	0° M	
	4544 May 16 10:07	0° E			4546 Dec 14 06:51	0° X	
	4544 Jun 10 15:20	0° L			4547 Jan 07 08:27	0° Z	
	4544 Jul 06 19:42	0° M		greatest brilliancy	4547 Jan 17 13:10	12° Z 46'07	-3.9m
	4544 Aug 04 01:02	0° L		desc. node	4547 Jan 27 23:28	25° Z 51'05	
evening max el	4544 Aug 10 02:28	5° L 55'15	45°32'04		4547 Jan 31 06:45	0° \approx	

morning set	4547 Feb 03 23:38	4°≈39'14	evening set	4549 Aug 01 19:04	21°Ω23'18
	4547 Feb 24 03:28	0°✠	inferior conj	4549 Aug 07 15:48	17°Ω50'44 -5°16'34
			minimum elong	4549 Aug 07 06:19	18°Ω05'34 5°14'22
superior conj	4547 Mar 17 09:33	26°✠43'18 -1°24'48	min. Earth dist.	4549 Aug 07 07:05	18°Ω04'23 0.29020 AU
minimum elong	4547 Mar 17 04:16	26°✠26'43 1°24'44	morning rise	4549 Aug 12 17:47	14°Ω45'04
max. Earth dist.	4547 Mar 19 22:42	29°✠55'19 1.71319 AU	direct	4549 Aug 29 05:30	9°Ω34'29
	4547 Mar 20 00:12	0°Υ	greatest brilliancy	4549 Sep 08 10:42	11°Ω27'26 -4.7m
	4547 Apr 12 22:40	0°♂		4549 Oct 06 16:45	0°♍
evening rise	4547 Apr 26 20:10	17°♂20'08	morning max el	4549 Oct 17 05:47	9°♍43'32 45°53'39
	4547 May 07 00:39	0°♂	asc. node	4549 Nov 04 20:37	28°♍50'01
asc. node	4547 May 21 01:36	17°♂22'41		4549 Nov 05 22:35	0°♎
	4547 May 31 07:27	0°♎		4549 Dec 02 13:01	0°♎
	4547 Jun 24 20:04	0°Ω		4549 Dec 27 18:01	0°♏
	4547 Jul 19 16:04	0°♍		4550 Jan 21 06:57	0°♏
	4547 Aug 13 22:49	0°♎		4550 Feb 14 11:52	0°≈
	4547 Sep 08 23:08	0°♎	desc. node	4550 Feb 24 11:21	12°≈25'53
desc. node	4547 Sep 09 16:12	0°♎48'12		4550 Mar 10 13:01	0°✠
	4547 Oct 06 08:28	0°♏		4550 Apr 03 13:01	0°Υ
evening max el	4547 Oct 22 08:17	16°♏11'59 46°14'42	morning set	4550 Apr 21 11:50	22°Υ25'00
	4547 Nov 06 13:25	0°♏		4550 Apr 27 13:46	0°♂
greatest brilliancy	4547 Dec 01 09:51	15°♏32'24 -4.8m		4550 May 21 16:42	0°♂
retrograde	4547 Dec 10 21:05	17°♏12'53			
evening set	4547 Dec 25 07:37	13°♏08'29	superior conj	4550 May 30 08:59	10°♂45'34 -0°41'55
inferior conj	4547 Dec 31 12:52	9°♏31'40 -0°03'31	minimum elong	4550 May 30 17:36	11°♂12'14 0°41'32
minimum elong	4547 Dec 31 13:01	9°♏31'28 0°03'28	max. Earth dist.	4550 Jun 02 11:46	14°♂37'05 1.72730 AU
transit middle	4547 Dec 31 13:01	9°♏31'28 0°03'28		4550 Jun 14 22:25	0°♎
transit begin	4547 Dec 31 09:01	9°♏37'32	asc. node	4550 Jun 17 13:30	3°♎14'38
transit end	4547 Dec 31 17:00	9°♏25'23	evening rise	4550 Jul 07 03:50	27°♎23'15
asc. node	4547 Dec 31 18:18	9°♏23'24		4550 Jul 09 06:49	0°Ω
min. Earth dist.	4547 Dec 31 20:52	9°♏19'29 0.26766 AU		4550 Aug 02 17:47	0°♍
morning rise	4548 Jan 06 17:49	5°♏53'47		4550 Aug 27 07:51	0°♎
direct	4548 Jan 21 02:56	1°♏45'57		4550 Sep 21 02:24	0°♎
greatest brilliancy	4548 Jan 31 16:00	3°♏51'46 -4.9m	desc. node	4550 Oct 07 04:01	19°♎17'40
	4548 Mar 06 19:58	0°≈		4550 Oct 16 03:27	0°♏
morning max el	4548 Mar 11 17:04	4°≈50'25 46°58'13		4550 Nov 10 13:57	0°♏
	4548 Apr 04 05:24	0°✠		4550 Dec 06 17:21	0°≈
desc. node	4548 Apr 21 09:04	19°✠31'13	evening max el	4551 Jan 03 08:22	29°≈42'16 47°07'00
	4548 Apr 30 09:14	0°Υ		4551 Jan 03 15:24	0°✠
	4548 May 25 17:46	0°♂	asc. node	4551 Jan 28 06:13	22°✠02'20
	4548 Jun 19 18:08	0°♂		4551 Feb 10 10:02	0°Υ
	4548 Jul 14 14:24	0°♎	greatest brilliancy	4551 Feb 12 21:50	1°Υ00'54 -4.9m
	4548 Aug 08 07:16	0°Ω	retrograde	4551 Feb 23 01:54	2°Υ58'52
asc. node	4548 Aug 12 11:10	5°Ω04'26		4551 Mar 07 03:09	30°♏✠
	4548 Sep 01 20:13	0°♍	evening set	4551 Mar 12 12:20	27°✠03'28
morning set	4548 Sep 09 23:19	9°♍59'02	min. Earth dist.	4551 Mar 15 03:16	25°✠27'19 0.27127 AU
	4548 Sep 26 05:05	0°♎	inferior conj	4551 Mar 15 18:04	25°✠04'25 8°47'36
max. Earth dist.	4548 Oct 13 20:00	21°♎48'07 1.72777 AU	minimum elong	4551 Mar 15 12:58	25°✠12'19 8°47'13
			morning rise	4551 Mar 18 13:46	23°✠20'56
superior conj	4548 Oct 16 12:20	25°♎07'32 1°22'30	direct	4551 Apr 05 08:32	17°✠18'35
minimum elong	4548 Oct 16 17:05	25°♎22'15 1°22'26	greatest brilliancy	4551 Apr 14 11:28	18°✠53'30 -4.9m
	4548 Oct 20 10:38	0°♎		4551 May 03 18:08	0°Υ
	4548 Nov 13 14:09	0°♏	desc. node	4551 May 19 20:48	13°Υ55'42
evening rise	4548 Nov 23 09:38	12°♏12'41	morning max el	4551 May 25 04:35	19°Υ03'45 46°22'51
desc. node	4548 Dec 02 01:48	23°♏00'34		4551 Jun 04 23:32	0°♂
	4548 Dec 07 16:31	0°♏		4551 Jul 02 12:40	0°♂
	4548 Dec 31 18:13	0°≈		4551 Jul 28 17:04	0°♎
	4549 Jan 24 20:08	0°✠		4551 Aug 23 05:11	0°Ω
	4549 Feb 18 00:32	0°Υ	asc. node	4551 Sep 09 23:00	21°Ω13'00
	4549 Mar 14 11:49	0°♂		4551 Sep 17 05:43	0°♍
asc. node	4549 Mar 25 03:50	12°♂53'20		4551 Oct 11 20:46	0°♎
	4549 Apr 08 13:12	0°♂		4551 Nov 05 04:24	0°♎
	4549 May 04 18:17	0°♎	morning set	4551 Nov 19 06:47	17°♎31'24
evening max el	4549 May 28 22:56	25°♎23'37 45°52'38		4551 Nov 29 07:00	0°♏
	4549 Jun 02 18:08	0°Ω		4551 Dec 23 06:34	0°♏
greatest brilliancy	4549 Jul 06 01:39	23°Ω53'40 -4.7m	max. Earth dist.	4551 Dec 26 00:17	3°♏25'52 1.71484 AU
desc. node	4549 Jul 14 18:33	26°Ω00'41			
retrograde	4549 Jul 17 03:40	26°Ω07'17	superior conj	4551 Dec 28 07:05	6°♏17'37 0°05'31

minimum elong	4551 Dec 28 08:29	6°  21'59	0°05'27	morning rise	4554 Jun 02 01:57	4°  00'35	
behind sun begin	4551 Dec 27 08:19	5°  06'14			4554 Jun 12 11:33	30°  R 	
behind sun end	4551 Dec 29 08:38	7°  37'44		desc. node	4554 Jun 16 08:38	29°  8'34'09	
desc. node	4551 Dec 30 13:44	9°  08'55		direct	4554 Jun 17 05:07	29°  8'33'18	
	4552 Jan 16 04:25	0°  ≈			4554 Jun 22 01:36	0°  II	
evening rise	4552 Feb 06 23:40	27°  ≈23'31		greatest brilliancy	4554 Jun 27 02:17	1°  II19'41	-4.8m
	4552 Feb 09 01:29	0°  ✕		morning max el	4554 Aug 05 00:49	29°  II28'38	45°45'25
	4552 Mar 03 23:14	0°  Y			4554 Aug 05 13:56	0°  ☾	
	4552 Mar 27 23:54	0°  8			4554 Sep 03 14:18	0°  Ω	
	4552 Apr 21 06:28	0°  II			4554 Sep 30 05:24	0°  ൬	
asc. node	4552 Apr 21 15:43	0°  II28'22		asc. node	4554 Oct 07 10:49	8°  ൬24'17	
	4552 May 15 22:25	0°  ☾			4554 Oct 25 16:34	0°  ♄	
	4552 Jun 10 04:36	0°  Ω			4554 Nov 19 10:38	0°  ♍	
	4552 Jul 06 11:01	0°  ൬			4554 Dec 13 18:09	0°  ♂	
	4552 Aug 03 21:56	0°  ♄			4555 Jan 06 19:37	0°  ♄	
evening max el	4552 Aug 07 16:46	3°  ♄40'19	45°31'40	greatest brilliancy	4555 Jan 21 12:58	18°  ♄26'53	-3.9m
desc. node	4552 Aug 11 06:26	7°  ♄02'19		desc. node	4555 Jan 27 01:29	25°  ♄22'37	
	4552 Sep 11 12:56	0°  ♍			4555 Jan 30 17:50	0°  ≈	
greatest brilliancy	4552 Sep 15 17:23	1°  ♍38'29	-4.7m	morning set	4555 Feb 01 09:54	2°  ≈05'53	
retrograde	4552 Sep 25 07:01	3°  ♍17'27			4555 Feb 23 14:31	0°  ✕	
	4552 Oct 08 08:06	30°  R  ♄					
evening set	4552 Oct 13 06:47	27°  ♄16'54		superior conj	4555 Mar 14 20:14	24°  ✕11'28	-1°23'49
inferior conj	4552 Oct 16 14:25	25°  ♄14'26	-8°24'38	minimum elong	4555 Mar 14 13:58	23°  ✕51'47	1°23'45
minimum elong	4552 Oct 16 19:21	25°  ♄06'44	8°24'15	max. Earth dist.	4555 Mar 17 02:11	27°  ✕00'57	1.71292 AU
min. Earth dist.	4552 Oct 17 08:16	24°  ♄46'35	0.28571 AU		4555 Mar 19 11:12	0°  Y	
morning rise	4552 Oct 20 07:41	22°  ♄56'57			4555 Apr 12 09:41	0°  8	
direct	4552 Nov 07 00:29	17°  ♄01'21		evening rise	4555 Apr 24 08:09	14°  8'53'43	
greatest brilliancy	4552 Nov 18 02:24	19°  ♄16'35	-4.8m		4555 May 06 11:41	0°  II	
asc. node	4552 Dec 02 08:28	27°  ♄23'55		asc. node	4555 May 20 03:41	16°  II54'59	
	4552 Dec 05 19:45	0°  ♍			4555 May 30 18:35	0°  ☾	
morning max el	4552 Dec 27 05:49	19°  ♍25'17	46°37'07		4555 Jun 24 07:26	0°  Ω	
	4553 Jan 06 09:57	0°  ♂			4555 Jul 19 03:56	0°  ൬	
	4553 Feb 02 03:27	0°  ♄			4555 Aug 13 11:39	0°  ♄	
	4553 Feb 27 10:39	0°  ≈		desc. node	4555 Sep 08 18:06	0°  ♍12'10	
desc. node	4553 Mar 23 23:11	29°  ≈46'44			4555 Sep 08 13:47	0°  ♍	
	4553 Mar 24 03:31	0°  ✕			4555 Oct 06 03:14	0°  ♂	
	4553 Apr 17 14:04	0°  Y		evening max el	4555 Oct 19 22:02	13°  ♂52'35	46°12'47
	4553 May 11 22:26	0°  8			4555 Nov 07 00:21	0°  ♄	
	4553 Jun 05 06:55	0°  II		greatest brilliancy	4555 Nov 28 22:31	13°  ♄07'45	-4.8m
	4553 Jun 29 16:18	0°  ☾		retrograde	4555 Dec 08 10:12	14°  ♄48'19	
morning set	4553 Jul 01 12:28	2°  ☾15'43		evening set	4555 Dec 22 21:21	10°  ♄42'10	
asc. node	4553 Jul 15 01:19	18°  ☾53'48		inferior conj	4555 Dec 29 01:39	7°  ♄06'36	-0°27'34
	4553 Jul 24 02:06	0°  Ω		minimum elong	4555 Dec 29 02:42	7°  ♄04'59	0°27'13
				min. Earth dist.	4555 Dec 29 10:41	6°  ♄52'50	0.26800 AU
superior conj	4553 Aug 07 11:49	17°  Ω42'55	0°52'11	asc. node	4555 Dec 30 20:19	6°  ♄01'51	
minimum elong	4553 Aug 07 03:07	17°  Ω16'08	0°51'50	morning rise	4556 Jan 04 07:31	3°  ♄27'48	
max. Earth dist.	4553 Aug 06 21:22	16°  Ω58'28	1.73483 AU		4556 Jan 13 00:49	30°  R  ♂	
	4553 Aug 17 11:27	0°  ൬		direct	4556 Jan 18 16:37	29°  ♂20'11	
	4553 Sep 10 20:07	0°  ♄			4556 Jan 24 11:55	0°  ♄	
evening rise	4553 Sep 12 11:43	2°  ♄01'56		greatest brilliancy	4556 Jan 29 06:20	1°  ♄27'11	-4.9m
	4553 Oct 05 04:44	0°  ♍			4556 Mar 06 20:14	0°  ≈	
	4553 Oct 29 14:15	0°  ♂		morning max el	4556 Mar 09 07:52	2°  ≈29'17	46°58'28
desc. node	4553 Nov 03 15:59	6°  ♂13'40			4556 Apr 03 22:09	0°  ✕	
	4553 Nov 23 01:15	0°  ♄		desc. node	4556 Apr 20 11:05	18°  ✕54'07	
	4553 Dec 17 14:29	0°  ≈			4556 Apr 29 23:20	0°  Y	
	4554 Jan 11 08:25	0°  ✕			4556 May 25 06:30	0°  8	
	4554 Feb 05 14:26	0°  Y			4556 Jun 19 06:02	0°  II	
asc. node	4554 Feb 24 17:56	21°  Y52'58			4556 Jul 14 01:44	0°  ☾	
	4554 Mar 04 03:23	0°  8			4556 Aug 07 18:14	0°  Ω	
evening max el	4554 Mar 16 12:30	12°  8'58'23	46°52'10	asc. node	4556 Aug 11 13:06	4°  Ω37'00	
	4554 Apr 03 20:07	0°  II			4556 Sep 01 06:58	0°  ൬	
greatest brilliancy	4554 Apr 25 10:02	13°  II40'27	-4.8m	morning set	4556 Sep 07 16:42	7°  ൬51'55	
retrograde	4554 May 05 22:22	15°  II44'47			4556 Sep 25 15:46	0°  ♄	
evening set	4554 May 21 22:07	10°  II45'47		max. Earth dist.	4556 Oct 11 14:37	19°  ♄43'53	1.72816 AU
inferior conj	4554 May 27 02:45	7°  II36'01	4°42'35				
minimum elong	4554 May 27 11:52	7°  II21'43	4°40'11	superior conj	4556 Oct 14 05:06	22°  ♄57'28	1°23'17
min. Earth dist.	4554 May 27 00:27	7°  II39'36	0.28124 AU	minimum elong	4556 Oct 14 09:10	23°  ♄10'04	1°23'14

	4556 Oct 19 21:22	0°♌			4559 May 04 07:39	0°♍		
	4556 Nov 13 00:59	0°♊		desc. node	4559 May 18 22:55	13°♍01'46		
evening rise	4556 Nov 20 23:54	9°♊53'49		morning max el	4559 May 22 17:10	16°♍40'52	46°24'27	
desc. node	4556 Dec 01 03:55	22°♊33'09			4559 Jun 04 18:26	0°♋		
	4556 Dec 07 03:29	0°♋			4559 Jul 02 03:16	0°♌		
	4556 Dec 31 05:23	0°♎			4559 Jul 28 05:48	0°♍		
	4557 Jan 24 07:33	0°♎			4559 Aug 22 16:55	0°♎		
	4557 Feb 17 12:20	0°♍		asc. node	4559 Sep 09 00:57	20°♎44'51		
	4557 Mar 14 00:14	0°♋			4559 Sep 16 16:54	0°♎		
asc. node	4557 Mar 24 05:48	12°♋20'49			4559 Oct 11 07:37	0°♌		
	4557 Apr 08 02:47	0°♌			4559 Nov 04 15:06	0°♌		
	4557 May 04 10:26	0°♍		morning set	4559 Nov 16 21:45	15°♌15'19		
evening max el	4557 May 26 15:38	23°♍13'50	45°54'18		4559 Nov 28 17:40	0°♊		
	4557 Jun 02 18:32	0°♎			4559 Dec 22 17:17	0°♋		
greatest brilliancy	4557 Jul 03 17:29	21°♎43'57	-4.7m	max. Earth dist.	4559 Dec 23 08:09	0°♋46'32	1.71524 AU	
desc. node	4557 Jul 13 20:34	23°♎56'52						
retrograde	4557 Jul 14 20:28	23°♎58'02		superior conj	4559 Dec 25 19:00	3°♋50'55	0°09'19	
evening set	4557 Jul 30 09:21	19°♎17'11		minimum elong	4559 Dec 25 21:20	3°♋58'14	0°09'12	
inferior conj	4557 Aug 05 08:03	15°♎41'29	-5°00'38	behind sun begin	4559 Dec 25 00:12	2°♋52'01		
minimum elong	4557 Aug 04 22:48	15°♎55'58	4°58'26	behind sun end	4559 Dec 26 18:28	5°♋04'27		
min. Earth dist.	4557 Aug 04 22:40	15°♎56'11	0.28999 AU	desc. node	4559 Dec 29 15:41	8°♋41'21		
morning rise	4557 Aug 10 12:32	12°♎32'18			4560 Jan 15 15:13	0°♎		
direct	4557 Aug 26 22:10	7°♎25'51		evening rise	4560 Feb 04 10:15	24°♎51'45		
greatest brilliancy	4557 Sep 06 01:25	9°♎17'22	-4.7m		4560 Feb 08 12:23	0°♎		
	4557 Oct 06 19:25	0°♎			4560 Mar 03 10:12	0°♍		
morning max el	4557 Oct 14 21:31	7°♎32'40	45°52'26		4560 Mar 27 10:59	0°♋		
asc. node	4557 Nov 03 22:47	28°♎10'28		asc. node	4560 Apr 20 17:51	0°♌00'09		
	4557 Nov 05 15:10	0°♌			4560 Apr 20 17:48	0°♌		
	4557 Dec 02 02:44	0°♌			4560 May 15 10:15	0°♍		
	4557 Dec 27 06:30	0°♊			4560 Jun 09 17:26	0°♎		
	4558 Jan 20 18:44	0°♋			4560 Jul 06 02:01	0°♎		
	4558 Feb 13 23:15	0°♎			4560 Aug 03 19:05	0°♌		
desc. node	4558 Feb 23 13:17	11°♎56'48		evening max el	4560 Aug 05 06:41	1°♌25'41	45°31'11	
	4558 Mar 10 00:08	0°♎		desc. node	4560 Aug 10 08:20	6°♌10'54		
	4558 Apr 02 23:55	0°♍		greatest brilliancy	4560 Sep 13 07:35	29°♌26'08	-4.7m	
morning set	4558 Apr 19 00:48	20°♍02'06			4560 Sep 15 04:01	0°♌		
	4558 Apr 27 00:31	0°♋		retrograde	4560 Sep 22 21:35	1°♌05'51		
	4558 May 21 03:20	0°♌			4560 Sep 30 09:00	30°♌		
				evening set	4560 Oct 10 23:08	25°♌03'01		
superior conj	4558 May 28 00:00	8°♌30'29	-0°44'57	inferior conj	4560 Oct 14 05:52	23°♌01'59	-8°28'47	
minimum elong	4558 May 28 09:05	8°♌58'37	0°44'35	minimum elong	4560 Oct 14 10:03	22°♌55'27	8°28'32	
max. Earth dist.	4558 May 31 07:30	12°♌36'41	1.72686 AU	min. Earth dist.	4560 Oct 14 23:11	22°♌34'58	0.28627 AU	
	4558 Jun 14 09:00	0°♍		morning rise	4560 Oct 17 20:43	20°♌48'03		
asc. node	4558 Jun 16 15:32	2°♍48'16		direct	4560 Nov 04 15:44	14°♌48'01		
evening rise	4558 Jul 04 21:09	25°♍16'15		greatest brilliancy	4560 Nov 15 18:28	17°♌03'27	-4.8m	
	4558 Jul 08 17:27	0°♎		asc. node	4560 Dec 01 10:27	26°♌12'09		
	4558 Aug 02 04:34	0°♎			4560 Dec 06 06:58	0°♌		
	4558 Aug 26 18:56	0°♌		morning max el	4560 Dec 24 20:06	17°♌05'46	46°35'38	
	4558 Sep 20 14:01	0°♌			4561 Jan 06 04:23	0°♊		
desc. node	4558 Oct 06 06:05	18°♌47'43			4561 Feb 01 18:07	0°♋		
	4558 Oct 15 15:53	0°♊			4561 Feb 26 23:42	0°♎		
	4558 Nov 10 03:48	0°♋		desc. node	4561 Mar 23 01:11	29°♎15'37		
	4558 Dec 06 09:50	0°♎			4561 Mar 23 15:41	0°♎		
evening max el	4558 Dec 31 22:41	27°♎19'51	47°06'01		4561 Apr 17 01:37	0°♍		
	4559 Jan 03 14:44	0°♎			4561 May 11 09:33	0°♋		
asc. node	4559 Jan 27 08:12	20°♎43'09			4561 Jun 04 17:43	0°♌		
greatest brilliancy	4559 Feb 10 11:42	28°♎35'53	-4.9m	morning set	4561 Jun 29 05:38	0°♍08'28		
	4559 Feb 15 08:23	0°♍			4561 Jun 29 02:53	0°♍		
retrograde	4559 Feb 20 15:10	0°♍32'59		asc. node	4561 Jul 14 03:15	18°♍27'34		
	4559 Feb 25 18:51	30°♎			4561 Jul 23 12:33	0°♎		
evening set	4559 Mar 09 21:59	24°♎43'55		max. Earth dist.	4561 Aug 04 17:20	15°♎00'13	1.73485 AU	
min. Earth dist.	4559 Mar 12 16:04	23°♎02'58	0.27082 AU					
inferior conj	4559 Mar 13 07:10	22°♎39'36	8°41'47	superior conj	4561 Aug 05 06:05	15°♎39'28	0°49'39	
minimum elong	4559 Mar 13 01:13	22°♎48'49	8°41'16	minimum elong	4561 Aug 04 21:34	15°♎13'15	0°49'18	
morning rise	4559 Mar 16 04:38	20°♎53'20			4561 Aug 16 21:53	0°♎		
direct	4559 Apr 02 21:15	14°♎54'41		evening rise	4561 Sep 10 06:04	29°♎58'11		
greatest brilliancy	4559 Apr 12 00:04	16°♎29'11	-4.9m		4561 Sep 10 06:39	0°♌		

	4561 Oct 04 15:29	0°♌			4564 Mar 06 19:31	0°♏	
	4561 Oct 29 01:20	0°♊		morning max el	4564 Mar 06 22:25	0°♏07'21	46°58'40
desc. node	4561 Nov 02 18:03	5°♊45'49			4564 Apr 03 14:39	0°♋	
	4561 Nov 22 12:48	0°♊		desc. node	4564 Apr 19 13:15	18°♋17'38	
	4561 Dec 17 02:38	0°♏			4564 Apr 29 13:17	0°♑	
	4562 Jan 10 21:31	0°♋			4564 May 24 19:08	0°♌	
	4562 Feb 05 05:11	0°♑			4564 Jun 18 17:52	0°♌	
asc. node	4562 Feb 23 19:56	21°♑11'03			4564 Jul 13 13:01	0°♌	
	4562 Mar 03 21:56	0°♌			4564 Aug 07 05:09	0°♌	
evening max el	4562 Mar 14 02:17	10°♌36'54	46°53'55	asc. node	4564 Aug 10 15:09	4°♌10'03	
	4562 Apr 04 07:01	0°♌			4564 Aug 31 17:41	0°♌	
greatest brilliancy	4562 Apr 23 02:08	11°♌25'01	-4.8m	morning set	4564 Sep 05 10:31	5°♌46'24	
retrograde	4562 May 03 13:54	13°♌29'18			4564 Sep 25 02:24	0°♌	
evening set	4562 May 19 15:59	8°♌26'10		max. Earth dist.	4564 Oct 09 08:53	17°♌38'51	1.72854 AU
inferior conj	4562 May 24 17:49	5°♌20'46	5°00'46				
minimum elong	4562 May 25 03:19	5°♌05'55	4°58'22	superior conj	4564 Oct 11 22:23	20°♌49'18	1°23'55
min. Earth dist.	4562 May 24 15:45	5°♌24'00	0.28092 AU	minimum elong	4564 Oct 12 01:46	20°♌59'48	1°23'54
morning rise	4562 May 30 14:57	1°♌48'30			4564 Oct 19 08:03	0°♌	
	4562 Jun 03 04:32	30°♌♋			4564 Nov 12 11:48	0°♊	
direct	4562 Jun 14 19:20	27°♌18'19		evening rise	4564 Nov 18 14:32	7°♊36'14	
desc. node	4562 Jun 15 10:34	27°♌18'48		desc. node	4564 Nov 30 05:54	22°♊05'13	
greatest brilliancy	4562 Jun 24 16:48	29°♌05'13	-4.8m		4564 Dec 06 14:30	0°♊	
	4562 Jun 27 02:32	0°♌			4564 Dec 30 16:39	0°♏	
morning max el	4562 Aug 02 16:27	27°♌17'44	45°46'15		4565 Jan 23 19:09	0°♋	
	4562 Aug 05 11:43	0°♌			4565 Feb 17 00:21	0°♑	
	4562 Sep 03 05:35	0°♌			4565 Mar 13 12:54	0°♌	
	4562 Sep 29 18:22	0°♌		asc. node	4565 Mar 23 07:56	11°♌48'04	
asc. node	4562 Oct 06 12:58	7°♌53'43			4565 Apr 07 16:39	0°♌	
	4562 Oct 25 04:27	0°♌			4565 May 04 03:02	0°♌	
	4562 Nov 18 22:00	0°♌		evening max el	4565 May 24 08:02	21°♌02'49	45°56'03
	4562 Dec 13 05:17	0°♊			4565 Jun 02 20:24	0°♌	
	4563 Jan 06 06:37	0°♊		greatest brilliancy	4565 Jul 01 10:05	19°♌34'51	-4.7m
greatest brilliancy	4563 Jan 23 04:49	21°♊12'51	-3.9m	retrograde	4565 Jul 12 12:58	21°♌48'31	
desc. node	4563 Jan 26 03:27	24°♊54'31		desc. node	4565 Jul 12 22:33	21°♌48'20	
morning set	4563 Jan 29 20:10	29°♊33'02		evening set	4565 Jul 27 23:55	17°♌10'47	
	4563 Jan 30 04:45	0°♏		min. Earth dist.	4565 Aug 02 14:45	13°♌47'23	0.28972 AU
	4563 Feb 23 01:22	0°♋		inferior conj	4565 Aug 03 00:23	13°♌32'15	-4°44'25
				minimum elong	4565 Aug 02 15:26	13°♌46'19	4°42'12
superior conj	4563 Mar 12 06:41	21°♋39'25	-1°22'41	morning rise	4565 Aug 08 07:17	10°♌19'26	
minimum elong	4563 Mar 11 23:29	21°♋16'48	1°22'34	direct	4565 Aug 24 14:36	5°♌17'15	
max. Earth dist.	4563 Mar 14 08:20	24°♋15'26	1.71268 AU	greatest brilliancy	4565 Sep 03 16:27	7°♌07'23	-4.7m
	4563 Mar 18 22:03	0°♑			4565 Oct 06 20:42	0°♌	
	4563 Apr 11 20:32	0°♌		morning max el	4565 Oct 12 12:31	5°♌20'02	45°51'24
evening rise	4563 Apr 21 20:04	12°♌27'34		asc. node	4565 Nov 03 00:45	27°♌30'45	
	4563 May 05 22:34	0°♌			4565 Nov 05 07:29	0°♌	
asc. node	4563 May 19 05:43	16°♌27'34			4565 Dec 01 16:23	0°♌	
	4563 May 30 05:34	0°♌			4565 Dec 26 18:59	0°♊	
	4563 Jun 23 18:39	0°♌			4566 Jan 20 06:38	0°♊	
	4563 Jul 18 15:39	0°♌			4566 Feb 13 10:49	0°♏	
	4563 Aug 13 00:19	0°♌		desc. node	4566 Feb 22 15:23	11°♏27'30	
desc. node	4563 Sep 07 20:11	29°♌37'08			4566 Mar 09 11:30	0°♋	
	4563 Sep 08 04:21	0°♌			4566 Apr 02 11:07	0°♑	
	4563 Oct 05 22:17	0°♊		morning set	4566 Apr 16 13:07	17°♑36'08	
evening max el	4563 Oct 17 12:38	11°♊35'57	46°10'38		4566 Apr 26 11:34	0°♌	
	4563 Nov 07 14:49	0°♊			4566 May 20 14:15	0°♌	
greatest brilliancy	4563 Nov 26 11:02	10°♊43'19	-4.8m				
retrograde	4563 Dec 05 23:11	12°♊23'39		superior conj	4566 May 25 14:32	6°♌12'57	-0°47'58
evening set	4563 Dec 20 11:18	8°♊15'47		minimum elong	4566 May 26 00:02	6°♌42'24	0°47'35
inferior conj	4563 Dec 26 14:21	4°♊41'27	-0°51'31	max. Earth dist.	4566 May 29 02:25	10°♌32'52	1.72634 AU
minimum elong	4563 Dec 26 16:20	4°♊38'26	0°50'53		4566 Jun 13 19:52	0°♌	
min. Earth dist.	4563 Dec 27 00:23	4°♊26'11	0.26841 AU	asc. node	4566 Jun 15 17:26	2°♌20'39	
asc. node	4563 Dec 29 22:17	2°♊41'09		evening rise	4566 Jul 02 14:08	23°♌07'18	
morning rise	4564 Jan 01 20:54	1°♊01'51			4566 Jul 08 04:22	0°♌	
	4564 Jan 03 21:45	30°♌♊			4566 Aug 01 15:38	0°♌	
direct	4564 Jan 16 06:32	26°♊54'25			4566 Aug 26 06:18	0°♌	
greatest brilliancy	4564 Jan 26 20:22	29°♊01'54	-4.9m		4566 Sep 20 01:53	0°♌	
	4564 Jan 29 03:58	0°♊		desc. node	4566 Oct 05 08:11	18°♌17'05	

	4566 Oct 15 04:36	0°♊		4569 May 10 21:02	0°♋	
	4566 Nov 09 17:57	0°♌		4569 Jun 04 04:57	0°♍	
	4566 Dec 06 02:47	0°♎	morning set	4569 Jun 26 22:17	27°♎58'03	
evening max el	4566 Dec 29 11:51	24°♎53'59 47°04'45		4569 Jun 28 13:56	0°♏	
	4567 Jan 03 15:26	0°♐	asc. node	4569 Jul 13 05:20	18°♏00'17	
asc. node	4567 Jan 26 10:11	19°♐20'24		4569 Jul 22 23:29	0°♑	
greatest brilliancy	4567 Feb 08 01:46	26°♐09'44 -4.9m				
retrograde	4567 Feb 18 03:48	28°♐05'36	superior conj	4569 Aug 02 23:47	13°♑32'46 0°47'00	
evening set	4567 Mar 07 07:08	22°♐23'07	minimum elong	4569 Aug 02 15:29	13°♑07'15 0°46'38	
min. Earth dist.	4567 Mar 10 05:11	20°♐36'18 0.27046 AU	max. Earth dist.	4569 Aug 02 13:59	13°♑02'38 1.73483 AU	
inferior conj	4567 Mar 10 20:05	20°♐13'11 8°34'52		4569 Aug 16 08:46	0°♒	
minimum elong	4567 Mar 10 13:21	20°♐23'39 8°34'11	evening rise	4569 Sep 08 00:04	27°♒52'10	
morning rise	4567 Mar 13 19:45	18°♐23'32		4569 Sep 09 17:37	0°♓	
direct	4567 Mar 31 09:22	12°♐28'43		4569 Oct 04 02:40	0°♓	
greatest brilliancy	4567 Apr 09 13:24	14°♐03'45 -4.9m		4569 Oct 28 12:51	0°♊	
	4567 May 04 18:26	0°♑	desc. node	4569 Nov 01 19:59	5°♊16'13	
desc. node	4567 May 18 00:50	12°♑06'50		4569 Nov 22 00:47	0°♌	
morning max el	4567 May 20 05:22	14°♑15'12 46°26'08		4569 Dec 16 15:13	0°♍	
	4567 Jun 04 13:25	0°♋		4570 Jan 10 11:01	0°♎	
	4567 Jul 01 18:10	0°♍		4570 Feb 04 20:23	0°♏	
	4567 Jul 27 18:51	0°♏	asc. node	4570 Feb 22 22:04	20°♑28'20	
	4567 Aug 22 04:58	0°♑		4570 Mar 03 17:14	0°♋	
asc. node	4567 Sep 08 03:03	20°♑16'08	evening max el	4570 Mar 11 17:00	8°♋17'10 46°55'38	
	4567 Sep 16 04:23	0°♒		4570 Apr 04 22:00	0°♍	
	4567 Oct 10 18:47	0°♓	greatest brilliancy	4570 Apr 20 17:32	9°♍08'04 -4.8m	
	4567 Nov 04 02:06	0°♓	retrograde	4570 May 01 05:47	11°♍12'51	
morning set	4567 Nov 14 13:10	12°♓59'46	evening set	4570 May 17 09:55	6°♍05'26	
	4567 Nov 28 04:37	0°♊	inferior conj	4570 May 22 08:52	3°♍04'19 5°18'35	
max. Earth dist.	4567 Dec 20 19:21	28°♊16'53 1.71563 AU	minimum elong	4570 May 22 18:40	2°♍49'02 5°16'09	
	4567 Dec 22 04:17	0°♌	min. Earth dist.	4570 May 22 06:37	3°♍07'50 0.28067 AU	
				4570 May 27 10:27	30°♒♋	
superior conj	4567 Dec 23 07:35	1°♌25'32 0°13'02	morning rise	4570 May 28 03:45	29°♋35'36	
minimum elong	4567 Dec 23 10:50	1°♌35'42 0°12'54	direct	4570 Jun 12 10:06	25°♋02'13	
behind sun begin	4567 Dec 22 19:17	0°♌47'00	desc. node	4570 Jun 14 12:37	25°♋07'23	
behind sun end	4567 Dec 24 02:22	2°♌24'23	greatest brilliancy	4570 Jun 22 06:51	26°♋49'00 -4.8m	
desc. node	4567 Dec 28 17:40	8°♌13'08		4570 Jun 29 11:06	0°♍	
	4568 Jan 15 02:17	0°♎	morning max el	4570 Jul 31 08:50	25°♍07'18 45°46'55	
evening rise	4568 Feb 01 21:26	22°♎21'11		4570 Aug 05 09:15	0°♏	
	4568 Feb 07 23:32	0°♐		4570 Sep 02 21:08	0°♑	
	4568 Mar 02 21:29	0°♑		4570 Sep 29 07:40	0°♒	
	4568 Mar 26 22:28	0°♋	asc. node	4570 Oct 05 14:57	7°♒21'29	
asc. node	4568 Apr 19 19:48	29°♋29'55		4570 Oct 24 16:40	0°♓	
	4568 Apr 20 05:37	0°♍		4570 Nov 18 09:41	0°♓	
	4568 May 14 22:38	0°♏		4570 Dec 12 16:41	0°♊	
	4568 Jun 09 06:54	0°♑		4571 Jan 05 17:54	0°♌	
	4568 Jul 05 17:49	0°♒	greatest brilliancy	4571 Jan 23 18:09	22°♌34'54 -3.9m	
evening max el	4568 Aug 02 20:44	29°♒10'03 45°31'01	desc. node	4571 Jan 25 05:32	24°♌25'56	
	4568 Aug 03 17:40	0°♓	morning set	4571 Jan 27 06:39	27°♌00'08	
desc. node	4568 Aug 09 10:27	5°♓17'30		4571 Jan 29 15:56	0°♍	
greatest brilliancy	4568 Sep 10 21:10	27°♓11'58 -4.7m		4571 Feb 22 12:29	0°♎	
retrograde	4568 Sep 20 12:39	28°♓53'13				
evening set	4568 Oct 08 15:12	22°♓48'14	superior conj	4571 Mar 09 17:20	19°♐07'10 -1°21'22	
inferior conj	4568 Oct 11 21:17	20°♓48'18 -8°32'18	minimum elong	4571 Mar 09 09:15	18°♐41'47 1°21'13	
minimum elong	4568 Oct 12 00:42	20°♓42'59 8°32'08	max. Earth dist.	4571 Mar 11 17:16	21°♐37'50 1.71240 AU	
min. Earth dist.	4568 Oct 12 13:49	20°♓22'33 0.28679 AU		4571 Mar 18 09:07	0°♑	
morning rise	4568 Oct 15 09:58	18°♓37'46		4571 Apr 11 07:34	0°♋	
direct	4568 Nov 02 07:17	12°♓33'29	evening rise	4571 Apr 19 08:12	10°♋01'24	
greatest brilliancy	4568 Nov 13 10:21	14°♓49'12 -4.8m		4571 May 05 09:39	0°♍	
asc. node	4568 Nov 30 12:24	25°♓01'12	asc. node	4571 May 18 07:38	15°♍59'13	
	4568 Dec 06 15:41	0°♓		4571 May 29 16:46	0°♏	
morning max el	4568 Dec 22 11:28	14°♓48'09 46°34'19		4571 Jun 23 06:09	0°♑	
	4569 Jan 05 22:43	0°♊		4571 Jul 18 03:43	0°♒	
	4569 Feb 01 08:54	0°♌		4571 Aug 12 13:26	0°♓	
	4569 Feb 26 12:57	0°♎	desc. node	4571 Sep 06 22:15	29°♓00'39	
desc. node	4569 Mar 22 03:18	28°♎44'08		4571 Sep 07 19:30	0°♓	
	4569 Mar 23 04:03	0°♐		4571 Oct 05 18:19	0°♊	
	4569 Apr 16 13:28	0°♑	evening max el	4571 Oct 15 03:23	9°♊18'48 46°08'35	

	4571 Nov 08 10:43	0°♂			4574 May 20 01:05	0°♂	
greatest brilliancy	4571 Nov 23 23:56	8°♂18'46	-4.8m				
retrograde	4571 Dec 03 11:46	9°♂58'12		superior conj	4574 May 23 05:09	3°♂55'57	-0°50'54
evening set	4571 Dec 18 01:27	5°♂48'41		minimum elong	4574 May 23 15:00	4°♂26'30	0°50'30
inferior conj	4571 Dec 24 03:04	2°♂15'48	-1°15'18	max. Earth dist.	4574 May 26 19:16	8°♂22'53	1.72578 AU
minimum elong	4571 Dec 24 05:57	2°♂11'25	1°14'23		4574 Jun 13 06:37	0°♂	
min. Earth dist.	4571 Dec 24 14:13	1°♂58'49	0.26881 AU	asc. node	4574 Jun 14 19:34	1°♂54'00	
	4571 Dec 27 21:27	30°♂		evening rise	4574 Jun 30 07:12	20°♂59'00	
asc. node	4571 Dec 29 00:21	29°♂21'29			4574 Jul 07 15:08	0°♂	
morning rise	4571 Dec 30 09:59	28°♂35'25			4574 Aug 01 02:34	0°♂	
direct	4572 Jan 13 20:14	24°♂28'13			4574 Aug 25 17:33	0°♂	
greatest brilliancy	4572 Jan 24 10:27	26°♂36'00	-4.9m		4574 Sep 19 13:42	0°♂	
	4572 Jan 31 11:08	0°♂		desc. node	4574 Oct 04 10:05	17°♂45'58	
morning max el	4572 Mar 04 12:17	27°♂43'04	46°58'50		4574 Oct 14 17:20	0°♂	
	4572 Mar 06 18:03	0°♂			4574 Nov 09 08:15	0°♂	
	4572 Apr 03 07:00	0°♂			4574 Dec 05 20:08	0°♂	
desc. node	4572 Apr 18 15:06	17°♂40'13		evening max el	4574 Dec 27 00:31	22°♂26'58	47°03'37
	4572 Apr 29 03:13	0°♂			4575 Jan 03 17:25	0°♂	
	4572 May 24 07:47	0°♂		asc. node	4575 Jan 25 12:16	17°♂55'10	
	4572 Jun 18 05:43	0°♂		greatest brilliancy	4575 Feb 05 15:43	23°♂43'30	-4.9m
	4572 Jul 13 00:22	0°♂		retrograde	4575 Feb 15 16:25	25°♂38'36	
	4572 Aug 06 16:11	0°♂		evening set	4575 Mar 04 16:01	20°♂02'38	
asc. node	4572 Aug 09 17:12	3°♂42'46		inferior conj	4575 Mar 08 09:00	17°♂47'05	8°26'58
	4572 Aug 31 04:33	0°♂		minimum elong	4575 Mar 08 01:31	17°♂58'40	8°26'05
morning set	4572 Sep 03 04:06	3°♂39'42		min. Earth dist.	4575 Mar 07 18:19	18°♂09'47	0.27008 AU
	4572 Sep 24 13:13	0°♂		morning rise	4575 Mar 11 11:08	15°♂53'46	
max. Earth dist.	4572 Oct 07 00:25	15°♂24'54	1.72894 AU	direct	4575 Mar 28 21:18	10°♂02'53	
				greatest brilliancy	4575 Apr 07 02:55	11°♂39'03	-4.9m
superior conj	4572 Oct 09 15:28	18°♂40'01	1°24'27		4575 May 05 02:07	0°♂	
minimum elong	4572 Oct 09 18:09	18°♂48'20	1°24'26	desc. node	4575 May 17 02:54	11°♂14'01	
	4572 Oct 18 18:55	0°♂		morning max el	4575 May 17 18:07	11°♂51'25	46°27'52
	4572 Nov 11 22:46	0°♂			4575 Jun 04 07:38	0°♂	
evening rise	4572 Nov 16 04:56	5°♂17'30			4575 Jul 01 08:37	0°♂	
desc. node	4572 Nov 29 07:53	21°♂36'50			4575 Jul 27 07:34	0°♂	
	4572 Dec 06 01:39	0°♂			4575 Aug 21 16:43	0°♂	
	4572 Dec 30 04:03	0°♂		asc. node	4575 Sep 07 05:02	19°♂47'59	
	4573 Jan 23 06:51	0°♂			4575 Sep 15 15:34	0°♂	
	4573 Feb 16 12:29	0°♂			4575 Oct 10 05:41	0°♂	
	4573 Mar 13 01:41	0°♂			4575 Nov 03 12:53	0°♂	
asc. node	4573 Mar 22 09:51	11°♂14'24		morning set	4575 Nov 12 04:39	10°♂45'04	
	4573 Apr 07 06:40	0°♂			4575 Nov 27 15:24	0°♂	
	4573 May 03 19:56	0°♂		max. Earth dist.	4575 Dec 18 07:43	25°♂51'18	1.71606 AU
evening max el	4573 May 21 23:46	18°♂50'10	45°57'52				
	4573 Jun 02 23:41	0°♂		superior conj	4575 Dec 20 19:57	28°♂59'53	0°16'46
greatest brilliancy	4573 Jun 29 03:00	17°♂26'20	-4.7m	minimum elong	4575 Dec 21 00:04	29°♂12'47	0°16'35
retrograde	4573 Jul 10 05:01	19°♂39'27			4575 Dec 21 15:08	0°♂	
desc. node	4573 Jul 12 00:36	19°♂35'34		desc. node	4575 Dec 27 19:49	7°♂45'49	
evening set	4573 Jul 25 14:42	15°♂04'25			4576 Jan 14 13:13	0°♂	
inferior conj	4573 Jul 31 16:50	11°♂23'29	-4°27'46	evening rise	4576 Jan 30 08:16	19°♂50'01	
minimum elong	4573 Jul 31 08:13	11°♂37'01	4°25'35		4576 Feb 07 10:33	0°♂	
min. Earth dist.	4573 Jul 31 07:16	11°♂38'32	0.28949 AU		4576 Mar 02 08:35	0°♂	
morning rise	4573 Aug 06 02:02	8°♂07'02			4576 Mar 26 09:44	0°♂	
direct	4573 Aug 22 06:41	3°♂08'56		asc. node	4576 Apr 18 21:47	29°♂00'32	
greatest brilliancy	4573 Sep 01 08:12	4°♂58'17	-4.7m		4576 Apr 19 17:11	0°♂	
	4573 Oct 06 20:48	0°♂			4576 May 14 10:46	0°♂	
morning max el	4573 Oct 10 03:01	3°♂05'58	45°50'16		4576 Jun 08 20:09	0°♂	
asc. node	4573 Nov 02 02:41	26°♂51'06			4576 Jul 05 09:29	0°♂	
	4573 Nov 04 23:36	0°♂		evening max el	4576 Jul 31 11:53	26°♂58'21	45°31'00
	4573 Dec 01 06:00	0°♂			4576 Aug 03 16:43	0°♂	
	4573 Dec 26 07:28	0°♂		desc. node	4576 Aug 08 12:31	4°♂24'12	
	4574 Jan 19 18:31	0°♂		greatest brilliancy	4576 Sep 08 10:17	24°♂59'04	-4.7m
	4574 Feb 12 22:21	0°♂		retrograde	4576 Sep 18 04:21	26°♂42'28	
desc. node	4574 Feb 21 17:25	10°♂58'11		evening set	4576 Oct 06 07:09	20°♂35'50	
	4574 Mar 08 22:47	0°♂		inferior conj	4576 Oct 09 12:54	18°♂36'27	-8°34'57
	4574 Apr 01 22:14	0°♂		minimum elong	4576 Oct 09 15:34	18°♂32'19	8°34'50
morning set	4574 Apr 14 01:17	15°♂09'52		min. Earth dist.	4576 Oct 10 04:14	18°♂12'36	0.28731 AU
	4574 Apr 25 22:31	0°♂		morning rise	4576 Oct 12 23:46	16°♂28'50	

direct	4576 Oct 30 23:32	10° Ω 20'59		evening rise	4579 Apr 16 19:45	7° \mathcal{B} 34'01	
greatest brilliancy	4576 Nov 11 01:50	12° Ω 36'19	-4.8m		4579 May 04 20:29	0° Π	
asc. node	4576 Nov 29 14:31	23° Ω 53'52		asc. node	4579 May 17 09:45	15° Π 32'07	
	4576 Dec 06 21:25	0° \mathcal{M}			4579 May 29 03:42	0° \mathcal{G}	
morning max el	4576 Dec 20 03:33	12° \mathcal{M} 33'39	46°32'40		4579 Jun 22 17:22	0° Ω	
	4577 Jan 05 16:19	0° \mathcal{A}			4579 Jul 17 15:30	0° \mathcal{M}	
	4577 Jan 31 23:18	0° \mathcal{B}			4579 Aug 12 02:17	0° Ω	
	4577 Feb 26 01:54	0° \approx		desc. node	4579 Sep 06 00:11	28° Ω 24'33	
desc. node	4577 Mar 21 05:14	28° \approx 12'49			4579 Sep 07 10:29	0° \mathcal{M}	
	4577 Mar 22 16:11	0° \mathcal{H}			4579 Oct 05 14:31	0° \mathcal{A}	
	4577 Apr 16 01:02	0° Υ		evening max el	4579 Oct 12 17:48	7° \mathcal{A} 02'10	46°06'32
	4577 May 10 08:12	0° \mathcal{B}			4579 Nov 09 12:43	0° \mathcal{B}	
	4577 Jun 03 15:50	0° Π		greatest brilliancy	4579 Nov 21 13:41	5° \mathcal{B} 57'13	-4.8m
morning set	4577 Jun 24 14:57	25° Π 48'47		retrograde	4579 Dec 01 00:04	7° \mathcal{B} 35'11	
	4577 Jun 28 00:36	0° \mathcal{G}		evening set	4579 Dec 15 16:07	3° \mathcal{B} 23'48	
asc. node	4577 Jul 12 07:23	17° \mathcal{G} 34'04			4579 Dec 21 11:26	30° \mathcal{R} \mathcal{A}	
	4577 Jul 22 10:02	0° Ω		inferior conj	4579 Dec 21 16:10	29° \mathcal{A} 52'46	-1°38'41
				minimum elong	4579 Dec 21 19:54	29° \mathcal{A} 47'03	1°37'29
superior conj	4577 Jul 31 17:37	11° Ω 27'37	0°44'17	min. Earth dist.	4579 Dec 22 04:39	29° \mathcal{A} 33'40	0.26921 AU
minimum elong	4577 Jul 31 09:36	11° Ω 02'56	0°43'56	morning rise	4579 Dec 27 23:10	26° \mathcal{A} 11'43	
max. Earth dist.	4577 Jul 31 12:09	11° Ω 10'47	1.73478 AU	asc. node	4579 Dec 28 02:22	26° \mathcal{A} 07'28	
	4577 Aug 15 19:17	0° \mathcal{M}		direct	4580 Jan 11 09:53	22° \mathcal{A} 04'31	
evening rise	4577 Sep 05 18:27	25° \mathcal{M} 48'26		greatest brilliancy	4580 Jan 22 01:17	24° \mathcal{A} 13'03	-4.9m
	4577 Sep 09 04:12	0° Ω			4580 Feb 01 22:00	0° \mathcal{B}	
	4577 Oct 03 13:27	0° \mathcal{M}		morning max el	4580 Mar 02 01:15	25° \mathcal{B} 17'46	46°58'48
	4577 Oct 27 23:59	0° \mathcal{A}			4580 Mar 06 15:13	0° \approx	
desc. node	4577 Oct 31 22:04	4° \mathcal{A} 48'21			4580 Apr 02 22:43	0° \mathcal{H}	
	4577 Nov 21 12:23	0° \mathcal{B}		desc. node	4580 Apr 17 17:12	17° \mathcal{H} 04'39	
	4577 Dec 16 03:29	0° \approx			4580 Apr 28 16:45	0° Υ	
	4578 Jan 10 00:19	0° \mathcal{H}			4580 May 23 20:10	0° \mathcal{B}	
	4578 Feb 04 11:34	0° Υ			4580 Jun 17 17:21	0° Π	
asc. node	4578 Feb 21 23:58	19° Υ 45'00			4580 Jul 12 11:29	0° \mathcal{G}	
	4578 Mar 03 12:56	0° \mathcal{B}			4580 Aug 06 02:57	0° Ω	
evening max el	4578 Mar 09 08:38	6° \mathcal{B} 00'07	46°57'15	asc. node	4580 Aug 08 19:10	3° Ω 15'58	
	4578 Apr 05 17:58	0° Π			4580 Aug 30 15:08	0° \mathcal{M}	
greatest brilliancy	4578 Apr 18 08:56	6° Π 51'21	-4.9m	morning set	4580 Aug 31 21:40	1° \mathcal{M} 33'46	
retrograde	4578 Apr 28 21:42	8° Π 56'17			4580 Sep 23 23:46	0° Ω	
evening set	4578 May 15 03:51	3° Π 44'47		max. Earth dist.	4580 Oct 04 16:10	13° Ω 12'30	1.72934 AU
inferior conj	4578 May 19 23:45	0° Π 48'00	5°36'01				
minimum elong	4578 May 20 09:48	0° Π 32'19	5°33'35	superior conj	4580 Oct 07 08:47	16° Ω 32'26	1°24'52
min. Earth dist.	4578 May 19 21:10	0° Π 52'03	0.28035 AU	minimum elong	4580 Oct 07 10:45	16° Ω 38'30	1°24'51
	4578 May 21 06:35	30° \mathcal{R} \mathcal{B}			4580 Oct 18 05:31	0° \mathcal{M}	
morning rise	4578 May 25 16:09	27° \mathcal{B} 23'04			4580 Nov 11 09:30	0° \mathcal{A}	
direct	4578 Jun 10 01:00	22° \mathcal{B} 46'33		evening rise	4580 Nov 13 19:45	3° \mathcal{A} 00'57	
desc. node	4578 Jun 13 14:43	23° \mathcal{B} 01'22		desc. node	4580 Nov 28 10:01	21° \mathcal{A} 09'44	
greatest brilliancy	4578 Jun 19 20:12	24° \mathcal{B} 32'31	-4.8m		4580 Dec 05 12:33	0° \mathcal{B}	
	4578 Jun 30 23:06	0° Π			4580 Dec 29 15:11	0° \approx	
morning max el	4578 Jul 29 00:57	22° Π 57'15	45°47'38		4581 Jan 22 18:17	0° \mathcal{H}	
	4578 Aug 05 05:34	0° \mathcal{G}			4581 Feb 16 00:20	0° Υ	
	4578 Sep 02 12:00	0° Ω			4581 Mar 12 14:14	0° \mathcal{B}	
	4578 Sep 28 20:26	0° \mathcal{M}		asc. node	4581 Mar 21 11:52	10° \mathcal{B} 41'39	
asc. node	4578 Oct 04 16:52	6° \mathcal{M} 50'32			4581 Apr 06 20:35	0° Π	
	4578 Oct 24 04:26	0° Ω			4581 May 03 13:01	0° \mathcal{G}	
	4578 Nov 17 20:55	0° \mathcal{M}		evening max el	4581 May 19 14:41	16° \mathcal{G} 35'40	45°59'33
	4578 Dec 12 03:41	0° \mathcal{A}			4581 Jun 03 04:43	0° Ω	
	4579 Jan 05 04:45	0° \mathcal{B}		greatest brilliancy	4581 Jun 26 19:55	15° Ω 17'39	-4.7m
greatest brilliancy	4579 Jan 23 13:07	23° \mathcal{B} 00'31	-3.9m	retrograde	4581 Jul 07 20:55	17° Ω 30'27	
desc. node	4579 Jan 24 07:33	23° \mathcal{B} 58'22		desc. node	4581 Jul 11 02:38	17° Ω 18'02	
morning set	4579 Jan 24 17:30	24° \mathcal{B} 29'33		evening set	4581 Jul 23 05:31	12° Ω 57'40	
	4579 Jan 29 02:44	0° \approx		inferior conj	4581 Jul 29 09:13	9° Ω 14'47	-4°10'34
	4579 Feb 21 23:17	0° \mathcal{H}		minimum elong	4581 Jul 29 00:59	9° Ω 27'43	4°08'26
				min. Earth dist.	4581 Jul 28 23:57	9° Ω 29'20	0.28923 AU
superior conj	4579 Mar 07 03:47	16° \mathcal{H} 35'09	-1°19'52	morning rise	4581 Aug 03 20:40	5° Ω 54'54	
minimum elong	4579 Mar 06 18:54	16° \mathcal{H} 07'14	1°19'42	direct	4581 Aug 19 22:18	1° Ω 00'33	
max. Earth dist.	4579 Mar 09 02:14	19° \mathcal{H} 01'11	1.71220 AU	greatest brilliancy	4581 Aug 30 00:28	2° Ω 50'00	-4.7m
	4579 Mar 17 19:54	0° Υ			4581 Oct 06 19:39	0° \mathcal{M}	
	4579 Apr 10 18:22	0° \mathcal{B}		morning max el	4581 Oct 07 17:25	0° \mathcal{M} 52'11	45°49'21

asc. node	4581 Nov 01 04:53	26° \cap 13'08			4584 Jul 05 01:32	0° \cap	
	4581 Nov 04 15:15	0° Ω		evening max el	4584 Jul 29 03:44	24° \cap 47'48	45°30'50
	4581 Nov 30 19:18	0° \cap			4584 Aug 03 17:07	0° Ω	
	4581 Dec 25 19:42	0° \nearrow		desc. node	4584 Aug 07 14:26	3° Ω 28'51	
	4582 Jan 19 06:11	0° \searrow		greatest brilliancy	4584 Sep 05 23:16	22° Ω 45'20	-4.7m
	4582 Feb 12 09:40	0° \approx		retrograde	4584 Sep 15 20:03	24° Ω 30'39	
desc. node	4582 Feb 20 19:22	10° \approx 29'16		evening set	4584 Oct 03 22:43	18° Ω 23'11	
	4582 Mar 08 09:53	0° \times		inferior conj	4584 Oct 07 04:27	16° Ω 23'42	-8°36'47
	4582 Apr 01 09:08	0° Υ		minimum elong	4584 Oct 07 06:20	16° Ω 20'46	8°36'45
morning set	4582 Apr 11 13:35	12° Υ 44'29		min. Earth dist.	4584 Oct 07 18:18	16° Ω 02'07	0.28778 AU
	4582 Apr 25 09:17	0° \searrow		morning rise	4584 Oct 10 13:47	14° Ω 18'26	
	4582 May 19 11:45	0° \cap		direct	4584 Oct 28 16:03	8° Ω 07'51	
				greatest brilliancy	4584 Nov 08 16:39	10° Ω 21'54	-4.8m
superior conj	4582 May 20 19:50	1° \cap 39'32	-0°53'44	asc. node	4584 Nov 28 16:31	22° Ω 47'21	
minimum elong	4582 May 21 05:59	2° \cap 11'00	0°53'20		4584 Dec 07 01:32	0° \cap	
max. Earth dist.	4582 May 24 10:27	6° \cap 08'07	1.72529 AU	morning max el	4584 Dec 17 19:36	10° \cap 18'36	46°31'03
	4582 Jun 12 17:17	0° \searrow			4585 Jan 05 09:45	0° \nearrow	
asc. node	4582 Jun 13 21:35	1° \searrow 27'20			4585 Jan 31 13:43	0° \searrow	
evening rise	4582 Jun 28 00:08	18° \searrow 50'30			4585 Feb 25 14:56	0° \approx	
	4582 Jul 07 01:52	0° Ω		desc. node	4585 Mar 20 07:17	27° \approx 41'25	
	4582 Jul 31 13:28	0° \cap			4585 Mar 22 04:26	0° \times	
	4582 Aug 25 04:46	0° Ω			4585 Apr 15 12:46	0° Υ	
	4582 Sep 19 01:29	0° \cap			4585 May 09 19:34	0° \searrow	
desc. node	4582 Oct 03 12:10	17° \cap 15'34			4585 Jun 03 02:55	0° \cap	
	4582 Oct 14 06:05	0° \nearrow		morning set	4585 Jun 22 07:48	23° \cap 39'25	
	4582 Nov 08 22:38	0° \searrow			4585 Jun 27 11:29	0° \searrow	
	4582 Dec 05 13:45	0° \approx		asc. node	4585 Jul 11 09:19	17° \searrow 06'50	
evening max el	4582 Dec 24 13:26	20° \approx 01'00	47°02'27		4585 Jul 21 20:47	0° Ω	
	4583 Jan 03 20:47	0° \times					
asc. node	4583 Jan 24 14:15	16° \times 27'08		superior conj	4585 Jul 29 11:33	9° Ω 22'02	0°41'30
greatest brilliancy	4583 Feb 03 05:10	21° \times 16'56	-4.9m	minimum elong	4585 Jul 29 03:52	8° Ω 58'23	0°41'11
retrograde	4583 Feb 13 05:26	23° \times 12'09		max. Earth dist.	4585 Jul 29 11:32	9° Ω 22'00	1.73473 AU
evening set	4583 Mar 02 00:46	17° \times 42'31			4585 Aug 15 06:02	0° \cap	
inferior conj	4583 Mar 05 21:56	15° \times 21'14	8°17'55	evening rise	4585 Sep 03 12:53	23° \cap 44'02	
minimum elong	4583 Mar 05 13:45	15° \times 33'50	8°16'52		4585 Sep 08 15:05	0° Ω	
min. Earth dist.	4583 Mar 05 07:16	15° \times 43'50	0.26971 AU		4585 Oct 03 00:35	0° \cap	
morning rise	4583 Mar 09 02:52	13° \times 23'59			4585 Oct 27 11:27	0° \nearrow	
direct	4583 Mar 26 09:32	7° \times 37'13		desc. node	4585 Oct 31 00:07	4° \nearrow 19'17	
greatest brilliancy	4583 Apr 04 16:13	9° \times 14'29	-4.9m		4585 Nov 21 00:20	0° \searrow	
	4583 May 05 07:22	0° Υ			4585 Dec 15 16:07	0° \approx	
morning max el	4583 May 15 07:46	9° Υ 30'08	46°29'36		4586 Jan 09 14:02	0° \times	
desc. node	4583 May 16 05:01	10° Υ 22'42			4586 Feb 04 03:16	0° Υ	
	4583 Jun 04 01:19	0° \searrow		asc. node	4586 Feb 21 02:01	19° Υ 00'39	
	4583 Jun 30 22:51	0° \cap			4586 Mar 03 09:37	0° \searrow	
	4583 Jul 26 20:13	0° \searrow		evening max el	4586 Mar 07 00:22	3° \searrow 42'15	46°58'42
	4583 Aug 21 04:29	0° Ω			4586 Apr 06 22:09	0° \cap	
asc. node	4583 Sep 06 07:01	19° Ω 19'38		greatest brilliancy	4586 Apr 16 00:36	4° \cap 33'48	-4.9m
	4583 Sep 15 02:50	0° \cap		retrograde	4586 Apr 26 13:11	6° \cap 38'11	
	4583 Oct 09 16:39	0° Ω		evening set	4586 May 12 21:47	1° \cap 22'47	
	4583 Nov 02 23:43	0° \cap			4586 May 15 04:52	30° \searrow	
morning set	4583 Nov 09 20:11	8° \cap 30'31		inferior conj	4586 May 17 14:32	28° \searrow 30'20	5°52'55
	4583 Nov 27 02:14	0° \nearrow		minimum elong	4586 May 18 00:46	28° \searrow 14'21	5°50'33
max. Earth dist.	4583 Dec 15 21:39	23° \nearrow 30'35	1.71648 AU	min. Earth dist.	4586 May 17 11:39	28° \searrow 34'50	0.28002 AU
				morning rise	4586 May 23 04:12	25° \searrow 09'15	
superior conj	4583 Dec 18 08:24	26° \nearrow 34'28	0°20'27	direct	4586 Jun 07 15:55	20° \searrow 29'38	
minimum elong	4583 Dec 18 13:20	26° \nearrow 49'57	0°20'13	desc. node	4586 Jun 12 16:39	20° \searrow 58'46	
	4583 Dec 21 02:02	0° \searrow		greatest brilliancy	4586 Jun 17 09:22	22° \searrow 14'25	-4.8m
desc. node	4583 Dec 26 21:45	7° \searrow 17'41			4586 Jul 02 01:08	0° \cap	
	4584 Jan 14 00:13	0° \approx		morning max el	4586 Jul 26 16:11	20° \cap 44'01	45°48'28
evening rise	4584 Jan 27 19:15	17° \approx 19'11			4586 Aug 05 01:36	0° \searrow	
	4584 Feb 06 21:39	0° \times			4586 Sep 02 03:01	0° Ω	
	4584 Mar 01 19:47	0° Υ			4586 Sep 28 09:27	0° \cap	
	4584 Mar 25 21:07	0° \searrow		asc. node	4586 Oct 03 19:02	6° \cap 19'26	
asc. node	4584 Apr 17 23:54	28° \searrow 31'15			4586 Oct 23 16:31	0° Ω	
	4584 Apr 19 04:53	0° \cap			4586 Nov 17 08:33	0° \cap	
	4584 May 13 23:03	0° \searrow			4586 Dec 11 15:04	0° \nearrow	
	4584 Jun 08 09:35	0° Ω			4587 Jan 04 16:01	0° \searrow	

morning set	4587 Jan 22 04:08	21° ♄ 57'07	desc. node	4589 Jul 10 04:37	14° ♋ 54'30
desc. node	4587 Jan 23 09:32	23° ♄ 29'24	evening set	4589 Jul 20 20:21	10° ♋ 49'11
	4587 Jan 28 13:55	0° ♁	min. Earth dist.	4589 Jul 26 16:27	7° ♋ 18'53 0.28899 AU
	4587 Feb 21 10:26	0° ♁	inferior conj	4589 Jul 27 01:29	7° ♋ 04'42 -3°52'57
			minimum elong	4589 Jul 26 17:40	7° ♋ 16'58 3°50'53
superior conj	4587 Mar 04 14:03	14° ♁ 01'31 -1°18'12	morning rise	4589 Aug 01 15:09	3° ♋ 41'43
minimum elong	4587 Mar 04 04:28	13° ♁ 31'22 1°18'00		4589 Aug 09 21:50	30° ♋
max. Earth dist.	4587 Mar 06 09:49	16° ♁ 19'05 1.71197 AU	direct	4589 Aug 17 13:44	28° ♋ 50'38
	4587 Mar 17 07:03	0° ♁		4589 Aug 25 13:02	0° ♋
	4587 Apr 10 05:32	0° ♁	greatest brilliancy	4589 Aug 27 16:55	0° ♋ 40'46 -4.7m
evening rise	4587 Apr 14 07:09	5° ♁ 04'56	morning max el	4589 Oct 05 08:25	28° ♋ 39'00 45°48'37
	4587 May 04 07:41	0° ♁		4589 Oct 06 17:57	0° ♁
asc. node	4587 May 16 11:45	15° ♁ 03'32	asc. node	4589 Oct 31 06:47	25° ♁ 33'58
	4587 May 28 15:03	0° ♁		4589 Nov 04 06:57	0° ♁
	4587 Jun 22 05:01	0° ♁		4589 Nov 30 08:45	0° ♁
	4587 Jul 17 03:44	0° ♁		4589 Dec 25 08:08	0° ♁
	4587 Aug 11 15:37	0° ♁		4590 Jan 18 18:06	0° ♁
desc. node	4587 Sep 05 02:18	27° ♁ 47'42		4590 Feb 11 21:18	0° ♁
	4587 Sep 07 02:03	0° ♁	desc. node	4590 Feb 19 21:28	9° ♁ 59'47
	4587 Oct 05 11:52	0° ♁		4590 Mar 07 21:19	0° ♁
evening max el	4587 Oct 10 07:02	4° ♁ 41'33 46°04'21		4590 Mar 31 20:24	0° ♁
	4587 Nov 11 02:37	0° ♁	morning set	4590 Apr 09 01:13	10° ♁ 15'46
greatest brilliancy	4587 Nov 19 03:30	3° ♁ 34'14 -4.8m		4590 Apr 24 20:23	0° ♁
retrograde	4587 Nov 28 11:51	5° ♁ 10'39			
evening set	4587 Dec 13 06:46	0° ♁ 56'47	superior conj	4590 May 18 10:00	29° ♁ 20'27 -0°56'30
	4587 Dec 14 23:38	30° ♁	minimum elong	4590 May 18 20:24	29° ♁ 52'43 0°56'08
inferior conj	4587 Dec 19 05:08	27° ♁ 28'02 -2°01'51		4590 May 18 22:45	0° ♁
minimum elong	4587 Dec 19 09:42	27° ♁ 21'02 2°00'24	max. Earth dist.	4590 May 22 00:16	3° ♁ 48'08 1.72475 AU
min. Earth dist.	4587 Dec 19 19:13	27° ♁ 06'28 0.26970 AU		4590 Jun 12 04:14	0° ♁
morning rise	4587 Dec 25 12:00	23° ♁ 46'38	asc. node	4590 Jun 12 23:30	0° ♁ 59'29
asc. node	4587 Dec 27 04:21	22° ♁ 54'52	evening rise	4590 Jun 25 16:47	16° ♁ 40'18
direct	4588 Jan 08 23:01	19° ♁ 38'49		4590 Jul 06 12:53	0° ♁
greatest brilliancy	4588 Jan 19 16:37	21° ♁ 48'54 -4.9m		4590 Jul 31 00:39	0° ♁
	4588 Feb 02 23:43	0° ♁		4590 Aug 24 16:17	0° ♁
morning max el	4588 Feb 28 13:39	22° ♁ 49'19 46°58'52		4590 Sep 18 13:34	0° ♁
	4588 Mar 06 12:16	0° ♁	desc. node	4590 Oct 02 14:14	16° ♁ 44'16
	4588 Apr 02 14:40	0° ♁		4590 Oct 13 19:08	0° ♁
desc. node	4588 Apr 16 19:19	16° ♁ 28'12		4590 Nov 08 13:21	0° ♁
	4588 Apr 28 06:35	0° ♁		4590 Dec 05 07:56	0° ♁
	4588 May 23 08:50	0° ♁	evening max el	4590 Dec 22 02:53	17° ♁ 36'14 47°01'12
	4588 Jun 17 05:17	0° ♁		4591 Jan 04 02:09	0° ♁
	4588 Jul 11 22:56	0° ♁	asc. node	4591 Jan 23 16:15	14° ♁ 55'25
	4588 Aug 05 14:05	0° ♁	greatest brilliancy	4591 Jan 31 17:45	18° ♁ 48'40 -4.9m
asc. node	4588 Aug 07 21:13	2° ♁ 48'17	retrograde	4591 Feb 10 18:48	20° ♁ 44'40
morning set	4588 Aug 29 15:19	29° ♁ 26'56	evening set	4591 Feb 27 09:15	15° ♁ 21'17
	4588 Aug 30 02:05	0° ♁	inferior conj	4591 Mar 03 10:40	12° ♁ 54'06 8°07'53
	4588 Sep 23 10:39	0° ♁	minimum elong	4591 Mar 03 01:52	13° ♁ 07'38 8°06'38
max. Earth dist.	4588 Oct 02 09:53	11° ♁ 05'12 1.72972 AU	min. Earth dist.	4591 Mar 02 19:44	13° ♁ 17'04 0.26939 AU
			morning rise	4591 Mar 06 18:39	10° ♁ 52'41
superior conj	4588 Oct 05 02:18	14° ♁ 24'28 1°25'07	direct	4591 Mar 23 22:12	5° ♁ 10'20
minimum elong	4588 Oct 05 03:33	14° ♁ 28'19 1°25'08	greatest brilliancy	4591 Apr 02 05:01	6° ♁ 48'13 -4.9m
	4588 Oct 17 16:26	0° ♁		4591 May 05 11:12	0° ♁
	4588 Nov 10 20:33	0° ♁	morning max el	4591 May 12 22:03	7° ♁ 09'25 46°31'15
evening rise	4588 Nov 11 10:47	0° ♁ 44'13	desc. node	4591 May 15 06:55	9° ♁ 30'54
desc. node	4588 Nov 27 11:57	20° ♁ 40'56		4591 Jun 03 18:55	0° ♁
	4588 Dec 04 23:49	0° ♁		4591 Jun 30 13:11	0° ♁
	4588 Dec 29 02:44	0° ♁		4591 Jul 26 08:58	0° ♁
	4589 Jan 22 06:10	0° ♁		4591 Aug 20 16:21	0° ♁
	4589 Feb 15 12:41	0° ♁	asc. node	4591 Sep 05 09:07	18° ♁ 51'20
	4589 Mar 12 03:18	0° ♁		4591 Sep 14 14:11	0° ♁
asc. node	4589 Mar 20 13:58	10° ♁ 07'43		4591 Oct 09 03:43	0° ♁
	4589 Apr 06 11:04	0° ♁		4591 Nov 02 10:39	0° ♁
	4589 May 03 06:56	0° ♁	morning set	4591 Nov 07 11:59	6° ♁ 16'30
evening max el	4589 May 17 04:57	14° ♁ 18'25 46°01'28		4591 Nov 26 13:09	0° ♁
	4589 Jun 03 12:31	0° ♁	max. Earth dist.	4591 Dec 13 11:00	21° ♁ 07'56 1.71685 AU
greatest brilliancy	4589 Jun 24 12:17	13° ♁ 07'02 -4.7m			
retrograde	4589 Jul 05 13:03	15° ♁ 20'19	superior conj	4591 Dec 15 21:16	24° ♁ 10'13 0°24'03

minimum elong	4591 Dec 16 02:59	24° ♁ 28'08	0°23'47	desc. node	4594 Jun 11 18:42	19° ♁ 02'03	
	4591 Dec 20 12:59	0° ♁		greatest brilliancy	4594 Jun 14 23:00	19° ♁ 57'47	-4.8m
desc. node	4591 Dec 25 23:46	6° ♁ 49'41			4594 Jul 02 19:44	0° ♁	
	4592 Jan 13 11:14	0° ♁		morning max el	4594 Jul 24 06:39	18° ♁ 29'35	45°49'14
evening rise	4592 Jan 25 06:35	14° ♁ 49'22			4594 Aug 04 20:44	0° ♁	
	4592 Feb 06 08:45	0° ♁			4594 Sep 01 17:32	0° ♁	
	4592 Mar 01 07:01	0° ♁			4594 Sep 27 22:06	0° ♁	
	4592 Mar 25 08:34	0° ♁		asc. node	4594 Oct 02 20:59	5° ♁ 48'39	
asc. node	4592 Apr 17 01:51	28° ♁ 01'07			4594 Oct 23 04:15	0° ♁	
	4592 Apr 18 16:42	0° ♁			4594 Nov 16 19:49	0° ♁	
	4592 May 13 11:29	0° ♁			4594 Dec 11 02:07	0° ♁	
	4592 Jun 07 23:13	0° ♁			4595 Jan 04 02:57	0° ♁	
	4592 Jul 04 17:57	0° ♁		morning set	4595 Jan 19 14:52	19° ♁ 25'56	
evening max el	4592 Jul 26 19:49	22° ♁ 37'43	45°30'52	desc. node	4595 Jan 22 11:37	23° ♁ 01'46	
	4592 Aug 03 18:49	0° ♁			4595 Jan 28 00:48	0° ♁	
desc. node	4592 Aug 06 16:32	2° ♁ 32'46			4595 Feb 20 21:16	0° ♁	
greatest brilliancy	4592 Sep 03 12:51	20° ♁ 32'34	-4.7m				
retrograde	4592 Sep 13 11:33	22° ♁ 19'04		superior conj	4595 Mar 02 00:30	11° ♁ 29'27	-1°16'23
evening set	4592 Oct 01 14:04	16° ♁ 11'35		minimum elong	4595 Mar 01 14:17	10° ♁ 57'19	1°16'08
inferior conj	4592 Oct 04 20:04	14° ♁ 11'23	-8°37'55	max. Earth dist.	4595 Mar 03 13:38	13° ♁ 26'11	1.71173 AU
minimum elong	4592 Oct 04 21:09	14° ♁ 09'42	8°37'55		4595 Mar 16 17:51	0° ♁	
min. Earth dist.	4592 Oct 05 08:28	13° ♁ 52'04	0.28820 AU		4595 Apr 09 16:19	0° ♁	
morning rise	4592 Oct 08 04:08	12° ♁ 07'55		evening rise	4595 Apr 11 18:39	2° ♁ 37'17	
direct	4592 Oct 26 08:42	5° ♁ 55'18			4595 May 03 18:29	0° ♁	
greatest brilliancy	4592 Nov 06 07:11	8° ♁ 07'27	-4.8m	asc. node	4595 May 15 13:43	14° ♁ 36'02	
asc. node	4592 Nov 27 18:29	21° ♁ 42'41			4595 May 28 01:59	0° ♁	
	4592 Dec 07 03:57	0° ♁			4595 Jun 21 16:17	0° ♁	
morning max el	4592 Dec 15 11:06	8° ♁ 02'28	46°29'27		4595 Jul 16 15:37	0° ♁	
	4593 Jan 05 02:45	0° ♁			4595 Aug 11 04:39	0° ♁	
	4593 Jan 31 03:52	0° ♁		desc. node	4595 Sep 04 04:19	27° ♁ 11'23	
	4593 Feb 25 03:44	0° ♁			4595 Sep 06 17:28	0° ♁	
desc. node	4593 Mar 19 09:22	27° ♁ 10'47			4595 Oct 05 09:33	0° ♁	
	4593 Mar 21 16:27	0° ♁		evening max el	4595 Oct 07 19:34	2° ♁ 20'37	46°02'21
	4593 Apr 15 00:17	0° ♁			4595 Nov 13 12:06	0° ♁	
	4593 May 09 06:46	0° ♁		greatest brilliancy	4595 Nov 16 17:21	1° ♁ 12'55	-4.8m
	4593 Jun 02 13:52	0° ♁		retrograde	4595 Nov 26 00:02	2° ♁ 48'14	
morning set	4593 Jun 20 00:27	21° ♁ 29'41			4595 Dec 07 22:32	30° ♁	
	4593 Jun 26 22:15	0° ♁		evening set	4595 Dec 10 21:42	28° ♁ 31'15	
asc. node	4593 Jul 10 11:25	16° ♁ 40'27		inferior conj	4595 Dec 16 18:16	25° ♁ 05'09	-2°24'29
	4593 Jul 21 07:26	0° ♁		minimum elong	4595 Dec 16 23:38	24° ♁ 56'56	2°22'50
				min. Earth dist.	4595 Dec 17 09:54	24° ♁ 41'13	0.27023 AU
superior conj	4593 Jul 27 05:13	7° ♁ 15'59	0°38'40	morning rise	4595 Dec 23 00:48	21° ♁ 23'53	
minimum elong	4593 Jul 26 21:54	6° ♁ 53'29	0°38'20	asc. node	4595 Dec 26 06:25	19° ♁ 48'16	
max. Earth dist.	4593 Jul 27 09:39	7° ♁ 29'38	1.73461 AU	direct	4596 Jan 06 12:06	17° ♁ 14'42	
	4593 Aug 14 16:39	0° ♁		greatest brilliancy	4596 Jan 17 08:19	19° ♁ 26'54	-4.9m
evening rise	4593 Sep 01 07:06	21° ♁ 39'29			4596 Feb 03 18:00	0° ♁	
	4593 Sep 08 01:48	0° ♁		morning max el	4596 Feb 26 02:48	20° ♁ 23'56	46°58'52
	4593 Oct 02 11:33	0° ♁			4596 Mar 06 08:11	0° ♁	
	4593 Oct 26 22:47	0° ♁			4596 Apr 02 05:58	0° ♁	
desc. node	4593 Oct 30 02:03	3° ♁ 50'19		desc. node	4596 Apr 15 21:11	15° ♁ 52'28	
	4593 Nov 20 12:10	0° ♁			4596 Apr 27 19:53	0° ♁	
	4593 Dec 15 04:39	0° ♁			4596 May 22 21:00	0° ♁	
	4594 Jan 09 03:39	0° ♁			4596 Jun 16 16:44	0° ♁	
	4594 Feb 03 18:57	0° ♁			4596 Jul 11 09:54	0° ♁	
asc. node	4594 Feb 20 04:08	18° ♁ 16'53			4596 Aug 05 00:46	0° ♁	
	4594 Mar 03 06:37	0° ♁		asc. node	4596 Aug 06 23:17	2° ♁ 22'03	
evening max el	4594 Mar 04 15:23	1° ♁ 23'24	47°00'05	morning set	4596 Aug 27 09:02	27° ♁ 21'37	
	4594 Apr 08 13:53	0° ♁			4596 Aug 29 12:37	0° ♁	
greatest brilliancy	4594 Apr 13 16:46	2° ♁ 17'59	-4.9m		4596 Sep 22 21:09	0° ♁	
retrograde	4594 Apr 24 04:17	4° ♁ 21'12		max. Earth dist.	4596 Sep 30 05:01	9° ♁ 03'26	1.73012 AU
	4594 May 08 23:10	30° ♁					
evening set	4594 May 10 15:52	29° ♁ 02'01		superior conj	4596 Oct 02 19:50	12° ♁ 17'43	1°25'16
inferior conj	4594 May 15 05:26	26° ♁ 13'57	6°09'15	minimum elong	4596 Oct 02 20:23	12° ♁ 19'24	1°25'17
minimum elong	4594 May 15 15:46	25° ♁ 57'47	6°06'56		4596 Oct 17 02:59	0° ♁	
min. Earth dist.	4594 May 15 02:26	26° ♁ 18'38	0.27970 AU	evening rise	4596 Nov 09 01:53	28° ♁ 28'56	
morning rise	4594 May 20 16:07	22° ♁ 56'49			4596 Nov 10 07:13	0° ♁	
direct	4594 Jun 05 06:39	18° ♁ 14'01		desc. node	4596 Nov 26 13:58	20° ♁ 13'32	

	4596 Dec 04 10:42	0°☾		4599 Jun 30 03:07	0°☿	
	4596 Dec 28 13:54	0°♊		4599 Jul 25 21:24	0°♋	
	4597 Jan 21 17:42	0°♌		4599 Aug 20 03:55	0°♎	
	4597 Feb 15 00:41	0°♍	asc. node	4599 Sep 04 11:04	18°♏23'29	
	4597 Mar 11 16:04	0°♎		4599 Sep 14 01:13	0°♐	
asc. node	4597 Mar 19 15:54	9°♏34'14		4599 Oct 08 14:28	0°♑	
	4597 Apr 06 01:20	0°♐		4599 Nov 01 21:18	0°♒	
	4597 May 03 00:47	0°♑	morning set	4599 Nov 05 03:59	4°♓04'05	
evening max el	4597 May 14 19:50	12°♑04'00 46°03'34		4599 Nov 25 23:50	0°♈	
	4597 Jun 03 22:22	0°♒	max. Earth dist.	4599 Dec 10 22:21	18°♈39'41 1.71728 AU	
greatest brilliancy	4597 Jun 22 04:16	10°♒57'39 -4.8m				
retrograde	4597 Jul 03 05:52	13°♒12'05	superior conj	4599 Dec 13 10:15	21°♈47'03 0°27'35	
desc. node	4597 Jul 09 06:41	12°♒28'13	minimum elong	4599 Dec 13 16:42	22°♈07'12 0°27'18	
evening set	4597 Jul 18 11:31	8°♒42'14		4599 Dec 19 23:46	0°♉	
inferior conj	4597 Jul 24 17:52	4°♒56'23 -3°35'07	desc. node	4599 Dec 25 01:54	6°♉22'30	
minimum elong	4597 Jul 24 10:31	5°♒07'53 3°33'08		4600 Jan 12 22:07	0°♊	
min. Earth dist.	4597 Jul 24 08:44	5°♒10'41 0.28873 AU	evening rise	4600 Jan 22 17:41	12°♊19'13	
morning rise	4597 Jul 30 09:44	1°♒30'38		4600 Feb 05 19:44	0°♌	
	4597 Aug 02 06:13	30°♒☾		4600 Mar 01 18:08	0°♍	
direct	4597 Aug 15 05:32	26°♑42'31		4600 Mar 25 19:53	0°♎	
greatest brilliancy	4597 Aug 25 09:05	28°♑33'06 -4.7m	asc. node	4600 Apr 17 03:50	27°♏31'32	
	4597 Aug 29 00:16	0°♒		4600 Apr 19 04:23	0°♐	
morning max el	4597 Oct 03 00:26	26°♒29'49 45°47'47		4600 May 13 23:49	0°♑	
	4597 Oct 06 14:50	0°♒		4600 Jun 08 12:52	0°♒	
asc. node	4597 Oct 30 08:47	24°♒56'39		4600 Jul 05 10:34	0°♓	
	4597 Nov 03 21:59	0°♓	evening max el	4600 Jul 25 11:44	20°♒27'32 45°30'56	
	4597 Nov 29 21:44	0°♓		4600 Aug 04 21:50	0°♓	
	4597 Dec 24 20:09	0°♈	desc. node	4600 Aug 06 18:35	1°♓35'48	
	4598 Jan 18 05:37	0°♉	greatest brilliancy	4600 Sep 02 03:16	18°♓21'23 -4.7m	
desc. node	4598 Feb 11 08:32	0°♊	retrograde	4600 Sep 12 02:46	20°♓08'23	
	4598 Feb 18 23:29	9°♊31'16	evening set	4600 Sep 30 05:15	14°♓01'35	
	4598 Mar 07 08:21	0°♌	inferior conj	4600 Oct 03 11:52	12°♓00'12 -8°38'21	
	4598 Mar 31 07:16	0°♍	minimum elong	4600 Oct 03 12:08	11°♓59'46 8°38'21	
morning set	4598 Apr 06 12:42	7°♍47'36	min. Earth dist.	4600 Oct 03 23:02	11°♓42'44 0.28857 AU	
	4598 Apr 24 07:08	0°♎	morning rise	4600 Oct 06 18:56	9°♓57'57	
			direct	4600 Oct 25 01:06	3°♓44'00	
superior conj	4598 May 16 00:02	27°♏01'52 -0°59'13	greatest brilliancy	4600 Nov 04 21:52	5°♓54'09 -4.8m	
minimum elong	4598 May 16 10:37	27°♏34'44 0°58'50	asc. node	4600 Nov 27 20:36	20°♓40'41	
	4598 May 18 09:24	0°♐		4600 Dec 08 04:43	0°♑	
max. Earth dist.	4598 May 19 13:46	1°♐28'02 1.72423 AU	morning max el	4600 Dec 14 01:35	5°♑44'29 46°27'41	
	4598 Jun 11 14:52	0°♑		4601 Jan 05 19:17	0°♒	
asc. node	4598 Jun 12 01:38	0°♑33'17		4601 Jan 31 17:49	0°♓	
evening rise	4598 Jun 23 09:25	14°♑31'07		4601 Feb 25 16:28	0°♔	
	4598 Jul 05 23:32	0°♒	desc. node	4601 Mar 19 11:17	26°♔39'32	
	4598 Jul 30 11:27	0°♒		4601 Mar 22 04:29	0°♌	
	4598 Aug 24 03:25	0°♓		4601 Apr 15 11:51	0°♍	
	4598 Sep 18 01:19	0°♔		4601 May 09 17:59	0°♎	
desc. node	4598 Oct 01 16:09	16°♔13'30		4601 Jun 03 00:50	0°♏	
	4598 Oct 13 07:56	0°♈	morning set	4601 Jun 18 16:46	19°♐18'50	
	4598 Nov 08 03:58	0°♉		4601 Jun 27 09:02	0°♑	
	4598 Dec 05 02:19	0°♊	asc. node	4601 Jul 10 13:25	16°♑13'37	
evening max el	4598 Dec 19 17:19	15°♊14'43 46°59'52		4601 Jul 21 18:07	0°♒	
	4599 Jan 04 09:25	0°♌				
asc. node	4599 Jan 22 18:21	13°♌21'06	superior conj	4601 Jul 25 22:42	5°♒09'20 0°35'45	
greatest brilliancy	4599 Jan 29 05:59	16°♌20'37 -4.9m	minimum elong	4601 Jul 25 15:49	4°♒48'08 0°35'26	
retrograde	4599 Feb 08 08:20	18°♌17'26	max. Earth dist.	4601 Jul 26 05:53	5°♒31'25 1.73448 AU	
evening set	4599 Feb 24 17:38	13°♌00'30		4601 Aug 15 03:20	0°♓	
inferior conj	4599 Feb 28 23:16	10°♌27'16 7°56'53	evening rise	4601 Aug 31 01:19	19°♓34'48	
minimum elong	4599 Feb 28 13:57	10°♌41'36 7°55'25		4601 Sep 08 12:36	0°♔	
min. Earth dist.	4599 Feb 28 07:52	10°♌50'55 0.26906 AU		4601 Oct 02 22:33	0°♕	
morning rise	4599 Mar 04 10:27	8°♌21'26		4601 Oct 27 10:08	0°♈	
direct	4599 Mar 21 11:11	2°♌44'04	desc. node	4601 Oct 30 04:09	3°♈21'51	
greatest brilliancy	4599 Mar 30 17:08	4°♌21'44 -4.9m		4601 Nov 21 00:00	0°♉	
	4599 May 05 13:09	0°♍		4601 Dec 15 17:15	0°♊	
morning max el	4599 May 10 12:17	4°♍49'18 46°32'47		4602 Jan 09 17:27	0°♌	
desc. node	4599 May 14 09:01	8°♍41'19				
	4599 Jun 03 11:52	0°♎				