

superior conj	3100 Apr 23 08:39	3°♄14'16	-0°50'22	morning set	3101 Mar 28 03:02	28°♄11'19	
minimum elong	3100 Apr 23 11:16	3°♄27'47	0°49'51		3101 Mar 29 03:04	0°♄	
asc. node	3100 Apr 28 09:02	13°♄41'06		max. Earth dist.	3101 Mar 31 19:02	4°♄54'53	1.36521 AU
evening rise	3100 Apr 30 23:45	19°♄07'49					
	3100 May 06 10:17	0°♄		superior conj	3101 Apr 06 22:16	16°♄43'51	-1°18'08
evening max el	3100 May 20 00:21	20°♄02'15	20°52'45	minimum elong	3101 Apr 07 02:14	17°♄03'29	1°17'31
retrograde	3100 May 31 13:20	25°♄40'18			3101 Apr 13 12:23	0°♄	
evening set	3100 Jun 02 16:29	25°♄29'30		evening rise	3101 Apr 15 04:01	3°♄20'39	
desc. node	3100 Jun 04 23:04	24°♄55'48		asc. node	3101 Apr 15 06:04	3°♄31'01	
inferior conj	3100 Jun 12 00:15	21°♄31'52	-2°02'59		3101 May 01 01:28	0°♄	
minimum elong	3100 Jun 11 18:32	21°♄40'01	2°00'58	evening max el	3101 May 02 11:56	1°♄29'35	19°41'34
min. Earth dist.	3100 Jun 12 19:29	21°♄04'33	0.54893 AU	retrograde	3101 May 12 06:56	6°♄14'20	
morning rise	3100 Jun 20 20:17	17°♄28'15		evening set	3101 May 14 06:42	6°♄03'27	
direct	3100 Jun 24 09:21	17°♄01'10		desc. node	3101 May 22 20:03	2°♄08'33	
morning max el	3100 Jul 07 10:22	23°♄16'17	22°52'05	inferior conj	3101 May 23 00:58	2°♄00'51	-0°03'36
	3100 Jul 13 10:12	0°♄		minimum elong	3101 May 23 00:49	2°♄01'06	0°03'33
asc. node	3100 Jul 25 08:16	19°♄34'38		transit middle	3101 May 23 00:49	2°♄01'06	0°03'33
morning set	3100 Jul 30 00:16	29°♄03'28		transit begin	3101 May 22 20:58	2°♄07'06	
	3100 Jul 30 11:00	0°♄		transit end	3101 May 23 04:39	1°♄55'06	
				min. Earth dist.	3101 May 25 09:13	0°♄33'15	0.55614 AU
superior conj	3100 Aug 06 02:35	14°♄13'07	1°36'24		3101 May 26 07:23	30°♄	
minimum elong	3100 Aug 06 00:45	14°♄03'23	1°36'15	morning rise	3101 May 31 16:27	27°♄27'56	
max. Earth dist.	3100 Aug 08 23:31	20°♄17'05	1.33915 AU	direct	3101 Jun 05 02:04	26°♄44'48	
evening rise	3100 Aug 13 20:47	0°♄12'56			3101 Jun 14 11:08	0°♄	
	3100 Aug 13 18:10	0°♄		morning max el	3101 Jun 19 00:54	3°♄43'40	24°34'44
	3100 Aug 30 23:17	0°♄			3101 Jul 07 12:11	0°♄	
desc. node	3100 Aug 31 22:24	1°♄26'44		asc. node	3101 Jul 12 05:18	9°♄13'51	
evening max el	3100 Sep 17 08:28	21°♄53'49	27°14'31	morning set	3101 Jul 14 12:04	13°♄58'53	
retrograde	3100 Sep 30 18:28	29°♄12'17					
evening set	3100 Oct 07 17:42	26°♄29'54		superior conj	3101 Jul 21 11:25	29°♄04'21	1°23'45
min. Earth dist.	3100 Oct 11 13:14	22°♄53'27	0.64810 AU	minimum elong	3101 Jul 21 09:06	28°♄51'46	1°23'27
inferior conj	3100 Oct 13 18:21	20°♄27'39	-2°28'42		3101 Jul 21 21:39	0°♄	
minimum elong	3100 Oct 13 22:26	20°♄16'25	2°27'10	max. Earth dist.	3101 Jul 23 03:16	2°♄40'25	1.32907 AU
morning rise	3100 Oct 20 04:12	14°♄57'07		evening rise	3101 Jul 28 17:49	14°♄28'19	
asc. node	3100 Oct 21 07:28	14°♄32'31			3101 Aug 05 20:00	0°♄	
direct	3100 Oct 22 19:27	14°♄20'37		desc. node	3101 Aug 18 19:25	20°♄44'35	
morning max el	3100 Oct 29 07:22	17°♄48'26	18°01'41		3101 Aug 26 01:12	0°♄	
	3100 Nov 07 05:44	0°♄		evening max el	3101 Aug 30 19:04	4°♄59'23	27°26'11
morning set	3100 Nov 16 00:32	14°♄31'02		retrograde	3101 Sep 13 12:00	12°♄15'50	
	3100 Nov 25 09:39	0°♄		evening set	3101 Sep 20 16:37	9°♄41'19	
desc. node	3100 Nov 27 21:37	4°♄02'26		min. Earth dist.	3101 Sep 24 07:47	6°♄36'31	0.63175 AU
				inferior conj	3101 Sep 27 01:02	3°♄55'32	-3°26'58
superior conj	3100 Nov 29 21:29	7°♄14'19	-0°13'33	minimum elong	3101 Sep 27 06:25	3°♄42'13	3°25'18
minimum elong	3100 Nov 29 19:49	7°♄07'39	0°13'18		3101 Oct 01 12:14	30°♄	
behind sun begin	3100 Nov 29 13:43	6°♄43'17		morning rise	3101 Oct 03 21:36	28°♄42'02	
behind sun end	3100 Nov 30 01:55	7°♄32'01		direct	3101 Oct 06 08:26	28°♄13'37	
max. Earth dist.	3100 Dec 03 23:27	13°♄43'14	1.44895 AU	asc. node	3101 Oct 08 04:29	28°♄29'55	
	3100 Dec 14 09:49	0°♄			3101 Oct 11 01:47	0°♄	
evening rise	3100 Dec 16 05:27	2°♄48'33		morning max el	3101 Oct 12 23:45	1°♄39'31	17°50'51
greatest brilliancy	3100 Dec 30 04:47	24°♄04'43	-0.6m	morning set	3101 Oct 29 07:57	26°♄55'36	
	3101 Jan 03 06:50	0°♄			3101 Oct 31 02:03	0°♄	
evening max el	3101 Jan 11 03:55	9°♄54'24	19°55'28				
asc. node	3101 Jan 17 06:45	14°♄07'40		superior conj	3101 Nov 10 04:58	17°♄18'57	0°31'09
retrograde	3101 Jan 18 17:43	14°♄19'17		minimum elong	3101 Nov 10 08:00	17°♄31'35	0°30'42
evening set	3101 Jan 22 09:32	13°♄01'04		desc. node	3101 Nov 14 18:41	24°♄49'44	
inferior conj	3101 Jan 27 19:58	7°♄00'01	3°00'31	max. Earth dist.	3101 Nov 16 16:23	27°♄54'11	1.43890 AU
minimum elong	3101 Jan 27 17:31	7°♄08'12	2°59'58		3101 Nov 17 23:49	0°♄	
min. Earth dist.	3101 Jan 28 18:41	5°♄44'09	0.66953 AU	evening rise	3101 Nov 25 14:30	11°♄56'29	
morning rise	3101 Feb 02 01:16	0°♄46'26			3101 Dec 07 13:30	0°♄	
	3101 Feb 02 23:25	30°♄		evening max el	3101 Dec 25 04:02	23°♄26'17	21°00'56
direct	3101 Feb 07 23:54	28°♄07'09		retrograde	3102 Jan 02 15:30	28°♄27'29	
	3101 Feb 13 15:11	0°♄		asc. node	3102 Jan 04 03:45	28°♄14'54	
morning max el	3101 Feb 19 21:58	5°♄14'09	25°14'22	evening set	3102 Jan 06 16:54	26°♄54'09	
desc. node	3101 Feb 23 20:49	9°♄33'04		inferior conj	3102 Jan 12 01:32	20°♄41'49	2°26'15
	3101 Mar 11 00:08	0°♄		minimum elong	3102 Jan 11 23:01	20°♄50'29	2°25'29

min. Earth dist.	3102 Jan 12 11:30	20° Z 07'31	0.67628 AU	morning rise	3103 Jan 01 13:06	28° Z 19'49	
morning rise	3102 Jan 17 04:57	14° Z 28'56		direct	3103 Jan 06 06:13	26° Z 21'42	
direct	3102 Jan 22 13:02	12° Z 08'19			3103 Jan 13 16:02	0° Z	
morning max el	3102 Feb 02 06:22	18° Z 31'32	23°47'17	morning max el	3103 Jan 15 17:28	1° Z 56'17	22°19'09
desc. node	3102 Feb 10 17:52	28° Z 28'12		desc. node	3103 Jan 28 14:56	18° Z 00'26	
	3102 Feb 11 21:53	0° \approx			3103 Feb 05 21:26	0° \approx	
	3102 Mar 04 03:03	0° X		morning set	3103 Feb 18 04:41	19° \approx 10'52	
morning set	3102 Mar 09 17:47	9° X 21'31		max. Earth dist.	3103 Feb 23 11:32	27° \approx 55'57	1.40771 AU
max. Earth dist.	3102 Mar 13 14:24	16° X 04'15	1.38607 AU		3103 Feb 24 16:47	0° X	
superior conj	3102 Mar 20 23:03	29° X 32'19	-1°42'37	superior conj	3103 Mar 03 06:26	11° X 28'39	-2°00'18
minimum elong	3102 Mar 21 03:36	29° X 53'44	1°42'08	minimum elong	3103 Mar 03 09:50	11° X 43'49	2°00'07
	3102 Mar 21 04:55	0° Y		evening rise	3103 Mar 13 11:39	0° Y 19'35	
evening rise	3102 Mar 30 01:03	17° Y 07'04			3103 Mar 13 07:28	0° Y	
asc. node	3102 Apr 02 03:05	23° Y 05'11		asc. node	3103 Mar 20 00:07	12° Y 18'11	
	3102 Apr 05 20:50	0° Z		evening max el	3103 Mar 29 16:50	26° Y 14'42	18°18'41
evening max el	3102 Apr 15 10:23	13° Z 35'53	18°50'03	retrograde	3103 Apr 05 21:27	29° Y 49'36	
retrograde	3102 Apr 23 16:34	17° Z 37'42		evening set	3103 Apr 08 08:17	29° Y 25'36	
evening set	3102 Apr 25 21:09	17° Z 21'47		inferior conj	3103 Apr 15 12:13	24° Y 45'58	2°47'23
inferior conj	3102 May 03 19:50	13° Z 02'35	1°37'57	minimum elong	3103 Apr 15 15:50	24° Y 38'15	2°46'34
minimum elong	3102 May 03 23:11	12° Z 56'29	1°36'54	min. Earth dist.	3103 Apr 18 22:33	21° Y 52'23	0.59166 AU
min. Earth dist.	3102 May 07 01:28	10° Z 42'47	0.57142 AU	morning rise	3103 Apr 22 20:41	19° Y 09'18	
desc. node	3102 May 09 17:04	9° Z 01'27		desc. node	3103 Apr 26 14:05	17° Y 40'32	
morning rise	3102 May 11 22:03	7° Z 54'52		direct	3103 Apr 29 03:22	17° Y 22'54	
direct	3102 May 17 07:59	6° Z 43'58		morning max el	3103 May 13 12:22	25° Y 09'40	27°15'25
morning max el	3102 May 31 15:58	14° Z 12'29	26°07'36		3103 May 17 23:31	0° Z	
	3102 Jun 13 05:14	0° II			3103 Jun 06 11:51	0° II	
morning set	3102 Jun 28 23:12	28° II 51'11		morning set	3103 Jun 13 08:03	13° II 34'58	
asc. node	3102 Jun 29 02:20	29° II 07'45		asc. node	3103 Jun 15 23:24	19° II 11'11	
	3102 Jun 29 12:12	0° III					
superior conj	3102 Jul 05 22:36	14° III 00'29	1°06'33	superior conj	3103 Jun 20 10:22	28° II 55'35	0°45'28
minimum elong	3102 Jul 05 20:17	13° III 47'47	1°06'09	minimum elong	3103 Jun 20 08:32	28° II 45'26	0°45'06
max. Earth dist.	3102 Jul 06 12:59	15° III 19'36	1.32302 AU	max. Earth dist.	3103 Jun 20 01:01	28° II 03'59	1.32092 AU
evening rise	3102 Jul 12 21:55	29° III 03'09		evening rise	3103 Jun 20 22:04	0° III	
	3102 Jul 13 08:51	0° IV			3103 Jun 27 06:38	13° III 49'27	
	3102 Jul 30 00:55	0° V		desc. node	3103 Jul 05 10:14	0° IV	
desc. node	3102 Aug 05 16:25	9° V 15'05		evening max el	3103 Jul 23 13:24	26° IV 38'45	
evening max el	3102 Aug 13 01:16	17° V 27'39	27°05'32		3103 Jul 26 00:35	29° IV 08'52	26°11'57
retrograde	3102 Aug 26 22:12	24° V 40'27		retrograde	3103 Jul 26 22:40	0° V	
evening set	3102 Sep 02 23:58	22° V 26'10		evening set	3103 Aug 09 00:04	6° V 18'51	
min. Earth dist.	3102 Sep 06 15:33	19° V 43'56	0.61259 AU	min. Earth dist.	3103 Aug 15 11:01	4° V 36'56	
inferior conj	3102 Sep 09 18:52	17° V 00'07	-4°18'31		3103 Aug 19 13:21	2° V 01'29	0.59192 AU
minimum elong	3102 Sep 10 00:25	16° V 47'59	4°17'18	inferior conj	3103 Aug 22 05:44	30° R 01	
morning rise	3102 Sep 17 02:37	12° V 07'12		minimum elong	3103 Aug 22 20:18	29° IV 32'07	-4°55'07
direct	3102 Sep 19 11:54	11° V 43'54		morning rise	3103 Aug 22 23:49	29° IV 25'25	4°54'45
asc. node	3102 Sep 25 01:31	13° V 55'49		direct	3103 Aug 30 14:48	25° IV 02'12	
morning max el	3102 Sep 26 13:59	15° V 16'03	17°58'36	morning max el	3103 Sep 02 01:21	24° IV 41'49	
	3102 Oct 06 18:32	0° VI			3103 Sep 09 22:55	28° IV 29'51	18°26'13
morning set	3102 Oct 12 09:35	10° VI 11'51		asc. node	3103 Sep 11 09:41	0° V	
				morning set	3103 Sep 11 22:35	0° V 36'55	
superior conj	3102 Oct 22 15:18	28° VI 42'13	1°05'47		3103 Sep 26 00:10	24° V 04'55	
minimum elong	3102 Oct 22 19:39	29° VI 01'15	1°05'14		3103 Sep 29 02:05	0° VI	
	3102 Oct 23 09:07	0° VII		superior conj	3103 Oct 05 00:51	11° VI 13'40	1°28'50
max. Earth dist.	3102 Oct 30 04:57	11° VII 35'46	1.42305 AU	minimum elong	3103 Oct 05 04:15	11° VI 29'24	1°28'31
desc. node	3102 Nov 01 15:44	15° VII 36'53		max. Earth dist.	3103 Oct 12 11:57	24° VI 34'28	1.40347 AU
evening rise	3102 Nov 05 07:42	21° VII 30'09			3103 Oct 15 16:26	0° VII	
	3102 Nov 10 18:29	0° VIII		evening rise	3103 Oct 16 21:14	2° VII 00'06	
	3102 Dec 01 20:52	0° IX		desc. node	3103 Oct 19 12:44	6° VII 20'28	
evening max el	3102 Dec 07 22:45	6° IX 59'35	22°16'09		3103 Nov 04 02:55	0° VIII	
retrograde	3102 Dec 17 11:49	12° IX 40'14		evening max el	3103 Nov 20 13:13	20° VIII 35'06	23°35'59
evening set	3102 Dec 22 00:31	10° IX 50'43		retrograde	3103 Dec 01 05:14	26° VIII 53'21	
asc. node	3102 Dec 22 00:45	10° IX 50'14		evening set	3103 Dec 06 06:45	24° VIII 47'19	
inferior conj	3102 Dec 27 08:59	4° IX 30'22	1°44'26	asc. node	3103 Dec 08 21:48	22° VIII 02'46	
minimum elong	3102 Dec 27 06:52	4° IX 37'41	1°43'38	min. Earth dist.	3103 Dec 11 04:07	19° VIII 05'06	0.67846 AU
min. Earth dist.	3102 Dec 27 07:24	4° IX 35'49	0.67915 AU	inferior conj	3103 Dec 11 16:28	18° VIII 22'53	0°56'15
	3102 Dec 30 20:32	30° R 01		minimum elong	3103 Dec 11 15:11	18° VIII 27'16	0°55'43

morning rise	3103 Dec 16 23:36	12°♊16'26		transit begin	3104 Nov 24 19:28	2°♊26'43	
direct	3103 Dec 21 02:30	10°♊41'09		transit end	3104 Nov 25 00:54	2°♊08'46	
morning max el	3103 Dec 29 10:34	15°♊30'39	20°57'44	asc. node	3104 Nov 24 18:52	2°♊28'42	
	3104 Jan 09 23:15	0°♊			3104 Nov 26 16:57	30°♊	
desc. node	3104 Jan 15 11:58	7°♊58'50		morning rise	3104 Nov 30 10:31	26°♊17'24	
morning set	3104 Jan 28 12:16	27°♊45'08		direct	3104 Dec 04 00:47	25°♊02'57	
	3104 Jan 29 22:39	0°♊		morning max el	3104 Dec 11 11:25	29°♊16'12	19°48'23
max. Earth dist.	3104 Feb 05 14:55	10°♊41'12	1.42723 AU		3104 Dec 12 04:24	0°♊	
				greatest brilliancy	3104 Dec 24 21:08	16°♊58'17	-0.7m
superior conj	3104 Feb 12 15:10	22°♊20'11	-2°06'27	desc. node	3105 Jan 01 09:01	28°♊16'26	
minimum elong	3104 Feb 12 14:42	22°♊18'11	2°06'27		3105 Jan 02 12:06	0°♊	
	3104 Feb 17 02:09	0°♊		morning set	3105 Jan 06 08:14	5°♊54'14	
evening rise	3104 Feb 24 07:47	12°♊48'25		max. Earth dist.	3105 Jan 18 01:38	24°♊15'21	1.44214 AU
	3104 Mar 05 05:20	0°♊			3105 Jan 21 15:46	0°♊	
asc. node	3104 Mar 05 21:09	1°♊02'30					
evening max el	3104 Mar 12 03:57	9°♊16'41	18°07'07	superior conj	3105 Jan 22 21:54	2°♊01'40	-1°55'53
retrograde	3104 Mar 18 18:29	12°♊40'19		minimum elong	3105 Jan 22 15:40	1°♊36'25	1°55'31
evening set	3104 Mar 21 11:11	12°♊06'20		evening rise	3105 Feb 05 09:04	24°♊25'18	
inferior conj	3104 Mar 27 23:54	7°♊06'15	3°25'45		3105 Feb 08 15:40	0°♊	
minimum elong	3104 Mar 28 02:01	7°♊01'05	3°25'29	asc. node	3105 Feb 20 18:11	19°♊09'16	
min. Earth dist.	3104 Mar 31 02:56	4°♊03'33	0.61339 AU	evening max el	3105 Feb 23 16:41	22°♊34'05	18°14'44
morning rise	3104 Apr 03 15:03	1°♊11'02		retrograde	3105 Mar 02 03:14	26°♊00'19	
	3104 Apr 05 15:34	30°♊		evening set	3105 Mar 05 01:32	25°♊15'08	
direct	3104 Apr 10 10:07	28°♊50'55		inferior conj	3105 Mar 11 02:55	19°♊55'33	3°39'25
desc. node	3104 Apr 12 11:08	29°♊02'48		minimum elong	3105 Mar 11 03:11	19°♊54'51	3°39'24
	3104 Apr 15 10:52	0°♊		min. Earth dist.	3105 Mar 13 16:17	17°♊06'56	0.63373 AU
morning max el	3104 Apr 24 15:05	6°♊47'17	27°48'17	morning rise	3105 Mar 17 03:52	13°♊50'11	
	3104 May 12 04:35	0°♊		direct	3105 Mar 24 01:50	11°♊07'15	
morning set	3104 May 27 12:41	28°♊03'28		desc. node	3105 Mar 30 08:11	12°♊59'46	
	3104 May 28 11:16	0°♊		morning max el	3105 Apr 06 22:30	19°♊04'25	27°43'40
asc. node	3104 Jun 01 20:28	9°♊19'05			3105 Apr 16 04:53	0°♊	
max. Earth dist.	3104 Jun 02 11:22	10°♊39'57	1.32279 AU		3105 May 05 02:33	0°♊	
				morning set	3105 May 11 10:49	12°♊09'30	
superior conj	3104 Jun 03 21:01	13°♊43'35	0°21'11	max. Earth dist.	3105 May 16 16:13	22°♊55'32	1.32889 AU
minimum elong	3104 Jun 03 20:04	13°♊38'20	0°20'59				
evening rise	3104 Jun 10 17:52	28°♊39'55		superior conj	3105 May 19 04:46	28°♊18'47	-0°05'36
	3104 Jun 11 08:59	0°♊		minimum elong	3105 May 19 05:02	28°♊20'15	0°05'32
	3104 Jun 28 05:02	0°♊		behind sun begin	3105 May 19 00:02	27°♊53'24	
evening max el	3104 Jul 06 16:51	10°♊04'28	24°51'15	behind sun end	3105 May 19 10:01	28°♊47'07	
desc. node	3104 Jul 09 10:24	12°♊28'38		asc. node	3105 May 19 17:31	29°♊27'29	
retrograde	3104 Jul 20 15:43	17°♊08'33			3105 May 19 23:32	0°♊	
evening set	3104 Jul 25 22:11	16°♊05'28		evening rise	3105 May 26 05:42	13°♊28'29	
min. Earth dist.	3104 Jul 31 04:17	13°♊17'53	0.57219 AU		3105 Jun 03 14:06	0°♊	
inferior conj	3104 Aug 03 02:17	11°♊22'39	-5°04'10	evening max el	3105 Jun 18 06:15	20°♊33'17	23°15'58
minimum elong	3104 Aug 03 00:58	11°♊24'49	5°04'07	desc. node	3105 Jun 26 07:26	26°♊10'24	
morning rise	3104 Aug 11 06:21	7°♊14'39		retrograde	3105 Jul 01 18:39	27°♊18'22	
direct	3104 Aug 13 20:42	6°♊55'28		evening set	3105 Jul 05 12:51	26°♊47'28	
morning max el	3104 Aug 22 23:19	11°♊11'22	19°15'01	min. Earth dist.	3105 Jul 12 15:55	23°♊33'02	0.55687 AU
asc. node	3104 Aug 28 19:41	18°♊18'04		inferior conj	3105 Jul 14 12:24	22°♊27'44	-4°30'33
	3104 Sep 04 16:15	0°♊		minimum elong	3105 Jul 14 05:36	22°♊37'46	4°29'18
morning set	3104 Sep 08 23:51	8°♊24'34		morning rise	3105 Jul 23 00:47	18°♊34'17	
				direct	3105 Jul 25 21:07	18°♊14'40	
superior conj	3104 Sep 17 04:04	24°♊37'42	1°41'19	morning max el	3105 Aug 05 12:35	23°♊10'57	20°25'17
minimum elong	3104 Sep 17 05:44	24°♊45'49	1°41'15		3105 Aug 11 08:37	0°♊	
	3104 Sep 19 23:15	0°♊		asc. node	3105 Aug 15 16:45	6°♊45'04	
max. Earth dist.	3104 Sep 23 15:50	6°♊51'34	1.38270 AU	morning set	3105 Aug 24 05:34	23°♊01'51	
evening rise	3104 Sep 27 10:36	13°♊36'34			3105 Aug 27 14:45	0°♊	
desc. node	3104 Oct 05 09:46	26°♊56'53					
	3104 Oct 07 07:54	0°♊		superior conj	3105 Aug 31 19:56	8°♊39'06	1°44'57
	3104 Oct 29 01:56	0°♊		minimum elong	3105 Aug 31 19:55	8°♊39'01	1°44'57
evening max el	3104 Nov 02 01:42	4°♊15'04	24°53'58	max. Earth dist.	3105 Sep 05 22:20	18°♊45'34	1.36324 AU
retrograde	3104 Nov 13 18:41	11°♊03'11		evening rise	3105 Sep 09 21:04	26°♊12'09	
evening set	3104 Nov 19 10:00	8°♊41'39			3105 Sep 11 23:13	0°♊	
min. Earth dist.	3104 Nov 23 23:17	3°♊33'18	0.67442 AU	desc. node	3105 Sep 22 06:47	17°♊20'44	
inferior conj	3104 Nov 24 22:15	2°♊17'29	0°02'55		3105 Sep 30 18:53	0°♊	
minimum elong	3104 Nov 24 22:11	2°♊17'44	0°02'52	evening max el	3105 Oct 15 14:02	17°♊56'46	26°02'50
transit middle	3104 Nov 24 22:11	2°♊17'44	0°02'52	retrograde	3105 Oct 28 03:11	25°♊03'52	

evening set	3105 Nov 03 08:26	22°♄29'35		evening max el	3106 Sep 28 02:34	1°♄33'01	26°54'55
min. Earth dist.	3105 Nov 07 14:24	17°♄56'40	0.66699 AU	retrograde	3106 Oct 11 06:10	8°♄49'02	
inferior conj	3105 Nov 09 00:28	16°♄10'27	-0°54'24	evening set	3106 Oct 17 23:56	6°♄07'15	
minimum elong	3105 Nov 09 01:55	16°♄05'56	0°53'46	min. Earth dist.	3106 Oct 21 23:04	2°♄10'37	0.65606 AU
asc. node	3105 Nov 11 15:55	13°♄02'15		inferior conj	3106 Oct 23 21:02	29°♄57'47	-1°54'05
morning rise	3105 Nov 14 19:48	10°♄19'23		minimum elong	3106 Oct 24 00:10	29°♄48'43	1°52'49
direct	3105 Nov 17 23:24	9°♄22'33			3106 Oct 23 20:16	30°♄♂	
morning max el	3105 Nov 24 19:36	13°♄10'10	18°53'59	asc. node	3106 Oct 29 12:58	24°♄35'41	
	3105 Dec 07 05:12	0°♄♂		morning rise	3106 Oct 30 01:10	24°♄18'54	
morning set	3105 Dec 16 17:56	14°♄♂51'38		direct	3106 Nov 01 20:20	23°♄35'58	
desc. node	3105 Dec 19 06:02	18°♄♂47'17		morning max el	3106 Nov 08 09:09	27°♄08'05	18°15'55
	3105 Dec 26 09:43	0°♄♂			3106 Nov 10 22:04	0°♄♄	
max. Earth dist.	3105 Dec 31 18:16	8°♄♂24'18	1.45061 AU	morning set	3106 Nov 27 07:56	25°♄15'33	
					3106 Nov 30 06:00	0°♄♂	
superior conj	3106 Jan 02 06:23	10°♄♂46'22	-1°25'59	desc. node	3106 Dec 06 03:04	9°♄♂27'20	
minimum elong	3106 Jan 01 21:19	10°♄♂10'39	1°25'02				
	3106 Jan 14 08:21	0°♄♄		superior conj	3106 Dec 12 08:40	19°♄♂20'36	-0°41'25
evening rise	3106 Jan 17 11:46	5°♄♄04'43		minimum elong	3106 Dec 12 03:23	18°♄♂59'47	0°40'42
	3106 Feb 02 07:24	0°♄♂		max. Earth dist.	3106 Dec 14 13:43	22°♄♂49'17	1.45172 AU
evening max el	3106 Feb 07 04:17	5°♄♂59'57	18°40'42		3106 Dec 19 03:38	0°♄♂	
asc. node	3106 Feb 07 15:13	6°♄♂27'05		evening rise	3106 Dec 28 15:43	14°♄♂50'41	
retrograde	3106 Feb 13 19:33	9°♄♂41'03			3107 Jan 07 09:30	0°♄♄	
evening set	3106 Feb 16 23:50	8°♄♂43'44		greatest brilliancy	3107 Jan 09 05:01	2°♄♄46'45	-0.7m
inferior conj	3106 Feb 22 17:17	3°♄♂06'10	3°34'41	evening max el	3107 Jan 21 12:27	19°♄♄29'25	19°23'42
minimum elong	3106 Feb 22 16:03	3°♄♂09'56	3°34'34	asc. node	3107 Jan 25 12:14	22°♄♄42'15	
min. Earth dist.	3106 Feb 24 14:58	0°♄♂47'59	0.65080 AU	retrograde	3107 Jan 28 16:05	23°♄♄35'55	
	3106 Feb 25 07:23	30°♄♄		evening set	3107 Feb 01 03:19	22°♄♄25'31	
morning rise	3106 Feb 28 07:48	26°♄♄55'36		inferior conj	3107 Feb 06 15:37	16°♄♄32'04	3°16'10
direct	3106 Mar 07 00:37	24°♄♄04'22		minimum elong	3107 Feb 06 13:27	16°♄♄39'08	3°15'47
desc. node	3106 Mar 17 05:13	28°♄♄57'34		min. Earth dist.	3107 Feb 07 22:13	14°♄♄52'45	0.66388 AU
	3106 Mar 18 09:29	0°♄♂		morning rise	3107 Feb 11 23:20	10°♄♄19'03	
morning max el	3106 Mar 20 08:08	1°♄♂52'10	27°05'14	direct	3107 Feb 18 05:29	7°♄♄32'40	
	3106 Apr 10 08:53	0°♄♂		morning max el	3107 Mar 02 17:44	14°♄♄58'30	26°00'10
morning set	3106 Apr 24 23:29	25°♄♂44'04		desc. node	3107 Mar 04 02:15	16°♄♄22'56	
	3106 Apr 27 03:49	0°♄♂			3107 Mar 15 01:30	0°♄♂	
max. Earth dist.	3106 Apr 29 11:57	4°♄♂41'40	1.33948 AU		3107 Apr 03 04:21	0°♄♂	
				morning set	3107 Apr 07 22:37	8°♄♂34'27	
superior conj	3106 May 03 07:32	12°♄♂35'01	-0°33'52	max. Earth dist.	3107 Apr 11 20:17	15°♄♂57'10	1.35464 AU
minimum elong	3106 May 03 09:17	12°♄♂44'11	0°33'30				
asc. node	3106 May 06 14:33	19°♄♂32'30		superior conj	3107 Apr 17 02:48	26°♄♂23'45	-1°02'22
evening rise	3106 May 10 16:17	28°♄♂09'06		minimum elong	3107 Apr 17 06:03	26°♄♂40'12	1°01'48
	3106 May 11 13:35	0°♄♄			3107 Apr 18 21:14	0°♄♂	
	3106 May 29 21:52	0°♄♄		asc. node	3107 Apr 23 11:33	9°♄♂29'07	
evening max el	3106 May 31 00:13	1°♄♄06'48	21°41'38	evening rise	3107 Apr 24 23:31	12°♄♂34'07	
retrograde	3106 Jun 12 10:15	7°♄♄13'38			3107 May 04 03:15	0°♄♄	
desc. node	3106 Jun 13 04:27	7°♄♄12'19		evening max el	3107 May 13 04:38	12°♄♄10'09	20°20'05
evening set	3106 Jun 14 23:05	6°♄♄59'08		retrograde	3107 May 23 23:45	17°♄♄25'29	
inferior conj	3106 Jun 24 08:30	2°♄♄57'22	-3°07'39	evening set	3107 May 25 23:58	17°♄♄15'20	
minimum elong	3106 Jun 24 00:35	3°♄♄08'25	3°05'14	desc. node	3107 May 31 01:28	15°♄♄31'41	
min. Earth dist.	3106 Jun 24 03:03	3°♄♄04'58	0.54916 AU	inferior conj	3107 Jun 04 03:15	13°♄♄17'02	-1°11'53
	3106 Jun 30 04:53	30°♄♄		minimum elong	3107 Jun 03 23:52	13°♄♄22'00	1°10'39
morning rise	3106 Jul 03 03:14	29°♄♄03'38		min. Earth dist.	3107 Jun 05 15:26	12°♄♄24'02	0.55087 AU
direct	3106 Jul 06 08:38	28°♄♄40'52		morning rise	3107 Jun 12 22:33	9°♄♄02'52	
	3106 Jul 12 04:54	0°♄♄		direct	3107 Jun 16 19:20	8°♄♄30'34	
morning max el	3106 Jul 18 14:17	4°♄♄26'08	21°54'39	morning max el	3107 Jun 30 07:25	15°♄♄05'06	23°36'01
asc. node	3106 Aug 02 13:48	25°♄♄47'07			3107 Jul 12 00:02	0°♄♄	
	3106 Aug 04 18:27	0°♄♄		asc. node	3107 Jul 20 10:49	15°♄♄14'33	
morning set	3106 Aug 08 15:06	7°♄♄50'51		morning set	3107 Jul 24 02:31	22°♄♄45'09	
					3107 Jul 27 11:52	0°♄♄	
superior conj	3106 Aug 15 20:37	23°♄♄06'58	1°41'18				
minimum elong	3106 Aug 15 19:19	23°♄♄00'06	1°41'14	superior conj	3107 Jul 31 03:09	7°♄♄51'36	1°31'39
	3106 Aug 19 04:20	0°♄♄		minimum elong	3107 Jul 31 01:03	7°♄♄40'20	1°31'25
max. Earth dist.	3106 Aug 19 12:25	0°♄♄41'11	1.34686 AU	max. Earth dist.	3107 Aug 02 11:24	12°♄♄52'24	1.33436 AU
evening rise	3106 Aug 24 00:13	9°♄♄35'31		evening rise	3107 Aug 07 15:42	23°♄♄34'19	
	3106 Sep 04 11:04	0°♄♄			3107 Aug 10 22:32	0°♄♄	
desc. node	3106 Sep 09 03:48	7°♄♄25'57		desc. node	3107 Aug 27 00:49	27°♄♄04'01	
	3106 Sep 26 13:05	0°♄♄			3107 Aug 29 02:13	0°♄♄	

evening max el	3107 Sep 10 14:13	14° Ω 52'24	27°23'07	desc. node	3108 Aug 12 21:50	16° Π 03'34	
retrograde	3107 Sep 24 03:19	22° Ω 10'24		evening max el	3108 Aug 22 23:01	27° Π 42'31	27°21'28
evening set	3107 Oct 01 05:51	19° Ω 29'38			3108 Aug 25 13:21	0° Ω	
min. Earth dist.	3107 Oct 04 23:05	16° Ω 07'44	0.64156 AU	retrograde	3108 Sep 05 18:07	4° Ω 58'22	
inferior conj	3107 Oct 07 09:34	13° Ω 34'08	-2°53'53	evening set	3108 Sep 12 22:43	2° Ω 30'32	
minimum elong	3107 Oct 07 14:17	13° Ω 21'43	2°52'13		3108 Sep 16 02:48	30° κ Π	
morning rise	3107 Oct 13 23:54	8° Ω 10'43		min. Earth dist.	3108 Sep 16 13:03	29° Π 37'00	0.62382 AU
asc. node	3107 Oct 16 10:00	7° Ω 38'07		inferior conj	3108 Sep 19 11:10	26° Π 52'39	-3°50'07
direct	3107 Oct 16 12:59	7° Ω 38'03		minimum elong	3108 Sep 19 16:49	26° Π 39'22	3°48'34
morning max el	3107 Oct 23 01:24	11° Ω 03'45	17°54'57	morning rise	3108 Sep 26 12:32	21° Π 47'50	
	3107 Nov 04 23:02	0° Π		direct	3108 Sep 28 22:14	21° Π 22'04	
morning set	3107 Nov 09 01:52	7° Π 01'05		asc. node	3108 Oct 02 07:03	22° Π 14'10	
				morning max el	3108 Oct 05 17:19	24° Π 49'42	17°51'51
superior conj	3107 Nov 22 01:46	28° Π 42'36	0°06'23		3108 Oct 09 23:16	0° Ω	
minimum elong	3107 Nov 22 02:30	28° Π 45'31	0°06'16	morning set	3108 Oct 21 17:44	19° Ω 49'11	
behind sun begin	3107 Nov 21 17:07	28° Π 07'25			3108 Oct 27 11:05	0° Π	
behind sun end	3107 Nov 22 11:53	29° Π 23'33					
	3107 Nov 22 20:53	0° χ		superior conj	3108 Nov 01 20:49	9° Π 21'05	0°47'14
desc. node	3107 Nov 23 00:06	0° χ 13'00		minimum elong	3108 Nov 02 00:47	9° Π 37'58	0°46'42
max. Earth dist.	3107 Nov 27 08:20	7° χ 10'18	1.44542 AU	desc. node	3108 Nov 08 21:08	21° Π 00'29	
evening rise	3107 Dec 08 03:36	24° χ 02'07		max. Earth dist.	3108 Nov 08 23:07	21° Π 08'31	1.43265 AU
	3107 Dec 12 01:03	0° Ξ			3108 Nov 14 12:06	0° χ	
	3108 Jan 01 23:08	0° \approx		evening rise	3108 Nov 16 14:01	3° χ 15'23	
evening max el	3108 Jan 04 15:40	3° \approx 00'30	20°21'48		3108 Dec 04 12:32	0° Ξ	
asc. node	3108 Jan 12 09:15	7° \approx 40'22		evening max el	3108 Dec 17 13:20	16° Ξ 32'27	21°32'03
retrograde	3108 Jan 12 14:09	7° \approx 40'36		retrograde	3108 Dec 26 11:37	21° Ξ 50'56	
evening set	3108 Jan 16 09:49	6° \approx 16'02		asc. node	3108 Dec 29 06:17	21° Ξ 08'43	
inferior conj	3108 Jan 21 19:14	0° \approx 09'32	2°47'02	evening set	3108 Dec 30 17:29	20° Ξ 11'00	
minimum elong	3108 Jan 21 16:41	0° \approx 18'10	2°46'22	inferior conj	3109 Jan 05 01:51	13° Ξ 54'43	2°09'24
	3108 Jan 21 22:02	30° κ Ξ		minimum elong	3109 Jan 04 23:27	14° Ξ 03'02	2°08'35
min. Earth dist.	3108 Jan 22 12:17	29° Ξ 11'39	0.67284 AU	min. Earth dist.	3109 Jan 05 06:49	13° Ξ 37'29	0.67788 AU
morning rise	3108 Jan 26 23:22	23° Ξ 55'55		morning rise	3109 Jan 10 05:14	7° Ξ 42'21	
direct	3108 Feb 01 15:49	21° Ξ 24'07		direct	3109 Jan 15 06:53	5° Ξ 30'57	
morning max el	3108 Feb 13 02:25	28° Ξ 14'08	24°38'08	morning max el	3109 Jan 25 11:32	11° Ξ 34'21	23°09'23
	3108 Feb 14 18:50	0° \approx		desc. node	3109 Feb 04 20:20	24° Ξ 03'25	
desc. node	3108 Feb 18 23:17	4° \approx 50'59			3109 Feb 09 03:38	0° \approx	
	3108 Mar 07 19:09	0° χ			3109 Feb 28 15:13	0° χ	
morning set	3108 Mar 20 03:02	20° χ 26'35		morning set	3109 Mar 01 06:31	1° χ 03'48	
max. Earth dist.	3108 Mar 23 18:38	26° χ 59'14	1.37382 AU	max. Earth dist.	3109 Mar 05 13:17	8° χ 20'55	1.39532 AU
	3108 Mar 25 09:55	0° Υ					
superior conj	3108 Mar 30 11:27	9° Υ 37'08	-1°29'06	superior conj	3109 Mar 13 05:27	22° χ 04'51	-1°51'13
minimum elong	3108 Mar 30 15:48	9° Υ 58'16	1°28'31	minimum elong	3109 Mar 13 09:47	22° χ 24'50	1°50'50
evening rise	3108 Apr 08 01:06	26° Υ 36'58			3109 Mar 17 10:51	0° Υ	
asc. node	3108 Apr 09 08:34	29° Υ 13'06		evening rise	3109 Mar 22 18:08	10° Υ 09'52	
	3108 Apr 09 18:05	0° δ		asc. node	3109 Mar 27 05:36	18° Υ 39'05	
evening max el	3108 Apr 24 21:02	23° δ 54'19	19°17'06		3109 Apr 02 02:10	0° δ	
retrograde	3108 May 03 23:32	28° δ 19'26		evening max el	3109 Apr 07 23:23	6° δ 15'56	18°34'16
evening set	3108 May 06 00:38	28° δ 07'01		retrograde	3109 Apr 15 17:14	10° δ 04'02	
inferior conj	3108 May 14 10:49	23° δ 58'11	0°42'57	evening set	3109 Apr 18 00:26	9° δ 45'03	
minimum elong	3108 May 14 12:34	23° δ 55'17	0°42'20	inferior conj	3109 Apr 25 14:52	5° δ 17'44	2°11'29
desc. node	3108 May 16 22:28	22° δ 19'14		minimum elong	3109 Apr 25 18:40	5° δ 10'21	2°10'24
min. Earth dist.	3108 May 17 06:16	22° δ 06'39	0.56180 AU	min. Earth dist.	3109 Apr 29 00:34	2° δ 40'27	0.57965 AU
morning rise	3108 May 22 21:30	19° δ 09'54		morning rise	3109 May 03 09:45	29° Υ 56'25	
direct	3108 May 27 17:10	18° δ 16'28			3109 May 03 06:48	30° κ Υ	
morning max el	3108 Jun 10 21:40	25° δ 30'13	25°16'24	desc. node	3109 May 03 19:29	29° Υ 45'02	
	3108 Jun 15 02:46	0° Π		direct	3109 May 09 05:28	28° Υ 30'28	
	3108 Jul 03 20:54	0° δ			3109 May 15 07:14	0° δ	
asc. node	3108 Jul 06 07:51	5° δ 00'30		morning max el	3109 May 23 14:35	6° δ 08'39	26°40'09
morning set	3108 Jul 07 14:14	7° δ 39'44			3109 Jun 10 05:51	0° Π	
				morning set	3109 Jun 22 00:38	22° Π 29'22	
superior conj	3108 Jul 14 13:13	22° δ 45'39	1°16'58	asc. node	3109 Jun 23 04:55	24° Π 59'12	
minimum elong	3108 Jul 14 10:51	22° δ 32'42	1°16'37		3109 Jun 25 12:40	0° δ	
max. Earth dist.	3108 Jul 15 17:55	25° δ 22'21	1.32597 AU	superior conj	3109 Jun 29 00:56	7° δ 42'40	0°58'02
	3108 Jul 17 21:13	0° Ω		minimum elong	3109 Jun 28 22:46	7° δ 30'45	0°57'39
evening rise	3108 Jul 21 16:04	7° Ω 58'38		max. Earth dist.	3109 Jun 29 04:56	8° δ 04'44	1.32161 AU
	3108 Aug 02 08:57	0° Π		evening rise	3109 Jul 05 22:27	22° δ 39'49	

	3109 Jul 09 12:25	0°♎			3110 Jul 02 01:51	0°♎	
	3109 Jul 27 12:02	0°♍		desc. node	3110 Jul 17 15:50	20°♎56'47	
desc. node	3109 Jul 30 18:49	4°♍08'55		evening max el	3110 Jul 17 23:05	21°♎14'12	25°40'25
evening max el	3109 Aug 05 02:40	9°♍52'28	26°46'42	retrograde	3110 Jul 31 22:48	28°♎21'36	
retrograde	3109 Aug 19 01:17	17°♍04'22		evening set	3110 Aug 06 23:11	26°♎56'21	
evening set	3109 Aug 25 22:08	15°♍02'47		min. Earth dist.	3110 Aug 11 11:13	24°♎17'53	0.58326 AU
min. Earth dist.	3109 Aug 29 16:42	12°♍25'22	0.60379 AU	inferior conj	3110 Aug 14 16:03	22°♎01'03	-5°03'15
inferior conj	3109 Sep 01 22:33	9°♍45'21	-4°36'34	minimum elong	3110 Aug 14 17:50	21°♎57'52	5°03'10
minimum elong	3109 Sep 02 03:34	9°♍34'59	4°35'42	morning rise	3110 Aug 22 14:44	17°♎40'30	
morning rise	3109 Sep 09 10:58	5°♍01'53		direct	3110 Aug 25 02:45	17°♎20'41	
direct	3109 Sep 11 20:18	4°♍40'10		morning max el	3110 Sep 02 11:22	21°♎19'07	18°44'16
morning max el	3109 Sep 19 05:45	8°♍18'15	18°07'48	asc. node	3110 Sep 06 01:12	25°♎22'33	
asc. node	3109 Sep 19 04:07	8°♍14'18			3110 Sep 09 05:43	0°♍	
	3109 Oct 03 06:03	0°♌		morning set	3110 Sep 18 20:26	17°♍28'51	
morning set	3109 Oct 05 01:32	3°♌23'10			3110 Sep 25 06:49	0°♌	
superior conj	3109 Oct 14 17:43	21°♌15'21	1°16'55	superior conj	3110 Sep 27 11:26	4°♌10'44	1°35'19
minimum elong	3109 Oct 14 21:51	21°♌33'51	1°16'28	minimum elong	3110 Sep 27 14:08	4°♌23'30	1°35'07
	3109 Oct 19 17:07	0°♌		max. Earth dist.	3110 Oct 04 14:36	17°♌13'17	1.39470 AU
max. Earth dist.	3109 Oct 22 08:59	4°♌31'48	1.41503 AU	evening rise	3110 Oct 08 14:47	24°♌09'25	
desc. node	3109 Oct 26 18:11	11°♌46'46			3110 Oct 12 02:53	0°♌	
evening rise	3109 Oct 27 15:01	13°♌11'11		desc. node	3110 Oct 13 15:12	2°♌27'41	
	3109 Nov 07 11:03	0°♏			3110 Nov 01 06:29	0°♏	
	3109 Nov 30 03:24	0°♏		evening max el	3110 Nov 12 19:41	13°♏44'41	24°09'49
evening max el	3109 Nov 30 06:09	0°♏06'56	22°49'57	retrograde	3110 Nov 23 22:29	20°♏16'00	
retrograde	3109 Dec 10 06:47	6°♏03'57		evening set	3110 Nov 29 05:52	18°♏03'10	
evening set	3109 Dec 15 00:42	4°♏07'39		asc. node	3110 Dec 03 00:24	13°♏52'42	
asc. node	3109 Dec 16 03:20	3°♏06'09		min. Earth dist.	3110 Dec 03 23:42	12°♏35'21	0.67720 AU
	3109 Dec 18 18:02	30°♏♏		inferior conj	3110 Dec 04 16:32	11°♏38'35	0°34'12
inferior conj	3109 Dec 20 09:34	27°♏45'14	1°24'43	minimum elong	3110 Dec 04 15:44	11°♏41'19	0°33'51
minimum elong	3109 Dec 20 07:45	27°♏51'30	1°24'00	morning rise	3110 Dec 10 01:37	5°♏34'42	
min. Earth dist.	3109 Dec 20 03:26	28°♏06'23	0.67930 AU	direct	3110 Dec 13 23:02	4°♏08'27	
morning rise	3109 Dec 25 14:40	21°♏36'02		morning max el	3110 Dec 21 20:56	8°♏40'44	20°26'34
direct	3109 Dec 30 01:41	19°♏47'28			3111 Jan 06 23:17	0°♏	
morning max el	3110 Jan 08 00:39	25°♏01'55	21°43'14	desc. node	3111 Jan 09 14:27	3°♏54'59	
	3110 Jan 12 10:58	0°♏		morning set	3111 Jan 19 04:43	18°♏32'27	
desc. node	3110 Jan 22 17:23	13°♏47'43			3111 Jan 26 11:49	0°♏	
	3110 Feb 02 15:04	0°♏		max. Earth dist.	3111 Jan 28 19:40	3°♏43'40	1.43427 AU
morning set	3110 Feb 09 04:57	10°♏17'39					
max. Earth dist.	3110 Feb 15 12:27	20°♏33'48	1.41646 AU	superior conj	3111 Feb 04 01:43	13°♏57'02	-2°04'17
	3110 Feb 21 02:19	0°♏		minimum elong	3111 Feb 03 22:51	13°♏45'05	2°04'12
					3111 Feb 13 12:09	0°♏	
superior conj	3110 Feb 23 03:51	3°♏35'09	-2°04'38	evening rise	3111 Feb 16 11:44	5°♏12'22	
minimum elong	3110 Feb 23 05:58	3°♏44'23	2°04'34	asc. node	3111 Feb 28 23:42	26°♏10'28	
evening rise	3110 Mar 05 23:04	23°♏04'28			3111 Mar 03 19:43	0°♏	
	3110 Mar 09 17:51	0°♏		evening max el	3111 Mar 05 20:29	2°♏15'45	18°08'04
asc. node	3110 Mar 14 02:39	7°♏40'46		retrograde	3111 Mar 12 08:05	5°♏38'53	
evening max el	3110 Mar 22 08:18	19°♏06'03	18°11'25	evening set	3111 Mar 15 03:14	5°♏00'08	
retrograde	3110 Mar 29 05:21	22°♏33'54		inferior conj	3111 Mar 21 10:38	29°♏51'16	3°34'08
evening set	3110 Mar 31 18:54	22°♏05'42		minimum elong	3111 Mar 21 11:56	29°♏47'53	3°34'02
inferior conj	3110 Apr 07 15:52	17°♏17'20	3°07'06		3111 Mar 21 07:15	30°♏♏	
minimum elong	3110 Apr 07 18:58	17°♏10'19	3°06'31	min. Earth dist.	3111 Mar 24 08:10	26°♏52'26	0.62231 AU
min. Earth dist.	3110 Apr 11 00:18	14°♏16'53	0.60096 AU	morning rise	3111 Mar 27 19:19	23°♏51'02	
morning rise	3110 Apr 14 16:46	11°♏31'56		direct	3111 Apr 03 16:38	21°♏19'58	
desc. node	3110 Apr 20 16:32	9°♏31'09		desc. node	3111 Apr 07 13:35	22°♏02'53	
direct	3110 Apr 21 06:07	9°♏30'16		morning max el	3111 Apr 17 18:33	29°♏17'00	27°50'56
morning max el	3110 May 05 13:28	17°♏21'25	27°33'58		3111 Apr 18 11:32	0°♏	
	3110 May 16 01:09	0°♏			3111 May 09 23:02	0°♏	
	3110 Jun 02 19:33	0°♏		morning set	3111 May 21 10:08	21°♏27'31	
morning set	3110 Jun 06 07:56	7°♏07'20			3111 May 25 12:36	0°♏	
asc. node	3110 Jun 10 01:57	15°♏04'54		max. Earth dist.	3111 May 27 01:32	3°♏17'42	1.32492 AU
max. Earth dist.	3110 Jun 12 16:47	20°♏47'29	1.32124 AU	asc. node	3111 May 27 23:00	5°♏13'37	
superior conj	3110 Jun 13 12:27	22°♏35'33	0°35'32	superior conj	3111 May 28 22:05	7°♏18'57	0°10'07
minimum elong	3110 Jun 13 10:56	22°♏27'13	0°35'14	minimum elong	3111 May 28 21:37	7°♏16'21	0°10'01
	3110 Jun 16 21:19	0°♏		behind sun begin	3111 May 28 17:35	6°♏54'23	
evening rise	3110 Jun 20 08:31	7°♏29'03		behind sun end	3111 May 29 01:39	7°♏38'20	

evening rise	3111 Jun 04 20:15	22° Π 19'53		minimum elong	3112 May 12 04:49	21° \mathcal{B} 50'57	0°17'16
	3111 Jun 08 13:04	0° \mathfrak{D}		asc. node	3112 May 13 20:02	25° \mathcal{B} 20'40	
	3111 Jun 27 16:14	0° Ω			3112 May 16 00:01	0° Π	
evening max el	3111 Jun 29 13:17	1° Ω 54'47	24°11'28	evening rise	3112 May 19 07:46	7° Π 05'17	
desc. node	3111 Jul 04 12:50	5° Ω 56'48			3112 May 31 12:09	0° \mathfrak{D}	
retrograde	3111 Jul 13 08:51	8° Ω 52'40		evening max el	3112 Jun 10 03:25	12° \mathfrak{D} 20'25	22°34'49
evening set	3111 Jul 18 00:30	8° Ω 04'34		desc. node	3112 Jun 20 09:50	18° \mathfrak{D} 33'27	
min. Earth dist.	3111 Jul 23 23:56	5° Ω 07'20	0.56504 AU	retrograde	3112 Jun 23 06:51	18° \mathfrak{D} 52'25	
inferior conj	3111 Jul 26 13:19	3° Ω 31'48	-4°55'51	evening set	3112 Jun 26 10:48	18° \mathfrak{D} 30'22	
minimum elong	3111 Jul 26 09:29	3° Ω 37'48	4°55'29	min. Earth dist.	3112 Jul 04 11:02	15° \mathfrak{D} 00'39	0.55251 AU
	3111 Aug 02 06:27	30° \mathcal{R} \mathfrak{D}		inferior conj	3112 Jul 05 16:15	14° \mathfrak{D} 19'02	-4°01'03
morning rise	3111 Aug 03 21:07	29° \mathfrak{D} 31'33		minimum elong	3112 Jul 05 08:11	14° \mathfrak{D} 30'31	3°59'08
direct	3111 Aug 06 13:57	29° \mathfrak{D} 12'18		morning rise	3112 Jul 14 07:46	10° \mathfrak{D} 27'58	
	3111 Aug 10 16:36	0° Ω		direct	3112 Jul 17 07:10	10° \mathfrak{D} 07'41	
morning max el	3111 Aug 16 07:12	3° Ω 43'15	19°42'19	morning max el	3112 Jul 28 15:32	15° \mathfrak{D} 24'02	21°01'18
asc. node	3111 Aug 23 22:15	13° Ω 24'19			3112 Aug 08 14:10	0° Ω	
	3111 Sep 01 23:43	0° \mathfrak{M}		asc. node	3112 Aug 09 19:17	2° Ω 07'05	
morning set	3111 Sep 02 22:58	1° \mathfrak{M} 56'41		morning set	3112 Aug 17 06:33	16° Ω 39'31	
					3112 Aug 23 16:11	0° \mathfrak{M}	
superior conj	3111 Sep 10 20:34	17° \mathfrak{M} 52'06	1°43'51	superior conj	3112 Aug 24 16:37	2° \mathfrak{M} 06'15	1°44'13
minimum elong	3111 Sep 10 21:29	17° \mathfrak{M} 56'39	1°43'49	minimum elong	3112 Aug 24 16:00	2° \mathfrak{M} 03'03	1°44'12
max. Earth dist.	3111 Sep 16 19:07	29° \mathfrak{M} 18'25	1.37418 AU	max. Earth dist.	3112 Aug 29 04:05	11° \mathfrak{M} 09'02	1.35579 AU
	3111 Sep 17 04:03	0° \mathfrak{L}		evening rise	3112 Sep 02 07:40	19° \mathfrak{M} 08'58	
evening rise	3111 Sep 20 13:34	6° \mathfrak{L} 11'38			3112 Sep 08 07:45	0° \mathfrak{L}	
desc. node	3111 Sep 30 12:13	22° \mathfrak{L} 59'05		desc. node	3112 Sep 16 09:12	13° \mathfrak{L} 15'48	
	3111 Oct 05 00:41	0° \mathfrak{M}			3112 Sep 28 02:54	0° \mathfrak{M}	
evening max el	3111 Oct 26 07:49	27° \mathfrak{M} 25'02	25°24'46	evening max el	3112 Oct 07 20:03	11° \mathfrak{M} 05'00	26°27'25
	3111 Oct 29 03:58	0° \mathfrak{X}		retrograde	3112 Oct 20 16:14	18° \mathfrak{M} 17'51	
retrograde	3111 Nov 07 09:49	4° \mathfrak{X} 22'28		evening set	3112 Oct 27 03:04	15° \mathfrak{M} 39'17	
evening set	3111 Nov 13 07:17	1° \mathfrak{X} 54'44		min. Earth dist.	3112 Oct 31 05:57	11° \mathfrak{M} 21'53	0.66274 AU
	3111 Nov 15 06:07	30° \mathcal{R} \mathfrak{M}		inferior conj	3112 Nov 01 21:05	9° \mathfrak{M} 23'27	-1°19'33
min. Earth dist.	3111 Nov 17 17:18	27° \mathfrak{M} 01'35	0.67170 AU	minimum elong	3112 Nov 01 23:14	9° \mathfrak{M} 16'56	1°18'38
inferior conj	3111 Nov 18 21:00	25° \mathfrak{M} 32'12	-0°21'01	asc. node	3112 Nov 05 18:29	5° \mathfrak{M} 07'54	
minimum elong	3111 Nov 18 21:32	25° \mathfrak{M} 30'28	0°20'47	morning rise	3112 Nov 07 19:59	3° \mathfrak{M} 37'20	
asc. node	3111 Nov 19 21:28	24° \mathfrak{M} 14'02		direct	3112 Nov 10 19:36	2° \mathfrak{M} 47'03	
morning rise	3111 Nov 24 12:04	19° \mathfrak{M} 35'54		morning max el	3112 Nov 17 11:59	6° \mathfrak{M} 27'12	18°35'45
direct	3111 Nov 27 21:32	18° \mathfrak{M} 29'30			3112 Dec 03 23:29	0° \mathfrak{X}	
morning max el	3111 Dec 05 01:08	22° \mathfrak{M} 30'18	19°23'21	morning set	3112 Dec 08 00:37	6° \mathfrak{X} 26'16	
	3111 Dec 11 05:29	0° \mathfrak{X}		desc. node	3112 Dec 13 08:30	14° \mathfrak{X} 53'41	
greatest brilliancy	3111 Dec 18 11:24	10° \mathfrak{X} 30'55	-0.7m		3112 Dec 22 22:46	0° \mathfrak{Z}	
desc. node	3111 Dec 27 11:28	24° \mathfrak{X} 18'26		superior conj	3112 Dec 24 01:02	1° \mathfrak{Z} 43'05	-1°08'17
morning set	3111 Dec 29 03:38	26° \mathfrak{X} 53'50		minimum elong	3112 Dec 23 16:52	1° \mathfrak{Z} 11'02	1°07'18
	3111 Dec 31 03:38	0° \mathfrak{Z}		max. Earth dist.	3112 Dec 24 03:13	1° \mathfrak{Z} 51'36	1.45195 AU
max. Earth dist.	3112 Jan 11 09:25	17° \mathfrak{Z} 35'11	1.44655 AU	evening rise	3113 Jan 08 20:29	26° \mathfrak{Z} 40'10	
superior conj	3112 Jan 14 21:43	23° \mathfrak{Z} 09'45	-1°45'30		3113 Jan 10 22:38	0° \mathfrak{A}	
minimum elong	3112 Jan 14 13:32	22° \mathfrak{Z} 37'08	1°44'50	greatest brilliancy	3113 Jan 17 10:58	10° \mathfrak{A} 21'28	-0.8m
	3112 Jan 19 03:55	0° \mathfrak{A}		evening max el	3113 Jan 30 19:15	29° \mathfrak{A} 03'48	18°57'00
evening rise	3112 Jan 29 03:44	16° \mathfrak{A} 24'55			3113 Jan 31 18:24	0° \mathfrak{H}	
	3112 Feb 06 08:04	0° \mathfrak{H}		asc. node	3113 Feb 01 17:45	0° \mathfrak{H} 50'12	
asc. node	3112 Feb 15 20:44	13° \mathfrak{H} 57'35		retrograde	3113 Feb 06 15:05	2° \mathfrak{H} 54'49	
evening max el	3112 Feb 17 08:56	15° \mathfrak{H} 36'31	18°23'35	evening set	3113 Feb 09 22:04	1° \mathfrak{H} 52'15	
retrograde	3112 Feb 23 20:38	19° \mathfrak{H} 08'07			3113 Feb 12 04:45	30° \mathcal{R} \mathfrak{A}	
evening set	3112 Feb 26 21:19	18° \mathfrak{H} 17'56		inferior conj	3113 Feb 15 13:02	26° \mathfrak{A} 07'45	3°28'17
inferior conj	3112 Mar 03 18:55	12° \mathfrak{H} 50'16	3°39'20	minimum elong	3113 Feb 15 11:20	26° \mathfrak{A} 13'06	3°28'04
minimum elong	3112 Mar 03 18:28	12° \mathfrak{H} 51'33	3°39'20	min. Earth dist.	3113 Feb 17 04:15	24° \mathfrak{A} 05'06	0.65685 AU
min. Earth dist.	3112 Mar 06 01:35	10° \mathfrak{H} 13'06	0.64136 AU	morning rise	3113 Feb 21 00:13	19° \mathfrak{A} 55'38	
morning rise	3112 Mar 09 14:55	6° \mathfrak{H} 41'58		direct	3113 Feb 27 13:00	17° \mathfrak{A} 04'43	
direct	3112 Mar 16 11:20	3° \mathfrak{H} 53'55		desc. node	3113 Mar 11 07:40	23° \mathfrak{A} 33'05	
desc. node	3112 Mar 24 10:37	6° \mathfrak{H} 55'02		morning max el	3113 Mar 12 13:20	24° \mathfrak{A} 45'47	26°40'12
morning max el	3112 Mar 30 03:27	11° \mathfrak{H} 49'01	27°31'13		3113 Mar 17 07:20	0° \mathfrak{H}	
	3112 Apr 13 14:31	0° \mathfrak{Y}			3113 Apr 07 01:10	0° \mathfrak{Y}	
morning set	3112 May 01 10:19	0° \mathcal{B}		morning set	3113 Apr 17 12:05	18° \mathfrak{Y} 38'11	
max. Earth dist.	3112 May 04 04:38	5° \mathcal{B} 21'11		max. Earth dist.	3113 Apr 21 17:43	26° \mathfrak{Y} 52'12	1.34532 AU
	3112 May 09 03:02	15° \mathcal{B} 21'50	1.33283 AU		3113 Apr 23 07:11	0° \mathcal{B}	
superior conj	3112 May 12 03:57	21° \mathcal{B} 46'16	-0°17'27				

superior conj	3113 Apr 26 03:49	5°♄51'10	-0°46'02	superior conj	3114 Apr 09 19:02	19°♄26'09	-1°14'05
minimum elong	3113 Apr 26 06:13	6°♄03'34	0°45'34	minimum elong	3114 Apr 09 22:50	19°♄45'04	1°13'28
asc. node	3113 Apr 30 17:03	15°♄22'10			3114 Apr 15 00:26	0°♄	
evening rise	3113 May 03 17:08	21°♄39'14		evening rise	3114 Apr 17 22:16	5°♄55'31	
	3113 May 07 20:00	0°♄		asc. node	3114 Apr 17 14:04	5°♄13'59	
evening max el	3113 May 23 01:23	23°♄04'12	21°05'00		3114 May 01 14:41	0°♄	
retrograde	3113 Jun 03 20:11	28°♄49'54		evening max el	3114 May 05 11:09	4°♄25'22	19°51'00
evening set	3113 Jun 06 01:13	28°♄38'30		retrograde	3114 May 15 12:14	9°♄17'44	
desc. node	3113 Jun 07 06:51	28°♄22'41		evening set	3114 May 17 11:52	9°♄07'10	
inferior conj	3113 Jun 15 09:56	24°♄40'28	-2°20'45	desc. node	3114 May 25 03:53	5°♄49'55	
minimum elong	3113 Jun 15 03:29	24°♄49'34	2°18'33	inferior conj	3114 May 26 08:44	5°♄06'07	-0°21'12
min. Earth dist.	3113 Jun 15 22:54	24°♄22'11	0.54864 AU	minimum elong	3114 May 26 07:46	5°♄07'36	0°20'49
morning rise	3113 Jun 24 05:49	20°♄39'58		min. Earth dist.	3114 May 28 12:14	3°♄47'24	0.55447 AU
direct	3113 Jun 27 16:42	20°♄14'11		morning rise	3114 Jun 04 01:30	0°♄38'31	
morning max el	3113 Jul 10 13:03	26°♄21'55	22°36'56		3114 Jun 07 12:28	30°♄	
	3113 Jul 14 00:28	0°♄		direct	3114 Jun 08 07:41	29°♄58'33	
asc. node	3113 Jul 27 16:18	21°♄20'33			3114 Jun 09 02:52	0°♄	
	3113 Jul 31 23:38	0°♄		morning max el	3114 Jun 22 04:02	6°♄51'17	24°19'41
morning set	3113 Aug 01 17:03	1°♄31'00			3114 Jul 08 20:35	0°♄	
				asc. node	3114 Jul 14 13:20	10°♄56'50	
superior conj	3113 Aug 08 20:06	16°♄42'07	1°37'52	morning set	3114 Jul 17 04:50	16°♄26'17	
minimum elong	3113 Aug 08 18:23	16°♄33'03	1°37'45		3114 Jul 23 11:31	0°♄	
max. Earth dist.	3113 Aug 11 21:44	23°♄09'02	1.34102 AU				
	3113 Aug 15 06:25	0°♄		superior conj	3114 Jul 24 04:25	1°♄31'45	1°25'59
evening rise	3113 Aug 16 16:33	2°♄48'52		minimum elong	3114 Jul 24 02:08	1°♄19'25	1°25'42
	3113 Sep 01 04:18	0°♄		max. Earth dist.	3114 Jul 26 00:26	5°♄29'40	1.33034 AU
desc. node	3113 Sep 03 06:12	3°♄10'27		evening rise	3114 Jul 31 12:16	17°♄00'13	
evening max el	3113 Sep 20 08:25	24°♄35'41	27°10'17		3114 Aug 07 05:43	0°♄	
	3113 Sep 27 08:26	0°♄		desc. node	3114 Aug 21 03:13	22°♄33'43	
retrograde	3113 Oct 03 16:58	1°♄53'41			3114 Aug 26 17:51	0°♄	
	3113 Oct 09 12:03	30°♄		evening max el	3114 Sep 02 19:27	7°♄45'11	27°26'21
evening set	3113 Oct 10 14:52	29°♄11'18		retrograde	3114 Sep 16 11:22	15°♄01'44	
min. Earth dist.	3113 Oct 14 11:21	25°♄29'34	0.65028 AU	evening set	3114 Sep 23 15:43	12°♄25'16	
inferior conj	3113 Oct 16 14:33	23°♄07'00	-2°19'36	min. Earth dist.	3114 Sep 27 07:21	9°♄16'15	0.63444 AU
minimum elong	3113 Oct 16 18:24	22°♄56'17	2°18'08	inferior conj	3114 Sep 29 22:52	6°♄36'56	-3°18'26
morning rise	3113 Oct 22 22:52	17°♄34'05		minimum elong	3114 Sep 30 04:06	6°♄23'46	3°16'45
asc. node	3113 Oct 23 15:31	17°♄17'00		morning rise	3114 Oct 06 17:47	1°♄20'41	
direct	3113 Oct 25 15:03	16°♄56'01		direct	3114 Oct 09 05:10	0°♄51'12	
morning max el	3113 Nov 01 03:00	20°♄24'44	18°04'48	asc. node	3114 Oct 10 12:33	0°♄59'37	
	3113 Nov 08 10:02	0°♄		morning max el	3114 Oct 15 19:25	4°♄16'41	17°51'17
morning set	3113 Nov 19 03:05	17°♄26'44		morning set	3114 Nov 01 07:10	29°♄41'21	
	3113 Nov 26 18:18	0°♄			3114 Nov 01 11:27	0°♄	
desc. node	3113 Nov 30 05:32	5°♄36'15					
				superior conj	3114 Nov 13 10:53	20°♄23'59	0°24'56
superior conj	3113 Dec 03 07:25	10°♄31'37	-0°20'50	minimum elong	3114 Nov 13 13:26	20°♄34'31	0°24'35
minimum elong	3113 Dec 03 04:49	10°♄21'14	0°20'29	desc. node	3114 Nov 17 02:33	26°♄22'43	
max. Earth dist.	3113 Dec 06 22:18	16°♄15'32	1.44995 AU		3114 Nov 19 08:27	0°♄	
	3113 Dec 15 17:20	0°♄		max. Earth dist.	3114 Nov 19 15:55	0°♄29'53	1.44081 AU
evening rise	3113 Dec 19 16:11	6°♄07'23		evening rise	3114 Nov 29 01:24	15°♄14'34	
greatest brilliancy	3114 Jan 02 02:22	26°♄38'57	-0.7m		3114 Dec 08 18:58	0°♄	
	3114 Jan 04 08:53	0°♄		evening max el	3114 Dec 28 02:29	26°♄05'46	20°50'27
evening max el	3114 Jan 14 01:31	12°♄34'11	19°46'46		3115 Jan 01 21:52	0°♄	
asc. node	3114 Jan 19 14:46	16°♄34'09		retrograde	3115 Jan 05 10:22	1°♄01'16	
retrograde	3114 Jan 21 12:26	16°♄53'52		asc. node	3115 Jan 06 11:49	0°♄55'04	
evening set	3114 Jan 25 03:03	15°♄37'41			3115 Jan 08 17:10	30°♄	
inferior conj	3114 Jan 30 13:55	9°♄38'37	3°04'58	evening set	3115 Jan 09 10:16	29°♄30'10	
minimum elong	3114 Jan 30 11:31	9°♄46'33	3°04'26	inferior conj	3115 Jan 14 19:03	23°♄19'12	2°32'00
min. Earth dist.	3114 Jan 31 14:38	8°♄16'36	0.66824 AU	minimum elong	3115 Jan 14 16:31	23°♄27'55	2°31'14
morning rise	3114 Feb 04 19:45	3°♄25'12		min. Earth dist.	3115 Jan 15 06:47	22°♄38'58	0.67552 AU
direct	3114 Feb 10 20:28	0°♄43'45		morning rise	3115 Jan 19 22:35	17°♄06'11	
morning max el	3114 Feb 22 22:17	7°♄55'50	25°26'39	direct	3115 Jan 25 08:52	14°♄42'36	
desc. node	3114 Feb 26 04:44	11°♄27'21		morning max el	3115 Feb 05 06:42	21°♄12'47	24°00'34
	3114 Mar 12 04:42	0°♄			3115 Feb 12 20:51	0°♄	
	3114 Mar 30 13:29	0°♄		desc. node	3115 Feb 13 01:47	0°♄15'46	
morning set	3114 Mar 31 03:59	1°♄05'31			3115 Mar 05 11:00	0°♄	
max. Earth dist.	3114 Apr 03 20:56	7°♄56'46	1.36234 AU	morning set	3115 Mar 12 22:29	12°♄26'53	
				max. Earth dist.	3115 Mar 16 17:03	19°♄03'51	1.38287 AU

	3115 Mar 22 16:10	0°♿		superior conj	3116 Mar 05 08:20	14°♿25'57	-1°58'15
				minimum elong	3116 Mar 05 12:03	14°♿42'45	1°58'01
superior conj	3115 Mar 23 22:01	2°♿21'15	-1°39'16		3116 Mar 13 17:56	0°♿	
minimum elong	3115 Mar 24 02:34	2°♿42'50	1°38'44	evening rise	3116 Mar 15 09:02	3°♿04'31	
evening rise	3115 Apr 01 20:36	19°♿46'25		asc. node	3116 Mar 21 08:11	14°♿07'27	
asc. node	3115 Apr 04 11:07	24°♿50'48		evening max el	3116 Mar 31 13:35	28°♿59'55	18°22'02
	3115 Apr 07 04:34	0°♿			3116 Apr 01 16:05	0°♿	
evening max el	3115 Apr 18 08:07	16°♿25'36	18°56'23	retrograde	3116 Apr 07 21:19	2°♿37'47	
retrograde	3115 Apr 26 19:13	20°♿33'06		evening set	3116 Apr 10 07:10	2°♿15'13	
evening set	3115 Apr 28 22:49	20°♿18'12			3116 Apr 14 13:41	30°♿♿	
inferior conj	3115 May 07 00:28	16°♿01'43	1°24'33	inferior conj	3116 Apr 17 13:43	27°♿38'49	2°38'59
minimum elong	3115 May 07 03:31	15°♿56'18	1°23'32	minimum elong	3116 Apr 17 17:27	27°♿31'02	2°38'03
min. Earth dist.	3115 May 10 03:58	13°♿48'48	0.56873 AU	min. Earth dist.	3116 Apr 21 00:19	24°♿48'34	0.58849 AU
desc. node	3115 May 12 00:56	12°♿36'26		morning rise	3116 Apr 25 00:53	22°♿05'37	
morning rise	3115 May 15 05:05	10°♿58'54		desc. node	3116 Apr 27 21:59	20°♿53'23	
direct	3115 May 20 11:18	9°♿52'58		direct	3116 May 01 04:56	20°♿24'30	
morning max el	3115 Jun 03 18:45	17°♿17'56	25°55'06	morning max el	3116 May 15 14:15	28°♿09'35	27°07'22
	3115 Jun 14 05:46	0°♿			3116 May 17 09:27	0°♿	
asc. node	3115 Jul 01 10:24	0°♿48'31			3116 Jun 06 21:23	0°♿	
	3115 Jul 01 01:09	0°♿		morning set	3116 Jun 15 01:30	16°♿04'10	
morning set	3115 Jul 01 16:12	1°♿19'08		asc. node	3116 Jun 17 07:27	20°♿50'23	
					3116 Jun 21 12:14	0°♿	
superior conj	3115 Jul 08 15:23	16°♿27'11	1°09'25	superior conj	3116 Jun 22 03:12	1°♿22'33	0°48'54
minimum elong	3115 Jul 08 13:03	16°♿14'20	1°09'02	minimum elong	3116 Jun 22 01:16	1°♿11'51	0°48'31
max. Earth dist.	3115 Jul 09 09:30	18°♿06'38	1.32365 AU	max. Earth dist.	3116 Jun 21 21:17	0°♿49'57	1.32094 AU
	3115 Jul 14 21:51	0°♿		evening rise	3116 Jun 28 23:40	16°♿16'49	
evening rise	3115 Jul 15 15:30	1°♿32'12			3116 Jul 05 19:51	0°♿	
	3115 Jul 31 04:31	0°♿		desc. node	3116 Jul 24 21:15	28°♿47'23	
desc. node	3115 Aug 08 00:14	11°♿12'11			3116 Jul 26 00:04	0°♿	
evening max el	3115 Aug 16 02:24	20°♿19'13	27°10'43	evening max el	3116 Jul 28 02:46	2°♿07'15	26°21'55
retrograde	3115 Aug 29 22:46	27°♿32'44		retrograde	3116 Aug 11 02:12	9°♿18'09	
evening set	3115 Sep 06 01:43	25°♿14'24		evening set	3116 Aug 17 16:08	7°♿30'47	
min. Earth dist.	3115 Sep 09 16:40	22°♿29'49	0.61558 AU	min. Earth dist.	3116 Aug 21 15:54	4°♿55'27	0.59493 AU
inferior conj	3115 Sep 12 18:51	19°♿45'18	-4°11'29	inferior conj	3116 Aug 24 22:56	2°♿22'35	-4°51'08
minimum elong	3115 Sep 13 00:29	19°♿32'44	4°10'09	minimum elong	3116 Aug 25 02:57	2°♿14'47	4°50'37
morning rise	3115 Sep 20 00:57	14°♿49'18			3116 Aug 28 04:45	30°♿♿	
direct	3115 Sep 22 10:16	14°♿25'26		morning rise	3116 Sep 01 15:55	27°♿49'18	
asc. node	3115 Sep 27 09:37	16°♿12'52		direct	3116 Sep 04 02:01	27°♿28'40	
morning max el	3115 Sep 29 10:15	17°♿55'59	17°56'14		3116 Sep 10 10:32	0°♿	
	3115 Oct 08 01:46	0°♿		morning max el	3116 Sep 11 20:13	1°♿13'51	18°20'50
morning set	3115 Oct 15 06:29	12°♿50'50		asc. node	3116 Sep 13 06:42	2°♿43'31	
	3115 Oct 24 19:22	0°♿		morning set	3116 Sep 27 19:28	26°♿39'13	
superior conj	3115 Oct 25 17:25	1°♿36'08	1°01'16		3116 Sep 29 13:31	0°♿	
minimum elong	3115 Oct 25 21:45	1°♿54'57	1°00'43	superior conj	3116 Oct 06 23:53	13°♿58'28	1°26'02
max. Earth dist.	3115 Nov 02 05:14	14°♿16'39	1.42567 AU	minimum elong	3116 Oct 07 03:31	14°♿15'05	1°25'41
desc. node	3115 Nov 03 23:34	17°♿09'55		max. Earth dist.	3116 Oct 14 12:45	27°♿21'06	1.40649 AU
evening rise	3115 Nov 08 16:25	24°♿41'48			3116 Oct 16 02:04	0°♿	
	3115 Nov 12 01:54	0°♿		evening rise	3116 Oct 19 02:33	5°♿02'23	
	3115 Dec 02 19:15	0°♿		desc. node	3116 Oct 20 20:34	7°♿54'09	
evening max el	3115 Dec 10 21:54	9°♿38'30	22°04'30		3116 Nov 04 07:11	0°♿	
retrograde	3115 Dec 20 07:06	15°♿13'36		evening max el	3116 Nov 22 12:52	23°♿13'28	23°24'03
asc. node	3115 Dec 24 08:52	13°♿44'15		retrograde	3116 Dec 03 01:04	29°♿26'39	
evening set	3115 Dec 24 17:59	13°♿26'31		evening set	3116 Dec 08 00:31	27°♿23'10	
inferior conj	3115 Dec 30 02:22	7°♿07'01	1°51'13	asc. node	3116 Dec 10 05:56	25°♿07'32	
minimum elong	3115 Dec 30 00:10	7°♿14'39	1°50'25	inferior conj	3116 Dec 13 09:59	20°♿59'02	1°03'54
min. Earth dist.	3115 Dec 30 02:26	7°♿06'47	0.67893 AU	minimum elong	3116 Dec 13 08:32	21°♿03'57	1°03'20
morning rise	3116 Jan 04 06:13	0°♿55'56		min. Earth dist.	3116 Dec 12 23:14	21°♿35'53	0.67879 AU
	3116 Jan 05 12:19	30°♿♿		morning rise	3116 Dec 18 16:30	14°♿51'44	
direct	3116 Jan 09 01:29	28°♿54'25		direct	3116 Dec 22 21:27	13°♿13'02	
	3116 Jan 12 22:23	0°♿		morning max el	3116 Dec 31 09:15	18°♿08'55	21°09'07
morning max el	3116 Jan 18 17:17	4°♿36'33	22°32'00		3117 Jan 10 01:16	0°♿	
desc. node	3116 Jan 30 22:50	19°♿43'03		desc. node	3117 Jan 16 19:51	9°♿37'45	
	3116 Feb 07 02:57	0°♿			3117 Jan 30 06:29	0°♿	
morning set	3116 Feb 21 13:48	22°♿28'51		morning set	3117 Jan 31 00:50	1°♿11'55	
	3116 Feb 26 02:15	0°♿		max. Earth dist.	3117 Feb 07 15:22	13°♿23'00	1.42458 AU
max. Earth dist.	3116 Feb 26 13:25	0°♿47'17	1.40456 AU				

superior conj	3117 Feb 14 20:43	25° \approx 27'33	-2°06'29	max. Earth dist.	3118 Jan 21 01:08	26° \approx 50'50	1.44033 AU
minimum elong	3117 Feb 14 21:01	25° \approx 28'49	2°06'29		3118 Jan 23 00:24	0° \approx	
	3117 Feb 17 11:56	0° \approx					
evening rise	3117 Feb 26 07:33	15° \approx 39'59		superior conj	3118 Jan 26 07:18	5° \approx 19'02	-1°58'44
	3117 Mar 06 10:09	0° \approx		minimum elong	3118 Jan 26 01:53	4° \approx 57'01	1°58'27
asc. node	3117 Mar 08 05:13	2° \approx 56'34		evening rise	3118 Feb 08 11:50	27° \approx 24'33	
evening max el	3117 Mar 15 00:14	11° \approx 59'05	18°07'38		3118 Feb 10 00:04	0° \approx	
retrograde	3117 Mar 21 16:08	15° \approx 23'18		asc. node	3118 Feb 23 02:15	21° \approx 09'29	
evening set	3117 Mar 24 08:01	14° \approx 50'52		evening max el	3118 Feb 26 12:54	25° \approx 14'34	18°12'27
inferior conj	3117 Mar 30 22:46	9° \approx 53'55	3°21'36	retrograde	3118 Mar 04 23:22	28° \approx 39'27	
minimum elong	3117 Mar 31 01:09	9° \approx 48'10	3°21'17	evening set	3118 Mar 07 20:54	27° \approx 55'55	
min. Earth dist.	3117 Apr 03 03:30	6° \approx 50'54	0.61021 AU	inferior conj	3118 Mar 13 23:44	22° \approx 39'06	3°38'35
morning rise	3117 Apr 06 16:21	4° \approx 00'57		minimum elong	3118 Mar 14 00:15	22° \approx 37'41	3°38'35
direct	3117 Apr 13 10:17	1° \approx 45'10		min. Earth dist.	3118 Mar 16 15:18	19° \approx 47'18	0.63087 AU
desc. node	3117 Apr 14 19:01	1° \approx 50'27		morning rise	3118 Mar 20 02:34	16° \approx 34'59	
morning max el	3117 Apr 27 15:58	9° \approx 40'37	27°45'46	direct	3118 Mar 27 00:42	13° \approx 54'42	
	3117 May 13 09:03	0° \approx		desc. node	3118 Apr 01 16:03	15° \approx 25'56	
	3117 May 29 24:00	0° \approx		morning max el	3118 Apr 09 22:44	21° \approx 51'57	27°46'42
morning set	3117 May 30 06:54	0° \approx 35'30			3118 Apr 17 01:38	0° \approx	
asc. node	3117 Jun 04 04:31	10° \approx 58'00			3118 May 06 12:17	0° \approx	
max. Earth dist.	3117 Jun 05 08:07	13° \approx 28'01	1.32222 AU	morning set	3118 May 14 06:07	14° \approx 45'13	
				max. Earth dist.	3118 May 19 14:03	25° \approx 47'39	1.32771 AU
superior conj	3117 Jun 06 14:09	16° \approx 12'14	0°25'04	superior conj	3118 May 21 22:24	0° \approx 49'40	-0°01'23
minimum elong	3117 Jun 06 13:02	16° \approx 06'06	0°24'50	minimum elong	3118 May 21 22:28	0° \approx 50'03	0°01'23
	3117 Jun 12 22:01	0° \approx		behind sun begin	3118 May 21 17:14	0° \approx 21'48	
evening rise	3117 Jun 13 10:39	1° \approx 07'22		behind sun end	3118 May 22 03:42	1° \approx 18'20	
	3117 Jun 29 04:16	0° \approx			3118 May 21 13:11	0° \approx	
evening max el	3117 Jul 09 20:06	13° \approx 09'38	25°04'39	asc. node	3118 May 22 01:32	1° \approx 06'35	
desc. node	3117 Jul 11 18:16	14° \approx 53'50		evening rise	3118 May 28 22:30	15° \approx 56'41	
retrograde	3117 Jul 23 19:33	20° \approx 14'54			3118 Jun 04 22:24	0° \approx	
evening set	3117 Jul 29 06:55	19° \approx 06'15		evening max el	3118 Jun 21 09:31	23° \approx 40'40	23°30'29
min. Earth dist.	3117 Aug 03 07:46	16° \approx 21'29	0.57492 AU	desc. node	3118 Jun 28 15:17	28° \approx 57'25	
inferior conj	3117 Aug 06 07:59	14° \approx 20'08	-5°05'17		3118 Jul 01 09:50	0° \approx	
minimum elong	3117 Aug 06 07:33	14° \approx 20'53	5°05'16	retrograde	3118 Jul 05 00:08	0° \approx 29'25	
morning rise	3117 Aug 14 10:41	10° \approx 08'56		evening set	3118 Jul 08 23:54	29° \approx 54'33	
direct	3117 Aug 17 00:18	9° \approx 49'39			3118 Jul 08 15:57	30° \approx 45'33	
morning max el	3117 Aug 25 22:05	14° \approx 00'50	19°06'21	min. Earth dist.	3118 Jul 15 19:33	26° \approx 45'02	0.55879 AU
asc. node	3117 Aug 31 03:44	20° \approx 16'27		inferior conj	3118 Jul 17 20:53	25° \approx 31'40	-4°38'51
	3117 Sep 06 01:25	0° \approx		minimum elong	3118 Jul 17 14:45	25° \approx 40'51	4°37'53
morning set	3117 Sep 11 18:01	10° \approx 55'33		morning rise	3118 Jul 26 08:06	21° \approx 36'49	
superior conj	3117 Sep 20 00:48	27° \approx 15'32	1°40'02	direct	3118 Jul 29 03:32	21° \approx 17'18	
minimum elong	3117 Sep 20 02:45	27° \approx 24'55	1°39'55	morning max el	3118 Aug 08 13:00	26° \approx 06'37	20°13'28
	3117 Sep 21 11:07	0° \approx			3118 Aug 12 03:13	0° \approx	
max. Earth dist.	3117 Sep 26 16:54	9° \approx 43'58	1.38579 AU	asc. node	3118 Aug 18 00:45	8° \approx 36'58	
evening rise	3117 Sep 30 12:29	16° \approx 29'20		morning set	3118 Aug 26 22:58	25° \approx 30'29	
desc. node	3117 Oct 07 17:36	28° \approx 31'56			3118 Aug 29 03:35	0° \approx	
	3117 Oct 08 15:37	0° \approx		superior conj	3118 Sep 03 15:01	11° \approx 11'50	1°44'54
	3117 Oct 29 20:14	0° \approx		minimum elong	3118 Sep 03 15:14	11° \approx 12'56	1°44'54
evening max el	3117 Nov 05 01:38	6° \approx 53'04	24°42'44	max. Earth dist.	3118 Sep 08 22:48	21° \approx 40'19	1.36601 AU
retrograde	3117 Nov 16 15:06	13° \approx 37'02		evening rise	3118 Sep 12 20:02	28° \approx 56'25	
evening set	3117 Nov 22 04:18	11° \approx 17'48			3118 Sep 13 10:00	0° \approx	
min. Earth dist.	3117 Nov 26 18:46	6° \approx 04'16	0.67528 AU	desc. node	3118 Sep 24 14:37	18° \approx 57'54	
asc. node	3117 Nov 27 02:58	5° \approx 37'09			3118 Oct 01 22:17	0° \approx	
inferior conj	3117 Nov 27 16:07	4° \approx 53'23	0°11'17	evening max el	3118 Oct 18 13:55	20° \approx 34'43	25°53'26
minimum elong	3117 Nov 27 15:51	4° \approx 54'19	0°11'10	retrograde	3118 Oct 31 00:15	27° \approx 39'21	
transit middle	3117 Nov 27 15:51	4° \approx 54'19	0°11'10	evening set	3118 Nov 06 03:33	25° \approx 06'40	
transit begin	3117 Nov 27 13:51	5° \approx 00'57		min. Earth dist.	3118 Nov 10 10:36	20° \approx 28'29	0.66834 AU
transit end	3117 Nov 27 17:50	4° \approx 47'41		inferior conj	3118 Nov 11 18:58	18° \approx 46'36	-0°45'29
	3117 Dec 01 18:43	30° \approx 47'41		minimum elong	3118 Nov 11 20:10	18° \approx 42'50	0°44'58
morning rise	3117 Dec 03 03:29	28° \approx 52'08		asc. node	3118 Nov 13 23:58	16° \approx 05'44	
direct	3117 Dec 06 19:34	27° \approx 34'39		morning rise	3118 Nov 17 13:08	12° \approx 54'06	
	3117 Dec 12 07:28	0° \approx		direct	3118 Nov 20 18:14	11° \approx 54'50	
morning max el	3117 Dec 14 08:51	1° \approx 52'26	19°57'44	morning max el	3118 Nov 27 16:02	15° \approx 45'23	19°01'06
desc. node	3118 Jan 03 16:52	29° \approx 52'36			3118 Dec 08 10:08	0° \approx	
	3118 Jan 03 18:49	0° \approx		morning set	3118 Dec 20 03:15	18° \approx 06'30	
morning set	3118 Jan 09 20:51	9° \approx 19'27					

desc. node	3118 Dec 21 13:54	20°♄21'52		morning set	3119 Nov 30 12:47	28°♄17'01	
	3118 Dec 27 17:49	0°♄			3119 Dec 01 14:16	0°♄	
max. Earth dist.	3119 Jan 03 17:23	10°♄57'00	1.44981 AU	desc. node	3119 Dec 08 10:56	11°♄00'42	
superior conj	3119 Jan 05 18:25	14°♄10'13	-1°31'40	superior conj	3119 Dec 15 20:16	22°♄42'13	-0°48'40
minimum elong	3119 Jan 05 09:20	13°♄34'25	1°30'46	minimum elong	3119 Dec 15 14:05	22°♄17'57	0°47'52
	3119 Jan 15 16:35	0°♄		max. Earth dist.	3119 Dec 17 12:38	25°♄20'48	1.45199 AU
evening rise	3119 Jan 20 18:06	8°♄13'06			3119 Dec 20 11:50	0°♄	
	3119 Feb 03 08:09	0°♄		evening rise	3120 Jan 01 01:15	18°♄06'24	
asc. node	3119 Feb 09 23:16	8°♄35'36			3120 Jan 08 15:28	0°♄	
evening max el	3119 Feb 10 00:48	8°♄39'32	18°35'41	greatest brilliancy	3120 Jan 11 21:24	5°♄01'54	-0.8m
retrograde	3119 Feb 16 14:51	12°♄17'47		evening max el	3120 Jan 24 09:35	22°♄08'31	19°16'13
evening set	3119 Feb 19 18:12	11°♄22'16		asc. node	3120 Jan 27 20:18	25°♄01'12	
inferior conj	3119 Feb 25 12:37	5°♄47'06	3°36'21	retrograde	3120 Jan 31 10:59	26°♄10'50	
minimum elong	3119 Feb 25 11:34	5°♄50'14	3°36'17	evening set	3120 Feb 03 21:04	25°♄02'30	
min. Earth dist.	3119 Feb 27 12:35	3°♄23'48	0.64849 AU	inferior conj	3120 Feb 09 09:58	19°♄11'13	3°19'44
	3119 Mar 02 17:59	30°♄		minimum elong	3120 Feb 09 07:54	19°♄17'52	3°19'23
morning rise	3119 Mar 03 04:27	29°♄37'04		min. Earth dist.	3120 Feb 10 18:45	17°♄25'44	0.66219 AU
direct	3119 Mar 09 22:22	26°♄46'20		morning rise	3120 Feb 14 18:29	12°♄58'15	
	3119 Mar 18 01:46	0°♄		direct	3120 Feb 21 02:24	10°♄10'26	
desc. node	3119 Mar 19 13:05	1°♄07'52		morning max el	3120 Mar 04 18:07	17°♄40'49	26°11'10
morning max el	3119 Mar 23 08:17	4°♄36'09	27°12'53	desc. node	3120 Mar 05 10:08	18°♄21'49	
	3119 Apr 11 14:48	0°♄			3120 Mar 15 02:12	0°♄	
morning set	3119 Apr 27 20:23	28°♄24'55			3120 Apr 03 13:48	0°♄	
	3119 Apr 28 15:52	0°♄		morning set	3120 Apr 09 21:51	11°♄22'42	
max. Earth dist.	3119 May 02 11:27	7°♄38'57	1.33764 AU	max. Earth dist.	3120 Apr 13 21:30	18°♄58'11	1.35211 AU
superior conj	3119 May 06 02:01	15°♄08'48	-0°29'31	superior conj	3120 Apr 18 22:34	29°♄01'52	-0°58'07
minimum elong	3119 May 06 03:32	15°♄16'47	0°29'12	minimum elong	3120 Apr 19 01:36	29°♄17'19	0°57'33
asc. node	3119 May 08 22:33	21°♄12'14			3120 Apr 19 09:57	0°♄	
evening rise	3119 May 13 09:22	0°♄38'41		asc. node	3120 Apr 24 19:35	11°♄10'17	
	3119 May 13 02:00	0°♄		evening rise	3120 Apr 26 17:14	15°♄06'10	
	3119 May 30 07:35	0°♄			3120 May 04 09:08	0°♄	
evening max el	3119 Jun 03 02:09	4°♄10'36	21°55'02	evening max el	3120 May 15 04:46	15°♄08'10	20°31'07
retrograde	3119 Jun 15 17:05	10°♄24'34		retrograde	3120 May 26 06:18	20°♄31'38	
desc. node	3119 Jun 15 12:17	10°♄24'28		evening set	3120 May 28 07:10	20°♄21'26	
evening set	3119 Jun 18 09:24	10°♄08'30		desc. node	3120 Jun 01 09:19	19°♄05'51	
inferior conj	3119 Jun 27 18:17	6°♄04'34	-3°23'01	inferior conj	3120 Jun 06 12:17	16°♄23'37	-1°30'13
minimum elong	3119 Jun 27 10:08	6°♄15'59	3°20'38	minimum elong	3120 Jun 06 08:01	16°♄29'47	1°28'39
min. Earth dist.	3119 Jun 27 06:26	6°♄21'10	0.54977 AU	min. Earth dist.	3120 Jun 07 18:40	15°♄39'38	0.54997 AU
morning rise	3119 Jul 06 12:20	2°♄12'19		morning rise	3120 Jun 15 08:00	12°♄13'29	
direct	3119 Jul 09 16:04	1°♄50'21		direct	3120 Jun 19 01:52	11°♄43'16	
morning max el	3119 Jul 21 16:18	7°♄27'46	21°40'23	morning max el	3120 Jul 02 10:29	18°♄11'16	23°20'40
asc. node	3119 Aug 04 21:48	27°♄33'55			3120 Jul 12 02:07	0°♄	
	3119 Aug 06 04:52	0°♄		asc. node	3120 Jul 21 18:51	16°♄58'04	
morning set	3119 Aug 11 08:01	10°♄17'42		morning set	3120 Jul 25 19:17	25°♄11'38	
					3120 Jul 28 01:30	0°♄	
superior conj	3119 Aug 18 14:34	25°♄36'03	1°42'16	superior conj	3120 Aug 01 20:25	10°♄18'57	1°33'26
minimum elong	3119 Aug 18 13:26	25°♄30'05	1°42'13	minimum elong	3120 Aug 01 18:25	10°♄08'11	1°33'16
	3119 Aug 20 17:30	0°♄		max. Earth dist.	3120 Aug 04 09:04	15°♄41'50	1.33591 AU
max. Earth dist.	3119 Aug 22 11:27	3°♄33'38	1.34905 AU	evening rise	3120 Aug 09 10:50	26°♄07'15	
evening rise	3119 Aug 26 20:56	12°♄12'51			3120 Aug 11 10:12	0°♄	
	3119 Sep 05 19:13	0°♄		desc. node	3120 Aug 28 08:38	28°♄49'03	
desc. node	3119 Sep 11 11:38	9°♄06'09			3120 Aug 29 04:07	0°♄	
	3119 Sep 27 01:46	0°♄		evening max el	3120 Sep 12 14:11	17°♄34'31	27°20'43
evening max el	3119 Oct 01 02:20	4°♄11'46	26°48'30	retrograde	3120 Sep 26 02:20	24°♄53'01	
retrograde	3119 Oct 14 04:07	11°♄27'14		evening set	3120 Oct 03 03:49	22°♄11'22	
evening set	3119 Oct 20 20:14	8°♄45'57		min. Earth dist.	3120 Oct 06 21:47	18°♄44'32	0.64389 AU
min. Earth dist.	3119 Oct 24 20:17	4°♄44'05	0.65789 AU	inferior conj	3120 Oct 09 06:25	16°♄13'24	-2°44'57
inferior conj	3119 Oct 26 16:29	2°♄34'44	-1°44'57	minimum elong	3120 Oct 09 10:56	16°♄01'22	2°43'20
minimum elong	3119 Oct 26 19:22	2°♄26'19	1°43'48	morning rise	3120 Oct 15 19:10	10°♄47'30	
	3119 Oct 28 23:30	30°♄		asc. node	3120 Oct 17 18:04	10°♄15'35	
asc. node	3119 Oct 31 21:00	27°♄27'15		direct	3120 Oct 18 08:56	10°♄13'35	
morning rise	3119 Nov 01 19:14	26°♄54'01		morning max el	3120 Oct 24 21:05	13°♄39'55	17°56'59
direct	3119 Nov 04 15:29	26°♄09'18			3120 Nov 05 06:42	0°♄	
morning max el	3119 Nov 11 04:59	29°♄43'07	18°20'35	morning set	3120 Nov 11 02:55	9°♄51'30	
	3119 Nov 11 11:38	0°♄					

	3120 Nov 23 05:49	0°♊		morning rise	3121 Sep 29 09:35	24°♎27'27	
				direct	3121 Oct 01 19:35	24°♎00'51	
superior conj	3120 Nov 24 10:09	1°♊54'32 -0°00'38		asc. node	3121 Oct 04 15:08	24°♎37'56	
minimum elong	3120 Nov 24 10:05	1°♊54'17 0°00'37		morning max el	3121 Oct 08 13:14	27°♎27'48	17°51'05
behind sun begin	3120 Nov 23 23:50	1°♊12'53			3121 Oct 10 19:40	0°♏	
behind sun end	3120 Nov 24 20:20	2°♊35'37		morning set	3121 Oct 24 15:56	22°♏31'34	
desc. node	3120 Nov 24 07:57	1°♊45'37			3121 Oct 28 21:14	0°♎	
max. Earth dist.	3120 Nov 29 07:18	9°♊42'37 1.44679 AU					
evening rise	3120 Dec 10 14:45	27°♊20'51		superior conj	3121 Nov 05 01:06	12°♎20'54	0°41'43
	3120 Dec 12 08:11	0°♋		minimum elong	3121 Nov 05 04:48	12°♎36'33	0°41'12
greatest brilliancy	3120 Dec 25 02:06	19°♋14'20 -0.6m		desc. node	3121 Nov 11 04:58	22°♎32'58	
	3121 Jan 01 18:30	0°♌		max. Earth dist.	3121 Nov 11 22:43	23°♎44'56	1.43495 AU
evening max el	3121 Jan 06 13:38	5°♌39'31 20°12'17			3121 Nov 15 20:28	0°♊	
asc. node	3121 Jan 13 17:20	10°♌11'56		evening rise	3121 Nov 20 00:18	6°♊31'08	
retrograde	3121 Jan 14 09:01	10°♌14'17			3121 Dec 05 16:17	0°♋	
evening set	3121 Jan 18 03:16	8°♌52'00		evening max el	3121 Dec 20 12:11	19°♋11'31	21°21'01
inferior conj	3121 Jan 23 13:00	2°♌47'20 2°52'04		retrograde	3121 Dec 29 06:38	24°♋23'55	
minimum elong	3121 Jan 23 10:29	2°♌55'49 2°51'25		asc. node	3121 Dec 31 14:24	23°♋54'18	
min. Earth dist.	3121 Jan 24 08:01	1°♌43'06 0.67178 AU		evening set	3122 Jan 02 10:54	22°♋46'22	
	3121 Jan 25 15:18	30°♌♋		inferior conj	3122 Jan 07 19:19	16°♋31'27	2°15'35
morning rise	3121 Jan 28 17:29	26°♋33'37		minimum elong	3122 Jan 07 16:52	16°♋39'56	2°14'47
direct	3121 Feb 03 12:08	23°♋58'59		min. Earth dist.	3122 Jan 08 02:03	16°♋08'13	0.67740 AU
	3121 Feb 14 04:27	0°♌		morning rise	3122 Jan 12 22:39	10°♋18'51	
morning max el	3121 Feb 15 02:53	0°♌55'23 24°50'57		direct	3122 Jan 18 02:35	8°♋04'05	
desc. node	3121 Feb 20 07:12	6°♌41'46		morning max el	3122 Jan 28 11:39	14°♋14'32	23°22'37
	3121 Mar 09 01:41	0°♍		desc. node	3122 Feb 07 04:14	25°♋48'22	
morning set	3121 Mar 23 05:29	23°♍24'43			3122 Feb 10 06:25	0°♌	
	3121 Mar 26 20:58	0°♎			3122 Mar 02 00:04	0°♍	
max. Earth dist.	3121 Mar 26 20:48	29°♍59'11 1.37076 AU		morning set	3122 Mar 04 13:06	4°♍14'18	
				max. Earth dist.	3122 Mar 08 15:33	11°♍16'16	1.39207 AU
superior conj	3121 Apr 02 09:04	12°♎21'13 -1°25'17					
minimum elong	3121 Apr 02 13:19	12°♎41'56 1°24'41		superior conj	3122 Mar 16 05:38	24°♍57'07	-1°48'19
evening rise	3121 Apr 10 19:51	29°♎12'45		minimum elong	3122 Mar 16 10:05	25°♍17'50	1°47'54
	3121 Apr 11 05:18	0°♏			3122 Mar 18 22:06	0°♎	
asc. node	3121 Apr 11 16:38	0°♏56'30		evening rise	3122 Mar 25 14:25	12°♎51'07	
evening max el	3121 Apr 27 19:34	26°♏46'37 19°25'14		asc. node	3122 Mar 29 13:42	20°♎25'59	
	3121 May 02 02:47	0°♐			3122 Apr 03 23:55	0°♏	
retrograde	3121 May 07 03:44	1°♐18'21		evening max el	3122 Apr 10 20:42	9°♏03'50	18°39'22
evening set	3121 May 09 04:10	1°♐06'35		retrograde	3122 Apr 18 18:35	12°♏56'16	
	3121 May 12 12:51	30°♐♐		evening set	3122 Apr 21 00:53	12°♏38'24	
inferior conj	3121 May 17 17:18	27°♐00'13 0°26'54		inferior conj	3122 Apr 28 18:10	8°♏14'01	2°00'10
minimum elong	3121 May 17 18:26	26°♐58'22 0°26'29		minimum elong	3122 Apr 28 21:52	8°♏06'59	1°59'04
desc. node	3121 May 19 06:22	25°♐59'47		min. Earth dist.	3122 May 02 02:49	5°♏42'25	0.57670 AU
min. Earth dist.	3121 May 20 09:14	25°♐16'45 0.55964 AU		desc. node	3122 May 06 03:25	3°♏12'08	
morning rise	3121 May 26 05:48	22°♐17'16		morning rise	3122 May 06 15:42	2°♐57'21	
direct	3121 May 30 21:54	21°♐27'39		direct	3122 May 12 08:11	1°♐36'45	
morning max el	3121 Jun 14 00:43	28°♐36'42 25°02'09		morning max el	3122 May 26 16:55	9°♐11'39	26°29'19
	3121 Jun 15 10:17	0°♑			3122 Jun 11 11:25	0°♑	
	3121 Jul 05 08:00	0°♒		morning set	3122 Jun 24 17:47	24°♑57'31	
asc. node	3121 Jul 08 15:54	6°♒41'45		asc. node	3122 Jun 25 12:57	26°♑38'59	
morning set	3121 Jul 10 07:04	10°♒06'37			3122 Jun 27 02:26	0°♒	
superior conj	3121 Jul 17 06:07	25°♒12'14 1°19'29		superior conj	3122 Jul 01 17:43	10°♒09'20	1°01'11
minimum elong	3121 Jul 17 03:45	24°♒59'21 1°19'09		minimum elong	3122 Jul 01 15:29	9°♒57'05	1°00'47
max. Earth dist.	3121 Jul 18 14:36	28°♒09'15 1.32694 AU		max. Earth dist.	3122 Jul 02 01:17	10°♒51'05	1.32204 AU
	3121 Jul 19 11:03	0°♓		evening rise	3122 Jul 08 15:47	25°♒08'07	
evening rise	3121 Jul 24 10:05	10°♓28'41			3122 Jul 11 00:23	0°♓	
	3121 Aug 03 16:56	0°♔			3122 Jul 28 10:11	0°♔	
desc. node	3121 Aug 15 05:40	17°♔55'30		desc. node	3122 Aug 02 02:41	6°♔10'19	
	3121 Aug 25 11:02	0°♕		evening max el	3122 Aug 08 04:20	12°♔47'05	26°53'58
evening max el	3121 Aug 25 23:41	0°♕30'19 27°23'51		retrograde	3122 Aug 22 02:24	19°♔59'04	
retrograde	3121 Sep 08 18:11	7°♕46'34		evening set	3122 Aug 29 01:12	17°♔52'52	
evening set	3121 Sep 15 22:56	5°♕16'10		min. Earth dist.	3122 Sep 01 18:32	15°♔14'03	0.60692 AU
min. Earth dist.	3121 Sep 19 13:26	2°♕18'52 0.62663 AU		inferior conj	3122 Sep 04 23:36	12°♔32'26	-4°30'35
	3121 Sep 21 23:40	30°♕♕		minimum elong	3122 Sep 05 04:52	12°♔21'20	4°29'34
inferior conj	3121 Sep 22 09:54	29°♕35'22 -3°42'05		morning rise	3122 Sep 12 10:24	7°♕45'29	
minimum elong	3121 Sep 22 15:30	29°♕21'59 3°40'28		direct	3122 Sep 14 19:39	7°♕23'16	

































































































































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morning max el	3122 Sep 22 02:21	10° \cap 59'06	18°04'06	morning max el	3123 Sep 05 09:09	24° Ω 04'40	18°37'31
	3122 Oct 04 15:57	0° $\underline{\Omega}$		asc. node	3123 Sep 08 09:13	27° Ω 24'50	
morning set	3122 Oct 07 21:40	5° $\underline{\Omega}$ 59'29			3123 Sep 10 07:05	0° \cap	
				morning set	3123 Sep 21 15:09	20° \cap 01'16	
superior conj	3122 Oct 17 18:22	24° $\underline{\Omega}$ 04'17	1°13'11		3123 Sep 26 18:40	0° $\underline{\Omega}$	
minimum elong	3122 Oct 17 22:36	24° $\underline{\Omega}$ 23'07	1°12'41				
	3122 Oct 21 03:25	0° \cap		superior conj	3123 Sep 30 09:21	6° $\underline{\Omega}$ 51'56	1°33'12
max. Earth dist.	3122 Oct 25 09:36	7° \cap 14'52	1.41793 AU	minimum elong	3123 Sep 30 12:19	7° $\underline{\Omega}$ 05'49	1°32'57
desc. node	3122 Oct 29 01:59	13° \cap 19'22		max. Earth dist.	3123 Oct 07 15:46	20° $\underline{\Omega}$ 03'03	1.39778 AU
evening rise	3122 Oct 30 22:20	16° \cap 18'25		evening rise	3123 Oct 11 18:31	27° $\underline{\Omega}$ 07'00	
	3122 Nov 08 17:36	0° \mathcal{A}			3123 Oct 13 11:58	0° \cap	
	3122 Nov 30 15:59	0° \mathcal{B}		desc. node	3123 Oct 15 23:00	4° \cap 01'32	
evening max el	3122 Dec 03 05:38	2° \mathcal{B} 45'21	22°38'07		3123 Nov 02 08:11	0° \mathcal{A}	
retrograde	3122 Dec 13 02:11	8° \mathcal{B} 36'35		evening max el	3123 Nov 15 19:25	16° \mathcal{A} 22'30	23°58'03
evening set	3122 Dec 17 18:16	6° \mathcal{B} 42'39		retrograde	3123 Nov 26 18:27	22° \mathcal{A} 49'23	
asc. node	3122 Dec 18 11:27	6° \mathcal{B} 04'29		evening set	3123 Dec 01 23:48	20° \mathcal{A} 38'51	
inferior conj	3122 Dec 23 02:57	0° \mathcal{B} 20'57	1°31'51	asc. node	3123 Dec 05 08:28	16° \mathcal{A} 59'40	
minimum elong	3122 Dec 23 01:02	0° \mathcal{B} 27'37	1°31'08	inferior conj	3123 Dec 07 10:07	14° \mathcal{A} 14'13	0°42'10
min. Earth dist.	3122 Dec 22 22:25	0° \mathcal{B} 36'40	0.67932 AU	minimum elong	3123 Dec 07 09:08	14° \mathcal{A} 17'34	0°41'46
	3122 Dec 23 09:01	30° \mathcal{R} \mathcal{A}		min. Earth dist.	3123 Dec 06 18:50	15° \mathcal{A} 06'02	0.67773 AU
morning rise	3122 Dec 28 07:40	24° \mathcal{A} 11'18		morning rise	3123 Dec 12 18:29	8° \mathcal{A} 09'28	
direct	3123 Jan 01 20:49	22° \mathcal{A} 19'21		direct	3123 Dec 16 17:47	6° \mathcal{A} 40'09	
morning max el	3123 Jan 10 23:56	27° \mathcal{A} 40'37	21°55'37	morning max el	3123 Dec 24 19:05	11° \mathcal{A} 18'08	20°37'12
	3123 Jan 13 04:12	0° \mathcal{B}			3124 Jan 08 04:01	0° \mathcal{B}	
desc. node	3123 Jan 25 01:15	15° \mathcal{B} 28'14		desc. node	3124 Jan 11 22:16	5° \mathcal{B} 32'26	
	3123 Feb 03 21:52	0° \approx		morning set	3124 Jan 22 17:51	22° \mathcal{B} 00'16	
morning set	3123 Feb 12 15:47	13° \approx 39'57			3124 Jan 27 20:07	0° \approx	
max. Earth dist.	3123 Feb 18 13:58	23° \approx 21'42	1.41344 AU	max. Earth dist.	3124 Jan 31 19:53	6° \approx 23'20	1.43191 AU
	3123 Feb 22 12:05	0° \mathcal{H}					
superior conj	3123 Feb 26 07:15	6° \mathcal{H} 36'39	-2°03'22	superior conj	3124 Feb 07 08:55	17° \approx 08'45	-2°05'27
minimum elong	3123 Feb 26 09:53	6° \mathcal{H} 48'15	2°03'17	minimum elong	3124 Feb 07 06:56	17° \approx 00'25	2°05'24
evening rise	3123 Mar 08 21:24	25° \mathcal{H} 52'05			3124 Feb 14 21:36	0° \mathcal{H}	
	3123 Mar 11 03:03	0° \mathcal{Y}		evening rise	3124 Feb 19 12:43	8° \mathcal{H} 07'22	
asc. node	3123 Mar 16 10:45	9° \mathcal{Y} 31'56		asc. node	3124 Mar 02 07:47	28° \mathcal{H} 07'01	
evening max el	3123 Mar 25 04:50	21° \mathcal{Y} 50'10	18°13'32		3124 Mar 03 14:53	0° \mathcal{Y}	
retrograde	3123 Apr 01 04:15	25° \mathcal{Y} 20'09		evening max el	3124 Mar 07 16:39	4° \mathcal{Y} 57'03	18°07'20
evening set	3123 Apr 03 16:53	24° \mathcal{Y} 53'25		retrograde	3124 Mar 14 05:07	8° \mathcal{Y} 20'11	
inferior conj	3123 Apr 10 16:12	20° \mathcal{Y} 08'02	3°00'36	evening set	3124 Mar 16 23:22	7° \mathcal{Y} 43'09	
minimum elong	3123 Apr 10 19:30	20° \mathcal{Y} 00'41	2°59'57	inferior conj	3124 Mar 23 08:33	2° \mathcal{Y} 37'16	3°31'33
min. Earth dist.	3123 Apr 14 01:28	17° \mathcal{Y} 09'34	0.59769 AU	minimum elong	3124 Mar 23 10:08	2° \mathcal{Y} 33'13	3°31'24
morning rise	3123 Apr 17 19:44	14° \mathcal{Y} 25'31			3124 Mar 25 22:32	30° \mathcal{R} \mathcal{H}	
desc. node	3123 Apr 23 00:27	12° \mathcal{Y} 33'38		min. Earth dist.	3124 Mar 26 08:05	29° \mathcal{H} 36'38	0.61921 AU
direct	3123 Apr 24 06:56	12° \mathcal{Y} 29'12		morning rise	3124 Mar 29 19:25	26° \mathcal{H} 38'34	
morning max el	3123 May 08 14:54	20° \mathcal{Y} 18'44	27°28'15	direct	3124 Apr 05 16:05	24° \mathcal{H} 11'09	
	3123 May 16 22:33	0° \mathcal{B}		desc. node	3124 Apr 08 21:29	24° \mathcal{H} 40'54	
	3123 Jun 04 06:45	0° \cap			3124 Apr 17 12:41	0° \mathcal{Y}	
morning set	3123 Jun 09 01:40	9° \cap 37'41		morning max el	3124 Apr 19 19:13	2° \mathcal{Y} 08'11	27°50'49
asc. node	3123 Jun 12 10:00	16° \cap 43'58			3124 May 10 06:15	0° \mathcal{B}	
max. Earth dist.	3123 Jun 15 13:19	23° \cap 34'52	1.32107 AU	morning set	3124 May 23 04:44	24° \mathcal{B} 00'57	
					3124 May 26 01:56	0° \cap	
superior conj	3123 Jun 16 05:21	25° \cap 03'07	0°39'11	max. Earth dist.	3124 May 28 22:43	6° \cap 07'33	1.32409 AU
minimum elong	3123 Jun 16 03:43	24° \cap 54'05	0°38'50	asc. node	3124 May 29 07:02	6° \cap 52'31	
	3123 Jun 18 11:17	0° \mathcal{B}					
evening rise	3123 Jun 23 01:25	9° \mathcal{B} 56'33		superior conj	3124 May 30 15:21	9° \cap 48'10	0°14'09
	3123 Jul 03 08:33	0° Ω		minimum elong	3124 May 30 14:42	9° \cap 44'35	0°13'59
desc. node	3123 Jul 19 23:42	23° Ω 11'36		behind sun begin	3124 May 30 12:15	9° \cap 31'14	
evening max el	3123 Jul 21 01:45	24° Ω 15'32	25°51'55	behind sun end	3124 May 30 17:09	9° \cap 57'57	
	3123 Jul 29 02:04	0° \cap		evening rise	3124 Jun 06 12:59	24° \cap 47'20	
retrograde	3123 Aug 04 01:19	1° \cap 23'43			3124 Jun 09 00:46	0° \mathcal{B}	
	3123 Aug 09 23:25	30° \mathcal{R} Ω			3124 Jun 27 02:20	0° Ω	
evening set	3123 Aug 10 05:47	29° Ω 52'32		evening max el	3124 Jul 01 16:29	5° Ω 00'43	24°25'34
min. Earth dist.	3123 Aug 14 14:03	27° Ω 15'33	0.58628 AU	desc. node	3124 Jul 05 20:44	8° Ω 30'14	
inferior conj	3123 Aug 17 19:54	24° Ω 54'00	-5°01'05	retrograde	3124 Jul 15 13:26	12° Ω 01'12	
minimum elong	3123 Aug 17 22:22	24° Ω 49'31	5°00'55	evening set	3124 Jul 20 10:25	11° Ω 08'01	
morning rise	3123 Aug 25 17:10	20° Ω 30'14		min. Earth dist.	3124 Jul 26 03:23	8° Ω 14'26	0.56743 AU
				inferior conj	3124 Jul 28 20:11	6° Ω 31'39	-4°59'48

minimum elong	3124 Jul 28 17:14	6°Ω36'21	4°59'36	desc. node	3125 Jun 22 17:44	21°Ω31'22	
morning rise	3124 Aug 06 02:43	2°Ω28'59		retrograde	3125 Jun 26 13:18	22°Ω04'40	
direct	3124 Aug 08 18:38	2°Ω09'48		evening set	3125 Jun 29 21:59	21°Ω39'52	
morning max el	3124 Aug 18 06:38	6°Ω35'11	19°32'21	min. Earth dist.	3125 Jul 07 14:45	18°Ω15'46	0.55385 AU
asc. node	3124 Aug 25 06:14	15°Ω19'26		inferior conj	3125 Jul 09 01:35	17°Ω25'41	-4°12'41
	3124 Sep 02 11:06	0°Π		minimum elong	3125 Jul 08 17:51	17°Ω36'50	4°11'00
morning set	3124 Sep 04 16:43	4°Π26'25		morning rise	3125 Jul 17 16:01	13°Ω34'05	
				direct	3125 Jul 20 14:12	13°Ω14'07	
superior conj	3124 Sep 12 16:30	20°Π27'38	1°43'06	morning max el	3125 Jul 31 16:45	18°Ω23'22	20°48'16
minimum elong	3124 Sep 12 17:41	20°Π33'28	1°43'04		3125 Aug 09 18:52	0°Ω	
	3124 Sep 17 15:34	0°Ω		asc. node	3125 Aug 12 03:17	3°Ω57'12	
max. Earth dist.	3124 Sep 18 19:52	2°Ω11'49	1.37710 AU	morning set	3125 Aug 19 23:42	19°Ω07'50	
evening rise	3124 Sep 22 14:02	9°Ω00'23			3125 Aug 25 05:17	0°Π	
desc. node	3124 Oct 01 20:01	24°Ω34'58					
	3124 Oct 05 06:59	0°Π		superior conj	3125 Aug 27 11:11	4°Π38'02	1°44'36
	3124 Oct 28 06:29	0°♂		minimum elong	3125 Aug 27 10:46	4°Π35'55	1°44'36
evening max el	3124 Oct 28 07:34	0°♂02'39	25°14'11	max. Earth dist.	3125 Sep 01 03:50	14°Π03'18	1.35835 AU
retrograde	3124 Nov 09 06:33	6°♂57'15		evening rise	3125 Sep 05 05:37	21°Π50'56	
evening set	3124 Nov 15 01:52	4°♂31'33			3125 Sep 09 17:32	0°Ω	
	3124 Nov 19 04:37	30°♂Π		desc. node	3125 Sep 18 17:04	14°Ω54'44	
min. Earth dist.	3124 Nov 19 12:59	29°Π33'06	0.67273 AU		3125 Sep 29 02:26	0°Π	
inferior conj	3124 Nov 20 15:03	28°Π08'17	-0°12'24	evening max el	3125 Oct 10 19:51	13°Π43'39	26°19'09
minimum elong	3124 Nov 20 15:22	28°Π07'16	0°12'15	retrograde	3125 Oct 23 13:46	20°Π54'48	
transit middle	3124 Nov 20 15:22	28°Π07'16	0°12'15	evening set	3125 Oct 29 22:38	18°Π17'41	
transit begin	3124 Nov 20 13:33	28°Π13'12		min. Earth dist.	3125 Nov 03 02:37	13°Π54'44	0.66431 AU
transit end	3124 Nov 20 17:11	28°Π01'21		inferior conj	3125 Nov 04 15:56	12°Π00'30	-1°10'29
asc. node	3124 Nov 21 05:29	27°Π21'32		minimum elong	3125 Nov 04 17:50	11°Π54'41	1°09'41
morning rise	3124 Nov 26 05:07	22°Π10'38		asc. node	3125 Nov 08 02:29	8°Π07'28	
direct	3124 Nov 29 16:11	21°Π01'32		morning rise	3125 Nov 10 13:33	6°Π12'32	
morning max el	3124 Dec 06 22:09	25°Π06'32	19°31'46	direct	3125 Nov 13 14:30	5°Π20'03	
	3124 Dec 11 03:44	0°♂		morning max el	3125 Nov 20 08:06	9°Π02'41	18°41'44
greatest brilliancy	3124 Dec 20 03:26	12°♂42'31	-0.7m		3125 Dec 05 06:17	0°♂	
desc. node	3124 Dec 28 19:16	25°♂53'49		morning set	3125 Dec 11 07:57	9°♂35'26	
	3124 Dec 31 11:04	0°♂		desc. node	3125 Dec 15 16:19	16°♂27'45	
morning set	3124 Dec 31 15:07	0°♂15'38			3125 Dec 24 06:55	0°♂	
max. Earth dist.	3125 Jan 13 08:32	20°♂08'48	1.44515 AU	max. Earth dist.	3125 Dec 27 01:50	4°♂22'34	1.45167 AU
superior conj	3125 Jan 17 08:28	26°♂30'50	-1°49'37	superior conj	3125 Dec 27 13:15	5°♂07'20	-1°14'50
minimum elong	3125 Jan 17 00:53	26°♂00'26	1°49'03	minimum elong	3125 Dec 27 04:36	4°♂33'26	1°13'52
	3125 Jan 19 12:30	0°≈		evening rise	3126 Jan 12 04:11	29°♂51'51	
evening rise	3125 Jan 31 07:58	19°≈28'11			3126 Jan 12 06:13	0°≈	
	3125 Feb 06 14:39	0°♂		greatest brilliancy	3126 Jan 19 19:43	12°≈06'52	-0.9m
asc. node	3125 Feb 17 04:48	16°♂01'12			3126 Feb 01 02:19	0°♂	
evening max el	3125 Feb 19 05:11	18°♂16'26	18°20'08	evening max el	3126 Feb 02 16:00	1°♂43'25	18°50'58
retrograde	3125 Feb 25 16:21	21°♂45'59		asc. node	3126 Feb 04 01:49	3°♂03'08	
evening set	3125 Feb 28 16:10	20°♂57'36		retrograde	3126 Feb 09 10:06	5°♂30'42	
inferior conj	3125 Mar 06 15:02	15°♂32'47	3°39'41	evening set	3126 Feb 12 16:07	4°♂30'00	
minimum elong	3125 Mar 06 14:50	15°♂33'22	3°39'41		3126 Feb 17 08:23	30°♂≈	
min. Earth dist.	3125 Mar 09 00:06	12°♂51'12	0.63874 AU	inferior conj	3126 Feb 18 07:54	28°≈47'57	3°30'48
morning rise	3125 Mar 12 12:41	9°♂25'21		minimum elong	3126 Feb 18 06:21	28°≈52'45	3°30'38
direct	3125 Mar 19 09:45	6°♂38'44		min. Earth dist.	3126 Feb 20 01:23	26°≈39'39	0.65484 AU
desc. node	3125 Mar 26 18:29	9°♂13'48		morning rise	3126 Feb 23 20:10	22°≈36'20	
morning max el	3125 Apr 02 03:41	14°♂35'08	27°36'18	direct	3126 Mar 02 10:31	19°≈44'58	
	3125 Apr 14 16:27	0°Υ		desc. node	3126 Mar 13 15:31	25°≈38'05	
	3125 May 02 21:11	0°♂		morning max el	3126 Mar 15 13:26	27°≈28'43	26°49'26
morning set	3125 May 07 00:34	7°♂59'18			3126 Mar 17 22:38	0°♂	
max. Earth dist.	3125 May 12 01:25	18°♂15'50	1.33129 AU		3126 Apr 08 08:51	0°Υ	
				morning set	3126 Apr 20 09:55	21°Υ22'28	
superior conj	3125 May 14 21:54	24°♂18'33	-0°13'11	max. Earth dist.	3126 Apr 24 17:47	29°Υ50'57	1.34314 AU
minimum elong	3125 May 14 22:33	24°♂22'04	0°13'02		3126 Apr 24 19:35	0°♂	
behind sun begin	3125 May 14 19:26	24°♂05'24					
behind sun end	3125 May 15 01:40	24°♂38'45		superior conj	3126 Apr 28 22:50	8°♂27'26	-0°41'42
asc. node	3125 May 16 04:05	27°♂00'27		minimum elong	3126 Apr 29 01:00	8°♂38'42	0°41'16
	3125 May 17 13:26	0°Π		asc. node	3126 May 03 01:08	17°♂03'18	
evening rise	3125 May 22 00:37	9°Π34'05		evening rise	3126 May 06 10:27	24°♂10'19	
	3125 Jun 01 15:38	0°♂			3126 May 09 06:41	0°Π	
evening max el	3125 Jun 13 06:15	15°♂27'30	22°49'14	evening max el	3126 May 26 02:44	26°Π07'09	21°17'37

	3126 May 31 02:41	0°☿	evening rise	3127 Apr 20 16:25	8°☿29'59	
retrograde	3126 Jun 07 03:06	2°☿00'26		3127 May 02 11:27	0°☿	
evening set	3126 Jun 09 10:30	1°☿48'10	evening max el	3127 May 08 10:36	7°☿21'38	20°00'44
desc. node	3126 Jun 09 14:46	1°☿46'14	retrograde	3127 May 18 17:53	12°☿21'53	
	3126 Jun 14 17:35	30°☿☿	evening set	3127 May 20 17:31	12°☿☿11'33	
inferior conj	3126 Jun 18 19:48	27°☿49'18 -2°38'06	desc. node	3127 May 27 11:47	9°☿☿29'48	
minimum elong	3126 Jun 18 12:43	27°☿59'14 2°35'45	inferior conj	3127 May 29 16:49	8°☿☿11'43	-0°39'02
min. Earth dist.	3126 Jun 19 02:22	27°☿40'06 0.54860 AU	minimum elong	3127 May 29 15:01	8°☿☿14'27	0°38'22
morning rise	3126 Jun 27 15:23	23°☿☿51'35	min. Earth dist.	3127 May 31 15:14	7°☿☿01'58	0.55303 AU
direct	3126 Jul 01 00:14	23°☿☿26'59	morning rise	3127 Jun 07 10:40	3°☿☿49'09	
morning max el	3126 Jul 13 15:38	29°☿☿26'58 22°21'54	direct	3127 Jun 11 13:30	3°☿☿12'07	
	3126 Jul 14 05:32	0°☿	morning max el	3127 Jun 25 07:10	9°☿☿58'36	24°04'34
asc. node	3126 Jul 30 00:20	23°☿☿06'54		3127 Jul 10 03:43	0°☿	
	3126 Aug 02 11:48	0°☿	asc. node	3127 Jul 16 21:26	12°☿☿40'12	
morning set	3126 Aug 04 09:56	3°☿☿58'41	morning set	3127 Jul 19 21:38	18°☿☿53'35	
				3127 Jul 25 01:26	0°☿	
superior conj	3126 Aug 11 13:46	19°☿☿11'23 1°39'13				
minimum elong	3126 Aug 11 12:11	19°☿☿03'04 1°39'07	superior conj	3127 Jul 26 21:30	3°☿☿59'10	1°28'06
max. Earth dist.	3126 Aug 14 20:15	26°☿☿01'42 1.34301 AU	minimum elong	3127 Jul 26 19:17	3°☿☿47'09	1°27'51
	3126 Aug 16 18:59	0°☿☿	max. Earth dist.	3127 Jul 28 21:46	8°☿☿19'08	1.33165 AU
evening rise	3126 Aug 19 12:36	5°☿☿25'29	evening rise	3127 Aug 03 06:54	19°☿☿32'24	
	3126 Sep 02 10:20	0°☿☿		3127 Aug 08 16:03	0°☿☿	
desc. node	3126 Sep 05 14:06	4°☿☿53'27	desc. node	3127 Aug 23 11:07	24°☿☿22'11	
evening max el	3126 Sep 23 08:24	27°☿☿16'54 27°05'23		3127 Aug 27 13:56	0°☿☿	
	3126 Sep 26 10:20	0°☿☿	evening max el	3127 Sep 05 19:44	10°☿☿30'15	27°25'52
retrograde	3126 Oct 06 15:19	4°☿☿34'09	retrograde	3127 Sep 19 10:39	17°☿☿47'10	
evening set	3126 Oct 13 11:49	1°☿☿51'54	evening set	3127 Sep 26 14:32	15°☿☿08'57	
	3126 Oct 15 13:38	30°☿☿☿	min. Earth dist.	3127 Sep 30 06:41	11°☿☿55'36	0.63701 AU
min. Earth dist.	3126 Oct 17 09:15	28°☿☿04'54 0.65239 AU	inferior conj	3127 Oct 02 20:27	9°☿☿18'07	-3°09'48
inferior conj	3126 Oct 19 10:35	25°☿☿45'41 -2°10'28	minimum elong	3127 Oct 03 01:32	9°☿☿05'09	3°08'06
minimum elong	3126 Oct 19 14:10	25°☿☿35'32 2°09'05	morning rise	3127 Oct 09 13:46	3°☿☿59'17	
morning rise	3126 Oct 25 17:24	20°☿☿10'31	direct	3127 Oct 12 01:42	3°☿☿28'43	
asc. node	3126 Oct 25 23:32	20°☿☿03'28	asc. node	3127 Oct 12 20:37	3°☿☿31'49	
direct	3126 Oct 28 10:35	19°☿☿30'48	morning max el	3127 Oct 18 15:07	6°☿☿54'01	17°52'11
morning max el	3126 Nov 03 22:40	23°☿☿00'30 18°08'19		3127 Nov 02 20:29	0°☿☿	
	3126 Nov 09 12:22	0°☿☿	morning set	3127 Nov 04 06:52	2°☿☿28'41	
morning set	3126 Nov 22 06:11	20°☿☿23'46				
	3126 Nov 28 02:55	0°☿☿☿	superior conj	3127 Nov 16 17:30	23°☿☿31'20	0°18'30
desc. node	3126 Dec 02 13:22	7°☿☿☿09'43	minimum elong	3127 Nov 16 19:28	23°☿☿39'25	0°18'13
			desc. node	3127 Nov 19 10:24	27°☿☿55'55	
superior conj	3126 Dec 06 17:50	13°☿☿☿50'07 -0°28'10		3127 Nov 20 17:08	0°☿☿☿	
minimum elong	3126 Dec 06 14:16	13°☿☿☿35'58 0°27'41	max. Earth dist.	3127 Nov 22 15:26	3°☿☿☿05'32	1.44256 AU
max. Earth dist.	3126 Dec 09 21:13	18°☿☿☿47'50 1.45073 AU	evening rise	3127 Dec 02 12:28	18°☿☿☿33'30	
	3126 Dec 17 01:03	0°☿☿☿		3127 Dec 10 00:51	0°☿☿☿	
evening rise	3126 Dec 23 02:40	9°☿☿☿25'44	evening max el	3127 Dec 31 00:49	28°☿☿☿45'37	20°40'11
greatest brilliancy	3127 Jan 04 22:11	29°☿☿☿07'00 -0.7m		3128 Jan 01 07:16	0°☿☿☿	
	3127 Jan 05 12:20	0°☿☿☿	retrograde	3128 Jan 08 05:18	3°☿☿☿35'37	
evening max el	3127 Jan 16 23:03	15°☿☿☿14'13 19°38'23	asc. node	3128 Jan 08 19:53	3°☿☿☿33'35	
asc. node	3127 Jan 21 22:50	18°☿☿☿59'04	evening set	3128 Jan 12 03:41	2°☿☿☿06'46	
retrograde	3127 Jan 24 07:13	19°☿☿☿29'00		3128 Jan 14 08:57	30°☿☿☿☿	
evening set	3127 Jan 27 20:39	18°☿☿☿14'48	inferior conj	3128 Jan 17 12:38	25°☿☿☿57'15	2°37'31
inferior conj	3127 Feb 02 07:58	12°☿☿☿17'41 3°09'09	minimum elong	3128 Jan 17 10:06	26°☿☿☿05'57	2°36'48
minimum elong	3127 Feb 02 05:39	12°☿☿☿25'21 3°08'40	min. Earth dist.	3128 Jan 18 02:10	25°☿☿☿10'57	0.67467 AU
min. Earth dist.	3127 Feb 03 10:43	10°☿☿☿49'37 0.66683 AU	morning rise	3128 Jan 22 16:20	19°☿☿☿44'01	
morning rise	3127 Feb 07 14:25	6°☿☿☿04'26	direct	3128 Jan 28 04:47	17°☿☿☿17'32	
direct	3127 Feb 13 17:06	3°☿☿☿21'05	morning max el	3128 Feb 08 07:10	23°☿☿☿54'48	24°13'48
morning max el	3127 Feb 25 22:38	10°☿☿☿38'02 25°38'40		3128 Feb 13 17:28	0°☿☿☿	
desc. node	3127 Feb 28 12:35	13°☿☿☿22'55	desc. node	3128 Feb 15 09:37	2°☿☿☿04'21	
	3127 Mar 13 08:20	0°☿☿☿☿		3128 Mar 05 18:29	0°☿☿☿☿	
	3127 Mar 31 23:38	0°☿☿☿☿	morning set	3128 Mar 15 02:35	15°☿☿☿☿30'55	
morning set	3127 Apr 03 04:29	3°☿☿☿☿58'21	max. Earth dist.	3128 Mar 18 19:42	22°☿☿☿☿04'34	1.37970 AU
max. Earth dist.	3127 Apr 06 22:50	10°☿☿☿☿59'23 1.35960 AU		3128 Mar 23 03:19	0°☿☿☿☿	
superior conj	3127 Apr 12 15:35	22°☿☿☿☿07'38 -1°09'57	superior conj	3128 Mar 25 20:38	5°☿☿☿☿09'22	-1°35'45
minimum elong	3127 Apr 12 19:11	22°☿☿☿☿25'45 1°09'20	minimum elong	3128 Mar 26 01:08	5°☿☿☿☿30'58	1°35'12
	3127 Apr 16 12:44	0°☿☿☿☿	evening rise	3128 Apr 03 15:58	22°☿☿☿☿25'23	
asc. node	3127 Apr 19 22:12	6°☿☿☿☿57'07	asc. node	3128 Apr 05 19:14	26°☿☿☿☿36'41	

	3128 Apr 07 13:30	0°♄			3129 Apr 01 18:41	0°♄	
evening max el	3128 Apr 20 06:00	19°♄16'14	19°03'09	evening max el	3129 Apr 03 10:26	1°♄46'16	18°25'53
retrograde	3128 Apr 28 22:19	23°♄29'41		retrograde	3129 Apr 10 21:30	5°♄27'25	
evening set	3128 May 01 00:56	23°♄15'45		evening set	3129 Apr 13 06:23	5°♄06'11	
inferior conj	3128 May 09 05:35	19°♄01'57	1°10'21	inferior conj	3129 Apr 20 15:38	0°♄33'01	2°29'47
minimum elong	3128 May 09 08:15	18°♄57'21	1°09'27	minimum elong	3129 Apr 20 19:26	0°♄25'17	2°28'49
min. Earth dist.	3128 May 12 06:35	16°♄56'13	0.56618 AU		3129 Apr 21 07:49	30°♄♂	
desc. node	3128 May 13 08:50	16°♄13'46		min. Earth dist.	3129 Apr 24 02:14	27°♄46'43	0.58534 AU
morning rise	3128 May 17 12:26	14°♄04'07		morning rise	3129 Apr 28 05:30	25°♄03'39	
direct	3128 May 22 14:56	13°♄02'49		desc. node	3129 Apr 30 05:51	24°♄10'45	
morning max el	3128 Jun 05 21:39	20°♄24'08	25°42'05	direct	3129 May 04 06:47	23°♄27'50	
	3128 Jun 14 03:22	0°♄			3129 May 17 10:14	0°♄	
	3128 Jul 01 13:38	0°♄		morning max el	3129 May 18 16:13	1°♄10'55	26°58'34
asc. node	3128 Jul 02 18:30	2°♄30'03			3129 Jun 08 05:53	0°♄	
morning set	3128 Jul 03 09:10	3°♄47'12		morning set	3129 Jun 17 18:51	18°♄33'48	
				asc. node	3129 Jun 19 15:32	22°♄30'48	
superior conj	3128 Jul 10 08:12	18°♄54'15	1°12'13		3129 Jun 23 02:11	0°♄	
minimum elong	3128 Jul 10 05:51	18°♄41'19	1°11'50	superior conj	3129 Jun 24 19:59	3°♄50'12	0°52'15
max. Earth dist.	3128 Jul 11 06:00	20°♄53'43	1.32432 AU	minimum elong	3129 Jun 24 17:58	3°♄39'01	0°51'52
	3128 Jul 15 11:05	0°♄		max. Earth dist.	3129 Jun 24 17:31	3°♄36'34	1.32105 AU
evening rise	3128 Jul 17 09:10	4°♄01'48		evening rise	3129 Jul 01 16:44	18°♄45'10	
	3128 Jul 31 09:27	0°♄			3129 Jul 07 06:05	0°♄	
desc. node	3128 Aug 09 08:07	13°♄08'45			3129 Jul 26 10:09	0°♄	
evening max el	3128 Aug 18 03:21	23°♄10'17	27°15'14	desc. node	3129 Jul 27 05:09	0°♄55'07	
	3128 Aug 28 21:31	0°♄		evening max el	3129 Jul 31 04:50	5°♄05'42	26°31'17
retrograde	3128 Aug 31 23:17	0°♄24'48		retrograde	3129 Aug 14 04:09	12°♄17'11	
	3128 Sep 03 23:09	30°♄♂		evening set	3129 Aug 20 20:44	10°♄24'38	
evening set	3128 Sep 08 03:06	28°♄02'45		min. Earth dist.	3129 Aug 24 18:19	7°♄48'58	0.59799 AU
min. Earth dist.	3128 Sep 11 17:36	25°♄15'27	0.61848 AU	inferior conj	3129 Aug 28 01:10	5°♄13'09	-4°46'30
inferior conj	3128 Sep 14 18:31	22°♄30'34	-4°04'10	minimum elong	3129 Aug 28 05:36	5°♄04'20	4°45'52
minimum elong	3128 Sep 15 00:12	22°♄17'40	4°02'44	morning rise	3129 Sep 04 16:35	0°♄36'19	
morning rise	3128 Sep 21 22:59	17°♄31'31		direct	3129 Sep 07 02:18	0°♄15'23	
direct	3128 Sep 24 08:21	17°♄07'04		morning max el	3129 Sep 14 17:20	3°♄58'00	18°15'51
asc. node	3128 Sep 28 17:41	18°♄32'26		asc. node	3129 Sep 15 14:44	4°♄52'14	
morning max el	3128 Oct 01 06:27	20°♄36'21	17°54'18	morning set	3129 Sep 30 14:58	29°♄14'53	
	3128 Oct 08 07:10	0°♄			3129 Oct 01 00:29	0°♄	
morning set	3128 Oct 17 03:44	15°♄31'28		superior conj	3129 Oct 09 23:20	16°♄45'12	1°22'59
	3128 Oct 25 05:29	0°♄		minimum elong	3129 Oct 10 03:09	17°♄02'37	1°22'36
superior conj	3128 Oct 27 20:07	4°♄32'27	0°56'29		3129 Oct 17 11:42	0°♄	
minimum elong	3128 Oct 28 00:22	4°♄50'48	0°55'55	max. Earth dist.	3129 Oct 17 13:29	0°♄07'35	1.40953 AU
max. Earth dist.	3128 Nov 04 05:18	16°♄56'56	1.42822 AU	evening rise	3129 Oct 22 08:25	8°♄07'04	
desc. node	3128 Nov 05 07:25	18°♄43'31		desc. node	3129 Oct 23 04:26	9°♄28'36	
evening rise	3128 Nov 11 01:37	27°♄55'29			3129 Nov 05 11:59	0°♄	
	3128 Nov 12 09:28	0°♄		evening max el	3129 Nov 25 12:32	25°♄52'46	23°12'04
	3128 Dec 02 19:24	0°♄			3129 Nov 30 08:38	0°♄	
evening max el	3128 Dec 12 20:58	12°♄17'59	21°52'58	retrograde	3129 Dec 05 20:45	2°♄00'28	
retrograde	3128 Dec 22 02:20	17°♄47'25		evening set	3129 Dec 10 18:13	29°♄59'34	
asc. node	3128 Dec 25 16:55	16°♄36'51			3129 Dec 10 18:00	30°♄♂	
evening set	3128 Dec 26 11:26	16°♄02'49		asc. node	3129 Dec 12 13:57	28°♄11'52	
inferior conj	3128 Dec 31 19:46	9°♄44'17	1°57'51	inferior conj	3129 Dec 16 03:26	23°♄35'53	1°11'29
minimum elong	3128 Dec 31 17:29	9°♄52'12	1°57'03	minimum elong	3129 Dec 16 01:51	23°♄41'19	1°10'51
min. Earth dist.	3128 Dec 31 21:31	9°♄38'12	0.67866 AU	min. Earth dist.	3129 Dec 15 18:19	24°♄07'17	0.67907 AU
morning rise	3129 Jan 05 23:24	3°♄32'40		morning rise	3129 Dec 21 09:25	17°♄27'48	
direct	3129 Jan 10 20:51	1°♄27'42		direct	3129 Dec 25 16:28	15°♄45'39	
morning max el	3129 Jan 20 17:10	7°♄17'20	22°44'55	morning max el	3130 Jan 03 08:03	20°♄47'56	21°20'45
desc. node	3129 Feb 01 06:38	21°♄26'28			3130 Jan 11 01:31	0°♄	
	3129 Feb 07 07:45	0°♄		desc. node	3130 Jan 19 03:40	11°♄17'37	
morning set	3129 Feb 23 22:12	25°♄45'14			3130 Jan 31 13:55	0°♄	
	3129 Feb 26 11:26	0°♄		morning set	3130 Feb 03 13:01	4°♄38'26	
max. Earth dist.	3129 Feb 28 15:12	3°♄39'26	1.40136 AU	max. Earth dist.	3130 Feb 10 16:00	16°♄06'43	1.42181 AU
superior conj	3129 Mar 08 09:41	17°♄22'08	-1°55'57	superior conj	3130 Feb 18 01:40	28°♄34'07	-2°06'10
minimum elong	3129 Mar 08 13:41	17°♄40'18	1°55'41	minimum elong	3130 Feb 18 02:40	28°♄38'26	2°06'09
	3129 Mar 15 04:35	0°♄			3130 Feb 18 21:33	0°♄	
evening rise	3129 Mar 18 06:03	5°♄48'43		evening rise	3130 Mar 01 06:53	18°♄31'06	
asc. node	3129 Mar 23 16:15	15°♄56'42					

	3130 Mar 07 16:30	0°♿			3131 Mar 03 20:28	0°♿	
asc. node	3130 Mar 10 13:16	4°♿50'33		retrograde	3131 Mar 07 19:44	1°♿20'08	
evening max el	3130 Mar 17 20:34	14°♿42'49	18°08'35	evening set	3131 Mar 10 16:27	0°♿38'14	
retrograde	3130 Mar 24 14:01	18°♿07'55			3131 Mar 11 19:32	30°♿	
evening set	3130 Mar 27 05:06	17°♿36'59		inferior conj	3131 Mar 16 20:48	25°♿24'09	3°37'24
inferior conj	3130 Apr 02 21:57	12°♿43'07	3°16'56	minimum elong	3131 Mar 16 21:36	25°♿22'01	3°37'21
minimum elong	3130 Apr 03 00:36	12°♿36'52	3°16'31	min. Earth dist.	3131 Mar 19 14:31	22°♿29'34	0.62794 AU
min. Earth dist.	3130 Apr 06 04:11	9°♿40'27	0.60696 AU	morning rise	3131 Mar 23 01:37	19°♿21'21	
morning rise	3130 Apr 09 18:03	6°♿52'38		direct	3131 Mar 29 23:40	16°♿44'03	
direct	3130 Apr 16 10:38	4°♿41'34		desc. node	3131 Apr 03 23:53	17°♿56'00	
desc. node	3130 Apr 17 02:51	4°♿42'51		morning max el	3131 Apr 12 23:04	24°♿41'11	27°48'57
morning max el	3130 Apr 30 16:55	12°♿35'43	27°42'25		3131 Apr 17 19:03	0°♿	
	3130 May 14 11:45	0°♿			3131 May 07 21:15	0°♿	
	3130 May 31 12:11	0°♿		morning set	3131 May 17 01:13	17°♿20'59	
morning set	3130 Jun 02 00:55	3°♿07'45		max. Earth dist.	3131 May 22 11:45	28°♿40'05	1.32665 AU
asc. node	3130 Jun 06 12:33	12°♿37'59			3131 May 23 02:40	0°♿	
max. Earth dist.	3130 Jun 08 04:45	16°♿16'40	1.32180 AU	asc. node	3131 May 24 09:35	2°♿46'31	
superior conj	3130 Jun 09 07:09	18°♿41'23	0°28'53	superior conj	3131 May 24 15:55	3°♿20'49	0°02'48
minimum elong	3130 Jun 09 05:53	18°♿34'25	0°28'37	minimum elong	3131 May 24 15:47	3°♿20'04	0°02'46
	3130 Jun 14 11:12	0°♿		behind sun begin	3131 May 24 10:37	2°♿52'11	
evening rise	3130 Jun 16 03:26	3°♿35'37		behind sun end	3131 May 24 20:56	3°♿47'59	
	3130 Jun 30 06:03	0°♿		evening rise	3131 May 31 15:15	18°♿25'24	
evening max el	3130 Jul 12 23:12	16°♿14'38	25°17'34		3131 Jun 06 07:44	0°♿	
desc. node	3130 Jul 14 02:09	17°♿16'56		evening max el	3131 Jun 24 12:45	26°♿48'14	23°44'53
retrograde	3130 Jul 26 22:54	23°♿20'39			3131 Jun 28 07:18	0°♿	
evening set	3130 Aug 01 15:03	22°♿06'16		desc. node	3131 Jun 30 23:10	1°♿41'14	
min. Earth dist.	3130 Aug 06 11:05	19°♿23'58	0.57779 AU	retrograde	3131 Jul 08 05:16	3°♿40'22	
inferior conj	3130 Aug 09 13:10	17°♿16'57	-5°05'25	evening set	3131 Jul 12 10:40	3°♿01'09	
minimum elong	3130 Aug 09 13:33	17°♿16'16	5°05'25		3131 Jul 18 20:28	30°♿	
morning rise	3130 Aug 17 14:28	13°♿02'27		min. Earth dist.	3131 Jul 18 23:02	29°♿56'12	0.56087 AU
direct	3130 Aug 20 03:28	12°♿43'00		inferior conj	3131 Jul 21 04:54	28°♿34'55	-4°46'01
morning max el	3130 Aug 28 20:29	16°♿49'34	18°58'11	minimum elong	3131 Jul 20 23:32	28°♿43'05	4°45'17
asc. node	3130 Sep 02 11:46	22°♿16'20		morning rise	3131 Jul 29 14:56	24°♿38'26	
	3130 Sep 07 09:03	0°♿		direct	3131 Aug 01 09:31	24°♿18'59	
morning set	3130 Sep 14 12:16	13°♿27'18		morning max el	3131 Aug 11 13:07	29°♿01'33	20°02'10
					3131 Aug 12 13:06	0°♿	
superior conj	3130 Sep 22 21:47	29°♿54'31	1°38'31	asc. node	3131 Aug 20 08:48	10°♿30'14	
minimum elong	3130 Sep 23 00:01	0°♿05'08	1°38'23	morning set	3131 Aug 29 16:26	27°♿59'48	
	3130 Sep 22 22:56	0°♿			3131 Aug 30 16:03	0°♿	
max. Earth dist.	3130 Sep 29 17:59	12°♿36'10	1.38891 AU				
evening rise	3130 Oct 03 14:47	19°♿23'43		superior conj	3131 Sep 06 10:18	13°♿45'37	1°44'40
	3130 Oct 09 23:37	0°♿		minimum elong	3131 Sep 06 10:45	13°♿47'56	1°44'40
desc. node	3130 Oct 10 01:28	0°♿07'26		max. Earth dist.	3131 Sep 11 23:20	24°♿35'16	1.36881 AU
	3130 Oct 30 17:11	0°♿			3131 Sep 14 20:57	0°♿	
evening max el	3130 Nov 08 01:31	9°♿31'38	24°31'22	evening rise	3131 Sep 15 19:20	1°♿42'06	
retrograde	3130 Nov 19 11:18	16°♿11'16		desc. node	3131 Sep 26 22:30	20°♿35'30	
evening set	3130 Nov 24 22:28	13°♿54'18			3131 Oct 03 02:29	0°♿	
asc. node	3130 Nov 29 10:58	8°♿46'15		evening max el	3131 Oct 21 13:46	23°♿13'07	25°43'43
min. Earth dist.	3130 Nov 29 14:08	8°♿35'44	0.67604 AU		3131 Oct 31 19:39	0°♿	
inferior conj	3130 Nov 30 09:53	7°♿29'47	0°19'36	retrograde	3131 Nov 02 21:15	0°♿15'19	
minimum elong	3130 Nov 30 09:24	7°♿31'23	0°19'23		3131 Nov 04 20:44	30°♿	
morning rise	3130 Dec 05 20:23	1°♿27'31		evening set	3131 Nov 08 22:32	27°♿44'16	
direct	3130 Dec 09 14:20	0°♿06'59		min. Earth dist.	3131 Nov 13 06:36	23°♿00'54	0.66957 AU
morning max el	3130 Dec 17 06:26	4°♿29'31	20°07'30	inferior conj	3131 Nov 14 13:20	21°♿23'19	-0°36'39
	3131 Jan 05 00:53	0°♿		minimum elong	3131 Nov 14 14:18	21°♿20'16	0°36'15
desc. node	3131 Jan 06 00:41	1°♿29'48		asc. node	3131 Nov 16 08:00	19°♿11'11	
morning set	3131 Jan 13 09:48	12°♿46'47		morning rise	3131 Nov 20 06:23	15°♿29'30	
max. Earth dist.	3131 Jan 24 00:56	29°♿28'36	1.43836 AU	direct	3131 Nov 23 13:00	14°♿27'46	
	3131 Jan 24 08:47	0°♿		morning max el	3131 Nov 30 12:39	18°♿21'35	19°08'36
					3131 Dec 09 13:45	0°♿	
superior conj	3131 Jan 29 16:12	8°♿36'06	-2°01'08	morning set	3131 Dec 23 13:15	21°♿24'12	
minimum elong	3131 Jan 29 11:41	8°♿17'34	2°00'55	desc. node	3131 Dec 23 21:44	21°♿57'15	
	3131 Feb 11 08:39	0°♿			3131 Dec 29 01:36	0°♿	
evening rise	3131 Feb 11 14:09	0°♿23'44		max. Earth dist.	3132 Jan 06 16:37	13°♿31'04	1.44884 AU
asc. node	3131 Feb 25 10:17	23°♿09'27					
evening max el	3131 Mar 01 09:07	27°♿56'12	18°10'32	superior conj	3132 Jan 09 06:14	17°♿34'24	-1°36'58

minimum elong	3132 Jan 08 21:20	16°  59'09	1°36'09	minimum elong	3132 Dec 18 01:10	25°  38'01	0°54'56
	3132 Jan 17 00:48	0° 		max. Earth dist.	3132 Dec 19 11:26	27°  52'33	1.45212 AU
evening rise	3132 Jan 23 23:56	11°  21'05			3132 Dec 20 19:56	0° 	
	3132 Feb 04 11:07	0° 		evening rise	3133 Jan 03 10:24	21°  21'45	
asc. node	3132 Feb 12 07:19	10°  43'21			3133 Jan 08 21:53	0° 	
evening max el	3132 Feb 12 21:16	11°  19'53	18°31'02	greatest brilliancy	3133 Jan 13 12:44	7°  13'44	-0.8m
retrograde	3132 Feb 19 10:19	14°  55'34		evening max el	3133 Jan 26 06:38	24°  48'16	19°09'08
evening set	3132 Feb 22 12:43	14°  01'54		asc. node	3133 Jan 29 04:22	27°  18'56	
inferior conj	3132 Feb 28 08:12	8°  29'14	3°37'41	retrograde	3133 Feb 02 05:59	28°  46'32	
minimum elong	3132 Feb 28 07:21	8°  31'44	3°37'38	evening set	3133 Feb 05 14:56	27°  40'16	
min. Earth dist.	3132 Mar 01 10:29	6°  00'54	0.64611 AU	inferior conj	3133 Feb 11 04:31	21°  51'16	3°22'59
morning rise	3132 Mar 05 01:25	2°  19'42		minimum elong	3133 Feb 11 02:34	21°  57'29	3°22'41
	3132 Mar 08 22:26	30°  19'42		min. Earth dist.	3133 Feb 12 15:30	19°  59'40	0.66042 AU
direct	3132 Mar 11 20:18	29°  29'43		morning rise	3133 Feb 16 13:53	15°  38'27	
	3132 Mar 14 21:56	0° 		direct	3133 Feb 22 23:33	12°  49'20	
desc. node	3132 Mar 20 20:55	3°  20'54		desc. node	3133 Mar 07 17:58	20°  22'35	
morning max el	3132 Mar 25 08:32	7°  21'31	27°19'53	morning max el	3133 Mar 07 18:30	20°  23'57	26°21'43
	3132 Apr 11 19:44	0° 			3133 Mar 16 00:58	0° 	
	3132 Apr 29 03:34	0° 			3133 Apr 04 22:44	0° 	
morning set	3132 Apr 29 17:03	1°  05'31		morning set	3133 Apr 12 20:46	14°  10'32	
max. Earth dist.	3132 May 04 10:43	10°  36'01	1.33587 AU	max. Earth dist.	3133 Apr 16 22:24	21°  58'54	1.34963 AU
					3133 Apr 20 22:36	0° 	
superior conj	3132 May 07 20:22	17°  42'35	-0°25'12	superior conj	3133 Apr 21 18:11	1°  40'05	-0°53'50
minimum elong	3132 May 07 21:39	17°  49'23	0°24'55	minimum elong	3133 Apr 21 21:00	1°  54'29	0°53'18
asc. node	3132 May 10 06:38	22°  52'33		asc. node	3133 Apr 27 03:42	12°  52'01	
	3132 May 13 14:43	0° 		evening rise	3133 Apr 29 10:53	17°  38'31	
evening rise	3132 May 15 02:24	3°  08'30			3133 May 05 16:45	0° 	
	3132 May 30 00:55	0° 		evening max el	3133 May 18 05:17	18°  08'18	20°42'38
evening max el	3132 Jun 05 04:20	7°  15'40	22°08'44	retrograde	3133 May 29 13:08	23°  39'47	
desc. node	3132 Jun 16 20:11	13°  33'22		evening set	3133 May 31 15:00	23°  29'22	
retrograde	3132 Jun 17 23:57	13°  36'27		desc. node	3133 Jun 03 17:12	22°  38'31	
evening set	3132 Jun 20 20:03	13°  38'34		inferior conj	3133 Jun 09 21:41	19°  31'48	-1°48'28
min. Earth dist.	3132 Jun 29 09:52	9°  37'43	0.55053 AU	minimum elong	3133 Jun 09 16:35	19°  39'06	1°46'39
inferior conj	3132 Jun 30 04:02	9°  12'12	-3°37'29	min. Earth dist.	3133 Jun 10 22:06	18°  56'49	0.54926 AU
minimum elong	3132 Jun 29 19:46	9°  23'50	3°35'13	morning rise	3133 Jun 18 17:36	15°  25'23	
morning rise	3132 Jul 08 21:16	5°  20'53		direct	3133 Jun 22 08:47	14°  56'56	
direct	3132 Jul 11 23:24	4°  35'37		morning max el	3133 Jul 05 13:30	21°  18'09	23°05'18
morning max el	3132 Jul 23 18:10	10°  29'28	21°26'25		3133 Jul 13 00:45	0° 	
asc. node	3132 Aug 06 05:51	29°  22'18		asc. node	3133 Jul 24 02:56	18°  43'05	
	3132 Aug 06 14:05	0° 		morning set	3133 Jul 28 12:05	27°  39'04	
morning set	3132 Aug 13 01:00	12°  45'30			3133 Jul 29 14:45	0° 	
superior conj	3132 Aug 20 08:41	28°  06'27	1°43'05	superior conj	3133 Aug 04 13:49	12°  47'31	1°35'09
minimum elong	3132 Aug 20 07:43	28°  01'25	1°43'03	minimum elong	3133 Aug 04 11:54	12°  37'18	1°34'59
	3132 Aug 21 06:36	0° 		max. Earth dist.	3133 Aug 07 06:55	18°  32'36	1.33760 AU
max. Earth dist.	3132 Aug 24 10:41	6°  27'17	1.35131 AU	evening rise	3133 Aug 12 06:13	28°  41'50	
evening rise	3132 Aug 28 17:56	14°  51'52			3133 Aug 12 22:04	0° 	
	3132 Sep 06 03:48	0° 			3133 Aug 30 07:19	0° 	
desc. node	3132 Sep 12 19:32	10°  46'52		desc. node	3133 Aug 30 16:34	0°  34'19	
	3132 Sep 26 18:34	0° 		evening max el	3133 Sep 15 14:09	20°  16'46	27°17'37
evening max el	3132 Oct 03 02:06	6°  15'00	26°41'36	retrograde	3133 Sep 29 01:13	27°  35'24	
retrograde	3132 Oct 16 02:01	14°  05'51		evening set	3133 Oct 06 01:32	24°  53'15	
evening set	3132 Oct 22 16:22	11°  25'17		min. Earth dist.	3133 Oct 09 20:19	21°  21'14	0.64621 AU
min. Earth dist.	3132 Oct 26 17:22	7°  18'05	0.65964 AU	inferior conj	3133 Oct 12 03:04	18°  52'52	-2°35'59
inferior conj	3132 Oct 28 11:49	5°  12'22	-1°35'52	minimum elong	3133 Oct 12 07:20	18°  41'15	2°34'24
minimum elong	3132 Oct 28 14:26	5°  04'36	1°34'47	morning rise	3133 Oct 18 14:15	13°  24'27	
asc. node	3132 Nov 02 05:04	0° 		asc. node	3133 Oct 20 02:07	12°  55'40	
	3132 Nov 02 17:11	30°  19'42		direct	3133 Oct 21 04:46	12°  49'12	
morning rise	3132 Nov 03 13:11	29°  29'47		morning max el	3133 Oct 27 16:44	16°  16'15	17°59'19
direct	3132 Nov 06 10:33	28°  43'14			3133 Nov 06 13:20	0° 	
	3132 Nov 10 06:09	0° 		morning set	3133 Nov 14 04:25	12°  43'34	
morning max el	3132 Nov 13 00:57	2°  19'04	18°25'34		3133 Nov 24 14:41	0° 	
	3132 Dec 01 22:09	0° 		desc. node	3133 Nov 26 15:50	3°  18'53	
morning set	3132 Dec 02 18:18	1°  20'58					
desc. node	3132 Dec 09 18:47	12°  34'46		superior conj	3133 Nov 27 19:04	5°  08'19	-0°07'45
superior conj	3132 Dec 18 08:08	26°  05'26	-0°55'49	minimum elong	3133 Nov 27 18:07	5°  04'34	0°07'37

behind sun begin	3133 Nov 27 08:49	4° ♄ 27'12		asc. node	3134 Oct 06 23:11	27° ♄ 03'46	
behind sun end	3133 Nov 28 03:26	5° ♄ 41'53			3134 Oct 11 06:47	0° ♄	
max. Earth dist.	3133 Dec 02 06:04	12° ♄ 14'20	1.44803 AU	morning max el	3134 Oct 11 09:02	0° ♄ 05'33	17°50'43
	3133 Dec 13 15:30	0° ♄		morning set	3134 Oct 27 14:27	25° ♄ 15'04	
evening rise	3133 Dec 14 01:45	0° ♄ 39'33			3134 Oct 30 07:09	0° ♄	
greatest brilliancy	3133 Dec 28 09:57	22° ♄ 25'01	-0.6m				
	3134 Jan 02 17:12	0° ♄		superior conj	3134 Nov 08 05:54	15° ♄ 22'26	0°35'58
evening max el	3134 Jan 09 11:29	8° ♄ 18'52	20°03'05	minimum elong	3134 Nov 08 09:16	15° ♄ 36'32	0°35'29
asc. node	3134 Jan 16 01:24	12° ♄ 41'38		desc. node	3134 Nov 13 12:52	24° ♄ 05'54	
retrograde	3134 Jan 17 03:50	12° ♄ 48'17		max. Earth dist.	3134 Nov 14 22:17	26° ♄ 21'03	1.43712 AU
evening set	3134 Jan 20 20:45	11° ♄ 28'12			3134 Nov 17 04:57	0° ♄	
inferior conj	3134 Jan 26 06:50	5° ♄ 25'28	2°56'49	evening rise	3134 Nov 23 10:48	9° ♄ 47'44	
minimum elong	3134 Jan 26 04:21	5° ♄ 33'49	2°56'14		3134 Dec 06 20:47	0° ♄	
min. Earth dist.	3134 Jan 27 03:51	4° ♄ 14'55	0.67063 AU	evening max el	3134 Dec 23 10:53	21° ♄ 50'48	21°10'11
	3134 Jan 30 15:49	30° ♄		retrograde	3135 Jan 01 01:33	26° ♄ 57'08	
morning rise	3134 Jan 31 11:44	29° ♄ 11'47		asc. node	3135 Jan 02 22:25	26° ♄ 37'54	
direct	3134 Feb 06 08:32	26° ♄ 34'32		evening set	3135 Jan 05 04:16	25° ♄ 21'52	
	3134 Feb 14 03:29	0° ♄		inferior conj	3135 Jan 10 12:46	19° ♄ 08'22	2°21'36
morning max el	3134 Feb 18 03:17	3° ♄ 36'50	25°03'37	minimum elong	3135 Jan 10 10:17	19° ♄ 16'57	2°20'49
desc. node	3134 Feb 22 15:01	8° ♄ 33'36		min. Earth dist.	3135 Jan 10 21:14	18° ♄ 39'10	0.67681 AU
	3134 Mar 10 07:30	0° ♄		morning rise	3135 Jan 15 16:07	12° ♄ 55'37	
morning set	3134 Mar 26 07:26	26° ♄ 21'51		direct	3135 Jan 20 22:19	10° ♄ 37'37	
	3134 Mar 28 07:44	0° ♄		morning max el	3135 Jan 31 11:49	16° ♄ 55'01	23°35'55
max. Earth dist.	3134 Mar 29 22:54	3° ♄ 00'12	1.36774 AU	desc. node	3135 Feb 09 12:03	27° ♄ 33'59	
					3135 Feb 11 07:57	0° ♄	
superior conj	3134 Apr 05 06:26	15° ♄ 05'10	-1°21'21		3135 Mar 03 08:36	0° ♄	
minimum elong	3134 Apr 05 10:32	15° ♄ 25'20	1°20'45	morning set	3135 Mar 07 18:59	7° ♄ 22'56	
	3134 Apr 12 16:53	0° ♄		max. Earth dist.	3135 Mar 11 18:00	14° ♄ 13'22	1.38884 AU
evening rise	3134 Apr 13 14:27	1° ♄ 48'38					
asc. node	3134 Apr 14 00:44	2° ♄ 40'14		superior conj	3135 Mar 19 05:21	27° ♄ 48'14	-1°45'14
evening max el	3134 Apr 30 18:22	29° ♄ 40'39	19°33'49	minimum elong	3135 Mar 19 09:52	28° ♄ 09'26	1°44'47
	3134 May 01 02:29	0° ♄			3135 Mar 20 09:20	0° ♄	
retrograde	3134 May 10 08:18	4° ♄ 19'16		evening rise	3135 Mar 28 10:24	15° ♄ 31'39	
evening set	3134 May 12 08:18	4° ♄ 08'02		asc. node	3135 Mar 31 21:46	22° ♄ 12'28	
inferior conj	3134 May 21 00:16	0° ♄ 03'52	0°10'11		3135 Apr 05 04:39	0° ♄	
minimum elong	3134 May 21 00:42	0° ♄ 03'09	0°10'01	evening max el	3135 Apr 13 18:08	11° ♄ 52'15	18°44'52
transit middle	3134 May 21 00:42	0° ♄ 03'09	0°10'01	retrograde	3135 Apr 21 20:19	15° ♄ 49'30	
transit begin	3134 May 20 21:39	0° ♄ 08'00		evening set	3135 Apr 24 01:42	15° ♄ 32'43	
transit end	3134 May 21 03:45	29° ♄ 58'18		inferior conj	3135 May 01 21:53	11° ♄ 11'08	1°48'05
	3134 May 21 02:41	30° ♄		minimum elong	3135 May 02 01:26	11° ♄ 04'34	1°47'00
desc. node	3134 May 21 14:13	29° ♄ 41'36		min. Earth dist.	3135 May 05 05:04	8° ♄ 45'43	0.57385 AU
min. Earth dist.	3134 May 23 12:15	28° ♄ 28'48	0.55766 AU	desc. node	3135 May 08 11:14	6° ♄ 42'13	
morning rise	3134 May 29 14:25	25° ♄ 26'20		morning rise	3135 May 09 22:00	5° ♄ 59'13	
direct	3134 Jun 03 03:01	24° ♄ 40'18		direct	3135 May 15 11:03	4° ♄ 43'54	
	3134 Jun 15 05:27	0° ♄		morning max el	3135 May 29 19:22	12° ♄ 15'20	26°17'52
morning max el	3134 Jun 17 03:50	1° ♄ 44'04	24°47'34		3135 Jun 12 15:23	0° ♄	
	3134 Jul 06 18:09	0° ♄		morning set	3135 Jun 27 10:51	27° ♄ 25'19	
asc. node	3134 Jul 10 24:00	8° ♄ 24'03		asc. node	3135 Jun 27 21:03	28° ♄ 19'14	
morning set	3134 Jul 12 23:54	12° ♄ 34'01			3135 Jun 28 15:58	0° ♄	
superior conj	3134 Jul 19 23:05	27° ♄ 39'29	1°21'55	superior conj	3135 Jul 04 10:27	12° ♄ 35'43	1°04'12
minimum elong	3134 Jul 19 20:44	27° ♄ 26'45	1°21'36	minimum elong	3135 Jul 04 08:11	12° ♄ 23'12	1°03'49
	3134 Jul 21 00:54	0° ♄		max. Earth dist.	3135 Jul 04 21:40	13° ♄ 37'23	1.32254 AU
max. Earth dist.	3134 Jul 21 11:29	0° ♄ 57'21	1.32803 AU	evening rise	3135 Jul 11 09:09	27° ♄ 36'27	
evening rise	3134 Jul 27 04:18	12° ♄ 59'48			3135 Jul 12 12:49	0° ♄	
	3134 Aug 05 01:37	0° ♄			3135 Jul 29 10:51	0° ♄	
desc. node	3134 Aug 17 13:34	19° ♄ 46'52		desc. node	3135 Aug 04 10:33	8° ♄ 10'06	
	3134 Aug 25 18:44	0° ♄		evening max el	3135 Aug 11 05:48	15° ♄ 40'29	27°00'31
evening max el	3134 Aug 29 00:16	3° ♄ 17'42	27°25'25	retrograde	3135 Aug 25 03:12	22° ♄ 52'45	
retrograde	3134 Sep 11 17:59	10° ♄ 34'01		evening set	3135 Sep 01 03:45	20° ♄ 42'07	
evening set	3134 Sep 18 22:43	8° ♄ 01'18		min. Earth dist.	3135 Sep 04 20:04	18° ♄ 01'36	0.60997 AU
min. Earth dist.	3134 Sep 22 13:32	5° ♄ 00'01	0.62943 AU	inferior conj	3135 Sep 08 00:14	15° ♄ 18'42	-4°24'09
inferior conj	3134 Sep 25 08:17	2° ♄ 17'45	-3°33'50	minimum elong	3135 Sep 08 05:41	15° ♄ 06'59	4°23'02
minimum elong	3134 Sep 25 13:47	2° ♄ 04'22	3°32'11	morning rise	3135 Sep 15 09:24	10° ♄ 28'30	
	3134 Sep 27 19:16	30° ♄		direct	3135 Sep 17 18:38	10° ♄ 05'43	
morning rise	3134 Oct 02 06:18	27° ♄ 06'44		asc. node	3135 Sep 23 20:14	12° ♄ 39'28	
direct	3134 Oct 04 16:42	26° ♄ 39'12		morning max el	3135 Sep 24 22:45	13° ♄ 39'28	18°00'56

	3135 Oct 06 01:02	0°♄		asc. node	3136 Sep 09 17:16	29°♄28'41	
morning set	3135 Oct 10 18:02	8°♄36'47			3136 Sep 10 03:25	0°♄	
				morning set	3136 Sep 23 10:03	22°♄34'22	
superior conj	3135 Oct 20 19:28	26°♄54'57	1°09'10		3136 Sep 27 06:23	0°♄	
minimum elong	3135 Oct 20 23:47	27°♄13'59	1°08'39				
	3135 Oct 22 13:42	0°♄		superior conj	3136 Oct 02 07:39	9°♄34'30	1°30'50
max. Earth dist.	3135 Oct 28 10:09	9°♄57'35	1.42072 AU	minimum elong	3136 Oct 02 10:52	9°♄49'27	1°30'34
desc. node	3135 Oct 31 09:52	14°♄52'33		max. Earth dist.	3136 Oct 09 16:51	22°♄52'00	1.40084 AU
evening rise	3135 Nov 03 06:07	19°♄27'20		evening rise	3136 Oct 13 22:48	0°♄06'20	
	3135 Nov 10 00:28	0°♄			3136 Oct 13 21:17	0°♄	
	3135 Dec 01 09:35	0°♄		desc. node	3136 Oct 17 06:54	5°♄35'42	
evening max el	3135 Dec 06 04:58	5°♄23'59	22°26'18		3136 Nov 02 10:59	0°♄	
retrograde	3135 Dec 15 21:28	11°♄09'31		evening max el	3136 Nov 17 19:06	19°♄00'25	23°46'08
evening set	3135 Dec 20 11:44	9°♄17'55		retrograde	3136 Nov 28 14:22	25°♄22'42	
asc. node	3135 Dec 20 19:27	9°♄01'31		evening set	3136 Dec 03 17:39	23°♄14'33	
inferior conj	3135 Dec 25 20:18	2°♄56'56	1°38'55	asc. node	3136 Dec 06 16:28	20°♄06'12	
minimum elong	3135 Dec 25 18:16	3°♄03'59	1°38'10	min. Earth dist.	3136 Dec 08 13:55	17°♄36'41	0.67820 AU
min. Earth dist.	3135 Dec 25 17:20	3°♄07'11	0.67927 AU	inferior conj	3136 Dec 09 03:39	16°♄49'55	0°50'05
	3135 Dec 28 00:50	30°♄		minimum elong	3136 Dec 09 02:30	16°♄53'52	0°49'36
morning rise	3135 Dec 31 00:39	26°♄46'50		morning rise	3136 Dec 14 11:20	10°♄44'16	
direct	3136 Jan 04 15:57	24°♄51'32		direct	3136 Dec 18 12:33	9°♄11'47	
	3136 Jan 13 15:24	0°♄		morning max el	3136 Dec 26 17:25	13°♄55'46	20°48'04
morning max el	3136 Jan 13 23:23	0°♄19'51	22°08'11		3137 Jan 08 07:57	0°♄	
desc. node	3136 Jan 27 09:04	17°♄09'16		desc. node	3137 Jan 13 06:07	7°♄10'17	
	3136 Feb 05 04:14	0°♄		morning set	3137 Jan 25 06:48	25°♄27'31	
morning set	3136 Feb 16 01:59	17°♄00'36			3137 Jan 28 04:17	0°♄	
max. Earth dist.	3136 Feb 21 15:37	26°♄10'46	1.41038 AU	max. Earth dist.	3137 Feb 02 20:08	9°♄03'16	1.42946 AU
	3136 Feb 23 21:46	0°♄					
				superior conj	3137 Feb 09 15:28	20°♄18'24	-2°06'11
superior conj	3136 Feb 29 10:02	9°♄36'18	-2°01'49	minimum elong	3137 Feb 09 14:20	20°♄13'36	2°06'10
minimum elong	3136 Feb 29 13:07	9°♄49'59	2°01'40		3137 Feb 15 07:17	0°♄	
evening rise	3136 Mar 10 19:18	28°♄38'25		evening rise	3137 Feb 21 13:12	11°♄00'36	
	3136 Mar 11 12:49	0°♄		asc. node	3137 Mar 04 15:47	0°♄01'59	
asc. node	3136 Mar 17 18:47	11°♄22'05			3137 Mar 04 15:16	0°♄	
evening max el	3136 Mar 27 01:22	24°♄34'15	18°16'07	evening max el	3137 Mar 10 12:47	7°♄38'07	18°07'04
retrograde	3136 Apr 03 03:28	28°♄06'45		retrograde	3137 Mar 17 02:17	11°♄01'27	
evening set	3136 Apr 05 15:08	27°♄41'31		evening set	3137 Mar 19 19:42	10°♄26'04	
inferior conj	3136 Apr 12 16:53	22°♄59'10	2°53'28	inferior conj	3137 Mar 26 06:45	5°♄23'18	3°28'28
minimum elong	3136 Apr 12 20:23	22°♄51'34	2°52'43	minimum elong	3137 Mar 26 08:37	5°♄18'37	3°28'15
min. Earth dist.	3136 Apr 16 02:49	20°♄03'08	0.59445 AU	min. Earth dist.	3137 Mar 29 08:13	2°♄21'18	0.61607 AU
morning rise	3136 Apr 19 23:05	17°♄19'42			3137 Apr 01 01:28	30°♄	
desc. node	3136 Apr 24 08:15	15°♄39'29		morning rise	3137 Apr 01 19:53	29°♄26'20	
direct	3136 Apr 26 07:55	15°♄28'43		direct	3137 Apr 08 15:44	27°♄02'46	
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	3136 May 16 16:49	0°♄			3137 Apr 16 21:19	0°♄	
	3136 Jun 04 17:23	0°♄		morning max el	3137 Apr 22 19:57	4°♄59'40	27°49'52
morning set	3136 Jun 10 19:15	12°♄07'19			3137 May 11 12:38	0°♄	
asc. node	3136 Jun 13 18:05	18°♄23'11		morning set	3137 May 25 23:11	26°♄33'30	
					3137 May 27 15:08	0°♄	
superior conj	3136 Jun 17 22:11	27°♄30'06	0°42'43	asc. node	3137 May 31 15:06	8°♄31'20	
minimum elong	3136 Jun 17 20:25	27°♄20'25	0°42'22	max. Earth dist.	3137 May 31 19:43	8°♄56'21	1.32332 AU
max. Earth dist.	3136 Jun 17 09:43	26°♄21'30	1.32095 AU				
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evening rise	3136 Jun 24 18:19	12°♄23'41		minimum elong	3137 Jun 02 07:43	12°♄12'17	0°17'56
	3136 Jul 03 16:32	0°♄		evening rise	3137 Jun 09 05:43	27°♄14'23	
desc. node	3136 Jul 21 07:33	25°♄24'00			3137 Jun 10 13:07	0°♄	
evening max el	3136 Jul 23 04:14	27°♄15'46	26°02'58		3137 Jun 27 19:00	0°♄	
	3136 Jul 26 08:12	0°♄		evening max el	3137 Jul 04 19:45	8°♄06'23	24°39'31
retrograde	3136 Aug 06 03:44	4°♄24'57		desc. node	3137 Jul 08 04:34	11°♄00'21	
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min. Earth dist.	3136 Aug 16 16:45	0°♄11'58	0.58927 AU	evening set	3137 Jul 23 20:01	14°♄10'29	
	3136 Aug 16 23:25	30°♄		min. Earth dist.	3137 Jul 29 06:54	11°♄20'17	0.56996 AU
inferior conj	3136 Aug 19 23:20	27°♄46'03	-4°58'12	inferior conj	3137 Aug 01 02:41	9°♄30'38	-5°02'47
minimum elong	3136 Aug 20 02:24	27°♄40'18	4°57'56	minimum elong	3137 Aug 01 00:38	9°♄33'57	5°02'41
morning rise	3136 Aug 27 19:07	23°♄19'02		morning rise	3137 Aug 09 07:54	5°♄25'10	
direct	3136 Aug 30 06:06	22°♄58'50		direct	3137 Aug 11 22:56	5°♄06'01	
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
































































































































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	3137 Sep 03 21:52	0°♎		minimum elong	3138 Jul 12 03:22	20°♊41'30	4°21'42
morning set	3137 Sep 07 10:37	6°♎56'22		morning rise	3138 Jul 20 23:58	16°♊38'24	
				direct	3138 Jul 23 21:07	16°♊18'38	
superior conj	3137 Sep 15 12:44	23°♎03'50	1°42'10	morning max el	3138 Aug 03 17:42	21°♊20'49	20°35'38
minimum elong	3137 Sep 15 14:11	23°♎10'57	1°42'07		3138 Aug 10 20:56	0°♎	
	3137 Sep 19 03:18	0°♎		asc. node	3138 Aug 14 11:24	5°♎47'50	
max. Earth dist.	3137 Sep 21 20:44	5°♎04'35	1.38011 AU	morning set	3138 Aug 22 16:57	21°♎35'37	
evening rise	3137 Sep 25 15:02	11°♎50'26			3138 Aug 26 18:29	0°♎	
desc. node	3137 Oct 04 03:56	26°♎10'36					
	3137 Oct 06 13:58	0°♎		superior conj	3138 Aug 30 05:56	7°♎09'27	1°44'51
	3137 Oct 28 17:35	0°♎		minimum elong	3138 Aug 30 05:44	7°♎08'27	1°44'51
evening max el	3137 Oct 31 07:24	2°♎40'12	25°03'22	max. Earth dist.	3138 Sep 04 03:48	16°♎56'51	1.36101 AU
retrograde	3137 Nov 12 03:14	9°♎31'31		evening rise	3138 Sep 08 03:55	24°♎33'01	
evening set	3137 Nov 17 20:23	7°♎08'01			3138 Sep 11 03:53	0°♎	
min. Earth dist.	3137 Nov 22 08:39	2°♎04'13	0.67369 AU	desc. node	3138 Sep 21 00:57	16°♎32'25	
inferior conj	3137 Nov 23 09:04	0°♎44'10	-0°03'49		3138 Sep 30 03:55	0°♎	
minimum elong	3137 Nov 23 09:09	0°♎43'52	0°03'47	evening max el	3138 Oct 13 19:43	16°♎21'26	26°10'31
transit middle	3137 Nov 23 09:09	0°♎43'52	0°03'47	retrograde	3138 Oct 26 11:09	23°♎30'31	
transit begin	3137 Nov 23 06:28	0°♎52'42		evening set	3138 Nov 01 18:04	20°♎54'56	
transit end	3137 Nov 23 11:51	0°♎35'01		min. Earth dist.	3138 Nov 05 23:08	16°♎26'34	0.66579 AU
asc. node	3137 Nov 23 13:30	0°♎29'36		inferior conj	3138 Nov 07 10:41	14°♎36'37	-1°01'32
	3137 Nov 23 22:35	30°♎		minimum elong	3138 Nov 07 12:20	14°♎31'32	1°00'49
morning rise	3137 Nov 28 22:08	24°♎45'10		asc. node	3138 Nov 10 10:35	11°♎07'51	
direct	3137 Dec 02 10:54	23°♎33'13		morning rise	3138 Nov 13 07:03	8°♎46'56	
morning max el	3137 Dec 09 19:19	27°♎42'35	19°40'31	direct	3138 Nov 16 09:25	7°♎52'09	
	3137 Dec 11 21:59	0°♎		morning max el	3138 Nov 23 04:19	11°♎37'21	18°48'09
greatest brilliancy	3137 Dec 22 23:50	15°♎10'01	-0.7m		3138 Dec 06 12:40	0°♎	
desc. node	3137 Dec 31 03:11	27°♎29'34		morning set	3138 Dec 14 16:02	12°♎46'12	
	3138 Jan 01 18:22	0°♎		desc. node	3138 Dec 18 00:14	18°♎01'45	
morning set	3138 Jan 04 03:08	3°♎38'47			3138 Dec 25 15:12	0°♎	
max. Earth dist.	3138 Jan 16 07:42	22°♎42'31	1.44360 AU	max. Earth dist.	3138 Dec 30 00:41	6°♎53'50	1.45116 AU
superior conj	3138 Jan 20 18:52	29°♎50'49	-1°53'16	superior conj	3138 Dec 31 01:30	8°♎31'22	-1°21'08
minimum elong	3138 Jan 20 11:59	29°♎23'05	1°52'50	minimum elong	3138 Dec 30 16:33	7°♎56'12	1°20'09
	3138 Jan 20 21:09	0°♎			3139 Jan 13 14:11	0°♎	
evening rise	3138 Feb 03 11:45	22°♎30'05		evening rise	3139 Jan 15 11:29	3°♎02'14	
	3138 Feb 07 22:06	0°♎			3139 Feb 01 20:06	0°♎	
asc. node	3138 Feb 19 12:48	18°♎03'16		evening max el	3139 Feb 05 12:45	4°♎23'03	18°45'17
evening max el	3138 Feb 22 01:28	20°♎56'32	18°17'06	asc. node	3139 Feb 06 09:51	5°♎14'16	
retrograde	3138 Feb 28 12:14	24°♎24'12		retrograde	3139 Feb 12 05:13	8°♎06'51	
evening set	3138 Mar 03 11:13	23°♎37'34		evening set	3139 Feb 15 10:19	7°♎07'57	
inferior conj	3138 Mar 09 11:24	18°♎15'36	3°39'38	inferior conj	3139 Feb 21 02:58	1°♎28'20	3°33'01
minimum elong	3138 Mar 09 11:27	18°♎15'28	3°39'37	minimum elong	3139 Feb 21 01:35	1°♎32'34	3°32'53
min. Earth dist.	3138 Mar 11 22:49	15°♎30'01	0.63603 AU		3139 Feb 22 07:44	30°♎	
morning rise	3138 Mar 15 10:47	12°♎09'13		min. Earth dist.	3139 Feb 22 22:43	29°♎14'35	0.65271 AU
direct	3138 Mar 22 08:25	9°♎24'25		morning rise	3139 Feb 26 16:25	25°♎17'16	
desc. node	3138 Mar 29 02:20	11°♎34'55		direct	3139 Mar 05 08:08	22°♎25'49	
morning max el	3138 Apr 05 03:54	17°♎21'33	27°40'40	desc. node	3139 Mar 15 23:24	27°♎44'44	
	3138 Apr 15 16:47	0°♎			3139 Mar 18 08:51	0°♎	
	3138 May 04 07:45	0°♎		morning max el	3139 Mar 18 13:34	0°♎11'50	26°58'11
morning set	3138 May 09 20:19	10°♎36'22			3139 Apr 09 16:01	0°♎	
max. Earth dist.	3138 May 14 23:36	21°♎08'45	1.32992 AU	morning set	3139 Apr 23 07:26	24°♎05'18	
					3139 Apr 26 07:59	0°♎	
superior conj	3138 May 17 15:46	26°♎50'10	-0°08'55	max. Earth dist.	3139 Apr 27 17:45	2°♎49'12	1.34112 AU
minimum elong	3138 May 17 16:13	26°♎52'31	0°08'49				
behind sun begin	3138 May 17 11:45	26°♎28'33		superior conj	3139 May 01 17:42	11°♎02'36	-0°37'20
behind sun end	3138 May 17 20:41	27°♎16'31		minimum elong	3139 May 01 19:38	11°♎12'42	0°36'57
asc. node	3138 May 18 12:09	28°♎39'41		asc. node	3139 May 05 09:11	18°♎43'25	
	3138 May 19 03:03	0°♎		evening rise	3139 May 09 03:43	26°♎40'35	
evening rise	3138 May 24 17:29	12°♎02'25			3139 May 10 18:15	0°♎	
	3138 Jun 02 21:28	0°♎		evening max el	3139 May 29 04:18	29°♎09'49	21°30'25
evening max el	3138 Jun 16 09:16	18°♎34'20	23°03'39		3139 May 30 01:38	0°♎	
desc. node	3138 Jun 25 01:35	24°♎24'41		retrograde	3139 Jun 10 09:57	5°♎10'29	
retrograde	3138 Jun 29 19:23	25°♎15'58		desc. node	3139 Jun 11 22:37	5°♎05'08	
evening set	3138 Jul 03 09:08	24°♎48'01		evening set	3139 Jun 12 20:08	4°♎57'08	
min. Earth dist.	3138 Jul 10 18:29	21°♎29'15	0.55543 AU	inferior conj	3139 Jun 22 05:40	0°♎56'54	-2°54'45

minimum elong	3139 Jun 21 22:04	1°☿07'31	2°52'21	desc. node	3140 May 28 19:38	13°♊07'30	
min. Earth dist.	3139 Jun 22 05:45	0°☿56'46	0.54882 AU	inferior conj	3140 Jun 01 01:15	11°♊17'07	-0°57'09
	3139 Jun 23 22:40	30°♈♊		minimum elong	3140 May 31 22:34	11°♊21'06	0°56'09
morning rise	3139 Jul 01 00:49	27°♊01'33		min. Earth dist.	3140 Jun 02 18:15	10°♊16'22	0.55177 AU
direct	3139 Jul 04 07:49	26°♊37'58		morning rise	3140 Jun 09 19:57	6°♊59'16	
	3139 Jul 13 17:02	0°☿		direct	3140 Jun 13 19:31	6°♊24'52	
morning max el	3139 Jul 16 18:01	2°☿30'02	22°07'08	morning max el	3140 Jun 27 10:17	13°♊04'58	23°49'21
asc. node	3139 Aug 01 08:28	24°☿53'09			3140 Jul 10 09:25	0°☿	
	3139 Aug 03 23:33	0°♊		asc. node	3140 Jul 18 05:30	14°☿23'06	
morning set	3139 Aug 07 02:49	6°♊25'21		morning set	3140 Jul 21 14:24	21°☿20'00	
					3140 Jul 25 15:22	0°♊	
superior conj	3139 Aug 14 07:31	21°♊39'45	1°40'25	superior conj	3140 Jul 28 14:37	6°♊25'54	1°30'07
minimum elong	3139 Aug 14 06:05	21°♊32'14	1°40'20	minimum elong	3140 Jul 28 12:28	6°♊14'17	1°29'53
max. Earth dist.	3139 Aug 17 18:59	28°♊53'41	1.34505 AU	max. Earth dist.	3140 Jul 30 19:12	11°♊08'00	1.33303 AU
	3139 Aug 18 07:59	0°♈		evening rise	3140 Aug 05 01:40	22°♊04'09	
evening rise	3139 Aug 22 08:52	8°♈01'30			3140 Aug 09 03:04	0°♈	
	3139 Sep 03 17:25	0°♊		desc. node	3140 Aug 24 18:58	26°♈08'55	
desc. node	3139 Sep 07 21:58	6°♊34'47			3140 Aug 27 12:48	0°♊	
	3139 Sep 26 09:42	0°♌		evening max el	3140 Sep 07 19:51	13°♊13'36	27°24'42
evening max el	3139 Sep 26 08:20	29°♊56'44	27°00'01	retrograde	3140 Sep 21 09:47	20°♊31'07	
retrograde	3139 Oct 09 13:30	7°♌13'16		evening set	3140 Sep 28 13:03	17°♊51'25	
evening set	3139 Oct 16 08:33	4°♌31'14		min. Earth dist.	3140 Oct 02 05:44	14°♊33'34	0.63950 AU
min. Earth dist.	3139 Oct 20 06:55	0°♌39'04	0.65441 AU	inferior conj	3140 Oct 04 17:46	11°♊58'03	-3°01'02
	3139 Oct 20 20:44	30°♈♊		minimum elong	3140 Oct 04 22:39	11°♊45'22	2°59'21
inferior conj	3139 Oct 22 06:26	28°♊23'15	-2°01'24	morning rise	3140 Oct 11 09:29	6°♊36'45	
minimum elong	3139 Oct 22 09:46	28°♊13'41	2°00'04	direct	3140 Oct 13 22:00	6°♊05'06	
morning rise	3139 Oct 28 11:48	22°♊46'03		asc. node	3140 Oct 14 04:43	6°♊05'30	
asc. node	3139 Oct 28 07:40	22°♊51'19		morning max el	3140 Oct 20 10:48	9°♊30'27	17°53'28
direct	3139 Oct 31 06:01	22°♊04'37			3140 Nov 03 05:13	0°♌	
morning max el	3139 Nov 06 18:24	25°♊35'30	18°12'12	morning set	3140 Nov 06 07:00	5°♌16'28	
	3139 Nov 10 11:54	0°♌					
morning set	3139 Nov 25 09:52	23°♌21'40		superior conj	3140 Nov 19 00:42	26°♌39'47	0°11'52
	3139 Nov 29 11:34	0°♈		minimum elong	3140 Nov 19 02:01	26°♌45'08	0°11'40
desc. node	3139 Dec 04 21:15	8°♈42'43		behind sun begin	3140 Nov 18 19:04	26°♌16'49	
				behind sun end	3140 Nov 19 08:57	27°♌13'24	
superior conj	3139 Dec 10 04:39	17°♈09'05	-0°35'30	desc. node	3140 Nov 20 18:16	29°♌28'36	
minimum elong	3139 Dec 10 00:08	16°♈51'12	0°34'53		3140 Nov 21 02:02	0°♈	
max. Earth dist.	3139 Dec 12 20:15	21°♈19'40	1.45133 AU	max. Earth dist.	3140 Nov 24 14:43	5°♈39'22	1.44420 AU
	3139 Dec 18 09:07	0°♊		evening rise	3140 Dec 04 23:36	21°♈51'52	
evening rise	3139 Dec 26 12:50	12°♊42'34			3140 Dec 10 07:23	0°♊	
	3140 Jan 06 17:06	0°♌			3140 Dec 31 15:32	0°♌	
greatest brilliancy	3140 Jan 07 16:35	1°♌29'10	-0.7m	evening max el	3141 Jan 01 22:58	1°♌24'20	20°30'09
evening max el	3140 Jan 19 20:27	17°♌53'21	19°30'19	retrograde	3141 Jan 10 00:10	6°♌09'01	
asc. node	3140 Jan 24 06:54	21°♌21'16		asc. node	3141 Jan 10 03:57	6°♌08'53	
retrograde	3140 Jan 27 02:05	22°♌03'32		evening set	3141 Jan 13 21:06	4°♌42'27	
evening set	3140 Jan 30 14:20	20°♌51'21			3141 Jan 18 04:56	30°♈♊	
inferior conj	3140 Feb 05 02:09	14°♌56'11	3°13'06	inferior conj	3141 Jan 19 06:16	28°♊34'28	2°42'52
minimum elong	3140 Feb 04 23:54	15°♌03'30	3°12'40	minimum elong	3141 Jan 19 03:43	28°♊43'09	2°42'10
min. Earth dist.	3140 Feb 06 06:57	13°♌22'03	0.66531 AU	min. Earth dist.	3141 Jan 19 21:40	27°♊41'59	0.67375 AU
morning rise	3140 Feb 10 09:15	8°♌43'02		morning rise	3141 Jan 24 10:10	22°♊21'01	
direct	3140 Feb 16 13:50	5°♌58'00		direct	3141 Jan 30 00:46	19°♊51'39	
morning max el	3140 Feb 28 23:01	13°♌19'46	25°50'21	morning max el	3141 Feb 10 07:37	26°♊35'53	24°26'53
desc. node	3140 Mar 01 20:26	15°♌19'02			3141 Feb 13 11:20	0°♌	
	3140 Mar 13 11:09	0°♈		desc. node	3141 Feb 16 17:28	3°♌53'04	
	3140 Apr 01 09:39	0°♈			3141 Mar 07 01:45	0°♈	
morning set	3140 Apr 05 04:30	6°♈48'56		morning set	3141 Mar 18 06:04	18°♈32'14	
max. Earth dist.	3140 Apr 09 00:33	14°♈01'09	1.35693 AU	max. Earth dist.	3141 Mar 21 22:08	25°♈04'17	1.37651 AU
					3141 Mar 24 14:32	0°♈	
superior conj	3140 Apr 14 11:49	24°♈47'21	-1°05'45	superior conj	3141 Mar 28 18:50	7°♈55'27	-1°32'09
minimum elong	3140 Apr 14 15:14	25°♈04'34	1°05'11	minimum elong	3141 Mar 28 23:17	8°♈16'52	1°31'33
	3140 Apr 17 01:20	0°♈		evening rise	3141 Apr 06 11:04	25°♈02'42	
asc. node	3140 Apr 21 06:13	8°♈38'43		asc. node	3141 Apr 08 03:15	28°♈20'58	
evening rise	3140 Apr 22 10:24	11°♈03'04			3141 Apr 08 23:32	0°♈	
	3140 May 02 12:54	0°♊		evening max el	3141 Apr 23 04:04	22°♈07'05	19°10'28
evening max el	3140 May 10 10:16	10°♊17'53	20°10'55	retrograde	3141 May 02 01:50	26°♈26'48	
retrograde	3140 May 20 23:53	15°♊26'12					
evening set	3140 May 22 23:42	15°♊16'02					

evening set	3141 May 04 03:32	26°♄13'44		evening set	3142 Apr 16 06:00	7°♄57'34	
inferior conj	3141 May 12 11:11	22°♄02'40	0°55'25	inferior conj	3142 Apr 23 18:01	3°♄27'38	2°19'54
minimum elong	3141 May 12 13:22	21°♄58'57	0°54'40	minimum elong	3142 Apr 23 21:50	3°♄20'03	2°18'51
min. Earth dist.	3141 May 15 09:22	20°♄04'25	0.56371 AU	min. Earth dist.	3142 Apr 27 04:17	0°♄45'55	0.58221 AU
desc. node	3141 May 15 16:37	19°♄52'39			3142 Apr 28 05:28	30°♄♂	
morning rise	3141 May 20 20:07	17°♄09'56		morning rise	3142 May 01 10:35	28°♄02'28	
direct	3141 May 25 18:55	16°♄12'59		desc. node	3142 May 02 13:39	27°♄31'37	
morning max el	3141 Jun 09 00:37	23°♄30'27	25°28'34	direct	3142 May 07 08:56	26°♄31'58	
	3141 Jun 14 21:10	0°♄			3142 May 16 18:17	0°♄	
	3141 Jul 03 01:39	0°♄		morning max el	3142 May 21 18:17	4°♄12'39	26°49'01
asc. node	3141 Jul 05 02:32	4°♄11'05			3142 Jun 09 13:27	0°♄	
morning set	3141 Jul 06 02:03	6°♄14'36		morning set	3142 Jun 20 12:05	21°♄02'42	
				asc. node	3142 Jun 21 23:32	24°♄10'37	
					3142 Jun 24 16:06	0°♄	
superior conj	3141 Jul 13 01:01	21°♄20'57	1°14'54	superior conj	3142 Jun 27 12:45	6°♄17'21	0°55'32
minimum elong	3141 Jul 12 22:39	21°♄07'58	1°14'33	minimum elong	3142 Jun 27 10:38	6°♄05'44	0°55'08
max. Earth dist.	3141 Jul 14 02:31	23°♄40'29	1.32512 AU	max. Earth dist.	3142 Jun 27 13:45	6°♄22'53	1.32128 AU
	3141 Jul 17 00:38	0°♄		evening rise	3142 Jul 04 09:52	21°♄13'19	
evening rise	3141 Jul 20 02:56	6°♄31'16			3142 Jul 08 17:06	0°♄	
	3141 Aug 01 15:47	0°♄			3142 Jul 27 02:10	0°♄	
desc. node	3141 Aug 11 15:58	15°♄03'12		desc. node	3142 Jul 29 12:58	3°♄00'08	
evening max el	3141 Aug 21 04:07	25°♄59'31	27°18'56	evening max el	3142 Aug 03 06:44	8°♄02'31	26°39'54
	3141 Aug 26 01:30	0°♄		retrograde	3142 Aug 17 05:44	15°♄14'15	
retrograde	3141 Sep 03 23:39	3°♄14'51		evening set	3142 Aug 24 00:43	13°♄16'44	
evening set	3141 Sep 11 03:59	0°♄49'31		min. Earth dist.	3142 Aug 27 20:34	10°♄40'15	0.60111 AU
	3141 Sep 12 07:52	30°♄♂		inferior conj	3142 Aug 31 02:56	8°♄02'01	-4°41'18
min. Earth dist.	3141 Sep 14 18:17	27°♄59'02	0.62139 AU	minimum elong	3142 Aug 31 07:44	7°♄52'18	4°40'33
inferior conj	3141 Sep 17 17:46	25°♄14'14	-3°56'30	morning rise	3142 Sep 07 16:46	3°♄21'34	
minimum elong	3141 Sep 17 23:27	25°♄01'04	3°55'01	direct	3142 Sep 10 02:12	3°♄00'16	
morning rise	3141 Sep 24 20:35	20°♄12'04		morning max el	3142 Sep 17 14:12	6°♄40'25	18°11'19
direct	3141 Sep 27 06:04	19°♄46'57		asc. node	3142 Sep 17 22:46	7°♄01'34	
asc. node	3141 Oct 01 01:45	20°♄52'54			3142 Oct 02 11:14	0°♄	
morning max el	3141 Oct 04 02:29	23°♄15'17	17°52'46	morning set	3142 Oct 03 10:39	1°♄50'13	
	3141 Oct 09 10:22	0°♄					
morning set	3141 Oct 20 01:15	18°♄11'54		superior conj	3142 Oct 12 23:09	19°♄32'05	1°19'42
	3141 Oct 26 15:47	0°♄		minimum elong	3142 Oct 13 03:09	19°♄50'09	1°19'16
superior conj	3141 Oct 30 23:18	7°♄29'16	0°51'26		3142 Oct 18 21:43	0°♄	
minimum elong	3141 Oct 31 03:26	7°♄46'54	0°50'53	max. Earth dist.	3142 Oct 20 14:05	2°♄52'04	1.41253 AU
max. Earth dist.	3141 Nov 07 05:04	19°♄34'44	1.43070 AU	evening rise	3142 Oct 25 14:46	11°♄12'10	
desc. node	3141 Nov 07 15:18	20°♄16'25		desc. node	3142 Oct 25 12:20	11°♄02'14	
	3141 Nov 13 17:30	0°♄			3142 Nov 06 17:39	0°♄	
evening rise	3141 Nov 14 11:11	1°♄09'11		evening max el	3142 Nov 28 12:07	28°♄31'26	23°00'10
	3141 Dec 03 21:19	0°♄			3142 Nov 30 00:56	0°♄	
evening max el	3141 Dec 15 19:54	14°♄56'30	21°41'36	retrograde	3142 Dec 08 16:18	4°♄33'29	
retrograde	3141 Dec 24 21:27	20°♄20'04		evening set	3142 Dec 13 11:50	2°♄35'05	
asc. node	3141 Dec 28 00:59	19°♄26'06		asc. node	3142 Dec 14 22:00	1°♄13'47	
evening set	3141 Dec 29 04:47	18°♄38'00			3142 Dec 15 23:55	30°♄♂	
inferior conj	3142 Jan 03 13:08	12°♄20'36	2°04'20	inferior conj	3142 Dec 18 20:51	26°♄12'03	1°18'56
minimum elong	3142 Jan 03 10:47	12°♄28'45	2°03'31	minimum elong	3142 Dec 18 19:08	26°♄17'57	1°18'15
min. Earth dist.	3142 Jan 03 16:37	12°♄08'32	0.67832 AU	min. Earth dist.	3142 Dec 18 13:20	26°♄37'57	0.67923 AU
morning rise	3142 Jan 08 16:36	6°♄08'31		morning rise	3142 Dec 24 02:20	20°♄03'20	
direct	3142 Jan 13 16:18	4°♄00'05		direct	3142 Dec 28 11:31	18°♄17'42	
morning max el	3142 Jan 23 17:06	9°♄57'10	22°57'57	morning max el	3143 Jan 06 07:01	23°♄26'29	21°32'43
desc. node	3142 Feb 03 14:30	23°♄09'55			3143 Jan 11 23:53	0°♄	
	3142 Feb 08 12:03	0°♄		desc. node	3143 Jan 21 11:34	12°♄57'45	
morning set	3142 Feb 27 05:56	28°♄58'56			3143 Feb 01 21:13	0°♄	
	3142 Feb 27 20:36	0°♄		morning set	3143 Feb 07 00:48	8°♄03'27	
max. Earth dist.	3142 Mar 03 17:04	6°♄31'48	1.39810 AU	max. Earth dist.	3143 Feb 13 16:58	18°♄51'41	1.41898 AU
					3143 Feb 20 07:17	0°♄	
superior conj	3142 Mar 11 10:35	20°♄16'19	-1°53'27	superior conj	3143 Feb 21 06:05	1°♄38'40	-2°05'29
minimum elong	3142 Mar 11 14:47	20°♄35'37	1°53'07	minimum elong	3143 Feb 21 07:43	1°♄45'49	2°05'27
	3142 Mar 16 15:36	0°♄		evening rise	3143 Mar 04 05:51	21°♄20'38	
evening rise	3142 Mar 21 02:45	8°♄31'14			3143 Mar 09 00:15	0°♄	
asc. node	3142 Mar 26 00:16	17°♄44'26		asc. node	3143 Mar 12 21:18	6°♄42'59	
	3142 Apr 02 11:14	0°♄		evening max el	3143 Mar 20 16:58	17°♄26'19	18°09'56
evening max el	3142 Apr 06 07:25	4°♄32'47	18°30'14				
retrograde	3142 Apr 13 22:02	8°♄17'33					

retrograde	3143 Mar 27 12:14	20° Υ 52'42			3144 Mar 16 22:53	30° \Re \Re	
evening set	3143 Mar 30 02:30	20° Υ 23'16		inferior conj	3144 Mar 18 18:12	28° \Re 09'30	3°35'39
inferior conj	3143 Apr 05 21:32	15° Υ 32'22	3°11'37	minimum elong	3144 Mar 18 19:17	28° \Re 06'39	3°35'36
minimum elong	3143 Apr 06 00:26	15° Υ 25'40	3°11'08	min. Earth dist.	3144 Mar 21 14:00	25° \Re 12'27	0.62497 AU
min. Earth dist.	3143 Apr 09 05:02	12° Υ 30'40	0.60374 AU	morning rise	3144 Mar 25 01:05	22° \Re 08'00	
morning rise	3143 Apr 12 20:13	9° Υ 44'33		direct	3144 Mar 31 22:47	19° \Re 33'59	
direct	3143 Apr 19 11:10	7° Υ 38'29		desc. node	3144 Apr 05 07:45	20° \Re 28'48	
desc. node	3143 Apr 19 10:42	7° Υ 38'29		morning max el	3144 Apr 14 23:35	27° \Re 31'03	27°50'21
morning max el	3143 May 03 18:00	15° Υ 31'02	27°38'13		3144 Apr 17 08:22	0° Υ	
	3143 May 15 12:53	0° \Re			3144 May 08 05:40	0° \Re	
	3143 Jun 02 00:09	0° Π		morning set	3144 May 18 20:11	19° \Re 55'44	
morning set	3143 Jun 04 18:50	5° Π 38'48			3144 May 23 16:13	0° Π	
asc. node	3143 Jun 08 20:35	14° Π 17'08		max. Earth dist.	3144 May 24 09:19	1° Π 31'31	1.32567 AU
max. Earth dist.	3143 Jun 11 01:19	19° Π 04'20	1.32147 AU	asc. node	3144 May 25 17:39	4° Π 25'46	
superior conj	3143 Jun 12 00:07	21° Π 09'30	0°32'38	superior conj	3144 May 26 09:22	5° Π 51'01	0°06'54
minimum elong	3143 Jun 11 22:43	21° Π 01'45	0°32'20	minimum elong	3144 May 26 09:03	5° Π 49'14	0°06'50
	3143 Jun 16 00:48	0° \Re		behind sun begin	3144 May 26 04:20	5° Π 23'39	
evening rise	3143 Jun 18 20:14	6° \Re 03'10		behind sun end	3144 May 26 13:46	6° Π 14'52	
	3143 Jul 01 10:09	0° Ω		evening rise	3144 Jun 02 08:03	20° Π 53'34	
evening max el	3143 Jul 16 02:12	19° Ω 18'09	25°30'04		3144 Jun 06 18:10	0° \Re	
desc. node	3143 Jul 16 09:58	19° Ω 36'32		evening max el	3144 Jun 26 16:04	29° \Re 55'27	23°59'16
retrograde	3143 Jul 30 01:56	26° Ω 24'50			3144 Jun 26 17:58	0° Ω	
evening set	3143 Aug 04 22:40	25° Ω 04'38		desc. node	3144 Jul 02 06:59	4° Ω 21'12	
min. Earth dist.	3143 Aug 09 14:14	22° Ω 24'31	0.58071 AU	retrograde	3144 Jul 10 10:19	6° Ω 50'50	
inferior conj	3143 Aug 12 17:53	20° Ω 12'08	-5°04'43	evening set	3144 Jul 14 21:18	6° Ω 06'56	
minimum elong	3143 Aug 12 19:04	20° Ω 10'03	5°04'40	min. Earth dist.	3144 Jul 21 02:32	3° Ω 06'19	0.56302 AU
morning rise	3143 Aug 20 17:48	15° Ω 54'22		inferior conj	3144 Jul 23 12:37	1° Ω 37'16	-4°52'04
direct	3143 Aug 23 06:16	15° Ω 34'43		minimum elong	3144 Jul 23 08:04	1° Ω 44'17	4°51'32
morning max el	3143 Aug 31 18:40	19° Ω 36'51	18°50'30		3144 Jul 26 05:59	30° \Re \Re	
asc. node	3143 Sep 04 19:49	24° Ω 16'51		morning rise	3144 Jul 31 21:27	27° \Re 38'54	
	3143 Sep 08 14:58	0° \Re		direct	3144 Aug 03 15:06	27° \Re 19'34	
morning set	3143 Sep 17 06:41	15° \Re 59'04			3144 Aug 11 04:45	0° Ω	
	3143 Sep 24 10:52	0° Ω		morning max el	3144 Aug 13 13:04	1° Ω 55'46	19°51'19
superior conj	3143 Sep 25 19:04	2° Ω 33'56	1°36'49	asc. node	3144 Aug 21 16:53	12° Ω 24'28	
minimum elong	3143 Sep 25 21:34	2° Ω 45'46	1°36'38	morning set	3144 Aug 31 10:02	0° \Re 29'36	
max. Earth dist.	3143 Oct 02 19:08	15° Ω 27'31	1.39201 AU		3144 Aug 31 04:10	0° \Re	
evening rise	3143 Oct 06 17:35	22° Ω 18'58		superior conj	3144 Sep 08 05:50	16° \Re 20'21	1°44'17
	3143 Oct 11 08:07	0° \Re		minimum elong	3144 Sep 08 06:33	16° \Re 23'55	1°44'15
desc. node	3143 Oct 12 09:21	1° \Re 42'21		max. Earth dist.	3144 Sep 14 00:07	27° \Re 30'31	1.37165 AU
	3143 Oct 31 16:22	0° \Re			3144 Sep 15 08:09	0° Ω	
evening max el	3143 Nov 11 01:24	12° \Re 10'00	24°19'51	evening rise	3144 Sep 17 19:06	4° Ω 29'08	
retrograde	3143 Nov 22 07:27	18° \Re 45'13		desc. node	3144 Sep 28 06:22	22° Ω 12'33	
evening set	3143 Nov 27 16:35	16° \Re 30'30			3144 Oct 03 07:32	0° \Re	
asc. node	3143 Dec 01 19:03	11° \Re 54'43		evening max el	3144 Oct 23 13:38	25° \Re 51'23	25°33'38
min. Earth dist.	3143 Dec 02 09:25	11° \Re 06'58	0.67670 AU		3144 Oct 28 10:28	0° \Re	
inferior conj	3143 Dec 03 03:36	10° \Re 05'55	0°27'47	retrograde	3144 Nov 04 18:11	2° \Re 51'05	
minimum elong	3143 Dec 03 02:56	10° \Re 08'10	0°27'30	evening set	3144 Nov 10 17:25	0° \Re 21'46	
morning rise	3143 Dec 08 13:19	4° \Re 02'46			3144 Nov 11 03:20	30° \Re \Re	
direct	3143 Dec 12 09:08	2° \Re 39'09		min. Earth dist.	3144 Nov 15 02:31	25° \Re 33'10	0.67076 AU
morning max el	3143 Dec 20 04:15	7° \Re 06'45	20°17'37	inferior conj	3144 Nov 16 07:38	23° \Re 59'54	-0°27'54
	3144 Jan 06 06:33	0° \Re		minimum elong	3144 Nov 16 08:21	23° \Re 57'36	0°27'35
desc. node	3144 Jan 08 08:37	3° \Re 07'26		asc. node	3144 Nov 17 16:06	22° \Re 17'33	
morning set	3144 Jan 16 22:58	16° \Re 14'44		morning rise	3144 Nov 21 23:36	18° \Re 04'48	
	3144 Jan 25 17:11	0° \Re		direct	3144 Nov 25 07:45	17° \Re 00'33	
max. Earth dist.	3144 Jan 27 01:03	2° \Re 07'36	1.43625 AU	morning max el	3144 Dec 02 09:26	20° \Re 57'58	19°16'24
superior conj	3144 Feb 02 00:34	11° \Re 51'27	-2°03'04		3144 Dec 09 15:51	0° \Re	
minimum elong	3144 Feb 01 20:57	11° \Re 36'31	2°02'57	greatest brilliancy	3144 Dec 16 04:46	9° \Re 38'11	-0.7m
	3144 Feb 12 17:38	0° \Re		desc. node	3144 Dec 25 05:40	23° \Re 33'03	
evening rise	3144 Feb 14 16:04	3° \Re 21'34		morning set	3144 Dec 25 23:49	24° \Re 43'28	
asc. node	3144 Feb 27 18:21	25° \Re 08'00			3144 Dec 29 09:17	0° \Re	
	3144 Mar 02 14:45	0° Υ		max. Earth dist.	3145 Jan 08 15:52	16° \Re 05'05	1.44771 AU
evening max el	3144 Mar 03 05:20	0° Υ 37'40	18°09'00	superior conj	3145 Jan 11 17:47	20° \Re 57'42	-1°41'52
retrograde	3144 Mar 09 16:22	4° Υ 01'02		minimum elong	3145 Jan 11 09:12	20° \Re 23'39	1°41'08
evening set	3144 Mar 12 12:15	3° Υ 20'48			3145 Jan 17 09:12	0° \Re	

evening rise	3145 Jan 26 05:16	14° \approx 27'34		evening max el	3146 Jan 29 03:35	27° \approx 28'13	19°02'27
	3145 Feb 04 15:47	0° H		asc. node	3146 Jan 31 12:26	29° \approx 35'07	
asc. node	3145 Feb 13 15:24	12° H 49'35			3146 Feb 01 02:29	0° H	
evening max el	3145 Feb 14 17:41	14° H 00'05	18°26'47	retrograde	3146 Feb 05 01:00	1° H 22'34	
retrograde	3145 Feb 21 05:55	17° H 33'25		evening set	3146 Feb 08 08:52	0° H 18'18	
evening set	3145 Feb 24 07:23	16° H 41'39			3146 Feb 08 19:37	30° R \approx	
inferior conj	3145 Mar 02 03:58	11° H 11'37	3°38'39	inferior conj	3146 Feb 13 23:09	24° \approx 31'43	3°26'01
minimum elong	3145 Mar 02 03:21	11° H 13'27	3°38'38	minimum elong	3146 Feb 13 21:20	24° \approx 37'28	3°25'45
min. Earth dist.	3145 Mar 04 08:37	8° H 38'24	0.64363 AU	min. Earth dist.	3146 Feb 15 12:25	22° \approx 34'04	0.65852 AU
morning rise	3145 Mar 07 22:40	5° H 02'38		morning rise	3146 Feb 19 09:28	18° \approx 19'13	
direct	3145 Mar 14 18:25	2° H 13'37		direct	3146 Feb 25 20:50	15° \approx 29'00	
desc. node	3145 Mar 23 04:50	5° H 36'05		desc. node	3146 Mar 10 01:53	22° \approx 25'24	
morning max el	3145 Mar 28 08:50	10° H 07'22	27°26'15	morning max el	3146 Mar 10 18:48	23° \approx 07'24	26°31'55
	3145 Apr 12 23:41	0° Y			3146 Mar 16 21:21	0° H	
	3145 Apr 30 14:59	0° B			3146 Apr 06 07:08	0° Y	
morning set	3145 May 02 13:30	3° B 45'28		morning set	3146 Apr 15 19:19	16° Y 57'49	
max. Earth dist.	3145 May 07 09:41	13° B 32'05	1.33418 AU	max. Earth dist.	3146 Apr 19 23:04	24° Y 59'43	1.34725 AU
					3146 Apr 22 11:04	0° B	
superior conj	3145 May 10 14:37	20° B 16'02	-0°20'52				
minimum elong	3145 May 10 15:40	20° B 21'39	0°20'39	superior conj	3146 Apr 24 13:37	4° B 18'13	-0°49'29
asc. node	3145 May 12 14:42	24° B 32'34		minimum elong	3146 Apr 24 16:12	4° B 31'32	0°49'00
	3145 May 15 03:48	0° II		asc. node	3146 Apr 29 11:44	14° B 33'37	
evening rise	3145 May 17 19:25	5° II 38'09		evening rise	3146 May 02 04:26	20° B 10'58	
	3145 May 30 23:12	0° E			3146 May 07 01:42	0° II	
evening max el	3145 Jun 08 06:46	10° E 21'43	22°22'43	evening max el	3146 May 21 06:06	21° II 09'51	20°54'30
desc. node	3145 Jun 19 04:01	16° E 38'34		retrograde	3146 Jun 01 19:58	26° II 49'07	
retrograde	3145 Jun 21 06:49	16° E 48'52		evening set	3146 Jun 03 23:21	26° II 38'16	
evening set	3145 Jun 24 06:59	16° E 28'53		desc. node	3146 Jun 06 01:03	26° II 08'25	
min. Earth dist.	3145 Jul 02 13:29	12° E 54'12	0.55147 AU	inferior conj	3146 Jun 13 07:17	22° II 40'38	-2°06'33
inferior conj	3145 Jul 03 13:43	12° E 19'56	-3°51'02	minimum elong	3146 Jun 13 01:24	22° II 48'59	2°04'29
minimum elong	3145 Jul 03 05:30	12° E 31'34	3°48'56	min. Earth dist.	3146 Jun 14 01:36	22° II 14'38	0.54884 AU
morning rise	3145 Jul 12 06:02	8° E 29'01		morning rise	3146 Jun 22 03:13	18° II 37'34	
direct	3145 Jul 15 06:38	8° E 08'19		direct	3146 Jun 25 16:00	18° II 10'39	
morning max el	3145 Jul 26 19:53	13° E 30'51	21°12'46	morning max el	3146 Jul 08 16:24	24° II 24'44	22°49'57
	3145 Aug 07 21:52	0° O			3146 Jul 13 18:48	0° E	
asc. node	3145 Aug 08 13:57	1° O 11'39		asc. node	3146 Jul 26 11:00	20° E 28'36	
morning set	3145 Aug 15 18:05	15° O 13'58		morning set	3146 Jul 31 04:53	0° O 06'36	
	3145 Aug 22 19:42	0° M			3146 Jul 31 03:38	0° O	
superior conj	3145 Aug 23 03:00	0° M 37'51	1°43'46	superior conj	3146 Aug 07 07:17	15° O 16'21	1°36'42
minimum elong	3145 Aug 23 02:14	0° M 33'50	1°43'44	minimum elong	3146 Aug 07 05:29	15° O 06'46	1°36'34
max. Earth dist.	3145 Aug 27 10:08	9° M 21'36	1.35367 AU	max. Earth dist.	3146 Aug 10 04:55	21° O 23'47	1.33941 AU
evening rise	3145 Aug 31 15:19	17° M 32'23			3146 Aug 14 10:13	0° M	
	3145 Sep 07 12:50	0° A		evening rise	3146 Aug 15 01:48	1° M 17'09	
desc. node	3145 Sep 15 03:21	12° A 26'55			3146 Aug 31 11:44	0° A	
	3145 Sep 27 14:26	0° M		desc. node	3146 Sep 02 00:21	2° A 18'22	
evening max el	3145 Oct 06 01:51	9° M 30'12	26°34'09	evening max el	3146 Sep 18 14:05	22° A 58'41	27°13'54
retrograde	3145 Oct 18 23:50	16° M 44'11			3146 Sep 29 14:44	0° M	
evening set	3145 Oct 25 12:19	14° M 04'37		retrograde	3146 Oct 01 23:53	0° M 17'03	
min. Earth dist.	3145 Oct 29 14:19	9° M 51'56	0.66135 AU		3146 Oct 04 06:59	30° R A	
inferior conj	3145 Oct 31 06:59	7° M 50'02	-1°26'47	evening set	3146 Oct 08 22:55	27° A 34'43	
minimum elong	3145 Oct 31 09:21	7° M 42'57	1°25'47	min. Earth dist.	3146 Oct 12 18:36	23° A 57'27	0.64845 AU
asc. node	3145 Nov 04 13:09	3° M 18'09		inferior conj	3146 Oct 14 23:27	21° A 32'06	-2°26'56
morning rise	3145 Nov 06 07:01	2° M 05'33		minimum elong	3146 Oct 15 03:29	21° A 20'58	2°25'24
direct	3145 Nov 09 05:33	1° M 17'04		morning rise	3146 Oct 21 09:05	16° A 01'13	
morning max el	3145 Nov 15 20:58	4° M 55'06	18°30'52	asc. node	3146 Oct 22 10:12	15° A 37'59	
	3145 Dec 03 05:41	0° J		direct	3146 Oct 24 00:28	15° A 24'31	
morning set	3145 Dec 06 00:25	4° J 26'47		morning max el	3146 Oct 30 12:21	18° A 52'23	18°02'02
desc. node	3145 Dec 12 02:41	14° J 09'13			3146 Nov 07 18:40	0° M	
				morning set	3146 Nov 17 06:24	15° M 37'18	
superior conj	3145 Dec 21 20:12	29° J 29'20	-1°02'47		3146 Nov 25 23:26	0° J	
minimum elong	3145 Dec 21 12:31	28° J 59'10	1°01'51	desc. node	3146 Nov 28 23:40	4° J 52'14	
	3145 Dec 22 04:01	0° Z					
max. Earth dist.	3145 Dec 22 10:00	0° Z 23'27	1.45210 AU	superior conj	3146 Dec 01 04:26	8° J 23'43	-0°14'56
evening rise	3146 Jan 06 19:02	24° Z 35'59		minimum elong	3146 Dec 01 02:35	8° J 16'21	0°14'41
	3146 Jan 10 04:46	0° \approx		behind sun begin	3146 Nov 30 22:04	7° J 58'16	
greatest brilliancy	3146 Jan 16 02:52	9° \approx 21'02	-0.8m	behind sun end	3146 Dec 01 07:06	8° J 34'24	

max. Earth dist.	3146 Dec 05 04:48	14°  46'08	1.44911 AU	morning max el	3147 Oct 14 04:45	2°  43'24	17°50'50
	3146 Dec 14 22:55	0° 		morning set	3147 Oct 30 13:21	28°  00'21	
evening rise	3146 Dec 17 12:32	3°  58'08			3147 Oct 31 16:41	0° 	
greatest brilliancy	3146 Dec 31 10:26	25°  09'39	-0.6m				
	3147 Jan 03 18:07	0° 		superior conj	3147 Nov 11 11:19	18°  26'25	0°29'56
evening max el	3147 Jan 12 09:11	10°  58'41	19°54'14	minimum elong	3147 Nov 11 14:16	18°  38'40	0°29'32
asc. node	3147 Jan 18 09:28	15°  09'44		desc. node	3147 Nov 15 20:41	25°  39'06	
retrograde	3147 Jan 19 22:34	15°  22'48		max. Earth dist.	3147 Nov 17 21:53	28°  37'43	1.43917 AU
evening set	3147 Jan 23 14:14	14°  04'50			3147 Nov 18 13:26	0° 	
inferior conj	3147 Jan 29 00:42	8°  04'06	3°01'26	evening rise	3147 Nov 26 21:33	13°  27'05'47	
minimum elong	3147 Jan 28 22:16	8°  12'13	3°00'52		3147 Dec 08 01:47	0° 	
min. Earth dist.	3147 Jan 29 23:43	6°  47'18	0.66936 AU	evening max el	3147 Dec 26 09:26	24°  30'32	20°59'29
morning rise	3147 Feb 03 06:04	1°  50'31		retrograde	3148 Jan 03 20:23	29°  30'58	
	3147 Feb 05 20:36	30°  10'54		asc. node	3148 Jan 05 06:30	29°  31'49	
direct	3147 Feb 09 05:00	29°  10'54		evening set	3148 Jan 07 21:35	27°  35'54	
	3147 Feb 12 19:58	0° 		inferior conj	3148 Jan 13 06:13	21°  34'56	2°27'27
morning max el	3147 Feb 21 03:36	6°  18'40	25°16'08	minimum elong	3148 Jan 13 03:42	21°  35'27	2°26'41
desc. node	3147 Feb 24 22:54	10°  27'15		min. Earth dist.	3148 Jan 13 16:25	21°  31'03'9	0.67617 AU
	3147 Mar 11 12:27	0° 		morning rise	3148 Jan 18 09:38	15°  32'54	
morning set	3147 Mar 29 08:49	29°  17'49		direct	3148 Jan 23 18:03	13°  31'49	
	3147 Mar 29 18:10	0° 		morning max el	3148 Feb 03 12:02	19°  36'06	23°49'11
max. Earth dist.	3147 Apr 02 00:57	6°  02'28	1.36481 AU	desc. node	3148 Feb 11 19:55	29°  32'00	
					3148 Feb 12 07:55	0° 	
superior conj	3147 Apr 08 03:28	17°  08'40	-1°17'21		3148 Mar 03 16:41	0° 	
minimum elong	3147 Apr 08 07:24	18°  08'12	1°16'44	morning set	3148 Mar 10 00:07	10°  32'46	
	3147 Apr 14 04:41	0° 		max. Earth dist.	3148 Mar 13 20:27	17°  31'45	1.38563 AU
evening rise	3147 Apr 16 08:51	4°  24'23			3148 Mar 20 20:28	0° 	
asc. node	3147 Apr 16 08:45	4°  23'53					
	3147 May 01 07:51	0° 		superior conj	3148 Mar 21 04:34	0° 	-1°42'01
evening max el	3147 May 03 17:24	2°  36'03	19°42'50	minimum elong	3148 Mar 21 09:07	0° 	1°41'31
retrograde	3147 May 13 13:15	7°  21'54		evening rise	3148 Mar 30 06:05	18°  09'11'37	
evening set	3147 May 15 12:58	7°  21'05		asc. node	3148 Apr 02 05:47	23°  09'58'45	
desc. node	3147 May 23 22:05	3°  23'36			3148 Apr 05 11:21	0° 	
inferior conj	3147 May 24 07:39	3°  28'43	-0°07'01	evening max el	3148 Apr 15 15:41	14°  34'13'6	18°50'52
minimum elong	3147 May 24 07:20	3°  29'12	0°06'54	retrograde	3148 Apr 23 22:32	18°  34'41'2	
transit middle	3147 May 24 07:20	3°  29'12	0°06'54	evening set	3148 Apr 26 02:56	18°  32'27	
transit begin	3147 May 24 03:47	3°  21'44		inferior conj	3148 May 04 02:04	14°  30'9'34	1°35'19
transit end	3147 May 24 10:53	3°  23'40		minimum elong	3148 May 04 05:22	14°  30'33'6	1°34'14
min. Earth dist.	3147 May 26 15:14	1°  24'23	0.55590 AU	min. Earth dist.	3148 May 07 07:23	11°  30'47	0.57107 AU
	3147 May 29 15:37	30°  18'38		desc. node	3148 May 09 19:07	10°  31'15'15	
morning rise	3147 Jun 01 23:17	28°  36'36		morning rise	3148 May 12 04:38	9°  30'2'32	
direct	3147 Jun 06 08:28	27°  35'54		direct	3148 May 17 14:05	7°  32'20	
	3147 Jun 13 20:29	0° 		morning max el	3148 May 31 21:57	15°  32'0'14	26°05'52
morning max el	3147 Jun 20 06:56	4°  25'1'50	24°32'39		3148 Jun 12 17:15	0° 	
	3147 Jul 08 03:14	0° 		morning set	3148 Jun 29 03:51	29°  32'53'40	
asc. node	3147 Jul 13 08:01	10°  30'6'43		asc. node	3148 Jun 29 05:02	29°  32'59'56	
morning set	3147 Jul 15 16:40	15°  30'1'28			3148 Jun 29 05:03	0° 	
superior conj	3147 Jul 22 16:02	0°  30'6'52	1°24'13	superior conj	3148 Jul 06 03:12	15°  32'02'44	1°07'10
minimum elong	3147 Jul 22 13:44	29°  30'54'20	1°23'56	minimum elong	3148 Jul 06 00:53	14°  32'50'01	1°06'46
	3147 Jul 22 14:46	0° 		max. Earth dist.	3148 Jul 06 18:05	16°  32'24'35	1.32311 AU
max. Earth dist.	3147 Jul 24 08:28	3°  30'46'02	1.32923 AU	evening rise	3148 Jul 13 02:37	0° 	
evening rise	3147 Jul 29 22:37	15°  31'25			3148 Jul 13 01:32	0° 	
	3147 Aug 06 10:56	0° 			3148 Jul 29 13:18	0° 	
desc. node	3147 Aug 19 21:22	21°  37'00		desc. node	3148 Aug 05 18:24	10°  37'08'58	
	3147 Aug 26 08:32	0° 		evening max el	3148 Aug 13 07:04	18°  37'33'30	27°06'20
evening max el	3147 Sep 01 00:45	6°  30'4'32	27°26'16	retrograde	3148 Aug 27 03:54	25°  37'46'22	
retrograde	3147 Sep 14 17:31	13°  30'20'56		evening set	3148 Sep 03 05:52	23°  37'31'30	
evening set	3147 Sep 21 22:07	10°  30'46'09		min. Earth dist.	3148 Sep 06 21:21	20°  37'48'58	0.61298 AU
min. Earth dist.	3147 Sep 25 13:22	7°  30'40'45	0.63214 AU	inferior conj	3148 Sep 10 00:30	18°  37'05'04	-4°17'23
inferior conj	3147 Sep 28 06:22	5°  30'00'01	-3°25'25	minimum elong	3148 Sep 10 06:05	17°  37'52'50	4°16'08
minimum elong	3147 Sep 28 11:44	4°  30'46'43	3°23'44	morning rise	3148 Sep 17 08:03	13°  37'11'44	
	3147 Oct 04 13:32	30°  37'08		direct	3148 Sep 19 17:18	12°  37'48'23	
morning rise	3147 Oct 05 02:43	29°  37'46'06		asc. node	3148 Sep 25 04:16	14°  37'55'31	
direct	3147 Oct 07 13:35	29°  37'17'35		morning max el	3148 Sep 26 19:05	16°  37'20'20	17°58'14
asc. node	3147 Oct 09 07:14	29°  37'32'11			3148 Oct 06 08:55	0° 	
	3147 Oct 10 12:41	0° 		morning set	3148 Oct 12 14:43	11°  37'15'51	

superior conj	3148 Oct 22 21:11	29° Ω 48'18	1°04'52	asc. node	3149 Sep 12 01:19	1° \mathbb{M} 34'46	
minimum elong	3148 Oct 23 01:31	0° \mathbb{M} 07'17	1°04'20	morning set	3149 Sep 26 05:10	25° \mathbb{M} 08'48	
	3148 Oct 22 23:51	0° \mathbb{M}			3149 Sep 28 17:50	0° Ω	
max. Earth dist.	3148 Oct 30 10:37	12° \mathbb{M} 40'14	1.42344 AU				
desc. node	3148 Nov 01 17:42	16° \mathbb{M} 26'08		superior conj	3149 Oct 05 06:22	12° Ω 19'00	1°28'15
evening rise	3148 Nov 05 14:30	22° \mathbb{M} 38'41		minimum elong	3149 Oct 05 09:49	12° Ω 34'54	1°27'55
	3148 Nov 10 07:31	0° \mathbb{M}		max. Earth dist.	3149 Oct 12 17:47	25° Ω 40'17	1.40393 AU
	3148 Dec 01 06:18	0° \mathbb{Z}			3149 Oct 15 06:42	0° \mathbb{M}	
evening max el	3148 Dec 08 04:12	8° \mathbb{Z} 03'23	22°14'29	evening rise	3149 Oct 17 03:40	3° \mathbb{M} 07'57	
retrograde	3148 Dec 17 16:44	13° \mathbb{Z} 43'16		desc. node	3149 Oct 19 14:45	7° \mathbb{M} 10'04	
evening set	3148 Dec 22 05:11	11° \mathbb{Z} 54'04			3149 Nov 03 14:35	0° \mathbb{M}	
asc. node	3148 Dec 22 03:32	11° \mathbb{Z} 57'26		evening max el	3149 Nov 20 18:47	21° \mathbb{M} 39'04	23°34'12
inferior conj	3148 Dec 27 13:39	5° \mathbb{Z} 33'49	1°45'48	retrograde	3149 Dec 01 10:16	27° \mathbb{M} 56'34	
minimum elong	3148 Dec 27 11:31	5° \mathbb{Z} 41'12	1°45'02	evening set	3149 Dec 06 11:29	25° \mathbb{M} 50'54	
min. Earth dist.	3148 Dec 27 12:18	5° \mathbb{Z} 38'30	0.67917 AU	asc. node	3149 Dec 09 00:34	23° \mathbb{M} 12'21	
	3149 Jan 01 01:28	30° \mathbb{R} \mathbb{M}		inferior conj	3149 Dec 11 21:11	19° \mathbb{M} 26'26	0°57'50
morning rise	3149 Jan 01 17:43	29° \mathbb{M} 23'12		minimum elong	3149 Dec 11 19:52	19° \mathbb{M} 30'56	0°57'18
direct	3149 Jan 06 11:08	27° \mathbb{M} 24'34		min. Earth dist.	3149 Dec 11 09:02	20° \mathbb{M} 07'58	0.67860 AU
	3149 Jan 12 14:22	0° \mathbb{Z}		morning rise	3149 Dec 17 04:13	13° \mathbb{M} 19'53	
morning max el	3149 Jan 15 23:01	3° \mathbb{Z} 00'10	22°20'52	direct	3149 Dec 21 07:25	11° \mathbb{M} 44'05	
desc. node	3149 Jan 28 16:57	18° \mathbb{Z} 51'40		morning max el	3149 Dec 29 15:59	16° \mathbb{M} 34'22	20°59'13
	3149 Feb 05 09:58	0° \approx			3150 Jan 09 10:39	0° \mathbb{Z}	
morning set	3149 Feb 18 11:33	20° \approx 20'00		desc. node	3150 Jan 15 14:01	8° \mathbb{Z} 49'17	
max. Earth dist.	3149 Feb 23 17:19	29° \approx 01'04	1.40727 AU	morning set	3150 Jan 28 19:36	28° \mathbb{Z} 55'14	
	3149 Feb 24 07:14	0° \mathbb{H}			3150 Jan 29 12:07	0° \approx	
				max. Earth dist.	3150 Feb 05 20:29	11° \approx 44'42	1.42689 AU
superior conj	3149 Mar 03 12:16	12° \mathbb{H} 34'49	-1°59'59				
minimum elong	3149 Mar 03 15:44	12° \mathbb{H} 50'21	1°59'47	superior conj	3150 Feb 12 21:30	23° \approx 27'27	-2°06'32
	3149 Mar 12 22:57	0° \mathbb{Y}		minimum elong	3150 Feb 12 21:10	23° \approx 26'04	2°06'32
evening rise	3149 Mar 13 16:52	1° \mathbb{Y} 24'09			3150 Feb 16 16:54	0° \mathbb{H}	
asc. node	3149 Mar 20 02:50	13° \mathbb{Y} 12'11		evening rise	3150 Feb 24 13:20	13° \mathbb{H} 53'33	
evening max el	3149 Mar 29 21:57	27° \mathbb{Y} 19'15	18°19'09		3150 Mar 05 18:35	0° \mathbb{Y}	
	3149 Apr 02 12:14	0° \mathbb{B}		asc. node	3150 Mar 06 23:52	1° \mathbb{Y} 57'12	
retrograde	3149 Apr 06 03:01	0° \mathbb{B} 54'36		evening max el	3150 Mar 13 09:00	10° \mathbb{Y} 20'31	18°07'13
evening set	3149 Apr 08 13:41	0° \mathbb{B} 30'50		retrograde	3150 Mar 19 23:43	13° \mathbb{Y} 44'12	
	3149 Apr 09 20:58	30° \mathbb{R} \mathbb{Y}		evening set	3150 Mar 22 16:17	13° \mathbb{Y} 10'27	
inferior conj	3149 Apr 15 17:59	25° \mathbb{Y} 51'40	2°45'38	inferior conj	3150 Mar 29 05:17	8° \mathbb{Y} 10'51	3°24'48
minimum elong	3149 Apr 15 21:37	25° \mathbb{Y} 43'56	2°44'48	minimum elong	3150 Mar 29 07:27	8° \mathbb{Y} 05'33	3°24'32
min. Earth dist.	3149 Apr 19 04:23	22° \mathbb{Y} 58'30	0.59116 AU	min. Earth dist.	3150 Apr 01 08:36	5° \mathbb{Y} 08'00	0.61288 AU
morning rise	3149 Apr 23 02:51	20° \mathbb{Y} 15'28		morning rise	3150 Apr 04 20:48	2° \mathbb{Y} 15'54	
desc. node	3149 Apr 26 16:08	18° \mathbb{Y} 49'37			3150 Apr 10 13:16	30° \mathbb{R} \mathbb{H}	
direct	3149 Apr 29 09:07	18° \mathbb{Y} 29'49		direct	3150 Apr 11 15:41	29° \mathbb{H} 56'25	
morning max el	3149 May 13 18:13	26° \mathbb{Y} 16'26	27°14'26		3150 Apr 12 18:26	0° \mathbb{Y}	
	3149 May 17 06:22	0° \mathbb{B}		desc. node	3150 Apr 13 13:12	0° \mathbb{Y} 06'40	
	3149 Jun 06 03:09	0° \mathbb{H}		morning max el	3150 Apr 25 20:47	7° \mathbb{Y} 52'51	27°48'07
morning set	3149 Jun 13 12:47	14° \mathbb{H} 37'50			3150 May 12 17:44	0° \mathbb{B}	
asc. node	3149 Jun 16 02:06	20° \mathbb{H} 03'09		morning set	3150 May 28 17:31	29° \mathbb{B} 06'36	
					3150 May 29 03:53	0° \mathbb{H}	
superior conj	3149 Jun 20 15:01	29° \mathbb{H} 58'10	0°46'13	asc. node	3150 Jun 02 23:08	10° \mathbb{H} 10'54	
minimum elong	3149 Jun 20 13:09	29° \mathbb{H} 47'54	0°45'51	max. Earth dist.	3150 Jun 03 16:34	11° \mathbb{H} 45'27	1.32264 AU
max. Earth dist.	3149 Jun 20 06:08	29° \mathbb{H} 09'12	1.32087 AU				
	3149 Jun 20 15:21	0° \mathbb{B}		superior conj	3150 Jun 05 01:42	14° \mathbb{H} 46'17	0°22'02
evening rise	3149 Jun 27 11:18	14° \mathbb{B} 52'02		minimum elong	3150 Jun 05 00:42	14° \mathbb{H} 40'50	0°21'49
	3149 Jul 05 01:21	0° \mathbb{Q}		evening rise	3150 Jun 11 22:28	29° \mathbb{H} 42'23	
desc. node	3149 Jul 23 15:25	27° \mathbb{Q} 35'21			3150 Jun 12 01:47	0° \mathbb{B}	
	3149 Jul 25 23:50	0° \mathbb{M}			3150 Jun 28 15:51	0° \mathbb{Q}	
evening max el	3149 Jul 26 06:36	0° \mathbb{M} 16'12	26°13'27	evening max el	3150 Jul 07 23:01	11° \mathbb{Q} 12'43	24°53'15
retrograde	3149 Aug 09 06:04	7° \mathbb{M} 26'18		desc. node	3150 Jul 10 12:27	13° \mathbb{Q} 28'36	
evening set	3149 Aug 15 17:29	5° \mathbb{M} 43'32		retrograde	3150 Jul 21 21:57	18° \mathbb{Q} 16'55	
min. Earth dist.	3149 Aug 19 19:24	3° \mathbb{M} 08'09	0.59233 AU	evening set	3150 Jul 27 05:12	17° \mathbb{Q} 12'57	
inferior conj	3149 Aug 23 02:22	0° \mathbb{M} 38'18	-4°54'39	min. Earth dist.	3150 Aug 01 10:28	14° \mathbb{Q} 25'50	0.57260 AU
minimum elong	3149 Aug 23 06:00	0° \mathbb{M} 31'22	4°54'16	inferior conj	3150 Aug 04 08:48	12° \mathbb{Q} 29'42	-5°04'41
	3149 Aug 23 22:35	30° \mathbb{R} \mathbb{Q}		minimum elong	3150 Aug 04 07:39	12° \mathbb{Q} 31'36	5°04'40
morning rise	3149 Aug 30 20:41	26° \mathbb{Q} 07'54		morning rise	3150 Aug 12 12:41	8° \mathbb{Q} 21'11	
direct	3149 Sep 02 07:08	25° \mathbb{Q} 47'29		direct	3150 Aug 15 02:54	8° \mathbb{Q} 02'01	
morning max el	3149 Sep 10 04:14	29° \mathbb{Q} 35'11	18°25'26	morning max el	3150 Aug 24 04:51	12° \mathbb{Q} 17'13	19°13'42
	3149 Sep 10 14:21	0° \mathbb{M}		asc. node	3150 Aug 29 22:23	19° \mathbb{Q} 13'54	

	3150 Sep 05 07:35	0°♎		morning rise	3151 Jul 24 07:29	19°♎41'48	
morning set	3150 Sep 10 04:40	9°♎27'30		direct	3151 Jul 27 03:44	19°♎22'10	
				morning max el	3151 Aug 06 18:18	24°♎17'24	20°23'31
superior conj	3150 Sep 18 09:14	25°♎41'30	1°41'03		3151 Aug 11 18:52	0°♏	
minimum elong	3150 Sep 18 10:57	25°♎49'53	1°40'57	asc. node	3151 Aug 16 19:26	7°♏39'23	
	3150 Sep 20 15:02	0°♏		morning set	3151 Aug 25 10:16	24°♏04'15	
max. Earth dist.	3150 Sep 24 21:38	7°♏57'29	1.38319 AU		3151 Aug 28 07:25	0°♐	
evening rise	3150 Sep 28 16:30	14°♏42'31					
desc. node	3150 Oct 06 11:46	27°♏46'21		superior conj	3151 Sep 02 00:51	9°♐41'57	1°44'55
	3150 Oct 07 21:19	0°♑		minimum elong	3151 Sep 02 00:53	9°♐42'07	1°44'56
	3150 Oct 29 09:30	0°♑		max. Earth dist.	3151 Sep 07 04:02	19°♐51'36	1.36367 AU
evening max el	3150 Nov 03 07:19	5°♑18'36	24°52'22	evening rise	3151 Sep 11 02:33	27°♐16'41	
retrograde	3150 Nov 14 23:49	12°♑06'11			3151 Sep 12 14:24	0°♒	
evening set	3150 Nov 20 14:49	9°♑45'00		desc. node	3151 Sep 23 08:47	18°♒10'22	
min. Earth dist.	3150 Nov 25 04:16	4°♑35'55	0.67457 AU		3151 Oct 01 06:29	0°♓	
asc. node	3150 Nov 25 21:36	3°♑38'41		evening max el	3151 Oct 16 19:39	19°♓00'09	26°01'31
inferior conj	3150 Nov 26 03:02	3°♑20'46	0°04'39	retrograde	3151 Oct 29 08:24	26°♓06'52	
minimum elong	3150 Nov 26 02:55	3°♑21'09	0°04'36	evening set	3151 Nov 04 13:21	23°♓32'51	
transit middle	3150 Nov 26 02:55	3°♑21'09	0°04'36	min. Earth dist.	3151 Nov 08 19:30	18°♓59'12	0.66720 AU
transit begin	3150 Nov 26 00:16	3°♑29'54		inferior conj	3151 Nov 10 05:20	17°♓13'32	-0°52'34
transit end	3150 Nov 26 05:33	3°♑12'24		minimum elong	3151 Nov 10 06:43	17°♓09'11	0°51'58
	3150 Nov 28 18:55	30°♒♓		asc. node	3151 Nov 12 18:40	14°♓10'52	
morning rise	3150 Dec 01 15:09	27°♓20'31		morning rise	3151 Nov 16 00:29	11°♓22'18	
direct	3150 Dec 05 05:41	26°♓05'37		direct	3151 Nov 19 04:18	10°♓25'06	
	3150 Dec 12 08:47	0°♑		morning max el	3151 Nov 26 00:41	14°♓13'03	18°54'55
morning max el	3150 Dec 12 16:39	0°♑19'27	19°49'37		3151 Dec 07 18:03	0°♑	
desc. node	3151 Jan 02 11:03	29°♑06'15		morning set	3151 Dec 18 00:47	15°♑59'52	
	3151 Jan 03 01:08	0°♒		desc. node	3151 Dec 20 08:04	19°♑36'30	
morning set	3151 Jan 07 15:35	7°♒04'12			3151 Dec 26 23:14	0°♓	
max. Earth dist.	3151 Jan 19 07:07	25°♒18'11	1.44190 AU	max. Earth dist.	3152 Jan 01 23:45	9°♒26'48	1.45052 AU
	3151 Jan 22 05:36	0°♓					
				superior conj	3152 Jan 03 13:40	11°♒56'02	-1°27'06
superior conj	3151 Jan 24 04:50	3°♓10'35	-1°56'30	minimum elong	3152 Jan 03 04:35	11°♒20'13	1°26'10
minimum elong	3151 Jan 23 22:44	2°♓45'53	1°56'09		3152 Jan 14 22:10	0°♓	
evening rise	3151 Feb 06 15:04	25°♓31'42		evening rise	3152 Jan 18 18:17	6°♓12'15	
	3151 Feb 09 06:00	0°♈			3152 Feb 02 18:41	0°♈	
asc. node	3151 Feb 21 20:55	20°♈05'20		evening max el	3152 Feb 08 09:24	7°♈03'17	18°39'55
evening max el	3151 Feb 24 21:45	23°♈37'45	18°14'23	asc. node	3152 Feb 08 17:58	7°♈24'40	
retrograde	3151 Mar 03 08:15	27°♈03'45		retrograde	3152 Feb 15 00:26	10°♈43'53	
evening set	3151 Mar 06 06:27	26°♈18'47		evening set	3152 Feb 18 04:37	9°♈46'47	
inferior conj	3151 Mar 12 08:02	20°♈59'36	3°39'08	inferior conj	3152 Feb 23 22:11	4°♈09'34	3°34'55
minimum elong	3151 Mar 12 08:20	20°♈58'45	3°39'08	minimum elong	3152 Feb 23 20:59	4°♈13'12	3°34'49
min. Earth dist.	3151 Mar 14 21:43	18°♈10'28	0.63331 AU	min. Earth dist.	3152 Feb 25 20:12	1°♈50'36	0.65052 AU
morning rise	3151 Mar 18 09:15	14°♈54'23			3152 Feb 27 11:09	30°♈♓	
direct	3151 Mar 25 07:14	12°♈11'50		morning rise	3152 Feb 29 12:53	27°♓59'01	
desc. node	3151 Mar 31 10:14	13°♈59'32		direct	3152 Mar 07 05:50	25°♓07'52	
morning max el	3151 Apr 08 04:07	20°♈09'07	27°44'14	desc. node	3152 Mar 17 07:16	29°♓53'53	
	3151 Apr 16 14:54	0°♐			3152 Mar 17 10:09	0°♈	
	3151 May 05 17:44	0°♉		morning max el	3152 Mar 20 13:43	2°♈55'56	27°06'18
morning set	3151 May 12 15:47	13°♉12'53			3152 Apr 09 22:19	0°♐	
max. Earth dist.	3151 May 17 21:32	24°♉01'13	1.32868 AU	morning set	3152 Apr 25 04:37	26°♐47'16	
					3152 Apr 26 20:07	0°♉	
superior conj	3151 May 20 09:29	29°♉21'33	-0°04'42	max. Earth dist.	3152 Apr 29 17:25	5°♉47'01	1.33922 AU
minimum elong	3151 May 20 09:43	29°♉22'48	0°04'39				
behind sun begin	3151 May 20 04:38	28°♉55'28		superior conj	3152 May 03 12:21	13°♉37'18	-0°33'00
behind sun end	3151 May 20 14:48	29°♉50'10		minimum elong	3152 May 03 14:03	13°♉46'13	0°32'38
asc. node	3151 May 20 20:12	0°♊19'18		asc. node	3152 May 06 17:15	20°♉23'51	
	3151 May 20 16:38	0°♊		evening rise	3152 May 10 20:53	29°♉10'44	
evening rise	3151 May 27 10:17	14°♊30'48			3152 May 11 06:19	0°♊	
	3151 Jun 04 04:55	0°♋			3152 May 29 03:18	0°♋	
evening max el	3151 Jun 19 12:22	21°♋41'29	23°18'06	evening max el	3152 May 31 06:01	2°♋13'13	21°43'29
desc. node	3151 Jun 27 09:27	27°♋14'31		retrograde	3152 Jun 12 16:47	8°♋21'09	
retrograde	3151 Jul 03 01:04	28°♋27'05		desc. node	3152 Jun 13 06:28	8°♋20'24	
evening set	3151 Jul 06 20:10	27°♋55'35		evening set	3152 Jun 15 06:05	8°♋06'28	
min. Earth dist.	3151 Jul 13 22:06	24°♋41'55	0.55716 AU	inferior conj	3152 Jun 24 15:25	4°♋04'26	-3°10'46
inferior conj	3151 Jul 15 19:18	23°♋35'26	-4°32'25	minimum elong	3152 Jun 24 07:27	4°♋15'34	3°08'20
minimum elong	3151 Jul 15 12:37	23°♋45'20	4°31'14	min. Earth dist.	3152 Jun 24 09:04	4°♋13'19	0.54920 AU





























































































































































































































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	3152 Jul 04 08:11	30°♊II		min. Earth dist.	3153 Jun 05 21:25	13°♊31'56	0.55069 AU
direct	3152 Jul 06 15:14	29°♊II48'20		morning rise	3153 Jun 13 05:19	10°♊10'09	
	3152 Jul 08 21:18	0°☿		direct	3153 Jun 17 01:44	9°♊38'07	
morning max el	3152 Jul 18 20:08	5°☿32'32	21°52'44	morning max el	3153 Jun 30 13:23	16°♊11'47	23°34'01
asc. node	3152 Aug 02 16:29	26°☿40'03			3153 Jul 11 12:57	0°☿	
	3152 Aug 04 10:24	0°♊		asc. node	3153 Jul 20 13:30	16°☿06'40	
morning set	3152 Aug 08 19:44	8°♊52'45		morning set	3153 Jul 24 07:08	23°☿46'53	
					3153 Jul 27 05:02	0°♊	
superior conj	3152 Aug 16 01:22	24°♊09'07	1°41'29	superior conj	3153 Jul 31 07:48	8°♊53'23	1°32'01
minimum elong	3152 Aug 16 00:06	24°♊02'27	1°41'26	minimum elong	3153 Jul 31 05:43	8°♊42'13	1°31'49
	3152 Aug 18 20:59	0°♊		max. Earth dist.	3153 Aug 02 16:42	13°♊57'30	1.33450 AU
max. Earth dist.	3152 Aug 19 17:56	1°♊46'57	1.34712 AU	evening rise	3153 Aug 07 20:36	24°♊36'54	
evening rise	3152 Aug 24 05:21	10°♊38'53			3153 Aug 10 14:26	0°♊	
	3152 Sep 04 01:00	0°♊		desc. node	3153 Aug 27 02:48	27°♊55'10	
desc. node	3152 Sep 09 05:46	8°♊16'11			3153 Aug 28 13:32	0°♊	
	3152 Sep 25 18:18	0°♊		evening max el	3153 Sep 10 19:50	15°♊56'33	27°22'51
evening max el	3152 Sep 28 08:11	2°♊36'47	26°54'04	retrograde	3153 Sep 24 08:50	23°♊14'41	
retrograde	3152 Oct 11 11:32	9°♊52'45		evening set	3153 Oct 01 11:13	20°♊33'49	
evening set	3152 Oct 18 05:03	7°♊11'03		min. Earth dist.	3153 Oct 05 04:33	17°♊11'13	0.64190 AU
min. Earth dist.	3152 Oct 22 04:19	3°♊13'41	0.65633 AU	inferior conj	3153 Oct 07 14:47	14°♊37'55	-2°52'10
inferior conj	3152 Oct 24 02:04	1°♊01'18	-1°52'14	minimum elong	3153 Oct 07 19:28	14°♊25'34	2°50'31
minimum elong	3152 Oct 24 05:09	0°♊52'21	1°51'00	morning rise	3153 Oct 14 04:55	9°♊14'09	
	3152 Oct 24 23:24	30°♊♊		direct	3153 Oct 16 18:04	8°♊41'20	
asc. node	3152 Oct 29 15:42	25°♊42'09		asc. node	3153 Oct 16 12:43	8°♊41'35	
morning rise	3152 Oct 30 06:00	25°♊22'10		morning max el	3153 Oct 23 06:26	12°♊07'05	17°55'10
direct	3152 Nov 02 01:18	24°♊39'00			3153 Nov 04 13:17	0°♊	
morning max el	3152 Nov 08 14:12	28°♊11'17	18°16'31	morning set	3153 Nov 09 07:35	8°♊05'58	
	3152 Nov 10 06:10	0°♊					
morning set	3152 Nov 27 14:11	26°♊22'09		superior conj	3153 Nov 22 08:32	29°♊50'29	0°05'01
	3152 Nov 29 19:52	0°♊		minimum elong	3153 Nov 22 09:07	29°♊52'49	0°04'57
desc. node	3152 Dec 06 05:04	10°♊16'17		behind sun begin	3153 Nov 21 23:25	29°♊13'28	
				behind sun end	3153 Nov 22 18:49	0°♊32'07	
superior conj	3152 Dec 12 15:55	20°♊30'07	-0°42'48		3153 Nov 22 10:53	0°♊	
minimum elong	3152 Dec 12 10:28	20°♊08'37	0°42'05	desc. node	3153 Nov 23 02:05	1°♊01'28	
max. Earth dist.	3152 Dec 14 19:14	23°♊51'54	1.45180 AU	max. Earth dist.	3153 Nov 27 13:46	8°♊12'30	1.44569 AU
	3152 Dec 18 17:09	0°♊		evening rise	3153 Dec 08 10:45	25°♊10'45	
evening rise	3152 Dec 28 22:41	15°♊59'18			3153 Dec 11 14:12	0°♊	
	3153 Jan 06 22:32	0°♊			3154 Jan 01 07:49	0°♊	
greatest brilliancy	3153 Jan 09 09:41	3°♊47'13	-0.7m	evening max el	3154 Jan 04 20:59	4°♊03'27	20°20'26
evening max el	3153 Jan 21 17:40	20°♊32'42	19°22'33	retrograde	3154 Jan 12 19:01	8°♊42'48	
asc. node	3153 Jan 25 14:59	23°♊41'55		asc. node	3154 Jan 12 12:00	8°♊42'20	
retrograde	3153 Jan 28 20:57	24°♊38'32		evening set	3154 Jan 16 14:31	7°♊18'32	
evening set	3153 Feb 01 08:02	23°♊28'24		inferior conj	3154 Jan 21 23:57	1°♊12'18	2°48'02
inferior conj	3153 Feb 06 20:24	17°♊35'15	3°16'50	minimum elong	3154 Jan 21 21:25	1°♊20'53	2°47'23
minimum elong	3153 Feb 06 18:15	17°♊42'13	3°16'27	min. Earth dist.	3154 Jan 22 17:17	0°♊13'28	0.67273 AU
min. Earth dist.	3153 Feb 08 03:19	15°♊55'02	0.66370 AU		3154 Jan 22 21:17	30°♊♊	
morning rise	3153 Feb 12 04:15	11°♊22'11		morning rise	3154 Jan 27 04:08	24°♊58'38	
direct	3153 Feb 18 10:38	8°♊35'36		direct	3154 Feb 01 20:54	22°♊26'24	
morning max el	3153 Mar 02 23:23	16°♊02'05	26°01'40	morning max el	3154 Feb 13 08:05	29°♊17'23	24°39'54
desc. node	3153 Mar 04 04:18	17°♊16'57			3154 Feb 14 00:42	0°♊	
	3153 Mar 14 12:40	0°♊		desc. node	3154 Feb 19 01:20	5°♊43'10	
	3153 Apr 02 19:14	0°♊			3154 Mar 08 08:29	0°♊	
morning set	3153 Apr 08 04:05	9°♊38'35		morning set	3154 Mar 21 09:01	21°♊32'22	
max. Earth dist.	3153 Apr 12 01:59	17°♊02'50	1.35431 AU	max. Earth dist.	3154 Mar 25 00:31	28°♊05'03	1.37336 AU
					3154 Mar 26 01:32	0°♊	
superior conj	3153 Apr 17 07:48	27°♊26'31	-1°01'33	superior conj	3154 Mar 31 16:45	10°♊40'57	-1°28'23
minimum elong	3153 Apr 17 11:00	27°♊42'47	1°00'58	minimum elong	3154 Mar 31 21:05	11°♊02'04	1°27'48
	3153 Apr 18 13:56	0°♊		evening rise	3154 Apr 09 05:59	27°♊39'42	
asc. node	3153 Apr 23 14:17	10°♊20'40		asc. node	3154 Apr 10 11:19	0°♊05'18	
evening rise	3153 Apr 25 04:14	13°♊36'01			3154 Apr 10 10:14	0°♊	
	3153 May 03 17:17	0°♊		evening max el	3154 Apr 26 02:25	24°♊59'19	19°18'14
evening max el	3153 May 13 10:10	13°♊15'28	20°21'34	retrograde	3154 May 05 05:44	29°♊25'26	
retrograde	3153 May 24 06:13	18°♊32'01		evening set	3154 May 07 06:41	29°♊13'08	
evening set	3153 May 26 06:27	18°♊21'53		inferior conj	3154 May 15 17:19	25°♊04'41	0°39'50
desc. node	3153 May 31 03:30	16°♊43'50					
inferior conj	3153 Jun 04 10:01	14°♊23'40	-1°15'25				

minimum elong	3154 May 15 18:57	25°♄01'59	0°39'14	minimum elong	3155 Apr 27 00:42	6°♄15'51	2°08'07
desc. node	3154 May 18 00:32	23°♄33'16		min. Earth dist.	3155 Apr 30 06:27	3°♄46'42	0.57921 AU
min. Earth dist.	3154 May 18 12:17	23°♄14'18	0.56145 AU	morning rise	3155 May 04 16:10	1°♄02'30	
morning rise	3154 May 24 04:14	20°♄17'11		desc. node	3155 May 04 21:35	0°♄56'07	
direct	3154 May 28 23:24	19°♄24'18			3155 May 07 11:55	30°♄♂	
morning max el	3154 Jun 12 03:42	26°♄37'25	25°14'29	direct	3155 May 10 11:27	29°♄37'20	
	3154 Jun 15 09:26	0°♄			3155 May 13 11:53	0°♄	
	3154 Jul 04 13:06	0°♄		morning max el	3155 May 24 20:30	7°♄15'01	26°38'42
asc. node	3154 Jul 07 10:33	5°♄52'18			3155 Jun 10 19:53	0°♄	
morning set	3154 Jul 08 18:52	8°♄41'40		morning set	3155 Jun 23 05:17	23°♄30'55	
				asc. node	3155 Jun 24 07:37	25°♄50'20	
					3155 Jun 26 06:00	0°♄	
superior conj	3154 Jul 15 17:51	23°♄47'30	1°17'31	superior conj	3155 Jun 30 05:32	8°♄44'00	0°58'44
minimum elong	3154 Jul 15 15:29	23°♄34'33	1°17'10	minimum elong	3155 Jun 30 03:21	8°♄32'00	0°58'19
max. Earth dist.	3154 Jul 16 23:06	26°♄27'08	1.32606 AU	max. Earth dist.	3155 Jun 30 10:01	9°♄08'46	1.32167 AU
	3154 Jul 18 14:22	0°♄		evening rise	3155 Jul 07 03:07	23°♄41'18	
evening rise	3154 Jul 22 20:50	9°♄00'56			3155 Jul 10 04:48	0°♄	
	3154 Aug 02 23:14	0°♄			3155 Jul 27 22:26	0°♄	
desc. node	3154 Aug 13 23:49	16°♄56'05		desc. node	3155 Jul 31 20:52	5°♄02'53	
evening max el	3154 Aug 24 04:46	28°♄47'30	27°21'51	evening max el	3155 Aug 06 08:31	10°♄57'45	26°47'46
	3154 Aug 25 12:29	0°♄		retrograde	3155 Aug 20 07:02	18°♄09'35	
retrograde	3154 Sep 06 23:48	6°♄03'21		evening set	3155 Aug 27 04:12	16°♄07'20	
evening set	3154 Sep 14 04:25	3°♄35'09		min. Earth dist.	3155 Aug 30 22:36	13°♄29'42	0.60422 AU
min. Earth dist.	3154 Sep 17 18:46	0°♄41'05	0.62424 AU	inferior conj	3155 Sep 03 04:19	10°♄49'33	-4°35'42
	3154 Sep 18 12:36	30°♄♂		minimum elong	3155 Sep 03 09:24	10°♄39'01	4°34'47
inferior conj	3154 Sep 20 16:39	27°♄56'51	-3°48'42	morning rise	3155 Sep 10 16:31	6°♄05'34	
minimum elong	3154 Sep 20 22:19	27°♄43'31	3°47'07	direct	3155 Sep 13 01:48	5°♄43'48	
morning rise	3154 Sep 27 17:48	22°♄51'33		asc. node	3155 Sep 20 06:48	9°♄11'50	
direct	3154 Sep 30 03:30	22°♄25'42		morning max el	3155 Sep 20 10:53	9°♄21'37	18°07'16
asc. node	3154 Oct 03 09:45	23°♄14'40			3155 Oct 03 21:33	0°♄	
morning max el	3154 Oct 06 22:24	25°♄53'15	17°51'40	morning set	3155 Oct 06 06:35	4°♄25'53	
	3154 Oct 10 10:01	0°♄					
morning set	3154 Oct 22 23:04	20°♄52'56		superior conj	3155 Oct 15 23:24	22°♄19'52	1°16'10
	3154 Oct 28 02:04	0°♄		minimum elong	3155 Oct 16 03:33	22°♄38'25	1°15'42
superior conj	3154 Nov 03 03:00	10°♄27'16	0°46'08		3155 Oct 20 07:58	0°♄	
minimum elong	3154 Nov 03 06:56	10°♄43'54	0°45'37	max. Earth dist.	3155 Oct 23 14:42	5°♄35'39	1.41544 AU
desc. node	3154 Nov 09 23:07	21°♄48'49		desc. node	3155 Oct 27 20:10	12°♄35'08	
max. Earth dist.	3154 Nov 10 04:39	22°♄11'21	1.43304 AU	evening rise	3155 Oct 28 21:39	14°♄18'21	
	3154 Nov 15 01:47	0°♄♂			3155 Nov 07 23:54	0°♄♂	
evening rise	3154 Nov 17 21:03	4°♄23'39			3155 Nov 30 08:38	0°♄♂	
	3154 Dec 05 00:24	0°♄♂		evening max el	3155 Dec 01 11:41	1°♄10'05	22°48'17
evening max el	3154 Dec 18 18:46	17°♄35'23	21°30'29	retrograde	3155 Dec 11 11:45	7°♄06'19	
retrograde	3154 Dec 27 16:31	22°♄52'58		evening set	3155 Dec 16 05:25	5°♄10'21	
asc. node	3154 Dec 30 09:02	22°♄13'26		asc. node	3155 Dec 17 06:04	4°♄13'51	
evening set	3154 Dec 31 22:11	21°♄13'21			3155 Dec 20 17:22	30°♄♂	
inferior conj	3155 Jan 06 06:33	14°♄57'14	2°10'39	inferior conj	3155 Dec 21 14:15	28°♄48'02	1°26'12
minimum elong	3155 Jan 06 04:08	15°♄05'35	2°09'51	minimum elong	3155 Dec 21 12:25	28°♄54'22	1°25'30
min. Earth dist.	3155 Jan 06 11:46	14°♄39'11	0.67786 AU	min. Earth dist.	3155 Dec 21 08:21	29°♄08'27	0.67932 AU
morning rise	3155 Jan 11 09:55	8°♄44'51		morning rise	3155 Dec 26 19:17	22°♄38'47	
direct	3155 Jan 16 11:54	6°♄32'57		direct	3155 Dec 31 06:38	20°♄49'42	
morning max el	3155 Jan 26 17:09	12°♄37'18	23°11'10	morning max el	3156 Jan 09 06:09	26°♄05'03	21°44'57
desc. node	3155 Feb 05 22:22	24°♄54'14			3156 Jan 12 19:29	0°♄♂	
	3155 Feb 09 15:26	0°♄♂		desc. node	3156 Jan 23 19:24	14°♄37'52	
	3155 Mar 01 05:32	0°♄♂			3156 Feb 03 04:15	0°♄♂	
morning set	3155 Mar 02 13:03	2°♄11'05		morning set	3156 Feb 10 12:08	11°♄27'00	
max. Earth dist.	3155 Mar 06 19:10	9°♄25'57	1.39486 AU	max. Earth dist.	3156 Feb 16 18:16	21°♄38'06	1.41607 AU
					3156 Feb 21 17:05	0°♄♂	
superior conj	3155 Mar 14 11:05	23°♄09'35	-1°50'42	superior conj	3156 Feb 24 09:58	4°♄41'26	-2°04'28
minimum elong	3155 Mar 14 15:27	23°♄29'46	1°50'20	minimum elong	3156 Feb 24 12:11	4°♄51'09	2°04'24
	3155 Mar 18 02:44	0°♄♂		evening rise	3156 Mar 06 04:29	24°♄08'53	
evening rise	3155 Mar 23 23:14	11°♄13'10			3156 Mar 09 09:02	0°♄♂	
asc. node	3155 Mar 28 08:22	19°♄31'52		asc. node	3156 Mar 14 05:25	8°♄34'29	
	3155 Apr 03 10:22	0°♄		evening max el	3156 Mar 22 13:25	20°♄09'45	18°11'40
evening max el	3155 Apr 09 04:37	7°♄20'10	18°34'59	retrograde	3156 Mar 29 10:47	23°♄37'52	
retrograde	3155 Apr 16 23:01	11°♄08'52		evening set	3156 Apr 01 00:12	23°♄09'53	
evening set	3155 Apr 19 06:04	10°♄50'04					
inferior conj	3155 Apr 26 20:55	6°♄23'10	2°09'11				

inferior conj	3156 Apr 07 21:30	18° Υ 21'55	3°05'41			3157 Mar 22 12:57	30° \mathbb{R} \mathbb{H}	
minimum elong	3156 Apr 08 00:38	18° Υ 14'50	3°05'06	min. Earth dist.		3157 Mar 24 13:43	27° \mathbb{H} 55'33	0.62189 AU
min. Earth dist.	3156 Apr 11 06:03	15° Υ 21'44	0.60050 AU	morning rise		3157 Mar 28 00:52	24° \mathbb{H} 54'38	
morning rise	3156 Apr 14 22:47	12° Υ 36'53		direct		3157 Apr 03 22:04	22° \mathbb{H} 24'07	
desc. node	3156 Apr 20 18:37	10° Υ 37'26		desc. node		3157 Apr 07 15:38	23° \mathbb{H} 04'00	
direct	3156 Apr 21 11:49	10° Υ 36'01				3157 Apr 17 15:36	0° Υ	
morning max el	3156 May 05 19:15	18° Υ 26'53	27°33'13	morning max el		3157 Apr 18 00:13	0° Υ 21'16	27°51'02
	3156 May 15 12:02	0° \mathbb{B}				3157 May 09 13:26	0° \mathbb{B}	
	3156 Jun 02 11:45	0° \mathbb{H}		morning set		3157 May 21 15:00	22° \mathbb{B} 29'42	
morning set	3156 Jun 06 12:40	8° \mathbb{H} 09'05				3157 May 25 05:42	0° \mathbb{H}	
asc. node	3156 Jun 10 04:40	15° \mathbb{H} 55'57		max. Earth dist.		3157 May 27 06:44	4° \mathbb{H} 22'08	1.32473 AU
max. Earth dist.	3156 Jun 12 21:53	21° \mathbb{H} 51'31	1.32121 AU	asc. node		3157 May 28 01:44	6° \mathbb{H} 04'45	
superior conj	3156 Jun 13 17:04	23° \mathbb{H} 36'57	0°36'19	superior conj		3157 May 29 02:46	8° \mathbb{H} 20'36	0°10'58
minimum elong	3156 Jun 13 15:32	23° \mathbb{H} 28'28	0°36'00	minimum elong		3157 May 29 02:15	8° \mathbb{H} 17'48	0°10'51
	3156 Jun 16 14:43	0° \mathbb{B}		behind sun begin		3157 May 28 22:27	7° \mathbb{H} 57'08	
evening rise	3156 Jun 20 13:07	8° \mathbb{B} 30'21		behind sun end		3157 May 29 06:03	8° \mathbb{H} 38'28	
	3156 Jul 01 16:03	0° \mathbb{Q}		evening rise		3157 Jun 05 00:49	23° \mathbb{H} 21'14	
desc. node	3156 Jul 17 17:54	21° \mathbb{Q} 53'20				3157 Jun 08 05:28	0° \mathbb{B}	
evening max el	3156 Jul 18 05:04	22° \mathbb{Q} 20'20	25°42'04			3157 Jun 26 21:52	0° \mathbb{Q}	
retrograde	3156 Aug 01 04:44	29° \mathbb{Q} 27'46		evening max el		3157 Jun 29 19:24	3° \mathbb{Q} 02'07	24°13'35
evening set	3156 Aug 07 05:46	28° \mathbb{Q} 01'38		desc. node		3157 Jul 04 14:54	6° \mathbb{Q} 57'36	
min. Earth dist.	3156 Aug 11 17:13	25° \mathbb{Q} 23'24	0.58367 AU	retrograde		3157 Jul 13 15:12	10° \mathbb{Q} 00'27	
inferior conj	3156 Aug 14 22:12	23° \mathbb{Q} 05'58	-5°03'09	evening set		3157 Jul 18 07:40	9° \mathbb{Q} 11'35	
minimum elong	3156 Aug 15 00:06	23° \mathbb{Q} 02'31	5°03'04	min. Earth dist.		3157 Jul 24 06:04	6° \mathbb{Q} 14'59	0.56534 AU
morning rise	3156 Aug 22 20:41	18° \mathbb{Q} 44'58		inferior conj		3157 Jul 26 19:58	4° \mathbb{Q} 38'22	-4°56'57
direct	3156 Aug 25 08:38	18° \mathbb{Q} 25'07		minimum elong		3157 Jul 26 16:18	4° \mathbb{Q} 44'08	4°56'37
morning max el	3156 Sep 02 16:40	22° \mathbb{Q} 23'03	18°43'19	morning rise		3157 Aug 04 03:35	0° \mathbb{Q} 37'49	
asc. node	3156 Sep 06 03:52	26° \mathbb{Q} 18'07		direct		3157 Aug 06 20:17	0° \mathbb{Q} 18'35	
	3156 Sep 08 18:27	0° \mathbb{P}		morning max el		3157 Aug 16 12:47	4° \mathbb{Q} 48'46	19°40'52
morning set	3156 Sep 19 01:17	18° \mathbb{P} 31'01		asc. node		3157 Aug 24 00:56	14° \mathbb{Q} 18'57	
	3156 Sep 24 22:51	0° \mathbb{Q}				3157 Sep 01 15:56	0° \mathbb{P}	
				morning set		3157 Sep 03 03:43	2° \mathbb{P} 59'02	
superior conj	3156 Sep 27 16:43	5° \mathbb{Q} 14'05	1°34'52	superior conj		3157 Sep 11 01:36	18° \mathbb{P} 55'11	1°43'40
minimum elong	3156 Sep 27 19:28	5° \mathbb{Q} 27'05	1°34'40	minimum elong		3157 Sep 11 02:34	19° \mathbb{P} 00'01	1°43'39
max. Earth dist.	3156 Oct 04 20:23	18° \mathbb{Q} 18'06	1.39511 AU			3157 Sep 16 19:41	0° \mathbb{Q}	
evening rise	3156 Oct 08 20:54	25° \mathbb{Q} 15'11		max. Earth dist.		3157 Sep 17 00:55	0° \mathbb{Q} 24'28	1.37459 AU
	3156 Oct 11 17:04	0° \mathbb{M}		evening rise		3157 Sep 20 19:15	7° \mathbb{Q} 16'40	
desc. node	3156 Oct 13 17:11	3° \mathbb{M} 16'18		desc. node		3157 Sep 30 14:13	23° \mathbb{Q} 48'27	
	3156 Oct 31 17:20	0° \mathbb{J}				3157 Oct 04 13:33	0° \mathbb{M}	
evening max el	3156 Nov 13 01:14	14° \mathbb{J} 47'47	24°08'09	evening max el		3157 Oct 26 13:23	28° \mathbb{M} 28'23	25°23'14
retrograde	3156 Nov 24 03:31	21° \mathbb{J} 18'31				3157 Oct 28 04:21	0° \mathbb{J}	
evening set	3156 Nov 29 10:37	19° \mathbb{J} 06'02		retrograde		3157 Nov 07 14:59	5° \mathbb{J} 25'28	
asc. node	3156 Dec 03 03:06	15° \mathbb{J} 02'05		evening set		3157 Nov 13 12:08	2° \mathbb{J} 58'02	
min. Earth dist.	3156 Dec 04 04:37	13° \mathbb{J} 37'32	0.67731 AU			3157 Nov 16 09:01	30° \mathbb{R} \mathbb{M}	
inferior conj	3156 Dec 04 21:15	12° \mathbb{J} 41'23	0°35'52	min. Earth dist.		3157 Nov 17 22:18	28° \mathbb{M} 04'09	0.67189 AU
minimum elong	3156 Dec 04 20:24	12° \mathbb{J} 44'15	0°35'31	inferior conj		3157 Nov 19 01:47	26° \mathbb{M} 35'21	-0°19'12
morning rise	3156 Dec 10 06:12	6° \mathbb{J} 37'25		minimum elong		3157 Nov 19 02:17	26° \mathbb{M} 33'46	0°19'00
direct	3156 Dec 14 03:54	5° \mathbb{J} 10'43		asc. node		3157 Nov 20 00:08	25° \mathbb{M} 23'46	
morning max el	3156 Dec 22 02:15	9° \mathbb{J} 43'43	20°28'00	morning rise		3157 Nov 24 16:42	20° \mathbb{M} 38'52	
	3157 Jan 06 11:46	0° \mathbb{B}		direct		3157 Nov 28 02:24	19° \mathbb{M} 32'04	
desc. node	3157 Jan 09 16:26	4° \mathbb{B} 44'25		morning max el		3157 Dec 05 06:19	23° \mathbb{M} 33'25	19°24'28
morning set	3157 Jan 19 12:10	19° \mathbb{B} 42'20				3157 Dec 10 16:03	0° \mathbb{J}	
	3157 Jan 26 01:37	0° \approx		greatest brilliancy		3157 Dec 18 15:28	11° \mathbb{J} 28'56	-0.7m
max. Earth dist.	3157 Jan 29 01:17	4° \approx 46'43	1.43401 AU	desc. node		3157 Dec 27 13:27	25° \mathbb{J} 07'36	
superior conj	3157 Feb 04 08:19	15° \approx 04'28	-2°04'35	morning set		3157 Dec 29 10:49	28° \mathbb{J} 03'05	
minimum elong	3157 Feb 04 05:36	14° \approx 53'11	2°04'30			3157 Dec 30 16:59	0° \mathbb{B}	
	3157 Feb 13 02:59	0° \mathbb{H}		max. Earth dist.		3158 Jan 11 14:53	18° \mathbb{B} 37'39	1.44640 AU
evening rise	3157 Feb 16 17:28	6° \mathbb{H} 17'28		superior conj		3158 Jan 15 04:50	24° \mathbb{B} 18'55	-1°46'20
asc. node	3157 Mar 01 02:26	27° \mathbb{H} 05'00		minimum elong		3158 Jan 14 20:45	23° \mathbb{B} 46'39	1°45'42
	3157 Mar 03 04:50	0° Υ				3158 Jan 18 17:51	0° \approx	
evening max el	3157 Mar 06 01:31	3° Υ 18'36	18°07'54	evening rise		3158 Jan 29 09:57	17° \approx 31'32	
retrograde	3157 Mar 12 13:12	6° Υ 41'42				3158 Feb 05 21:50	0° \mathbb{H}	
evening set	3157 Mar 15 08:13	6° Υ 03'11		asc. node		3158 Feb 15 23:27	14° \mathbb{H} 53'49	
inferior conj	3157 Mar 21 15:52	0° Υ 54'44	3°33'31	evening max el		3158 Feb 17 13:59	16° \mathbb{H} 39'34	18°23'02
minimum elong	3157 Mar 21 17:14	0° Υ 51'13	3°33'24					

retrograde	3158 Feb 24 01:35	20° H 10'48		evening set	3159 Feb 11 02:50	2° H 55'31	
evening set	3158 Feb 27 02:09	19° H 20'52			3159 Feb 14 09:36	30° R \approx	
inferior conj	3158 Mar 04 23:55	13° H 53'38	3°39'19	inferior conj	3159 Feb 16 17:53	27° \approx 11'24	3°28'44
minimum elong	3158 Mar 04 23:31	13° H 54'45	3°39'18	minimum elong	3159 Feb 16 16:13	27° \approx 16'39	3°28'31
min. Earth dist.	3158 Mar 07 06:57	11° H 15'44	0.64101 AU	min. Earth dist.	3159 Feb 18 09:26	25° \approx 07'53	0.65657 AU
morning rise	3158 Mar 10 20:10	7° H 45'22		morning rise	3159 Feb 22 05:13	20° \approx 59'21	
direct	3158 Mar 17 16:40	4° H 57'31		direct	3159 Feb 28 18:13	18° \approx 08'21	
desc. node	3158 Mar 25 12:40	7° H 52'45		desc. node	3159 Mar 12 09:40	24° \approx 28'37	
morning max el	3158 Mar 31 09:04	12° H 52'55	27°32'00	morning max el	3159 Mar 13 18:57	25° \approx 49'53	26°41'35
	3158 Apr 14 02:32	0° Y			3159 Mar 17 15:04	0° H	
	3158 May 02 02:07	0° B			3159 Apr 07 15:13	0° Y	
morning set	3158 May 05 09:40	6° B 24'11		morning set	3159 Apr 18 17:25	19° Y 42'38	
max. Earth dist.	3158 May 10 08:22	16° B 26'52	1.33256 AU	max. Earth dist.	3159 Apr 22 23:22	27° Y 58'42	1.34501 AU
					3159 Apr 23 23:36	0° B	
superior conj	3158 May 13 08:42	22° B 48'32	-0°16'34				
minimum elong	3158 May 13 09:32	22° B 52'58	0°16'23	superior conj	3159 Apr 27 08:46	6° B 54'31	-0°45'10
asc. node	3158 May 14 22:46	26° B 12'10		minimum elong	3159 Apr 27 11:07	7° B 06'42	0°44'41
	3158 May 16 17:09	0° II		asc. node	3159 May 01 19:48	16° B 14'23	
evening rise	3158 May 20 12:21	8° II 07'00		evening rise	3159 May 04 21:49	22° B 41'48	
	3158 Jun 01 01:06	0° B			3159 May 08 11:57	0° II	
evening max el	3158 Jun 11 09:26	13° B 27'56	22°36'56	evening max el	3159 May 24 07:09	24° II 11'09	21°06'43
desc. node	3158 Jun 21 11:56	19° B 39'16		retrograde	3159 Jun 05 02:45	29° II 57'58	
retrograde	3158 Jun 24 13:26	20° B 00'48		evening set	3159 Jun 07 08:07	29° II 46'27	
evening set	3158 Jun 27 18:05	19° B 38'21		desc. node	3159 Jun 08 08:55	29° II 33'37	
min. Earth dist.	3158 Jul 05 17:11	16° B 09'31	0.55266 AU	inferior conj	3159 Jun 16 16:57	25° II 48'20	-2°24'11
inferior conj	3158 Jul 06 23:15	15° B 26'40	-4°03'34	minimum elong	3159 Jun 16 10:22	25° II 57'37	2°21'56
minimum elong	3158 Jul 06 15:13	15° B 38'07	4°01'40	min. Earth dist.	3159 Jun 17 05:00	25° II 31'21	0.54864 AU
morning rise	3158 Jul 15 14:33	11° B 35'35		morning rise	3159 Jun 25 12:43	21° II 48'17	
direct	3158 Jul 18 13:48	11° B 15'20		direct	3159 Jun 28 23:24	21° II 22'38	
morning max el	3158 Jul 29 21:22	16° B 30'40	20°59'24	morning max el	3159 Jul 11 19:03	27° II 29'15	22°34'49
	3158 Aug 09 04:02	0° Q			3159 Jul 14 06:31	0° B	
asc. node	3158 Aug 10 21:59	3° Q 00'48		asc. node	3159 Jul 28 19:02	22° B 13'36	
morning set	3158 Aug 18 11:12	17° Q 41'41			3159 Aug 01 16:17	0° Q	
	3158 Aug 24 08:56	0° H		morning set	3159 Aug 02 21:42	2° Q 33'07	
superior conj	3158 Aug 25 21:27	3° H 08'48	1°44'17	superior conj	3159 Aug 10 00:49	17° Q 44'23	1°38'09
minimum elong	3158 Aug 25 20:52	3° H 05'49	1°44'16	minimum elong	3159 Aug 09 23:09	17° Q 35'30	1°38'01
max. Earth dist.	3158 Aug 30 09:41	12° H 14'58	1.35617 AU	max. Earth dist.	3159 Aug 13 03:09	24° Q 14'40	1.34130 AU
evening rise	3158 Sep 03 12:59	20° H 12'59			3159 Aug 15 22:48	0° H	
	3158 Sep 08 22:31	0° Q		evening rise	3159 Aug 17 21:37	3° H 52'10	
desc. node	3158 Sep 17 11:14	14° Q 05'44			3159 Sep 01 17:25	0° Q	
	3158 Sep 28 12:58	0° M		desc. node	3159 Sep 04 08:15	4° Q 01'18	
evening max el	3158 Oct 09 01:37	12° M 08'15	26°26'15	evening max el	3159 Sep 21 14:03	25° Q 39'33	27°09'37
retrograde	3158 Oct 21 21:31	19° M 20'53			3159 Sep 26 20:42	0° M	
evening set	3158 Oct 28 08:03	16° M 42'35		retrograde	3159 Oct 04 22:22	2° M 57'23	
min. Earth dist.	3158 Nov 01 11:06	12° M 24'23	0.66298 AU	evening set	3159 Oct 11 20:03	0° M 15'04	
inferior conj	3158 Nov 03 01:58	10° M 26'30	-1°17'42		3159 Oct 12 03:33	30° R Q	
minimum elong	3158 Nov 03 04:04	10° M 20'07	1°16'49	min. Earth dist.	3159 Oct 15 16:41	26° Q 32'34	0.65059 AU
asc. node	3158 Nov 06 21:10	6° M 15'33		inferior conj	3159 Oct 17 19:38	24° Q 10'27	-2°17'50
morning rise	3158 Nov 09 00:41	4° M 40'08		minimum elong	3159 Oct 17 23:26	23° Q 59'50	2°16'23
direct	3158 Nov 12 00:29	3° M 49'33		morning rise	3159 Oct 24 03:45	18° Q 37'12	
morning max el	3158 Nov 18 17:00	7° M 29'59	18°36'30	asc. node	3159 Oct 24 18:13	18° Q 22'01	
	3158 Dec 04 12:59	0° J		direct	3159 Oct 26 20:03	17° Q 58'55	
morning set	3158 Dec 09 07:09	7° J 33'31		morning max el	3159 Nov 02 07:59	21° Q 27'43	18°05'13
desc. node	3158 Dec 14 10:29	15° J 42'33			3159 Nov 08 22:29	0° M	
	3158 Dec 23 12:19	0° B		morning set	3159 Nov 20 09:01	18° M 32'19	
					3159 Nov 27 08:17	0° J	
superior conj	3158 Dec 25 08:20	2° B 52'43	-1°09'33	desc. node	3159 Dec 01 07:30	6° J 25'01	
minimum elong	3158 Dec 25 00:03	2° B 20'15	1°08'35				
max. Earth dist.	3158 Dec 25 08:32	2° B 53'30	1.45191 AU	superior conj	3159 Dec 04 14:24	11° J 40'18	-0°22'14
evening rise	3159 Jan 10 03:09	27° B 48'07		minimum elong	3159 Dec 04 11:37	11° J 29'12	0°21'50
	3159 Jan 11 12:14	0° \approx		max. Earth dist.	3159 Dec 08 03:42	17° J 17'49	1.45006 AU
greatest brilliancy	3159 Jan 18 15:00	11° \approx 19'39	-0.8m		3159 Dec 16 06:41	0° B	
	3159 Jan 31 21:32	0° H		evening rise	3159 Dec 20 23:11	7° B 16'04	
evening max el	3159 Feb 01 00:25	0° H 07'23	18°56'07	greatest brilliancy	3160 Jan 03 07:41	27° B 42'00	-0.7m
asc. node	3159 Feb 02 20:29	1° H 48'50			3160 Jan 04 20:56	0° \approx	
retrograde	3159 Feb 07 19:58	3° H 57'51		evening max el	3160 Jan 15 06:47	13° \approx 37'49	19°45'35

asc. node	3160 Jan 20 17:30	17° \approx 35'13	evening set	3161 Jan 09 14:58	0° \approx 33'34
retrograde	3160 Jan 22 17:18	17° \approx 56'47		3161 Jan 10 07:12	30° \approx 30
evening set	3160 Jan 26 07:46	16° \approx 40'51	inferior conj	3161 Jan 14 23:45	24° \approx 22'49 2°33'06
inferior conj	3160 Jan 31 18:39	10° \approx 42'05 3°05'45	minimum elong	3161 Jan 14 21:13	24° \approx 31'31 2°32'22
minimum elong	3160 Jan 31 16:17	10° \approx 49'57 3°05'15	min. Earth dist.	3161 Jan 15 11:44	23° \approx 41'42 0.67546 AU
min. Earth dist.	3160 Feb 01 19:40	9° \approx 19'12 0.66805 AU	morning rise	3161 Jan 20 03:18	18° \approx 09'45
morning rise	3160 Feb 06 00:35	4° \approx 28'41	direct	3161 Jan 25 13:54	15° \approx 45'44
direct	3160 Feb 12 01:34	1° \approx 46'58	morning max el	3161 Feb 05 12:23	22° \approx 16'54 24°02'23
morning max el	3160 Feb 24 03:55	8° \approx 59'48 25°28'21		3161 Feb 12 06:16	0° \approx
desc. node	3160 Feb 27 06:42	12° \approx 20'52	desc. node	3161 Feb 13 03:45	1° \approx 07'59
	3160 Mar 11 16:50	0° \approx		3161 Mar 05 00:37	0° \approx
	3160 Mar 30 04:35	0° \approx	morning set	3161 Mar 13 04:40	13° \approx 34'04
morning set	3160 Mar 31 09:39	2° \approx 11'02	max. Earth dist.	3161 Mar 16 23:00	20° \approx 10'23 1.38243 AU
max. Earth dist.	3160 Apr 04 02:50	9° \approx 03'43 1.36198 AU		3161 Mar 22 07:48	0° \approx
superior conj	3160 Apr 10 00:10	20° \approx 30'07 -1°13'17	superior conj	3161 Mar 24 03:26	3° \approx 26'09 -1°38'37
minimum elong	3160 Apr 10 03:56	20° \approx 48'54 1°12'40	minimum elong	3161 Mar 24 07:58	3° \approx 47'48 1°38'06
	3160 Apr 14 16:57	0° \approx	evening rise	3161 Apr 02 01:34	20° \approx 50'06
asc. node	3160 Apr 17 16:50	6° \approx 06'34	asc. node	3161 Apr 04 13:52	25° \approx 44'02
evening rise	3160 Apr 18 03:04	6° \approx 58'28		3161 Apr 06 19:44	0° \approx
	3160 May 01 00:41	0° \approx	evening max el	3161 Apr 18 13:23	17° \approx 30'48 18°57'19
evening max el	3160 May 05 16:38	5° \approx 31'05 19°52'16	retrograde	3161 Apr 27 01:15	21° \approx 39'13
retrograde	3160 May 15 18:34	10° \approx 24'33	evening set	3161 Apr 29 04:40	21° \approx 24'29
evening set	3160 May 17 18:09	10° \approx 14'03	inferior conj	3161 May 07 06:46	17° \approx 08'21 1°21'43
desc. node	3160 May 25 05:56	7° \approx 03'45	minimum elong	3161 May 07 09:44	17° \approx 03'06 1°20'44
inferior conj	3160 May 26 15:24	6° \approx 13'09 -0°24'36	min. Earth dist.	3161 May 10 09:54	14° \approx 56'28 0.56834 AU
minimum elong	3160 May 26 14:16	6° \approx 14'52 0°24'11	desc. node	3161 May 12 02:58	13° \approx 50'13
min. Earth dist.	3160 May 28 18:11	4° \approx 55'42 0.55428 AU	morning rise	3161 May 15 11:40	12° \approx 06'16
morning rise	3160 Jun 04 08:17	1° \approx 46'18	direct	3161 May 20 17:21	11° \approx 00'59
direct	3160 Jun 08 14:04	1° \approx 06'43	morning max el	3161 Jun 04 00:43	18° \approx 25'25 25°53'22
morning max el	3160 Jun 22 10:01	7° \approx 58'31 24°17'41		3161 Jun 13 16:50	0° \approx
	3160 Jul 08 11:18	0° \approx		3161 Jun 30 17:50	0° \approx
asc. node	3160 Jul 14 16:05	11° \approx 49'18	morning set	3161 Jul 01 20:51	2° \approx 21'34
morning set	3160 Jul 17 09:28	17° \approx 28'19	asc. node	3161 Jul 01 13:08	1° \approx 40'57
	3160 Jul 23 04:47	0° \approx	superior conj	3161 Jul 08 20:00	17° \approx 29'28 1°10'02
superior conj	3160 Jul 24 09:04	2° \approx 33'44 1°26'26	minimum elong	3161 Jul 08 17:39	17° \approx 16'36 1°09'39
minimum elong	3160 Jul 24 06:48	2° \approx 21'29 1°26'10	max. Earth dist.	3161 Jul 09 14:37	19° \approx 11'43 1.32371 AU
max. Earth dist.	3160 Jul 26 05:40	6° \approx 34'45 1.33047 AU		3161 Jul 14 14:40	0° \approx
evening rise	3160 Jul 31 17:07	18° \approx 02'54	evening rise	3161 Jul 15 20:12	2° \approx 34'49
	3160 Aug 06 21:01	0° \approx		3161 Jul 30 17:28	0° \approx
desc. node	3160 Aug 21 05:17	23° \approx 25'56	desc. node	3161 Aug 08 02:19	12° \approx 06'17
	3160 Aug 26 02:44	0° \approx	evening max el	3161 Aug 16 08:12	21° \approx 25'12 27°11'27
evening max el	3160 Sep 03 01:09	8° \approx 50'07 27°26'24	retrograde	3161 Aug 30 04:31	28° \approx 38'53
retrograde	3160 Sep 16 16:56	16° \approx 06'46	evening set	3161 Sep 06 07:36	26° \approx 19'59
evening set	3160 Sep 23 21:13	13° \approx 30'05	min. Earth dist.	3161 Sep 09 22:28	23° \approx 35'04 0.61597 AU
min. Earth dist.	3160 Sep 27 12:56	10° \approx 20'29 0.63477 AU	inferior conj	3161 Sep 13 00:28	20° \approx 50'30 -4°10'15
inferior conj	3160 Sep 30 04:12	7° \approx 41'25 -3°16'51	minimum elong	3161 Sep 13 06:09	20° \approx 37'50 4°08'54
minimum elong	3160 Sep 30 09:25	7° \approx 28'16 3°15'09	morning rise	3161 Sep 20 06:23	15° \approx 54'04
morning rise	3160 Oct 06 22:55	2° \approx 24'48	direct	3161 Sep 22 15:40	15° \approx 30'09
direct	3160 Oct 09 10:21	1° \approx 55'13	asc. node	3161 Sep 27 12:20	17° \approx 13'06
asc. node	3160 Oct 10 15:16	2° \approx 02'22	morning max el	3161 Sep 29 15:23	19° \approx 00'33 17°55'56
morning max el	3160 Oct 16 00:29	5° \approx 20'40 17°51'24		3161 Oct 07 15:32	0° \approx
	3160 Nov 01 02:02	0° \approx	morning set	3161 Oct 15 11:43	13° \approx 55'16
morning set	3160 Nov 01 12:45	0° \approx 46'35		3161 Oct 24 10:08	0° \approx
superior conj	3160 Nov 13 17:28	21° \approx 32'04 0°23'40	superior conj	3161 Oct 25 23:26	2° \approx 42'47 1°00'18
minimum elong	3160 Nov 13 19:54	21° \approx 42'07 0°23'19	minimum elong	3161 Oct 26 03:45	3° \approx 01'30 0°59'45
desc. node	3160 Nov 17 04:34	27° \approx 12'00	max. Earth dist.	3161 Nov 02 10:55	15° \approx 21'13 1.42607 AU
	3160 Nov 18 22:11	0° \approx	desc. node	3161 Nov 04 01:37	17° \approx 59'28
max. Earth dist.	3160 Nov 19 21:32	1° \approx 33'38 1.44110 AU	evening rise	3161 Nov 08 23:21	25° \approx 50'52
evening rise	3160 Nov 29 08:35	16° \approx 24'11		3161 Nov 11 15:04	0° \approx
	3160 Dec 08 07:31	0° \approx		3161 Dec 02 05:29	0° \approx
evening max el	3160 Dec 28 07:52	27° \approx 09'42 20°48'57	evening max el	3161 Dec 11 03:23	10° \approx 42'26 22°02'48
	3160 Dec 31 12:02	0° \approx	retrograde	3161 Dec 20 12:02	16° \approx 31'42
retrograde	3161 Jan 05 15:16	2° \approx 04'24	asc. node	3161 Dec 24 11:34	14° \approx 51'21
asc. node	3161 Jan 06 14:32	1° \approx 59'13	evening set	3161 Dec 24 22:41	14° \approx 29'58

inferior conj	3161 Dec 30 07:03	8°  10'33	1°52'35		3162 Dec 01 14:32	0° 	
minimum elong	3161 Dec 30 04:50	8°  18'15	1°51'48	retrograde	3162 Dec 04 06:05	0°  29'57	
min. Earth dist.	3161 Dec 30 07:21	8°  09'31	0.67896 AU		3162 Dec 06 17:48	30°  R 	
morning rise	3162 Jan 04 10:52	1°  35'23		evening set	3162 Dec 09 05:15	28°  R  26'50	
	3162 Jan 08 12:59	30°  R 		asc. node	3162 Dec 11 08:37	26°  R  17'12	
direct	3162 Jan 09 06:27	29°  R  57'23		min. Earth dist.	3162 Dec 14 04:09	22°  R  38'51	0.67887 AU
	3162 Jan 10 00:15	0° 		inferior conj	3162 Dec 14 14:41	22°  R  02'43	1°05'31
morning max el	3162 Jan 18 22:52	5°  34'30	22°33'43	minimum elong	3162 Dec 14 13:13	22°  R  07'45	1°04'55
desc. node	3162 Jan 31 00:49	20°  33'15		morning rise	3162 Dec 19 21:07	15°  R  55'19	
	3162 Feb 06 15:17	0° 		direct	3162 Dec 24 02:21	14°  R  16'06	
morning set	3162 Feb 21 20:35	23°  R  37'47		morning max el	3163 Jan 01 14:40	19°  R  12'50	21°10'41
	3162 Feb 25 16:37	0° 			3163 Jan 10 12:02	0° 	
max. Earth dist.	3162 Feb 26 19:11	1°  R  52'28	1.40410 AU	desc. node	3163 Jan 17 21:51	10°  R  28'30	
					3163 Jan 30 19:46	0° 	
superior conj	3162 Mar 06 14:07	15°  R  31'59	-1°57'53	morning set	3163 Feb 01 08:10	2°  R  22'31	
minimum elong	3162 Mar 06 17:54	15°  R  49'06	1°57'39	max. Earth dist.	3163 Feb 08 21:00	14°  R  27'18	1.42420 AU
	3162 Mar 14 09:30	0° 					
evening rise	3162 Mar 16 14:13	4°  R  08'59		superior conj	3163 Feb 16 03:01	26°  R  35'17	-2°06'31
asc. node	3162 Mar 22 10:54	15°  R  01'27		minimum elong	3163 Feb 16 03:27	26°  R  37'08	2°06'30
	3162 Apr 01 16:47	0° 			3163 Feb 18 02:34	0° 	
evening max el	3162 Apr 01 18:44	0°  R  04'47	18°22'36	evening rise	3163 Feb 27 13:05	16°  R  45'37	
retrograde	3162 Apr 09 02:57	3°  R  43'11			3163 Mar 07 00:01	0° 	
evening set	3162 Apr 11 12:38	3°  R  20'50		asc. node	3163 Mar 09 07:56	3°  R  51'32	
	3162 Apr 17 06:32	30°  R 		evening max el	3163 Mar 16 05:18	13°  R  03'32	18°07'44
inferior conj	3162 Apr 18 19:34	28°  R  44'56	2°37'04	retrograde	3163 Mar 22 21:24	16°  R  27'49	
minimum elong	3162 Apr 18 23:19	28°  R  37'09	2°36'09	evening set	3163 Mar 25 13:09	15°  R  55'38	
min. Earth dist.	3162 Apr 22 06:11	25°  R  55'13	0.58796 AU	inferior conj	3163 Apr 01 04:11	10°  R  59'07	3°20'36
morning rise	3162 Apr 26 07:07	23°  R  12'17		minimum elong	3163 Apr 01 06:38	10°  R  53'17	3°20'14
desc. node	3162 Apr 28 24:00	22°  R  03'40		min. Earth dist.	3163 Apr 04 09:10	7°  R  56'06	0.60972 AU
direct	3162 May 02 10:45	21°  R  31'59		morning rise	3163 Apr 07 22:09	5°  R  06'29	
morning max el	3162 May 16 20:08	29°  R  16'56	27°06'17	direct	3163 Apr 14 15:53	2°  R  51'23	
	3162 May 17 13:25	0° 		desc. node	3163 Apr 15 21:02	2°  R  55'35	
	3162 Jun 07 12:15	0° 		morning max el	3163 Apr 28 21:40	10°  R  46'45	27°45'26
morning set	3162 Jun 16 06:13	17°  R  07'27			3163 May 13 21:32	0° 	
asc. node	3162 Jun 18 10:12	21°  R  43'11			3163 May 30 16:24	0° 	
	3162 Jun 22 05:24	0° 		morning set	3163 May 31 11:40	1°  R  38'43	
				asc. node	3163 Jun 05 07:14	11°  R  50'27	
superior conj	3162 Jun 23 07:50	2°  R  25'33	0°49'38	max. Earth dist.	3163 Jun 06 13:14	14°  R  33'30	1.32213 AU
minimum elong	3162 Jun 23 05:52	2°  R  14'44	0°49'15				
max. Earth dist.	3162 Jun 23 02:26	1°  R  55'50	1.32091 AU	superior conj	3163 Jun 07 18:46	17°  R  15'04	0°25'53
evening rise	3162 Jun 30 04:19	17°  R  19'52		minimum elong	3163 Jun 07 17:37	17°  R  08'45	0°25'38
	3162 Jul 06 11:13	0° 			3163 Jun 13 14:54	0° 	
desc. node	3162 Jul 25 23:19	29°  R  44'05		evening rise	3163 Jun 14 15:13	2°  R  09'58	
	3162 Jul 26 05:02	0° 			3163 Jun 29 16:10	0° 	
evening max el	3162 Jul 29 08:45	3°  R  14'49	26°23'19	evening max el	3163 Jul 11 02:09	14°  R  17'36	25°06'30
retrograde	3162 Aug 12 08:09	10°  R  25'42		desc. node	3163 Jul 12 20:19	15°  R  05'31'4	
evening set	3162 Aug 18 22:31	8°  R  37'30		retrograde	3163 Jul 25 01:37	21°  R  22'54	
min. Earth dist.	3162 Aug 22 21:56	6°  R  02'08	0.59541 AU	evening set	3163 Jul 30 13:45	20°  R  13'23	
inferior conj	3162 Aug 26 04:57	3°  R  28'52	-4°50'28	min. Earth dist.	3163 Aug 04 13:52	17°  R  29'00	0.57535 AU
minimum elong	3162 Aug 26 09:03	3°  R  20'51	4°49'57	inferior conj	3163 Aug 07 14:21	15°  R  26'53	-5°05'38
	3162 Aug 31 06:33	30°  R 		minimum elong	3163 Aug 07 14:04	15°  R  27'22	5°05'38
morning rise	3162 Sep 02 21:44	28°  R  55'01		morning rise	3163 Aug 15 16:52	11°  R  15'12	
direct	3162 Sep 05 07:44	28°  R  34'22		direct	3163 Aug 18 06:23	10°  R  55'54	
	3162 Sep 10 02:20	0° 		morning max el	3163 Aug 27 03:29	15°  R  06'26	19°05'08
morning max el	3162 Sep 13 01:29	2°  R  19'11	18°20'01	asc. node	3163 Sep 01 06:27	21°  R  12'46	
asc. node	3162 Sep 14 09:24	3°  R  41'45			3163 Sep 06 16:10	0° 	
morning set	3162 Sep 29 00:27	27°  R  42'59		morning set	3163 Sep 12 22:47	11°  R  58'35	
	3162 Sep 30 05:10	0° 					
				superior conj	3163 Sep 21 05:57	28°  R  19'30	1°39'41
superior conj	3162 Oct 08 05:25	15°  R  03'47	1°25'24	minimum elong	3163 Sep 21 07:57	28°  R  29'08	1°39'35
minimum elong	3162 Oct 08 09:05	15°  R  20'34	1°25'03		3163 Sep 22 02:53	0° 	
max. Earth dist.	3162 Oct 15 18:29	28°  R  26'22	1.40698 AU	max. Earth dist.	3163 Sep 27 22:37	10°  R  24'47	1.38625 AU
	3162 Oct 16 16:26	0° 		evening rise	3163 Oct 01 18:23	17°  R  25'32	
evening rise	3162 Oct 20 09:00	6°  R  10'15		desc. node	3163 Oct 08 19:39	29°  R  21'56	
desc. node	3162 Oct 21 22:38	8°  R  43'59			3163 Oct 09 05:08	0° 	
	3162 Nov 04 19:09	0° 			3163 Oct 30 04:51	0° 	
evening max el	3162 Nov 23 18:26	24°  R  17'30	23°22'20	evening max el	3163		

































































































































retrograde	3163 Nov 17 20:11	14° \mathbb{A} 40'29		max. Earth dist.	3164 Sep 09 04:29	22° \mathbb{M} 46'57	1.36639 AU
evening set	3163 Nov 23 09:05	12° \mathbb{A} 21'38		evening rise	3164 Sep 13 01:30	0° \mathbb{A} 01'30	
min. Earth dist.	3163 Nov 27 23:44	7° \mathbb{A} 07'24	0.67539 AU		3164 Sep 13 01:10	0° \mathbb{A}	
asc. node	3163 Nov 28 05:39	6° \mathbb{A} 47'47		desc. node	3164 Sep 24 16:39	19° \mathbb{A} 48'22	
inferior conj	3163 Nov 28 20:52	5° \mathbb{A} 57'09	0°13'02		3164 Oct 01 10:04	0° \mathbb{M}	
minimum elong	3163 Nov 28 20:33	5° \mathbb{A} 58'14	0°12'54	evening max el	3164 Oct 18 19:30	21° \mathbb{M} 38'49	25°52'06
transit middle	3163 Nov 28 20:33	5° \mathbb{A} 58'14	0°12'54	retrograde	3164 Oct 31 05:27	28° \mathbb{M} 43'07	
transit begin	3163 Nov 28 18:52	6° \mathbb{A} 03'47		evening set	3164 Nov 06 08:26	26° \mathbb{M} 10'40	
transit end	3163 Nov 28 22:13	5° \mathbb{A} 52'41		min. Earth dist.	3164 Nov 10 15:38	21° \mathbb{M} 31'48	0.66854 AU
morning rise	3163 Dec 04 08:05	29° \mathbb{M} 55'47		inferior conj	3164 Nov 11 23:47	19° \mathbb{M} 50'27	-0°43'41
	3163 Dec 04 05:44	30° \mathbb{R} \mathbb{M}		minimum elong	3164 Nov 12 00:56	19° \mathbb{M} 46'49	0°43'11
direct	3163 Dec 08 00:27	28° \mathbb{M} 37'52		asc. node	3164 Nov 14 02:41	17° \mathbb{M} 15'26	
	3163 Dec 12 01:36	0° \mathbb{A}		morning rise	3164 Nov 17 17:48	13° \mathbb{M} 57'47	
morning max el	3163 Dec 15 14:06	2° \mathbb{A} 56'15	19°59'05	direct	3164 Nov 20 23:06	12° \mathbb{M} 58'10	
	3164 Jan 04 07:32	0° \mathbb{B}		morning max el	3164 Nov 27 21:08	16° \mathbb{M} 49'05	19°02'04
desc. node	3164 Jan 04 18:53	0° \mathbb{B} 43'02			3164 Dec 07 22:24	0° \mathbb{A}	
morning set	3164 Jan 11 04:19	10° \mathbb{B} 30'33		morning set	3164 Dec 20 10:10	19° \mathbb{A} 15'40	
max. Earth dist.	3164 Jan 22 06:44	27° \mathbb{B} 54'54	1.44006 AU	desc. node	3164 Dec 21 15:53	21° \mathbb{A} 11'42	
	3164 Jan 23 14:01	0° \mathbb{A}			3164 Dec 27 07:07	0° \mathbb{B}	
				max. Earth dist.	3165 Jan 03 22:53	12° \mathbb{B} 00'20	1.44972 AU
superior conj	3164 Jan 27 14:13	6° \mathbb{A} 28'45	-1°59'16				
minimum elong	3164 Jan 27 08:58	6° \mathbb{A} 07'22	1°59'00	superior conj	3165 Jan 06 01:37	15° \mathbb{B} 20'21	-1°32'42
evening rise	3164 Feb 09 17:50	28° \mathbb{A} 31'47		minimum elong	3165 Jan 05 16:33	14° \mathbb{B} 44'34	1°31'50
	3164 Feb 10 14:23	0° \mathbb{H}			3165 Jan 15 06:16	0° \mathbb{A}	
asc. node	3164 Feb 24 04:57	22° \mathbb{H} 05'57		evening rise	3165 Jan 21 00:30	9° \mathbb{A} 21'00	
evening max el	3164 Feb 27 17:59	26° \mathbb{H} 19'02	18°12'06		3165 Feb 02 20:17	0° \mathbb{H}	
retrograde	3164 Mar 05 04:26	29° \mathbb{H} 43'42		evening max el	3165 Feb 10 05:54	9° \mathbb{H} 43'30	18°34'59
evening set	3164 Mar 08 01:50	29° \mathbb{H} 00'23		asc. node	3165 Feb 10 01:59	9° \mathbb{H} 33'26	
inferior conj	3164 Mar 14 04:53	23° \mathbb{H} 43'57	3°38'15	retrograde	3165 Feb 16 19:47	13° \mathbb{H} 21'19	
minimum elong	3164 Mar 14 05:27	23° \mathbb{H} 42'23	3°38'13	evening set	3165 Feb 19 23:01	12° \mathbb{H} 26'02	
min. Earth dist.	3164 Mar 16 20:46	20° \mathbb{H} 51'41	0.63049 AU	inferior conj	3165 Feb 25 17:34	6° \mathbb{H} 51'13	3°36'30
morning rise	3164 Mar 20 08:01	17° \mathbb{H} 39'58		minimum elong	3165 Feb 25 16:34	6° \mathbb{H} 54'13	3°36'26
direct	3164 Mar 27 06:07	15° \mathbb{H} 00'07		min. Earth dist.	3165 Feb 27 17:52	4° \mathbb{H} 27'09	0.64819 AU
desc. node	3164 Apr 01 18:03	16° \mathbb{H} 26'52		morning rise	3165 Mar 03 09:36	0° \mathbb{H} 41'11	
morning max el	3164 Apr 10 04:22	22° \mathbb{H} 57'20	27°47'04		3165 Mar 04 06:16	30° \mathbb{R} \mathbb{A}	
	3164 Apr 16 10:26	0° \mathbb{Y}		direct	3165 Mar 10 03:38	27° \mathbb{A} 50'35	
	3164 May 06 03:09	0° \mathbb{B}			3165 Mar 16 16:45	0° \mathbb{H}	
morning set	3164 May 14 11:02	15° \mathbb{B} 48'43		desc. node	3165 Mar 19 15:04	2° \mathbb{H} 05'08	
max. Earth dist.	3164 May 19 19:18	26° \mathbb{B} 53'20	1.32755 AU	morning max el	3165 Mar 23 13:54	5° \mathbb{H} 40'45	27°13'54
	3164 May 21 06:12	0° \mathbb{H}			3165 Apr 11 03:44	0° \mathbb{Y}	
				morning set	3165 Apr 28 01:31	29° \mathbb{Y} 28'56	
superior conj	3164 May 22 03:06	1° \mathbb{H} 52'35	-0°00'31		3165 Apr 28 07:54	0° \mathbb{B}	
minimum elong	3164 May 22 03:07	1° \mathbb{H} 52'42	0°00'30	max. Earth dist.	3165 May 02 16:54	8° \mathbb{B} 45'03	1.33735 AU
behind sun begin	3164 May 21 21:53	1° \mathbb{H} 24'25					
behind sun end	3164 May 22 08:21	2° \mathbb{H} 21'01		superior conj	3165 May 06 06:50	16° \mathbb{B} 11'59	-0°28'39
asc. node	3164 May 22 04:16	1° \mathbb{H} 58'55		minimum elong	3165 May 06 08:18	16° \mathbb{B} 19'44	0°28'20
evening rise	3164 May 29 03:03	16° \mathbb{H} 59'08		asc. node	3165 May 09 01:18	22° \mathbb{B} 04'35	
	3164 Jun 04 13:40	0° \mathbb{B}			3165 May 12 18:44	0° \mathbb{H}	
evening max el	3164 Jun 21 15:33	24° \mathbb{B} 48'41	23°32'31	evening rise	3165 May 13 13:59	1° \mathbb{H} 41'15	
desc. node	3164 Jun 28 17:19	0° \mathbb{O} 00'45			3165 May 29 16:04	0° \mathbb{B}	
	3164 Jun 28 16:43	0° \mathbb{O}		evening max el	3165 Jun 03 08:03	5° \mathbb{B} 18'22	21°57'00
retrograde	3164 Jul 05 06:27	1° \mathbb{O} 37'56		retrograde	3165 Jun 15 23:43	11° \mathbb{B} 33'26	
evening set	3164 Jul 09 07:03	1° \mathbb{O} 02'27		desc. node	3165 Jun 15 14:19	11° \mathbb{B} 33'05	
	3164 Jul 12 02:08	30° \mathbb{R} \mathbb{B}		evening set	3165 Jun 18 16:32	11° \mathbb{B} 17'08	
min. Earth dist.	3164 Jul 16 01:36	27° \mathbb{B} 53'38	0.55906 AU	min. Earth dist.	3165 Jun 27 12:30	7° \mathbb{B} 30'49	0.54980 AU
inferior conj	3164 Jul 18 03:36	26° \mathbb{B} 39'09	-4°40'33	inferior conj	3165 Jun 28 01:17	7° \mathbb{B} 12'55	-3°25'58
minimum elong	3164 Jul 17 21:35	26° \mathbb{B} 48'09	4°39'37	minimum elong	3165 Jun 27 17:04	7° \mathbb{B} 24'25	3°23'37
morning rise	3164 Jul 26 14:37	22° \mathbb{B} 44'08		morning rise	3165 Jul 06 19:09	3° \mathbb{B} 20'55	
direct	3164 Jul 29 09:59	22° \mathbb{B} 24'36		direct	3165 Jul 09 22:40	2° \mathbb{B} 59'01	
morning max el	3164 Aug 08 18:37	27° \mathbb{B} 13'00	20°11'52	morning max el	3165 Jul 21 22:11	8° \mathbb{B} 35'25	21°38'28
	3164 Aug 11 10:35	0° \mathbb{O}		asc. node	3165 Aug 05 00:32	28° \mathbb{B} 28'21	
asc. node	3164 Aug 18 03:29	9° \mathbb{O} 32'04			3165 Aug 05 20:11	0° \mathbb{O}	
morning set	3164 Aug 27 03:38	26° \mathbb{O} 33'18		morning set	3165 Aug 11 12:41	11° \mathbb{O} 20'54	
	3164 Aug 28 20:03	0° \mathbb{M}					
				superior conj	3165 Aug 18 19:22	26° \mathbb{O} 39'32	1°42'26
superior conj	3164 Sep 03 19:55	12° \mathbb{M} 15'11	1°44'50	minimum elong	3165 Aug 18 18:16	26° \mathbb{O} 33'46	1°42'23
minimum elong	3164 Sep 03 20:11	12° \mathbb{M} 16'33	1°44'50		3165 Aug 20 10:00	0° \mathbb{M}	

max. Earth dist.	3165 Aug 22 17:02	4° \mathbb{M} 40'52	1.34934 AU	max. Earth dist.	3166 Aug 05 14:25	16° Ω 48'06	1.33613 AU
evening rise	3165 Aug 27 02:08	13° \mathbb{M} 17'37		evening rise	3166 Aug 10 15:49	27° Ω 11'07	
	3165 Sep 05 09:10	0° $\underline{\mathbb{A}}$			3166 Aug 12 02:05	0° \mathbb{M}	
desc. node	3165 Sep 11 13:41	9° $\underline{\mathbb{A}}$ 57'41		desc. node	3166 Aug 29 10:43	29° \mathbb{M} 41'16	
	3165 Sep 26 08:34	0° \mathbb{M}			3166 Aug 29 15:49	0° $\underline{\mathbb{A}}$	
evening max el	3165 Oct 01 07:56	5° \mathbb{M} 16'28	26°47'30	evening max el	3166 Sep 13 19:49	18° $\underline{\mathbb{A}}$ 39'22	27°20'17
retrograde	3165 Oct 14 09:27	12° \mathbb{M} 31'51		retrograde	3166 Sep 27 07:49	25° $\underline{\mathbb{A}}$ 57'52	
evening set	3165 Oct 21 01:19	9° \mathbb{M} 50'43		evening set	3166 Oct 04 09:07	23° $\underline{\mathbb{A}}$ 16'11	
min. Earth dist.	3165 Oct 25 01:31	5° \mathbb{M} 48'04	0.65819 AU	min. Earth dist.	3166 Oct 08 03:12	19° $\underline{\mathbb{A}}$ 48'36	0.64425 AU
inferior conj	3165 Oct 26 21:29	3° \mathbb{M} 39'11	-1°43'08	inferior conj	3166 Oct 10 11:35	17° $\underline{\mathbb{A}}$ 17'50	-2°43'14
minimum elong	3165 Oct 27 00:19	3° \mathbb{M} 30'54	1°41'58	minimum elong	3166 Oct 10 16:04	17° $\underline{\mathbb{A}}$ 05'52	2°41'37
	3165 Oct 30 06:16	30° \mathbb{R} $\underline{\mathbb{A}}$		morning rise	3166 Oct 17 00:08	11° $\underline{\mathbb{A}}$ 51'33	
asc. node	3165 Oct 31 23:43	28° $\underline{\mathbb{A}}$ 35'08		asc. node	3166 Oct 18 20:46	11° $\underline{\mathbb{A}}$ 20'10	
morning rise	3165 Nov 02 00:02	27° $\underline{\mathbb{A}}$ 58'12		direct	3166 Oct 19 13:59	11° $\underline{\mathbb{A}}$ 17'29	
direct	3165 Nov 04 20:26	27° $\underline{\mathbb{A}}$ 13'16		morning max el	3166 Oct 26 02:06	14° $\underline{\mathbb{A}}$ 43'53	17°57'13
	3165 Nov 10 14:14	0° \mathbb{M}			3166 Nov 05 20:27	0° \mathbb{M}	
morning max el	3165 Nov 11 10:02	0° \mathbb{M} 47'15	18°21'10	morning set	3166 Nov 12 08:40	10° \mathbb{M} 57'14	
morning set	3165 Nov 30 19:05	29° \mathbb{M} 24'27			3166 Nov 23 19:39	0° \mathbb{X}	
	3165 Dec 01 03:53	0° \mathbb{X}		desc. node	3166 Nov 25 10:01	2° \mathbb{X} 35'18	
desc. node	3165 Dec 08 12:56	11° \mathbb{X} 50'28					
				superior conj	3166 Nov 25 16:59	3° \mathbb{X} 03'25	-0°02'00
superior conj	3165 Dec 16 03:29	23° \mathbb{X} 52'20	-0°50'03	minimum elong	3166 Nov 25 16:44	3° \mathbb{X} 02'26	0°01'59
minimum elong	3165 Dec 15 21:09	23° \mathbb{X} 27'28	0°49'13	behind sun begin	3166 Nov 25 06:30	2° \mathbb{X} 21'08	
max. Earth dist.	3165 Dec 17 18:00	26° \mathbb{X} 23'39	1.45209 AU	behind sun end	3166 Nov 26 02:59	3° \mathbb{X} 43'41	
	3165 Dec 20 01:11	0° \mathbb{Z}		max. Earth dist.	3166 Nov 30 12:41	10° \mathbb{X} 45'26	1.44701 AU
evening rise	3166 Jan 01 08:06	19° \mathbb{Z} 15'16		evening rise	3166 Dec 11 21:51	28° \mathbb{X} 30'12	
	3166 Jan 08 04:32	0° \approx			3166 Dec 12 21:13	0° \mathbb{Z}	
greatest brilliancy	3166 Jan 12 01:52	6° \approx 02'22	-0.8m	greatest brilliancy	3166 Dec 26 09:51	20° \mathbb{Z} 26'31	-0.6m
evening max el	3166 Jan 24 14:46	23° \approx 12'21	19°15'12		3167 Jan 02 04:25	0° \approx	
asc. node	3166 Jan 27 23:01	26° \approx 01'03		evening max el	3167 Jan 07 18:55	6° \approx 43'23	20°10'59
retrograde	3166 Jan 31 15:53	27° \approx 14'05		asc. node	3167 Jan 14 20:02	11° \approx 14'20	
evening set	3166 Feb 04 01:48	26° \approx 06'00		retrograde	3167 Jan 15 13:52	11° \approx 17'22	
inferior conj	3166 Feb 09 14:47	20° \approx 15'02	3°20'17	evening set	3167 Jan 19 07:58	9° \approx 55'22	
minimum elong	3166 Feb 09 12:45	20° \approx 21'35	3°19'58	inferior conj	3167 Jan 24 17:43	3° \approx 50'59	2°53'00
min. Earth dist.	3166 Feb 10 23:53	18° \approx 28'38	0.66197 AU	minimum elong	3167 Jan 24 15:13	3° \approx 59'27	2°52'22
morning rise	3166 Feb 14 23:25	14° \approx 02'03		min. Earth dist.	3167 Jan 25 13:02	2° \approx 45'49	0.67163 AU
direct	3166 Feb 21 07:34	11° \approx 14'03			3167 Jan 27 16:33	30° \mathbb{R} \mathbb{Z}	
morning max el	3166 Mar 05 23:45	18° \approx 45'06	26°12'39	morning rise	3167 Jan 29 22:15	27° \mathbb{Z} 37'16	
desc. node	3166 Mar 06 12:07	19° \approx 16'37		direct	3167 Feb 04 17:12	25° \mathbb{Z} 02'15	
	3166 Mar 15 12:30	0° \mathbb{X}			3167 Feb 14 06:39	0° \approx	
	3166 Apr 04 04:18	0° \mathbb{Y}		morning max el	3167 Feb 16 08:33	1° \approx 59'33	24°52'44
morning set	3166 Apr 11 03:19	12° \mathbb{Y} 27'49		desc. node	3167 Feb 21 09:11	7° \approx 34'53	
max. Earth dist.	3166 Apr 15 03:13	20° \mathbb{Y} 04'56	1.35173 AU		3167 Mar 09 14:32	0° \mathbb{X}	
				morning set	3167 Mar 24 11:24	24° \mathbb{X} 31'20	
superior conj	3166 Apr 20 03:35	0° \mathbb{Z} 05'44	-0°57'16		3167 Mar 27 12:17	0° \mathbb{Y}	
minimum elong	3166 Apr 20 06:34	0° \mathbb{Z} 21'00	0°56'43	max. Earth dist.	3167 Mar 28 02:43	1° \mathbb{Y} 06'17	1.37032 AU
	3166 Apr 20 02:27	0° \mathbb{Z}					
asc. node	3166 Apr 25 22:20	12° \mathbb{Z} 02'56		superior conj	3167 Apr 03 14:21	13° \mathbb{Y} 26'02	-1°24'32
evening rise	3166 Apr 27 21:58	16° \mathbb{Z} 09'15		minimum elong	3167 Apr 03 18:34	13° \mathbb{Y} 46'41	1°23'56
	3166 May 04 23:43	0° \mathbb{I}			3167 Apr 11 21:27	0° \mathbb{Z}	
evening max el	3166 May 16 10:26	16° \mathbb{I} 15'11	20°32'44	evening rise	3167 Apr 12 00:44	0° \mathbb{Z} 16'28	
retrograde	3166 May 27 12:53	21° \mathbb{I} 39'55		asc. node	3167 Apr 12 19:23	1° \mathbb{Z} 49'38	
evening set	3166 May 29 13:51	21° \mathbb{I} 29'41		evening max el	3167 Apr 29 01:00	27° \mathbb{Z} 52'51	19°26'26
desc. node	3166 Jun 02 11:21	20° \mathbb{I} 19'13			3167 May 01 13:20	0° \mathbb{I}	
inferior conj	3166 Jun 07 19:13	17° \mathbb{I} 31'57	-1°33'46	retrograde	3167 May 08 09:59	2° \mathbb{I} 25'34	
minimum elong	3166 Jun 07 14:47	17° \mathbb{I} 38'21	1°32'09	evening set	3167 May 10 10:19	2° \mathbb{I} 13'54	
min. Earth dist.	3166 Jun 09 00:46	16° \mathbb{I} 49'15	0.54982 AU		3167 May 15 23:25	30° \mathbb{R} \mathbb{Z}	
morning rise	3166 Jun 16 14:53	13° \mathbb{I} 22'24		inferior conj	3167 May 18 23:53	28° \mathbb{Z} 07'52	0°23'35
direct	3166 Jun 20 08:25	12° \mathbb{I} 52'24		minimum elong	3167 May 19 00:53	28° \mathbb{Z} 06'14	0°23'14
morning max el	3166 Jul 03 16:31	19° \mathbb{I} 19'28	23°18'35	desc. node	3167 May 20 08:21	27° \mathbb{Z} 15'04	
	3166 Jul 12 13:37	0° \mathbb{Z}		min. Earth dist.	3167 May 21 15:15	26° \mathbb{Z} 25'38	0.55935 AU
asc. node	3166 Jul 22 21:35	17° \mathbb{Z} 51'37		morning rise	3167 May 27 12:36	23° \mathbb{Z} 25'43	
morning set	3166 Jul 26 23:55	26° \mathbb{Z} 14'32		direct	3167 Jun 01 04:16	22° \mathbb{Z} 36'34	
	3166 Jul 28 18:24	0° Ω		morning max el	3167 Jun 15 06:46	29° \mathbb{Z} 44'50	25°00'09
					3167 Jun 15 13:05	0° \mathbb{I}	
superior conj	3166 Aug 03 01:07	11° Ω 21'58	1°33'49		3167 Jul 05 23:44	0° \mathbb{Z}	
minimum elong	3166 Aug 02 23:08	11° Ω 11'19	1°33'37	asc. node	3167 Jul 09 18:40	7° \mathbb{Z} 34'37	

morning set	3167 Jul 11 11:42	11°☿09'12			3168 Jun 26 19:34	0°☿		
superior conj	3167 Jul 18 10:46	26°☿14'46	1°20'00		superior conj	3168 Jul 01 22:18	11°☿11'13	1°01'49
minimum elong	3167 Jul 18 08:25	26°☿01'55	1°19'41		minimum elong	3168 Jul 01 20:04	10°☿58'54	1°01'26
max. Earth dist.	3167 Jul 19 19:48	29°☿14'43	1.32708 AU		max. Earth dist.	3168 Jul 02 06:21	11°☿55'35	1.32206 AU
	3167 Jul 20 04:09	0°♌			evening rise	3168 Jul 08 20:26	26°☿10'13	
evening rise	3167 Jul 25 14:54	11°♌31'43				3168 Jul 10 16:51	0°♌	
	3167 Aug 04 07:26	0°♍				3168 Jul 27 21:22	0°♍	
desc. node	3167 Aug 16 07:43	18°♍48'31			desc. node	3168 Aug 02 04:43	7°♍04'47	
	3167 Aug 25 14:33	0°♎			evening max el	3168 Aug 08 10:12	13°♍53'10	26°55'02
evening max el	3167 Aug 27 05:24	1°♎35'38	27°24'07		retrograde	3168 Aug 22 08:10	21°♍05'11	
retrograde	3167 Sep 09 23:47	8°♎51'50			evening set	3168 Aug 29 07:15	18°♍58'21	
evening set	3167 Sep 17 04:31	6°♎21'07			min. Earth dist.	3168 Sep 02 00:25	16°♍19'20	0.60729 AU
min. Earth dist.	3167 Sep 20 19:06	3°♎23'13	0.62702 AU		inferior conj	3168 Sep 05 05:21	13°♍37'33	-4°29'34
inferior conj	3167 Sep 23 15:18	0°♎39'56	-3°40'36		minimum elong	3168 Sep 05 10:40	13°♍26'18	4°28'33
minimum elong	3167 Sep 23 20:53	0°♎26'32	3°38'59		morning rise	3168 Sep 12 15:56	8°♍50'09	
	3167 Sep 24 08:02	30°♏♍			direct	3168 Sep 15 01:09	8°♍27'52	
morning rise	3167 Sep 30 14:46	25°♏31'32			asc. node	3168 Sep 21 14:55	11°♏24'59	
direct	3167 Oct 03 00:48	25°♏04'50			morning max el	3168 Sep 22 07:29	12°♏03'28	18°03'40
asc. node	3167 Oct 05 17:50	25°♏39'19				3168 Oct 04 06:58	0°♎	
morning max el	3167 Oct 09 18:16	28°♏31'44	17°51'00		morning set	3168 Oct 08 02:46	7°♎03'26	
	3167 Oct 11 03:17	0°♎						
morning set	3167 Oct 25 21:18	23°♎36'05			superior conj	3168 Oct 18 00:08	25°♎10'09	1°12'21
	3167 Oct 29 12:02	0°♏			minimum elong	3168 Oct 18 04:23	25°♎29'01	1°11'52
						3168 Oct 20 18:05	0°♏	
superior conj	3167 Nov 06 07:21	13°♏27'59	0°40'35		max. Earth dist.	3168 Oct 25 15:22	8°♏19'56	1.41832 AU
minimum elong	3167 Nov 06 10:59	13°♏43'20	0°40'05		desc. node	3168 Oct 29 04:04	14°♏09'09	
desc. node	3167 Nov 12 07:03	23°♏22'32			evening rise	3168 Oct 31 05:04	17°♏26'59	
max. Earth dist.	3167 Nov 13 04:16	24°♏48'31	1.43527 AU			3168 Nov 08 06:21	0°♏	
	3167 Nov 16 10:01	0°♏				3168 Nov 29 23:12	0°♏	
evening rise	3167 Nov 21 07:21	7°♏40'17			evening max el	3168 Dec 03 11:10	3°♏49'32	22°36'22
	3167 Dec 06 04:13	0°♏			retrograde	3168 Dec 13 07:07	9°♏39'57	
evening max el	3167 Dec 21 17:35	20°♏15'22	21°19'27		evening set	3168 Dec 17 22:57	7°♏46'20	
retrograde	3167 Dec 30 11:30	25°♏26'54			asc. node	3168 Dec 18 14:07	7°♏12'59	
asc. node	3168 Jan 01 17:05	24°♏59'33			inferior conj	3168 Dec 23 07:38	1°♏24'42	1°33'23
evening set	3168 Jan 03 15:33	23°♏49'39			minimum elong	3168 Dec 23 05:41	1°♏31'27	1°32'38
inferior conj	3168 Jan 08 23:59	17°♏34'56	2°16'50		min. Earth dist.	3168 Dec 23 03:18	1°♏39'42	0.67938 AU
minimum elong	3168 Jan 08 21:32	17°♏43'26	2°16'02			3168 Dec 24 08:16	30°♏♏	
min. Earth dist.	3168 Jan 09 06:57	17°♏10'52	0.67736 AU		morning rise	3168 Dec 28 12:17	25°♏15'00	
morning rise	3168 Jan 14 03:19	11°♏22'19			direct	3169 Jan 02 01:46	23°♏22'33	
direct	3168 Jan 19 07:35	9°♏07'03			morning max el	3169 Jan 11 05:28	28°♏44'42	21°57'19
morning max el	3168 Jan 29 17:16	15°♏18'26	23°24'26			3169 Jan 12 10:24	0°♏	
desc. node	3168 Feb 08 06:14	26°♏40'09			desc. node	3169 Jan 25 03:17	16°♏19'21	
	3168 Feb 10 17:31	0°♏				3169 Feb 03 10:42	0°♏	
	3168 Mar 01 14:04	0°♏			morning set	3169 Feb 12 22:50	14°♏49'33	
morning set	3168 Mar 04 19:30	5°♏21'59			max. Earth dist.	3169 Feb 18 19:47	24°♏26'41	1.41309 AU
max. Earth dist.	3168 Mar 08 21:26	12°♏22'10	1.39165 AU			3169 Feb 22 02:39	0°♏	
superior conj	3168 Mar 16 11:10	26°♏02'17	-1°47'47		superior conj	3169 Feb 26 13:14	7°♏43'04	-2°03'09
minimum elong	3168 Mar 16 15:38	26°♏23'08	1°47'21		minimum elong	3169 Feb 26 15:57	7°♏55'06	2°03'02
	3168 Mar 18 13:48	0°♏			evening rise	3169 Mar 09 02:42	26°♏56'38	
evening rise	3168 Mar 25 19:27	13°♏54'51				3169 Mar 10 18:20	0°♏	
asc. node	3168 Mar 29 16:25	21°♏19'08			asc. node	3169 Mar 16 13:25	10°♏25'36	
	3168 Apr 03 13:17	0°♏			evening max el	3169 Mar 25 09:53	22°♏53'59	18°13'49
evening max el	3168 Apr 11 01:54	10°♏08'29	18°40'06		retrograde	3169 Apr 01 09:39	26°♏24'18	
retrograde	3168 Apr 19 00:22	14°♏01'35			evening set	3169 Apr 03 22:08	25°♏57'48	
evening set	3168 Apr 21 06:30	13°♏43'54			inferior conj	3169 Apr 10 21:48	21°♏12'49	2°59'08
inferior conj	3168 Apr 29 00:13	9°♏19'52	1°57'46		minimum elong	3169 Apr 11 01:09	21°♏05'25	2°58'26
minimum elong	3168 Apr 29 03:53	9°♏12'56	1°56'40		min. Earth dist.	3169 Apr 14 07:12	18°♏14'37	0.59725 AU
min. Earth dist.	3168 May 02 08:40	6°♏49'08	0.57629 AU		morning rise	3169 Apr 18 01:44	15°♏30'40	
desc. node	3168 May 06 05:23	4°♏24'11			desc. node	3169 Apr 23 02:26	13°♏40'41	
morning rise	3168 May 06 22:06	4°♏03'53			direct	3169 Apr 24 12:34	13°♏35'07	
direct	3168 May 12 14:08	2°♏44'01			morning max el	3169 May 08 20:40	21°♏24'28	27°27'27
morning max el	3168 May 26 22:48	10°♏18'24	26°27'50			3169 May 16 08:17	0°♏	
	3168 Jun 11 00:45	0°♏				3169 Jun 03 22:36	0°♏	
morning set	3168 Jun 24 22:26	25°♏59'35			morning set	3169 Jun 09 06:21	10°♏39'47	
asc. node	3168 Jun 25 15:43	27°♏31'04			asc. node	3169 Jun 12 12:44	17°♏35'38	

superior conj	3169 Jun 16 09:56	26° Π 04'52	0°39'55	max. Earth dist.	3170 May 30 03:55	7° Π 12'35	1.32393 AU
minimum elong	3169 Jun 16 08:16	25° Π 55'42	0°39'35	asc. node	3170 May 30 09:45	7° Π 44'11	
max. Earth dist.	3169 Jun 15 18:23	24° Π 39'18	1.32100 AU				
	3169 Jun 18 04:37	0° \mathfrak{S}		superior conj	3170 May 31 20:01	10° Π 50'27	0°14'59
evening rise	3169 Jun 23 05:59	10° \mathfrak{S} 58'17		minimum elong	3170 May 31 19:19	10° Π 46'40	0°14'50
	3169 Jul 02 23:06	0° Ω		behind sun begin	3170 May 31 17:28	10° Π 36'35	
desc. node	3169 Jul 20 01:43	24° Ω 08'26		behind sun end	3170 May 31 21:10	10° Π 56'45	
evening max el	3169 Jul 21 07:46	25° Ω 22'29	25°53'37	evening rise	3170 Jun 07 17:34	25° Π 49'19	
	3169 Jul 27 05:31	0° \mathfrak{M}			3170 Jun 09 17:19	0° \mathfrak{S}	
retrograde	3169 Aug 04 07:19	2° \mathfrak{M} 30'48			3170 Jun 27 10:32	0° Ω	
evening set	3169 Aug 10 12:22	0° \mathfrak{M} 58'42		evening max el	3170 Jul 02 22:36	6° Ω 08'33	24°27'38
	3169 Aug 12 07:56	30° \mathfrak{R} Ω		desc. node	3170 Jul 06 22:43	9° Ω 30'42	
min. Earth dist.	3169 Aug 14 20:04	28° Ω 21'58	0.58667 AU	retrograde	3170 Jul 16 19:43	13° Ω 09'22	
inferior conj	3169 Aug 18 02:03	25° Ω 59'47	-5°00'52	evening set	3170 Jul 21 17:32	12° Ω 15'21	
minimum elong	3169 Aug 18 04:38	25° Ω 55'02	5°00'40	min. Earth dist.	3170 Jul 27 09:33	9° Ω 22'20	0.56779 AU
morning rise	3169 Aug 25 23:07	21° Ω 35'33		inferior conj	3170 Jul 30 02:47	7° Ω 38'33	-5°00'46
direct	3169 Aug 28 10:31	21° Ω 15'31		minimum elong	3170 Jul 30 00:00	7° Ω 42'59	5°00'33
morning max el	3169 Sep 05 14:28	25° Ω 09'30	18°36'36	morning rise	3170 Aug 07 09:08	3° Ω 35'29	
asc. node	3169 Sep 08 11:58	28° Ω 21'43		direct	3170 Aug 10 00:56	3° Ω 16'18	
	3169 Sep 09 17:53	0° \mathfrak{M}		morning max el	3170 Aug 19 12:12	7° Ω 40'56	19°30'56
morning set	3169 Sep 21 20:02	21° \mathfrak{M} 04'18		asc. node	3170 Aug 26 09:01	16° Ω 14'53	
	3169 Sep 26 10:33	0° \mathfrak{L}			3170 Sep 03 03:03	0° \mathfrak{M}	
				morning set	3170 Sep 05 21:29	5° \mathfrak{M} 28'58	
superior conj	3169 Sep 30 14:42	7° \mathfrak{L} 56'15	1°32'41				
minimum elong	3169 Sep 30 17:43	8° \mathfrak{L} 10'20	1°32'27	superior conj	3170 Sep 13 21:34	21° \mathfrak{M} 30'58	1°42'53
max. Earth dist.	3169 Oct 07 21:36	21° \mathfrak{L} 08'41	1.39822 AU	minimum elong	3170 Sep 13 22:49	21° \mathfrak{M} 37'04	1°42'51
evening rise	3169 Oct 12 00:43	28° \mathfrak{L} 13'44			3170 Sep 18 07:17	0° \mathfrak{L}	
	3169 Oct 13 02:08	0° \mathfrak{M}		max. Earth dist.	3170 Sep 20 01:38	3° \mathfrak{L} 17'35	1.37756 AU
desc. node	3169 Oct 16 01:04	4° \mathfrak{M} 51'05		evening rise	3170 Sep 23 19:48	10° \mathfrak{L} 05'41	
	3169 Nov 01 19:21	0° \mathfrak{J}		desc. node	3170 Oct 02 22:04	25° \mathfrak{L} 24'26	
evening max el	3169 Nov 16 00:59	17° \mathfrak{J} 26'06	23°56'20		3170 Oct 05 20:07	0° \mathfrak{M}	
retrograde	3169 Nov 26 23:30	23° \mathfrak{J} 52'21			3170 Oct 28 10:55	0° \mathfrak{J}	
evening set	3169 Dec 02 04:33	21° \mathfrak{J} 42'09		evening max el	3170 Oct 29 13:08	1° \mathfrak{J} 05'51	25°12'40
asc. node	3169 Dec 05 11:09	18° \mathfrak{J} 09'27		retrograde	3170 Nov 10 11:42	8° \mathfrak{J} 00'02	
min. Earth dist.	3169 Dec 06 23:44	16° \mathfrak{J} 08'39	0.67784 AU	evening set	3170 Nov 16 06:42	5° \mathfrak{J} 34'41	
inferior conj	3169 Dec 07 14:49	15° \mathfrak{J} 17'28	0°43'51	min. Earth dist.	3170 Nov 20 18:00	0° \mathfrak{J} 35'27	0.67288 AU
minimum elong	3169 Dec 07 13:48	15° \mathfrak{J} 20'56	0°43'25		3170 Nov 21 04:54	30° \mathfrak{R} \mathfrak{M}	
morning rise	3169 Dec 12 23:04	9° \mathfrak{J} 12'37		inferior conj	3170 Nov 21 19:50	29° \mathfrak{M} 11'15	-0°10'38
direct	3169 Dec 16 22:39	7° \mathfrak{J} 42'49		minimum elong	3170 Nov 21 20:06	29° \mathfrak{M} 10'23	0°10'30
morning max el	3169 Dec 25 00:26	12° \mathfrak{J} 21'35	20°38'39	transit middle	3170 Nov 21 20:06	29° \mathfrak{M} 10'23	0°10'30
	3170 Jan 07 16:06	0° \mathfrak{Z}		transit begin	3170 Nov 21 17:59	29° \mathfrak{M} 17'17	
desc. node	3170 Jan 12 00:19	6° \mathfrak{Z} 22'41		transit end	3170 Nov 21 22:13	29° \mathfrak{M} 03'30	
morning set	3170 Jan 23 01:17	23° \mathfrak{Z} 10'39		asc. node	3170 Nov 22 08:13	28° \mathfrak{M} 31'04	
	3170 Jan 27 09:43	0° \approx		morning rise	3170 Nov 27 09:44	23° \mathfrak{M} 13'26	
max. Earth dist.	3170 Feb 01 01:30	7° \approx 26'56	1.43159 AU	direct	3170 Nov 30 21:03	22° \mathfrak{M} 03'55	
				morning max el	3170 Dec 08 03:19	26° \mathfrak{M} 09'28	19°32'56
superior conj	3170 Feb 07 15:27	18° \approx 16'35	-2°05'40		3170 Dec 11 12:57	0° \mathfrak{J}	
minimum elong	3170 Feb 07 13:37	18° \approx 08'55	2°05'38	greatest brilliancy	3170 Dec 21 07:51	13° \mathfrak{J} 41'45	-0.7m
	3170 Feb 14 12:20	0° \mathfrak{H}		desc. node	3170 Dec 29 21:20	26° \mathfrak{J} 43'24	
evening rise	3170 Feb 19 18:25	9° \mathfrak{H} 12'58			3171 Jan 01 00:20	0° \mathfrak{Z}	
asc. node	3170 Mar 03 10:26	29° \mathfrak{H} 01'42		morning set	3171 Jan 01 22:22	1° \mathfrak{Z} 25'08	
	3170 Mar 04 02:09	0° \mathfrak{Y}		max. Earth dist.	3171 Jan 14 13:57	21° \mathfrak{Z} 11'14	1.44492 AU
evening max el	3170 Mar 08 21:41	6° \mathfrak{Y} 00'40	18°07'15				
retrograde	3170 Mar 15 10:16	9° \mathfrak{Y} 23'46		superior conj	3171 Jan 18 15:34	27° \mathfrak{Z} 40'04	-1°50'22
evening set	3170 Mar 18 04:23	8° \mathfrak{Y} 46'59		minimum elong	3171 Jan 18 08:05	27° \mathfrak{Z} 10'05	1°49'50
inferior conj	3170 Mar 24 13:49	3° \mathfrak{Y} 41'34	3°30'50		3171 Jan 20 02:23	0° \approx	
minimum elong	3170 Mar 24 15:28	3° \mathfrak{Y} 37'23	3°30'40	evening rise	3171 Feb 01 14:09	20° \approx 34'59	
min. Earth dist.	3170 Mar 27 13:39	0° \mathfrak{Y} 40'39	0.61875 AU		3171 Feb 07 04:39	0° \mathfrak{H}	
	3170 Mar 28 06:48	30° \mathfrak{R} \mathfrak{H}		asc. node	3171 Feb 18 07:29	16° \mathfrak{H} 57'28	
morning rise	3170 Mar 31 01:02	27° \mathfrak{H} 43'02		evening max el	3171 Feb 20 10:17	19° \mathfrak{H} 20'05	18°19'41
direct	3170 Apr 06 21:34	25° \mathfrak{H} 16'12		retrograde	3171 Feb 26 21:22	22° \mathfrak{H} 49'20	
desc. node	3170 Apr 09 23:28	25° \mathfrak{H} 43'19		evening set	3171 Mar 01 21:04	22° \mathfrak{H} 01'12	
	3170 Apr 17 11:40	0° \mathfrak{Y}		inferior conj	3171 Mar 07 20:06	16° \mathfrak{H} 36'48	3°39'33
morning max el	3170 Apr 21 00:54	3° \mathfrak{Y} 13'21	27°50'49	minimum elong	3171 Mar 07 19:57	16° \mathfrak{H} 37'14	3°39'33
	3170 May 10 20:08	0° \mathfrak{B}		min. Earth dist.	3171 Mar 10 05:31	13° \mathfrak{H} 54'35	0.63835 AU
morning set	3170 May 24 09:35	25° \mathfrak{B} 03'44		morning rise	3171 Mar 13 18:00	10° \mathfrak{H} 29'28	
	3170 May 26 18:49	0° \mathfrak{I}		direct	3171 Mar 20 15:08	7° \mathfrak{H} 43'07	

desc. node	3171 Mar 27 20:30	10° X 12'33		morning rise	3172 Feb 25 01:16	23° \approx 40'02	
morning max el	3171 Apr 03 09:18	15° X 39'40	27°36'59	direct	3172 Mar 02 15:47	20° \approx 48'40	
	3171 Apr 15 03:45	0° Y		desc. node	3172 Mar 13 17:33	26° \approx 33'53	
	3171 May 03 12:45	0° B		morning max el	3172 Mar 15 19:05	28° \approx 32'47	26°50'43
morning set	3171 May 08 05:35	9° B 02'32			3172 Mar 17 04:42	0° X	
max. Earth dist.	3171 May 13 06:47	19° B 21'16	1.33112 AU		3172 Apr 07 22:43	0° Y	
				morning set	3172 Apr 20 15:11	22° Y 26'26	
superior conj	3171 May 16 02:39	25° B 21'02	-0°12'16		3172 Apr 24 12:00	0° B	
minimum elong	3171 May 16 03:16	25° B 24'18	0°12'09	max. Earth dist.	3172 Apr 24 23:25	0° B 57'09	1.34288 AU
behind sun begin	3171 May 15 23:46	25° B 05'36					
behind sun end	3171 May 16 06:46	25° B 43'02		superior conj	3172 Apr 29 03:45	9° B 30'21	-0°40'48
asc. node	3171 May 17 06:46	27° B 51'51		minimum elong	3172 Apr 29 05:52	9° B 41'23	0°40'23
	3171 May 18 06:35	0° II		asc. node	3172 May 03 03:49	17° B 54'45	
evening rise	3171 May 23 05:14	10° II 36'01		evening rise	3172 May 06 15:08	25° B 12'28	
	3171 Jun 02 05:31	0° B			3172 May 08 23:02	0° II	
evening max el	3171 Jun 14 12:14	16° B 34'39	22°51'11	evening max el	3172 May 26 08:31	27° II 13'35	21°19'19
desc. node	3171 Jun 23 19:44	22° B 35'50			3172 May 29 15:14	0° B	
retrograde	3171 Jun 27 19:44	23° B 12'26		retrograde	3172 Jun 07 09:38	3° B 07'51	
evening set	3171 Jul 01 05:09	22° B 47'11		evening set	3172 Jun 09 17:24	2° B 55'27	
min. Earth dist.	3171 Jul 08 20:52	19° B 23'51	0.55409 AU	desc. node	3172 Jun 09 16:46	2° B 55'44	
inferior conj	3171 Jul 10 08:26	18° B 32'37	-4°14'54		3172 Jun 17 04:49	30° R II	
minimum elong	3171 Jul 10 00:46	18° B 43'42	4°13'15	inferior conj	3172 Jun 19 02:46	28° II 56'22	-2°41'21
morning rise	3171 Jul 18 22:41	14° B 40'55		minimum elong	3172 Jun 18 19:34	29° II 06'27	2°39'00
direct	3171 Jul 21 20:48	14° B 20'57		min. Earth dist.	3172 Jun 19 08:24	28° II 48'28	0.54865 AU
morning max el	3171 Aug 01 22:30	19° B 29'14	20°46'29	morning rise	3172 Jun 27 22:13	24° II 59'02	
	3171 Aug 10 07:50	0° Q		direct	3172 Jul 01 06:55	24° II 34'31	
asc. node	3171 Aug 13 06:03	4° Q 50'57			3172 Jul 13 06:54	0° B	
morning set	3171 Aug 21 04:22	20° Q 09'35		morning max el	3172 Jul 13 21:32	0° B 33'19	22°19'51
	3171 Aug 25 22:07	0° P		asc. node	3172 Jul 30 03:05	23° B 59'31	
					3172 Aug 02 04:20	0° Q	
superior conj	3171 Aug 28 16:02	5° P 40'12	1°44'39	morning set	3172 Aug 04 14:32	5° Q 00'04	
minimum elong	3171 Aug 28 15:40	5° P 38'19	1°44'38				
max. Earth dist.	3171 Sep 02 09:25	15° P 08'32	1.35871 AU	superior conj	3172 Aug 11 18:28	20° Q 12'56	1°39'28
evening rise	3171 Sep 06 10:58	22° P 54'37		minimum elong	3172 Aug 11 16:56	20° Q 04'47	1°39'21
	3171 Sep 10 08:34	0° Q		max. Earth dist.	3172 Aug 15 01:40	27° Q 06'37	1.34328 AU
desc. node	3171 Sep 19 19:05	15° Q 44'13			3172 Aug 16 11:36	0° P	
	3171 Sep 29 13:17	0° M		evening rise	3172 Aug 19 17:40	6° P 28'08	
evening max el	3171 Oct 12 01:26	14° M 46'44	26°18'00		3172 Sep 01 23:56	0° Q	
retrograde	3171 Oct 24 19:03	21° M 57'38		desc. node	3172 Sep 05 16:07	5° Q 43'33	
evening set	3171 Oct 31 03:37	19° M 20'46		evening max el	3172 Sep 23 14:01	28° Q 20'18	27°04'43
min. Earth dist.	3171 Nov 04 07:45	14° M 57'04	0.66451 AU		3172 Sep 25 09:39	0° M	
inferior conj	3171 Nov 05 20:50	13° M 03'22	-1°08'42	retrograde	3172 Oct 06 20:42	5° M 37'28	
minimum elong	3171 Nov 05 22:41	12° M 57'43	1°07'54	evening set	3172 Oct 13 16:59	2° M 55'18	
asc. node	3171 Nov 09 05:16	9° M 15'10			3172 Oct 16 19:18	30° R Q	
morning rise	3171 Nov 11 18:16	7° M 15'11		min. Earth dist.	3172 Oct 17 14:34	29° Q 07'35	0.65267 AU
direct	3171 Nov 14 19:25	6° M 22'23		inferior conj	3172 Oct 19 15:39	26° Q 48'49	-2°08'43
morning max el	3171 Nov 21 13:10	10° M 05'20	18°42'36	minimum elong	3172 Oct 19 19:12	26° Q 38'46	2°07'20
	3171 Dec 05 19:39	0° X		morning rise	3172 Oct 25 22:16	21° Q 13'22	
morning set	3171 Dec 12 14:38	10° X 42'57		asc. node	3172 Oct 26 02:19	21° Q 08'37	
desc. node	3171 Dec 16 18:22	17° X 16'45		direct	3172 Oct 28 15:35	20° Q 33'26	
	3171 Dec 24 20:30	0° B		morning max el	3172 Nov 04 03:42	24° Q 03'15	18°08'48
					3172 Nov 08 23:53	0° M	
superior conj	3171 Dec 28 20:34	6° B 16'55	-1°16'05	morning set	3172 Nov 22 12:15	21° M 29'22	
minimum elong	3171 Dec 28 11:51	5° B 42'43	1°15'05		3172 Nov 27 16:58	0° X	
max. Earth dist.	3171 Dec 28 07:16	5° B 24'44	1.45158 AU	desc. node	3172 Dec 02 15:25	7° X 58'18	
	3172 Jan 12 19:57	0° \approx					
evening rise	3172 Jan 13 10:49	0° \approx 59'34		superior conj	3172 Dec 07 00:55	14° X 58'39	-0°29'34
greatest brilliancy	3172 Jan 20 23:07	13° \approx 02'22	-0.9m	minimum elong	3172 Dec 06 21:10	14° X 43'47	0°29'03
	3172 Feb 01 10:23	0° X		max. Earth dist.	3172 Dec 10 02:42	19° X 49'55	1.45085 AU
evening max el	3172 Feb 03 21:12	2° X 47'01	18°50'09		3172 Dec 16 14:35	0° B	
asc. node	3172 Feb 05 04:32	4° X 01'20		evening rise	3172 Dec 23 09:39	10° B 33'50	
retrograde	3172 Feb 10 15:01	6° X 33'44		greatest brilliancy	3173 Jan 05 03:04	0° \approx 07'47	-0.7m
evening set	3172 Feb 13 20:56	5° X 33'16			3173 Jan 05 01:00	0° \approx	
	3172 Feb 19 10:06	30° R \approx		evening max el	3173 Jan 17 04:17	16° \approx 17'05	19°37'14
inferior conj	3172 Feb 19 12:49	29° \approx 51'36	3°31'09	asc. node	3173 Jan 22 01:35	19° \approx 59'00	
minimum elong	3172 Feb 19 11:18	29° \approx 56'17	3°31'00	retrograde	3173 Jan 24 12:05	20° \approx 31'11	
min. Earth dist.	3172 Feb 21 06:38	27° \approx 42'28	0.65453 AU	evening set	3173 Jan 28 01:23	19° \approx 17'14	

inferior conj	3173 Feb 02 12:45	13°  20'23	3°09'53	minimum elong	3174 Jan 17 14:48	27°  08'28	2°37'53
minimum elong	3173 Feb 02 10:27	13°  27'58	3°09'26	min. Earth dist.	3174 Jan 18 07:08	26°  12'35	0.67461 AU
min. Earth dist.	3173 Feb 03 15:47	11°  51'26	0.66664 AU	morning rise	3174 Jan 22 21:03	20°  46'29	
morning rise	3173 Feb 07 19:17	7°  07'07		direct	3174 Jan 28 09:48	18°  19'35	
direct	3173 Feb 13 22:14	4°  23'31		morning max el	3174 Feb 08 12:49	24°  57'48	24°15'34
morning max el	3173 Feb 26 04:16	11°  41'12	25°40'18		3174 Feb 13 02:10	0° 	
desc. node	3173 Feb 28 14:36	14°  16'00		desc. node	3174 Feb 15 11:40	2°  55'57	
	3173 Mar 12 20:19	0° 			3174 Mar 06 08:11	0° 	
	3173 Mar 31 14:46	0° 		morning set	3174 Mar 16 08:41	16°  36'48	
morning set	3173 Apr 03 10:05	5°  02'57		max. Earth dist.	3174 Mar 20 01:34	23°  09'54	1.37921 AU
max. Earth dist.	3173 Apr 07 04:38	12°  05'20	1.35918 AU		3174 Mar 23 19:05	0° 	
superior conj	3173 Apr 12 20:40	23°  09'08	-1°09'08	superior conj	3174 Mar 27 01:59	6°  13'09	-1°35'07
minimum elong	3173 Apr 13 00:14	23°  09'46	1°08'32	minimum elong	3174 Mar 27 06:29	6°  34'45	1°34'32
	3173 Apr 16 05:24	0° 		evening rise	3174 Apr 04 20:53	23°  09'28'01	
asc. node	3173 Apr 20 00:53	7°  48'44		asc. node	3174 Apr 06 21:55	27°  09'28'40	
evening rise	3173 Apr 20 21:10	9°  32'15			3174 Apr 08 05:14	0° 	
	3173 May 01 23:31	0° 		evening max el	3174 Apr 21 11:18	20°  20'53	19°04'13
evening max el	3173 May 08 16:09	8°  27'19	20°02'12	retrograde	3174 Apr 30 04:26	24°  35'20	
retrograde	3173 May 19 00:22	13°  28'50		evening set	3174 May 02 06:51	24°  21'33	
evening set	3173 May 20 23:59	13°  18'33		inferior conj	3174 May 10 11:58	20°  08'11	1°07'25
desc. node	3173 May 27 13:46	10°  43'33		minimum elong	3174 May 10 14:32	20°  03'45	1°06'32
inferior conj	3173 May 29 23:38	9°  18'52	-0°42'37	min. Earth dist.	3174 May 13 12:34	18°  03'33	0.56574 AU
minimum elong	3173 May 29 21:39	9°  21'50	0°41'52	desc. node	3174 May 14 10:49	17°  27'28	
min. Earth dist.	3173 May 31 21:15	8°  10'27	0.55279 AU	morning rise	3174 May 18 19:05	15°  11'08	
morning rise	3173 Jun 07 17:33	4°  15'03		direct	3174 May 23 21:02	14°  10'29	
direct	3173 Jun 11 19:57	4°  20'23		morning max el	3174 Jun 07 03:39	21°  31'20	25°40'18
morning max el	3173 Jun 25 13:13	11°  05'55	24°02'28		3174 Jun 14 13:16	0° 	
	3173 Jul 09 17:51	0° 			3174 Jul 02 06:11	0° 	
asc. node	3173 Jul 17 00:08	13°  32'24		asc. node	3174 Jul 03 21:11	3°  21'47	
morning set	3173 Jul 20 02:16	19°  55'30		morning set	3174 Jul 04 13:48	4°  49'13	
	3173 Jul 24 18:41	0° 		superior conj	3174 Jul 11 12:49	19°  56'07	1°12'48
superior conj	3173 Jul 27 02:10	5°  01'04	1°28'32	minimum elong	3174 Jul 11 10:27	19°  43'10	1°12'26
minimum elong	3173 Jul 26 23:58	4°  09'09	1°28'18	max. Earth dist.	3174 Jul 12 11:10	21°  58'41	1.32441 AU
max. Earth dist.	3173 Jul 29 03:04	9°  02'41	1.33183 AU		3174 Jul 16 04:06	0° 	
evening rise	3173 Aug 03 11:48	20°  35'02		evening rise	3174 Jul 18 13:54	5°  04'01	
	3173 Aug 08 07:39	0° 			3174 Jul 31 23:04	0° 	
desc. node	3173 Aug 23 13:08	25°  13'43		desc. node	3174 Aug 10 10:08	14°  01'38	
	3173 Aug 27 00:01	0° 		evening max el	3174 Aug 19 09:06	24°  15'12	27°15'45
evening max el	3173 Sep 06 01:25	11°  34'34	27°25'43		3174 Aug 27 06:08	0° 	
retrograde	3173 Sep 19 16:11	18°  51'33		retrograde	3174 Sep 02 04:57	1°  29'44	
evening set	3173 Sep 26 19:59	16°  13'10			3174 Sep 07 21:05	30°  09'11	
min. Earth dist.	3173 Sep 30 12:12	12°  59'09	0.63739 AU	evening set	3174 Sep 09 08:51	29°  07'11	
inferior conj	3173 Oct 03 01:44	10°  21'56	-3°08'07	min. Earth dist.	3174 Sep 12 23:20	26°  19'24	0.61895 AU
minimum elong	3173 Oct 03 06:47	10°  09'01	3°06'26	inferior conj	3174 Sep 16 00:02	23°  13'34	-4°02'48
morning rise	3173 Oct 09 18:51	5°  02'45		minimum elong	3174 Sep 16 05:44	23°  21'35	4°01'22
direct	3173 Oct 12 06:51	4°  32'04		morning rise	3174 Sep 23 04:18	18°  13'50	
asc. node	3173 Oct 12 23:21	4°  34'26		direct	3174 Sep 25 13:39	18°  10'31	
morning max el	3173 Oct 18 20:10	7°  57'20	17°52'19	asc. node	3174 Sep 29 20:24	19°  31'58	
	3173 Nov 02 11:06	0° 		morning max el	3174 Oct 02 11:30	21°  13'40	17°54'00
morning set	3173 Nov 04 12:29	3°  33'18			3174 Oct 08 20:20	0° 	
				morning set	3174 Oct 18 08:56	16°  34'35	
superior conj	3173 Nov 17 00:09	24°  38'54	0°17'12		3174 Oct 25 20:32	0° 	
minimum elong	3173 Nov 17 01:59	24°  46'27	0°16'56	superior conj	3174 Oct 29 02:07	5°  37'54	0°55'29
desc. node	3173 Nov 19 12:28	28°  44'41		minimum elong	3174 Oct 29 06:21	5°  56'07	0°54'56
	3173 Nov 20 07:06	0° 		max. Earth dist.	3174 Nov 05 10:49	17°  59'40	1.42861 AU
max. Earth dist.	3173 Nov 22 20:58	4°  08'10	1.44287 AU	desc. node	3174 Nov 06 09:29	19°  32'07	
evening rise	3173 Dec 02 19:40	19°  42'18		evening rise	3174 Nov 12 08:32	29°  03'14	
	3173 Dec 09 13:48	0° 			3174 Nov 12 23:01	0° 	
	3173 Dec 31 10:41	0° 			3174 Dec 03 06:33	0° 	
evening max el	3173 Dec 31 06:10	29°  48'28	20°38'42	evening max el	3174 Dec 14 02:24	13°  20'49	21°51'21
retrograde	3174 Jan 08 10:09	4°  37'40		retrograde	3174 Dec 23 07:15	18°  49'28	
asc. node	3174 Jan 08 22:37	4°  36'11		asc. node	3174 Dec 26 19:38	17°  42'24	
evening set	3174 Jan 12 08:22	3°  09'06		evening set	3174 Dec 27 16:05	17°  05'14	
	3174 Jan 15 10:45	30°  08'33		inferior conj	3175 Jan 02 00:25	10°  46'51	1°59'13
inferior conj	3174 Jan 17 17:20	26°  59'46	2°38'37				

minimum elong	3175 Jan 01 22:08	10° Z 54'48	1°58'24	inferior conj	3175 Dec 17 08:06	24° Z 38'28	1°13'02
min. Earth dist.	3175 Jan 02 02:25	10° Z 39'56	0.67864 AU	minimum elong	3175 Dec 17 06:29	24° Z 44'00	1°12'24
morning rise	3175 Jan 07 04:01	4° Z 35'10		min. Earth dist.	3175 Dec 16 23:12	25° Z 09'06	0.67911 AU
direct	3175 Jan 12 01:48	2° Z 29'41		morning rise	3175 Dec 22 13:59	18° Z 30'19	
morning max el	3175 Jan 21 22:45	8° Z 20'24	22°46'44	direct	3175 Dec 26 21:21	16° Z 47'38	
desc. node	3175 Feb 02 08:43	22° Z 17'18		morning max el	3176 Jan 04 13:28	21° Z 50'47	21°22'23
	3175 Feb 07 20:03	0° \approx			3176 Jan 11 11:50	0° Z	
morning set	3175 Feb 25 04:57	26° \approx 53'18		desc. node	3176 Jan 20 05:43	12° Z 07'45	
	3175 Feb 27 01:53	0° X			3176 Feb 01 03:19	0° \approx	
max. Earth dist.	3175 Mar 01 21:03	4° X 44'10	1.40089 AU	morning set	3176 Feb 04 20:17	5° \approx 47'57	
				max. Earth dist.	3176 Feb 11 21:42	17° \approx 10'26	1.42145 AU
superior conj	3175 Mar 09 15:27	18° X 27'21	-1°55'33				
minimum elong	3175 Mar 09 19:29	18° X 45'48	1°55'15	superior conj	3176 Feb 19 07:53	29° \approx 40'40	-2°06'07
	3175 Mar 15 20:23	0° Y		minimum elong	3176 Feb 19 09:01	29° \approx 45'32	2°06'06
evening rise	3175 Mar 19 11:14	6° Y 52'22			3176 Feb 19 12:22	0° X	
asc. node	3175 Mar 24 18:57	16° Y 49'36		evening rise	3176 Mar 01 12:22	19° X 35'36	
	3175 Apr 02 02:38	0° Z			3176 Mar 07 07:07	0° Y	
evening max el	3175 Apr 04 15:36	2° Z 50'22	18°26'29	asc. node	3176 Mar 10 15:59	5° Y 44'18	
retrograde	3175 Apr 12 03:10	6° Z 32'03		evening max el	3176 Mar 18 01:38	15° Y 46'11	18°08'43
evening set	3175 Apr 14 11:53	6° Z 11'02		retrograde	3176 Mar 24 19:19	19° Y 11'24	
inferior conj	3175 Apr 21 21:32	1° Z 38'21	2°27'47	evening set	3176 Mar 27 10:16	18° Y 40'42	
minimum elong	3175 Apr 22 01:21	1° Z 30'38	2°26'47	inferior conj	3176 Apr 03 03:26	13° Y 47'14	3°15'45
	3175 Apr 23 21:56	30° R Y		minimum elong	3176 Apr 03 06:07	13° Y 40'53	3°15'20
min. Earth dist.	3175 Apr 25 08:07	28° Y 52'40	0.58484 AU	min. Earth dist.	3176 Apr 06 09:52	10° Y 44'38	0.60653 AU
morning rise	3175 Apr 29 11:48	26° Y 09'35		morning rise	3176 Apr 09 23:55	7° Y 57'05	
desc. node	3175 May 01 07:51	25° Y 20'51		direct	3176 Apr 16 16:15	5° Y 46'43	
direct	3175 May 05 12:39	24° Y 34'32		desc. node	3176 Apr 17 04:53	5° Y 47'30	
	3175 May 17 09:55	0° Z		morning max el	3176 Apr 30 22:37	13° Y 40'38	27°41'56
morning max el	3175 May 19 22:06	2° Z 17'22	26°57'21		3176 May 13 23:58	0° Z	
	3175 Jun 08 20:35	0° II			3176 May 31 04:42	0° II	
morning set	3175 Jun 18 23:32	19° II 35'56		morning set	3176 Jun 02 05:41	4° II 09'35	
asc. node	3175 Jun 20 18:13	23° II 22'18		asc. node	3176 Jun 06 15:16	13° II 29'01	
	3175 Jun 23 19:31	0° E		max. Earth dist.	3176 Jun 08 09:49	17° II 20'38	1.32169 AU
superior conj	3175 Jun 26 00:35	4° E 52'03	0°52'57	superior conj	3176 Jun 09 11:46	19° II 42'51	0°29'41
minimum elong	3175 Jun 25 22:33	4° E 40'46	0°52'34	minimum elong	3176 Jun 09 10:28	19° II 35'43	0°29'24
max. Earth dist.	3175 Jun 25 22:37	4° E 41'10	1.32104 AU		3176 Jun 14 04:26	0° E	
evening rise	3175 Jul 02 21:22	19° E 47'04		evening rise	3176 Jun 16 07:59	4° E 36'56	
	3175 Jul 07 21:59	0° O			3176 Jun 29 19:07	0° O	
	3175 Jul 26 17:56	0° P		evening max el	3176 Jul 13 05:16	17° O 21'36	25°19'29
desc. node	3175 Jul 28 07:07	1° P 50'01		desc. node	3176 Jul 14 04:07	18° O 14'41	
evening max el	3175 Aug 01 10:44	6° P 11'46	26°32'34	retrograde	3176 Jul 27 05:01	24° O 27'44	
retrograde	3175 Aug 15 09:59	13° P 23'13		evening set	3176 Aug 01 21:52	23° O 12'30	
evening set	3175 Aug 22 02:58	11° P 29'54		min. Earth dist.	3176 Aug 06 17:10	20° O 30'37	0.57815 AU
min. Earth dist.	3175 Aug 26 00:18	8° P 54'08	0.59847 AU	inferior conj	3176 Aug 09 19:30	18° O 22'50	-5°05'40
inferior conj	3175 Aug 29 07:04	6° P 17'58	-4°45'46	minimum elong	3176 Aug 09 20:02	18° O 21'53	5°05'39
minimum elong	3175 Aug 29 11:35	6° P 08'57	4°45'06	morning rise	3176 Aug 17 20:37	14° O 07'53	
morning rise	3175 Sep 05 22:17	1° P 40'36		direct	3176 Aug 20 09:31	13° O 48'25	
direct	3175 Sep 08 07:56	1° P 19'38		morning max el	3176 Aug 29 01:53	17° O 54'26	18°57'04
morning max el	3175 Sep 15 22:30	5° P 01'53	18°15'06	asc. node	3176 Sep 02 14:29	23° O 12'14	
asc. node	3175 Sep 16 17:26	5° P 49'37			3176 Sep 06 23:17	0° P	
morning set	3175 Oct 01 19:54	0° O 17'23		morning set	3176 Sep 14 17:06	14° P 29'57	
	3175 Oct 01 16:14	0° O			3176 Sep 22 14:52	0° O	
superior conj	3175 Oct 11 04:50	17° O 49'15	1°22'19	superior conj	3176 Sep 23 03:00	0° O 58'11	1°38'09
minimum elong	3175 Oct 11 08:42	18° O 06'47	1°21'55	minimum elong	3176 Sep 23 05:16	1° O 09'03	1°38'00
	3175 Oct 18 02:24	0° M		max. Earth dist.	3176 Sep 29 23:50	13° O 41'56	1.38935 AU
max. Earth dist.	3175 Oct 18 19:05	1° M 11'12	1.40999 AU	evening rise	3176 Oct 03 20:48	20° O 29'43	
evening rise	3175 Oct 23 14:51	9° M 13'40			3176 Oct 09 13:27	0° M	
desc. node	3175 Oct 24 06:28	10° M 17'14		desc. node	3176 Oct 10 03:28	0° M 56'38	
	3175 Nov 06 00:31	0° X			3176 Oct 30 02:53	0° X	
evening max el	3175 Nov 26 18:02	26° X 55'38	23°10'25	evening max el	3176 Nov 08 07:08	10° X 35'08	24°29'42
	3175 Nov 30 03:43	0° Z		retrograde	3176 Nov 19 16:23	17° X 14'07	
retrograde	3175 Dec 07 01:43	3° Z 02'36		evening set	3176 Nov 25 03:15	14° X 57'30	
evening set	3175 Dec 11 22:54	1° Z 02'03		asc. node	3176 Nov 29 13:42	9° X 56'05	
	3175 Dec 13 01:36	30° R X		min. Earth dist.	3176 Nov 29 19:05	9° X 38'15	0.67619 AU
asc. node	3175 Dec 13 16:41	29° X 19'52		inferior conj	3176 Nov 30 14:37	8° X 32'56	0°21'18

minimum elong	3176 Nov 30 14:06	8° ♊ 34'40	0°21'05			3177 Nov 07 11:53	30° ♋	
morning rise	3176 Dec 06 01:01	2° ♊ 30'34		evening set		3177 Nov 09 03:25	28° ♋ 47'48	
direct	3176 Dec 09 19:14	1° ♊ 09'33		min. Earth dist.		3177 Nov 13 11:39	24° ♋ 03'42	0.66982 AU
morning max el	3176 Dec 17 11:43	5° ♊ 32'43	20°08'50	inferior conj		3177 Nov 14 18:11	22° ♋ 26'39	-0°34'51
	3177 Jan 04 13:40	0° ♋		minimum elong		3177 Nov 14 19:05	22° ♋ 23'46	0°34'27
desc. node	3177 Jan 06 02:45	2° ♋ 19'41		asc. node		3177 Nov 16 10:45	20° ♋ 20'34	
morning set	3177 Jan 13 17:13	13° ♋ 56'50		morning rise		3177 Nov 20 11:04	16° ♋ 32'40	
	3177 Jan 23 22:36	0° ♋		direct		3177 Nov 23 17:54	15° ♋ 30'35	
max. Earth dist.	3177 Jan 24 06:34	0° ♋ 31'51	1.43812 AU	morning max el		3177 Nov 30 17:47	19° ♋ 24'46	19°09'34
						3177 Dec 09 01:40	0° ♋	
superior conj	3177 Jan 29 22:58	9° ♋ 44'21	-2°01'34	morning set		3177 Dec 23 20:14	22° ♋ 32'49	
minimum elong	3177 Jan 29 18:36	9° ♋ 26'26	2°01'23	desc. node		3177 Dec 23 23:48	22° ♋ 46'41	
	3177 Feb 10 23:18	0° ♋				3177 Dec 28 15:02	0° ♋	
evening rise	3177 Feb 11 20:03	1° ♋ 29'34		max. Earth dist.		3178 Jan 06 22:02	14° ♋ 33'18	1.44873 AU
asc. node	3177 Feb 25 13:01	24° ♋ 04'36						
evening max el	3177 Mar 01 14:11	28° ♋ 59'31	18°10'15	superior conj		3178 Jan 09 13:24	18° ♋ 43'37	-1°37'57
	3177 Mar 02 16:13	0° ♋		minimum elong		3178 Jan 09 04:32	18° ♋ 08'31	1°37'08
retrograde	3177 Mar 08 00:49	2° ♋ 23'17				3178 Jan 16 14:41	0° ♋	
evening set	3177 Mar 10 21:26	1° ♋ 41'37		evening rise		3178 Jan 24 06:15	12° ♋ 27'58	
	3177 Mar 13 10:56	30° ♋				3178 Feb 04 00:07	0° ♋	
inferior conj	3177 Mar 17 01:59	26° ♋ 27'55	3°36'54	asc. node		3178 Feb 12 10:03	11° ♋ 40'14	
minimum elong	3177 Mar 17 02:51	26° ♋ 25'38	3°36'51	evening max el		3178 Feb 13 02:22	12° ♋ 23'08	18°30'26
min. Earth dist.	3177 Mar 19 20:01	23° ♋ 32'55	0.62755 AU	retrograde		3178 Feb 19 15:17	15° ♋ 58'28	
morning rise	3177 Mar 23 07:07	20° ♋ 25'12		evening set		3178 Feb 22 17:34	15° ♋ 05'04	
direct	3177 Mar 30 05:05	17° ♋ 48'25		inferior conj		3178 Feb 28 13:10	9° ♋ 32'47	3°37'47
desc. node	3177 Apr 04 01:56	18° ♋ 56'25		minimum elong		3178 Feb 28 12:22	9° ♋ 35'08	3°37'45
morning max el	3177 Apr 13 04:43	25° ♋ 45'34	27°49'12	min. Earth dist.		3178 Mar 02 15:48	7° ♋ 03'41	0.64574 AU
	3177 Apr 17 02:48	0° ♋		morning rise		3178 Mar 06 06:36	3° ♋ 23'17	
	3177 May 07 12:05	0° ♋		direct		3178 Mar 13 01:35	0° ♋ 33'27	
morning set	3177 May 17 06:07	18° ♋ 23'24		desc. node		3178 Mar 21 23:00	4° ♋ 18'13	
max. Earth dist.	3177 May 22 16:58	29° ♋ 44'37	1.32647 AU	morning max el		3178 Mar 26 14:10	8° ♋ 25'41	27°20'53
	3177 May 22 19:51	0° ♋				3178 Apr 12 08:24	0° ♋	
superior conj	3177 May 24 20:37	4° ♋ 22'41	0°03'40			3178 Apr 29 19:33	0° ♋	
minimum elong	3177 May 24 20:27	4° ♋ 21'44	0°03'37	morning set		3178 Apr 30 22:12	2° ♋ 09'18	
behind sun begin	3177 May 24 15:21	3° ♋ 54'08		max. Earth dist.		3178 May 05 16:12	11° ♋ 41'59	1.33559 AU
behind sun end	3177 May 25 01:33	4° ♋ 49'22						
asc. node	3177 May 24 12:18	3° ♋ 37'38		superior conj		3178 May 09 01:13	18° ♋ 45'33	-0°24'18
evening rise	3177 May 31 19:51	19° ♋ 26'57		minimum elong		3178 May 09 02:27	18° ♋ 52'06	0°24'02
	3177 Jun 05 23:37	0° ♋		asc. node		3178 May 11 09:21	23° ♋ 44'18	
evening max el	3177 Jun 24 18:51	27° ♋ 55'44	23°47'00			3178 May 14 07:40	0° ♋	
	3177 Jun 27 02:28	0° ♋		evening rise		3178 May 16 07:04	4° ♋ 10'55	
desc. node	3177 Jul 01 01:09	2° ♋ 43'12				3178 May 30 11:37	0° ♋	
retrograde	3177 Jul 08 11:38	4° ♋ 48'24		evening max el		3178 Jun 06 10:19	8° ♋ 23'23	22°10'44
evening set	3177 Jul 12 17:54	4° ♋ 08'29		desc. node		3178 Jun 17 22:11	14° ♋ 41'00	
min. Earth dist.	3177 Jul 19 05:09	1° ♋ 04'16	0.56110 AU	retrograde		3178 Jun 19 06:36	14° ♋ 45'12	
	3177 Jul 20 23:44	30° ♋		evening set		3178 Jun 22 03:17	14° ♋ 27'01	
inferior conj	3177 Jul 21 11:39	29° ♋ 41'53	-4°47'31	min. Earth dist.		3178 Jun 30 16:02	10° ♋ 47'06	0.55063 AU
minimum elong	3177 Jul 21 06:24	29° ♋ 49'51	4°46'49	inferior conj		3178 Jul 01 11:05	10° ♋ 20'19	-3°40'19
morning rise	3177 Jul 29 21:29	25° ♋ 45'11		minimum elong		3178 Jul 01 02:48	10° ♋ 31'59	3°38'04
direct	3177 Aug 01 15:56	25° ♋ 25'46		morning rise		3178 Jul 10 04:08	6° ♋ 29'08	
	3177 Aug 11 15:32	0° ♋		direct		3178 Jul 13 06:05	6° ♋ 07'55	
morning max el	3177 Aug 11 18:46	0° ♋ 07'28	20°00'40	morning max el		3178 Jul 25 00:05	11° ♋ 36'44	21°24'30
asc. node	3177 Aug 20 11:32	11° ♋ 24'59		asc. node		3178 Aug 07 08:36	0° ♋ 16'16	
morning set	3177 Aug 29 21:11	29° ♋ 02'29				3178 Aug 07 05:01	0° ♋	
	3177 Aug 30 08:30	0° ♋		morning set		3178 Aug 14 05:43	13° ♋ 48'16	
superior conj	3177 Sep 06 15:18	14° ♋ 48'55	1°44'35			3178 Aug 21 13:33	29° ♋ 09'32	1°43'13
minimum elong	3177 Sep 06 15:49	14° ♋ 51'30	1°44'34	minimum elong		3178 Aug 21 12:37	29° ♋ 04'44	1°43'11
max. Earth dist.	3177 Sep 12 05:12	25° ♋ 42'04	1.36920 AU			3178 Aug 21 23:17	0° ♋	
	3177 Sep 14 12:22	0° ♋		max. Earth dist.		3178 Aug 25 16:18	7° ♋ 33'49	1.35164 AU
evening rise	3177 Sep 16 00:57	2° ♋ 47'14		evening rise		3178 Aug 29 23:14	15° ♋ 56'17	
desc. node	3177 Sep 27 00:29	21° ♋ 25'12				3178 Sep 06 18:09	0° ♋	
	3177 Oct 02 14:47	0° ♋		desc. node		3178 Sep 13 21:30	11° ♋ 37'15	
evening max el	3177 Oct 21 19:23	24° ♋ 16'45	25°42'14			3178 Sep 27 02:58	0° ♋	
	3177 Oct 29 06:21	0° ♋		evening max el		3178 Oct 04 07:42	7° ♋ 54'59	26°40'30
retrograde	3177 Nov 03 02:26	1° ♋ 18'35		retrograde		3178 Oct 17 07:21	15° ♋ 09'43	
				evening set		3178 Oct 23 21:25	12° ♋ 29'19	

min. Earth dist.	3178 Oct 27 22:34	8°♍21'21	0.65992 AU	min. Earth dist.	3179 Oct 11 01:43	22°♊24'50	0.64649 AU
inferior conj	3178 Oct 29 16:47	6°♍16'06	-1°34'01	inferior conj	3179 Oct 13 08:12	19°♊56'52	-2°34'13
minimum elong	3178 Oct 29 19:21	6°♍08'28	1°32'58	minimum elong	3179 Oct 13 12:26	19°♊45'20	2°32'39
asc. node	3178 Nov 03 07:49	1°♍29'12		morning rise	3179 Oct 19 19:10	14°♊28'07	
morning rise	3178 Nov 04 17:58	0°♍33'15		asc. node	3179 Oct 21 04:51	14°♊00'19	
	3178 Nov 06 02:09	30°♋♊		direct	3179 Oct 22 09:47	13°♊52'42	
direct	3178 Nov 07 15:30	29°♊46'27		morning max el	3179 Oct 28 21:45	17°♊19'52	17°59'40
	3178 Nov 09 05:16	0°♍			3179 Nov 07 02:43	0°♍	
morning max el	3178 Nov 14 06:00	3°♍22'30	18°26'13	morning set	3179 Nov 15 10:17	13°♍49'29	
	3178 Dec 02 11:49	0°♋			3179 Nov 25 04:32	0°♋	
morning set	3178 Dec 04 00:41	2°♋28'05		desc. node	3179 Nov 27 17:50	4°♋08'14	
desc. node	3178 Dec 10 20:49	13°♋24'05					
				superior conj	3179 Nov 29 01:59	6°♋17'26	-0°09'08
superior conj	3178 Dec 19 15:24	27°♋15'06	-0°57'09	minimum elong	3179 Nov 29 00:53	6°♋12'59	0°08'59
minimum elong	3178 Dec 19 08:16	26°♋47'09	0°56'15	behind sun begin	3179 Nov 28 16:05	5°♋37'42	
max. Earth dist.	3178 Dec 20 16:46	28°♋54'40	1.45216 AU	behind sun end	3179 Nov 29 09:40	6°♋48'14	
	3178 Dec 21 09:25	0°♊		max. Earth dist.	3179 Dec 03 11:32	13°♋17'24	1.44820 AU
evening rise	3179 Jan 04 17:10	22°♊29'57			3179 Dec 14 04:36	0°♊	
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greatest brilliancy	3179 Jan 14 17:07	8°♋13'25	-0.8m	greatest brilliancy	3179 Dec 29 15:48	23°♊30'21	-0.6m
evening max el	3179 Jan 27 11:48	25°♋51'41	19°08'10		3180 Jan 03 04:05	0°♋	
asc. node	3179 Jan 30 07:05	28°♋18'02		evening max el	3180 Jan 10 16:46	9°♋22'51	20°01'47
retrograde	3179 Feb 03 10:51	29°♋49'21		asc. node	3180 Jan 17 04:08	13°♋43'43	
evening set	3179 Feb 06 19:40	28°♋43'21		retrograde	3180 Jan 18 08:40	13°♋51'28	
inferior conj	3179 Feb 12 09:19	22°♋54'43	3°23'33	evening set	3180 Jan 22 01:26	12°♋31'40	
minimum elong	3179 Feb 12 07:24	23°♋00'50	3°23'15	inferior conj	3180 Jan 27 11:33	6°♋29'14	2°57'45
min. Earth dist.	3179 Feb 13 20:39	21°♋02'11	0.66016 AU	minimum elong	3180 Jan 27 09:05	6°♋37'31	2°57'09
morning rise	3179 Feb 17 18:50	16°♋41'55		min. Earth dist.	3180 Jan 28 08:51	5°♋17'46	0.67050 AU
direct	3179 Feb 24 04:43	13°♋52'39		morning rise	3180 Feb 01 16:31	0°♋15'32	
desc. node	3179 Mar 08 20:03	21°♋17'39			3180 Feb 01 23:32	30°♋♊	
morning max el	3179 Mar 09 00:08	21°♋27'55	26°23'11	direct	3180 Feb 07 13:38	27°♊37'55	
	3179 Mar 16 10:33	0°♋			3180 Feb 13 22:13	0°♋	
	3179 Apr 05 13:06	0°♋		morning max el	3180 Feb 19 08:55	4°♋41'01	25°05'20
morning set	3179 Apr 14 02:09	15°♋15'13		desc. node	3180 Feb 23 17:05	9°♋27'12	
max. Earth dist.	3179 Apr 18 04:07	23°♋05'37	1.34928 AU		3180 Mar 09 20:06	0°♋	
	3179 Apr 21 15:05	0°♋		morning set	3180 Mar 26 13:12	27°♋27'49	
					3180 Mar 27 22:58	0°♋	
superior conj	3179 Apr 22 23:09	2°♋43'34	-0°52'58	max. Earth dist.	3180 Mar 30 04:44	4°♋06'55	1.36736 AU
minimum elong	3179 Apr 23 01:55	2°♋57'46	0°52'26				
asc. node	3179 Apr 28 06:23	13°♋44'02		superior conj	3180 Apr 05 11:36	16°♋09'23	-1°20'36
evening rise	3179 Apr 30 15:35	18°♋41'12		minimum elong	3180 Apr 05 15:40	16°♋29'28	1°19'59
	3179 May 06 08:00	0°♋			3180 Apr 12 09:12	0°♋	
evening max el	3179 May 19 10:58	19°♋15'02	20°44'16	evening rise	3180 Apr 13 19:15	2°♋51'47	
retrograde	3179 May 30 19:41	24°♋47'40		asc. node	3180 Apr 14 03:25	3°♋32'47	
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desc. node	3179 Jun 04 19:14	23°♋50'43		evening max el	3180 Apr 30 23:47	0°♋46'25	19°35'02
inferior conj	3179 Jun 11 04:37	20°♋39'39	-1°52'01	retrograde	3180 May 10 14:33	5°♋26'05	
minimum elong	3179 Jun 10 23:22	20°♋47'10	1°50'07	evening set	3180 May 12 14:27	5°♋14'55	
min. Earth dist.	3179 Jun 12 04:10	20°♋05'57	0.54921 AU	inferior conj	3180 May 21 06:51	1°♋10'59	0°06'53
morning rise	3179 Jun 20 00:29	16°♋33'44		minimum elong	3180 May 21 07:09	1°♋10'31	0°06'46
direct	3179 Jun 23 15:25	16°♋05'28		transit middle	3180 May 21 07:09	1°♋10'31	0°06'46
morning max el	3179 Jul 06 19:31	22°♋25'39	23°03'10	transit begin	3180 May 21 03:36	1°♋16'08	
	3179 Jul 13 10:54	0°♋		transit end	3180 May 21 10:41	1°♋04'53	
asc. node	3179 Jul 25 05:39	19°♋35'54		desc. node	3180 May 21 16:16	0°♋56'00	
morning set	3179 Jul 29 16:42	28°♋41'11			3180 May 23 03:35	30°♋♊	
	3179 Jul 30 07:39	0°♋		min. Earth dist.	3180 May 23 18:13	29°♋37'12	0.55741 AU
				morning rise	3180 May 29 21:10	26°♋34'17	
superior conj	3179 Aug 05 18:30	13°♋49'45	1°35'28	direct	3180 Jun 03 09:21	25°♋48'41	
minimum elong	3179 Aug 05 16:37	13°♋39'41	1°35'19		3180 Jun 14 01:35	0°♋	
max. Earth dist.	3179 Aug 08 12:14	19°♋37'57	1.33783 AU	morning max el	3180 Jun 17 09:48	2°♋51'34	24°45'32
evening rise	3179 Aug 13 11:12	29°♋44'58			3180 Jul 06 09:34	0°♋	
	3179 Aug 13 14:14	0°♋		asc. node	3180 Jul 11 02:40	9°♋16'20	
	3179 Aug 30 19:43	0°♋		morning set	3180 Jul 13 04:29	13°♋36'04	
desc. node	3179 Aug 31 18:32	1°♋25'22					
evening max el	3179 Sep 16 19:46	21°♋21'04	27°17'12	superior conj	3180 Jul 20 03:40	28°♋41'29	1°22'24
retrograde	3179 Sep 30 06:41	28°♋39'43		minimum elong	3180 Jul 20 01:20	28°♋28'48	1°22'05
evening set	3179 Oct 07 06:47	25°♋57'35			3180 Jul 20 18:05	0°♋	




















































































































max. Earth dist.	3180 Jul 21 16:38	2°Ω02'16	1.32817 AU	evening rise	3181 Jul 11 13:49	28°Ω39'14	
evening rise	3180 Jul 27 09:04	14°Ω02'23			3181 Jul 12 05:20	0°Ω	
	3180 Aug 04 16:28	0°Π			3181 Jul 28 22:41	0°Π	
desc. node	3180 Aug 17 15:33	20°Π39'12		desc. node	3181 Aug 04 12:34	9°Π04'48	
	3180 Aug 25 00:59	0°Ω		evening max el	3181 Aug 11 11:39	16°Π47'08	27°01'28
evening max el	3180 Aug 29 05:58	4°Ω22'44	27°25'39	retrograde	3181 Aug 25 08:59	23°Π59'26	
retrograde	3180 Sep 11 23:33	11°Ω39'05		evening set	3181 Sep 01 09:45	21°Π48'09	
evening set	3180 Sep 19 04:16	9°Ω06'07		min. Earth dist.	3181 Sep 05 01:55	19°Π07'24	0.61040 AU
min. Earth dist.	3180 Sep 22 19:10	6°Ω04'15	0.62977 AU	inferior conj	3181 Sep 08 05:57	16°Π24'21	-4°23'04
inferior conj	3180 Sep 25 13:39	3°Ω22'13	-3°32'20	minimum elong	3181 Sep 08 11:27	16°Π12'31	4°21'54
minimum elong	3180 Sep 25 19:08	3°Ω08'49	3°30'40	morning rise	3181 Sep 15 14:55	11°Π33'41	
	3180 Sep 29 07:58	30°RΠ		direct	3181 Sep 18 00:07	11°Π10'51	
morning rise	3180 Oct 02 11:27	28°Π10'48		asc. node	3181 Sep 23 22:56	13°Π39'16	
direct	3180 Oct 04 21:53	27°Π43'09		morning max el	3181 Sep 25 03:54	14°Π44'22	18°00'30
asc. node	3180 Oct 07 01:54	28°Π05'37			3181 Oct 05 15:36	0°Ω	
	3180 Oct 10 07:27	0°Ω		morning set	3181 Oct 10 23:10	9°Ω41'13	
morning max el	3180 Oct 11 14:03	1°Ω09'27	17°50'44				
morning set	3180 Oct 27 19:52	26°Ω19'56		superior conj	3181 Oct 21 01:20	28°Ω01'25	1°08'17
	3180 Oct 29 21:52	0°Π		minimum elong	3181 Oct 21 05:39	28°Ω20'24	1°07'46
					3181 Oct 22 04:22	0°Π	
superior conj	3180 Nov 08 12:15	16°Π30'00	0°34'46	max. Earth dist.	3181 Oct 28 15:54	11°Π02'43	1.42114 AU
minimum elong	3180 Nov 08 15:33	16°Π43'45	0°34'19	desc. node	3181 Oct 31 11:52	15°Π42'09	
desc. node	3180 Nov 13 14:51	24°Π55'14		evening rise	3181 Nov 03 12:57	20°Π36'21	
max. Earth dist.	3180 Nov 15 03:52	27°Π24'57	1.43742 AU		3181 Nov 09 13:20	0°♂	
	3180 Nov 16 18:32	0°♂			3181 Nov 30 18:15	0°♂	
evening rise	3180 Nov 23 17:55	10°♂57'20		evening max el	3181 Dec 06 10:29	6°♂28'17	22°24'34
	3180 Dec 06 08:56	0°♂		retrograde	3181 Dec 16 02:25	12°♂13'00	
evening max el	3180 Dec 23 16:17	22°♂54'52	21°08'35	evening set	3181 Dec 20 16:26	10°♂21'43	
retrograde	3181 Jan 01 06:24	28°♂00'20		asc. node	3181 Dec 20 22:12	10°♂09'34	
asc. node	3181 Jan 03 01:10	27°♂42'51		inferior conj	3181 Dec 26 00:58	4°♂00'48	1°40'20
evening set	3181 Jan 05 08:54	26°♂25'21		minimum elong	3181 Dec 25 22:55	4°♂07'55	1°39'35
inferior conj	3181 Jan 10 17:26	20°♂12'02	2°22'48	min. Earth dist.	3181 Dec 25 22:13	4°♂10'19	0.67931 AU
minimum elong	3181 Jan 10 14:56	20°♂20'38	2°22'01		3181 Dec 29 02:20	30°R♂	
min. Earth dist.	3181 Jan 11 02:08	19°♂42'00	0.67680 AU	morning rise	3181 Dec 31 05:17	27°♂50'39	
morning rise	3181 Jan 15 20:47	13°♂59'15		direct	3182 Jan 04 20:53	25°♂54'51	
direct	3181 Jan 21 03:18	11°♂40'48			3182 Jan 12 17:51	0°♂	
morning max el	3181 Jan 31 17:25	17°♂59'03	23°37'42	morning max el	3182 Jan 14 04:56	1°♂24'08	22°09'54
desc. node	3181 Feb 09 14:06	28°♂26'15		desc. node	3182 Jan 27 11:07	18°♂00'47	
	3181 Feb 10 18:30	0°≈			3182 Feb 04 16:49	0°≈	
	3181 Mar 02 22:26	0°♂		morning set	3182 Feb 16 08:57	18°≈10'18	
morning set	3181 Mar 08 01:15	8°♂30'18		max. Earth dist.	3182 Feb 21 21:27	27°≈16'12	1.40998 AU
max. Earth dist.	3181 Mar 11 23:49	15°♂19'12	1.38843 AU		3182 Feb 23 12:11	0°♂	
superior conj	3181 Mar 19 10:47	28°♂53'11	-1°44'40	superior conj	3182 Mar 01 15:57	10°♂42'56	-2°01'32
minimum elong	3181 Mar 19 15:19	29°♂14'30	1°44'12	minimum elong	3182 Mar 01 19:07	10°♂57'02	2°01'23
	3181 Mar 20 00:59	0°Υ		evening rise	3182 Mar 12 00:35	29°♂43'19	
evening rise	3181 Mar 28 15:22	16°Υ35'15			3182 Mar 12 04:10	0°Υ	
asc. node	3181 Apr 01 00:28	23°Υ05'35		asc. node	3182 Mar 18 21:30	12°Υ16'19	
	3181 Apr 04 18:52	0°♂		evening max el	3182 Mar 28 06:26	25°Υ38'44	18°16'28
evening max el	3181 Apr 13 23:18	12°♂57'00	18°45'40	retrograde	3182 Apr 04 08:56	29°Υ11'37	
retrograde	3181 Apr 22 02:09	16°♂55'03		evening set	3182 Apr 06 20:26	28°Υ46'37	
evening set	3181 Apr 24 07:20	16°♂38'26		inferior conj	3182 Apr 13 22:33	24°Υ04'43	2°51'50
inferior conj	3181 May 02 03:58	12°♂17'14	1°45'36	minimum elong	3182 Apr 14 02:04	23°Υ57'06	2°51'04
minimum elong	3181 May 02 07:27	12°♂10'47	1°44'31	min. Earth dist.	3182 Apr 17 08:34	21°Υ09'02	0.59395 AU
min. Earth dist.	3181 May 05 10:55	9°♂52'44	0.57341 AU	morning rise	3182 Apr 21 05:08	18°Υ25'39	
desc. node	3181 May 08 13:16	7°♂54'46		desc. node	3182 Apr 25 10:19	16°Υ47'54	
morning rise	3181 May 10 04:24	7°♂06'03		direct	3182 Apr 27 13:35	16°Υ35'28	
direct	3181 May 15 16:57	5°♂51'29		morning max el	3182 May 11 22:16	24°Υ23'23	27°20'50
morning max el	3181 May 30 01:15	13°♂22'29	26°16'22		3182 May 17 00:51	0°♂	
	3181 Jun 12 03:54	0°Π			3182 Jun 05 08:47	0°Π	
morning set	3181 Jun 27 15:29	28°Π28'00		morning set	3182 Jun 11 23:57	13°Π10'20	
asc. node	3181 Jun 27 23:43	29°Π11'29		asc. node	3182 Jun 14 20:45	19°Π15'20	
	3181 Jun 28 08:51	0°Ω		max. Earth dist.	3182 Jun 18 14:49	27°Π26'58	1.32088 AU
superior conj	3181 Jul 04 15:02	13°Ω38'12	1°04'51	superior conj	3182 Jun 19 02:46	28°Π32'47	0°43'29
minimum elong	3181 Jul 04 12:45	13°Ω25'38	1°04'27	minimum elong	3182 Jun 19 01:00	28°Π22'58	0°43'07
max. Earth dist.	3181 Jul 05 02:46	14°Ω42'49	1.32255 AU		3182 Jun 19 18:36	0°Ω	

evening rise	3182 Jun 25 22:54	13°♄26'20		minimum elong	3183 Jun 03 12:21	13°♄15'09	0°18'45
	3182 Jul 04 07:21	0°♄		evening rise	3183 Jun 10 10:18	28°♄17'07	
desc. node	3182 Jul 22 09:35	26°♄21'13			3183 Jun 11 05:45	0°♄	
evening max el	3182 Jul 24 10:12	28°♄23'18	26°04'32		3183 Jun 28 04:52	0°♄	
	3182 Jul 26 05:01	0°♄		evening max el	3183 Jul 06 01:49	9°♄14'33	24°41'28
retrograde	3182 Aug 07 09:41	5°♄32'35		desc. node	3183 Jul 09 06:37	12°♄00'48	
evening set	3182 Aug 13 18:22	3°♄54'39		retrograde	3183 Jul 20 00:01	16°♄17'20	
min. Earth dist.	3182 Aug 17 22:46	1°♄18'51	0.58972 AU	evening set	3183 Jul 25 03:00	15°♄18'02	
	3182 Aug 19 17:32	30°♄		min. Earth dist.	3183 Jul 30 13:02	12°♄28'19	0.57034 AU
inferior conj	3182 Aug 21 05:24	28°♄52'22	-4°57'49	inferior conj	3183 Aug 02 09:10	10°♄37'45	-5°03'27
minimum elong	3182 Aug 21 08:36	28°♄46'23	4°57'32	minimum elong	3183 Aug 02 07:17	10°♄40'49	5°03'23
morning rise	3182 Aug 29 01:02	24°♄24'52		morning rise	3183 Aug 10 14:13	6°♄31'53	
direct	3182 Aug 31 11:53	24°♄04'40		direct	3183 Aug 13 05:08	6°♄12'43	
morning max el	3182 Sep 08 12:03	27°♄55'05	18°30'22	morning max el	3183 Aug 22 11:21	10°♄32'14	19°21'29
	3182 Sep 10 11:06	0°♄		asc. node	3183 Aug 28 17:01	18°♄11'40	
asc. node	3182 Sep 10 19:58	0°♄26'17			3183 Sep 04 13:22	0°♄	
morning set	3182 Sep 24 14:57	23°♄37'52		morning set	3183 Sep 08 15:23	7°♄59'29	
	3182 Sep 27 22:10	0°♄					
superior conj	3182 Oct 03 13:03	10°♄39'21	1°30'18	superior conj	3183 Sep 16 17:49	24°♄07'47	1°41'55
minimum elong	3182 Oct 03 16:18	10°♄54'28	1°30'00	minimum elong	3183 Sep 16 19:20	24°♄15'09	1°41'51
max. Earth dist.	3182 Oct 10 22:34	23°♄57'22	1.40132 AU		3183 Sep 19 18:58	0°♄	
	3182 Oct 14 11:29	0°♄		max. Earth dist.	3183 Sep 23 02:26	6°♄10'42	1.38056 AU
evening rise	3182 Oct 15 05:04	1°♄13'33		evening rise	3183 Sep 26 20:50	12°♄56'26	
desc. node	3182 Oct 18 08:53	6°♄25'14		desc. node	3183 Oct 05 05:55	27°♄00'29	
	3182 Nov 02 22:26	0°♄			3183 Oct 07 03:10	0°♄	
evening max el	3182 Nov 19 00:39	20°♄04'21	23°44'30	evening max el	3183 Oct 29 00:01	0°♄	
retrograde	3182 Nov 29 19:25	26°♄26'04			3183 Nov 01 12:59	3°♄44'10	25°01'52
evening set	3182 Dec 04 22:25	24°♄18'16		retrograde	3183 Nov 13 08:23	10°♄35'00	
asc. node	3182 Dec 07 19:14	21°♄16'06		evening set	3183 Nov 19 01:13	8°♄11'52	
inferior conj	3182 Dec 10 08:22	17°♄53'38	0°51'41	min. Earth dist.	3183 Nov 23 13:39	3°♄07'20	0.67382 AU
minimum elong	3182 Dec 10 07:11	17°♄57'42	0°51'12	inferior conj	3183 Nov 24 13:51	1°♄47'54	-0°02'05
min. Earth dist.	3182 Dec 09 18:51	18°♄39'43	0.67826 AU	minimum elong	3183 Nov 24 13:54	1°♄47'44	0°02'03
morning rise	3182 Dec 15 15:56	11°♄47'53		transit middle	3183 Nov 24 13:54	1°♄47'44	0°02'03
direct	3182 Dec 19 17:26	10°♄14'55		transit begin	3183 Nov 24 11:09	1°♄56'46	
morning max el	3182 Dec 27 22:49	14°♄59'47	20°49'36	transit end	3183 Nov 24 16:39	1°♄38'43	
	3183 Jan 08 19:31	0°♄		asc. node	3183 Nov 24 16:17	1°♄39'57	
desc. node	3183 Jan 14 08:08	8°♄01'04			3183 Nov 25 23:16	30°♄	
morning set	3183 Jan 26 14:16	26°♄38'49		morning rise	3183 Nov 30 02:47	25°♄48'45	
	3183 Jan 28 17:38	0°♄		direct	3183 Dec 03 15:48	24°♄36'23	
max. Earth dist.	3183 Feb 04 01:47	10°♄07'51	1.42908 AU	morning max el	3183 Dec 11 00:32	28°♄46'18	19°41'43
					3183 Dec 12 04:37	0°♄	
superior conj	3183 Feb 10 21:59	21°♄27'03	-2°06'21	greatest brilliancy	3183 Dec 24 04:55	16°♄12'27	-0.7m
minimum elong	3183 Feb 10 21:00	21°♄22'54	2°06'20	desc. node	3184 Jan 01 05:10	28°♄19'37	
	3183 Feb 15 21:50	0°♄			3184 Jan 02 07:20	0°♄	
evening rise	3183 Feb 22 18:54	12°♄07'07		morning set	3184 Jan 05 10:26	4°♄49'10	
	3183 Mar 05 03:42	0°♄		max. Earth dist.	3184 Jan 17 13:12	23°♄46'02	1.44336 AU
asc. node	3183 Mar 05 18:33	0°♄57'52			3184 Jan 21 10:50	0°♄	
evening max el	3183 Mar 11 17:53	8°♄42'58	18°07'03	superior conj	3184 Jan 22 01:52	1°♄00'32	-1°53'58
retrograde	3183 Mar 18 07:33	12°♄06'19		minimum elong	3184 Jan 21 19:06	0°♄33'18	1°53'31
evening set	3183 Mar 21 00:49	11°♄31'12		evening rise	3184 Feb 04 17:50	23°♄37'23	
inferior conj	3183 Mar 27 12:08	6°♄28'54	3°27'35		3184 Feb 08 12:11	0°♄	
minimum elong	3183 Mar 27 14:04	6°♄24'04	3°27'22	asc. node	3184 Feb 20 15:36	19°♄00'23	
min. Earth dist.	3183 Mar 30 13:53	3°♄26'43	0.61560 AU	evening max el	3184 Feb 23 06:34	22°♄00'58	18°16'42
morning rise	3183 Apr 03 01:38	0°♄32'09		retrograde	3184 Feb 29 17:16	25°♄28'21	
	3183 Apr 03 21:15	30°♄		evening set	3184 Mar 03 16:10	24°♄41'56	
direct	3183 Apr 09 21:19	28°♄09'11		inferior conj	3184 Mar 09 16:32	19°♄20'23	3°39'24
desc. node	3183 Apr 12 07:21	28°♄25'54		minimum elong	3184 Mar 09 16:38	19°♄20'06	3°39'24
	3183 Apr 16 07:22	0°♄		min. Earth dist.	3184 Mar 12 04:16	16°♄34'14	0.63566 AU
morning max el	3183 Apr 24 01:41	6°♄06'04	27°49'41	morning rise	3184 Mar 15 16:11	13°♄14'06	
	3183 May 12 01:54	0°♄		direct	3184 Mar 22 13:51	10°♄29'39	
morning set	3183 May 27 04:01	27°♄37'04		desc. node	3184 Mar 29 04:23	12°♄34'53	
	3183 May 28 07:44	0°♄		morning max el	3184 Apr 05 09:32	18°♄26'50	27°41'11
asc. node	3183 Jun 01 17:48	9°♄23'41			3184 Apr 15 03:10	0°♄	
max. Earth dist.	3183 Jun 02 00:53	10°♄02'02	1.32322 AU		3184 May 03 22:58	0°♄	
				morning set	3184 May 10 01:16	11°♄39'59	
superior conj	3183 Jun 03 13:13	13°♄19'52	0°18'57	max. Earth dist.	3184 May 15 04:53	22°♄14'28	1.32975 AU

superior conj	3184 May 17 20:30	27°♄53'06	-0°08'03	max. Earth dist.	3185 Apr 27 23:16	3°♄55'32	1.34082 AU
minimum elong	3184 May 17 20:54	27°♄55'14	0°07'57				
behind sun begin	3184 May 17 16:15	27°♄30'19		superior conj	3185 May 01 22:34	12°♄06'00	-0°36'28
behind sun end	3184 May 18 01:33	28°♄20'11		minimum elong	3185 May 02 00:27	12°♄15'52	0°36'04
asc. node	3184 May 18 14:52	29°♄31'53		asc. node	3185 May 05 11:55	19°♄35'52	
	3184 May 18 20:05	0°♄		evening rise	3185 May 09 08:22	27°♄43'18	
evening rise	3184 May 24 22:05	13°♄04'51			3185 May 10 10:41	0°♄	
	3184 Jun 02 11:55	0°♄			3185 May 29 03:05	0°♄	
evening max el	3184 Jun 16 15:17	19°♄42'13	23°05'39	evening max el	3185 May 29 10:07	0°♄17'19	21°32'15
desc. node	3184 Jun 25 03:38	25°♄29'09		retrograde	3185 Jun 10 16:31	6°♄19'05	
retrograde	3184 Jun 30 01:48	26°♄24'23		desc. node	3185 Jun 12 00:39	6°♄14'57	
evening set	3184 Jul 03 16:19	25°♄55'56		evening set	3185 Jun 13 03:08	6°♄05'31	
min. Earth dist.	3184 Jul 11 00:34	22°♄37'55	0.55565 AU	inferior conj	3185 Jun 22 12:38	2°♄05'04	-2°58'00
inferior conj	3184 Jul 12 17:26	21°♄38'27	-4°25'11	minimum elong	3185 Jun 22 04:57	2°♄15'49	2°55'34
minimum elong	3184 Jul 12 10:14	21°♄48'58	4°23'47	min. Earth dist.	3185 Jun 22 11:48	2°♄06'14	0.54883 AU
morning rise	3184 Jul 21 06:33	17°♄45'50			3185 Jun 26 10:01	30°♄	
direct	3184 Jul 24 03:38	17°♄26'04		morning rise	3185 Jul 01 07:38	28°♄10'04	
morning max el	3184 Aug 03 23:23	22°♄27'20	20°33'59	direct	3185 Jul 04 14:27	27°♄46'34	
	3184 Aug 10 08:15	0°♄			3185 Jul 12 05:12	0°♄	
asc. node	3184 Aug 14 14:05	6°♄42'18		morning max el	3185 Jul 16 23:54	3°♄37'28	22°05'08
morning set	3184 Aug 22 21:38	22°♄38'30		asc. node	3185 Aug 01 11:08	25°♄46'46	
	3184 Aug 26 11:05	0°♄			3185 Aug 03 15:32	0°♄	
				morning set	3185 Aug 07 07:27	7°♄28'05	
superior conj	3184 Aug 30 10:49	8°♄12'50	1°44'51				
minimum elong	3184 Aug 30 10:40	8°♄12'05	1°44'51	superior conj	3185 Aug 14 12:15	22°♄42'41	1°40'38
max. Earth dist.	3184 Sep 04 09:29	18°♄03'40	1.36134 AU	minimum elong	3185 Aug 14 10:51	22°♄35'21	1°40'34
evening rise	3184 Sep 08 09:20	25°♄38'05		max. Earth dist.	3185 Aug 18 00:28	0°♄00'13	1.34532 AU
	3184 Sep 10 18:49	0°♄			3185 Aug 18 00:26	0°♄	
desc. node	3184 Sep 21 02:57	17°♄23'02		evening rise	3185 Aug 22 13:58	9°♄05'37	
	3184 Sep 29 14:57	0°♄			3185 Sep 03 07:01	0°♄	
evening max el	3184 Oct 14 01:21	17°♄25'58	26°09'17	desc. node	3185 Sep 07 23:58	7°♄26'02	
retrograde	3184 Oct 26 16:25	24°♄34'44			3185 Sep 25 12:57	0°♄	
evening set	3184 Nov 01 23:02	21°♄59'25		evening max el	3185 Sep 26 13:56	1°♄01'14	26°59'11
min. Earth dist.	3184 Nov 06 04:16	17°♄30'19	0.66601 AU	retrograde	3185 Oct 09 18:51	8°♄17'42	
inferior conj	3184 Nov 07 15:35	15°♄40'55	-0°59'39	evening set	3185 Oct 16 13:40	5°♄35'45	
minimum elong	3184 Nov 07 17:11	15°♄35'59	0°58'59	min. Earth dist.	3185 Oct 20 12:10	1°♄42'51	0.65470 AU
asc. node	3184 Nov 10 13:17	12°♄17'33		inferior conj	3185 Oct 22 11:26	29°♄27'29	-1°59'33
morning rise	3184 Nov 13 11:47	9°♄51'01		minimum elong	3185 Oct 22 14:44	29°♄18'02	1°58'15
direct	3184 Nov 16 14:21	8°♄55'53			3185 Oct 22 00:08	30°♄	
morning max el	3184 Nov 23 09:26	12°♄41'24	18°49'02	asc. node	3185 Oct 28 10:19	23°♄58'10	
	3184 Dec 06 01:29	0°♄		morning rise	3185 Oct 28 16:36	23°♄50'00	
morning set	3184 Dec 14 22:50	13°♄55'13		direct	3185 Oct 31 10:59	23°♄08'21	
desc. node	3184 Dec 18 02:13	18°♄51'39		morning max el	3185 Nov 06 23:25	26°♄39'22	18°12'46
	3184 Dec 25 04:32	0°♄			3185 Nov 09 21:23	0°♄	
max. Earth dist.	3184 Dec 30 06:10	7°♄57'11	1.45113 AU	morning set	3185 Nov 25 16:02	24°♄28'41	
					3185 Nov 29 01:19	0°♄	
superior conj	3184 Dec 31 08:50	9°♄41'56	-1°22'17	desc. node	3185 Dec 04 23:15	9°♄32'15	
minimum elong	3184 Dec 30 23:50	9°♄06'34	1°21'20				
	3185 Jan 13 03:46	0°♄		superior conj	3185 Dec 10 11:50	18°♄19'01	-0°36'54
evening rise	3185 Jan 15 18:03	4°♄10'39		minimum elong	3185 Dec 10 07:08	18°♄00'26	0°36'16
	3185 Feb 01 06:17	0°♄		max. Earth dist.	3185 Dec 13 01:41	22°♄22'38	1.45146 AU
evening max el	3185 Feb 05 17:54	5°♄27'08	18°44'29		3185 Dec 17 22:26	0°♄	
asc. node	3185 Feb 06 12:38	6°♄12'50		evening rise	3185 Dec 26 19:49	13°♄51'43	
retrograde	3185 Feb 12 10:08	9°♄10'23			3186 Jan 06 05:48	0°♄	
evening set	3185 Feb 15 15:07	8°♄11'43		greatest brilliancy	3186 Jan 07 21:13	2°♄30'08	-0.7m
inferior conj	3185 Feb 21 07:52	2°♄32'26	3°33'19	evening max el	3186 Jan 20 01:39	18°♄57'07	19°29'11
minimum elong	3185 Feb 21 06:32	2°♄36'33	3°33'11	asc. node	3186 Jan 24 09:38	22°♄21'43	
min. Earth dist.	3185 Feb 23 03:57	0°♄17'54	0.65244 AU	retrograde	3186 Jan 27 06:55	23°♄06'39	
	3185 Feb 23 09:58	30°♄		evening set	3186 Jan 30 19:02	21°♄54'43	
morning rise	3185 Feb 26 21:31	26°♄21'24		inferior conj	3186 Feb 05 06:55	15°♄59'50	3°13'49
direct	3185 Mar 05 13:25	23°♄30'01		minimum elong	3186 Feb 05 04:42	16°♄07'05	3°13'24
desc. node	3185 Mar 16 01:26	28°♄41'23		min. Earth dist.	3186 Feb 06 12:02	14°♄24'47	0.66511 AU
	3185 Mar 17 11:57	0°♄		morning rise	3186 Feb 10 14:07	9°♄46'40	
morning max el	3185 Mar 18 19:11	1°♄16'21	26°59'21	direct	3186 Feb 16 18:57	7°♄01'24	
	3185 Apr 09 05:27	0°♄		morning max el	3186 Mar 01 04:40	14°♄23'55	25°51'59
morning set	3185 Apr 23 12:39	25°♄09'36		desc. node	3186 Mar 02 22:29	16°♄13'24	
	3185 Apr 26 00:10	0°♄			3186 Mar 13 22:26	0°♄	

	3186 Apr 02 00:25	0°♿		desc. node	3187 Feb 17 19:30	4°♿45'45	
morning set	3186 Apr 06 10:05	7°♿54'28			3187 Mar 07 15:01	0°♿	
max. Earth dist.	3186 Apr 10 06:21	15°♿08'14	1.35649 AU	morning set	3187 Mar 19 12:05	19°♿38'51	
				max. Earth dist.	3187 Mar 23 04:03	26°♿10'54	1.37606 AU
superior conj	3186 Apr 15 16:53	25°♿51'27	-1°04'56		3187 Mar 25 06:01	0°♿	
minimum elong	3186 Apr 15 20:16	26°♿08'31	1°04'21				
	3186 Apr 17 17:49	0°♿		superior conj	3187 Mar 30 00:09	9°♿00'00	-1°31'26
asc. node	3186 Apr 22 08:58	9°♿31'35		minimum elong	3187 Mar 30 04:34	9°♿21'24	1°30'52
evening rise	3186 Apr 23 15:09	12°♿06'20		evening rise	3187 Apr 07 15:58	26°♿06'06	
	3186 May 03 02:02	0°♿		asc. node	3187 Apr 09 05:59	29°♿13'54	
evening max el	3186 May 11 15:51	11°♿24'48	20°12'28		3187 Apr 09 15:23	0°♿	
retrograde	3186 May 22 06:27	16°♿34'29		evening max el	3187 Apr 24 09:24	23°♿12'33	19°11'32
evening set	3186 May 24 06:17	16°♿24'20		retrograde	3187 May 03 07:58	27°♿33'12	
desc. node	3186 May 29 21:41	14°♿22'02		evening set	3187 May 05 09:30	27°♿20'17	
inferior conj	3186 Jun 02 08:09	12°♿25'33	-1°00'45	inferior conj	3187 May 13 17:37	23°♿09'36	0°52'24
minimum elong	3186 Jun 02 05:18	12°♿29'46	0°59'42	minimum elong	3187 May 13 19:42	23°♿06'04	0°51'40
min. Earth dist.	3186 Jun 04 00:19	11°♿26'10	0.55155 AU	min. Earth dist.	3187 May 16 15:20	21°♿12'30	0.56336 AU
morning rise	3186 Jun 11 02:53	8°♿08'24		desc. node	3187 May 16 18:42	21°♿07'01	
direct	3186 Jun 15 02:02	7°♿34'21		morning rise	3187 May 22 02:49	18°♿17'39	
morning max el	3186 Jun 28 16:22	14°♿13'30	23°47'11	direct	3187 May 27 01:07	17°♿21'15	
	3186 Jul 10 22:33	0°♿		morning max el	3187 Jun 10 06:38	24°♿38'08	25°26'40
asc. node	3186 Jul 19 08:12	15°♿16'23			3187 Jun 15 05:11	0°♿	
morning set	3186 Jul 22 19:01	22°♿22'53			3187 Jul 03 17:54	0°♿	
	3186 Jul 26 08:23	0°♿		asc. node	3187 Jul 06 05:14	5°♿03'23	
				morning set	3187 Jul 07 06:39	7°♿16'48	
superior conj	3186 Jul 29 19:17	7°♿28'46	1°30'31				
minimum elong	3186 Jul 29 17:09	7°♿17'15	1°30'18	superior conj	3187 Jul 14 05:37	22°♿23'00	1°15'28
max. Earth dist.	3186 Aug 01 00:31	12°♿14'14	1.33324 AU	minimum elong	3187 Jul 14 03:15	22°♿10'02	1°15'07
evening rise	3186 Aug 06 06:34	23°♿07'44		max. Earth dist.	3187 Jul 15 07:39	24°♿45'25	1.32523 AU
	3186 Aug 09 18:40	0°♿			3187 Jul 17 17:40	0°♿	
desc. node	3186 Aug 25 20:59	27°♿01'02		evening rise	3187 Jul 21 07:40	7°♿33'42	
	3186 Aug 27 23:30	0°♿			3187 Aug 02 05:46	0°♿	
evening max el	3186 Sep 09 01:28	14°♿18'23	27°24'25	desc. node	3187 Aug 12 18:00	15°♿56'14	
retrograde	3186 Sep 22 15:15	21°♿35'53		evening max el	3187 Aug 22 09:49	27°♿04'34	27°19'24
evening set	3186 Sep 29 18:23	18°♿56'02			3187 Aug 25 19:21	0°♿	
min. Earth dist.	3186 Oct 03 11:11	15°♿37'28	0.63989 AU	retrograde	3187 Sep 05 05:16	4°♿19'58	
inferior conj	3186 Oct 05 22:58	13°♿02'16	-2°59'22	evening set	3187 Sep 12 09:40	1°♿54'13	
minimum elong	3186 Oct 06 03:49	12°♿49'38	2°57'41		3187 Sep 14 21:49	30°♿	
morning rise	3186 Oct 12 14:28	7°♿40'36		min. Earth dist.	3187 Sep 15 23:59	29°♿03'12	0.62179 AU
direct	3186 Oct 15 03:04	7°♿08'48		inferior conj	3187 Sep 18 23:14	26°♿18'30	-3°55'12
asc. node	3186 Oct 15 07:22	7°♿08'58		minimum elong	3187 Sep 19 04:56	26°♿05'16	3°53'39
morning max el	3186 Oct 21 15:47	10°♿34'10	17°53'37	morning rise	3187 Sep 26 01:50	21°♿15'53	
	3186 Nov 03 19:29	0°♿		direct	3187 Sep 28 11:19	20°♿50'42	
morning set	3186 Nov 07 12:35	6°♿21'33		asc. node	3187 Oct 02 04:25	21°♿53'10	
				morning max el	3187 Oct 05 07:31	24°♿18'55	17°52'33
superior conj	3186 Nov 20 07:20	27°♿47'53	0°10'33		3187 Oct 09 22:07	0°♿	
minimum elong	3186 Nov 20 08:31	27°♿52'40	0°10'23	morning set	3187 Oct 21 06:28	19°♿15'39	
behind sun begin	3186 Nov 20 00:48	27°♿21'14			3187 Oct 27 06:41	0°♿	
behind sun end	3186 Nov 20 16:13	28°♿24'04					
desc. node	3186 Nov 21 20:15	0°♿		superior conj	3187 Nov 01 05:21	8°♿35'25	0°50'24
	3186 Nov 21 15:52	0°♿		minimum elong	3187 Nov 01 09:26	8°♿52'51	0°49'51
max. Earth dist.	3186 Nov 25 20:08	6°♿42'14	1.44444 AU	max. Earth dist.	3187 Nov 08 10:33	20°♿37'55	1.43104 AU
evening rise	3186 Dec 06 06:42	23°♿01'02		desc. node	3187 Nov 08 17:16	21°♿05'17	
	3186 Dec 10 20:16	0°♿			3187 Nov 14 06:59	0°♿	
	3186 Dec 31 22:35	0°♿		evening rise	3187 Nov 15 18:06	2°♿17'38	
evening max el	3187 Jan 03 04:15	2°♿27'58	20°28'46		3187 Dec 04 08:43	0°♿	
retrograde	3187 Jan 11 05:01	7°♿11'52		evening max el	3187 Dec 17 01:19	16°♿00'10	21°40'02
asc. node	3187 Jan 11 06:39	7°♿11'51		retrograde	3187 Dec 26 02:21	21°♿22'57	
evening set	3187 Jan 15 01:45	5°♿45'36		asc. node	3187 Dec 29 03:41	20°♿32'04	
inferior conj	3187 Jan 20 10:56	29°♿37'52	2°43'54	evening set	3187 Dec 30 09:28	19°♿41'12	
minimum elong	3187 Jan 20 08:24	29°♿46'31	2°43'13	inferior conj	3188 Jan 04 17:48	13°♿23'59	2°05'38
	3187 Jan 20 04:26	30°♿		minimum elong	3188 Jan 04 15:26	13°♿32'11	2°04'50
min. Earth dist.	3187 Jan 21 02:37	28°♿44'29	0.67363 AU	min. Earth dist.	3188 Jan 04 21:31	13°♿11'05	0.67827 AU
morning rise	3187 Jan 25 14:53	23°♿24'22		morning rise	3188 Jan 09 21:14	7°♿11'52	
direct	3187 Jan 31 05:47	20°♿54'34		direct	3188 Jan 14 21:16	5°♿02'54	
morning max el	3187 Feb 11 13:16	27°♿39'49	24°28'42	morning max el	3188 Jan 24 22:41	11°♿01'01	22°59'48
	3187 Feb 13 18:13	0°♿		desc. node	3188 Feb 04 16:30	24°♿01'27	

	3188 Feb 08 23:49	0°♊			3189 Jan 11 09:08	0°♊	
	3188 Feb 28 10:47	0°♋		desc. node	3189 Jan 21 13:32	13°♊47'52	
morning set	3188 Feb 28 12:34	0°♋07'25			3189 Feb 01 10:26	0°♋	
max. Earth dist.	3188 Mar 03 22:58	7°♋37'33	1.39768 AU	morning set	3189 Feb 07 07:57	9°♋12'47	
				max. Earth dist.	3189 Feb 13 22:41	19°♋55'40	1.41861 AU
					3189 Feb 19 22:01	0°♋	
superior conj	3188 Mar 11 16:16	21°♋22'01	-1°52'58				
minimum elong	3188 Mar 11 20:31	21°♋41'32	1°52'39				
	3188 Mar 16 07:18	0°♌		superior conj	3189 Feb 21 12:11	2°♋45'01	-2°05'23
evening rise	3188 Mar 21 07:54	9°♌35'24		minimum elong	3189 Feb 21 13:57	2°♋52'40	2°05'20
asc. node	3188 Mar 26 03:01	18°♌37'54		evening rise	3189 Mar 04 11:15	22°♋25'01	
	3188 Apr 01 22:06	0°♍			3189 Mar 08 15:13	0°♌	
evening max el	3188 Apr 06 12:36	5°♍37'21	18°30'49	asc. node	3189 Mar 13 00:03	7°♌36'53	
retrograde	3188 Apr 14 03:44	9°♍22'39		evening max el	3189 Mar 20 22:02	18°♌29'52	18°10'08
evening set	3188 Apr 16 11:32	9°♍02'51		retrograde	3189 Mar 27 17:34	21°♌56'27	
inferior conj	3188 Apr 23 23:58	4°♍33'18	2°17'43	evening set	3189 Mar 30 07:42	21°♌27'13	
minimum elong	3188 Apr 24 03:47	4°♍25'46	2°16'40	inferior conj	3189 Apr 06 03:03	16°♌36'44	3°10'21
min. Earth dist.	3188 Apr 27 10:10	1°♍52'18	0.58180 AU	minimum elong	3189 Apr 06 06:00	16°♌29'57	3°09'50
	3188 Apr 30 03:51	30°♎♌		min. Earth dist.	3189 Apr 09 10:43	13°♌35'11	0.60327 AU
morning rise	3188 May 01 16:55	29°♌08'45		morning rise	3189 Apr 13 02:06	10°♌49'16	
desc. node	3188 May 02 15:44	28°♌42'31		direct	3189 Apr 19 16:47	8°♌43'57	
direct	3188 May 07 14:51	27°♌39'00		desc. node	3189 Apr 19 12:44	8°♌44'02	
	3188 May 15 06:43	0°♏		morning max el	3189 May 03 23:44	16°♌36'21	27°37'41
morning max el	3188 May 22 00:09	5°♏19'13	26°47'40		3189 May 15 00:17	0°♏	
	3188 Jun 09 03:42	0°♐			3189 Jun 01 16:24	0°♐	
morning set	3188 Jun 20 16:46	22°♐04'43		morning set	3189 Jun 04 23:37	6°♐41'04	
asc. node	3188 Jun 22 02:17	25°♐02'22		asc. node	3189 Jun 08 23:21	15°♐08'39	
	3188 Jun 24 09:24	0°♑		max. Earth dist.	3189 Jun 11 06:27	20°♐08'53	1.32136 AU
superior conj	3188 Jun 27 17:21	7°♑19'09	0°56'13	superior conj	3189 Jun 12 04:46	22°♐11'26	0°33'26
minimum elong	3188 Jun 27 15:14	7°♑07'27	0°55'49	minimum elong	3189 Jun 12 03:20	22°♐03'31	0°33'07
max. Earth dist.	3188 Jun 27 18:48	7°♑27'11	1.32130 AU		3189 Jun 15 18:05	0°♑	
evening rise	3188 Jul 04 14:31	22°♑15'14		evening rise	3189 Jun 19 00:51	7°♑05'00	
	3188 Jul 08 09:15	0°♒			3189 Jun 30 23:50	0°♒	
	3188 Jul 26 11:36	0°♓		evening max el	3189 Jul 16 08:19	20°♒25'32	25°31'54
desc. node	3188 Jul 29 15:02	3°♓54'59		desc. node	3189 Jul 16 12:03	20°♒34'26	
evening max el	3188 Aug 03 12:38	9°♓08'34	26°41'07	retrograde	3189 Jul 30 08:02	27°♒32'19	
retrograde	3188 Aug 17 11:34	16°♓20'16		evening set	3189 Aug 05 05:27	26°♒11'12	
evening set	3188 Aug 24 06:53	14°♓22'03		min. Earth dist.	3189 Aug 09 20:21	23°♒31'28	0.58109 AU
min. Earth dist.	3188 Aug 28 02:30	11°♓45'28	0.60152 AU	inferior conj	3189 Aug 13 00:12	21°♒18'22	-5°04'44
inferior conj	3188 Aug 31 08:47	9°♓06'58	-4°40'31	minimum elong	3189 Aug 13 01:32	21°♒16'01	5°04'42
minimum elong	3188 Aug 31 13:39	8°♓57'04	4°39'43	morning rise	3189 Aug 20 23:56	17°♒00'08	
morning rise	3188 Sep 07 22:24	4°♓26'00		direct	3189 Aug 23 12:17	16°♒40'29	
direct	3188 Sep 10 07:47	4°♓04'40		morning max el	3189 Sep 01 00:05	20°♒42'03	18°49'27
morning max el	3188 Sep 17 19:22	7°♓44'32	18°10'42	asc. node	3189 Sep 04 22:32	25°♒13'13	
asc. node	3188 Sep 18 01:29	7°♓59'31			3189 Sep 08 04:14	0°♓	
	3188 Oct 02 02:45	0°♔		morning set	3189 Sep 17 11:35	17°♓02'11	
morning set	3188 Oct 03 15:40	2°♔53'22			3189 Sep 24 02:48	0°♔	
superior conj	3188 Oct 13 04:45	20°♔36'52	1°18'58	superior conj	3189 Sep 26 00:24	3°♔38'08	1°36'23
minimum elong	3188 Oct 13 08:47	20°♔55'01	1°18'32	minimum elong	3189 Sep 26 02:56	3°♔50'13	1°36'12
	3188 Oct 18 12:25	0°♕		max. Earth dist.	3189 Oct 03 01:05	16°♔33'38	1.39249 AU
max. Earth dist.	3188 Oct 20 19:48	3°♕56'28	1.41296 AU	evening rise	3189 Oct 06 23:44	23°♔25'29	
evening rise	3188 Oct 25 21:19	12°♕19'33			3189 Oct 10 22:06	0°♕	
desc. node	3188 Oct 25 14:18	11°♕51'03		desc. node	3189 Oct 12 11:22	2°♕31'35	
	3188 Nov 06 06:16	0°♖			3189 Oct 31 02:46	0°♖	
evening max el	3188 Nov 28 17:39	29°♖34'49	22°58'28	evening max el	3189 Nov 11 07:00	13°♖13'24	24°18'07
	3188 Nov 29 03:47	0°♗		retrograde	3189 Nov 22 12:31	19°♖47'55	
retrograde	3188 Dec 08 21:15	5°♗36'01		evening set	3189 Nov 27 21:22	17°♖33'30	
evening set	3188 Dec 13 16:31	3°♗37'58		asc. node	3189 Dec 01 21:46	13°♖04'23	
asc. node	3188 Dec 15 00:43	2°♗21'54		min. Earth dist.	3189 Dec 02 14:22	12°♖09'17	0.67688 AU
	3188 Dec 17 00:43	30°♘♖		inferior conj	3189 Dec 03 08:20	11°♖08'52	0°29'29
inferior conj	3188 Dec 19 01:31	27°♖15'00	1°20'25	minimum elong	3189 Dec 03 07:38	11°♖11'15	0°29'11
minimum elong	3188 Dec 18 23:47	27°♖21'00	1°19'45	morning rise	3189 Dec 08 17:56	5°♖05'37	
min. Earth dist.	3188 Dec 18 18:13	27°♖40'10	0.67930 AU	direct	3189 Dec 12 14:02	3°♖41'33	
morning rise	3188 Dec 24 06:55	21°♖06'13		morning max el	3189 Dec 20 09:34	8°♖09'45	20°18'56
direct	3188 Dec 28 16:26	19°♖20'04			3190 Jan 05 19:11	0°♗	
morning max el	3189 Jan 06 12:27	24°♖29'39	21°34'20	desc. node	3190 Jan 08 10:34	3°♗56'44	

morning set	3190 Jan 17 06:21	17°  24'21		morning rise	3190 Nov 23 04:16	19°  07'25	
	3190 Jan 25 07:00	0° 		direct	3190 Nov 26 12:37	18°  02'50	
max. Earth dist.	3190 Jan 27 06:36	3°  10'19	1.43598 AU	morning max el	3190 Dec 03 14:35	22°  00'42	19°17'26
					3190 Dec 10 03:09	0° 	
superior conj	3190 Feb 02 07:12	12°  58'59	-2°03'27	greatest brilliancy	3190 Dec 17 07:38	10°  31'13	-0.7m
minimum elong	3190 Feb 02 03:44	12°  44'43	2°03'19	desc. node	3190 Dec 26 07:38	24°  21'51	
	3190 Feb 12 08:23	0° 		morning set	3190 Dec 27 06:53	25°  52'01	
evening rise	3190 Feb 14 21:50	4°  26'48			3190 Dec 29 22:44	0° 	
asc. node	3190 Feb 27 21:05	26°  02'51		max. Earth dist.	3191 Jan 09 21:15	17°  06'59	1.44755 AU
	3190 Mar 02 21:18	0° 					
evening max el	3190 Mar 04 10:22	1°  04'47	18°08'50	superior conj	3191 Jan 13 00:53	22°  06'31	-1°42'46
retrograde	3190 Mar 10 21:29	5°  04'04		minimum elong	3191 Jan 12 16:23	21°  32'44	1°42'03
evening set	3190 Mar 13 17:15	4°  24'05			3191 Jan 17 23:10	0° 	
	3190 Mar 19 05:24	30°  R 		evening rise	3191 Jan 27 11:30	15°  34'01	
inferior conj	3190 Mar 19 23:25	29°  13'10	3°35'08		3191 Feb 05 05:20	0° 	
minimum elong	3190 Mar 20 00:33	29°  10'11	3°35'04	asc. node	3191 Feb 14 18:07	13°  45'58	
min. Earth dist.	3190 Mar 22 19:31	26°  15'46	0.62450 AU	evening max el	3191 Feb 15 22:45	15°  03'07	18°26'15
morning rise	3190 Mar 26 06:36	23°  11'49		retrograde	3191 Feb 22 10:53	18°  36'09	
direct	3190 Apr 02 04:13	20°  38'20		evening set	3191 Feb 25 12:14	17°  44'37	
desc. node	3190 Apr 06 09:47	21°  29'41		inferior conj	3191 Mar 03 08:58	12°  15'00	3°38'42
morning max el	3190 Apr 16 05:14	28°  35'30	27°50'36	minimum elong	3191 Mar 03 08:23	12°  16'40	3°38'41
	3190 Apr 17 14:07	0° 		min. Earth dist.	3191 Mar 05 13:58	9°  41'01	0.64324 AU
	3190 May 08 20:10	0° 		morning rise	3191 Mar 09 03:53	6°  06'04	
morning set	3190 May 20 01:04	20°  8'58'21		direct	3191 Mar 15 23:42	3°  17'13	
	3190 May 24 09:17	0° 		desc. node	3191 Mar 24 06:48	6°  33'26	
max. Earth dist.	3190 May 25 14:34	2°  36'27	1.32549 AU	morning max el	3191 Mar 29 14:27	11°  11'19	27°27'09
asc. node	3190 May 26 20:23	5°  17'12			3191 Apr 13 11:58	0° 	
					3191 May 01 06:51	0° 	
superior conj	3190 May 27 14:04	6°  15'3'07	0°07'46	morning set	3191 May 03 18:34	4°  48'40	
minimum elong	3190 May 27 13:42	6°  15'1'06	0°07'41	max. Earth dist.	3191 May 08 15:08	14°  37'41	1.33393 AU
behind sun begin	3190 May 27 09:08	6°  15'26'17					
behind sun end	3190 May 27 18:17	7°  15'56		superior conj	3191 May 11 19:24	21°  18'25	-0°19'59
evening rise	3190 Jun 03 12:38	21°  15'55'19		minimum elong	3191 May 11 20:24	21°  23'47	0°19'46
	3190 Jun 07 10:21	0° 		asc. node	3191 May 13 17:26	25°  24'08	
	3190 Jun 26 20:53	0° 			3191 May 15 20:53	0° 	
evening max el	3190 Jun 27 22:11	1°  03'01	24°01'22	evening rise	3191 May 19 00:01	6°  13'58	
desc. node	3190 Jul 03 09:05	5°  22'45			3191 May 31 11:29	0° 	
retrograde	3190 Jul 11 16:39	7°  05'58'51		evening max el	3191 Jun 09 12:44	11°  28'51	22°24'43
evening set	3190 Jul 16 04:30	7°  14'12		desc. node	3191 Jun 20 06:04	17°  24'38	
min. Earth dist.	3190 Jul 22 08:41	4°  14'13	0.56334 AU	retrograde	3191 Jun 22 13:21	17°  25'50	
inferior conj	3190 Jul 24 19:20	2°  44'04	-4°53'19	evening set	3191 Jun 25 14:12	17°  26'29	
minimum elong	3190 Jul 24 14:56	2°  50'53	4°52'50	min. Earth dist.	3191 Jul 03 19:36	14°  02'39	0.55165 AU
	3190 Jul 29 16:08	30°  R 		inferior conj	3191 Jul 04 20:41	13°  27'08	-3°53'40
morning rise	3190 Aug 02 03:59	28°  24'57'27		minimum elong	3191 Jul 04 12:28	13°  28'47	3°51'35
direct	3190 Aug 04 21:31	28°  26'07		morning rise	3191 Jul 13 12:48	9°  26'13	
	3190 Aug 10 16:36	0° 		direct	3191 Jul 16 13:17	9°  25'33	
morning max el	3190 Aug 14 18:42	3°  01'27	19°49'48	morning max el	3191 Jul 28 01:43	14°  27'03	21°10'52
asc. node	3190 Aug 22 19:36	13°  01'19'02			3191 Aug 08 12:20	0° 	
	3190 Aug 31 20:32	0° 		asc. node	3191 Aug 09 16:39	2°  04'50	
morning set	3190 Sep 01 14:47	1°  03'1'55		morning set	3191 Aug 16 22:44	16°  15'37	
					3191 Aug 23 12:33	0° 	
superior conj	3190 Sep 09 10:52	17°  03'23'20	1°44'07	superior conj	3191 Aug 24 07:49	1°  39'54	1°43'52
minimum elong	3190 Sep 09 11:38	17°  03'27'09	1°44'06	minimum elong	3191 Aug 24 07:05	1°  36'06	1°43'50
max. Earth dist.	3190 Sep 15 05:54	28°  03'36'22	1.37209 AU	max. Earth dist.	3191 Aug 28 15:40	10°  26'51	1.35402 AU
	3190 Sep 15 23:47	0° 		evening rise	3191 Sep 01 20:35	18°  35'49	
evening rise	3190 Sep 19 00:46	5°  23'33'56			3191 Sep 08 03:36	0° 	
desc. node	3190 Sep 29 08:25	23°  23'01'58		desc. node	3191 Sep 16 05:26	13°  23'16'45	
	3190 Oct 03 20:18	0° 			3191 Sep 28 00:07	0° 	
evening max el	3190 Oct 24 19:13	26°  15'54'23	25°32'09	evening max el	3191 Oct 07 07:26	10°  15'33'17	26°33'04
	3190 Oct 28 06:30	0°		retrograde	3191 Oct 20 05:09	17° 15'47'07	
retrograde	3190 Nov 05 23:21	3° 27'53'46		evening set	3191 Oct 26 17:20	15° 15'07'45	
evening set	3190 Nov 11 22:17	1° 27'24'45		min. Earth dist.	3191 Oct 30 19:29	10° 15'54'18	0.66158 AU
	3190 Nov 13 10:02	30° R		inferior conj	3191 Nov 01 11:55	8° 15'52'55	-1°24'56
min. Earth dist.	3190 Nov 16 07:33	26° 15'35'25	0.67096 AU	minimum elong	3191 Nov 01 14:13	8° 15'45'59	1°23'59
inferior conj	3190 Nov 17 12:27	25° 15'00'42'27	-0°26'04	asc. node	3191 Nov 05 15:50	4° 15'25'20	
minimum elong	3190 Nov 17 13:07	25° 15'00'33	0°25'48	morning rise	3191 Nov 07 11:45	3° 15'08'11	
asc. node	3190 Nov 18 18:47	23° 15'26'45					

direct	3191 Nov 10 10:28	2°♍19'24		morning rise	3192 Oct 21 13:59	17°♊04'25	
morning max el	3191 Nov 17 02:00	5°♍57'46	18°31'36	asc. node	3192 Oct 22 12:52	16°♊42'42	
	3191 Dec 03 19:22	0°♊		direct	3192 Oct 24 05:29	16°♊27'30	
morning set	3191 Dec 07 06:54	5°♊33'37		morning max el	3192 Oct 30 17:22	19°♊55'30	18°02'29
desc. node	3191 Dec 13 04:40	14°♊57'49			3192 Nov 07 07:36	0°♍	
	3191 Dec 22 17:39	0°♊		morning set	3192 Nov 17 12:24	16°♍43'06	
					3192 Nov 25 13:27	0°♊	
superior conj	3191 Dec 23 03:30	0°♊38'38	-1°04'06	desc. node	3192 Nov 29 01:43	5°♊41'08	
minimum elong	3191 Dec 22 19:41	0°♊07'59	1°03'09				
max. Earth dist.	3191 Dec 23 15:24	1°♊25'21	1.45210 AU	superior conj	3192 Dec 01 11:31	9°♊32'43	-0°16'22
evening rise	3192 Jan 08 01:47	25°♊43'38		minimum elong	3192 Dec 01 09:29	9°♊24'38	0°16'05
	3192 Jan 10 18:24	0°♋		behind sun begin	3192 Dec 01 08:14	9°♊19'37	
greatest brilliancy	3192 Jan 17 06:59	10°♋19'09	-0.8m	behind sun end	3192 Dec 01 10:45	9°♊29'40	
evening max el	3192 Jan 30 08:43	28°♋31'03	19°01'29	max. Earth dist.	3192 Dec 05 10:19	15°♊48'44	1.44929 AU
	3192 Jan 31 22:37	0°♋			3192 Dec 14 12:16	0°♊	
asc. node	3192 Feb 01 15:08	0°♋33'15		evening rise	3192 Dec 17 19:43	5°♊07'16	
retrograde	3192 Feb 06 05:51	2°♋24'45		greatest brilliancy	3192 Dec 31 15:47	26°♊12'27	-0.7m
evening set	3192 Feb 09 13:35	1°♋20'45			3193 Jan 03 05:54	0°♋	
	3192 Feb 11 06:39	30°♋		evening max el	3193 Jan 12 14:28	12°♋01'56	19°52'53
inferior conj	3192 Feb 15 03:58	25°♋34'31	3°26'28	asc. node	3193 Jan 18 12:08	16°♋10'37	
minimum elong	3192 Feb 15 02:11	25°♋40'09	3°26'13	retrograde	3193 Jan 20 03:24	16°♋25'13	
min. Earth dist.	3192 Feb 16 17:34	23°♋35'59	0.65830 AU	evening set	3193 Jan 23 18:55	15°♋07'31	
morning rise	3192 Feb 20 14:25	19°♋22'02		inferior conj	3193 Jan 29 05:26	9°♋07'03	3°02'15
direct	3192 Feb 27 02:02	16°♋31'42		minimum elong	3193 Jan 29 03:01	9°♋15'07	3°01'43
desc. node	3192 Mar 10 03:50	23°♋19'45		min. Earth dist.	3193 Jan 30 04:45	7°♋49'22	0.66926 AU
morning max el	3192 Mar 11 00:23	24°♋10'34	26°33'14	morning rise	3193 Feb 03 10:53	2°♋53'29	
	3192 Mar 16 06:09	0°♌		direct	3193 Feb 09 10:08	0°♋13'32	
	3192 Apr 05 21:29	0°♌		morning max el	3193 Feb 21 09:14	7°♋21'56	25°17'46
morning set	3192 Apr 16 00:35	18°♌01'06		desc. node	3193 Feb 25 00:53	11°♋19'55	
max. Earth dist.	3192 Apr 20 04:36	26°♌04'47	1.34694 AU		3193 Mar 11 01:00	0°♌	
	3192 Apr 22 03:41	0°♌			3193 Mar 29 09:31	0°♌	
				morning set	3193 Mar 29 14:30	0°♌22'25	
superior conj	3192 Apr 24 18:29	5°♌20'24	-0°48'39	max. Earth dist.	3193 Apr 02 06:42	7°♌07'48	1.36444 AU
minimum elong	3192 Apr 24 21:02	5°♌33'30	0°48'09				
asc. node	3192 Apr 29 14:28	15°♌24'57		superior conj	3193 Apr 08 08:34	18°♌51'38	-1°16'34
evening rise	3192 May 02 09:03	21°♌12'20		minimum elong	3193 Apr 08 12:29	19°♌11'03	1°15'58
	3192 May 06 17:36	0°♍			3193 Apr 13 21:18	0°♌	
evening max el	3192 May 21 11:46	22°♍15'30	20°56'11	asc. node	3193 Apr 16 11:29	5°♌15'32	
retrograde	3192 Jun 02 02:29	27°♍55'53		evening rise	3193 Apr 16 13:36	5°♌26'17	
evening set	3192 Jun 04 06:04	27°♍44'58			3193 Apr 30 16:16	0°♍	
desc. node	3192 Jun 06 03:03	27°♍18'41		evening max el	3193 May 03 22:48	3°♍40'44	19°44'06
inferior conj	3192 Jun 13 14:09	23°♍47'19	-2°09'57	retrograde	3193 May 13 19:31	8°♍27'43	
minimum elong	3192 Jun 13 08:08	23°♍55'51	2°07'51	evening set	3193 May 15 19:09	8°♍16'58	
min. Earth dist.	3192 Jun 14 07:35	23°♍22'35	0.54877 AU	desc. node	3193 May 24 00:05	4°♍36'46	
morning rise	3192 Jun 22 10:00	19°♍44'44		inferior conj	3193 May 24 14:14	4°♍14'50	-0°10'23
direct	3192 Jun 25 22:34	19°♍17'57		minimum elong	3193 May 24 13:46	4°♍15'34	0°10'13
morning max el	3192 Jul 08 22:18	25°♍31'01	22°47'55	transit middle	3193 May 24 13:46	4°♍15'34	0°10'13
	3192 Jul 13 03:04	0°♎		transit begin	3193 May 24 10:44	4°♍20'16	
asc. node	3192 Jul 26 13:42	21°♎20'54		transit end	3193 May 24 16:48	4°♍10'51	
	3192 Jul 30 20:30	0°♏		min. Earth dist.	3193 May 26 21:11	2°♍49'45	0.55561 AU
morning set	3192 Jul 31 09:29	1°♏07'57			3193 Jun 01 10:46	30°♎	
				morning rise	3193 Jun 02 06:00	29°♎43'32	
superior conj	3192 Aug 07 11:57	16°♏17'52	1°37'01	direct	3193 Jun 06 14:44	29°♎01'16	
minimum elong	3192 Aug 07 10:11	16°♏08'27	1°36'52		3193 Jun 11 17:00	0°♏	
max. Earth dist.	3192 Aug 10 10:16	22°♏28'39	1.33962 AU	morning max el	3193 Jun 20 12:53	5°♏58'21	24°30'42
	3192 Aug 14 02:37	0°♐			3193 Jul 07 18:20	0°♎	
evening rise	3192 Aug 15 06:47	2°♐19'43		asc. node	3193 Jul 13 10:45	10°♎58'42	
	3192 Aug 31 00:43	0°♑		morning set	3193 Jul 15 21:16	16°♎02'57	
desc. node	3192 Sep 02 02:25	3°♑09'06			3193 Jul 22 08:04	0°♏	
evening max el	3192 Sep 18 19:43	24°♑02'27	27°13'24				
	3192 Sep 26 21:32	0°♒		superior conj	3193 Jul 22 20:38	1°♏08'19	1°24'42
retrograde	3192 Oct 02 05:20	1°♒20'50		minimum elong	3193 Jul 22 18:20	0°♏55'51	1°24'24
	3192 Oct 07 03:35	30°♒		max. Earth dist.	3193 Jul 24 13:41	4°♏50'43	1.32934 AU
evening set	3192 Oct 09 04:09	28°♒38'33		evening rise	3193 Jul 30 03:24	16°♏33'31	
min. Earth dist.	3192 Oct 12 23:59	25°♒00'32	0.64872 AU		3193 Aug 06 02:10	0°♐	
inferior conj	3192 Oct 15 04:34	22°♒35'37	-2°25'10	desc. node	3193 Aug 19 23:25	22°♐28'53	
minimum elong	3192 Oct 15 08:34	22°♒24'35	2°23'39		3193 Aug 25 16:45	0°♑	

evening max el	3193 Sep 01 06:26	7°♌08'58	27°26'23	retrograde	3194 Aug 28 09:36	26°♏51'56	
retrograde	3193 Sep 14 23:05	14°♌25'23		evening set	3194 Sep 04 11:47	24°♏36'27	
evening set	3193 Sep 22 03:38	11°♌50'20		min. Earth dist.	3194 Sep 08 03:10	21°♏53'35	0.61344 AU
min. Earth dist.	3193 Sep 25 18:57	8°♌44'21	0.63251 AU	inferior conj	3194 Sep 11 06:10	19°♏09'36	-4°16'12
inferior conj	3193 Sep 28 11:42	6°♌03'51	-3°23'52	minimum elong	3194 Sep 11 11:47	18°♏57'15	4°14'55
minimum elong	3193 Sep 28 17:03	5°♌50'33	3°22'10	morning rise	3194 Sep 18 13:30	14°♏15'47	
morning rise	3193 Oct 05 07:51	0°♌49'32		direct	3194 Sep 20 22:44	13°♏52'24	
direct	3193 Oct 07 18:46	0°♌20'52		asc. node	3194 Sep 26 07:00	15°♏54'42	
asc. node	3193 Oct 09 09:56	0°♌33'49		morning max el	3194 Sep 28 00:13	17°♏24'05	17°57'49
morning max el	3193 Oct 14 09:46	3°♌46'38	17°50'52		3194 Oct 06 23:14	0°♌	
morning set	3193 Oct 30 18:51	29°♌04'36		morning set	3194 Oct 13 19:52	12°♌19'05	
	3193 Oct 31 07:30	0°♌			3194 Oct 23 14:49	0°♌	
superior conj	3193 Nov 11 17:47	19°♌33'26	0°28'43	superior conj	3194 Oct 24 03:03	0°♌53'36	1°03'57
minimum elong	3193 Nov 11 20:37	19°♌45'15	0°28'18	minimum elong	3194 Oct 24 07:23	1°♌12'31	1°03'25
desc. node	3193 Nov 15 22:44	26°♌27'49		max. Earth dist.	3194 Oct 31 16:15	13°♌43'40	1.42385 AU
max. Earth dist.	3193 Nov 18 03:28	0°♌00'37	1.43948 AU	desc. node	3194 Nov 02 19:45	17°♌14'51	
	3193 Nov 18 03:19	0°♌		evening rise	3194 Nov 06 21:18	23°♌46'24	
evening rise	3193 Nov 27 04:42	14°♌14'33			3194 Nov 10 20:50	0°♌	
	3193 Dec 07 14:25	0°♌			3194 Dec 01 16:18	0°♌	
evening max el	3193 Dec 26 14:50	25°♌33'48	20°57'57	evening max el	3194 Dec 09 09:42	9°♌06'32	22°12'52
	3194 Jan 01 11:30	0°♌		retrograde	3194 Dec 18 21:42	14°♌45'42	
retrograde	3194 Jan 04 01:17	0°♌33'23		evening set	3194 Dec 23 09:55	12°♌56'49	
asc. node	3194 Jan 05 09:11	0°♌23'39		asc. node	3194 Dec 23 06:14	13°♌04'12	
	3194 Jan 06 11:52	30°♌		inferior conj	3194 Dec 28 18:21	6°♌36'40	1°47'14
evening set	3194 Jan 08 02:17	29°♌00'37		minimum elong	3194 Dec 28 16:12	6°♌44'07	1°46'27
inferior conj	3194 Jan 13 10:55	22°♌48'41	2°28'36	min. Earth dist.	3194 Dec 28 17:13	6°♌40'35	0.67915 AU
minimum elong	3194 Jan 13 08:24	22°♌57'21	2°27'51	morning rise	3195 Jan 02 22:22	0°♌26'00	
min. Earth dist.	3194 Jan 13 21:23	22°♌12'43	0.67611 AU		3195 Jan 03 11:20	30°♌	
morning rise	3194 Jan 18 14:21	16°♌35'46		direct	3195 Jan 07 16:06	28°♌26'52	
direct	3194 Jan 23 23:05	14°♌14'16			3195 Jan 12 07:35	0°♌	
morning max el	3194 Feb 03 17:42	20°♌39'32	23°51'01	morning max el	3195 Jan 17 04:37	4°♌03'34	22°22'39
desc. node	3194 Feb 11 21:56	0°♌12'31		desc. node	3195 Jan 29 18:58	19°♌42'19	
	3194 Feb 11 18:03	0°♌			3195 Feb 05 22:35	0°♌	
	3194 Mar 04 06:34	0°♌		morning set	3195 Feb 19 18:31	21°♌29'03	
morning set	3194 Mar 11 06:25	11°♌36'37			3195 Feb 24 21:44	0°♌	
max. Earth dist.	3194 Mar 15 02:26	18°♌17'39	1.38518 AU	max. Earth dist.	3195 Feb 24 23:14	0°♌06'18	1.40682 AU
	3194 Mar 21 12:15	0°♌					
superior conj	3194 Mar 22 10:03	1°♌42'41	-1°41'23	superior conj	3195 Mar 04 18:12	13°♌40'53	-1°59'39
minimum elong	3194 Mar 22 14:37	2°♌04'17	1°40'53	minimum elong	3195 Mar 04 21:44	13°♌56'47	1°59'27
evening rise	3194 Mar 31 11:06	19°♌14'48			3195 Mar 13 14:33	0°♌	
asc. node	3194 Apr 03 08:31	24°♌51'16		evening rise	3195 Mar 14 22:11	2°♌28'37	
	3194 Apr 06 02:21	0°♌		asc. node	3195 Mar 21 05:34	14°♌05'42	
evening max el	3194 Apr 16 20:56	15°♌46'06	18°51'44	evening max el	3195 Mar 31 03:08	28°♌23'32	18°19'35
retrograde	3194 Apr 25 04:30	19°♌49'34			3195 Apr 02 00:04	0°♌	
evening set	3194 Apr 27 08:43	19°♌33'59		retrograde	3195 Apr 07 08:38	1°♌59'18	
inferior conj	3194 May 05 08:18	15°♌15'31	1°32'35	evening set	3195 Apr 09 19:07	1°♌35'46	
minimum elong	3194 May 05 11:32	15°♌09'41	1°31'33		3195 Apr 13 00:46	30°♌	
min. Earth dist.	3194 May 08 13:19	12°♌57'43	0.57063 AU	inferior conj	3195 Apr 16 23:48	26°♌57'03	2°43'51
desc. node	3194 May 10 21:07	11°♌28'10		minimum elong	3195 Apr 17 03:28	26°♌49'18	2°42'59
morning rise	3194 May 13 11:11	10°♌09'13		min. Earth dist.	3195 Apr 20 10:13	24°♌04'22	0.59072 AU
direct	3194 May 18 20:06	8°♌59'45		morning rise	3195 Apr 24 09:04	21°♌21'18	
morning max el	3194 Jun 02 03:56	16°♌27'11	26°04'14	desc. node	3195 Apr 27 18:09	19°♌58'36	
	3194 Jun 13 05:05	0°♌		direct	3195 Apr 30 14:57	19°♌36'26	
	3194 Jun 29 21:55	0°♌		morning max el	3195 May 15 00:05	27°♌22'48	27°13'20
morning set	3194 Jun 30 08:30	0°♌55'42			3195 May 17 12:33	0°♌	
asc. node	3194 Jun 30 07:48	0°♌51'59			3195 Jun 06 18:27	0°♌	
superior conj	3194 Jul 07 07:49	16°♌04'33	1°07'47	morning set	3195 Jun 14 17:29	15°♌39'47	
minimum elong	3194 Jul 07 05:29	15°♌51'48	1°07'24	asc. node	3195 Jun 17 04:51	20°♌54'44	
max. Earth dist.	3194 Jul 07 23:15	17°♌29'28	1.32315 AU		3195 Jun 21 08:47	0°♌	
	3194 Jul 13 18:21	0°♌		superior conj	3195 Jun 21 19:38	0°♌59'47	0°46'57
evening rise	3194 Jul 14 07:19	1°♌07'49		minimum elong	3195 Jun 21 17:44	0°♌49'23	0°46'35
	3194 Jul 30 02:01	0°♌		max. Earth dist.	3195 Jun 21 11:12	0°♌13'21	1.32088 AU
desc. node	3194 Aug 06 20:26	11°♌02'35		evening rise	3195 Jun 28 15:54	15°♌53'37	
evening max el	3194 Aug 14 12:53	19°♌39'02	27°07'08		3195 Jul 05 16:49	0°♌	
				desc. node	3195 Jul 24 17:27	28°♌30'51	

	3195 Jul 26 03:12	0°♎		desc. node	3196 Jul 10 14:28	14°♏27'18	
evening max el	3195 Jul 27 12:30	1°♎22'08 26°14'52		retrograde	3196 Jul 22 04:03	19°♏23'54	
retrograde	3195 Aug 10 11:58	8°♎32'21		evening set	3196 Jul 27 12:03	18°♏19'08	
evening set	3195 Aug 16 23:51	6°♎48'48		min. Earth dist.	3196 Aug 01 16:33	15°♏32'25	0.57298 AU
min. Earth dist.	3195 Aug 21 01:23	4°♎13'26 0.59275 AU		inferior conj	3196 Aug 04 15:09	13°♏35'30	-5°05'13
inferior conj	3195 Aug 24 08:20	1°♎43'08 -4°54'08		minimum elong	3196 Aug 04 14:10	13°♏37'09	5°05'11
minimum elong	3195 Aug 24 12:04	1°♎35'59 4°53'44		morning rise	3196 Aug 12 18:51	9°♏26'33	
	3195 Aug 26 16:05	30°♎♏		direct	3196 Aug 15 08:58	9°♏07'21	
morning rise	3195 Sep 01 02:28	27°♏12'17		morning max el	3196 Aug 24 10:16	13°♏22'00	19°12'30
direct	3195 Sep 03 12:50	26°♏51'52		asc. node	3196 Aug 30 01:07	20°♏09'17	
	3195 Sep 10 16:21	0°♎			3196 Sep 04 22:50	0°♎	
morning max el	3195 Sep 11 09:28	0°♎39'13 18°24'39		morning set	3196 Sep 10 09:26	10°♎29'50	
asc. node	3195 Sep 13 04:04	2°♎31'40					
morning set	3195 Sep 27 10:05	26°♎11'22		superior conj	3196 Sep 18 14:20	26°♎44'46	1°40'44
	3195 Sep 29 09:45	0°♏		minimum elong	3196 Sep 18 16:07	26°♎53'25	1°40'39
					3196 Sep 20 06:54	0°♏	
superior conj	3195 Oct 06 11:48	13°♏23'01 1°27'38		max. Earth dist.	3196 Sep 25 03:24	9°♏03'03	1.38359 AU
minimum elong	3195 Oct 06 15:18	13°♏39'06 1°27'19		evening rise	3196 Sep 28 22:21	15°♏47'59	
max. Earth dist.	3195 Oct 13 23:28	26°♏44'33 1.40435 AU		desc. node	3196 Oct 06 13:49	28°♏35'49	
	3195 Oct 15 21:13	0°♎			3196 Oct 07 10:52	0°♎	
evening rise	3195 Oct 18 09:59	4°♎14'27			3196 Oct 28 17:36	0°♎	
desc. node	3195 Oct 20 16:48	7°♎59'01		evening max el	3196 Nov 03 12:53	6°♎22'03	24°50'48
	3195 Nov 04 02:36	0°♎		retrograde	3196 Nov 15 04:55	13°♎09'05	
evening max el	3195 Nov 22 00:20	22°♎42'20 23°32'34		evening set	3196 Nov 20 19:36	10°♎48'15	
retrograde	3195 Dec 02 15:18	28°♎59'12		min. Earth dist.	3196 Nov 25 09:13	5°♎38'28	0.67472 AU
evening set	3195 Dec 07 16:14	26°♎53'55		inferior conj	3196 Nov 26 07:46	4°♎23'55	0°06'24
asc. node	3195 Dec 10 03:16	24°♎21'29		minimum elong	3196 Nov 26 07:36	4°♎24'28	0°06'20
min. Earth dist.	3195 Dec 12 13:58	21°♎10'17 0.67863 AU		transit middle	3196 Nov 26 07:36	4°♎24'28	0°06'20
inferior conj	3195 Dec 13 01:53	20°♎29'28 0°59'28		transit begin	3196 Nov 26 05:04	4°♎32'52	
minimum elong	3195 Dec 13 00:33	20°♎34'05 0°58'55		transit end	3196 Nov 26 10:09	4°♎16'04	
morning rise	3195 Dec 18 08:50	14°♎22'48		asc. node	3196 Nov 26 00:18	4°♎48'37	
direct	3195 Dec 22 12:20	12°♎46'30			3196 Nov 29 22:56	30°♎♎	
morning max el	3195 Dec 30 21:24	17°♎37'41 21°00'48		morning rise	3196 Dec 01 19:45	28°♎23'32	
	3196 Jan 09 21:57	0°♎		direct	3196 Dec 05 10:33	27°♎08'11	
desc. node	3196 Jan 16 16:01	9°♎39'22			3196 Dec 11 10:38	0°♎	
morning set	3196 Jan 30 03:03	0°♎05'45		morning max el	3196 Dec 12 21:52	1°♎22'35	19°50'52
	3196 Jan 30 01:35	0°♎		desc. node	3197 Jan 02 13:03	29°♎55'47	
max. Earth dist.	3196 Feb 07 02:11	12°♎48'47 1.42651 AU			3197 Jan 02 14:10	0°♎	
				morning set	3197 Jan 07 22:54	8°♎13'56	
superior conj	3196 Feb 14 03:56	24°♎35'11 -2°06'38		max. Earth dist.	3197 Jan 19 12:35	26°♎20'55	1.44169 AU
minimum elong	3196 Feb 14 03:46	24°♎34'26 2°06'37			3197 Jan 21 19:26	0°♎	
	3196 Feb 17 07:38	0°♎					
evening rise	3196 Feb 25 18:59	14°♎59'11		superior conj	3197 Jan 24 11:41	4°♎19'08	-1°57'05
	3196 Mar 05 08:08	0°♎		minimum elong	3197 Jan 24 05:44	3°♎54'59	1°56'46
asc. node	3196 Mar 07 02:36	2°♎51'57		evening rise	3197 Feb 06 21:01	26°♎37'44	
evening max el	3196 Mar 13 14:08	11°♎24'41 18°07'14			3197 Feb 08 20:26	0°♎	
retrograde	3196 Mar 20 05:01	14°♎48'26		asc. node	3197 Feb 21 23:37	21°♎01'00	
evening set	3196 Mar 22 21:28	14°♎14'54		evening max el	3197 Feb 25 02:48	24°♎41'11	18°14'04
inferior conj	3196 Mar 29 10:45	9°♎15'45 3°23'51		retrograde	3197 Mar 03 13:17	28°♎06'57	
minimum elong	3196 Mar 29 12:58	9°♎10'21 3°23'33		evening set	3197 Mar 06 11:23	27°♎22'13	
min. Earth dist.	3196 Apr 01 14:19	6°♎12'50 0.61244 AU		inferior conj	3197 Mar 12 13:08	22°♎03'27	3°38'50
morning rise	3196 Apr 05 02:38	3°♎21'04		minimum elong	3197 Mar 12 13:30	22°♎02'26	3°38'50
direct	3196 Apr 11 21:19	1°♎02'15		min. Earth dist.	3197 Mar 15 03:10	19°♎13'47	0.63289 AU
desc. node	3196 Apr 13 15:11	1°♎10'56		morning rise	3197 Mar 18 14:39	15°♎58'21	
morning max el	3196 Apr 26 02:32	8°♎58'31 27°47'46		direct	3197 Mar 25 12:38	13°♎16'13	
	3196 May 12 06:44	0°♎		desc. node	3197 Mar 31 12:13	14°♎59'05	
morning set	3196 May 28 22:19	0°♎09'05		morning max el	3197 Apr 08 09:44	21°♎13'38	27°44'45
	3196 May 28 20:33	0°♎			3197 Apr 16 00:36	0°♎	
asc. node	3196 Jun 03 01:54	11°♎02'30			3197 May 05 08:50	0°♎	
max. Earth dist.	3196 Jun 03 21:42	12°♎50'01 1.32258 AU		morning set	3197 May 12 20:45	14°♎16'09	
				max. Earth dist.	3197 May 18 02:50	25°♎06'41	1.32846 AU
					3197 May 20 09:44	0°♎	
superior conj	3196 Jun 05 06:22	15°♎48'19 0°22'51					
minimum elong	3196 Jun 05 05:20	15°♎42'41 0°22'38					
	3196 Jun 11 18:46	0°♎		superior conj	3197 May 20 14:14	0°♎24'16	-0°03'49
evening rise	3196 Jun 12 03:04	0°♎44'09		minimum elong	3197 May 20 14:25	0°♎25'16	0°03'47
	3196 Jun 28 03:23	0°♎		behind sun begin	3197 May 20 09:16	29°♎57'32	
evening max el	3196 Jul 08 05:03	12°♎19'38 24°55'05		behind sun end	3197 May 20 19:34	0°♎53'01	

asc. node	3197 May 20 22:56	1°II11'10			3198 May 11 22:57	0°II	
evening rise	3197 May 27 14:53	15°II33'03		evening rise	3198 May 12 01:30	0°II13'21	
	3197 Jun 03 19:57	0°☿			3198 May 29 09:49	0°☿	
evening max el	3197 Jun 19 18:29	22°☿49'38	23°20'13	evening max el	3198 Jun 01 11:56	3°☿21'08	21°45'29
desc. node	3197 Jun 27 11:28	28°☿18'26		retrograde	3198 Jun 13 23:26	9°☿30'15	
retrograde	3197 Jul 03 07:31	29°☿35'48		desc. node	3198 Jun 14 08:29	9°☿29'55	
evening set	3197 Jul 07 03:28	29°☿03'41		evening set	3198 Jun 16 13:16	9°☿15'19	
min. Earth dist.	3197 Jul 14 04:15	25°☿50'49	0.55741 AU	inferior conj	3198 Jun 25 22:31	5°☿13'00	-3°13'51
inferior conj	3197 Jul 16 02:10	24°☿43'10	-4°34'19	minimum elong	3198 Jun 25 14:28	5°☿24'14	3°11'26
minimum elong	3197 Jul 15 19:35	24°☿52'55	4°33'10	min. Earth dist.	3198 Jun 25 15:10	5°☿23'16	0.54926 AU
morning rise	3197 Jul 24 14:09	20°☿49'22		morning rise	3198 Jul 04 16:56	1°☿19'54	
direct	3197 Jul 27 10:18	20°☿29'44		direct	3198 Jul 07 21:58	0°☿57'18	
morning max el	3197 Aug 07 00:01	25°☿23'58	20°21'49	morning max el	3198 Jul 20 02:06	6°☿40'19	21°50'38
	3197 Aug 11 04:07	0°♊		asc. node	3198 Aug 03 19:12	27°☿34'05	
asc. node	3197 Aug 16 22:10	8°♊34'11			3198 Aug 05 02:02	0°♊	
morning set	3197 Aug 25 14:58	25°♊07'01		morning set	3198 Aug 10 00:21	9°♊55'27	
	3197 Aug 27 23:59	0°♊					
				superior conj	3198 Aug 17 06:08	25°♊12'02	1°41'41
superior conj	3197 Sep 02 05:46	10°♊45'13	1°44'54	minimum elong	3198 Aug 17 04:53	25°♊05'34	1°41'37
minimum elong	3197 Sep 02 05:51	10°♊45'38	1°44'53		3198 Aug 19 13:32	0°♊	
max. Earth dist.	3197 Sep 07 09:46	20°♊58'17	1.36407 AU	max. Earth dist.	3198 Aug 20 23:27	2°♊53'23	1.34748 AU
evening rise	3197 Sep 11 08:02	28°♊21'41		evening rise	3198 Aug 25 10:31	11°♊43'00	
	3197 Sep 12 05:33	0°♋			3198 Sep 04 14:57	0°♋	
desc. node	3197 Sep 23 10:50	19°♋00'45		desc. node	3198 Sep 10 07:51	9°♋07'12	
	3197 Sep 30 18:07	0°♌			3198 Sep 26 00:18	0°♌	
evening max el	3197 Oct 17 01:14	20°♌04'03	26°00'09	evening max el	3198 Sep 29 13:45	3°♌40'42	26°53'05
retrograde	3197 Oct 29 13:35	27°♌10'25		retrograde	3198 Oct 12 16:50	10°♌56'31	
evening set	3197 Nov 04 18:15	24°♌36'40		evening set	3198 Oct 19 10:06	8°♌14'56	
min. Earth dist.	3197 Nov 09 00:33	20°♌02'16	0.66743 AU	min. Earth dist.	3198 Oct 23 09:31	4°♌16'49	0.65663 AU
inferior conj	3197 Nov 10 10:10	18°♌17'10	-0°50'45	inferior conj	3198 Oct 25 07:01	2°♌04'54	-1°50'27
minimum elong	3197 Nov 10 11:30	18°♌12'58	0°50'10	minimum elong	3198 Oct 25 10:04	1°♌56'05	1°49'13
asc. node	3197 Nov 12 21:20	15°♌20'11			3198 Oct 27 03:16	30°♌♋	
morning rise	3197 Nov 16 05:09	12°♌25'44		asc. node	3198 Oct 30 18:23	26°♋48'48	
direct	3197 Nov 19 09:11	11°♌28'12		morning rise	3198 Oct 31 10:46	26°♋25'31	
morning max el	3197 Nov 26 05:45	15°♌16'27	18°55'50	direct	3198 Nov 03 06:13	25°♋42'07	
	3197 Dec 07 06:39	0°♌		morning max el	3198 Nov 09 19:11	29°♋14'35	18°17'06
morning set	3197 Dec 18 07:37	17°♌08'27			3198 Nov 10 12:38	0°♌	
desc. node	3197 Dec 20 10:06	20°♌26'08		morning set	3198 Nov 28 20:22	27°♌28'49	
	3197 Dec 26 12:40	0°♍			3198 Nov 30 09:38	0°♍	
max. Earth dist.	3198 Jan 02 05:08	10°♍29'19	1.45047 AU	desc. node	3198 Dec 07 07:08	11°♍05'52	
superior conj	3198 Jan 03 20:54	13°♍05'48	-1°28'12	superior conj	3198 Dec 13 23:05	21°♍39'44	-0°44'11
minimum elong	3198 Jan 03 11:48	12°♍29'55	1°27'16	minimum elong	3198 Dec 13 17:28	21°♍17'36	0°43'27
	3198 Jan 14 11:54	0°♎		max. Earth dist.	3198 Dec 16 00:37	24°♍54'29	1.45185 AU
evening rise	3198 Jan 19 00:42	7°♎19'44			3198 Dec 19 06:33	0°♎	
	3198 Feb 02 06:21	0°♏		evening rise	3198 Dec 30 05:34	17°♎08'04	
evening max el	3198 Feb 08 14:28	8°♏06'39	18°39'12		3199 Jan 07 11:29	0°♎	
asc. node	3198 Feb 08 20:37	8°♏22'06		greatest brilliancy	3199 Jan 10 14:22	4°♎48'22	-0.7m
retrograde	3198 Feb 15 05:20	11°♏46'50		evening max el	3199 Jan 22 22:51	21°♎36'30	19°21'30
evening set	3198 Feb 18 09:23	10°♏49'57		asc. node	3199 Jan 26 17:39	24°♎41'59	
inferior conj	3198 Feb 24 03:04	5°♏13'04	3°35'08	retrograde	3199 Jan 30 01:48	25°♎41'43	
minimum elong	3198 Feb 24 01:54	5°♏16'34	3°35'03	evening set	3199 Feb 02 12:44	24°♎31'51	
min. Earth dist.	3198 Feb 26 01:25	2°♏53'18	0.65020 AU	inferior conj	3199 Feb 08 01:10	18°♎39'01	3°17'28
	3198 Feb 28 16:55	30°♏♎		minimum elong	3199 Feb 07 23:03	18°♎45'53	3°17'06
morning rise	3198 Mar 01 17:58	29°♎02'33		min. Earth dist.	3199 Feb 09 08:24	16°♎57'52	0.66346 AU
direct	3198 Mar 08 11:04	26°♎11'29		morning rise	3199 Feb 13 09:07	12°♎25'55	
	3198 Mar 17 08:14	0°♏		direct	3199 Feb 19 15:45	9°♎39'08	
desc. node	3198 Mar 18 09:15	0°♏50'21		morning max el	3199 Mar 04 05:01	17°♎06'23	26°03'16
morning max el	3198 Mar 21 19:18	3°♏59'57	27°07'27	desc. node	3199 Mar 05 06:18	18°♎11'36	
	3198 Apr 10 11:31	0°♐			3199 Mar 14 23:20	0°♏	
morning set	3198 Apr 26 09:47	27°♐51'20			3199 Apr 03 09:48	0°♐	
	3198 Apr 27 12:13	0°♑		morning set	3199 Apr 09 09:35	10°♐43'57	
max. Earth dist.	3198 Apr 30 22:57	6°♑53'23	1.33889 AU	max. Earth dist.	3199 Apr 13 07:46	18°♐10'02	1.35392 AU
superior conj	3198 May 04 17:11	14°♑40'30	-0°32'06	superior conj	3199 Apr 18 12:49	28°♐30'32	-1°00'41
minimum elong	3198 May 04 18:50	14°♑49'12	0°31'46	minimum elong	3199 Apr 18 16:00	28°♐46'38	1°00'08
asc. node	3198 May 07 19:57	21°♑15'57			3199 Apr 19 06:24	0°♑	

asc. node	3199 Apr 24 16:59	11°♄13'14		minimum elong	3200 Apr 01 02:19	12°♄06'29	1°27'04
evening rise	3199 Apr 26 08:57	14°♄39'11		evening rise	3200 Apr 09 10:51	28°♄43'02	
	3199 May 04 07:23	0°♄			3200 Apr 10 02:18	0°♄	
evening max el	3199 May 14 15:47	14°♄22'25	20°23'08	asc. node	3200 Apr 10 14:01	0°♄58'04	
retrograde	3199 May 25 12:48	19°♄40'13		evening max el	3200 Apr 26 07:44	26°♄04'43	19°19'19
evening set	3199 May 27 13:05	19°♄30'06			3200 May 02 07:12	0°♄	
desc. node	3199 Jun 01 05:29	17°♄57'46		retrograde	3200 May 05 11:52	0°♄31'47	
inferior conj	3199 Jun 05 16:56	15°♄31'58	-1°19'01	evening set	3200 May 07 12:39	0°♄19'37	
minimum elong	3199 Jun 05 13:13	15°♄37'25	1°17'38		3200 May 08 19:33	30°♄	
min. Earth dist.	3199 Jun 07 03:28	14°♄41'35	0.55054 AU	inferior conj	3200 May 15 23:44	26°♄11'30	0°36'41
morning rise	3199 Jun 14 12:14	11°♄19'06		minimum elong	3200 May 16 01:15	26°♄09'00	0°36'09
direct	3199 Jun 18 08:18	10°♄47'20		desc. node	3200 May 18 02:30	24°♄47'37	
morning max el	3199 Jul 01 19:26	17°♄20'02	23°31'52	min. Earth dist.	3200 May 18 18:14	24°♄22'13	0.56112 AU
	3199 Jul 12 01:11	0°♄		morning rise	3200 May 24 10:52	21°♄24'48	
asc. node	3199 Jul 21 16:16	17°♄00'05		direct	3200 May 29 05:35	20°♄32'23	
morning set	3199 Jul 25 11:45	24°♄49'34		morning max el	3200 Jun 12 09:39	27°♄44'53	25°12'40
	3199 Jul 27 22:02	0°♄			3200 Jun 14 14:52	0°♄	
					3200 Jul 04 05:02	0°♄	
superior conj	3199 Aug 01 12:29	9°♄56'07	1°32'24	asc. node	3200 Jul 07 13:19	6°♄45'04	
minimum elong	3199 Aug 01 10:26	9°♄45'04	1°32'12	morning set	3200 Jul 08 23:31	9°♄44'12	
max. Earth dist.	3199 Aug 03 22:02	15°♄03'31	1.33473 AU				
evening rise	3199 Aug 09 01:33	25°♄40'25		superior conj	3200 Jul 15 22:29	24°♄50'00	1°18'02
	3199 Aug 11 06:16	0°♄		minimum elong	3200 Jul 15 20:07	24°♄37'04	1°17'42
desc. node	3199 Aug 28 04:51	28°♄47'05		max. Earth dist.	3200 Jul 17 04:14	27°♄32'25	1.32613 AU
	3199 Aug 29 00:58	0°♄			3200 Jul 18 07:26	0°♄	
evening max el	3199 Sep 12 01:27	17°♄01'05	27°22'29	evening rise	3200 Jul 23 01:36	10°♄03'54	
retrograde	3199 Sep 25 14:18	24°♄19'15			3200 Aug 02 13:29	0°♄	
evening set	3199 Oct 02 16:32	21°♄38'17		desc. node	3200 Aug 14 01:51	17°♄49'28	
min. Earth dist.	3199 Oct 06 09:59	18°♄14'57	0.64226 AU	evening max el	3200 Aug 24 10:32	29°♄53'25	27°22'19
inferior conj	3199 Oct 08 19:58	15°♄42'00	-2°50'29		3200 Aug 24 13:19	0°♄	
minimum elong	3199 Oct 09 00:37	15°♄29'42	2°48'50	retrograde	3200 Sep 07 05:30	7°♄09'22	
morning rise	3199 Oct 15 09:53	10°♄17'52		evening set	3200 Sep 14 10:08	4°♄40'50	
direct	3199 Oct 17 23:06	9°♄44'55		min. Earth dist.	3200 Sep 18 00:30	1°♄46'15	0.62461 AU
asc. node	3199 Oct 17 15:27	9°♄45'26			3200 Sep 19 21:50	30°♄	
morning max el	3199 Oct 24 11:26	13°♄10'43	17°55'22	inferior conj	3200 Sep 20 22:10	29°♄02'07	-3°47'15
	3199 Nov 05 03:18	0°♄		minimum elong	3200 Sep 21 03:49	28°♄48'45	3°45'40
morning set	3199 Nov 10 13:14	9°♄11'11		morning rise	3200 Sep 27 23:06	23°♄56'23	
	3199 Nov 23 00:44	0°♄		direct	3200 Sep 30 08:49	23°♄30'27	
				asc. node	3200 Oct 03 12:32	24°♄16'26	
superior conj	3199 Nov 23 15:15	0°♄58'51	0°03'42	morning max el	3200 Oct 07 03:30	26°♄57'56	17°51'32
minimum elong	3199 Nov 23 15:40	1°♄00'32	0°03'38		3200 Oct 09 19:28	0°♄	
behind sun begin	3199 Nov 23 05:44	0°♄20'15		morning set	3200 Oct 23 04:26	21°♄58'00	
behind sun end	3199 Nov 24 01:36	1°♄40'44			3200 Oct 27 16:48	0°♄	
desc. node	3199 Nov 24 04:09	1°♄51'02					
max. Earth dist.	3199 Nov 28 19:09	9°♄15'17	1.44589 AU	superior conj	3200 Nov 03 09:15	11°♄34'49	0°45'02
evening rise	3199 Dec 09 17:50	26°♄19'58		minimum elong	3200 Nov 03 13:07	11°♄51'12	0°44'30
	3199 Dec 12 03:11	0°♄		desc. node	3200 Nov 10 01:11	22°♄38'48	
	3200 Jan 01 16:52	0°♄		max. Earth dist.	3200 Nov 10 10:15	23°♄15'36	1.43340 AU
evening max el	3200 Jan 06 02:16	5°♄07'18	20°19'05		3200 Nov 14 15:11	0°♄	
retrograde	3200 Jan 13 23:52	9°♄45'55		evening rise	3200 Nov 18 04:08	5°♄33'23	
asc. node	3200 Jan 13 14:42	9°♄45'07			3200 Dec 04 12:01	0°♄	
evening set	3200 Jan 17 19:10	8°♄21'56		evening max el	3200 Dec 19 00:13	18°♄39'42	21°28'52
inferior conj	3200 Jan 23 04:39	2°♄15'58	2°49'01	retrograde	3200 Dec 27 21:25	23°♄56'24	
minimum elong	3200 Jan 23 02:07	2°♄24'31	2°48'22	asc. node	3200 Dec 30 11:45	23°♄19'30	
min. Earth dist.	3200 Jan 23 22:15	1°♄16'14	0.67260 AU	evening set	3201 Jan 01 02:52	22°♄17'06	
	3200 Jan 24 21:07	30°♄		inferior conj	3201 Jan 06 11:14	16°♄01'11	2°11'56
morning rise	3200 Jan 28 08:52	26°♄02'17		minimum elong	3201 Jan 06 08:49	16°♄09'34	2°11'08
direct	3200 Feb 03 01:56	23°♄29'38		min. Earth dist.	3201 Jan 06 16:42	15°♄42'16	0.67786 AU
	3200 Feb 14 05:07	0°♄		morning rise	3201 Jan 11 14:35	9°♄48'45	
morning max el	3200 Feb 14 13:43	0°♄21'33	24°41'40	direct	3201 Jan 16 16:55	7°♄36'20	
desc. node	3200 Feb 20 03:20	6°♄36'16		morning max el	3201 Jan 26 22:45	13°♄41'37	23°12'56
	3200 Mar 07 21:29	0°♄		desc. node	3201 Feb 06 00:24	25°♄46'25	
morning set	3200 Mar 21 14:55	22°♄38'49			3201 Feb 09 02:42	0°♄	
max. Earth dist.	3200 Mar 25 06:21	29°♄11'34	1.37296 AU		3201 Feb 28 19:32	0°♄	
	3200 Mar 25 16:55	0°♄		morning set	3201 Mar 02 19:32	3°♄19'24	
				max. Earth dist.	3201 Mar 07 01:02	10°♄32'00	1.39444 AU
superior conj	3200 Mar 31 21:59	11°♄45'26	-1°27'41				




















































































































superior conj	3201 Mar 14 16:41	24° X 15'17	-1°50'13	superior conj	3202 Feb 24 15:59	5° X 48'21	-2°04'18
minimum elong	3201 Mar 14 21:05	24° X 35'39	1°49'49	minimum elong	3202 Feb 24 18:19	5° X 58'33	2°04'14
	3201 Mar 17 18:22	0° Y		evening rise	3202 Mar 07 09:50	25° X 13'59	
evening rise	3201 Mar 24 04:19	12° Y 17'22			3202 Mar 10 00:03	0° Y	
asc. node	3201 Mar 28 11:03	20° Y 25'20		asc. node	3202 Mar 15 08:06	9° Y 28'54	
	3201 Apr 02 22:54	0° Z		evening max el	3202 Mar 23 18:31	21° Y 14'24	18°11'59
evening max el	3201 Apr 09 09:46	8° Z 25'01	18°35'38	retrograde	3202 Mar 30 16:12	24° Y 42'50	
retrograde	3201 Apr 17 04:43	12° Z 14'20		evening set	3202 Apr 02 05:28	24° Y 15'04	
evening set	3201 Apr 19 11:37	11° Z 55'42		inferior conj	3202 Apr 09 03:05	19° Y 27'32	3°04'18
inferior conj	3201 Apr 27 02:53	7° Z 29'12	2°06'56	minimum elong	3202 Apr 09 06:16	19° Y 20'23	3°03'41
minimum elong	3201 Apr 27 06:38	7° Z 21'57	2°05'50	min. Earth dist.	3202 Apr 12 11:46	16° Y 27'37	0.59999 AU
min. Earth dist.	3201 Apr 30 12:18	4° Z 53'29	0.57878 AU	morning rise	3202 Apr 16 04:46	13° Y 42'53	
morning rise	3201 May 04 22:30	2° Z 09'10		desc. node	3202 Apr 21 20:35	11° Y 44'55	
desc. node	3201 May 04 23:33	2° Z 07'55		direct	3202 Apr 22 17:28	11° Y 42'49	
direct	3201 May 10 17:21	0° Z 44'44		morning max el	3202 May 07 01:01	19° Y 33'33	27°32'34
morning max el	3201 May 25 02:21	8° Z 22'00	26°37'21		3202 May 15 22:11	0° Z	
	3201 Jun 10 09:29	0° II			3202 Jun 03 03:32	0° II	
morning set	3201 Jun 23 09:57	24° II 33'35		morning set	3202 Jun 07 17:24	9° II 12'22	
asc. node	3201 Jun 24 10:21	26° II 42'46		asc. node	3202 Jun 11 07:23	16° II 48'24	
	3201 Jun 25 23:05	0° III		max. Earth dist.	3202 Jun 14 03:01	22° II 57'12	1.32114 AU
superior conj	3201 Jun 30 10:08	9° III 46'29	0°59'23	superior conj	3202 Jun 14 21:42	24° II 39'53	0°37'06
minimum elong	3201 Jun 30 07:56	9° III 34'25	0°59'00	minimum elong	3202 Jun 14 20:07	24° II 31'14	0°36'47
max. Earth dist.	3201 Jun 30 15:07	10° III 13'56	1.32164 AU		3202 Jun 17 07:52	0° III	
evening rise	3201 Jul 07 07:46	24° III 44'00		evening rise	3202 Jun 21 17:43	9° III 33'14	
	3201 Jul 09 21:02	0° IV			3202 Jul 02 06:05	0° IV	
	3201 Jul 27 08:48	0° V		desc. node	3202 Jul 18 19:52	22° III 51'22	
desc. node	3201 Jul 31 22:52	5° V 58'13		evening max el	3202 Jul 19 11:08	23° III 28'23	25°43'47
evening max el	3201 Aug 06 14:27	12° V 04'50	26°48'58		3202 Jul 29 13:20	0° V	
retrograde	3201 Aug 20 12:54	19° V 16'40		retrograde	3202 Aug 02 10:44	0° V 35'53	
evening set	3201 Aug 27 10:21	17° V 13'44			3202 Aug 06 07:37	30° R 0	
min. Earth dist.	3201 Aug 31 04:33	14° V 35'58	0.60463 AU	evening set	3202 Aug 08 12:26	29° III 08'49	
inferior conj	3201 Sep 03 10:09	11° V 55'35	-4°34'44	min. Earth dist.	3202 Aug 12 23:18	26° III 30'51	0.58410 AU
minimum elong	3201 Sep 03 15:18	11° V 44'54	4°33'49	inferior conj	3202 Aug 16 04:24	24° III 12'45	-5°03'03
morning rise	3201 Sep 10 22:10	7° V 11'06		minimum elong	3202 Aug 16 06:28	24° III 09'03	5°02'56
direct	3201 Sep 13 07:24	6° V 49'18		morning rise	3202 Aug 24 02:43	19° III 51'17	
asc. node	3201 Sep 20 09:35	10° V 11'19		direct	3202 Aug 26 14:34	19° III 31'26	
morning max el	3201 Sep 20 16:06	10° V 26'50	18°06'42	morning max el	3202 Sep 03 22:01	23° III 28'47	18°42'19
	3201 Oct 03 12:39	0° VI		asc. node	3202 Sep 07 06:37	27° III 15'34	
morning set	3201 Oct 06 11:40	5° VI 30'16			3202 Sep 09 06:10	0° V	
				morning set	3202 Sep 20 06:10	19° V 34'48	
superior conj	3201 Oct 16 05:08	23° VI 25'59	1°15'22		3202 Sep 25 14:38	0° VI	
minimum elong	3201 Oct 16 09:17	23° VI 44'35	1°14'54	superior conj	3202 Sep 28 22:03	6° VI 19'03	1°34'24
	3201 Oct 19 22:32	0° VII		minimum elong	3202 Sep 29 00:52	6° VI 32'16	1°34'11
max. Earth dist.	3201 Oct 23 20:30	6° VII 41'13	1.41591 AU	max. Earth dist.	3202 Oct 06 02:14	19° VI 24'25	1.39559 AU
desc. node	3201 Oct 27 22:13	13° VII 25'07		evening rise	3202 Oct 10 03:05	26° VI 22'31	
evening rise	3201 Oct 29 04:20	15° VII 27'01			3202 Oct 12 07:02	0° VII	
	3201 Nov 07 12:30	0° VIII		desc. node	3202 Oct 14 19:14	4° VII 06'24	
	3201 Nov 29 14:35	0° IX			3202 Nov 01 04:03	0° VIII	
evening max el	3201 Dec 01 17:13	2° IX 14'13	22°46'33	evening max el	3202 Nov 14 06:49	15° VIII 51'52	24°06'26
retrograde	3201 Dec 11 16:42	8° IX 09'35		retrograde	3202 Nov 25 08:34	22° VIII 21'59	
evening set	3201 Dec 16 10:07	6° IX 13'56		evening set	3202 Nov 30 15:22	20° VIII 09'49	
asc. node	3201 Dec 17 08:48	5° IX 22'21		asc. node	3202 Dec 04 05:50	16° VIII 12'22	
inferior conj	3201 Dec 21 18:57	29° VIII 51'40	1°27'43	min. Earth dist.	3202 Dec 05 09:32	14° VIII 40'38	0.67744 AU
minimum elong	3201 Dec 21 17:05	29° VIII 58'06	1°26'59	inferior conj	3202 Dec 06 01:58	13° VIII 45'08	0°37'32
min. Earth dist.	3201 Dec 21 13:15	0° X 11'23	0.67941 AU	minimum elong	3202 Dec 06 01:05	13° VIII 48'07	0°37'10
	3201 Dec 21 16:32	30° R 0		morning rise	3202 Dec 11 10:49	7° VIII 41'02	
morning rise	3201 Dec 26 23:55	23° VIII 42'23		direct	3202 Dec 15 08:47	6° VIII 13'54	
direct	3201 Dec 31 11:34	21° VIII 52'48		morning max el	3202 Dec 23 07:35	10° VIII 47'35	20°29'24
morning max el	3202 Jan 09 11:38	27° VIII 09'01	21°46'33		3203 Jan 06 23:55	0° X	
	3202 Jan 12 03:01	0° XI		desc. node	3203 Jan 10 18:30	5° X 35'07	
desc. node	3202 Jan 23 21:27	15° X 29'06		morning set	3203 Jan 20 19:34	20° X 53'05	
	3202 Feb 02 17:09	0° XII			3203 Jan 26 15:08	0° XI	
morning set	3202 Feb 10 19:11	12° XI 36'50		max. Earth dist.	3203 Jan 30 06:50	5° XI 50'31	1.43369 AU
max. Earth dist.	3202 Feb 16 23:59	22° XI 42'58	1.41565 AU				
	3202 Feb 21 07:35	0° XIII		superior conj	3203 Feb 05 14:53	16° XI 12'55	-2°04'52

minimum elong	3203 Feb 05 12:20	16° \approx 02'17	2°04'49		3203 Dec 31 06:05	0° \mathfrak{Z}	
	3203 Feb 13 17:32	0° \mathfrak{H}		max. Earth dist.	3204 Jan 12 20:25	19° \mathfrak{Z} 41'18	1.44623 AU
evening rise	3203 Feb 17 23:12	7° \mathfrak{H} 23'43					
asc. node	3203 Mar 02 05:07	28° \mathfrak{H} 00'34		superior conj	3204 Jan 16 12:00	25° \mathfrak{Z} 29'11	-1°47'10
	3203 Mar 03 14:39	0° \mathfrak{Y}		minimum elong	3204 Jan 16 04:00	24° \mathfrak{Z} 57'16	1°46'33
evening max el	3203 Mar 07 06:33	4° \mathfrak{Y} 22'51	18°07'47		3204 Jan 19 07:32	0° \approx	
retrograde	3203 Mar 13 18:22	7° \mathfrak{Y} 45'57		evening rise	3204 Jan 30 16:12	18° \approx 39'15	
evening set	3203 Mar 16 13:14	7° \mathfrak{Y} 07'41			3204 Feb 06 11:29	0° \mathfrak{H}	
inferior conj	3203 Mar 22 21:07	1° \mathfrak{Y} 59'40	3°32'51	asc. node	3204 Feb 17 02:09	15° \mathfrak{H} 50'54	
minimum elong	3203 Mar 22 22:33	1° \mathfrak{Y} 56'00	3°32'44	evening max el	3204 Feb 18 19:04	17° \mathfrak{H} 43'43	18°22'28
	3203 Mar 24 19:27	30° \mathfrak{H}		retrograde	3204 Feb 25 06:33	21° \mathfrak{H} 14'34	
min. Earth dist.	3203 Mar 25 19:16	29° \mathfrak{H} 00'11	0.62143 AU	evening set	3204 Feb 28 07:00	20° \mathfrak{H} 24'53	
morning rise	3203 Mar 29 06:27	25° \mathfrak{H} 59'44		inferior conj	3204 Mar 05 04:56	14° \mathfrak{H} 58'04	3°39'13
direct	3203 Apr 05 03:31	23° \mathfrak{H} 29'46		minimum elong	3204 Mar 05 04:36	14° \mathfrak{H} 59'03	3°39'13
desc. node	3203 Apr 08 17:38	24° \mathfrak{H} 06'41		min. Earth dist.	3204 Mar 07 12:20	12° \mathfrak{H} 19'29	0.64068 AU
	3203 Apr 17 17:37	0° \mathfrak{Y}		morning rise	3204 Mar 11 01:27	8° \mathfrak{H} 49'52	
morning max el	3203 Apr 19 05:52	1° \mathfrak{Y} 27'00	27°51'05	direct	3204 Mar 17 22:01	6° \mathfrak{H} 02'15	
	3203 May 10 03:21	0° \mathfrak{B}		desc. node	3204 Mar 25 14:42	8° \mathfrak{H} 51'35	
morning set	3203 May 22 19:49	23° \mathfrak{B} 33'01		morning max el	3204 Mar 31 14:42	13° \mathfrak{H} 57'52	27°32'42
	3203 May 25 22:29	0° \mathfrak{I}			3204 Apr 13 14:05	0° \mathfrak{Y}	
max. Earth dist.	3203 May 28 11:56	5° \mathfrak{I} 27'48	1.32461 AU		3204 May 01 17:39	0° \mathfrak{B}	
asc. node	3203 May 29 04:24	6° \mathfrak{I} 56'46		morning set	3204 May 05 14:40	7° \mathfrak{B} 27'46	
				max. Earth dist.	3204 May 10 13:42	17° \mathfrak{B} 32'36	1.33235 AU
superior conj	3203 May 30 07:24	9° \mathfrak{I} 23'22	0°11'49				
minimum elong	3203 May 30 06:51	9° \mathfrak{I} 20'21	0°11'42	superior conj	3204 May 13 13:26	23° \mathfrak{B} 51'21	-0°15'41
behind sun begin	3203 May 30 03:20	9° \mathfrak{I} 01'12		minimum elong	3204 May 13 14:13	23° \mathfrak{B} 55'33	0°15'31
behind sun end	3203 May 30 10:22	9° \mathfrak{I} 39'31		behind sun begin	3204 May 13 12:58	23° \mathfrak{B} 48'52	
evening rise	3203 Jun 06 05:22	24° \mathfrak{I} 23'42		behind sun end	3204 May 13 15:28	24° \mathfrak{B} 02'15	
	3203 Jun 08 21:46	0° \mathfrak{E}		asc. node	3204 May 15 01:26	27° \mathfrak{B} 04'00	
	3203 Jun 27 04:24	0° \mathfrak{Q}			3204 May 16 10:10	0° \mathfrak{I}	
evening max el	3203 Jul 01 01:25	4° \mathfrak{Q} 09'56	24°15'32	evening rise	3204 May 20 16:54	9° \mathfrak{I} 09'15	
desc. node	3203 Jul 05 16:52	7° \mathfrak{Q} 58'40			3204 May 31 14:18	0° \mathfrak{E}	
retrograde	3203 Jul 14 21:23	11° \mathfrak{Q} 08'35		evening max el	3204 Jun 11 15:22	14° \mathfrak{E} 35'29	22°38'55
evening set	3203 Jul 19 14:41	10° \mathfrak{Q} 18'57		desc. node	3204 Jun 21 13:53	20° \mathfrak{E} 44'49	
min. Earth dist.	3203 Jul 25 12:07	7° \mathfrak{Q} 22'51	0.56568 AU	retrograde	3204 Jun 24 19:53	21° \mathfrak{E} 09'03	
inferior conj	3203 Jul 28 02:30	5° \mathfrak{Q} 45'15	-4°58'00	evening set	3204 Jun 28 01:13	20° \mathfrak{E} 46'13	
minimum elong	3203 Jul 27 22:58	5° \mathfrak{Q} 50'47	4°57'42	min. Earth dist.	3204 Jul 05 23:15	17° \mathfrak{E} 18'10	0.55284 AU
morning rise	3203 Aug 05 09:55	1° \mathfrak{Q} 44'22		inferior conj	3204 Jul 07 06:05	16° \mathfrak{E} 34'09	-4°05'56
direct	3203 Aug 08 02:31	1° \mathfrak{Q} 25'08		minimum elong	3204 Jul 06 22:06	16° \mathfrak{E} 45'34	4°04'05
morning max el	3203 Aug 17 18:18	5° \mathfrak{Q} 54'34	19°39'29	morning rise	3204 Jul 15 21:12	12° \mathfrak{E} 42'59	
asc. node	3203 Aug 25 03:39	15° \mathfrak{Q} 14'19		direct	3204 Jul 18 20:19	12° \mathfrak{E} 22'46	
	3203 Sep 02 07:58	0° \mathfrak{P}		morning max el	3204 Jul 30 03:05	17° \mathfrak{E} 37'07	20°57'37
morning set	3203 Sep 04 08:26	4° \mathfrak{P} 01'50			3204 Aug 08 17:28	0° \mathfrak{Q}	
				asc. node	3204 Aug 11 00:41	3° \mathfrak{Q} 54'53	
superior conj	3203 Sep 12 06:36	19° \mathfrak{P} 58'45	1°43'30	morning set	3204 Aug 18 15:49	18° \mathfrak{Q} 43'58	
minimum elong	3203 Sep 12 07:38	20° \mathfrak{P} 03'51	1°43'28		3204 Aug 24 01:38	0° \mathfrak{P}	
	3203 Sep 17 11:15	0° \mathfrak{L}					
max. Earth dist.	3203 Sep 18 06:36	1° \mathfrak{L} 30'33	1.37498 AU	superior conj	3204 Aug 26 02:14	4° \mathfrak{P} 11'29	1°44'21
evening rise	3203 Sep 22 00:55	8° \mathfrak{L} 22'10		minimum elong	3204 Aug 26 01:42	4° \mathfrak{P} 08'45	1°44'20
desc. node	3203 Oct 01 16:14	24° \mathfrak{L} 38'33		max. Earth dist.	3204 Aug 30 15:13	13° \mathfrak{P} 20'56	1.35649 AU
	3203 Oct 05 02:22	0° \mathfrak{M}		evening rise	3204 Sep 03 18:15	21° \mathfrak{P} 17'10	
evening max el	3203 Oct 27 18:58	29° \mathfrak{M} 32'28	25°21'48		3204 Sep 08 13:16	0° \mathfrak{L}	
	3203 Oct 28 06:20	0° \mathfrak{X}		desc. node	3204 Sep 17 13:13	14° \mathfrak{L} 56'05	
retrograde	3203 Nov 08 20:10	6° \mathfrak{X} 29'14			3204 Sep 27 23:08	0° \mathfrak{M}	
evening set	3203 Nov 14 16:59	4° \mathfrak{X} 02'07		evening max el	3204 Oct 09 07:10	13° \mathfrak{M} 12'15	26°25'10
	3203 Nov 18 10:46	30° \mathfrak{R} \mathfrak{M}		retrograde	3204 Oct 22 02:47	20° \mathfrak{M} 24'45	
min. Earth dist.	3203 Nov 19 03:18	29° \mathfrak{M} 07'31	0.67202 AU	evening set	3204 Oct 28 13:02	17° \mathfrak{M} 46'41	
inferior conj	3203 Nov 20 06:35	27° \mathfrak{M} 39'16	-0°17'26	min. Earth dist.	3204 Nov 01 16:14	13° \mathfrak{M} 27'43	0.66318 AU
minimum elong	3203 Nov 20 07:01	27° \mathfrak{M} 37'50	0°17'14	inferior conj	3204 Nov 03 06:52	11° \mathfrak{M} 30'22	-1°15'54
asc. node	3203 Nov 21 02:52	26° \mathfrak{M} 34'08		minimum elong	3204 Nov 03 08:55	11° \mathfrak{M} 24'08	1°15'02
morning rise	3203 Nov 25 21:20	21° \mathfrak{M} 42'39		asc. node	3204 Nov 06 23:55	7° \mathfrak{M} 23'56	
direct	3203 Nov 29 07:16	20° \mathfrak{M} 35'27		morning rise	3204 Nov 09 05:24	5° \mathfrak{M} 43'45	
morning max el	3203 Dec 06 11:30	24° \mathfrak{M} 37'21	19°25'39	direct	3204 Nov 12 05:23	4° \mathfrak{M} 52'52	
	3203 Dec 11 01:55	0° \mathfrak{X}		morning max el	3204 Nov 18 22:04	8° \mathfrak{M} 33'38	18°37'21
greatest brilliancy	3203 Dec 19 19:36	12° \mathfrak{X} 27'59	-0.7m		3204 Dec 04 02:16	0° \mathfrak{X}	
desc. node	3203 Dec 28 15:32	25° \mathfrak{X} 58'04		morning set	3204 Dec 09 13:46	8° \mathfrak{X} 41'48	
morning set	3203 Dec 30 18:04	29° \mathfrak{X} 13'28		desc. node	3204 Dec 14 12:32	16° \mathfrak{X} 32'25	

	3204 Dec 23 01:42	0°♄		morning max el	3205 Nov 02 13:00	22°♄31'26	18°05'39
					3205 Nov 08 10:25	0°♄	
superior conj	3204 Dec 25 15:40	4°♄03'11	-1°10'49	morning set	3205 Nov 20 15:02	19°♄38'42	
minimum elong	3204 Dec 25 07:18	3°♄30'21	1°09'50		3205 Nov 26 22:09	0°♄	
max. Earth dist.	3204 Dec 25 13:59	3°♄56'32	1.45191 AU	desc. node	3205 Dec 01 09:33	7°♄14'31	
evening rise	3205 Jan 10 09:51	28°♄56'40					
	3205 Jan 11 01:44	0°♄		superior conj	3205 Dec 04 21:29	12°♄49'46	-0°23'38
greatest brilliancy	3205 Jan 18 18:35	12°♄16'34	-0.8m	minimum elong	3205 Dec 04 18:31	12°♄37'58	0°23'14
	3205 Jan 31 03:05	0°♄		max. Earth dist.	3205 Dec 08 09:08	18°♄20'42	1.45022 AU
evening max el	3205 Feb 01 05:33	1°♄11'11	18°55'12		3205 Dec 15 19:57	0°♄	
asc. node	3205 Feb 02 23:11	2°♄47'35		evening rise	3205 Dec 21 06:16	8°♄25'23	
retrograde	3205 Feb 08 00:51	5°♄01'02		greatest brilliancy	3206 Jan 03 12:52	28°♄44'47	-0.7m
evening set	3205 Feb 11 07:35	3°♄58'57			3206 Jan 04 09:05	0°♄	
	3205 Feb 15 12:32	30°♄		evening max el	3206 Jan 15 12:03	14°♄41'41	19°44'22
inferior conj	3205 Feb 16 22:44	28°♄15'11	3°29'08	asc. node	3206 Jan 20 20:15	18°♄36'24	
minimum elong	3205 Feb 16 21:06	28°♄20'18	3°28'56	retrograde	3206 Jan 22 22:09	18°♄59'54	
min. Earth dist.	3205 Feb 18 14:38	26°♄10'48	0.65634 AU	evening set	3206 Jan 26 12:29	17°♄44'13	
morning rise	3205 Feb 22 10:15	22°♄03'08		inferior conj	3206 Jan 31 23:25	11°♄45'43	3°06'34
direct	3205 Feb 28 23:28	19°♄12'05		minimum elong	3206 Jan 31 21:04	11°♄53'31	3°06'04
desc. node	3205 Mar 12 11:44	25°♄24'24		min. Earth dist.	3206 Feb 02 00:44	10°♄21'56	0.66789 AU
morning max el	3205 Mar 14 00:33	26°♄53'59	26°42'50	morning rise	3206 Feb 06 05:26	5°♄32'18	
	3205 Mar 16 22:12	0°♄		direct	3206 Feb 12 06:42	2°♄50'18	
	3205 Apr 07 05:09	0°♄		morning max el	3206 Feb 24 09:34	10°♄03'49	25°30'01
morning set	3205 Apr 18 22:41	20°♄46'51		desc. node	3206 Feb 27 08:47	13°♄14'45	
max. Earth dist.	3205 Apr 23 04:53	29°♄04'35	1.34468 AU		3206 Mar 12 04:50	0°♄	
	3205 Apr 23 15:59	0°♄			3206 Mar 30 19:38	0°♄	
				morning set	3206 Apr 01 15:21	3°♄16'33	
superior conj	3205 Apr 27 13:40	7°♄57'42	-0°44'17	max. Earth dist.	3206 Apr 05 08:41	10°♄10'27	1.36158 AU
minimum elong	3205 Apr 27 15:58	8°♄09'40	0°43'50				
asc. node	3205 May 01 22:29	17°♄06'17		superior conj	3206 Apr 11 05:19	21°♄34'07	-1°12'29
evening rise	3205 May 05 02:27	23°♄44'13		minimum elong	3206 Apr 11 09:03	21°♄52'46	1°11'51
	3205 May 08 04:01	0°♄			3206 Apr 15 09:27	0°♄	
evening max el	3205 May 24 12:55	25°♄18'16	21°08'32	asc. node	3206 Apr 18 19:32	6°♄58'49	
	3205 May 31 04:51	0°♄		evening rise	3206 Apr 19 07:52	8°♄01'29	
retrograde	3205 Jun 05 09:22	1°♄06'17			3206 May 01 11:30	0°♄	
evening set	3205 Jun 07 15:01	0°♄54'39		evening max el	3206 May 06 22:08	6°♄37'09	19°53'37
desc. node	3205 Jun 08 10:55	0°♄44'42		retrograde	3206 May 17 00:59	11°♄31'50	
	3205 Jun 10 21:00	30°♄		evening set	3206 May 19 00:31	11°♄21'23	
inferior conj	3205 Jun 16 23:57	26°♄56'29	-2°27'37	desc. node	3206 May 26 07:58	8°♄18'06	
minimum elong	3205 Jun 16 17:14	27°♄05'57	2°25'20	inferior conj	3206 May 27 22:09	7°♄20'41	-0°28'06
min. Earth dist.	3205 Jun 17 11:05	26°♄40'49	0.54857 AU	minimum elong	3206 May 27 20:52	7°♄22'39	0°27'37
morning rise	3205 Jun 25 19:37	22°♄56'56		min. Earth dist.	3206 May 30 00:12	6°♄04'33	0.55402 AU
direct	3205 Jun 29 06:03	22°♄31'26		morning rise	3206 Jun 05 15:08	2°♄54'39	
morning max el	3205 Jul 12 01:00	28°♄36'57	22°32'44	direct	3206 Jun 09 20:29	2°♄15'28	
	3205 Jul 13 10:56	0°♄		morning max el	3206 Jun 23 16:04	9°♄06'22	24°15'36
asc. node	3205 Jul 28 21:44	23°♄07'09			3206 Jul 09 01:41	0°♄	
	3205 Aug 01 08:43	0°♄		asc. node	3206 Jul 15 18:47	12°♄41'55	
morning set	3205 Aug 03 02:19	3°♄35'47		morning set	3206 Jul 18 14:05	18°♄30'43	
					3206 Jul 23 21:57	0°♄	
superior conj	3205 Aug 10 05:32	18°♄47'12	1°38'25				
minimum elong	3205 Aug 10 03:53	18°♄38'28	1°38'18	superior conj	3206 Jul 25 13:42	3°♄36'05	1°26'53
max. Earth dist.	3205 Aug 13 08:36	25°♄21'04	1.34155 AU	minimum elong	3206 Jul 25 11:27	3°♄23'54	1°26'37
	3205 Aug 15 15:07	0°♄		max. Earth dist.	3206 Jul 27 10:58	7°♄40'29	1.33065 AU
evening rise	3205 Aug 18 02:39	4°♄56'04		evening rise	3206 Aug 01 21:58	19°♄05'54	
	3205 Sep 01 06:32	0°♄			3206 Aug 07 12:22	0°♄	
desc. node	3205 Sep 04 10:14	4°♄52'31		desc. node	3206 Aug 22 07:16	24°♄17'53	
evening max el	3205 Sep 21 19:41	26°♄44'07	27°08'56		3206 Aug 26 12:05	0°♄	
	3205 Sep 25 14:26	0°♄		evening max el	3206 Sep 04 06:49	9°♄54'46	27°26'19
retrograde	3205 Oct 05 03:47	4°♄01'49		retrograde	3206 Sep 17 22:26	17°♄11'21	
evening set	3205 Oct 12 01:15	1°♄19'34		evening set	3206 Sep 25 02:39	14°♄34'26	
	3205 Oct 13 13:59	30°♄		min. Earth dist.	3206 Sep 28 18:28	11°♄24'10	0.63518 AU
min. Earth dist.	3205 Oct 15 22:01	27°♄36'18	0.65091 AU	inferior conj	3206 Oct 01 09:29	8°♄45'23	-3°15'13
inferior conj	3205 Oct 18 00:43	25°♄14'38	-2°16'03	minimum elong	3206 Oct 01 14:41	8°♄32'16	3°13'32
minimum elong	3205 Oct 18 04:28	25°♄04'07	2°14'36	morning rise	3206 Oct 08 04:00	3°♄28'23	
morning rise	3205 Oct 24 08:37	19°♄41'03		direct	3206 Oct 10 15:29	2°♄58'39	
asc. node	3205 Oct 24 20:57	19°♄27'49		asc. node	3206 Oct 11 18:01	3°♄04'41	
direct	3205 Oct 27 01:04	19°♄02'33		morning max el	3206 Oct 17 05:28	6°♄24'02	17°51'27

	3206 Nov 01 16:42	0°♌		morning set	3207 Oct 16 16:52	14°♊58'35	
morning set	3206 Nov 02 18:13	1°♌50'55			3207 Oct 25 01:06	0°♌	
superior conj	3206 Nov 14 23:55	22°♌39'14	0°22'25	superior conj	3207 Oct 27 05:21	3°♌48'16	0°59'20
minimum elong	3206 Nov 15 02:14	22°♌48'49	0°22'06	minimum elong	3207 Oct 27 09:38	4°♌06'52	0°58'47
desc. node	3206 Nov 18 06:35	28°♌00'54		max. Earth dist.	3207 Nov 03 16:27	16°♌24'21	1.42645 AU
	3206 Nov 19 12:03	0°♌		desc. node	3207 Nov 05 03:36	18°♌48'06	
max. Earth dist.	3206 Nov 21 03:00	2°♌36'20	1.44136 AU	evening rise	3207 Nov 10 06:10	26°♌58'39	
evening rise	3206 Nov 30 15:40	17°♌32'53			3207 Nov 12 04:28	0°♌	
	3206 Dec 08 20:14	0°♌			3207 Dec 02 16:10	0°♌	
evening max el	3206 Dec 29 13:14	28°♌13'16	20°47'32	evening max el	3207 Dec 12 08:48	11°♌45'32	22°01'14
	3206 Dec 31 10:03	0°♌		retrograde	3207 Dec 21 16:57	17°♌19'04	
retrograde	3207 Jan 06 20:10	3°♌07'15		asc. node	3207 Dec 25 14:19	15°♌57'27	
asc. node	3207 Jan 07 17:17	3°♌02'58		evening set	3207 Dec 26 03:21	15°♌32'39	
evening set	3207 Jan 10 19:40	1°♌36'41		inferior conj	3207 Dec 31 11:43	9°♌13'23	1°53'57
	3207 Jan 12 13:43	30°♌		minimum elong	3207 Dec 31 09:29	9°♌21'07	1°53'09
inferior conj	3207 Jan 16 04:28	25°♌26'07	2°34'15	min. Earth dist.	3207 Dec 31 12:14	9°♌11'32	0.67892 AU
minimum elong	3207 Jan 16 01:55	25°♌34'50	2°33'30	morning rise	3208 Jan 05 15:28	3°♌02'08	
min. Earth dist.	3207 Jan 16 16:41	24°♌44'11	0.67532 AU	direct	3208 Jan 10 11:22	0°♌59'37	
morning rise	3207 Jan 21 08:01	19°♌13'04		morning max el	3208 Jan 20 04:25	6°♌43'48	22°35'31
direct	3207 Jan 26 18:55	16°♌48'36		desc. node	3208 Feb 01 02:51	21°♌25'08	
morning max el	3207 Feb 06 18:04	23°♌20'53	24°04'18		3208 Feb 07 03:39	0°♌	
	3207 Feb 12 15:21	0°♌		morning set	3208 Feb 23 03:23	24°♌46'18	
desc. node	3207 Feb 14 05:49	2°♌00'23			3208 Feb 26 07:01	0°♌	
	3207 Mar 05 14:10	0°♌		max. Earth dist.	3208 Feb 28 01:01	2°♌57'29	1.40364 AU
morning set	3207 Mar 14 10:56	14°♌41'33		superior conj	3208 Mar 06 19:54	16°♌37'36	-1°57'30
max. Earth dist.	3207 Mar 18 05:04	21°♌17'25	1.38196 AU	minimum elong	3208 Mar 06 23:45	16°♌55'02	1°57'15
	3207 Mar 22 23:24	0°♌			3208 Mar 14 01:11	0°♌	
superior conj	3207 Mar 25 08:55	4°♌31'24	-1°37'59	evening rise	3208 Mar 16 19:25	5°♌13'02	
minimum elong	3207 Mar 25 13:28	4°♌53'05	1°37'26	asc. node	3208 Mar 22 13:38	15°♌54'51	
evening rise	3207 Apr 03 06:36	21°♌54'06			3208 Mar 31 21:21	0°♌	
asc. node	3207 Apr 05 16:36	26°♌37'06		evening max el	3208 Apr 01 23:53	1°♌08'57	18°23'08
	3207 Apr 07 11:04	0°♌		retrograde	3208 Apr 09 08:34	4°♌47'49	
evening max el	3207 Apr 19 18:43	18°♌36'14	18°58'13	evening set	3208 Apr 11 18:04	4°♌25'41	
retrograde	3207 Apr 28 07:20	22°♌45'30			3208 Apr 18 20:40	30°♌	
evening set	3207 Apr 30 10:32	22°♌30'56		inferior conj	3208 Apr 19 01:25	29°♌50'13	2°35'09
inferior conj	3207 May 08 13:06	18°♌15'10	1°18'53	minimum elong	3208 Apr 19 05:10	29°♌42'27	2°34'13
minimum elong	3207 May 08 16:00	18°♌10'03	1°17'55	min. Earth dist.	3208 Apr 22 12:02	27°♌01'03	0.58751 AU
min. Earth dist.	3207 May 11 15:52	16°♌04'20	0.56798 AU	morning rise	3208 Apr 26 13:21	24°♌18'04	
desc. node	3207 May 13 05:00	15°♌04'17		desc. node	3208 Apr 29 02:02	23°♌13'07	
morning rise	3207 May 16 18:19	13°♌13'47		direct	3208 May 02 16:35	22°♌38'31	
direct	3207 May 21 23:30	12°♌09'10			3208 May 16 16:26	0°♌	
morning max el	3207 Jun 05 06:45	19°♌33'01	25°51'34	morning max el	3208 May 17 01:59	0°♌23'10	27°05'06
	3207 Jun 14 03:30	0°♌			3208 Jun 07 03:13	0°♌	
	3207 Jul 01 10:30	0°♌		morning set	3208 Jun 16 10:55	18°♌09'23	
asc. node	3207 Jul 02 15:51	2°♌32'54		asc. node	3208 Jun 18 12:54	22°♌34'29	
morning set	3207 Jul 03 01:30	3°♌23'47			3208 Jun 21 22:48	0°♌	
superior conj	3207 Jul 10 00:37	18°♌31'29	1°10'37	superior conj	3208 Jun 23 12:26	3°♌27'11	0°50'21
minimum elong	3207 Jul 09 22:17	18°♌18'35	1°10'15	minimum elong	3208 Jun 23 10:27	3°♌16'17	0°49'58
max. Earth dist.	3207 Jul 10 19:45	20°♌16'31	1.32380 AU	max. Earth dist.	3208 Jun 23 07:30	2°♌59'58	1.32090 AU
	3207 Jul 15 07:36	0°♌		evening rise	3208 Jun 30 08:56	18°♌21'32	
evening rise	3207 Jul 17 00:56	3°♌37'06			3208 Jul 06 03:00	0°♌	
	3207 Jul 31 06:45	0°♌			3208 Jul 25 11:29	0°♌	
desc. node	3207 Aug 09 04:17	12°♌59'26		desc. node	3208 Jul 26 01:18	0°♌39'16	
evening max el	3207 Aug 17 13:57	22°♌30'21	27°12'05	evening max el	3208 Jul 29 14:41	4°♌21'00	26°24'43
retrograde	3207 Aug 31 10:10	29°♌44'07		retrograde	3208 Aug 12 14:05	11°♌31'57	
evening set	3207 Sep 07 13:24	27°♌24'42		evening set	3208 Aug 19 04:51	9°♌43'01	
min. Earth dist.	3207 Sep 11 04:13	24°♌39'23	0.61640 AU	min. Earth dist.	3208 Aug 23 03:55	7°♌07'39	0.59581 AU
inferior conj	3207 Sep 14 06:02	21°♌54'47	-4°09'00	inferior conj	3208 Aug 26 10:54	4°♌33'59	-4°49'53
minimum elong	3207 Sep 14 11:44	21°♌42'02	4°07'38	minimum elong	3208 Aug 26 15:06	4°♌25'45	4°49'19
morning rise	3207 Sep 21 11:45	16°♌57'55		morning rise	3208 Sep 03 03:29	29°♌59'38	
direct	3207 Sep 23 21:01	16°♌33'57			3208 Sep 03 02:58	30°♌	
asc. node	3207 Sep 28 15:04	18°♌12'38		direct	3208 Sep 05 13:24	29°♌38'58	
morning max el	3207 Sep 30 20:27	20°♌04'10	17°55'36		3208 Sep 07 22:21	0°♌	
	3207 Oct 08 05:10	0°♌		morning max el	3208 Sep 13 06:43	3°♌23'31	18°19'19

































































































































asc. node	3208 Sep 14 12:06	4°♎39'09			3209 Sep 06 06:50	0°♎	
morning set	3208 Sep 29 05:25	28°♎46'06		morning set	3209 Sep 13 03:36	13°♎01'09	
	3208 Sep 29 20:56	0°♏					
				superior conj	3209 Sep 21 11:08	29°♎23'02	1°39'22
superior conj	3208 Oct 08 10:57	16°♏08'27	1°24'46	minimum elong	3209 Sep 21 13:12	29°♎32'55	1°39'14
minimum elong	3208 Oct 08 14:39	16°♏25'22	1°24'23		3209 Sep 21 18:50	0°♏	
max. Earth dist.	3208 Oct 16 00:15	29°♏31'17	1.40741 AU	max. Earth dist.	3209 Sep 28 04:27	11°♏55'30	1.38672 AU
	3208 Oct 16 06:59	0°♐		evening rise	3209 Oct 02 00:22	18°♏41'22	
evening rise	3208 Oct 20 15:28	7°♐17'32		desc. node	3209 Oct 08 21:38	0°♐10'58	
desc. node	3208 Oct 22 00:38	9°♐32'58			3209 Oct 08 18:55	0°♐	
	3208 Nov 04 07:23	0°♑			3209 Oct 29 14:07	0°♑	
evening max el	3208 Nov 23 23:59	25°♑20'55	23°20'35	evening max el	3209 Nov 06 12:48	9°♑00'14	24°39'29
	3208 Nov 29 15:55	0°♒		retrograde	3209 Nov 18 01:14	15°♑43'01	
retrograde	3208 Dec 04 11:04	1°♒32'34		evening set	3209 Nov 23 13:51	13°♑24'30	
	3208 Dec 08 18:36	30°♒♑		min. Earth dist.	3209 Nov 28 04:40	8°♑09'34	0.67557 AU
evening set	3208 Dec 09 09:57	29°♑29'50		asc. node	3209 Nov 28 08:21	7°♑57'21	
asc. node	3208 Dec 11 11:20	27°♑25'57		inferior conj	3209 Nov 29 01:35	6°♑59'59	0°14'45
inferior conj	3208 Dec 14 19:21	23°♑05'44	1°07'05	minimum elong	3209 Nov 29 01:14	7°♑01'12	0°14'36
minimum elong	3208 Dec 14 17:52	23°♑10'52	1°06'29	transit middle	3209 Nov 29 01:14	7°♑01'12	0°14'36
min. Earth dist.	3208 Dec 14 09:03	23°♑41'09	0.67897 AU	transit begin	3209 Nov 29 00:02	7°♑05'11	
morning rise	3208 Dec 20 01:42	16°♑58'13		transit end	3209 Nov 29 02:25	6°♑57'12	
direct	3208 Dec 24 07:16	15°♑18'29		morning rise	3209 Dec 04 12:41	0°♑58'28	
morning max el	3209 Jan 01 20:05	20°♑16'02	21°12'13		3209 Dec 06 08:22	30°♒♐	
	3209 Jan 09 22:46	0°♒		direct	3209 Dec 08 05:19	29°♐40'05	
desc. node	3209 Jan 17 23:53	11°♒18'36			3209 Dec 10 03:52	0°♑	
	3209 Jan 30 09:12	0°♓		morning max el	3209 Dec 15 19:20	3°♑59'02	20°00'21
morning set	3209 Feb 01 15:25	3°♓32'02			3210 Jan 03 20:30	0°♒	
max. Earth dist.	3209 Feb 09 02:36	15°♓30'38	1.42386 AU	desc. node	3210 Jan 04 20:56	1°♒32'29	
				morning set	3210 Jan 11 11:40	11°♒40'01	
superior conj	3209 Feb 16 09:15	27°♓41'50	-2°06'31	max. Earth dist.	3210 Jan 22 12:11	28°♒57'09	1.43983 AU
minimum elong	3209 Feb 16 09:49	27°♓44'17	2°06'31		3210 Jan 23 03:55	0°♓	
	3209 Feb 17 17:22	0°♈					
evening rise	3209 Feb 27 18:33	17°♈50'06		superior conj	3210 Jan 27 21:00	7°♓36'41	-1°59'47
	3209 Mar 06 14:19	0°♉		minimum elong	3210 Jan 27 15:53	7°♓15'53	1°59'32
asc. node	3209 Mar 09 10:38	4°♉45'30		evening rise	3210 Feb 09 23:42	29°♓37'14	
evening max el	3209 Mar 16 10:21	14°♉06'55	18°07'53		3210 Feb 10 05:01	0°♈	
retrograde	3209 Mar 23 02:39	17°♉31'17		asc. node	3210 Feb 24 07:39	23°♈01'01	
evening set	3209 Mar 25 18:17	16°♉59'19		evening max el	3210 Feb 27 23:01	27°♈22'00	18°11'50
inferior conj	3209 Apr 01 09:37	12°♉03'15	3°19'30		3210 Mar 03 09:30	0°♉	
minimum elong	3209 Apr 01 12:06	11°♉57'18	3°19'09	retrograde	3210 Mar 06 09:28	0°♉46'31	
min. Earth dist.	3209 Apr 04 14:49	9°♉00'13	0.60923 AU	evening set	3210 Mar 09 06:46	0°♉03'25	
morning rise	3209 Apr 08 03:57	6°♉10'54			3210 Mar 09 09:31	30°♒♈	
direct	3209 Apr 14 21:29	3°♉56'31		inferior conj	3210 Mar 15 10:00	24°♈47'23	3°37'52
desc. node	3209 Apr 15 23:04	3°♉59'44		minimum elong	3210 Mar 15 10:38	24°♈45'40	3°37'51
morning max el	3209 Apr 29 03:22	11°♉51'47	27°45'05	min. Earth dist.	3210 Mar 18 02:13	21°♈54'39	0.63003 AU
	3209 May 13 10:05	0°♊		morning rise	3210 Mar 21 13:26	18°♈43'33	
	3209 May 30 08:57	0°♋		direct	3210 Mar 28 11:30	16°♈04'09	
morning set	3209 May 31 16:27	2°♋40'55		desc. node	3210 Apr 02 20:07	17°♈26'41	
asc. node	3209 Jun 05 09:55	12°♋41'36		morning max el	3210 Apr 11 09:58	24°♈01'28	27°47'33
max. Earth dist.	3209 Jun 06 18:21	15°♋37'57	1.32201 AU		3210 Apr 16 19:06	0°♉	
					3210 May 06 18:05	0°♊	
superior conj	3209 Jun 07 23:24	18°♋16'53	0°26'42	morning set	3210 May 15 15:59	16°♊51'36	
minimum elong	3209 Jun 07 22:13	18°♋10'23	0°26'27	max. Earth dist.	3210 May 21 00:36	27°♊58'35	1.32732 AU
	3209 Jun 13 08:02	0°♌			3210 May 21 23:19	0°♋	
evening rise	3209 Jun 14 19:48	3°♌11'37					
	3209 Jun 29 04:41	0°♍		superior conj	3210 May 23 07:49	2°♋54'54	0°00'23
evening max el	3209 Jul 11 08:16	15°♍24'58	25°08'28	minimum elong	3210 May 23 07:48	2°♋54'48	0°00'22
desc. node	3209 Jul 12 22:19	16°♍51'43		behind sun begin	3210 May 23 02:34	2°♋26'32	
retrograde	3209 Jul 25 07:46	22°♍30'21		behind sun end	3210 May 23 13:02	3°♋23'06	
evening set	3209 Jul 30 20:40	21°♍19'56		asc. node	3210 May 23 06:57	2°♋50'12	
min. Earth dist.	3209 Aug 04 20:01	18°♍36'00	0.57573 AU	evening rise	3210 May 30 07:39	18°♋01'05	
inferior conj	3209 Aug 07 20:45	16°♍33'04	-5°05'58		3210 Jun 05 05:14	0°♌	
minimum elong	3209 Aug 07 20:38	16°♍33'16	5°05'58	evening max el	3210 Jun 22 21:42	25°♌56'42	23°34'41
morning rise	3209 Aug 15 23:05	12°♍20'53			3210 Jun 27 22:38	0°♍	
direct	3209 Aug 18 12:30	12°♍01'35		desc. node	3210 Jun 29 19:19	1°♍03'45	
morning max el	3209 Aug 27 08:55	16°♍11'29	19°03'55	retrograde	3210 Jul 06 12:52	2°♍46'28	
asc. node	3209 Sep 01 09:08	22°♍08'21		evening set	3210 Jul 10 14:23	2°♍10'17	

	3210 Jul 15 15:08	30° 		evening set	3211 Jun 19 23:40	12° 	24'36	
min. Earth dist.	3210 Jul 17 07:47	29° 	02'14 0.55935 AU	inferior conj	3211 Jun 29 08:16	8° 	20'02	-3°28'54
inferior conj	3210 Jul 19 10:28	27° 	46'33 -4°42'12	minimum elong	3211 Jun 29 00:01	8° 	31'35	3°26'33
minimum elong	3210 Jul 19 04:35	27° 	55'23 4°41'19	min. Earth dist.	3211 Jun 28 18:33	8° 	39'14	0.54990 AU
morning rise	3210 Jul 27 21:18	23° 	51'18	morning rise	3211 Jul 08 01:58	4° 	28'13	
direct	3210 Jul 30 16:34	23° 	31'46	direct	3211 Jul 11 05:20	4° 	06'24	
morning max el	3210 Aug 10 00:20	28° 	19'09 20°10'11	morning max el	3211 Jul 23 04:04	9° 	41'42	21°36'32
	3210 Aug 11 16:35	0° 		asc. node	3211 Aug 06 03:15	29° 	21'16	
asc. node	3210 Aug 19 06:11	10° 	26'25		3211 Aug 06 11:38	0° 		
morning set	3210 Aug 28 08:22	27° 	35'39	morning set	3211 Aug 12 17:20	12° 	22'34	
	3210 Aug 29 12:39	0° 						
				superior conj	3211 Aug 20 00:09	27° 	41'28	1°42'34
superior conj	3210 Sep 05 00:54	13° 	18'03 1°44'45	minimum elong	3211 Aug 19 23:06	27° 	35'55	1°42'32
minimum elong	3210 Sep 05 01:13	13° 	19'41 1°44'45		3211 Aug 21 02:49	0° 		
max. Earth dist.	3210 Sep 10 10:15	23° 	53'00 1.36685 AU	max. Earth dist.	3211 Aug 23 22:35	5° 	46'14	1.34965 AU
	3210 Sep 13 16:38	0° 		evening rise	3211 Aug 28 07:20	14° 	20'48	
evening rise	3210 Sep 14 07:05	1° 	06'07		3211 Sep 05 23:36	0° 		
desc. node	3210 Sep 25 18:38	20° 	37'38	desc. node	3211 Sep 12 15:39	10° 	47'18	
	3210 Oct 01 22:20	0° 			3211 Sep 26 16:29	0° 		
evening max el	3210 Oct 20 01:07	22° 	41'53 25°50'39	evening max el	3211 Oct 02 13:32	6° 	19'39	26°46'34
retrograde	3210 Nov 01 10:38	29° 	45'47	retrograde	3211 Oct 15 14:48	13° 	35'00	
evening set	3210 Nov 07 13:20	27° 	13'37	evening set	3211 Oct 22 06:24	10° 	53'59	
min. Earth dist.	3210 Nov 11 20:40	22° 	34'00 0.66877 AU	min. Earth dist.	3211 Oct 26 06:44	6° 	50'36	0.65844 AU
inferior conj	3210 Nov 13 04:37	20° 	53'12 -0°41'52	inferior conj	3211 Oct 28 02:29	4° 	42'11	-1°41'18
minimum elong	3210 Nov 13 05:43	20° 	49'43 0°41'24	minimum elong	3211 Oct 28 05:16	4° 	34'01	1°40'10
asc. node	3210 Nov 15 05:25	18° 	24'03		3211 Nov 01 16:30	30° 		
morning rise	3210 Nov 18 22:28	15° 	00'23	asc. node	3211 Nov 02 02:28	29° 	41'34	
direct	3210 Nov 22 04:00	14° 	00'24	morning rise	3211 Nov 03 04:51	29° 	00'57	
morning max el	3210 Nov 29 02:15	17° 	51'42 19°03'02	direct	3211 Nov 06 01:23	28° 	15'46	
	3210 Dec 08 10:48	0° 			3211 Nov 10 12:52	0° 		
morning set	3210 Dec 21 17:07	20° 	23'49	morning max el	3211 Nov 12 15:06	1° 	50'01	18°21'49
desc. node	3210 Dec 22 17:56	22° 	00'42		3211 Dec 01 17:46	0° 		
	3210 Dec 27 20:41	0° 		morning set	3211 Dec 02 01:25	0° 	30'55	
max. Earth dist.	3211 Jan 05 04:19	13° 	02'20 1.44960 AU	desc. node	3211 Dec 09 14:57	12° 	29'07	
superior conj	3211 Jan 07 08:51	16° 	29'28 -1°33'44	superior conj	3211 Dec 17 10:45	25° 	01'39	-0°51'24
minimum elong	3211 Jan 06 23:48	15° 	53'44 1°32'53	minimum elong	3211 Dec 17 04:17	24° 	26'10	0°50'34
	3211 Jan 15 20:12	0° 		max. Earth dist.	3211 Dec 18 23:28	27° 	25'48	1.45211 AU
evening rise	3211 Jan 22 06:54	10° 	27'52		3211 Dec 20 14:47	0° 		
	3211 Feb 03 08:58	0° 		evening rise	3212 Jan 02 15:00	20° 	23'29	
asc. node	3211 Feb 11 04:42	10° 	30'12		3212 Jan 08 17:52	0° 		
evening max el	3211 Feb 11 11:00	10° 	46'25 18°34'17	greatest brilliancy	3212 Jan 13 06:26	7° 	02'19	-0.8m
retrograde	3211 Feb 18 00:42	14° 	23'50	evening max el	3212 Jan 25 19:58	24° 	15'33	19°14'09
evening set	3211 Feb 21 03:48	13° 	28'48	asc. node	3212 Jan 29 01:46	27° 	00'12	
inferior conj	3211 Feb 26 22:29	7° 	54'21 3°36'42	retrograde	3212 Feb 01 20:46	28° 	16'40	
minimum elong	3211 Feb 26 21:31	7° 	57'12 3°36'37	evening set	3212 Feb 05 06:33	27° 	08'52	
min. Earth dist.	3211 Feb 28 23:08	5° 	29'29 0.64785 AU	inferior conj	3212 Feb 10 19:37	21° 	18'14	3°20'55
morning rise	3211 Mar 04 14:44	1° 	44'19	minimum elong	3212 Feb 10 17:36	21° 	24'42	3°20'34
	3211 Mar 07 03:02	30° 		min. Earth dist.	3212 Feb 12 05:01	19° 	30'56	0.66175 AU
direct	3211 Mar 11 08:53	28° 	53'51	morning rise	3212 Feb 16 04:22	15° 	05'14	
	3211 Mar 15 22:57	0° 		direct	3212 Feb 22 12:45	12° 	17'02	
desc. node	3211 Mar 20 17:10	3° 	01'45	morning max el	3212 Mar 06 05:25	19° 	48'46	26°14'07
morning max el	3211 Mar 24 19:31	6° 	44'23 27°14'57	desc. node	3212 Mar 06 14:12	20° 	11'04	
	3211 Apr 11 16:45	0° 			3212 Mar 14 22:44	0° 		
morning set	3211 Apr 29 06:38	0° 	32'04	morning set	3212 Apr 03 18:55	0° 		
	3211 Apr 29 00:02	0° 			3212 Apr 11 08:44	13° 	31'52	
max. Earth dist.	3211 May 03 22:24	9° 	50'31 1.33708 AU	max. Earth dist.	3212 Apr 15 08:54	21° 	10'41	1.35141 AU
					3212 Apr 19 19:07	0° 		
superior conj	3211 May 07 11:39	17° 	14'14 -0°27'45	superior conj	3212 Apr 20 08:34	1° 	08'28	-0°56'25
minimum elong	3211 May 07 13:04	17° 	21'44 0°27'27	minimum elong	3212 Apr 20 11:31	1° 	23'32	0°55'52
asc. node	3211 May 10 03:59	22°	55'42	asc. node	3212 Apr 26 01:02	12°	54'16	
	3211 May 13 11:41	0°		evening rise	3212 Apr 28 02:40	17°	11'07	
evening rise	3211 May 14 18:35	2°	42'54		3212 May 04 14:48	0°		
	3211 May 30 01:45	0°		evening max el	3212 May 16 16:02	17°	20'44	20°34'17
evening max el	3211 Jun 04 13:56	6°	25'03 21°58'55	retrograde	3212 May 27 19:24	22°	46'37	
desc. node	3211 Jun 16 16:22	12°	40'23	evening set	3212 May 29 20:27	22°	36'23	
retrograde	3211 Jun 17 06:17	12°	41'09					

desc. node	3212 Jun 02 13:25	21° Π 30'45			3213 Apr 30 09:40	0° Π	
inferior conj	3212 Jun 08 02:04	18° Π 38'41	-1°37'17	retrograde	3213 May 08 16:10	3° Π 31'24	
minimum elong	3212 Jun 07 21:29	18° Π 45'18	1°35'37	evening set	3213 May 10 16:24	3° Π 19'50	
min. Earth dist.	3212 Jun 09 06:47	17° Π 57'14	0.54971 AU		3213 May 18 01:41	30° \mathbb{R} 8	
morning rise	3212 Jun 16 21:42	14° Π 29'42		inferior conj	3213 May 19 06:24	29° \mathbb{R} 14'08	0°20'24
direct	3212 Jun 20 14:54	13° Π 59'55		minimum elong	3213 May 19 07:16	29° \mathbb{R} 12'43	0°20'04
morning max el	3212 Jul 03 22:29	20° Π 26'01	23°16'32	desc. node	3213 May 20 10:26	28° \mathbb{R} 28'41	
	3212 Jul 12 00:58	0° \mathfrak{D}		min. Earth dist.	3213 May 21 21:14	27° \mathbb{R} 33'04	0.55901 AU
asc. node	3212 Jul 23 00:17	18° \mathfrak{D} 43'39		morning rise	3213 May 27 19:17	24° \mathbb{R} 32'49	
morning set	3212 Jul 27 04:32	27° \mathfrak{D} 15'59		direct	3213 Jun 01 10:30	23° \mathbb{R} 44'09	
	3212 Jul 28 11:30	0° \mathcal{O}			3213 Jun 14 14:27	0° Π	
				morning max el	3213 Jun 15 12:45	0° Π 51'44	24°58'16
superior conj	3212 Aug 03 05:47	12° \mathcal{O} 23'29	1°34'09		3213 Jul 05 15:28	0° \mathfrak{D}	
minimum elong	3212 Aug 03 03:50	12° \mathcal{O} 12'58	1°33'59	asc. node	3213 Jul 09 21:20	8° \mathfrak{D} 26'24	
max. Earth dist.	3212 Aug 05 19:43	17° \mathcal{O} 52'48	1.33631 AU	morning set	3213 Jul 11 16:20	12° \mathfrak{D} 11'06	
evening rise	3212 Aug 10 20:45	28° \mathcal{O} 13'30					
	3212 Aug 11 18:18	0° \mathfrak{M}		superior conj	3213 Jul 18 15:23	27° \mathfrak{D} 16'37	1°20'32
	3212 Aug 29 04:04	0° \mathfrak{L}		minimum elong	3213 Jul 18 13:03	27° \mathfrak{D} 03'48	1°20'12
desc. node	3212 Aug 29 12:42	0° \mathfrak{L} 31'54			3213 Jul 19 21:23	0° \mathcal{O}	
evening max el	3212 Sep 14 01:26	19° \mathfrak{L} 43'09	27°19'57	max. Earth dist.	3213 Jul 20 01:00	0° \mathcal{O} 19'37	1.32716 AU
retrograde	3212 Sep 27 13:20	27° \mathfrak{L} 01'46		evening rise	3213 Jul 25 19:41	12° \mathcal{O} 34'08	
evening set	3212 Oct 04 14:27	24° \mathfrak{L} 20'03			3213 Aug 03 22:10	0° \mathfrak{M}	
min. Earth dist.	3212 Oct 08 08:39	20° \mathfrak{L} 51'44	0.64456 AU	desc. node	3213 Aug 16 09:44	19° \mathfrak{M} 40'59	
inferior conj	3212 Oct 10 16:47	18° \mathfrak{L} 21'19	-2°41'30		3213 Aug 24 19:20	0° \mathfrak{L}	
minimum elong	3212 Oct 10 21:13	18° \mathfrak{L} 09'25	2°39'54	evening max el	3213 Aug 27 11:10	2° \mathfrak{L} 40'49	27°24'26
morning rise	3212 Oct 17 05:08	12° \mathfrak{L} 54'42		retrograde	3213 Sep 10 05:27	9° \mathfrak{L} 57'00	
asc. node	3212 Oct 18 23:32	12° \mathfrak{L} 23'55		evening set	3213 Sep 17 10:10	7° \mathfrak{L} 25'58	
direct	3212 Oct 19 19:03	12° \mathfrak{L} 20'29		min. Earth dist.	3213 Sep 21 00:47	4° \mathfrak{L} 27'31	0.62742 AU
morning max el	3212 Oct 26 07:07	15° \mathfrak{L} 46'57	17°57'30	inferior conj	3213 Sep 23 20:45	1° \mathfrak{L} 44'24	-3°39'07
	3212 Nov 05 10:18	0° \mathfrak{M}		minimum elong	3213 Sep 24 02:20	1° \mathfrak{L} 30'58	3°37'28
morning set	3212 Nov 12 14:27	12° \mathfrak{M} 02'09			3213 Sep 25 17:19	30° \mathbb{R} 17	
	3212 Nov 23 09:42	0° \mathfrak{J}		morning rise	3213 Sep 30 20:01	26° \mathfrak{M} 35'32	
desc. node	3212 Nov 25 11:58	3° \mathfrak{J} 23'38		direct	3213 Oct 03 06:03	26° \mathfrak{M} 08'44	
				asc. node	3213 Oct 05 20:33	26° \mathfrak{M} 40'39	
superior conj	3212 Nov 25 23:48	4° \mathfrak{J} 11'23	-0°03'24	morning max el	3213 Oct 09 23:21	29° \mathfrak{M} 35'33	17°50'54
minimum elong	3212 Nov 25 23:25	4° \mathfrak{J} 09'47	0°03'19		3213 Oct 10 09:00	0° \mathfrak{L}	
behind sun begin	3212 Nov 25 13:16	3° \mathfrak{J} 28'52		morning set	3213 Oct 26 02:42	24° \mathfrak{L} 40'24	
behind sun end	3212 Nov 26 09:34	4° \mathfrak{J} 50'37			3213 Oct 29 02:56	0° \mathfrak{M}	
max. Earth dist.	3212 Nov 30 18:07	11° \mathfrak{J} 47'33	1.44723 AU				
evening rise	3212 Dec 12 04:58	29° \mathfrak{J} 38'44		superior conj	3213 Nov 06 13:40	14° \mathfrak{M} 34'52	0°39'25
	3212 Dec 12 10:30	0° \mathfrak{Z}		minimum elong	3213 Nov 06 17:14	14° \mathfrak{M} 49'53	0°38'56
greatest brilliancy	3212 Dec 26 17:09	21° \mathfrak{Z} 36'06	-0.6m	desc. node	3213 Nov 12 09:01	24° \mathfrak{M} 11'06	
	3213 Jan 01 15:01	0° \approx		max. Earth dist.	3213 Nov 13 09:52	25° \mathfrak{M} 51'49	1.43566 AU
evening max el	3213 Jan 08 00:13	7° \approx 46'19	20°09'38		3213 Nov 15 23:45	0° \mathfrak{J}	
asc. node	3213 Jan 14 22:49	12° \approx 15'45		evening rise	3213 Nov 21 14:28	8° \mathfrak{J} 49'07	
retrograde	3213 Jan 15 18:44	12° \approx 19'32			3213 Dec 05 16:26	0° \mathfrak{Z}	
evening set	3213 Jan 19 12:39	10° \approx 57'48		evening max el	3213 Dec 21 23:01	21° \mathfrak{Z} 18'33	21°17'52
inferior conj	3213 Jan 24 22:27	4° \approx 53'42	2°53'55	retrograde	3213 Dec 30 16:23	26° \mathfrak{Z} 29'08	
minimum elong	3213 Jan 24 19:57	5° \approx 02'07	2°53'18	asc. node	3214 Jan 01 19:51	26° \mathfrak{Z} 03'54	
min. Earth dist.	3213 Jan 25 18:03	3° \approx 47'37	0.67154 AU	evening set	3214 Jan 03 20:14	24° \mathfrak{Z} 52'11	
	3213 Jan 28 19:08	30° \mathbb{R} 3		inferior conj	3214 Jan 09 04:40	18° \mathfrak{Z} 37'38	2°18'01
morning rise	3213 Jan 30 03:02	28° \mathfrak{Z} 39'57		minimum elong	3214 Jan 09 02:12	18° \mathfrak{Z} 46'09	2°17'14
direct	3213 Feb 04 22:17	26° \mathfrak{Z} 04'33		min. Earth dist.	3214 Jan 09 11:52	18° \mathfrak{Z} 12'45	0.67736 AU
	3213 Feb 13 07:11	0° \approx		morning rise	3214 Jan 14 08:00	12° \mathfrak{Z} 25'00	
morning max el	3213 Feb 16 14:10	3° \approx 02'40	24°54'25	direct	3214 Jan 19 12:36	10° \mathfrak{Z} 09'16	
desc. node	3213 Feb 21 11:13	8° \approx 27'14		morning max el	3214 Jan 29 22:52	16° \mathfrak{Z} 21'33	23°26'10
	3213 Mar 09 03:33	0° \mathfrak{H}		desc. node	3214 Feb 08 08:14	27° \mathfrak{Z} 31'15	
morning set	3213 Mar 24 17:13	25° \mathfrak{H} 36'31			3214 Feb 10 04:40	0° \approx	
	3213 Mar 27 03:46	0° \mathfrak{Y}			3214 Mar 02 04:11	0° \mathfrak{H}	
max. Earth dist.	3213 Mar 28 08:31	2° \mathfrak{Y} 11'46	1.36990 AU	morning set	3214 Mar 06 01:52	6° \mathfrak{H} 28'54	
				max. Earth dist.	3214 Mar 10 03:16	13° \mathfrak{H} 27'13	1.39120 AU
superior conj	3213 Apr 03 19:33	14° \mathfrak{Y} 29'25	-1°23'48				
minimum elong	3213 Apr 03 23:45	14° \mathfrak{Y} 50'00	1°23'11	superior conj	3214 Mar 17 16:41	27° \mathfrak{H} 06'49	-1°47'14
	3213 Apr 11 13:52	0° \mathbb{R}		minimum elong	3214 Mar 17 21:11	27° \mathfrak{H} 27'49	1°46'48
evening rise	3213 Apr 12 05:34	1° \mathbb{R} 18'46			3214 Mar 19 05:37	0° \mathfrak{Y}	
asc. node	3213 Apr 12 22:07	2° \mathbb{R} 41'31		evening rise	3214 Mar 27 00:28	14° \mathfrak{Y} 58'00	
evening max el	3213 Apr 29 06:22	28° \mathbb{R} 57'38	19°27'36	asc. node	3214 Mar 30 19:09	22° \mathfrak{Y} 11'52	

	3214 Apr 04 03:09	0°♄		evening max el	3215 Mar 26 14:59	23°♃58'05	18°14'11
evening max el	3214 Apr 12 07:06	11°♄12'45	18°40'52	retrograde	3215 Apr 02 15:09	27°♃28'47	
retrograde	3214 Apr 20 06:10	15°♄06'34		evening set	3215 Apr 05 03:27	27°♃02'31	
evening set	3214 Apr 22 12:08	14°♄49'03		inferior conj	3215 Apr 12 03:28	22°♃17'57	2°57'33
inferior conj	3214 Apr 30 06:16	10°♄25'26	1°55'21	minimum elong	3215 Apr 12 06:51	22°♃10'31	2°56'52
minimum elong	3214 Apr 30 09:54	10°♄18'35	1°54'15	min. Earth dist.	3215 Apr 15 12:57	19°♃20'06	0.59675 AU
min. Earth dist.	3214 May 03 14:31	7°♄55'36	0.57584 AU	morning rise	3215 Apr 19 07:47	16°♃36'13	
desc. node	3214 May 07 07:27	5°♄35'54		desc. node	3215 Apr 24 04:28	14°♃48'18	
morning rise	3214 May 08 04:31	5°♄10'09		direct	3215 Apr 25 18:15	14°♃41'29	
direct	3214 May 13 20:04	3°♄51'03		morning max el	3215 May 10 02:27	22°♃30'39	27°26'36
morning max el	3214 May 28 04:41	11°♄24'59	26°26'22		3215 May 16 17:26	0°♄	
	3214 Jun 11 13:52	0°♄			3215 Jun 04 14:18	0°♄	
morning set	3214 Jun 26 03:04	27°♄01'33		morning set	3215 Jun 10 11:03	11°♄42'06	
asc. node	3214 Jun 26 18:23	28°♄22'34		asc. node	3215 Jun 13 15:26	18°♄27'16	
	3214 Jun 27 12:39	0°♄		max. Earth dist.	3215 Jun 16 23:29	25°♄44'00	1.32097 AU
superior conj	3214 Jul 03 02:53	12°♄12'59	1°02'29	superior conj	3215 Jun 17 14:31	27°♄06'49	0°40'42
minimum elong	3214 Jul 03 00:38	12°♄00'37	1°02'05	minimum elong	3215 Jun 17 12:50	26°♄57'31	0°40'20
max. Earth dist.	3214 Jul 03 11:27	13°♄00'15	1.32210 AU		3215 Jun 18 21:57	0°♄	
evening rise	3214 Jul 10 01:05	27°♄12'14		evening rise	3215 Jun 24 10:34	12°♄00'11	
	3214 Jul 11 09:24	0°♄			3215 Jul 03 13:50	0°♄	
	3214 Jul 28 08:57	0°♄		desc. node	3215 Jul 21 03:45	25°♄05'02	
desc. node	3214 Aug 03 06:45	7°♄58'56		evening max el	3215 Jul 22 13:42	26°♄29'03	25°55'10
evening max el	3214 Aug 09 16:01	14°♄58'54	26°56'00		3215 Jul 26 18:52	0°♄	
retrograde	3214 Aug 23 13:52	22°♄10'52		retrograde	3215 Aug 05 13:13	3°♄37'26	
evening set	3214 Aug 30 13:14	20°♄03'23		evening set	3215 Aug 11 18:51	2°♄04'26	
min. Earth dist.	3214 Sep 03 06:16	17°♄24'06	0.60774 AU		3215 Aug 15 07:26	30°♄	
inferior conj	3214 Sep 06 11:03	14°♄42'12	-4°28'33	min. Earth dist.	3215 Aug 16 02:02	29°♄27'52	0.58710 AU
minimum elong	3214 Sep 06 16:25	14°♄30'49	4°27'30	inferior conj	3215 Aug 19 08:06	27°♄05'06	-5°00'35
morning rise	3214 Sep 13 21:26	9°♄54'19		minimum elong	3215 Aug 19 10:49	22°♄00'07	5°00'22
direct	3214 Sep 16 06:38	9°♄31'58		morning rise	3215 Aug 27 05:00	22°♄40'25	
asc. node	3214 Sep 22 17:34	12°♄23'23		direct	3215 Aug 29 16:18	22°♄20'23	
morning max el	3214 Sep 23 12:35	13°♄07'18	18°03'11	morning max el	3215 Sep 06 19:43	26°♄13'53	18°35'42
	3214 Oct 04 21:59	0°♄		asc. node	3215 Sep 09 14:36	29°♄18'05	
morning set	3214 Oct 09 07:51	8°♄06'42			3215 Sep 10 03:47	0°♄	
				morning set	3215 Sep 23 00:53	22°♄06'59	
superior conj	3214 Oct 19 05:53	26°♄15'17	1°11'32		3215 Sep 27 02:29	0°♄	
minimum elong	3214 Oct 19 10:09	26°♄34'10	1°11'01	superior conj	3215 Oct 01 20:01	9°♄00'14	1°32'12
	3214 Oct 21 08:57	0°♄		minimum elong	3215 Oct 01 23:05	9°♄14'31	1°31'56
max. Earth dist.	3214 Oct 26 21:02	9°♄23'53	1.41875 AU	max. Earth dist.	3215 Oct 09 03:19	22°♄13'34	1.39865 AU
desc. node	3214 Oct 30 06:03	14°♄57'50		evening rise	3215 Oct 13 06:54	29°♄20'07	
evening rise	3214 Nov 01 11:46	18°♄34'40			3215 Oct 13 16:24	0°♄	
	3214 Nov 08 19:22	0°♄		desc. node	3215 Oct 17 03:03	5°♄40'09	
	3214 Nov 30 07:20	0°♄			3215 Nov 02 06:41	0°♄	
evening max el	3214 Dec 04 16:39	4°♄52'48	22°34'42	evening max el	3215 Nov 17 06:31	18°♄29'35	23°54'41
retrograde	3214 Dec 14 12:03	10°♄42'26		retrograde	3215 Nov 28 04:31	24°♄55'16	
evening set	3214 Dec 19 03:38	8°♄49'07		evening set	3215 Dec 03 09:17	22°♄45'25	
asc. node	3214 Dec 19 16:50	8°♄20'19		asc. node	3215 Dec 06 13:51	19°♄19'08	
inferior conj	3214 Dec 24 12:18	2°♄27'36	1°34'49	min. Earth dist.	3215 Dec 08 04:37	17°♄11'14	0.67791 AU
minimum elong	3214 Dec 24 10:20	2°♄34'25	1°34'05	inferior conj	3215 Dec 08 19:31	16°♄20'40	0°45'29
min. Earth dist.	3214 Dec 24 08:11	2°♄41'51	0.67940 AU	minimum elong	3215 Dec 08 18:27	16°♄24'17	0°45'03
	3214 Dec 26 07:47	30°♄		morning rise	3215 Dec 14 03:39	10°♄15'45	
morning rise	3214 Dec 29 16:53	26°♄17'51		direct	3215 Dec 18 03:31	8°♄45'29	
direct	3215 Jan 03 06:41	24°♄24'53		morning max el	3215 Dec 26 05:48	13°♄25'03	20°40'09
morning max el	3215 Jan 12 10:58	29°♄47'59	21°59'02		3216 Jan 08 04:03	0°♄	
	3215 Jan 12 15:43	0°♄		desc. node	3216 Jan 13 02:17	7°♄12'41	
desc. node	3215 Jan 26 05:17	17°♄09'47		morning set	3216 Jan 24 08:42	24°♄21'04	
	3215 Feb 03 23:36	0°♄			3216 Jan 27 23:16	0°♄	
morning set	3215 Feb 14 05:53	15°♄58'46		max. Earth dist.	3216 Feb 02 07:10	8°♄30'45	1.43129 AU
max. Earth dist.	3215 Feb 20 01:34	25°♄31'17	1.41265 AU				
	3215 Feb 22 17:15	0°♄		superior conj	3216 Feb 08 21:56	19°♄24'20	-2°05'53
superior conj	3215 Feb 27 19:13	8°♄49'16	-2°02'55	minimum elong	3216 Feb 08 20:16	19°♄17'19	2°05'51
minimum elong	3215 Feb 27 22:02	9°♄01'45	2°02'48		3216 Feb 15 03:03	0°♄	
evening rise	3215 Mar 10 08:02	28°♄01'06		evening rise	3216 Feb 21 00:05	10°♄18'27	
	3215 Mar 11 09:41	0°♄		asc. node	3216 Mar 03 13:12	29°♄56'42	
asc. node	3215 Mar 17 16:11	11°♄19'35			3216 Mar 03 14:04	0°♄	

evening max el	3216 Mar 09 02:43	7° Υ 04'12	18°07'09	superior conj	3217 Jan 18 22:39	28° Z 49'53	-1°51'07
retrograde	3216 Mar 15 15:25	10° Υ 27'17		minimum elong	3217 Jan 18 15:17	28° Z 20'22	1°50'37
evening set	3216 Mar 18 09:25	9° Υ 50'44			3217 Jan 19 16:07	0° \approx	
inferior conj	3216 Mar 24 19:07	4° Υ 45'45	3°30'03	evening rise	3217 Feb 01 20:19	21° \approx 42'11	
minimum elong	3216 Mar 24 20:50	4° Υ 41'26	3°29'53		3217 Feb 06 18:39	0° H	
min. Earth dist.	3216 Mar 27 19:15	1° Υ 44'35	0.61834 AU	asc. node	3217 Feb 18 10:13	17° H 54'06	
	3216 Mar 29 17:18	30° R H		evening max el	3217 Feb 20 15:21	20° H 23'50	18°19'10
morning rise	3216 Mar 31 06:41	28° H 47'23		retrograde	3217 Feb 27 02:21	23° H 52'43	
direct	3216 Apr 07 03:04	26° H 21'08		evening set	3217 Mar 02 01:56	23° H 04'49	
desc. node	3216 Apr 10 01:30	26° H 45'47		inferior conj	3217 Mar 08 01:09	17° H 40'50	3°39'25
	3216 Apr 16 07:44	0° Υ		minimum elong	3217 Mar 08 01:03	17° H 41'06	3°39'24
morning max el	3216 Apr 21 06:35	4° Υ 18'19	27°50'42	min. Earth dist.	3217 Mar 10 10:55	14° H 57'59	0.63802 AU
	3216 May 10 09:54	0° B		morning rise	3217 Mar 13 23:20	11° H 33'34	
morning set	3216 May 24 14:22	26° B 06'04		direct	3217 Mar 20 20:32	8° H 47'29	
	3216 May 26 11:40	0° II		desc. node	3217 Mar 27 22:32	11° H 11'24	
max. Earth dist.	3216 May 30 09:02	8° II 17'04	1.32379 AU	morning max el	3217 Apr 03 14:55	16° H 44'10	27°37'34
asc. node	3216 May 30 12:29	8° II 35'44			3217 Apr 14 14:47	0° Υ	
					3217 May 03 04:12	0° B	
superior conj	3216 Jun 01 00:38	11° II 52'18	0°15'49	morning set	3217 May 08 10:34	10° B 05'40	
minimum elong	3216 May 31 23:54	11° II 48'19	0°15'39	max. Earth dist.	3217 May 13 12:02	20° B 26'17	1.33089 AU
behind sun begin	3216 May 31 23:02	11° II 43'35					
behind sun end	3216 Jun 01 00:46	11° II 53'04		superior conj	3217 May 16 07:24	26° B 23'31	-0°11'25
evening rise	3216 Jun 07 22:05	26° II 50'53		minimum elong	3217 May 16 07:58	26° B 26'33	0°11'17
	3216 Jun 09 09:59	0° D		behind sun begin	3217 May 16 04:09	26° B 06'09	
	3216 Jun 26 19:35	0° Ω		behind sun end	3217 May 16 11:47	26° B 46'58	
evening max el	3216 Jul 03 04:39	7° Ω 15'54	24°29'39	asc. node	3217 May 17 09:32	28° B 43'46	
desc. node	3216 Jul 07 00:46	10° Ω 30'51			3217 May 17 23:42	0° II	
retrograde	3216 Jul 17 01:58	14° Ω 17'02		evening rise	3217 May 23 09:48	11° II 37'59	
evening set	3216 Jul 22 00:34	13° Ω 22'14			3217 Jun 01 19:37	0° D	
min. Earth dist.	3216 Jul 27 15:38	10° Ω 29'45	0.56811 AU	evening max el	3217 Jun 14 18:16	17° D 42'25	22°53'17
inferior conj	3216 Jul 30 09:17	8° Ω 45'01	-5°01'36	desc. node	3217 Jun 23 21:48	23° D 40'54	
minimum elong	3216 Jul 30 06:41	8° Ω 49'13	5°01'26	retrograde	3217 Jun 28 02:14	24° D 20'56	
morning rise	3216 Aug 07 15:27	4° Ω 41'35		evening set	3217 Jul 01 12:24	23° D 55'14	
direct	3216 Aug 10 07:06	4° Ω 22'26		min. Earth dist.	3217 Jul 09 03:00	20° D 32'44	0.55425 AU
morning max el	3216 Aug 19 17:42	8° Ω 46'24	19°29'36	inferior conj	3217 Jul 10 15:20	19° D 40'21	-4°17'11
asc. node	3216 Aug 26 11:40	17° Ω 10'00		minimum elong	3217 Jul 10 07:44	19° D 51'21	4°15'34
	3216 Sep 02 18:51	0° P		morning rise	3217 Jul 19 05:23	15° D 48'35	
morning set	3216 Sep 06 02:13	6° P 31'37		direct	3217 Jul 22 03:22	15° D 28'38	
				morning max el	3217 Aug 02 04:15	20° D 35'58	20°44'43
superior conj	3216 Sep 14 02:37	22° P 34'30	1°42'40		3217 Aug 09 20:05	0° Ω	
minimum elong	3216 Sep 14 03:55	22° P 40'51	1°42'38	asc. node	3217 Aug 13 08:45	5° Ω 45'20	
	3216 Sep 17 22:58	0° $\underline{\text{A}}$		morning set	3217 Aug 21 09:02	21° Ω 12'19	
max. Earth dist.	3216 Sep 20 07:24	4° $\underline{\text{A}}$ 23'48	1.37795 AU		3217 Aug 25 14:46	0° P	
evening rise	3216 Sep 24 01:32	11° $\underline{\text{A}}$ 11'17					
desc. node	3216 Oct 03 00:05	26° $\underline{\text{A}}$ 14'19		superior conj	3217 Aug 28 20:54	6° P 43'21	1°44'40
	3216 Oct 05 09:14	0° M		minimum elong	3217 Aug 28 20:34	6° P 41'43	1°44'40
	3216 Oct 27 16:06	0° J		max. Earth dist.	3217 Sep 02 15:04	16° P 15'09	1.35908 AU
evening max el	3216 Oct 29 18:44	2° J 09'53	25°11'09	evening rise	3217 Sep 06 16:21	23° P 59'23	
retrograde	3216 Nov 10 16:53	9° J 03'41			3217 Sep 09 23:27	0° $\underline{\text{A}}$	
evening set	3216 Nov 16 11:33	6° J 38'40		desc. node	3217 Sep 19 21:07	16° $\underline{\text{A}}$ 34'45	
min. Earth dist.	3216 Nov 20 23:00	1° J 38'43	0.67303 AU		3217 Sep 29 00:05	0° M	
inferior conj	3216 Nov 22 00:37	0° J 15'08	-0°08'48	evening max el	3217 Oct 12 07:02	15° M 50'49	26°16'47
minimum elong	3216 Nov 22 00:51	0° J 14'24	0°08'43	retrograde	3217 Oct 25 00:19	23° M 01'26	
transit middle	3216 Nov 22 00:51	0° J 14'24	0°08'43	evening set	3217 Oct 31 08:35	20° M 24'51	
transit begin	3216 Nov 21 22:30	0° J 22'03		min. Earth dist.	3217 Nov 04 12:53	16° M 00'22	0.66475 AU
transit end	3216 Nov 22 03:11	0° J 06'46		inferior conj	3217 Nov 06 01:44	14° M 07'14	-1°06'50
asc. node	3216 Nov 22 10:53	29° M 41'46		minimum elong	3217 Nov 06 03:31	14° M 01'43	1°06'05
	3216 Nov 22 05:16	30° R M		asc. node	3217 Nov 09 07:57	10° M 24'07	
morning rise	3216 Nov 27 14:22	24° M 17'07		morning rise	3217 Nov 11 22:59	8° M 18'49	
direct	3216 Dec 01 01:55	23° M 07'11		direct	3217 Nov 15 00:20	7° M 25'41	
morning max el	3216 Dec 08 08:32	27° M 13'19	19°34'08	morning max el	3217 Nov 21 18:14	11° M 08'55	18°43'26
	3216 Dec 10 21:08	0° J			3217 Dec 05 08:43	0° J	
greatest brilliancy	3216 Dec 21 12:39	14° J 43'12	-0.7m	morning set	3217 Dec 12 21:20	11° J 51'24	
desc. node	3216 Dec 29 23:20	27° J 33'25		desc. node	3217 Dec 16 20:22	18° J 06'26	
	3216 Dec 31 13:24	0° Z			3217 Dec 24 09:54	0° Z	
morning set	3217 Jan 02 05:41	2° Z 35'30		max. Earth dist.	3217 Dec 28 12:40	6° Z 27'32	1.45153 AU
max. Earth dist.	3217 Jan 14 19:29	22° Z 14'37	1.44476 AU				

superior conj	3217 Dec 29 03:54	7°  27'22	-1°17'17			3218 Nov 28 06:47	0° 	
minimum elong	3217 Dec 28 19:07	6°  52'52	1°16'18	desc. node		3218 Dec 03 17:24	8°  47'42	
	3218 Jan 12 09:30	0° 						
evening rise	3218 Jan 13 17:28	2°  08'04		superior conj		3218 Dec 08 07:57	16°  08'04	-0°30'58
greatest brilliancy	3218 Jan 21 02:12	13°  57'18	-0.9m	minimum elong		3218 Dec 08 04:02	15°  52'31	0°30'25
	3218 Jan 31 19:19	0° 		max. Earth dist.		3218 Dec 11 08:06	20°  52'44	1.45095 AU
evening max el	3218 Feb 04 02:21	3°  51'10	18°49'19			3218 Dec 17 03:52	0° 	
asc. node	3218 Feb 05 07:15	5°  00'06		evening rise		3218 Dec 24 16:36	11°  342'56	
retrograde	3218 Feb 10 19:55	7°  37'21				3219 Jan 05 13:27	0° 	
evening set	3218 Feb 14 01:43	6°  37'06		greatest brilliancy		3219 Jan 06 08:06	1°  10'23	-0.7m
inferior conj	3218 Feb 19 17:42	0°  55'49	3°31'32	evening max el		3219 Jan 18 09:31	17°  21'14	19°36'07
minimum elong	3218 Feb 19 16:13	1°  00'22	3°31'22	asc. node		3219 Jan 23 04:18	21°  00'07	
	3218 Feb 20 11:43	30°  00'00		retrograde		3219 Jan 25 16:57	21°  34'40	
min. Earth dist.	3218 Feb 21 11:52	28°  45'50	0.65424 AU	evening set		3219 Jan 29 06:06	20°  20'58	
morning rise	3218 Feb 25 06:19	24°  44'17		inferior conj		3219 Feb 03 17:30	14°  24'24	3°10'39
direct	3218 Mar 03 21:02	21°  52'55		minimum elong		3219 Feb 03 15:13	14°  31'55	3°10'12
desc. node	3218 Mar 14 19:35	27°  30'23		min. Earth dist.		3219 Feb 04 20:51	12°  54'35	0.66641 AU
morning max el	3218 Mar 17 00:42	29°  37'25	26°52'00	morning rise		3219 Feb 09 00:08	8°  11'10	
	3218 Mar 17 09:36	0° 		direct		3219 Feb 15 03:20	5°  27'19	
	3218 Apr 08 12:17	0°  00'00		morning max el		3219 Feb 27 09:56	12°  45'48	25°42'01
morning set	3218 Apr 21 20:30	23°  03'15		desc. node		3219 Mar 01 16:36	15°  10'29	
	3218 Apr 25 04:13	0° 				3219 Mar 13 07:44	0° 	
max. Earth dist.	3218 Apr 26 05:03	2°  04'01	1.34257 AU	morning set		3219 Apr 01 05:31	0° 	
				max. Earth dist.		3219 Apr 04 15:43	6°  08'59	
superior conj	3218 Apr 30 08:42	10°  34'11	-0°39'55			3219 Apr 08 10:32	13°  09'13'05	1.35881 AU
minimum elong	3218 Apr 30 10:46	10°  44'59	0°39'30					
asc. node	3218 May 04 06:36	18°  47'29		superior conj		3219 Apr 14 01:46	24°  09'15'21	-1°08'18
evening rise	3218 May 07 19:50	26°  15'32		minimum elong		3219 Apr 14 05:19	24°  09'33'10	1°07'42
	3218 May 09 15:19	0° 				3219 Apr 16 21:49	0° 	
evening max el	3218 May 27 14:21	28°  21'19	21°21'07	asc. node		3219 Apr 21 03:37	8°  08'41'47	
	3218 May 29 10:03	0° 		evening rise		3219 Apr 22 01:58	10°  08'35'50	
retrograde	3218 Jun 08 16:14	4°  06'44				3219 May 02 11:53	0° 	
desc. node	3218 Jun 10 18:49	4°  06'31		evening max el		3219 May 09 21:41	9°  02'33'56	20°03'33
evening set	3218 Jun 11 00:24	4°  04'10		retrograde		3219 May 20 06:48	14°  02'36'36	
inferior conj	3218 Jun 20 09:48	0°  04'57	-2°44'42	evening set		3219 May 22 06:24	14°  02'26'21	
minimum elong	3218 Jun 20 02:30	0°  15'12	2°42'19	desc. node		3219 May 28 15:51	11°  02'57'48	
min. Earth dist.	3218 Jun 20 14:30	29°  15'58'22	0.54865 AU	inferior conj		3219 May 31 06:24	10°  02'26'45	-0°46'05
	3218 Jun 20 13:21	30°  00'00		minimum elong		3219 May 31 04:16	10°  02'29'58	0°45'18
morning rise	3218 Jun 29 05:09	26°  08'03		min. Earth dist.		3219 Jun 02 03:14	9°  02'19'39	0.55264 AU
direct	3218 Jul 02 13:38	25°  02'43'39		morning rise		3219 Jun 09 00:24	6°  02'05'39	
	3218 Jul 13 04:34	0° 		direct		3219 Jun 13 02:24	5°  02'29'18	
morning max el	3218 Jul 15 03:32	1°  04'11'19	22°17'46	morning max el		3219 Jun 26 19:14	12°  02'13'50	24°00'22
asc. node	3218 Jul 31 05:50	24°  05'53'30				3219 Jul 10 07:34	0° 	
	3218 Aug 02 20:29	0° 		asc. node		3219 Jul 18 02:53	14°  05'25'26	
morning set	3218 Aug 05 19:12	6°  03'01		morning set		3219 Jul 21 06:52	20°  05'57'55	
						3219 Jul 25 11:49	0° 	
superior conj	3218 Aug 12 23:14	21°  01'16'02	1°39'42					
minimum elong	3218 Aug 12 21:43	21°  01'08'04	1°39'36	superior conj		3219 Jul 28 06:48	6°  02'03'25	1°28'58
max. Earth dist.	3218 Aug 16 07:11	28°  01'13'20	1.34357 AU	minimum elong		3219 Jul 28 04:37	5°  02'51'36	1°28'43
	3218 Aug 17 04:01	0° 		max. Earth dist.		3219 Jul 30 08:18	10°  02'29'48	1.33200 AU
evening rise	3218 Aug 20 22:46	7°  00'32'20		evening rise		3219 Aug 04 16:39	21°  02'38'05	
	3218 Sep 02 13:22	0° 				3219 Aug 08 23:12	0° 	
desc. node	3218 Sep 06 18:08	6°  02'34'52		desc. node		3219 Aug 24 15:10	26°  02'05'54	
evening max el	3218 Sep 24 19:38	29°  02'24'46	27°03'55			3219 Aug 27 10:16	0° 	
	3218 Sep 25 10:36	0° 		evening max el		3219 Sep 07 07:02	12°  02'39'22	27°25'37
retrograde	3218 Oct 08 02:03	6°  00'41'45		retrograde		3219 Sep 20 21:40	19°  02'56'28	
evening set	3218 Oct 14 22:07	3°  00'59'38		evening set		3219 Sep 28 01:23	17°  02'17'54	
	3218 Oct 18 23:52	30°  00'00		min. Earth dist.		3219 Oct 01 17:41	14°  02'03'16	0.63772 AU
min. Earth dist.	3218 Oct 18 19:51	0°  00'11'10	0.65300 AU	inferior conj		3219 Oct 04 06:59	11°  02'26'19	-3°06'31
inferior conj	3218 Oct 20 20:41	27°  02'52'52	-2°06'55	minimum elong		3219 Oct 04 12:00	11°  02'13'26	3°04'49
minimum elong	3218 Oct 21 00:11	27°  02'42'56	2°05'32	morning rise		3219 Oct 10 23:53	6°  02'06'49	
morning rise	3218 Oct 27 03:07	22°  02'17'07		direct		3219 Oct 13 11:57	5°  02'36'00	
asc. node	3218 Oct 27 05:01	22°  02'14'50		asc. node		3219 Oct 14 02:03	5°  02'37'44	
direct	3218 Oct 29 20:34	21°  02'36'57		morning max el		3219 Oct 20 01:09	9°  02'01'15	17°52'27
morning max el	3218 Nov 05 08:41	25°  02'06'52	18°09'16			3219 Nov 03 01:27	0° 	
	3218 Nov 09 10:33	0° 		morning set		3219 Nov 05 18:02	4°  02'38'33	
morning set	3218 Nov 23 18:16	22°  02'35'46						

superior conj	3219 Nov 18 06:42	25° \mathbb{M} 47'06	0°15'55			3220 Oct 08 08:45	0° \mathbb{L}	
minimum elong	3219 Nov 18 08:25	25° \mathbb{M} 54'07	0°15'40	morning set		3220 Oct 18 14:10	17° \mathbb{L} 39'06	
behind sun begin	3219 Nov 18 06:03	25° \mathbb{M} 44'28				3220 Oct 25 11:18	0° \mathbb{M}	
behind sun end	3219 Nov 18 10:46	26° \mathbb{M} 03'46						
desc. node	3219 Nov 20 14:26	29° \mathbb{M} 34'05		superior conj		3220 Oct 29 08:10	6° \mathbb{M} 44'46	0°54'28
	3219 Nov 20 20:50	0° \mathbb{J}		minimum elong		3220 Oct 29 12:21	7° \mathbb{M} 02'49	0°53'55
max. Earth dist.	3219 Nov 24 02:26	5° \mathbb{J} 11'34	1.44310 AU	max. Earth dist.		3220 Nov 05 16:26	19° \mathbb{M} 04'04	1.42898 AU
evening rise	3219 Dec 04 02:46	20° \mathbb{J} 51'48		desc. node		3220 Nov 06 11:28	20° \mathbb{M} 21'40	
	3219 Dec 10 02:28	0° \mathbb{Z}		evening rise		3220 Nov 12 15:28	0° \mathbb{J} 12'27	
	3219 Dec 31 15:31	0° \approx				3220 Nov 12 12:17	0° \mathbb{J}	
evening max el	3220 Jan 01 11:29	0° \approx 52'40	20°37'18			3220 Dec 02 17:30	0° \mathbb{Z}	
retrograde	3220 Jan 09 15:01	5° \approx 41'10		evening max el		3220 Dec 14 07:49	14° \mathbb{Z} 24'52	21°49'42
asc. node	3220 Jan 10 01:19	5° \approx 40'09		retrograde		3220 Dec 23 12:08	19° \mathbb{Z} 52'40	
evening set	3220 Jan 13 13:02	4° \approx 12'53		asc. node		3220 Dec 26 22:20	18° \mathbb{Z} 49'01	
	3220 Jan 17 11:30	30° \mathbb{R} \mathbb{Z}		evening set		3220 Dec 27 20:44	18° \mathbb{Z} 08'46	
inferior conj	3220 Jan 18 22:02	28° \mathbb{Z} 03'47	2°39'39	inferior conj		3221 Jan 02 05:04	11° \mathbb{Z} 50'30	2°00'30
minimum elong	3220 Jan 18 19:29	28° \mathbb{Z} 12'28	2°38'57	minimum elong		3221 Jan 02 02:46	11° \mathbb{Z} 58'31	1°59'43
min. Earth dist.	3220 Jan 19 12:06	27° \mathbb{Z} 15'42	0.67448 AU	min. Earth dist.		3221 Jan 02 07:18	11° \mathbb{Z} 42'47	0.67866 AU
morning rise	3220 Jan 24 01:46	21° \mathbb{Z} 50'28		morning rise		3221 Jan 07 08:38	5° \mathbb{Z} 38'45	
direct	3220 Jan 29 14:49	19° \mathbb{Z} 23'07		direct		3221 Jan 12 06:45	3° \mathbb{Z} 32'45	
morning max el	3220 Feb 09 18:28	26° \mathbb{Z} 02'24	24°17'26	morning max el		3221 Jan 22 04:18	9° \mathbb{Z} 24'27	22°48'27
	3220 Feb 13 09:49	0° \approx		desc. node		3221 Feb 02 10:40	23° \mathbb{Z} 08'46	
desc. node	3220 Feb 16 13:38	3° \approx 48'55				3221 Feb 07 07:56	0° \approx	
	3220 Mar 05 21:22	0° \mathbb{H}		morning set		3221 Feb 25 11:33	28° \approx 01'53	
morning set	3220 Mar 16 14:47	17° \mathbb{H} 44'23				3221 Feb 26 16:02	0° \mathbb{H}	
max. Earth dist.	3220 Mar 20 07:32	24° \mathbb{H} 17'20	1.37877 AU	max. Earth dist.		3221 Mar 02 02:47	5° \mathbb{H} 49'32	1.40044 AU
	3220 Mar 23 10:27	0° \mathbb{Y}						
superior conj	3220 Mar 27 07:20	7° \mathbb{Y} 18'33	-1°34'25	superior conj		3221 Mar 09 21:06	19° \mathbb{H} 33'10	-1°55'07
minimum elong	3220 Mar 27 11:50	7° \mathbb{Y} 40'10	1°33'51	minimum elong		3221 Mar 10 01:12	19° \mathbb{H} 51'53	1°54'49
evening rise	3220 Apr 05 01:48	24° \mathbb{Y} 32'14		evening rise		3221 Mar 15 11:58	0° \mathbb{Y}	
asc. node	3220 Apr 07 00:38	28° \mathbb{Y} 22'17		asc. node		3221 Mar 19 16:19	7° \mathbb{Y} 56'40	
	3220 Apr 07 20:46	0° \mathbb{B}				3221 Mar 24 21:40	17° \mathbb{Y} 43'32	
evening max el	3220 Apr 21 16:36	21° \mathbb{B} 26'48	19°05'13	evening max el		3221 Apr 01 11:44	0° \mathbb{B}	
retrograde	3220 Apr 30 10:31	25° \mathbb{B} 42'11		retrograde		3221 Apr 04 20:43	3° \mathbb{B} 55'17	18°27'07
evening set	3220 May 02 12:46	25° \mathbb{B} 28'33		evening set		3221 Apr 12 08:48	7° \mathbb{B} 37'30	
inferior conj	3220 May 10 18:20	21° \mathbb{B} 15'31	1°04'26	inferior conj		3221 Apr 14 17:21	7° \mathbb{B} 16'41	
minimum elong	3220 May 10 20:49	21° \mathbb{B} 11'15	1°03'36	minimum elong		3221 Apr 22 03:25	2° \mathbb{B} 44'30	2°25'43
min. Earth dist.	3220 May 13 18:31	19° \mathbb{B} 11'58	0.56541 AU	min. Earth dist.		3221 Apr 22 07:13	2° \mathbb{B} 36'49	2°24'44
desc. node	3220 May 14 12:51	18° \mathbb{B} 42'12				3221 Apr 25 13:57	29° \mathbb{Y} 59'27	0.58434 AU
morning rise	3220 May 19 01:44	16° \mathbb{B} 19'11				3221 Apr 25 13:40	30° \mathbb{R} \mathbb{Y}	
direct	3220 May 24 03:11	15° \mathbb{B} 19'07		morning rise		3221 Apr 29 18:03	27° \mathbb{Y} 16'20	
morning max el	3220 Jun 07 09:39	22° \mathbb{B} 39'20	25°38'25	desc. node		3221 May 01 09:51	26° \mathbb{Y} 31'50	
	3220 Jun 13 22:21	0° \mathbb{I}		direct		3221 May 05 18:29	25° \mathbb{Y} 42'04	
	3220 Jul 01 22:31	0° \mathbb{E}				3221 May 16 06:25	0° \mathbb{B}	
asc. node	3220 Jul 03 23:54	4° \mathbb{E} 14'27		morning max el		3221 May 20 03:56	3° \mathbb{B} 24'39	26°56'09
morning set	3220 Jul 04 18:24	5° \mathbb{E} 51'43				3221 Jun 08 10:53	0° \mathbb{I}	
				morning set		3221 Jun 19 04:13	20° \mathbb{I} 39'04	
superior conj	3220 Jul 11 17:24	20° \mathbb{E} 58'30	1°13'23	asc. node		3221 Jun 20 20:57	24° \mathbb{I} 15'01	
minimum elong	3220 Jul 11 15:02	20° \mathbb{E} 45'33	1°13'00			3221 Jun 23 12:38	0° \mathbb{E}	
max. Earth dist.	3220 Jul 12 16:15	23° \mathbb{E} 03'43	1.32452 AU	superior conj		3221 Jun 26 05:12	5° \mathbb{E} 54'59	0°53'41
	3220 Jul 15 21:03	0° \mathbb{O}		minimum elong		3221 Jun 26 03:08	5° \mathbb{E} 43'36	0°53'17
evening rise	3220 Jul 18 18:37	6° \mathbb{O} 06'44		max. Earth dist.		3221 Jun 26 03:43	5° \mathbb{E} 46'51	1.32103 AU
	3220 Jul 31 12:43	0° \mathbb{N}		evening rise		3221 Jul 03 02:00	20° \mathbb{E} 50'06	
desc. node	3220 Aug 10 12:11	14° \mathbb{N} 55'23				3221 Jul 07 13:47	0° \mathbb{O}	
evening max el	3220 Aug 19 14:49	25° \mathbb{N} 20'53	27°16'21			3221 Jul 26 02:02	0° \mathbb{N}	
	3220 Aug 25 12:10	0° \mathbb{L}		desc. node		3221 Jul 28 09:11	2° \mathbb{N} 46'21	
retrograde	3220 Sep 02 10:38	2° \mathbb{L} 35'33		evening max el		3221 Aug 01 16:41	7° \mathbb{N} 19'11	26°33'52
evening set	3220 Sep 09 14:36	0° \mathbb{L} 12'32		retrograde		3221 Aug 15 15:52	14° \mathbb{N} 30'36	
	3220 Sep 09 22:07	30° \mathbb{R} \mathbb{N}		evening set		3221 Aug 22 09:14	12° \mathbb{N} 36'31	
min. Earth dist.	3220 Sep 13 05:03	27° \mathbb{N} 24'20	0.61931 AU	min. Earth dist.		3221 Aug 26 06:18	10° \mathbb{N} 00'38	0.59892 AU
inferior conj	3220 Sep 16 05:33	24° \mathbb{N} 39'31	-4°01'32	inferior conj		3221 Aug 29 12:59	7° \mathbb{N} 24'10	-4°44'59
minimum elong	3220 Sep 16 11:16	24° \mathbb{N} 26'27	4°00'04	minimum elong		3221 Aug 29 17:35	7° \mathbb{N} 14'58	4°44'18
morning rise	3220 Sep 23 09:36	19° \mathbb{N} 39'34		morning rise		3221 Sep 06 04:00	2° \mathbb{N} 46'14	
direct	3220 Sep 25 18:56	19° \mathbb{N} 14'59		direct		3221 Sep 08 13:34	2° \mathbb{N} 25'15	
asc. node	3220 Sep 29 23:05	20° \mathbb{N} 32'37		morning max el		3221 Sep 16 03:44	6° \mathbb{N} 07'11	18°14'25
morning max el	3220 Oct 02 16:34	22° \mathbb{N} 44'03	17°53'47	asc. node		3221 Sep 16 20:08	6° \mathbb{N} 48'18	

	3221 Oct 01 07:41	0°♄		morning set	3222 Sep 15 21:55	15°♄33'13	
morning set	3221 Oct 02 00:56	1°♄21'30			3222 Sep 23 06:43	0°♄	
superior conj	3221 Oct 11 10:27	18°♄55'01	1°21'37	superior conj	3222 Sep 24 08:13	2°♄02'24	1°37'46
minimum elong	3221 Oct 11 14:20	19°♄12'39	1°21'13	minimum elong	3222 Sep 24 10:33	2°♄13'31	1°37'37
	3221 Oct 17 16:52	0°♄		max. Earth dist.	3222 Oct 01 05:34	14°♄47'43	1.38985 AU
max. Earth dist.	3221 Oct 19 00:51	2°♄16'43	1.41046 AU	evening rise	3222 Oct 05 02:49	21°♄36'12	
evening rise	3221 Oct 23 21:25	10°♄22'02			3222 Oct 10 03:15	0°♄	
desc. node	3221 Oct 24 08:30	11°♄07'09		desc. node	3222 Oct 11 05:32	1°♄46'34	
	3221 Nov 05 12:48	0°♄			3222 Oct 30 12:46	0°♄	
evening max el	3221 Nov 26 23:34	27°♄59'49	23°08'40	evening max el	3222 Nov 09 12:43	11°♄38'58	24°28'06
	3221 Nov 29 02:30	0°♄		retrograde	3222 Nov 20 21:28	18°♄17'20	
retrograde	3221 Dec 07 06:41	4°♄05'57		evening set	3222 Nov 26 08:02	16°♄01'03	
evening set	3221 Dec 12 03:36	2°♄05'45		asc. node	3222 Nov 30 16:24	11°♄06'26	
asc. node	3221 Dec 13 19:21	0°♄29'11		min. Earth dist.	3222 Dec 01 00:01	10°♄41'08	0.67630 AU
	3221 Dec 14 05:42	30°♄♂		inferior conj	3222 Dec 01 19:22	9°♄36'27	0°23'02
min. Earth dist.	3221 Dec 17 04:05	26°♄12'07	0.67921 AU	minimum elong	3222 Dec 01 18:48	9°♄38'19	0°22'47
inferior conj	3221 Dec 17 12:46	25°♄42'14	1°14'35	morning rise	3222 Dec 07 05:37	3°♄33'59	
minimum elong	3221 Dec 17 11:08	25°♄47'51	1°13'56	direct	3222 Dec 11 00:07	2°♄12'32	
morning rise	3221 Dec 22 18:35	19°♄33'59		morning max el	3222 Dec 18 17:00	6°♄36'19	20°10'12
direct	3221 Dec 27 02:15	17°♄50'46			3223 Jan 05 02:13	0°♄	
morning max el	3222 Jan 04 18:54	22°♄54'44	21°23'58	desc. node	3223 Jan 07 04:46	3°♄09'55	
	3222 Jan 10 21:31	0°♄		morning set	3223 Jan 15 00:41	15°♄07'40	
desc. node	3222 Jan 20 07:43	12°♄58'34			3223 Jan 24 12:12	0°♄	
	3222 Jan 31 16:26	0°♄		max. Earth dist.	3223 Jan 25 12:10	1°♄35'44	1.43782 AU
morning set	3222 Feb 05 03:29	6°♄58'07					
max. Earth dist.	3222 Feb 12 03:19	18°♄14'38	1.42108 AU	superior conj	3223 Jan 31 05:45	10°♄53'25	-2°02'01
	3222 Feb 19 02:57	0°♄		minimum elong	3223 Jan 31 01:33	10°♄36'10	2°01'51
					3223 Feb 11 13:46	0°♄	
superior conj	3222 Feb 19 14:03	0°♄47'52	-2°06'04	evening rise	3223 Feb 13 01:56	2°♄36'16	
minimum elong	3222 Feb 19 15:18	0°♄53'17	2°06'02	asc. node	3223 Feb 26 15:44	25°♄00'38	
evening rise	3222 Mar 02 17:47	20°♄40'47			3223 Mar 02 17:44	0°♄	
	3222 Mar 07 21:41	0°♄		evening max el	3223 Mar 02 19:15	0°♄03'47	18°10'00
asc. node	3222 Mar 11 18:41	6°♄38'56		retrograde	3223 Mar 09 05:55	3°♄27'27	
evening max el	3222 Mar 19 06:41	16°♄50'28	18°08'54	evening set	3223 Mar 12 02:25	2°♄46'00	
retrograde	3222 Mar 26 00:36	20°♄15'52			3223 Mar 15 21:11	30°♄♂	
evening set	3222 Mar 28 15:26	19°♄45'23		inferior conj	3223 Mar 18 07:11	27°♄32'42	3°36'27
inferior conj	3222 Apr 04 08:53	14°♄52'21	3°14'37	minimum elong	3223 Mar 18 08:06	27°♄30'17	3°36'23
minimum elong	3222 Apr 04 11:38	14°♄45'54	3°14'10	min. Earth dist.	3223 Mar 21 01:32	24°♄37'17	0.62711 AU
min. Earth dist.	3222 Apr 07 15:32	11°♄49'50	0.60601 AU	morning rise	3223 Mar 24 12:38	21°♄30'08	
morning rise	3222 Apr 11 05:45	9°♄02'34		direct	3223 Mar 31 10:31	18°♄53'50	
direct	3222 Apr 17 21:51	6°♄52'56		desc. node	3223 Apr 05 03:55	19°♄57'57	
desc. node	3222 Apr 18 06:53	6°♄53'20		morning max el	3223 Apr 14 10:23	26°♄51'03	27°49'30
morning max el	3222 May 02 04:18	14°♄46'46	27°41'32		3223 Apr 17 09:31	0°♄	
	3222 May 14 11:33	0°♄			3223 May 08 02:33	0°♄	
	3222 May 31 20:50	0°♄		morning set	3223 May 18 11:02	19°♄26'58	
morning set	3222 Jun 03 10:27	5°♄12'55			3223 May 23 12:47	0°♄	
asc. node	3222 Jun 07 17:59	14°♄21'31		max. Earth dist.	3223 May 23 22:15	0°♄50'34	1.32631 AU
max. Earth dist.	3222 Jun 09 14:58	18°♄26'23	1.32158 AU	asc. node	3223 May 25 15:02	4°♄29'58	
superior conj	3222 Jun 10 16:24	20°♄45'50	0°30'29	superior conj	3223 May 26 01:19	5°♄25'39	0°04'31
minimum elong	3222 Jun 10 15:04	20°♄38'31	0°30'13	minimum elong	3223 May 26 01:06	5°♄24'28	0°04'29
	3222 Jun 14 21:27	0°♄		behind sun begin	3223 May 25 20:05	4°♄57'15	
evening rise	3222 Jun 17 12:34	5°♄39'45		behind sun end	3223 May 26 06:08	5°♄51'42	
	3222 Jun 30 08:09	0°♄		evening rise	3223 Jun 02 00:25	20°♄29'32	
evening max el	3222 Jul 14 11:21	18°♄29'51	25°21'19		3223 Jun 06 15:26	0°♄	
desc. node	3222 Jul 15 06:12	19°♄13'50		evening max el	3223 Jun 26 00:57	29°♄04'00	23°49'04
retrograde	3222 Jul 28 11:04	25°♄35'59			3223 Jun 27 00:54	0°♄	
evening set	3222 Aug 03 04:40	24°♄19'50		desc. node	3223 Jul 02 03:12	3°♄45'56	
min. Earth dist.	3222 Aug 07 23:17	21°♄38'19	0.57860 AU	retrograde	3223 Jul 09 17:59	5°♄57'07	
inferior conj	3222 Aug 11 01:50	19°♄29'46	-5°05'47	evening set	3223 Jul 14 01:06	5°♄16'29	
minimum elong	3222 Aug 11 02:32	19°♄28'32	5°05'46	min. Earth dist.	3223 Jul 20 11:15	2°♄12'56	0.56143 AU
morning rise	3222 Aug 19 02:47	15°♄14'19		inferior conj	3223 Jul 22 18:23	0°♄49'25	-4°48'58
direct	3222 Aug 21 15:36	14°♄54'49		minimum elong	3223 Jul 22 13:17	0°♄57'11	4°48'18
morning max el	3222 Aug 30 07:18	19°♄00'11	18°55'53		3223 Jul 24 03:13	30°♄♂	
asc. node	3222 Sep 03 17:12	24°♄08'54		morning rise	3223 Jul 31 04:02	26°♄52'29	
	3222 Sep 07 13:00	0°♄		direct	3223 Aug 02 22:23	26°♄33'03	

	3223 Aug 11 14:18	0°♎		morning max el	3224 Jul 25 05:55	12°♊43'32	21°22'40
morning max el	3223 Aug 13 00:24	1°♎13'49	19°59'04		3224 Aug 06 19:43	0°♎	
asc. node	3223 Aug 21 14:16	12°♎20'07		asc. node	3224 Aug 07 11:20	1°♎10'13	
morning set	3223 Aug 31 01:53	0°♎05'13		morning set	3224 Aug 14 10:22	14°♎50'50	
	3223 Aug 31 00:51	0°♎					
superior conj	3223 Sep 07 20:15	15°♎52'14	1°44'27	superior conj	3224 Aug 21 18:21	0°♎12'27	1°43'21
minimum elong	3223 Sep 07 20:49	15°♎55'05	1°44'27	minimum elong	3224 Aug 21 17:28	0°♎07'52	1°43'19
max. Earth dist.	3223 Sep 13 10:56	26°♎48'24	1.36963 AU	max. Earth dist.	3224 Aug 21 15:57	0°♎	
	3223 Sep 15 03:49	0°♎		evening rise	3224 Aug 25 21:53	8°♎40'17	1.35192 AU
evening rise	3223 Sep 17 06:31	3°♎52'19			3224 Aug 30 04:28	17°♎00'34	
desc. node	3223 Sep 28 02:34	22°♎15'23		desc. node	3224 Sep 06 08:35	0°♎	
	3223 Oct 03 03:12	0°♎			3224 Sep 13 23:35	12°♎28'11	
evening max el	3223 Oct 23 00:58	25°♎20'25	25°40'51	evening max el	3224 Sep 26 11:44	0°♎	
	3223 Oct 28 16:12	0°♎		retrograde	3224 Oct 04 13:18	8°♎59'10	26°39'29
retrograde	3223 Nov 04 07:37	2°♎21'55		evening set	3224 Oct 17 12:42	16°♎13'50	
evening set	3223 Nov 10 08:19	29°♎51'23		min. Earth dist.	3224 Oct 24 02:29	13°♎33'38	
	3223 Nov 10 04:12	30°♎		inferior conj	3224 Oct 28 03:47	9°♎24'52	0.66018 AU
min. Earth dist.	3223 Nov 14 16:41	25°♎06'35	0.67000 AU	minimum elong	3224 Oct 29 21:46	7°♎20'06	-1°32'11
inferior conj	3223 Nov 15 23:00	23°♎30'05	-0°33'03	asc. node	3224 Oct 30 00:17	7°♎12'37	1°31'08
minimum elong	3223 Nov 15 23:52	23°♎27'20	0°32'40	morning rise	3224 Nov 03 10:31	2°♎37'11	
asc. node	3223 Nov 17 13:28	21°♎30'11		direct	3224 Nov 04 22:46	1°♎37'00	
morning rise	3223 Nov 21 15:44	17°♎35'56		morning max el	3224 Nov 07 20:27	0°♎49'56	
direct	3223 Nov 24 22:47	16°♎33'30			3224 Nov 14 11:04	4°♎26'14	18°26'54
morning max el	3223 Dec 01 22:56	20°♎28'08	19°10'36	morning set	3224 Dec 02 01:25	0°♎	
	3223 Dec 09 13:16	0°♎		desc. node	3224 Dec 04 07:07	3°♎35'35	
morning set	3223 Dec 25 03:15	23°♎41'57			3224 Dec 10 22:51	14°♎13'36	
desc. node	3223 Dec 25 01:48	23°♎36'18		superior conj	3224 Dec 19 22:42	28°♎25'11	-0°58'30
	3223 Dec 29 04:21	0°♎		minimum elong	3224 Dec 19 15:26	27°♎56'41	0°57'35
max. Earth dist.	3224 Jan 08 03:33	15°♎36'26	1.44859 AU		3224 Dec 20 22:52	0°♎	
superior conj	3224 Jan 10 20:35	19°♎53'24	-1°38'54	max. Earth dist.	3224 Dec 20 22:09	29°♎57'13	1.45222 AU
minimum elong	3224 Jan 10 11:46	19°♎18'27	1°38'07	evening rise	3225 Jan 04 23:59	23°♎38'32	
	3224 Jan 17 04:27	0°♎			3225 Jan 09 00:37	0°♎	
evening rise	3224 Jan 25 12:36	13°♎35'30		greatest brilliancy	3225 Jan 14 21:32	9°♎13'15	-0.8m
	3224 Feb 04 13:13	0°♎		evening max el	3225 Jan 27 16:58	26°♎55'13	19°07'10
asc. node	3224 Feb 13 12:47	12°♎37'32		asc. node	3225 Jan 30 09:48	29°♎17'08	
evening max el	3224 Feb 14 07:28	13°♎26'53	18°29'47		3225 Jan 31 13:10	0°♎	
retrograde	3224 Feb 20 20:14	17°♎01'50		retrograde	3225 Feb 03 15:44	0°♎52'18	
evening set	3224 Feb 23 22:24	16°♎08'40			3225 Feb 06 15:39	30°♎	
inferior conj	3224 Feb 29 18:08	10°♎36'45	3°37'51	evening set	3225 Feb 07 00:25	29°♎46'32	
minimum elong	3224 Feb 29 17:23	10°♎38'58	3°37'49	inferior conj	3225 Feb 12 14:09	23°♎58'15	3°24'01
min. Earth dist.	3224 Mar 02 21:06	8°♎06'55	0.64543 AU	minimum elong	3225 Feb 12 12:16	24°♎04'15	3°23'45
morning rise	3224 Mar 06 11:48	4°♎27'15		min. Earth dist.	3225 Feb 14 01:49	22°♎04'48	0.65995 AU
direct	3224 Mar 13 06:53	1°♎37'35		morning rise	3225 Feb 17 23:48	17°♎45'26	
desc. node	3224 Mar 22 00:57	5°♎15'44		direct	3225 Feb 24 09:55	14°♎55'59	
morning max el	3224 Mar 26 19:47	9°♎30'07	27°21'46	desc. node	3225 Mar 08 22:00	22°♎12'24	
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	3224 Apr 29 11:26	0°♎			3225 Mar 15 19:48	0°♎	
morning set	3224 May 01 03:16	3°♎12'43		morning set	3225 Apr 05 03:26	0°♎	
max. Earth dist.	3224 May 05 21:35	12°♎47'25	1.33535 AU	max. Earth dist.	3225 Apr 14 07:31	16°♎19'30	
					3225 Apr 18 09:44	24°♎11'28	1.34895 AU
superior conj	3224 May 09 05:59	19°♎48'08	-0°23'25		3225 Apr 21 07:37	0°♎	
minimum elong	3224 May 09 07:11	19°♎54'27	0°23'10	superior conj	3225 Apr 23 04:06	3°♎46'38	-0°52'06
asc. node	3224 May 11 12:06	24°♎36'12		minimum elong	3225 Apr 23 06:50	4°♎00'38	0°51'35
	3224 May 14 00:39	0°♎		asc. node	3225 Apr 28 09:08	14°♎36'01	
evening rise	3224 May 16 11:39	5°♎12'53		evening rise	3225 Apr 30 20:16	19°♎43'27	
	3224 May 29 22:59	0°♎			3225 May 05 23:31	0°♎	
evening max el	3224 Jun 06 16:12	9°♎30'35	22°12'41	evening max el	3225 May 19 16:37	20°♎21'17	20°45'54
desc. node	3224 Jun 18 00:12	15°♎47'55		retrograde	3225 May 31 02:12	25°♎55'06	
retrograde	3224 Jun 19 13:10	15°♎53'23		evening set	3225 Jun 02 04:25	25°♎44'34	
evening set	3224 Jun 22 10:25	15°♎34'54		desc. node	3225 Jun 04 21:13	25°♎02'19	
min. Earth dist.	3224 Jun 30 22:06	11°♎55'54	0.55071 AU	inferior conj	3225 Jun 11 11:30	21°♎47'05	-1°55'28
inferior conj	3224 Jul 01 18:00	11°♎27'54	-3°43'04	minimum elong	3225 Jun 11 06:05	21°♎54'48	1°53'33
minimum elong	3224 Jul 01 09:42	11°♎39'35	3°40'51	min. Earth dist.	3225 Jun 12 10:13	21°♎14'37	0.54908 AU
morning rise	3224 Jul 10 10:51	7°♎36'50		morning rise	3225 Jun 20 07:17	17°♎41'43	
direct	3224 Jul 13 12:37	7°♎15'42		direct	3225 Jun 23 21:56	17°♎13'37	





























































































































morning max el	3225 Jul 07 01:28	23° Π 32'53	23°01'09	transit begin	3226 May 22 09:49	2° Π 24'01	
	3225 Jul 12 20:21	0° \mathfrak{C}		transit end	3226 May 22 17:28	2° Π 11'54	
asc. node	3225 Jul 25 08:22	20° \mathfrak{C} 28'59		desc. node	3226 May 22 18:14	2° Π 10'42	
morning set	3225 Jul 29 21:19	29° \mathfrak{C} 43'29		min. Earth dist.	3226 May 25 00:13	0° Π 45'43	0.55711 AU
	3225 Jul 30 00:28	0° Ω			3226 May 26 06:39	30° \mathfrak{R} 8	
				morning rise	3226 May 31 03:59	27° \mathfrak{R} 42'21	
superior conj	3225 Aug 05 23:11	14° Ω 52'11	1°35'48	direct	3226 Jun 04 15:43	26° \mathfrak{R} 57'11	
minimum elong	3225 Aug 05 21:20	14° Ω 42'15	1°35'38		3226 Jun 13 17:08	0° Π	
max. Earth dist.	3225 Aug 08 17:35	20° Ω 43'44	1.33802 AU	morning max el	3226 Jun 18 15:50	3° Π 59'14	24°43'30
	3225 Aug 13 06:25	0° \mathfrak{M}			3226 Jul 07 00:48	0° \mathfrak{C}	
evening rise	3225 Aug 13 16:11	0° \mathfrak{M} 48'22		asc. node	3226 Jul 12 05:25	10° \mathfrak{C} 08'56	
	3225 Aug 30 08:15	0° \mathfrak{C}		morning set	3226 Jul 14 09:06	14° \mathfrak{C} 38'18	
desc. node	3225 Aug 31 20:35	2° \mathfrak{C} 16'54					
evening max el	3225 Sep 17 01:23	22° \mathfrak{C} 25'31	27°16'41	superior conj	3226 Jul 21 08:18	29° \mathfrak{C} 43'39	1°22'54
retrograde	3225 Sep 30 12:09	29° \mathfrak{C} 44'08		minimum elong	3226 Jul 21 05:58	29° \mathfrak{C} 31'01	1°22'35
evening set	3225 Oct 07 12:02	27° \mathfrak{C} 02'01			3226 Jul 21 11:18	0° Ω	
min. Earth dist.	3225 Oct 11 07:06	23° \mathfrak{C} 28'30	0.64684 AU	max. Earth dist.	3226 Jul 22 21:51	3° Ω 07'38	1.32832 AU
inferior conj	3225 Oct 13 13:20	21° \mathfrak{C} 00'56	-2°32'29	evening rise	3226 Jul 28 13:53	15° Ω 05'09	
minimum elong	3225 Oct 13 17:32	20° \mathfrak{C} 49'29	2°30'54		3226 Aug 05 07:27	0° \mathfrak{M}	
morning rise	3225 Oct 20 00:06	15° \mathfrak{C} 31'48		desc. node	3226 Aug 18 17:35	21° \mathfrak{M} 31'34	
asc. node	3225 Oct 21 07:33	15° \mathfrak{C} 05'07			3226 Aug 25 08:02	0° \mathfrak{C}	
direct	3225 Oct 22 14:49	14° \mathfrak{C} 56'11		evening max el	3226 Aug 30 11:40	5° \mathfrak{C} 27'39	27°25'47
morning max el	3225 Oct 29 02:45	18° \mathfrak{C} 23'26	17°59'59	retrograde	3226 Sep 13 05:06	12° \mathfrak{C} 43'57	
	3225 Nov 06 15:57	0° \mathfrak{M}		evening set	3226 Sep 20 09:48	10° \mathfrak{C} 10'42	
morning set	3225 Nov 15 16:07	14° \mathfrak{M} 55'04		min. Earth dist.	3226 Sep 24 00:47	7° \mathfrak{C} 08'12	0.63018 AU
	3225 Nov 24 18:31	0° \mathfrak{X}		inferior conj	3226 Sep 26 19:01	4° \mathfrak{C} 26'25	-3°30'47
desc. node	3225 Nov 27 19:53	4° \mathfrak{X} 57'22		minimum elong	3226 Sep 27 00:28	4° \mathfrak{C} 13'02	3°29'07
					3226 Oct 02 02:56	30° \mathfrak{R} 11	
superior conj	3225 Nov 29 08:53	7° \mathfrak{X} 26'03	-0°10'31	morning rise	3226 Oct 03 16:36	29° \mathfrak{M} 14'33	
minimum elong	3225 Nov 29 07:37	7° \mathfrak{X} 20'55	0°10'21	direct	3226 Oct 06 03:04	28° \mathfrak{M} 46'48	
behind sun begin	3225 Nov 28 23:28	6° \mathfrak{X} 48'14		asc. node	3226 Oct 08 04:36	29° \mathfrak{M} 07'12	
behind sun end	3225 Nov 29 15:46	7° \mathfrak{X} 53'34			3226 Oct 10 01:12	0° \mathfrak{C}	
max. Earth dist.	3225 Dec 03 16:55	14° \mathfrak{X} 19'44	1.44843 AU	morning max el	3226 Oct 12 19:03	2° \mathfrak{C} 12'59	17°50'41
	3225 Dec 13 17:52	0° \mathfrak{Z}		morning set	3226 Oct 29 01:17	27° \mathfrak{C} 24'12	
evening rise	3225 Dec 15 15:57	2° \mathfrak{Z} 57'50			3226 Oct 30 12:41	0° \mathfrak{M}	
greatest brilliancy	3225 Dec 29 21:34	24° \mathfrak{Z} 34'50	-0.6m				
	3226 Jan 02 15:26	0° \mathfrak{A}		superior conj	3226 Nov 09 18:36	17° \mathfrak{M} 36'54	0°33'35
evening max el	3226 Jan 10 22:01	10° \mathfrak{A} 26'07	20°00'31	minimum elong	3226 Nov 09 21:48	17° \mathfrak{M} 50'16	0°33'08
asc. node	3226 Jan 17 06:48	14° \mathfrak{A} 44'58		desc. node	3226 Nov 14 16:54	25° \mathfrak{M} 44'13	
retrograde	3226 Jan 18 13:30	14° \mathfrak{A} 53'55		max. Earth dist.	3226 Nov 16 09:23	28° \mathfrak{M} 27'55	1.43777 AU
evening set	3226 Jan 22 06:07	13° \mathfrak{A} 34'23			3226 Nov 17 08:20	0° \mathfrak{X}	
inferior conj	3226 Jan 27 16:17	7° \mathfrak{A} 32'14	2°58'37	evening rise	3226 Nov 25 01:00	12° \mathfrak{X} 06'02	
minimum elong	3226 Jan 27 13:49	7° \mathfrak{A} 40'28	2°58'03		3226 Dec 06 21:22	0° \mathfrak{Z}	
min. Earth dist.	3226 Jan 28 13:52	6° \mathfrak{A} 19'51	0.67035 AU	evening max el	3226 Dec 24 21:39	23° \mathfrak{Z} 58'04	21°07'04
morning rise	3226 Feb 01 21:18	1° \mathfrak{A} 18'33		retrograde	3227 Jan 02 11:14	29° \mathfrak{Z} 02'40	
	3226 Feb 03 13:40	30° \mathfrak{R} 3		asc. node	3227 Jan 04 03:49	28° \mathfrak{Z} 46'56	
direct	3226 Feb 07 18:44	28° \mathfrak{Z} 40'35		evening set	3227 Jan 06 13:34	27° \mathfrak{Z} 27'57	
	3226 Feb 12 10:18	0° \mathfrak{A}		inferior conj	3227 Jan 11 22:06	21° \mathfrak{Z} 14'50	2°23'59
morning max el	3226 Feb 19 14:34	5° \mathfrak{A} 44'29	25°07'05	minimum elong	3227 Jan 11 19:36	21° \mathfrak{Z} 23'27	2°23'13
desc. node	3226 Feb 23 19:04	10° \mathfrak{A} 19'58		min. Earth dist.	3227 Jan 12 07:03	20° \mathfrak{Z} 43'58	0.67674 AU
	3226 Mar 10 08:44	0° \mathfrak{H}		morning rise	3227 Jan 17 01:27	15° \mathfrak{Z} 02'02	
morning set	3226 Mar 27 19:00	28° \mathfrak{H} 33'28		direct	3227 Jan 22 08:17	12° \mathfrak{Z} 43'07	
	3226 Mar 28 14:14	0° \mathfrak{Y}		morning max el	3227 Feb 01 23:01	19° \mathfrak{Z} 02'20	23°39'31
max. Earth dist.	3226 Mar 31 10:35	5° \mathfrak{Y} 13'18	1.36691 AU	desc. node	3227 Feb 10 16:06	29° \mathfrak{Z} 17'38	
					3227 Feb 11 05:02	0° \mathfrak{A}	
superior conj	3226 Apr 06 16:48	17° \mathfrak{Y} 13'22	-1°19'50		3227 Mar 03 12:22	0° \mathfrak{H}	
minimum elong	3226 Apr 06 20:51	17° \mathfrak{Y} 33'22	1°19'13	morning set	3227 Mar 09 07:33	9° \mathfrak{H} 37'15	
	3226 Apr 13 01:37	0° \mathfrak{R}		max. Earth dist.	3227 Mar 13 05:44	16° \mathfrak{H} 24'52	1.38797 AU
evening rise	3226 Apr 15 00:05	3° \mathfrak{R} 54'41					
asc. node	3226 Apr 15 06:09	4° \mathfrak{R} 25'11		superior conj	3227 Mar 20 16:16	29° \mathfrak{H} 57'46	-1°44'05
	3226 Apr 30 10:46	0° Π		minimum elong	3227 Mar 20 20:49	0° \mathfrak{Y} 19'11	1°43'37
evening max el	3226 May 02 05:14	1° Π 52'11	19°36'19		3227 Mar 20 16:44	0° \mathfrak{Y}	
retrograde	3226 May 11 20:51	6° Π 32'56		evening rise	3227 Mar 29 20:22	17° \mathfrak{Y} 38'31	
evening set	3226 May 13 20:41	6° Π 21'52		asc. node	3227 Apr 02 03:09	23° \mathfrak{Y} 58'09	
inferior conj	3226 May 22 13:29	2° Π 18'13	0°03'28		3227 Apr 05 09:29	0° \mathfrak{R}	
minimum elong	3226 May 22 13:38	2° Π 17'58	0°03'25	evening max el	3227 Apr 15 04:33	14° \mathfrak{R} 01'33	18°46'31
transit middle	3226 May 22 13:38	2° Π 17'58	0°03'25	retrograde	3227 Apr 23 08:03	18° \mathfrak{R} 00'23	

evening set	3227 Apr 25 13:04	17° ♄ 43'56			3228 Apr 06 13:29	30° ♄	
inferior conj	3227 May 03 10:09	13° ♄ 23'06	1°43'00	evening set	3228 Apr 07 01:46	29° ♄ 50'55	
minimum elong	3227 May 03 13:35	13° ♄ 16'46	1°41'56	inferior conj	3228 Apr 14 04:16	25° ♄ 09'26	2°50'12
min. Earth dist.	3227 May 06 16:48	10° ♄ 59'35	0.57300 AU	minimum elong	3228 Apr 14 07:49	25° ♄ 01'48	2°49'24
desc. node	3227 May 09 15:16	9° ♄ 07'20		min. Earth dist.	3228 Apr 17 14:22	22° ♄ 14'07	0.59351 AU
morning rise	3227 May 11 10:55	8° ♄ 12'37		morning rise	3228 Apr 21 11:15	19° ♄ 30'47	
direct	3227 May 16 22:57	6° ♄ 58'47		desc. node	3228 Apr 25 12:18	17° ♄ 55'40	
morning max el	3227 May 31 07:10	14° ♄ 29'11	26°14'43	direct	3228 Apr 27 19:19	17° ♄ 41'22	
	3227 Jun 12 16:19	0° ♄		morning max el	3228 May 12 04:05	25° ♄ 29'05	27°19'52
morning set	3227 Jun 28 20:06	29° ♄ 29'35			3228 May 16 08:35	0° ♄	
asc. node	3227 Jun 29 02:27	0° ♄ 03'09			3228 Jun 05 00:21	0° ♄	
	3227 Jun 29 01:51	0° ♄		morning set	3228 Jun 12 04:39	14° ♄ 11'57	
				asc. node	3228 Jun 14 23:29	20° ♄ 06'34	
superior conj	3227 Jul 05 19:37	14° ♄ 39'35	1°05'28	superior conj	3228 Jun 19 07:22	29° ♄ 34'03	0°44'13
minimum elong	3227 Jul 05 17:19	14° ♄ 26'58	1°05'05	minimum elong	3228 Jun 19 05:34	29° ♄ 24'07	0°43'51
max. Earth dist.	3227 Jul 06 07:51	15° ♄ 46'57	1.32263 AU	max. Earth dist.	3228 Jun 18 19:54	28° ♄ 30'54	1.32085 AU
evening rise	3227 Jul 12 18:28	29° ♄ 40'52			3228 Jun 19 12:05	0° ♄	
	3227 Jul 12 22:08	0° ♄		evening rise	3228 Jun 26 03:30	14° ♄ 27'36	
	3227 Jul 29 11:08	0° ♄			3228 Jul 03 22:39	0° ♄	
desc. node	3227 Aug 05 14:35	9° ♄ 58'11		desc. node	3228 Jul 22 11:36	27° ♄ 16'46	
evening max el	3227 Aug 12 17:26	17° ♄ 52'12	27°02'20	evening max el	3228 Jul 24 16:09	29° ♄ 29'16	26°06'04
retrograde	3227 Aug 26 14:40	25° ♄ 04'34			3228 Jul 25 05:17	0° ♄	
evening set	3227 Sep 02 15:39	22° ♄ 52'41		retrograde	3228 Aug 07 15:37	6° ♄ 38'39	
min. Earth dist.	3227 Sep 06 07:42	20° ♄ 11'38	0.61080 AU	evening set	3228 Aug 14 00:49	4° ♄ 59'50	
inferior conj	3227 Sep 09 11:35	17° ♄ 28'30	-4°21'57	min. Earth dist.	3228 Aug 18 04:45	2° ♄ 24'10	0.59012 AU
minimum elong	3227 Sep 09 17:07	17° ♄ 16'32	4°20'47	inferior conj	3228 Aug 21 11:26	29° ♄ 57'10	-4°57'26
morning rise	3227 Sep 16 20:21	12° ♄ 37'24		minimum elong	3228 Aug 21 14:45	29° ♄ 50'56	4°57'07
direct	3227 Sep 19 05:32	12° ♄ 14'30			3228 Aug 21 09:56	30° ♄	
asc. node	3227 Sep 25 01:39	14° ♄ 37'51		morning rise	3228 Aug 29 06:52	25° ♄ 29'11	
morning max el	3227 Sep 26 08:59	15° ♄ 47'49	18°00'07	direct	3228 Aug 31 17:38	25° ♄ 08'58	
	3227 Oct 06 06:15	0° ♄		morning max el	3228 Sep 08 17:19	28° ♄ 59'01	18°29'33
morning set	3227 Oct 12 04:17	10° ♄ 44'24			3228 Sep 09 17:27	0° ♄	
superior conj	3227 Oct 22 07:09	29° ♄ 06'39	1°07'24	asc. node	3228 Sep 10 22:43	1° ♄ 22'48	
minimum elong	3227 Oct 22 11:28	29° ♄ 25'38	1°06'53	morning set	3228 Sep 24 19:51	24° ♄ 40'18	
	3227 Oct 22 19:18	0° ♄			3228 Sep 27 14:10	0° ♄	
max. Earth dist.	3227 Oct 29 21:35	12° ♄ 06'35	1.42151 AU	superior conj	3228 Oct 03 18:27	11° ♄ 43'12	1°29'44
desc. node	3227 Nov 01 13:55	16° ♄ 31'06		minimum elong	3228 Oct 03 21:45	11° ♄ 58'31	1°29'27
evening rise	3227 Nov 04 19:43	21° ♄ 44'12		max. Earth dist.	3228 Oct 11 04:21	25° ♄ 02'08	1.40173 AU
	3227 Nov 10 02:31	0° ♄			3228 Oct 14 01:59	0° ♄	
	3227 Dec 01 03:35	0° ♄		evening rise	3228 Oct 15 11:21	2° ♄ 19'55	
evening max el	3227 Dec 07 15:59	7° ♄ 31'43	22°22'52	desc. node	3228 Oct 18 10:56	7° ♄ 14'10	
retrograde	3227 Dec 17 07:21	13° ♄ 15'41			3228 Nov 02 10:16	0° ♄	
evening set	3227 Dec 21 21:07	11° ♄ 24'44		evening max el	3228 Nov 19 06:12	21° ♄ 07'32	23°42'48
asc. node	3227 Dec 22 00:51	11° ♄ 16'55		retrograde	3228 Nov 30 00:28	27° ♄ 28'39	
inferior conj	3227 Dec 27 05:38	5° ♄ 03'53	1°41'50	evening set	3228 Dec 05 03:09	25° ♄ 21'12	
minimum elong	3227 Dec 27 03:34	5° ♄ 11'05	1°41'03	asc. node	3228 Dec 07 21:56	22° ♄ 25'18	
min. Earth dist.	3227 Dec 27 03:07	5° ♄ 12'40	0.67933 AU	min. Earth dist.	3228 Dec 09 23:45	19° ♄ 41'57	0.67835 AU
	3227 Dec 31 05:44	30° ♄		inferior conj	3228 Dec 10 13:04	18° ♄ 56'33	0°53'20
morning rise	3228 Jan 01 09:54	28° ♄ 53'41		minimum elong	3228 Dec 10 11:51	19° ♄ 00'43	0°52'50
direct	3228 Jan 06 01:49	26° ♄ 57'23		morning rise	3228 Dec 15 20:32	12° ♄ 50'41	
	3228 Jan 12 18:03	0° ♄		direct	3228 Dec 19 22:20	11° ♄ 17'12	
morning max el	3228 Jan 15 10:29	2° ♄ 27'39	22°11'40	morning max el	3228 Dec 28 04:13	16° ♄ 02'56	20°51'07
desc. node	3228 Jan 28 13:09	18° ♄ 51'29			3229 Jan 08 07:11	0° ♄	
	3228 Feb 05 05:32	0° ♄		desc. node	3229 Jan 14 10:11	8° ♄ 50'57	
morning set	3228 Feb 17 15:56	19° ♄ 19'17		morning set	3229 Jan 26 21:41	27° ♄ 48'42	
max. Earth dist.	3228 Feb 23 03:19	28° ♄ 21'05	1.40958 AU		3229 Jan 28 07:15	0° ♄	
	3228 Feb 24 02:45	0° ♄		max. Earth dist.	3229 Feb 04 07:26	11° ♄ 11'06	1.42877 AU
superior conj	3228 Mar 01 21:52	11° ♄ 48'47	-2°01'15	superior conj	3229 Feb 11 04:25	22° ♄ 34'06	-2°06'29
minimum elong	3228 Mar 02 01:07	12° ♄ 03'16	2°01'05	minimum elong	3229 Feb 11 03:35	22° ♄ 30'37	2°06'28
	3228 Mar 11 19:43	0° ♄			3229 Feb 15 12:41	0° ♄	
evening rise	3228 Mar 12 05:53	0° ♄ 47'25		evening rise	3229 Feb 23 00:32	13° ♄ 11'57	
asc. node	3228 Mar 19 00:11	13° ♄ 09'28			3229 Mar 04 16:55	0° ♄	
evening max el	3228 Mar 28 11:33	26° ♄ 42'26	18°16'51	asc. node	3229 Mar 05 21:13	1° ♄ 51'48	
	3228 Apr 02 16:13	0° ♄		evening max el	3229 Mar 11 22:55	9° ♄ 46'00	18°07'00
retrograde	3228 Apr 04 14:27	0° ♄ 15'42					

retrograde	3229 Mar 18 12:44	13° Υ 09'21		minimum elong	3230 Jan 22 02:14	1° \approx 42'29	1°54'13
evening set	3229 Mar 21 05:52	12° Υ 34'28		evening rise	3230 Feb 04 23:55	24° \approx 43'31	
inferior conj	3229 Mar 27 17:28	7° Υ 32'37	3°26'45		3230 Feb 08 02:33	0° \mathcal{H}	
minimum elong	3229 Mar 27 19:27	7° Υ 27'41	3°26'31	asc. node	3230 Feb 20 18:16	19° \mathcal{H} 55'53	
min. Earth dist.	3229 Mar 30 19:30	4° Υ 30'14	0.61516 AU	evening max el	3230 Feb 23 11:38	23° \mathcal{H} 04'06	18°16'17
morning rise	3229 Apr 03 07:19	1° Υ 36'05		retrograde	3230 Mar 01 22:17	26° \mathcal{H} 31'12	
	3229 Apr 06 05:22	30° $\mathcal{R}\mathcal{H}$		evening set	3230 Mar 04 21:03	25° \mathcal{H} 45'01	
direct	3229 Apr 10 02:52	29° \mathcal{H} 13'44		inferior conj	3230 Mar 10 21:36	20° \mathcal{H} 23'52	3°39'10
desc. node	3229 Apr 12 09:21	29° \mathcal{H} 28'28		minimum elong	3230 Mar 10 21:46	20° \mathcal{H} 23'26	3°39'10
	3229 Apr 14 04:40	0° Υ		min. Earth dist.	3230 Mar 13 09:42	17° \mathcal{H} 37'08	0.63527 AU
morning max el	3229 Apr 24 07:23	7° Υ 10'39	27°49'34	morning rise	3230 Mar 16 21:32	14° \mathcal{H} 17'42	
	3229 May 11 15:22	0° \mathcal{B}		direct	3230 Mar 23 19:14	11° \mathcal{H} 33'35	
morning set	3229 May 27 08:51	28° \mathcal{B} 39'13		desc. node	3230 Mar 30 06:24	13° \mathcal{H} 33'43	
	3229 May 28 00:34	0° Π		morning max el	3230 Apr 06 15:08	19° \mathcal{H} 30'51	27°41'47
asc. node	3229 Jun 01 20:33	10° Π 14'50			3230 Apr 15 13:34	0° Υ	
max. Earth dist.	3229 Jun 02 06:02	11° Π 06'17	1.32305 AU		3230 May 04 14:19	0° \mathcal{B}	
				morning set	3230 May 11 06:16	12° \mathcal{B} 42'46	
superior conj	3229 Jun 03 17:53	14° Π 21'36	0°19'47	max. Earth dist.	3230 May 16 10:12	23° \mathcal{B} 19'26	1.32954 AU
minimum elong	3229 Jun 03 16:59	14° Π 16'40	0°19'35				
evening rise	3229 Jun 10 14:53	29° Π 18'33		superior conj	3230 May 19 01:15	28° \mathcal{B} 55'16	-0°07'09
	3229 Jun 10 22:42	0° \mathcal{E}		minimum elong	3230 May 19 01:36	28° \mathcal{B} 57'09	0°07'05
	3229 Jun 27 15:37	0° Ω		behind sun begin	3230 May 18 20:49	28° \mathcal{B} 31'25	
evening max el	3229 Jul 06 07:57	10° Ω 21'56	24°43'32	behind sun end	3230 May 19 06:24	29° \mathcal{B} 22'54	
desc. node	3229 Jul 09 08:37	13° Ω 00'10		asc. node	3230 May 19 17:34	0° Π 23'00	
retrograde	3229 Jul 20 06:17	17° Ω 25'00			3230 May 19 13:18	0° Π	
evening set	3229 Jul 25 10:04	16° Ω 24'51		evening rise	3230 May 26 02:40	14° Π 06'30	
min. Earth dist.	3229 Jul 30 19:13	13° Ω 35'39	0.57068 AU		3230 Jun 03 02:46	0° \mathcal{E}	
inferior conj	3229 Aug 02 15:43	11° Ω 44'10	-5°04'11	evening max el	3230 Jun 17 21:22	20° \mathcal{E} 49'36	23°07'44
minimum elong	3229 Aug 02 14:01	11° Ω 46'57	5°04'06	desc. node	3230 Jun 26 05:39	26° \mathcal{E} 32'57	
morning rise	3229 Aug 10 20:35	7° Ω 37'51		retrograde	3230 Jul 01 08:15	27° \mathcal{E} 32'22	
direct	3229 Aug 13 11:22	7° Ω 18'43		evening set	3230 Jul 04 23:35	27° \mathcal{E} 03'24	
morning max el	3229 Aug 22 16:54	11° Ω 37'33	19°20'09	min. Earth dist.	3230 Jul 12 06:43	23° \mathcal{E} 46'11	0.55589 AU
asc. node	3229 Aug 28 19:48	19° Ω 07'05		inferior conj	3230 Jul 14 00:20	22° \mathcal{E} 45'33	-4°27'12
	3229 Sep 04 04:54	0° \mathcal{M}		minimum elong	3230 Jul 13 17:13	22° \mathcal{E} 55'56	4°25'51
morning set	3229 Sep 08 20:11	9° \mathcal{M} 01'54		morning rise	3230 Jul 22 13:15	18° \mathcal{E} 52'48	
				direct	3230 Jul 25 10:15	18° \mathcal{E} 33'01	
superior conj	3229 Sep 16 22:57	25° \mathcal{M} 11'02	1°41'39	morning max el	3230 Aug 05 05:08	23° \mathcal{E} 33'19	20°32'13
minimum elong	3229 Sep 17 00:31	25° \mathcal{M} 18'40	1°41'35		3230 Aug 10 19:06	0° Ω	
	3229 Sep 19 10:52	0° \mathcal{A}		asc. node	3230 Aug 15 16:50	7° Ω 36'18	
max. Earth dist.	3229 Sep 23 08:15	7° \mathcal{A} 16'21	1.38101 AU	morning set	3230 Aug 24 02:19	23° Ω 40'23	
evening rise	3229 Sep 27 02:41	14° \mathcal{A} 01'48			3230 Aug 27 03:52	0° \mathcal{M}	
desc. node	3229 Oct 05 07:58	27° \mathcal{A} 49'43					
	3229 Oct 06 16:41	0° \mathcal{M}		superior conj	3230 Aug 31 15:43	9° \mathcal{M} 15'09	1°44'51
	3229 Oct 28 07:24	0° \mathcal{J}		minimum elong	3230 Aug 31 15:37	9° \mathcal{M} 14'39	1°44'50
evening max el	3229 Nov 01 18:35	4° \mathcal{J} 47'19	25°00'16	max. Earth dist.	3230 Sep 05 15:09	19° \mathcal{M} 09'15	1.36174 AU
retrograde	3229 Nov 13 13:32	11° \mathcal{J} 37'37		evening rise	3230 Sep 09 14:46	26° \mathcal{M} 42'00	
evening set	3229 Nov 19 06:03	9° \mathcal{J} 14'51			3230 Sep 11 10:06	0° \mathcal{A}	
min. Earth dist.	3229 Nov 23 18:39	4° \mathcal{J} 09'34	0.67399 AU	desc. node	3230 Sep 22 04:59	18° \mathcal{A} 12'29	
inferior conj	3229 Nov 24 18:38	2° \mathcal{J} 50'47	-0°00'19		3230 Sep 30 02:36	0° \mathcal{M}	
minimum elong	3229 Nov 24 18:38	2° \mathcal{J} 50'46	0°00'18	evening max el	3230 Oct 15 06:57	18° \mathcal{M} 28'55	26°08'01
transit middle	3229 Nov 24 18:38	2° \mathcal{J} 50'46	0°00'18	retrograde	3230 Oct 27 21:39	25° \mathcal{M} 37'19	
transit begin	3229 Nov 24 15:52	2° \mathcal{J} 59'52		evening set	3230 Nov 03 03:58	23° \mathcal{M} 02'16	
transit end	3229 Nov 24 21:24	2° \mathcal{J} 41'40		min. Earth dist.	3230 Nov 07 09:21	18° \mathcal{M} 32'25	0.66623 AU
asc. node	3229 Nov 24 19:00	2° \mathcal{J} 49'34		inferior conj	3230 Nov 08 20:27	16° \mathcal{M} 43'34	-0°57'52
	3229 Nov 27 00:33	30° $\mathcal{R}\mathcal{M}$		minimum elong	3230 Nov 08 22:00	16° \mathcal{M} 38'47	0°57'12
morning rise	3229 Nov 30 07:24	26° \mathcal{M} 51'27		asc. node	3230 Nov 11 16:03	13° \mathcal{M} 25'28	
direct	3229 Dec 03 20:41	25° \mathcal{M} 38'40		morning rise	3230 Nov 14 16:28	10° \mathcal{M} 53'28	
morning max el	3229 Dec 11 05:45	29° \mathcal{M} 49'07	19°42'55	direct	3230 Nov 17 19:14	9° \mathcal{M} 58'00	
	3229 Dec 11 10:03	0° \mathcal{J}		morning max el	3230 Nov 24 14:30	13° \mathcal{M} 43'50	18°49'54
greatest brilliancy	3229 Dec 24 10:15	17° \mathcal{J} 14'55	-0.7m		3230 Dec 06 14:32	0° \mathcal{J}	
desc. node	3230 Jan 01 07:13	29° \mathcal{J} 09'01		morning set	3230 Dec 16 05:34	15° \mathcal{J} 02'43	
	3230 Jan 01 20:32	0° \mathcal{Z}		desc. node	3230 Dec 19 04:15	19° \mathcal{J} 40'32	
morning set	3230 Jan 05 17:46	5° \mathcal{Z} 58'38			3230 Dec 25 18:09	0° \mathcal{Z}	
max. Earth dist.	3230 Jan 17 18:38	24° \mathcal{Z} 48'15	1.44315 AU	max. Earth dist.	3230 Dec 31 11:34	8° \mathcal{Z} 59'07	1.45102 AU
	3230 Jan 21 00:45	0° \approx					
superior conj	3230 Jan 22 08:52	2° \approx 09'13	-1°54'38	superior conj	3231 Jan 01 16:05	10° \mathcal{Z} 51'10	-1°23'28
				minimum elong	3231 Jan 01 07:02	10° \mathcal{Z} 15'37	1°22'29

































































































































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evening rise	3231 Jan 17 00:34	5°♊17'55		minimum elong	3231 Dec 11 14:03	19°♊08'22	0°37'38
	3231 Feb 01 17:16	0°♋		max. Earth dist.	3231 Dec 14 07:06	23°♊24'33	1.45153 AU
evening max el	3231 Feb 06 23:02	6°♋30'31	18°43'44		3231 Dec 18 12:00	0°♌	
asc. node	3231 Feb 07 15:19	7°♋10'28		evening rise	3231 Dec 28 02:42	14°♌59'42	
retrograde	3231 Feb 13 15:03	10°♋13'18			3232 Jan 06 18:48	0°♍	
evening set	3231 Feb 16 19:55	9°♋14'51		greatest brilliancy	3232 Jan 09 02:01	3°♍30'48	-0.7m
inferior conj	3231 Feb 22 12:47	3°♋35'58	3°33'34	evening max el	3232 Jan 21 06:50	20°♍00'05	19°28'06
minimum elong	3231 Feb 22 11:29	3°♋39'55	3°33'28	asc. node	3232 Jan 25 12:21	23°♍21'20	
min. Earth dist.	3231 Feb 24 09:12	1°♋20'38	0.65210 AU	retrograde	3232 Jan 28 11:46	24°♍09'00	
	3231 Feb 25 12:54	30°♋		evening set	3232 Jan 31 23:44	22°♍57'19	
morning rise	3231 Feb 28 02:36	27°♋24'57		inferior conj	3232 Feb 06 11:40	17°♍02'44	3°14'29
direct	3231 Mar 06 18:39	24°♋33'39		minimum elong	3232 Feb 06 09:28	17°♍09'53	3°14'05
desc. node	3231 Mar 17 03:25	29°♋37'31		min. Earth dist.	3232 Feb 07 17:05	15°♍26'47	0.66489 AU
	3231 Mar 17 13:40	0°♌		morning rise	3232 Feb 11 18:58	10°♍49'33	
morning max el	3231 Mar 20 00:49	2°♌20'23	27°00'34	direct	3232 Feb 18 00:02	8°♍04'04	
	3231 Apr 09 18:53	0°♍		morning max el	3232 Mar 01 10:16	15°♍27'19	25°53'34
morning set	3231 Apr 24 17:52	26°♍13'27		desc. node	3232 Mar 03 00:27	17°♍06'58	
	3231 Apr 26 16:25	0°♎			3232 Mar 13 09:40	0°♏	
max. Earth dist.	3231 Apr 29 04:52	5°♎01'46	1.34057 AU		3232 Apr 01 15:15	0°♐	
				morning set	3232 Apr 06 15:34	8°♐58'55	
superior conj	3231 May 03 03:27	13°♎08'54	-0°35'33	max. Earth dist.	3232 Apr 10 12:07	16°♐14'23	1.35613 AU
minimum elong	3231 May 03 05:17	13°♎18'32	0°35'11				
asc. node	3231 May 06 14:36	20°♎27'21		superior conj	3232 Apr 15 21:54	26°♐54'31	-1°04'06
evening rise	3231 May 10 13:01	28°♎45'28		minimum elong	3232 Apr 16 01:14	27°♐11'24	1°03'31
	3231 May 11 03:20	0°♏			3232 Apr 17 10:26	0°♑	
	3231 May 29 07:09	0°♐		asc. node	3232 Apr 22 11:38	10°♑23'12	
evening max el	3231 May 30 15:58	1°♐24'05	21°34'03	evening rise	3232 Apr 23 19:51	13°♑08'32	
retrograde	3231 Jun 11 23:05	7°♐26'52			3232 May 02 15:48	0°♒	
desc. node	3231 Jun 13 02:38	7°♐23'49		evening max el	3232 May 11 21:22	12°♒30'22	20°13'55
evening set	3231 Jun 14 10:09	7°♐13'07		retrograde	3232 May 22 12:54	17°♒41'16	
inferior conj	3231 Jun 23 19:37	3°♐12'23	-3°01'07	evening set	3232 May 24 12:45	17°♒31'08	
minimum elong	3231 Jun 23 11:51	3°♐23'14	2°58'42	desc. node	3232 May 29 23:38	15°♒34'55	
min. Earth dist.	3231 Jun 23 17:51	3°♐14'51	0.54892 AU	inferior conj	3232 Jun 02 14:56	13°♒32'27	-1°04'19
	3231 Jun 30 07:01	30°♑		minimum elong	3232 Jun 02 11:55	13°♒36'55	1°03'11
morning rise	3231 Jul 02 14:29	29°♑17'42		min. Earth dist.	3232 Jun 04 06:18	12°♒34'22	0.55139 AU
direct	3231 Jul 05 21:08	28°♑54'17		morning rise	3232 Jun 11 09:41	9°♒15'58	
	3231 Jul 11 05:22	0°♒		direct	3232 Jun 15 08:25	8°♒42'13	
morning max el	3231 Jul 18 05:48	4°♒43'58	22°03'06	morning max el	3232 Jun 28 22:21	15°♒20'25	23°45'06
asc. node	3231 Aug 02 13:52	26°♒39'37			3232 Jul 10 11:39	0°♓	
	3231 Aug 04 07:37	0°♓		asc. node	3232 Jul 19 10:54	16°♓08'34	
morning set	3231 Aug 08 12:04	8°♓29'40		morning set	3232 Jul 22 23:36	23°♓24'33	
					3232 Jul 26 01:35	0°♔	
superior conj	3231 Aug 15 16:59	23°♓44'26	1°40'51				
minimum elong	3231 Aug 15 15:38	23°♓37'18	1°40'46	superior conj	3232 Jul 29 23:55	8°♔30'29	1°30'55
	3231 Aug 18 17:10	0°♕		minimum elong	3232 Jul 29 21:48	8°♔19'05	1°30'42
max. Earth dist.	3231 Aug 19 05:56	1°♕05'26	1.34562 AU	max. Earth dist.	3232 Aug 01 05:46	13°♕19'03	1.33341 AU
evening rise	3231 Aug 23 19:05	10°♕08'33		evening rise	3232 Aug 06 11:28	24°♕10'13	
	3231 Sep 03 21:02	0°♖			3232 Aug 09 10:35	0°♗	
desc. node	3231 Sep 09 02:00	8°♖16'05		desc. node	3232 Aug 25 22:59	27°♗52'21	
	3231 Sep 25 17:51	0°♘			3232 Aug 27 10:42	0°♙	
evening max el	3231 Sep 27 19:30	2°♘04'25	26°58'22	evening max el	3232 Sep 09 07:07	15°♙22'36	27°24'13
retrograde	3231 Oct 11 00:10	9°♘20'48		retrograde	3232 Sep 22 20:47	22°♙40'16	
evening set	3231 Oct 17 18:46	6°♘38'57		evening set	3232 Sep 29 23:46	20°♙00'17	
min. Earth dist.	3231 Oct 21 17:24	2°♘45'19	0.65497 AU	min. Earth dist.	3232 Oct 03 16:39	16°♙41'04	0.64019 AU
inferior conj	3231 Oct 23 16:27	0°♙30'23	-1°57'47	inferior conj	3232 Oct 06 04:11	14°♙06'09	-2°57'40
minimum elong	3231 Oct 23 19:41	0°♙21'04	1°56'29	minimum elong	3232 Oct 06 09:01	13°♙53'34	2°56'00
	3231 Oct 24 03:03	30°♚		morning rise	3232 Oct 12 19:29	8°♙44'09	
morning rise	3231 Oct 29 21:25	24°♙52'40		direct	3232 Oct 15 08:09	8°♙12'13	
asc. node	3231 Oct 29 13:05	25°♙03'40		asc. node	3232 Oct 15 10:06	8°♙12'15	
direct	3231 Nov 01 15:56	24°♙10'47		morning max el	3232 Oct 21 20:48	11°♙37'39	17°53'52
morning max el	3231 Nov 08 04:24	27°♙41'55	18°13'18		3232 Nov 03 09:47	0°♛	
	3231 Nov 10 06:14	0°♛		morning set	3232 Nov 07 18:18	7°♛26'44	
morning set	3231 Nov 26 22:08	25°♛34'22					
	3231 Nov 29 15:19	0°♜		superior conj	3232 Nov 20 14:06	28°♛56'11	0°09'13
desc. node	3231 Dec 06 01:17	10°♜20'56		minimum elong	3232 Nov 20 15:08	29°♛00'22	0°09'03
				behind sun begin	3232 Nov 20 06:46	28°♛26'19	

behind sun end	3232 Nov 20 23:29	29° \mathbb{M} 34'20		superior conj	3233 Nov 01 11:30	9° \mathbb{M} 41'52	0°49'19
	3232 Nov 21 05:48	0° \mathbb{A}		minimum elong	3233 Nov 01 15:32	9° \mathbb{M} 59'05	0°48'47
desc. node	3232 Nov 21 22:20	1° \mathbb{A} 06'56		max. Earth dist.	3233 Nov 08 16:07	21° \mathbb{M} 41'16	1.43142 AU
max. Earth dist.	3232 Nov 26 01:40	7° \mathbb{A} 45'11	1.44470 AU	desc. node	3233 Nov 08 19:21	21° \mathbb{M} 54'26	
evening rise	3232 Dec 06 13:55	24° \mathbb{A} 10'18			3233 Nov 13 20:33	0° \mathbb{A}	
	3232 Dec 10 09:16	0° \mathbb{B}		evening rise	3233 Nov 16 01:07	3° \mathbb{A} 26'17	
	3232 Dec 31 06:43	0° \mathbb{A}			3233 Dec 03 20:20	0° \mathbb{B}	
evening max el	3233 Jan 03 09:34	3° \mathbb{A} 31'17	20°27'19	evening max el	3233 Dec 17 06:45	17° \mathbb{B} 03'33	21°38'26
retrograde	3233 Jan 11 09:52	8° \mathbb{A} 14'23		retrograde	3233 Dec 26 07:15	22° \mathbb{B} 25'30	
asc. node	3233 Jan 11 09:21	8° \mathbb{A} 14'23		asc. node	3233 Dec 29 06:23	21° \mathbb{B} 37'36	
evening set	3233 Jan 15 06:25	6° \mathbb{A} 48'25		evening set	3233 Dec 30 14:08	20° \mathbb{B} 44'05	
inferior conj	3233 Jan 20 15:38	0° \mathbb{A} 40'55	2°44'57	inferior conj	3234 Jan 04 22:28	14° \mathbb{B} 27'02	2°06'58
minimum elong	3233 Jan 20 13:06	0° \mathbb{A} 49'33	2°44'15	minimum elong	3234 Jan 04 20:06	14° \mathbb{B} 35'15	2°06'09
	3233 Jan 21 03:39	30° \mathbb{R} \mathbb{B}		min. Earth dist.	3234 Jan 05 02:26	14° \mathbb{B} 13'18	0.67826 AU
min. Earth dist.	3233 Jan 21 07:36	29° \mathbb{B} 46'36	0.67356 AU	morning rise	3234 Jan 10 01:53	8° \mathbb{B} 14'52	
morning rise	3233 Jan 25 19:37	24° \mathbb{B} 27'21		direct	3234 Jan 15 02:16	6° \mathbb{B} 05'22	
direct	3233 Jan 31 10:49	21° \mathbb{B} 57'08		morning max el	3234 Jan 25 04:18	12° \mathbb{B} 04'31	23°01'35
morning max el	3233 Feb 11 18:55	28° \mathbb{B} 43'18	24°30'27	desc. node	3234 Feb 04 18:36	24° \mathbb{B} 52'52	
	3233 Feb 13 00:28	0° \mathbb{A}			3234 Feb 08 11:33	0° \mathbb{A}	
desc. node	3233 Feb 17 21:31	5° \mathbb{A} 38'00			3234 Feb 28 00:59	0° \mathbb{H}	
	3233 Mar 07 04:20	0° \mathbb{H}		morning set	3234 Feb 28 19:10	1° \mathbb{H} 15'24	
morning set	3233 Mar 19 18:03	20° \mathbb{H} 44'47		max. Earth dist.	3234 Mar 05 04:46	8° \mathbb{H} 42'38	1.39721 AU
max. Earth dist.	3233 Mar 23 09:54	27° \mathbb{H} 16'43	1.37562 AU				
	3233 Mar 24 21:35	0° \mathbb{Y}		superior conj	3234 Mar 12 21:56	22° \mathbb{H} 27'19	-1°52'31
superior conj	3233 Mar 30 05:25	10° \mathbb{Y} 03'54	-1°30'45	minimum elong	3234 Mar 13 02:13	22° \mathbb{H} 47'03	1°52'09
minimum elong	3233 Mar 30 09:50	10° \mathbb{Y} 25'17	1°30'09		3234 Mar 16 23:02	0° \mathbb{Y}	
evening rise	3233 Apr 07 20:49	27° \mathbb{Y} 08'52		evening rise	3234 Mar 22 13:00	10° \mathbb{Y} 39'12	
asc. node	3233 Apr 09 08:39	0° \mathbb{B} 06'03		asc. node	3234 Mar 27 05:42	19° \mathbb{Y} 30'59	
	3233 Apr 09 07:25	0° \mathbb{B}			3234 Apr 02 09:45	0° \mathbb{B}	
evening max el	3233 Apr 24 14:43	24° \mathbb{B} 17'28	19°12'38	evening max el	3234 Apr 07 17:47	6° \mathbb{B} 42'01	18°31'32
retrograde	3233 May 03 14:05	28° \mathbb{B} 39'06		retrograde	3234 Apr 15 09:28	10° \mathbb{B} 27'54	
evening set	3233 May 05 15:28	28° \mathbb{B} 26'19		evening set	3234 Apr 17 17:06	10° \mathbb{B} 08'19	
inferior conj	3233 May 14 00:02	24° \mathbb{B} 16'03	0°49'19	inferior conj	3234 Apr 25 05:57	5° \mathbb{B} 39'14	2°15'33
minimum elong	3233 May 14 02:00	24° \mathbb{B} 12'43	0°48'38	minimum elong	3234 Apr 25 09:45	5° \mathbb{B} 31'45	2°14'29
desc. node	3233 May 16 20:40	22° \mathbb{B} 21'05		min. Earth dist.	3234 Apr 28 16:03	2° \mathbb{B} 58'59	0.58129 AU
min. Earth dist.	3233 May 16 21:18	22° \mathbb{B} 20'04	0.56298 AU	morning rise	3234 May 02 23:17	0° \mathbb{B} 15'23	
morning rise	3233 May 22 09:28	19° \mathbb{B} 24'53		desc. node	3234 May 03 17:43	29° \mathbb{Y} 53'58	
direct	3233 May 27 07:17	18° \mathbb{B} 29'04			3234 May 03 12:17	30° \mathbb{R} \mathbb{Y}	
morning max el	3233 Jun 10 12:37	25° \mathbb{B} 45'24	25°24'48	direct	3234 May 08 20:46	28° \mathbb{Y} 46'24	
	3233 Jun 14 12:29	0° \mathbb{I}			3234 May 14 08:11	0° \mathbb{B}	
	3233 Jul 03 10:05	0° \mathbb{E}		morning max el	3234 May 23 06:03	6° \mathbb{B} 26'18	26°46'22
asc. node	3233 Jul 06 07:55	5° \mathbb{E} 55'27			3234 Jun 09 17:38	0° \mathbb{I}	
morning set	3233 Jul 07 11:16	8° \mathbb{E} 18'53		morning set	3234 Jun 21 21:27	23° \mathbb{I} 07'27	
				asc. node	3234 Jun 23 04:59	25° \mathbb{I} 54'34	
					3234 Jun 25 02:32	0° \mathbb{E}	
superior conj	3233 Jul 14 10:12	23° \mathbb{E} 25'01	1°16'01	superior conj	3234 Jun 28 21:58	8° \mathbb{E} 21'40	0°56'54
minimum elong	3233 Jul 14 07:50	23° \mathbb{E} 12'03	1°15'41	minimum elong	3234 Jun 28 19:49	8° \mathbb{E} 09'53	0°56'31
max. Earth dist.	3233 Jul 15 12:48	25° \mathbb{E} 50'26	1.32532 AU	max. Earth dist.	3234 Jun 28 23:56	8° \mathbb{E} 32'33	1.32131 AU
	3233 Jul 17 10:46	0° \mathbb{Q}		evening rise	3234 Jul 05 19:10	23° \mathbb{E} 17'53	
evening rise	3233 Jul 21 12:24	8° \mathbb{Q} 36'09			3234 Jul 09 01:23	0° \mathbb{Q}	
	3233 Aug 01 19:55	0° \mathbb{N}			3234 Jul 26 21:21	0° \mathbb{N}	
desc. node	3233 Aug 12 20:00	16° \mathbb{N} 49'09		desc. node	3234 Jul 30 17:00	4° \mathbb{N} 50'08	
evening max el	3233 Aug 22 15:33	28° \mathbb{N} 09'50	27°19'52	evening max el	3234 Aug 04 18:33	10° \mathbb{N} 15'17	26°42'17
	3233 Aug 24 16:45	0° \mathbb{L}		retrograde	3234 Aug 18 17:23	17° \mathbb{N} 26'55	
retrograde	3233 Sep 05 10:57	5° \mathbb{L} 25'16		evening set	3234 Aug 25 13:05	15° \mathbb{N} 27'59	
evening set	3233 Sep 12 15:22	2° \mathbb{L} 59'06		min. Earth dist.	3234 Aug 29 08:29	12° \mathbb{N} 51'13	0.60202 AU
min. Earth dist.	3233 Sep 16 05:43	0° \mathbb{L} 07'34	0.62221 AU	inferior conj	3234 Sep 01 14:39	10° \mathbb{N} 12'28	-4°39'38
	3233 Sep 16 09:05	30° \mathbb{R} \mathbb{N}		minimum elong	3234 Sep 01 19:35	10° \mathbb{N} 02'23	4°38'48
inferior conj	3233 Sep 19 04:43	27° \mathbb{N} 22'57	-3°53'45	morning rise	3234 Sep 09 04:05	5° \mathbb{N} 30'58	
minimum elong	3233 Sep 19 10:25	27° \mathbb{N} 09'41	3°52'14	direct	3234 Sep 11 13:24	5° \mathbb{N} 09'35	
morning rise	3233 Sep 26 07:07	22° \mathbb{N} 19'53		morning max el	3234 Sep 19 00:34	8° \mathbb{N} 49'05	18°10'01
direct	3233 Sep 28 16:36	21° \mathbb{N} 54'38		asc. node	3234 Sep 19 04:13	8° \mathbb{N} 58'01	
asc. node	3233 Oct 02 07:09	22° \mathbb{N} 53'45			3234 Oct 02 18:09	0° \mathbb{L}	
morning max el	3233 Oct 05 12:35	25° \mathbb{N} 22'45	17°52'21	morning set	3234 Oct 04 20:40	3° \mathbb{L} 56'43	
	3233 Oct 09 09:10	0° \mathbb{L}					
morning set	3233 Oct 21 11:46	20° \mathbb{L} 19'39		superior conj	3234 Oct 14 10:22	21° \mathbb{L} 41'53	1°18'14
	3233 Oct 26 21:39	0° \mathbb{M}					

































































































































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	3234 Oct 19 03:08	0°  00'		max. Earth dist.	3235 Oct 04 06:52	17°  39'21	1.39294 AU
max. Earth dist.	3234 Oct 22 01:26	5°  00'42	1.41344 AU	evening rise	3235 Oct 08 05:47	24°  31'54	
desc. node	3234 Oct 26 16:21	12°  00'18			3235 Oct 11 12:05	0°  00'	
evening rise	3234 Oct 27 03:54	13°  00'08		desc. node	3235 Oct 13 13:22	3°  00'21'03	
	3234 Nov 06 18:57	0°  00'			3235 Oct 31 13:17	0°  00'	
	3234 Nov 29 08:10	0°  00'		evening max el	3235 Nov 12 12:36	14°  00'17'15	24°16'29
evening max el	3234 Nov 29 23:11	0°  00'38'22	22°56'48	retrograde	3235 Nov 23 17:35	20°  00'51'11	
retrograde	3234 Dec 10 02:13	6°  00'38'46		evening set	3235 Nov 29 02:08	18°  00'37'05	
evening set	3234 Dec 14 21:14	4°  00'41'03		asc. node	3235 Dec 03 00:30	14°  00'14'29	
asc. node	3234 Dec 16 03:28	3°  00'30'11		min. Earth dist.	3235 Dec 03 19:17	13°  00'12'12	0.67698 AU
	3234 Dec 19 00:30	30°  00'00'		inferior conj	3235 Dec 04 13:04	12°  00'12'25	0°31'09
inferior conj	3234 Dec 20 06:13	28°  00'18'11	1°21'58	minimum elong	3235 Dec 04 12:19	12°  00'14'55	0°30'51
minimum elong	3234 Dec 20 04:27	28°  00'24'16	1°21'16	morning rise	3235 Dec 09 22:33	6°  00'09'05	
min. Earth dist.	3234 Dec 19 23:08	28°  00'42'37	0.67934 AU	direct	3235 Dec 13 18:55	4°  00'44'34	
morning rise	3234 Dec 25 11:32	22°  00'09'21		morning max el	3235 Dec 21 14:53	9°  00'13'29	20°20'22
direct	3234 Dec 29 21:21	20°  00'00'22'41			3236 Jan 06 07:31	0°  00'	
morning max el	3235 Jan 07 17:55	25°  00'00'33'08	21°36'00	desc. node	3236 Jan 09 12:40	4°  00'34'21	
	3235 Jan 11 17:49	0°  00'		morning set	3236 Jan 18 13:50	18°  00'35'21	
desc. node	3235 Jan 22 15:38	14°  00'38'47			3236 Jan 25 20:34	0°  00'00'	
	3235 Feb 01 23:31	0°  00'00'		max. Earth dist.	3236 Jan 28 12:18	4°  00'00'14'35	1.43568 AU
morning set	3235 Feb 08 15:10	10°  00'00'22'48					
max. Earth dist.	3235 Feb 15 04:27	21°  00'00'17	1.41819 AU	superior conj	3236 Feb 03 13:56	14°  00'00'07'54	-2°03'47
	3235 Feb 20 12:37	0°  00'		minimum elong	3236 Feb 03 10:38	13°  00'00'54'16	2°03'41
					3236 Feb 12 22:56	0°  00'	
superior conj	3235 Feb 22 18:21	3°  00'52'05	-2°05'15	evening rise	3236 Feb 16 03:42	5°  00'33'24	
minimum elong	3235 Feb 22 20:14	4°  00'00'15	2°05'13	asc. node	3236 Feb 28 23:48	26°  00'38'58'31	
evening rise	3235 Mar 05 16:42	23°  00'00'30'09			3236 Mar 02 05:17	0°  00'	
	3235 Mar 09 06:09	0°  00'		evening max el	3236 Mar 04 15:27	2°  00'44'58	18°08'36
asc. node	3235 Mar 14 02:45	8°  00'31'07		retrograde	3236 Mar 11 02:37	6°  00'08'09	
evening max el	3235 Mar 22 03:08	19°  00'34'10	18°10'21	evening set	3236 Mar 13 22:15	5°  00'28'24	
retrograde	3235 Mar 28 22:57	23°  00'00'59		inferior conj	3236 Mar 20 04:39	0°  00'17'53	3°34'32
evening set	3235 Mar 31 12:56	22°  00'31'58		minimum elong	3236 Mar 20 05:51	0°  00'14'46	3°34'27
inferior conj	3235 Apr 07 08:37	17°  00'41'53	3°09'02		3236 Mar 20 11:29	30°  00'00'00'	
minimum elong	3235 Apr 07 11:36	17°  00'35'02	3°08'30	min. Earth dist.	3236 Mar 23 01:03	27°  00'00'27'00'07	0.62410 AU
min. Earth dist.	3235 Apr 10 16:27	14°  00'40'31	0.60279 AU	morning rise	3236 Mar 26 12:10	24°  00'16'38	
morning rise	3235 Apr 14 08:03	11°  00'54'47		direct	3236 Apr 02 09:41	21°  00'34'41	
direct	3235 Apr 20 22:26	9°  00'50'14		desc. node	3236 Apr 06 11:50	22°  00'31'41	
desc. node	3235 Apr 20 14:47	9°  00'50'31		morning max el	3236 Apr 16 10:54	29°  00'40'54	27°50'42
morning max el	3235 May 05 05:28	17°  00'42'24	27°37'04		3236 Apr 16 18:31	0°  00'	
	3235 May 15 11:11	0°  00'			3236 May 08 10:24	0°  00'	
	3235 Jun 02 08:27	0°  00'		morning set	3236 May 20 05:57	22°  00'00'12'22	
morning set	3235 Jun 06 04:22	7°  00'43'44			3236 May 24 02:14	0°  00'	
asc. node	3235 Jun 10 02:02	16°  00'00'25		max. Earth dist.	3236 May 25 19:46	3°  00'41'35	1.32534 AU
max. Earth dist.	3235 Jun 12 11:34	21°  00'13'53	1.32130 AU	asc. node	3236 May 26 23:05	6°  00'08'53	
superior conj	3235 Jun 13 09:23	23°  00'13'43	0°34'13	superior conj	3236 May 27 18:45	7°  00'55'33	0°08'37
minimum elong	3235 Jun 13 07:55	23°  00'05'38	0°33'54	minimum elong	3236 May 27 18:21	7°  00'53'20	0°08'31
	3235 Jun 16 11:18	0°  00'		behind sun begin	3236 May 27 13:56	7°  00'29'24	
evening rise	3235 Jun 20 05:26	8°  00'07'10		behind sun end	3236 May 27 22:45	8°  00'17'17	
	3235 Jul 01 13:42	0°  00'		evening rise	3236 Jun 03 17:12	22°  00'12'57'25	
evening max el	3235 Jul 17 14:21	21°  00'00'32'52	25°33'38		3236 Jun 07 02:34	0°  00'	
desc. node	3235 Jul 17 14:01	21°  00'00'32'05			3236 Jun 26 01:20	0°  00'	
retrograde	3235 Jul 31 14:03	28°  00'00'39'41		evening max el	3236 Jun 28 04:13	2°  00'10'42	24°03'23
evening set	3235 Aug 06 12:08	27°  00'00'17'40		desc. node	3236 Jul 03 11:03	6°  00'02'40'09	
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inferior conj	3235 Aug 14 06:26	22°  00'00'24'28	-5°04'47	evening set	3236 Jul 16 11:36	8°  00'02'21'34	
minimum elong	3235 Aug 14 07:55	22°  00'00'21'51	5°04'42	min. Earth dist.	3236 Jul 22 14:45	5°  00'02'22'13	0.56362 AU
morning rise	3235 Aug 22 05:59	18°  00'00'05'47		inferior conj	3236 Jul 25 01:56	3°  00'05'51'03	-4°54'33
direct	3235 Aug 24 18:15	17°  00'00'46'07		minimum elong	3236 Jul 24 21:41	3°  00'05'57'38	4°54'06
morning max el	3235 Sep 02 05:26	21°  00'00'47'08	18°48'23		3236 Aug 01 21:54	30°  00'00'00'	
asc. node	3235 Sep 06 01:17	26°  00'00'09'48		morning rise	3236 Aug 02 10:23	29°  00'00'52'09	
	3235 Sep 08 16:59	0°  00'		direct	3236 Aug 05 03:47	29°  00'00'32'51	
morning set	3235 Sep 18 16:25	18°  00'00'05'10			3236 Aug 08 06:59	0°  00'	
	3235 Sep 24 18:43	0° 00'		morning max el	3236 Aug 15 00:15	4° 00'07'23	19°48'22
superior conj	3235 Sep 27 05:38	4° 00'42'13	1°35'58	asc. node	3236 Aug 22 22:19	14° 00'01'14'17	
					3236 Aug 31 12:41	0° 00'	

morning set	3236 Sep 01 19:30	2° \mathbb{M} 34'46		morning set	3237 Aug 17 03:25	17° \mathcal{O} 18'54	
					3237 Aug 23 05:08	0° \mathbb{M}	
superior conj	3236 Sep 09 15:51	18° \mathbb{M} 26'53	1°43'59	superior conj	3237 Aug 24 12:40	2° \mathbb{M} 43'33	1°43'57
minimum elong	3236 Sep 09 16:40	18° \mathbb{M} 30'59	1°43'57	minimum elong	3237 Aug 24 11:58	2° \mathbb{M} 40'00	1°43'56
max. Earth dist.	3236 Sep 15 11:39	29° \mathbb{M} 42'59	1.37247 AU	max. Earth dist.	3237 Aug 28 21:18	11° \mathbb{M} 34'01	1.35435 AU
	3236 Sep 15 15:17	0° \mathcal{A}		evening rise	3237 Sep 02 01:54	19° \mathbb{M} 40'55	
evening rise	3236 Sep 19 06:22	6° \mathcal{A} 39'23			3237 Sep 07 18:07	0° \mathcal{A}	
desc. node	3236 Sep 29 10:22	23° \mathcal{A} 51'53		desc. node	3237 Sep 16 07:23	14° \mathcal{A} 07'37	
	3236 Oct 03 08:56	0° \mathbb{M}			3237 Sep 27 09:39	0° \mathbb{M}	
evening max el	3236 Oct 25 00:45	27° \mathbb{M} 58'18	25°30'41	evening max el	3237 Oct 07 13:01	11° \mathbb{M} 37'50	26°31'54
	3236 Oct 27 05:22	0° \mathcal{A}		retrograde	3237 Oct 20 10:27	18° \mathbb{M} 51'29	
retrograde	3236 Nov 06 04:30	4° \mathcal{A} 57'22		evening set	3237 Oct 26 22:20	16° \mathbb{M} 12'21	
evening set	3236 Nov 12 03:08	2° \mathcal{A} 28'38		min. Earth dist.	3237 Oct 31 00:38	11° \mathbb{M} 58'07	0.66187 AU
	3236 Nov 14 14:11	30° \mathbb{M}		inferior conj	3237 Nov 01 16:50	9° \mathbb{M} 57'13	-1°23'06
min. Earth dist.	3236 Nov 16 12:32	27° \mathbb{M} 38'35	0.67116 AU	minimum elong	3237 Nov 01 19:06	9° \mathbb{M} 50'25	1°22'09
inferior conj	3236 Nov 17 17:15	26° \mathbb{M} 06'25	-0°24'19	asc. node	3237 Nov 05 18:34	5° \mathbb{M} 33'54	
minimum elong	3236 Nov 17 17:52	26° \mathbb{M} 04'25	0°24'02	morning rise	3237 Nov 07 16:30	4° \mathbb{M} 12'13	
asc. node	3236 Nov 18 21:33	24° \mathbb{M} 36'39		direct	3237 Nov 10 15:23	3° \mathbb{M} 23'09	
morning rise	3236 Nov 23 08:54	20° \mathbb{M} 10'58		morning max el	3237 Nov 17 07:03	7° \mathbb{M} 01'45	18°32'18
direct	3236 Nov 26 17:28	19° \mathbb{M} 06'02			3237 Dec 03 08:43	0° \mathcal{A}	
morning max el	3236 Dec 03 19:44	23° \mathbb{M} 04'21	19°18'29	morning set	3237 Dec 07 13:22	6° \mathcal{A} 41'30	
	3236 Dec 09 13:47	0° \mathcal{A}		desc. node	3237 Dec 13 06:40	15° \mathcal{A} 47'37	
greatest brilliancy	3236 Dec 17 11:15	11° \mathcal{A} 28'07	-0.7m		3237 Dec 22 07:00	0° \mathcal{B}	
desc. node	3236 Dec 26 09:40	25° \mathcal{A} 11'50					
morning set	3236 Dec 27 13:57	27° \mathcal{A} 01'29		superior conj	3237 Dec 23 10:44	1° \mathcal{B} 48'48	-1°05'23
	3236 Dec 29 11:57	0° \mathcal{B}		minimum elong	3237 Dec 23 02:49	1° \mathcal{B} 17'43	1°04'26
max. Earth dist.	3237 Jan 10 02:40	18° \mathcal{B} 09'51	1.44742 AU	max. Earth dist.	3237 Dec 23 20:42	2° \mathcal{B} 27'55	1.45215 AU
				evening rise	3238 Jan 08 08:26	26° \mathcal{B} 52'01	
superior conj	3237 Jan 13 07:59	23° \mathcal{B} 16'09	-1°43'39		3238 Jan 10 07:47	0° \mathcal{A}	
minimum elong	3237 Jan 12 23:33	22° \mathcal{B} 42'37	1°42'57	greatest brilliancy	3238 Jan 17 11:02	11° \mathcal{A} 17'58	-0.8m
	3237 Jan 17 12:54	0° \mathcal{A}		evening max el	3238 Jan 30 13:50	29° \mathcal{A} 34'49	19°00'35
evening rise	3237 Jan 27 17:43	16° \mathcal{A} 41'14			3238 Jan 30 23:53	0° \mathcal{A}	
	3237 Feb 04 18:50	0° \mathcal{H}		asc. node	3238 Feb 01 17:51	1° \mathcal{H} 32'20	
asc. node	3237 Feb 14 20:50	14° \mathcal{H} 43'01		retrograde	3238 Feb 06 10:41	3° \mathcal{H} 27'56	
evening max el	3237 Feb 16 03:49	16° \mathcal{H} 06'49	18°25'42	evening set	3238 Feb 09 18:18	2° \mathcal{H} 24'10	
retrograde	3237 Feb 22 15:50	19° \mathcal{H} 39'31			3238 Feb 12 12:53	30° \mathbb{R}	
evening set	3237 Feb 25 17:04	18° \mathcal{H} 48'14		inferior conj	3238 Feb 15 08:47	26° \mathcal{A} 38'19	3°26'56
inferior conj	3237 Mar 03 13:57	13° \mathcal{H} 19'02	3°38'41	minimum elong	3238 Feb 15 07:02	26° \mathcal{A} 43'50	3°26'42
minimum elong	3237 Mar 03 13:25	13° \mathcal{H} 20'33	3°38'40	min. Earth dist.	3238 Feb 16 22:43	24° \mathcal{A} 38'52	0.65804 AU
min. Earth dist.	3237 Mar 05 19:18	10° \mathcal{H} 44'19	0.64289 AU	morning rise	3238 Feb 20 19:23	20° \mathcal{A} 25'50	
morning rise	3237 Mar 09 09:06	7° \mathcal{H} 10'08		direct	3238 Feb 27 07:12	17° \mathcal{A} 35'24	
direct	3237 Mar 16 05:00	4° \mathcal{H} 21'28		desc. node	3238 Mar 11 05:54	24° \mathcal{A} 15'27	
desc. node	3237 Mar 24 08:52	7° \mathcal{H} 31'41		morning max el	3238 Mar 12 05:58	25° \mathcal{A} 14'49	26°34'36
morning max el	3237 Mar 29 20:03	12° \mathcal{H} 15'55	27°28'00		3238 Mar 16 14:06	0° \mathcal{H}	
	3237 Apr 12 23:53	0° \mathcal{Y}			3238 Apr 06 11:27	0° \mathcal{Y}	
morning set	3237 Apr 30 22:29	0° \mathcal{B}		morning set	3238 Apr 17 05:54	19° \mathcal{Y} 05'58	
	3237 May 03 23:38	5° \mathcal{B} 52'35		max. Earth dist.	3238 Apr 21 10:14	27° \mathcal{Y} 11'35	1.34658 AU
max. Earth dist.	3237 May 08 20:31	15° \mathcal{B} 43'37	1.33364 AU		3238 Apr 22 19:59	0° \mathcal{B}	
				superior conj	3238 Apr 25 23:25	6° \mathcal{B} 24'12	-0°47'46
superior conj	3237 May 12 00:11	22° \mathcal{B} 21'33	-0°19'05	minimum elong	3238 Apr 26 01:55	6° \mathcal{B} 37'05	0°47'17
minimum elong	3237 May 12 01:09	22° \mathcal{B} 26'41	0°18'53	asc. node	3238 Apr 30 17:08	16° \mathcal{B} 17'22	
asc. node	3237 May 13 20:07	26° \mathcal{B} 16'09		evening rise	3238 May 03 13:43	22° \mathcal{B} 15'22	
	3237 May 15 13:51	0° \mathbb{I}			3238 May 07 09:22	0° \mathbb{I}	
evening rise	3237 May 19 04:37	7° \mathbb{I} 42'34		evening max el	3238 May 22 17:31	23° \mathbb{I} 23'04	20°57'57
	3237 May 30 23:59	0° \mathcal{B}		retrograde	3238 Jun 03 09:05	29° \mathbb{I} 04'36	
evening max el	3237 Jun 09 18:43	12° \mathcal{B} 36'59	22°26'47	evening set	3238 Jun 05 12:56	28° \mathbb{I} 53'35	
desc. node	3237 Jun 20 08:04	18° \mathcal{B} 51'37		desc. node	3238 Jun 07 05:06	28° \mathbb{I} 30'48	
retrograde	3237 Jun 22 19:56	19° \mathcal{B} 05'56		inferior conj	3238 Jun 14 21:10	24° \mathbb{I} 55'54	-2°13'27
evening set	3237 Jun 25 21:26	18° \mathcal{B} 45'14		minimum elong	3238 Jun 14 14:59	25° \mathbb{I} 04'38	2°11'18
min. Earth dist.	3237 Jul 04 01:45	15° \mathcal{B} 12'18	0.55175 AU	min. Earth dist.	3238 Jun 15 13:40	24° \mathbb{I} 32'31	0.54871 AU
inferior conj	3237 Jul 05 03:40	14° \mathcal{B} 35'34	-3°56'15	morning rise	3238 Jun 23 16:55	20° \mathbb{I} 53'49	
minimum elong	3237 Jul 04 19:28	14° \mathcal{B} 47'12	3°54'13	direct	3238 Jun 27 05:16	20° \mathbb{I} 27'10	
morning rise	3237 Jul 13 19:35	10° \mathcal{B} 44'42		morning max el	3238 Jul 10 04:17	26° \mathbb{I} 39'09	22°45'48
direct	3237 Jul 16 19:54	10° \mathcal{B} 24'05			3238 Jul 13 09:45	0° \mathcal{B}	
morning max el	3237 Jul 28 07:34	15° \mathcal{B} 44'37	21°09'01	asc. node	3238 Jul 27 16:22	22° \mathcal{B} 14'23	
	3237 Aug 08 02:09	0° \mathcal{O}					
asc. node	3237 Aug 09 19:21	2° \mathcal{O} 59'25					

	3238 Jul 31 13:02	0°♎		direct	3239 Jun 07 21:09	0°♐10'28	
morning set	3238 Aug 01 14:06	2°♎10'49		morning max el	3239 Jun 21 18:54	7°♐06'34	24°28'37
					3239 Jul 08 08:59	0°♑	
superior conj	3238 Aug 08 16:39	17°♎20'52	1°37'18	asc. node	3239 Jul 14 13:26	11°♑51'31	
minimum elong	3238 Aug 08 14:55	17°♎11'36	1°37'10	morning set	3239 Jul 17 01:53	17°♑05'37	
max. Earth dist.	3238 Aug 11 15:40	23°♎35'04	1.33989 AU		3239 Jul 23 01:13	0°♒	
	3238 Aug 14 18:51	0°♑					
evening rise	3238 Aug 16 11:49	3°♑23'44		superior conj	3239 Jul 24 01:16	2°♒10'56	1°25'09
	3238 Aug 31 13:35	0°♒		minimum elong	3239 Jul 23 22:59	1°♒58'32	1°24'53
desc. node	3238 Sep 03 04:25	4°♒00'36		max. Earth dist.	3239 Jul 25 18:54	5°♒56'23	1.32952 AU
evening max el	3238 Sep 20 01:20	25°♒07'08	27°12'48	evening rise	3239 Jul 31 08:15	17°♒36'47	
	3238 Sep 26 04:11	0°♓			3239 Aug 06 17:20	0°♑	
retrograde	3238 Oct 03 10:45	2°♓25'24		desc. node	3239 Aug 21 01:26	23°♑21'22	
evening set	3238 Oct 10 09:20	29°♑43'10			3239 Aug 26 01:14	0°♒	
	3238 Oct 10 00:31	30°♑♒		evening max el	3239 Sep 02 12:07	8°♒14'09	27°26'26
min. Earth dist.	3238 Oct 14 05:20	26°♒04'23	0.64904 AU	retrograde	3239 Sep 16 04:37	15°♒30'33	
inferior conj	3238 Oct 16 09:38	23°♒39'55	-2°23'22	evening set	3239 Sep 23 09:06	12°♒55'16	
minimum elong	3238 Oct 16 13:36	23°♒28'59	2°21'52	min. Earth dist.	3239 Sep 27 00:30	9°♒48'40	0.63287 AU
morning rise	3238 Oct 22 18:52	18°♒08'22		inferior conj	3239 Sep 29 17:01	7°♒08'25	-3°22'16
asc. node	3238 Oct 23 15:35	17°♒48'14		minimum elong	3239 Sep 29 22:21	6°♒55'08	3°20'35
direct	3238 Oct 25 10:28	17°♒31'16		morning rise	3239 Oct 06 12:57	1°♒53'43	
morning max el	3238 Oct 31 22:20	20°♒59'21	18°02'52	direct	3239 Oct 08 23:56	1°♒24'56	
	3238 Nov 07 20:02	0°♓		asc. node	3239 Oct 10 12:38	1°♒36'20	
morning set	3238 Nov 18 18:17	17°♓49'23		morning max el	3239 Oct 15 14:46	4°♒50'38	17°50'56
	3238 Nov 26 03:16	0°♊			3239 Oct 31 22:05	0°♓	
desc. node	3238 Nov 30 03:43	6°♊30'45		morning set	3239 Nov 01 00:19	0°♓09'44	
superior conj	3238 Dec 02 18:28	10°♊42'06	-0°17'45	superior conj	3239 Nov 13 00:13	20°♓41'23	0°27'29
minimum elong	3238 Dec 02 16:16	10°♊33'19	0°17'27	minimum elong	3239 Nov 13 02:58	20°♓52'46	0°27'06
max. Earth dist.	3238 Dec 06 15:42	16°♊51'47	1.44946 AU	desc. node	3239 Nov 17 00:44	27°♓17'23	
	3238 Dec 15 01:25	0°♋			3239 Nov 18 16:58	0°♊	
evening rise	3238 Dec 19 02:45	6°♋16'42		max. Earth dist.	3239 Nov 19 09:01	1°♊04'27	1.43976 AU
greatest brilliancy	3239 Jan 01 21:02	27°♋15'50	-0.7m	evening rise	3239 Nov 28 11:50	15°♊24'16	
	3239 Jan 03 17:38	0°♌			3239 Dec 08 02:48	0°♋	
evening max el	3239 Jan 13 19:42	13°♌06'01	19°51'40	evening max el	3239 Dec 27 20:12	26°♋37'59	20°56'26
asc. node	3239 Jan 19 14:52	17°♌12'22			3239 Dec 31 18:03	0°♌	
retrograde	3239 Jan 21 08:14	17°♌28'33		retrograde	3240 Jan 05 06:07	1°♌36'45	
evening set	3239 Jan 24 23:35	16°♌11'06		asc. node	3240 Jan 06 11:55	1°♌28'16	
inferior conj	3239 Jan 30 10:09	10°♌10'56	3°03'06	evening set	3240 Jan 09 06:56	0°♌04'16	
minimum elong	3239 Jan 30 07:45	10°♌18'56	3°02'34		3240 Jan 09 09:07	30°♓♋	
min. Earth dist.	3239 Jan 31 09:45	8°♌52'21	0.66910 AU	inferior conj	3240 Jan 14 15:35	23°♋52'31	2°29'45
morning rise	3239 Feb 04 15:41	3°♌57'22		minimum elong	3240 Jan 14 13:04	24°♋01'12	2°29'00
direct	3239 Feb 10 15:13	1°♌17'07		min. Earth dist.	3240 Jan 15 02:18	23°♋15'43	0.67606 AU
morning max el	3239 Feb 22 14:52	8°♌26'18	25°19'30	morning rise	3240 Jan 19 19:01	17°♋39'35	
desc. node	3239 Feb 26 02:55	12°♌13'57		direct	3240 Jan 25 04:04	15°♋17'39	
	3239 Mar 11 13:04	0°♈		morning max el	3240 Feb 04 23:19	21°♋43'49	23°52'49
	3239 Mar 30 00:29	0°♉			3240 Feb 12 03:34	0°♌	
morning set	3239 Mar 30 20:12	1°♉28'36		desc. node	3240 Feb 12 23:58	1°♌05'07	
max. Earth dist.	3239 Apr 03 12:33	8°♉15'05	1.36403 AU		3240 Mar 03 20:08	0°♈	
				morning set	3240 Mar 11 12:36	12°♈43'56	
superior conj	3239 Apr 09 13:43	19°♉56'15	-1°15'48	max. Earth dist.	3240 Mar 15 08:20	19°♈24'09	1.38478 AU
minimum elong	3239 Apr 09 17:36	20°♉15'33	1°15'10		3240 Mar 21 03:49	0°♉	
	3239 Apr 14 13:38	0°♊					
evening rise	3239 Apr 17 18:24	6°♊29'55		superior conj	3240 Mar 22 15:27	2°♉47'41	-1°40'47
asc. node	3239 Apr 17 14:11	6°♊08'34		minimum elong	3240 Mar 22 20:01	3°♉09'21	1°40'16
	3239 May 01 01:23	0°♐		evening rise	3240 Mar 31 16:02	20°♉18'31	
evening max el	3239 May 05 04:17	4°♐47'21	19°45'26	asc. node	3240 Apr 03 11:14	25°♉44'30	
retrograde	3239 May 15 01:53	9°♐35'28			3240 Apr 05 17:22	0°♊	
evening set	3239 May 17 01:28	9°♐24'46		evening max el	3240 Apr 17 02:08	16°♊51'04	18°52'35
desc. node	3239 May 25 02:07	5°♐51'51		retrograde	3240 Apr 25 10:25	20°♊55'23	
inferior conj	3239 May 25 20:57	5°♐22'49	-0°13'50	evening set	3240 Apr 27 14:27	20°♊39'59	
minimum elong	3239 May 25 20:19	5°♐23'47	0°13'36	inferior conj	3240 May 05 14:28	16°♊21'53	1°29'56
transit middle	3239 May 25 20:19	5°♐23'47	0°13'36	minimum elong	3240 May 05 17:38	16°♊16'11	1°28'54
transit begin	3239 May 25 18:15	5°♐27'00		min. Earth dist.	3240 May 08 19:12	14°♊05'01	0.57023 AU
transit end	3239 May 25 22:23	5°♐20'35		desc. node	3240 May 10 23:09	12°♊41'22	
min. Earth dist.	3239 May 28 03:10	3°♐59'04	0.55538 AU	morning rise	3240 May 13 17:40	11°♊16'16	
morning rise	3239 Jun 03 12:51	0°♐52'20		direct	3240 May 19 02:04	10°♊07'30	

morning max el	3240 Jun 02 09:51	17°  34'29	26°02'38	direct	3241 Apr 30 20:42	20°  43'07	
	3240 Jun 12 16:25	0° 		morning max el	3241 May 15 05:54	28°  29'20	27°12'20
	3240 Jun 29 14:37	0° 			3241 May 16 17:36	0° 	
asc. node	3240 Jun 30 10:30	1°  44'18			3241 Jun 06 09:29	0° 	
morning set	3240 Jun 30 13:09	1°  58'15		morning set	3241 Jun 14 22:11	16°  42'29	
				asc. node	3241 Jun 17 07:33	21°  46'48	
superior conj	3240 Jul 07 12:24	17°  06'56	1°08'23		3241 Jun 21 02:02	0° 	
minimum elong	3240 Jul 07 10:05	16°  54'09	1°08'00	max. Earth dist.	3241 Jun 21 16:16	1°  18'24	1.32080 AU
max. Earth dist.	3240 Jul 08 04:22	18°  34'41	1.32316 AU				
	3240 Jul 13 11:08	0° 		superior conj	3241 Jun 22 00:13	2°  02'11	0°47'41
evening rise	3240 Jul 14 12:00	2°  10'30		minimum elong	3241 Jun 21 22:19	1°  51'41	0°47'18
	3240 Jul 29 14:49	0° 		evening rise	3241 Jun 28 20:30	16°  56'02	
desc. node	3240 Aug 06 22:27	11°  17'56'49			3241 Jul 05 08:13	0° 	
evening max el	3240 Aug 14 18:43	20°  45'22	27°07'59	desc. node	3241 Jul 24 19:29	29°  02'7'30	
retrograde	3240 Aug 28 15:22	27°  17'58'24			3241 Jul 25 07:27	0° 	
evening set	3240 Sep 04 17:43	25°  17'42'18		evening max el	3241 Jul 27 18:29	2°  17'29'33	26°16'26
min. Earth dist.	3240 Sep 08 08:59	22°  17'59'08	0.61382 AU	retrograde	3241 Aug 10 17:56	9°  17'39'54	
inferior conj	3240 Sep 11 11:49	20°  17'15'04	-4°15'01	evening set	3241 Aug 17 06:18	7°  17'55'29	
minimum elong	3240 Sep 11 17:28	20°  17'02'37	4°13'43	min. Earth dist.	3241 Aug 21 07:25	5°  17'20'13	0.59317 AU
morning rise	3240 Sep 18 18:58	15°  17'20'50		inferior conj	3241 Aug 24 14:24	2°  17'49'24	-4°53'38
direct	3240 Sep 21 04:09	14°  17'57'23		minimum elong	3241 Aug 24 18:14	2°  17'42'02	4°53'11
asc. node	3240 Sep 26 09:43	16°  17'54'56			3241 Aug 28 14:16	30°  17'00'00	
morning max el	3240 Sep 28 05:21	18°  17'28'54	17°57'29	morning rise	3241 Sep 01 08:20	28°  17'00'18'03	
	3240 Oct 06 13:05	0° 		direct	3241 Sep 03 18:36	27°  17'00'57'38	
morning set	3240 Oct 14 01:04	13°  17'00'23'44			3241 Sep 09 12:42	0° 	
	3240 Oct 23 05:32	0° 		morning max el	3241 Sep 11 14:46	1°  17'00'44'35	18°23'49
				asc. node	3241 Sep 13 06:47	3°  17'00'29'42	
superior conj	3240 Oct 24 09:01	2°  17'00'00'26	1°03'01	morning set	3241 Sep 27 15:02	27°  17'00'15'05	
minimum elong	3240 Oct 24 13:20	2°  17'00'19'17	1°02'28		3241 Sep 29 01:27	0° 	
max. Earth dist.	3240 Oct 31 22:01	14°  17'00'48'54	1.42423 AU				
desc. node	3240 Nov 02 21:45	18°  17'00'48'39		superior conj	3241 Oct 06 17:17	14°  17'00'28'11	1°27'03
evening rise	3240 Nov 07 04:13	24°  17'00'55'46		minimum elong	3241 Oct 06 20:48	14°  17'00'28'44'25	1°26'42
	3240 Nov 10 09:53	0° 		max. Earth dist.	3241 Oct 14 05:13	27°  17'00'28'50'03	1.40482 AU
	3240 Dec 01 02:12	0° 			3241 Oct 15 11:34	0° 	
evening max el	3240 Dec 09 15:12	10°  17'00'31'11'03	22°11'08	evening rise	3241 Oct 18 16:22	5°  17'00'22'06	
retrograde	3240 Dec 19 02:40	15°  17'00'34'9'25		desc. node	3241 Oct 20 18:46	8°  17'00'48'34	
asc. node	3240 Dec 23 08:58	14°  17'00'31'2'05			3241 Nov 03 14:30	0° 	
evening set	3240 Dec 23 14:37	14°  17'00'30'0'52		evening max el	3241 Nov 22 05:53	23°  17'00'23'46'19	23°30'52
inferior conj	3240 Dec 28 23:02	7°  17'00'34'0'48	1°48'38		3241 Dec 02 02:13	0° 	
minimum elong	3240 Dec 28 20:52	7°  17'00'34'8'18	1°47'51	retrograde	3241 Dec 02 20:20	0° 	
min. Earth dist.	3240 Dec 28 22:07	7°  17'00'34'3'57	0.67918 AU		3241 Dec 03 14:08	30°  17'00'00'00'00	
morning rise	3241 Jan 03 03:00	1°  17'00'30'0'03		evening set	3241 Dec 07 20:59	27°  17'00'27'57'36	
	3241 Jan 05 11:32	30°  17'00'00'00'00'00		asc. node	3241 Dec 10 06:01	25°  17'00'25'31'10	
direct	3241 Jan 07 21:03	29°  17'00'00'00'30'24		inferior conj	3241 Dec 13 06:36	21°  17'00'21'33'10	1°01'03
	3241 Jan 10 10:03	0° 		minimum elong	3241 Dec 13 05:13	21°  17'00'21'37'53	1°00'30
morning max el	3241 Jan 17 10:12	5°  17'00'00'00'08'06	22°24'23	min. Earth dist.	3241 Dec 12 18:54	22°  17'00'22'13'15	0.67871 AU
desc. node	3241 Jan 29 21:01	20°  17'00'00'00'34'07		morning rise	3241 Dec 18 13:26	15°  17'00'15'26'23	
	3241 Feb 05 10:52	0° 		direct	3241 Dec 22 17:13	13°  17'00'13'49'35	
morning set	3241 Feb 20 01:23	22°  17'00'00'00'38'30		morning max el	3241 Dec 31 02:48	18°  17'00'18'41'37	21°02'20
	3241 Feb 24 12:02	0° 			3242 Jan 09 08:51	0° 	
max. Earth dist.	3241 Feb 25 05:04	1°  17'00'00'00'11'54	1.40643 AU	desc. node	3242 Jan 16 18:02	10°  17'00'10'30'10	
					3242 Jan 29 14:50	0° 	
superior conj	3241 Mar 05 00:02	14°  17'00'00'00'47'15	-1°59'18	morning set	3242 Jan 30 10:26	1°  17'00'01'16'34	
minimum elong	3241 Mar 05 03:39	15°  17'00'00'00'03'30	1°59'06	max. Earth dist.	3242 Feb 07 07:48	13°  17'00'13'33'00	1.42613 AU
	3241 Mar 13 06:02	0° 					
evening rise	3241 Mar 15 03:25	3°  17'00'00'00'33'17		superior conj	3242 Feb 14 10:19	25°  17'00'25'43'11	-2°06'41
asc. node	3241 Mar 21 08:17	14°  17'00'00'00'59'41		minimum elong	3242 Feb 14 10:17	25°  17'00'25'43'03	2°06'41
evening max el	3241 Mar 31 08:13	29°  17'00'00'00'27'56	18°20'00		3242 Feb 16 22:13	0° 	
	3241 Mar 31 21:51	0° 		evening rise	3242 Feb 26 00:34	16°  17'00'16'05'04	
retrograde	3241 Apr 07 14:08	3°  17'00'00'00'04'05			3242 Mar 05 21:49	0° 	
evening set	3241 Apr 10 00:27	2°  17'00'00'00'40'46		asc. node	3242 Mar 08 05:19	3°  17'00'03'47'10	
	3241 Apr 14 19:20	30°  17'00'00'00'00'00'00		evening max el	3242 Mar 14 19:12	12°  17'00'12'29'09	18°07'17
inferior conj	3241 Apr 17 05:32	28°  17'00'00'00'02'30	2°42'03	retrograde	3242 Mar 21 10:15	15°  17'00'15'52'57	
minimum elong	3241 Apr 17 09:12	27°  17'00'00'00'54'45	2°41'11	evening set	3242 Mar 24 02:34	15°  17'00'15'00'19'40	
min. Earth dist.	3241 Apr 20 16:00	25°  17'00'00'00'10'15	0.59026 AU	inferior conj	3242 Mar 30 16:09	10°  17'00'10'20'57	3°22'50
morning rise	3241 Apr 24 15:10	22°  17'00'00'00'27'13		minimum elong	3242 Mar 30 18:25	10°  17'00'10'15'26	3°22'32
desc. node	3241 Apr 27 20:13	21°  17'00'00'00'07'40		min. Earth dist.	3242 Apr 02 19:58	7°  17'00'07'17'58	0.61197 AU

morning rise	3242 Apr 06 08:24	4°♃26'34		minimum elong	3243 Mar 13 18:41	23°♂06'52	3°38'31
direct	3242 Apr 13 02:54	2°♃08'23		min. Earth dist.	3243 Mar 16 08:37	20°♂17'53	0.63247 AU
desc. node	3242 Apr 14 17:14	2°♃15'40		morning rise	3243 Mar 19 20:04	17°♂03'03	
morning max el	3242 Apr 27 08:14	10°♃04'34	27°47'29	direct	3243 Mar 26 18:02	14°♂21'21	
	3242 May 12 19:21	0°♂		desc. node	3243 Apr 01 14:16	15°♂59'33	
	3242 May 29 13:00	0°♂		morning max el	3243 Apr 09 15:21	22°♂18'47	27°45'12
morning set	3242 May 30 03:07	1°♂12'20			3243 Apr 16 09:43	0°♃	
asc. node	3242 Jun 04 04:35	11°♂54'40			3243 May 05 23:45	0°♂	
max. Earth dist.	3242 Jun 05 02:50	13°♂55'27	1.32247 AU	morning set	3243 May 14 01:40	15°♂19'29	
				max. Earth dist.	3243 May 19 08:06	26°♂12'19	1.32832 AU
					3243 May 21 02:46	0°♂	
superior conj	3242 Jun 06 11:00	16°♂51'08	0°23'41				
minimum elong	3242 Jun 06 09:57	16°♂45'19	0°23'27				
	3242 Jun 12 11:39	0°♂		superior conj	3243 May 21 18:56	1°♂26'57	-0°02'56
evening rise	3242 Jun 13 07:38	1°♂46'44		minimum elong	3243 May 21 19:05	1°♂27'44	0°02'55
	3242 Jun 28 15:03	0°♂		behind sun begin	3243 May 21 13:53	0°♂59'43	
evening max el	3242 Jul 09 11:10	13°♂27'51	24°57'03	behind sun end	3243 May 22 00:17	1°♂55'46	
desc. node	3242 Jul 11 16:29	15°♂27'04		asc. node	3243 May 22 01:37	2°♂02'59	
retrograde	3242 Jul 23 10:15	20°♂32'15		evening rise	3243 May 28 19:27	16°♂35'17	
evening set	3242 Jul 28 19:01	19°♂26'38			3243 Jun 04 11:13	0°♂	
min. Earth dist.	3242 Aug 02 22:42	16°♂40'22	0.57337 AU	evening max el	3243 Jun 21 00:30	23°♂57'10	23°22'10
inferior conj	3242 Aug 05 21:37	14°♂42'36	-5°05'41	desc. node	3243 Jun 28 13:30	29°♂21'38	
minimum elong	3242 Aug 05 20:48	14°♂43'58	5°05'40		3243 Jun 30 04:33	0°♂	
morning rise	3242 Aug 14 01:08	10°♂33'10		retrograde	3243 Jul 04 13:48	0°♂43'45	
direct	3242 Aug 16 15:09	10°♂13'58		evening set	3243 Jul 08 10:35	0°♂11'03	
morning max el	3242 Aug 25 15:45	14°♂27'58	19°11'13		3243 Jul 09 01:31	30°♂	
asc. node	3242 Aug 31 03:49	21°♂05'27		min. Earth dist.	3243 Jul 15 10:18	26°♂58'51	0.55770 AU
	3242 Sep 05 13:42	0°♂		inferior conj	3243 Jul 17 08:53	25°♂50'08	-4°36'04
morning set	3242 Sep 11 14:14	11°♂33'00		minimum elong	3243 Jul 17 02:24	25°♂59'44	4°34'59
				morning rise	3243 Jul 25 20:40	21°♂56'08	
superior conj	3242 Sep 19 19:29	27°♂48'49	1°40'26	direct	3243 Jul 28 16:45	21°♂36'29	
minimum elong	3242 Sep 19 21:20	27°♂57'43	1°40'20	morning max el	3243 Aug 08 05:38	26°♂29'47	20°20'13
	3242 Sep 20 22:43	0°♂			3243 Aug 11 12:26	0°♂	
max. Earth dist.	3242 Sep 26 09:10	10°♂09'09	1.38408 AU	asc. node	3243 Aug 18 00:50	9°♂28'21	
evening rise	3242 Sep 30 04:15	16°♂54'11		morning set	3243 Aug 26 19:38	26°♂09'19	
desc. node	3242 Oct 07 15:47	29°♂25'24			3243 Aug 28 16:36	0°♂	
	3242 Oct 08 00:25	0°♂					
	3242 Oct 29 02:04	0°♂		superior conj	3243 Sep 03 10:39	11°♂48'02	1°44'50
evening max el	3242 Nov 04 18:29	7°♂25'48	24°49'13	minimum elong	3243 Sep 03 10:47	11°♂48'43	1°44'51
retrograde	3242 Nov 16 10:01	14°♂12'11		max. Earth dist.	3243 Sep 08 15:27	22°♂04'24	1.36444 AU
evening set	3242 Nov 22 00:24	11°♂51'43		evening rise	3243 Sep 12 13:29	29°♂26'13	
min. Earth dist.	3242 Nov 26 14:11	6°♂41'12	0.67487 AU		3243 Sep 12 20:52	0°♂	
asc. node	3242 Nov 27 03:03	5°♂58'42		desc. node	3243 Sep 24 12:48	19°♂50'31	
inferior conj	3242 Nov 27 12:31	5°♂27'19	0°08'07		3243 Oct 01 05:59	0°♂	
minimum elong	3242 Nov 27 12:19	5°♂27'59	0°08'02	evening max el	3243 Oct 18 06:50	21°♂07'47	25°58'51
transit middle	3242 Nov 27 12:19	5°♂27'59	0°08'02	retrograde	3243 Oct 30 18:48	28°♂13'51	
transit begin	3242 Nov 27 09:56	5°♂35'55		evening set	3243 Nov 05 23:10	25°♂40'21	
transit end	3242 Nov 27 14:43	5°♂20'03		min. Earth dist.	3243 Nov 10 05:37	21°♂05'14	0.66762 AU
	3242 Dec 02 06:59	30°♂		inferior conj	3243 Nov 11 15:01	19°♂20'42	-0°48'54
morning rise	3242 Dec 03 00:22	29°♂26'46		minimum elong	3243 Nov 11 16:19	19°♂16'39	0°48'21
direct	3242 Dec 06 15:26	28°♂10'59		asc. node	3243 Nov 14 00:03	16°♂29'24	
	3242 Dec 11 08:05	0°♂		morning rise	3243 Nov 17 09:50	13°♂29'05	
morning max el	3242 Dec 14 03:05	2°♂25'55	19°52'07	direct	3243 Nov 20 14:05	12°♂31'12	
	3243 Jan 03 03:03	0°♂		morning max el	3243 Nov 27 10:52	16°♂19'49	18°56'49
desc. node	3243 Jan 03 15:03	0°♂45'40			3243 Dec 07 19:09	0°♂	
morning set	3243 Jan 09 06:15	9°♂24'09		morning set	3243 Dec 19 14:32	18°♂17'15	
max. Earth dist.	3243 Jan 20 18:05	27°♂24'09	1.44141 AU	desc. node	3243 Dec 21 12:04	21°♂15'31	
	3243 Jan 22 09:07	0°♂			3243 Dec 27 02:04	0°♂	
				max. Earth dist.	3244 Jan 03 10:38	11°♂32'14	1.45036 AU
superior conj	3243 Jan 25 18:36	5°♂28'20	-1°57'42				
minimum elong	3243 Jan 25 12:47	5°♂04'45	1°57'22	superior conj	3244 Jan 05 04:12	14°♂15'50	-1°29'18
evening rise	3243 Feb 08 03:01	27°♂44'31		minimum elong	3244 Jan 04 19:04	13°♂39'54	1°28'23
	3243 Feb 09 10:45	0°♂			3244 Jan 15 01:37	0°♂	
asc. node	3243 Feb 23 02:21	21°♂57'27		evening rise	3244 Jan 20 07:12	8°♂27'34	
evening max el	3243 Feb 26 07:53	25°♂45'22	18°13'44		3244 Feb 02 18:19	0°♂	
retrograde	3243 Mar 04 18:19	29°♂10'54		asc. node	3244 Feb 09 23:22	9°♂20'00	
evening set	3243 Mar 07 16:19	28°♂26'23		evening max el	3244 Feb 09 19:36	9°♂10'29	18°38'29
inferior conj	3243 Mar 13 18:16	23°♂08'01	3°38'32	retrograde	3244 Feb 16 10:16	12°♂50'13	

evening set	3244 Feb 19 14:12	11°  53'34		asc. node	3245 Jan 26 20:24	25°  41'24	
inferior conj	3244 Feb 25 08:00	6°  17'01	3°35'22	retrograde	3245 Jan 30 06:40	26°  44'13	
minimum elong	3244 Feb 25 06:53	6°  20'23	3°35'17	evening set	3245 Feb 02 17:27	25°  34'36	
min. Earth dist.	3244 Feb 27 06:41	3°  56'30	0.64987 AU	inferior conj	3245 Feb 08 05:58	19°  42'05	3°18'07
morning rise	3244 Mar 01 23:07	0°  06'32		minimum elong	3245 Feb 08 03:52	19°  48'52	3°17'45
	3244 Mar 02 02:12	30°  8		min. Earth dist.	3245 Feb 09 13:31	17°  59'59	0.66326 AU
direct	3244 Mar 08 16:20	27°  15'34		morning rise	3245 Feb 13 14:01	13°  28'57	
	3244 Mar 16 02:25	0°  8		direct	3245 Feb 19 20:53	10°  41'57	
desc. node	3244 Mar 18 11:18	1°  47'20		morning max el	3245 Mar 04 10:40	18°  09'54	26°04'47
morning max el	3244 Mar 22 00:56	5°  04'22	27°08'33	desc. node	3245 Mar 05 08:19	19°  05'37	
	3244 Apr 10 00:33	0°  9			3245 Mar 14 10:01	0°  8	
morning set	3244 Apr 26 14:56	28°  05'11			3245 Apr 03 00:28	0°  9	
	3244 Apr 27 04:17	0°  8		morning set	3245 Apr 09 15:04	11°  04'26	
max. Earth dist.	3244 May 01 04:27	7°  59'30	1.33864 AU	max. Earth dist.	3245 Apr 13 13:30	19°  16'11	1.35351 AU
superior conj	3244 May 04 22:01	15°  43'26	-0°31'13	superior conj	3245 Apr 18 17:50	29°  33'42	-0°59'52
minimum elong	3244 May 04 23:37	15°  51'53	0°30'52	minimum elong	3245 Apr 18 20:57	29°  49'37	0°59'17
asc. node	3244 May 07 22:39	22°  8'49			3245 Apr 18 23:00	0°  8	
	3244 May 11 15:43	0°  11		asc. node	3245 Apr 24 19:42	12°  8'05'14	
evening rise	3244 May 12 06:07	1°  15'37		evening rise	3245 Apr 26 13:39	15°  8'41'31	
	3244 May 28 17:46	0°  6			3245 May 03 21:55	0°  11	
evening max el	3244 Jun 01 17:46	4°  28'06	21°47'19	evening max el	3245 May 14 21:24	15°  11'28'45	20°24'47
retrograde	3244 Jun 14 05:57	10°  28'12		retrograde	3245 May 25 19:24	20°  11'47'53	
desc. node	3244 Jun 14 10:32	10°  28'07		evening set	3245 May 27 19:44	20°  11'37'46	
evening set	3244 Jun 16 20:18	10°  23'02		desc. node	3245 Jun 01 07:33	19°  11'10'57	
inferior conj	3244 Jun 26 05:27	6°  20'24	-3°16'54	inferior conj	3245 Jun 05 23:52	16°  11'39'45	-1°22'37
minimum elong	3244 Jun 25 21:21	6°  31'44	3°14'28	minimum elong	3245 Jun 05 19:59	16°  11'45'26	1°21'11
min. Earth dist.	3244 Jun 25 21:12	6°  31'56	0.54935 AU	min. Earth dist.	3245 Jun 07 09:32	15°  11'50'42	0.55034 AU
morning rise	3244 Jul 04 23:42	2°  27'31		morning rise	3245 Jun 14 19:09	12°  11'27'31	
direct	3244 Jul 08 04:34	2°  50'00		direct	3245 Jun 18 14:51	11°  11'56'01	
morning max el	3244 Jul 20 07:56	7°  46'51	21°48'41	morning max el	3245 Jul 02 01:30	18°  11'27'48	23°29'43
asc. node	3244 Aug 03 21:52	28°  27'06			3245 Jul 11 13:06	0°  6	
	3244 Aug 04 17:39	0°  9		asc. node	3245 Jul 21 18:56	17°  18'52'45	
morning set	3244 Aug 10 04:58	10°  9'57'21		morning set	3245 Jul 25 16:23	25°  18'51'52	
					3245 Jul 27 15:03	0°  9	
superior conj	3244 Aug 17 10:51	26°  9'14'10	1°41'51	superior conj	3245 Aug 01 17:09	10°  9'58'29	1°32'47
minimum elong	3244 Aug 17 09:39	26°  9'07'54	1°41'48	minimum elong	3245 Aug 01 15:08	10°  9'47'33	1°32'35
	3244 Aug 19 06:15	0°  17		max. Earth dist.	3245 Aug 04 03:23	16°  9'09'17	1.33494 AU
max. Earth dist.	3244 Aug 21 04:54	3°  17'58'53	1.34775 AU	evening rise	3245 Aug 09 06:30	26°  9'43'36	
evening rise	3244 Aug 25 15:38	12°  17'46'21			3245 Aug 10 22:16	0°  17	
	3244 Sep 04 05:08	0°  15		desc. node	3245 Aug 28 06:52	29°  17'38'35	
desc. node	3244 Sep 10 09:50	9°  15'57'29			3245 Aug 28 12:44	0°  15	
	3244 Sep 25 07:06	0°  17		evening max el	3245 Sep 12 07:06	18°  18'05'27	27°22'07
evening max el	3244 Sep 29 19:19	4°  17'44'23	26°52'14	retrograde	3245 Sep 25 19:48	25°  18'02'39	
retrograde	3244 Oct 12 22:10	12°  17'00'13		evening set	3245 Oct 02 21:52	22°  18'42'34	
evening set	3244 Oct 19 15:11	9°  17'18'46		min. Earth dist.	3245 Oct 06 15:27	19°  18'18'30	0.64263 AU
min. Earth dist.	3244 Oct 23 14:44	5°  17'19'56	0.65687 AU	inferior conj	3245 Oct 09 01:10	16°  18'45'54	-2°48'45
inferior conj	3244 Oct 25 12:00	3°  17'08'26	-1°48'37	minimum elong	3245 Oct 09 05:47	16°  18'33'40	2°47'06
minimum elong	3244 Oct 25 15:00	2°  17'59'44	1°47'24	morning rise	3245 Oct 15 14:52	11°  18'02'24	
	3244 Oct 28 08:44	30°  17'8		asc. node	3245 Oct 17 18:08	10°  18'49'11	
asc. node	3244 Oct 30 21:05	27°  17'55'29		direct	3245 Oct 18 04:10	10°  18'48'17	
morning rise	3244 Oct 31 15:34	27°  17'28'50		morning max el	3245 Oct 24 16:27	14°  18'04'10	17°55'36
direct	3244 Nov 03 11:10	26°  17'45'12			3245 Nov 04 17:19	0°  17	
	3244 Nov 09 16:57	0°  17		morning set	3245 Nov 10 18:58	10°  17'16'18	
morning max el	3244 Nov 10 00:13	0°  17'17'52	18°17'44		3245 Nov 22 14:44	0°  17	
morning set	3244 Nov 29 02:39	28°  17'35'34					
	3244 Nov 29 23:28	0°  17					
desc. node	3244 Dec 07 09:06	11°  17'54'44		superior conj	3245 Nov 23 22:03	2°  17'07'01	0°02'20
				minimum elong	3245 Nov 23 22:19	2°  17'08'08	0°02'18
superior conj	3244 Dec 14 06:19	22°  17'49'16	-0°45'35	behind sun begin	3245 Nov 23 12:14	1°  17'27'16	
minimum elong	3244 Dec 14 00:32	22°  17'26'29	0°44'49	behind sun end	3245 Nov 24 08:25	2°  17'48'56	
max. Earth dist.	3244 Dec 16 06:03	25°  17'56'57	1.45195 AU	desc. node	3245 Nov 24 06:10	2°  17'39'53	
	3244 Dec 18 20:03	0°  17		max. Earth dist.	3245 Nov 29 00:38	10°  17'17'50	1.44614 AU
evening rise	3244 Dec 30 12:28	18°  17'16'31		evening rise	3245 Dec 10 01:00	27°  17'28'54	
	3245 Jan 07 00:38	0°  17			3245 Dec 11 16:21	0°  17	
greatest brilliancy	3245 Jan 10 18:51	5°  17'48'09	-0.7m		3246 Jan 01 02:42	0°  17	
evening max el	3245 Jan 23 04:01	22°  17'39'38	19°20'25	evening max el	3246 Jan 06 07:35	6°  17'10'27	20°17'42

asc. node	3246 Jan 13 17:26	10° \approx 47'02	evening rise	3246 Nov 19 11:08	6° \approx 41'26	
retrograde	3246 Jan 14 04:44	10° \approx 48'16		3246 Dec 05 00:06	0° \approx	
evening set	3246 Jan 17 23:51	9° \approx 24'34	evening max el	3246 Dec 20 05:38	19° \approx 42'45	21°27'19
inferior conj	3246 Jan 23 09:22	3° \approx 18'51 2°49'59	retrograde	3246 Dec 29 02:18	24° \approx 58'38	
minimum elong	3246 Jan 23 06:51	3° \approx 27'22 2°49'20	asc. node	3246 Dec 31 14:28	24° \approx 24'15	
min. Earth dist.	3246 Jan 24 03:16	2° \approx 18'12 0.67251 AU	evening set	3247 Jan 02 07:32	23° \approx 19'39	
	3246 Jan 25 21:29	30° \approx	inferior conj	3247 Jan 07 15:54	17° \approx 03'56	2°13'10
morning rise	3246 Jan 28 13:38	27° \approx 05'08	minimum elong	3247 Jan 07 13:29	17° \approx 12'20	2°12'23
direct	3246 Feb 03 07:01	24° \approx 32'03	min. Earth dist.	3247 Jan 07 21:37	16° \approx 44'10	0.67780 AU
	3246 Feb 13 08:33	0° \approx	morning rise	3247 Jan 12 19:14	10° \approx 51'29	
morning max el	3246 Feb 14 19:23	1° \approx 24'52 24°43'24	direct	3247 Jan 17 21:54	8° \approx 38'34	
desc. node	3246 Feb 20 05:22	7° \approx 28'31	morning max el	3247 Jan 28 04:21	14° \approx 44'51	23°14'48
	3246 Mar 08 10:37	0° \approx	desc. node	3247 Feb 07 02:24	26° \approx 37'30	
morning set	3246 Mar 22 20:51	23° \approx 44'27		3247 Feb 09 14:06	0° \approx	
	3246 Mar 26 08:25	0° \approx		3247 Mar 01 09:41	0° \approx	
max. Earth dist.	3246 Mar 26 12:10	0° \approx 17'11 1.37251 AU	morning set	3247 Mar 04 02:06	4° \approx 27'04	
			max. Earth dist.	3247 Mar 08 06:56	11° \approx 37'20	1.39399 AU
superior conj	3246 Apr 02 03:15	12° \approx 49'11 -1°26'57	superior conj	3247 Mar 15 22:20	25° \approx 20'21	-1°49'41
minimum elong	3246 Apr 02 07:34	13° \approx 10'11 1°26'21	minimum elong	3247 Mar 16 02:46	25° \approx 40'54	1°49'17
evening rise	3246 Apr 10 15:43	29° \approx 45'41		3247 Mar 18 10:10	0° \approx	
	3246 Apr 10 18:35	0° \approx	evening rise	3247 Mar 25 09:26	13° \approx 20'56	
asc. node	3246 Apr 11 16:46	1° \approx 50'18	asc. node	3247 Mar 29 13:49	21° \approx 18'16	
evening max el	3246 Apr 27 13:08	27° \approx 09'53 19°20'30		3247 Apr 03 12:07	0° \approx	
	3246 May 01 04:04	0° \approx	evening max el	3247 Apr 10 14:59	9° \approx 29'20	18°36'18
retrograde	3246 May 06 18:05	1° \approx 37'57	retrograde	3247 Apr 18 10:30	13° \approx 19'16	
evening set	3246 May 08 18:44	1° \approx 25'54	evening set	3247 Apr 20 17:14	13° \approx 00'49	
	3246 May 12 18:24	30° \approx	inferior conj	3247 Apr 28 08:55	8° \approx 34'42	2°04'35
inferior conj	3246 May 17 06:16	27° \approx 18'11 0°33'32	minimum elong	3247 Apr 28 12:39	8° \approx 27'32	2°03'30
minimum elong	3246 May 17 07:40	27° \approx 15'53 0°33'01	min. Earth dist.	3247 May 01 18:12	5° \approx 59'48	0.57835 AU
desc. node	3246 May 19 04:36	26° \approx 01'48	morning rise	3247 May 06 04:55	3° \approx 15'21	
min. Earth dist.	3246 May 20 00:14	25° \approx 30'06 0.56075 AU	desc. node	3247 May 06 01:37	3° \approx 19'19	
morning rise	3246 May 25 17:36	22° \approx 32'19	direct	3247 May 11 23:18	1° \approx 51'41	
direct	3246 May 30 11:52	21° \approx 40'25	morning max el	3247 May 26 08:15	9° \approx 28'26	26°35'55
morning max el	3246 Jun 13 15:41	28° \approx 52'16 25°10'44		3247 Jun 10 23:03	0° \approx	
	3246 Jun 14 19:08	0° \approx	morning set	3247 Jun 24 14:37	25° \approx 35'23	
	3246 Jul 04 20:56	0° \approx	asc. node	3247 Jun 25 13:04	27° \approx 34'14	
asc. node	3246 Jul 08 16:00	7° \approx 37'01		3247 Jun 26 16:17	0° \approx	
morning set	3246 Jul 10 04:08	10° \approx 46'13	superior conj	3247 Jul 01 14:44	10° \approx 48'03	1°00'04
superior conj	3246 Jul 17 03:06	25° \approx 51'54 1°18'36	minimum elong	3247 Jul 01 12:32	10° \approx 35'55	0°59'39
minimum elong	3246 Jul 17 00:45	25° \approx 39'00 1°18'15	max. Earth dist.	3247 Jul 01 20:12	11° \approx 18'14	1.32167 AU
max. Earth dist.	3246 Jul 18 09:26	28° \approx 37'25 1.32626 AU	evening rise	3247 Jul 08 12:25	25° \approx 45'43	
	3246 Jul 19 00:38	0° \approx		3247 Jul 10 13:33	0° \approx	
evening rise	3246 Jul 24 06:22	11° \approx 06'17		3247 Jul 27 19:56	0° \approx	
	3246 Aug 03 04:04	0° \approx	desc. node	3247 Aug 02 00:55	6° \approx 52'19	
desc. node	3246 Aug 15 03:54	18° \approx 42'00	evening max el	3247 Aug 07 20:18	13° \approx 10'20	26°50'01
	3246 Aug 24 16:18	0° \approx	retrograde	3247 Aug 21 18:39	20° \approx 22'05	
evening max el	3246 Aug 25 16:14	0° \approx 58'04 27°22'37	evening set	3247 Aug 28 16:25	18° \approx 18'29	
retrograde	3246 Sep 08 11:05	8° \approx 13'59	min. Earth dist.	3247 Sep 01 10:25	15° \approx 40'32	0.60507 AU
evening set	3246 Sep 15 15:45	5° \approx 45'06	inferior conj	3247 Sep 04 15:54	12° \approx 59'57	-4°33'48
min. Earth dist.	3246 Sep 19 06:11	2° \approx 49'55 0.62505 AU	minimum elong	3247 Sep 04 21:07	12° \approx 49'06	4°32'50
inferior conj	3246 Sep 22 03:35	0° \approx 05'56 -3°45'49	morning rise	3247 Sep 12 03:43	8° \approx 14'57	
minimum elong	3246 Sep 22 09:15	29° \approx 52'32 3°44'12	direct	3247 Sep 14 12:55	7° \approx 53'05	
	3246 Sep 22 06:05	30° \approx	asc. node	3247 Sep 21 12:15	11° \approx 09'06	
morning rise	3246 Sep 29 04:19	24° \approx 59'44	morning max el	3247 Sep 21 21:14	11° \approx 30'20	18°06'08
direct	3246 Oct 01 14:03	24° \approx 33'42		3247 Oct 04 03:57	0° \approx	
asc. node	3246 Oct 04 15:12	25° \approx 16'44	morning set	3247 Oct 07 16:41	6° \approx 32'54	
morning max el	3246 Oct 08 08:31	28° \approx 01'04 17°51'21				
	3246 Oct 10 04:04	0° \approx	superior conj	3247 Oct 17 10:46	24° \approx 30'21	1°14'36
morning set	3246 Oct 24 09:43	23° \approx 01'24	minimum elong	3247 Oct 17 14:56	24° \approx 49'00	1°14'07
	3246 Oct 28 07:50	0° \approx		3247 Oct 20 13:28	0° \approx	
superior conj	3246 Nov 04 15:24	12° \approx 40'42 0°43'56	max. Earth dist.	3247 Oct 25 02:08	7° \approx 44'46	1.41633 AU
minimum elong	3246 Nov 04 19:12	12° \approx 56'49 0°43'25	desc. node	3247 Oct 29 00:12	14° \approx 13'27	
desc. node	3246 Nov 11 03:11	23° \approx 27'10	evening rise	3247 Oct 30 10:55	16° \approx 33'57	
max. Earth dist.	3246 Nov 11 15:42	24° \approx 17'59 1.43375 AU		3247 Nov 08 01:31	0° \approx	
	3246 Nov 15 04:57	0° \approx		3247 Nov 29 21:47	0° \approx	

evening max el	3247 Dec 02 22:43	3° ♄ 17'07	22°44'54		3248 Oct 31 15:13	0° ♄	
retrograde	3247 Dec 12 21:38	9° ♄ 11'42		evening max el	3248 Nov 14 12:22	16° ♄ 55'01	24°04'44
evening set	3247 Dec 17 14:48	7° ♄ 16'21		retrograde	3248 Nov 25 13:35	23° ♄ 24'30	
asc. node	3247 Dec 18 11:30	6° ♄ 29'38		evening set	3248 Nov 30 20:07	21° ♄ 12'40	
inferior conj	3247 Dec 22 23:36	0° ♄ 54'11	1°29'10	asc. node	3248 Dec 04 08:31	17° ♄ 21'47	
minimum elong	3247 Dec 22 21:43	1° ♄ 00'41	1°28'27	min. Earth dist.	3248 Dec 05 14:26	15° ♄ 42'48	0.67758 AU
min. Earth dist.	3247 Dec 22 18:06	1° ♄ 13'11	0.67944 AU	inferior conj	3248 Dec 06 06:40	14° ♄ 47'54	0°39'13
	3247 Dec 23 15:19	30° ♄		minimum elong	3248 Dec 06 05:45	14° ♄ 51'02	0°38'49
morning rise	3247 Dec 28 04:30	24° ♄ 44'52		morning rise	3248 Dec 11 15:24	8° ♄ 43'43	
direct	3248 Jan 01 16:28	22° ♄ 54'47		direct	3248 Dec 15 13:39	7° ♄ 16'08	
morning max el	3248 Jan 10 17:06	28° ♄ 11'54	21°48'14	morning max el	3248 Dec 23 12:54	11° ♄ 50'31	20°30'47
	3248 Jan 12 10:06	0° ♄			3249 Jan 06 12:13	0° ♄	
desc. node	3248 Jan 24 23:25	16° ♄ 19'00		desc. node	3249 Jan 10 20:27	6° ♄ 24'26	
	3248 Feb 03 06:14	0° ♄		morning set	3249 Jan 21 02:56	22° ♄ 02'41	
morning set	3248 Feb 12 02:17	13° ♄ 45'46			3249 Jan 26 04:52	0° ♄	
max. Earth dist.	3248 Feb 18 05:49	23° ♄ 47'15	1.41527 AU	max. Earth dist.	3249 Jan 30 12:24	6° ♄ 53'22	1.43341 AU
	3248 Feb 21 22:18	0° ♄					
superior conj	3248 Feb 25 22:01	6° ♄ 54'14	-2°04'07	superior conj	3249 Feb 05 21:25	17° ♄ 20'06	-2°05'09
minimum elong	3248 Feb 26 00:27	7° ♄ 04'54	2°04'02	minimum elong	3249 Feb 05 19:01	17° ♄ 10'08	2°05'05
evening rise	3248 Mar 07 15:11	26° ♄ 18'01			3249 Feb 13 08:21	0° ♄	
	3248 Mar 09 15:24	0° ♄		evening rise	3249 Feb 18 04:54	8° ♄ 28'39	
asc. node	3248 Mar 15 10:51	10° ♄ 22'20		asc. node	3249 Mar 02 07:51	28° ♄ 55'00	
evening max el	3248 Mar 23 23:34	22° ♄ 17'36	18°12'12		3249 Mar 03 01:42	0° ♄	
retrograde	3248 Mar 30 21:34	25° ♄ 46'18		evening max el	3249 Mar 07 11:34	5° ♄ 25'43	18°07'39
evening set	3248 Apr 02 10:41	25° ♄ 18'46		retrograde	3249 Mar 13 23:29	8° ♄ 48'46	
inferior conj	3248 Apr 09 08:39	20° ♄ 31'37	3°02'51	evening set	3249 Mar 16 18:14	8° ♄ 10'46	
minimum elong	3248 Apr 09 11:52	20° ♄ 24'24	3°02'14	inferior conj	3249 Mar 23 02:22	3° ♄ 03'10	3°32'11
min. Earth dist.	3248 Apr 12 17:27	17° ♄ 31'55	0.59955 AU	minimum elong	3249 Mar 23 03:50	2° ♄ 59'22	3°32'03
morning rise	3248 Apr 16 10:43	14° ♄ 47'18		min. Earth dist.	3249 Mar 26 00:48	0° ♄ 03'23	0.62100 AU
desc. node	3248 Apr 21 22:38	12° ♄ 50'53			3249 Mar 26 02:11	30° ♄	
direct	3248 Apr 22 23:06	12° ♄ 48'00		morning rise	3249 Mar 29 12:01	27° ♄ 03'23	
morning max el	3248 May 07 06:46	20° ♄ 38'33	27°31'51	direct	3249 Apr 05 08:59	24° ♄ 33'57	
	3248 May 15 08:25	0° ♄		desc. node	3249 Apr 08 19:38	25° ♄ 07'59	
	3248 Jun 02 19:34	0° ♄			3249 Apr 16 18:27	0° ♄	
morning set	3248 Jun 07 22:08	10° ♄ 13'53		morning max el	3249 Apr 19 11:30	2° ♄ 31'15	27°51'07
asc. node	3248 Jun 11 10:08	17° ♄ 39'26			3249 May 09 17:28	0° ♄	
max. Earth dist.	3248 Jun 14 08:05	24° ♄ 00'57	1.32104 AU	morning set	3249 May 23 00:38	24° ♄ 35'00	
					3249 May 25 15:30	0° ♄	
superior conj	3248 Jun 15 02:17	25° ♄ 41'02	0°37'52	max. Earth dist.	3249 May 28 17:05	6° ♄ 13'51	1.32444 AU
minimum elong	3248 Jun 15 00:42	25° ♄ 32'15	0°37'32	asc. node	3249 May 29 07:09	7° ♄ 47'54	
	3248 Jun 17 01:19	0° ♄					
evening rise	3248 Jun 21 22:17	10° ♄ 34'20		superior conj	3249 May 30 12:03	10° ♄ 24'51	0°12'39
	3248 Jul 01 20:41	0° ♄		minimum elong	3249 May 30 11:28	10° ♄ 21'38	0°12'32
desc. node	3248 Jul 18 21:56	23° ♄ 48'01		behind sun begin	3249 May 30 08:16	10° ♄ 04'14	
evening max el	3248 Jul 19 17:09	24° ♄ 34'51	25°45'33	behind sun end	3249 May 30 14:39	10° ♄ 13'01	
	3248 Jul 27 01:32	0° ♄		evening rise	3249 Jun 06 09:56	25° ♄ 12'45	
retrograde	3248 Aug 02 16:44	1° ♄ 42'30			3249 Jun 08 14:24	0° ♄	
evening set	3248 Aug 08 19:04	0° ♄ 14'32			3249 Jun 26 12:13	0° ♄	
	3248 Aug 09 07:04	30° ♄		evening max el	3249 Jul 01 07:30	5° ♄ 17'02	24°17'38
min. Earth dist.	3248 Aug 13 05:20	27° ♄ 36'53	0.58446 AU	desc. node	3249 Jul 05 18:56	8° ♄ 59'01	
inferior conj	3248 Aug 16 10:35	25° ♄ 18'08	-5°02'54	retrograde	3249 Jul 15 03:41	12° ♄ 16'08	
minimum elong	3248 Aug 16 12:47	25° ♄ 14'10	5°02'47	evening set	3249 Jul 19 21:49	11° ♄ 25'43	
morning rise	3248 Aug 24 08:43	20° ♄ 56'14		min. Earth dist.	3249 Jul 25 18:14	8° ♄ 30'13	0.56597 AU
direct	3248 Aug 26 20:27	20° ♄ 36'22		inferior conj	3249 Jul 28 09:06	6° ♄ 51'36	-4°59'03
morning max el	3248 Sep 04 03:21	24° ♄ 33'14	18°41'22	minimum elong	3249 Jul 28 05:44	6° ♄ 56'54	4°58'46
asc. node	3248 Sep 07 09:18	28° ♄ 11'41		morning rise	3249 Aug 05 16:20	2° ♄ 50'25	
	3248 Sep 08 17:29	0° ♄		direct	3249 Aug 08 08:48	2° ♄ 31'12	
morning set	3248 Sep 20 11:03	20° ♄ 37'25		morning max el	3249 Aug 17 23:52	6° ♄ 59'55	19°38'05
	3248 Sep 25 06:38	0° ♄		asc. node	3249 Aug 25 06:21	16° ♄ 09'00	
superior conj	3248 Sep 29 03:22	7° ♄ 22'54	1°33'55		3249 Sep 02 00:02	0° ♄	
minimum elong	3248 Sep 29 06:13	7° ♄ 36'19	1°33'42	morning set	3249 Sep 04 13:11	5° ♄ 04'09	
max. Earth dist.	3248 Oct 06 08:07	20° ♄ 29'56	1.39603 AU	superior conj	3249 Sep 12 11:39	21° ♄ 01'51	1°43'18
evening rise	3248 Oct 10 09:14	27° ♄ 28'45		minimum elong	3249 Sep 12 12:44	21° ♄ 07'12	1°43'16
	3248 Oct 11 21:17	0° ♄			3249 Sep 17 03:01	0° ♄	
desc. node	3248 Oct 14 21:14	4° ♄ 55'19		max. Earth dist.	3249 Sep 18 12:24	2° ♄ 36'26	1.37541 AU
				evening rise	3249 Sep 22 06:38	9° ♄ 27'14	

desc. node	3249 Oct 01 18:16	25°♄27'55		superior conj	3250 Aug 27 07:07	5°♄14'03	1°44'24
	3249 Oct 04 15:30	0°♄		minimum elong	3250 Aug 27 06:37	5°♄11'33	1°44'23
	3249 Oct 27 10:13	0°♄		max. Earth dist.	3250 Aug 31 20:51	14°♄26'46	1.35686 AU
evening max el	3249 Oct 28 00:32	0°♄35'31	25°20'14	evening rise	3250 Sep 04 23:37	22°♄21'15	
retrograde	3249 Nov 09 01:18	7°♄31'53			3250 Sep 09 04:16	0°♄	
evening set	3249 Nov 14 21:49	5°♄05'06		desc. node	3250 Sep 18 15:17	15°♄46'00	
	3249 Nov 19 11:19	30°♄			3250 Sep 28 09:47	0°♄	
min. Earth dist.	3249 Nov 19 08:17	0°♄09'45	0.67222 AU	evening max el	3250 Oct 10 12:47	14°♄15'37	26°23'59
inferior conj	3249 Nov 20 11:21	28°♄42'05	-0°15'37	retrograde	3250 Oct 23 08:05	21°♄27'51	
minimum elong	3249 Nov 20 11:45	28°♄40'48	0°15'27	evening set	3250 Oct 29 18:00	18°♄50'02	
transit middle	3249 Nov 20 11:45	28°♄40'48	0°15'27	min. Earth dist.	3250 Nov 02 21:23	14°♄30'16	0.66343 AU
transit begin	3249 Nov 20 10:55	28°♄43'30		inferior conj	3250 Nov 04 11:46	12°♄33'29	-1°14'02
transit end	3249 Nov 20 12:35	28°♄38'06		minimum elong	3250 Nov 04 13:46	12°♄27'23	1°13'12
asc. node	3249 Nov 21 05:32	27°♄43'35		asc. node	3250 Nov 08 02:35	8°♄31'52	
morning rise	3249 Nov 26 01:58	22°♄45'16		morning rise	3250 Nov 10 10:07	6°♄46'36	
direct	3249 Nov 29 12:07	21°♄37'42		direct	3250 Nov 13 10:17	5°♄55'24	
morning max el	3249 Dec 06 16:39	25°♄40'05	19°26'43	morning max el	3250 Nov 20 03:07	9°♄36'28	18°38'08
	3249 Dec 10 11:33	0°♄			3250 Dec 04 15:42	0°♄	
greatest brilliancy	3249 Dec 19 23:59	13°♄26'51	-0.7m	morning set	3250 Dec 10 20:22	9°♄49'04	
desc. node	3249 Dec 28 17:30	26°♄46'57		desc. node	3250 Dec 15 14:32	17°♄21'15	
	3249 Dec 30 19:28	0°♄			3250 Dec 23 15:18	0°♄	
morning set	3249 Dec 31 01:12	0°♄22'12					
max. Earth dist.	3250 Jan 13 01:46	20°♄43'03	1.44606 AU	superior conj	3250 Dec 26 22:58	5°♄12'36	-1°12'04
				minimum elong	3250 Dec 26 14:30	4°♄39'23	1°11'05
superior conj	3250 Jan 16 19:02	26°♄37'45	-1°47'58	max. Earth dist.	3250 Dec 26 19:21	4°♄58'26	1.45189 AU
minimum elong	3250 Jan 16 11:08	26°♄06'12	1°47'23	evening rise	3251 Jan 11 16:30	0°♄04'12	
	3250 Jan 18 21:29	0°♄			3251 Jan 11 15:27	0°♄	
evening rise	3250 Jan 30 22:20	19°♄45'23		greatest brilliancy	3251 Jan 19 22:19	13°♄13'13	-0.8m
	3250 Feb 06 01:29	0°♄			3251 Jan 31 10:34	0°♄	
asc. node	3250 Feb 17 04:51	16°♄46'54		evening max el	3251 Feb 02 10:41	2°♄14'17	18°54'21
evening max el	3250 Feb 19 00:07	18°♄46'42	18°22'01	asc. node	3251 Feb 04 01:52	3°♄45'34	
retrograde	3250 Feb 25 11:31	22°♄17'15		retrograde	3251 Feb 09 05:43	6°♄03'33	
evening set	3250 Feb 28 11:51	21°♄27'49		evening set	3251 Feb 12 12:19	5°♄01'42	
inferior conj	3250 Mar 06 09:57	16°♄01'26	3°39'11		3251 Feb 17 14:09	30°♄	
minimum elong	3250 Mar 06 09:39	16°♄02'16	3°39'10	inferior conj	3251 Feb 18 03:35	29°♄18'19	3°29'32
min. Earth dist.	3250 Mar 08 17:42	13°♄22'08	0.64028 AU	minimum elong	3251 Feb 18 01:59	29°♄23'18	3°29'21
morning rise	3250 Mar 12 06:42	9°♄53'18		min. Earth dist.	3251 Feb 19 19:48	27°♄13'05	0.65606 AU
direct	3250 Mar 19 03:20	7°♄05'56		morning rise	3251 Feb 23 15:15	23°♄06'18	
desc. node	3250 Mar 26 16:40	9°♄49'28		direct	3251 Mar 02 04:41	20°♄15'12	
morning max el	3250 Apr 01 20:18	15°♄01'52	27°33'29	desc. node	3251 Mar 13 13:43	26°♄19'33	
	3250 Apr 14 01:36	0°♄		morning max el	3251 Mar 15 06:08	27°♄57'33	26°44'09
	3250 May 02 09:15	0°♄			3251 Mar 17 04:49	0°♄	
morning set	3250 May 06 19:42	8°♄30'58			3251 Apr 07 19:04	0°♄	
max. Earth dist.	3250 May 11 19:06	18°♄38'07	1.33211 AU	morning set	3251 Apr 20 03:57	21°♄50'36	
					3251 Apr 24 08:23	0°♄	
superior conj	3250 May 14 18:13	24°♄53'50	-0°14'48	max. Earth dist.	3251 Apr 24 10:28	0°♄10'23	1.34438 AU
minimum elong	3250 May 14 18:57	24°♄57'47	0°14'38				
behind sun begin	3250 May 14 16:47	24°♄46'13		superior conj	3251 Apr 28 18:33	9°♄00'25	-0°43'25
behind sun end	3250 May 14 21:07	25°♄09'22		minimum elong	3251 Apr 28 20:49	9°♄12'10	0°42'58
asc. node	3250 May 16 04:11	27°♄55'42		asc. node	3251 May 03 01:13	17°♄58'00	
	3250 May 17 03:18	0°♄		evening rise	3251 May 06 07:06	24°♄46'11	
evening rise	3250 May 21 21:31	10°♄11'12			3251 May 08 20:18	0°♄	
	3250 Jun 01 03:59	0°♄		evening max el	3251 May 25 18:40	26°♄24'39	21°10'16
evening max el	3250 Jun 12 21:24	15°♄43'02	22°40'58		3251 May 30 07:17	0°♄	
desc. node	3250 Jun 22 15:56	21°♄50'13		retrograde	3251 Jun 06 15:53	2°♄13'42	
retrograde	3250 Jun 26 02:27	22°♄17'20		evening set	3251 Jun 08 21:53	2°♄01'58	
evening set	3250 Jun 29 08:30	21°♄54'05		desc. node	3251 Jun 09 12:57	1°♄54'39	
min. Earth dist.	3250 Jul 07 05:24	18°♄26'52	0.55304 AU		3251 Jun 14 16:38	30°♄	
inferior conj	3250 Jul 08 13:03	17°♄41'38	-4°08'22	inferior conj	3251 Jun 18 06:54	28°♄03'39	-2°30'57
minimum elong	3250 Jul 08 05:07	17°♄53'00	4°06'33	minimum elong	3251 Jun 18 00:03	28°♄13'17	2°28'38
morning rise	3250 Jul 17 03:57	13°♄50'25		min. Earth dist.	3251 Jun 18 17:07	27°♄49'17	0.54859 AU
direct	3250 Jul 20 02:59	13°♄30'11		morning rise	3251 Jun 27 02:27	24°♄04'32	
morning max el	3250 Jul 31 08:54	18°♄43'33	20°55'46	direct	3251 Jun 30 12:41	23°♄39'07	
	3250 Aug 09 06:36	0°♄		morning max el	3251 Jul 13 06:55	29°♄43'29	22°30'40
asc. node	3250 Aug 12 03:24	4°♄48'37			3251 Jul 13 13:56	0°♄	
morning set	3250 Aug 19 20:30	19°♄46'06		asc. node	3251 Jul 30 00:29	23°♄59'51	
	3250 Aug 24 18:27	0°♄			3251 Aug 02 01:16	0°♄	




































































































































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					3252 Jul 23 15:13	0°♎	
superior conj	3251 Aug 11 10:14	19°♎48'53	1°38'41	superior conj	3252 Jul 25 18:19	4°♎37'44	1°27'20
minimum elong	3251 Aug 11 08:37	19°♎40'20	1°38'34	minimum elong	3252 Jul 25 16:05	4°♎25'38	1°27'04
max. Earth dist.	3251 Aug 14 13:59	26°♎26'02	1.34181 AU	max. Earth dist.	3252 Jul 27 16:10	8°♎45'16	1.33079 AU
	3251 Aug 16 07:43	0°♎		evening rise	3252 Aug 02 02:47	20°♎08'14	
evening rise	3251 Aug 19 07:42	5°♎58'51			3252 Aug 07 03:56	0°♎	
	3251 Sep 01 20:03	0°♎		desc. node	3252 Aug 22 09:20	25°♎09'43	
desc. node	3251 Sep 05 12:18	5°♎43'04			3252 Aug 25 21:57	0°♎	
evening max el	3251 Sep 23 01:18	27°♎47'50	27°08'21	evening max el	3252 Sep 04 12:29	10°♎59'14	27°26'20
	3251 Sep 25 12:13	0°♎		retrograde	3252 Sep 18 03:59	18°♎15'55	
retrograde	3251 Oct 06 09:12	5°♎05'31		evening set	3252 Sep 25 08:08	15°♎38'46	
evening set	3251 Oct 13 06:27	2°♎23'20		min. Earth dist.	3252 Sep 28 24:00	12°♎27'55	0.63551 AU
	3251 Oct 15 21:03	30°♎		inferior conj	3252 Oct 01 14:47	9°♎49'23	-3°13'39
min. Earth dist.	3251 Oct 17 03:22	28°♎39'20	0.65116 AU	minimum elong	3252 Oct 01 19:57	9°♎36'17	3°11'56
inferior conj	3251 Oct 19 05:48	26°♎18'07	-2°14'17	morning rise	3252 Oct 08 09:05	4°♎32'02	
minimum elong	3251 Oct 19 09:30	26°♎07'43	2°12'50	direct	3252 Oct 10 20:37	4°♎02'11	
morning rise	3251 Oct 25 13:30	20°♎44'16		asc. node	3252 Oct 11 20:44	4°♎07'11	
asc. node	3251 Oct 25 23:39	20°♎33'07		morning max el	3252 Oct 17 10:30	7°♎27'33	17°51'33
direct	3251 Oct 28 06:04	20°♎05'32			3252 Nov 01 07:17	0°♎	
morning max el	3251 Nov 03 18:00	23°♎34'33	18°06'10	morning set	3252 Nov 02 23:46	2°♎55'44	
	3251 Nov 08 22:05	0°♎					
morning set	3251 Nov 21 21:05	20°♎44'52		superior conj	3252 Nov 15 06:28	23°♎46'59	0°21'10
	3251 Nov 27 12:07	0°♎		minimum elong	3252 Nov 15 08:40	23°♎56'05	0°20'50
desc. node	3251 Dec 02 11:35	8°♎03'36		desc. node	3252 Nov 18 08:37	28°♎50'00	
					3252 Nov 19 01:54	0°♎	
superior conj	3251 Dec 06 04:37	13°♎59'07	-0°25'04	max. Earth dist.	3252 Nov 21 08:36	3°♎39'47	1.44162 AU
minimum elong	3251 Dec 06 01:27	13°♎46'35	0°24'37	evening rise	3252 Nov 30 22:50	18°♎42'13	
max. Earth dist.	3251 Dec 09 14:39	19°♎23'31	1.45033 AU		3252 Dec 08 08:57	0°♎	
	3251 Dec 16 09:19	0°♎		evening max el	3252 Dec 29 18:37	29°♎17'00	20°46'01
evening rise	3251 Dec 22 13:23	9°♎34'36			3252 Dec 30 11:50	0°♎	
greatest brilliancy	3252 Jan 04 17:56	29°♎47'00	-0.7m	retrograde	3253 Jan 07 01:03	4°♎10'09	
	3252 Jan 04 21:25	0°♎		asc. node	3253 Jan 07 19:59	4°♎06'43	
evening max el	3252 Jan 16 17:20	15°♎45'23	19°43'07	evening set	3253 Jan 11 00:21	2°♎39'53	
asc. node	3252 Jan 21 22:55	19°♎37'17			3253 Jan 13 16:47	30°♎	
retrograde	3252 Jan 24 03:01	20°♎02'51		inferior conj	3253 Jan 16 09:09	26°♎29'31	2°35'20
evening set	3252 Jan 27 17:11	18°♎47'24		minimum elong	3253 Jan 16 06:37	26°♎38'12	2°34'36
inferior conj	3252 Feb 02 04:11	12°♎49'12	3°07'21	min. Earth dist.	3253 Jan 16 21:38	25°♎46'42	0.67527 AU
minimum elong	3252 Feb 02 01:51	12°♎56'56	3°06'52	morning rise	3253 Jan 21 12:43	20°♎16'24	
min. Earth dist.	3252 Feb 03 05:48	11°♎24'31	0.66774 AU	direct	3253 Jan 26 23:57	17°♎51'31	
morning rise	3252 Feb 07 10:17	6°♎35'47		morning max el	3253 Feb 06 23:44	24°♎24'47	24°06'05
direct	3252 Feb 13 11:50	3°♎53'30			3253 Feb 12 00:03	0°♎	
morning max el	3252 Feb 25 15:13	11°♎07'39	25°31'40	desc. node	3253 Feb 14 07:48	2°♎52'29	
desc. node	3252 Feb 28 10:46	14°♎08'17			3253 Mar 05 03:41	0°♎	
	3252 Mar 11 16:44	0°♎		morning set	3253 Mar 14 17:04	15°♎48'16	
	3252 Mar 30 10:40	0°♎		max. Earth dist.	3253 Mar 18 10:58	22°♎23'33	1.38153 AU
morning set	3252 Apr 01 20:59	4°♎21'36			3253 Mar 22 14:59	0°♎	
max. Earth dist.	3252 Apr 05 14:30	11°♎16'47	1.36122 AU				
				superior conj	3253 Mar 25 14:17	5°♎35'53	-1°37'19
superior conj	3252 Apr 11 10:24	22°♎37'36	-1°11'40	minimum elong	3253 Mar 25 18:50	5°♎57'37	1°36'47
minimum elong	3252 Apr 11 14:07	22°♎56'07	1°11'04	evening rise	3253 Apr 03 11:32	22°♎57'21	
	3252 Apr 15 02:01	0°♎		asc. node	3253 Apr 05 19:18	27°♎29'48	
asc. node	3252 Apr 18 22:15	7°♎50'55			3253 Apr 07 02:35	0°♎	
evening rise	3252 Apr 19 12:37	9°♎03'57		evening max el	3253 Apr 19 23:57	19°♎41'03	18°59'09
	3252 Apr 30 23:10	0°♎		retrograde	3253 Apr 28 13:19	23°♎51'13	
evening max el	3252 May 07 03:36	7°♎42'36	19°54'57	evening set	3253 Apr 30 16:20	23°♎36'49	
retrograde	3252 May 17 07:20	12°♎38'27		inferior conj	3253 May 08 19:22	19°♎21'28	1°16'02
evening set	3252 May 19 06:50	12°♎28'03		minimum elong	3253 May 08 22:10	19°♎16'31	1°15'06
desc. node	3252 May 26 09:59	9°♎31'37		min. Earth dist.	3253 May 11 21:47	17°♎11'40	0.56756 AU
inferior conj	3252 May 28 04:50	8°♎27'31	-0°31'33	desc. node	3253 May 13 07:00	16°♎17'47	
minimum elong	3252 May 28 03:23	8°♎29'43	0°31'00	morning rise	3253 May 17 00:52	14°♎20'51	
min. Earth dist.	3252 May 30 06:10	7°♎12'40	0.55381 AU	direct	3253 May 22 05:32	13°♎16'53	
morning rise	3252 Jun 05 21:56	4°♎02'14		morning max el	3253 Jun 05 12:43	20°♎40'19	25°49'53
direct	3252 Jun 10 02:51	3°♎23'26			3253 Jun 13 13:41	0°♎	
morning max el	3252 Jun 23 22:03	10°♎13'25	24°13'33		3253 Jul 01 03:00	0°♎	
	3252 Jul 08 15:58	0°♎		asc. node	3253 Jul 02 18:35	3°♎25'22	
asc. node	3252 Jul 15 21:32	13°♎34'18					

morning set	3253 Jul 03 06:08	4°☿26'13		morning set	3254 Jun 17 15:35	19°♊12'05	
				asc. node	3254 Jun 19 15:36	23°♊26'44	
superior conj	3253 Jul 10 05:13	19°☿33'45	1°11'13		3254 Jun 22 16:01	0°☿	
minimum elong	3253 Jul 10 02:52	19°☿20'51	1°10'50				
max. Earth dist.	3253 Jul 11 00:54	21°☿21'49	1.32384 AU	superior conj	3254 Jun 24 17:01	4°☿29'37	0°51'04
	3253 Jul 15 00:31	0°♌		minimum elong	3254 Jun 24 15:01	4°☿18'37	0°50'41
evening rise	3253 Jul 17 05:38	4°♌39'44		max. Earth dist.	3254 Jun 24 12:33	4°☿05'00	1.32089 AU
	3253 Jul 30 20:07	0°♍		evening rise	3254 Jul 01 13:32	19°☿23'58	
desc. node	3253 Aug 09 06:21	13°♍53'22			3254 Jul 06 18:43	0°♌	
evening max el	3253 Aug 17 19:43	23°♍36'16	27°12'47		3254 Jul 25 18:33	0°♍	
	3253 Aug 27 05:48	0°♎		desc. node	3254 Jul 27 03:21	1°♍35'18	
retrograde	3253 Aug 31 15:53	0°♎50'10		evening max el	3254 Jul 30 20:34	5°♍27'45	26°26'03
	3253 Sep 04 22:18	30°♎		retrograde	3254 Aug 13 19:56	12°♍38'43	
evening set	3253 Sep 07 19:16	28°♎30'11		evening set	3254 Aug 20 11:07	10°♍49'01	
min. Earth dist.	3253 Sep 11 10:00	25°♎44'28	0.61684 AU	min. Earth dist.	3254 Aug 24 09:52	8°♍13'36	0.59627 AU
inferior conj	3253 Sep 14 11:38	22°♎59'50	-4°07'43	inferior conj	3254 Aug 27 16:48	5°♍39'33	-4°49'10
minimum elong	3253 Sep 14 17:21	22°♎47'00	4°06'19	minimum elong	3254 Aug 27 21:06	5°♍31'07	4°48'36
morning rise	3253 Sep 21 17:09	18°♎02'30		morning rise	3254 Sep 04 09:13	1°♎04'41	
direct	3253 Sep 24 02:23	17°♎38'29		direct	3254 Sep 06 19:02	0°♎44'01	
asc. node	3253 Sep 28 17:47	19°♎12'54		morning max el	3254 Sep 14 11:56	4°♎28'13	18°18'33
morning max el	3253 Oct 01 01:33	21°♎08'31	17°55'15	asc. node	3254 Sep 15 14:49	5°♎37'05	
	3253 Oct 07 18:18	0°♏		morning set	3254 Sep 30 10:21	29°♎49'21	
morning set	3253 Oct 16 22:04	16°♏02'38			3254 Sep 30 12:35	0°♏	
	3253 Oct 24 15:58	0°♐					
superior conj	3253 Oct 27 11:20	4°♐54'35	0°58'22	superior conj	3254 Oct 09 16:26	17°♏13'12	1°24'06
minimum elong	3253 Oct 27 15:36	5°♐13'03	0°57'49	minimum elong	3254 Oct 09 20:10	17°♏30'15	1°23'44
max. Earth dist.	3253 Nov 03 22:04	17°♐28'19	1.42686 AU		3254 Oct 16 21:31	0°♐	
desc. node	3253 Nov 05 05:38	19°♐37'26		max. Earth dist.	3254 Oct 17 05:52	0°♐35'44	1.40788 AU
evening rise	3253 Nov 10 13:04	28°♐07'19		evening rise	3254 Oct 21 21:51	8°♐24'45	
	3253 Nov 11 17:48	0°♑		desc. node	3254 Oct 23 02:40	10°♐22'26	
	3253 Dec 02 02:55	0°♒			3254 Nov 04 19:39	0°♑	
evening max el	3253 Dec 12 14:16	12°♒49'16	21°59'35	evening max el	3254 Nov 25 05:30	26°♑24'34	23°18'57
retrograde	3253 Dec 21 21:53	18°♒22'03			3254 Nov 29 07:25	0°♒	
asc. node	3253 Dec 25 17:01	17°♒04'14		retrograde	3254 Dec 05 16:04	2°♒35'30	
evening set	3253 Dec 26 08:02	16°♒35'58		evening set	3254 Dec 10 14:40	0°♒33'08	
inferior conj	3253 Dec 31 16:23	10°♒16'48	1°55'19		3254 Dec 11 05:32	30°♒♑	
minimum elong	3253 Dec 31 14:08	10°♒24'36	1°54'31	asc. node	3254 Dec 12 14:02	28°♑35'03	
min. Earth dist.	3253 Dec 31 17:09	10°♒14'09	0.67892 AU	min. Earth dist.	3254 Dec 15 13:57	24°♑43'46	0.67900 AU
morning rise	3254 Jan 05 20:06	4°♒05'30		inferior conj	3254 Dec 16 00:02	24°♑09'07	1°08'40
direct	3254 Jan 10 16:19	2°♒02'27		minimum elong	3254 Dec 15 22:31	24°♑14'21	1°08'03
morning max el	3254 Jan 20 10:00	7°♒47'43	22°37'17	morning rise	3254 Dec 21 06:17	18°♑01'31	
desc. node	3254 Feb 01 04:50	22°♒16'25		direct	3254 Dec 25 12:10	16°♑21'16	
	3254 Feb 06 15:47	0°♓		morning max el	3255 Jan 03 01:29	21°♑19'42	21°13'51
morning set	3254 Feb 23 10:11	25°♓55'21			3255 Jan 10 09:02	0°♒	
	3254 Feb 25 21:16	0°♈		desc. node	3255 Jan 19 01:52	12°♒09'13	
max. Earth dist.	3254 Feb 28 06:50	4°♈02'51	1.40319 AU		3255 Jan 30 22:22	0°♓	
				morning set	3255 Feb 02 22:47	4°♓42'51	
superior conj	3254 Mar 08 01:42	17°♈43'44	-1°57'07	max. Earth dist.	3255 Feb 10 08:18	16°♓35'19	1.42343 AU
minimum elong	3254 Mar 08 05:37	18°♈01'28	1°56'51				
	3254 Mar 14 16:46	0°♉		superior conj	3255 Feb 17 15:34	28°♓49'50	-2°06'32
evening rise	3254 Mar 18 00:38	6°♉17'35		minimum elong	3255 Feb 17 16:17	28°♓52'53	2°06'31
asc. node	3254 Mar 23 16:20	16°♉48'35			3255 Feb 18 07:54	0°♈	
	3254 Apr 01 04:04	0°♊		evening rise	3255 Mar 01 00:07	18°♈56'04	
evening max el	3254 Apr 03 05:00	2°♊13'38	18°23'38		3255 Mar 07 04:31	0°♉	
retrograde	3254 Apr 10 14:10	5°♊52'58		asc. node	3255 Mar 10 13:21	5°♉40'42	
evening set	3254 Apr 12 23:29	5°♊31'03		evening max el	3255 Mar 17 15:28	15°♉11'49	18°08'00
inferior conj	3254 Apr 20 07:14	0°♊56'04	2°33'13	retrograde	3255 Mar 24 07:58	18°♉36'19	
minimum elong	3254 Apr 20 10:59	0°♊48'18	2°32'16	evening set	3255 Mar 26 23:29	18°♉04'33	
	3254 Apr 21 10:18	30°♊		inferior conj	3255 Apr 02 15:07	13°♉08'57	3°18'25
min. Earth dist.	3254 Apr 23 17:52	28°♉07'26	0.58703 AU	minimum elong	3255 Apr 02 17:39	13°♉02'54	3°18'02
morning rise	3254 Apr 27 19:34	25°♉24'28		min. Earth dist.	3255 Apr 05 20:32	10°♉05'57	0.60876 AU
desc. node	3254 Apr 30 04:01	24°♉23'18		morning rise	3255 Apr 09 09:50	7°♉16'55	
direct	3254 May 03 22:24	23°♉45'39		direct	3255 Apr 16 03:08	5°♉03'15	
	3254 May 16 17:25	0°♋		desc. node	3255 Apr 17 01:02	5°♉05'37	
morning max el	3254 May 18 07:49	1°♋30'04	27°03'58	morning max el	3255 Apr 30 09:06	12°♉58'19	27°44'37
	3254 Jun 07 17:51	0°♌			3255 May 13 22:03	0°♋	
					3255 May 31 01:12	0°♌	

morning set	3255 Jun 01 21:13	3°♊44'08		max. Earth dist.	3256 May 21 05:51	29°♊04'16	1.32715 AU
asc. node	3255 Jun 06 12:38	13°♊33'57			3256 May 21 16:17	0°♊	
max. Earth dist.	3255 Jun 07 23:29	16°♊43'26	1.32196 AU	asc. node	3256 May 23 09:40	3°♊42'27	
superior conj	3255 Jun 09 04:02	19°♊19'41	0°27'31	superior conj	3256 May 23 12:31	3°♊57'50	0°01'15
minimum elong	3255 Jun 09 02:49	19°♊13'00	0°27'15	minimum elong	3256 May 23 12:27	3°♊57'29	0°01'15
	3255 Jun 14 01:02	0°♊		behind sun begin	3256 May 23 07:14	3°♊29'16	
evening rise	3255 Jun 16 00:23	4°♊14'11		behind sun end	3256 May 23 17:41	4°♊25'44	
	3255 Jun 29 17:20	0°♊		evening rise	3256 May 30 12:13	19°♊03'36	
evening max el	3255 Jul 12 14:18	16°♊32'39	25°10'15		3256 Jun 04 20:50	0°♊	
desc. node	3255 Jul 14 00:20	17°♊50'38		evening max el	3256 Jun 23 03:47	27°♊04'58	23°36'46
retrograde	3255 Jul 26 13:49	23°♊38'00			3256 Jun 26 13:16	0°♊	
evening set	3255 Aug 01 03:26	22°♊26'44		desc. node	3256 Jun 29 21:20	2°♊06'58	
min. Earth dist.	3255 Aug 06 02:04	19°♊43'09	0.57615 AU	retrograde	3256 Jul 06 19:11	3°♊55'14	
inferior conj	3255 Aug 09 03:03	17°♊39'29	-5°06'15	evening set	3256 Jul 10 21:36	3°♊18'22	
minimum elong	3255 Aug 09 03:05	17°♊39'25	5°06'16	min. Earth dist.	3256 Jul 17 13:54	0°♊11'01	0.55962 AU
morning rise	3255 Aug 17 05:12	13°♊26'49			3256 Jul 17 21:22	30°♊	
direct	3255 Aug 19 18:31	13°♊07'30		inferior conj	3256 Jul 19 17:13	28°♊54'15	-4°43'50
morning max el	3255 Aug 28 14:18	17°♊16'49	19°02'46	minimum elong	3256 Jul 19 11:28	29°♊02'54	4°42'59
asc. node	3255 Sep 02 11:51	23°♊04'34		morning rise	3256 Jul 28 03:51	24°♊58'48	
	3255 Sep 06 21:05	0°♊		direct	3256 Jul 30 23:01	24°♊39'16	
morning set	3255 Sep 14 08:23	14°♊04'05		morning max el	3256 Aug 10 05:58	29°♊25'42	20°08'37
	3255 Sep 22 10:41	0°♊			3256 Aug 10 20:19	0°♊	
superior conj	3255 Sep 22 16:17	0°♊26'56	1°39'01	asc. node	3256 Aug 19 08:54	11°♊21'39	
minimum elong	3255 Sep 22 18:23	0°♊37'04	1°38'53	morning set	3256 Aug 28 13:04	28°♊38'49	
max. Earth dist.	3255 Sep 29 10:12	13°♊01'23	1.38717 AU		3256 Aug 29 05:00	0°♊	
evening rise	3255 Oct 03 06:16	19°♊47'29		superior conj	3256 Sep 05 05:50	14°♊21'48	1°44'41
	3255 Oct 09 08:37	0°♊		minimum elong	3256 Sep 05 06:13	14°♊23'41	1°44'40
desc. node	3255 Oct 09 23:41	1°♊00'54		max. Earth dist.	3256 Sep 10 16:01	25°♊00'04	1.36722 AU
	3255 Oct 29 23:29	0°♊			3256 Sep 13 07:55	0°♊	
evening max el	3255 Nov 07 18:21	10°♊04'05	24°37'55	evening rise	3256 Sep 14 12:37	2°♊11'42	
retrograde	3255 Nov 19 06:18	16°♊46'17		desc. node	3256 Sep 25 20:43	21°♊28'30	
evening set	3255 Nov 24 18:37	14°♊28'05			3256 Oct 01 10:23	0°♊	
asc. node	3255 Nov 29 11:03	9°♊07'40		evening max el	3256 Oct 20 06:43	23°♊46'23	25°49'15
min. Earth dist.	3255 Nov 29 09:36	9°♊12'29	0.67569 AU		3256 Oct 28 19:57	0°♊	
inferior conj	3255 Nov 30 06:19	8°♊03'31	0°16'29	retrograde	3256 Nov 01 15:50	0°♊49'58	
minimum elong	3255 Nov 30 05:55	8°♊04'53	0°16'18		3256 Nov 05 04:56	30°♊	
morning rise	3255 Dec 05 17:17	2°♊01'54		evening set	3256 Nov 07 18:14	28°♊18'05	
direct	3255 Dec 09 10:11	0°♊43'04		min. Earth dist.	3256 Nov 12 01:43	23°♊37'45	0.66897 AU
morning max el	3255 Dec 17 00:34	5°♊02'38	20°01'39	inferior conj	3256 Nov 13 09:28	21°♊57'29	-0°40'02
	3256 Jan 04 09:11	0°♊		minimum elong	3256 Nov 13 10:31	21°♊54'10	0°39'35
desc. node	3256 Jan 05 22:54	2°♊22'34		asc. node	3256 Nov 15 08:05	19°♊34'26	
morning set	3256 Jan 12 19:01	12°♊50'28		morning rise	3256 Nov 19 03:08	16°♊04'30	
max. Earth dist.	3256 Jan 23 17:45	0°♊00'51	1.43957 AU	direct	3256 Nov 22 08:54	15°♊04'11	
	3256 Jan 23 17:32	0°♊		morning max el	3256 Nov 29 07:23	18°♊55'50	19°04'02
superior conj	3256 Jan 29 03:46	8°♊45'37	-2°00'17		3256 Dec 07 22:37	0°♊	
minimum elong	3256 Jan 28 22:49	8°♊25'26	2°00'03	morning set	3256 Dec 22 00:06	21°♊33'28	
	3256 Feb 10 19:24	0°♊		desc. node	3256 Dec 22 19:59	22°♊51'00	
evening rise	3256 Feb 11 05:36	0°♊43'48			3256 Dec 27 09:54	0°♊	
asc. node	3256 Feb 25 10:22	23°♊57'10		max. Earth dist.	3257 Jan 05 09:48	14°♊05'42	1.44953 AU
evening max el	3256 Feb 29 04:05	28°♊26'12	18°11'35	superior conj	3257 Jan 07 16:06	17°♊39'53	-1°34'46
	3256 Mar 01 22:28	0°♊		minimum elong	3257 Jan 07 07:04	17°♊04'12	1°33'55
retrograde	3256 Mar 06 14:32	1°♊50'32			3257 Jan 15 09:50	0°♊	
evening set	3256 Mar 09 11:44	1°♊07'40		evening rise	3257 Jan 22 13:18	11°♊35'52	
	3256 Mar 11 07:14	30°♊			3257 Feb 02 21:37	0°♊	
inferior conj	3256 Mar 15 15:10	25°♊52'02	3°37'27	asc. node	3257 Feb 11 07:24	11°♊27'53	
minimum elong	3256 Mar 15 15:52	25°♊50'10	3°37'26	evening max el	3257 Feb 11 16:05	11°♊50'23	18°33'36
min. Earth dist.	3256 Mar 18 07:42	22°♊58'53	0.62962 AU	retrograde	3257 Feb 18 05:38	15°♊27'24	
morning rise	3256 Mar 21 18:54	19°♊48'18		evening set	3257 Feb 21 08:38	14°♊32'36	
direct	3256 Mar 28 16:56	17°♊09'24		inferior conj	3257 Feb 27 03:26	8°♊58'30	3°36'47
desc. node	3256 Apr 02 22:04	18°♊27'36		minimum elong	3257 Feb 27 02:31	9°♊01'13	3°36'45
morning max el	3256 Apr 11 15:36	25°♊06'46	27°47'53	min. Earth dist.	3257 Mar 01 04:26	6°♊32'51	0.64754 AU
	3256 Apr 16 02:54	0°♊		morning rise	3257 Mar 04 19:54	2°♊48'29	
	3256 May 06 08:43	0°♊			3257 Mar 10 20:39	30°♊	
morning set	3256 May 15 20:53	17°♊55'03		direct	3257 Mar 11 14:09	29°♊58'09	

	3257 Mar 12 07:53	0°		direct	3258 Feb 22 17:56	13°	20'52	
desc. node	3257 Mar 20 19:07	3°	59'11	morning max el	3258 Mar 07 11:05	20°	53'20	26°15'38
morning max el	3257 Mar 25 01:08	7°	49'02	27°15'57	desc. node	3258 Mar 07 16:12	21°	06'19
	3257 Apr 11 05:21	0°			3258 Mar 15 08:21	0°		
	3257 Apr 28 15:53	0°			3258 Apr 04 09:11	0°		
morning set	3257 Apr 29 11:47	1°	36'18	morning set	3258 Apr 12 14:13	14°	37'23	
max. Earth dist.	3257 May 04 03:53	10°	56'56	1.33678 AU	max. Earth dist.	3258 Apr 16 14:38	22°	17'54 1.35101 AU
					3258 Apr 20 11:30	0°		
superior conj	3257 May 07 16:28	18°	17'37	-0°26'52				
minimum elong	3257 May 07 17:51	18°	24'53	0°26'35	superior conj	3258 Apr 21 13:35	2°	12'43 -0°55'33
asc. node	3257 May 10 06:44	23°	48'12		minimum elong	3258 Apr 21 16:30	2°	27'36 0°55'01
	3257 May 13 04:29	0°			asc. node	3258 Apr 27 03:46	13°	47'08
evening rise	3257 May 14 23:13	3°	45'43		evening rise	3258 Apr 29 07:24	18°	14'32
	3257 May 29 11:49	0°			3258 May 05 05:46	0°		
evening max el	3257 Jun 04 19:52	7°	33'15	22°00'56	evening max el	3258 May 17 21:44	18°	28'22 20°35'58
desc. node	3257 Jun 16 18:21	13°	49'05		retrograde	3258 May 29 02:04	23°	11'55'30
retrograde	3257 Jun 17 12:56	13°	50'28		evening set	3258 May 31 03:13	23°	11'45'15
evening set	3257 Jun 20 06:53	13°	33'38		desc. node	3258 Jun 03 15:22	22°	11'44'37
min. Earth dist.	3257 Jun 29 00:40	9°	49'16	0.54996 AU	inferior conj	3258 Jun 09 09:04	19°	11'47'38 -1°40'54
inferior conj	3257 Jun 29 15:19	9°	28'45	-3°31'50	minimum elong	3258 Jun 09 04:19	19°	11'54'29 1°39'11
minimum elong	3257 Jun 29 07:02	9°	40'22	3°29'30	min. Earth dist.	3258 Jun 10 12:54	19°	11'07'33 0.54956 AU
morning rise	3257 Jul 08 08:49	5°	37'09		morning rise	3258 Jun 18 04:40	15°	11'39'16
direct	3257 Jul 11 12:01	5°	15'24		direct	3258 Jun 21 21:34	15°	11'09'42
morning max el	3257 Jul 23 09:59	10°	49'38	21°34'33	morning max el	3258 Jul 05 04:34	21°	11'34'50 23°14'21
asc. node	3257 Aug 06 05:59	0°	15'50		3258 Jul 12 11:14	0°		
	3257 Aug 06 02:31	0°			asc. node	3258 Jul 24 03:03	19°	11'37'43
morning set	3257 Aug 12 21:59	13°	12'54'47		morning set	3258 Jul 28 09:11	28°	11'19'15
					3258 Jul 29 04:15	0°		
superior conj	3257 Aug 20 04:57	28°	11'44'59	1°42'44				
minimum elong	3257 Aug 20 03:56	28°	11'39'38	1°42'41	superior conj	3258 Aug 04 10:30	13°	11'26'50 1°34'30
	3257 Aug 20 19:22	0°			minimum elong	3258 Aug 04 08:34	13°	11'16'27 1°34'20
max. Earth dist.	3257 Aug 24 04:09	6°	11'53'19	1.34998 AU	max. Earth dist.	3258 Aug 07 01:06	18°	11'59'33 1.33656 AU
evening rise	3257 Aug 28 12:33	15°	11'25'35		evening rise	3258 Aug 12 01:44	29°	11'17'42
	3257 Sep 05 13:48	0°			3258 Aug 12 10:16	0°		
desc. node	3257 Sep 12 17:44	11°	11'38'45		3258 Aug 29 16:10	0°		
	3257 Sep 26 00:28	0°			desc. node	3258 Aug 30 14:43	1°	11'24'01
evening max el	3257 Oct 02 19:08	7°	11'24'11	26°45'31	evening max el	3258 Sep 15 07:03	20°	11'48'05 27°19'28
retrograde	3257 Oct 15 20:08	14°	11'39'24		retrograde	3258 Sep 28 18:46	28°	11'06'39
evening set	3257 Oct 22 11:27	11°	11'58'31		evening set	3258 Oct 05 19:43	25°	11'24'54
min. Earth dist.	3257 Oct 26 11:56	7°	11'54'22	0.65873 AU	min. Earth dist.	3258 Oct 09 14:04	21°	11'55'47 0.64493 AU
inferior conj	3257 Oct 28 07:26	5°	11'46'25	-1°39'29	inferior conj	3258 Oct 11 21:56	19°	11'25'46 -2°39'47
minimum elong	3257 Oct 28 10:10	5°	11'38'23	1°38'21	minimum elong	3258 Oct 12 02:19	19°	11'13'56 2°38'10
asc. node	3257 Nov 02 05:09	0°	11'49'25		morning rise	3258 Oct 18 10:04	13°	11'58'46
morning rise	3257 Nov 03 09:37	0°	11'04'56		asc. node	3258 Oct 20 02:14	13°	11'28'42
	3257 Nov 03 13:29	30°	11'13'29		direct	3258 Oct 21 00:04	13°	11'24'23
direct	3257 Nov 06 06:18	29°	11'19'30		morning max el	3258 Oct 27 12:06	16°	11'50'54 17°57'45
	3257 Nov 09 00:16	0°			3258 Nov 05 23:44	0°		
morning max el	3257 Nov 12 20:07	2°	11'53'58	18°22'28	morning set	3258 Nov 13 20:11	13°	11'07'54
	3257 Dec 01 07:20	0°			3258 Nov 23 23:33	0°		
morning set	3257 Dec 02 07:45	1°	11'38'29		desc. node	3258 Nov 26 14:03	4°	11'13'29
desc. node	3257 Dec 09 17:02	13°	11'29'15					
					superior conj	3258 Nov 27 06:37	5°	11'20'15 -0°04'44
superior conj	3257 Dec 17 18:01	26°	11'11'58	-0°52'46	minimum elong	3258 Nov 27 06:03	5°	11'17'59 0°04'40
minimum elong	3257 Dec 17 11:23	25°	11'45'54	0°51'55	behind sun begin	3258 Nov 26 20:05	4°	11'37'49
max. Earth dist.	3257 Dec 19 04:51	28°	11'28'46	1.45217 AU	behind sun end	3258 Nov 27 16:01	5°	11'58'05
	3257 Dec 20 04:07	0°			max. Earth dist.	3258 Dec 01 23:27	12°	11'50'19 1.44743 AU
evening rise	3258 Jan 02 21:51	21°	11'32'32		3258 Dec 12 23:33	0°		
	3258 Jan 08 07:00	0°			evening rise	3258 Dec 13 12:03	0°	11'48'08
greatest brilliancy	3258 Jan 13 10:56	8°	11'02'59	-0.8m	greatest brilliancy	3258 Dec 28 00:11	22°	11'45'53 -0.6m
evening max el	3258 Jan 26 01:08	25°	11'19'36	19°13'08	3259 Jan 02 01:37	0°		
asc. node	3258 Jan 29 04:25	28°	11'00'01		evening max el	3259 Jan 09 05:29	8°	11'50'22 20°08'21
retrograde	3258 Feb 02 01:38	29°	11'20'05		asc. node	3259 Jan 16 01:28	13°	11'18'10
evening set	3258 Feb 05 11:16	28°	11'12'33		retrograde	3259 Jan 16 23:34	13°	11'22'50
inferior conj	3258 Feb 11 00:24	22°	11'22'17	3°21'28	evening set	3259 Jan 20 17:19	12°	11'01'23
minimum elong	3258 Feb 10 22:25	22°	11'28'38	3°21'09	inferior conj	3259 Jan 26 03:09	5°	11'57'34 2°54'52
min. Earth dist.	3258 Feb 12 10:09	20°	11'34'02	0.66151 AU	minimum elong	3259 Jan 26 00:40	6°	11'05'57 2°54'15
morning rise	3258 Feb 16 09:17	16°	11'09'15		min. Earth dist.	3259 Jan 26 23:02	4°	11'50'34 0.67139 AU

morning rise	3259 Jan 31 07:47	29° Z 43'49		inferior conj	3260 Jan 10 09:20	19° Z 41'31	2°19'16
	3259 Jan 31 00:50	30° R Z		minimum elong	3260 Jan 10 06:52	19° Z 50'03	2°18'28
direct	3259 Feb 06 03:21	27° Z 08'01		min. Earth dist.	3260 Jan 10 16:47	19° Z 15'47	0.67731 AU
	3259 Feb 13 04:02	0° \approx		morning rise	3260 Jan 15 12:39	13° Z 28'51	
morning max el	3259 Feb 17 19:48	4° \approx 07'01	24°56'12	direct	3260 Jan 20 17:35	11° Z 12'38	
desc. node	3259 Feb 22 13:15	9° \approx 20'50		morning max el	3260 Jan 31 04:27	17° Z 25'52	23°28'00
	3259 Mar 09 16:08	0° X		desc. node	3260 Feb 09 10:16	28° Z 23'40	
morning set	3259 Mar 25 23:05	26° X 43'04			3260 Feb 10 15:15	0° \approx	
	3259 Mar 27 18:55	0° Y			3260 Mar 01 17:57	0° X	
max. Earth dist.	3259 Mar 29 14:22	3° Y 18'46	1.36949 AU	morning set	3260 Mar 06 08:16	7° X 37'04	
				max. Earth dist.	3260 Mar 10 09:13	14° X 33'52	1.39079 AU
superior conj	3259 Apr 05 00:46	15° Y 34'09	-1°23'03				
minimum elong	3259 Apr 05 04:57	15° Y 54'39	1°22'26	superior conj	3260 Mar 17 22:13	28° X 12'27	-1°46'41
	3259 Apr 12 06:04	0° X		minimum elong	3260 Mar 18 02:45	28° X 33'35	1°46'14
evening rise	3259 Apr 13 10:24	2° X 22'23			3260 Mar 18 21:11	0° Y	
asc. node	3259 Apr 14 00:48	3° X 34'24		evening rise	3260 Mar 27 05:30	16° Y 02'12	
	3259 Apr 30 10:16	0° II		asc. node	3260 Mar 30 21:49	23° Y 05'09	
evening max el	3259 Apr 30 11:46	0° II 03'40	19°28'46		3260 Apr 03 17:08	0° X	
retrograde	3259 May 09 22:23	4° II 38'26		evening max el	3260 Apr 12 12:17	12° X 17'46	18°41'34
evening set	3259 May 11 22:31	4° II 26'58		retrograde	3260 Apr 20 11:57	16° X 12'16	
inferior conj	3259 May 20 12:56	0° II 21'33	0°17'06	evening set	3260 Apr 22 17:45	15° X 54'55	
minimum elong	3259 May 20 13:40	0° II 20'22	0°16'50	inferior conj	3260 Apr 30 12:20	11° X 31'40	1°52'55
	3259 May 21 02:17	30° R X		minimum elong	3260 Apr 30 15:55	11° X 24'55	1°51'49
desc. node	3259 May 21 12:25	29° X 43'38		min. Earth dist.	3260 May 03 20:22	9° X 02'41	0.57545 AU
min. Earth dist.	3259 May 23 03:13	28° X 41'42	0.55873 AU	desc. node	3260 May 07 09:26	6° X 48'27	
morning rise	3259 May 29 02:02	25° X 41'03		morning rise	3260 May 08 10:55	6° X 17'01	
direct	3259 Jun 02 16:47	24° X 52'51		direct	3260 May 14 02:00	4° X 58'40	
	3259 Jun 14 13:00	0° II		morning max el	3260 May 28 10:34	12° X 32'05	26°24'51
morning max el	3259 Jun 16 18:45	1° II 59'37	24°56'17		3260 Jun 11 02:36	0° II	
	3259 Jul 06 06:52	0° X		morning set	3260 Jun 26 07:42	28° II 03'54	
asc. node	3259 Jul 11 00:06	9° X 19'19		asc. node	3260 Jun 26 21:06	29° II 14'48	
morning set	3259 Jul 12 20:57	13° X 13'37			3260 Jun 27 05:36	0° X	
superior conj	3259 Jul 19 20:00	28° X 19'05	1°21'02	superior conj	3260 Jul 03 07:27	13° X 15'07	1°03'07
minimum elong	3259 Jul 19 17:39	28° X 06'18	1°20'43	minimum elong	3260 Jul 03 05:12	13° X 02'41	1°02'44
	3259 Jul 20 14:30	0° Q		max. Earth dist.	3260 Jul 03 16:32	14° X 05'07	1.32212 AU
max. Earth dist.	3259 Jul 21 06:08	1° Q 24'57	1.32728 AU	evening rise	3260 Jul 10 05:44	28° X 14'38	
evening rise	3259 Jul 27 00:27	13° Q 37'06			3260 Jul 11 01:58	0° Q	
	3259 Aug 04 12:54	0° P			3260 Jul 27 20:44	0° P	
desc. node	3259 Aug 17 11:44	20° P 33'53		desc. node	3260 Aug 03 08:44	8° P 53'24	
	3259 Aug 25 00:57	0° Q		evening max el	3260 Aug 09 21:53	16° P 05'16	26°57'02
evening max el	3259 Aug 28 16:52	3° Q 46'17	27°24'44	retrograde	3260 Aug 23 19:38	23° P 17'16	
retrograde	3259 Sep 11 11:03	11° Q 02'29		evening set	3260 Aug 30 19:15	21° P 09'06	
evening set	3259 Sep 18 15:46	8° Q 31'10		min. Earth dist.	3260 Sep 03 12:07	18° P 29'39	0.60813 AU
min. Earth dist.	3259 Sep 22 06:26	5° Q 32'09	0.62779 AU	inferior conj	3260 Sep 06 16:47	15° P 47'35	-4°27'30
inferior conj	3259 Sep 25 02:10	2° Q 49'12	-3°37'37	minimum elong	3260 Sep 06 22:12	15° P 36'04	4°26'25
minimum elong	3259 Sep 25 07:44	2° Q 35'46	3°35'58	morning rise	3260 Sep 14 02:58	10° P 59'14	
	3259 Sep 28 04:50	30° R P		direct	3260 Sep 16 12:07	10° P 36'51	
morning rise	3259 Oct 02 01:12	27° P 39'55		asc. node	3260 Sep 22 20:20	13° P 22'50	
direct	3259 Oct 04 11:16	27° P 13'00		morning max el	3260 Sep 23 17:44	14° P 11'55	18°02'43
asc. node	3259 Oct 06 23:18	27° P 42'32			3260 Oct 04 12:42	0° Q	
	3259 Oct 10 11:32	0° Q		morning set	3260 Oct 09 12:56	9° Q 10'46	
morning max el	3259 Oct 11 04:22	0° Q 39'44	17°50'48				
morning set	3259 Oct 27 08:03	25° Q 45'10		superior conj	3260 Oct 19 11:39	27° Q 21'15	1°10'41
	3259 Oct 29 17:39	0° M		minimum elong	3260 Oct 19 15:55	27° Q 40'08	1°10'11
					3260 Oct 20 23:41	0° M	
superior conj	3259 Nov 07 19:55	15° M 42'13	0°38'16	max. Earth dist.	3260 Oct 27 02:48	10° M 29'01	1.41918 AU
minimum elong	3259 Nov 07 23:25	15° M 56'55	0°37'47	desc. node	3260 Oct 30 08:04	15° M 47'26	
desc. node	3259 Nov 13 11:03	25° M 00'51		evening rise	3260 Nov 01 18:29	19° M 43'10	
max. Earth dist.	3259 Nov 14 15:23	26° M 55'36	1.43598 AU		3260 Nov 08 08:16	0° X	
	3259 Nov 16 13:18	0° X			3260 Nov 29 15:48	0° Z	
evening rise	3259 Nov 22 21:31	9° X 58'33		evening max el	3260 Dec 04 22:08	5° Z 56'41	22°32'59
	3259 Dec 06 04:28	0° Z		retrograde	3260 Dec 14 16:58	11° Z 45'29	
evening max el	3259 Dec 23 04:25	22° Z 22'48	21°16'19	evening set	3260 Dec 19 08:18	9° Z 52'28	
retrograde	3259 Dec 31 21:14	27° Z 32'30		asc. node	3260 Dec 19 19:33	9° Z 28'08	
asc. node	3260 Jan 02 22:31	27° Z 09'23		inferior conj	3260 Dec 24 16:57	3° Z 31'00	1°36'17
evening set	3260 Jan 05 00:53	25° Z 55'51		minimum elong	3260 Dec 24 14:57	3° Z 37'54	1°35'31

min. Earth dist.	3260 Dec 24 13:02	3°  44'32	0.67947 AU	inferior conj	3261 Dec 09 00:13	17°  24'06	0°47'07
	3260 Dec 27 08:28	30°  R 		minimum elong	3261 Dec 08 23:08	17°  27'49	0°46'41
morning rise	3260 Dec 29 21:29	27°  21'12		morning rise	3261 Dec 14 08:15	11°  21'01	
direct	3261 Jan 03 11:35	25°  27'45		direct	3261 Dec 18 08:24	9°  24'18	
	3261 Jan 11 19:17	0° 		morning max el	3261 Dec 26 11:09	14°  28'36	20°41'34
morning max el	3261 Jan 12 16:27	0°  351'46	22°00'41		3262 Jan 07 15:52	0° 	
desc. node	3261 Jan 26 07:18	18°  300'50		desc. node	3262 Jan 13 04:20	8°  302'58	
	3261 Feb 03 12:19	0° 		morning set	3262 Jan 24 16:03	25°  331'11	
morning set	3261 Feb 14 12:49	17°  08'00			3262 Jan 27 12:47	0° 	
max. Earth dist.	3261 Feb 20 07:18	26°  36'01	1.41225 AU	max. Earth dist.	3262 Feb 02 12:40	9°  33'56	1.43096 AU
	3261 Feb 22 07:43	0° 					
				superior conj	3262 Feb 09 04:23	20°  31'52	-2°06'05
superior conj	3261 Feb 28 01:07	9°  355'31	-2°02'41	minimum elong	3262 Feb 09 02:52	20°  325'30	2°06'03
minimum elong	3261 Feb 28 04:02	10°  308'26	2°02'33		3262 Feb 14 17:44	0° 	
evening rise	3261 Mar 10 13:17	29°  305'38		evening rise	3262 Feb 21 05:43	11°  323'50	
	3261 Mar 11 01:00	0° 			3262 Mar 04 02:28	0° 	
asc. node	3261 Mar 17 18:50	12°  313'22		asc. node	3262 Mar 04 15:52	0°  351'27	
evening max el	3261 Mar 26 20:03	25°  302'16	18°14'32	evening max el	3262 Mar 10 07:44	8°  307'52	18°07'08
retrograde	3261 Apr 02 20:35	28°  333'19		retrograde	3262 Mar 16 20:36	11°  331'00	
evening set	3261 Apr 05 08:44	28°  307'17		evening set	3262 Mar 19 14:28	10°  354'42	
inferior conj	3261 Apr 12 09:06	23°  323'10	2°56'02	inferior conj	3262 Mar 26 00:25	5°  350'10	3°29'17
minimum elong	3261 Apr 12 12:30	23°  315'40	2°55'19	minimum elong	3262 Mar 26 02:11	5°  345'43	3°29'06
min. Earth dist.	3261 Apr 15 18:40	20°  325'38	0.59625 AU	min. Earth dist.	3262 Mar 29 00:50	2°  348'45	0.61784 AU
morning rise	3261 Apr 19 13:47	17°  341'50			3262 Apr 01 07:50	30°  R 	
desc. node	3261 Apr 24 06:27	15°  356'04		morning rise	3262 Apr 01 12:18	29°  352'01	
direct	3261 Apr 25 23:55	15°  347'52		direct	3262 Apr 08 08:32	27°  326'19	
morning max el	3261 May 10 08:13	23°  336'55	27°25'50	desc. node	3262 Apr 11 03:30	27°  348'38	
	3261 May 16 01:58	0° 			3262 Apr 15 23:07	0° 	
	3261 Jun 04 05:49	12°  344'54		morning max el	3262 Apr 22 12:14	5°  323'36	27°50'41
morning set	3261 Jun 10 15:47	12°  344'54			3262 May 10 23:24	0° 	
asc. node	3261 Jun 13 18:07	19°  3419'15		morning set	3262 May 25 19:12	27°  309'04	
max. Earth dist.	3261 Jun 17 04:35	26°  3449'10	1.32089 AU		3262 May 27 04:23	0° 	
				max. Earth dist.	3262 May 31 14:13	9°  3422'24	1.32365 AU
superior conj	3261 Jun 17 19:09	28°  3409'18	0°41'27	asc. node	3262 May 31 15:09	9°  3427'23	
minimum elong	3261 Jun 17 17:26	27°  3459'51	0°41'06				
	3261 Jun 18 15:14	0° 		superior conj	3262 Jun 02 05:18	12°  3454'48	0°16'40
evening rise	3261 Jun 24 15:10	13°  34302'38		minimum elong	3262 Jun 02 04:32	12°  3450'36	0°16'29
	3261 Jul 03 04:39	0° 		evening rise	3262 Jun 09 02:40	27°  3453'05	
desc. node	3261 Jul 21 05:45	26°  3402'13			3262 Jun 10 02:41	0° 	
evening max el	3261 Jul 22 19:44	27°  3436'37	25°56'50		3262 Jun 27 05:11	0° 	
	3261 Jul 25 13:06	0° 		evening max el	3262 Jul 04 10:44	8°  3423'42	24°31'39
retrograde	3261 Aug 05 19:13	4°  34045'10		desc. node	3262 Jul 08 02:46	11°  34031'09	
evening set	3261 Aug 12 01:27	3°  3411'16		retrograde	3262 Jul 18 08:11	15°  34025'05	
min. Earth dist.	3261 Aug 16 08:06	0°  3434'54	0.58751 AU	evening set	3262 Jul 23 07:36	14°  34029'28	
	3261 Aug 17 03:35	30°  R 		min. Earth dist.	3262 Jul 28 21:45	11°  34037'29	0.56848 AU
inferior conj	3261 Aug 19 14:15	28°  3411'32	-5°00'18	inferior conj	3262 Jul 31 15:49	9°  3451'47	-5°02'26
minimum elong	3261 Aug 19 17:06	28°  3406'17	5°00'04	minimum elong	3262 Jul 31 13:22	9°  3455'44	5°02'17
morning rise	3261 Aug 27 10:58	23°  34046'23		morning rise	3262 Aug 08 21:48	5°  34047'56	
direct	3261 Aug 29 22:10	23°  34026'20		direct	3262 Aug 11 13:20	5°  34028'47	
morning max el	3261 Sep 07 01:04	27°  34019'23	18°34'48	morning max el	3262 Aug 20 23:14	9°  34052'04	19°28'15
asc. node	3261 Sep 09 17:22	0°  34015'40		asc. node	3262 Aug 27 14:24	18°  34005'25	
	3261 Sep 09 12:15	0° 			3262 Sep 03 10:32	0° 	
morning set	3261 Sep 23 05:49	23°  34010'43		morning set	3262 Sep 07 06:59	7°  34034'17	
	3261 Sep 26 18:19	0° 					
				superior conj	3262 Sep 15 07:43	23°  34037'58	1°42'27
superior conj	3261 Oct 02 01:27	10°  34005'17	1°31'40	minimum elong	3262 Sep 15 09:04	23°  34044'36	1°42'23
minimum elong	3261 Oct 02 04:33	10°  34019'46	1°31'24		3262 Sep 18 14:46	0° 	
max. Earth dist.	3261 Oct 09 09:10	23°  34019'36	1.39913 AU	max. Earth dist.	3262 Sep 21 13:08	5°  34029'35	1.37839 AU
	3261 Oct 13 06:38	0° 		evening rise	3262 Sep 25 07:20	12°  34016'47	
evening rise	3261 Oct 13 13:12	0°  34027'35		desc. node	3262 Oct 04 02:07	27°  34003'55	
desc. node	3261 Oct 17 05:06	6°  34029'53			3262 Oct 05 22:32	0° 	
	3261 Nov 01 18:05	0° 			3262 Oct 27 22:18	0° 	
evening max el	3261 Nov 17 12:05	19°  34033'22	23°52'55	evening max el	3262 Oct 31 00:20	3°  34013'26	25°09'38
retrograde	3261 Nov 28 09:33	25°  34058'23		retrograde	3262 Nov 11 22:03	10°  34058'48	
evening set	3261 Dec 03 14:01	23°  34048'52		evening set	3262 Nov 17 16:24	7°  34042'07	
asc. node	3261 Dec 06 16:35	20°  34028'52		min. Earth dist.	3262 Nov 22 04:00	2°  34041'26	0.67318 AU
min. Earth dist.	3261 Dec 08 09:33	18°  34013'58	0.67806 AU	inferior conj	3262 Nov 23 05:25	1°  34018'27	-0°07'03

minimum elong	3262 Nov 23 05:36	1°♊17'53	0°06'58	evening max el	3263 Oct 13 12:38	16°♍54'11	26°15'37
transit middle	3262 Nov 23 05:36	1°♊17'53	0°06'58	retrograde	3263 Oct 26 05:35	24°♍04'35	
transit begin	3262 Nov 23 03:05	1°♊26'05		evening set	3263 Nov 01 13:33	21°♍28'16	
transit end	3262 Nov 23 08:06	1°♊09'42		min. Earth dist.	3263 Nov 05 18:01	17°♍03'02	0.66494 AU
asc. node	3262 Nov 23 13:38	0°♊51'42		inferior conj	3263 Nov 07 06:37	15°♍10'27	-1°05'02
	3262 Nov 24 05:41	30°♋♍		minimum elong	3263 Nov 07 08:22	15°♍05'05	1°04'17
morning rise	3262 Nov 28 19:01	25°♍20'17		asc. node	3263 Nov 10 10:42	11°♍32'21	
direct	3262 Dec 02 06:49	24°♍09'56		morning rise	3263 Nov 13 03:41	9°♍21'48	
morning max el	3262 Dec 09 13:45	28°♍16'38	19°35'19	direct	3263 Nov 16 05:14	8°♍28'21	
	3262 Dec 11 04:30	0°♊		morning max el	3263 Nov 22 23:18	12°♍11'54	18°44'18
greatest brilliancy	3262 Dec 22 17:37	15°♊44'40	-0.7m		3263 Dec 05 21:51	0°♊	
desc. node	3262 Dec 31 01:24	28°♊23'11		morning set	3263 Dec 14 04:04	12°♊59'21	
	3263 Jan 01 02:34	0°♋		desc. node	3263 Dec 17 22:26	18°♊55'45	
morning set	3263 Jan 03 12:59	3°♋45'17			3263 Dec 24 23:26	0°♋	
max. Earth dist.	3263 Jan 16 00:58	23°♋17'27	1.44456 AU				
				superior conj	3263 Dec 30 11:14	8°♋37'12	-1°18'30
superior conj	3263 Jan 20 05:42	29°♋59'10	-1°51'52	minimum elong	3263 Dec 30 02:23	8°♋02'26	1°17'30
minimum elong	3263 Jan 19 22:27	29°♋30'05	1°51'22	max. Earth dist.	3263 Dec 29 18:08	7°♋30'03	1.45150 AU
	3263 Jan 20 05:55	0°♌			3264 Jan 12 23:14	0°♌	
evening rise	3263 Feb 03 02:27	22°♌48'56		evening rise	3264 Jan 15 00:06	3°♌15'52	
	3263 Feb 07 08:47	0°♋		greatest brilliancy	3264 Jan 22 04:44	14°♌49'20	-0.9m
asc. node	3263 Feb 19 12:55	18°♋50'24			3264 Feb 01 05:20	0°♋	
evening max el	3263 Feb 21 20:26	21°♋27'30	18°18'44	evening max el	3264 Feb 05 07:29	4°♋54'24	18°48'26
retrograde	3263 Feb 28 07:21	24°♋56'03		asc. node	3264 Feb 06 09:59	5°♋57'57	
evening set	3263 Mar 03 06:50	24°♋08'23		retrograde	3264 Feb 12 00:48	8°♋40'01	
inferior conj	3263 Mar 09 06:13	18°♋44'50	3°39'13	evening set	3264 Feb 15 06:28	7°♋39'59	
minimum elong	3263 Mar 09 06:10	18°♋44'57	3°39'14	inferior conj	3264 Feb 20 22:34	1°♋59'02	3°31'50
min. Earth dist.	3263 Mar 11 16:20	16°♋01'21	0.63763 AU	minimum elong	3264 Feb 22 21:08	2°♋03'27	3°31'41
morning rise	3263 Mar 15 04:40	12°♋37'39		min. Earth dist.	3264 Feb 22 17:03	29°♌48'14	0.65401 AU
direct	3263 Mar 22 01:56	9°♋51'52			3264 Feb 22 13:11	30°♋	
desc. node	3263 Mar 29 00:33	12°♋10'20		morning rise	3264 Feb 26 11:22	25°♌47'31	
morning max el	3263 Apr 04 20:33	17°♋48'44	27°38'13	direct	3264 Mar 04 02:16	22°♌56'09	
	3263 Apr 15 01:31	0°♎		desc. node	3264 Mar 14 21:37	28°♌25'57	
	3263 May 03 19:33	0°♏			3264 Mar 16 13:47	0°♋	
morning set	3263 May 09 15:34	11°♏08'55		morning max el	3264 Mar 17 06:17	0°♋40'55	26°53'10
max. Earth dist.	3263 May 14 17:22	21°♏31'46	1.33068 AU		3264 Apr 08 01:59	0°♎	
				morning set	3264 Apr 22 01:40	24°♎34'28	
superior conj	3263 May 17 12:08	27°♏26'04	-0°10'31		3264 Apr 24 20:35	0°♏	
minimum elong	3263 May 17 12:39	27°♏28'52	0°10'25	max. Earth dist.	3264 Apr 26 10:31	3°♏09'05	1.34228 AU
behind sun begin	3263 May 17 08:34	27°♏07'01					
behind sun end	3263 May 17 16:44	27°♏50'45		superior conj	3264 Apr 30 13:31	11°♏36'25	-0°39'03
asc. node	3263 May 18 12:12	29°♏35'16		minimum elong	3264 Apr 30 15:33	11°♏47'00	0°38'38
	3263 May 18 16:48	0°♐		asc. node	3264 May 04 09:16	19°♏38'40	
evening rise	3263 May 24 14:23	12°♐39'59		evening rise	3264 May 08 00:25	27°♏17'03	
	3263 Jun 02 10:01	0°♑			3264 May 09 07:53	0°♐	
evening max el	3263 Jun 16 00:17	18°♑49'57	22°55'20	evening max el	3264 May 27 20:06	29°♐27'33	21°22'56
desc. node	3263 Jun 24 23:47	24°♑45'23			3264 May 28 09:44	0°♑	
retrograde	3263 Jun 29 08:40	25°♑29'02		retrograde	3264 Jun 08 22:45	5°♑24'07	
evening set	3263 Jul 02 19:37	25°♑02'51		desc. node	3264 Jun 10 20:47	5°♑15'39	
min. Earth dist.	3263 Jul 10 09:07	21°♑41'07	0.55450 AU	evening set	3264 Jun 11 07:19	5°♑11'24	
inferior conj	3263 Jul 11 22:13	20°♑47'33	-4°19'19	inferior conj	3264 Jun 20 16:45	1°♑12'03	-2°47'58
minimum elong	3263 Jul 11 14:40	20°♑58'28	4°17'45	minimum elong	3264 Jun 20 09:20	1°♑22'26	2°45'33
morning rise	3263 Jul 20 12:03	16°♑55'39		min. Earth dist.	3264 Jun 20 20:32	1°♑06'45	0.54863 AU
direct	3263 Jul 23 09:56	16°♑35'41			3264 Jun 22 20:49	30°♋♐	
morning max el	3263 Aug 03 09:58	21°♑41'59	20°42'56	morning rise	3264 Jun 29 11:56	27°♐15'33	
	3263 Aug 10 07:56	0°♒		direct	3264 Jul 02 20:14	26°♐15'16	
asc. node	3263 Aug 14 11:27	6°♒39'09			3264 Jul 11 22:31	0°♑	
morning set	3263 Aug 22 13:41	22°♒14'11		morning max el	3264 Jul 15 09:24	2°♑47'49	22°15'47
	3263 Aug 26 07:34	0°♓		asc. node	3264 Jul 31 08:31	25°♑46'20	
					3264 Aug 02 12:43	0°♒	
superior conj	3263 Aug 30 01:44	7°♓45'41	1°44'42	morning set	3264 Aug 05 23:48	7°♒04'49	
minimum elong	3263 Aug 30 01:28	7°♓44'17	1°44'41				
max. Earth dist.	3263 Sep 03 20:39	17°♓20'41	1.35945 AU	superior conj	3264 Aug 13 03:56	22°♒18'00	1°39'56
evening rise	3263 Sep 07 21:42	25°♓03'18		minimum elong	3264 Aug 13 02:27	22°♒10'13	1°39'51
	3263 Sep 10 14:37	0°♈		max. Earth dist.	3264 Aug 16 12:37	29°♒18'53	1.34381 AU
desc. node	3263 Sep 20 23:08	17°♈24'28			3264 Aug 16 20:38	0°♓	
	3263 Sep 29 11:20	0°♍		evening rise	3264 Aug 21 03:50	8°♓35'28	

	3264 Sep 02 03:07	0°♄			3265 Aug 08 14:58	0°♍	
desc. node	3264 Sep 06 20:08	7°♄25'21		desc. node	3265 Aug 24 17:08	26°♍57'14	
	3264 Sep 24 13:25	0°♍			3265 Aug 26 21:01	0°♄	
evening max el	3264 Sep 25 01:16	0°♍28'40	27°03'13	evening max el	3265 Sep 07 12:39	13°♄43'31	27°25'28
retrograde	3264 Oct 08 07:27	7°♍45'36		retrograde	3265 Sep 21 03:08	21°♄00'40	
evening set	3264 Oct 15 03:17	5°♍03'33		evening set	3265 Sep 28 06:45	18°♄21'53	
min. Earth dist.	3264 Oct 19 01:09	1°♍14'22	0.65327 AU	min. Earth dist.	3265 Oct 01 23:10	15°♄06'35	0.63810 AU
	3264 Oct 20 03:29	30°♋♄		inferior conj	3265 Oct 04 12:13	12°♄29'55	-3°04'50
inferior conj	3264 Oct 21 01:45	28°♄56'30	-2°05'06	minimum elong	3265 Oct 04 17:13	12°♄17'04	3°03'09
minimum elong	3264 Oct 21 05:12	28°♄46'40	2°03'44	morning rise	3265 Oct 11 04:55	7°♄10'01	
morning rise	3264 Oct 27 07:58	23°♄20'28		direct	3265 Oct 13 17:02	6°♄39'05	
asc. node	3264 Oct 27 07:44	23°♄20'44		asc. node	3265 Oct 14 04:47	6°♄40'17	
direct	3264 Oct 30 01:33	22°♄40'04		morning max el	3265 Oct 20 06:09	10°♄04'19	17°52'34
morning max el	3264 Nov 05 13:42	26°♄10'08	18°09'48		3265 Nov 02 15:58	0°♍	
	3264 Nov 08 20:38	0°♍		morning set	3265 Nov 05 23:36	5°♍42'49	
morning set	3264 Nov 24 00:25	23°♍42'11					
	3264 Nov 27 20:44	0°♊		superior conj	3265 Nov 18 13:16	26°♍54'19	0°14'37
desc. node	3264 Dec 03 19:28	9°♊36'56		minimum elong	3265 Nov 18 14:52	27°♍00'49	0°14'24
				behind sun begin	3265 Nov 18 10:22	26°♍42'27	
superior conj	3264 Dec 08 15:10	17°♊17'36	-0°32'23	behind sun end	3265 Nov 18 19:21	27°♍19'10	
minimum elong	3264 Dec 08 11:03	17°♊01'19	0°31'49		3265 Nov 20 10:51	0°♊	
max. Earth dist.	3264 Dec 11 13:38	21°♊55'34	1.45108 AU	desc. node	3265 Nov 20 16:28	0°♊22'44	
	3264 Dec 16 17:18	0°♋		max. Earth dist.	3265 Nov 24 07:53	6°♊13'50	1.44336 AU
evening rise	3264 Dec 24 23:43	12°♋52'01		evening rise	3265 Dec 04 09:52	22°♊00'16	
	3265 Jan 05 02:11	0°♌			3265 Dec 09 15:29	0°♋	
greatest brilliancy	3265 Jan 06 13:02	2°♌11'51	-0.7m		3265 Dec 30 22:12	0°♌	
evening max el	3265 Jan 18 14:47	18°♌24'40	19°34'52	evening max el	3266 Jan 01 16:48	1°♌55'43	20°35'54
asc. node	3265 Jan 23 07:01	22°♌00'23		retrograde	3266 Jan 09 19:54	6°♌43'30	
retrograde	3265 Jan 25 21:49	22°♌37'22		asc. node	3266 Jan 10 04:02	6°♌42'52	
evening set	3265 Jan 29 10:49	21°♌23'54		evening set	3266 Jan 13 17:43	5°♌15'30	
inferior conj	3265 Feb 03 22:16	15°♌27'38	3°11'23		3266 Jan 18 11:02	30°♋♋	
minimum elong	3265 Feb 03 20:01	15°♌35'03	3°10'56	inferior conj	3266 Jan 19 02:43	29°♋06'38	2°40'46
min. Earth dist.	3265 Feb 05 01:55	13°♌56'53	0.66627 AU	minimum elong	3266 Jan 19 00:11	29°♋15'18	2°40'02
morning rise	3265 Feb 09 05:00	9°♌14'20		min. Earth dist.	3266 Jan 19 17:03	28°♋17'40	0.67436 AU
direct	3265 Feb 15 08:28	6°♌30'15		morning rise	3266 Jan 24 06:29	22°♋53'17	
morning max el	3265 Feb 27 15:35	13°♌49'22	25°43'35	direct	3266 Jan 29 19:50	20°♋25'30	
desc. node	3265 Mar 01 18:40	16°♌04'09		morning max el	3266 Feb 10 00:09	27°♋05'52	24°19'18
	3265 Mar 12 19:17	0°♌			3266 Feb 12 17:15	0°♌	
	3265 Mar 31 20:29	0°♍		desc. node	3266 Feb 16 15:42	4°♌41'05	
morning set	3265 Apr 04 21:17	7°♍13'28			3266 Mar 06 10:48	0°♌	
max. Earth dist.	3265 Apr 08 16:19	14°♍18'57	1.35845 AU	morning set	3266 Mar 17 20:55	18°♌50'55	
				max. Earth dist.	3266 Mar 21 13:30	25°♌23'33	1.37830 AU
					3266 Mar 24 02:03	0°♍	
superior conj	3265 Apr 14 06:50	25°♍18'22	-1°07'30				
minimum elong	3265 Apr 14 10:21	25°♍36'01	1°06'53	superior conj	3266 Mar 28 12:43	8°♍22'56	-1°33'44
	3265 Apr 16 14:28	0°♎		minimum elong	3266 Mar 28 17:13	8°♍44'33	1°33'09
asc. node	3265 Apr 21 06:18	9°♎33'17		evening rise	3266 Apr 06 06:46	25°♍35'26	
evening rise	3265 Apr 22 06:42	11°♎37'54		asc. node	3266 Apr 08 03:20	29°♍14'37	
	3265 May 02 01:04	0°♏			3266 Apr 08 12:39	0°♎	
evening max el	3265 May 10 03:09	10°♏39'08	20°04'57	evening max el	3266 Apr 22 21:56	22°♎31'46	19°06'12
retrograde	3265 May 20 13:12	15°♏43'02		retrograde	3266 May 01 16:38	26°♎48'03	
evening set	3265 May 22 12:46	15°♏32'50		evening set	3266 May 03 18:41	26°♎34'34	
desc. node	3265 May 28 17:50	13°♏10'45		inferior conj	3266 May 12 00:43	22°♎21'57	1°01'28
inferior conj	3265 May 31 13:07	11°♏33'24	-0°49'36	minimum elong	3266 May 12 03:06	22°♎17'52	1°00'38
minimum elong	3265 May 31 10:48	11°♏36'52	0°48'44	min. Earth dist.	3266 May 15 00:30	20°♎19'29	0.56504 AU
min. Earth dist.	3265 Jun 02 09:11	10°♏27'35	0.55240 AU	desc. node	3266 May 15 14:51	19°♎56'08	
morning rise	3265 Jun 09 07:10	7°♏13'03		morning rise	3266 May 20 08:23	17°♎26'22	
direct	3265 Jun 13 08:46	6°♏37'04		direct	3266 May 25 09:21	16°♎26'54	
morning max el	3265 Jun 27 01:13	13°♏20'45	23°58'22	morning max el	3266 Jun 08 15:40	23°♎46'34	25°36'34
	3265 Jul 09 21:09	0°♐			3266 Jun 14 07:02	0°♏	
asc. node	3265 Jul 18 05:33	15°♐17'34			3266 Jul 02 14:53	0°♐	
morning set	3265 Jul 21 11:28	21°♐59'41		asc. node	3266 Jul 05 02:36	5°♐06'13	
	3265 Jul 25 05:01	0°♑		morning set	3266 Jul 05 23:02	6°♐53'37	
superior conj	3265 Jul 28 11:25	7°♑05'10	1°29'22	superior conj	3266 Jul 12 22:00	22°♐00'15	1°13'56
minimum elong	3265 Jul 28 09:15	6°♑53'26	1°29'08	minimum elong	3266 Jul 12 19:38	21°♐47'18	1°13'35
max. Earth dist.	3265 Jul 30 13:35	11°♑35'01	1.33214 AU	max. Earth dist.	3266 Jul 13 21:23	24°♐08'21	1.32460 AU
evening rise	3265 Aug 04 21:29	22°♑40'33					

	3266 Jul 16 14:09	0°♌		minimum elong	3267 Jun 27 07:42	6°♊44'55	0°53'59
evening rise	3266 Jul 19 23:20	7°♌08'50		max. Earth dist.	3267 Jun 27 08:46	6°♊50'46	1.32108 AU
	3266 Aug 01 02:42	0°♍		evening rise	3267 Jul 04 06:38	21°♊51'34	
desc. node	3266 Aug 11 14:08	15°♍48'00			3267 Jul 08 06:00	0°♌	
evening max el	3266 Aug 20 20:32	26°♍25'45	27°16'53		3267 Jul 26 11:16	0°♍	
	3266 Aug 25 03:02	0°♎		desc. node	3267 Jul 29 11:09	3°♍40'39	
retrograde	3266 Sep 03 16:18	3°♎40'30		evening max el	3267 Aug 02 22:34	8°♍24'45	26°35'06
evening set	3266 Sep 10 20:20	1°♎17'02		retrograde	3267 Aug 16 21:42	15°♍36'08	
	3266 Sep 12 14:56	30°♎		evening set	3267 Aug 23 15:25	13°♍41'21	
min. Earth dist.	3266 Sep 14 10:46	28°♎28'21	0.61975 AU	min. Earth dist.	3267 Aug 27 12:14	11°♎05'22	0.59933 AU
inferior conj	3266 Sep 17 11:03	25°♎43'33	-4°00'11	inferior conj	3267 Aug 30 18:49	8°♎28'38	-4°44'15
minimum elong	3266 Sep 17 16:47	25°♎30'25	3°58'42	minimum elong	3267 Aug 30 23:30	8°♎19'14	4°43'32
morning rise	3266 Sep 24 14:55	20°♎43'09		morning rise	3267 Sep 07 09:39	3°♎50'11	
direct	3266 Sep 27 00:14	20°♎18'30		direct	3267 Sep 09 19:08	3°♎29'11	
asc. node	3266 Oct 01 01:49	21°♎32'24		morning max el	3267 Sep 17 08:54	7°♎10'51	18°13'48
morning max el	3266 Oct 03 21:37	23°♎47'25	17°53'29	asc. node	3267 Sep 17 22:51	7°♎45'37	
	3266 Oct 08 20:55	0°♏			3267 Oct 01 23:21	0°♏	
morning set	3266 Oct 19 19:21	18°♏42'16		morning set	3267 Oct 03 05:55	2°♏24'12	
	3266 Oct 26 02:22	0°♐					
superior conj	3266 Oct 30 14:09	7°♐50'12	0°53'26	superior conj	3267 Oct 12 16:01	19°♏59'22	1°20'55
minimum elong	3266 Oct 30 18:19	8°♐08'04	0°52'54	minimum elong	3267 Oct 12 19:56	20°♏17'06	1°20'30
max. Earth dist.	3266 Nov 06 21:53	20°♐06'31	1.42936 AU	max. Earth dist.	3267 Oct 18 07:40	0°♑	
desc. node	3266 Nov 07 13:28	21°♐10'02		evening rise	3267 Oct 20 06:34	3°♑20'55	1.41088 AU
	3266 Nov 13 01:55	0°♒		desc. node	3267 Oct 25 03:55	11°♑29'01	
evening rise	3266 Nov 13 22:19	1°♒20'04			3267 Oct 25 10:29	11°♑55'43	
	3266 Dec 03 04:59	0°♓		evening max el	3267 Nov 06 01:27	0°♒	
evening max el	3266 Dec 15 13:14	15°♓27'42	21°48'10		3267 Nov 28 05:07	29°♒03'03	23°06'59
retrograde	3266 Dec 24 17:02	20°♓54'44			3267 Nov 29 04:25	0°♓	
asc. node	3266 Dec 28 01:04	19°♓54'22		retrograde	3267 Dec 08 11:40	5°♓08'23	
evening set	3266 Dec 29 01:25	19°♓11'09		evening set	3267 Dec 13 08:18	3°♓08'33	
inferior conj	3267 Jan 03 09:44	12°♓53'04	2°01'51	asc. node	3267 Dec 14 22:05	1°♓37'23	
minimum elong	3267 Jan 03 07:25	13°♓01'07	2°01'03		3267 Dec 16 07:13	30°♒♒	
min. Earth dist.	3267 Jan 03 12:12	12°♓44'30	0.67859 AU	inferior conj	3267 Dec 18 17:27	26°♒45'04	1°16'08
morning rise	3267 Jan 08 13:15	6°♓41'16		minimum elong	3267 Dec 18 15:48	26°♒50'48	1°15'29
direct	3267 Jan 13 11:42	4°♓34'44		min. Earth dist.	3267 Dec 18 08:59	27°♒14'15	0.67926 AU
morning max el	3267 Jan 23 09:53	10°♓27'32	22°50'18	morning rise	3267 Dec 23 23:11	20°♒36'46	
desc. node	3267 Feb 03 12:43	23°♓59'43		direct	3267 Dec 28 07:11	18°♒53'02	
	3267 Feb 07 19:58	0°♔		morning max el	3268 Jan 06 00:21	23°♒57'51	21°25'36
morning set	3267 Feb 26 18:17	29°♔10'08			3268 Jan 11 07:05	0°♓	
	3267 Feb 27 06:19	0°♕		desc. node	3268 Jan 21 09:45	13°♓48'48	
max. Earth dist.	3267 Mar 03 08:41	6°♕54'49	1.39996 AU		3268 Feb 01 05:42	0°♔	
				morning set	3268 Feb 06 10:45	8°♔07'48	
superior conj	3267 Mar 11 02:51	20°♕38'38	-1°54'41	max. Earth dist.	3268 Feb 13 09:04	19°♔18'42	1.42069 AU
minimum elong	3267 Mar 11 07:00	20°♕57'36	1°54'22		3268 Feb 19 17:39	0°♕	
	3267 Mar 16 03:42	0°♖		superior conj	3268 Feb 20 20:15	1°♕54'33	-2°05'59
evening rise	3267 Mar 20 21:30	9°♖00'37		minimum elong	3268 Feb 20 21:38	2°♕00'32	2°05'58
asc. node	3267 Mar 26 00:22	18°♖36'36		evening rise	3268 Mar 02 23:16	21°♕45'29	
	3267 Apr 01 22:09	0°♗			3268 Mar 07 12:31	0°♖	
evening max el	3267 Apr 06 01:55	4°♗59'41	18°27'43	asc. node	3268 Mar 11 21:24	7°♖32'52	
retrograde	3267 Apr 13 14:30	8°♗42'26		evening max el	3268 Mar 19 11:48	17°♖54'17	18°09'06
evening set	3267 Apr 15 22:54	8°♗21'48		retrograde	3268 Mar 26 05:58	21°♖19'49	
inferior conj	3267 Apr 23 09:22	3°♗50'03	2°23'38	evening set	3268 Mar 28 20:40	20°♖49'34	
minimum elong	3267 Apr 23 13:10	3°♗42'24	2°22'37	inferior conj	3268 Apr 04 14:26	15°♖56'56	3°13'22
min. Earth dist.	3267 Apr 26 19:51	1°♗05'41	0.58391 AU	minimum elong	3268 Apr 04 17:14	15°♖50'25	3°12'54
	3267 Apr 28 07:58	30°♗		min. Earth dist.	3268 Apr 07 21:15	12°♖54'34	0.60555 AU
morning rise	3267 May 01 00:24	28°♖22'28		morning rise	3268 Apr 11 11:41	10°♖07'29	
desc. node	3267 May 02 11:54	27°♖42'22		direct	3268 Apr 18 03:32	7°♖58'38	
direct	3267 May 07 00:25	26°♖48'58		desc. node	3268 Apr 18 08:57	7°♖58'46	
	3267 May 15 23:23	0°♘		morning max el	3268 May 02 10:04	15°♖52'14	27°40'57
morning max el	3267 May 21 09:50	4°♘31'08	26°54'47		3268 May 13 23:08	0°♘	
	3267 Jun 09 01:18	0°♙			3268 May 31 13:09	0°♙	
morning set	3267 Jun 20 08:52	21°♙40'44		morning set	3268 Jun 03 15:13	6°♙14'57	
asc. node	3267 Jun 21 23:37	25°♙06'08		asc. node	3268 Jun 07 20:41	15°♙12'33	
	3267 Jun 24 05:59	0°♚		max. Earth dist.	3268 Jun 09 20:05	19°♙30'39	1.32154 AU
superior conj	3267 Jun 27 09:47	6°♚56'23	0°54'22	superior conj	3268 Jun 10 21:03	21°♙47'30	0°31'18

minimum elong	3268 Jun 10 19:41	21° Π 40'02	0°31'00	minimum elong	3269 May 26 05:47	6° Π 26'35	0°05'21
	3268 Jun 14 14:47	0° \mathfrak{S}		behind sun begin	3269 May 26 00:51	5° Π 59'51	
evening rise	3268 Jun 17 17:11	6° \mathfrak{S} 41'17		behind sun end	3269 May 26 10:43	6° Π 53'20	
	3268 Jun 29 21:50	0° Ω		evening rise	3269 Jun 02 05:02	21° Π 31'33	
evening max el	3268 Jul 14 17:25	19° Ω 36'33	25°23'05		3269 Jun 06 07:31	0° \mathfrak{S}	
desc. node	3268 Jul 15 08:11	20° Ω 11'11			3269 Jun 26 02:09	0° Ω	
retrograde	3268 Jul 28 17:05	26° Ω 42'41		evening max el	3269 Jun 26 07:07	0° Ω 12'04	23°51'13
evening set	3268 Aug 03 11:24	25° Ω 25'39		desc. node	3269 Jul 02 05:13	4° Ω 48'11	
min. Earth dist.	3268 Aug 08 05:22	22° Ω 44'28	0.57900 AU	retrograde	3269 Jul 10 00:23	7° Ω 05'43	
inferior conj	3268 Aug 11 08:06	20° Ω 35'14	-5°05'56	evening set	3269 Jul 14 08:25	6° Ω 24'20	
minimum elong	3268 Aug 11 08:57	20° Ω 33'45	5°05'55	min. Earth dist.	3269 Jul 20 17:26	3° Ω 21'30	0.56173 AU
morning rise	3268 Aug 19 08:52	16° Ω 19'19		inferior conj	3269 Jul 23 01:12	1° Ω 56'49	-4°50'21
direct	3268 Aug 21 21:36	15° Ω 59'49		minimum elong	3269 Jul 22 20:15	2° Ω 04'23	4°49'45
morning max el	3268 Aug 30 12:40	20° Ω 04'36	18°54'49		3269 Jul 26 09:33	30° \mathfrak{R} \mathfrak{S}	
asc. node	3268 Sep 03 19:54	25° Ω 04'28		morning rise	3269 Jul 31 10:40	27° \mathfrak{S} 59'39	
	3268 Sep 07 02:36	0° \mathfrak{M}		direct	3269 Aug 03 04:54	27° \mathfrak{S} 40'14	
morning set	3268 Sep 16 02:45	16° \mathfrak{M} 35'33			3269 Aug 10 07:43	0° Ω	
	3268 Sep 22 22:46	0° $\underline{\Omega}$		morning max el	3269 Aug 13 06:06	2° Ω 20'05	19°57'27
				asc. node	3269 Aug 21 16:58	13° Ω 14'55	
superior conj	3268 Sep 24 13:27	3° $\underline{\Omega}$ 05'49	1°37'23		3269 Aug 30 17:12	0° \mathfrak{M}	
minimum elong	3268 Sep 24 15:49	3° $\underline{\Omega}$ 17'10	1°37'13	morning set	3269 Aug 31 06:38	1° \mathfrak{M} 07'53	
max. Earth dist.	3268 Oct 01 11:24	15° $\underline{\Omega}$ 53'05	1.39028 AU				
evening rise	3268 Oct 05 08:51	22° $\underline{\Omega}$ 41'58		superior conj	3269 Sep 08 01:16	16° \mathfrak{M} 55'30	1°44'20
	3268 Oct 09 17:19	0° \mathfrak{M}		minimum elong	3269 Sep 08 01:53	16° \mathfrak{M} 58'37	1°44'19
desc. node	3268 Oct 11 07:30	2° \mathfrak{M} 35'22		max. Earth dist.	3269 Sep 13 16:43	27° \mathfrak{M} 54'44	1.37008 AU
	3268 Oct 29 23:06	0° \mathfrak{X}			3269 Sep 14 19:24	0° $\underline{\Omega}$	
evening max el	3268 Nov 09 18:17	12° \mathfrak{X} 42'10	24°26'25	evening rise	3269 Sep 17 12:10	4° $\underline{\Omega}$ 57'24	
retrograde	3268 Nov 21 02:30	19° \mathfrak{X} 19'57		desc. node	3269 Sep 28 04:32	23° $\underline{\Omega}$ 04'48	
evening set	3268 Nov 26 12:48	17° \mathfrak{X} 03'59			3269 Oct 02 15:50	0° \mathfrak{M}	
asc. node	3268 Nov 30 19:08	12° \mathfrak{X} 15'56		evening max el	3269 Oct 23 06:34	26° \mathfrak{M} 23'47	25°39'20
min. Earth dist.	3268 Dec 01 04:57	11° \mathfrak{X} 43'23	0.67645 AU		3269 Oct 27 09:48	0° \mathfrak{X}	
inferior conj	3268 Dec 02 00:05	10° \mathfrak{X} 39'21	0°24'43	retrograde	3269 Nov 04 12:48	3° \mathfrak{X} 24'54	
minimum elong	3268 Dec 01 23:29	10° \mathfrak{X} 41'20	0°24'28	evening set	3269 Nov 10 13:11	0° \mathfrak{X} 54'40	
morning rise	3268 Dec 07 10:13	4° \mathfrak{X} 36'45			3269 Nov 11 13:07	30° \mathfrak{R} \mathfrak{M}	
direct	3268 Dec 11 04:59	3° \mathfrak{X} 14'52		min. Earth dist.	3269 Nov 14 21:42	26° \mathfrak{M} 09'07	0.67022 AU
morning max el	3268 Dec 18 22:16	7° \mathfrak{X} 39'15	20°11'33	inferior conj	3269 Nov 16 03:49	24° \mathfrak{M} 33'09	-0°31'14
	3269 Jan 04 14:56	0° \mathfrak{Z}		minimum elong	3269 Nov 16 04:38	24° \mathfrak{M} 30'34	0°30'53
desc. node	3269 Jan 07 06:48	3° \mathfrak{Z} 59'27		asc. node	3269 Nov 17 16:12	22° \mathfrak{M} 39'24	
morning set	3269 Jan 15 08:05	16° \mathfrak{Z} 17'22		morning rise	3269 Nov 21 20:23	18° \mathfrak{M} 38'51	
	3269 Jan 24 02:02	0° \approx		direct	3269 Nov 25 03:39	17° \mathfrak{M} 36'04	
max. Earth dist.	3269 Jan 25 17:41	2° \approx 38'19	1.43757 AU	morning max el	3269 Dec 02 04:04	21° \mathfrak{M} 31'07	19°11'37
					3269 Dec 09 00:41	0° \mathfrak{X}	
superior conj	3269 Jan 31 12:27	12° \approx 01'09	-2°02'26	morning set	3269 Dec 25 10:17	24° \mathfrak{X} 50'40	
minimum elong	3269 Jan 31 08:24	11° \approx 44'32	2°02'16	desc. node	3269 Dec 25 03:49	24° \mathfrak{X} 25'33	
	3269 Feb 11 04:28	0° \mathfrak{X}			3269 Dec 28 17:47	0° \mathfrak{Z}	
evening rise	3269 Feb 13 07:46	3° \mathfrak{X} 41'35		max. Earth dist.	3270 Jan 08 08:59	16° \mathfrak{Z} 38'41	1.44846 AU
asc. node	3269 Feb 26 18:27	25° \mathfrak{X} 55'29					
	3269 Mar 01 23:05	0° \mathfrak{Y}		superior conj	3270 Jan 11 03:45	21° \mathfrak{Z} 02'36	-1°39'51
evening max el	3269 Mar 03 00:17	1° \mathfrak{Y} 06'48	18°09'48	minimum elong	3270 Jan 10 18:59	20° \mathfrak{Z} 27'50	1°39'05
retrograde	3269 Mar 09 11:01	4° \mathfrak{Y} 30'23			3270 Jan 16 18:21	0° \approx	
evening set	3269 Mar 12 07:23	3° \mathfrak{Y} 49'11		evening rise	3270 Jan 25 18:54	14° \approx 42'18	
	3269 Mar 17 04:13	30° \mathfrak{R} \mathfrak{X}			3270 Feb 04 02:36	0° \mathfrak{X}	
inferior conj	3269 Mar 18 12:22	28° \mathfrak{X} 36'17	3°35'56	asc. node	3270 Feb 13 15:29	13° \mathfrak{X} 34'07	
minimum elong	3269 Mar 18 13:20	28° \mathfrak{X} 33'42	3°35'53	evening max el	3270 Feb 14 12:31	14° \mathfrak{X} 29'56	18°29'10
min. Earth dist.	3269 Mar 21 07:02	25° \mathfrak{X} 40'27	0.62665 AU	retrograde	3270 Feb 21 01:10	18° \mathfrak{X} 04'30	
morning rise	3269 Mar 24 18:07	22° \mathfrak{X} 33'51		evening set	3270 Feb 24 03:12	17° \mathfrak{X} 11'36	
direct	3269 Mar 31 15:56	19° \mathfrak{X} 58'04		inferior conj	3270 Mar 01 23:05	11° \mathfrak{X} 40'05	3°37'56
desc. node	3269 Apr 05 06:00	20° \mathfrak{X} 58'31		minimum elong	3270 Mar 01 22:23	11° \mathfrak{X} 42'08	3°37'54
morning max el	3269 Apr 14 16:01	27° \mathfrak{X} 55'25	27°49'51	min. Earth dist.	3270 Mar 04 02:25	9° \mathfrak{X} 09'26	0.64507 AU
	3269 Apr 16 15:50	0° \mathfrak{Y}		morning rise	3270 Mar 07 16:58	5° \mathfrak{X} 30'35	
	3269 May 07 17:05	0° \mathfrak{B}		direct	3270 Mar 14 12:08	2° \mathfrak{X} 41'04	
morning set	3269 May 18 15:59	20° \mathfrak{B} 29'51		desc. node	3270 Mar 23 03:03	6° \mathfrak{X} 13'01	
	3269 May 23 05:50	0° Π		morning max el	3270 Mar 28 01:24	10° \mathfrak{X} 34'02	27°22'45
max. Earth dist.	3269 May 24 03:33	1° Π 55'49	1.32608 AU		3270 Apr 12 09:13	0° \mathfrak{Y}	
asc. node	3269 May 25 17:44	5° Π 21'20			3270 Apr 30 03:16	0° \mathfrak{B}	
				morning set	3270 May 02 08:22	4° \mathfrak{B} 16'13	
superior conj	3269 May 26 06:03	6° Π 27'59	0°05'24	max. Earth dist.	3270 May 07 03:03	13° \mathfrak{B} 53'14	1.33504 AU

superior conj	3270 May 10 10:48	20° C 50'48	-0°22'31	superior conj	3271 Apr 24 09:03	4° C 49'57	-0°51'15
minimum elong	3270 May 10 11:56	20° C 56'53	0°22'17	minimum elong	3271 Apr 24 11:44	5° C 03'45	0°50'44
asc. node	3270 May 12 14:46	25° C 27'41		asc. node	3271 Apr 29 11:49	15° C 27'58	
	3270 May 14 17:40	0° II		evening rise	3271 May 02 00:57	20° C 45'57	
evening rise	3270 May 17 16:15	6° II 15'00			3271 May 06 15:08	0° II	
	3270 May 30 10:51	0° C		evening max el	3271 May 20 22:18	21° II 27'58	20°47'34
evening max el	3270 Jun 07 22:11	10° C 38'14	22°14'45	retrograde	3271 Jun 01 08:46	27° II 02'55	
desc. node	3270 Jun 19 02:16	16° C 55'08		evening set	3271 Jun 03 11:11	26° II 52'21	
retrograde	3270 Jun 20 19:49	17° C 02'03		desc. node	3271 Jun 05 23:16	26° II 14'08	
evening set	3270 Jun 23 17:41	16° C 43'15		inferior conj	3271 Jun 12 18:27	22° II 54'51	-1°59'00
min. Earth dist.	3270 Jul 02 04:14	13° C 05'13	0.55084 AU	minimum elong	3271 Jun 12 12:53	23° II 02'47	1°57'02
inferior conj	3270 Jul 03 01:03	12° C 35'53	-3°45'50	min. Earth dist.	3271 Jun 13 16:17	22° II 23'42	0.54901 AU
minimum elong	3270 Jul 02 16:45	12° C 47'36	3°43'38	morning rise	3271 Jun 21 14:10	18° II 50'01	
morning rise	3270 Jul 11 17:44	8° C 44'56		direct	3271 Jun 25 04:32	18° II 22'05	
direct	3270 Jul 14 19:19	8° C 23'51		morning max el	3271 Jul 08 07:27	24° II 40'18	22°59'02
morning max el	3270 Jul 26 11:49	13° C 50'37	21°20'40		3271 Jul 13 04:58	0° C	
	3270 Aug 07 10:11	0° Q		asc. node	3271 Jul 26 11:03	21° C 21'44	
asc. node	3270 Aug 08 14:01	2° Q 03'50			3271 Jul 30 17:14	0° Q	
morning set	3270 Aug 15 15:01	15° Q 53'05		morning set	3271 Jul 31 01:56	0° Q 45'36	
	3270 Aug 22 08:43	0° P					
superior conj	3270 Aug 22 23:09	1° P 15'01	1°43'27	superior conj	3271 Aug 07 03:52	15° Q 54'25	1°36'06
minimum elong	3270 Aug 22 22:19	1° P 10'40	1°43'26	minimum elong	3271 Aug 07 02:02	15° Q 44'38	1°35'57
max. Earth dist.	3270 Aug 27 03:27	9° P 46'18	1.35230 AU	max. Earth dist.	3271 Aug 09 22:55	21° Q 49'13	1.33827 AU
evening rise	3270 Aug 31 09:43	18° P 04'27			3271 Aug 13 22:44	0° P	
	3270 Sep 06 23:14	0° A		evening rise	3271 Aug 14 21:10	1° P 51'33	
desc. node	3270 Sep 15 01:33	13° A 18'06			3271 Aug 30 21:03	0° A	
	3270 Sep 26 21:08	0° M		desc. node	3271 Sep 01 22:35	3° A 07'51	
evening max el	3270 Oct 05 18:51	10° M 02'30	26°38'24	evening max el	3271 Sep 18 06:59	23° A 29'33	27°16'11
retrograde	3270 Oct 18 18:00	17° M 17'03			3271 Sep 27 15:44	0° M	
evening set	3270 Oct 25 07:30	14° M 37'01		retrograde	3271 Oct 01 17:35	0° M 48'07	
min. Earth dist.	3270 Oct 29 08:57	10° M 27'28	0.66046 AU		3271 Oct 05 13:45	30° R A	
inferior conj	3270 Oct 31 02:42	8° M 23'13	-1°30'21	evening set	3271 Oct 08 17:17	28° A 06'03	
minimum elong	3270 Oct 31 05:10	8° M 15'52	1°29'20	min. Earth dist.	3271 Oct 12 12:29	24° A 31'47	0.64716 AU
asc. node	3270 Nov 04 13:14	3° M 44'13		inferior conj	3271 Oct 14 18:27	22° A 04'36	-2°30'42
morning rise	3270 Nov 06 03:30	2° M 39'51		minimum elong	3271 Oct 14 22:36	21° A 53'15	2°29'09
direct	3270 Nov 09 01:20	1° M 52'32		morning rise	3271 Oct 21 05:01	16° A 35'08	
morning max el	3270 Nov 15 16:05	5° M 29'06	18°27'33	asc. node	3271 Oct 22 10:16	16° A 09'39	
	3270 Dec 02 15:05	0° X		direct	3271 Oct 23 19:50	15° A 59'21	
morning set	3270 Dec 05 13:28	4° X 42'18		morning max el	3271 Oct 30 07:44	19° A 26'40	18°00'18
desc. node	3270 Dec 12 00:50	15° X 02'31			3271 Nov 07 04:59	0° M	
				morning set	3271 Nov 16 21:55	16° M 00'27	
superior conj	3270 Dec 21 05:56	29° X 34'36	-0°59'48		3271 Nov 25 08:30	0° X	
minimum elong	3270 Dec 20 22:32	29° X 05'34	0°58'54	desc. node	3271 Nov 28 21:50	5° X 46'10	
	3270 Dec 21 12:24	0° Z					
max. Earth dist.	3270 Dec 22 03:29	0° Z 59'11	1.45222 AU	superior conj	3271 Nov 30 15:45	8° X 34'32	-0°11'55
evening rise	3271 Jan 06 06:44	24° Z 46'36		minimum elong	3271 Nov 30 14:18	8° X 28'43	0°11'41
	3271 Jan 09 14:03	0° A		behind sun begin	3271 Nov 30 06:58	7° X 59'17	
greatest brilliancy	3271 Jan 16 01:56	10° A 12'59	-0.8m	behind sun end	3271 Nov 30 21:39	8° X 58'07	
evening max el	3271 Jan 28 22:07	27° A 58'40	19°06'13	max. Earth dist.	3271 Dec 04 22:16	15° X 22'01	1.44861 AU
	3271 Jan 31 03:52	0° H			3271 Dec 14 07:08	0° Z	
asc. node	3271 Jan 31 12:32	0° H 16'08		evening rise	3271 Dec 16 23:00	4° Z 06'39	
retrograde	3271 Feb 04 20:36	1° H 55'10		greatest brilliancy	3271 Dec 31 03:32	25° Z 40'10	-0.6m
evening set	3271 Feb 08 05:08	0° H 49'40			3272 Jan 03 02:57	0° A	
	3271 Feb 09 07:46	30° R A		evening max el	3272 Jan 12 03:16	11° A 29'32	19°59'14
inferior conj	3271 Feb 13 18:57	25° A 01'44	3°24'34	asc. node	3272 Jan 18 09:34	15° A 46'23	
minimum elong	3271 Feb 13 17:06	25° A 07'38	3°24'18	retrograde	3272 Jan 19 18:19	15° A 56'34	
min. Earth dist.	3271 Feb 15 06:57	23° A 07'23	0.65969 AU	evening set	3272 Jan 23 10:46	14° A 37'18	
morning rise	3271 Feb 19 04:44	18° A 48'56		inferior conj	3272 Jan 28 20:58	8° A 35'27	2°59'29
direct	3271 Feb 25 15:05	15° A 59'20		minimum elong	3272 Jan 28 18:32	8° A 43'38	2°58'55
desc. node	3271 Mar 10 00:03	23° A 07'32		min. Earth dist.	3272 Jan 29 18:51	7° A 22'10	0.67022 AU
morning max el	3271 Mar 10 11:22	23° A 35'45	26°26'01	morning rise	3272 Feb 03 02:03	2° A 21'46	
	3271 Mar 16 04:36	0° H			3272 Feb 07 00:45	30° R Z	
	3271 Apr 05 17:37	0° Y		direct	3272 Feb 08 23:47	29° Z 43'27	
morning set	3271 Apr 15 12:54	17° Y 24'02			3272 Feb 11 01:02	0° A	
max. Earth dist.	3271 Apr 19 15:22	25° Y 17'47	1.34860 AU	morning max el	3272 Feb 20 20:08	6° A 48'06	25°08'46
	3271 Apr 22 00:03	0° B		desc. node	3272 Feb 24 21:04	11° A 13'07	
					3272 Mar 09 21:10	0° H	

morning set	3272 Mar 28 00:42	29° H 38'52		min. Earth dist.	3273 Jan 12 11:58	21° Z 46'36	0.67674 AU
	3272 Mar 28 05:25	0° Y		morning rise	3273 Jan 17 06:08	16° Z 05'28	
max. Earth dist.	3272 Mar 31 16:22	6° Y 19'27	1.36653 AU	direct	3273 Jan 22 13:18	13° Z 46'07	
				morning max el	3273 Feb 02 04:39	20° Z 06'14	23°41'16
superior conj	3272 Apr 06 21:55	18° Y 17'05	-1°19'05	desc. node	3273 Feb 10 18:06	0° \approx 09'37	
minimum elong	3272 Apr 07 01:57	18° Y 36'59	1°18'27		3273 Feb 10 15:08	0° \approx	
	3272 Apr 12 18:02	0° Z			3273 Mar 03 02:06	0° H	
evening rise	3272 Apr 15 04:51	4° Z 57'21		morning set	3273 Mar 09 13:49	10° H 44'26	
asc. node	3272 Apr 15 08:51	5° Z 17'31		max. Earth dist.	3273 Mar 13 11:36	17° H 30'48	1.38755 AU
	3272 Apr 29 18:03	0° II			3273 Mar 20 08:22	0° Y	
evening max el	3272 May 02 10:36	2° II 57'27	19°37'32				
retrograde	3272 May 12 03:03	7° II 39'16		superior conj	3273 Mar 20 21:42	1° Y 02'38	-1°43'30
evening set	3272 May 14 02:48	7° II 28'16		minimum elong	3273 Mar 21 02:17	1° Y 24'09	1°43'01
inferior conj	3272 May 22 20:01	3° II 24'53	0°00'11	evening rise	3273 Mar 30 01:20	18° Y 42'03	
minimum elong	3272 May 22 20:01	3° II 24'53	0°00'11	asc. node	3273 Apr 02 05:53	24° Y 51'20	
transit middle	3272 May 22 20:01	3° II 24'53	0°00'11		3273 Apr 05 00:14	0° Z	
transit begin	3272 May 22 16:06	3° II 31'03		evening max el	3273 Apr 15 09:45	15° Z 06'19	18°47'20
transit end	3272 May 22 23:56	3° II 18'41		retrograde	3273 Apr 23 13:55	19° Z 05'56	
desc. node	3272 May 22 20:16	3° II 24'28		evening set	3273 Apr 25 18:45	18° Z 49'40	
min. Earth dist.	3272 May 25 06:08	1° II 53'35	0.55682 AU	inferior conj	3273 May 03 16:15	14° Z 29'11	1°40'26
	3272 May 28 14:51	30° R Z		minimum elong	3273 May 03 19:38	14° Z 22'59	1°39'22
morning rise	3272 May 31 10:39	28° Z 49'50		min. Earth dist.	3273 May 06 22:39	12° Z 06'36	0.57256 AU
direct	3272 Jun 04 21:58	28° Z 05'07		desc. node	3273 May 09 17:18	10° Z 20'01	
	3272 Jun 12 01:25	0° II		morning rise	3273 May 11 17:21	9° Z 19'25	
morning max el	3272 Jun 18 21:47	5° II 06'23	24°41'37	direct	3273 May 17 04:54	8° Z 06'17	
	3272 Jul 06 15:52	0° Z		morning max el	3273 May 31 13:04	15° Z 36'15	26°13'14
asc. node	3272 Jul 12 08:05	11° Z 01'11			3273 Jun 12 04:15	0° II	
morning set	3272 Jul 14 13:43	15° Z 40'33			3273 Jun 28 18:38	0° Z	
	3272 Jul 21 04:30	0° O		morning set	3273 Jun 29 00:44	0° Z 32'09	
				asc. node	3273 Jun 29 05:08	0° Z 55'19	
superior conj	3272 Jul 21 12:55	0° O 45'54	1°23'23				
minimum elong	3272 Jul 21 10:36	0° O 33'19	1°23'05	superior conj	3273 Jul 06 00:12	15° Z 41'58	1°06'07
max. Earth dist.	3272 Jul 23 03:03	4° O 12'58	1.32840 AU	minimum elong	3273 Jul 05 21:54	15° Z 29'19	1°05'43
evening rise	3272 Jul 28 18:41	16° O 08'02		max. Earth dist.	3273 Jul 06 12:58	16° Z 52'15	1.32262 AU
	3272 Aug 04 22:30	0° H		evening rise	3273 Jul 12 23:09	0° O 43'34	
desc. node	3272 Aug 18 19:35	22° H 24'15			3273 Jul 12 14:49	0° O	
	3272 Aug 24 15:37	0° Z			3273 Jul 28 23:32	0° H	
evening max el	3272 Aug 30 17:24	6° Z 33'12	27°26'01	desc. node	3273 Aug 05 16:37	10° H 52'48	
retrograde	3272 Sep 13 10:43	13° Z 49'31		evening max el	3273 Aug 12 23:17	18° H 58'44	27°03'16
evening set	3272 Sep 20 15:23	11° Z 15'59		retrograde	3273 Aug 26 20:25	26° H 11'12	
min. Earth dist.	3272 Sep 24 06:25	8° Z 12'56	0.63055 AU	evening set	3273 Sep 02 21:38	23° H 58'41	
inferior conj	3272 Sep 27 00:25	5° Z 31'22	-3°29'13	min. Earth dist.	3273 Sep 06 13:34	21° H 17'23	0.61121 AU
minimum elong	3272 Sep 27 05:52	5° Z 17'58	3°27'32	inferior conj	3273 Sep 09 17:17	18° H 34'07	-4°20'50
morning rise	3272 Oct 03 21:47	0° Z 19'04		minimum elong	3273 Sep 09 22:52	18° H 22'02	4°19'37
	3272 Oct 04 23:37	30° R H		morning rise	3273 Sep 17 01:51	13° H 42'34	
direct	3272 Oct 06 08:17	29° H 51'12		direct	3273 Sep 17 11:00	13° H 19'37	
	3272 Oct 07 16:46	0° Z		asc. node	3273 Sep 25 04:20	15° H 37'44	
asc. node	3272 Oct 08 07:18	0° Z 09'38		morning max el	3273 Sep 26 14:08	16° H 52'41	17°59'43
morning max el	3272 Oct 13 00:07	3° Z 17'20	17°50'41		3273 Oct 05 20:29	0° Z	
morning set	3272 Oct 29 06:46	28° Z 29'23		morning set	3273 Oct 12 09:27	11° Z 48'51	
	3272 Oct 30 03:22	0° H			3273 Oct 22 10:04	0° H	
superior conj	3272 Nov 10 01:02	18° H 44'47	0°32'22	superior conj	3273 Oct 22 13:03	0° H 13'07	1°06'31
minimum elong	3272 Nov 10 04:08	18° H 57'45	0°31'56	minimum elong	3273 Oct 22 17:22	0° H 32'02	1°05'59
desc. node	3272 Nov 14 18:53	26° H 33'31		max. Earth dist.	3273 Oct 30 03:18	13° H 11'29	1.42196 AU
max. Earth dist.	3272 Nov 16 15:02	29° H 32'00	1.43812 AU	desc. node	3273 Nov 01 15:55	17° H 20'35	
	3272 Nov 16 22:00	0° Z		evening rise	3273 Nov 05 02:34	22° H 53'05	
evening rise	3272 Nov 25 08:10	13° Z 15'44			3273 Nov 09 15:33	0° Z	
	3272 Dec 06 09:43	0° Z			3273 Nov 30 13:07	0° Z	
evening max el	3272 Dec 25 03:03	25° Z 01'58	21°05'29	evening max el	3273 Dec 07 21:28	8° Z 35'41	22°21'10
	3273 Jan 01 15:05	0° \approx		retrograde	3273 Dec 17 12:18	14° Z 18'51	
retrograde	3273 Jan 02 16:06	0° \approx 05'39		evening set	3273 Dec 22 01:49	12° Z 28'13	
	3273 Jan 03 16:34	30° R Z		asc. node	3273 Dec 22 03:36	12° Z 24'32	
asc. node	3273 Jan 04 06:34	29° Z 51'32		inferior conj	3273 Dec 27 10:20	6° Z 07'28	1°43'13
evening set	3273 Jan 06 18:14	28° Z 31'14		minimum elong	3273 Dec 27 08:14	6° Z 14'43	1°42'27
inferior conj	3273 Jan 12 02:46	22° Z 18'17	2°25'08	min. Earth dist.	3273 Dec 27 08:01	6° Z 15'28	0.67937 AU
minimum elong	3273 Jan 12 00:16	22° Z 26'54	2°24'22	morning rise	3274 Jan 01 14:32	29° Z 57'11	

	3274 Jan 01 13:12	30° Rz		inferior conj	3274 Dec 11 17:48	20° z 00'25	0°54'58
direct	3274 Jan 06 06:46	28° z 00'24		minimum elong	3274 Dec 11 16:32	20° z 04'43	0°54'27
	3274 Jan 11 13:49	0° z		morning rise	3274 Dec 17 01:09	13° z 54'27	
morning max el	3274 Jan 15 16:02	3° z 31'39	22°13'21	direct	3274 Dec 21 03:15	12° z 20'29	
desc. node	3274 Jan 28 15:09	19° z 42'40		morning max el	3274 Dec 29 09:37	17° z 07'02	20°52'37
	3274 Feb 04 18:02	0° z			3275 Jan 08 18:25	0° z	
morning set	3274 Feb 17 22:51	20° z 28'39		desc. node	3275 Jan 15 12:12	9° z 41'40	
max. Earth dist.	3274 Feb 23 09:04	29° z 26'08	1.40914 AU	morning set	3275 Jan 28 05:05	28° z 59'37	
	3274 Feb 23 17:06	0° z			3275 Jan 28 20:32	0° z	
				max. Earth dist.	3275 Feb 05 13:05	12° z 15'31	1.42843 AU
superior conj	3274 Mar 03 03:45	12° z 55'12	-2°00'56				
minimum elong	3274 Mar 03 07:05	13° z 10'05	2°00'47	superior conj	3275 Feb 12 10:51	23° z 42'16	-2°06'37
	3274 Mar 12 11:07	0° z		minimum elong	3275 Feb 12 10:10	23° z 39'25	2°06'36
evening rise	3274 Mar 13 11:08	1° z 52'13			3275 Feb 16 03:15	0° z	
asc. node	3274 Mar 20 02:56	14° z 03'49		evening rise	3275 Feb 24 06:10	14° z 17'58	
evening max el	3274 Mar 29 16:40	27° z 47'10	18°17'18		3275 Mar 05 06:09	0° z	
	3274 Apr 01 11:05	0° z		asc. node	3275 Mar 06 23:59	2° z 47'13	
retrograde	3274 Apr 05 20:01	1° z 20'54		evening max el	3275 Mar 13 03:59	10° z 50'23	18°07'00
evening set	3274 Apr 08 07:09	0° z 56'22		retrograde	3275 Mar 19 17:56	14° z 13'44	
	3274 Apr 10 09:33	30° Rz		evening set	3275 Mar 22 10:58	13° z 39'06	
inferior conj	3274 Apr 15 10:01	26° z 15'21	2°48'27	inferior conj	3275 Mar 28 22:50	8° z 37'43	3°25'50
minimum elong	3274 Apr 15 13:35	26° z 07'41	2°47'40	minimum elong	3275 Mar 29 00:52	8° z 32'39	3°25'35
min. Earth dist.	3274 Apr 18 20:11	23° z 20'27	0.59299 AU	min. Earth dist.	3275 Apr 01 01:09	5° z 35'10	0.61471 AU
morning rise	3274 Apr 22 17:23	20° z 37'10		morning rise	3275 Apr 04 13:03	2° z 41'25	
desc. node	3274 Apr 26 14:21	19° z 04'49		direct	3275 Apr 11 08:25	0° z 19'41	
direct	3274 Apr 29 01:03	18° z 48'32		desc. node	3275 Apr 13 11:23	0° z 32'35	
morning max el	3274 May 13 09:55	26° z 36'07	27°18'56	morning max el	3275 Apr 25 13:04	8° z 16'35	27°49'19
	3274 May 16 15:05	0° z			3275 May 12 04:19	0° z	
	3274 Jun 05 15:29	0° z		morning set	3275 May 28 13:38	29° z 42'14	
morning set	3274 Jun 13 09:22	15° z 15'07			3275 May 28 17:05	0° z	
asc. node	3274 Jun 16 02:12	20° z 59'01		asc. node	3275 Jun 02 23:15	11° z 07'00	
				max. Earth dist.	3275 Jun 03 11:09	12° z 11'29	1.32296 AU
superior conj	3274 Jun 20 11:59	0° z 36'52	0°44'58				
minimum elong	3274 Jun 20 10:09	0° z 26'49	0°44'36	superior conj	3275 Jun 04 22:30	15° z 24'09	0°20'36
max. Earth dist.	3274 Jun 20 01:01	29° z 36'30	1.32081 AU	minimum elong	3275 Jun 04 21:34	15° z 19'02	0°20'24
	3274 Jun 20 05:17	0° z		evening rise	3275 Jun 11 19:25	0° z 20'50	
evening rise	3274 Jun 27 08:07	15° z 30'24			3275 Jun 11 15:31	0° z	
	3274 Jul 04 13:47	0° z			3275 Jun 28 02:38	0° z	
desc. node	3274 Jul 23 13:38	28° z 13'49		evening max el	3275 Jul 07 13:59	11° z 29'41	24°45'28
	3274 Jul 25 06:56	0° z		desc. node	3275 Jul 10 10:39	14° z 00'03	
evening max el	3274 Jul 25 22:09	0° z 36'49	26°07'36	retrograde	3275 Jul 21 12:26	18° z 32'54	
retrograde	3274 Aug 08 21:36	7° z 46'17		evening set	3275 Jul 26 16:59	17° z 31'56	
evening set	3274 Aug 15 07:18	6° z 06'37		min. Earth dist.	3275 Aug 01 01:18	14° z 43'11	0.57104 AU
min. Earth dist.	3274 Aug 19 10:47	3° z 31'02	0.59056 AU	inferior conj	3275 Aug 03 22:08	12° z 50'51	-5°04'48
inferior conj	3274 Aug 22 17:30	1° z 03'30	-4°57'00	minimum elong	3275 Aug 03 20:35	12° z 53'23	5°04'44
minimum elong	3274 Aug 22 20:56	0° z 57'02	4°56'39	morning rise	3275 Aug 12 02:48	8° z 44'06	
	3274 Aug 24 03:43	30° Rz		direct	3275 Aug 14 17:28	8° z 24'57	
morning rise	3274 Aug 30 12:45	26° z 35'01		morning max el	3275 Aug 23 22:20	12° z 43'11	19°18'54
direct	3274 Sep 01 23:25	26° z 14'48		asc. node	3275 Aug 29 22:27	20° z 02'50	
	3274 Sep 09 20:44	0° z			3275 Sep 04 20:06	0° z	
morning max el	3274 Sep 09 22:36	0° z 04'27	18°28'42	morning set	3275 Sep 10 00:56	10° z 04'55	
asc. node	3274 Sep 12 01:23	2° z 20'29					
morning set	3274 Sep 26 00:47	25° z 44'04		superior conj	3275 Sep 18 04:02	26° z 15'00	1°41'23
	3274 Sep 28 05:54	0° z		minimum elong	3275 Sep 18 05:39	26° z 22'53	1°41'19
					3275 Sep 20 02:36	0° z	
superior conj	3274 Oct 04 23:54	12° z 48'24	1°29'10	max. Earth dist.	3275 Sep 24 13:59	8° z 22'40	1.38140 AU
minimum elong	3274 Oct 05 03:14	13° z 03'53	1°28'52	evening rise	3275 Sep 28 08:30	15° z 07'57	
max. Earth dist.	3274 Oct 12 10:07	26° z 07'48	1.40219 AU	desc. node	3275 Oct 06 09:58	28° z 39'50	
	3274 Oct 14 16:17	0° z			3275 Oct 07 06:02	0° z	
evening rise	3274 Oct 16 17:41	3° z 27'35			3275 Oct 28 14:55	0° z	
desc. node	3274 Oct 19 12:57	8° z 03'57		evening max el	3275 Nov 03 00:12	5° z 51'47	24°58'45
	3274 Nov 02 21:57	0° z		retrograde	3275 Nov 14 18:41	12° z 41'40	
evening max el	3274 Nov 20 11:47	22° z 11'44	23°41'05	evening set	3275 Nov 20 10:53	10° z 19'15	
retrograde	3274 Dec 01 05:31	28° z 32'11		min. Earth dist.	3275 Nov 24 23:39	5° z 13'15	0.67411 AU
evening set	3274 Dec 06 07:55	26° z 25'05		inferior conj	3275 Nov 25 23:24	3° z 55'06	0°01'29
asc. node	3274 Dec 09 00:38	23° z 35'27		minimum elong	3275 Nov 25 23:22	3° z 55'14	0°01'28
min. Earth dist.	3274 Dec 11 04:41	20° z 45'09	0.67844 AU	transit middle	3275 Nov 25 23:22	3° z 55'14	0°01'28

transit begin	3275 Nov 25 20:37	4°♄04'18		evening set	3276 Nov 03 08:54	24°♍06'37	
transit end	3275 Nov 26 02:07	3°♄46'10		min. Earth dist.	3276 Nov 07 14:26	19°♍36'02	0.66642 AU
asc. node	3275 Nov 25 21:40	4°♄00'48		inferior conj	3276 Nov 09 01:18	17°♍47'44	-0°56'01
	3275 Nov 29 04:01	30°♍		minimum elong	3276 Nov 09 02:48	17°♍43'06	0°55'23
morning rise	3275 Dec 01 12:02	27°♍55'37		asc. node	3276 Nov 11 18:43	14°♍35'08	
direct	3275 Dec 05 01:34	26°♍42'22		morning rise	3276 Nov 14 21:08	11°♍57'26	
	3275 Dec 11 12:46	0°♄		direct	3276 Nov 18 00:07	11°♍01'37	
morning max el	3275 Dec 12 11:00	0°♄53'26	19°44'13	morning max el	3276 Nov 24 19:34	14°♍47'46	18°50'51
greatest brilliancy	3275 Dec 25 15:55	18°♄19'57	-0.7m		3276 Dec 06 03:06	0°♄	
desc. node	3276 Jan 02 09:14	29°♄59'36		morning set	3276 Dec 16 12:24	16°♄12'00	
	3276 Jan 02 09:20	0°♄		desc. node	3276 Dec 19 06:14	20°♄30'32	
morning set	3276 Jan 07 01:12	7°♄09'56			3276 Dec 25 07:25	0°♄	
max. Earth dist.	3276 Jan 19 00:14	25°♄52'28	1.44296 AU	max. Earth dist.	3276 Dec 31 17:03	10°♄02'36	1.45097 AU
	3276 Jan 21 14:18	0°♄					
superior conj	3276 Jan 23 15:56	3°♄19'34	-1°55'17	superior conj	3277 Jan 01 23:25	12°♄01'59	-1°24'36
minimum elong	3276 Jan 23 09:26	2°♄53'23	1°54'54	minimum elong	3277 Jan 01 14:20	11°♄26'17	1°23'39
evening rise	3276 Feb 06 06:03	25°♄51'14			3277 Jan 13 07:07	0°♄	
	3276 Feb 08 16:40	0°♄		evening rise	3277 Jan 17 07:08	6°♄26'33	
asc. node	3276 Feb 21 21:01	20°♄52'48			3277 Feb 01 04:28	0°♄	
evening max el	3276 Feb 24 16:43	24°♄08'31	18°15'48	evening max el	3277 Feb 07 04:09	7°♄34'45	18°42'55
retrograde	3276 Mar 02 03:17	27°♄35'17		asc. node	3277 Feb 07 18:02	8°♄08'59	
evening set	3276 Mar 05 01:57	26°♄49'20		retrograde	3277 Feb 13 19:57	11°♄17'01	
inferior conj	3276 Mar 11 02:42	21°♄28'34	3°38'55	evening set	3277 Feb 17 00:41	10°♄18'48	
minimum elong	3276 Mar 11 02:54	21°♄27'59	3°38'54	inferior conj	3277 Feb 22 17:40	4°♄40'15	3°33'52
min. Earth dist.	3276 Mar 13 15:08	18°♄41'17	0.63494 AU	minimum elong	3277 Feb 22 16:25	4°♄44'05	3°33'45
morning rise	3276 Mar 17 02:55	15°♄22'30		min. Earth dist.	3277 Feb 24 14:26	2°♄24'06	0.65183 AU
direct	3276 Mar 24 00:39	12°♄38'44			3277 Feb 26 17:38	30°♄	
desc. node	3276 Mar 30 08:26	14°♄33'50		morning rise	3277 Feb 28 07:41	28°♄29'15	
morning max el	3276 Apr 06 20:45	20°♄36'00	27°42'15	direct	3277 Mar 06 23:54	25°♄38'01	
	3276 Apr 14 23:17	0°♄			3277 Mar 16 12:58	0°♄	
	3276 May 04 05:21	0°♄		desc. node	3277 Mar 17 05:27	0°♄34'32	
morning set	3276 May 11 11:12	13°♄46'12		morning max el	3277 Mar 20 06:25	3°♄25'04	27°01'43
max. Earth dist.	3276 May 16 15:26	24°♄24'48	1.32935 AU		3277 Apr 09 08:00	0°♄	
				morning set	3277 Apr 24 23:04	27°♄17'54	
superior conj	3276 May 19 05:57	29°♄58'03	-0°06'17		3277 Apr 26 08:27	0°♄	
minimum elong	3276 May 19 06:16	29°♄59'42	0°06'13	max. Earth dist.	3277 Apr 29 10:24	6°♄08'18	1.34026 AU
behind sun begin	3276 May 19 01:21	29°♄33'17					
behind sun end	3276 May 19 11:11	0°♄26'09		superior conj	3277 May 03 08:18	14°♄12'25	-0°34'40
	3276 May 19 06:19	0°♄		minimum elong	3277 May 03 10:06	14°♄21'49	0°34'18
asc. node	3276 May 19 20:18	1°♄15'15		asc. node	3277 May 06 17:20	21°♄19'56	
evening rise	3276 May 26 07:13	15°♄08'47		evening rise	3277 May 10 17:39	29°♄48'19	
	3276 Jun 02 17:40	0°♄			3277 May 10 19:53	0°♄	
evening max el	3276 Jun 18 03:21	21°♄57'27	23°09'46		3277 May 28 12:36	0°♄	
desc. node	3276 Jun 26 07:41	27°♄37'08		evening max el	3277 May 30 21:48	2°♄31'51	21°35'56
retrograde	3276 Jul 01 14:35	28°♄40'47		retrograde	3277 Jun 12 05:41	8°♄35'48	
evening set	3276 Jul 05 06:44	28°♄11'17		desc. node	3277 Jun 13 04:42	8°♄33'41	
min. Earth dist.	3276 Jul 12 12:48	24°♄54'50	0.55610 AU	evening set	3277 Jun 14 17:12	8°♄21'52	
inferior conj	3276 Jul 14 07:06	23°♄53'05	-4°29'12	inferior conj	3277 Jun 24 02:38	4°♄20'56	-3°04'20
minimum elong	3276 Jul 14 00:05	24°♄03'21	4°27'53	minimum elong	3277 Jun 23 18:47	4°♄31'54	3°01'54
morning rise	3276 Jul 22 19:49	20°♄00'13		min. Earth dist.	3277 Jun 23 23:55	4°♄24'45	0.54893 AU
direct	3276 Jul 25 16:44	19°♄40'26		morning rise	3277 Jul 02 21:21	0°♄26'39	
morning max el	3276 Aug 05 10:47	24°♄39'46	20°30'32	direct	3277 Jul 06 03:48	0°♄03'20	
	3276 Aug 10 04:52	0°♄		morning max el	3277 Jul 18 11:44	5°♄51'56	22°01'04
asc. node	3276 Aug 15 19:31	8°♄30'57		asc. node	3277 Aug 02 16:33	27°♄33'49	
morning set	3276 Aug 24 06:58	24°♄43'08			3277 Aug 03 23:15	0°♄	
	3276 Aug 26 20:25	0°♄		morning set	3277 Aug 08 16:41	9°♄32'47	
superior conj	3276 Aug 31 20:33	10°♄18'22	1°44'49				
minimum elong	3276 Aug 31 20:30	10°♄18'06	1°44'50	superior conj	3277 Aug 15 21:43	24°♄47'45	1°41'03
max. Earth dist.	3276 Sep 05 20:46	20°♄15'49	1.36208 AU	minimum elong	3277 Aug 15 20:24	24°♄40'48	1°40'59
evening rise	3276 Sep 09 20:08	27°♄46'53			3277 Aug 18 09:38	0°♄	
	3276 Sep 11 01:11	0°♄		max. Earth dist.	3277 Aug 19 11:28	2°♄12'29	1.34591 AU
desc. node	3276 Sep 22 06:59	19°♄03'01		evening rise	3277 Aug 24 00:11	11°♄13'02	
	3276 Sep 29 14:02	0°♄			3277 Sep 03 10:49	0°♄	
evening max el	3276 Oct 15 12:32	19°♄33'16	26°06'47	desc. node	3277 Sep 09 04:00	9°♄07'31	
retrograde	3276 Oct 28 02:52	26°♄41'24			3277 Sep 24 23:09	0°♄	
				evening max el	3277 Sep 28 01:06	3°♄09'05	26°57'30
				retrograde	3277 Oct 11 05:29	10°♄25'20	

evening set	3277 Oct 17 23:51	7° \mathbb{M} 43'33		evening set	3278 Oct 01 05:05	21° \mathbb{Q} 04'49	
min. Earth dist.	3277 Oct 21 22:39	3° \mathbb{M} 49'10	0.65529 AU	min. Earth dist.	3278 Oct 04 22:05	17° \mathbb{Q} 44'54	0.64056 AU
inferior conj	3277 Oct 23 21:27	1° \mathbb{M} 34'42	-1°55'57	inferior conj	3278 Oct 07 09:22	15° \mathbb{Q} 10'17	-2°56'00
minimum elong	3277 Oct 24 00:39	1° \mathbb{M} 25'30	1°54'40	minimum elong	3278 Oct 07 14:10	14° \mathbb{Q} 57'46	2°54'20
	3277 Oct 25 06:57	30° \mathbb{R} \mathbb{A}		morning rise	3278 Oct 14 00:28	9° \mathbb{Q} 47'57	
asc. node	3277 Oct 29 15:45	26° \mathbb{Q} 10'46		direct	3278 Oct 16 13:12	9° \mathbb{Q} 15'53	
morning rise	3277 Oct 30 02:13	25° \mathbb{Q} 56'41		asc. node	3278 Oct 16 12:47	9° \mathbb{Q} 15'53	
direct	3277 Nov 01 20:52	25° \mathbb{Q} 14'34		morning max el	3278 Oct 23 01:47	12° \mathbb{Q} 41'20	17°54'02
morning max el	3277 Nov 08 09:24	28° \mathbb{Q} 45'51	18°13'50		3278 Nov 03 23:53	0° \mathbb{M}	
	3277 Nov 09 13:18	0° \mathbb{M}		morning set	3278 Nov 08 23:53	8° \mathbb{M} 31'49	
morning set	3277 Nov 27 04:16	26° \mathbb{M} 41'23					
	3277 Nov 29 05:01	0° \mathbb{X}		superior conj	3278 Nov 21 20:43	0° \mathbb{X} 04'16	0°07'54
desc. node	3277 Dec 06 03:14	11° \mathbb{X} 10'30		minimum elong	3278 Nov 21 21:36	0° \mathbb{X} 07'53	0°07'46
				behind sun begin	3278 Nov 21 12:44	29° \mathbb{M} 31'49	
superior conj	3277 Dec 12 02:04	20° \mathbb{X} 37'35	-0°39'41	behind sun end	3278 Nov 22 06:28	0° \mathbb{X} 43'54	
minimum elong	3277 Dec 11 21:01	20° \mathbb{X} 17'39	0°39'00		3278 Nov 21 19:40	0° \mathbb{X}	
max. Earth dist.	3277 Dec 14 12:31	24° \mathbb{X} 27'41	1.45162 AU	desc. node	3278 Nov 23 00:17	1° \mathbb{X} 56'07	
	3277 Dec 18 01:17	0° \mathbb{Z}		max. Earth dist.	3278 Nov 27 07:01	8° \mathbb{X} 47'52	1.44491 AU
evening rise	3277 Dec 28 09:38	16° \mathbb{Z} 08'58		evening rise	3278 Dec 07 20:58	25° \mathbb{X} 19'25	
	3278 Jan 06 07:34	0° \mathbb{Z}			3278 Dec 10 22:11	0° \mathbb{Z}	
greatest brilliancy	3278 Jan 09 06:44	4° \mathbb{Z} 32'26	-0.7m		3278 Dec 31 15:21	0° \mathbb{Z}	
evening max el	3278 Jan 21 12:02	21° \mathbb{Z} 04'17	19°27'00	evening max el	3279 Jan 04 14:52	4° \mathbb{Z} 35'15	20°26'00
asc. node	3278 Jan 25 15:03	24° \mathbb{Z} 22'02		retrograde	3279 Jan 12 14:44	9° \mathbb{Z} 17'40	
retrograde	3278 Jan 28 16:38	25° \mathbb{Z} 12'34		asc. node	3279 Jan 12 12:04	9° \mathbb{Z} 17'36	
evening set	3278 Feb 01 04:27	24° \mathbb{Z} 01'08		evening set	3279 Jan 16 11:06	7° \mathbb{Z} 51'59	
inferior conj	3278 Feb 06 16:26	18° \mathbb{Z} 06'50	3°15'10	inferior conj	3279 Jan 21 20:20	1° \mathbb{Z} 44'45	2°45'56
minimum elong	3278 Feb 06 14:16	18° \mathbb{Z} 13'54	3°14'47	minimum elong	3279 Jan 21 17:49	1° \mathbb{Z} 53'21	2°45'16
min. Earth dist.	3278 Feb 07 22:09	16° \mathbb{Z} 30'00	0.66466 AU	min. Earth dist.	3279 Jan 22 12:35	0° \mathbb{Z} 49'30	0.67339 AU
morning rise	3278 Feb 11 23:51	11° \mathbb{Z} 53'39			3279 Jan 23 03:16	30° \mathbb{R} \mathbb{Z}	
direct	3278 Feb 18 05:10	9° \mathbb{Z} 07'56		morning rise	3279 Jan 27 00:20	25° \mathbb{Z} 31'09	
morning max el	3278 Mar 02 15:56	16° \mathbb{Z} 31'57	25°55'12	direct	3279 Feb 01 15:51	23° \mathbb{Z} 00'30	
desc. node	3278 Mar 04 02:28	18° \mathbb{Z} 01'47		morning max el	3279 Feb 13 00:35	29° \mathbb{Z} 47'43	24°32'21
	3278 Mar 13 20:24	0° \mathbb{H}			3279 Feb 13 05:25	0° \mathbb{Z}	
	3278 Apr 02 05:47	0° \mathbb{Y}		desc. node	3279 Feb 18 23:29	6° \mathbb{Z} 31'02	
morning set	3278 Apr 07 21:08	10° \mathbb{Y} 04'41			3279 Mar 07 17:16	0° \mathbb{H}	
max. Earth dist.	3278 Apr 11 17:57	17° \mathbb{Y} 21'52	1.35575 AU	morning set	3279 Mar 21 00:06	21° \mathbb{H} 52'11	
				max. Earth dist.	3279 Mar 24 15:53	28° \mathbb{H} 24'16	1.37516 AU
superior conj	3278 Apr 17 02:58	27° \mathbb{Y} 58'53	-1°03'16		3279 Mar 25 12:51	0° \mathbb{Y}	
minimum elong	3278 Apr 17 06:16	28° \mathbb{Y} 15'36	1°02'41				
	3278 Apr 18 02:51	0° \mathbb{B}		superior conj	3279 Mar 31 10:46	11° \mathbb{Y} 09'15	-1°30'01
asc. node	3278 Apr 23 14:22	11° \mathbb{B} 16'09		minimum elong	3279 Mar 31 15:10	11° \mathbb{Y} 30'36	1°29'26
evening rise	3278 Apr 25 00:37	14° \mathbb{B} 12'00		evening rise	3279 Apr 09 01:46	28° \mathbb{Y} 13'04	
	3278 May 03 05:41	0° \mathbb{I}			3279 Apr 09 23:20	0° \mathbb{B}	
evening max el	3278 May 13 02:58	13° \mathbb{I} 37'17	20°15'24	asc. node	3279 Apr 10 11:25	0° \mathbb{B} 59'36	
retrograde	3278 May 23 19:26	18° \mathbb{I} 49'24		evening max el	3279 Apr 25 20:06	25° \mathbb{B} 23'41	19°13'43
evening set	3278 May 25 19:18	18° \mathbb{I} 39'18		retrograde	3279 May 04 20:16	29° \mathbb{B} 46'15	
desc. node	3278 May 31 01:43	16° \mathbb{I} 48'58		evening set	3279 May 06 21:30	29° \mathbb{B} 33'36	
inferior conj	3278 Jun 03 21:47	14° \mathbb{I} 40'42	-1°07'49	inferior conj	3279 May 15 06:32	25° \mathbb{B} 23'39	0°46'11
minimum elong	3278 Jun 03 18:36	14° \mathbb{I} 45'24	1°06'40	minimum elong	3279 May 15 08:23	25° \mathbb{B} 20'32	0°45'32
min. Earth dist.	3278 Jun 05 12:20	13° \mathbb{I} 43'56	0.55124 AU	desc. node	3279 May 17 22:43	23° \mathbb{B} 36'18	
morning rise	3278 Jun 12 16:34	10° \mathbb{I} 24'52		min. Earth dist.	3279 May 18 03:19	23° \mathbb{B} 28'50	0.56268 AU
direct	3278 Jun 16 14:55	9° \mathbb{I} 51'25		morning rise	3279 May 23 16:13	20° \mathbb{B} 33'14	
morning max el	3278 Jun 30 04:23	16° \mathbb{I} 28'39	23°42'57	direct	3279 May 28 13:33	19° \mathbb{B} 37'57	
	3278 Jul 11 00:07	0° \mathbb{O}		morning max el	3279 Jun 11 18:40	26° \mathbb{B} 53'33	25°22'49
asc. node	3278 Jul 20 13:36	17° \mathbb{O} 01'46			3279 Jun 14 18:36	0° \mathbb{I}	
morning set	3278 Jul 24 04:13	24° \mathbb{O} 27'13			3279 Jul 04 02:04	0° \mathbb{O}	
	3278 Jul 26 18:35	0° \mathbb{Q}		asc. node	3279 Jul 07 10:39	6° \mathbb{O} 48'01	
				morning set	3279 Jul 08 15:54	9° \mathbb{O} 21'22	
superior conj	3278 Jul 31 04:34	9° \mathbb{Q} 33'08	1°31'19				
minimum elong	3278 Jul 31 02:28	9° \mathbb{Q} 21'50	1°31'06	superior conj	3279 Jul 15 14:50	24° \mathbb{O} 27'23	1°16'35
max. Earth dist.	3278 Aug 02 11:02	14° \mathbb{Q} 24'56	1.33363 AU	minimum elong	3279 Jul 15 12:28	24° \mathbb{O} 14'26	1°16'13
evening rise	3278 Aug 07 16:21	25° \mathbb{Q} 13'37		max. Earth dist.	3279 Jul 16 17:55	26° \mathbb{O} 55'28	1.32546 AU
	3278 Aug 10 02:24	0° \mathbb{P}			3279 Jul 18 03:52	0° \mathbb{Q}	
desc. node	3278 Aug 27 01:02	28° \mathbb{P} 44'28		evening rise	3279 Jul 22 17:10	9° \mathbb{Q} 38'54	
	3278 Aug 27 21:59	0° \mathbb{A}			3279 Aug 02 10:12	0° \mathbb{P}	
evening max el	3278 Sep 10 12:41	16° \mathbb{A} 27'11	27°23'56	desc. node	3279 Aug 13 22:04	17° \mathbb{P} 42'23	
retrograde	3278 Sep 24 02:14	23° \mathbb{A} 44'56		evening max el	3279 Aug 23 21:16	29° \mathbb{P} 15'04	27°20'17

	3279 Aug 24 16:40	0°♄		desc. node	3280 Jul 30 19:05	5°♄45'23	
retrograde	3279 Sep 06 16:36	6°♄30'31		evening max el	3280 Aug 05 00:29	11°♄21'51	26°43'29
evening set	3279 Sep 13 21:02	4°♄03'59		retrograde	3280 Aug 18 23:14	18°♄33'27	
min. Earth dist.	3279 Sep 17 11:24	1°♄11'56	0.62260 AU	evening set	3280 Aug 25 19:15	16°♄33'49	
	3279 Sep 18 18:43	30°♄		min. Earth dist.	3280 Aug 29 14:27	13°♄56'54	0.60244 AU
inferior conj	3279 Sep 20 10:10	28°♄27'26	-3°52'24	inferior conj	3280 Sep 01 20:30	11°♄17'56	-4°38'44
minimum elong	3279 Sep 20 15:53	28°♄14'07	3°50'51	minimum elong	3280 Sep 02 01:30	11°♄07'41	4°37'53
morning rise	3279 Sep 27 12:22	23°♄23'55		morning rise	3280 Sep 09 09:43	6°♄35'55	
direct	3279 Sep 29 21:50	22°♄58'35		direct	3280 Sep 11 19:00	6°♄14'29	
asc. node	3279 Oct 03 09:50	23°♄54'25		morning max el	3280 Sep 19 05:45	9°♄53'43	18°09'26
morning max el	3279 Oct 06 17:38	26°♄26'39	17°52'11	asc. node	3280 Sep 19 06:55	9°♄56'31	
	3279 Oct 09 19:18	0°♄			3280 Oct 02 09:26	0°♄	
morning set	3279 Oct 22 17:02	21°♄23'50		morning set	3280 Oct 05 01:44	5°♄00'31	
	3279 Oct 27 12:32	0°♄					
				superior conj	3280 Oct 14 16:03	22°♄47'26	1°17'29
superior conj	3279 Nov 02 17:36	10°♄48'28	0°48'16	minimum elong	3280 Oct 14 20:07	23°♄05'44	1°17'02
minimum elong	3279 Nov 02 21:36	11°♄05'27	0°47'43		3280 Oct 18 17:50	0°♄	
desc. node	3279 Nov 09 21:20	22°♄43'37		max. Earth dist.	3280 Oct 22 07:14	6°♄05'52	1.41387 AU
max. Earth dist.	3279 Nov 09 21:39	22°♄44'53	1.43176 AU	desc. node	3280 Oct 26 18:24	13°♄29'52	
	3279 Nov 14 10:04	0°♄		evening rise	3280 Oct 27 10:32	14°♄35'20	
evening rise	3279 Nov 17 08:04	4°♄35'07			3280 Nov 06 07:37	0°♄	
	3279 Dec 04 07:58	0°♄			3280 Nov 28 13:39	0°♄	
evening max el	3279 Dec 18 12:10	18°♄07'19	21°36'51	evening max el	3280 Nov 30 04:43	1°♄42'16	22°55'03
retrograde	3279 Dec 27 12:08	23°♄28'23		retrograde	3280 Dec 10 07:10	7°♄41'49	
asc. node	3279 Dec 30 09:06	22°♄43'22		evening set	3280 Dec 15 01:56	5°♄44'25	
evening set	3279 Dec 31 18:48	21°♄47'18		asc. node	3280 Dec 16 06:08	4°♄38'48	
inferior conj	3280 Jan 06 03:08	15°♄30'26	2°08'12		3280 Dec 19 23:46	30°♄	
minimum elong	3280 Jan 06 00:45	15°♄38'41	2°07'25	inferior conj	3280 Dec 20 10:53	29°♄21'38	1°23'29
min. Earth dist.	3280 Jan 06 07:20	15°♄15'51	0.67823 AU	minimum elong	3280 Dec 20 09:06	29°♄27'48	1°22'47
morning rise	3280 Jan 11 06:31	9°♄18'13		min. Earth dist.	3280 Dec 20 04:01	29°♄45'19	0.67944 AU
direct	3280 Jan 16 07:14	7°♄08'12		morning rise	3280 Dec 25 16:08	23°♄12'43	
morning max el	3280 Jan 26 09:53	13°♄08'20	23°03'23	direct	3280 Dec 30 02:17	21°♄25'32	
desc. node	3280 Feb 05 20:32	25°♄44'14		morning max el	3281 Jan 07 23:23	26°♄36'49	21°37'37
	3280 Feb 08 23:02	0°♄			3281 Jan 11 01:50	0°♄	
	3280 Feb 28 15:02	0°♄		desc. node	3281 Jan 22 17:36	15°♄29'17	
morning set	3280 Mar 01 01:43	2°♄23'36			3281 Feb 01 12:32	0°♄	
max. Earth dist.	3280 Mar 05 10:37	9°♄48'18	1.39676 AU	morning set	3281 Feb 08 22:18	11°♄32'19	
				max. Earth dist.	3281 Feb 15 10:07	22°♄04'22	1.41783 AU
					3281 Feb 20 03:13	0°♄	
superior conj	3280 Mar 13 03:33	23°♄32'50	-1°52'02				
minimum elong	3280 Mar 13 07:53	23°♄52'47	1°51'40	superior conj	3281 Feb 23 00:25	4°♄58'32	-2°05'07
	3280 Mar 16 14:41	0°♄		minimum elong	3281 Feb 23 02:24	5°♄07'12	2°05'04
evening rise	3280 Mar 22 18:06	11°♄43'13		evening rise	3281 Mar 05 22:04	24°♄34'39	
asc. node	3280 Mar 27 08:27	20°♄24'35			3281 Mar 08 21:14	0°♄	
	3280 Apr 01 22:01	0°♄		asc. node	3281 Mar 14 05:28	9°♄25'05	
evening max el	3280 Apr 07 22:58	7°♄46'45	18°32'12	evening max el	3281 Mar 22 08:11	20°♄37'55	18°10'36
retrograde	3280 Apr 15 15:10	11°♄33'12		retrograde	3281 Mar 29 04:17	24°♄04'59	
evening set	3280 Apr 17 22:39	11°♄13'47		evening set	3281 Mar 31 18:09	23°♄36'12	
inferior conj	3280 Apr 25 11:55	6°♄45'09	2°13'18	inferior conj	3281 Apr 07 14:08	18°♄46'31	3°07'44
minimum elong	3280 Apr 25 15:42	6°♄37'43	2°12'15	minimum elong	3281 Apr 07 17:10	18°♄39'35	3°07'11
min. Earth dist.	3280 Apr 28 21:55	4°♄05'39	0.58084 AU	min. Earth dist.	3281 Apr 10 22:07	15°♄45'19	0.60229 AU
morning rise	3280 May 03 05:38	1°♄21'55		morning rise	3281 Apr 14 13:57	12°♄59'47	
desc. node	3280 May 03 19:44	1°♄05'23		desc. node	3281 Apr 20 16:46	10°♄56'37	
	3280 May 07 13:08	30°♄		direct	3281 Apr 21 04:02	10°♄56'00	
direct	3280 May 09 02:42	29°♄53'42		morning max el	3281 May 05 11:11	18°♄48'00	27°36'32
	3280 May 10 16:33	0°♄			3281 May 14 21:49	0°♄	
morning max el	3280 May 23 11:56	7°♄33'12	26°45'01		3281 Jun 02 00:26	0°♄	
	3280 Jun 09 07:24	0°♄		morning set	3281 Jun 06 09:06	8°♄46'18	
morning set	3280 Jun 22 02:08	24°♄09'54		asc. node	3281 Jun 10 04:47	16°♄52'22	
asc. node	3280 Jun 23 07:44	26°♄46'45		max. Earth dist.	3281 Jun 12 16:41	22°♄18'52	1.32118 AU
	3280 Jun 24 19:41	0°♄					
superior conj	3280 Jun 29 02:35	9°♄23'54	0°57'36	superior conj	3281 Jun 13 14:00	24°♄15'57	0°35'00
minimum elong	3280 Jun 29 00:26	9°♄12'03	0°57'12	minimum elong	3281 Jun 13 12:30	24°♄07'43	0°34'42
max. Earth dist.	3280 Jun 29 05:02	9°♄37'28	1.32132 AU		3281 Jun 16 04:33	0°♄	
evening rise	3280 Jul 05 23:50	24°♄20'17		evening rise	3281 Jun 20 10:01	9°♄09'20	
	3280 Jul 08 17:40	0°♄			3281 Jul 01 03:46	0°♄	
	3280 Jul 26 07:38	0°♄		desc. node	3281 Jul 17 16:06	22°♄30'07	

evening max el	3281 Jul 17 20:26	22° Ω 40'30	25°35'28		3282 Jun 26 07:04	0° Ω	
retrograde	3281 Jul 31 20:05	29° Ω 47'25		evening max el	3282 Jun 29 10:22	3° Ω 18'51	24°05'30
evening set	3281 Aug 06 18:54	28° Ω 24'28		desc. node	3282 Jul 04 13:05	7° Ω 25'52	
min. Earth dist.	3281 Aug 11 08:29	25° Ω 45'24	0.58194 AU	retrograde	3282 Jul 13 05:16	10° Ω 15'32	
inferior conj	3281 Aug 14 12:44	23° Ω 30'51	-5°04'42	evening set	3282 Jul 17 18:50	9° Ω 29'21	
minimum elong	3281 Aug 14 14:21	23° Ω 27'58	5°04'39	min. Earth dist.	3282 Jul 23 20:53	6° Ω 30'38	0.56397 AU
morning rise	3281 Aug 22 12:06	19° Ω 11'42		inferior conj	3282 Jul 26 08:39	4° Ω 58'19	-4°55'46
direct	3281 Aug 25 00:17	18° Ω 52'00		minimum elong	3282 Jul 26 04:34	5° Ω 04'40	4°55'21
morning max el	3281 Sep 02 10:49	22° Ω 52'25	18°47'18	morning rise	3282 Aug 03 16:56	0° Ω 59'07	
asc. node	3281 Sep 06 03:59	27° Ω 06'23		direct	3282 Aug 06 10:12	0° Ω 39'48	
	3281 Sep 08 05:10	0° Π		morning max el	3282 Aug 16 05:53	5° Ω 13'28	19°46'49
morning set	3281 Sep 18 21:16	19° Π 08'11		asc. node	3282 Aug 24 01:02	15° Ω 09'22	
	3281 Sep 24 10:40	0° Ω			3282 Sep 01 04:50	0° Π	
				morning set	3282 Sep 03 00:13	3° Π 37'17	
superior conj	3281 Sep 27 10:55	5° Ω 46'19	1°35'31	superior conj	3282 Sep 10 20:51	19° Π 30'05	1°43'48
minimum elong	3281 Sep 27 13:33	5° Ω 58'50	1°35'20	minimum elong	3282 Sep 10 21:44	19° Π 34'27	1°43'47
max. Earth dist.	3281 Oct 04 12:41	18° Ω 44'59	1.39343 AU		3282 Sep 16 06:59	0° Ω	
evening rise	3281 Oct 08 11:54	25° Ω 38'18		max. Earth dist.	3282 Sep 16 17:25	0° Ω 49'01	1.37294 AU
	3281 Oct 11 02:13	0° Π		evening rise	3282 Sep 20 12:02	7° Ω 44'25	
desc. node	3281 Oct 13 15:25	4° Π 10'34		desc. node	3282 Sep 30 12:26	24° Ω 41'31	
	3281 Oct 31 00:07	0° Ω			3282 Oct 03 21:54	0° Π	
evening max el	3281 Nov 12 18:10	15° Ω 20'38	24°14'47	evening max el	3282 Oct 26 06:20	29° Π 01'26	25°29'11
retrograde	3281 Nov 23 22:38	21° Ω 53'55			3282 Oct 27 06:53	0° Ω	
evening set	3281 Nov 29 06:53	19° Ω 40'10		retrograde	3282 Nov 07 09:39	6° Ω 00'07	
asc. node	3281 Dec 03 03:10	15° Ω 24'17		evening set	3282 Nov 13 07:59	3° Ω 31'40	
min. Earth dist.	3281 Dec 04 00:12	14° Ω 14'36	0.67711 AU		3282 Nov 16 16:15	30° Ω	
inferior conj	3281 Dec 04 17:47	13° Ω 15'26	0°32'52	min. Earth dist.	3282 Nov 17 17:33	28° Π 40'52	0.67135 AU
minimum elong	3281 Dec 04 17:00	13° Ω 18'04	0°32'32	inferior conj	3282 Nov 18 22:02	27° Π 09'17	-0°22'30
morning rise	3281 Dec 10 03:08	7° Ω 12'01		minimum elong	3282 Nov 18 22:37	27° Π 07'25	0°22'16
direct	3281 Dec 13 23:47	5° Ω 47'03		asc. node	3282 Nov 20 00:13	25° Π 46'00	
morning max el	3281 Dec 21 20:10	10° Ω 16'39	20°21'44	morning rise	3282 Nov 24 13:32	21° Π 13'38	
	3282 Jan 05 19:54	0° Ω		direct	3282 Nov 27 22:19	20° Π 08'20	
desc. node	3282 Jan 09 14:39	5° Ω 37'09		morning max el	3282 Dec 05 00:52	24° Π 07'10	19°19'33
morning set	3282 Jan 18 21:15	19° Ω 45'31			3282 Dec 10 00:14	0° Ω	
	3282 Jan 25 10:13	0° \approx		greatest brilliancy	3282 Dec 18 14:27	12° Ω 22'39	-0.7m
max. Earth dist.	3282 Jan 28 17:51	5° \approx 17'46	1.43538 AU	desc. node	3282 Dec 27 11:40	26° Ω 01'02	
				morning set	3282 Dec 28 21:02	28° Ω 10'18	
superior conj	3282 Feb 03 20:34	15° \approx 15'56	-2°04'08		3282 Dec 30 01:19	0° Ω	
minimum elong	3282 Feb 03 17:26	15° \approx 02'59	2°04'03	max. Earth dist.	3283 Jan 11 08:06	19° Ω 12'11	1.44724 AU
	3282 Feb 12 13:34	0° Ω					
evening rise	3282 Feb 16 09:28	6° Ω 39'08		superior conj	3283 Jan 14 15:06	24° Ω 25'17	-1°44'31
asc. node	3282 Mar 01 02:29	27° Ω 53'35		minimum elong	3283 Jan 14 06:45	23° Ω 52'02	1°43'51
	3282 Mar 02 14:44	0° Ω			3283 Jan 18 02:47	0° \approx	
evening max el	3282 Mar 05 20:29	3° Ω 48'32	18°08'26	evening rise	3283 Jan 28 23:59	17° \approx 48'02	
retrograde	3282 Mar 12 07:44	7° Ω 11'40			3283 Feb 05 08:34	0° Ω	
evening set	3282 Mar 15 03:14	6° Ω 32'11		asc. node	3283 Feb 15 23:31	15° Ω 39'25	
inferior conj	3282 Mar 21 09:52	1° Ω 22'05	3°33'58	evening max el	3283 Feb 17 08:52	17° Ω 10'05	18°25'07
minimum elong	3282 Mar 21 11:07	1° Ω 18'49	3°33'52	retrograde	3283 Feb 23 20:47	20° Ω 42'25	
	3282 Mar 22 17:10	30° Ω		evening set	3283 Feb 26 21:53	19° Ω 51'24	
min. Earth dist.	3282 Mar 24 06:35	28° Ω 23'56	0.62362 AU	inferior conj	3283 Mar 04 18:55	14° Ω 22'36	3°38'41
morning rise	3282 Mar 27 17:42	25° Ω 20'59		minimum elong	3283 Mar 04 18:26	14° Ω 23'58	3°38'40
direct	3282 Apr 03 15:06	22° Ω 48'34		min. Earth dist.	3283 Mar 07 00:37	11° Ω 47'11	0.64254 AU
desc. node	3282 Apr 07 13:48	23° Ω 33'17		morning rise	3283 Mar 10 14:18	8° Ω 13'44	
	3282 Apr 16 21:48	0° Ω		direct	3283 Mar 17 10:18	5° Ω 25'16	
morning max el	3282 Apr 17 16:34	0° Ω 45'55	27°50'56	desc. node	3283 Mar 25 10:50	8° Ω 29'21	
	3282 May 09 00:31	0° Ω		morning max el	3283 Mar 31 01:39	13° Ω 20'00	27°28'49
morning set	3282 May 21 10:49	23° Ω 04'28			3283 Apr 13 11:44	0° Ω	
	3282 May 24 19:07	0° Π			3283 May 01 14:11	0° Ω	
max. Earth dist.	3282 May 27 01:02	4° Π 47'09	1.32516 AU	morning set	3283 May 05 04:39	6° Ω 55'34	
asc. node	3282 May 28 01:49	7° Π 00'50		max. Earth dist.	3283 May 10 01:51	16° Ω 48'42	1.33343 AU
superior conj	3282 May 28 23:26	8° Π 58'05	0°09'28	superior conj	3283 May 13 04:56	23° Ω 23'43	-0°18'13
minimum elong	3282 May 28 22:59	8° Π 55'39	0°09'23	minimum elong	3283 May 13 05:51	23° Ω 28'37	0°18'01
behind sun begin	3282 May 28 18:46	8° Π 32'46		asc. node	3283 May 14 22:50	27° Ω 07'32	
behind sun end	3282 May 29 03:12	9° Π 18'32			3283 May 16 06:58	0° Π	
evening rise	3282 Jun 04 21:46	23° Π 59'38		evening rise	3283 May 20 09:11	8° Π 44'08	
	3282 Jun 07 18:53	0° Ω					

	3283 May 31 13:09	0°☿			3284 May 07 01:31	0°♊		
evening max el	3283 Jun 11 00:37	13°☿43'48	22°28'44	evening max el	3284 May 22 23:12	24°♊28'58	20°59'36	
desc. node	3283 Jun 21 10:04	19°☿57'01			3284 Jun 01 11:25	0°☿		
retrograde	3283 Jun 24 02:25	20°☿13'33		retrograde	3284 Jun 03 15:33	0°☿11'35		
evening set	3283 Jun 27 04:34	19°☿52'30		evening set	3284 Jun 05 19:41	0°☿00'29		
min. Earth dist.	3283 Jul 05 07:49	16°☿20'24	0.55190 AU		3284 Jun 05 20:49	30°♊		
inferior conj	3283 Jul 06 10:32	15°☿42'29	-3°58'48	desc. node	3284 Jun 07 07:06	29°♊40'58		
minimum elong	3283 Jul 06 02:22	15°☿54'06	3°56'47	inferior conj	3284 Jun 15 04:03	26°♊02'45	-2°16'50	
morning rise	3283 Jul 15 02:15	11°☿51'37		minimum elong	3284 Jun 14 21:44	26°♊11'44	2°14'39	
direct	3283 Jul 18 02:25	11°☿31'03		min. Earth dist.	3284 Jun 15 19:42	25°♊40'36	0.54866 AU	
morning max el	3283 Jul 29 13:20	16°☿50'36	21°07'13	morning rise	3284 Jun 23 23:42	22°♊01'09		
	3283 Aug 08 15:57	0°♊		direct	3284 Jun 27 11:50	21°♊34'38		
asc. node	3283 Aug 10 22:05	3°♊52'54		morning max el	3284 Jul 10 10:12	27°♊45'35	22°43'47	
morning set	3283 Aug 18 08:03	18°♊20'41			3284 Jul 12 15:41	0°☿		
	3283 Aug 23 21:58	0°♊		asc. node	3284 Jul 27 19:07	23°☿07'00		
					3284 Jul 31 05:43	0°♊		
superior conj	3283 Aug 25 17:28	3°♊45'44	1°44'02	morning set	3284 Aug 01 18:42	3°♊12'22		
minimum elong	3283 Aug 25 16:49	3°♊42'23	1°44'01					
max. Earth dist.	3283 Aug 30 02:50	12°♊39'28	1.35467 AU	superior conj	3284 Aug 08 21:20	18°♊22'35	1°37'36	
evening rise	3283 Sep 03 07:10	20°♊44'32		minimum elong	3284 Aug 08 19:37	18°♊13'28	1°37'28	
	3283 Sep 08 09:01	0°♊		max. Earth dist.	3284 Aug 11 21:01	24°♊40'07	1.34009 AU	
desc. node	3283 Sep 17 09:26	14°♊57'33			3284 Aug 14 11:22	0°♊		
	3283 Sep 27 19:53	0°♊		evening rise	3284 Aug 16 16:49	4°♊26'29		
evening max el	3283 Oct 08 18:35	12°♊41'10	26°30'51		3284 Aug 31 02:52	0°♊		
retrograde	3283 Oct 21 15:46	19°♊54'42		desc. node	3284 Sep 03 06:27	4°♊51'17		
evening set	3283 Oct 28 03:21	17°♊15'48		evening max el	3284 Sep 20 06:57	26°♊11'00	27°12'15	
min. Earth dist.	3283 Nov 01 05:48	13°♊00'46	0.66209 AU		3284 Sep 24 19:41	0°♊		
inferior conj	3283 Nov 02 21:46	11°♊00'24	-1°21'16	retrograde	3284 Oct 03 16:11	3°♊29'12		
minimum elong	3283 Nov 02 23:59	10°♊53'45	1°20'20	evening set	3284 Oct 10 14:34	0°♊47'00		
asc. node	3283 Nov 06 21:16	6°♊41'31			3284 Oct 11 13:11	30°♊		
morning rise	3283 Nov 08 21:14	5°♊15'09		min. Earth dist.	3284 Oct 14 10:41	27°♊07'30	0.64934 AU	
direct	3283 Nov 11 20:18	4°♊25'48		inferior conj	3284 Oct 16 14:45	24°♊43'27	-2°21'37	
morning max el	3283 Nov 18 12:07	8°♊04'41	18°33'04	minimum elong	3284 Oct 16 18:40	24°♊32'36	2°20'07	
	3283 Dec 03 22:16	0°♊		morning rise	3284 Oct 22 23:46	19°♊11'33		
morning set	3283 Dec 08 19:54	7°♊48'46		asc. node	3284 Oct 23 18:19	18°♊53'05		
desc. node	3283 Dec 14 08:42	16°♊36'36		direct	3284 Oct 25 15:29	18°♊34'14		
	3283 Dec 22 20:35	0°♊		morning max el	3284 Nov 01 03:22	22°♊02'26	18°03'16	
					3284 Nov 07 08:22	0°♊		
superior conj	3283 Dec 24 18:04	2°♊58'29	-1°06'41	morning set	3284 Nov 19 00:15	18°♊54'55		
minimum elong	3283 Dec 24 10:01	2°♊26'56	1°05'43		3284 Nov 25 17:21	0°♊		
max. Earth dist.	3283 Dec 25 02:06	3°♊29'58	1.45214 AU	desc. node	3284 Nov 30 05:44	7°♊19'23		
evening rise	3284 Jan 09 15:12	28°♊00'02						
	3284 Jan 10 21:24	0°♊		superior conj	3284 Dec 03 01:29	11°♊50'38	-0°19'10	
greatest brilliancy	3284 Jan 18 15:11	12°♊16'26	-0.8m	minimum elong	3284 Dec 02 23:06	11°♊41'09	0°18'49	
	3284 Jan 31 04:31	0°♊		max. Earth dist.	3284 Dec 06 21:11	17°♊54'03	1.44965 AU	
evening max el	3284 Jan 31 19:00	0°♊38'07	18°59'39		3284 Dec 14 14:51	0°♊		
asc. node	3284 Feb 02 20:32	2°♊30'42		evening rise	3284 Dec 19 09:49	7°♊25'09		
retrograde	3284 Feb 07 15:34	4°♊30'38		greatest brilliancy	3285 Jan 02 02:14	28°♊17'55	-0.7m	
evening set	3284 Feb 10 23:03	3°♊27'07			3285 Jan 03 05:52	0°♊		
	3284 Feb 14 16:19	30°♊		evening max el	3285 Jan 14 00:58	14°♊08'59	19°50'26	
inferior conj	3284 Feb 16 13:37	27°♊41'38	3°27'22	asc. node	3285 Jan 19 17:34	18°♊12'50		
minimum elong	3284 Feb 16 11:54	27°♊47'01	3°27'09	retrograde	3285 Jan 21 13:05	18°♊30'43		
min. Earth dist.	3284 Feb 18 03:54	25°♊41'17	0.65781 AU	evening set	3285 Jan 25 04:18	17°♊13'31		
morning rise	3284 Feb 22 00:23	21°♊29'10		inferior conj	3285 Jan 30 14:54	11°♊13'38	3°03'54	
direct	3284 Feb 28 12:25	18°♊38'38		minimum elong	3285 Jan 30 12:31	11°♊21'34	3°03'23	
desc. node	3284 Mar 11 07:52	25°♊10'25		min. Earth dist.	3285 Jan 31 14:47	9°♊54'10	0.66896 AU	
morning max el	3284 Mar 12 11:34	26°♊18'27	26°35'55	morning rise	3285 Feb 04 20:31	5°♊00'04		
	3284 Mar 15 21:44	0°♊		direct	3285 Feb 10 20:20	2°♊19'31		
	3284 Apr 06 01:32	0°♊		morning max el	3285 Feb 22 20:30	9°♊29'26	25°21'10	
morning set	3284 Apr 17 11:13	20°♊09'43		desc. node	3285 Feb 26 04:55	13°♊06'37		
max. Earth dist.	3284 Apr 21 15:49	28°♊17'08	1.34629 AU		3285 Mar 11 01:21	0°♊		
	3284 Apr 22 12:28	0°♊			3285 Mar 29 15:41	0°♊		
				morning set	3285 Mar 31 01:54	2°♊33'26		
superior conj	3284 Apr 26 04:19	7°♊26'47	-0°46'53	max. Earth dist.	3285 Apr 03 18:22	9°♊20'57	1.36361 AU	
minimum elong	3284 Apr 26 06:47	7°♊39'28	0°46'25					
asc. node	3284 Apr 30 19:51	17°♊08'47		superior conj	3285 Apr 09 18:51	20°♊59'34	-1°14'59	
evening rise	3284 May 03 18:23	23°♊17'09		minimum elong	3285 Apr 09 22:43	21°♊18'44	1°14'23	

	3285 Apr 14 06:13	0°♄		evening rise	3286 Apr 01 21:01	21°♄21'29	
evening rise	3285 Apr 17 23:12	7°♄32'13		asc. node	3286 Apr 04 13:57	26°♄36'48	
asc. node	3285 Apr 17 16:54	7°♄00'20			3286 Apr 06 08:45	0°♄	
	3285 Apr 30 11:52	0°♄		evening max el	3286 Apr 18 07:25	17°♄55'37	18°53'30
evening max el	3285 May 05 09:46	5°♄52'43	19°46'46	retrograde	3286 Apr 26 16:26	22°♄00'50	
retrograde	3285 May 15 08:15	10°♄41'59		evening set	3286 Apr 28 20:16	21°♄45'36	
evening set	3285 May 17 07:46	10°♄31'22		inferior conj	3286 May 06 20:45	17°♄27'53	1°27'10
desc. node	3285 May 25 04:07	7°♄05'44		minimum elong	3286 May 06 23:50	17°♄22'20	1°26'10
inferior conj	3285 May 26 03:38	6°♄29'38	-0°17'17	min. Earth dist.	3286 May 10 01:08	15°♄12'04	0.56981 AU
minimum elong	3285 May 26 02:52	6°♄30'50	0°17'00	desc. node	3286 May 12 01:09	13°♄54'31	
min. Earth dist.	3285 May 28 09:09	5°♄07'12	0.55510 AU	morning rise	3286 May 15 00:15	12°♄23'02	
morning rise	3285 Jun 03 19:40	1°♄59'59		direct	3286 May 20 08:06	11°♄14'57	
direct	3285 Jun 08 03:33	1°♄18'31		morning max el	3286 Jun 03 15:49	18°♄41'24	26°00'55
morning max el	3285 Jun 22 00:56	8°♄13'46	24°26'36		3286 Jun 13 03:30	0°♄	
	3285 Jul 07 23:37	0°♄			3286 Jun 30 07:21	0°♄	
asc. node	3285 Jul 14 16:10	12°♄43'49		morning set	3286 Jul 01 17:47	3°♄00'03	
morning set	3285 Jul 17 06:31	18°♄07'34		asc. node	3286 Jul 01 13:13	2°♄35'59	
	3285 Jul 22 18:30	0°♄					
superior conj	3285 Jul 24 05:54	3°♄12'49	1°25'38	superior conj	3286 Jul 08 17:00	18°♄08'32	1°09'00
minimum elong	3285 Jul 24 03:38	3°♄00'29	1°25'21	minimum elong	3286 Jul 08 14:40	17°♄55'43	1°08'37
max. Earth dist.	3285 Jul 26 00:11	7°♄01'38	1.32966 AU	max. Earth dist.	3286 Jul 09 09:30	19°♄39'11	1.32325 AU
evening rise	3285 Jul 31 13:06	18°♄39'21			3286 Jul 14 04:07	0°♄	
	3285 Aug 06 08:46	0°♄		evening rise	3286 Jul 15 16:42	3°♄12'23	
desc. node	3285 Aug 21 03:28	24°♄13'20			3286 Jul 30 04:05	0°♄	
	3285 Aug 25 10:25	0°♄		desc. node	3286 Aug 08 00:29	12°♄50'00	
evening max el	3285 Sep 02 17:50	9°♄18'51	27°26'28	evening max el	3286 Aug 16 00:28	21°♄50'19	27°08'40
retrograde	3285 Sep 16 10:10	16°♄35'16		retrograde	3286 Aug 29 21:02	29°♄03'25	
evening set	3285 Sep 23 14:37	13°♄59'44		evening set	3286 Sep 05 23:33	26°♄46'45	
min. Earth dist.	3285 Sep 27 06:06	10°♄52'30	0.63326 AU	min. Earth dist.	3286 Sep 09 14:45	24°♄03'13	0.61425 AU
inferior conj	3285 Sep 29 22:22	8°♄12'30	-3°20'41	inferior conj	3286 Sep 12 17:24	21°♄19'06	-4°13'46
minimum elong	3285 Sep 30 03:41	7°♄59'14	3°18'58	minimum elong	3286 Sep 12 23:05	21°♄06'33	4°12'28
morning rise	3285 Oct 06 18:05	2°♄57'24		morning rise	3286 Sep 20 00:20	16°♄24'25	
direct	3285 Oct 09 05:08	2°♄28'29		direct	3286 Sep 22 09:31	16°♄00'55	
asc. node	3285 Oct 10 15:22	2°♄38'25		asc. node	3286 Sep 27 12:25	17°♄53'53	
morning max el	3285 Oct 15 19:49	5°♄54'06	17°50'57	morning max el	3286 Sep 29 10:25	19°♄32'15	17°57'09
	3285 Oct 31 12:51	0°♄			3286 Oct 07 02:57	0°♄	
morning set	3285 Nov 01 05:50	1°♄14'08		morning set	3286 Oct 15 06:13	14°♄26'51	
					3286 Oct 23 20:36	0°♄	
superior conj	3285 Nov 13 06:43	21°♄48'32	0°26'15	superior conj	3286 Oct 25 14:55	3°♄05'44	1°02'05
minimum elong	3285 Nov 13 09:21	21°♄59'28	0°25'52	minimum elong	3286 Oct 25 19:13	3°♄24'30	1°01'32
desc. node	3285 Nov 17 02:47	28°♄06'06		max. Earth dist.	3286 Nov 02 03:37	15°♄52'09	1.42461 AU
	3285 Nov 18 06:56	0°♄		desc. node	3286 Nov 03 23:50	18°♄53'23	
max. Earth dist.	3285 Nov 19 14:35	2°♄07'17	1.44010 AU	evening rise	3286 Nov 08 11:03	26°♄03'31	
evening rise	3285 Nov 28 19:00	16°♄33'00			3286 Nov 10 23:20	0°♄	
	3285 Dec 07 15:34	0°♄			3286 Dec 01 12:46	0°♄	
evening max el	3285 Dec 28 01:35	27°♄40'58	20°54'55	evening max el	3286 Dec 10 20:40	11°♄14'09	22°09'30
	3285 Dec 30 13:37	0°♄		retrograde	3286 Dec 20 07:36	16°♄51'45	
retrograde	3286 Jan 05 11:00	2°♄38'54		asc. node	3286 Dec 24 11:39	15°♄18'35	
asc. node	3286 Jan 06 14:37	2°♄31'36		evening set	3286 Dec 24 19:18	15°♄03'33	
evening set	3286 Jan 09 11:37	1°♄06'41		inferior conj	3286 Dec 30 03:42	8°♄43'35	1°50'03
	3286 Jan 10 17:49	30°♄3		minimum elong	3286 Dec 30 01:31	8°♄51'09	1°49'16
inferior conj	3286 Jan 14 20:17	24°♄55'06	2°30'52	min. Earth dist.	3286 Dec 30 03:01	8°♄45'57	0.67916 AU
minimum elong	3286 Jan 14 17:46	25°♄03'47	2°30'07	morning rise	3287 Jan 04 07:37	2°♄32'45	
min. Earth dist.	3286 Jan 15 07:14	24°♄17'28	0.67601 AU	direct	3287 Jan 09 02:00	0°♄32'37	
morning rise	3286 Jan 19 23:44	18°♄42'09		morning max el	3287 Jan 18 15:46	6°♄11'22	22°26'11
direct	3286 Jan 25 09:06	16°♄19'46		desc. node	3287 Jan 30 23:02	21°♄24'41	
morning max el	3286 Feb 05 04:58	22°♄46'54	23°54'36		3287 Feb 05 23:20	0°♄	
	3286 Feb 11 13:08	0°♄		morning set	3287 Feb 21 08:17	23°♄47'11	
desc. node	3286 Feb 13 01:58	1°♄56'23			3287 Feb 25 02:28	0°♄	
	3286 Mar 04 09:54	0°♄		max. Earth dist.	3287 Feb 26 10:56	2°♄16'48	1.40598 AU
morning set	3286 Mar 12 18:49	13°♄50'19					
max. Earth dist.	3286 Mar 16 14:14	20°♄29'34	1.38430 AU	superior conj	3287 Mar 06 05:54	15°♄52'56	-1°58'57
	3286 Mar 21 19:33	0°♄		minimum elong	3287 Mar 06 09:35	16°♄09'31	1°58'43
superior conj	3286 Mar 23 20:53	3°♄51'52	-1°40'09		3287 Mar 13 21:42	0°♄	
minimum elong	3286 Mar 24 01:28	4°♄13'35	1°39'38	evening rise	3287 Mar 16 08:40	4°♄37'19	
				asc. node	3287 Mar 22 10:59	15°♄52'52	

	3287 Apr 01 00:40	0°♄			3288 Feb 17 12:58	0°♄	
evening max el	3287 Apr 01 13:21	0°♄31'56	18°20'28	evening rise	3288 Feb 27 06:07	17°♄09'52	
retrograde	3287 Apr 08 19:43	4°♄08'32			3288 Mar 05 11:59	0°♄	
evening set	3287 Apr 11 05:52	3°♄45'28		asc. node	3288 Mar 08 08:00	4°♄41'06	
	3287 Apr 17 10:06	30°♄♂		evening max el	3288 Mar 15 00:14	13°♄32'23	18°07'19
inferior conj	3287 Apr 18 11:20	29°♄07'40	2°40'14	retrograde	3288 Mar 21 15:28	16°♄56'12	
minimum elong	3287 Apr 18 15:02	28°♄59'55	2°39'20	evening set	3288 Mar 24 07:39	16°♄23'09	
min. Earth dist.	3287 Apr 21 21:51	26°♄15'54	0.58978 AU	inferior conj	3288 Mar 30 21:31	11°♄24'53	3°21'51
morning rise	3287 Apr 25 21:22	23°♄32'52		minimum elong	3288 Mar 30 23:50	11°♄19'15	3°21'32
desc. node	3287 Apr 28 22:11	22°♄16'43		min. Earth dist.	3288 Apr 03 01:35	8°♄21'48	0.61154 AU
direct	3287 May 02 02:30	21°♄49'33		morning rise	3288 Apr 06 14:08	5°♄30'45	
morning max el	3287 May 16 11:46	29°♄35'34	27°11'14	direct	3288 Apr 13 08:28	3°♄13'13	
	3287 May 16 21:38	0°♄		desc. node	3288 Apr 14 19:13	3°♄19'11	
	3287 Jun 07 00:31	0°♄		morning max el	3288 Apr 27 13:54	11°♄09'19	27°47'11
morning set	3287 Jun 16 02:52	17°♄44'23			3288 May 12 08:05	0°♄	
asc. node	3287 Jun 18 10:16	22°♄38'16			3288 May 29 05:35	0°♄	
	3287 Jun 21 19:26	0°♄		morning set	3288 May 30 07:54	2°♄14'20	
				asc. node	3288 Jun 04 07:19	12°♄45'54	
superior conj	3287 Jun 23 04:48	3°♄03'46	0°48'24	max. Earth dist.	3288 Jun 05 07:55	14°♄59'30	1.32233 AU
minimum elong	3287 Jun 23 02:53	2°♄53'09	0°48'02				
max. Earth dist.	3287 Jun 22 21:21	2°♄22'41	1.32080 AU	superior conj	3288 Jun 06 15:37	17°♄52'44	0°24'29
evening rise	3287 Jun 30 01:06	17°♄57'36		minimum elong	3288 Jun 06 14:31	17°♄46'44	0°24'16
	3287 Jul 05 23:57	0°♄			3288 Jun 12 04:47	0°♄	
desc. node	3287 Jul 25 21:29	0°♄22'42		evening rise	3288 Jun 13 12:11	2°♄48'05	
	3287 Jul 25 13:20	0°♄			3288 Jun 28 03:22	0°♄	
evening max el	3287 Jul 29 00:23	3°♄35'25	26°17'49	evening max el	3288 Jul 09 17:14	14°♄35'04	24°59'03
retrograde	3287 Aug 11 23:48	10°♄45'46		desc. node	3288 Jul 11 18:29	16°♄25'46	
evening set	3287 Aug 18 12:37	9°♄00'33		retrograde	3288 Jul 23 16:24	21°♄39'39	
min. Earth dist.	3287 Aug 22 13:22	6°♄25'16	0.59361 AU	evening set	3288 Jul 29 01:56	20°♄33'11	
inferior conj	3287 Aug 25 20:19	3°♄54'03	-4°53'03	min. Earth dist.	3288 Aug 03 04:50	17°♄47'25	0.57372 AU
minimum elong	3287 Aug 26 00:16	3°♄46'27	4°52'35	inferior conj	3288 Aug 06 04:03	15°♄48'48	-5°06'11
	3287 Aug 31 20:28	30°♄♂		minimum elong	3288 Aug 06 03:24	15°♄49'53	5°06'10
morning rise	3287 Sep 02 14:05	29°♄22'11		morning rise	3288 Aug 14 07:23	11°♄38'56	
direct	3287 Sep 05 00:14	29°♄01'45		direct	3288 Aug 16 21:16	11°♄19'44	
	3287 Sep 08 23:32	0°♄		morning max el	3288 Aug 25 21:11	15°♄33'07	19°09'58
morning max el	3287 Sep 12 19:58	2°♄48'22	18°23'02	asc. node	3288 Aug 31 06:32	22°♄01'09	
asc. node	3287 Sep 14 09:29	4°♄26'29			3288 Sep 05 04:28	0°♄	
morning set	3287 Sep 28 19:56	28°♄17'27		morning set	3288 Sep 11 19:00	12°♄35'34	
	3287 Sep 29 17:21	0°♄					
				superior conj	3288 Sep 20 00:37	28°♄52'18	1°40'07
superior conj	3287 Oct 07 22:42	15°♄32'03	1°26'26	minimum elong	3288 Sep 20 02:30	29°♄01'27	1°40'01
minimum elong	3287 Oct 08 02:16	15°♄48'27	1°26'06		3288 Sep 20 14:38	0°♄	
max. Earth dist.	3287 Oct 15 10:53	28°♄54'12	1.40524 AU	max. Earth dist.	3288 Sep 26 14:57	11°♄14'55	1.38452 AU
	3287 Oct 16 02:14	0°♄		evening rise	3288 Sep 30 10:08	17°♄59'57	
evening rise	3287 Oct 19 22:41	6°♄28'30		desc. node	3288 Oct 07 17:50	0°♄15'00	
desc. node	3287 Oct 21 20:50	9°♄37'29			3288 Oct 07 14:07	0°♄	
	3287 Nov 04 02:46	0°♄			3288 Oct 28 11:00	0°♄	
evening max el	3287 Nov 23 11:24	24°♄49'28	23°29'12	evening max el	3288 Nov 05 00:04	8°♄29'23	24°47'36
	3287 Nov 30 01:29	0°♄		retrograde	3288 Nov 16 15:07	15°♄15'13	
retrograde	3287 Dec 04 01:20	1°♄05'02		evening set	3288 Nov 22 05:11	12°♄55'07	
	3287 Dec 07 16:55	30°♄♂		min. Earth dist.	3288 Nov 26 19:09	7°♄43'53	0.67502 AU
evening set	3287 Dec 09 01:41	29°♄00'27		asc. node	3288 Nov 27 05:44	7°♄08'54	
asc. node	3287 Dec 11 08:42	26°♄40'01		inferior conj	3288 Nov 27 17:16	6°♄30'38	0°09'53
inferior conj	3287 Dec 14 11:16	22°♄36'03	1°02'40	minimum elong	3288 Nov 27 17:01	6°♄31'27	0°09'47
minimum elong	3287 Dec 14 09:51	22°♄40'53	1°02'05	transit middle	3288 Nov 27 17:01	6°♄31'27	0°09'47
min. Earth dist.	3287 Dec 13 23:46	23°♄15'25	0.67877 AU	transit begin	3288 Nov 27 14:49	6°♄38'45	
morning rise	3287 Dec 19 18:00	16°♄29'10		transit end	3288 Nov 27 19:13	6°♄24'10	
direct	3287 Dec 23 22:06	14°♄51'50		morning rise	3288 Dec 03 04:58	0°♄29'57	
morning max el	3288 Jan 01 08:12	19°♄44'45	21°03'55		3288 Dec 04 00:09	30°♄♂	
	3288 Jan 09 19:45	0°♄		direct	3288 Dec 06 20:18	29°♄13'43	
desc. node	3288 Jan 17 20:03	11°♄20'11			3288 Dec 09 20:02	0°♄	
	3288 Jan 30 04:16	0°♄		morning max el	3288 Dec 14 08:18	3°♄29'13	19°53'23
morning set	3288 Jan 31 17:47	2°♄26'28			3289 Jan 02 15:56	0°♄	
max. Earth dist.	3288 Feb 08 13:27	14°♄56'36	1.42580 AU	desc. node	3289 Jan 03 17:05	1°♄35'35	
				morning set	3289 Jan 09 13:38	10°♄34'19	
superior conj	3288 Feb 15 16:39	26°♄50'08	-2°06'44	max. Earth dist.	3289 Jan 20 23:36	28°♄27'09	1.44120 AU
minimum elong	3288 Feb 15 16:45	26°♄50'37	2°06'44		3289 Jan 21 22:52	0°♄	

superior conj	3289 Jan 26 01:30	6° \approx 37'12	-1°58'15			3289 Dec 26 15:31	0° \approx	
minimum elong	3289 Jan 25 19:50	6° \approx 14'12	1°57'57	max. Earth dist.		3290 Jan 03 16:04	12° \approx 34'46	1.45025 AU
evening rise	3289 Feb 08 09:01	28° \approx 50'50						
	3289 Feb 09 01:12	0° \approx		superior conj		3290 Jan 05 11:26	15° \approx 25'31	-1°30'23
asc. node	3289 Feb 23 05:01	22° \approx 52'58		minimum elong		3290 Jan 05 02:18	14° \approx 49'32	1°29'28
evening max el	3289 Feb 26 12:56	26° \approx 48'47	18°13'22			3290 Jan 14 15:22	0° \approx	
	3289 Mar 03 08:07	0° \approx		evening rise		3290 Jan 20 13:38	9° \approx 35'09	
retrograde	3289 Mar 04 23:20	0° \approx 14'04				3290 Feb 02 06:37	0° \approx	
	3289 Mar 06 14:30	30° \approx		evening max el		3290 Feb 10 00:43	10° \approx 14'14	18°37'47
evening set	3289 Mar 07 21:13	29° \approx 29'46		asc. node		3290 Feb 10 02:02	10° \approx 17'37	
inferior conj	3289 Mar 13 23:22	24° \approx 11'48	3°38'11	retrograde		3290 Feb 16 15:12	13° \approx 53'33	
minimum elong	3289 Mar 13 23:51	24° \approx 10'29	3°38'10	evening set		3290 Feb 19 19:01	12° \approx 57'09	
min. Earth dist.	3289 Mar 16 14:03	21° \approx 21'08	0.63210 AU	inferior conj		3290 Feb 25 12:56	7° \approx 20'59	3°35'33
morning rise	3289 Mar 20 01:27	18° \approx 06'56		minimum elong		3290 Feb 25 11:52	7° \approx 24'12	3°35'29
direct	3289 Mar 26 23:26	15° \approx 25'39		min. Earth dist.		3290 Feb 27 11:57	4° \approx 59'40	0.64952 AU
desc. node	3289 Apr 01 16:15	16° \approx 59'13		morning rise		3290 Mar 03 04:14	1° \approx 10'31	
morning max el	3289 Apr 09 20:56	23° \approx 23'04	27°45'38			3290 Mar 04 17:26	30° \approx	
	3289 Apr 15 18:37	0° \approx		direct		3290 Mar 09 21:35	28° \approx 19'41	
	3289 May 05 14:43	0° \approx				3290 Mar 15 14:11	0° \approx	
morning set	3289 May 14 06:36	16° \approx 22'14		desc. node		3290 Mar 19 13:17	2° \approx 44'23	
max. Earth dist.	3289 May 19 13:21	27° \approx 17'11	1.32811 AU	morning max el		3290 Mar 23 06:34	6° \approx 08'54	27°09'42
	3289 May 20 19:53	0° \approx				3290 Apr 10 13:23	0° \approx	
				morning set		3290 Apr 27 20:08	29° \approx 59'29	
superior conj	3289 May 21 23:38	2° \approx 29'07	-0°02'04			3290 Apr 27 20:15	0° \approx	
minimum elong	3289 May 21 23:44	2° \approx 29'41	0°02'03	max. Earth dist.		3290 May 02 10:02	9° \approx 06'08	1.33836 AU
behind sun begin	3289 May 21 18:30	2° \approx 01'28						
behind sun end	3289 May 22 04:59	2° \approx 57'55		superior conj		3290 May 06 02:53	16° \approx 46'51	-0°30'18
asc. node	3289 May 22 04:21	2° \approx 54'32		minimum elong		3290 May 06 04:27	16° \approx 55'04	0°29'59
evening rise	3289 May 29 00:01	17° \approx 37'02		asc. node		3290 May 09 01:21	22° \approx 59'55	
	3289 Jun 04 02:43	0° \approx				3290 May 12 08:29	0° \approx	
evening max el	3289 Jun 21 06:35	25° \approx 04'58	23°24'19	evening rise		3290 May 13 10:47	2° \approx 18'24	
	3289 Jun 27 19:24	0° \approx				3290 May 29 02:36	0° \approx	
desc. node	3289 Jun 28 15:29	0° \approx 24'57		evening max el		3290 Jun 02 23:42	5° \approx 35'52	21°49'13
retrograde	3289 Jul 04 20:14	1° \approx 52'09		retrograde		3290 Jun 15 12:36	11° \approx 47'01	
evening set	3289 Jul 08 17:52	1° \approx 18'51		desc. node		3290 Jun 15 12:30	11° \approx 47'01	
	3289 Jul 12 04:34	30° \approx		evening set		3290 Jun 18 03:27	11° \approx 31'37	
min. Earth dist.	3289 Jul 15 16:26	28° \approx 07'28	0.55792 AU	min. Earth dist.		3290 Jun 27 03:19	7° \approx 41'30	0.54944 AU
inferior conj	3289 Jul 17 15:44	26° \approx 57'34	-4°37'53	inferior conj		3290 Jun 27 12:30	7° \approx 28'40	-3°19'55
minimum elong	3289 Jul 17 09:22	27° \approx 07'01	4°36'50	minimum elong		3290 Jun 27 04:20	7° \approx 40'04	3°17'31
morning rise	3289 Jul 26 03:19	23° \approx 03'27		morning rise		3290 Jul 06 06:35	3° \approx 36'02	
direct	3289 Jul 28 23:18	22° \approx 43'48		direct		3290 Jul 09 11:17	3° \approx 13'35	
morning max el	3289 Aug 08 11:21	27° \approx 36'09	20°18'32	morning max el		3290 Jul 21 13:52	8° \approx 54'18	21°46'41
	3289 Aug 10 19:19	0° \approx		asc. node		3290 Aug 05 00:37	29° \approx 21'03	
asc. node	3289 Aug 18 03:34	10° \approx 23'05				3290 Aug 05 09:00	0° \approx	
morning set	3289 Aug 27 00:20	27° \approx 11'55		morning set		3290 Aug 11 09:38	12° \approx 00'02	
	3289 Aug 28 09:09	0° \approx						
				superior conj		3290 Aug 18 15:40	27° \approx 17'04	1°42'02
superior conj	3289 Sep 03 15:34	12° \approx 51'09	1°44'48	minimum elong		3290 Aug 18 14:30	27° \approx 11'01	1°41'59
minimum elong	3289 Sep 03 15:45	12° \approx 52'05	1°44'47			3290 Aug 19 22:56	0° \approx	
max. Earth dist.	3289 Sep 08 21:12	23° \approx 11'00	1.36485 AU	max. Earth dist.		3290 Aug 22 10:29	5° \approx 05'21	1.34807 AU
evening rise	3289 Sep 12 18:59	0° \approx 31'02		evening rise		3290 Aug 26 20:51	13° \approx 50'30	
	3289 Sep 12 12:13	0° \approx				3290 Sep 04 19:21	0° \approx	
desc. node	3289 Sep 24 14:51	20° \approx 40'34		desc. node		3290 Sep 11 11:51	10° \approx 48'13	
	3289 Sep 30 18:02	0° \approx				3290 Sep 25 14:27	0° \approx	
evening max el	3289 Oct 18 12:25	22° \approx 11'21	25°57'28	evening max el		3290 Oct 01 00:54	5° \approx 48'19	26°51'15
retrograde	3289 Oct 30 23:59	29° \approx 17'00		retrograde		3290 Oct 14 03:30	13° \approx 04'03	
evening set	3289 Nov 06 04:04	26° \approx 43'46		evening set		3290 Oct 20 20:15	10° \approx 22'44	
min. Earth dist.	3289 Nov 10 10:40	22° \approx 07'55	0.66786 AU	min. Earth dist.		3290 Oct 24 19:57	6° \approx 23'07	0.65718 AU
inferior conj	3289 Nov 11 19:51	20° \approx 23'56	-0°47'06	inferior conj		3290 Oct 26 17:00	4° \approx 12'05	-1°46'49
minimum elong	3289 Nov 11 21:06	20° \approx 20'01	0°46'34	minimum elong		3290 Oct 26 19:56	4° \approx 03'31	1°45'36
asc. node	3289 Nov 14 02:46	17° \approx 38'21				3290 Oct 30 17:15	30° \approx	
morning rise	3289 Nov 17 14:30	14° \approx 32'08		asc. node		3290 Oct 31 23:49	29° \approx 02'19	
direct	3289 Nov 20 18:58	13° \approx 33'54		morning rise		3290 Nov 01 20:22	28° \approx 32'13	
morning max el	3289 Nov 27 15:57	17° \approx 22'52	18°57'44	direct		3290 Nov 04 16:06	27° \approx 48'21	
	3289 Dec 07 07:32	0° \approx				3290 Nov 09 17:41	0° \approx	
morning set	3289 Dec 19 21:22	19° \approx 25'38		morning max el		3290 Nov 11 05:14	1° \approx 21'11	18°18'18
desc. node	3289 Dec 21 14:08	22° \approx 05'05		morning set		3290 Nov 30 08:51	29° \approx 42'10	

	3290 Nov 30 13:15	0°♊		superior conj	3291 Nov 25 04:53	3°♊16'06	0°00'57
desc. node	3290 Dec 08 11:10	12°♊44'10		minimum elong	3291 Nov 25 05:00	3°♊16'31	0°00'56
				behind sun begin	3291 Nov 24 18:49	2°♊35'21	
superior conj	3290 Dec 15 13:29	23°♊58'42 -0°46'57		behind sun end	3291 Nov 25 15:10	3°♊57'36	
minimum elong	3290 Dec 15 07:32	23°♊35'17 0°46'10		desc. node	3291 Nov 25 08:12	3°♊29'31	
max. Earth dist.	3290 Dec 17 11:24	26°♊59'11 1.45200 AU		max. Earth dist.	3291 Nov 30 06:07	11°♊21'12	1.44635 AU
	3290 Dec 19 09:30	0°♋		evening rise	3291 Dec 11 08:10	28°♊38'40	
evening rise	3290 Dec 31 19:19	19°♋25'01			3291 Dec 12 05:20	0°♋	
	3291 Jan 07 13:45	0°♌			3292 Jan 01 12:42	0°♌	
greatest brilliancy	3291 Jan 11 23:33	6°♌49'12 -0.8m		evening max el	3292 Jan 07 12:53	7°♌14'34	20°16'19
evening max el	3291 Jan 24 09:12	23°♌43'20 19°19'24		asc. node	3292 Jan 14 20:08	11°♌49'49	
asc. node	3291 Jan 27 23:05	26°♌41'16		retrograde	3292 Jan 15 09:36	11°♌51'33	
retrograde	3291 Jan 31 11:33	27°♌47'23		evening set	3292 Jan 19 04:33	10°♌28'10	
evening set	3291 Feb 03 22:11	26°♌38'02		inferior conj	3292 Jan 24 14:05	4°♌22'44	2°50'58
inferior conj	3291 Feb 09 10:45	20°♌45'50 3°18'44		minimum elong	3292 Jan 24 11:34	4°♌31'13	2°50'20
minimum elong	3291 Feb 09 08:41	20°♌52'31 3°18'23		min. Earth dist.	3292 Jan 25 08:16	3°♌21'08	0.67240 AU
min. Earth dist.	3291 Feb 10 18:38	19°♌02'50 0.66300 AU			3292 Jan 27 23:30	30°♌♎	
morning rise	3291 Feb 14 18:56	14°♌32'42		morning rise	3292 Jan 29 18:24	28°♎08'58	
direct	3291 Feb 21 02:02	11°♌45'31		direct	3292 Feb 04 12:06	25°♎35'29	
morning max el	3291 Mar 05 16:19	19°♌14'14 26°06'23			3292 Feb 13 09:44	0°♏	
desc. node	3291 Mar 06 10:20	20°♌00'27		morning max el	3292 Feb 16 01:03	2°♏29'13	24°45'10
	3291 Mar 14 20:10	0°♐		desc. node	3292 Feb 21 07:25	8°♏21'53	
	3291 Apr 03 14:52	0°♑			3292 Mar 07 23:23	0°♐	
morning set	3291 Apr 10 20:34	12°♑53'45		morning set	3292 Mar 23 02:45	24°♐51'03	
max. Earth dist.	3291 Apr 14 19:18	20°♑23'25 1.35315 AU			3292 Mar 25 23:38	0°♑	
				max. Earth dist.	3292 Mar 26 18:04	1°♑24'09	1.37208 AU
superior conj	3291 Apr 19 22:51	0°♒37'39 -0°59'00					
minimum elong	3291 Apr 20 01:57	0°♒53'23 0°58'26		superior conj	3292 Apr 02 08:30	13°♑53'51	-1°26'13
	3291 Apr 19 15:26	0°♒		minimum elong	3292 Apr 02 12:47	14°♑14'48	1°25'36
asc. node	3291 Apr 25 22:23	12°♒57'35			3292 Apr 10 10:43	0°♒	
evening rise	3291 Apr 27 18:24	16°♒44'38		evening rise	3292 Apr 10 20:34	0°♒49'12	
	3291 May 04 12:38	0°♓		asc. node	3292 Apr 11 19:26	2°♒43'05	
evening max el	3291 May 16 03:01	16°♓35'24 20°26'18		evening max el	3292 Apr 27 18:30	28°♒15'45	19°21'39
retrograde	3291 May 27 01:54	21°♓55'43			3292 Apr 29 18:31	0°♓	
evening set	3291 May 29 02:20	21°♓45'35		retrograde	3292 May 07 00:16	2°♓44'49	
desc. node	3291 Jun 02 09:32	20°♓24'08		evening set	3292 May 09 00:48	2°♓32'52	
inferior conj	3291 Jun 07 06:45	17°♓47'36 -1°26'11			3292 May 15 01:11	30°♓♊	
minimum elong	3291 Jun 07 02:41	17°♓53'31 1°24'41		inferior conj	3292 May 17 12:47	28°♓25'30	0°30'18
min. Earth dist.	3291 Jun 08 15:36	16°♓59'50 0.55025 AU		minimum elong	3292 May 17 14:03	28°♓23'25	0°29'51
morning rise	3291 Jun 16 02:01	13°♓35'56		desc. node	3292 May 19 06:34	27°♓16'46	
direct	3291 Jun 19 21:22	13°♓04'41		min. Earth dist.	3292 May 20 06:14	26°♓38'37	0.56044 AU
morning max el	3291 Jul 03 07:31	19°♓35'27 23°27'36		morning rise	3292 May 26 00:20	23°♓40'26	
	3291 Jul 12 00:33	0°♈		direct	3292 May 30 18:09	22°♓49'02	
asc. node	3291 Jul 22 21:41	18°♈45'44			3292 Jun 13 21:37	0°♓	
morning set	3291 Jul 26 21:00	26°♈54'06		morning max el	3292 Jun 13 21:41	0°♓00'10	25°08'46
	3291 Jul 28 08:02	0°♉			3292 Jul 04 12:35	0°♈	
				asc. node	3292 Jul 08 18:43	8°♈29'39	
superior conj	3291 Aug 02 21:50	12°♉00'48 1°33'08		morning set	3292 Jul 10 08:44	11°♈48'40	
minimum elong	3291 Aug 02 19:50	11°♉50'00 1°32'57					
max. Earth dist.	3291 Aug 05 08:39	17°♉14'33 1.33514 AU		superior conj	3292 Jul 17 07:42	26°♈54'18	1°19'06
evening rise	3291 Aug 10 11:26	27°♉46'43		minimum elong	3292 Jul 17 05:21	26°♈41'25	1°18'47
	3291 Aug 11 14:20	0°♊		max. Earth dist.	3292 Jul 18 14:34	29°♈42'42	1.32637 AU
desc. node	3291 Aug 29 08:52	0°♊30'06			3292 Jul 18 17:45	0°♉	
	3291 Aug 29 00:42	0°♋		evening rise	3292 Jul 24 11:08	12°♉09'10	
evening max el	3291 Sep 13 12:43	19°♋10'03 27°21'50			3292 Aug 02 18:39	0°♊	
retrograde	3291 Sep 27 01:20	26°♋28'23		desc. node	3292 Aug 15 05:53	19°♊35'00	
evening set	3291 Oct 04 03:12	23°♋47'15			3292 Aug 23 20:14	0°♋	
min. Earth dist.	3291 Oct 07 20:54	20°♋22'30 0.64291 AU		evening max el	3292 Aug 25 21:59	2°♋03'42	27°23'01
inferior conj	3291 Oct 10 06:22	17°♋50'13 -2°47'02		retrograde	3292 Sep 08 16:45	9°♋19'40	
minimum elong	3291 Oct 10 10:57	17°♋38'04 2°45'24		evening set	3292 Sep 15 21:25	6°♋50'26	
morning rise	3291 Oct 16 19:52	12°♋25'24		min. Earth dist.	3292 Sep 19 11:54	3°♋54'42	0.62542 AU
asc. node	3291 Oct 18 20:53	11°♋53'30		inferior conj	3292 Sep 22 09:03	1°♋10'54	-3°44'20
direct	3291 Oct 19 09:14	11°♋52'08		minimum elong	3292 Sep 22 14:42	0°♋57'28	3°42'44
morning max el	3291 Oct 25 21:29	15°♋18'07 17°55'53			3292 Sep 23 15:20	30°♋♌	
	3291 Nov 05 07:04	0°♍		morning rise	3292 Sep 29 09:33	26°♌04'14	
morning set	3291 Nov 12 00:44	11°♍22'10		direct	3292 Oct 01 19:17	25°♌38'07	
	3291 Nov 23 04:35	0°♎		asc. node	3292 Oct 04 17:57	26°♌18'23	

morning max el	3292 Oct 08 13:35	29° \mathbb{M} 05'26	17°51'14	morning set	3293 Oct 07 21:44	7° \mathbb{A} 37'10	
	3292 Oct 09 10:35	0° \mathbb{A}					
morning set	3292 Oct 24 15:04	24° \mathbb{A} 06'17		superior conj	3293 Oct 17 16:30	25° \mathbb{A} 36'25	1°13'47
	3292 Oct 27 22:37	0° \mathbb{M}		minimum elong	3293 Oct 17 20:41	25° \mathbb{A} 55'06	1°13'19
					3293 Oct 20 04:09	0° \mathbb{M}	
superior conj	3292 Nov 04 21:39	13° \mathbb{M} 48'10	0°42'48	max. Earth dist.	3293 Oct 25 07:50	8° \mathbb{M} 49'50	1.41680 AU
minimum elong	3292 Nov 05 01:24	14° \mathbb{M} 04'00	0°42'18	desc. node	3293 Oct 29 02:14	15° \mathbb{M} 03'18	
desc. node	3292 Nov 11 05:13	24° \mathbb{M} 16'54		evening rise	3293 Oct 30 17:37	17° \mathbb{M} 42'37	
max. Earth dist.	3292 Nov 11 21:20	25° \mathbb{M} 22'17	1.43410 AU		3293 Nov 07 14:16	0° \mathbb{A}	
	3292 Nov 14 18:28	0° \mathbb{A}			3293 Nov 29 05:16	0° \mathbb{B}	
evening rise	3292 Nov 19 18:13	7° \mathbb{A} 51'04		evening max el	3293 Dec 03 04:14	4° \mathbb{B} 21'17	22°43'09
	3292 Dec 04 11:58	0° \mathbb{B}		retrograde	3293 Dec 13 02:34	10° \mathbb{B} 15'02	
evening max el	3292 Dec 20 11:04	20° \mathbb{B} 46'53	21°25'41	evening set	3293 Dec 17 19:29	8° \mathbb{B} 20'01	
retrograde	3292 Dec 29 07:11	26° \mathbb{B} 01'51		asc. node	3293 Dec 18 14:14	7° \mathbb{B} 38'04	
asc. node	3292 Dec 31 17:11	25° \mathbb{B} 29'53		inferior conj	3293 Dec 23 04:15	1° \mathbb{B} 57'55	1°30'40
evening set	3293 Jan 02 12:11	24° \mathbb{B} 23'10		minimum elong	3293 Dec 23 02:21	2° \mathbb{B} 04'31	1°29'56
inferior conj	3293 Jan 07 20:34	18° \mathbb{B} 07'38	2°14'27	min. Earth dist.	3293 Dec 22 22:59	2° \mathbb{B} 16'10	0.67951 AU
minimum elong	3293 Jan 07 18:08	18° \mathbb{B} 16'04	2°13'38		3293 Dec 24 14:48	30° \mathbb{R} \mathbb{A}	
min. Earth dist.	3293 Jan 08 02:31	17° \mathbb{B} 47'02	0.67782 AU	morning rise	3293 Dec 28 09:06	25° \mathbb{A} 48'32	
morning rise	3293 Jan 12 23:53	11° \mathbb{B} 55'09		direct	3294 Jan 01 21:22	23° \mathbb{A} 57'57	
direct	3293 Jan 18 02:53	9° \mathbb{B} 41'43		morning max el	3294 Jan 10 22:34	29° \mathbb{A} 15'57	21°49'54
morning max el	3293 Jan 28 09:57	15° \mathbb{B} 48'56	23°16'33		3294 Jan 11 15:44	0° \mathbb{B}	
desc. node	3293 Feb 07 04:28	27° \mathbb{B} 29'37		desc. node	3294 Jan 25 01:29	17° \mathbb{B} 10'28	
	3293 Feb 09 01:05	0° \mathbb{A}			3294 Feb 02 18:57	0° \mathbb{A}	
	3293 Feb 28 23:34	0° \mathbb{H}		morning set	3294 Feb 12 09:22	14° \mathbb{A} 55'48	
morning set	3293 Mar 04 08:32	5° \mathbb{H} 35'03		max. Earth dist.	3294 Feb 18 11:33	24° \mathbb{A} 52'14	1.41486 AU
max. Earth dist.	3293 Mar 08 12:42	12° \mathbb{H} 42'55	1.39355 AU		3294 Feb 21 12:42	0° \mathbb{H}	
superior conj	3293 Mar 16 03:52	26° \mathbb{H} 25'48	-1°49'10	superior conj	3294 Feb 26 04:03	8° \mathbb{H} 01'15	-2°03'55
minimum elong	3293 Mar 16 08:20	26° \mathbb{H} 46'31	1°48'46	minimum elong	3294 Feb 26 06:35	8° \mathbb{H} 12'23	2°03'50
	3293 Mar 18 01:45	0° \mathbb{Y}		evening rise	3294 Mar 08 20:32	27° \mathbb{H} 23'11	
evening rise	3293 Mar 25 14:27	14° \mathbb{Y} 24'57			3294 Mar 10 06:32	0° \mathbb{Y}	
asc. node	3293 Mar 29 16:28	22° \mathbb{Y} 11'36		asc. node	3294 Mar 16 13:30	11° \mathbb{Y} 16'39	
	3293 Apr 03 01:32	0° \mathbb{B}		evening max el	3294 Mar 25 04:38	23° \mathbb{Y} 22'10	18°12'29
evening max el	3293 Apr 10 20:10	10° \mathbb{B} 34'26	18°37'04	retrograde	3294 Apr 01 02:58	26° \mathbb{Y} 51'12	
retrograde	3293 Apr 18 16:17	14° \mathbb{B} 25'03		evening set	3294 Apr 03 15:55	26° \mathbb{Y} 23'54	
evening set	3293 Apr 20 22:49	14° \mathbb{B} 06'48		inferior conj	3294 Apr 10 14:14	21° \mathbb{Y} 37'12	3°01'26
inferior conj	3293 Apr 28 14:57	9° \mathbb{B} 41'07	2°02'16	minimum elong	3294 Apr 10 17:28	21° \mathbb{Y} 29'55	3°00'47
minimum elong	3293 Apr 28 18:39	9° \mathbb{B} 34'01	2°01'10	min. Earth dist.	3294 Apr 13 23:10	18° \mathbb{Y} 37'44	0.59904 AU
min. Earth dist.	3293 May 02 00:04	7° \mathbb{B} 07'04	0.57785 AU	morning rise	3294 Apr 17 16:40	15° \mathbb{Y} 53'16	
morning rise	3293 May 06 11:18	4° \mathbb{B} 22'30		desc. node	3294 Apr 23 00:39	13° \mathbb{Y} 58'33	
desc. node	3293 May 06 03:36	4° \mathbb{B} 31'49		direct	3294 Apr 24 04:41	13° \mathbb{Y} 54'46	
direct	3293 May 12 05:13	2° \mathbb{B} 59'36		morning max el	3294 May 08 12:30	21° \mathbb{Y} 45'11	27°31'10
morning max el	3293 May 26 14:07	10° \mathbb{B} 35'58	26°34'32		3294 May 15 17:40	0° \mathbb{B}	
	3293 Jun 10 12:03	0° \mathbb{H}			3294 Jun 03 11:08	0° \mathbb{H}	
morning set	3293 Jun 24 19:17	26° \mathbb{H} 38'33		morning set	3294 Jun 09 02:51	11° \mathbb{H} 17'09	
asc. node	3293 Jun 25 15:45	28° \mathbb{H} 26'53		asc. node	3294 Jun 12 12:46	18° \mathbb{H} 31'40	
	3293 Jun 26 09:11	0° \mathbb{B}		max. Earth dist.	3294 Jun 15 13:13	25° \mathbb{H} 06'44	1.32097 AU
superior conj	3293 Jul 01 19:19	11° \mathbb{B} 51'02	1°00'44	superior conj	3294 Jun 16 06:53	26° \mathbb{H} 43'56	0°38'39
minimum elong	3293 Jul 01 17:07	11° \mathbb{B} 38'50	1°00'20	minimum elong	3294 Jun 16 05:15	26° \mathbb{H} 34'59	0°38'18
max. Earth dist.	3293 Jul 02 01:20	12° \mathbb{B} 24'09	1.32168 AU		3294 Jun 17 18:29	0° \mathbb{B}	
evening rise	3293 Jul 08 17:05	26° \mathbb{B} 48'56		evening rise	3294 Jun 23 02:51	11° \mathbb{B} 37'10	
	3293 Jul 10 05:52	0° \mathbb{Q}			3294 Jul 02 11:06	0° \mathbb{Q}	
	3293 Jul 27 07:00	0° \mathbb{M}		desc. node	3294 Jul 19 23:54	24° \mathbb{Q} 45'47	
desc. node	3293 Aug 02 02:53	7° \mathbb{M} 47'41		evening max el	3294 Jul 20 23:08	25° \mathbb{Q} 42'42	25°47'13
evening max el	3293 Aug 08 02:13	14° \mathbb{M} 17'35	26°51'06		3294 Jul 26 07:55	0° \mathbb{M}	
retrograde	3293 Aug 22 00:27	21° \mathbb{M} 29'17		retrograde	3294 Aug 03 22:41	2° \mathbb{M} 50'23	
evening set	3293 Aug 28 22:32	19° \mathbb{M} 24'58		evening set	3294 Aug 10 01:40	1° \mathbb{M} 21'29	
min. Earth dist.	3293 Sep 01 16:21	16° \mathbb{M} 46'49	0.60555 AU		3294 Aug 12 13:12	30° \mathbb{R} \mathbb{Q}	
inferior conj	3293 Sep 04 21:43	14° \mathbb{M} 06'01	-4°32'47	min. Earth dist.	3294 Aug 14 11:20	28° \mathbb{Q} 44'05	0.58493 AU
minimum elong	3293 Sep 05 02:59	13° \mathbb{M} 55'01	4°31'48	inferior conj	3294 Aug 17 16:44	26° \mathbb{Q} 24'40	-5°02'44
morning rise	3293 Sep 12 09:20	9° \mathbb{M} 20'30		minimum elong	3294 Aug 17 19:04	26° \mathbb{Q} 20'27	5°02'34
direct	3293 Sep 14 18:30	8° \mathbb{M} 58'35		morning rise	3294 Aug 25 14:42	22° \mathbb{Q} 02'17	
asc. node	3293 Sep 21 14:59	12° \mathbb{M} 08'40		direct	3294 Aug 28 02:20	21° \mathbb{Q} 42'24	
morning max el	3293 Sep 22 02:24	12° \mathbb{M} 35'30	18°05'33	morning max el	3294 Sep 05 08:40	25° \mathbb{Q} 38'43	18°40'22
	3293 Oct 03 18:49	0° \mathbb{A}		asc. node	3294 Sep 08 12:01	29° \mathbb{Q} 08'59	

	3294 Sep 09 03:39	0° \mathbb{M}		morning max el	3295 Aug 19 05:23	8° Ω 06'01	19°36'40
morning set	3294 Sep 21 15:53	21° \mathbb{M} 40'50		asc. node	3295 Aug 26 09:02	17° Ω 04'39	
	3294 Sep 25 22:28	0° $\underline{\Omega}$			3295 Sep 02 15:48	0° \mathbb{M}	
				morning set	3295 Sep 05 17:54	6° \mathbb{M} 07'06	
superior conj	3294 Sep 30 08:39	8° $\underline{\Omega}$ 27'30	1°33'27				
minimum elong	3294 Sep 30 11:33	8° $\underline{\Omega}$ 41'08	1°33'13	superior conj	3295 Sep 13 16:39	22° \mathbb{M} 05'33	1°43'07
max. Earth dist.	3294 Oct 07 13:51	21° $\underline{\Omega}$ 35'40	1.39651 AU	minimum elong	3295 Sep 13 17:48	22° \mathbb{M} 11'10	1°43'04
evening rise	3294 Oct 11 15:22	28° $\underline{\Omega}$ 35'41			3295 Sep 17 18:39	0° $\underline{\Omega}$	
	3294 Oct 12 11:26	0° \mathbb{M}		max. Earth dist.	3295 Sep 19 18:05	3° $\underline{\Omega}$ 42'44	1.37583 AU
desc. node	3294 Oct 15 23:14	5° \mathbb{M} 45'06		evening rise	3295 Sep 23 12:17	10° $\underline{\Omega}$ 32'51	
	3294 Nov 01 02:20	0° \mathbb{M}		desc. node	3295 Oct 02 20:14	26° $\underline{\Omega}$ 17'53	
evening max el	3294 Nov 15 17:55	17° \mathbb{M} 59'01	24°03'05		3295 Oct 05 04:31	0° \mathbb{M}	
retrograde	3294 Nov 26 18:38	24° \mathbb{M} 27'55			3295 Oct 27 14:52	0° \mathbb{M}	
evening set	3294 Dec 02 00:51	22° \mathbb{M} 16'24		evening max el	3295 Oct 29 06:04	1° \mathbb{M} 39'25	25°18'47
asc. node	3294 Dec 05 11:15	18° \mathbb{M} 31'52		retrograde	3295 Nov 10 06:27	8° \mathbb{M} 35'27	
inferior conj	3294 Dec 07 11:22	15° \mathbb{M} 51'37	0°40'51	evening set	3295 Nov 16 02:38	6° \mathbb{M} 08'59	
minimum elong	3294 Dec 07 10:25	15° \mathbb{M} 54'51	0°40'28	min. Earth dist.	3295 Nov 20 13:17	1° \mathbb{M} 12'53	0.67238 AU
min. Earth dist.	3294 Dec 06 19:20	16° \mathbb{M} 45'51	0.67766 AU		3295 Nov 21 11:46	30° \mathbb{M}	
morning rise	3294 Dec 12 19:59	9° \mathbb{M} 47'20		inferior conj	3295 Nov 21 16:08	29° \mathbb{M} 45'49	-0°13'53
direct	3294 Dec 16 18:31	8° \mathbb{M} 19'17		minimum elong	3295 Nov 21 16:29	29° \mathbb{M} 44'40	0°13'43
morning max el	3294 Dec 24 18:14	12° \mathbb{M} 54'29	20°32'16	transit middle	3295 Nov 21 16:29	29° \mathbb{M} 44'40	0°13'43
	3295 Jan 07 00:06	0° \mathbb{M}		transit begin	3295 Nov 21 15:00	29° \mathbb{M} 49'29	
desc. node	3295 Jan 11 22:30	7° \mathbb{M} 15'19		transit end	3295 Nov 21 17:58	29° \mathbb{M} 39'52	
morning set	3295 Jan 22 10:25	23° \mathbb{M} 13'59		asc. node	3295 Nov 22 08:18	28° \mathbb{M} 53'40	
	3295 Jan 26 18:14	0° \approx		morning rise	3295 Nov 27 06:36	23° \mathbb{M} 48'49	
max. Earth dist.	3295 Jan 31 18:05	7° \approx 57'57	1.43306 AU	direct	3295 Nov 30 16:59	22° \mathbb{M} 40'52	
				morning max el	3295 Dec 07 21:49	26° \mathbb{M} 43'46	19°27'51
superior conj	3295 Feb 07 04:02	18° \approx 29'02	-2°05'24		3295 Dec 10 20:10	0° \mathbb{M}	
minimum elong	3295 Feb 07 01:48	18° \approx 19'44	2°05'22	greatest brilliancy	3295 Dec 21 04:25	14° \mathbb{M} 26'57	-0.7m
	3295 Feb 13 22:49	0° \mathbb{M}		desc. node	3295 Dec 29 19:31	27° \mathbb{M} 37'05	
evening rise	3295 Feb 19 10:40	9° \mathbb{M} 35'22			3295 Dec 31 08:32	0° \mathbb{M}	
asc. node	3295 Mar 03 10:33	29° \mathbb{M} 50'49		morning set	3296 Jan 01 08:21	1° \mathbb{M} 32'06	
	3295 Mar 03 13:01	0° \mathbb{Y}		max. Earth dist.	3296 Jan 14 07:12	21° \mathbb{M} 46'11	1.44588 AU
evening max el	3295 Mar 08 16:38	6° \mathbb{Y} 30'20	18°07'31				
retrograde	3295 Mar 15 04:39	9° \mathbb{Y} 53'21		superior conj	3296 Jan 18 02:04	27° \mathbb{M} 47'28	-1°48'47
evening set	3295 Mar 17 23:16	9° \mathbb{Y} 15'35		minimum elong	3296 Jan 17 18:16	27° \mathbb{M} 16'18	1°48'11
inferior conj	3295 Mar 24 07:39	4° \mathbb{Y} 08'25	3°31'27		3296 Jan 19 11:09	0° \approx	
minimum elong	3295 Mar 24 09:11	4° \mathbb{Y} 04'29	3°31'19	evening rise	3296 Feb 01 04:29	20° \approx 52'40	
min. Earth dist.	3295 Mar 27 06:22	1° \mathbb{Y} 08'21	0.62056 AU		3296 Feb 06 15:20	0° \mathbb{M}	
	3295 Mar 28 11:17	30° \mathbb{M}		asc. node	3296 Feb 18 07:36	17° \mathbb{M} 43'57	
morning rise	3295 Mar 30 17:38	28° \mathbb{M} 08'47		evening max el	3296 Feb 20 05:11	19° \mathbb{M} 50'42	18°21'31
direct	3295 Apr 06 14:29	25° \mathbb{M} 39'56		retrograde	3296 Feb 26 16:30	23° \mathbb{M} 20'56	
desc. node	3295 Apr 09 21:41	26° \mathbb{M} 11'12		evening set	3296 Feb 29 16:43	22° \mathbb{M} 31'44	
	3295 Apr 16 16:06	0° \mathbb{Y}		inferior conj	3296 Mar 06 14:59	17° \mathbb{M} 05'45	3°39'02
morning max el	3295 Apr 20 17:12	3° \mathbb{Y} 37'18	27°51'08	minimum elong	3296 Mar 06 14:44	17° \mathbb{M} 06'25	3°39'03
	3295 May 10 07:04	0° \mathbb{M}		min. Earth dist.	3296 Mar 08 23:05	14° \mathbb{M} 25'48	0.63994 AU
morning set	3295 May 24 05:29	25° \mathbb{M} 38'28		morning rise	3296 Mar 12 11:59	10° \mathbb{M} 57'41	
	3295 May 26 08:11	0° \mathbb{M}		direct	3296 Mar 19 08:41	8° \mathbb{M} 10'31	
max. Earth dist.	3295 May 29 22:15	7° \mathbb{M} 37'31	1.32431 AU	desc. node	3296 Mar 26 18:43	10° \mathbb{M} 48'24	
asc. node	3295 May 30 09:48	8° \mathbb{M} 39'57		morning max el	3296 Apr 02 01:53	16° \mathbb{M} 06'38	27°34'10
					3296 Apr 13 12:41	0° \mathbb{Y}	
superior conj	3295 May 31 16:42	11° \mathbb{M} 27'46	0°13'31		3296 May 02 00:38	0° \mathbb{M}	
minimum elong	3295 May 31 16:04	11° \mathbb{M} 24'20	0°13'22	morning set	3296 May 07 00:43	9° \mathbb{M} 34'33	
behind sun begin	3295 May 31 13:16	11° \mathbb{M} 09'02		max. Earth dist.	3296 May 12 00:23	19° \mathbb{M} 43'38	1.33188 AU
behind sun end	3295 May 31 18:53	11° \mathbb{M} 39'38					
evening rise	3295 Jun 07 14:29	26° \mathbb{M} 27'26		superior conj	3296 May 14 22:57	25° \mathbb{M} 56'41	-0°13'55
	3295 Jun 09 06:53	0° \mathbb{M}		minimum elong	3296 May 14 23:39	26° \mathbb{M} 00'25	0°13'46
	3295 Jun 26 20:31	0° Ω		behind sun begin	3296 May 14 20:54	25° \mathbb{M} 45'46	
evening max el	3295 Jul 02 13:32	6° Ω 25'08	24°19'37	behind sun end	3296 May 15 02:24	26° \mathbb{M} 15'04	
desc. node	3295 Jul 06 20:55	10° Ω 00'05		asc. node	3296 May 16 06:52	28° \mathbb{M} 47'36	
retrograde	3295 Jul 16 09:54	13° Ω 24'33			3296 May 16 20:20	0° \mathbb{M}	
evening set	3295 Jul 21 04:51	12° Ω 33'21		evening rise	3296 May 22 02:05	11° \mathbb{M} 13'31	
min. Earth dist.	3295 Jul 27 00:19	9° Ω 38'24	0.56632 AU		3296 May 31 17:50	0° \mathbb{M}	
inferior conj	3295 Jul 29 15:38	7° Ω 58'48	-5°00'01	evening max el	3296 Jun 13 03:22	16° \mathbb{M} 50'56	22°43'01
minimum elong	3295 Jul 29 12:27	8° Ω 03'51	4°59'46	desc. node	3296 Jun 22 17:56	22° \mathbb{M} 55'54	
morning rise	3295 Aug 06 22:42	3° Ω 57'16		retrograde	3296 Jun 26 08:57	23° \mathbb{M} 26'02	
direct	3295 Aug 09 15:01	3° Ω 38'03		evening set	3296 Jun 29 15:42	23° \mathbb{M} 02'23	

min. Earth dist.	3296 Jul 07 11:32	19°☿36'01	0.55318 AU	desc. node	3297 Jun 09 14:58	3°☿05'36	
inferior conj	3296 Jul 08 19:56	18°☿49'37	-4°10'42		3297 Jun 17 03:26	30°☿II	
minimum elong	3296 Jul 08 12:03	19°☿00'56	4°08'56	inferior conj	3297 Jun 18 13:53	29°II11'56	-2°34'21
morning rise	3296 Jul 17 10:38	14°☿58'23		minimum elong	3297 Jun 18 06:55	29°II21'44	2°32'00
direct	3296 Jul 20 09:33	14°☿38'11		min. Earth dist.	3297 Jun 18 23:10	28°II58'53	0.54854 AU
morning max el	3296 Jul 31 14:40	19°☿50'39	20°54'01	morning rise	3297 Jun 27 09:19	25°II13'17	
	3296 Aug 08 19:03	0°♊		direct	3297 Jun 30 19:21	24°II47'59	
asc. node	3296 Aug 12 06:06	5°♊43'11			3297 Jul 12 14:05	0°☿	
morning set	3296 Aug 20 01:11	20°♊49'13		morning max el	3297 Jul 13 12:52	0°☿51'16	22°28'39
	3296 Aug 24 11:04	0°♊		asc. node	3297 Jul 30 03:09	24°☿53'26	
					3297 Aug 01 17:29	0°♊	
superior conj	3296 Aug 27 11:58	6°♊17'37	1°44'27	morning set	3297 Aug 04 11:34	5°♊40'14	
minimum elong	3296 Aug 27 11:32	6°♊15'22	1°44'26				
max. Earth dist.	3296 Sep 01 02:29	15°♊33'48	1.35719 AU	superior conj	3297 Aug 11 14:58	20°♊51'57	1°38'56
evening rise	3296 Sep 05 04:59	23°♊26'23		minimum elong	3297 Aug 11 13:23	20°♊43'34	1°38'50
	3296 Sep 08 19:04	0°♋		max. Earth dist.	3297 Aug 14 19:28	27°♊32'47	1.34206 AU
desc. node	3296 Sep 18 17:16	16°♋36'50			3297 Aug 16 00:07	0°♊	
	3296 Sep 27 20:20	0°♋		evening rise	3297 Aug 19 12:46	7°♊03'03	
evening max el	3296 Oct 10 18:24	15°♋20'16	26°22'47		3297 Sep 01 09:25	0°♋	
retrograde	3296 Oct 23 13:23	22°♋32'15		desc. node	3297 Sep 05 14:18	6°♋34'29	
evening set	3296 Oct 29 23:00	19°♋54'42		evening max el	3297 Sep 23 06:56	28°♋52'34	27°07'37
min. Earth dist.	3296 Nov 03 02:32	15°♋34'09	0.66368 AU		3297 Sep 24 12:01	0°♋	
inferior conj	3296 Nov 04 16:42	13°♋37'53	-1°12'11	retrograde	3297 Oct 06 14:34	6°♋10'06	
minimum elong	3296 Nov 04 18:39	13°♋31'57	1°11'22	evening set	3297 Oct 13 11:36	3°♋27'59	
asc. node	3296 Nov 08 05:19	9°♋41'03			3297 Oct 17 02:33	30°☿♋	
morning rise	3296 Nov 10 14:52	7°♋50'45		min. Earth dist.	3297 Oct 17 08:41	29°♋43'13	0.65150 AU
direct	3296 Nov 13 15:14	6°♋59'14		inferior conj	3297 Oct 19 10:52	27°♋22'28	-2°12'26
morning max el	3296 Nov 20 08:12	10°♋40'34	18°38'55	minimum elong	3297 Oct 19 14:32	27°♋12'10	2°11'01
	3296 Dec 04 04:46	0°♌		morning rise	3297 Oct 25 18:22	21°♋48'16	
morning set	3296 Dec 11 03:00	10°♌57'33		asc. node	3297 Oct 26 02:22	21°♋39'19	
desc. node	3296 Dec 15 16:34	18°♌11'13		direct	3297 Oct 28 11:04	21°♋09'20	
	3296 Dec 23 04:38	0°♍		morning max el	3297 Nov 03 23:01	24°♋38'26	18°06'36
					3297 Nov 08 09:01	0°♋	
superior conj	3296 Dec 27 06:16	6°♍23'05	-1°13'19	morning set	3297 Nov 22 03:06	21°♋51'20	
minimum elong	3296 Dec 26 21:43	5°♍49'32	1°12'20		3297 Nov 27 01:58	0°♌	
max. Earth dist.	3296 Dec 27 00:45	6°♍01'26	1.45191 AU	desc. node	3297 Dec 02 13:37	8°♌53'09	
	3297 Jan 11 04:56	0°♎					
evening rise	3297 Jan 11 23:09	1°♎12'43		superior conj	3297 Dec 06 11:40	15°♌08'34	-0°26'27
greatest brilliancy	3297 Jan 20 01:57	14°♎10'21	-0.8m	minimum elong	3297 Dec 06 08:20	14°♌55'19	0°26'00
	3297 Jan 30 18:59	0°♏		max. Earth dist.	3297 Dec 09 20:04	20°♌26'22	1.45050 AU
evening max el	3297 Feb 02 15:50	3°♏18'16	18°53'29		3297 Dec 15 22:36	0°♍	
asc. node	3297 Feb 04 04:38	4°♏44'27		evening rise	3297 Dec 22 20:24	10°♍43'45	
retrograde	3297 Feb 09 10:36	7°♏06'55			3298 Jan 04 09:49	0°♎	
evening set	3297 Feb 12 17:06	6°♏05'18		greatest brilliancy	3298 Jan 04 22:50	0°♎48'48	-0.7m
inferior conj	3297 Feb 18 08:27	0°♏22'16	3°29'54	evening max el	3298 Jan 16 22:33	16°♎49'08	19°41'56
minimum elong	3297 Feb 18 06:54	0°♏27'08	3°29'44	asc. node	3298 Jan 22 01:39	20°♎38'14	
	3297 Feb 18 15:35	30°☿♎		retrograde	3298 Jan 24 07:51	21°♎05'53	
min. Earth dist.	3297 Feb 20 01:01	28°♎16'10	0.65581 AU	evening set	3298 Jan 27 21:53	19°♎50'40	
morning rise	3297 Feb 23 20:18	24°♎10'16		inferior conj	3298 Feb 02 08:55	13°♎52'44	3°08'09
direct	3297 Mar 02 09:55	21°♎19'08		minimum elong	3298 Feb 02 06:36	14°♎00'24	3°07'39
desc. node	3297 Mar 13 15:46	27°♎15'38		min. Earth dist.	3298 Feb 03 10:50	12°♎27'10	0.66756 AU
morning max el	3297 Mar 15 11:45	29°♎01'52	26°45'24	morning rise	3298 Feb 07 15:06	7°♎39'20	
	3297 Mar 16 10:21	0°♏		direct	3298 Feb 13 16:56	4°♎56'47	
	3297 Apr 07 08:44	0°♐		morning max el	3298 Feb 25 20:52	12°♎11'43	25°33'22
morning set	3297 Apr 20 09:14	22°♐55'05		desc. node	3298 Feb 28 12:50	15°♎02'17	
	3297 Apr 24 00:37	0°♑			3298 Mar 12 04:21	0°♏	
max. Earth dist.	3297 Apr 24 16:02	1°♑16'46	1.34406 AU		3298 Mar 31 01:31	0°♐	
				morning set	3298 Apr 03 02:39	5°♐27'22	
superior conj	3297 Apr 28 23:28	10°♑03'55	-0°42'32	max. Earth dist.	3298 Apr 06 20:20	12°♐23'48	1.36079 AU
minimum elong	3297 Apr 29 01:41	10°♑15'26	0°42'05				
asc. node	3297 May 03 03:55	18°♑50'14		superior conj	3298 Apr 12 15:32	23°♐41'53	-1°10'52
evening rise	3297 May 06 11:46	25°♑48'55		minimum elong	3298 Apr 12 19:13	24°♐00'15	1°10'14
	3297 May 08 12:34	0°♒			3298 Apr 15 18:27	0°♑	
evening max el	3297 May 26 00:27	27°II32'02	21°12'03	asc. node	3298 Apr 20 00:59	8°♑43'41	
	3297 May 28 21:13	0°☿		evening rise	3298 Apr 20 17:25	10°♑07'19	
retrograde	3297 Jun 06 22:29	3°☿22'13			3298 May 01 11:14	0°II	
evening set	3297 Jun 09 04:48	3°☿10'21		evening max el	3298 May 08 09:08	8°II49'12	19°56'23


































































































































retrograde	3298 May 18 13:48	13° Π 46'18		evening set	3299 May 01 22:11	24° \mathcal{B} 42'57	
evening set	3298 May 20 13:16	13° Π 35'56		inferior conj	3299 May 10 01:40	20° \mathcal{B} 27'58	1°13'13
desc. node	3298 May 27 12:00	10° Π 46'25		minimum elong	3299 May 10 04:23	20° \mathcal{B} 23'11	1°12'17
inferior conj	3298 May 29 11:38	9° Π 35'33	-0°35'06	min. Earth dist.	3299 May 13 03:43	18° \mathcal{B} 19'12	0.56718 AU
minimum elong	3298 May 29 10:01	9° Π 38'00	0°34'29	desc. node	3299 May 14 09:03	17° \mathcal{B} 31'31	
min. Earth dist.	3298 May 31 12:11	8° Π 22'04	0.55357 AU	morning rise	3299 May 18 07:27	15° \mathcal{B} 28'03	
morning rise	3298 Jun 07 04:49	5° Π 11'03		direct	3299 May 23 11:36	14° \mathcal{B} 24'44	
direct	3298 Jun 11 09:17	4° Π 32'38		morning max el	3299 Jun 06 18:41	21° \mathcal{B} 47'38	25°48'06
morning max el	3298 Jun 25 04:06	11° Π 21'38	24°11'27		3299 Jun 13 23:22	0° Π	
	3298 Jul 09 05:46	0° \mathcal{E}			3299 Jul 01 19:27	0° \mathcal{E}	
asc. node	3298 Jul 17 00:13	14° \mathcal{E} 27'13		asc. node	3299 Jul 03 21:16	4° \mathcal{E} 17'20	
morning set	3298 Jul 19 23:18	20° \mathcal{E} 35'06		morning set	3299 Jul 04 10:44	5° \mathcal{E} 28'15	
	3298 Jul 24 08:20	0° Ω					
superior conj	3298 Jul 26 22:57	5° Ω 40'22	1°27'45	superior conj	3299 Jul 11 09:47	20° \mathcal{E} 35'36	1°11'48
minimum elong	3298 Jul 26 20:44	5° Ω 28'21	1°27'30	minimum elong	3299 Jul 11 07:26	20° \mathcal{E} 22'41	1°11'26
max. Earth dist.	3298 Jul 28 21:27	9° Ω 51'09	1.33097 AU	max. Earth dist.	3299 Jul 12 05:59	22° \mathcal{E} 26'29	1.32391 AU
evening rise	3298 Aug 03 07:39	21° Ω 11'33		evening rise	3299 Jul 15 17:32	0° Ω	
	3298 Aug 07 19:28	0° Π			3299 Jul 18 10:19	5° Ω 41'53	
desc. node	3298 Aug 23 11:18	26° Π 01'49		desc. node	3299 Jul 31 09:47	0° Π	
	3298 Aug 26 08:00	0° \mathcal{E}		evening max el	3299 Aug 10 08:18	14° Π 46'32	
evening max el	3298 Sep 05 18:08	12° \mathcal{E} 04'10	27°26'14		3299 Aug 19 01:28	24° Π 41'38	27°13'29
retrograde	3298 Sep 19 09:29	19° \mathcal{E} 20'52			3299 Aug 26 02:09	0° \mathcal{E}	
evening set	3298 Sep 26 13:32	16° \mathcal{E} 43'31		retrograde	3299 Sep 01 21:35	1° \mathcal{E} 55'39	
min. Earth dist.	3298 Sep 30 05:30	13° \mathcal{E} 32'01	0.63589 AU	evening set	3299 Sep 08 08:57	30° \mathcal{R} Π	
inferior conj	3298 Oct 02 20:03	10° \mathcal{E} 53'43	-3°11'59	min. Earth dist.	3299 Sep 09 01:04	29° Π 35'08	
minimum elong	3298 Oct 03 01:11	10° \mathcal{E} 40'40	3°10'17	inferior conj	3299 Sep 12 15:45	26° Π 49'02	0.61721 AU
morning rise	3298 Oct 09 14:08	5° \mathcal{E} 36'01		minimum elong	3299 Sep 15 17:11	24° Π 04'23	-4°06'28
direct	3298 Oct 12 01:44	5° \mathcal{E} 06'02		morning rise	3299 Sep 15 22:55	23° Π 51'28	4°05'03
asc. node	3298 Oct 12 23:25	5° \mathcal{E} 10'05		morning set	3299 Sep 22 22:29	19° Π 06'37	
morning max el	3298 Oct 18 15:29	8° \mathcal{E} 31'21	17°51'39	direct	3299 Sep 25 07:41	18° Π 42'33	
	3298 Nov 01 21:46	0° \mathcal{M}		asc. node	3299 Sep 29 20:28	20° Π 12'52	
morning set	3298 Nov 04 05:17	4° \mathcal{M} 00'42		morning max el	3299 Oct 02 06:37	22° Π 12'28	17°54'59
					3299 Oct 08 07:04	0° \mathcal{E}	
superior conj	3298 Nov 16 13:00	24° \mathcal{M} 54'51	0°19'53	morning set	3299 Oct 18 03:15	17° \mathcal{E} 06'36	
minimum elong	3298 Nov 16 15:05	25° \mathcal{M} 03'27	0°19'35		3299 Oct 25 06:52	0° \mathcal{M}	
desc. node	3298 Nov 19 10:37	29° \mathcal{M} 39'16		superior conj	3299 Oct 28 17:18	6° \mathcal{M} 00'54	0°57'22
	3298 Nov 19 15:44	0° \mathcal{X}		minimum elong	3299 Oct 28 21:33	6° \mathcal{M} 19'15	0°56'50
max. Earth dist.	3298 Nov 22 14:04	4° \mathcal{X} 42'56	1.44190 AU	max. Earth dist.	3299 Nov 05 03:42	18° \mathcal{M} 32'32	1.42720 AU
evening rise	3298 Dec 02 05:58	19° \mathcal{X} 51'30		desc. node	3299 Nov 06 07:37	20° \mathcal{M} 26'37	
	3298 Dec 08 21:40	0° \mathcal{Z}		evening rise	3299 Nov 11 19:59	29° \mathcal{M} 16'09	
	3298 Dec 30 15:57	0° \approx			3299 Nov 12 07:08	0° \mathcal{X}	
evening max el	3298 Dec 30 23:56	0° \approx 20'42	20°44'33		3299 Dec 02 13:48	0° \mathcal{Z}	
retrograde	3299 Jan 08 05:53	5° \approx 13'05		evening max el	3299 Dec 13 19:44	13° \mathcal{Z} 53'17	21°57'54
asc. node	3299 Jan 08 22:41	5° \approx 10'22		retrograde	3299 Dec 23 02:49	19° \mathcal{Z} 25'16	
evening set	3299 Jan 12 05:00	3° \approx 43'06		asc. node	3299 Dec 26 19:43	18° \mathcal{Z} 11'10	
	3299 Jan 15 17:53	30° \mathcal{R} \mathcal{Z}		evening set	3299 Dec 27 12:42	17° \mathcal{Z} 39'32	
inferior conj	3299 Jan 17 13:49	27° \mathcal{Z} 32'56	2°36'27	inferior conj	3300 Jan 01 21:03	11° \mathcal{Z} 20'29	1°56'41
minimum elong	3299 Jan 17 11:17	27° \mathcal{Z} 41'37	2°35'43	minimum elong	3300 Jan 01 18:47	11° \mathcal{Z} 28'21	1°55'53
min. Earth dist.	3299 Jan 18 02:34	26° \mathcal{Z} 49'15	0.67517 AU	min. Earth dist.	3300 Jan 01 22:02	11° \mathcal{Z} 17'03	0.67893 AU
morning rise	3299 Jan 22 17:24	21° \mathcal{Z} 19'46		morning rise	3300 Jan 07 00:43	5° \mathcal{Z} 09'07	
direct	3299 Jan 28 04:56	18° \mathcal{Z} 54'28		direct	3300 Jan 11 21:16	3° \mathcal{Z} 05'32	
morning max el	3299 Feb 08 05:22	25° \mathcal{Z} 28'43	24°07'55	morning max el	3300 Jan 21 15:35	8° \mathcal{Z} 51'52	22°39'05
	3299 Feb 12 08:12	0° \approx		desc. node	3300 Feb 02 06:53	23° \mathcal{Z} 08'02	
desc. node	3299 Feb 15 09:52	3° \approx 45'01			3300 Feb 07 03:47	0° \approx	
	3299 Mar 05 17:04	0° \mathcal{X}		morning set	3300 Feb 24 16:56	27° \approx 04'11	
morning set	3299 Mar 15 23:12	16° \mathcal{X} 55'11			3300 Feb 26 11:28	0° \mathcal{X}	
max. Earth dist.	3299 Mar 19 16:55	23° \mathcal{X} 30'05	1.38109 AU	max. Earth dist.	3300 Mar 01 12:41	5° \mathcal{X} 08'21	1.40280 AU
	3299 Mar 23 06:29	0° \mathcal{Y}					
superior conj	3299 Mar 26 19:39	6° \mathcal{Y} 40'35	-1°36'40	superior conj	3300 Mar 09 07:27	18° \mathcal{X} 49'33	-1°56'41
minimum elong	3299 Mar 27 00:12	7° \mathcal{Y} 02'20	1°36'07	minimum elong	3300 Mar 09 11:25	19° \mathcal{X} 07'34	1°56'26
evening rise	3299 Apr 04 16:27	24° \mathcal{Y} 00'50			3300 Mar 15 08:23	0° \mathcal{Y}	
asc. node	3299 Apr 06 22:00	28° \mathcal{Y} 22'41		evening rise	3300 Mar 19 05:48	7° \mathcal{Y} 21'45	
	3299 Apr 07 18:10	0° \mathcal{B}		asc. node	3300 Mar 24 19:01	17° \mathcal{Y} 41'57	
evening max el	3299 Apr 21 05:13	20° \mathcal{B} 46'06	19°00'07		3300 Apr 01 12:38	0° \mathcal{B}	
retrograde	3299 Apr 29 19:20	24° \mathcal{B} 57'12		evening max el	3300 Apr 04 10:07	3° \mathcal{B} 17'47	18°24'07
				retrograde	3300 Apr 11 19:44	6° \mathcal{B} 57'32	

evening set	3300 Apr 14 04:53	6°♄35'49		retrograde	3301 Mar 25 13:13	19°♄40'06	
inferior conj	3300 Apr 21 13:02	2°♄01'17	2°31'16	evening set	3301 Mar 28 04:36	19°♄08'35	
minimum elong	3300 Apr 21 16:48	1°♄53'32	2°30'18	inferior conj	3301 Apr 03 20:32	14°♄13'23	3°17'17
	3300 Apr 24 00:03	30°♄		minimum elong	3301 Apr 03 23:08	14°♄07'14	3°16'54
min. Earth dist.	3300 Apr 24 23:41	29°♄13'12	0.58661 AU	min. Earth dist.	3301 Apr 07 02:12	11°♄10'24	0.60829 AU
morning rise	3300 Apr 29 01:46	26°♄30'12		morning rise	3301 Apr 10 15:38	8°♄21'41	
desc. node	3300 May 01 06:05	25°♄32'53		direct	3301 Apr 17 08:43	6°♄08'43	
direct	3300 May 05 04:13	24°♄52'07		desc. node	3301 Apr 18 03:06	6°♄10'23	
	3300 May 16 16:32	0°♄		morning max el	3301 May 01 14:47	14°♄03'37	27°44'15
morning max el	3300 May 19 13:38	2°♄36'15	27°02'47		3301 May 14 10:01	0°♄	
	3300 Jun 08 08:29	0°♄			3301 May 31 17:33	0°♄	
morning set	3300 Jun 18 20:14	20°♄13'58		morning set	3301 Jun 03 02:00	4°♄46'38	
asc. node	3300 Jun 20 18:17	24°♄18'10		asc. node	3301 Jun 07 15:19	14°♄25'22	
	3300 Jun 23 09:21	0°♄		max. Earth dist.	3301 Jun 09 04:37	17°♄48'08	1.32184 AU
superior conj	3300 Jun 25 21:35	5°♄31'16	0°51'47	superior conj	3301 Jun 10 08:41	20°♄21'48	0°28'21
minimum elong	3300 Jun 25 19:34	5°♄20'09	0°51'23	minimum elong	3301 Jun 10 07:26	20°♄14'57	0°28'04
max. Earth dist.	3300 Jun 25 17:34	5°♄09'09	1.32086 AU		3301 Jun 14 18:12	0°♄	
evening rise	3300 Jul 02 18:07	20°♄25'39		evening rise	3301 Jun 17 04:58	5°♄16'09	
	3300 Jul 07 10:42	0°♄			3301 Jun 30 06:25	0°♄	
	3300 Jul 26 02:33	0°♄		evening max el	3301 Jul 13 20:26	17°♄40'20	25°12'12
desc. node	3300 Jul 28 05:20	2°♄30'33		desc. node	3301 Jul 15 02:22	18°♄49'17	
evening max el	3300 Aug 01 02:29	6°♄34'03	26°27'29	retrograde	3301 Jul 27 19:59	24°♄45'47	
retrograde	3300 Aug 15 01:49	13°♄45'06		evening set	3301 Aug 02 10:20	23°♄33'39	
evening set	3300 Aug 21 17:25	11°♄54'37		min. Earth dist.	3301 Aug 07 08:13	20°♄50'30	0.57654 AU
min. Earth dist.	3300 Aug 25 15:52	9°♄19'10	0.59666 AU	inferior conj	3301 Aug 10 09:28	18°♄46'01	-5°06'32
inferior conj	3300 Aug 28 22:44	6°♄44'44	-4°48'34	minimum elong	3301 Aug 10 09:40	18°♄45'40	5°06'32
minimum elong	3300 Aug 29 03:07	6°♄36'06	4°47'56	morning rise	3301 Aug 18 11:26	14°♄32'53	
morning rise	3300 Sep 05 14:57	2°♄09'22		direct	3301 Aug 21 00:39	14°♄13'32	
direct	3300 Sep 08 00:41	1°♄48'40		morning max el	3301 Aug 29 19:45	18°♄22'15	19°01'34
morning max el	3300 Sep 15 17:08	5°♄32'34	18°17'50	asc. node	3301 Sep 03 14:33	24°♄00'36	
asc. node	3300 Sep 16 17:31	6°♄34'41			3301 Sep 07 11:06	0°♄	
	3300 Oct 01 04:16	0°♄		morning set	3301 Sep 15 13:13	15°♄07'00	
morning set	3300 Oct 01 15:18	0°♄52'26			3301 Sep 23 02:40	0°♄	
superior conj	3300 Oct 10 21:56	18°♄17'52	1°23'27	superior conj	3301 Sep 23 21:30	1°♄30'48	1°38'39
minimum elong	3300 Oct 11 01:42	18°♄35'02	1°23'04	minimum elong	3301 Sep 23 23:40	1°♄41'11	1°38'31
	3300 Oct 17 12:10	0°♄		max. Earth dist.	3301 Sep 30 16:03	14°♄07'14	1.38765 AU
max. Earth dist.	3300 Oct 18 11:35	1°♄40'29	1.40831 AU	evening rise	3301 Oct 04 12:17	20°♄53'35	
evening rise	3300 Oct 23 04:17	9°♄32'01			3301 Oct 09 22:31	0°♄	
desc. node	3300 Oct 24 04:37	11°♄11'20		desc. node	3301 Oct 11 01:39	1°♄49'56	
	3300 Nov 05 08:04	0°♄			3301 Oct 30 09:22	0°♄	
evening max el	3300 Nov 26 11:02	27°♄28'09	23°17'14	evening max el	3301 Nov 08 23:58	11°♄07'28	24°36'16
	3300 Nov 29 04:44	0°♄		retrograde	3301 Nov 20 11:23	17°♄48'58	
retrograde	3300 Dec 06 21:03	3°♄38'20		evening set	3301 Nov 25 23:25	15°♄31'07	
evening set	3300 Dec 11 19:22	1°♄36'20		min. Earth dist.	3301 Nov 30 14:33	10°♄14'49	0.67585 AU
	3300 Dec 13 10:58	30°♄		asc. node	3301 Nov 30 13:48	10°♄17'19	
asc. node	3300 Dec 13 16:45	29°♄43'54		inferior conj	3301 Dec 01 11:04	9°♄06'30	0°18'11
inferior conj	3300 Dec 17 04:43	25°♄12'21	1°10'13	minimum elong	3301 Dec 01 10:37	9°♄07'59	0°18'00
minimum elong	3300 Dec 17 03:09	25°♄17'41	1°09'36	morning rise	3301 Dec 06 21:54	3°♄04'45	
min. Earth dist.	3300 Dec 16 18:51	25°♄46'16	0.67909 AU	direct	3301 Dec 10 15:05	1°♄45'28	
morning rise	3300 Dec 22 10:52	19°♄04'39		morning max el	3301 Dec 18 05:49	6°♄05'35	20°02'57
direct	3300 Dec 26 17:03	17°♄23'53			3302 Jan 04 21:59	0°♄	
morning max el	3301 Jan 04 06:54	22°♄23'08	21°15'26	desc. node	3302 Jan 07 00:54	3°♄12'04	
	3301 Jan 10 19:05	0°♄		morning set	3302 Jan 14 02:26	14°♄00'24	
desc. node	3301 Jan 20 03:53	12°♄59'38			3302 Jan 24 07:19	0°♄	
	3301 Jan 31 11:37	0°♄		max. Earth dist.	3302 Jan 24 23:18	1°♄03'46	1.43929 AU
morning set	3301 Feb 04 06:05	5°♄52'51		superior conj	3302 Jan 30 10:35	9°♄54'02	-2°00'47
max. Earth dist.	3301 Feb 11 13:55	17°♄39'03	1.42308 AU	minimum elong	3302 Jan 30 05:48	9°♄34'28	2°00'33
superior conj	3301 Feb 18 21:50	29°♄56'53	-2°06'30		3302 Feb 11 09:59	0°♄	
minimum elong	3301 Feb 18 22:40	0°♄00'30	2°06'30	evening rise	3302 Feb 12 11:32	1°♄49'49	
	3301 Feb 18 22:33	0°♄		asc. node	3302 Feb 26 13:06	24°♄52'41	
evening rise	3301 Mar 02 05:37	20°♄01'01		evening max el	3302 Mar 02 09:10	29°♄29'47	18°11'19
	3301 Mar 07 19:05	0°♄			3302 Mar 02 21:40	0°♄	
asc. node	3301 Mar 11 16:03	6°♄34'54		retrograde	3302 Mar 08 19:37	2°♄53'58	
evening max el	3301 Mar 18 20:31	16°♄15'30	18°08'06	evening set	3302 Mar 11 16:42	2°♄11'19	

	3302 Mar 14 19:14	30° K			3303 Feb 04 10:40	0° K	
inferior conj	3302 Mar 17 20:20	26° K 56'05	3°37'02	asc. node	3303 Feb 13 10:09	12° K 25'04	
minimum elong	3302 Mar 17 21:05	26° K 54'04	3°37'00	evening max el	3303 Feb 13 21:12	12° K 53'49	18°32'59
min. Earth dist.	3302 Mar 20 13:11	24° K 02'30	0.62917 AU	retrograde	3303 Feb 20 10:38	16° K 30'28	
morning rise	3302 Mar 24 00:22	20° K 52'30		evening set	3303 Feb 23 13:29	15° K 35'56	
direct	3302 Mar 30 22:20	18° K 14'05		inferior conj	3303 Mar 01 08:25	10° K 02'12	3°36'57
desc. node	3302 Apr 05 00:08	19° K 28'13		minimum elong	3303 Mar 01 07:33	10° K 04'47	3°36'53
morning max el	3302 Apr 13 21:15	26° K 11'32	27°48'16	min. Earth dist.	3303 Mar 03 09:45	7° K 35'48	0.64716 AU
	3302 Apr 17 10:17	0° Y		morning rise	3303 Mar 07 01:05	3° K 52'14	
	3302 May 07 23:22	0° B		direct	3303 Mar 13 19:27	1° K 02'02	
morning set	3302 May 18 01:49	18° B 58'00		desc. node	3303 Mar 22 21:10	4° K 56'23	
	3302 May 23 09:21	0° II		morning max el	3303 Mar 27 06:47	8° K 53'19	27°17'00
max. Earth dist.	3302 May 23 11:09	0° II 09'37	1.32700 AU		3303 Apr 12 17:55	0° Y	
					3303 Apr 30 07:48	0° B	
superior conj	3302 May 25 17:14	5° II 00'10	0°02'09	morning set	3303 May 01 16:55	2° B 39'57	
minimum elong	3302 May 25 17:08	4° II 59'36	0°02'07	max. Earth dist.	3303 May 06 09:24	12° B 03'00	1.33654 AU
behind sun begin	3302 May 25 11:56	4° II 31'31					
behind sun end	3302 May 25 22:20	5° II 27'44		superior conj	3303 May 09 21:18	19° B 20'21	-0°25'58
asc. node	3302 May 25 12:22	4° II 33'49		minimum elong	3303 May 09 22:38	19° B 27'23	0°25'41
evening rise	3302 Jun 01 16:49	20° II 05'33		asc. node	3303 May 12 09:26	24° B 39'44	
	3302 Jun 06 12:45	0° B			3303 May 14 21:28	0° II	
evening max el	3302 Jun 25 09:52	28° B 12'28	23°38'46	evening rise	3303 May 17 03:51	4° II 47'52	
	3302 Jun 27 09:25	0° Q			3303 May 30 22:52	0° B	
desc. node	3302 Jul 01 23:24	3° Q 09'18		evening max el	3303 Jun 07 01:47	8° B 40'14	22°02'50
retrograde	3302 Jul 09 01:31	5° Q 03'08		desc. node	3303 Jun 18 20:26	14° B 56'16	
evening set	3302 Jul 13 04:48	4° Q 25'36		retrograde	3303 Jun 19 19:29	14° B 58'24	
min. Earth dist.	3302 Jul 19 20:00	1° Q 18'55	0.55994 AU	evening set	3303 Jun 22 14:01	14° B 41'17	
inferior conj	3302 Jul 21 23:58	0° Q 01'03	-4°45'20	inferior conj	3303 Jul 01 22:18	10° B 36'01	-3°34'41
minimum elong	3302 Jul 21 18:21	0° Q 09'31	4°44'33	minimum elong	3303 Jul 01 13:59	10° B 47'41	3°32'22
	3302 Jul 22 00:40	30° K B		min. Earth dist.	3303 Jul 01 06:46	10° B 57'48	0.55012 AU
morning rise	3302 Jul 30 10:25	26° B 05'22		morning rise	3303 Jul 10 15:38	6° B 44'31	
direct	3302 Aug 02 05:29	25° B 45'50		direct	3303 Jul 13 18:40	6° B 22'50	
	3302 Aug 11 21:46	0° Q		morning max el	3303 Jul 25 15:51	11° B 55'56	21°32'34
morning max el	3302 Aug 12 11:37	0° Q 31'19	20°07'01		3303 Aug 07 17:31	0° Q	
asc. node	3302 Aug 21 11:36	12° Q 15'44		asc. node	3303 Aug 08 08:39	1° Q 08'36	
morning set	3302 Aug 30 17:48	29° Q 40'52		morning set	3303 Aug 15 02:37	14° Q 27'19	
	3302 Aug 30 21:34	0° M					
				superior conj	3303 Aug 22 09:44	29° Q 46'49	1°42'52
superior conj	3302 Sep 07 10:48	15° M 24'24	1°44'35	minimum elong	3303 Aug 22 08:45	29° Q 41'42	1°42'50
minimum elong	3302 Sep 07 11:14	15° M 26'33	1°44'35		3303 Aug 22 12:15	0° M	
max. Earth dist.	3302 Sep 12 21:45	26° M 05'49	1.36763 AU	max. Earth dist.	3303 Aug 26 09:38	7° M 58'20	1.35030 AU
	3302 Sep 14 23:32	0° A		evening rise	3303 Aug 30 17:45	16° M 28'42	
evening rise	3302 Sep 16 18:10	3° A 16'01			3303 Sep 07 04:28	0° A	
desc. node	3302 Sep 27 22:42	22° A 17'39		desc. node	3303 Sep 14 19:45	12° A 28'28	
	3302 Oct 02 22:56	0° M			3303 Sep 27 09:22	0° M	
evening max el	3302 Oct 22 12:18	24° M 49'24	25°47'53	evening max el	3303 Oct 05 00:42	8° M 27'17	26°44'34
	3302 Oct 28 23:38	0° A		retrograde	3303 Oct 18 01:28	15° M 42'29	
retrograde	3302 Nov 03 21:02	1° A 52'40		evening set	3303 Oct 24 16:30	13° M 01'46	
	3302 Nov 09 03:21	30° K M		min. Earth dist.	3303 Oct 28 17:07	8° M 56'53	0.65896 AU
evening set	3302 Nov 09 23:08	29° M 21'02		inferior conj	3303 Oct 30 12:24	6° M 49'23	-1°37'38
min. Earth dist.	3302 Nov 14 06:47	24° M 39'59	0.66916 AU	minimum elong	3303 Oct 30 15:05	6° M 41'28	1°36'33
inferior conj	3302 Nov 15 14:18	23° M 00'16	-0°38'13	asc. node	3303 Nov 04 07:53	1° M 56'02	
minimum elong	3302 Nov 15 15:18	22° M 57'06	0°37'47	morning rise	3303 Nov 05 14:23	1° M 07'40	
asc. node	3302 Nov 17 10:50	20° M 43'11		direct	3303 Nov 08 11:14	0° M 21'58	
morning rise	3302 Nov 21 07:49	17° M 07'07		morning max el	3303 Nov 15 01:10	3° M 56'41	18°23'08
direct	3302 Nov 24 13:47	16° M 06'27			3303 Dec 02 21:11	0° A	
morning max el	3302 Dec 01 12:31	19° M 58'30	19°05'02	morning set	3303 Dec 04 14:06	2° A 44'55	
	3302 Dec 09 10:35	0° A		desc. node	3303 Dec 11 18:59	14° A 17'38	
morning set	3302 Dec 24 07:04	22° A 41'47					
desc. node	3302 Dec 24 21:56	23° A 39'45		superior conj	3303 Dec 20 01:16	27° A 21'05	-0°54'07
	3302 Dec 28 23:25	0° B		minimum elong	3303 Dec 19 18:28	26° A 54'26	0°53'15
max. Earth dist.	3303 Jan 07 15:15	15° B 07'56	1.44937 AU	max. Earth dist.	3303 Dec 21 10:15	29° A 30'37	1.45221 AU
					3303 Dec 21 17:45	0° B	
superior conj	3303 Jan 09 23:19	18° B 49'06	-1°35'47	evening rise	3304 Jan 05 04:40	22° B 40'21	
minimum elong	3303 Jan 09 14:19	18° B 13'31	1°34'56		3304 Jan 09 20:28	0° A	
	3303 Jan 16 23:43	0° A		greatest brilliancy	3304 Jan 15 15:25	9° A 02'31	-0.8m
evening rise	3303 Jan 24 19:41	12° A 42'55		evening max el	3304 Jan 28 06:18	26° A 22'25	19°12'07

asc. node	3304 Jan 31 07:12	28° \approx 58'45		greatest brilliancy	3304 Dec 29 06:32	23° \approx 52'12	-0.6m
	3304 Feb 02 06:20	0° \approx			3305 Jan 02 12:50	0° \approx	
retrograde	3304 Feb 04 06:30	0° \approx 22'18		evening max el	3305 Jan 10 10:46	9° \approx 53'25	20°06'58
	3304 Feb 06 05:27	30° \approx		asc. node	3305 Jan 17 04:12	14° \approx 19'26	
evening set	3304 Feb 07 16:00	29° \approx 15'01		retrograde	3305 Jan 18 04:24	14° \approx 25'01	
inferior conj	3304 Feb 13 05:12	23° \approx 25'04	3°22'01	evening set	3305 Jan 21 21:59	13° \approx 03'51	
minimum elong	3304 Feb 13 03:15	23° \approx 31'20	3°21'43	inferior conj	3305 Jan 27 07:51	7° \approx 00'18	2°55'45
min. Earth dist.	3304 Feb 14 15:17	21° \approx 35'54	0.66129 AU	minimum elong	3305 Jan 27 05:23	7° \approx 08'38	2°55'09
morning rise	3304 Feb 18 14:13	17° \approx 12'01		min. Earth dist.	3305 Jan 28 04:01	5° \approx 52'22	0.67131 AU
direct	3304 Feb 24 23:04	14° \approx 23'28		morning rise	3305 Feb 01 12:33	0° \approx 46'32	
morning max el	3304 Mar 08 16:42	21° \approx 56'33	26°17'05		3305 Feb 02 10:48	30° \approx	
desc. node	3304 Mar 08 18:11	22° \approx 00'20		direct	3305 Feb 07 08:27	28° \approx 10'20	
	3304 Mar 15 18:00	0° \approx			3305 Feb 12 20:27	0° \approx	
	3304 Apr 04 23:38	0° \approx		morning max el	3305 Feb 19 01:26	5° \approx 10'08	24°57'54
morning set	3304 Apr 13 19:36	15° \approx 41'15		desc. node	3305 Feb 23 15:14	10° \approx 13'07	
max. Earth dist.	3304 Apr 17 20:17	23° \approx 23'32	1.35064 AU		3305 Mar 10 04:56	0° \approx	
	3304 Apr 21 04:04	0° \approx		morning set	3305 Mar 27 04:52	27° \approx 48'06	
					3305 Mar 28 10:18	0° \approx	
superior conj	3304 Apr 22 18:32	3° \approx 15'21	-0°54'43	max. Earth dist.	3305 Mar 30 20:07	4° \approx 24'01	1.36905 AU
minimum elong	3304 Apr 22 21:24	3° \approx 30'01	0°54'10				
asc. node	3304 Apr 28 06:30	14° \approx 38'42		superior conj	3305 Apr 06 05:57	16° \approx 37'25	-1°22'18
evening rise	3304 Apr 30 12:03	19° \approx 16'20		minimum elong	3305 Apr 06 10:06	16° \approx 57'50	1°21'41
	3304 May 05 21:14	0° \approx			3305 Apr 12 22:33	0° \approx	
evening max el	3304 May 19 03:22	19° \approx 34'17	20°37'37	evening rise	3305 Apr 14 15:12	3° \approx 24'33	
retrograde	3304 May 30 08:37	25° \approx 02'39		asc. node	3305 Apr 15 03:32	4° \approx 26'20	
evening set	3304 Jun 01 09:55	24° \approx 52'23			3305 Apr 30 14:25	0° \approx	
desc. node	3304 Jun 04 17:25	23° \approx 56'24		evening max el	3305 May 01 17:08	1° \approx 08'35	19°30'01
inferior conj	3304 Jun 10 15:59	20° \approx 54'49	-1°44'28	retrograde	3305 May 11 04:37	5° \approx 44'26	
minimum elong	3304 Jun 10 11:04	21° \approx 01'54	1°42'41	evening set	3305 May 13 04:38	5° \approx 33'03	
min. Earth dist.	3304 Jun 11 18:56	20° \approx 16'03	0.54943 AU	inferior conj	3305 May 21 19:29	1° \approx 27'59	0°13'50
morning rise	3304 Jun 19 11:32	16° \approx 47'03		minimum elong	3305 May 21 20:05	1° \approx 27'02	0°13'36
direct	3304 Jun 23 04:08	16° \approx 17'41		transit middle	3305 May 21 20:05	1° \approx 27'02	0°13'36
morning max el	3304 Jul 06 10:34	22° \approx 41'53	23°12'14	transit begin	3305 May 21 18:02	1° \approx 30'19	
	3304 Jul 12 21:16	0° \approx		transit end	3305 May 21 22:07	1° \approx 23'45	
asc. node	3304 Jul 25 05:43	20° \approx 29'56		desc. node	3305 May 22 14:27	0° \approx 57'27	
morning set	3304 Jul 29 13:47	29° \approx 21'00			3305 May 24 02:24	30° \approx	
	3304 Jul 29 21:11	0° \approx		min. Earth dist.	3305 May 24 09:10	29° \approx 49'23	0.55837 AU
				morning rise	3305 May 30 08:45	26° \approx 48'22	
superior conj	3304 Aug 05 15:10	14° \approx 28'43	1°34'51	direct	3305 Jun 03 23:02	26° \approx 00'39	
minimum elong	3304 Aug 05 13:15	14° \approx 18'28	1°34'41		3305 Jun 14 08:39	0° \approx	
max. Earth dist.	3304 Aug 08 06:26	20° \approx 04'45	1.33677 AU	morning max el	3305 Jun 18 00:43	3° \approx 06'42	24°54'21
evening rise	3304 Aug 13 06:42	0° \approx 20'31			3305 Jul 06 22:14	0° \approx	
	3304 Aug 13 02:35	0° \approx		asc. node	3305 Jul 12 02:45	10° \approx 11'17	
	3304 Aug 30 04:47	0° \approx		morning set	3305 Jul 14 01:33	14° \approx 15'34	
desc. node	3304 Aug 31 16:45	2° \approx 15'01					
evening max el	3304 Sep 16 12:41	21° \approx 52'07	27°19'02	superior conj	3305 Jul 21 00:36	29° \approx 20'58	1°21'33
retrograde	3304 Sep 30 00:16	29° \approx 10'42		minimum elong	3305 Jul 20 22:16	29° \approx 08'14	1°21'14
evening set	3304 Oct 07 01:01	26° \approx 28'56			3305 Jul 21 07:45	0° \approx	
min. Earth dist.	3304 Oct 10 19:30	22° \approx 59'04	0.64525 AU	max. Earth dist.	3305 Jul 22 11:21	2° \approx 30'05	1.32740 AU
inferior conj	3304 Oct 13 03:05	20° \approx 29'26	-2°38'00	evening rise	3305 Jul 28 05:13	14° \approx 39'35	
minimum elong	3304 Oct 13 07:27	20° \approx 17'41	2°36'24		3305 Aug 05 03:53	0° \approx	
morning rise	3304 Oct 19 15:00	15° \approx 02'04		desc. node	3305 Aug 18 13:46	21° \approx 26'14	
asc. node	3304 Oct 21 04:54	14° \approx 32'49			3305 Aug 25 07:38	0° \approx	
direct	3304 Oct 22 05:07	14° \approx 27'31		evening max el	3305 Aug 29 22:34	4° \approx 51'04	27°24'56
morning max el	3304 Oct 28 17:07	17° \approx 54'09	17°58'04	retrograde	3305 Sep 12 16:37	12° \approx 07'13	
	3304 Nov 06 13:12	0° \approx		evening set	3305 Sep 19 21:20	9° \approx 35'36	
morning set	3304 Nov 15 02:01	14° \approx 13'15		min. Earth dist.	3305 Sep 23 12:05	6° \approx 35'58	0.62823 AU
	3304 Nov 24 13:37	0° \approx		inferior conj	3305 Sep 26 07:33	3° \approx 53'13	-3°36'05
desc. node	3304 Nov 27 16:02	5° \approx 02'08		minimum elong	3305 Sep 26 13:07	3° \approx 39'46	3°34'26
					3305 Sep 30 20:18	30° \approx	
superior conj	3304 Nov 28 13:33	6° \approx 28'48	-0°06'09	morning rise	3305 Oct 03 06:23	28° \approx 43'28	
minimum elong	3304 Nov 28 12:49	6° \approx 25'50	0°06'02	direct	3305 Oct 05 16:29	28° \approx 16'27	
behind sun begin	3304 Nov 28 03:07	5° \approx 46'48		asc. node	3305 Oct 08 01:56	28° \approx 43'34	
behind sun end	3304 Nov 28 22:31	7° \approx 04'49			3305 Oct 10 09:20	0° \approx	
max. Earth dist.	3304 Dec 03 04:57	13° \approx 52'51	1.44766 AU	morning max el	3305 Oct 12 09:23	1° \approx 43'03	17°50'41
	3304 Dec 13 12:51	0° \approx		morning set	3305 Oct 28 13:24	26° \approx 49'01	
evening rise	3304 Dec 14 19:14	1° \approx 57'07			3305 Oct 30 08:36	0° \approx	

superior conj	3305 Nov 09 02:12	16°♄48'38	0°37'07	max. Earth dist.	3306 Oct 29 08:26	11°♄32'42	1.41962 AU
minimum elong	3305 Nov 09 05:37	17°♄03'00	0°36'38	desc. node	3306 Nov 01 10:03	16°♄36'02	
desc. node	3305 Nov 14 13:03	25°♄49'19		evening rise	3306 Nov 04 01:10	20°♄50'38	
max. Earth dist.	3305 Nov 15 20:51	27°♄58'08	1.43634 AU		3306 Nov 09 21:27	0°♄	
	3305 Nov 17 03:10	0°♄			3306 Dec 01 00:58	0°♄	
evening rise	3305 Nov 24 04:34	11°♄06'57		evening max el	3306 Dec 07 03:37	6°♄59'47	22°31'20
	3305 Dec 06 16:54	0°♄		retrograde	3306 Dec 16 21:54	12°♄47'49	
evening max el	3305 Dec 24 09:48	23°♄25'50	21°14'46	evening set	3306 Dec 21 12:59	10°♄55'07	
retrograde	3306 Jan 02 02:05	28°♄34'42		asc. node	3306 Dec 21 22:14	10°♄35'17	
asc. node	3306 Jan 04 01:12	28°♄13'34		inferior conj	3306 Dec 26 21:37	4°♄33'43	1°37'43
evening set	3306 Jan 06 05:32	26°♄58'20		minimum elong	3306 Dec 26 19:36	4°♄40'42	1°36'58
inferior conj	3306 Jan 11 13:59	20°♄44'13	2°20'28	min. Earth dist.	3306 Dec 26 17:55	4°♄46'32	0.67948 AU
minimum elong	3306 Jan 11 11:31	20°♄52'46	2°19'41		3306 Dec 30 10:38	30°♄	
min. Earth dist.	3306 Jan 11 21:41	20°♄17'38	0.67726 AU	morning rise	3307 Jan 01 02:05	28°♄23'54	
morning rise	3306 Jan 16 17:18	14°♄31'32		direct	3307 Jan 05 16:30	26°♄29'57	
direct	3306 Jan 21 22:33	12°♄14'51			3307 Jan 12 20:57	0°♄	
morning max el	3306 Feb 01 10:03	18°♄29'02	23°29'52	morning max el	3307 Jan 14 21:58	1°♄54'58	22°02'25
desc. node	3306 Feb 10 12:17	29°♄14'54		desc. node	3307 Jan 28 09:17	18°♄51'15	
	3306 Feb 11 01:57	0°♄			3307 Feb 05 01:05	0°♄	
	3306 Mar 03 07:54	0°♄		morning set	3307 Feb 16 19:51	18°♄17'09	
morning set	3306 Mar 08 14:41	8°♄44'17		max. Earth dist.	3307 Feb 22 13:12	27°♄40'58	1.41182 AU
max. Earth dist.	3306 Mar 12 15:05	15°♄39'13	1.39031 AU		3307 Feb 23 22:14	0°♄	
superior conj	3306 Mar 20 03:46	29°♄17'13	-1°46'06	superior conj	3307 Mar 02 07:06	11°♄01'39	-2°02'25
minimum elong	3306 Mar 20 08:19	29°♄38'29	1°45'40	minimum elong	3307 Mar 02 10:06	11°♄14'58	2°02'17
	3306 Mar 20 12:55	0°♄		evening rise	3307 Mar 12 18:37	0°♄10'02	
evening rise	3306 Mar 29 10:32	17°♄05'33			3307 Mar 12 16:28	0°♄	
asc. node	3306 Apr 02 00:33	23°♄57'59		asc. node	3307 Mar 19 21:35	13°♄07'03	
	3306 Apr 05 07:34	0°♄		evening max el	3307 Mar 29 01:09	26°♄06'09	18°14'52
evening max el	3306 Apr 14 17:30	13°♄22'16	18°42'22	retrograde	3307 Apr 05 02:03	29°♄37'32	
retrograde	3306 Apr 22 17:48	17°♄17'32		evening set	3307 Apr 07 14:02	29°♄11'44	
evening set	3306 Apr 24 23:26	17°♄00'22		inferior conj	3307 Apr 14 14:46	24°♄28'02	2°54'25
inferior conj	3306 May 02 18:27	12°♄37'31	1°50'23	minimum elong	3307 Apr 14 18:12	24°♄20'30	2°53'42
minimum elong	3306 May 02 22:00	12°♄30'52	1°49'19	min. Earth dist.	3307 Apr 18 00:26	21°♄30'50	0.59580 AU
min. Earth dist.	3306 May 06 02:16	10°♄09'27	0.57497 AU	morning rise	3307 Apr 21 19:51	18°♄47'04	
desc. node	3306 May 09 11:28	8°♄00'46		desc. node	3307 Apr 26 08:30	17°♄03'36	
morning rise	3306 May 10 17:23	7°♄23'37		direct	3307 Apr 28 05:37	16°♄53'54	
direct	3306 May 16 07:57	6°♄06'02		morning max el	3307 May 12 14:01	24°♄42'46	27°24'57
morning max el	3306 May 30 16:29	13°♄38'58	26°23'21		3307 May 17 10:06	0°♄	
	3306 Jun 12 15:07	0°♄			3307 Jun 05 21:22	0°♄	
morning set	3306 Jun 28 12:21	29°♄06'07		morning set	3307 Jun 12 20:29	13°♄46'49	
asc. node	3306 Jun 28 23:49	0°♄		asc. node	3307 Jun 15 20:52	20°♄10'43	
	3306 Jun 28 22:33	0°♄					
superior conj	3306 Jul 05 12:03	14°♄17'06	1°03'47	superior conj	3307 Jun 19 23:44	29°♄10'51	0°42'12
minimum elong	3306 Jul 05 09:47	14°♄04'38	1°03'23	minimum elong	3307 Jun 19 22:00	29°♄01'16	0°41'51
max. Earth dist.	3306 Jul 05 21:40	15°♄10'07	1.32215 AU	max. Earth dist.	3307 Jun 19 09:40	27°♄53'22	1.32084 AU
evening rise	3306 Jul 12 10:23	29°♄16'52		evening rise	3307 Jun 20 08:39	0°♄	
	3306 Jul 12 18:39	0°♄			3307 Jul 04 19:48	0°♄	
	3306 Jul 29 08:53	0°♄		desc. node	3307 Jul 23 07:47	26°♄58'33	
desc. node	3306 Aug 05 10:46	9°♄47'33		evening max el	3307 Jul 25 01:42	28°♄43'08	25°58'28
evening max el	3306 Aug 12 03:44	17°♄11'09	26°57'58		3307 Jul 26 11:20	0°♄	
retrograde	3306 Aug 26 01:22	24°♄23'06		retrograde	3307 Aug 08 01:10	5°♄51'49	
evening set	3306 Sep 02 01:15	22°♄14'17		evening set	3307 Aug 14 07:58	4°♄17'02	
min. Earth dist.	3306 Sep 05 17:58	19°♄34'36	0.60862 AU	min. Earth dist.	3307 Aug 18 14:07	1°♄40'52	0.58790 AU
inferior conj	3306 Sep 08 22:30	16°♄52'21	-4°26'26		3307 Aug 20 21:13	30°♄	
minimum elong	3306 Sep 09 03:58	16°♄40'42	4°25'19	inferior conj	3307 Aug 21 20:21	29°♄16'56	-4°59'59
morning rise	3306 Sep 16 08:30	12°♄03'31		minimum elong	3307 Aug 21 23:19	29°♄11'26	4°59'44
direct	3306 Sep 18 17:36	11°♄41'04		morning rise	3307 Aug 29 16:53	24°♄51'20	
asc. node	3306 Sep 24 22:59	14°♄21'28		direct	3307 Sep 01 03:58	24°♄31'18	
morning max el	3306 Sep 25 22:51	15°♄15'50	18°02'11	morning max el	3307 Sep 09 06:21	28°♄23'54	18°33'55
	3306 Oct 06 03:25	0°♄			3307 Sep 10 19:24	0°♄	
morning set	3306 Oct 11 17:59	10°♄13'52		asc. node	3307 Sep 11 20:03	1°♄12'19	
				morning set	3307 Sep 25 10:42	24°♄13'34	
superior conj	3306 Oct 21 17:23	28°♄26'13	1°09'51		3307 Sep 28 10:16	0°♄	
minimum elong	3306 Oct 21 21:39	28°♄45'06	1°09'20				
	3306 Oct 22 14:39	0°♄		superior conj	3307 Oct 04 06:49	11°♄09'29	1°31'08

minimum elong	3307 Oct 04 09:58	11°  24'11	1°30'52		3308 Sep 19 06:35	0° 	
max. Earth dist.	3307 Oct 11 14:58	24°  24'54	1.39957 AU	max. Earth dist.	3308 Sep 22 18:56	6°  35'48	1.37880 AU
	3307 Oct 14 21:02	0° 		evening rise	3308 Sep 26 13:07	13°  22'29	
evening rise	3307 Oct 15 19:26	1°  34'16		desc. node	3308 Oct 05 04:08	27°  53'38	
desc. node	3307 Oct 19 07:05	7°  19'01			3308 Oct 06 11:53	0° 	
	3307 Nov 03 05:44	0° 			3308 Oct 28 05:08	0° 	
evening max el	3307 Nov 19 17:38	20°  36'55	23°51'13	evening max el	3308 Nov 01 05:55	4°  17'11	25°08'03
retrograde	3307 Nov 30 14:36	27°  01'22		retrograde	3308 Nov 13 03:13	11°  10'05	
evening set	3307 Dec 05 18:46	24°  52'12		evening set	3308 Nov 18 21:14	8°  45'46	
asc. node	3307 Dec 08 19:16	21°  38'40		min. Earth dist.	3308 Nov 23 08:59	3°  44'21	0.67337 AU
min. Earth dist.	3307 Dec 10 14:28	19°  16'36	0.67815 AU	inferior conj	3308 Nov 24 10:12	2°  21'58	-0°05'15
inferior conj	3307 Dec 11 04:57	18°  27'23	0°48'47	minimum elong	3308 Nov 24 10:20	2°  21'32	0°05'12
minimum elong	3307 Dec 11 03:49	18°  31'14	0°48'19	transit middle	3308 Nov 24 10:20	2°  21'32	0°05'12
morning rise	3307 Dec 16 12:52	12°  22'12		transit begin	3308 Nov 24 07:42	2°  30'08	
direct	3307 Dec 20 13:17	10°  51'01		transit end	3308 Nov 24 12:58	2°  12'57	
morning max el	3307 Dec 28 16:32	15°  32'09	20°43'03	asc. node	3308 Nov 24 16:19	2°  01'59	
	3308 Jan 09 03:33	0° 			3308 Nov 26 06:49	30°  11'36	
desc. node	3308 Jan 15 06:20	8°  53'01		morning rise	3308 Nov 29 23:39	26°  23'37	
morning set	3308 Jan 26 23:30	26°  41'41		direct	3308 Dec 03 11:43	25°  12'51	
	3308 Jan 29 02:16	0° 		morning max el	3308 Dec 10 18:57	29°  12'03	19°36'27
max. Earth dist.	3308 Feb 04 18:20	10°  37'46	1.43066 AU		3308 Dec 11 10:29	0° 	
				greatest brilliancy	3308 Dec 23 22:48	16°  47'09	-0.7m
superior conj	3308 Feb 11 10:54	21°  39'42	-2°06'16	desc. node	3309 Jan 01 03:22	29°  12'44	
minimum elong	3308 Feb 11 09:33	21°  34'01	2°06'14		3309 Jan 01 15:41	0° 	
	3308 Feb 16 08:24	0° 		morning set	3309 Jan 04 20:13	4°  54'56	
evening rise	3308 Feb 23 11:25	12°  29'30		max. Earth dist.	3309 Jan 17 06:21	24°  19'57	1.44439 AU
	3308 Mar 04 15:18	0° 			3309 Jan 20 19:42	0° 	
asc. node	3308 Mar 05 18:37	1°  46'20					
evening max el	3308 Mar 11 12:49	9°  11'35	18°07'03	superior conj	3309 Jan 21 12:41	1°  08'11	-1°52'34
retrograde	3308 Mar 18 01:48	12°  34'42		minimum elong	3309 Jan 21 05:34	0°  39'35	1°52'06
evening set	3308 Mar 20 19:32	11°  58'38		evening rise	3309 Feb 04 08:31	23°  55'26	
inferior conj	3308 Mar 27 05:45	6°  54'32	3°28'28		3309 Feb 07 22:58	0° 	
minimum elong	3308 Mar 27 07:34	6°  49'58	3°28'16	asc. node	3309 Feb 20 15:38	19°  46'35	
min. Earth dist.	3308 Mar 30 06:27	3°  52'54	0.61743 AU	evening max el	3309 Feb 23 01:29	22°  30'58	18°18'18
morning rise	3308 Apr 02 18:00	0° 		retrograde	3309 Mar 01 12:20	25°  59'14	
	3308 Apr 04 05:51	30°  11'36		evening set	3309 Mar 04 11:43	25°  11'48	
direct	3308 Apr 09 14:05	28°  31'27		inferior conj	3309 Mar 10 11:16	19°  48'40	3°39'04
desc. node	3308 Apr 12 05:32	28°  51'29		minimum elong	3309 Mar 10 11:17	19°  48'38	3°39'04
	3308 Apr 15 06:37	0° 		min. Earth dist.	3309 Mar 12 21:45	17°  04'33	0.63725 AU
morning max el	3308 Apr 23 17:56	6°  28'42	27°50'32	morning rise	3309 Mar 16 09:59	13°  41'36	
	3308 May 11 12:51	0° 		direct	3309 Mar 23 07:17	10°  56'07	
morning set	3308 May 27 00:02	28°  11'26		desc. node	3309 Mar 30 02:34	13°  09'16	
	3308 May 27 21:10	0° 		morning max el	3309 Apr 06 02:09	18°  53'11	27°38'53
asc. node	3308 Jun 01 17:55	10°  18'57			3309 Apr 15 11:57	0° 	
max. Earth dist.	3308 Jun 01 19:21	10°  26'43	1.32352 AU		3309 May 04 10:47	0° 	
				morning set	3309 May 10 20:35	12°  12'24	
superior conj	3308 Jun 03 09:57	13°  56'41	0°17'29	max. Earth dist.	3309 May 15 22:43	22°  37'23	1.33044 AU
minimum elong	3308 Jun 03 09:09	13°  52'18	0°17'19				
evening rise	3308 Jun 10 07:14	28°  15'40		superior conj	3309 May 18 16:55	28°  28'54	-0°09'38
	3308 Jun 10 19:34	0° 		minimum elong	3309 May 18 17:23	28°  31'28	0°09'32
	3308 Jun 27 15:33	0° 		behind sun begin	3309 May 18 13:04	28°  08'20	
evening max el	3308 Jul 05 16:48	9°  30'56	24°33'39	behind sun end	3309 May 18 21:42	28°  54'36	
desc. node	3308 Jul 09 04:49	12°  30'56			3309 May 19 09:53	0° 	
retrograde	3308 Jul 19 14:25	16°  32'39		asc. node	3309 May 19 14:58	0°  27'20	
evening set	3308 Jul 24 14:37	15°  36'15		evening rise	3309 May 25 19:00	13°  12'18	
min. Earth dist.	3308 Jul 30 03:52	12°  44'48	0.56878 AU		3309 Jun 03 00:36	0° 	
inferior conj	3308 Aug 01 22:20	10°  58'11	-5°03'15	evening max el	3309 Jun 17 06:22	19°  58'06	22°57'26
minimum elong	3308 Aug 01 20:03	11°  01'52	5°03'07	desc. node	3309 Jun 26 01:50	25°  50'25	
morning rise	3308 Aug 10 04:06	6°  54'00		retrograde	3309 Jun 30 15:13	26°  37'50	
direct	3308 Aug 12 19:31	6°  34'50		evening set	3309 Jul 04 02:55	26°  11'11	
morning max el	3308 Aug 22 04:44	10°  57'31	19°26'58	min. Earth dist.	3309 Jul 11 15:17	22°  50'17	0.55468 AU
asc. node	3308 Aug 28 17:07	19°  00'43		inferior conj	3309 Jul 13 05:09	21°  55'32	-4°21'32
	3308 Sep 04 02:05	0° 		minimum elong	3309 Jul 12 21:41	22°  06'21	4°20'00
morning set	3308 Sep 08 11:46	8°  37'02		morning rise	3309 Jul 21 18:46	18°  03'32	
				direct	3309 Jul 24 16:34	17°  43'34	
superior conj	3308 Sep 16 12:48	24°  41'35	1°42'12	morning max el	3309 Aug 04 15:46	22°  48'57	20°41'11
minimum elong	3308 Sep 16 14:12	24°  48'28	1°42'09		3309 Aug 10 18:56	0° 	

asc. node	3309 Aug 15 14:11	7°♎33'47			3310 Jul 12 08:46	0°♊	
morning set	3309 Aug 23 18:24	23°♎17'10		morning max el	3310 Jul 17 15:20	3°♊55'16	22°13'41
	3309 Aug 27 00:12	0°♎		asc. node	3310 Aug 02 11:14	26°♊39'54	
					3310 Aug 04 04:41	0°♎	
superior conj	3309 Aug 31 06:39	8°♎49'07	1°44'42	morning set	3310 Aug 08 04:25	8°♎07'13	
minimum elong	3309 Aug 31 06:25	8°♎47'58	1°44'42				
max. Earth dist.	3309 Sep 05 02:23	18°♎27'39	1.35981 AU	superior conj	3310 Aug 15 08:38	23°♎20'32	1°40'10
evening rise	3309 Sep 09 03:08	26°♎08'22		minimum elong	3310 Aug 15 07:12	23°♎12'56	1°40'04
	3309 Sep 11 05:40	0°♎			3310 Aug 18 13:13	0°♎	
desc. node	3309 Sep 22 01:10	18°♎15'00		max. Earth dist.	3310 Aug 18 18:03	0°♎24'49	1.34410 AU
	3309 Sep 29 22:34	0°♎		evening rise	3310 Aug 23 08:54	9°♎39'08	
evening max el	3309 Oct 14 18:15	17°♎58'25	26°14'20		3310 Sep 03 16:54	0°♎	
retrograde	3309 Oct 27 10:50	25°♎08'27		desc. node	3310 Sep 08 22:12	8°♎16'27	
evening set	3309 Nov 02 18:30	22°♎32'24			3310 Sep 25 17:23	0°♎	
min. Earth dist.	3309 Nov 06 23:08	18°♎06'24	0.66520 AU	evening max el	3310 Sep 27 06:51	1°♎32'47	27°02'28
inferior conj	3309 Nov 08 11:30	16°♎14'24	-1°03'10	retrograde	3310 Oct 10 12:47	8°♎49'39	
minimum elong	3309 Nov 08 13:12	16°♎09'10	1°02'27	evening set	3310 Oct 17 08:24	6°♎07'42	
asc. node	3309 Nov 11 13:22	12°♎41'35		min. Earth dist.	3310 Oct 21 06:24	2°♎17'47	0.65354 AU
morning rise	3309 Nov 14 08:24	10°♎25'30		inferior conj	3310 Oct 23 06:45	0°♎00'22	-2°03'19
direct	3309 Nov 17 10:09	9°♎31'43		minimum elong	3310 Oct 23 10:10	29°♎50'40	2°01'57
morning max el	3309 Nov 24 04:23	13°♎15'32	18°45'08		3310 Oct 23 06:53	30°♎	
	3309 Dec 06 10:45	0°♎		asc. node	3310 Oct 29 10:24	24°♎27'02	
morning set	3309 Dec 15 10:46	14°♎07'40		morning rise	3310 Oct 29 12:46	24°♎24'05	
desc. node	3309 Dec 19 00:24	19°♎45'13		direct	3310 Nov 01 06:30	23°♎43'28	
	3309 Dec 25 12:51	0°♎		morning max el	3310 Nov 07 18:41	27°♎13'39	18°10'20
max. Earth dist.	3309 Dec 30 23:32	8°♎32'41	1.45149 AU		3310 Nov 10 05:42	0°♎	
				morning set	3310 Nov 26 06:30	24°♎48'51	
superior conj	3309 Dec 31 18:31	9°♎47'14	-1°19'41		3310 Nov 29 10:32	0°♎	
minimum elong	3309 Dec 31 09:36	9°♎12'14	1°18'42	desc. node	3310 Dec 05 21:27	10°♎26'24	
	3310 Jan 13 12:51	0°♎					
evening rise	3310 Jan 16 06:39	4°♎23'49		superior conj	3310 Dec 10 22:17	18°♎27'21	-0°33'48
greatest brilliancy	3310 Jan 23 06:53	15°♎40'12	-0.9m	minimum elong	3310 Dec 10 17:59	18°♎10'22	0°33'12
	3310 Feb 01 15:51	0°♎		max. Earth dist.	3310 Dec 13 19:04	22°♎58'36	1.45116 AU
evening max el	3310 Feb 06 12:35	5°♎58'01	18°47'38		3310 Dec 18 06:36	0°♎	
asc. node	3310 Feb 07 12:40	6°♎56'04		evening rise	3310 Dec 27 06:42	14°♎01'20	
retrograde	3310 Feb 13 05:40	9°♎43'05			3311 Jan 06 14:48	0°♎	
evening set	3310 Feb 16 11:13	8°♎43'18		greatest brilliancy	3311 Jan 08 17:50	3°♎13'42	-0.7m
inferior conj	3310 Feb 22 03:25	3°♎02'41	3°32'09	evening max el	3311 Jan 20 19:59	19°♎28'43	19°33'42
minimum elong	3310 Feb 22 02:01	3°♎06'59	3°32'01	asc. node	3311 Jan 25 09:41	23°♎01'13	
min. Earth dist.	3310 Feb 23 22:15	0°♎51'05	0.65372 AU	retrograde	3311 Jan 28 02:38	23°♎40'45	
	3310 Feb 24 15:25	30°♎		evening set	3311 Jan 31 15:29	22°♎27'33	
morning rise	3310 Feb 27 16:25	26°♎51'12		inferior conj	3311 Feb 06 03:01	16°♎31'34	3°12'05
direct	3310 Mar 06 07:30	23°♎59'53		minimum elong	3311 Feb 06 00:46	16°♎38'55	3°11'40
desc. node	3310 Mar 16 23:36	29°♎22'05		min. Earth dist.	3311 Feb 07 06:57	14°♎59'55	0.66608 AU
	3310 Mar 17 16:22	0°♎		morning rise	3311 Feb 11 09:50	10°♎18'16	
morning max el	3310 Mar 19 11:52	1°♎45'04	26°54'25	direct	3311 Feb 17 13:34	7°♎33'57	
	3310 Apr 09 15:21	0°♎		morning max el	3311 Mar 01 21:12	14°♎53'46	25°45'13
morning set	3310 Apr 24 06:53	25°♎38'46		desc. node	3311 Mar 03 20:37	16°♎58'29	
	3310 Apr 26 12:42	0°♎			3311 Mar 14 06:22	0°♎	
max. Earth dist.	3310 Apr 28 16:04	4°♎15'34	1.34196 AU		3311 Apr 02 11:07	0°♎	
				morning set	3311 Apr 07 02:50	8°♎19'02	
superior conj	3310 May 02 18:23	12°♎39'48	-0°38'10	max. Earth dist.	3311 Apr 10 22:08	15°♎26'12	1.35808 AU
minimum elong	3310 May 02 20:22	12°♎50'09	0°37'45				
asc. node	3310 May 06 11:59	20°♎30'59		superior conj	3311 Apr 16 11:52	26°♎22'28	-1°06'40
evening rise	3310 May 10 05:03	28°♎19'45		minimum elong	3311 Apr 16 15:21	26°♎39'57	1°06'04
	3310 May 11 00:22	0°♎			3311 Apr 18 06:52	0°♎	
	3310 May 29 11:52	0°♎		asc. node	3311 Apr 23 09:01	10°♎26'03	
evening max el	3310 May 30 01:56	0°♎35'02	21°24'46	evening rise	3311 Apr 24 11:25	12°♎41'06	
retrograde	3310 Jun 11 05:21	6°♎32'42			3311 May 03 14:23	0°♎	
desc. node	3310 Jun 12 22:51	6°♎25'48		evening max el	3311 May 12 08:40	11°♎45'35	20°06'23
evening set	3310 Jun 13 14:19	6°♎19'49		retrograde	3311 May 22 19:38	16°♎50'44	
inferior conj	3310 Jun 22 23:45	2°♎20'15	-2°51'13	evening set	3311 May 24 19:13	16°♎40'34	
minimum elong	3310 Jun 22 16:14	2°♎30'46	2°48'48	desc. node	3311 May 30 19:51	14°♎24'50	
min. Earth dist.	3310 Jun 23 02:36	2°♎16'17	0.54867 AU	inferior conj	3311 Jun 02 19:54	12°♎41'14	-0°53'07
	3310 Jun 27 09:28	30°♎		minimum elong	3311 Jun 02 17:25	12°♎44'56	0°52'12
morning rise	3310 Jul 01 18:50	28°♎24'08		min. Earth dist.	3311 Jun 04 15:10	11°♎36'44	0.55224 AU
direct	3310 Jul 05 02:55	27°♎59'56		morning rise	3311 Jun 11 14:00	8°♎21'35	

direct	3311 Jun 15 15:11	7° Π 45'56		morning rise	3312 May 21 14:56	18° \mathcal{B} 33'48	
morning max el	3311 Jun 29 07:13	14° Π 28'38	23°56'13	direct	3312 May 26 15:25	17° \mathcal{B} 34'54	
	3311 Jul 11 10:14	0° \mathcal{E}		morning max el	3312 Jun 09 21:36	24° \mathcal{B} 54'05	25°34'49
asc. node	3311 Jul 20 08:16	16° \mathcal{E} 10'34			3312 Jun 14 14:49	0° Π	
morning set	3311 Jul 23 16:02	23° \mathcal{E} 01'58			3312 Jul 03 07:00	0° \mathcal{E}	
	3311 Jul 26 22:06	0° Ω		asc. node	3312 Jul 06 05:19	5° \mathcal{E} 58'58	
				morning set	3312 Jul 07 03:38	7° \mathcal{E} 56'13	
superior conj	3311 Jul 30 16:01	8° Ω 07'27	1°29'48	superior conj	3312 Jul 14 02:35	23° \mathcal{E} 02'44	1°14'31
minimum elong	3311 Jul 30 13:52	7° Ω 55'48	1°29'33	minimum elong	3312 Jul 14 00:13	22° \mathcal{E} 49'47	1°14'09
max. Earth dist.	3311 Aug 01 18:48	12° Ω 40'22	1.33234 AU	max. Earth dist.	3312 Jul 15 02:30	25° \mathcal{E} 13'43	1.32466 AU
evening rise	3311 Aug 07 02:20	23° Ω 43'31			3312 Jul 17 07:09	0° Ω	
	3311 Aug 10 06:44	0° Π		evening rise	3312 Jul 21 04:02	8° Ω 11'42	
desc. node	3311 Aug 26 19:12	27° Π 49'21			3312 Aug 01 16:39	0° Π	
	3311 Aug 28 07:57	0° \mathcal{E}		desc. node	3312 Aug 12 16:12	16° Π 41'58	
evening max el	3311 Sep 09 18:16	14° \mathcal{E} 48'09	27°25'20	evening max el	3312 Aug 22 02:17	27° Π 31'46	27°17'29
retrograde	3311 Sep 23 08:38	22° \mathcal{E} 05'22			3312 Aug 24 22:00	0° \mathcal{E}	
evening set	3311 Sep 30 12:07	19° \mathcal{E} 26'24		retrograde	3312 Sep 04 21:59	4° \mathcal{E} 46'40	
min. Earth dist.	3311 Oct 04 04:37	16° \mathcal{E} 10'28	0.63841 AU	evening set	3312 Sep 12 02:07	2° \mathcal{E} 22'45	
inferior conj	3311 Oct 06 17:26	13° \mathcal{E} 34'04	-3°03'14		3312 Sep 15 04:24	30° \mathcal{R} Π	
minimum elong	3311 Oct 06 22:23	13° \mathcal{E} 21'17	3°01'32	min. Earth dist.	3312 Sep 15 16:31	29° Π 33'35	0.62014 AU
morning rise	3311 Oct 13 09:54	8° \mathcal{E} 13'52		inferior conj	3312 Sep 18 16:35	26° Π 48'49	-3°58'50
direct	3311 Oct 15 22:05	7° \mathcal{E} 42'48		minimum elong	3312 Sep 18 22:20	26° Π 35'38	3°57'20
asc. node	3311 Oct 16 07:28	7° \mathcal{E} 43'34		morning rise	3312 Sep 25 20:15	21° Π 47'58	
morning max el	3311 Oct 22 11:07	11° \mathcal{E} 08'04	17°52'46	direct	3312 Sep 28 05:32	21° Π 23'17	
	3311 Nov 04 06:12	0° Π		asc. node	3312 Oct 02 04:31	22° Π 33'28	
morning set	3311 Nov 08 05:10	6° Π 48'10		morning max el	3312 Oct 05 02:42	24° Π 52'05	17°53'16
					3312 Oct 09 08:07	0° \mathcal{E}	
superior conj	3311 Nov 20 19:53	28° Π 02'45	0°13'19	morning set	3312 Oct 21 00:37	19° \mathcal{E} 47'01	
minimum elong	3311 Nov 20 21:21	28° Π 08'42	0°13'07		3312 Oct 26 17:10	0° Π	
behind sun begin	3311 Nov 20 15:32	27° Π 44'55		superior conj	3312 Oct 31 20:14	8° Π 57'22	0°52'25
behind sun end	3311 Nov 21 03:09	28° Π 32'26		minimum elong	3312 Nov 01 00:22	9° Π 15'03	0°51'52
	3311 Nov 22 00:39	0° \mathcal{R}		max. Earth dist.	3312 Nov 08 03:29	21° Π 10'57	1.42973 AU
desc. node	3311 Nov 22 18:28	1° \mathcal{R} 12'18		desc. node	3312 Nov 08 15:30	21° Π 59'58	
max. Earth dist.	3311 Nov 26 13:24	7° \mathcal{R} 17'31	1.44357 AU		3312 Nov 13 15:16	0° \mathcal{R}	
evening rise	3311 Dec 06 17:01	23° \mathcal{R} 10'03		evening rise	3312 Nov 15 05:19	2° \mathcal{R} 29'35	
	3311 Dec 11 04:14	0° \mathcal{E}			3312 Dec 03 16:13	0° \mathcal{E}	
	3312 Jan 01 05:32	0° \approx		evening max el	3312 Dec 16 18:41	16° \mathcal{E} 32'06	21°46'31
evening max el	3312 Jan 03 22:08	2° \approx 59'57	20°34'26	retrograde	3312 Dec 25 21:57	21° \mathcal{E} 58'19	
retrograde	3312 Jan 12 00:45	7° \approx 46'56		asc. node	3312 Dec 29 03:45	21° \mathcal{E} 01'16	
asc. node	3312 Jan 12 06:43	7° \approx 46'36		evening set	3312 Dec 30 06:06	20° \mathcal{E} 15'04	
evening set	3312 Jan 15 22:22	6° \approx 19'15		inferior conj	3313 Jan 04 14:24	13° \mathcal{E} 57'09	2°03'10
inferior conj	3312 Jan 21 07:23	0° \approx 10'35	2°41'46	minimum elong	3313 Jan 04 12:05	14° \mathcal{E} 05'14	2°02'22
minimum elong	3312 Jan 21 04:51	0° \approx 19'14	2°41'05	min. Earth dist.	3313 Jan 04 17:07	13° \mathcal{E} 47'44	0.67860 AU
	3312 Jan 21 10:29	30° \mathcal{R} \mathcal{E}		morning rise	3313 Jan 09 17:54	7° \mathcal{E} 45'16	
min. Earth dist.	3312 Jan 21 21:59	29° \mathcal{E} 20'45	0.67428 AU	direct	3313 Jan 14 16:40	5° \mathcal{E} 38'12	
morning rise	3312 Jan 26 11:10	23° \mathcal{E} 57'11		morning max el	3313 Jan 24 15:29	11° \mathcal{E} 32'01	22°52'05
direct	3312 Feb 01 00:51	21° \mathcal{E} 28'59		desc. node	3313 Feb 04 14:42	24° \mathcal{E} 51'39	
morning max el	3312 Feb 12 05:47	28° \mathcal{E} 10'19	24°21'05		3313 Feb 08 07:32	0° \approx	
	3312 Feb 13 23:36	0° \approx			3313 Feb 27 20:19	0° \mathcal{H}	
desc. node	3312 Feb 18 17:39	5° \approx 33'56		morning set	3313 Feb 28 00:57	0° \mathcal{H} 19'11	
	3312 Mar 06 23:53	0° \mathcal{H}		max. Earth dist.	3313 Mar 04 14:30	8° \mathcal{H} 00'39	1.39954 AU
morning set	3312 Mar 19 02:55	19° \mathcal{H} 57'46		superior conj	3313 Mar 12 08:33	21° \mathcal{H} 44'50	-1°54'14
max. Earth dist.	3312 Mar 22 19:22	26° \mathcal{H} 30'11	1.37791 AU	minimum elong	3313 Mar 12 12:45	22° \mathcal{H} 04'03	1°53'54
	3312 Mar 24 17:24	0° \mathcal{Y}			3313 Mar 16 19:14	0° \mathcal{Y}	
superior conj	3312 Mar 29 18:00	9° \mathcal{Y} 27'38	-1°33'03	evening rise	3313 Mar 22 02:39	10° \mathcal{Y} 05'13	
minimum elong	3312 Mar 29 22:30	9° \mathcal{Y} 49'15	1°32'28	asc. node	3313 Mar 27 03:04	19° \mathcal{Y} 30'28	
evening rise	3312 Apr 07 11:38	26° \mathcal{Y} 38'56			3313 Apr 02 09:14	0° \mathcal{B}	
asc. node	3312 Apr 09 06:02	0° \mathcal{B} 07'41		evening max el	3313 Apr 07 07:03	6° \mathcal{B} 04'35	18°28'16
	3312 Apr 09 04:28	0° \mathcal{B}		retrograde	3313 Apr 14 20:07	9° \mathcal{B} 47'50	
evening max el	3312 Apr 24 03:10	23° \mathcal{B} 36'58	19°07'11	evening set	3313 Apr 17 04:21	9° \mathcal{B} 27'24	
retrograde	3312 May 02 22:38	27° \mathcal{B} 54'09		inferior conj	3313 Apr 24 15:14	4° \mathcal{B} 56'05	2°21'33
evening set	3312 May 05 00:31	27° \mathcal{B} 40'50		minimum elong	3313 Apr 24 19:02	4° \mathcal{B} 48'29	2°20'31
inferior conj	3312 May 13 07:01	23° \mathcal{B} 28'36	0°58'30	min. Earth dist.	3313 Apr 28 01:41	2° \mathcal{B} 12'22	0.58346 AU
minimum elong	3312 May 13 09:18	23° \mathcal{B} 24'42	0°57'43		3313 May 01 07:55	30° \mathcal{R} \mathcal{Y}	
min. Earth dist.	3312 May 16 06:23	21° \mathcal{B} 27'12	0.56467 AU				
desc. node	3312 May 16 16:51	21° \mathcal{B} 10'10					

morning rise	3313 May 02 06:39	29° Υ 29'07		morning rise	3314 Apr 13 17:38	11° Υ 13'56	
desc. node	3313 May 03 13:53	28° Υ 53'28		direct	3314 Apr 20 09:12	9° Υ 05'51	
direct	3313 May 08 06:15	27° Υ 56'21		desc. node	3314 Apr 20 10:55	9° Υ 05'52	
	3313 May 15 09:31	0° ♄		morning max el	3314 May 04 15:51	16° Υ 59'15	27°40'25
morning max el	3313 May 22 15:40	5° ♄ 38'10	26°53'34		3314 May 15 09:59	0° ♄	
	3313 Jun 09 15:16	0° ♁			3314 Jun 02 05:03	0° ♁	
morning set	3313 Jun 21 13:32	22° ♁ 43'38		morning set	3314 Jun 05 20:00	7° ♁ 18'36	
asc. node	3313 Jun 23 02:21	25° ♁ 58'46		asc. node	3314 Jun 09 23:25	16° ♁ 05'21	
	3313 Jun 24 23:05	0° ♄		max. Earth dist.	3314 Jun 12 01:16	20° ♁ 36'43	1.32148 AU
superior conj	3313 Jun 28 14:22	7° ♄ 59'05	0°55'04	superior conj	3314 Jun 13 01:42	22° ♁ 50'45	0°32'06
minimum elong	3313 Jun 28 12:17	7° ♄ 47'32	0°54'40	minimum elong	3314 Jun 13 00:18	22° ♁ 43'06	0°31'48
max. Earth dist.	3313 Jun 28 13:50	7° ♄ 56'04	1.32105 AU		3314 Jun 16 07:51	0° ♄	
evening rise	3313 Jul 05 11:15	22° ♄ 54'22		evening rise	3314 Jun 19 21:47	7° ♄ 44'24	
	3313 Jul 08 22:02	0° ♁			3314 Jul 01 11:23	0° ♁	
	3313 Jul 26 20:34	0° ♄		evening max el	3314 Jul 16 23:31	20° ♁ 44'50	25°24'52
desc. node	3313 Jul 30 13:13	4° ♄ 36'46		desc. node	3314 Jul 17 10:13	21° ♁ 10'04	
evening max el	3313 Aug 04 04:29	9° ♄ 32'00	26°36'24	retrograde	3314 Jul 30 23:08	27° ♁ 50'57	
retrograde	3313 Aug 18 03:35	16° ♄ 43'23		evening set	3314 Aug 05 18:11	26° ♁ 33'00	
evening set	3313 Aug 24 21:40	14° ♄ 47'54		min. Earth dist.	3314 Aug 10 11:28	23° ♁ 52'10	0.57945 AU
min. Earth dist.	3313 Aug 28 18:12	12° ♄ 11'50	0.59978 AU	inferior conj	3314 Aug 13 14:25	21° ♁ 42'12	-5°06'00
inferior conj	3313 Sep 01 00:43	9° ♄ 34'46	-4°43'25	minimum elong	3314 Aug 13 15:25	21° ♁ 40'27	5°05'59
minimum elong	3313 Sep 01 05:29	9° ♄ 25'11	4°42'41	morning rise	3314 Aug 21 15:00	17° ♁ 25'48	
morning rise	3313 Sep 08 15:22	4° ♄ 55'47		direct	3314 Aug 24 03:38	17° ♁ 06'17	
direct	3313 Sep 11 00:47	4° ♄ 34'45		morning max el	3314 Sep 01 18:03	21° ♁ 10'27	18°53'41
morning max el	3313 Sep 18 14:08	8° ♄ 16'06	18°13'06	asc. node	3314 Sep 05 22:38	26° ♁ 01'28	
asc. node	3313 Sep 19 01:34	8° ♄ 44'29			3314 Sep 08 15:27	0° ♄	
	3313 Oct 02 14:42	0° ♁		morning set	3314 Sep 18 07:35	17° ♄ 39'05	
morning set	3313 Oct 04 10:55	3° ♁ 28'10			3314 Sep 24 14:38	0° ♁	
superior conj	3313 Oct 13 21:36	21° ♁ 04'53	1°20'12	superior conj	3314 Sep 26 18:41	4° ♁ 10'22	1°36'58
minimum elong	3313 Oct 14 01:33	21° ♁ 22'44	1°19'47	minimum elong	3314 Sep 26 21:07	4° ♁ 21'57	1°36'48
	3313 Oct 18 22:16	0° ♄		max. Earth dist.	3314 Oct 03 17:14	16° ♁ 59'26	1.39077 AU
max. Earth dist.	3313 Oct 21 12:14	4° ♄ 25'56	1.41135 AU	evening rise	3314 Oct 07 14:53	23° ♁ 48'47	
evening rise	3313 Oct 26 10:26	12° ♄ 37'02			3314 Oct 11 07:13	0° ♄	
desc. node	3313 Oct 26 12:33	12° ♄ 45'37		desc. node	3314 Oct 13 09:35	3° ♄ 25'33	
	3313 Nov 06 13:56	0° ♄			3314 Oct 31 09:24	0° ♄	
	3313 Nov 29 07:49	0° ♄		evening max el	3314 Nov 11 23:53	13° ♄ 46'13	24°24'47
evening max el	3313 Nov 29 10:40	0° ♄ 07'10	23°05'20	retrograde	3314 Nov 23 07:34	20° ♄ 23'21	
retrograde	3313 Dec 09 16:40	6° ♄ 11'43		evening set	3314 Nov 28 17:35	18° ♄ 07'42	
evening set	3313 Dec 14 13:02	4° ♄ 12'13		asc. node	3314 Dec 02 21:51	13° ♄ 26'23	
asc. node	3313 Dec 16 00:47	2° ♄ 46'34		min. Earth dist.	3314 Dec 03 09:54	12° ♄ 46'25	0.67657 AU
	3313 Dec 18 07:38	30° ♄		inferior conj	3314 Dec 04 04:49	11° ♄ 43'00	0°26'26
inferior conj	3313 Dec 19 22:09	27° ♄ 48'49	1°17'41	minimum elong	3314 Dec 04 04:11	11° ♄ 45'08	0°26'09
minimum elong	3313 Dec 19 20:28	27° ♄ 54'38	1°17'01	morning rise	3314 Dec 09 14:50	5° ♄ 40'20	
min. Earth dist.	3313 Dec 19 13:54	28° ♄ 17'16	0.67929 AU	direct	3314 Dec 13 09:53	4° ♄ 17'59	
morning rise	3313 Dec 25 03:48	21° ♄ 40'27		morning max el	3314 Dec 21 03:34	8° ♄ 43'00	20°12'54
direct	3313 Dec 29 12:07	19° ♄ 56'12			3315 Jan 06 03:18	0° ♄	
morning max el	3314 Jan 07 05:48	25° ♄ 01'54	21°27'15	desc. node	3315 Jan 09 08:48	4° ♄ 49'51	
	3314 Jan 11 15:52	0° ♄		morning set	3315 Jan 17 15:30	17° ♄ 28'12	
desc. node	3314 Jan 22 11:45	14° ♄ 39'53			3315 Jan 25 15:32	0° ♄	
	3314 Feb 01 18:38	0° ♄		max. Earth dist.	3315 Jan 27 23:17	3° ♄ 42'21	1.43725 AU
morning set	3314 Feb 07 18:03	9° ♄ 18'41		superior conj	3315 Feb 02 19:11	13° ♄ 10'11	-2°02'50
max. Earth dist.	3314 Feb 14 14:49	20° ♄ 23'53	1.42025 AU	minimum elong	3315 Feb 02 15:18	12° ♄ 54'13	2°02'41
	3314 Feb 20 08:03	0° ♄			3315 Feb 12 18:54	0° ♄	
superior conj	3314 Feb 22 02:29	3° ♄ 02'33	-2°05'55	evening rise	3315 Feb 15 13:37	4° ♄ 48'22	
minimum elong	3314 Feb 22 04:00	3° ♄ 09'05	2°05'53	asc. node	3315 Feb 28 21:09	26° ♄ 51'39	
evening rise	3314 Mar 05 04:45	22° ♄ 51'30			3315 Mar 03 06:04	0° ♄	
	3314 Mar 09 03:11	0° ♄		evening max el	3315 Mar 05 05:22	2° ♄ 11'24	18°09'37
asc. node	3314 Mar 14 00:07	8° ♄ 28'05		retrograde	3315 Mar 11 16:09	5° ♄ 34'53	
evening max el	3314 Mar 21 16:55	18° ♄ 59'30	18°09'18	evening set	3315 Mar 14 12:24	4° ♄ 53'55	
retrograde	3314 Mar 28 11:21	22° ♄ 25'15			3315 Mar 20 10:34	30° ♄	
evening set	3314 Mar 31 01:55	21° ♄ 55'13		inferior conj	3315 Mar 20 17:36	29° ♄ 41'24	3°35'25
inferior conj	3314 Apr 06 20:00	17° ♄ 03'02	3°12'08	minimum elong	3315 Mar 20 18:38	29° ♄ 38'41	3°35'22
minimum elong	3314 Apr 06 22:50	16° ♄ 56'25	3°11'39	min. Earth dist.	3315 Mar 23 12:33	26° ♄ 45'14	0.62620 AU
min. Earth dist.	3314 Apr 10 02:59	14° ♄ 00'48	0.60505 AU	morning rise	3315 Mar 26 23:39	23° ♄ 39'07	

direct	3315 Apr 02 21:23	21° K 03'51		inferior conj	3316 Mar 03 04:04	12° K 44'27	3°37'58
desc. node	3315 Apr 07 07:57	22° K 00'34		minimum elong	3316 Mar 03 03:25	12° K 46'22	3°37'56
morning max el	3315 Apr 16 21:41	29° K 01'15	27°50'04	min. Earth dist.	3316 Mar 05 07:46	10° K 13'02	0.64473 AU
	3315 Apr 17 20:44	0° Y		morning rise	3316 Mar 08 22:10	6° K 34'58	
	3315 May 09 07:13	0° B		direct	3316 Mar 15 17:26	3° K 45'37	
morning set	3315 May 20 20:51	21° B 33'26		desc. node	3316 Mar 24 05:00	7° K 11'06	
	3315 May 24 22:40	0° II		morning max el	3316 Mar 29 07:02	11° K 38'54	27°23'39
max. Earth dist.	3315 May 26 08:48	3° II 01'43	1.32597 AU		3316 Apr 12 21:11	0° Y	
asc. node	3315 May 27 20:28	6° II 13'43			3316 Apr 30 18:53	0° B	
				morning set	3316 May 03 13:27	5° B 20'15	
superior conj	3315 May 28 10:44	7° II 30'58	0°06'16	max. Earth dist.	3316 May 08 08:29	14° B 59'30	1.33478 AU
minimum elong	3315 May 28 10:26	7° II 29'21	0°06'12				
behind sun begin	3315 May 28 05:36	7° II 03'13		superior conj	3316 May 11 15:34	21° B 53'59	-0°21'38
behind sun end	3315 May 28 15:15	7° II 55'31		minimum elong	3316 May 11 16:40	21° B 59'49	0°21'24
evening rise	3315 Jun 04 09:36	22° II 34'10		asc. node	3316 May 13 17:29	26° B 19'57	
	3315 Jun 07 23:36	0° B			3316 May 15 10:35	0° II	
	3315 Jun 27 05:18	0° Q		evening rise	3316 May 18 20:51	7° II 17'36	
evening max el	3315 Jun 28 13:09	1° Q 20'04	23°53'11		3316 May 30 23:06	0° B	
desc. node	3315 Jul 04 07:13	5° Q 50'19		evening max el	3316 Jun 09 04:06	11° B 46'04	22°16'44
retrograde	3315 Jul 12 06:37	8° Q 14'06		desc. node	3316 Jun 20 04:13	18° B 02'17	
evening set	3315 Jul 16 15:31	7° Q 32'00		retrograde	3316 Jun 22 02:21	18° B 10'48	
min. Earth dist.	3315 Jul 22 23:31	4° Q 29'46	0.56205 AU	evening set	3316 Jun 25 00:51	17° B 51'41	
inferior conj	3315 Jul 25 07:49	3° Q 04'03	-4°51'43	min. Earth dist.	3316 Jul 03 10:18	14° B 14'32	0.55096 AU
minimum elong	3315 Jul 25 03:01	3° Q 11'24	4°51'08	inferior conj	3316 Jul 04 08:00	13° B 43'57	-3°48'31
	3315 Jul 30 23:58	30° R B		minimum elong	3316 Jul 03 23:41	13° B 55'40	3°46'22
morning rise	3315 Aug 02 17:06	29° B 06'37		morning rise	3316 Jul 13 00:28	9° B 53'04	
direct	3315 Aug 05 11:14	28° B 47'12		direct	3316 Jul 16 01:56	9° B 32'01	
	3315 Aug 10 14:44	0° Q		morning max el	3316 Jul 27 17:38	14° B 57'46	21°18'46
morning max el	3315 Aug 15 11:40	3° Q 26'11	19°55'58		3316 Aug 08 00:15	0° Q	
asc. node	3315 Aug 23 19:41	14° Q 10'08		asc. node	3316 Aug 09 16:44	2° Q 58'06	
	3315 Sep 01 09:24	0° P		morning set	3316 Aug 16 19:38	16° Q 55'44	
morning set	3315 Sep 02 11:20	2° P 10'45			3316 Aug 23 01:23	0° P	
superior conj	3315 Sep 10 06:14	17° P 59'03	1°44'13	superior conj	3316 Aug 24 03:56	2° P 18'03	1°43'34
minimum elong	3315 Sep 10 06:54	18° P 02'26	1°44'12	minimum elong	3316 Aug 24 03:08	2° P 13'54	1°43'32
max. Earth dist.	3315 Sep 15 22:25	29° P 01'12	1.37046 AU	max. Earth dist.	3316 Aug 28 08:59	10° P 52'41	1.35262 AU
	3315 Sep 16 10:55	0° B		evening rise	3316 Sep 01 14:57	19° P 08'51	
evening rise	3315 Sep 19 17:44	6° B 02'48			3316 Sep 07 13:50	0° B	
desc. node	3315 Sep 30 06:36	23° B 55'18		desc. node	3316 Sep 16 03:35	14° B 08'58	
	3315 Oct 04 04:25	0° M			3316 Sep 27 06:37	0° M	
evening max el	3315 Oct 25 12:08	27° M 27'59	25°37'56	evening max el	3316 Oct 07 00:25	11° M 06'41	26°37'20
	3315 Oct 28 07:04	0° X		retrograde	3316 Oct 19 23:18	18° M 21'08	
retrograde	3315 Nov 06 17:59	4° X 28'52		evening set	3316 Oct 26 12:30	15° M 41'18	
evening set	3315 Nov 12 18:04	1° X 58'55		min. Earth dist.	3316 Oct 30 14:06	11° M 30'59	0.66070 AU
	3315 Nov 14 18:42	30° R M		inferior conj	3316 Nov 01 07:37	9° M 27'13	-1°28'32
min. Earth dist.	3315 Nov 17 02:44	27° M 12'39	0.67039 AU	minimum elong	3316 Nov 01 10:02	9° M 20'00	1°27'31
inferior conj	3315 Nov 18 08:38	25° M 37'13	-0°29'25	asc. node	3316 Nov 05 15:55	4° M 52'18	
minimum elong	3315 Nov 18 09:24	25° M 34'47	0°29'05	morning rise	3316 Nov 07 08:14	3° M 43'35	
asc. node	3315 Nov 19 18:52	23° M 49'49		direct	3316 Nov 10 06:13	2° M 56'00	
morning rise	3315 Nov 24 01:03	19° M 42'46		morning max el	3316 Nov 16 21:07	6° M 32'52	18°28'17
direct	3315 Nov 27 08:32	18° M 39'37			3316 Dec 03 04:33	0° X	
morning max el	3315 Dec 04 09:13	22° M 35'08	19°12'42	morning set	3316 Dec 06 19:55	5° X 50'06	
	3315 Dec 10 11:29	0° X		desc. node	3316 Dec 13 02:53	15° X 52'20	
desc. node	3315 Dec 27 05:52	25° X 15'50			3316 Dec 22 01:47	0° B	
morning set	3315 Dec 27 17:24	26° X 00'39					
	3315 Dec 30 06:57	0° B		superior conj	3316 Dec 22 13:14	0° B 44'54	-1°01'09
max. Earth dist.	3316 Jan 10 14:28	17° B 42'05	1.44833 AU	minimum elong	3316 Dec 22 05:42	0° B 15'22	1°00'12
				max. Earth dist.	3316 Dec 23 08:53	2° B 02'02	1.45227 AU
superior conj	3316 Jan 13 10:59	22° B 12'59	-1°40'48	evening rise	3317 Jan 07 13:31	25° B 55'15	
minimum elong	3316 Jan 13 02:16	21° B 38'25	1°40'02		3317 Jan 10 03:25	0° A	
	3316 Jan 18 07:59	0° A		greatest brilliancy	3317 Jan 17 06:07	11° A 12'11	-0.8m
evening rise	3316 Jan 28 01:15	15° A 50'15		evening max el	3317 Jan 30 03:15	29° A 02'21	19°05'14
	3316 Feb 05 15:53	0° K			3317 Jan 31 02:56	0° K	
asc. node	3316 Feb 15 18:10	14° K 31'32		asc. node	3317 Feb 01 15:11	1° K 15'10	
evening max el	3316 Feb 16 17:37	15° K 34'02	18°28'32	retrograde	3317 Feb 06 01:27	2° K 58'12	
retrograde	3316 Feb 23 06:07	19° K 08'14		evening set	3317 Feb 09 09:51	1° K 52'58	
evening set	3316 Feb 26 08:02	18° K 15'35			3317 Feb 11 15:50	30° R A	

inferior conj	3317 Feb 14 23:45	26°05'24	3°25'03	asc. node	3318 Jan 19 12:13	16°47'51	
minimum elong	3317 Feb 14 21:56	26°11'11	3°24'48	retrograde	3318 Jan 20 23:08	16°59'24	
min. Earth dist.	3317 Feb 16 12:06	24°10'07	0.65946 AU	evening set	3318 Jan 24 15:26	15°40'23	
morning rise	3317 Feb 20 09:41	19°52'35		inferior conj	3318 Jan 30 01:41	9°38'50	3°00'21
direct	3317 Feb 26 20:17	17°02'50		minimum elong	3318 Jan 29 23:15	9°46'57	2°59'47
desc. node	3317 Mar 11 02:03	24°02'43		min. Earth dist.	3318 Jan 30 23:51	8°24'37	0.67008 AU
morning max el	3317 Mar 11 16:59	24°39'52	26°27'27	morning rise	3318 Feb 04 06:50	3°25'08	
	3317 Mar 16 12:55	0°✕		direct	3318 Feb 10 04:52	0°46'29	
	3317 Apr 06 07:40	0°Ÿ		morning max el	3318 Feb 22 01:45	7°51'53	25°10'30
morning set	3317 Apr 16 18:16	18°Ÿ28'50		desc. node	3318 Feb 25 23:05	12°06'26	
max. Earth dist.	3317 Apr 20 20:59	26°Ÿ24'13	1.34821 AU		3318 Mar 11 09:26	0°✕	
	3317 Apr 22 16:24	0°8			3318 Mar 29 20:30	0°Ÿ	
				morning set	3318 Mar 30 06:29	0°Ÿ44'41	
superior conj	3317 Apr 25 14:00	5°853'35	-0°50'22	max. Earth dist.	3318 Apr 02 22:12	7°Ÿ25'57	1.36609 AU
minimum elong	3317 Apr 25 16:39	6°807'10	0°49'52				
asc. node	3317 Apr 30 14:30	16°820'15		superior conj	3318 Apr 09 03:06	19°Ÿ21'16	-1°18'17
evening rise	3317 May 03 05:37	21°848'45		minimum elong	3318 Apr 09 07:06	19°Ÿ41'03	1°17'40
	3317 May 07 06:51	0°II			3318 Apr 14 10:26	0°8	
evening max el	3317 May 22 04:02	22°II35'21	20°49'21	evening rise	3318 Apr 17 09:40	6°800'28	
retrograde	3317 Jun 02 15:26	28°II11'33		asc. node	3318 Apr 17 11:32	6°809'51	
evening set	3317 Jun 04 18:02	28°II00'56			3318 May 01 02:36	0°II	
desc. node	3317 Jun 07 01:14	27°II26'47		evening max el	3318 May 04 16:04	4°II03'29	19°38'50
inferior conj	3317 Jun 14 01:29	24°II03'27	-2°02'34	retrograde	3318 May 14 09:23	8°II46'26	
minimum elong	3317 Jun 13 19:45	24°II11'36	2°00'33	evening set	3318 May 16 09:03	8°II35'30	
min. Earth dist.	3317 Jun 14 22:23	23°II33'41	0.54888 AU	desc. node	3318 May 24 22:17	4°II39'18	
morning rise	3317 Jun 22 21:07	19°II59'11		inferior conj	3318 May 25 02:41	4°II32'23	-0°03'14
direct	3317 Jun 26 11:13	19°II31'26		minimum elong	3318 May 25 02:32	4°II32'36	0°03'11
morning max el	3317 Jul 09 13:29	25°II48'38	22°56'52	transit middle	3318 May 25 02:32	4°II32'36	0°03'11
	3317 Jul 13 12:24	0°8		transit begin	3318 May 24 12:41	4°II38'39	
asc. node	3317 Jul 27 13:47	22°815'32		transit end	3318 May 25 06:23	4°II26'33	
	3317 Jul 31 09:48	0°8		min. Earth dist.	3318 May 27 12:09	3°II02'22	0.55653 AU
morning set	3317 Aug 01 06:33	1°848'31		morning rise	3318 Jun 02 17:29	29°858'11	
					3318 Jun 02 15:15	30°88	
superior conj	3317 Aug 08 08:34	16°857'27	1°36'25	direct	3318 Jun 07 04:20	29°813'54	
minimum elong	3317 Aug 08 06:45	16°847'49	1°36'17		3318 Jun 11 16:22	0°II	
max. Earth dist.	3317 Aug 11 04:20	22°855'51	1.33853 AU	morning max el	3318 Jun 21 03:48	6°II14'17	24°39'33
	3317 Aug 14 14:57	0°8			3318 Jul 08 06:40	0°8	
evening rise	3317 Aug 16 02:10	2°855'34		asc. node	3318 Jul 14 10:49	11°853'52	
	3317 Aug 31 09:51	0°8		morning set	3318 Jul 16 18:20	16°842'56	
desc. node	3317 Sep 03 00:35	3°859'30			3318 Jul 22 21:41	0°8	
evening max el	3317 Sep 19 12:36	24°834'12	27°15'35				
	3317 Sep 26 14:09	0°8		superior conj	3318 Jul 23 17:32	1°848'13	1°23'52
retrograde	3317 Oct 02 23:00	1°852'39		minimum elong	3318 Jul 23 15:14	1°835'41	1°23'34
	3317 Oct 08 18:52	30°88		max. Earth dist.	3318 Jul 25 08:17	5°818'28	1.32857 AU
evening set	3317 Oct 09 22:30	29°810'36		evening rise	3318 Jul 30 23:29	17°810'55	
min. Earth dist.	3317 Oct 13 17:51	25°835'32	0.64753 AU		3318 Aug 06 13:42	0°8	
inferior conj	3317 Oct 15 23:33	23°808'47	-2°28'57	desc. node	3318 Aug 20 21:36	23°816'34	
minimum elong	3317 Oct 16 03:40	22°857'31	2°27'23		3318 Aug 25 23:56	0°8	
morning rise	3317 Oct 22 09:55	17°838'57		evening max el	3318 Sep 01 23:05	7°838'04	27°26'06
asc. node	3317 Oct 23 12:58	17°814'45		retrograde	3318 Sep 15 16:16	14°854'17	
direct	3317 Oct 25 00:50	17°802'58		evening set	3318 Sep 22 20:53	12°820'30	
morning max el	3317 Oct 31 12:42	20°830'20	18°00'36	min. Earth dist.	3318 Sep 26 12:00	9°816'50	0.63096 AU
	3317 Nov 07 17:40	0°8		inferior conj	3318 Sep 29 05:45	6°835'29	-3°27'39
morning set	3317 Nov 18 03:45	17°806'13		minimum elong	3318 Sep 29 11:11	6°822'06	3°25'58
	3317 Nov 25 22:26	0°8		morning rise	3318 Oct 06 02:55	1°822'46	
desc. node	3317 Nov 29 23:53	6°835'36		direct	3318 Oct 08 13:28	0°854'46	
				asc. node	3318 Oct 10 10:01	1°811'22	
superior conj	3317 Dec 01 22:40	9°843'23	-0°13'17	morning max el	3318 Oct 15 05:07	4°820'48	17°50'37
minimum elong	3317 Dec 01 21:02	9°836'53	0°13'04	morning set	3318 Oct 31 12:08	29°833'34	
behind sun begin	3317 Dec 01 14:45	9°811'42			3318 Oct 31 18:09	0°8	
behind sun end	3317 Dec 02 03:19	10°802'02					
max. Earth dist.	3317 Dec 06 03:37	16°824'29	1.44881 AU	superior conj	3318 Nov 12 07:21	19°851'38	0°31'11
	3317 Dec 14 20:21	0°8		minimum elong	3318 Nov 12 10:22	20°804'12	0°30'45
evening rise	3317 Dec 18 06:04	5°815'45		desc. node	3318 Nov 16 20:55	27°822'34	
greatest brilliancy	3318 Jan 01 09:10	26°844'30	-0.6m		3318 Nov 18 11:50	0°8	
	3318 Jan 03 14:39	0°8		max. Earth dist.	3318 Nov 18 20:30	0°834'51	1.43843 AU
evening max el	3318 Jan 13 08:31	12°833'09	19°57'59	evening rise	3318 Nov 27 15:13	14°824'27	

	3318 Dec 07 22:14	0°♄			3319 Dec 01 23:10	0°♄	
evening max el	3318 Dec 27 08:26	26°♄05'31	21°04'00	evening max el	3319 Dec 10 02:56	9°♄38'53	22°19'30
	3319 Jan 01 02:43	0°♄		retrograde	3319 Dec 19 17:13	15°♄21'18	
retrograde	3319 Jan 04 20:58	1°♄08'24		evening set	3319 Dec 24 06:29	13°♄30'58	
asc. node	3319 Jan 06 09:16	0°♄55'49		asc. node	3319 Dec 24 06:19	13°♄31'18	
	3319 Jan 08 08:35	30°♄		inferior conj	3319 Dec 29 14:59	7°♄10'18	1°44'38
evening set	3319 Jan 08 22:54	29°♄34'15		minimum elong	3319 Dec 29 12:52	7°♄17'37	1°43'52
inferior conj	3319 Jan 14 07:27	23°♄21'30	2°26'20	min. Earth dist.	3319 Dec 29 12:53	7°♄17'34	0.67940 AU
minimum elong	3319 Jan 14 04:56	23°♄30'08	2°25'33	morning rise	3320 Jan 03 19:08	0°♄59'57	
min. Earth dist.	3319 Jan 14 16:53	22°♄48'59	0.67664 AU		3320 Jan 05 04:29	30°♄	
morning rise	3319 Jan 19 10:48	17°♄08'41		direct	3320 Jan 08 11:41	29°♄02'41	
direct	3319 Jan 24 18:17	14°♄48'53			3320 Jan 12 01:28	0°♄	
morning max el	3319 Feb 04 10:16	21°♄10'01	23°43'09	morning max el	3320 Jan 17 21:34	4°♄34'56	22°15'04
	3319 Feb 12 00:59	0°♄		desc. node	3320 Jan 30 17:10	20°♄33'16	
desc. node	3319 Feb 12 20:08	1°♄01'37			3320 Feb 06 06:37	0°♄	
	3319 Mar 04 15:46	0°♄		morning set	3320 Feb 20 05:44	21°♄37'15	
morning set	3319 Mar 11 20:10	11°♄52'00			3320 Feb 25 07:34	0°♄	
max. Earth dist.	3319 Mar 15 17:38	18°♄37'27	1.38710 AU	max. Earth dist.	3320 Feb 25 14:53	0°♄30'44	1.40873 AU
	3319 Mar 21 23:57	0°♄					
superior conj	3319 Mar 23 03:14	2°♄07'49	-1°42'54	superior conj	3320 Mar 04 09:37	14°♄00'47	-2°00'39
minimum elong	3319 Mar 23 07:49	2°♄29'26	1°42'24	minimum elong	3320 Mar 04 13:02	14°♄16'02	2°00'27
evening rise	3319 Apr 01 06:23	19°♄45'54		evening rise	3320 Mar 14 16:23	2°♄56'09	
asc. node	3319 Apr 04 08:35	25°♄44'11		asc. node	3320 Mar 21 05:37	14°♄56'58	
	3319 Apr 06 15:11	0°♄		evening max el	3320 Mar 30 21:45	28°♄50'49	18°17'42
evening max el	3319 Apr 17 15:00	16°♄11'15	18°48'08		3320 Apr 01 04:37	0°♄	
retrograde	3319 Apr 25 19:50	20°♄11'40		retrograde	3320 Apr 07 01:31	2°♄24'55	
evening set	3319 Apr 28 00:30	19°♄55'34		evening set	3320 Apr 09 12:29	2°♄00'38	
inferior conj	3319 May 05 22:27	15°♄35'27	1°37'48		3320 Apr 13 07:31	30°♄	
minimum elong	3319 May 06 01:46	15°♄29'22	1°36'44	inferior conj	3320 Apr 16 15:43	27°♄20'03	2°46'47
min. Earth dist.	3319 May 09 04:34	13°♄13'49	0.57217 AU	minimum elong	3320 Apr 16 19:19	27°♄12'21	2°45'57
desc. node	3319 May 11 19:18	11°♄33'06		min. Earth dist.	3320 Apr 20 01:56	24°♄25'32	0.59253 AU
morning rise	3319 May 13 23:53	10°♄26'22		morning rise	3320 Apr 23 23:28	21°♄42'17	
direct	3319 May 19 10:56	9°♄13'57		desc. node	3320 Apr 27 16:20	20°♄12'48	
morning max el	3319 Jun 02 19:02	16°♄43'23	26°11'35	direct	3320 Apr 30 06:47	19°♄54'25	
	3319 Jun 13 15:56	0°♄		morning max el	3320 May 14 15:44	27°♄41'51	27°18'01
	3319 Jun 30 11:27	0°♄			3320 May 16 21:09	0°♄	
morning set	3319 Jul 01 05:24	1°♄34'15		morning set	3320 Jun 06 06:44	0°♄	
asc. node	3319 Jul 01 07:52	1°♄47'12		asc. node	3320 Jun 14 14:06	16°♄17'07	
					3320 Jun 17 04:55	21°♄50'23	
superior conj	3319 Jul 08 04:49	16°♄43'49	1°06'44		3320 Jun 20 22:43	0°♄	
minimum elong	3319 Jul 08 02:31	16°♄31'08	1°06'20	superior conj	3320 Jun 21 16:36	1°♄38'35	0°45'42
max. Earth dist.	3319 Jul 08 18:06	17°♄56'57	1.32268 AU	minimum elong	3320 Jun 21 14:45	1°♄28'24	0°45'21
	3319 Jul 14 07:43	0°♄		max. Earth dist.	3320 Jun 21 06:06	0°♄40'43	1.32073 AU
evening rise	3319 Jul 15 03:51	1°♄45'42		evening rise	3320 Jun 28 12:44	16°♄32'05	
	3319 Jul 30 12:24	0°♄			3320 Jul 05 05:19	0°♄	
desc. node	3319 Aug 07 18:37	11°♄46'23		desc. node	3320 Jul 24 15:38	29°♄09'49	
evening max el	3319 Aug 15 05:06	20°♄04'15	27°04'06		3320 Jul 25 10:34	0°♄	
retrograde	3319 Aug 29 02:06	27°♄16'44		evening max el	3320 Jul 27 04:08	1°♄43'32	26°09'13
evening set	3319 Sep 05 03:34	25°♄03'35		retrograde	3320 Aug 10 03:36	8°♄53'12	
min. Earth dist.	3319 Sep 08 19:22	22°♄22'00	0.61163 AU	evening set	3320 Aug 16 13:48	7°♄12'40	
inferior conj	3319 Sep 11 22:56	19°♄38'38	-4°19'39	min. Earth dist.	3320 Aug 20 16:50	4°♄37'13	0.59094 AU
minimum elong	3319 Sep 12 04:33	19°♄26'27	4°18'26	inferior conj	3320 Aug 23 23:36	2°♄09'09	-4°56'33
morning rise	3319 Sep 19 07:18	14°♄46'37		minimum elong	3320 Aug 24 03:08	2°♄02'26	4°56'11
direct	3319 Sep 21 16:25	14°♄23'38			3320 Aug 26 23:27	30°♄	
asc. node	3319 Sep 27 07:05	16°♄36'50		morning rise	3320 Aug 31 18:40	27°♄40'13	
morning max el	3319 Sep 28 19:15	17°♄56'26	17°59'18	direct	3320 Sep 03 05:13	27°♄19'59	
	3319 Oct 07 10:41	0°♄			3320 Sep 09 20:28	0°♄	
morning set	3319 Oct 14 14:34	12°♄52'09		morning max el	3320 Sep 11 03:55	1°♄09'16	18°27'53
	3319 Oct 24 01:03	0°♄		asc. node	3320 Sep 13 04:08	3°♄17'50	
superior conj	3319 Oct 24 18:52	1°♄18'27	1°05'37	morning set	3320 Sep 27 05:45	26°♄47'21	
minimum elong	3319 Oct 24 23:11	1°♄37'20	1°05'05		3320 Sep 28 21:46	0°♄	
max. Earth dist.	3319 Nov 01 08:59	14°♄15'26	1.42236 AU	superior conj	3320 Oct 06 05:22	13°♄53'05	1°28'35
desc. node	3319 Nov 03 17:57	18°♄09'29		minimum elong	3320 Oct 06 08:45	14°♄08'45	1°28'16
evening rise	3319 Nov 07 09:19	24°♄00'54		max. Earth dist.	3320 Oct 13 15:56	27°♄13'09	1.40265 AU
	3319 Nov 11 04:51	0°♄					

	3320 Oct 15 06:47	0°♄			3321 Oct 07 19:42	0°♄	
evening rise	3320 Oct 18 00:04	4°♄34'45			3321 Oct 28 23:20	0°♄	
desc. node	3320 Oct 20 14:59	8°♄53'13		evening max el	3321 Nov 04 05:48	6°♄55'00	24°57'08
	3320 Nov 03 09:56	0°♄		retrograde	3321 Nov 15 23:48	13°♄44'18	
evening max el	3320 Nov 21 17:20	23°♄15'08	23°39'19	evening set	3321 Nov 21 15:41	11°♄22'14	
retrograde	3320 Dec 02 10:32	29°♄34'52		min. Earth dist.	3321 Nov 26 04:37	6°♄15'29	0.67430 AU
evening set	3320 Dec 07 12:38	27°♄28'08		inferior conj	3321 Nov 27 04:10	4°♄57'58	0°03'14
asc. node	3320 Dec 10 03:21	24°♄44'37		minimum elong	3321 Nov 27 04:05	4°♄58'15	0°03'12
inferior conj	3320 Dec 12 22:29	21°♄03'27	0°56'35	transit middle	3321 Nov 27 04:05	4°♄58'15	0°03'12
minimum elong	3320 Dec 12 21:12	21°♄07'51	0°56'03	transit begin	3321 Nov 27 01:22	5°♄07'11	
min. Earth dist.	3320 Dec 12 09:36	21°♄47'28	0.67857 AU	transit end	3321 Nov 27 06:47	4°♄49'19	
morning rise	3320 Dec 18 05:45	14°♄57'20		asc. node	3321 Nov 27 00:23	5°♄10'26	
direct	3320 Dec 22 08:08	13°♄22'53			3321 Dec 01 09:56	30°♄	
morning max el	3320 Dec 30 15:00	18°♄10'12	20°54'04	morning rise	3321 Dec 02 16:39	28°♄58'19	
	3321 Jan 09 05:43	0°♄		direct	3321 Dec 06 06:27	27°♄44'38	
desc. node	3321 Jan 16 14:13	10°♄31'34			3321 Dec 11 12:40	0°♄	
	3321 Jan 29 10:03	0°♄		morning max el	3321 Dec 13 16:12	1°♄56'15	19°45'24
morning set	3321 Jan 29 12:24	0°♄09'11		greatest brilliancy	3321 Dec 26 22:04	19°♄25'24	-0.7m
max. Earth dist.	3321 Feb 06 18:36	13°♄18'22	1.42811 AU		3322 Jan 02 22:27	0°♄	
				desc. node	3322 Jan 03 11:17	0°♄49'00	
superior conj	3321 Feb 13 17:11	24°♄49'03	-2°06'43	morning set	3322 Jan 08 08:29	8°♄19'12	
minimum elong	3321 Feb 13 16:40	24°♄46'50	2°06'43	max. Earth dist.	3322 Jan 20 05:40	26°♄54'40	1.44274 AU
	3321 Feb 16 18:01	0°♄			3322 Jan 22 04:10	0°♄	
evening rise	3321 Feb 25 11:44	15°♄22'36					
	3321 Mar 05 19:56	0°♄		superior conj	3322 Jan 24 22:50	4°♄27'54	-1°55'55
asc. node	3321 Mar 08 02:39	3°♄41'13		minimum elong	3322 Jan 24 16:28	4°♄02'14	1°55'33
evening max el	3321 Mar 14 09:01	11°♄53'31	18°07'02	evening rise	3322 Feb 07 12:02	26°♄57'04	
retrograde	3321 Mar 20 23:08	15°♄16'55			3322 Feb 09 07:06	0°♄	
evening set	3321 Mar 23 16:02	14°♄42'30		asc. node	3322 Feb 22 23:40	21°♄48'13	
inferior conj	3321 Mar 30 04:10	9°♄41'34	3°24'55	evening max el	3322 Feb 25 21:46	25°♄11'37	18°15'27
minimum elong	3321 Mar 30 06:16	9°♄36'23	3°24'40	retrograde	3322 Mar 04 08:17	28°♄38'06	
min. Earth dist.	3321 Apr 02 06:46	6°♄38'52	0.61424 AU	evening set	3322 Mar 07 06:50	27°♄52'23	
morning rise	3321 Apr 05 18:44	3°♄45'31		inferior conj	3322 Mar 13 07:46	22°♄32'03	3°38'38
direct	3321 Apr 12 13:56	1°♄24'24		minimum elong	3322 Mar 13 08:02	22°♄31'19	3°38'38
desc. node	3321 Apr 14 13:23	1°♄35'35		min. Earth dist.	3322 Mar 15 20:32	19°♄44'13	0.63451 AU
morning max el	3321 Apr 26 18:44	9°♄21'18	27°49'09	morning rise	3322 Mar 19 08:16	16°♄26'06	
	3321 May 12 17:20	0°♄		direct	3322 Mar 26 06:02	13°♄42'44	
	3321 May 29 09:44	0°♄		desc. node	3322 Apr 01 10:25	15°♄32'53	
morning set	3321 May 29 18:26	0°♄44'31		morning max el	3322 Apr 09 02:20	21°♄40'09	27°42'50
asc. node	3321 Jun 04 01:56	11°♄58'09			3322 Apr 16 08:54	0°♄	
max. Earth dist.	3321 Jun 04 16:17	13°♄15'58	1.32281 AU		3322 May 05 20:26	0°♄	
				morning set	3322 May 13 16:09	14°♄49'07	
superior conj	3321 Jun 06 03:08	16°♄25'59	0°21'26	max. Earth dist.	3322 May 18 20:44	25°♄30'03	1.32914 AU
minimum elong	3321 Jun 06 02:10	16°♄20'40	0°21'13		3322 May 20 23:26	0°♄	
	3321 Jun 12 08:33	0°♄					
evening rise	3321 Jun 12 23:59	1°♄22'25		superior conj	3322 May 21 10:40	1°♄00'20	-0°05'24
	3321 Jun 28 14:17	0°♄		minimum elong	3322 May 21 10:56	1°♄01'47	0°05'20
evening max el	3321 Jul 08 20:07	12°♄37'11	24°47'30	behind sun begin	3322 May 21 05:55	0°♄34'46	
desc. node	3321 Jul 11 12:39	14°♄59'19		behind sun end	3322 May 21 15:57	1°♄28'48	
retrograde	3321 Jul 22 18:41	19°♄40'36		asc. node	3322 May 21 22:58	2°♄06'35	
evening set	3321 Jul 28 00:01	18°♄38'48		evening rise	3322 May 28 11:47	16°♄10'37	
min. Earth dist.	3321 Aug 02 07:28	15°♄50'33	0.57140 AU		3322 Jun 04 08:54	0°♄	
inferior conj	3321 Aug 05 04:39	13°♄57'18	-5°05'25	evening max el	3322 Jun 20 09:26	23°♄05'08	23°11'53
minimum elong	3321 Aug 05 03:16	13°♄59'34	5°05'22	desc. node	3322 Jun 28 09:38	28°♄40'48	
morning rise	3321 Aug 13 09:07	9°♄50'07		retrograde	3322 Jul 03 21:01	29°♄49'00	
direct	3321 Aug 15 23:39	9°♄30'58		evening set	3322 Jul 07 14:01	29°♄18'55	
morning max el	3321 Aug 25 03:51	13°♄48'34	19°17'36	min. Earth dist.	3322 Jul 14 18:57	26°♄03'13	0.55638 AU
asc. node	3321 Aug 31 01:11	20°♄58'18		inferior conj	3322 Jul 16 13:59	25°♄00'18	-4°31'08
	3321 Sep 05 11:14	0°♄		minimum elong	3322 Jul 16 07:04	25°♄10'27	4°29'52
morning set	3321 Sep 11 05:44	11°♄07'30		morning rise	3322 Jul 25 02:30	21°♄07'15	
				direct	3322 Jul 27 23:19	20°♄47'28	
superior conj	3321 Sep 19 09:10	27°♄18'27	1°41'06	morning max el	3322 Aug 07 16:30	25°♄45'45	20°28'47
minimum elong	3321 Sep 19 10:51	27°♄26'36	1°41'01		3322 Aug 11 13:54	0°♄	
	3321 Sep 20 18:34	0°♄		asc. node	3322 Aug 17 22:13	9°♄24'56	
max. Earth dist.	3321 Sep 25 19:49	9°♄28'31	1.38187 AU	morning set	3322 Aug 26 11:38	25°♄45'09	
evening rise	3321 Sep 29 14:22	16°♄13'33			3322 Aug 28 13:09	0°♄	
desc. node	3321 Oct 07 12:00	29°♄29'08					

superior conj	3322 Sep 03 01:27	11° \mathbb{M} 20'52	1°44'48	minimum elong	3323 Aug 18 01:09	25° Ω 42'40	1°41'11
minimum elong	3322 Sep 03 01:27	11° \mathbb{M} 20'52	1°44'48		3323 Aug 20 02:27	0° \mathbb{M}	
max. Earth dist.	3322 Sep 08 02:28	21° \mathbb{M} 21'37	1.36250 AU	max. Earth dist.	3323 Aug 21 16:54	3° \mathbb{M} 17'35	1.34618 AU
evening rise	3322 Sep 12 01:35	28° \mathbb{M} 51'05		evening rise	3323 Aug 26 05:17	12° \mathbb{M} 15'55	
	3322 Sep 12 16:36	0° Ω			3323 Sep 05 01:04	0° Ω	
desc. node	3322 Sep 24 09:00	19° Ω 52'31		desc. node	3323 Sep 11 05:59	9° Ω 57'28	
	3322 Oct 01 02:00	0° \mathbb{M}			3323 Sep 26 05:43	0° \mathbb{M}	
evening max el	3322 Oct 17 18:08	20° \mathbb{M} 36'28	26°05'28	evening max el	3323 Sep 30 06:43	4° \mathbb{M} 12'35	26°56'42
retrograde	3322 Oct 30 08:05	27° \mathbb{M} 44'15		retrograde	3323 Oct 13 10:52	11° \mathbb{M} 28'50	
evening set	3322 Nov 05 13:49	25° \mathbb{M} 09'44		evening set	3323 Oct 20 04:59	8° \mathbb{M} 47'09	
min. Earth dist.	3322 Nov 09 19:31	20° \mathbb{M} 38'24	0.66664 AU	min. Earth dist.	3323 Oct 24 03:54	4° \mathbb{M} 52'03	0.65552 AU
inferior conj	3322 Nov 11 06:10	18° \mathbb{M} 50'40	-0°54'12	inferior conj	3323 Oct 26 02:28	2° \mathbb{M} 38'01	-1°54'08
minimum elong	3322 Nov 11 07:36	18° \mathbb{M} 46'11	0°53'35	minimum elong	3323 Oct 26 05:37	2° \mathbb{M} 28'56	1°52'52
asc. node	3322 Nov 13 21:26	15° \mathbb{M} 43'33			3323 Oct 28 11:42	30° \mathbb{R} Ω	
morning rise	3322 Nov 17 01:49	13° \mathbb{M} 00'10		asc. node	3323 Oct 31 18:29	27° Ω 16'56	
direct	3322 Nov 20 05:01	12° \mathbb{M} 04'01		morning rise	3323 Nov 01 07:02	26° Ω 59'47	
morning max el	3322 Nov 27 00:38	15° \mathbb{M} 50'29	18°51'46	direct	3323 Nov 04 01:50	26° Ω 17'26	
	3322 Dec 07 15:51	0° \mathbb{M}		morning max el	3323 Nov 10 14:26	29° Ω 48'55	18°14'29
morning set	3322 Dec 18 19:13	17° \mathbb{M} 19'56			3323 Nov 10 18:49	0° \mathbb{M}	
desc. node	3322 Dec 21 08:18	21° \mathbb{M} 19'42		morning set	3323 Nov 29 10:32	27° \mathbb{M} 48'03	
	3322 Dec 26 21:00	0° \mathbb{Z}			3323 Nov 30 18:56	0° \mathbb{M}	
max. Earth dist.	3323 Jan 02 22:28	11° \mathbb{Z} 04'41	1.45090 AU	desc. node	3323 Dec 08 05:19	11° \mathbb{M} 59'43	
superior conj	3323 Jan 04 06:43	13° \mathbb{Z} 11'26	-1°25'45	superior conj	3323 Dec 14 09:22	21° \mathbb{M} 47'20	-0°41'06
minimum elong	3323 Jan 03 21:36	12° \mathbb{Z} 35'37	1°24'48	minimum elong	3323 Dec 14 04:08	21° \mathbb{M} 26'43	0°40'24
	3323 Jan 14 20:56	0° \approx		max. Earth dist.	3323 Dec 16 18:04	25° \mathbb{M} 30'30	1.45169 AU
evening rise	3323 Jan 19 13:40	7° \approx 33'52			3323 Dec 19 14:47	0° \mathbb{Z}	
	3323 Feb 02 16:23	0° \mathbb{H}		evening rise	3323 Dec 30 16:41	17° \mathbb{Z} 17'58	
evening max el	3323 Feb 09 09:15	8° \mathbb{H} 37'45	18°42'07		3324 Jan 07 20:37	0° \approx	
asc. node	3323 Feb 09 20:42	9° \mathbb{H} 06'10		greatest brilliancy	3324 Jan 11 11:28	5° \approx 33'14	-0.7m
retrograde	3323 Feb 16 00:49	12° \mathbb{H} 19'32		evening max el	3324 Jan 23 17:16	22° \approx 07'45	19°25'49
evening set	3323 Feb 19 05:27	11° \mathbb{H} 21'32		asc. node	3324 Jan 27 17:44	25° \approx 21'52	
inferior conj	3323 Feb 24 22:32	5° \mathbb{H} 43'19	3°34'06	retrograde	3324 Jan 30 21:31	26° \approx 15'20	
minimum elong	3323 Feb 24 21:19	5° \mathbb{H} 47'01	3°34'00	evening set	3324 Feb 03 09:10	25° \approx 04'11	
min. Earth dist.	3323 Feb 26 19:38	3° \mathbb{H} 26'23	0.65154 AU	inferior conj	3324 Feb 08 21:13	19° \approx 10'10	3°15'52
	3323 Mar 02 00:22	30° \mathbb{R} \approx		minimum elong	3324 Feb 08 19:05	19° \approx 17'10	3°15'28
morning rise	3323 Mar 02 12:45	29° \approx 32'22		min. Earth dist.	3324 Feb 10 03:15	17° \approx 32'25	0.66450 AU
direct	3323 Mar 09 05:06	26° \approx 41'11		morning rise	3324 Feb 14 04:45	12° \approx 56'56	
	3323 Mar 17 09:50	0° \mathbb{H}		direct	3324 Feb 20 10:20	10° \approx 11'01	
desc. node	3323 Mar 19 07:28	1° \mathbb{H} 30'28		morning max el	3324 Mar 03 21:36	17° \approx 35'41	25°56'44
morning max el	3323 Mar 22 11:59	4° \mathbb{H} 28'32	27°02'51	desc. node	3324 Mar 05 04:32	18° \approx 55'54	
	3323 Apr 10 21:16	0° \mathbb{Y}			3324 Mar 14 07:11	0° \mathbb{H}	
morning set	3323 Apr 27 04:12	28° \mathbb{Y} 20'59			3324 Apr 02 20:29	0° \mathbb{Y}	
	3323 Apr 28 00:39	0° \mathbb{Z}		morning set	3324 Apr 09 02:37	11° \mathbb{Y} 08'57	
max. Earth dist.	3323 May 01 15:52	7° \mathbb{Z} 13'34	1.34000 AU	max. Earth dist.	3324 Apr 12 23:42	18° \mathbb{Y} 27'47	1.35542 AU
superior conj	3323 May 05 13:06	15° \mathbb{Z} 14'34	-0°33'47	superior conj	3324 Apr 18 07:58	29° \mathbb{Y} 01'43	-1°02'26
minimum elong	3323 May 05 14:51	15° \mathbb{Z} 23'44	0°33'26	minimum elong	3324 Apr 18 11:14	29° \mathbb{Y} 18'16	1°01'51
asc. node	3323 May 08 20:00	22° \mathbb{Z} 10'58			3324 Apr 18 19:28	0° \mathbb{Z}	
evening rise	3323 May 12 22:14	0° \mathbb{II} 49'48		asc. node	3324 Apr 24 17:02	12° \mathbb{Z} 07'28	
	3323 May 12 12:43	0° \mathbb{II}		evening rise	3324 Apr 26 05:19	15° \mathbb{Z} 13'56	
	3323 May 29 19:57	0° \mathbb{E}			3324 May 03 20:11	0° \mathbb{II}	
evening max el	3323 Jun 02 03:34	3° \mathbb{E} 38'04	21°37'46	evening max el	3324 May 14 08:28	14° \mathbb{II} 42'33	20°16'52
retrograde	3323 Jun 14 12:11	9° \mathbb{E} 43'07		retrograde	3324 May 25 01:53	19° \mathbb{II} 55'53	
desc. node	3323 Jun 15 06:38	9° \mathbb{E} 41'45		evening set	3324 May 27 01:45	19° \mathbb{II} 45'49	
evening set	3323 Jun 17 00:11	9° \mathbb{E} 28'59		desc. node	3324 Jun 01 03:41	18° \mathbb{II} 01'18	
inferior conj	3323 Jun 26 09:34	5° \mathbb{E} 27'48	-3°07'27	inferior conj	3324 Jun 05 04:33	15° \mathbb{II} 47'19	-1°11'23
minimum elong	3323 Jun 26 01:38	5° \mathbb{E} 38'53	3°05'00	minimum elong	3324 Jun 05 01:12	15° \mathbb{II} 52'16	1°10'08
min. Earth dist.	3323 Jun 26 05:55	5° \mathbb{E} 32'53	0.54898 AU	min. Earth dist.	3324 Jun 06 18:18	14° \mathbb{II} 51'50	0.55106 AU
morning rise	3323 Jul 05 04:08	1° \mathbb{E} 33'49		morning rise	3324 Jun 13 23:21	11° \mathbb{II} 32'10	
direct	3323 Jul 08 10:24	1° \mathbb{E} 10'36		direct	3324 Jun 17 21:20	10° \mathbb{II} 58'59	
morning max el	3323 Jul 20 17:35	6° \mathbb{E} 58'04	21°59'06	morning max el	3324 Jul 01 10:22	17° \mathbb{II} 35'22	23°40'55
asc. node	3323 Aug 04 19:16	28° \mathbb{E} 26'32			3324 Jul 11 12:29	0° \mathbb{E}	
	3323 Aug 05 15:02	0° Ω		asc. node	3324 Jul 21 16:18	17° \mathbb{E} 53'54	
morning set	3323 Aug 10 21:17	10° Ω 34'15		morning set	3324 Jul 25 08:48	25° \mathbb{E} 28'45	
					3324 Jul 27 11:43	0° Ω	
superior conj	3323 Aug 18 02:26	25° Ω 49'26	1°41'15				

superior conj	3324 Aug 01 09:11	10°♊34'43	1°31'42	asc. node	3325 Jul 08 13:21	7°♊40'01	
minimum elong	3324 Aug 01 07:07	10°♊23'31	1°31'29	morning set	3325 Jul 09 20:32	10°♊23'30	
max. Earth dist.	3324 Aug 03 16:19	15°♊29'49	1.33378 AU				
evening rise	3324 Aug 08 21:13	26°♊15'58		superior conj	3325 Jul 16 19:27	25°♊29'26	1°17'07
	3324 Aug 10 18:29	0°♊		minimum elong	3325 Jul 16 17:05	25°♊16'30	1°16'47
desc. node	3324 Aug 28 03:00	29°♊35'27		max. Earth dist.	3325 Jul 17 23:05	28°♊00'29	1.32554 AU
	3324 Aug 28 09:45	0°♊			3325 Jul 18 21:03	0°♊	
evening max el	3324 Sep 11 18:19	17°♊31'15	27°23'45	evening rise	3325 Jul 23 21:55	10°♊41'24	
retrograde	3324 Sep 25 07:45	24°♊49'09			3325 Aug 03 00:41	0°♊	
evening set	3324 Oct 02 10:27	22°♊08'54		desc. node	3325 Aug 15 00:02	18°♊35'06	
min. Earth dist.	3324 Oct 06 03:34	18°♊48'18	0.64088 AU		3325 Aug 24 18:29	0°♊	
inferior conj	3324 Oct 08 14:36	16°♊14'00	-2°54'18	evening max el	3325 Aug 25 03:01	0°♊20'22	27°20'44
minimum elong	3324 Oct 08 19:22	16°♊01'31	2°52'38	retrograde	3325 Sep 07 22:17	7°♊35'53	
morning rise	3324 Oct 15 05:29	10°♊51'18		evening set	3325 Sep 15 02:46	5°♊08'59	
direct	3324 Oct 17 18:16	10°♊19'06		min. Earth dist.	3325 Sep 18 17:08	2°♊16'23	0.62303 AU
asc. node	3324 Oct 17 15:33	10°♊19'10			3325 Sep 21 03:45	30°♊	
morning max el	3324 Oct 24 06:48	13°♊44'37	17°54'15	inferior conj	3325 Sep 21 15:41	29°♊31'58	-3°50'57
	3324 Nov 04 14:02	0°♊		minimum elong	3325 Sep 21 21:24	29°♊18'36	3°49'23
morning set	3324 Nov 10 05:34	9°♊36'43		morning rise	3325 Sep 28 17:40	24°♊27'58	
	3324 Nov 22 09:42	0°♊		direct	3325 Oct 01 03:09	24°♊02'34	
				asc. node	3325 Oct 04 12:35	24°♊55'12	
superior conj	3324 Nov 23 03:28	1°♊12'18	0°06'33	morning max el	3325 Oct 07 22:42	27°♊30'30	17°51'57
minimum elong	3324 Nov 23 04:12	1°♊15'17	0°06'27		3325 Oct 10 04:22	0°♊	
behind sun begin	3324 Nov 22 18:55	0°♊37'32		morning set	3325 Oct 23 22:19	22°♊27'44	
behind sun end	3324 Nov 23 13:29	1°♊52'59			3325 Oct 28 03:32	0°♊	
desc. node	3324 Nov 24 02:19	2°♊44'57					
max. Earth dist.	3324 Nov 28 12:32	9°♊50'35	1.44514 AU	superior conj	3325 Nov 03 23:45	11°♊54'45	0°47'10
evening rise	3324 Dec 09 04:08	26°♊28'24		minimum elong	3325 Nov 04 03:41	12°♊11'30	0°46'39
	3324 Dec 11 11:19	0°♊		desc. node	3325 Nov 10 23:21	23°♊32'21	
	3325 Jan 01 00:49	0°♊		max. Earth dist.	3325 Nov 11 03:09	23°♊47'50	1.43215 AU
evening max el	3325 Jan 05 20:13	5°♊38'37	20°24'36		3325 Nov 14 23:45	0°♊	
retrograde	3325 Jan 13 19:38	10°♊20'17		evening rise	3325 Nov 18 15:04	5°♊43'34	
asc. node	3325 Jan 13 14:48	10°♊20'03			3325 Dec 04 19:53	0°♊	
evening set	3325 Jan 17 15:48	8°♊54'53		evening max el	3325 Dec 19 17:37	19°♊10'40	21°35'17
inferior conj	3325 Jan 23 01:04	2°♊47'55	2°46'58	retrograde	3325 Dec 28 17:04	24°♊30'53	
minimum elong	3325 Jan 22 22:33	2°♊56'29	2°46'18	asc. node	3325 Dec 31 11:52	23°♊48'38	
min. Earth dist.	3325 Jan 23 17:35	1°♊51'44	0.67329 AU	evening set	3326 Jan 01 23:30	22°♊50'07	
	3325 Jan 25 03:16	30°♊		inferior conj	3326 Jan 07 07:50	16°♊33'26	2°09'30
morning rise	3325 Jan 28 05:06	26°♊34'16		minimum elong	3326 Jan 07 05:26	16°♊41'44	2°08'42
direct	3325 Feb 02 20:56	24°♊03'11		min. Earth dist.	3326 Jan 07 12:17	16°♊18'00	0.67820 AU
	3325 Feb 13 09:29	0°♊		morning rise	3326 Jan 12 11:11	10°♊21'12	
morning max el	3325 Feb 14 06:16	0°♊51'23	24°34'08	direct	3326 Jan 17 12:14	8°♊10'39	
desc. node	3325 Feb 20 01:34	7°♊23'36		morning max el	3326 Jan 27 15:29	14°♊11'47	23°05'12
	3325 Mar 08 06:22	0°♊		desc. node	3326 Feb 06 22:36	26°♊35'41	
morning set	3325 Mar 22 06:07	22°♊58'20			3326 Feb 09 10:28	0°♊	
max. Earth dist.	3325 Mar 25 21:46	29°♊30'14	1.37472 AU		3326 Mar 01 05:06	0°♊	
	3325 Mar 26 04:17	0°♊		morning set	3326 Mar 03 08:21	3°♊31'48	
				max. Earth dist.	3326 Mar 07 16:31	10°♊53'52	1.39628 AU
superior conj	3325 Apr 01 16:05	12°♊13'21	-1°29'19				
minimum elong	3325 Apr 01 20:28	12°♊34'40	1°28'42	superior conj	3326 Mar 15 09:15	24°♊38'24	-1°51'32
evening rise	3325 Apr 10 06:40	29°♊16'01		minimum elong	3326 Mar 15 13:38	24°♊58'34	1°51'10
	3325 Apr 10 15:31	0°♊			3326 Mar 18 06:21	0°♊	
asc. node	3325 Apr 11 14:05	1°♊51'42		evening rise	3326 Mar 24 23:15	12°♊47'18	
evening max el	3325 Apr 27 01:27	26°♊28'42	19°14'48	asc. node	3326 Mar 29 11:09	21°♊17'44	
	3325 May 02 01:13	0°♊			3326 Apr 03 10:51	0°♊	
retrograde	3325 May 06 02:26	0°♊52'15		evening max el	3326 Apr 10 04:11	8°♊51'33	18°32'51
evening set	3325 May 08 03:30	0°♊39'44		retrograde	3326 Apr 17 20:56	12°♊38'37	
	3325 May 10 08:41	30°♊		evening set	3326 Apr 20 04:14	12°♊19'23	
inferior conj	3325 May 16 12:59	26°♊30'11	0°43'06	inferior conj	3326 Apr 27 17:56	7°♊51'10	2°11'05
minimum elong	3325 May 16 14:44	26°♊27'15	0°42'28	minimum elong	3326 Apr 27 21:42	7°♊43'48	2°10'00
desc. node	3325 May 19 00:44	24°♊50'24		min. Earth dist.	3326 May 01 03:49	5°♊12'27	0.58040 AU
min. Earth dist.	3325 May 19 09:19	24°♊36'29	0.56231 AU	morning rise	3326 May 05 12:02	2°♊28'36	
morning rise	3325 May 24 22:54	21°♊40'35		desc. node	3326 May 05 21:47	2°♊17'03	
direct	3325 May 29 19:46	20°♊45'50		direct	3326 May 11 08:39	1°♊01'09	
morning max el	3325 Jun 13 00:40	28°♊00'51	25°20'58	morning max el	3326 May 25 17:50	8°♊40'11	26°43'36
	3325 Jun 14 23:52	0°♊			3326 Jun 10 20:58	0°♊	
	3325 Jun 04 18:00	0°♊		morning set	3326 Jun 24 06:47	25°♊12'06	

asc. node	3326 Jun 25 10:23	27° Π 38'17		asc. node	3327 Jun 12 07:26	17° Π 43'55	
	3326 Jun 26 12:49	0° \mathfrak{G}		max. Earth dist.	3327 Jun 14 21:48	23° Π 23'47	1.32117 AU
superior conj	3326 Jul 01 07:10	10° \mathfrak{G} 25'52	0°58'17	superior conj	3327 Jun 15 18:37	25° Π 18'10	0°35'48
minimum elong	3326 Jul 01 05:00	10° \mathfrak{G} 13'56	0°57'52	minimum elong	3327 Jun 15 17:06	25° Π 09'47	0°35'28
max. Earth dist.	3326 Jul 01 10:08	10° \mathfrak{G} 42'10	1.32137 AU		3327 Jun 17 21:50	0° \mathfrak{G}	
evening rise	3326 Jul 08 04:29	25° \mathfrak{G} 22'24		evening rise	3327 Jun 22 14:36	10° \mathfrak{G} 11'26	
	3326 Jul 10 10:06	0° \mathcal{O}			3327 Jul 02 18:07	0° \mathcal{O}	
	3326 Jul 27 18:26	0° \mathfrak{M}		desc. node	3327 Jul 19 18:04	23° \mathcal{O} 27'16	
desc. node	3326 Aug 01 21:03	6° \mathfrak{M} 39'49		evening max el	3327 Jul 20 02:24	23° \mathcal{O} 47'20	25°37'06
evening max el	3326 Aug 07 06:21	12° \mathfrak{M} 27'48	26°44'34		3327 Jul 29 06:38	0° \mathfrak{M}	
retrograde	3326 Aug 21 05:00	19° \mathfrak{M} 39'17		retrograde	3327 Aug 03 01:59	0° \mathfrak{M} 54'13	
evening set	3326 Aug 28 01:21	17° \mathfrak{M} 38'59			3327 Aug 07 20:50	30° \mathcal{R} \mathcal{O}	
min. Earth dist.	3326 Aug 31 20:20	15° \mathfrak{M} 01'54	0.60288 AU	evening set	3327 Aug 09 01:28	29° \mathcal{O} 30'23	
inferior conj	3326 Sep 04 02:16	12° \mathfrak{M} 22'44	-4°37'51	min. Earth dist.	3327 Aug 13 14:29	26° \mathcal{O} 51'33	0.58237 AU
minimum elong	3326 Sep 04 07:21	12° \mathfrak{M} 12'19	4°36'58	inferior conj	3327 Aug 16 18:52	24° \mathcal{O} 36'24	-5°04'39
morning rise	3326 Sep 11 15:18	7° \mathfrak{M} 40'11		minimum elong	3327 Aug 16 20:38	24° \mathcal{O} 33'15	5°04'34
direct	3326 Sep 14 00:31	7° \mathfrak{M} 18'44		morning rise	3327 Aug 24 18:04	20° \mathcal{O} 16'47	
asc. node	3326 Sep 21 09:37	10° \mathfrak{M} 54'36		direct	3327 Aug 27 06:09	19° \mathcal{O} 57'04	
morning max el	3326 Sep 21 10:54	10° \mathfrak{M} 57'41	18°08'51	morning max el	3327 Sep 04 16:06	23° \mathcal{O} 56'55	18°46'18
	3326 Oct 04 00:43	0° \mathfrak{L}		asc. node	3327 Sep 08 06:39	28° \mathcal{O} 02'30	
morning set	3326 Oct 07 06:44	6° \mathfrak{L} 03'37			3327 Sep 09 16:47	0° \mathfrak{M}	
				morning set	3327 Sep 21 02:04	20° \mathfrak{M} 10'46	
superior conj	3326 Oct 16 21:41	23° \mathfrak{L} 52'14	1°16'44		3327 Sep 26 02:40	0° \mathfrak{L}	
minimum elong	3326 Oct 17 01:46	24° \mathfrak{L} 10'36	1°16'16				
	3326 Oct 20 08:41	0° \mathfrak{M}		superior conj	3327 Sep 29 16:08	6° \mathfrak{L} 50'03	1°35'05
max. Earth dist.	3326 Oct 24 12:55	7° \mathfrak{M} 10'05	1.41430 AU	minimum elong	3327 Sep 29 18:50	7° \mathfrak{L} 02'47	1°34'52
desc. node	3326 Oct 28 20:22	14° \mathfrak{M} 18'39		max. Earth dist.	3327 Oct 06 18:25	19° \mathfrak{L} 50'14	1.39385 AU
evening rise	3326 Oct 29 17:06	15° \mathfrak{M} 42'43		evening rise	3327 Oct 10 17:56	26° \mathfrak{L} 44'23	
	3326 Nov 07 20:29	0° \mathcal{X}			3327 Oct 12 16:25	0° \mathfrak{M}	
	3326 Nov 29 20:13	0° \mathfrak{Z}		desc. node	3327 Oct 15 17:23	4° \mathfrak{M} 59'39	
evening max el	3326 Dec 02 10:15	2° \mathfrak{Z} 45'43	22°53'24		3327 Nov 01 11:05	0° \mathcal{X}	
retrograde	3326 Dec 12 12:08	8° \mathfrak{Z} 44'29		evening max el	3327 Nov 14 23:41	16° \mathcal{X} 24'05	24°13'09
evening set	3326 Dec 17 06:37	6° \mathfrak{Z} 47'25		retrograde	3327 Nov 26 03:38	22° \mathcal{X} 56'50	
asc. node	3326 Dec 18 08:53	5° \mathfrak{Z} 46'46		evening set	3327 Dec 01 11:36	20° \mathcal{X} 43'24	
inferior conj	3326 Dec 22 15:33	0° \mathfrak{Z} 24'42	1°24'58	asc. node	3327 Dec 05 05:54	16° \mathcal{X} 33'55	
minimum elong	3326 Dec 22 13:45	0° \mathfrak{Z} 30'58	1°24'16	min. Earth dist.	3327 Dec 06 05:04	15° \mathcal{X} 17'10	0.67722 AU
min. Earth dist.	3326 Dec 22 08:54	0° \mathfrak{Z} 47'41	0.67946 AU	inferior conj	3327 Dec 06 22:27	14° \mathcal{X} 18'37	0°34'30
	3326 Dec 22 22:43	30° \mathcal{R} \mathcal{X}		minimum elong	3327 Dec 06 21:38	14° \mathcal{X} 21'24	0°34'10
morning rise	3326 Dec 27 20:44	24° \mathcal{X} 15'46		morning rise	3327 Dec 12 07:42	8° \mathcal{X} 15'06	
direct	3327 Jan 01 07:12	22° \mathcal{X} 28'04		direct	3327 Dec 16 04:37	6° \mathcal{X} 49'42	
morning max el	3327 Jan 10 04:52	27° \mathcal{X} 40'17	21°39'19	morning max el	3327 Dec 24 01:27	11° \mathcal{X} 19'59	20°23'09
	3327 Jan 12 09:11	0° \mathfrak{Z}			3328 Jan 07 08:09	0° \mathfrak{Z}	
desc. node	3327 Jan 24 19:38	16° \mathfrak{Z} 19'59		desc. node	3328 Jan 11 16:39	6° \mathfrak{Z} 27'09	
	3327 Feb 03 01:30	0° \approx		morning set	3328 Jan 21 04:39	20° \mathfrak{Z} 55'46	
morning set	3327 Feb 11 05:31	12° \approx 42'24			3328 Jan 26 23:48	0° \approx	
max. Earth dist.	3327 Feb 17 15:57	23° \approx 09'19	1.41740 AU	max. Earth dist.	3328 Jan 30 23:25	6° \approx 21'09	1.43510 AU
	3327 Feb 21 17:44	0° \mathcal{H}					
superior conj	3327 Feb 25 06:34	6° \mathcal{H} 05'39	-2°04'58	superior conj	3328 Feb 06 03:09	16° \approx 23'54	-2°04'28
minimum elong	3327 Feb 25 08:41	6° \mathcal{H} 14'51	2°04'55	minimum elong	3328 Feb 06 00:10	16° \approx 11'36	2°04'22
evening rise	3327 Mar 08 03:31	25° \mathcal{H} 39'53			3328 Feb 14 04:11	0° \mathcal{H}	
	3327 Mar 10 12:18	0° \mathcal{Y}		evening rise	3328 Feb 18 15:12	7° \mathcal{H} 44'49	
asc. node	3327 Mar 16 08:12	10° \mathcal{Y} 19'28		asc. node	3328 Mar 02 05:13	28° \mathcal{H} 48'48	
evening max el	3327 Mar 24 13:19	21° \mathcal{Y} 42'28	18°10'51		3328 Mar 03 01:09	0° \mathcal{Y}	
retrograde	3327 Mar 31 09:43	25° \mathcal{Y} 09'47		evening max el	3328 Mar 07 01:30	4° \mathcal{Y} 52'04	18°08'17
evening set	3327 Apr 02 23:25	24° \mathcal{Y} 41'13		retrograde	3328 Mar 13 12:51	8° \mathcal{Y} 15'11	
inferior conj	3327 Apr 09 19:45	19° \mathcal{Y} 51'58	3°06'20	evening set	3328 Mar 16 08:13	7° \mathcal{Y} 35'56	
minimum elong	3327 Apr 09 22:49	19° \mathcal{Y} 44'58	3°05'46	inferior conj	3328 Mar 22 15:05	2° \mathcal{Y} 26'15	3°33'19
min. Earth dist.	3327 Apr 13 03:52	16° \mathcal{Y} 51'02	0.60181 AU	minimum elong	3328 Mar 22 16:23	2° \mathcal{Y} 22'51	3°33'14
morning rise	3327 Apr 16 19:58	14° \mathcal{Y} 05'35			3328 Mar 24 23:18	30° \mathcal{R} \mathcal{H}	
desc. node	3327 Apr 22 18:49	12° \mathcal{Y} 03'42		min. Earth dist.	3328 Mar 25 12:06	29° \mathcal{H} 27'45	0.62318 AU
direct	3327 Apr 23 09:44	12° \mathcal{Y} 02'38		morning rise	3328 Mar 28 23:14	26° \mathcal{H} 25'18	
morning max el	3327 May 07 16:58	19° \mathcal{Y} 54'24	27°35'49	direct	3328 Apr 04 20:32	23° \mathcal{H} 53'25	
	3327 May 16 07:56	0° \mathcal{B}		desc. node	3328 Apr 08 15:51	24° \mathcal{H} 35'02	
	3327 Jun 03 16:16	0° Π			3328 Apr 16 23:33	0° \mathcal{Y}	
morning set	3327 Jun 08 13:51	9° Π 48'54		morning max el	3328 Apr 18 22:12	1° \mathcal{Y} 50'53	27°51'05
					3328 May 09 14:29	0° \mathcal{B}	

morning set	3328 May 22 15:41	24°♄07'27		morning max el	3329 Apr 01 07:16	14°♄24'32	27°29'39
	3328 May 25 11:57	0°♄			3329 Apr 13 23:14	0°♄	
max. Earth dist.	3328 May 28 06:14	5°♄52'23	1.32497 AU		3329 May 02 05:40	0°♄	
asc. node	3328 May 29 04:29	7°♄52'30		morning set	3329 May 06 09:42	7°♄59'21	
				max. Earth dist.	3329 May 11 07:13	17°♄54'37	1.33313 AU
superior conj	3328 May 30 04:05	10°♄00'31	0°10'20				
minimum elong	3328 May 30 03:36	9°♄57'52	0°10'14	superior conj	3329 May 14 09:42	24°♄26'46	-0°17'19
behind sun begin	3328 May 29 23:37	9°♄36'10		minimum elong	3329 May 14 10:34	24°♄31'25	0°17'08
behind sun end	3328 May 30 07:36	10°♄19'35		asc. node	3329 May 16 01:31	27°♄59'35	
evening rise	3328 Jun 06 02:19	25°♄01'46			3329 May 16 23:58	0°♄	
	3328 Jun 08 11:18	0°♄		evening rise	3329 May 21 13:46	9°♄46'38	
	3328 Jun 26 13:54	0°♄			3329 Jun 01 02:26	0°♄	
evening max el	3328 Jun 30 16:27	4°♄26'54	24°07'37	evening max el	3329 Jun 12 06:39	14°♄52'11	22°30'53
desc. node	3328 Jul 05 15:04	8°♄27'24		desc. node	3329 Jun 22 12:06	21°♄03'52	
retrograde	3328 Jul 14 11:35	11°♄24'03		retrograde	3329 Jun 25 09:04	21°♄22'51	
evening set	3328 Jul 19 02:00	10°♄37'06		evening set	3329 Jun 28 11:53	21°♄01'25	
min. Earth dist.	3328 Jul 25 03:00	7°♄39'01	0.56427 AU	min. Earth dist.	3329 Jul 06 13:58	17°♄30'15	0.55204 AU
inferior conj	3328 Jul 27 15:18	6°♄05'37	-4°56'55	inferior conj	3329 Jul 07 17:34	16°♄51'03	-4°01'21
minimum elong	3328 Jul 27 11:23	6°♄11'45	4°56'32	minimum elong	3329 Jul 07 09:25	17°♄02'39	3°59'23
morning rise	3328 Aug 04 23:23	2°♄06'08		morning rise	3329 Jul 16 09:05	13°♄00'12	
direct	3328 Aug 07 16:33	1°♄46'50		direct	3329 Jul 19 09:05	12°♄39'40	
morning max el	3328 Aug 17 11:28	6°♄19'43	19°45'20	morning max el	3329 Jul 30 19:11	17°♄58'13	21°05'17
asc. node	3328 Aug 25 03:42	16°♄04'36			3329 Aug 09 05:02	0°♄	
	3328 Sep 01 20:48	0°♄		asc. node	3329 Aug 12 00:44	4°♄47'20	
morning set	3328 Sep 04 04:56	4°♄40'16		morning set	3329 Aug 19 12:42	19°♄23'44	
					3329 Aug 24 14:37	0°♄	
superior conj	3328 Sep 12 01:51	20°♄33'47	1°43'39				
minimum elong	3328 Sep 12 02:47	20°♄38'25	1°43'37	superior conj	3329 Aug 26 22:18	4°♄49'10	1°44'06
	3328 Sep 16 22:36	0°♄		minimum elong	3329 Aug 26 21:42	4°♄46'04	1°44'05
max. Earth dist.	3328 Sep 17 23:10	1°♄55'35	1.37336 AU	max. Earth dist.	3329 Aug 31 08:28	13°♄46'27	1.35506 AU
evening rise	3328 Sep 21 17:41	8°♄50'02		evening rise	3329 Sep 04 12:29	21°♄49'26	
desc. node	3328 Oct 01 14:24	25°♄31'30			3329 Sep 08 23:47	0°♄	
	3328 Oct 04 10:47	0°♄		desc. node	3329 Sep 18 11:25	15°♄48'10	
	3328 Oct 27 09:41	0°♄			3329 Sep 28 06:09	0°♄	
evening max el	3328 Oct 27 11:54	0°♄05'25	25°27'40	evening max el	3329 Oct 10 00:09	13°♄45'14	26°29'39
retrograde	3328 Nov 08 14:49	7°♄03'45		retrograde	3329 Oct 22 21:01	20°♄58'32	
evening set	3328 Nov 14 12:49	4°♄35'37		evening set	3329 Oct 29 08:19	18°♄19'52	
	3328 Nov 18 17:31	30°♄		min. Earth dist.	3329 Nov 02 10:57	14°♄04'01	0.66237 AU
min. Earth dist.	3328 Nov 18 22:31	29°♄44'05	0.67154 AU	inferior conj	3329 Nov 04 02:40	12°♄04'12	-1°19'24
inferior conj	3328 Nov 20 02:48	28°♄13'03	-0°20'42	minimum elong	3329 Nov 04 04:49	11°♄57'41	1°18'31
minimum elong	3328 Nov 20 03:20	28°♄11'21	0°20'29	asc. node	3329 Nov 07 23:57	7°♄49'46	
asc. node	3328 Nov 21 02:55	26°♄56'11		morning rise	3329 Nov 10 01:57	6°♄18'40	
morning rise	3328 Nov 25 18:09	22°♄17'15		direct	3329 Nov 13 01:10	5°♄29'02	
direct	3328 Nov 29 03:10	21°♄11'34		morning max el	3329 Nov 19 17:07	9°♄08'12	18°33'47
morning max el	3328 Dec 06 06:01	25°♄10'53	19°20'38		3329 Dec 04 11:34	0°♄	
	3328 Dec 10 09:54	0°♄		morning set	3329 Dec 10 02:23	8°♄56'28	
greatest brilliancy	3328 Dec 19 18:11	13°♄20'04	-0.7m	desc. node	3329 Dec 15 10:43	17°♄26'16	
desc. node	3328 Dec 28 13:41	26°♄51'00			3329 Dec 23 09:58	0°♄	
morning set	3328 Dec 30 04:10	29°♄20'04					
	3328 Dec 30 14:29	0°♄		superior conj	3329 Dec 26 01:19	4°♄08'35	-1°07'57
max. Earth dist.	3329 Jan 12 13:33	20°♄15'14	1.44711 AU	minimum elong	3329 Dec 25 17:10	3°♄36'36	1°07'00
				max. Earth dist.	3329 Dec 26 07:24	4°♄32'27	1.45213 AU
superior conj	3329 Jan 15 22:13	25°♄35'04	-1°45'24	evening rise	3330 Jan 10 21:52	29°♄08'28	
minimum elong	3329 Jan 15 13:57	25°♄02'08	1°44'43		3330 Jan 11 10:50	0°♄	
	3329 Jan 18 16:29	0°♄		greatest brilliancy	3330 Jan 19 19:15	13°♄15'19	-0.8m
evening rise	3329 Jan 30 06:11	18°♄55'18			3330 Jan 31 10:53	0°♄	
	3329 Feb 05 22:15	0°♄		evening max el	3330 Feb 02 00:08	1°♄42'04	18°58'45
asc. node	3329 Feb 17 02:14	16°♄36'20		asc. node	3330 Feb 03 23:15	3°♄29'49	
evening max el	3329 Feb 18 13:55	18°♄13'45	18°24'34	retrograde	3330 Feb 08 20:26	5°♄34'00	
retrograde	3329 Feb 25 01:43	21°♄45'42		evening set	3330 Feb 12 03:47	4°♄30'44	
evening set	3329 Feb 28 02:42	20°♄54'56			3330 Feb 16 18:31	30°♄	
inferior conj	3329 Mar 05 23:53	15°♄26'33	3°38'39	inferior conj	3330 Feb 17 18:26	28°♄45'37	3°27'50
minimum elong	3329 Mar 05 23:28	15°♄27'47	3°38'38	minimum elong	3330 Feb 17 16:46	28°♄50'54	3°27'36
min. Earth dist.	3329 Mar 08 05:58	12°♄50'22	0.64218 AU	min. Earth dist.	3330 Feb 19 09:04	26°♄44'24	0.65753 AU
morning rise	3329 Mar 11 19:31	9°♄17'43		morning rise	3330 Feb 23 05:22	22°♄33'12	
direct	3329 Mar 18 15:36	6°♄29'27		direct	3330 Mar 01 17:37	19°♄42'33	
desc. node	3329 Mar 26 12:53	9°♄27'39		desc. node	3330 Mar 13 09:55	26°♄06'25	

morning max el	3330 Mar 14 17:10	27° \approx 22'55	26°37'20	morning rise	3331 Feb 07 01:18	6° \approx 03'58	
	3330 Mar 17 04:26	0° \mathbb{H}		direct	3331 Feb 13 01:25	3° \approx 23'08	
	3330 Apr 07 15:16	0° \mathbb{Y}		morning max el	3331 Feb 25 02:07	10° \approx 33'46	25°22'53
morning set	3330 Apr 19 16:33	21° \mathbb{Y} 14'46		desc. node	3331 Feb 28 06:58	14° \approx 00'47	
max. Earth dist.	3330 Apr 23 21:26	29° \mathbb{Y} 24'00	1.34594 AU		3331 Mar 12 13:07	0° \mathbb{H}	
	3330 Apr 24 04:40	0° \mathbb{B}			3331 Mar 31 06:31	0° \mathbb{Y}	
				morning set	3331 Apr 02 07:36	3° \mathbb{Y} 39'30	
superior conj	3330 Apr 28 09:16	8° \mathbb{B} 30'46	-0°46'01	max. Earth dist.	3331 Apr 06 00:14	10° \mathbb{Y} 28'17	1.36323 AU
minimum elong	3330 Apr 28 11:41	8° \mathbb{B} 43'13	0°45'32				
asc. node	3330 May 02 22:34	18° \mathbb{B} 01'26		superior conj	3331 Apr 11 23:59	22° \mathbb{Y} 04'02	-1°14'12
evening rise	3330 May 05 23:04	24° \mathbb{B} 20'20		minimum elong	3331 Apr 12 03:49	22° \mathbb{Y} 23'05	1°13'35
	3330 May 08 17:31	0° \mathbb{H}			3331 Apr 15 22:35	0° \mathbb{B}	
evening max el	3330 May 25 04:59	25° \mathbb{H} 36'43	21°01'23	asc. node	3331 Apr 19 19:37	7° \mathbb{B} 53'15	
	3330 May 31 05:43	0° \mathbb{B}		evening rise	3331 Apr 20 03:59	8° \mathbb{B} 35'39	
retrograde	3330 Jun 05 22:11	1° \mathbb{B} 20'31			3331 May 01 22:54	0° \mathbb{H}	
evening set	3330 Jun 08 02:36	1° \mathbb{B} 09'19		evening max el	3331 May 07 15:13	6° \mathbb{H} 58'54	19°48'03
desc. node	3330 Jun 09 09:07	0° \mathbb{B} 53'00		retrograde	3331 May 17 14:33	11° \mathbb{H} 49'18	
	3330 Jun 11 23:34	30° \mathbb{R} \mathbb{H}		evening set	3331 May 19 14:02	11° \mathbb{H} 38'44	
inferior conj	3330 Jun 17 11:05	27° \mathbb{H} 11'33	-2°20'21	desc. node	3331 May 27 06:10	8° \mathbb{H} 20'08	
minimum elong	3330 Jun 17 04:38	27° \mathbb{H} 20'39	2°18'07	inferior conj	3331 May 28 10:17	7° \mathbb{H} 37'11	-0°20'41
min. Earth dist.	3330 Jun 18 01:49	26° \mathbb{H} 50'43	0.54861 AU	minimum elong	3331 May 28 09:21	7° \mathbb{H} 38'38	0°20'21
morning rise	3330 Jun 26 06:38	23° \mathbb{H} 10'27		min. Earth dist.	3331 May 30 15:07	6° \mathbb{H} 16'01	0.55487 AU
direct	3330 Jun 29 18:32	22° \mathbb{H} 44'04		morning rise	3331 Jun 06 02:26	3° \mathbb{H} 08'20	
morning max el	3330 Jul 12 16:13	28° \mathbb{H} 53'54	22°41'39	direct	3331 Jun 10 09:54	2° \mathbb{H} 27'16	
	3330 Jul 13 19:28	0° \mathbb{B}		morning max el	3331 Jun 24 06:56	9° \mathbb{H} 21'37	24°24'36
asc. node	3330 Jul 29 21:49	24° \mathbb{B} 00'46			3331 Jul 09 13:51	0° \mathbb{B}	
	3330 Aug 01 22:04	0° \mathbb{Q}		asc. node	3331 Jul 16 18:53	13° \mathbb{B} 36'41	
morning set	3330 Aug 03 23:21	4° \mathbb{Q} 15'26		morning set	3331 Jul 19 11:09	19° \mathbb{B} 10'13	
					3331 Jul 24 11:38	0° \mathbb{Q}	
superior conj	3330 Aug 11 02:04	19° \mathbb{Q} 25'47	1°37'52				
minimum elong	3330 Aug 11 00:23	19° \mathbb{Q} 16'50	1°37'45	superior conj	3331 Jul 26 10:33	4° \mathbb{Q} 15'26	1°26'05
max. Earth dist.	3330 Aug 14 02:28	25° \mathbb{Q} 46'45	1.34038 AU	minimum elong	3331 Jul 26 08:18	4° \mathbb{Q} 03'11	1°25'49
	3330 Aug 16 03:43	0° \mathbb{H}		max. Earth dist.	3331 Jul 28 05:25	8° \mathbb{Q} 07'23	1.32978 AU
evening rise	3330 Aug 18 21:53	5° \mathbb{H} 30'43		evening rise	3331 Aug 02 17:56	19° \mathbb{Q} 42'37	
	3330 Sep 01 16:03	0° \mathbb{B}			3331 Aug 08 00:08	0° \mathbb{H}	
desc. node	3330 Sep 05 08:26	5° \mathbb{B} 42'44		desc. node	3331 Aug 23 05:28	25° \mathbb{H} 05'56	
evening max el	3330 Sep 22 12:35	27° \mathbb{B} 15'41	27°11'35		3331 Aug 26 19:48	0° \mathbb{B}	
	3330 Sep 25 15:17	0° \mathbb{H}		evening max el	3331 Sep 04 23:33	10° \mathbb{B} 24'26	27°26'34
retrograde	3330 Oct 05 21:35	4° \mathbb{H} 33'43		retrograde	3331 Sep 18 15:45	17° \mathbb{B} 40'53	
evening set	3330 Oct 12 19:46	1° \mathbb{H} 51'36		evening set	3331 Sep 25 20:09	15° \mathbb{B} 05'06	
	3330 Oct 14 22:07	30° \mathbb{R} \mathbb{B}		min. Earth dist.	3331 Sep 29 11:42	11° \mathbb{B} 57'18	0.63361 AU
min. Earth dist.	3330 Oct 16 16:02	28° \mathbb{B} 11'18	0.64969 AU	inferior conj	3331 Oct 02 03:43	9° \mathbb{B} 17'32	-3°19'04
inferior conj	3330 Oct 18 19:51	25° \mathbb{B} 47'42	-2°19'48	minimum elong	3331 Oct 02 09:01	9° \mathbb{B} 04'17	3°17'21
minimum elong	3330 Oct 18 23:43	25° \mathbb{B} 36'57	2°18'19	morning rise	3331 Oct 08 23:14	4° \mathbb{B} 02'04	
morning rise	3330 Oct 25 04:39	20° \mathbb{B} 15'28		direct	3331 Oct 11 10:19	3° \mathbb{B} 33'02	
asc. node	3330 Oct 25 21:01	19° \mathbb{B} 58'47		asc. node	3331 Oct 12 18:05	3° \mathbb{B} 41'36	
direct	3330 Oct 27 20:30	19° \mathbb{B} 37'56		morning max el	3331 Oct 18 00:52	6° \mathbb{B} 58'36	17°51'00
morning max el	3330 Nov 03 08:21	23° \mathbb{B} 06'11	18°03'38		3331 Nov 02 03:20	0° \mathbb{H}	
	3330 Nov 08 20:06	0° \mathbb{H}		morning set	3331 Nov 03 11:21	2° \mathbb{H} 19'41	
morning set	3330 Nov 21 06:08	20° \mathbb{H} 01'02					
	3330 Nov 27 07:14	0° \mathbb{X}		superior conj	3331 Nov 15 13:13	22° \mathbb{H} 56'54	0°24'59
desc. node	3330 Dec 02 07:43	8° \mathbb{X} 08'51		minimum elong	3331 Nov 15 15:44	23° \mathbb{H} 07'23	0°24'38
				desc. node	3331 Nov 19 04:45	28° \mathbb{H} 55'45	
superior conj	3330 Dec 05 08:25	12° \mathbb{X} 59'50	-0°20'33		3331 Nov 19 20:36	0° \mathbb{X}	
minimum elong	3330 Dec 05 05:52	12° \mathbb{X} 49'38	0°20'11	max. Earth dist.	3331 Nov 21 20:11	3° \mathbb{X} 11'35	1.44039 AU
max. Earth dist.	3330 Dec 09 02:31	18° \mathbb{X} 56'45	1.44979 AU	evening rise	3331 Dec 01 02:09	17° \mathbb{X} 43'00	
	3330 Dec 16 04:04	0° \mathbb{B}			3331 Dec 09 04:02	0° \mathbb{B}	
evening rise	3330 Dec 21 16:50	8° \mathbb{B} 34'24		evening max el	3331 Dec 30 06:57	28° \mathbb{B} 45'23	20°53'24
greatest brilliancy	3331 Jan 04 07:43	29° \mathbb{B} 22'03	-0.7m		3331 Dec 31 13:30	0° \mathbb{B}	
	3331 Jan 04 17:56	0° \mathbb{B}		retrograde	3332 Jan 07 15:53	3° \mathbb{B} 42'30	
evening max el	3331 Jan 16 06:13	15° \mathbb{B} 13'03	19°49'14	asc. node	3332 Jan 08 17:21	3° \mathbb{B} 36'17	
asc. node	3331 Jan 21 20:19	19° \mathbb{B} 14'26		evening set	3332 Jan 11 16:18	2° \mathbb{B} 10'33	
retrograde	3331 Jan 23 17:54	19° \mathbb{B} 34'04			3332 Jan 13 22:25	30° \mathbb{R} \mathbb{B}	
evening set	3331 Jan 27 08:59	18° \mathbb{B} 17'06		inferior conj	3332 Jan 17 00:58	25° \mathbb{B} 59'10	2°32'00
inferior conj	3331 Feb 01 19:38	12° \mathbb{B} 17'31	3°04'44	minimum elong	3332 Jan 16 22:27	26° \mathbb{B} 07'50	2°31'15
minimum elong	3331 Feb 01 17:15	12° \mathbb{B} 25'24	3°04'13	min. Earth dist.	3332 Jan 17 12:10	25° \mathbb{B} 20'41	0.67595 AU
min. Earth dist.	3331 Feb 02 19:48	10° \mathbb{B} 57'09	0.66877 AU	morning rise	3332 Jan 22 04:26	19° \mathbb{B} 46'10	

direct	3332 Jan 27 14:07	17° ♄ 23'21		direct	3333 Jan 10 06:55	1° ♄ 35'48	
morning max el	3332 Feb 07 10:37	23° ♄ 51'29	23°56'25	morning max el	3333 Jan 19 21:19	7° ♄ 15'32	22°27'52
	3332 Feb 12 21:50	0° ♄		desc. node	3333 Feb 01 01:01	22° ♄ 16'10	
desc. node	3332 Feb 15 04:00	2° ♄ 49'14			3333 Feb 06 11:27	0° ♄	
	3332 Mar 04 23:15	0° ♄		morning set	3333 Feb 22 15:02	24° ♄ 56'14	
morning set	3332 Mar 14 01:01	14° ♄ 57'55			3333 Feb 25 16:38	0° ♄	
max. Earth dist.	3332 Mar 17 20:11	21° ♄ 36'30	1.38389 AU	max. Earth dist.	3333 Feb 27 16:38	3° ♄ 21'53	1.40554 AU
	3332 Mar 22 10:58	0° ♄					
				superior conj	3333 Mar 07 11:39	16° ♄ 59'05	-1°58'35
superior conj	3332 Mar 25 02:17	4° ♄ 57'10	-1°39'31	minimum elong	3333 Mar 07 15:24	17° ♄ 15'59	1°58'22
minimum elong	3332 Mar 25 06:53	5° ♄ 18'57	1°39'00		3333 Mar 14 13:10	0° ♄	
evening rise	3332 Apr 03 01:59	22° ♄ 25'31		evening rise	3333 Mar 17 13:50	5° ♄ 41'54	
asc. node	3332 Apr 05 16:40	27° ♄ 30'17		asc. node	3333 Mar 23 13:42	16° ♄ 47'02	
	3332 Apr 07 00:03	0° ♄			3333 Apr 01 06:06	0° ♄	
evening max el	3332 Apr 19 12:39	19° ♄ 00'56	18°54'22	evening max el	3333 Apr 02 18:27	1° ♄ 36'43	18°21'00
retrograde	3332 Apr 27 22:22	23° ♄ 06'59		retrograde	3333 Apr 10 01:17	5° ♄ 13'49	
evening set	3332 Apr 30 02:01	22° ♄ 51'55		evening set	3333 Apr 12 11:15	4° ♄ 50'57	
inferior conj	3332 May 08 02:57	18° ♄ 34'33	1°24'27	inferior conj	3333 Apr 19 17:06	0° ♄ 13'38	2°38'22
minimum elong	3332 May 08 05:58	18° ♄ 29'08	1°23'27	minimum elong	3333 Apr 19 20:48	0° ♄ 05'53	2°37'29
min. Earth dist.	3332 May 11 07:01	16° ♄ 19'42	0.56943 AU		3333 Apr 19 23:36	30° ♄	
desc. node	3332 May 13 03:12	15° ♄ 08'07		min. Earth dist.	3333 Apr 23 03:40	27° ♄ 22'20	0.58927 AU
morning rise	3332 May 16 06:45	13° ♄ 30'23		morning rise	3333 Apr 27 03:31	24° ♄ 39'21	
direct	3332 May 21 14:07	12° ♄ 22'57		desc. node	3333 Apr 30 00:13	23° ♄ 26'36	
morning max el	3332 Jun 04 21:45	19° ♄ 48'53	25°59'16	direct	3333 May 03 08:15	22° ♄ 56'47	
	3332 Jun 13 13:57	0° ♄			3333 May 16 23:50	0° ♄	
	3332 Jun 30 23:50	0° ♄		morning max el	3333 May 17 17:34	0° ♄ 42'38	27°10'12
morning set	3332 Jul 02 22:24	4° ♄ 02'39			3333 Jun 07 15:08	0° ♄	
asc. node	3332 Jul 02 15:55	3° ♄ 28'25		morning set	3333 Jun 17 07:33	18° ♄ 47'35	
				asc. node	3333 Jun 19 12:57	23° ♄ 30'45	
					3333 Jun 22 12:35	0° ♄	
superior conj	3332 Jul 09 21:35	19° ♄ 10'58	1°09'37				
minimum elong	3332 Jul 09 19:15	18° ♄ 58'08	1°09'13	superior conj	3333 Jun 24 09:24	4° ♄ 06'41	0°49'09
max. Earth dist.	3332 Jul 10 14:35	20° ♄ 44'23	1.32328 AU	minimum elong	3333 Jun 24 07:27	3° ♄ 55'57	0°48'46
	3332 Jul 14 20:59	0° ♄		max. Earth dist.	3333 Jun 24 02:26	3° ♄ 28'18	1.32075 AU
evening rise	3332 Jul 16 21:23	4° ♄ 15'09		evening rise	3333 Jul 01 05:43	19° ♄ 00'33	
	3332 Jul 30 17:18	0° ♄			3333 Jul 06 15:33	0° ♄	
desc. node	3332 Aug 09 02:30	13° ♄ 44'18			3333 Jul 25 19:37	0° ♄	
evening max el	3332 Aug 17 06:16	22° ♄ 56'42	27°09'31	desc. node	3333 Jul 26 23:31	1° ♄ 19'31	
	3332 Aug 29 03:52	0° ♄		evening max el	3333 Jul 30 06:21	4° ♄ 43'07	26°19'18
retrograde	3332 Aug 31 02:47	0° ♄ 10'00		retrograde	3333 Aug 13 05:46	11° ♄ 53'32	
	3332 Sep 02 00:58	30° ♄		evening set	3333 Aug 19 19:01	10° ♄ 07'30	
evening set	3332 Sep 07 05:28	27° ♄ 52'46		min. Earth dist.	3333 Aug 23 19:23	7° ♄ 32'15	0.59404 AU
min. Earth dist.	3332 Sep 10 20:34	25° ♄ 08'56	0.61463 AU	inferior conj	3333 Aug 27 02:20	5° ♄ 00'34	-4°52'28
inferior conj	3332 Sep 13 23:03	22° ♄ 24'43	-4°12'35	minimum elong	3333 Aug 27 06:23	4° ♄ 52'45	4°51'58
minimum elong	3332 Sep 14 04:45	22° ♄ 12'05	4°11'14	morning rise	3333 Sep 03 19:54	0° ♄ 28'10	
morning rise	3332 Sep 21 05:47	17° ♄ 29'38		direct	3333 Sep 06 05:57	0° ♄ 07'44	
direct	3332 Sep 23 14:55	17° ♄ 06'05		morning max el	3333 Sep 14 01:14	3° ♄ 54'01	18°22'16
asc. node	3332 Sep 28 15:07	18° ♄ 54'28		asc. node	3333 Sep 15 12:09	5° ♄ 24'51	
morning max el	3332 Sep 30 15:33	20° ♄ 37'13	17°56'49	morning set	3333 Sep 30 00:54	29° ♄ 21'37	
	3332 Oct 07 16:09	0° ♄			3333 Sep 30 08:56	0° ♄	
morning set	3332 Oct 16 11:24	15° ♄ 31'35					
	3332 Oct 24 11:22	0° ♄		superior conj	3333 Oct 09 04:14	16° ♄ 37'45	1°25'48
				minimum elong	3333 Oct 09 07:50	16° ♄ 54'18	1°25'27
superior conj	3332 Oct 26 20:52	4° ♄ 12'39	1°01'08	max. Earth dist.	3333 Oct 16 16:40	0° ♄ 00'05	1.40572 AU
minimum elong	3332 Oct 27 01:10	4° ♄ 31'18	1°00'35		3333 Oct 16 16:39	0° ♄	
max. Earth dist.	3332 Nov 03 09:19	16° ♄ 57'11	1.42503 AU	evening rise	3333 Oct 21 05:09	7° ♄ 36'45	
desc. node	3332 Nov 05 01:47	19° ♄ 43'01		desc. node	3333 Oct 22 22:48	10° ♄ 27'18	
evening rise	3332 Nov 09 17:56	27° ♄ 12'50			3333 Nov 04 14:49	0° ♄	
	3332 Nov 11 12:29	0° ♄		evening max el	3333 Nov 24 16:58	25° ♄ 53'43	23°27'26
	3332 Dec 01 23:12	0° ♄			3333 Nov 29 12:11	0° ♄	
evening max el	3332 Dec 12 02:08	12° ♄ 18'19	22°07'47	retrograde	3333 Dec 05 06:20	2° ♄ 08'29	
retrograde	3332 Dec 21 12:30	17° ♄ 55'07		evening set	3333 Dec 10 06:23	0° ♄ 04'17	
evening set	3332 Dec 25 23:58	16° ♄ 07'14			3333 Dec 10 08:24	30° ♄	
asc. node	3332 Dec 25 14:23	16° ♄ 25'52		asc. node	3333 Dec 12 11:24	27° ♄ 49'46	
inferior conj	3332 Dec 31 08:22	9° ♄ 47'21	1°51'24	min. Earth dist.	3333 Dec 15 04:40	24° ♄ 18'33	0.67889 AU
minimum elong	3332 Dec 31 06:10	9° ♄ 54'59	1°50'37	inferior conj	3333 Dec 15 15:57	23° ♄ 39'53	1°04'14
min. Earth dist.	3332 Dec 31 07:55	9° ♄ 48'55	0.67922 AU	minimum elong	3333 Dec 15 14:31	23° ♄ 44'49	1°03'40
morning rise	3333 Jan 05 12:14	3° ♄ 36'26					

morning rise	3333 Dec 20 22:36	17° ♄ 32'53		transit end	3334 Nov 29 23:40	7° ♄ 29'00	
direct	3333 Dec 25 03:00	15° ♄ 55'03		morning rise	3334 Dec 05 09:34	1° ♄ 33'39	
morning max el	3334 Jan 02 13:36	20° ♄ 48'46	21°05'26	direct	3334 Dec 09 01:11	0° ♄ 16'58	
	3334 Jan 10 06:09	0° ♄		morning max el	3334 Dec 16 13:33	4° ♄ 33'04	19°54'44
desc. node	3334 Jan 18 22:02	12° ♄ 10'54			3335 Jan 04 04:37	0° ♄	
	3334 Jan 30 17:26	0° ♄		desc. node	3335 Jan 05 19:04	2° ♄ 25'49	
morning set	3334 Feb 02 01:04	3° ♄ 36'58		morning set	3335 Jan 11 21:05	11° ♄ 45'18	
max. Earth dist.	3334 Feb 09 19:01	16° ♄ 00'39	1.42545 AU	max. Earth dist.	3335 Jan 23 05:10	29° ♄ 31'02	1.44096 AU
					3335 Jan 23 12:27	0° ♄	
superior conj	3334 Feb 16 22:56	27° ♄ 57'46	-2°06'47				
minimum elong	3334 Feb 16 23:11	27° ♄ 58'52	2°06'47	superior conj	3335 Jan 28 08:26	7° ♄ 46'51	-1°58'49
	3334 Feb 18 03:29	0° ♄		minimum elong	3335 Jan 28 02:55	7° ♄ 24'28	1°58'32
evening rise	3334 Feb 28 11:38	18° ♄ 15'24		evening rise	3335 Feb 10 15:01	29° ♄ 57'56	
	3334 Mar 07 02:05	0° ♄			3335 Feb 10 15:30	0° ♄	
asc. node	3334 Mar 10 10:43	5° ♄ 36'10		asc. node	3335 Feb 25 07:45	23° ♄ 49'25	
evening max el	3334 Mar 17 05:16	14° ♄ 36'42	18°07'25	evening max el	3335 Feb 28 18:00	27° ♄ 53'02	18°13'00
retrograde	3334 Mar 23 20:41	18° ♄ 00'36			3335 Mar 03 06:57	0° ♄	
evening set	3334 Mar 26 12:45	17° ♄ 27'46		retrograde	3335 Mar 07 04:22	1° ♄ 18'05	
inferior conj	3334 Apr 02 02:54	12° ♄ 29'58	3°20'50	evening set	3335 Mar 10 02:09	0° ♄ 34'01	
minimum elong	3334 Apr 02 05:16	12° ♄ 24'14	3°20'30		3335 Mar 11 01:51	30° ♄	
min. Earth dist.	3334 Apr 05 07:13	9° ♄ 26'51	0.61104 AU	inferior conj	3335 Mar 16 04:30	25° ♄ 16'25	3°37'50
morning rise	3334 Apr 08 19:53	6° ♄ 36'08		minimum elong	3335 Mar 16 05:02	25° ♄ 14'58	3°37'49
direct	3334 Apr 15 14:02	4° ♄ 19'17		min. Earth dist.	3335 Mar 18 19:30	22° ♄ 25'17	0.63171 AU
desc. node	3334 Apr 16 21:15	4° ♄ 24'07		morning rise	3335 Mar 22 06:53	19° ♄ 11'41	
morning max el	3334 Apr 29 19:34	12° ♄ 15'20	27°46'54	direct	3335 Mar 29 04:51	16° ♄ 30'50	
	3334 May 13 20:13	0° ♄		desc. node	3335 Apr 03 18:17	17° ♄ 59'55	
	3334 May 30 21:50	0° ♄		morning max el	3335 Apr 12 02:33	24° ♄ 28'14	27°46'03
morning set	3334 Jun 01 12:39	3° ♄ 17'31			3335 Apr 17 02:46	0° ♄	
asc. node	3334 Jun 06 09:59	13° ♄ 38'05			3335 May 07 05:24	0° ♄	
max. Earth dist.	3334 Jun 07 13:02	16° ♄ 05'01	1.32223 AU	morning set	3335 May 16 11:30	17° ♄ 25'36	
				max. Earth dist.	3335 May 21 18:36	28° ♄ 22'46	1.32794 AU
					3335 May 22 12:51	0° ♄	
superior conj	3334 Jun 08 20:13	18° ♄ 55'30	0°25'19				
minimum elong	3334 Jun 08 19:06	18° ♄ 49'19	0°25'04	superior conj	3335 May 24 04:19	3° ♄ 31'53	-0°01'12
	3334 Jun 13 21:44	0° ♄		minimum elong	3335 May 24 04:23	3° ♄ 32'11	0°01'11
evening rise	3334 Jun 15 16:43	3° ♄ 50'38		behind sun begin	3335 May 23 23:08	3° ♄ 03'53	
	3334 Jun 29 15:47	0° ♄		behind sun end	3335 May 24 09:38	4° ♄ 00'31	
evening max el	3334 Jul 11 23:17	15° ♄ 42'59	25°00'56	asc. node	3335 May 24 07:02	3° ♄ 46'29	
desc. node	3334 Jul 13 20:32	17° ♄ 25'13		evening rise	3335 May 31 04:34	18° ♄ 39'20	
retrograde	3334 Jul 25 22:28	22° ♄ 47'35			3335 Jun 05 18:16	0° ♄	
evening set	3334 Jul 31 08:47	21° ♄ 40'15		evening max el	3335 Jun 23 12:36	26° ♄ 12'49	23°26'22
min. Earth dist.	3334 Aug 05 10:55	18° ♄ 54'52	0.57414 AU		3335 Jun 28 03:46	0° ♄	
inferior conj	3334 Aug 08 10:24	16° ♄ 55'27	-5°06'33	desc. node	3335 Jun 30 17:33	1° ♄ 28'16	
minimum elong	3334 Aug 08 09:54	16° ♄ 56'17	5°06'33	retrograde	3335 Jul 07 02:31	3° ♄ 00'28	
morning rise	3334 Aug 16 13:33	12° ♄ 45'06		evening set	3335 Jul 11 01:02	2° ♄ 26'33	
direct	3334 Aug 19 03:20	12° ♄ 25'52			3335 Jul 16 15:34	30° ♄	
morning max el	3334 Aug 28 02:35	16° ♄ 38'37	19°08'46	min. Earth dist.	3335 Jul 17 22:31	29° ♄ 15'52	0.55821 AU
asc. node	3334 Sep 02 09:11	22° ♄ 57'06		inferior conj	3335 Jul 19 22:28	28° ♄ 04'50	-4°39'36
	3334 Sep 06 18:51	0° ♄		minimum elong	3335 Jul 19 16:13	28° ♄ 14'08	4°38'35
morning set	3334 Sep 13 23:46	13° ♄ 38'33		morning rise	3335 Jul 28 09:52	24° ♄ 10'31	
				direct	3335 Jul 31 05:47	23° ♄ 50'51	
superior conj	3334 Sep 22 05:45	29° ♄ 56'15	1°39'48	morning max el	3335 Aug 10 16:58	28° ♄ 42'13	20°16'53
minimum elong	3334 Sep 22 07:41	0° ♄ 05'39	1°39'41		3335 Aug 12 00:32	0° ♄	
	3334 Sep 22 06:31	0° ♄		asc. node	3335 Aug 20 06:14	11° ♄ 17'32	
max. Earth dist.	3334 Sep 28 20:41	12° ♄ 20'53	1.38496 AU	morning set	3335 Aug 29 04:59	28° ♄ 14'17	
evening rise	3334 Oct 02 16:01	19° ♄ 06'07			3335 Aug 30 01:39	0° ♄	
	3334 Oct 09 03:48	0° ♄					
desc. node	3334 Oct 09 19:50	1° ♄ 04'45		superior conj	3335 Sep 05 20:26	13° ♄ 54'01	1°44'44
	3334 Oct 29 20:09	0° ♄		minimum elong	3335 Sep 05 20:40	13° ♄ 55'12	1°44'44
evening max el	3334 Nov 07 05:39	9° ♄ 33'26	24°46'02	max. Earth dist.	3335 Sep 11 02:50	24° ♄ 17'00	1.36523 AU
retrograde	3334 Nov 18 20:12	16° ♄ 18'45			3335 Sep 14 03:38	0° ♄	
evening set	3334 Nov 24 09:59	13° ♄ 58'59		evening rise	3335 Sep 15 00:24	1° ♄ 35'37	
min. Earth dist.	3334 Nov 29 00:06	8° ♄ 47'04	0.67514 AU	desc. node	3335 Sep 26 16:51	21° ♄ 30'35	
asc. node	3334 Nov 29 08:25	8° ♄ 19'36			3335 Oct 02 06:12	0° ♄	
inferior conj	3334 Nov 29 22:01	7° ♄ 34'28	0°11'39	evening max el	3335 Oct 20 18:00	23° ♄ 15'12	25°56'12
minimum elong	3334 Nov 29 21:43	7° ♄ 35'26	0°11'31		3335 Oct 30 18:53	0° ♄	
transit middle	3334 Nov 29 21:43	7° ♄ 35'26	0°11'31	retrograde	3335 Nov 02 05:12	0° ♄ 20'35	
transit begin	3334 Nov 29 19:47	7° ♄ 41'52					

	3335 Nov 04 12:41	30° κ \mathbb{M}		retrograde	3336 Oct 15 08:51	14° \mathbb{M} 08'15	
evening set	3335 Nov 08 08:59	27° \mathbb{M} 47'37		evening set	3336 Oct 22 01:22	11° \mathbb{M} 27'01	
min. Earth dist.	3335 Nov 12 15:43	23° \mathbb{M} 11'04	0.66803 AU	min. Earth dist.	3336 Oct 26 01:12	7° \mathbb{M} 26'39	0.65745 AU
inferior conj	3335 Nov 14 00:41	21° \mathbb{M} 27'37	-0°45'16	inferior conj	3336 Oct 27 22:00	5° \mathbb{M} 16'05	-1°44'57
minimum elong	3335 Nov 14 01:53	21° \mathbb{M} 23'51	0°44'45	minimum elong	3336 Oct 28 00:53	5° \mathbb{M} 07'38	1°43'46
asc. node	3335 Nov 16 05:28	18° \mathbb{M} 47'53		asc. node	3336 Nov 02 02:30	0° \mathbb{M} 09'41	
morning rise	3335 Nov 19 19:10	15° \mathbb{M} 35'40			3336 Nov 02 08:26	30° \mathbb{R} $\underline{\mathbb{A}}$	
direct	3335 Nov 22 23:51	14° \mathbb{M} 37'05		morning rise	3336 Nov 03 01:10	29° $\underline{\mathbb{A}}$ 35'57	
morning max el	3335 Nov 29 21:03	18° \mathbb{M} 26'25	18°58'44	direct	3336 Nov 05 21:03	28° $\underline{\mathbb{A}}$ 51'50	
	3335 Dec 08 19:38	0° \mathbb{A}			3336 Nov 09 11:18	0° \mathbb{M}	
morning set	3335 Dec 22 04:19	20° \mathbb{A} 34'51		morning max el	3336 Nov 12 10:16	2° \mathbb{M} 24'52	18°18'55
desc. node	3335 Dec 23 16:05	22° \mathbb{A} 54'41			3336 Dec 01 02:58	0° \mathbb{A}	
	3335 Dec 28 04:50	0° \mathbb{B}		morning set	3336 Dec 01 15:09	0° \mathbb{A} 49'21	
max. Earth dist.	3336 Jan 05 21:36	13° \mathbb{B} 38'09	1.45016 AU	desc. node	3336 Dec 09 13:08	13° \mathbb{A} 33'30	
superior conj	3336 Jan 07 18:44	16° \mathbb{B} 35'52	-1°31'27	superior conj	3336 Dec 16 20:46	25° \mathbb{A} 08'47	-0°48'20
minimum elong	3336 Jan 07 09:36	15° \mathbb{B} 59'53	1°30'33	minimum elong	3336 Dec 16 14:39	24° \mathbb{A} 44'43	0°47'32
	3336 Jan 16 05:01	0° \approx		max. Earth dist.	3336 Dec 18 16:52	28° \mathbb{A} 02'08	1.45207 AU
evening rise	3336 Jan 22 20:08	10° \approx 43'15			3336 Dec 19 22:55	0° \mathbb{B}	
	3336 Feb 03 19:08	0° \mathbb{H}		evening rise	3337 Jan 02 02:16	20° \mathbb{B} 34'03	
evening max el	3336 Feb 12 05:49	11° \mathbb{H} 18'04	18°37'01		3337 Jan 08 02:54	0° \approx	
asc. node	3336 Feb 12 04:47	11° \mathbb{H} 15'26		greatest brilliancy	3337 Jan 13 04:11	7° \approx 50'02	-0.8m
retrograde	3336 Feb 18 20:07	14° \mathbb{H} 56'55		evening max el	3337 Jan 25 14:26	24° \approx 47'09	19°18'19
evening set	3336 Feb 21 23:49	14° \mathbb{H} 00'45		asc. node	3337 Jan 29 01:50	27° \approx 41'08	
inferior conj	3336 Feb 27 17:52	8° \mathbb{H} 24'55	3°35'44	retrograde	3337 Feb 01 16:27	28° \approx 50'33	
minimum elong	3336 Feb 27 16:50	8° \mathbb{H} 28'00	3°35'40	evening set	3337 Feb 05 02:56	27° \approx 41'28	
min. Earth dist.	3336 Feb 29 17:14	6° \mathbb{H} 02'49	0.64925 AU	inferior conj	3337 Feb 10 15:34	21° \approx 49'35	3°19'20
morning rise	3336 Mar 04 09:22	2° \mathbb{H} 14'26		minimum elong	3337 Feb 10 13:32	21° \approx 56'10	3°19'00
	3336 Mar 07 23:17	30° \mathbb{R} \approx		min. Earth dist.	3337 Feb 11 23:46	20° \approx 05'40	0.66281 AU
direct	3336 Mar 11 02:51	29° \approx 23'43		morning rise	3337 Feb 15 23:52	15° \approx 36'24	
	3336 Mar 14 11:01	0° \mathbb{H}		direct	3337 Feb 22 07:13	12° \approx 49'00	
desc. node	3336 Mar 20 15:18	3° \mathbb{H} 41'24		morning max el	3337 Mar 06 22:00	20° \approx 18'25	26°07'52
morning max el	3336 Mar 24 12:11	7° \mathbb{H} 13'13	27°10'42	desc. node	3337 Mar 07 12:20	20° \approx 55'04	
	3336 Apr 11 02:10	0° \mathbb{Y}			3337 Mar 15 06:06	0° \mathbb{H}	
	3336 Apr 28 12:12	0° \mathbb{B}			3337 Apr 04 05:17	0° \mathbb{Y}	
morning set	3336 Apr 29 01:16	1° \mathbb{B} 03'04		morning set	3337 Apr 12 02:03	13° \mathbb{Y} 58'33	
max. Earth dist.	3336 May 03 15:29	10° \mathbb{B} 11'49	1.33809 AU	max. Earth dist.	3337 Apr 16 01:01	21° \mathbb{Y} 29'43	1.35280 AU
					3337 Apr 20 07:56	0° \mathbb{B}	
superior conj	3336 May 07 07:42	17° \mathbb{B} 49'32	-0°29'26	superior conj	3337 Apr 21 03:53	1° \mathbb{B} 41'07	-0°58'09
minimum elong	3336 May 07 09:13	17° \mathbb{B} 57'31	0°29'06	minimum elong	3337 Apr 21 06:56	1° \mathbb{B} 56'39	0°57'35
asc. node	3336 May 10 04:06	23° \mathbb{B} 51'51		asc. node	3337 Apr 27 01:09	13° \mathbb{B} 49'48	
	3336 May 13 01:21	0° \mathbb{I}		evening rise	3337 Apr 28 23:08	17° \mathbb{B} 47'14	
evening rise	3336 May 14 15:23	3° \mathbb{I} 20'28			3337 May 05 03:41	0° \mathbb{I}	
	3336 May 29 12:24	0° \mathbb{E}		evening max el	3337 May 17 08:38	17° \mathbb{I} 41'41	20°27'50
evening max el	3336 Jun 04 05:32	6° \mathbb{E} 43'00	21°51'10	retrograde	3337 May 28 08:28	23° \mathbb{I} 03'13	
retrograde	3336 Jun 16 19:11	12° \mathbb{E} 55'18		evening set	3337 May 30 08:57	22° \mathbb{I} 53'06	
desc. node	3336 Jun 16 14:33	12° \mathbb{E} 55'13		desc. node	3337 Jun 03 11:35	21° \mathbb{I} 36'50	
evening set	3336 Jun 19 10:32	12° \mathbb{E} 39'41		inferior conj	3337 Jun 08 13:37	18° \mathbb{I} 55'13	-1°29'42
inferior conj	3336 Jun 28 19:28	8° \mathbb{E} 36'27	-3°22'57	minimum elong	3337 Jun 08 09:24	19° \mathbb{I} 01'22	1°28'10
minimum elong	3336 Jun 28 11:15	8° \mathbb{E} 47'56	3°20'33	min. Earth dist.	3337 Jun 09 21:38	18° \mathbb{I} 08'43	0.55008 AU
min. Earth dist.	3336 Jun 28 09:21	8° \mathbb{E} 50'36	0.54946 AU	morning rise	3337 Jun 17 08:52	14° \mathbb{I} 44'10	
morning rise	3336 Jul 07 13:23	4° \mathbb{E} 44'06		direct	3337 Jun 21 03:52	14° \mathbb{I} 13'09	
direct	3336 Jul 10 17:54	4° \mathbb{E} 21'45		morning max el	3337 Jul 04 13:32	20° \mathbb{I} 43'02	23°25'31
morning max el	3336 Jul 22 19:45	10° \mathbb{E} 01'25	21°44'44		3337 Jul 12 11:28	0° \mathbb{E}	
asc. node	3336 Aug 06 03:18	0° \mathbb{O} 14'42		asc. node	3337 Jul 24 00:22	19° \mathbb{E} 38'34	
	3336 Aug 06 00:07	0° \mathbb{O}		morning set	3337 Jul 28 01:37	27° \mathbb{E} 56'27	
morning set	3336 Aug 12 14:16	13° \mathbb{O} 02'35			3337 Jul 29 00:57	0° \mathbb{O}	
superior conj	3336 Aug 19 20:25	28° \mathbb{O} 19'53	1°42'12	superior conj	3337 Aug 04 02:30	13° \mathbb{O} 03'13	1°33'31
minimum elong	3336 Aug 19 19:18	28° \mathbb{O} 14'02	1°42'09	minimum elong	3337 Aug 04 00:31	12° \mathbb{O} 52'32	1°33'19
	3336 Aug 20 15:36	0° \mathbb{P}		max. Earth dist.	3337 Aug 06 13:59	18° \mathbb{O} 20'19	1.33533 AU
max. Earth dist.	3336 Aug 23 16:02	6° \mathbb{P} 11'54	1.34835 AU	evening rise	3337 Aug 11 16:22	28° \mathbb{O} 49'58	
evening rise	3336 Aug 28 02:00	14° \mathbb{P} 54'33			3337 Aug 12 06:28	0° \mathbb{P}	
	3336 Sep 05 09:39	0° $\underline{\mathbb{A}}$			3337 Aug 29 12:53	0° $\underline{\mathbb{A}}$	
desc. node	3336 Sep 12 13:53	11° $\underline{\mathbb{A}}$ 39'10		desc. node	3337 Aug 30 10:56	1° $\underline{\mathbb{A}}$ 21'47	
	3336 Sep 25 22:18	0° \mathbb{M}		evening max el	3337 Sep 14 18:19	20° $\underline{\mathbb{A}}$ 14'22	27°21'27
evening max el	3336 Oct 02 06:31	6° \mathbb{M} 52'35	26°50'20				




































































































































retrograde	3337 Sep 28 06:48	27° Ω 32'44		evening rise	3338 Jul 26 15:55	13° Ω 11'43	
evening set	3337 Oct 05 08:30	24° Ω 51'32			3338 Aug 04 09:28	0° Π	
min. Earth dist.	3337 Oct 09 02:19	21° Ω 26'01	0.64328 AU	desc. node	3338 Aug 17 07:56	20° Π 27'36	
inferior conj	3337 Oct 11 11:32	18° Ω 54'05	-2°45'19		3338 Aug 25 01:32	0° Ω	
minimum elong	3337 Oct 11 16:05	18° Ω 41'59	2°43'40	evening max el	3338 Aug 28 03:41	3° Ω 08'34	27°23'19
morning rise	3337 Oct 18 00:50	13° Ω 28'53		retrograde	3338 Sep 10 22:21	10° Ω 24'28	
asc. node	3337 Oct 19 23:33	12° Ω 57'25		evening set	3338 Sep 18 03:01	7° Ω 54'55	
direct	3337 Oct 20 14:17	12° Ω 55'28		min. Earth dist.	3338 Sep 21 17:32	4° Ω 58'37	0.62583 AU
morning max el	3337 Oct 27 02:28	16° Ω 21'29	17°56'06	inferior conj	3338 Sep 24 14:27	2° Ω 14'59	-3°42'53
	3337 Nov 05 20:47	0° Π		minimum elong	3338 Sep 24 20:06	2° Ω 01'31	3°41'15
morning set	3337 Nov 13 06:26	12° Π 27'08			3338 Sep 27 01:35	30° κ Π	
	3337 Nov 23 18:37	0° Σ		morning rise	3338 Oct 01 14:45	27° Π 07'51	
				direct	3338 Oct 04 00:30	26° Π 41'38	
superior conj	3337 Nov 26 11:37	4° Σ 24'04	-0°00'25	asc. node	3338 Oct 06 20:36	27° Π 19'09	
minimum elong	3337 Nov 26 11:35	4° Σ 23'54	0°00'24		3338 Oct 10 14:58	0° Ω	
behind sun begin	3337 Nov 26 01:23	3° Σ 42'40		morning max el	3338 Oct 10 18:35	0° Ω 08'51	17°51'06
behind sun end	3337 Nov 26 21:47	5° Σ 05'03		morning set	3338 Oct 26 20:22	25° Ω 10'04	
desc. node	3337 Nov 26 10:11	4° Σ 18'12			3338 Oct 29 13:35	0° Π	
max. Earth dist.	3337 Dec 01 11:26	12° Σ 23'13	1.44656 AU				
evening rise	3337 Dec 12 15:15	29° Σ 47'22		superior conj	3338 Nov 07 03:49	14° Π 54'25	0°41'42
	3337 Dec 12 18:32	0° Σ		minimum elong	3338 Nov 07 07:30	15° Π 09'57	0°41'11
greatest brilliancy	3337 Dec 26 23:48	21° Σ 29'30	-0.6m	desc. node	3338 Nov 13 07:13	25° Π 05'33	
	3338 Jan 01 23:17	0° \approx		max. Earth dist.	3338 Nov 14 02:49	26° Π 25'05	1.43445 AU
evening max el	3338 Jan 08 18:11	8° \approx 17'59	20°15'02		3338 Nov 16 08:14	0° Σ	
asc. node	3338 Jan 15 22:51	12° \approx 51'56		evening rise	3338 Nov 22 01:11	8° Σ 59'21	
retrograde	3338 Jan 16 14:28	12° \approx 54'16			3338 Dec 06 00:11	0° Σ	
evening set	3338 Jan 20 09:14	11° \approx 31'09		evening max el	3338 Dec 22 16:27	21° Σ 50'04	21°24'10
inferior conj	3338 Jan 25 18:48	5° \approx 26'00	2°51'55	retrograde	3338 Dec 31 12:02	27° Σ 04'09	
minimum elong	3338 Jan 25 16:18	5° \approx 34'27	2°51'18	asc. node	3339 Jan 02 19:51	26° Σ 34'33	
min. Earth dist.	3338 Jan 26 13:17	4° \approx 23'28	0.67223 AU	evening set	3339 Jan 04 16:50	25° Σ 25'46	
	3338 Jan 30 03:26	30° κ Σ		inferior conj	3339 Jan 10 01:13	19° Σ 10'26	2°15'40
morning rise	3338 Jan 30 23:09	29° Σ 12'15		minimum elong	3339 Jan 09 22:47	19° Σ 18'53	2°14'53
direct	3338 Feb 05 17:10	26° Σ 38'20		min. Earth dist.	3339 Jan 10 07:25	18° Σ 49'00	0.67775 AU
	3338 Feb 13 08:37	0° \approx		morning rise	3339 Jan 15 04:31	12° Σ 57'56	
morning max el	3338 Feb 17 06:43	3° \approx 33'02	24°47'02	direct	3339 Jan 20 07:51	10° Σ 44'00	
desc. node	3338 Feb 22 09:23	9° \approx 14'36		morning max el	3339 Jan 30 15:32	16° Σ 52'13	23°18'24
	3338 Mar 09 12:09	0° H		desc. node	3339 Feb 09 06:24	28° Σ 20'44	
morning set	3338 Mar 25 08:44	25° H 57'39			3339 Feb 10 12:04	0° \approx	
	3338 Mar 27 14:53	0° Υ			3339 Mar 02 13:32	0° H	
max. Earth dist.	3338 Mar 29 00:02	2° Υ 31'04	1.37162 AU	morning set	3339 Mar 06 15:00	6° H 42'41	
				max. Earth dist.	3339 Mar 10 18:38	13° H 48'43	1.39308 AU
superior conj	3338 Apr 04 13:49	14° Υ 58'32	-1°25'28				
minimum elong	3338 Apr 04 18:06	15° Υ 19'26	1°24'51	superior conj	3339 Mar 18 09:27	27° H 30'54	-1°48'38
	3338 Apr 12 02:57	0° B		minimum elong	3339 Mar 18 13:57	27° H 51'46	1°48'13
evening rise	3338 Apr 13 01:29	1° B 52'45			3339 Mar 19 17:25	0° Υ	
asc. node	3338 Apr 13 22:12	3° B 36'00		evening rise	3339 Mar 27 19:31	15° Υ 28'36	
evening max el	3338 Apr 29 23:56	29° B 21'37	19°22'48	asc. node	3339 Mar 31 19:12	23° Υ 04'41	
	3338 Apr 30 16:19	0° Π			3339 Apr 04 15:28	0° B	
retrograde	3338 May 09 06:30	3° Π 51'41		evening max el	3339 Apr 13 01:23	11° B 39'01	18°37'48
evening set	3338 May 11 06:55	3° Π 39'50		retrograde	3339 Apr 20 22:04	15° B 30'18	
	3338 May 19 02:38	30° κ B		evening set	3339 Apr 23 04:28	15° B 12'13	
inferior conj	3338 May 19 19:22	29° B 32'48	0°27'02	inferior conj	3339 Apr 30 21:01	10° B 46'55	1°59'50
minimum elong	3338 May 19 20:30	29° B 30'56	0°26'37	minimum elong	3339 May 01 00:41	10° B 39'54	1°58'45
desc. node	3338 May 21 08:36	28° B 31'43		min. Earth dist.	3339 May 04 05:56	8° B 13'45	0.57744 AU
min. Earth dist.	3338 May 22 12:16	27° B 47'07	0.56014 AU	desc. node	3339 May 08 05:37	5° B 43'46	
morning rise	3338 May 28 07:08	24° B 48'32		morning rise	3339 May 08 17:45	5° B 28'58	
direct	3338 Jun 02 00:28	23° B 57'39		direct	3339 May 14 11:13	4° B 06'51	
	3338 Jun 14 22:13	0° Π		morning max el	3339 May 28 20:02	11° B 42'40	26°33'00
morning max el	3338 Jun 16 03:44	1° Π 07'59	25°06'44		3339 Jun 12 01:04	0° Π	
	3338 Jul 06 04:09	0° D		morning set	3339 Jun 26 23:55	27° Π 40'16	
asc. node	3338 Jul 10 21:26	9° D 21'58		asc. node	3339 Jun 27 18:29	29° Π 18'32	
morning set	3338 Jul 12 13:22	12° D 50'50			3339 Jun 28 02:16	0° D	
superior conj	3338 Jul 19 12:20	27° D 56'23	1°19'39	superior conj	3339 Jul 03 23:54	12° D 52'31	1°01'23
minimum elong	3338 Jul 19 09:59	27° D 43'32	1°19'18	minimum elong	3339 Jul 03 21:41	12° D 40'16	1°00'59
	3338 Jul 20 10:59	0° Ω		max. Earth dist.	3339 Jul 04 06:24	13° D 28'21	1.32174 AU
max. Earth dist.	3338 Jul 20 19:44	0° Ω 47'40	1.32652 AU	evening rise	3339 Jul 10 21:43	27° D 50'38	

	3339 Jul 11 22:33	0°♎			3340 Jul 03 02:02	0°♎	
	3339 Jul 28 18:50	0°♏		desc. node	3340 Jul 21 01:56	25°♎42'23	
desc. node	3339 Aug 04 04:56	8°♏41'41		evening max el	3340 Jul 22 05:09	26°♎49'18	25°48'54
evening max el	3339 Aug 10 08:04	15°♏23'05	26°52'09		3340 Jul 25 23:08	0°♏	
retrograde	3339 Aug 24 06:11	22°♏34'46		retrograde	3340 Aug 05 04:40	3°♏57'06	
evening set	3339 Aug 31 04:34	20°♏29'48		evening set	3340 Aug 11 08:16	2°♏27'18	
min. Earth dist.	3339 Sep 03 22:14	17°♏51'26	0.60595 AU		3340 Aug 15 11:40	30°♏♎	
inferior conj	3339 Sep 07 03:27	15°♏10'30	-4°31'48	min. Earth dist.	3340 Aug 15 17:22	29°♎50'09	0.58534 AU
minimum elong	3339 Sep 07 08:46	14°♏59'21	4°30'47	inferior conj	3340 Aug 18 22:54	27°♎30'05	-5°02'30
morning rise	3339 Sep 14 14:51	10°♏24'30		minimum elong	3340 Aug 19 01:22	27°♎25'36	5°02'20
direct	3339 Sep 16 23:59	10°♏02'32		morning rise	3340 Aug 26 20:41	23°♎07'15	
asc. node	3339 Sep 23 17:39	13°♏06'48		direct	3340 Aug 29 08:14	22°♎47'22	
morning max el	3339 Sep 24 07:30	13°♏39'11	18°05'04	morning max el	3340 Sep 06 13:59	26°♎43'10	18°39'24
	3339 Oct 05 09:48	0°♏		asc. node	3340 Sep 09 14:43	0°♏05'16	
morning set	3339 Oct 10 02:47	8°♏40'21			3340 Sep 09 13:02	0°♏	
				morning set	3340 Sep 22 20:44	22°♏43'24	
superior conj	3339 Oct 19 22:12	26°♏41'28	1°12'59		3340 Sep 26 14:30	0°♏	
minimum elong	3339 Oct 20 02:24	27°♏00'11	1°12'30				
	3339 Oct 21 19:04	0°♏		superior conj	3340 Oct 01 13:59	9°♏31'20	1°32'57
max. Earth dist.	3339 Oct 27 13:34	9°♏54'11	1.41720 AU	minimum elong	3340 Oct 01 16:56	9°♏45'10	1°32'43
desc. node	3339 Oct 31 04:14	15°♏52'12		max. Earth dist.	3340 Oct 08 19:39	22°♏40'45	1.39696 AU
evening rise	3339 Nov 02 00:17	18°♏50'19		evening rise	3340 Oct 12 21:33	29°♏41'55	
	3339 Nov 09 03:18	0°♏♎			3340 Oct 13 01:51	0°♏	
	3339 Nov 30 13:34	0°♏♎		desc. node	3340 Oct 17 01:16	6°♏34'03	
evening max el	3339 Dec 05 09:44	5°♏24'45	22°41'26		3340 Nov 01 13:51	0°♏♎	
retrograde	3339 Dec 15 07:29	11°♏17'41		evening max el	3340 Nov 16 23:28	19°♏02'08	24°01'21
evening set	3339 Dec 20 00:09	9°♏22'58		retrograde	3340 Nov 27 23:39	25°♏30'25	
asc. node	3339 Dec 20 16:52	8°♏45'53		evening set	3340 Dec 03 05:35	23°♏19'15	
inferior conj	3339 Dec 25 08:55	3°♏00'58	1°32'09	asc. node	3340 Dec 06 13:54	19°♏41'17	
minimum elong	3339 Dec 25 06:59	3°♏07'38	1°31'25	min. Earth dist.	3340 Dec 08 00:13	17°♏48'01	0.67778 AU
min. Earth dist.	3339 Dec 25 03:51	3°♏18'29	0.67956 AU	inferior conj	3340 Dec 08 16:04	16°♏54'23	0°42'32
	3339 Dec 27 14:51	30°♏♎♎		minimum elong	3340 Dec 08 15:04	16°♏57'46	0°42'07
morning rise	3339 Dec 30 13:41	26°♏51'31		morning rise	3340 Dec 14 00:34	10°♏50'01	
direct	3340 Jan 04 02:17	25°♏00'26		direct	3340 Dec 17 23:22	9°♏21'30	
	3340 Jan 12 20:18	0°♏♎		morning max el	3340 Dec 25 23:34	13°♏57'27	20°33'42
morning max el	3340 Jan 13 04:04	0°♏19'19	21°51'36		3341 Jan 07 12:10	0°♏♎	
desc. node	3340 Jan 27 03:27	18°♏00'46		desc. node	3341 Jan 13 00:29	8°♏04'50	
	3340 Feb 04 07:50	0°♏♎		morning set	3341 Jan 23 17:49	24°♏23'47	
morning set	3340 Feb 14 16:25	16°♏04'55			3341 Jan 27 07:53	0°♏♎	
max. Earth dist.	3340 Feb 20 17:18	25°♏56'32	1.41448 AU	max. Earth dist.	3341 Feb 01 23:39	9°♏00'49	1.43276 AU
	3340 Feb 23 03:15	0°♏♎					
superior conj	3340 Feb 28 10:02	9°♏07'15	-2°03'43	superior conj	3341 Feb 08 10:33	19°♏36'19	-2°05'39
minimum elong	3340 Feb 28 12:40	9°♏18'51	2°03'37	minimum elong	3341 Feb 08 08:29	19°♏27'41	2°05'37
evening rise	3340 Mar 10 01:51	28°♏27'20			3341 Feb 14 13:35	0°♏♎	
	3340 Mar 10 21:55	0°♏♎		evening rise	3341 Feb 20 16:22	10°♏40'23	
asc. node	3340 Mar 17 16:12	12°♏10'07			3341 Mar 04 01:16	0°♏♎	
evening max el	3340 Mar 26 09:42	24°♏25'45	18°12'48	asc. node	3341 Mar 04 13:13	0°♏45'07	
retrograde	3340 Apr 02 08:24	27°♏55'06		evening max el	3341 Mar 09 21:39	7°♏33'23	18°07'25
evening set	3340 Apr 04 21:11	27°♏28'02		retrograde	3341 Mar 16 09:47	10°♏56'22	
inferior conj	3340 Apr 11 19:50	22°♏41'43	2°59'57	evening set	3341 Mar 19 04:16	10°♏18'52	
minimum elong	3340 Apr 11 23:07	22°♏34'23	2°59'17	inferior conj	3341 Mar 25 12:53	5°♏12'09	3°30'47
min. Earth dist.	3340 Apr 15 04:54	19°♏42'33	0.59857 AU	minimum elong	3341 Mar 25 14:29	5°♏08'05	3°30'37
morning rise	3340 Apr 18 22:40	16°♏58'11		min. Earth dist.	3341 Mar 28 11:56	2°♏11'44	0.62008 AU
desc. node	3340 Apr 24 02:38	15°♏05'18			3341 Mar 30 22:27	30°♏♎♎	
direct	3340 Apr 25 10:21	15°♏00'28		morning rise	3341 Mar 31 23:13	29°♏12'41	
morning max el	3340 May 09 18:15	22°♏50'40	27°30'25	direct	3341 Apr 07 19:55	26°♏44'23	
	3340 May 16 02:50	0°♏♎		desc. node	3341 Apr 10 23:40	27°♏13'00	
	3340 Jun 04 02:51	0°♏♎			3341 Apr 16 11:03	0°♏♎	
morning set	3340 Jun 10 07:33	12°♏19'02		morning max el	3341 Apr 21 22:52	4°♏41'55	27°51'14
asc. node	3340 Jun 13 15:31	19°♏23'06			3341 May 10 20:47	0°♏♎	
				morning set	3341 May 25 10:21	26°♏41'05	
superior conj	3340 Jun 17 11:29	27°♏45'28	0°39'24		3341 May 27 01:01	0°♏♎	
minimum elong	3340 Jun 17 09:50	27°♏36'23	0°39'04	max. Earth dist.	3341 May 31 03:29	8°♏42'29	1.32412 AU
max. Earth dist.	3340 Jun 16 18:18	26°♏10'58	1.32091 AU	asc. node	3341 May 31 12:33	9°♏31'30	
	3340 Jun 18 11:54	0°♏♎					
evening rise	3340 Jun 24 07:26	12°♏38'40		superior conj	3341 Jun 01 21:23	12°♏29'53	0°14'21
				minimum elong	3341 Jun 01 20:43	12°♏26'14	0°14'13

behind sun begin	3341 Jun 01 18:24	12° Π 13'38		max. Earth dist.	3342 May 14 05:44	20° \mathcal{B} 48'44	1.33164 AU
behind sun end	3341 Jun 01 23:02	12° Π 38'51					
evening rise	3341 Jun 08 19:04	27° Π 29'16		superior conj	3342 May 17 03:43	26° \mathcal{B} 58'58	-0°13'01
	3341 Jun 09 23:37	0° \mathcal{E}		minimum elong	3342 May 17 04:22	27° \mathcal{B} 02'26	0°12'53
	3341 Jun 27 05:45	0° Ω		behind sun begin	3342 May 17 01:10	26° \mathcal{B} 45'22	
evening max el	3341 Jul 03 19:42	7° Ω 33'01	24°21'45	behind sun end	3342 May 17 07:34	27° \mathcal{B} 19'32	
desc. node	3341 Jul 07 22:57	11° Ω 00'45		asc. node	3342 May 18 09:35	29° \mathcal{B} 38'57	
retrograde	3341 Jul 17 16:16	14° Ω 32'48			3342 May 18 13:30	0° Π	
evening set	3341 Jul 22 12:03	13° Ω 40'47		evening rise	3342 May 24 06:41	12° Π 15'14	
min. Earth dist.	3341 Jul 28 06:30	10° Ω 46'26	0.56667 AU		3342 Jun 02 08:09	0° \mathcal{E}	
inferior conj	3341 Jul 30 22:19	9° Ω 05'46	-5°01'01	evening max el	3342 Jun 15 09:23	17° \mathcal{E} 58'14	22°45'05
minimum elong	3341 Jul 30 19:18	9° Ω 10'34	5°00'46	desc. node	3342 Jun 24 19:59	24° \mathcal{E} 00'45	
morning rise	3341 Aug 08 05:11	5° Ω 03'52		retrograde	3342 Jun 28 15:27	24° \mathcal{E} 34'02	
direct	3341 Aug 10 21:22	4° Ω 44'40		evening set	3342 Jul 01 22:57	24° \mathcal{E} 09'57	
morning max el	3341 Aug 20 11:00	9° Ω 11'52	19°35'12	min. Earth dist.	3342 Jul 09 17:41	20° \mathcal{E} 44'24	0.55338 AU
asc. node	3341 Aug 27 11:47	17° Ω 59'51		inferior conj	3342 Jul 11 02:52	19° \mathcal{E} 56'49	-4°13'02
	3341 Sep 03 07:36	0° \mathcal{M}		minimum elong	3342 Jul 10 19:02	20° \mathcal{E} 08'04	4°11'18
morning set	3341 Sep 06 22:40	7° \mathcal{M} 09'38		morning rise	3342 Jul 19 17:23	16° \mathcal{E} 05'31	
				direct	3342 Jul 22 16:10	15° \mathcal{E} 45'19	
superior conj	3341 Sep 14 21:45	23° \mathcal{M} 08'52	1°42'53	morning max el	3342 Aug 02 20:28	20° \mathcal{E} 56'47	20°52'10
minimum elong	3341 Sep 14 22:56	23° \mathcal{M} 14'45	1°42'51		3342 Aug 10 07:16	0° Ω	
	3341 Sep 18 10:31	0° \mathcal{A}		asc. node	3342 Aug 14 08:51	6° Ω 36'54	
max. Earth dist.	3341 Sep 20 23:55	4° \mathcal{A} 48'44	1.37631 AU	morning set	3342 Aug 22 05:51	21° Ω 51'02	
evening rise	3341 Sep 24 18:04	11° \mathcal{A} 38'08			3342 Aug 26 03:56	0° \mathcal{M}	
desc. node	3341 Oct 03 22:17	27° \mathcal{A} 07'13					
	3341 Oct 05 17:53	0° \mathcal{M}		superior conj	3342 Aug 29 16:49	7° \mathcal{M} 19'50	1°44'29
	3341 Oct 27 20:49	0° \mathcal{J}		minimum elong	3342 Aug 29 16:25	7° \mathcal{M} 17'49	1°44'28
evening max el	3341 Oct 30 11:39	2° \mathcal{J} 42'30	25°17'12	max. Earth dist.	3342 Sep 03 08:05	16° \mathcal{M} 39'13	1.35757 AU
retrograde	3341 Nov 11 11:36	9° \mathcal{J} 38'05		evening rise	3342 Sep 07 10:19	24° \mathcal{M} 30'06	
evening set	3341 Nov 17 07:29	7° \mathcal{J} 11'57			3342 Sep 10 10:17	0° \mathcal{A}	
min. Earth dist.	3341 Nov 21 18:17	2° \mathcal{J} 15'05	0.67258 AU	desc. node	3342 Sep 20 19:19	17° \mathcal{A} 26'28	
inferior conj	3341 Nov 22 20:55	0° \mathcal{J} 48'37	-0°12'04		3342 Sep 29 07:34	0° \mathcal{M}	
minimum elong	3341 Nov 22 21:13	0° \mathcal{J} 47'38	0°11'56	evening max el	3342 Oct 12 23:59	16° \mathcal{M} 23'17	26°21'37
transit middle	3341 Nov 22 21:13	0° \mathcal{J} 47'38	0°11'56	retrograde	3342 Oct 25 18:40	23° \mathcal{M} 35'01	
transit begin	3341 Nov 22 19:20	0° \mathcal{J} 53'45		evening set	3342 Nov 01 03:59	20° \mathcal{M} 57'45	
transit end	3341 Nov 22 23:06	0° \mathcal{J} 41'31		min. Earth dist.	3342 Nov 05 07:41	16° \mathcal{M} 36'26	0.66391 AU
asc. node	3341 Nov 23 10:58	0° \mathcal{J} 03'11		inferior conj	3342 Nov 06 21:37	14° \mathcal{M} 40'43	-1°10'22
	3341 Nov 23 11:58	30° \mathcal{R} \mathcal{M}		minimum elong	3342 Nov 06 23:31	14° \mathcal{M} 34'55	1°09'33
morning rise	3341 Nov 28 11:13	24° \mathcal{M} 51'26		asc. node	3342 Nov 10 08:02	10° \mathcal{M} 48'45	
direct	3341 Dec 01 21:51	23° \mathcal{M} 43'05		morning rise	3342 Nov 12 19:35	8° \mathcal{M} 53'21	
morning max el	3341 Dec 09 03:00	27° \mathcal{M} 46'32	19°28'57	direct	3342 Nov 15 20:09	8° \mathcal{M} 01'32	
	3341 Dec 11 04:14	0° \mathcal{J}		morning max el	3342 Nov 22 13:15	11° \mathcal{M} 43'08	18°39'42
greatest brilliancy	3341 Dec 22 08:52	15° \mathcal{J} 26'02	-0.7m		3342 Dec 05 18:06	0° \mathcal{J}	
desc. node	3341 Dec 30 21:32	28° \mathcal{J} 26'09		morning set	3342 Dec 13 09:36	12° \mathcal{J} 04'44	
	3341 Dec 31 21:52	0° \mathcal{Z}		desc. node	3342 Dec 17 18:34	18° \mathcal{J} 59'57	
morning set	3342 Jan 02 15:33	2° \mathcal{Z} 41'05			3342 Dec 24 18:16	0° \mathcal{Z}	
max. Earth dist.	3342 Jan 15 12:37	22° \mathcal{Z} 48'15	1.44569 AU				
				superior conj	3342 Dec 29 13:33	7° \mathcal{Z} 32'25	-1°14'33
superior conj	3342 Jan 19 09:09	28° \mathcal{Z} 56'16	-1°49'33	minimum elong	3342 Dec 29 04:55	6° \mathcal{Z} 58'31	1°13'34
minimum elong	3342 Jan 19 01:27	28° \mathcal{Z} 25'30	1°49'00	max. Earth dist.	3342 Dec 29 06:07	7° \mathcal{Z} 03'12	1.45185 AU
	3342 Jan 20 01:04	0° \mathcal{A}			3343 Jan 12 18:40	0° \mathcal{A}	
evening rise	3342 Feb 02 10:39	21° \mathcal{A} 59'01		evening rise	3343 Jan 14 05:47	2° \mathcal{A} 20'17	
	3342 Feb 07 05:29	0° \mathcal{H}		greatest brilliancy	3343 Jan 22 05:40	15° \mathcal{A} 07'04	-0.8m
asc. node	3342 Feb 19 10:16	18° \mathcal{H} 39'47			3343 Feb 01 04:33	0° \mathcal{H}	
evening max el	3342 Feb 21 10:14	20° \mathcal{H} 53'45	18°21'02	evening max el	3343 Feb 04 20:59	4° \mathcal{H} 21'33	18°52'38
retrograde	3342 Feb 27 21:28	24° \mathcal{H} 23'39		asc. node	3343 Feb 06 07:19	5° \mathcal{H} 42'25	
evening set	3342 Mar 02 21:34	23° \mathcal{H} 34'42		retrograde	3343 Feb 11 15:29	8° \mathcal{H} 09'39	
inferior conj	3342 Mar 08 20:00	18° \mathcal{H} 09'08	3°38'58	evening set	3343 Feb 14 21:52	7° \mathcal{H} 08'16	
minimum elong	3342 Mar 08 19:48	18° \mathcal{H} 09'40	3°38'57	inferior conj	3343 Feb 20 13:19	1° \mathcal{H} 25'36	3°30'16
min. Earth dist.	3342 Mar 11 04:27	15° \mathcal{H} 28'31	0.63955 AU	minimum elong	3343 Feb 20 11:48	1° \mathcal{H} 30'20	3°30'06
morning rise	3342 Mar 14 17:15	12° \mathcal{H} 01'09			3343 Feb 21 16:48	30° \mathcal{R} \mathcal{A}	
direct	3342 Mar 21 14:02	9° \mathcal{H} 14'14		min. Earth dist.	3343 Feb 22 06:13	29° \mathcal{A} 18'40	0.65553 AU
desc. node	3342 Mar 28 20:43	11° \mathcal{H} 46'29		morning rise	3343 Feb 26 01:19	25° \mathcal{A} 13'39	
morning max el	3342 Apr 04 07:30	17° \mathcal{H} 10'36	27°34'56	direct	3343 Mar 04 15:09	22° \mathcal{A} 22'29	
	3342 Apr 14 23:43	0° \mathcal{Y}		desc. node	3343 Mar 15 17:45	28° \mathcal{A} 11'04	
	3342 May 03 16:05	0° \mathcal{B}		morning max el	3343 Mar 17 17:20	0° \mathcal{H} 05'36	26°46'42
morning set	3342 May 09 05:44	10° \mathcal{B} 37'33			3343 Mar 17 15:07	0° \mathcal{H}	

	3343 Apr 08 22:24	0° Υ		morning max el	3344 Feb 28 02:28	13° \approx 15'02	25°34'58
morning set	3343 Apr 22 14:30	23° Υ 58'54		desc. node	3344 Mar 01 14:46	15° \approx 55'22	
	3343 Apr 25 16:56	0° \mathcal{B}			3344 Mar 12 16:00	0° \mathcal{H}	
max. Earth dist.	3343 Apr 26 21:38	2° \mathcal{B} 22'40	1.34377 AU		3344 Mar 31 16:27	0° Υ	
				morning set	3344 Apr 04 08:13	6° Υ 31'55	
superior conj	3343 May 01 04:21	11° \mathcal{B} 06'40	-0°41'38	max. Earth dist.	3344 Apr 08 02:06	13° Υ 29'42	1.36042 AU
minimum elong	3343 May 01 06:32	11° \mathcal{B} 17'58	0°41'13				
asc. node	3343 May 05 06:38	19° \mathcal{B} 41'46		superior conj	3344 Apr 13 20:35	24° Υ 45'00	-1°10'03
evening rise	3343 May 08 16:26	26° \mathcal{B} 50'54		minimum elong	3344 Apr 14 00:14	25° Υ 03'13	1°09'26
	3343 May 10 05:03	0° Π			3344 Apr 16 11:02	0° \mathcal{B}	
evening max el	3343 May 28 06:13	28° Π 38'22	21°13'46	asc. node	3344 Apr 21 03:41	9° \mathcal{B} 35'27	
	3343 May 29 17:51	0° \mathcal{E}		evening rise	3344 Apr 21 22:09	11° \mathcal{B} 09'29	
retrograde	3343 Jun 09 04:58	4° \mathcal{E} 29'37			3344 May 02 00:06	0° Π	
evening set	3343 Jun 11 11:40	4° \mathcal{E} 17'37		evening max el	3344 May 09 14:36	9° Π 54'28	19°57'44
desc. node	3343 Jun 11 17:00	4° \mathcal{E} 15'13		retrograde	3344 May 19 20:09	14° Π 52'45	
inferior conj	3343 Jun 20 20:50	0° \mathcal{E} 19'05	-2°37'37	evening set	3344 May 21 19:35	14° Π 42'27	
minimum elong	3343 Jun 20 13:44	0° \mathcal{E} 29'02	2°35'16	desc. node	3344 May 28 13:59	11° Π 59'38	
min. Earth dist.	3343 Jun 21 05:13	0° \mathcal{E} 07'18	0.54855 AU	inferior conj	3344 May 30 18:18	10° Π 42'12	-0°38'34
	3343 Jun 21 10:25	30° $\mathcal{R}\Pi$		minimum elong	3344 May 30 16:31	10° Π 44'54	0°37'54
morning rise	3343 Jun 29 16:08	26° Π 20'50		min. Earth dist.	3344 Jun 01 18:06	9° Π 30'00	0.55334 AU
direct	3343 Jul 03 02:00	25° Π 55'39		morning rise	3344 Jun 08 11:33	6° Π 18'29	
	3343 Jul 13 11:33	0° \mathcal{E}		direct	3344 Jun 12 15:38	5° Π 40'25	
morning max el	3343 Jul 15 18:47	1° \mathcal{E} 57'48	22°26'36	morning max el	3344 Jun 26 10:04	12° Π 28'33	24°09'28
asc. node	3343 Aug 01 05:53	25° \mathcal{E} 46'10			3344 Jul 09 19:30	0° \mathcal{E}	
	3343 Aug 03 09:49	0° \mathcal{Q}		asc. node	3344 Jul 18 02:56	15° \mathcal{E} 19'32	
morning set	3343 Aug 06 16:11	6° \mathcal{Q} 41'48		morning set	3344 Jul 21 03:54	21° \mathcal{E} 37'00	
					3344 Jul 25 01:33	0° \mathcal{Q}	
superior conj	3343 Aug 13 19:40	21° \mathcal{Q} 53'40	1°39'12				
minimum elong	3343 Aug 13 18:07	21° \mathcal{Q} 45'28	1°39'05	superior conj	3344 Jul 28 03:35	6° \mathcal{Q} 42'15	1°28'12
max. Earth dist.	3343 Aug 17 00:52	28° \mathcal{Q} 37'53	1.34232 AU	minimum elong	3344 Jul 28 01:23	6° \mathcal{Q} 30'19	1°27'57
	3343 Aug 17 16:49	0° \mathcal{P}		max. Earth dist.	3344 Jul 30 02:42	10° \mathcal{Q} 56'21	1.33110 AU
evening rise	3343 Aug 21 17:49	8° \mathcal{P} 05'51		evening rise	3344 Aug 04 12:30	22° \mathcal{Q} 14'10	
	3343 Sep 02 23:13	0° \mathcal{A}			3344 Aug 08 11:12	0° \mathcal{P}	
desc. node	3343 Sep 07 16:21	7° \mathcal{A} 24'56		desc. node	3344 Aug 24 13:21	26° \mathcal{P} 53'50	
evening max el	3343 Sep 25 12:33	29° \mathcal{A} 56'08	27°06'58		3344 Aug 26 18:32	0° \mathcal{A}	
	3343 Sep 25 14:10	0° \mathcal{M}		evening max el	3344 Sep 06 23:48	13° \mathcal{A} 08'52	27°26'12
retrograde	3343 Oct 08 19:58	7° \mathcal{M} 13'35		retrograde	3344 Sep 20 15:01	20° \mathcal{A} 25'41	
evening set	3343 Oct 15 16:47	4° \mathcal{M} 31'31		evening set	3344 Sep 27 18:59	17° \mathcal{A} 48'07	
min. Earth dist.	3343 Oct 19 14:00	0° \mathcal{M} 46'03	0.65179 AU	min. Earth dist.	3344 Oct 01 11:02	14° \mathcal{A} 36'00	0.63624 AU
	3343 Oct 20 06:33	30° $\mathcal{R}\mathcal{A}$		inferior conj	3344 Oct 04 01:20	11° \mathcal{A} 57'57	-3°10'20
inferior conj	3343 Oct 21 15:56	28° \mathcal{A} 25'44	-2°10'41	minimum elong	3344 Oct 04 06:28	11° \mathcal{A} 44'56	3°08'38
minimum elong	3343 Oct 21 19:33	28° \mathcal{A} 15'33	2°09'15	morning rise	3344 Oct 10 19:13	6° \mathcal{A} 39'54	
morning rise	3343 Oct 27 23:14	22° \mathcal{A} 51'15		direct	3344 Oct 13 06:53	6° \mathcal{A} 09'47	
asc. node	3343 Oct 28 05:06	22° \mathcal{A} 44'32		asc. node	3344 Oct 14 02:07	6° \mathcal{A} 12'59	
direct	3343 Oct 30 16:03	22° \mathcal{A} 12'05		morning max el	3344 Oct 19 20:31	9° \mathcal{A} 35'04	17°51'46
morning max el	3343 Nov 06 04:01	25° \mathcal{A} 41'18	18°07'03		3344 Nov 02 12:15	0° \mathcal{M}	
	3343 Nov 09 19:35	0° \mathcal{M}		morning set	3344 Nov 05 10:52	5° \mathcal{M} 05'38	
morning set	3343 Nov 24 09:06	22° \mathcal{M} 56'56					
	3343 Nov 28 16:01	0° \mathcal{J}		superior conj	3344 Nov 17 19:35	26° \mathcal{M} 02'42	0°18'36
desc. node	3343 Dec 04 15:36	9° \mathcal{J} 41'47		minimum elong	3344 Nov 17 21:33	26° \mathcal{M} 10'46	0°18'18
					3344 Nov 20 05:40	0° \mathcal{J}	
superior conj	3343 Dec 08 18:42	16° \mathcal{J} 17'10	-0°27'52	desc. node	3344 Nov 20 12:40	0° \mathcal{J} 28'23	
minimum elong	3343 Dec 08 15:11	16° \mathcal{J} 03'14	0°27'22	max. Earth dist.	3344 Nov 23 19:37	5° \mathcal{J} 46'06	1.44222 AU
max. Earth dist.	3343 Dec 12 01:33	21° \mathcal{J} 28'44	1.45063 AU	evening rise	3344 Dec 03 13:08	21° \mathcal{J} 00'40	
	3343 Dec 17 12:05	0° \mathcal{Z}			3344 Dec 09 10:32	0° \mathcal{Z}	
evening rise	3343 Dec 25 03:23	11° \mathcal{Z} 52'08			3344 Dec 30 21:53	0° \approx	
	3344 Jan 05 22:30	0° \approx		evening max el	3345 Jan 01 05:16	1° \approx 23'55	20°43'03
greatest brilliancy	3344 Jan 07 03:52	1° \approx 50'25	-0.7m	retrograde	3345 Jan 09 10:44	6° \approx 15'30	
evening max el	3344 Jan 19 03:47	17° \approx 52'13	19°40'44	asc. node	3345 Jan 10 01:22	6° \approx 13'27	
asc. node	3344 Jan 24 04:22	21° \approx 38'25		evening set	3345 Jan 13 09:39	4° \approx 45'48	
retrograde	3344 Jan 26 12:41	22° \approx 08'14			3345 Jan 17 17:43	30° $\mathcal{R}\mathcal{Z}$	
evening set	3344 Jan 30 02:34	20° \approx 53'17		inferior conj	3345 Jan 18 18:30	28° \mathcal{Z} 35'50	2°37'29
inferior conj	3344 Feb 04 13:40	14° \approx 55'37	3°08'51	minimum elong	3345 Jan 18 15:58	28° \mathcal{Z} 44'30	2°36'47
minimum elong	3344 Feb 04 11:22	15° \approx 03'12	3°08'24	min. Earth dist.	3345 Jan 19 07:30	27° \mathcal{Z} 51'16	0.67513 AU
min. Earth dist.	3344 Feb 05 15:51	13° \approx 29'11	0.66740 AU	morning rise	3345 Jan 23 22:06	22° \mathcal{Z} 22'37	
morning rise	3344 Feb 09 19:56	8° \approx 42'12		direct	3345 Jan 29 09:56	19° \mathcal{Z} 56'53	
direct	3344 Feb 15 22:01	5° \approx 59'25		morning max el	3345 Feb 09 10:59	26° \mathcal{Z} 32'06	24°09'39

	3345 Feb 12 15:59	0°♊		desc. node	3346 Feb 03 08:53	23°♊59'07	
desc. node	3345 Feb 16 11:49	4°♊36'44			3346 Feb 07 15:46	0°♊	
	3345 Mar 06 06:30	0°♋		morning set	3346 Feb 25 23:41	28°♊12'48	
morning set	3345 Mar 17 05:16	18°♋01'21			3346 Feb 27 01:40	0°♋	
max. Earth dist.	3345 Mar 20 22:43	24°♋35'34	1.38064 AU	max. Earth dist.	3346 Mar 02 18:30	6°♋13'34	1.40233 AU
	3345 Mar 23 22:03	0°♌					
superior conj	3345 Mar 28 00:58	7°♌44'37	-1°36'01	superior conj	3346 Mar 10 13:12	19°♋55'19	-1°56'18
minimum elong	3345 Mar 28 05:31	8°♌06'23	1°35'27	minimum elong	3346 Mar 10 17:14	20°♋13'38	1°56'01
evening rise	3345 Apr 05 21:21	25°♌03'43			3346 Mar 15 23:59	0°♌	
asc. node	3345 Apr 08 00:42	29°♌15'04		evening rise	3346 Mar 20 10:58	8°♌25'57	
	3345 Apr 08 09:58	0°♍		asc. node	3346 Mar 25 21:43	18°♌35'29	
evening max el	3345 Apr 22 10:27	21°♍50'44	19°01'06	evening max el	3346 Apr 01 22:21	0°♍	
retrograde	3345 May 01 01:21	26°♍02'46			3346 Apr 05 15:16	4°♍22'27	18°24'43
evening set	3345 May 03 04:00	25°♍48'41		retrograde	3346 Apr 13 01:22	8°♍02'43	
inferior conj	3345 May 11 07:56	21°♍34'06	1°10'19	evening set	3346 Apr 15 10:22	7°♍41'13	
minimum elong	3345 May 11 10:34	21°♍29'29	1°09'25	inferior conj	3346 Apr 22 18:55	3°♍07'11	2°29'16
min. Earth dist.	3345 May 14 09:37	19°♍26'22	0.56676 AU	minimum elong	3346 Apr 22 22:41	2°♍59'28	2°28'17
desc. node	3345 May 15 11:00	18°♍45'02		min. Earth dist.	3346 Apr 26 05:33	0°♍19'42	0.58611 AU
morning rise	3345 May 19 13:59	16°♍34'56			3346 Apr 26 15:51	30°♌♌	
direct	3345 May 24 17:36	15°♍32'15		morning rise	3346 Apr 30 08:02	27°♌36'41	
morning max el	3345 Jun 08 00:37	22°♍54'41	25°46'23	desc. node	3346 May 02 08:01	26°♌43'31	
	3345 Jun 14 08:30	0°♎		direct	3346 May 06 10:04	25°♌59'25	
	3345 Jul 02 11:48	0°♏			3346 May 16 12:19	0°♎	
asc. node	3345 Jul 04 23:57	5°♏09'26		morning max el	3346 May 20 19:31	3°♎43'18	27°01'35
morning set	3345 Jul 05 15:21	6°♏30'23			3346 Jun 08 22:46	0°♎	
				morning set	3346 Jun 20 00:54	21°♎16'38	
superior conj	3345 Jul 12 14:21	21°♏37'36	1°12'23	asc. node	3346 Jun 21 21:00	25°♎10'27	
minimum elong	3345 Jul 12 12:00	21°♏24'40	1°12'01		3346 Jun 24 02:31	0°♏	
max. Earth dist.	3345 Jul 13 11:05	23°♏31'22	1.32396 AU	superior conj	3346 Jun 27 02:10	6°♏33'39	0°52'29
	3345 Jul 16 10:35	0°♐		minimum elong	3346 Jun 27 00:08	6°♏22'26	0°52'06
evening rise	3345 Jul 19 15:00	6°♐44'14		max. Earth dist.	3346 Jun 26 22:40	6°♏14'19	1.32086 AU
	3345 Jul 31 23:36	0°♑		evening rise	3346 Jul 03 22:44	21°♏28'06	
desc. node	3345 Aug 11 10:21	15°♑40'04			3346 Jul 08 02:41	0°♐	
evening max el	3345 Aug 20 07:12	25°♑47'06	27°14'07		3346 Jul 26 11:05	0°♑	
	3345 Aug 25 12:16	0°♒		desc. node	3346 Jul 29 07:20	3°♑26'10	
retrograde	3345 Sep 03 03:15	3°♒01'13		evening max el	3346 Aug 02 08:23	7°♑40'44	26°28'47
evening set	3345 Sep 10 06:50	0°♒40'12		retrograde	3346 Aug 16 07:40	14°♑51'44	
	3345 Sep 11 06:21	30°♒♑		evening set	3346 Aug 22 23:40	13°♑00'29	
min. Earth dist.	3345 Sep 13 21:28	27°♑53'41	0.61763 AU	min. Earth dist.	3346 Aug 26 21:50	10°♑24'56	0.59712 AU
inferior conj	3345 Sep 16 22:43	25°♑09'00	-4°05'08	inferior conj	3346 Aug 30 04:37	7°♑50'10	-4°47'49
minimum elong	3345 Sep 17 04:28	24°♑56'01	4°03'42	minimum elong	3346 Aug 30 09:06	7°♑41'20	4°47'11
morning rise	3345 Sep 24 03:49	20°♑10'48		morning rise	3346 Sep 06 20:39	3°♑14'15	
direct	3345 Sep 26 13:00	19°♑46'40		direct	3346 Sep 09 06:18	2°♑53'32	
asc. node	3345 Sep 30 23:09	21°♑12'55		morning max el	3346 Sep 16 22:19	6°♑37'05	18°17'07
morning max el	3345 Oct 03 11:41	23°♑16'27	17°54'43	asc. node	3346 Sep 17 20:12	7°♑32'35	
	3345 Oct 08 19:22	0°♓			3346 Oct 01 19:51	0°♓	
morning set	3345 Oct 19 08:27	18°♓10'29		morning set	3346 Oct 02 20:14	1°♓55'41	
	3345 Oct 25 21:51	0°♔					
superior conj	3345 Oct 29 23:19	7°♔07'04	0°56'23	superior conj	3346 Oct 12 03:27	19°♓22'41	1°22'46
minimum elong	3345 Oct 30 03:32	7°♔25'16	0°55'50	minimum elong	3346 Oct 12 07:15	19°♓40'00	1°22'23
max. Earth dist.	3345 Nov 06 09:16	19°♔36'05	1.42760 AU		3346 Oct 18 02:49	0°♔	
desc. node	3345 Nov 07 09:41	21°♔15'54		max. Earth dist.	3346 Oct 19 17:15	2°♔45'10	1.40875 AU
	3345 Nov 12 20:38	0°♕		evening rise	3346 Oct 24 10:44	10°♔39'26	
evening rise	3345 Nov 13 02:53	0°♕24'37		desc. node	3346 Oct 25 06:42	12°♔00'56	
	3345 Dec 03 00:59	0°♖			3346 Nov 05 20:31	0°♕	
evening max el	3345 Dec 15 01:10	14°♖56'43	21°56'16	evening max el	3346 Nov 27 16:34	28°♕31'56	23°15'34
retrograde	3345 Dec 24 07:43	20°♖27'54			3346 Nov 29 05:13	0°♖	
asc. node	3345 Dec 27 22:23	19°♖17'26		retrograde	3346 Dec 08 02:02	4°♖41'23	
evening set	3345 Dec 28 17:22	18°♖42'30		evening set	3346 Dec 13 00:05	2°♖39'44	
inferior conj	3346 Jan 03 01:42	12°♖23'36	1°58'03	asc. node	3346 Dec 14 19:25	0°♖53'04	
minimum elong	3346 Jan 02 23:26	12°♖31'30	1°57'15		3346 Dec 15 13:36	30°♌♕	
min. Earth dist.	3346 Jan 03 02:56	12°♖19'20	0.67892 AU	inferior conj	3346 Dec 18 09:24	26°♕15'49	1°11'49
morning rise	3346 Jan 08 05:20	6°♖12'10		minimum elong	3346 Dec 18 07:49	26°♕21'15	1°11'11
direct	3346 Jan 13 02:13	4°♖08'04		min. Earth dist.	3346 Dec 17 23:44	26°♕49'00	0.67913 AU
morning max el	3346 Jan 22 21:10	9°♖55'27	22°40'51	morning rise	3346 Dec 23 15:28	20°♕08'03	
				direct	3346 Dec 27 21:58	18°♕26'44	

morning max el	3347 Jan 05 12:20	23°  26'53	21°17'03	desc. node	3348 Jan 08 02:59	4°  02'53	
	3347 Jan 11 04:41	0°  3		morning set	3348 Jan 15 09:57	15°  11'46	
desc. node	3347 Jan 21 05:55	13°  50'25			3348 Jan 24 20:49	0°  3	
	3347 Feb 01 00:44	0°  3		max. Earth dist.	3348 Jan 26 04:58	2°  08'06	1.43905 AU
morning set	3347 Feb 05 13:24	7°  03'18					
max. Earth dist.	3347 Feb 12 19:39	18°  43'37	1.42272 AU	superior conj	3348 Jan 31 17:29	11°  03'41	-2°01'14
	3347 Feb 19 13:05	0°  8		minimum elong	3348 Jan 31 12:51	10°  44'46	2°01'03
					3348 Feb 12 00:21	0°  8	
superior conj	3347 Feb 20 04:05	1°  04'20	-2°06'28	evening rise	3348 Feb 13 17:31	2°  56'57	
minimum elong	3347 Feb 20 05:04	1°  08'33	2°06'27	asc. node	3348 Feb 27 15:47	25°  48'42	
evening rise	3347 Mar 03 11:07	21°  06'24			3348 Mar 02 01:02	0°  9	
	3347 Mar 08 09:41	0°  9		evening max el	3348 Mar 02 14:14	0°  9'34'04	18°10'57
asc. node	3347 Mar 12 18:45	7°  9'29'23		retrograde	3348 Mar 09 00:42	3°  9'58'04	
evening max el	3347 Mar 20 01:35	17°  9'19'41	18°08'12	evening set	3348 Mar 11 21:40	3°  9'15'39	
retrograde	3347 Mar 26 18:31	20°  9'44'23			3348 Mar 16 03:41	30°  R  8	
evening set	3347 Mar 29 09:46	20°  9'13'05		inferior conj	3348 Mar 18 01:31	28°  8'00'47	3°36'34
inferior conj	3347 Apr 05 02:00	15°  9'18'18	3°16'09	minimum elong	3348 Mar 18 02:20	27°  8'58'37	3°36'32
minimum elong	3347 Apr 05 04:38	15°  9'12'03	3°15'44	min. Earth dist.	3348 Mar 20 18:41	25°  8'06'45	0.62881 AU
min. Earth dist.	3347 Apr 08 07:52	12°  9'15'24	0.60786 AU	morning rise	3348 Mar 24 05:52	21°  8'57'17	
morning rise	3347 Apr 11 21:29	9°  9'26'56		direct	3348 Mar 31 03:47	19°  8'19'22	
direct	3347 Apr 18 14:21	7°  9'14'40		desc. node	3348 Apr 05 02:08	20°  8'29'24	
desc. node	3347 Apr 19 05:04	7°  9'15'44		morning max el	3348 Apr 14 02:54	27°  8'16'46	27°48'31
morning max el	3347 May 02 20:29	15°  9'09'22	27°43'45		3348 Apr 16 16:47	0°  9	
	3347 May 14 21:38	0°  8			3348 May 07 13:48	0°  8	
	3347 Jun 01 09:44	0°  II		morning set	3348 May 18 06:43	20°  8'01'11	
morning set	3347 Jun 04 06:45	5°  II'49'08			3348 May 23 02:19	0°  II	
asc. node	3347 Jun 08 18:03	15°  II'17'17		max. Earth dist.	3348 May 23 16:23	1°  II'14'56	1.32683 AU
max. Earth dist.	3347 Jun 10 09:41	18°  II'52'46	1.32176 AU				
				superior conj	3348 May 25 21:56	6°  II'02'45	0°03'01
superior conj	3347 Jun 11 13:17	21°  II'23'57	0°29'07	minimum elong	3348 May 25 21:47	6°  II'01'59	0°02'58
minimum elong	3347 Jun 11 12:00	21°  II'16'55	0°28'52	behind sun begin	3348 May 25 16:38	5°  II'34'07	
	3347 Jun 15 11:23	0°  3		behind sun end	3348 May 26 02:57	6°  II'29'53	
evening rise	3347 Jun 18 09:31	6°  3'18'06		asc. node	3348 May 25 15:06	5°  II'25'47	
	3347 Jun 30 19:46	0°  9		evening rise	3348 Jun 01 21:24	21°  II'07'47	
evening max el	3347 Jul 15 02:28	18°  9'47'44	25°14'04		3348 Jun 06 04:42	0°  3	
desc. node	3347 Jul 16 04:20	19°  9'47'38		evening max el	3348 Jun 25 15:56	29°  3'20'27	23°40'51
retrograde	3347 Jul 29 02:01	25°  9'53'15			3348 Jun 26 08:40	0°  9	
evening set	3347 Aug 03 17:07	24°  9'40'15		desc. node	3348 Jul 02 01:22	4°  9'11'56	
min. Earth dist.	3347 Aug 08 14:17	21°  9'57'30	0.57693 AU	retrograde	3348 Jul 09 07:53	6°  9'11'39	
inferior conj	3347 Aug 11 15:46	19°  9'52'16	-5°06'49	evening set	3348 Jul 13 11:59	5°  9'33'28	
minimum elong	3347 Aug 11 16:08	19°  9'51'39	5°06'48	min. Earth dist.	3348 Jul 20 02:05	2°  9'27'31	0.56019 AU
morning rise	3347 Aug 19 17:33	15°  9'38'41		inferior conj	3348 Jul 22 06:42	1°  9'08'31	-4°46'55
direct	3347 Aug 22 06:41	15°  9'19'19		minimum elong	3348 Jul 22 01:12	1°  9'16'48	4°46'09
morning max el	3347 Aug 31 01:08	19°  9'27'27	19°00'26		3348 Jul 24 04:59	30°  R  3	
asc. node	3347 Sep 04 17:17	24°  9'56'54		morning rise	3348 Jul 30 16:57	27°  3'12'41	
	3347 Sep 08 00:43	0°  9		direct	3348 Aug 02 11:55	26°  3'53'09	
morning set	3347 Sep 16 18:00	16°  9'09'59			3348 Aug 10 18:54	0°  9	
	3347 Sep 23 18:35	0°  9		morning max el	3348 Aug 12 17:15	1°  9'37'46	20°05'27
				asc. node	3348 Aug 21 14:21	13°  9'11'05	
superior conj	3347 Sep 25 02:40	2°  9'34'46	1°38'17	morning set	3348 Aug 30 22:30	0°  9'43'54	
minimum elong	3347 Sep 25 04:53	2°  9'45'24	1°38'09		3348 Aug 30 13:51	0°  9	
max. Earth dist.	3347 Oct 01 21:49	15°  9'13'13	1.38807 AU				
evening rise	3347 Oct 05 18:13	21°  9'59'55		superior conj	3348 Sep 07 15:44	16°  9'28'00	1°44'30
	3347 Oct 10 12:23	0°  9		minimum elong	3348 Sep 07 16:13	16°  9'30'24	1°44'29
desc. node	3347 Oct 12 03:42	2°  9'39'59		max. Earth dist.	3348 Sep 13 03:31	27°  9'12'46	1.36802 AU
	3347 Oct 30 19:16	0°  9			3348 Sep 14 14:59	0°  9	
evening max el	3347 Nov 10 05:35	12°  9'11'44	24°34'40	evening rise	3348 Sep 16 23:42	4°  9'21'24	
retrograde	3347 Nov 21 16:29	18°  9'52'42		desc. node	3348 Sep 28 00:43	23°  9'08'06	
evening set	3347 Nov 27 04:13	16°  9'35'11			3348 Oct 02 11:20	0°  9	
asc. node	3347 Dec 01 16:29	11°  9'28'16		evening max el	3348 Oct 22 17:53	25°  9'53'37	25°46'29
min. Earth dist.	3347 Dec 01 19:31	11°  9'18'13	0.67595 AU		3348 Oct 27 13:45	0°  9	
inferior conj	3347 Dec 02 15:49	10°  9'10'31	0°19'57	retrograde	3348 Nov 04 02:13	2°  9'56'33	
minimum elong	3347 Dec 02 15:20	10°  9'12'09	0°19'44	evening set	3348 Nov 10 04:02	0°  9'25'10	
morning rise	3347 Dec 08 02:31	4°  9'08'40			3348 Nov 10 15:30	30°  R  9	
direct	3347 Dec 11 19:58	2°  9'48'56		min. Earth dist.	3348 Nov 14 11:49	25°  9'43'24	0.66937 AU
morning max el	3347 Dec 19 11:06	7°  9'09'41	20°04'21	inferior conj	3348 Nov 15 19:08	24°  9'04'14	-0°36'25
	3348 Jan 05 10:26	0°  9		minimum elong	3348 Nov 15 20:05	24°  9'01'13	0°36'00

asc. node	3348 Nov 17 13:33	21° \mathbb{M} 53'12		direct	3349 Nov 08 16:09	1° \mathbb{M} 25'39	
morning rise	3348 Nov 21 12:29	18° \mathbb{M} 10'55		morning max el	3349 Nov 15 06:10	5° \mathbb{M} 00'33	18°23'45
direct	3348 Nov 24 18:40	17° \mathbb{M} 09'53			3349 Dec 02 10:43	0° \mathbb{M}	
morning max el	3348 Dec 01 17:38	21° \mathbb{M} 02'21	19°06'03	morning set	3349 Dec 04 20:23	3° \mathbb{M} 52'17	
	3348 Dec 08 21:57	0° \mathbb{M}		desc. node	3349 Dec 11 21:01	15° \mathbb{M} 07'34	
morning set	3348 Dec 24 14:04	23° \mathbb{M} 51'21					
desc. node	3348 Dec 25 00:00	24° \mathbb{M} 30'03		superior conj	3349 Dec 20 08:27	28° \mathbb{M} 31'08	-0°55'28
	3348 Dec 28 12:38	0° \mathbb{M}		minimum elong	3349 Dec 20 01:31	28° \mathbb{M} 03'55	0°54'34
max. Earth dist.	3349 Jan 07 20:45	16° \mathbb{M} 11'21	1.44925 AU		3349 Dec 21 07:05	0° \mathbb{M}	
				max. Earth dist.	3349 Dec 21 15:32	0° \mathbb{M} 33'09	1.45224 AU
superior conj	3349 Jan 10 06:34	19° \mathbb{M} 59'30	-1°36'47	evening rise	3350 Jan 05 11:25	23° \mathbb{M} 49'08	
minimum elong	3349 Jan 09 21:35	19° \mathbb{M} 24'01	1°35'57		3350 Jan 09 09:40	0° \mathbb{M}	
	3349 Jan 16 13:20	0° \mathbb{M}		greatest brilliancy	3350 Jan 15 19:58	10° \mathbb{M} 03'27	-0.8m
evening rise	3349 Jan 25 02:06	13° \mathbb{M} 51'02		evening max el	3350 Jan 28 11:27	27° \mathbb{M} 26'32	19°11'11
	3349 Feb 03 23:39	0° \mathbb{M}		asc. node	3350 Jan 31 09:52	29° \mathbb{M} 58'34	
asc. node	3349 Feb 13 12:49	13° \mathbb{M} 22'50			3350 Jan 31 10:42	0° \mathbb{M}	
evening max el	3349 Feb 14 02:19	13° \mathbb{M} 58'06	18°32'20	retrograde	3350 Feb 04 11:22	1° \mathbb{M} 25'53	
retrograde	3349 Feb 20 15:35	17° \mathbb{M} 34'22		evening set	3350 Feb 07 20:43	0° \mathbb{M} 18'51	
evening set	3349 Feb 23 18:19	16° \mathbb{M} 40'04			3350 Feb 08 07:33	30° \mathbb{M}	
inferior conj	3349 Mar 01 13:23	11° \mathbb{M} 06'44	3°37'02	inferior conj	3350 Feb 13 10:00	24° \mathbb{M} 29'17	3°22'34
minimum elong	3349 Mar 01 12:34	11° \mathbb{M} 09'10	3°37'00	minimum elong	3350 Feb 13 08:05	24° \mathbb{M} 35'26	3°22'17
min. Earth dist.	3349 Mar 03 15:04	8° \mathbb{M} 39'33	0.64681 AU	min. Earth dist.	3350 Feb 14 20:26	22° \mathbb{M} 39'10	0.66100 AU
morning rise	3349 Mar 07 06:16	4° \mathbb{M} 56'46		morning rise	3350 Feb 18 19:08	18° \mathbb{M} 16'14	
direct	3349 Mar 14 00:44	2° \mathbb{M} 06'43		direct	3350 Feb 25 04:14	15° \mathbb{M} 27'29	
desc. node	3349 Mar 22 23:11	5° \mathbb{M} 54'28		desc. node	3350 Mar 09 20:13	22° \mathbb{M} 55'58	
morning max el	3349 Mar 27 12:26	9° \mathbb{M} 58'25	27°18'01	morning max el	3350 Mar 09 22:19	23° \mathbb{M} 01'17	26°18'39
	3349 Apr 12 06:05	0° \mathbb{M}			3350 Mar 16 02:48	0° \mathbb{M}	
	3349 Apr 29 23:28	0° \mathbb{M}			3350 Apr 05 13:38	0° \mathbb{M}	
morning set	3349 May 01 22:05	3° \mathbb{M} 44'32		morning set	3350 Apr 15 01:03	16° \mathbb{M} 46'59	
max. Earth dist.	3349 May 06 14:55	13° \mathbb{M} 09'46	1.33626 AU	max. Earth dist.	3350 Apr 19 02:03	24° \mathbb{M} 31'13	1.35027 AU
					3350 Apr 21 20:19	0° \mathbb{M}	
superior conj	3349 May 10 02:10	20° \mathbb{M} 24'04	-0°25'03				
minimum elong	3349 May 10 03:27	20° \mathbb{M} 30'51	0°24'47	superior conj	3350 Apr 23 23:32	4° \mathbb{M} 19'49	-0°53'49
asc. node	3349 May 12 12:08	25° \mathbb{M} 32'10		minimum elong	3350 Apr 24 02:21	4° \mathbb{M} 34'17	0°53'18
	3349 May 14 14:18	0° \mathbb{M}		asc. node	3350 Apr 29 09:09	15° \mathbb{M} 31'26	
evening rise	3349 May 17 08:30	5° \mathbb{M} 50'58		evening rise	3350 May 01 16:47	20° \mathbb{M} 19'59	
	3349 May 30 10:13	0° \mathbb{M}			3350 May 06 12:35	0° \mathbb{M}	
evening max el	3349 Jun 07 07:44	9° \mathbb{M} 48'34	22°04'48	evening max el	3350 May 20 09:03	20° \mathbb{M} 41'53	20°39'15
desc. node	3349 Jun 18 22:24	16° \mathbb{M} 04'40		retrograde	3350 May 31 15:12	26° \mathbb{M} 11'25	
retrograde	3349 Jun 20 02:09	16° \mathbb{M} 07'46		evening set	3350 Jun 02 16:39	26° \mathbb{M} 01'06	
evening set	3349 Jun 22 21:14	15° \mathbb{M} 50'22		desc. node	3350 Jun 05 19:25	25° \mathbb{M} 09'42	
min. Earth dist.	3349 Jul 01 12:54	12° \mathbb{M} 07'51	0.55021 AU	inferior conj	3350 Jun 11 22:57	22° \mathbb{M} 03'34	-1°48'01
inferior conj	3349 Jul 02 05:20	11° \mathbb{M} 44'48	-3°37'32	minimum elong	3350 Jun 11 17:53	22° \mathbb{M} 10'51	1°46'11
minimum elong	3349 Jul 01 21:00	11° \mathbb{M} 56'30	3°35'16	min. Earth dist.	3350 Jun 13 01:02	21° \mathbb{M} 26'06	0.54937 AU
morning rise	3349 Jul 10 22:30	7° \mathbb{M} 53'28		morning rise	3350 Jun 20 18:28	17° \mathbb{M} 56'18	
direct	3349 Jul 14 01:20	7° \mathbb{M} 31'52		direct	3350 Jun 24 10:45	17° \mathbb{M} 27'09	
morning max el	3349 Jul 25 21:46	13° \mathbb{M} 03'54	21°30'36	morning max el	3350 Jul 07 16:36	23° \mathbb{M} 50'16	23°10'02
	3349 Aug 07 07:55	0° \mathbb{M}			3350 Jul 13 06:13	0° \mathbb{M}	
asc. node	3349 Aug 08 11:24	2° \mathbb{M} 03'20		asc. node	3350 Jul 26 08:25	21° \mathbb{M} 23'30	
morning set	3349 Aug 15 07:17	15° \mathbb{M} 30'39		morning set	3350 Jul 30 18:23	0° \mathbb{M} 23'45	
	3349 Aug 22 04:52	0° \mathbb{M}			3350 Jul 30 13:52	0° \mathbb{M}	
superior conj	3349 Aug 22 14:32	0° \mathbb{M} 50'26	1°43'01	superior conj	3350 Aug 06 19:50	15° \mathbb{M} 31'34	1°35'10
minimum elong	3349 Aug 22 13:35	0° \mathbb{M} 45'31	1°42'58	minimum elong	3350 Aug 06 17:57	15° \mathbb{M} 21'28	1°35'00
max. Earth dist.	3349 Aug 26 15:14	9° \mathbb{M} 05'34	1.35063 AU	max. Earth dist.	3350 Aug 09 11:43	21° \mathbb{M} 10'39	1.33703 AU
evening rise	3349 Aug 30 22:59	17° \mathbb{M} 33'37			3350 Aug 13 18:46	0° \mathbb{M}	
	3349 Sep 06 18:52	0° \mathbb{M}		evening rise	3350 Aug 14 11:39	1° \mathbb{M} 24'13	
desc. node	3349 Sep 14 21:44	13° \mathbb{M} 19'37			3350 Aug 30 17:21	0° \mathbb{M}	
	3349 Sep 26 18:12	0° \mathbb{M}		desc. node	3350 Sep 01 18:45	3° \mathbb{M} 06'42	
evening max el	3349 Oct 05 06:15	9° \mathbb{M} 31'44	26°43'30	evening max el	3350 Sep 17 18:17	22° \mathbb{M} 56'47	27°18'35
retrograde	3349 Oct 18 06:46	16° \mathbb{M} 46'49			3350 Sep 28 23:07	0° \mathbb{M}	
evening set	3349 Oct 24 21:32	14° \mathbb{M} 06'16		retrograde	3350 Oct 01 05:44	0° \mathbb{M} 15'21	
min. Earth dist.	3349 Oct 28 22:18	10° \mathbb{M} 00'35	0.65926 AU		3350 Oct 03 10:32	30° \mathbb{M}	
inferior conj	3349 Oct 30 17:21	7° \mathbb{M} 53'33	-1°35'50	evening set	3350 Oct 08 06:15	27° \mathbb{M} 33'36	
minimum elong	3349 Oct 30 19:59	7° \mathbb{M} 45'47	1°34'44	min. Earth dist.	3350 Oct 12 00:52	24° \mathbb{M} 03'00	0.64557 AU
asc. node	3349 Nov 04 10:36	3° \mathbb{M} 03'53		inferior conj	3350 Oct 14 08:12	21° \mathbb{M} 33'44	-2°36'16
morning rise	3349 Nov 05 19:09	2° \mathbb{M} 11'34		minimum elong	3350 Oct 14 12:31	21° \mathbb{M} 22'05	2°34'40

morning rise	3350 Oct 20 19:55	16°♌06'03		desc. node	3351 Aug 19 15:45	22°♏19'00	
asc. node	3350 Oct 22 07:38	15°♌37'40			3351 Aug 25 14:51	0°♌	
direct	3350 Oct 23 10:07	15°♌31'19		evening max el	3351 Aug 31 04:15	5°♌56'25	27°25'08
morning max el	3350 Oct 29 22:05	18°♌58'03	17°58'22	retrograde	3351 Sep 13 22:10	13°♌12'32	
	3350 Nov 07 02:14	0°♏		evening set	3351 Sep 21 02:53	10°♌40'38	
morning set	3350 Nov 16 07:46	15°♏19'09		min. Earth dist.	3351 Sep 24 17:42	7°♌40'24	0.62860 AU
	3350 Nov 25 03:28	0°♏		inferior conj	3351 Sep 27 12:54	4°♌57'54	-3°34'34
desc. node	3350 Nov 28 18:03	5°♏51'54		minimum elong	3351 Sep 27 18:27	4°♌44'27	3°32'54
					3351 Oct 03 23:20	30°♏	
superior conj	3350 Nov 29 20:21	7°♏37'47	-0°07'30	morning rise	3351 Oct 04 11:31	29°♏47'43	
minimum elong	3350 Nov 29 19:27	7°♏34'10	0°07'23	direct	3351 Oct 06 21:39	29°♏20'36	
behind sun begin	3350 Nov 29 10:08	6°♏56'39		asc. node	3351 Oct 09 04:40	29°♏45'32	
behind sun end	3350 Nov 30 04:47	8°♏11'39			3351 Oct 09 18:52	0°♌	
max. Earth dist.	3350 Dec 04 10:17	14°♏55'48	1.44784 AU	morning max el	3351 Oct 13 14:22	2°♌47'08	17°50'39
	3350 Dec 14 01:54	0°♐		morning set	3351 Oct 29 18:47	27°♌53'54	
evening rise	3350 Dec 16 02:16	3°♐06'36			3351 Oct 30 23:19	0°♏	
greatest brilliancy	3350 Dec 30 13:02	25°♐00'12	-0.6m				
	3351 Jan 02 23:58	0°♑		superior conj	3351 Nov 10 08:29	17°♏56'11	0°35'57
evening max el	3351 Jan 11 16:02	10°♑57'38	20°05'42	minimum elong	3351 Nov 10 11:49	18°♏10'12	0°35'29
asc. node	3351 Jan 18 06:53	15°♑21'51		desc. node	3351 Nov 15 15:04	26°♏39'01	
retrograde	3351 Jan 19 09:14	15°♑28'27		max. Earth dist.	3351 Nov 17 02:26	29°♏02'12	1.43665 AU
evening set	3351 Jan 23 02:38	14°♑07'35			3351 Nov 17 16:47	0°♏	
inferior conj	3351 Jan 28 12:32	8°♑04'20	2°56'40	evening rise	3351 Nov 25 11:38	12°♏16'31	
minimum elong	3351 Jan 28 10:05	8°♑12'37	2°56'05		3351 Dec 07 05:06	0°♐	
min. Earth dist.	3351 Jan 29 09:01	6°♑55'28	0.67113 AU	evening max el	3351 Dec 25 15:10	24°♐29'57	21°13'11
morning rise	3351 Feb 02 17:18	1°♑50'33		retrograde	3352 Jan 03 06:55	29°♐37'55	
	3351 Feb 05 08:22	30°♏		asc. node	3352 Jan 05 03:55	29°♐18'38	
direct	3351 Feb 08 13:30	29°♐13'59		evening set	3352 Jan 07 10:10	28°♐01'50	
	3351 Feb 12 00:46	0°♑		inferior conj	3352 Jan 12 18:38	21°♐47'53	2°21'40
morning max el	3351 Feb 20 07:04	6°♑14'40	24°59'43	minimum elong	3352 Jan 12 16:09	21°♐56'27	2°20'53
desc. node	3351 Feb 24 17:14	11°♑06'57		min. Earth dist.	3352 Jan 13 02:34	21°♐20'29	0.67725 AU
	3351 Mar 10 17:11	0°♒		morning rise	3352 Jan 17 21:56	15°♐35'12	
morning set	3351 Mar 28 10:43	28°♒55'01		direct	3352 Jan 23 03:31	13°♐18'02	
	3351 Mar 29 01:14	0°♓		morning max el	3352 Feb 02 15:38	19°♐33'08	23°31'38
max. Earth dist.	3351 Apr 01 02:02	5°♓31'45	1.36861 AU	desc. node	3352 Feb 11 14:17	0°♑07'09	
					3352 Feb 11 12:06	0°♑	
superior conj	3351 Apr 07 11:09	17°♓42'33	-1°21'32		3352 Mar 02 21:34	0°♒	
minimum elong	3351 Apr 07 15:17	18°♓02'52	1°20'54	morning set	3352 Mar 08 20:59	9°♒51'55	
	3351 Apr 13 14:43	0°♓		max. Earth dist.	3352 Mar 12 20:53	16°♒45'08	1.38988 AU
evening rise	3351 Apr 15 20:01	4°♓28'34					
asc. node	3351 Apr 16 06:11	5°♓19'29		superior conj	3352 Mar 20 09:13	0°♓22'27	-1°45'34
	3351 Apr 30 20:11	0°♔		minimum elong	3352 Mar 20 13:47	0°♓43'50	1°45'05
evening max el	3351 May 02 22:35	2°♔15'17	19°31'16		3352 Mar 20 04:25	0°♓	
retrograde	3351 May 12 10:53	6°♔52'10		evening rise	3352 Mar 29 15:30	18°♓09'25	
evening set	3351 May 14 10:49	6°♔40'52		asc. node	3352 Apr 02 03:13	24°♓51'15	
inferior conj	3351 May 23 02:06	2°♔36'04	0°10'27		3352 Apr 04 22:05	0°♓	
minimum elong	3351 May 23 02:34	2°♔35'20	0°10'18	evening max el	3352 Apr 14 22:41	14°♓27'21	18°43'11
transit middle	3351 May 23 02:34	2°♔35'20	0°10'18	retrograde	3352 Apr 22 23:38	18°♓23'24	
transit begin	3351 May 22 23:35	2°♔40'07		evening set	3352 Apr 25 05:05	18°♓06'25	
transit end	3351 May 23 05:33	2°♔30'33		inferior conj	3352 May 03 00:31	13°♓43'57	1°47'55
desc. node	3351 May 23 16:25	2°♔13'05		minimum elong	3352 May 03 04:02	13°♓37'24	1°46'50
min. Earth dist.	3351 May 25 15:10	0°♔58'45	0.55811 AU	min. Earth dist.	3352 May 06 08:07	11°♓16'48	0.57450 AU
	3351 May 27 06:18	30°♏		desc. node	3352 May 09 13:26	9°♓13'45	
morning rise	3351 May 31 15:34	27°♓57'15		morning rise	3352 May 10 23:48	8°♓30'47	
direct	3351 Jun 05 05:26	27°♓09'59		direct	3352 May 16 13:52	7°♓13'57	
	3351 Jun 13 22:38	0°♔		morning max el	3352 May 30 22:22	14°♓46'26	26°21'53
morning max el	3351 Jun 19 06:45	4°♔15'09	24°52'15		3352 Jun 12 03:08	0°♔	
	3351 Jul 07 13:14	0°♕		morning set	3352 Jun 28 17:00	0°♕09'07	
asc. node	3351 Jul 13 05:27	11°♕04'11			3352 Jun 28 15:16	0°♕	
morning set	3351 Jul 15 06:08	15°♕18'16		asc. node	3352 Jun 29 02:29	0°♕59'16	
superior conj	3351 Jul 22 05:12	0°♎23'36	1°22'02	superior conj	3352 Jul 05 16:39	15°♕19'56	1°04'25
minimum elong	3351 Jul 22 02:53	0°♎10'54	1°21'44	minimum elong	3352 Jul 05 14:22	15°♕07'24	1°04'02
	3351 Jul 22 00:53	0°♎		max. Earth dist.	3352 Jul 06 02:48	16°♕15'51	1.32216 AU
max. Earth dist.	3351 Jul 23 16:30	3°♎35'40	1.32758 AU		3352 Jul 12 11:16	0°♎	
evening rise	3351 Jul 29 10:01	15°♎42'46		evening rise	3352 Jul 12 15:04	0°♎19'58	
	3351 Aug 05 18:53	0°♏			3352 Jul 28 21:05	0°♏	

desc. node	3352 Aug 05 12:45	10° \mathbb{M} 42'28			3353 Jul 04 10:51	0° \mathcal{O}	
evening max el	3352 Aug 12 09:37	18° \mathbb{M} 18'05	26°58'57	desc. node	3353 Jul 23 09:47	27° \mathcal{O} 55'56	
retrograde	3352 Aug 26 07:08	25° \mathbb{M} 30'04			3353 Jul 25 11:30	0° \mathbb{M}	
evening set	3352 Sep 02 07:17	23° \mathbb{M} 20'36		evening max el	3353 Jul 25 07:44	29° \mathcal{O} 51'05	26°00'09
min. Earth dist.	3352 Sep 05 23:51	20° \mathbb{M} 40'39	0.60905 AU	retrograde	3353 Aug 08 07:12	6° \mathbb{M} 59'52	
inferior conj	3352 Sep 09 04:15	17° \mathbb{M} 58'15	-4°25'18	evening set	3353 Aug 14 14:33	5° \mathbb{M} 24'10	
minimum elong	3352 Sep 09 09:45	17° \mathbb{M} 46'28	4°24'10	min. Earth dist.	3353 Aug 18 20:10	2° \mathbb{M} 48'12	0.58835 AU
morning rise	3352 Sep 16 14:02	13° \mathbb{M} 08'56		inferior conj	3353 Aug 22 02:31	0° \mathbb{M} 23'37	-4°59'38
direct	3352 Sep 18 23:07	12° \mathbb{M} 46'26		minimum elong	3353 Aug 22 05:37	0° \mathbb{M} 17'52	4°59'21
asc. node	3352 Sep 25 01:43	15° \mathbb{M} 21'25			3353 Aug 22 15:17	30° \mathcal{R} \mathcal{O}	
morning max el	3352 Sep 26 04:01	16° \mathbb{M} 20'55	18°01'43	morning rise	3353 Aug 29 22:52	25° \mathcal{O} 57'31	
	3352 Oct 05 17:44	0° \mathcal{O}		direct	3353 Sep 01 09:50	25° \mathcal{O} 37'29	
morning set	3352 Oct 11 23:07	11° \mathcal{O} 18'24		morning max el	3353 Sep 09 11:42	29° \mathcal{O} 29'35	18°32'58
					3353 Sep 10 00:05	0° \mathbb{M}	
superior conj	3352 Oct 21 23:14	29° \mathcal{O} 32'43	1°08'58	asc. node	3353 Sep 11 22:47	2° \mathbb{M} 10'07	
minimum elong	3352 Oct 22 03:30	29° \mathcal{O} 51'35	1°08'28	morning set	3353 Sep 25 15:37	25° \mathbb{M} 17'13	
	3352 Oct 22 05:24	0° \mathbb{M}			3353 Sep 28 02:04	0° \mathcal{O}	
max. Earth dist.	3352 Oct 29 14:11	12° \mathbb{M} 37'55	1.42007 AU				
desc. node	3352 Nov 01 12:06	17° \mathbb{M} 25'57		superior conj	3353 Oct 04 12:13	12° \mathcal{O} 14'27	1°30'36
evening rise	3352 Nov 04 07:59	21° \mathbb{M} 59'41		minimum elong	3353 Oct 04 15:24	12° \mathcal{O} 29'19	1°30'19
	3352 Nov 09 10:25	0° \mathcal{X}		max. Earth dist.	3353 Oct 11 20:45	25° \mathcal{O} 30'38	1.40007 AU
	3352 Nov 30 10:11	0° \mathcal{Z}			3353 Oct 14 11:23	0° \mathbb{M}	
evening max el	3352 Dec 07 09:08	8° \mathcal{Z} 04'02	22°29'33	evening rise	3353 Oct 16 01:43	2° \mathbb{M} 41'34	
retrograde	3352 Dec 17 02:49	13° \mathcal{Z} 51'14		desc. node	3353 Oct 19 09:07	8° \mathbb{M} 08'44	
evening set	3352 Dec 21 17:40	11° \mathcal{Z} 58'52			3353 Nov 02 17:24	0° \mathcal{X}	
asc. node	3352 Dec 22 00:57	11° \mathcal{Z} 43'22		evening max el	3353 Nov 19 23:12	21° \mathcal{X} 40'44	23°49'32
inferior conj	3352 Dec 27 02:16	5° \mathcal{Z} 37'32	1°39'10	retrograde	3353 Nov 30 19:39	28° \mathcal{X} 04'34	
minimum elong	3352 Dec 27 00:14	5° \mathcal{Z} 44'35	1°38'24	evening set	3353 Dec 05 23:31	25° \mathcal{X} 55'44	
min. Earth dist.	3352 Dec 26 22:47	5° \mathcal{Z} 49'36	0.67955 AU	asc. node	3353 Dec 08 22:01	22° \mathcal{X} 48'25	
	3352 Dec 31 16:09	30° \mathcal{R} \mathcal{X}		inferior conj	3353 Dec 11 09:39	19° \mathcal{X} 30'54	0°50'25
morning rise	3353 Jan 01 06:41	29° \mathcal{X} 27'38		minimum elong	3353 Dec 11 08:29	19° \mathcal{X} 34'52	0°49'56
direct	3353 Jan 05 21:25	27° \mathcal{X} 33'13		min. Earth dist.	3353 Dec 10 19:23	20° \mathcal{X} 19'26	0.67825 AU
	3353 Jan 11 18:51	0° \mathcal{Z}		morning rise	3353 Dec 16 17:28	13° \mathcal{X} 25'36	
morning max el	3353 Jan 15 03:29	2° \mathcal{Z} 59'08	22°04'06	direct	3353 Dec 20 18:11	11° \mathcal{X} 53'56	
desc. node	3353 Jan 28 11:21	19° \mathcal{Z} 42'43		morning max el	3353 Dec 28 21:54	16° \mathcal{X} 35'55	20°44'31
	3353 Feb 04 13:35	0° \approx			3354 Jan 08 14:58	0° \mathcal{Z}	
morning set	3353 Feb 17 02:49	19° \approx 26'42		desc. node	3354 Jan 15 08:24	9° \mathcal{Z} 43'42	
max. Earth dist.	3353 Feb 22 18:55	28° \approx 45'53	1.41143 AU	morning set	3354 Jan 27 06:56	27° \mathcal{Z} 52'27	
	3353 Feb 23 12:34	0° \mathcal{X}			3354 Jan 28 15:36	0° \approx	
				max. Earth dist.	3354 Feb 04 23:57	11° \approx 41'50	1.43030 AU
superior conj	3353 Mar 02 13:01	12° \mathcal{X} 08'07	-2°02'09				
minimum elong	3353 Mar 02 16:06	12° \mathcal{X} 21'51	2°02'01	superior conj	3354 Feb 11 17:24	22° \approx 47'54	-2°06'26
	3353 Mar 12 07:49	0° \mathcal{Y}		minimum elong	3354 Feb 11 16:12	22° \approx 42'52	2°06'25
evening rise	3353 Mar 12 23:53	1° \mathcal{Y} 14'43			3354 Feb 15 22:58	0° \mathcal{X}	
asc. node	3353 Mar 20 00:15	14° \mathcal{Y} 01'00		evening rise	3354 Feb 23 17:06	13° \mathcal{X} 35'31	
evening max el	3353 Mar 29 06:13	27° \mathcal{Y} 10'26	18°15'14		3354 Mar 05 04:21	0° \mathcal{Y}	
	3353 Apr 02 04:19	0° \mathcal{B}		asc. node	3354 Mar 06 21:18	2° \mathcal{Y} 41'34	
retrograde	3353 Apr 05 07:30	0° \mathcal{B} 42'14		evening max el	3354 Mar 12 17:52	10° \mathcal{Y} 15'52	18°07'01
evening set	3353 Apr 07 19:19	0° \mathcal{B} 16'40		retrograde	3354 Mar 19 07:00	13° \mathcal{Y} 38'58	
	3353 Apr 08 12:51	30° \mathcal{R} \mathcal{Y}		evening set	3354 Mar 22 00:36	13° \mathcal{Y} 03'10	
inferior conj	3353 Apr 14 20:24	25° \mathcal{Y} 33'24	2°52'51	inferior conj	3354 Mar 28 11:05	7° \mathcal{Y} 59'32	3°27'37
minimum elong	3353 Apr 14 23:52	25° \mathcal{Y} 25'50	2°52'06	minimum elong	3354 Mar 28 12:57	7° \mathcal{Y} 54'50	3°27'26
min. Earth dist.	3353 Apr 18 06:11	22° \mathcal{Y} 36'30	0.59527 AU	min. Earth dist.	3354 Mar 31 12:04	4° \mathcal{Y} 57'40	0.61695 AU
morning rise	3353 Apr 22 01:52	19° \mathcal{Y} 52'51		morning rise	3354 Apr 03 23:40	2° \mathcal{Y} 01'46	
desc. node	3353 Apr 26 10:30	18° \mathcal{Y} 11'46			3354 Apr 08 02:04	30° \mathcal{R} \mathcal{X}	
direct	3353 Apr 28 11:15	18° \mathcal{Y} 00'28		direct	3354 Apr 10 19:37	29° \mathcal{X} 37'14	
morning max el	3353 May 12 19:48	25° \mathcal{Y} 49'16	27°24'12	desc. node	3354 Apr 13 07:33	29° \mathcal{X} 55'08	
	3353 May 16 17:17	0° \mathcal{B}			3354 Apr 13 15:23	0° \mathcal{Y}	
	3353 Jun 05 12:34	0° \mathbb{I}		morning max el	3354 Apr 24 23:38	7° \mathcal{Y} 34'34	27°50'28
morning set	3353 Jun 13 01:13	14° \mathbb{I} 49'59			3354 May 12 01:54	0° \mathcal{B}	
asc. node	3353 Jun 15 23:32	21° \mathbb{I} 02'55		morning set	3354 May 28 04:52	29° \mathcal{B} 14'51	
max. Earth dist.	3353 Jun 19 14:48	28° \mathbb{I} 59'04	1.32073 AU		3354 May 28 13:41	0° \mathbb{I}	
				asc. node	3354 Jun 02 20:35	11° \mathbb{I} 10'59	
superior conj	3353 Jun 20 04:20	0° \mathcal{B} 13'39	0°42'58	max. Earth dist.	3354 Jun 03 00:32	11° \mathbb{I} 32'21	1.32337 AU
minimum elong	3353 Jun 20 02:34	0° \mathcal{B} 03'56	0°42'37				
	3353 Jun 20 01:52	0° \mathcal{B}		superior conj	3354 Jun 04 14:37	14° \mathbb{I} 59'35	0°18'21
evening rise	3353 Jun 27 00:20	15° \mathcal{B} 06'57		minimum elong	3354 Jun 04 13:47	14° \mathbb{I} 55'00	0°18'09

evening rise	3354 Jun 11 11:49	29° Π 57'15		superior conj	3355 May 19 21:37	29° \mathcal{B} 31'18	-0°08'45
	3354 Jun 11 12:20	0° \mathcal{E}		minimum elong	3355 May 19 22:03	29° \mathcal{B} 33'38	0°08'40
	3354 Jun 28 02:10	0° Ω		behind sun begin	3355 May 19 17:32	29° \mathcal{B} 09'27	
evening max el	3354 Jul 06 22:55	10° Ω 39'19	24°35'43	behind sun end	3355 May 20 02:34	29° \mathcal{B} 57'50	
desc. node	3354 Jul 10 06:47	13° Ω 31'28			3355 May 20 02:58	0° Π	
retrograde	3354 Jul 20 20:41	17° Ω 41'17		asc. node	3355 May 20 17:38	1° Π 18'49	
evening set	3354 Jul 25 21:42	16° Ω 44'02		evening rise	3355 May 26 23:33	14° Π 44'11	
min. Earth dist.	3354 Jul 31 10:03	13° Ω 53'06	0.56915 AU		3355 Jun 03 15:29	0° \mathcal{E}	
inferior conj	3354 Aug 03 04:54	12° Ω 05'32	-5°04'01	evening max el	3355 Jun 18 12:20	21° \mathcal{E} 05'28	22°59'27
minimum elong	3354 Aug 03 02:47	12° Ω 08'57	5°03'54	desc. node	3355 Jun 27 03:48	26° \mathcal{E} 54'32	
morning rise	3354 Aug 11 10:30	8° Ω 00'54		retrograde	3355 Jul 01 21:36	27° \mathcal{E} 45'49	
direct	3354 Aug 14 01:47	7° Ω 41'45		evening set	3355 Jul 05 10:04	27° \mathcal{E} 18'42	
morning max el	3354 Aug 23 10:17	12° Ω 03'42	19°25'33	min. Earth dist.	3355 Jul 12 21:22	23° \mathcal{E} 58'35	0.55487 AU
asc. node	3354 Aug 29 19:50	19° Ω 56'39		inferior conj	3355 Jul 14 11:56	23° \mathcal{E} 02'43	-4°23'37
	3354 Sep 04 17:22	0° \mathcal{M}		minimum elong	3355 Jul 14 04:33	23° \mathcal{E} 13'26	4°22'08
morning set	3354 Sep 09 16:31	9° \mathcal{M} 40'05		morning rise	3355 Jul 23 01:22	19° \mathcal{E} 10'38	
				direct	3355 Jul 25 23:05	18° \mathcal{E} 50'40	
superior conj	3354 Sep 17 17:53	25° \mathcal{M} 45'26	1°41'57	morning max el	3355 Aug 05 21:27	23° \mathcal{E} 55'08	20°39'30
minimum elong	3354 Sep 17 19:21	25° \mathcal{M} 52'35	1°41'53		3355 Aug 11 05:19	0° Ω	
	3354 Sep 19 22:23	0° \mathcal{E}		asc. node	3355 Aug 16 16:52	8° Ω 27'57	
max. Earth dist.	3354 Sep 24 00:41	7° \mathcal{E} 42'00	1.37927 AU	morning set	3355 Aug 24 23:04	24° Ω 19'37	
evening rise	3354 Sep 27 18:55	14° \mathcal{E} 28'23			3355 Aug 27 16:53	0° \mathcal{M}	
desc. node	3354 Oct 06 06:08	28° \mathcal{E} 43'23					
	3354 Oct 07 01:19	0° \mathcal{M}		superior conj	3355 Sep 01 11:30	9° \mathcal{M} 52'02	1°44'43
	3354 Oct 28 12:35	0° \mathcal{M}		minimum elong	3355 Sep 01 11:19	9° \mathcal{M} 51'09	1°44'43
evening max el	3354 Nov 02 11:30	5° \mathcal{M} 20'52	25°06'31	max. Earth dist.	3355 Sep 06 08:01	19° \mathcal{M} 33'57	1.36014 AU
retrograde	3354 Nov 14 08:21	12° \mathcal{M} 13'17		evening rise	3355 Sep 10 08:31	27° \mathcal{M} 12'56	
evening set	3354 Nov 20 02:04	9° \mathcal{M} 49'19			3355 Sep 11 20:52	0° \mathcal{E}	
min. Earth dist.	3354 Nov 24 14:00	4° \mathcal{M} 47'08	0.67354 AU	desc. node	3355 Sep 23 03:08	19° \mathcal{E} 05'05	
inferior conj	3354 Nov 25 14:59	3° \mathcal{M} 25'23	-0°03'30		3355 Sep 30 10:03	0° \mathcal{M}	
minimum elong	3354 Nov 25 15:04	3° \mathcal{M} 25'06	0°03'28	evening max el	3355 Oct 15 23:52	19° \mathcal{M} 02'30	26°13'07
transit middle	3354 Nov 25 15:04	3° \mathcal{M} 25'06	0°03'28	retrograde	3355 Oct 28 16:06	26° \mathcal{M} 12'14	
transit begin	3354 Nov 25 12:22	3° \mathcal{M} 33'59		evening set	3355 Nov 03 23:28	23° \mathcal{M} 36'26	
transit end	3354 Nov 25 17:47	3° \mathcal{M} 16'14		min. Earth dist.	3355 Nov 08 04:15	19° \mathcal{M} 09'42	0.66542 AU
asc. node	3354 Nov 25 19:04	3° \mathcal{M} 12'00		inferior conj	3355 Nov 09 16:24	17° \mathcal{M} 18'13	-1°01'19
	3354 Nov 28 09:13	30° \mathcal{R} \mathcal{M}		minimum elong	3355 Nov 09 18:03	17° \mathcal{M} 13'09	1°00'37
morning rise	3354 Dec 01 04:17	27° \mathcal{M} 26'51		asc. node	3355 Nov 12 16:06	13° \mathcal{M} 50'38	
direct	3354 Dec 04 16:35	26° \mathcal{M} 15'41		morning rise	3355 Nov 15 13:07	11° \mathcal{M} 29'06	
	3354 Dec 11 14:38	0° \mathcal{M}		direct	3355 Nov 18 15:04	10° \mathcal{M} 34'59	
morning max el	3354 Dec 12 00:09	0° \mathcal{M} 23'24	19°37'36	morning max el	3355 Nov 25 09:28	14° \mathcal{M} 19'06	18°46'01
greatest brilliancy	3354 Dec 25 03:36	17° \mathcal{M} 48'14	-0.7m		3355 Dec 06 23:35	0° \mathcal{M}	
desc. node	3355 Jan 02 05:25	0° \mathcal{B} 02'42		morning set	3355 Dec 16 17:31	15° \mathcal{M} 16'10	
	3355 Jan 02 04:43	0° \mathcal{B}		desc. node	3355 Dec 20 02:27	20° \mathcal{M} 34'53	
morning set	3355 Jan 06 03:28	6° \mathcal{B} 04'46			3355 Dec 26 02:17	0° \mathcal{B}	
max. Earth dist.	3355 Jan 18 11:48	25° \mathcal{B} 22'50	1.44418 AU	max. Earth dist.	3356 Jan 01 05:00	9° \mathcal{B} 35'35	1.45146 AU
	3355 Jan 21 09:24	0° \approx					
superior conj	3355 Jan 22 19:41	2° \approx 17'30	-1°53'17	superior conj	3356 Jan 02 01:51	10° \mathcal{B} 57'27	-1°20'52
minimum elong	3355 Jan 22 12:41	1° \approx 49'22	1°52'49	minimum elong	3356 Jan 01 16:53	10° \mathcal{B} 22'14	1°19'54
evening rise	3355 Feb 05 14:38	25° \approx 02'19			3356 Jan 14 02:29	0° \approx	
	3355 Feb 08 13:09	0° \mathcal{H}		evening rise	3356 Jan 17 13:16	5° \approx 31'56	
asc. node	3355 Feb 21 18:22	20° \mathcal{H} 43'01		greatest brilliancy	3356 Jan 24 08:38	16° \approx 29'23	-0.9m
evening max el	3355 Feb 24 06:34	23° \mathcal{H} 34'46	18°17'50		3356 Feb 02 02:56	0° \mathcal{H}	
retrograde	3355 Mar 02 17:20	27° \mathcal{H} 02'43		evening max el	3356 Feb 07 17:44	7° \mathcal{H} 01'39	18°46'47
evening set	3355 Mar 05 16:36	26° \mathcal{H} 15'31		asc. node	3356 Feb 08 15:23	7° \mathcal{H} 54'10	
inferior conj	3355 Mar 11 16:19	20° \mathcal{H} 52'47	3°38'50	retrograde	3356 Feb 14 10:33	10° \mathcal{H} 46'08	
minimum elong	3355 Mar 11 16:23	20° \mathcal{H} 52'36	3°38'51	evening set	3356 Feb 17 16:00	9° \mathcal{H} 46'35	
min. Earth dist.	3355 Mar 14 03:09	18° \mathcal{H} 08'04	0.63689 AU	inferior conj	3356 Feb 23 08:18	4° \mathcal{H} 06'19	3°32'27
morning rise	3355 Mar 17 15:18	14° \mathcal{H} 45'49		minimum elong	3356 Feb 23 06:57	4° \mathcal{H} 10'29	3°32'19
direct	3355 Mar 24 12:39	12° \mathcal{H} 00'38		min. Earth dist.	3356 Feb 25 03:28	1° \mathcal{H} 53'54	0.65347 AU
desc. node	3355 Mar 31 04:36	14° \mathcal{H} 08'34			3356 Feb 26 18:51	30° \mathcal{R} \approx	
morning max el	3355 Apr 07 07:43	19° \mathcal{H} 57'45	27°39'28	morning rise	3356 Feb 28 21:28	27° \approx 54'51	
	3355 Apr 15 22:00	0° \mathcal{Y}		direct	3356 Mar 06 12:44	25° \approx 03'34	
	3355 May 05 01:56	0° \mathcal{B}			3356 Mar 16 17:14	0° \mathcal{H}	
morning set	3355 May 12 01:32	13° \mathcal{B} 15'29		desc. node	3356 Mar 17 01:39	0° \mathcal{H} 18'17	
max. Earth dist.	3355 May 17 03:58	23° \mathcal{B} 42'28	1.33025 AU	morning max el	3356 Mar 19 17:27	2° \mathcal{H} 49'04	26°55'34
					3356 Apr 09 04:42	0° \mathcal{Y}	
				morning set	3356 Apr 24 12:05	26° \mathcal{Y} 42'25	

	3356 Apr 26 04:53	0°♄			3357 Mar 13 17:30	0°♄	
max. Earth dist.	3356 Apr 28 21:34	5°♄21'14	1.34169 AU		3357 Apr 02 01:52	0°♄	
				morning set	3357 Apr 07 08:24	9°♄23'48	
superior conj	3356 May 02 23:14	13°♄42'29	-0°37'17	max. Earth dist.	3357 Apr 11 03:54	16°♄32'25	1.35767 AU
minimum elong	3356 May 03 01:10	13°♄52'37	0°36'53				
asc. node	3356 May 06 14:40	21°♄22'29		superior conj	3357 Apr 16 16:55	27°♄25'49	-1°05'51
evening rise	3356 May 10 09:40	29°♄21'43		minimum elong	3357 Apr 16 20:22	27°♄43'09	1°05'14
	3356 May 10 17:01	0°♄			3357 Apr 17 23:25	0°♄	
	3356 May 28 16:29	0°♄		asc. node	3357 Apr 23 11:42	11°♄17'56	
evening max el	3356 May 30 07:41	1°♄41'33	21°26'32	evening rise	3357 Apr 24 16:09	13°♄43'35	
retrograde	3356 Jun 11 11:51	7°♄40'17			3357 May 03 04:16	0°♄	
desc. node	3356 Jun 13 00:50	7°♄34'48		evening max el	3357 May 12 14:12	12°♄51'34	20°07'53
evening set	3356 Jun 13 21:13	7°♄27'14		retrograde	3357 May 23 02:08	17°♄58'01	
inferior conj	3356 Jun 23 06:39	3°♄27'28	-2°54'27	evening set	3357 May 25 01:42	17°♄47'52	
minimum elong	3356 Jun 22 23:02	3°♄38'07	2°52'00	desc. node	3357 May 30 21:52	15°♄38'28	
min. Earth dist.	3356 Jun 23 08:35	3°♄24'46	0.54867 AU	inferior conj	3357 Jun 03 02:43	13°♄48'41	-0°56'42
	3356 Jun 30 10:18	30°♄		minimum elong	3357 Jun 03 00:04	13°♄52'38	0°55'43
morning rise	3356 Jul 02 01:35	29°♄31'45		min. Earth dist.	3357 Jun 04 21:11	12°♄45'31	0.55202 AU
direct	3356 Jul 05 09:30	29°♄07'39		morning rise	3357 Jun 11 20:52	9°♄29'45	
	3356 Jul 10 04:17	0°♄		direct	3357 Jun 15 21:36	8°♄54'27	
morning max el	3356 Jul 17 21:11	5°♄01'54	22°11'45	morning max el	3357 Jun 29 13:15	15°♄36'13	23°54'07
asc. node	3356 Aug 02 13:54	27°♄32'54			3357 Jul 10 23:04	0°♄	
	3356 Aug 03 20:35	0°♄		asc. node	3357 Jul 20 10:56	17°♄03'00	
morning set	3356 Aug 08 09:01	9°♄09'19		morning set	3357 Jul 23 20:38	24°♄04'08	
					3357 Jul 26 15:13	0°♄	
superior conj	3356 Aug 15 13:21	24°♄22'50	1°40'23	superior conj	3357 Jul 30 20:40	9°♄09'37	1°30'11
minimum elong	3356 Aug 15 11:56	24°♄15'25	1°40'18	minimum elong	3357 Jul 30 18:32	8°♄58'05	1°29'58
	3356 Aug 18 05:53	0°♄		max. Earth dist.	3357 Aug 02 00:05	13°♄45'51	1.33252 AU
max. Earth dist.	3356 Aug 18 23:31	1°♄30'49	1.34433 AU	evening rise	3357 Aug 07 07:12	24°♄46'26	
evening rise	3356 Aug 23 13:58	10°♄42'37			3357 Aug 09 22:38	0°♄	
	3356 Sep 03 06:51	0°♄		desc. node	3357 Aug 26 21:09	28°♄40'48	
desc. node	3356 Sep 09 00:08	9°♄07'01			3357 Aug 27 19:14	0°♄	
	3356 Sep 24 22:24	0°♄		evening max el	3357 Sep 09 23:54	15°♄52'36	27°25'08
evening max el	3356 Sep 27 12:26	2°♄36'56	27°01'42	retrograde	3357 Sep 23 14:08	23°♄09'55	
retrograde	3356 Oct 10 18:08	9°♄53'44		evening set	3357 Sep 30 17:30	20°♄30'47	
evening set	3356 Oct 17 13:32	7°♄11'52		min. Earth dist.	3357 Oct 04 10:06	17°♄14'11	0.63878 AU
min. Earth dist.	3356 Oct 21 11:40	3°♄21'12	0.65383 AU	inferior conj	3357 Oct 06 22:39	14°♄38'03	-3°01'31
inferior conj	3356 Oct 23 11:47	1°♄04'14	-2°01'28	minimum elong	3357 Oct 07 03:35	14°♄25'18	2°59'49
minimum elong	3356 Oct 23 15:09	0°♄54'39	2°00'08	morning rise	3357 Oct 13 14:55	9°♄17'29	
	3356 Oct 24 10:32	30°♄		direct	3357 Oct 16 03:10	8°♄46'16	
morning rise	3356 Oct 29 17:36	25°♄27'40		asc. node	3357 Oct 16 10:09	8°♄46'42	
asc. node	3356 Oct 29 13:07	25°♄33'21		morning max el	3357 Oct 22 16:07	12°♄11'33	17°52'55
direct	3356 Nov 01 11:29	24°♄46'49			3357 Nov 03 20:30	0°♄	
morning max el	3356 Nov 07 23:41	28°♄17'06	18°10'53	morning set	3357 Nov 08 10:47	7°♄52'58	
	3356 Nov 09 13:38	0°♄					
morning set	3356 Nov 26 12:37	25°♄55'18		superior conj	3357 Nov 21 02:32	29°♄10'34	0°12'00
	3356 Nov 29 00:26	0°♄		minimum elong	3357 Nov 21 03:51	29°♄15'57	0°11'49
desc. node	3356 Dec 05 23:27	11°♄15'29		behind sun begin	3357 Nov 20 21:03	28°♄48'08	
				behind sun end	3357 Nov 21 10:40	29°♄43'43	
superior conj	3356 Dec 11 05:26	19°♄36'41	-0°35'11		3357 Nov 21 14:39	0°♄	
minimum elong	3356 Dec 11 00:57	19°♄19'00	0°34'35	desc. node	3357 Nov 22 20:27	2°♄01'03	
max. Earth dist.	3356 Dec 14 00:31	24°♄01'10	1.45132 AU	max. Earth dist.	3357 Nov 26 18:51	8°♄20'05	1.44385 AU
	3356 Dec 17 20:03	0°♄		evening rise	3357 Dec 07 00:09	24°♄18'56	
evening rise	3356 Dec 27 13:40	15°♄09'59			3357 Dec 10 17:16	0°♄	
	3357 Jan 06 03:42	0°♄			3357 Dec 31 14:03	0°♄	
greatest brilliancy	3357 Jan 08 22:27	4°♄13'58	-0.7m	evening max el	3358 Jan 04 03:26	4°♄03'05	20°33'01
evening max el	3357 Jan 21 01:10	20°♄31'53	19°32'33	retrograde	3358 Jan 12 05:36	8°♄49'17	
asc. node	3357 Jan 25 12:24	24°♄01'09		asc. node	3358 Jan 12 09:26	8°♄49'08	
retrograde	3357 Jan 28 07:29	24°♄43'15		evening set	3358 Jan 16 03:02	7°♄21'53	
evening set	3357 Jan 31 20:11	23°♄30'18		inferior conj	3358 Jan 21 12:05	1°♄13'28	2°42'50
inferior conj	3357 Feb 06 07:46	17°♄34'35	3°12'49	minimum elong	3358 Jan 21 09:33	1°♄22'05	2°42'09
minimum elong	3357 Feb 06 05:33	17°♄41'51	3°12'23	min. Earth dist.	3358 Jan 22 02:57	0°♄22'41	0.67418 AU
min. Earth dist.	3357 Feb 07 12:01	16°♄02'02	0.66590 AU		3358 Jan 22 09:38	30°♄	
morning rise	3357 Feb 11 14:41	11°♄21'16		morning rise	3358 Jan 26 15:53	24°♄59'59	
direct	3357 Feb 17 18:41	8°♄36'43		direct	3358 Feb 01 05:52	22°♄31'22	
morning max el	3357 Mar 02 02:50	15°♄57'16	25°46'49	morning max el	3358 Feb 12 11:26	29°♄13'40	24°22'52
desc. node	3357 Mar 03 22:41	17°♄52'16					

	3358 Feb 13 05:29	0°♊		desc. node	3359 Feb 05 16:45	25°♊42'54	
desc. node	3358 Feb 18 19:43	6°♊26'07			3359 Feb 08 19:12	0°♊	
	3358 Mar 07 13:08	0°♋			3359 Feb 28 10:28	0°♋	
morning set	3358 Mar 20 08:57	21°♋03'53		morning set	3359 Mar 01 07:39	1°♋27'26	
max. Earth dist.	3358 Mar 24 01:17	27°♋36'10	1.37745 AU	max. Earth dist.	3359 Mar 05 20:24	9°♋06'02	1.39912 AU
	3358 Mar 25 08:53	0°♌					
				superior conj	3359 Mar 13 14:17	22°♋50'14	-1°53'45
superior conj	3358 Mar 30 23:19	10°♌31'41	-1°32'22	minimum elong	3359 Mar 13 18:32	23°♋09'41	1°53'26
minimum elong	3358 Mar 31 03:48	10°♌53'17	1°31'46		3359 Mar 17 10:57	0°♌	
evening rise	3358 Apr 08 16:32	27°♌41'50		evening rise	3359 Mar 23 07:49	11°♌09'03	
	3358 Apr 09 20:31	0°♍		asc. node	3359 Mar 28 05:47	20°♌23'27	
asc. node	3358 Apr 10 08:44	0°♍59'55			3359 Apr 02 21:18	0°♍	
evening max el	3358 Apr 25 08:30	24°♍41'54	19°08'15	evening max el	3359 Apr 08 12:14	7°♍08'45	18°28'51
retrograde	3358 May 04 04:46	29°♍00'03		retrograde	3359 Apr 16 01:48	10°♍52'28	
evening set	3358 May 06 06:29	28°♍46'52		evening set	3359 Apr 18 09:51	10°♍32'15	
inferior conj	3358 May 14 13:26	24°♍35'03	0°55'30	inferior conj	3359 Apr 25 21:10	6°♍01'21	2°19'25
minimum elong	3358 May 14 15:37	24°♍31'20	0°54'44	minimum elong	3359 Apr 26 00:57	5°♍53'47	2°18'23
min. Earth dist.	3358 May 17 12:22	22°♍34'46	0.56431 AU	min. Earth dist.	3359 Apr 29 07:33	3°♍18'19	0.58304 AU
desc. node	3358 May 17 18:54	22°♍24'06		morning rise	3359 May 03 12:58	0°♍34'59	
morning rise	3358 May 22 21:37	19°♍41'00		desc. node	3359 May 04 15:57	0°♍03'53	
direct	3358 May 27 21:36	18°♍42'42			3359 May 04 19:44	30°♌♌	
morning max el	3358 Jun 11 03:37	26°♌01'18	25°32'54	direct	3359 May 09 12:10	29°♌02'58	
	3358 Jun 14 21:57	0°♍			3359 May 14 07:10	0°♌	
	3358 Jul 03 23:09	0°♎		morning max el	3359 May 23 21:32	6°♌44'22	26°52'14
asc. node	3358 Jul 07 07:59	6°♎50'31			3359 Jun 10 05:19	0°♍	
morning set	3358 Jul 08 08:14	8°♎57'54		morning set	3359 Jun 22 18:12	23°♍45'13	
				asc. node	3359 Jun 24 05:03	26°♍49'50	
superior conj	3358 Jul 15 07:10	24°♎04'16	1°15'04		3359 Jun 25 16:23	0°♎	
minimum elong	3358 Jul 15 04:48	23°♎51'19	1°14'43	superior conj	3359 Jun 29 18:58	9°♎00'25	0°55'46
max. Earth dist.	3358 Jul 16 07:37	26°♎18'08	1.32478 AU	minimum elong	3359 Jun 29 16:51	8°♎48'47	0°55'21
	3358 Jul 18 00:22	0°♏		max. Earth dist.	3359 Jun 29 18:53	8°♎59'57	1.32108 AU
evening rise	3358 Jul 22 08:45	9°♏13'37		evening rise	3359 Jul 06 15:53	23°♎55'47	
	3358 Aug 02 07:02	0°♐			3359 Jul 09 14:27	0°♏	
desc. node	3358 Aug 13 18:11	17°♐34'20			3359 Jul 27 06:52	0°♐	
evening max el	3358 Aug 23 07:59	28°♐36'22	27°17'59		3359 Jul 31 15:13	5°♐30'58	
	3358 Aug 24 20:48	0°♑		desc. node	3359 Jul 31 15:13	5°♐30'58	
retrograde	3358 Sep 06 03:38	5°♑51'18		evening max el	3359 Aug 05 10:21	10°♐37'25	26°37'36
evening set	3358 Sep 13 07:48	3°♑26'57		retrograde	3359 Aug 19 09:22	17°♐48'45	
min. Earth dist.	3358 Sep 16 22:13	0°♑37'17	0.62053 AU	evening set	3359 Aug 26 03:49	15°♐52'33	
	3358 Sep 17 14:51	30°♒♐		min. Earth dist.	3359 Aug 30 00:08	13°♐16'21	0.60020 AU
inferior conj	3358 Sep 19 22:03	27°♐52'36	-3°57'29	inferior conj	3359 Sep 02 06:32	10°♐39'01	-4°42'39
minimum elong	3358 Sep 20 03:49	27°♐39'22	3°55'58	minimum elong	3359 Sep 02 11:23	10°♐29'16	4°41'52
morning rise	3358 Sep 27 01:30	22°♐51'18		morning rise	3359 Sep 09 20:59	5°♐59'32	
direct	3358 Sep 29 10:47	22°♐26'32		direct	3359 Sep 12 06:21	5°♐38'28	
asc. node	3358 Oct 03 07:12	23°♐33'12		morning max el	3359 Sep 19 19:16	9°♐19'31	18°12'27
morning max el	3358 Oct 06 07:44	25°♐55'16	17°53'03	asc. node	3359 Sep 20 04:16	9°♐41'43	
	3358 Oct 09 18:53	0°♑			3359 Oct 03 06:16	0°♑	
morning set	3358 Oct 22 05:50	20°♑50'25		morning set	3359 Oct 05 15:52	4°♑30'36	
	3358 Oct 27 08:15	0°♒					
				superior conj	3359 Oct 15 03:09	22°♑08'58	1°19'30
superior conj	3358 Nov 02 02:18	10°♒03'12	0°51'22	minimum elong	3359 Oct 15 07:07	22°♑26'54	1°19'04
minimum elong	3358 Nov 02 06:23	10°♒20'42	0°50'50		3359 Oct 19 13:11	0°♒	
max. Earth dist.	3358 Nov 09 09:02	22°♒14'02	1.43006 AU	max. Earth dist.	3359 Oct 22 17:53	5°♒29'42	1.41175 AU
desc. node	3358 Nov 09 17:29	22°♒48'28		evening rise	3359 Oct 27 16:55	13°♒43'46	
	3358 Nov 14 04:56	0°♓		desc. node	3359 Oct 27 14:30	13°♒33'58	
evening rise	3358 Nov 16 12:16	3°♓37'48			3359 Nov 07 02:48	0°♓	
	3358 Dec 04 03:54	0°♔			3359 Nov 29 12:59	0°♔	
evening max el	3358 Dec 18 00:08	17°♔35'30	21°44'55	evening max el	3359 Nov 30 16:11	1°♔10'17	23°03'40
retrograde	3358 Dec 27 02:52	23°♔00'55		retrograde	3359 Dec 10 21:37	7°♔14'04	
asc. node	3358 Dec 30 06:28	22°♔07'00		evening set	3359 Dec 15 17:43	5°♔14'55	
evening set	3358 Dec 31 10:46	21°♔18'00		asc. node	3359 Dec 17 03:32	3°♔54'31	
inferior conj	3359 Jan 05 19:05	15°♔00'14	2°04'30		3359 Dec 20 06:56	30°♒♓	
minimum elong	3359 Jan 05 16:44	15°♔08'22	2°03'42	inferior conj	3359 Dec 21 02:49	28°♓51'36	1°19'11
min. Earth dist.	3359 Jan 05 22:02	14°♔49'59	0.67856 AU	minimum elong	3359 Dec 21 01:06	28°♓57'31	1°18'32
morning rise	3359 Jan 10 22:32	8°♔48'19		min. Earth dist.	3359 Dec 20 18:47	29°♓19'19	0.67934 AU
direct	3359 Jan 15 21:39	6°♔40'42		morning rise	3359 Dec 26 08:23	22°♓43'10	
morning max el	3359 Jan 25 21:05	12°♔35'36	22°53'56	direct	3359 Dec 30 17:01	20°♓58'24	

morning max el	3360 Jan 08 11:14	26° ♄ 04'57	21°28'55	desc. node	3361 Jan 09 10:47	5° ♄ 39'19	
	3360 Jan 12 00:25	0° ♄		morning set	3361 Jan 17 22:56	18° ♄ 38'09	
desc. node	3360 Jan 23 13:46	15° ♄ 30'00			3361 Jan 25 05:16	0° ♄	
	3360 Feb 02 07:49	0° ♄		max. Earth dist.	3361 Jan 28 04:53	4° ♄ 45'25	1.43697 AU
morning set	3360 Feb 09 01:17	10° ♄ 28'08					
max. Earth dist.	3360 Feb 15 20:32	21° ♄ 27'44	1.41990 AU	superior conj	3361 Feb 03 01:53	14° ♄ 18'11	-2°03'14
	3360 Feb 20 22:44	0° ♄		minimum elong	3361 Feb 02 22:10	14° ♄ 02'52	2°03'05
					3361 Feb 12 09:33	0° ♄	
superior conj	3360 Feb 23 08:40	4° ♄ 08'56	-2°05'48	evening rise	3361 Feb 15 19:27	5° ♄ 54'00	
minimum elong	3360 Feb 23 10:18	4° ♄ 16'01	2°05'46	asc. node	3361 Feb 28 23:53	27° ♄ 46'40	
evening rise	3360 Mar 05 10:12	23° ♄ 55'51			3361 Mar 02 14:59	0° ♄	
	3360 Mar 08 18:17	0° ♄		evening max el	3361 Mar 05 10:25	3° ♄ 14'40	18°09'23
asc. node	3360 Mar 14 02:50	9° ♄ 21'42		retrograde	3361 Mar 11 21:15	6° ♄ 38'03	
evening max el	3360 Mar 21 21:58	20° ♄ 02'43	18°09'26	evening set	3361 Mar 14 17:22	5° ♄ 57'19	
retrograde	3360 Mar 28 16:38	23° ♄ 28'37		inferior conj	3361 Mar 20 22:47	0° ♄ 45'13	3°34'53
evening set	3360 Mar 31 07:04	22° ♄ 58'48		minimum elong	3361 Mar 20 23:52	0° ♄ 42'21	3°34'49
inferior conj	3360 Apr 07 01:28	18° ♄ 07'00	3°10'51		3361 Mar 21 15:50	30° ♄	
minimum elong	3360 Apr 07 04:21	18° ♄ 00'19	3°10'22	min. Earth dist.	3361 Mar 23 18:03	27° ♄ 48'38	0.62576 AU
min. Earth dist.	3360 Apr 10 08:39	15° ♄ 04'53	0.60460 AU	morning rise	3361 Mar 27 05:10	24° ♄ 43'02	
morning rise	3360 Apr 13 23:29	12° ♄ 18'15		direct	3361 Apr 03 02:49	22° ♄ 08'18	
direct	3360 Apr 20 14:48	10° ♄ 10'54		desc. node	3361 Apr 07 10:01	23° ♄ 01'32	
desc. node	3360 Apr 20 12:59	10° ♄ 10'55		morning max el	3361 Apr 17 03:20	0° ♄ 05'47	27°50'19
morning max el	3360 May 04 21:32	18° ♄ 04'05	27°39'55		3361 Apr 17 01:01	0° ♄	
	3360 May 14 21:02	0° ♄			3361 May 08 21:30	0° ♄	
	3360 Jun 01 21:13	0° ♄		morning set	3361 May 21 01:44	22° ♄ 35'59	
morning set	3360 Jun 06 00:46	8° ♄ 20'24			3361 May 24 15:40	0° ♄	
asc. node	3360 Jun 10 02:07	16° ♄ 56'16		max. Earth dist.	3361 May 26 14:02	4° ♄ 06'33	1.32579 AU
max. Earth dist.	3360 Jun 12 06:21	21° ♄ 40'42	1.32136 AU	asc. node	3361 May 27 23:08	7° ♄ 04'50	
superior conj	3360 Jun 13 06:19	23° ♄ 52'12	0°32'54	superior conj	3361 May 28 15:25	8° ♄ 33'00	0°07'08
minimum elong	3360 Jun 13 04:54	23° ♄ 44'24	0°32'35	minimum elong	3361 May 28 15:05	8° ♄ 31'08	0°07'03
	3360 Jun 16 01:14	0° ♄		behind sun begin	3361 May 28 10:23	8° ♄ 05'42	
evening rise	3360 Jun 20 02:22	8° ♄ 45'43		behind sun end	3361 May 28 19:46	8° ♄ 56'36	
	3360 Jul 01 01:32	0° ♄		evening rise	3361 Jun 04 14:11	23° ♄ 35'50	
evening max el	3360 Jul 17 05:35	21° ♄ 51'46	25°26'44		3361 Jun 07 15:59	0° ♄	
desc. node	3360 Jul 17 12:15	22° ♄ 07'32			3361 Jun 26 10:17	0° ♄	
retrograde	3360 Jul 31 05:14	28° ♄ 58'01		evening max el	3361 Jun 28 19:16	2° ♄ 27'37	23°55'18
evening set	3360 Aug 06 00:58	27° ♄ 39'11		desc. node	3361 Jul 04 09:17	6° ♄ 51'54	
min. Earth dist.	3360 Aug 10 17:32	24° ♄ 58'45	0.57983 AU	retrograde	3361 Jul 12 12:59	9° ♄ 22'07	
inferior conj	3360 Aug 13 20:43	22° ♄ 48'02	-5°06'05	evening set	3361 Jul 16 22:44	8° ♄ 39'17	
minimum elong	3360 Aug 13 21:53	22° ♄ 46'00	5°06'04	min. Earth dist.	3361 Jul 23 05:38	5° ♄ 37'43	0.56235 AU
morning rise	3360 Aug 21 21:08	18° ♄ 31'11		inferior conj	3361 Jul 25 14:33	4° ♄ 10'54	-4°53'00
direct	3360 Aug 24 09:40	18° ♄ 11'39		minimum elong	3361 Jul 25 09:54	4° ♄ 18'02	4°52'29
morning max el	3360 Sep 01 23:27	22° ♄ 15'15	18°52'35	morning rise	3361 Aug 02 23:39	0° ♄ 13'13	
asc. node	3360 Sep 06 01:19	26° ♄ 57'22			3361 Aug 04 04:42	30° ♄	
	3360 Sep 08 04:03	0° ♄		direct	3361 Aug 05 17:38	29° ♄ 53'49	
morning set	3360 Sep 18 12:25	18° ♄ 41'39			3361 Aug 07 05:59	0° ♄	
	3360 Sep 24 06:42	0° ♄		morning max el	3361 Aug 15 17:18	4° ♄ 31'56	19°54'25
				asc. node	3361 Aug 23 22:21	15° ♄ 04'35	
superior conj	3360 Sep 26 23:55	5° ♄ 13'58	1°36'34		3361 Sep 01 01:39	0° ♄	
minimum elong	3360 Sep 27 02:24	5° ♄ 25'48	1°36'23	morning set	3361 Sep 02 16:03	3° ♄ 13'02	
max. Earth dist.	3360 Oct 03 23:05	18° ♄ 04'59	1.39123 AU				
evening rise	3360 Oct 07 20:56	24° ♄ 54'41		superior conj	3361 Sep 10 11:13	19° ♄ 01'58	1°44'04
	3360 Oct 10 21:25	0° ♄		minimum elong	3361 Sep 10 11:56	19° ♄ 05'36	1°44'03
desc. node	3360 Oct 13 11:32	4° ♄ 14'21		max. Earth dist.	3361 Sep 16 04:13	0° ♄ 07'15	1.37090 AU
	3360 Oct 30 20:11	0° ♄			3361 Sep 16 02:40	0° ♄	
evening max el	3360 Nov 12 05:28	14° ♄ 49'26	24°23'07	evening rise	3361 Sep 19 23:21	7° ♄ 07'31	
retrograde	3360 Nov 23 12:38	21° ♄ 25'55		desc. node	3361 Sep 30 08:34	24° ♄ 44'30	
evening set	3360 Nov 28 22:20	19° ♄ 10'35			3361 Oct 03 17:23	0° ♄	
asc. node	3360 Dec 03 00:34	14° ♄ 35'50		evening max el	3361 Oct 25 17:41	28° ♄ 30'54	25°36'27
min. Earth dist.	3360 Dec 03 14:48	13° ♄ 48'37	0.67671 AU		3361 Oct 27 07:38	0° ♄	
inferior conj	3360 Dec 04 09:32	12° ♄ 45'49	0°28'06	retrograde	3361 Nov 06 23:08	5° ♄ 31'26	
minimum elong	3360 Dec 04 08:52	12° ♄ 48'06	0°27'50	evening set	3361 Nov 12 22:55	3° ♄ 01'46	
morning rise	3360 Dec 09 19:26	6° ♄ 43'04			3361 Nov 15 21:31	30° ♄	
direct	3360 Dec 13 14:45	5° ♄ 20'16		min. Earth dist.	3361 Nov 17 07:44	28° ♄ 14'45	0.67060 AU
morning max el	3360 Dec 21 08:50	9° ♄ 45'56	20°14'15	inferior conj	3361 Nov 18 13:25	26° ♄ 39'54	-0°27'37
	3361 Jan 05 15:50	0° ♄		minimum elong	3361 Nov 18 14:08	26° ♄ 37'36	0°27'19

asc. node	3361 Nov 19 21:35	24° \mathbb{M} 58'43		morning rise	3362 Nov 08 12:58	4° \mathbb{M} 46'23	
morning rise	3361 Nov 24 05:40	20° \mathbb{M} 45'15		direct	3362 Nov 11 11:07	3° \mathbb{M} 58'31	
direct	3361 Nov 27 13:22	19° \mathbb{M} 41'46		morning max el	3362 Nov 18 02:08	7° \mathbb{M} 35'39	18°28'59
morning max el	3361 Dec 04 14:20	23° \mathbb{M} 37'43	19°13'42		3362 Dec 03 18:11	0° \mathbb{Z}	
	3361 Dec 09 22:15	0° \mathbb{Z}		morning set	3362 Dec 08 02:19	6° \mathbb{Z} 56'49	
greatest brilliancy	3361 Dec 19 02:13	13° \mathbb{Z} 22'27	-0.7m	desc. node	3362 Dec 14 04:51	16° \mathbb{Z} 41'01	
desc. node	3361 Dec 27 07:49	26° \mathbb{Z} 04'40			3362 Dec 22 15:23	0° \mathbb{Z}	
morning set	3361 Dec 28 00:23	27° \mathbb{Z} 08'59					
	3361 Dec 29 20:23	0° \mathbb{Z}		superior conj	3362 Dec 23 20:27	1° \mathbb{Z} 54'07	-1°02'26
max. Earth dist.	3362 Jan 10 19:49	18° \mathbb{Z} 43'57	1.44816 AU	minimum elong	3362 Dec 23 12:48	1° \mathbb{Z} 24'05	1°01'30
				max. Earth dist.	3362 Dec 24 14:12	3° \mathbb{Z} 03'44	1.45227 AU
superior conj	3362 Jan 13 18:05	23° \mathbb{Z} 21'52	-1°41'43	evening rise	3363 Jan 08 20:13	27° \mathbb{Z} 02'58	
minimum elong	3362 Jan 13 09:26	22° \mathbb{Z} 47'31	1°40'59		3363 Jan 10 16:58	0° \mathbb{Z}	
	3362 Jan 17 21:52	0° \mathbb{Z}		greatest brilliancy	3363 Jan 18 10:27	12° \mathbb{Z} 11'23	-0.8m
evening rise	3362 Jan 28 07:30	16° \mathbb{Z} 56'53			3363 Jan 31 06:15	0° \mathbb{Z}	
	3362 Feb 05 05:30	0° \mathbb{Z}		evening max el	3363 Jan 31 08:23	0° \mathbb{Z} 05'28	19°04'19
asc. node	3362 Feb 15 20:54	15° \mathbb{Z} 28'16		asc. node	3363 Feb 02 17:55	2° \mathbb{Z} 13'45	
evening max el	3362 Feb 16 22:41	16° \mathbb{Z} 37'20	18°28'00	retrograde	3363 Feb 07 06:17	4° \mathbb{Z} 00'44	
retrograde	3362 Feb 23 11:05	20° \mathbb{Z} 11'14		evening set	3363 Feb 10 14:33	2° \mathbb{Z} 55'45	
evening set	3362 Feb 26 12:52	19° \mathbb{Z} 18'50			3363 Feb 13 20:07	30° \mathbb{R}	
inferior conj	3362 Mar 04 09:02	13° \mathbb{Z} 48'07	3°38'01	inferior conj	3363 Feb 16 04:33	27° \mathbb{Z} 08'34	3°25'33
minimum elong	3362 Mar 04 08:26	13° \mathbb{Z} 49'53	3°37'59	minimum elong	3363 Feb 16 02:45	27° \mathbb{Z} 14'15	3°25'18
min. Earth dist.	3362 Mar 06 13:05	11° \mathbb{Z} 15'58	0.64432 AU	min. Earth dist.	3363 Feb 17 17:14	25° \mathbb{Z} 12'22	0.65919 AU
morning rise	3362 Mar 10 03:22	7° \mathbb{Z} 38'42		morning rise	3363 Feb 21 14:37	20° \mathbb{Z} 55'47	
direct	3362 Mar 16 22:43	4° \mathbb{Z} 49'31		direct	3363 Feb 28 01:26	18° \mathbb{Z} 05'54	
desc. node	3362 Mar 25 07:01	8° \mathbb{Z} 08'48		desc. node	3363 Mar 12 04:03	24° \mathbb{Z} 57'34	
morning max el	3362 Mar 30 12:39	12° \mathbb{Z} 43'13	27°24'37	morning max el	3363 Mar 12 22:34	25° \mathbb{Z} 43'31	26°28'52
	3362 Apr 13 09:04	0° \mathbb{Y}			3363 Mar 16 20:50	0° \mathbb{Z}	
	3362 May 01 10:30	0° \mathbb{Z}			3363 Apr 06 21:42	0° \mathbb{Y}	
morning set	3362 May 04 18:32	6° \mathbb{Z} 23'56		morning set	3363 Apr 17 23:36	19° \mathbb{Y} 33'02	
max. Earth dist.	3362 May 09 13:57	16° \mathbb{Z} 05'34	1.33453 AU	max. Earth dist.	3363 Apr 22 02:38	27° \mathbb{Y} 30'26	1.34788 AU
					3363 Apr 23 08:46	0° \mathbb{Z}	
superior conj	3362 May 12 20:22	22° \mathbb{Z} 56'50	-0°20'44				
minimum elong	3362 May 12 21:26	23° \mathbb{Z} 02'26	0°20'30	superior conj	3363 Apr 26 18:55	6° \mathbb{Z} 56'37	-0°49'31
asc. node	3362 May 14 20:11	27° \mathbb{Z} 11'40		minimum elong	3363 Apr 26 21:31	7° \mathbb{Z} 09'59	0°49'00
	3362 May 16 03:37	0° \mathbb{I}		asc. node	3363 May 01 17:13	17° \mathbb{Z} 12'10	
evening rise	3362 May 20 01:28	8° \mathbb{I} 19'53		evening rise	3363 May 04 10:16	22° \mathbb{Z} 50'58	
	3362 May 31 11:55	0° \mathbb{Z}			3363 May 07 22:49	0° \mathbb{I}	
evening max el	3362 Jun 10 10:03	12° \mathbb{Z} 53'34	22°18'43	evening max el	3363 May 23 09:42	23° \mathbb{I} 41'45	20°51'01
desc. node	3362 Jun 21 06:16	19° \mathbb{Z} 08'54		retrograde	3363 Jun 03 21:57	29° \mathbb{I} 19'04	
retrograde	3362 Jun 23 08:55	19° \mathbb{Z} 19'10		evening set	3363 Jun 06 00:46	29° \mathbb{I} 08'23	
evening set	3362 Jun 26 08:04	18° \mathbb{Z} 59'42		desc. node	3363 Jun 08 03:16	28° \mathbb{I} 37'59	
min. Earth dist.	3362 Jul 04 16:27	15° \mathbb{Z} 23'25	0.55114 AU	inferior conj	3363 Jun 15 08:24	25° \mathbb{I} 10'53	-2°06'04
inferior conj	3362 Jul 05 14:59	14° \mathbb{Z} 51'35	-3°51'13	minimum elong	3363 Jun 15 02:32	25° \mathbb{I} 19'14	2°03'59
minimum elong	3362 Jul 05 06:41	15° \mathbb{Z} 03'19	3°49'04	min. Earth dist.	3363 Jun 16 04:25	24° \mathbb{I} 42'24	0.54883 AU
morning rise	3362 Jul 14 07:17	11° \mathbb{Z} 00'43		morning rise	3363 Jun 24 03:57	21° \mathbb{I} 07'07	
direct	3362 Jul 17 08:35	10° \mathbb{Z} 39'44		direct	3363 Jun 27 17:50	20° \mathbb{I} 39'31	
morning max el	3362 Jul 28 23:29	16° \mathbb{Z} 04'24	21°16'50	morning max el	3363 Jul 10 19:26	26° \mathbb{I} 55'39	22°54'46
	3362 Aug 08 14:10	0° \mathbb{Q}			3363 Jul 13 19:05	0° \mathbb{Z}	
asc. node	3362 Aug 10 19:24	3° \mathbb{Q} 51'23		asc. node	3363 Jul 28 16:27	23° \mathbb{Z} 08'03	
morning set	3362 Aug 18 00:16	17° \mathbb{Q} 57'44			3363 Aug 01 02:28	0° \mathbb{Q}	
	3362 Aug 23 18:14	0° \mathbb{P}		morning set	3363 Aug 02 11:09	2° \mathbb{Q} 50'20	
superior conj	3362 Aug 25 08:44	3° \mathbb{P} 20'24	1°43'39	superior conj	3363 Aug 09 13:14	17° \mathbb{Q} 59'26	1°36'43
minimum elong	3362 Aug 25 07:59	3° \mathbb{P} 16'30	1°43'38	minimum elong	3363 Aug 09 11:28	17° \mathbb{Q} 49'57	1°36'35
max. Earth dist.	3362 Aug 29 14:30	11° \mathbb{P} 58'12	1.35297 AU	max. Earth dist.	3363 Aug 12 09:40	24° \mathbb{Q} 01'02	1.33877 AU
evening rise	3362 Sep 02 20:13	20° \mathbb{P} 12'34			3363 Aug 15 07:26	0° \mathbb{P}	
	3362 Sep 08 04:44	0° \mathbb{Q}		evening rise	3363 Aug 17 07:09	3° \mathbb{P} 58'33	
desc. node	3362 Sep 17 05:35	14° \mathbb{Q} 58'49			3363 Aug 31 23:02	0° \mathbb{Q}	
	3362 Sep 27 16:43	0° \mathbb{M}		desc. node	3363 Sep 04 02:36	4° \mathbb{Q} 50'21	
evening max el	3362 Oct 08 05:58	12° \mathbb{M} 09'56	26°36'15	evening max el	3363 Sep 20 18:14	25° \mathbb{Q} 38'20	27°15'06
retrograde	3362 Oct 21 04:36	19° \mathbb{M} 24'15			3363 Sep 26 01:54	0° \mathbb{M}	
evening set	3362 Oct 27 17:30	16° \mathbb{M} 44'38		retrograde	3363 Oct 04 04:28	2° \mathbb{M} 56'47	
min. Earth dist.	3362 Oct 31 19:15	12° \mathbb{M} 33'32	0.66096 AU	evening set	3363 Oct 11 03:44	0° \mathbb{M} 14'46	
inferior conj	3362 Nov 02 12:31	10° \mathbb{M} 30'16	-1°26'40		3363 Oct 11 11:11	30° \mathbb{R}	
minimum elong	3362 Nov 02 14:54	10° \mathbb{M} 23'11	1°25'42	min. Earth dist.	3363 Oct 14 23:15	26° \mathbb{Q} 38'56	0.64780 AU
asc. node	3362 Nov 06 18:36	5° \mathbb{M} 59'31		inferior conj	3363 Oct 17 04:40	24° \mathbb{Q} 12'38	-2°27'09

minimum elong	3363 Oct 17 08:45	24° Ω 01'28	2°25'37	retrograde	3364 Sep 15 21:50	15° Ω 59'24	
morning rise	3363 Oct 23 14:49	18° Ω 42'28		evening set	3364 Sep 23 02:26	13° Ω 25'21	
asc. node	3363 Oct 24 15:38	18° Ω 19'40		min. Earth dist.	3364 Sep 26 17:37	10° Ω 21'05	0.63134 AU
direct	3363 Oct 26 05:51	18° Ω 06'17		inferior conj	3364 Sep 29 11:07	7° Ω 39'57	-3°26'06
morning max el	3363 Nov 01 17:43	21° Ω 33'48	18°01'02	minimum elong	3364 Sep 29 16:33	7° Ω 26'34	3°24'23
	3363 Nov 08 06:06	0° \mathbb{M}		morning rise	3364 Oct 06 08:04	2° Ω 26'50	
morning set	3363 Nov 19 09:42	18° \mathbb{M} 12'16		direct	3364 Oct 08 18:41	1° Ω 58'43	
	3363 Nov 26 12:26	0° \mathbb{A}		asc. node	3364 Oct 10 12:42	2° Ω 13'31	
desc. node	3363 Dec 01 01:53	7° \mathbb{A} 24'42		morning max el	3364 Oct 15 10:09	5° Ω 24'40	17°50'37
					3364 Oct 31 08:52	0° \mathbb{M}	
superior conj	3363 Dec 03 05:42	10° \mathbb{A} 52'38	-0°14'43	morning set	3364 Oct 31 17:37	0° \mathbb{M} 38'20	
minimum elong	3363 Dec 03 03:54	10° \mathbb{A} 45'25	0°14'27				
behind sun begin	3363 Dec 02 23:05	10° \mathbb{A} 26'12		superior conj	3364 Nov 12 13:47	20° \mathbb{M} 59'08	0°29'58
behind sun end	3363 Dec 03 08:42	11° \mathbb{A} 04'38		minimum elong	3364 Nov 12 16:42	21° \mathbb{M} 11'18	0°29'33
max. Earth dist.	3363 Dec 07 09:09	17° \mathbb{A} 27'34	1.44899 AU	desc. node	3364 Nov 16 22:55	28° \mathbb{M} 11'36	
	3363 Dec 15 09:37	0° \mathbb{B}			3364 Nov 18 01:40	0° \mathbb{A}	
evening rise	3363 Dec 19 13:14	6° \mathbb{B} 25'11		max. Earth dist.	3364 Nov 19 02:04	1° \mathbb{A} 38'21	1.43875 AU
greatest brilliancy	3364 Jan 02 14:36	27° \mathbb{B} 48'01	-0.6m	evening rise	3364 Nov 27 22:22	15° \mathbb{A} 33'45	
	3364 Jan 04 02:32	0° \approx			3364 Dec 07 10:46	0° \mathbb{B}	
evening max el	3364 Jan 14 13:48	13° \approx 36'49	19°56'38	evening max el	3364 Dec 27 13:50	27° \mathbb{B} 09'14	21°02'27
asc. node	3364 Jan 20 14:56	17° \approx 49'15			3364 Dec 30 17:55	0° \approx	
retrograde	3364 Jan 22 03:59	18° \approx 02'15		retrograde	3365 Jan 05 01:50	2° \approx 11'16	
evening set	3364 Jan 25 20:07	16° \approx 43'29		asc. node	3365 Jan 06 11:58	2° \approx 00'08	
inferior conj	3364 Jan 31 06:24	10° \approx 42'12	3°01'12	evening set	3365 Jan 09 03:34	0° \approx 37'24	
minimum elong	3364 Jan 31 03:59	10° \approx 50'16	3°00'39		3365 Jan 09 21:19	30° \mathbb{R} \mathbb{B}	
min. Earth dist.	3364 Feb 01 04:52	9° \approx 27'06	0.66997 AU	inferior conj	3365 Jan 14 12:08	24° \mathbb{B} 24'51	2°27'28
morning rise	3364 Feb 05 11:38	4° \approx 28'31		minimum elong	3365 Jan 14 09:37	24° \mathbb{B} 33'28	2°26'43
direct	3364 Feb 11 09:59	1° \approx 49'31		min. Earth dist.	3365 Jan 14 21:49	23° \mathbb{B} 51'29	0.67661 AU
morning max el	3364 Feb 23 07:24	8° \approx 55'39	25°12'11	morning rise	3365 Jan 19 15:30	18° \mathbb{B} 11'59	
desc. node	3364 Feb 27 01:06	12° \approx 59'39		direct	3365 Jan 24 23:18	15° \mathbb{B} 51'44	
	3364 Mar 10 21:38	0° \mathbb{H}		morning max el	3365 Feb 04 15:54	22° \mathbb{B} 13'49	23°44'57
	3364 Mar 29 11:34	0° \mathbb{Y}			3365 Feb 11 10:31	0° \approx	
morning set	3364 Mar 30 12:12	1° \mathbb{Y} 50'02		desc. node	3365 Feb 12 22:09	1° \approx 53'35	
max. Earth dist.	3364 Apr 03 03:58	8° \mathbb{Y} 32'01	1.36570 AU		3365 Mar 04 05:23	0° \mathbb{H}	
				morning set	3365 Mar 12 02:26	12° \mathbb{H} 59'14	
superior conj	3364 Apr 09 08:14	20° \mathbb{Y} 24'58	-1°17'31	max. Earth dist.	3365 Mar 15 23:30	19° \mathbb{H} 43'20	1.38665 AU
minimum elong	3364 Apr 09 12:13	20° \mathbb{Y} 44'38	1°16'53		3365 Mar 21 15:31	0° \mathbb{Y}	
	3364 Apr 14 02:54	0° \mathbb{B}					
evening rise	3364 Apr 17 14:26	7° \mathbb{B} 03'06		superior conj	3365 Mar 23 08:41	3° \mathbb{Y} 12'43	-1°42'17
asc. node	3364 Apr 17 14:15	7° \mathbb{B} 02'12		minimum elong	3365 Mar 23 13:17	3° \mathbb{Y} 34'25	1°41'48
	3364 Apr 30 12:25	0° \mathbb{I}		evening rise	3365 Apr 01 11:21	20° \mathbb{Y} 49'29	
evening max el	3364 May 04 21:29	5° \mathbb{I} 08'58	19°40'08	asc. node	3365 Apr 04 11:18	26° \mathbb{Y} 37'18	
retrograde	3364 May 14 15:41	9° \mathbb{I} 53'02			3365 Apr 06 06:19	0° \mathbb{B}	
evening set	3364 May 16 15:16	9° \mathbb{I} 42'11		evening max el	3365 Apr 17 20:14	17° \mathbb{B} 16'15	18°49'00
inferior conj	3364 May 25 09:18	5° \mathbb{I} 39'18	-0°06'36	retrograde	3365 Apr 26 01:46	21° \mathbb{B} 17'33	
minimum elong	3364 May 25 09:00	5° \mathbb{I} 39'45	0°06'30	evening set	3365 Apr 28 06:15	21° \mathbb{B} 01'38	
transit middle	3364 May 25 09:00	5° \mathbb{I} 39'45	0°06'30	inferior conj	3365 May 06 04:38	16° \mathbb{B} 41'56	1°35'09
transit begin	3364 May 25 05:24	5° \mathbb{I} 45'23		minimum elong	3365 May 06 07:54	16° \mathbb{B} 35'59	1°34'06
transit end	3364 May 25 12:35	5° \mathbb{I} 34'07		min. Earth dist.	3365 May 09 10:29	14° \mathbb{B} 21'16	0.57170 AU
desc. node	3364 May 25 00:18	5° \mathbb{I} 53'21		desc. node	3365 May 11 21:21	12° \mathbb{B} 46'27	
min. Earth dist.	3364 May 27 18:07	4° \mathbb{I} 10'35	0.55624 AU	morning rise	3365 May 14 06:24	11° \mathbb{B} 33'36	
morning rise	3364 Jun 03 00:14	1° \mathbb{I} 05'57		direct	3365 May 19 16:53	10° \mathbb{B} 21'57	
direct	3364 Jun 07 10:39	0° \mathbb{I} 22'07		morning max el	3365 Jun 03 00:59	17° \mathbb{B} 50'57	26°10'01
morning max el	3364 Jun 21 09:47	7° \mathbb{I} 21'37	24°37'34		3365 Jun 13 03:04	0° \mathbb{I}	
	3364 Jul 07 21:20	0° \mathbb{E}			3365 Jun 30 04:02	0° \mathbb{E}	
asc. node	3364 Jul 14 13:30	12° \mathbb{E} 46'15		morning set	3365 Jul 01 10:04	2° \mathbb{E} 37'07	
morning set	3364 Jul 16 22:56	17° \mathbb{E} 45'04		asc. node	3365 Jul 01 10:34	2° \mathbb{E} 39'46	
	3364 Jul 22 14:55	0° Ω					
superior conj	3364 Jul 23 22:08	2° Ω 50'18	1°24'21	superior conj	3365 Jul 08 09:25	17° \mathbb{E} 46'29	1°07'22
minimum elong	3364 Jul 23 19:51	2° Ω 37'49	1°24'03	minimum elong	3365 Jul 08 07:06	17° \mathbb{E} 33'46	1°06'58
max. Earth dist.	3364 Jul 25 13:29	6° Ω 23'45	1.32869 AU	max. Earth dist.	3365 Jul 08 23:16	19° \mathbb{E} 02'43	1.32271 AU
evening rise	3364 Jul 31 04:17	18° Ω 13'39			3365 Jul 14 00:30	0° Ω	
	3364 Aug 06 05:02	0° \mathbb{P}		evening rise	3365 Jul 15 08:32	2° Ω 48'40	
desc. node	3364 Aug 20 23:37	24° \mathbb{P} 08'56			3365 Jul 30 01:17	0° \mathbb{P}	
	3364 Aug 25 08:44	0° Ω		desc. node	3365 Aug 07 20:39	12° \mathbb{P} 40'53	
evening max el	3364 Sep 02 04:48	8° Ω 43'09	27°26'15	evening max el	3365 Aug 15 10:57	21° \mathbb{P} 10'47	27°04'57
				retrograde	3365 Aug 29 07:52	28° \mathbb{P} 23'18	

evening set	3365 Sep 05 09:32	26° \mathbb{M} 09'31		evening set	3366 Aug 17 20:12	8° \mathbb{M} 18'55	
min. Earth dist.	3365 Sep 09 01:13	23° \mathbb{M} 27'38	0.61211 AU	min. Earth dist.	3366 Aug 21 22:49	5° \mathbb{M} 43'32	0.59138 AU
inferior conj	3365 Sep 12 04:38	20° \mathbb{M} 44'08	-4°18'29	inferior conj	3366 Aug 25 05:36	3° \mathbb{M} 14'58	-4°56'03
minimum elong	3365 Sep 12 10:17	20° \mathbb{M} 31'49	4°17'13	minimum elong	3366 Aug 25 09:15	3° \mathbb{M} 08'02	4°55'40
morning rise	3365 Sep 19 12:49	15° \mathbb{M} 51'39			3366 Aug 30 00:40	30° \mathbb{R} \mathcal{O}	
direct	3365 Sep 21 21:54	15° \mathbb{M} 28'36		morning rise	3366 Sep 02 00:29	28° \mathcal{O} 45'33	
asc. node	3365 Sep 27 09:46	17° \mathbb{M} 36'45		direct	3366 Sep 04 10:55	28° \mathcal{O} 25'19	
morning max el	3365 Sep 29 00:23	19° \mathbb{M} 01'08	17°58'50		3366 Sep 09 13:20	0° \mathbb{M}	
	3365 Oct 07 00:28	0° \mathcal{A}		morning max el	3366 Sep 12 09:10	2° \mathbb{M} 14'11	18°27'02
morning set	3365 Oct 14 19:41	13° \mathcal{A} 56'13		asc. node	3366 Sep 14 06:49	4° \mathbb{M} 15'20	
	3365 Oct 23 15:57	0° \mathbb{M}		morning set	3366 Sep 28 10:38	27° \mathbb{M} 50'35	
					3366 Sep 29 13:33	0° \mathcal{A}	
superior conj	3365 Oct 25 00:44	2° \mathbb{M} 24'33	1°04'43	superior conj	3366 Oct 07 10:46	14° \mathcal{A} 57'46	1°28'00
minimum elong	3365 Oct 25 05:02	2° \mathbb{M} 43'23	1°04'10	minimum elong	3366 Oct 07 14:11	15° \mathcal{A} 13'36	1°27'41
max. Earth dist.	3365 Nov 01 14:39	15° \mathbb{M} 19'49	1.42281 AU	max. Earth dist.	3366 Oct 14 21:37	28° \mathcal{A} 18'14	1.40311 AU
desc. node	3365 Nov 03 19:56	18° \mathbb{M} 58'43			3366 Oct 15 21:16	0° \mathbb{M}	
evening rise	3365 Nov 07 16:08	25° \mathbb{M} 09'25			3366 Oct 19 06:21	5° \mathbb{M} 41'53	
	3365 Nov 10 18:05	0° \mathcal{A}		evening rise	3366 Oct 21 16:58	9° \mathbb{M} 42'40	
	3365 Dec 01 09:22	0° \mathcal{B}		desc. node	3366 Oct 21 16:58	9° \mathbb{M} 42'40	
evening max el	3365 Dec 10 08:25	10° \mathcal{B} 42'40	22°17'50		3366 Nov 03 21:56	0° \mathcal{A}	
retrograde	3365 Dec 19 22:10	16° \mathcal{B} 24'17		evening max el	3366 Nov 22 22:51	24° \mathcal{A} 18'56	23°37'40
evening set	3365 Dec 24 11:11	14° \mathcal{B} 34'17			3366 Nov 30 14:49	0° \mathcal{B}	
asc. node	3365 Dec 24 09:02	14° \mathcal{B} 38'39		retrograde	3366 Dec 03 15:33	0° \mathcal{B} 38'05	
inferior conj	3365 Dec 29 19:40	8° \mathcal{B} 13'41	1°46'02		3366 Dec 06 11:22	30° \mathbb{R} \mathcal{A}	
minimum elong	3365 Dec 29 17:32	8° \mathcal{B} 21'04	1°45'16	evening set	3366 Dec 08 17:21	28° \mathcal{A} 31'43	
min. Earth dist.	3365 Dec 29 17:47	8° \mathcal{B} 20'12	0.67941 AU	asc. node	3366 Dec 11 06:03	25° \mathcal{A} 54'20	
morning rise	3366 Jan 03 23:45	2° \mathcal{B} 03'17		min. Earth dist.	3366 Dec 13 14:30	22° \mathcal{A} 50'20	0.67863 AU
direct	3366 Jan 08 16:37	0° \mathcal{B} 05'31		inferior conj	3366 Dec 14 03:11	22° \mathcal{A} 07'02	0°58'11
morning max el	3366 Jan 18 03:07	5° \mathcal{B} 38'49	22°16'48	minimum elong	3366 Dec 14 01:51	22° \mathcal{A} 11'33	0°57'39
desc. node	3366 Jan 30 19:10	21° \mathcal{B} 24'25		morning rise	3366 Dec 19 10:20	16° \mathcal{A} 00'48	
	3366 Feb 05 18:57	0° \approx		direct	3366 Dec 23 13:00	14° \mathcal{A} 25'51	
morning set	3366 Feb 20 12:41	22° \approx 46'41		morning max el	3366 Dec 31 20:23	19° \mathcal{A} 14'03	20°55'38
	3366 Feb 24 21:51	0° \mathcal{H}			3367 Jan 09 16:33	0° \mathcal{B}	
max. Earth dist.	3366 Feb 25 20:43	1° \mathcal{H} 36'07	1.40829 AU	desc. node	3367 Jan 17 16:12	11° \mathcal{B} 22'09	
					3367 Jan 29 23:15	0° \approx	
superior conj	3366 Mar 05 15:31	15° \mathcal{H} 07'16	-2°00'19	morning set	3367 Jan 30 19:49	1° \approx 20'12	
minimum elong	3366 Mar 05 19:01	15° \mathcal{H} 22'53	2°00'08	max. Earth dist.	3367 Feb 08 00:15	14° \approx 22'47	1.42774 AU
	3366 Mar 13 18:11	0° \mathbb{Y}					
evening rise	3366 Mar 15 21:40	4° \mathbb{Y} 00'59		superior conj	3367 Feb 14 23:38	25° \approx 57'20	-2°06'49
asc. node	3366 Mar 22 08:21	15° \mathbb{Y} 51'05		minimum elong	3367 Feb 14 23:15	25° \approx 55'45	2°06'48
evening max el	3366 Apr 01 02:52	29° \mathbb{Y} 55'26	18°18'06		3367 Feb 17 08:31	0° \mathcal{H}	
	3366 Apr 01 04:45	0° \mathcal{B}		evening rise	3367 Feb 26 17:22	16° \mathcal{H} 28'46	
retrograde	3366 Apr 08 07:02	3° \mathcal{B} 29'57			3367 Mar 06 09:40	0° \mathbb{Y}	
evening set	3366 Apr 10 17:50	3° \mathcal{B} 05'53		asc. node	3367 Mar 09 05:23	4° \mathbb{Y} 36'37	
	3366 Apr 15 23:59	30° \mathbb{R} \mathbb{Y}		evening max el	3367 Mar 15 14:05	12° \mathbb{Y} 58'03	18°07'01
inferior conj	3366 Apr 17 21:27	28° \mathbb{Y} 25'46	2°45'01	retrograde	3367 Mar 22 04:22	16° \mathbb{Y} 21'28	
minimum elong	3366 Apr 18 01:04	28° \mathbb{Y} 18'04	2°44'11	evening set	3367 Mar 24 21:07	15° \mathbb{Y} 47'18	
min. Earth dist.	3366 Apr 21 07:44	25° \mathbb{Y} 31'41	0.59204 AU	inferior conj	3367 Mar 31 09:33	10° \mathbb{Y} 46'48	3°23'59
morning rise	3366 Apr 25 05:35	22° \mathbb{Y} 48'28		minimum elong	3367 Mar 31 11:42	10° \mathbb{Y} 41'30	3°23'43
desc. node	3366 Apr 28 18:23	21° \mathbb{Y} 21'58		min. Earth dist.	3367 Apr 03 12:24	7° \mathbb{Y} 43'59	0.61380 AU
direct	3366 May 01 12:31	21° \mathbb{Y} 01'22		morning rise	3367 Apr 07 00:28	4° \mathbb{Y} 51'00	
morning max el	3366 May 15 21:33	28° \mathbb{Y} 48'40	27°17'02	direct	3367 Apr 13 19:30	2° \mathbb{Y} 30'30	
	3366 May 17 01:49	0° \mathcal{B}		desc. node	3367 Apr 15 15:24	2° \mathbb{Y} 40'04	
	3366 Jun 06 21:39	0° \mathbb{I}		morning max el	3367 Apr 28 00:25	10° \mathbb{Y} 27'17	27°48'53
morning set	3366 Jun 15 18:47	17° \mathbb{I} 19'56			3367 May 13 05:52	0° \mathcal{B}	
asc. node	3366 Jun 18 07:37	22° \mathbb{I} 42'34			3367 May 30 02:07	0° \mathbb{I}	
	3366 Jun 21 15:57	0° \mathcal{E}		morning set	3367 May 30 23:13	1° \mathbb{I} 47'34	
				asc. node	3367 Jun 05 04:40	12° \mathbb{I} 50'18	
superior conj	3366 Jun 22 21:11	2° \mathcal{E} 41'03	0°46'27	max. Earth dist.	3367 Jun 05 21:23	14° \mathbb{I} 21'03	1.32271 AU
minimum elong	3366 Jun 22 19:19	2° \mathcal{E} 30'44	0°46'05				
max. Earth dist.	3366 Jun 22 11:11	1° \mathcal{E} 45'55	1.32070 AU	superior conj	3367 Jun 07 07:46	17° \mathbb{I} 28'34	0°22'15
evening rise	3366 Jun 29 17:19	17° \mathcal{E} 34'31		minimum elong	3367 Jun 07 06:46	17° \mathbb{I} 23'04	0°22'02
	3366 Jul 05 20:48	0° \mathcal{O}			3367 Jun 13 01:29	0° \mathcal{E}	
desc. node	3366 Jul 25 17:41	0° \mathbb{M} 06'24		evening rise	3367 Jun 14 04:33	2° \mathcal{E} 24'43	
	3366 Jul 25 15:20	0° \mathbb{M}			3367 Jun 29 02:10	0° \mathcal{O}	
evening max el	3366 Jul 28 10:03	2° \mathbb{M} 50'32	26°10'41	evening max el	3367 Jul 10 02:08	13° \mathcal{O} 44'51	24°49'25
retrograde	3366 Aug 11 09:30	10° \mathbb{M} 00'17		desc. node	3367 Jul 12 14:42	15° \mathcal{O} 58'59	


































































































































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evening set	3367 Jul 29 06:53	19° Ω 45'49		evening rise	3368 May 28 16:21	17° Π 13'02	
min. Earth dist.	3367 Aug 03 13:32	16° Ω 58'01	0.57175 AU		3368 Jun 04 00:10	0° Θ	
inferior conj	3367 Aug 06 11:02	15° Ω 03'57	-5°05'58	evening max el	3368 Jun 20 15:29	24° Θ 13'26	23°13'59
minimum elong	3367 Aug 06 09:49	15° Ω 05'56	5°05'56	desc. node	3368 Jun 28 11:41	29° Θ 45'08	
morning rise	3367 Aug 14 15:19	10° Ω 56'20			3368 Jun 29 02:23	0° Ω	
direct	3367 Aug 17 05:45	10° Ω 37'10		retrograde	3368 Jul 04 03:26	0° Ω 57'54	
morning max el	3367 Aug 26 09:16	14° Ω 54'10	19°16'21	evening set	3368 Jul 07 21:16	0° Ω 27'15	
asc. node	3367 Sep 01 03:51	21° Ω 54'11			3368 Jul 09 08:04	30° κ Θ	
	3367 Sep 06 02:00	0° Π		min. Earth dist.	3368 Jul 15 01:03	27° Θ 12'22	0.55658 AU
morning set	3367 Sep 12 10:28	12° Π 10'28		inferior conj	3368 Jul 16 20:48	26° Θ 08'18	-4°33'05
				minimum elong	3368 Jul 16 13:59	26° Θ 18'18	4°31'52
superior conj	3367 Sep 20 14:14	28° Π 22'18	1°40'48	morning rise	3368 Jul 25 09:07	22° Θ 15'08	
minimum elong	3367 Sep 20 15:58	28° Π 30'43	1°40'44	direct	3368 Jul 28 05:50	21° Θ 55'20	
	3367 Sep 21 10:24	0° Ω		morning max el	3368 Aug 07 22:11	26° Θ 52'43	20°27'08
max. Earth dist.	3367 Sep 27 01:30	10° Ω 34'34	1.38229 AU		3368 Aug 10 21:24	0° Ω	
evening rise	3367 Sep 30 20:10	17° Ω 19'33		asc. node	3368 Aug 18 00:54	10° Ω 20'01	
	3367 Oct 08 09:15	0° Π		morning set	3368 Aug 26 16:20	26° Ω 48'29	
desc. node	3367 Oct 08 13:59	0° Π 19'05			3368 Aug 28 05:35	0° Π	
	3367 Oct 29 07:52	0° κ					
evening max el	3367 Nov 05 11:20	7° κ 59'00	24°55'35	superior conj	3368 Sep 03 06:20	12° Π 24'42	1°44'46
retrograde	3367 Nov 17 04:54	14° κ 47'46		minimum elong	3368 Sep 03 06:23	12° Π 24'58	1°44'46
evening set	3367 Nov 22 20:27	12° κ 26'04		max. Earth dist.	3368 Sep 08 08:13	22° Π 29'06	1.36286 AU
min. Earth dist.	3367 Nov 27 09:33	7° κ 18'37	0.67445 AU	evening rise	3368 Sep 12 07:03	29° Π 56'40	
inferior conj	3367 Nov 28 08:54	6° κ 01'43	0°05'00		3368 Sep 12 07:46	0° Ω	
minimum elong	3367 Nov 28 08:46	6° κ 02'08	0°04'56	desc. node	3368 Sep 24 11:02	20° Ω 43'29	
transit middle	3367 Nov 28 08:46	6° κ 02'08	0°04'56		3368 Sep 30 13:43	0° Π	
transit begin	3367 Nov 28 06:08	6° κ 10'49		evening max el	3368 Oct 17 23:44	21° Π 41'07	26°04'07
transit end	3367 Nov 28 11:24	5° κ 53'27		retrograde	3368 Oct 30 13:17	28° Π 48'33	
asc. node	3367 Nov 28 03:04	6° κ 20'56		evening set	3368 Nov 05 18:44	26° Π 14'17	
morning rise	3367 Dec 03 21:14	0° κ 01'55		min. Earth dist.	3368 Nov 10 00:35	21° Π 42'14	0.66690 AU
	3367 Dec 03 22:21	30° κ Π		inferior conj	3368 Nov 11 11:01	19° Π 55'03	-0°52'20
direct	3367 Dec 07 11:18	28° Π 47'48		minimum elong	3368 Nov 11 12:24	19° Π 50'43	0°51'44
	3367 Dec 11 05:37	0° κ		asc. node	3368 Nov 14 00:04	16° Π 53'40	
morning max el	3367 Dec 14 21:23	2° κ 59'57	19°46'37	morning rise	3368 Nov 17 06:30	14° Π 04'20	
greatest brilliancy	3367 Dec 28 04:29	20° κ 32'50	-0.7m	direct	3368 Nov 20 09:54	13° Π 07'50	
	3368 Jan 03 11:15	0° Θ		morning max el	3368 Nov 27 05:43	16° Π 54'36	18°52'39
desc. node	3368 Jan 04 13:12	1° Θ 38'57			3368 Dec 07 04:08	0° κ	
morning set	3368 Jan 09 15:45	9° Θ 29'27		morning set	3368 Dec 19 02:01	18° κ 29'00	
max. Earth dist.	3368 Jan 21 11:08	27° Θ 57'59	1.44254 AU	desc. node	3368 Dec 21 10:15	22° κ 09'37	
	3368 Jan 22 17:46	0° \approx			3368 Dec 26 10:16	0° Θ	
				max. Earth dist.	3369 Jan 03 03:54	12° Θ 07'54	1.45088 AU
superior conj	3368 Jan 26 05:42	5° \approx 37'08	-1°56'33				
minimum elong	3368 Jan 25 23:29	5° \approx 12'02	1°56'10	superior conj	3369 Jan 04 13:57	14° Θ 21'47	-1°26'51
evening rise	3368 Feb 08 18:01	28° \approx 03'48		minimum elong	3369 Jan 04 04:49	13° Θ 45'51	1°25'55
	3368 Feb 09 21:21	0° κ			3369 Jan 14 10:29	0° \approx	
asc. node	3368 Feb 24 02:24	22° κ 44'38		evening rise	3369 Jan 19 20:07	8° \approx 41'58	
evening max el	3368 Feb 27 02:48	26° κ 15'33	18°15'05		3369 Feb 02 04:22	0° κ	
retrograde	3368 Mar 04 13:16	29° κ 41'46		evening max el	3369 Feb 09 14:20	9° κ 41'39	18°41'23
evening set	3368 Mar 07 11:44	28° κ 56'16		asc. node	3369 Feb 09 23:24	10° κ 04'17	
inferior conj	3368 Mar 13 12:50	23° κ 36'20	3°38'22	retrograde	3369 Feb 16 05:42	13° κ 22'57	
minimum elong	3368 Mar 13 13:09	23° κ 35'26	3°38'22	evening set	3369 Feb 19 10:13	12° κ 25'11	
min. Earth dist.	3368 Mar 16 01:57	20° κ 47'57	0.63413 AU	inferior conj	3369 Feb 25 03:25	6° κ 47'17	3°34'20
morning rise	3368 Mar 19 13:37	17° κ 30'30		minimum elong	3369 Feb 25 02:15	6° κ 50'51	3°34'14
direct	3368 Mar 26 11:23	14° κ 47'30		min. Earth dist.	3369 Feb 27 00:51	4° κ 29'35	0.65124 AU
desc. node	3368 Apr 01 12:24	16° κ 32'49		morning rise	3369 Mar 02 17:50	0° κ 36'21	
morning max el	3368 Apr 09 07:55	22° κ 44'59	27°43'21		3369 Mar 03 11:40	30° κ \approx	
	3368 Apr 15 17:53	0° Υ		direct	3369 Mar 09 10:20	27° \approx 45'15	
	3368 May 05 11:16	0° δ			3369 Mar 16 01:37	0° κ	
morning set	3368 May 13 21:05	15° δ 52'35		desc. node	3369 Mar 19 09:26	2° κ 27'17	
max. Earth dist.	3368 May 19 01:59	26° δ 35'38	1.32892 AU	morning max el	3369 Mar 22 17:34	5° κ 32'58	27°03'59
	3368 May 20 16:24	0° Π			3369 Apr 10 10:07	0° Υ	
				morning set	3369 Apr 27 09:22	29° Υ 25'18	
superior conj	3368 May 21 15:23	2° Π 03'14	-0°04'32		3369 Apr 27 16:33	0° δ	
minimum elong	3368 May 21 15:36	2° Π 04'25	0°04'28	max. Earth dist.	3369 May 01 21:21	8° δ 20'00	1.33968 AU
behind sun begin	3368 May 21 10:29	1° Π 36'57					
behind sun end	3368 May 21 20:42	2° Π 31'55		superior conj	3369 May 05 17:56	16° δ 18'01	-0°32'55

minimum elong	3369 May 05 19:38	16°♄26'57	0°32'33	superior conj	3370 Apr 19 13:00	0°♄06'02	-1°01'35
asc. node	3369 May 08 22:44	23°♄03'33		minimum elong	3370 Apr 19 16:14	0°♄22'24	1°01'00
	3369 May 12 05:23	0°♄		asc. node	3370 Apr 25 19:47	13°♄00'35	
evening rise	3369 May 13 02:51	1°♄52'39		evening rise	3370 Apr 27 10:04	16°♄17'25	
	3369 May 29 04:00	0°♄			3370 May 04 10:39	0°♄	
evening max el	3369 Jun 02 09:27	4°♄46'02	21°39'42	evening max el	3370 May 15 14:05	15°♄49'42	20°18'25
retrograde	3369 Jun 14 18:48	10°♄52'13		retrograde	3370 May 26 08:26	21°♄04'19	
desc. node	3369 Jun 15 08:42	10°♄51'27		evening set	3370 May 28 08:21	20°♄54'15	
evening set	3369 Jun 17 07:17	10°♄37'52		desc. node	3370 Jun 02 05:42	19°♄15'33	
inferior conj	3369 Jun 26 16:35	6°♄36'25	-3°10'35	inferior conj	3370 Jun 06 11:28	16°♄55'51	-1°14'58
minimum elong	3369 Jun 26 08:35	6°♄47'36	3°08'08	minimum elong	3370 Jun 06 07:56	17°♄01'03	1°13'40
min. Earth dist.	3369 Jun 26 11:59	6°♄42'50	0.54901 AU	min. Earth dist.	3370 Jun 08 00:22	16°♄01'42	0.55089 AU
morning rise	3369 Jul 05 11:00	2°♄42'45		morning rise	3370 Jun 15 06:15	12°♄41'20	
direct	3369 Jul 08 17:04	2°♄19'37		direct	3370 Jun 19 03:52	12°♄08'28	
morning max el	3369 Jul 20 23:30	8°♄05'57	21°57'05	morning max el	3370 Jul 02 16:26	18°♄43'52	23°38'46
asc. node	3369 Aug 04 21:57	29°♄20'42			3370 Jul 12 00:03	0°♄	
	3369 Aug 05 06:20	0°♄		asc. node	3370 Jul 22 19:02	18°♄47'28	
morning set	3369 Aug 11 01:56	11°♄37'21		morning set	3370 Jul 26 13:25	26°♄31'38	
					3370 Jul 28 04:37	0°♄	
superior conj	3369 Aug 18 07:11	26°♄52'44	1°41'27	superior conj	3370 Aug 02 13:52	11°♄37'38	1°32'05
minimum elong	3369 Aug 18 05:56	26°♄46'11	1°41'23	minimum elong	3370 Aug 02 11:48	11°♄26'33	1°31'52
	3369 Aug 19 19:01	0°♄		max. Earth dist.	3370 Aug 04 21:36	16°♄35'55	1.33399 AU
max. Earth dist.	3369 Aug 21 22:26	4°♄24'31	1.34648 AU	evening rise	3370 Aug 10 02:08	27°♄19'38	
evening rise	3369 Aug 26 10:26	13°♄20'26			3370 Aug 11 10:26	0°♄	
	3369 Sep 04 15:07	0°♄			3370 Aug 28 21:30	0°♄	
desc. node	3369 Sep 11 08:03	10°♄49'04		desc. node	3370 Aug 29 05:04	0°♄27'44	
	3369 Sep 25 12:32	0°♄		evening max el	3370 Sep 12 23:56	18°♄36'08	27°23'27
evening max el	3369 Sep 30 12:17	5°♄17'10	26°55'47	retrograde	3370 Sep 26 13:14	25°♄54'05	
retrograde	3369 Oct 13 16:12	12°♄33'20		evening set	3370 Oct 03 15:47	23°♄13'42	
evening set	3369 Oct 20 10:04	9°♄51'46		min. Earth dist.	3370 Oct 07 09:00	19°♄52'24	0.64122 AU
min. Earth dist.	3369 Oct 24 09:07	5°♄55'54	0.65582 AU	inferior conj	3370 Oct 09 19:47	17°♄18'25	-2°52'37
inferior conj	3369 Oct 26 07:27	3°♄42'19	-1°52'18	minimum elong	3370 Oct 10 00:31	17°♄06'00	2°50'56
minimum elong	3369 Oct 26 10:33	3°♄33'22	1°51'03	morning rise	3370 Oct 16 10:27	11°♄55'22	
	3369 Oct 29 19:05	30°♄		direct	3370 Oct 18 23:18	11°♄23'02	
asc. node	3369 Oct 31 21:07	28°♄24'17		asc. node	3370 Oct 18 18:12	11°♄23'16	
morning rise	3369 Nov 01 11:50	28°♄03'51		morning max el	3370 Oct 25 11:47	14°♄48'36	17°54'28
direct	3369 Nov 04 06:47	27°♄21'15			3370 Nov 05 03:51	0°♄	
	3369 Nov 09 21:04	0°♄		morning set	3370 Nov 11 11:14	10°♄42'22	
morning max el	3369 Nov 10 19:26	0°♄52'53	18°15'02		3370 Nov 22 23:33	0°♄	
morning set	3369 Nov 29 16:43	28°♄55'14					
	3369 Nov 30 08:37	0°♄		superior conj	3370 Nov 24 10:11	2°♄21'04	0°05'13
desc. node	3369 Dec 08 07:19	12°♄49'31		minimum elong	3370 Nov 24 10:47	2°♄23'29	0°05'08
superior conj	3369 Dec 14 16:32	22°♄57'27	-0°42'29	behind sun begin	3370 Nov 24 01:10	1°♄44'24	
minimum elong	3369 Dec 14 11:08	22°♄36'10	0°41'46	behind sun end	3370 Nov 24 20:24	3°♄02'29	
max. Earth dist.	3369 Dec 16 23:27	26°♄33'29	1.45179 AU	desc. node	3370 Nov 25 04:21	3°♄34'41	
	3369 Dec 19 04:05	0°♄		max. Earth dist.	3370 Nov 29 17:59	10°♄53'59	1.44535 AU
evening rise	3369 Dec 30 23:36	18°♄27'15		evening rise	3370 Dec 10 11:17	27°♄38'11	
	3370 Jan 07 09:31	0°♄			3370 Dec 12 00:13	0°♄	
greatest brilliancy	3370 Jan 11 16:06	6°♄34'33	-0.7m		3371 Jan 01 10:29	0°♄	
evening max el	3370 Jan 23 22:26	23°♄11'49	19°24'43	evening max el	3371 Jan 07 01:31	6°♄42'52	20°23'11
asc. node	3370 Jan 27 20:25	26°♄22'17		asc. node	3371 Jan 14 17:28	11°♄23'16	
retrograde	3370 Jan 31 02:21	27°♄18'47		retrograde	3371 Jan 15 00:29	11°♄23'44	
evening set	3370 Feb 03 13:52	26°♄07'53		evening set	3371 Jan 18 20:28	9°♄58'39	
inferior conj	3370 Feb 09 01:59	20°♄14'12	3°16'29	inferior conj	3371 Jan 24 05:46	3°♄51'55	2°47'57
minimum elong	3370 Feb 08 23:52	20°♄21'05	3°16'07	minimum elong	3371 Jan 24 03:15	4°♄00'28	2°47'18
min. Earth dist.	3370 Feb 10 08:20	18°♄35'30	0.66428 AU	min. Earth dist.	3371 Jan 24 22:33	2°♄54'51	0.67318 AU
morning rise	3370 Feb 14 09:37	14°♄00'55			3371 Jan 27 04:32	30°♄	
direct	3370 Feb 20 15:26	11°♄14'48		morning rise	3371 Jan 29 09:50	27°♄38'15	
morning max el	3370 Mar 05 03:14	18°♄40'13	25°58'20	direct	3371 Feb 04 01:59	25°♄06'44	
desc. node	3370 Mar 06 06:29	19°♄50'40			3371 Feb 13 11:35	0°♄	
	3370 Mar 14 17:24	0°♄		morning max el	3371 Feb 15 11:56	1°♄55'55	24°35'55
	3370 Apr 03 10:49	0°♄		desc. node	3371 Feb 21 03:32	8°♄16'49	
morning set	3370 Apr 10 08:09	12°♄14'38			3371 Mar 08 19:08	0°♄	
max. Earth dist.	3370 Apr 14 05:30	19°♄35'14	1.35503 AU	morning set	3371 Mar 23 12:04	24°♄05'06	
	3370 Apr 19 11:49	0°♄			3371 Mar 26 19:29	0°♄	
				max. Earth dist.	3371 Mar 27 03:39	0°♄37'08	1.37433 AU

superior conj	3371 Apr 02 21:20	13°♈18'05	-1°28'35	superior conj	3372 Mar 15 14:53	25°♋44'20	-1°51'01
minimum elong	3371 Apr 03 01:43	13°♈39'22	1°27'59	minimum elong	3372 Mar 15 19:18	26°♋04'41	1°50'39
evening rise	3371 Apr 11 11:31	0°♋19'33			3372 Mar 17 21:53	0°♈	
	3371 Apr 11 07:35	0°♋		evening rise	3372 Mar 25 04:20	13°♈51'38	
asc. node	3371 Apr 12 16:49	2°♋44'48		asc. node	3372 Mar 29 13:50	22°♈11'15	
evening max el	3371 Apr 28 06:45	27°♋34'14	19°15'50		3372 Apr 03 00:04	0°♋	
	3371 May 01 06:19	0°♊		evening max el	3372 Apr 10 09:19	9°♋56'17	18°33'26
retrograde	3371 May 07 08:32	1°♊58'40		retrograde	3372 Apr 18 02:35	13°♋43'53	
evening set	3371 May 09 09:26	1°♊46'17		evening set	3372 Apr 20 09:44	13°♋24'51	
	3371 May 13 23:19	30°♋8		inferior conj	3372 Apr 27 23:52	8°♋57'01	2°08'49
inferior conj	3371 May 17 19:23	27°♋37'05	0°39'58	minimum elong	3372 Apr 28 03:37	8°♋49'42	2°07'45
minimum elong	3371 May 17 21:01	27°♋34'22	0°39'24	min. Earth dist.	3372 May 01 09:39	6°♋19'01	0.57999 AU
desc. node	3371 May 20 02:44	26°♋04'50		morning rise	3372 May 05 18:20	3°♋35'04	
min. Earth dist.	3371 May 20 15:15	25°♋44'30	0.56199 AU	desc. node	3372 May 05 23:46	3°♋28'35	
morning rise	3371 May 26 05:32	22°♋48'16		direct	3372 May 11 14:31	2°♋08'22	
direct	3371 May 31 01:58	21°♋54'01		morning max el	3372 May 25 23:39	9°♋46'54	26°42'14
morning max el	3371 Jun 14 06:38	29°♋08'25	25°19'06		3372 Jun 10 10:16	0°♊	
	3371 Jun 15 03:41	0°♊		morning set	3372 Jun 24 11:25	26°♊14'25	
	3371 Jul 05 09:43	0°♉		asc. node	3372 Jun 25 13:08	28°♊30'35	
asc. node	3371 Jul 09 16:07	8°♉32'48			3372 Jun 26 05:51	0°♉	
morning set	3371 Jul 11 01:08	11°♉25'54		superior conj	3372 Jul 01 11:44	11°♉27'59	0°58'56
				minimum elong	3372 Jul 01 09:33	11°♉15'59	0°58'33
superior conj	3371 Jul 18 00:02	26°♉31'43	1°17'40	max. Earth dist.	3372 Jul 01 15:09	11°♉46'51	1.32135 AU
minimum elong	3371 Jul 17 21:41	26°♉18'49	1°17'19	evening rise	3372 Jul 08 09:05	26°♉24'41	
max. Earth dist.	3371 Jul 19 04:12	29°♉05'35	1.32562 AU		3372 Jul 10 02:32	0°♊	
	3371 Jul 19 14:11	0°♊			3372 Jul 27 05:29	0°♊	
evening rise	3371 Jul 25 02:38	11°♊44'07		desc. node	3372 Aug 01 23:06	7°♊35'01	
	3371 Aug 03 15:13	0°♊		evening max el	3372 Aug 07 12:15	13°♊34'30	26°45'49
desc. node	3371 Aug 16 02:04	19°♊28'28		retrograde	3372 Aug 21 10:51	20°♊46'00	
	3371 Aug 24 21:40	0°♊		evening set	3372 Aug 28 07:30	18°♊45'00	
evening max el	3371 Aug 26 08:45	1°♊26'01	27°21'15	min. Earth dist.	3372 Sep 01 02:16	16°♊07'49	0.60329 AU
retrograde	3371 Sep 09 03:57	8°♊41'39		inferior conj	3372 Sep 04 08:06	13°♊28'22	-4°36'56
evening set	3371 Sep 16 08:28	6°♊14'22		minimum elong	3372 Sep 04 13:15	13°♊17'47	4°36'01
min. Earth dist.	3371 Sep 19 22:51	3°♊21'15	0.62338 AU	morning rise	3372 Sep 11 20:57	8°♊45'19	
inferior conj	3371 Sep 22 21:10	0°♊36'56	-3°49'34	direct	3372 Sep 14 06:06	8°♊23'48	
minimum elong	3371 Sep 23 02:53	0°♊23'32	3°47'58	morning max el	3372 Sep 21 16:04	12°♊02'29	18°08'15
	3371 Sep 23 13:00	30°♊8		asc. node	3372 Sep 21 12:21	11°♊53'33	
morning rise	3371 Sep 29 22:56	25°♊32'31			3372 Oct 03 15:45	0°♊	
direct	3371 Oct 02 08:24	25°♊07'01		morning set	3372 Oct 07 11:46	7°♊07'29	
asc. node	3371 Oct 05 15:18	25°♊56'32					
morning max el	3371 Oct 09 03:46	28°♊34'53	17°51'48	superior conj	3372 Oct 17 03:19	24°♊57'47	1°15'57
	3371 Oct 10 11:45	0°♊		minimum elong	3372 Oct 17 07:26	25°♊16'12	1°15'30
morning set	3371 Oct 25 03:37	23°♊32'32			3372 Oct 19 23:26	0°♊	
	3371 Oct 28 18:20	0°♊		max. Earth dist.	3372 Oct 24 18:38	8°♊15'08	1.41474 AU
superior conj	3371 Nov 05 05:55	13°♊02'05	0°46'05	desc. node	3372 Oct 28 22:24	15°♊08'18	
minimum elong	3371 Nov 05 09:48	13°♊18'36	0°45'33	evening rise	3372 Oct 29 23:41	16°♊50'50	
desc. node	3371 Nov 12 01:23	24°♊22'15			3372 Nov 07 09:15	0°♊	
max. Earth dist.	3371 Nov 12 08:44	24°♊52'10	1.43247 AU		3372 Nov 29 03:23	0°♊	
	3371 Nov 15 13:14	0°♊		evening max el	3372 Dec 02 15:47	3°♊49'44	22°51'41
evening rise	3371 Nov 19 22:07	6°♊53'14		retrograde	3372 Dec 12 17:04	9°♊47'39	
	3371 Dec 05 07:35	0°♊		evening set	3372 Dec 17 11:19	7°♊50'55	
evening max el	3371 Dec 20 23:05	20°♊15'13	21°33'39	asc. node	3372 Dec 18 11:33	6°♊55'22	
retrograde	3371 Dec 29 21:58	25°♊34'35		inferior conj	3372 Dec 22 20:14	1°♊28'16	1°26'29
asc. node	3372 Jan 01 14:31	24°♊55'07		minimum elong	3372 Dec 22 18:23	1°♊34'37	1°25'46
evening set	3372 Jan 03 04:10	23°♊54'08		min. Earth dist.	3372 Dec 22 13:47	1°♊50'31	0.67952 AU
inferior conj	3372 Jan 08 12:30	17°♊37'39	2°10'48		3372 Dec 23 21:58	30°♊8	
minimum elong	3372 Jan 08 10:06	17°♊45'58	2°10'00	morning rise	3372 Dec 28 01:20	25°♊19'17	
min. Earth dist.	3372 Jan 08 17:12	17°♊21'21	0.67819 AU	direct	3373 Jan 01 12:06	23°♊31'04	
morning rise	3372 Jan 13 15:51	11°♊25'21		morning max el	3373 Jan 10 10:19	28°♊44'10	21°40'59
direct	3372 Jan 18 17:14	9°♊14'18			3373 Jan 11 15:26	0°♊	
morning max el	3372 Jan 28 21:06	15°♊16'23	23°07'01	desc. node	3373 Jan 24 21:37	17°♊10'56	
desc. node	3372 Feb 08 00:35	27°♊27'53			3373 Feb 02 14:17	0°♊	
	3372 Feb 09 21:26	0°♊		morning set	3373 Feb 11 12:41	13°♊52'34	
	3372 Feb 29 18:55	0°♊		max. Earth dist.	3373 Feb 17 21:43	24°♊14'20	1.41699 AU
morning set	3372 Mar 03 14:54	4°♊40'28			3373 Feb 21 08:07	0°♊	
max. Earth dist.	3372 Mar 07 22:22	12°♊00'00	1.39590 AU				

superior conj	3373 Feb 25 12:40	7° K 12'49	-2°04'49	minimum elong	3374 Feb 06 06:57	17° \approx 20'34	2°04'42
minimum elong	3373 Feb 25 14:53	7° K 22'31	2°04'44		3374 Feb 13 18:43	0° K	
evening rise	3373 Mar 08 08:54	26° K 45'09		evening rise	3374 Feb 18 20:58	8° K 50'54	
	3373 Mar 10 03:22	0° Y		asc. node	3374 Mar 03 07:53	29° K 44'09	
asc. node	3373 Mar 16 10:52	11° Y 13'50			3374 Mar 03 12:13	0° Y	
evening max el	3373 Mar 24 18:23	22° Y 46'59	18°11'05	evening max el	3374 Mar 08 06:33	5° Y 56'10	18°08'10
retrograde	3373 Mar 31 15:05	26° Y 14'35		retrograde	3374 Mar 14 18:00	9° Y 19'15	
evening set	3373 Apr 03 04:39	25° Y 46'15		evening set	3374 Mar 17 13:14	8° Y 40'16	
inferior conj	3373 Apr 10 01:18	20° Y 57'25	3°04'59	inferior conj	3374 Mar 23 20:20	3° Y 31'01	3°32'43
minimum elong	3373 Apr 10 04:25	20° Y 50'20	3°04'23	minimum elong	3374 Mar 23 21:42	3° Y 27'28	3°32'36
min. Earth dist.	3373 Apr 13 09:34	17° Y 56'41	0.60132 AU	min. Earth dist.	3374 Mar 26 17:39	0° Y 32'13	0.62270 AU
morning rise	3373 Apr 17 01:54	15° Y 11'24			3374 Mar 27 06:49	30° R K	
desc. node	3373 Apr 22 20:47	13° Y 10'54		morning rise	3374 Mar 30 04:48	27° K 30'13	
direct	3373 Apr 23 15:22	13° Y 09'14		direct	3374 Apr 06 01:59	24° K 58'54	
morning max el	3373 May 07 22:44	21° Y 00'49	27°35'10	desc. node	3374 Apr 09 17:49	25° K 37'26	
	3373 May 15 17:34	0° B			3374 Apr 16 23:02	0° Y	
	3373 Jun 03 07:56	0° II		morning max el	3374 Apr 20 03:52	2° Y 56'27	27°51'12
morning set	3373 Jun 08 18:35	10° II 51'53			3374 May 10 04:13	0° B	
asc. node	3373 Jun 12 10:09	18° II 36'09		morning set	3374 May 23 20:31	25° B 10'37	
max. Earth dist.	3373 Jun 15 02:56	24° II 29'10	1.32111 AU		3374 May 26 04:42	0° II	
				max. Earth dist.	3374 May 29 11:27	6° II 57'55	1.32486 AU
superior conj	3373 Jun 15 23:14	26° II 20'46	0°36'34	asc. node	3374 May 30 07:10	8° II 44'21	
minimum elong	3373 Jun 15 21:41	26° II 12'13	0°36'15				
	3373 Jun 17 15:04	0° B		superior conj	3374 May 31 08:45	11° II 03'07	0°11'12
evening rise	3373 Jun 22 19:12	11° B 13'58		minimum elong	3374 May 31 08:13	11° II 00'16	0°11'05
	3373 Jul 02 08:32	0° Ω		behind sun begin	3374 May 31 04:29	10° II 39'57	
desc. node	3373 Jul 19 20:06	24° Ω 25'10		behind sun end	3374 May 31 11:57	11° II 20'35	
evening max el	3373 Jul 20 08:28	24° Ω 55'06	25°38'51	evening rise	3374 Jun 07 06:53	26° II 04'01	
	3373 Jul 27 01:36	0° P			3374 Jun 09 03:49	0° B	
retrograde	3373 Aug 03 08:00	2° P 02'03			3374 Jun 26 21:48	0° Ω	
evening set	3373 Aug 09 08:09	0° P 37'16		evening max el	3374 Jul 01 22:28	5° Ω 34'23	24°09'32
	3373 Aug 10 14:06	30° R Ω		desc. node	3374 Jul 06 17:05	9° Ω 28'19	
min. Earth dist.	3373 Aug 13 20:34	27° Ω 58'46	0.58280 AU	retrograde	3374 Jul 15 17:46	12° Ω 31'50	
inferior conj	3373 Aug 17 01:06	25° Ω 42'55	-5°04'33	evening set	3374 Jul 20 09:01	11° Ω 44'07	
minimum elong	3373 Aug 17 03:00	25° Ω 39'31	5°04'27	min. Earth dist.	3374 Jul 26 09:04	8° Ω 46'33	0.56465 AU
morning rise	3373 Aug 25 00:07	21° Ω 22'50		inferior conj	3374 Jul 28 21:51	7° Ω 12'10	-4°58'00
direct	3373 Aug 27 12:07	21° Ω 03'07		minimum elong	3374 Jul 28 18:05	7° Ω 18'04	4°57'39
morning max el	3373 Sep 04 21:28	25° Ω 02'23	18°45'16	morning rise	3374 Aug 06 05:46	3° Ω 12'20	
asc. node	3373 Sep 08 09:23	28° Ω 59'32		direct	3374 Aug 08 22:49	2° Ω 53'03	
	3373 Sep 09 03:27	0° P		morning max el	3374 Aug 18 16:59	7° Ω 25'07	19°43'54
morning set	3373 Sep 21 06:56	21° P 14'09		asc. node	3374 Aug 26 06:24	16° Ω 59'26	
	3373 Sep 25 18:35	0° $\underline{\Omega}$			3374 Sep 02 12:47	0° P	
				morning set	3374 Sep 05 09:39	5° P 42'29	
superior conj	3373 Sep 29 21:27	7° $\underline{\Omega}$ 54'34	1°34'36				
minimum elong	3373 Sep 30 00:11	8° $\underline{\Omega}$ 07'31	1°34'25	superior conj	3374 Sep 13 06:51	21° P 36'45	1°43'28
max. Earth dist.	3373 Oct 07 00:17	20° $\underline{\Omega}$ 56'20	1.39434 AU	minimum elong	3374 Sep 13 07:50	21° P 41'38	1°43'26
evening rise	3373 Oct 11 00:04	27° $\underline{\Omega}$ 51'13			3374 Sep 17 14:25	0° $\underline{\Omega}$	
	3373 Oct 12 06:37	0° P		max. Earth dist.	3374 Sep 19 04:50	3° $\underline{\Omega}$ 01'02	1.37377 AU
desc. node	3373 Oct 15 19:25	5° P 49'22		evening rise	3374 Sep 22 23:19	9° $\underline{\Omega}$ 54'52	
	3373 Oct 31 22:11	0° P		desc. node	3374 Oct 02 16:27	26° $\underline{\Omega}$ 21'07	
evening max el	3373 Nov 15 05:15	17° P 27'44	24°11'27		3374 Oct 04 23:58	0° P	
retrograde	3373 Nov 26 08:40	23° P 59'50			3374 Oct 27 14:02	0° P	
evening set	3373 Dec 01 16:21	21° P 46'42		evening max el	3374 Oct 28 17:26	1° P 08'43	25°26'14
asc. node	3373 Dec 05 08:35	17° P 43'48		retrograde	3374 Nov 09 19:58	8° P 06'45	
min. Earth dist.	3373 Dec 06 09:59	16° P 19'46	0.67734 AU	evening set	3374 Nov 15 17:39	5° P 38'55	
inferior conj	3373 Dec 07 03:10	15° P 21'52	0°36'12	min. Earth dist.	3374 Nov 20 03:31	0° P 46'40	0.67168 AU
minimum elong	3373 Dec 07 02:18	15° P 24'46	0°35'50		3374 Nov 20 18:01	30° R P	
morning rise	3373 Dec 12 12:17	9° P 18'15		inferior conj	3374 Nov 21 07:35	29° P 16'11	-0°18'55
direct	3373 Dec 16 09:29	7° P 52'23		minimum elong	3374 Nov 21 08:04	29° P 14'38	0°18'43
morning max el	3373 Dec 24 06:45	12° P 23'22	20°24'33	asc. node	3374 Nov 22 05:37	28° P 05'46	
	3374 Jan 06 20:16	0° B		morning rise	3374 Nov 26 22:46	23° P 20'13	
desc. node	3374 Jan 11 18:38	7° B 17'12		direct	3374 Nov 30 08:02	22° P 14'10	
morning set	3374 Jan 21 12:03	22° B 06'11		morning max el	3374 Dec 07 11:10	26° P 14'00	19°21'46
	3374 Jan 26 13:20	0° \approx			3374 Dec 10 19:07	0° P	
max. Earth dist.	3374 Jan 31 04:59	7° \approx 24'40	1.43475 AU	greatest brilliancy	3374 Dec 20 22:06	14° P 17'36	-0.7m
				desc. node	3374 Dec 29 15:41	27° P 40'29	
superior conj	3374 Feb 06 09:46	17° \approx 32'11	-2°04'46	morning set	3374 Dec 31 11:20	0° B 29'26	

	3374 Dec 31 03:44	0°☿		superior conj	3375 Dec 27 08:37	5°☿18'13	-1°09'15
max. Earth dist.	3375 Jan 13 18:58	21°☿17'47	1.44691 AU	minimum elong	3375 Dec 27 00:22	4°☿45'51	1°08'15
superior conj	3375 Jan 17 05:20	26°☿44'30	-1°46'14	max. Earth dist.	3375 Dec 27 12:51	5°☿34'47	1.45213 AU
minimum elong	3375 Jan 16 21:09	26°☿11'53	1°45'36	evening rise	3376 Jan 12 04:34	0°☿16'18	
	3375 Jan 19 06:16	0°☿			3376 Jan 12 00:28	0°☿	
evening rise	3375 Jan 31 12:25	20°☿02'19		greatest brilliancy	3376 Jan 20 23:07	14°☿12'40	-0.8m
	3375 Feb 06 12:06	0°☿			3376 Jan 31 18:57	0°☿	
asc. node	3375 Feb 18 04:54	17°☿32'59		evening max el	3376 Feb 03 05:17	2°☿45'14	18°57'51
evening max el	3375 Feb 19 19:00	19°☿17'26	18°24'04	asc. node	3376 Feb 05 01:57	4°☿27'58	
retrograde	3375 Feb 26 06:42	22°☿49'05		retrograde	3376 Feb 10 01:18	6°☿36'32	
evening set	3375 Mar 01 07:34	21°☿58'33		evening set	3376 Feb 13 08:32	5°☿33'31	
inferior conj	3375 Mar 07 04:55	16°☿30'35	3°38'36	inferior conj	3376 Feb 18 23:17	29°☿48'45	3°28'12
minimum elong	3375 Mar 07 04:32	16°☿31'40	3°38'36	minimum elong	3376 Feb 18 21:38	29°☿53'54	3°28'01
min. Earth dist.	3375 Mar 09 11:21	13°☿53'42	0.64179 AU		3376 Feb 18 19:42	30°☿	
morning rise	3375 Mar 13 00:47	10°☿21'49		min. Earth dist.	3376 Feb 20 14:14	27°☿46'39	0.65729 AU
direct	3375 Mar 19 20:56	7°☿33'45		morning rise	3376 Feb 24 10:22	23°☿36'20	
desc. node	3375 Mar 27 14:51	10°☿25'57		direct	3376 Mar 01 22:51	20°☿45'36	
morning max el	3375 Apr 02 12:53	15°☿29'07	27°30'28	desc. node	3376 Mar 13 11:54	27°☿01'20	
	3375 Apr 14 10:30	0°☿		morning max el	3376 Mar 14 22:47	28°☿26'25	26°38'39
	3375 May 02 21:06	0°☿			3376 Mar 16 10:45	0°☿	
morning set	3375 May 07 14:44	9°☿02'54		morning set	3376 Apr 07 05:08	0°☿	
max. Earth dist.	3375 May 12 12:38	19°☿00'31	1.33292 AU		3376 Apr 19 21:51	22°☿18'33	
				max. Earth dist.	3376 Apr 23 21:01	0°☿	
superior conj	3375 May 15 14:27	25°☿29'30	-0°16'25		3376 Apr 24 02:59	0°☿29'33	1.34558 AU
minimum elong	3375 May 15 15:17	25°☿33'55	0°16'15	superior conj	3376 Apr 28 14:10	9°☿33'29	-0°45'08
asc. node	3375 May 17 04:12	28°☿51'18		minimum elong	3376 Apr 28 16:32	9°☿45'43	0°44'41
	3375 May 17 17:01	0°☿		asc. node	3376 May 03 01:16	18°☿53'00	
evening rise	3375 May 22 18:22	10°☿48'47		evening rise	3376 May 06 03:42	25°☿22'17	
	3375 Jun 01 16:12	0°☿			3376 May 08 09:50	0°☿	
evening max el	3375 Jun 13 12:36	15°☿59'33	22°32'50	evening max el	3376 May 25 10:44	26°☿43'23	21°03'12
desc. node	3375 Jun 23 14:06	22°☿09'23			3376 May 29 11:44	0°☿	
retrograde	3375 Jun 26 15:33	22°☿30'54		retrograde	3376 Jun 06 04:48	2°☿28'22	
evening set	3375 Jun 29 19:03	22°☿09'06		evening set	3376 Jun 08 09:30	2°☿17'04	
min. Earth dist.	3375 Jul 07 20:03	18°☿38'45	0.55226 AU	desc. node	3376 Jun 09 11:06	2°☿03'48	
inferior conj	3375 Jul 09 00:28	17°☿58'20	-4°03'47		3376 Jun 14 16:23	30°☿	
minimum elong	3375 Jul 08 16:21	18°☿09'54	4°01'52	inferior conj	3376 Jun 17 18:06	28°☿19'15	-2°23'47
morning rise	3375 Jul 17 15:48	14°☿07'26		minimum elong	3376 Jun 17 11:31	28°☿28'32	2°21'32
direct	3375 Jul 20 15:42	13°☿46'54		min. Earth dist.	3376 Jun 18 07:53	27°☿59'46	0.54854 AU
morning max el	3375 Aug 01 00:58	19°☿04'26	21°03'24	morning rise	3376 Jun 26 13:32	24°☿18'40	
	3375 Aug 09 17:59	0°☿		direct	3376 Jun 30 01:11	23°☿52'26	
asc. node	3375 Aug 13 03:27	5°☿40'56			3376 Jul 12 21:42	0°☿	
morning set	3375 Aug 20 17:19	20°☿25'27		morning max el	3376 Jul 12 22:11	0°☿01'09	22°39'32
	3375 Aug 25 07:28	0°☿		asc. node	3376 Jul 30 00:32	24°☿53'51	
					3376 Aug 01 14:27	0°☿	
superior conj	3375 Aug 28 03:05	5°☿51'17	1°44'11	morning set	3376 Aug 04 03:58	5°☿17'34	
minimum elong	3375 Aug 28 02:31	5°☿48'25	1°44'09				
max. Earth dist.	3375 Sep 01 13:57	14°☿51'38	1.35541 AU	superior conj	3376 Aug 11 06:46	20°☿28'03	1°38'09
evening rise	3375 Sep 05 17:44	22°☿52'59		minimum elong	3376 Aug 11 05:07	20°☿19'16	1°38'02
	3375 Sep 09 14:52	0°☿		max. Earth dist.	3376 Aug 14 07:54	26°☿52'38	1.34065 AU
desc. node	3375 Sep 19 13:28	16°☿38'04			3376 Aug 15 20:16	0°☿	
	3375 Sep 28 16:57	0°☿		evening rise	3376 Aug 19 02:55	6°☿34'04	
evening max el	3375 Oct 11 05:43	14°☿48'31	26°28'35		3376 Sep 01 05:34	0°☿	
retrograde	3375 Oct 24 02:19	22°☿01'40		desc. node	3376 Sep 05 10:29	6°☿33'39	
evening set	3375 Oct 30 13:18	19°☿23'14		evening max el	3376 Sep 22 18:13	28°☿19'40	27°10'55
min. Earth dist.	3375 Nov 03 16:05	15°☿06'38	0.66256 AU		3376 Sep 24 14:13	0°☿	
inferior conj	3375 Nov 05 07:34	13°☿07'21	-1°17'37	retrograde	3376 Oct 06 02:59	5°☿37'35	
minimum elong	3375 Nov 05 09:40	13°☿00'58	1°16'43	evening set	3376 Oct 13 00:57	2°☿55'32	
asc. node	3375 Nov 09 02:40	8°☿57'25			3376 Oct 16 04:23	30°☿	
morning rise	3375 Nov 11 06:39	7°☿21'34		min. Earth dist.	3376 Oct 16 21:24	29°☿14'28	0.65003 AU
direct	3375 Nov 14 06:04	6°☿31'38		inferior conj	3376 Oct 19 00:56	26°☿51'19	-2°18'01
morning max el	3375 Nov 20 22:10	10°☿11'07	18°34'36	minimum elong	3376 Oct 19 04:45	26°☿40'40	2°16'32
	3375 Dec 05 00:59	0°☿		morning rise	3376 Oct 25 09:32	21°☿18'44	
morning set	3375 Dec 11 08:57	10°☿03'51		asc. node	3376 Oct 25 23:43	21°☿03'57	
desc. node	3375 Dec 16 12:44	18°☿15'18		direct	3376 Oct 28 01:31	20°☿41'00	
	3375 Dec 23 23:32	0°☿		morning max el	3376 Nov 03 13:21	24°☿09'18	18°04'02
					3376 Nov 08 07:32	0°☿	

morning set	3376 Nov 21 12:06	21°  06'41		superior conj	3377 Nov 15 19:38	24°  03'31	0°23'46
	3376 Nov 26 21:18	0°  7		minimum elong	3377 Nov 15 22:03	24°  13'33	0°23'24
desc. node	3376 Dec 02 09:47	8°  57'50		desc. node	3377 Nov 19 06:49	29°  44'24	
					3377 Nov 19 10:40	0°  7	
superior conj	3376 Dec 05 15:28	14°  08'34	-0°21'57	max. Earth dist.	3377 Nov 22 01:38	4°  13'45	1.44069 AU
minimum elong	3376 Dec 05 12:43	13°  57'39	0°21'34	evening rise	3377 Dec 01 09:13	18°  51'12	
max. Earth dist.	3376 Dec 09 07:57	19°  58'59	1.44998 AU		3377 Dec 08 16:56	0°  3	
	3376 Dec 15 17:31	0°  3		evening max el	3377 Dec 30 12:18	29°  348'15	20°51'57
evening rise	3376 Dec 21 23:55	9°  343'04			3377 Dec 30 16:55	0°  36	
	3377 Jan 04 06:24	0°  36		retrograde	3378 Jan 07 20:44	4°  344'36	
greatest brilliancy	3377 Jan 04 12:56	0°  24'18	-0.7m	asc. node	3378 Jan 08 20:02	4°  39'24	
evening max el	3377 Jan 16 11:28	16°  16'07	19°47'58	evening set	3378 Jan 11 20:57	3°  12'56	
asc. node	3377 Jan 21 23:00	20°  14'53			3378 Jan 14 23:59	30°  R3	
retrograde	3377 Jan 23 22:44	20°  36'22		inferior conj	3378 Jan 17 05:38	27°  301'44	2°33'08
evening set	3377 Jan 27 13:40	19°  19'38		minimum elong	3378 Jan 17 03:07	27°  310'24	2°32'23
inferior conj	3377 Feb 02 00:21	13°  20'20	3°05'31	min. Earth dist.	3378 Jan 17 17:05	26°  322'24	0.67584 AU
minimum elong	3377 Feb 01 22:01	13°  28'08	3°05'01	morning rise	3378 Jan 22 09:06	20°  348'44	
min. Earth dist.	3377 Feb 03 00:50	11°  59'03	0.66864 AU	direct	3378 Jan 27 19:06	18°  325'30	
morning rise	3377 Feb 07 06:07	7°  06'46		morning max el	3378 Feb 07 16:15	24°  354'41	23°58'18
direct	3377 Feb 13 06:30	4°  25'37			3378 Feb 12 06:31	0°  36	
morning max el	3377 Feb 25 07:44	11°  36'55	25°24'33	desc. node	3378 Feb 15 06:01	3°  140'51	
desc. node	3377 Feb 28 08:58	14°  53'40			3378 Mar 05 12:48	0°  38	
	3377 Mar 12 01:04	0°  38		morning set	3378 Mar 15 07:16	16°  304'42	
	3377 Mar 30 21:35	0°  39		max. Earth dist.	3378 Mar 19 02:11	22°  342'36	1.38341 AU
morning set	3377 Apr 02 13:16	4°  344'16			3378 Mar 23 02:34	0°  39	
max. Earth dist.	3377 Apr 06 06:00	11°  33'53	1.36281 AU				
				superior conj	3378 Mar 26 07:45	6°  301'42	-1°38'53
superior conj	3377 Apr 12 05:07	23°  307'16	-1°13'24	minimum elong	3378 Mar 26 12:20	6°  323'31	1°38'20
minimum elong	3377 Apr 12 08:55	23°  306'11	1°12'47	evening rise	3378 Apr 04 06:58	23°  306'47	
	3377 Apr 15 15:11	0°  38		asc. node	3378 Apr 06 19:21	28°  306'41	
asc. node	3377 Apr 19 22:19	8°  344'56			3378 Apr 07 15:39	0°  38	
evening rise	3377 Apr 20 08:46	9°  337'53		evening max el	3378 Apr 20 17:56	20°  305'40	18°55'17
	3377 May 01 10:53	0°  36		retrograde	3378 Apr 29 04:23	24°  312'36	
evening max el	3377 May 07 20:41	8°  304'17	19°49'25	evening set	3378 May 01 07:50	23°  305'42	
retrograde	3377 May 17 20:56	12°  355'55		inferior conj	3378 May 09 09:13	19°  340'44	1°21'38
evening set	3377 May 19 20:21	12°  345'24		minimum elong	3378 May 09 12:10	19°  335'29	1°20'40
desc. node	3377 May 27 08:09	9°  334'00		min. Earth dist.	3378 May 12 12:57	17°  326'55	0.56900 AU
inferior conj	3377 May 28 16:59	8°  344'06	-0°24'11	desc. node	3378 May 14 05:10	16°  321'35	
minimum elong	3377 May 28 15:53	8°  345'47	0°23'46	morning rise	3378 May 17 13:20	14°  337'18	
min. Earth dist.	3377 May 30 21:06	7°  324'13	0.55457 AU	direct	3378 May 22 20:11	13°  330'34	
morning rise	3377 Jun 06 09:14	4°  316'04		morning max el	3378 Jun 06 03:45	20°  356'02	25°57'34
direct	3377 Jun 10 16:15	3°  335'26			3378 Jun 14 00:04	0°  36	
morning max el	3377 Jun 24 12:56	10°  328'56	24°22'35		3378 Jul 01 16:22	0°  36	
	3377 Jul 09 03:57	0°  36		asc. node	3378 Jul 03 18:38	4°  320'19	
asc. node	3377 Jul 16 21:35	14°  329'04		morning set	3378 Jul 04 03:03	5°  320'42	
morning set	3377 Jul 19 15:45	20°  312'16					
	3377 Jul 24 04:53	0°  36		superior conj	3378 Jul 11 02:11	20°  312'47	1°10'12
				minimum elong	3378 Jul 10 23:51	19°  359'55	1°09'50
superior conj	3377 Jul 26 15:11	5°  317'25	1°26'33	max. Earth dist.	3378 Jul 11 19:44	21°  349'13	1.32334 AU
minimum elong	3377 Jul 26 12:56	5°  305'14	1°26'16		3378 Jul 15 14:03	0°  36	
max. Earth dist.	3377 Jul 28 10:41	9°  312'47	1.32994 AU	evening rise	3378 Jul 18 02:05	5°  317'15	
evening rise	3377 Aug 02 22:46	20°  345'16			3378 Jul 31 06:56	0°  36	
	3377 Aug 07 15:45	0°  36		desc. node	3378 Aug 10 04:29	14°  337'25	
desc. node	3377 Aug 23 07:29	25°  357'45		evening max el	3378 Aug 18 12:01	24°  301'52	27°10'12
	3377 Aug 26 05:51	0°  36			3378 Aug 26 21:21	0°  36	
evening max el	3377 Sep 05 05:13	11°  328'48	27°26'30	retrograde	3378 Sep 01 08:26	1°  315'13	
retrograde	3377 Sep 18 21:15	18°  345'12			3378 Sep 06 14:21	30°  R36	
evening set	3377 Sep 26 01:35	16°  309'10		evening set	3378 Sep 08 11:17	28°  357'24	
min. Earth dist.	3377 Sep 29 17:13	13°  300'44	0.63405 AU	min. Earth dist.	3378 Sep 12 02:19	26°  313'12	0.61509 AU
inferior conj	3377 Oct 02 09:01	10°  321'12	-3°17'25	inferior conj	3378 Sep 15 04:38	23°  328'55	-4°11'17
minimum elong	3377 Oct 02 14:17	10°  307'59	3°15'43	minimum elong	3378 Sep 15 10:22	23°  316'11	4°09'56
morning rise	3377 Oct 09 04:19	5°  305'20		morning rise	3378 Sep 22 11:10	18°  333'22	
direct	3377 Oct 11 15:28	4°  336'10		direct	3378 Sep 24 20:16	18°  309'47	
asc. node	3377 Oct 12 20:47	4°  343'30		asc. node	3378 Sep 29 17:50	19°  353'45	
morning max el	3377 Oct 18 05:51	8°  301'38	17°51'00	morning max el	3378 Oct 01 20:37	21°  340'42	17°56'25
	3377 Nov 01 18:04	0°  36			3378 Oct 08 05:17	0°  36	
morning set	3377 Nov 03 16:47	3°  323'32		morning set	3378 Oct 17 16:31	16°  343'44	

	3378 Oct 25 02:28	0°♄		superior conj	3379 Oct 10 09:42	17°♄42'08	1°25'10
				minimum elong	3379 Oct 10 13:20	17°♄58'49	1°24'48
superior conj	3378 Oct 28 02:44	5°♄17'47	1°00'10		3379 Oct 17 07:21	0°♄	
minimum elong	3378 Oct 28 07:00	5°♄36'21	0°59'38	max. Earth dist.	3379 Oct 17 22:24	1°♄04'44	1.40616 AU
max. Earth dist.	3378 Nov 04 14:51	18°♄00'10	1.42544 AU	evening rise	3379 Oct 22 11:32	8°♄43'42	
desc. node	3378 Nov 06 03:49	20°♄31'38		desc. node	3379 Oct 24 00:50	11°♄16'21	
evening rise	3378 Nov 11 00:42	28°♄20'18			3379 Nov 05 03:14	0°♄	
	3378 Nov 12 02:03	0°♄		evening max el	3379 Nov 25 22:30	26°♄57'01	23°25'42
	3378 Dec 02 10:15	0°♄			3379 Nov 29 07:27	0°♄	
evening max el	3378 Dec 13 07:32	13°♄21'03	22°06'10	retrograde	3379 Dec 06 11:20	3°♄11'02	
retrograde	3378 Dec 22 17:24	18°♄57'08		evening set	3379 Dec 11 11:05	1°♄07'13	
asc. node	3378 Dec 26 17:04	17°♄31'48			3379 Dec 12 15:43	30°♄	
evening set	3378 Dec 27 04:37	17°♄09'34		asc. node	3379 Dec 13 14:05	28°♄58'36	
inferior conj	3379 Jan 01 13:00	10°♄49'49	1°52'48	inferior conj	3379 Dec 16 20:38	24°♄42'50	1°05'51
minimum elong	3379 Jan 01 10:47	10°♄57'30	1°52'00	minimum elong	3379 Dec 16 19:09	24°♄47'53	1°05'15
min. Earth dist.	3379 Jan 01 12:46	10°♄50'36	0.67921 AU	min. Earth dist.	3379 Dec 16 09:34	25°♄20'47	0.67899 AU
morning rise	3379 Jan 06 16:49	4°♄38'51		morning rise	3379 Dec 22 03:11	18°♄35'44	
direct	3379 Jan 11 11:49	2°♄37'41		direct	3379 Dec 26 07:54	16°♄57'23	
morning max el	3379 Jan 21 02:51	8°♄18'31	22°29'38	morning max el	3380 Jan 03 18:59	21°♄51'54	21°06'57
desc. node	3379 Feb 02 03:02	23°♄06'45			3380 Jan 10 16:29	0°♄	
	3379 Feb 06 23:45	0°♄		desc. node	3380 Jan 20 00:05	13°♄01'02	
morning set	3379 Feb 23 21:50	26°♄04'27			3380 Jan 31 06:47	0°♄	
	3379 Feb 26 06:59	0°♄		morning set	3380 Feb 03 08:21	4°♄46'34	
max. Earth dist.	3379 Feb 28 22:28	4°♄26'33	1.40511 AU	max. Earth dist.	3380 Feb 11 00:37	17°♄03'58	1.42512 AU
superior conj	3379 Mar 08 17:26	18°♄04'21	-1°58'14	superior conj	3380 Feb 18 05:12	29°♄04'28	-2°06'48
minimum elong	3379 Mar 08 21:16	18°♄21'35	1°57'59	minimum elong	3380 Feb 18 05:35	29°♄06'10	2°06'48
	3379 Mar 15 04:52	0°♄			3380 Feb 18 18:11	0°♄	
evening rise	3379 Mar 18 19:02	6°♄45'36		evening rise	3380 Feb 29 17:08	19°♄20'00	
asc. node	3379 Mar 24 16:22	17°♄39'53			3380 Mar 06 16:36	0°♄	
	3379 Apr 01 13:57	0°♄		asc. node	3380 Mar 10 13:23	6°♄29'57	
evening max el	3379 Apr 03 23:33	2°♄40'23	18°21'28	evening max el	3380 Mar 17 10:18	15°♄39'59	18°07'29
retrograde	3379 Apr 11 06:50	6°♄17'54		retrograde	3380 Mar 24 01:55	19°♄03'57	
evening set	3379 Apr 13 16:38	5°♄55'16		evening set	3380 Mar 26 17:51	18°♄31'21	
inferior conj	3379 Apr 20 22:53	1°♄18'23	2°36'31	inferior conj	3380 Apr 02 08:18	13°♄33'57	3°19'47
minimum elong	3379 Apr 21 02:36	1°♄10'37	2°35'36	minimum elong	3380 Apr 02 10:43	13°♄28'07	3°19'26
	3379 Apr 22 12:14	30°♄		min. Earth dist.	3380 Apr 05 12:52	10°♄30'48	0.61060 AU
min. Earth dist.	3379 Apr 24 09:28	28°♄27'35	0.58883 AU	morning rise	3380 Apr 09 01:39	7°♄40'25	
morning rise	3379 Apr 28 09:41	25°♄44'34		direct	3380 Apr 15 19:36	5°♄24'14	
desc. node	3379 May 01 02:12	24°♄35'25		desc. node	3380 Apr 16 23:14	5°♄28'00	
direct	3379 May 04 14:02	24°♄02'44		morning max el	3380 Apr 30 01:14	13°♄20'08	27°46'32
	3379 May 17 00:49	0°♄			3380 May 13 08:27	0°♄	
morning max el	3379 May 18 23:23	1°♄48'20	27°09'06		3380 May 30 14:16	0°♄	
	3379 Jun 08 05:56	0°♄		morning set	3380 Jun 01 17:24	4°♄19'25	
morning set	3379 Jun 18 12:13	19°♄49'06		asc. node	3380 Jun 06 12:40	14°♄29'06	
asc. node	3379 Jun 20 15:40	24°♄21'53		max. Earth dist.	3380 Jun 07 18:07	17°♄09'01	1.32212 AU
	3379 Jun 23 05:59	0°♄					
				superior conj	3380 Jun 09 00:51	19°♄57'01	0°26'07
superior conj	3379 Jun 25 13:59	5°♄07'56	0°49'51	minimum elong	3380 Jun 08 23:41	19°♄50'39	0°25'53
minimum elong	3379 Jun 25 12:01	4°♄57'06	0°49'29		3380 Jun 13 14:59	0°♄	
max. Earth dist.	3379 Jun 25 07:27	4°♄31'57	1.32071 AU	evening rise	3380 Jun 15 21:17	4°♄51'57	
evening rise	3379 Jul 02 10:18	20°♄01'47			3380 Jun 29 04:50	0°♄	
	3379 Jul 07 07:34	0°♄		evening max el	3380 Jul 12 05:23	16°♄50'05	25°02'55
	3379 Jul 26 03:16	0°♄		desc. node	3380 Jul 13 22:29	18°♄23'29	
desc. node	3379 Jul 28 01:29	2°♄14'32		retrograde	3380 Jul 26 04:38	23°♄54'49	
evening max el	3379 Jul 31 12:15	5°♄49'05	26°20'47	evening set	3380 Jul 31 15:41	22°♄46'38	
retrograde	3379 Aug 14 11:41	12°♄59'40		min. Earth dist.	3380 Aug 05 17:01	20°♄01'42	0.57448 AU
evening set	3379 Aug 21 01:22	11°♄12'51		inferior conj	3380 Aug 08 16:48	18°♄01'29	-5°06'59
min. Earth dist.	3379 Aug 25 01:22	8°♄37'38	0.59442 AU	minimum elong	3380 Aug 08 16:28	18°♄02'03	5°06'59
inferior conj	3379 Aug 28 08:17	6°♄05'30	-4°51'53	morning rise	3380 Aug 16 19:45	13°♄50'40	
minimum elong	3379 Aug 28 12:26	5°♄57'28	4°51'21	direct	3380 Aug 19 09:24	13°♄31'26	
morning rise	3379 Sep 05 01:40	1°♄32'39		morning max el	3380 Aug 28 08:02	17°♄43'38	19°07'36
direct	3379 Sep 07 11:37	1°♄12'12		asc. node	3380 Sep 02 11:55	23°♄52'47	
morning max el	3379 Sep 15 06:28	4°♄58'10	18°21'31		3380 Sep 06 09:06	0°♄	
asc. node	3379 Sep 16 14:52	6°♄22'05		morning set	3380 Sep 14 04:35	14°♄41'13	
morning set	3379 Oct 01 05:50	0°♄24'29			3380 Sep 21 22:33	0°♄	
	3379 Oct 01 00:43	0°♄					

superior conj	3380 Sep 22 10:55	0°♄59'53	1°39'28	morning max el	3381 Aug 10 22:40	29°♄48'28	20°15'14
minimum elong	3380 Sep 22 12:55	1°♄09'32	1°39'21		3381 Aug 11 03:35	0°♄	
max. Earth dist.	3380 Sep 29 02:33	13°♄26'56	1.38540 AU	asc. node	3381 Aug 20 08:58	12°♄12'11	
evening rise	3380 Oct 02 21:58	20°♄12'02		morning set	3381 Aug 29 09:43	29°♄16'55	
	3380 Oct 08 17:42	0°♄			3381 Aug 29 18:10	0°♄	
desc. node	3380 Oct 09 21:51	1°♄54'06					
	3380 Oct 29 05:50	0°♄		superior conj	3381 Sep 06 01:25	14°♄57'10	1°44'40
evening max el	3380 Nov 07 11:15	10°♄36'53	24°44'21	minimum elong	3381 Sep 06 01:42	14°♄58'37	1°44'40
retrograde	3380 Nov 19 01:17	17°♄21'32		max. Earth dist.	3381 Sep 11 08:37	25°♄23'29	1.36564 AU
evening set	3380 Nov 24 14:45	15°♄02'07			3381 Sep 13 19:10	0°♄	
min. Earth dist.	3380 Nov 29 05:03	9°♄49'29	0.67533 AU	evening rise	3381 Sep 15 05:58	2°♄40'33	
asc. node	3380 Nov 29 11:07	9°♄29'26		desc. node	3381 Sep 26 18:51	22°♄20'21	
inferior conj	3380 Nov 30 02:45	8°♄37'32	0°13'23		3381 Oct 01 18:35	0°♄	
minimum elong	3380 Nov 30 02:25	8°♄38'38	0°13'14	evening max el	3381 Oct 20 23:37	24°♄18'48	25°54'47
transit middle	3380 Nov 30 02:25	8°♄38'38	0°13'14		3381 Oct 28 09:05	0°♄	
transit begin	3380 Nov 30 00:49	8°♄43'55		retrograde	3381 Nov 02 10:23	1°♄23'50	
transit end	3380 Nov 30 04:00	8°♄33'21			3381 Nov 07 00:24	30°♄	
morning rise	3380 Dec 05 14:11	2°♄36'34		evening set	3381 Nov 08 13:53	28°♄51'08	
direct	3380 Dec 09 06:04	1°♄19'26		min. Earth dist.	3381 Nov 12 20:47	24°♄13'50	0.66826 AU
morning max el	3380 Dec 16 18:47	5°♄36'05	19°55'58	inferior conj	3381 Nov 14 05:32	22°♄30'56	-0°43'27
	3381 Jan 03 17:29	0°♄		minimum elong	3381 Nov 14 06:41	22°♄27'20	0°42'57
desc. node	3381 Jan 05 21:08	3°♄15'28		asc. node	3381 Nov 16 08:11	19°♄57'03	
morning set	3381 Jan 12 04:24	12°♄54'50		morning rise	3381 Nov 19 23:51	16°♄38'48	
	3381 Jan 23 02:14	0°♄		direct	3381 Nov 23 04:45	15°♄39'53	
max. Earth dist.	3381 Jan 23 10:39	0°♄33'30	1.44075 AU	morning max el	3381 Nov 30 02:09	19°♄29'33	18°59'42
					3381 Dec 08 07:38	0°♄	
superior conj	3381 Jan 28 15:14	8°♄54'59	-1°59'21	morning set	3381 Dec 22 11:14	21°♄43'22	
minimum elong	3381 Jan 28 09:52	8°♄33'11	1°59'05	desc. node	3381 Dec 23 18:10	23°♄44'12	
	3381 Feb 10 06:03	0°♄			3381 Dec 27 18:18	0°♄	
evening rise	3381 Feb 10 20:55	1°♄03'36		max. Earth dist.	3382 Jan 06 03:02	14°♄40'29	1.45008 AU
asc. node	3381 Feb 25 10:24	24°♄44'32					
evening max el	3381 Feb 28 23:02	28°♄56'09	18°12'42	superior conj	3382 Jan 08 01:59	17°♄45'25	-1°32'31
	3381 Mar 02 02:33	0°♄		minimum elong	3382 Jan 07 16:52	17°♄09'27	1°31'37
retrograde	3381 Mar 07 09:24	2°♄21'00			3382 Jan 15 18:49	0°♄	
evening set	3381 Mar 10 07:03	1°♄37'10		evening rise	3382 Jan 23 02:34	11°♄50'31	
	3381 Mar 12 16:52	30°♄			3382 Feb 03 08:01	0°♄	
inferior conj	3381 Mar 16 09:36	26°♄19'59	3°37'27	asc. node	3382 Feb 12 07:27	12°♄12'28	
minimum elong	3381 Mar 16 10:11	26°♄18'22	3°37'27	evening max el	3382 Feb 12 10:54	12°♄21'17	18°36'19
min. Earth dist.	3381 Mar 19 00:56	23°♄28'22	0.63128 AU	retrograde	3382 Feb 19 01:02	15°♄59'43	
morning rise	3381 Mar 22 12:17	20°♄15'22		evening set	3382 Feb 22 04:36	15°♄03'48	
direct	3381 Mar 29 10:13	17°♄34'59		inferior conj	3382 Feb 27 22:46	9°♄28'20	3°35'54
desc. node	3381 Apr 03 20:17	18°♄59'42		minimum elong	3382 Feb 27 21:47	9°♄31'16	3°35'50
morning max el	3381 Apr 12 08:09	25°♄32'32	27°46'31	min. Earth dist.	3382 Mar 01 22:29	7°♄05'26	0.64892 AU
	3381 Apr 16 10:38	0°♄		morning rise	3382 Mar 05 14:29	3°♄17'53	
	3381 May 06 20:06	0°♄		direct	3382 Mar 12 08:05	0°♄27'16	
morning set	3381 May 16 16:27	18°♄28'33		desc. node	3382 Mar 21 17:21	4°♄38'13	
max. Earth dist.	3381 May 21 23:53	29°♄28'01	1.32773 AU	morning max el	3382 Mar 25 17:46	8°♄17'09	27°11'47
	3381 May 22 05:54	0°♄			3382 Apr 11 14:48	0°♄	
					3382 Apr 29 04:06	0°♄	
superior conj	3381 May 24 09:03	4°♄34'17	-0°00'18	morning set	3382 Apr 30 06:24	2°♄06'42	
minimum elong	3381 May 24 09:04	4°♄34'22	0°00'18	max. Earth dist.	3382 May 04 21:00	11°♄17'49	1.33781 AU
behind sun begin	3381 May 24 03:49	4°♄06'03					
behind sun end	3381 May 24 14:19	5°♄02'42		superior conj	3382 May 08 12:30	18°♄52'16	-0°28'31
asc. node	3381 May 24 09:43	4°♄37'53		minimum elong	3382 May 08 13:59	19°♄00'01	0°28'14
evening rise	3381 May 31 09:10	19°♄41'21		asc. node	3382 May 11 06:45	24°♄43'19	
	3381 Jun 05 10:05	0°♄			3382 May 13 18:15	0°♄	
evening max el	3381 Jun 23 18:44	27°♄20'47	23°28'29	evening rise	3382 May 15 20:00	4°♄22'37	
	3381 Jun 26 19:56	0°♄			3382 May 29 22:58	0°♄	
desc. node	3381 Jun 30 19:30	2°♄31'20		evening max el	3382 Jun 05 11:25	7°♄50'10	21°53'05
retrograde	3381 Jul 07 08:55	4°♄08'57		desc. node	3382 Jun 17 16:33	14°♄03'12	
evening set	3381 Jul 11 08:20	3°♄34'22		retrograde	3382 Jun 18 01:46	14°♄03'32	
min. Earth dist.	3381 Jul 18 04:41	0°♄24'26	0.55848 AU	evening set	3382 Jun 20 17:40	13°♄47'39	
	3381 Jul 18 21:16	30°♄		min. Earth dist.	3382 Jun 29 15:26	9°♄59'32	0.54957 AU
inferior conj	3381 Jul 20 05:19	29°♄12'16	-4°41'19	inferior conj	3382 Jun 30 02:28	9°♄44'06	-3°25'54
minimum elong	3381 Jul 19 23:12	29°♄21'23	4°40'22	minimum elong	3382 Jun 29 18:13	9°♄55'39	3°23'30
morning rise	3381 Jul 28 16:31	25°♄17'45		morning rise	3382 Jul 08 20:14	5°♄51'58	
direct	3381 Jul 31 12:20	24°♄58'05		direct	3382 Jul 12 00:34	5°♄29'41	

morning max el	3382 Jul 24 01:39	11°☿08'13	21°42'44	morning max el	3383 Jul 05 19:32	21°♊50'22	23°23'23
	3382 Aug 06 15:08	0°♊			3383 Jul 12 21:51	0°☿	
asc. node	3382 Aug 07 06:02	1°♊08'05		asc. node	3383 Jul 25 03:04	20°☿31'14	
morning set	3382 Aug 13 18:54	14°♊04'32		morning set	3383 Jul 29 06:11	28°☿58'20	
					3383 Jul 29 17:52	0°♊	
superior conj	3382 Aug 21 01:10	29°♊22'05	1°42'21	superior conj	3383 Aug 05 07:08	14°♊05'10	1°33'51
minimum elong	3382 Aug 21 00:05	29°♊16'26	1°42'19	minimum elong	3383 Aug 05 05:10	13°♊54'37	1°33'40
	3382 Aug 21 08:26	0°♊			3383 Aug 07 19:14	19°♊25'27	1.33555 AU
max. Earth dist.	3382 Aug 24 21:30	7°♊17'21	1.34866 AU	max. Earth dist.	3383 Aug 12 21:15	29°♊52'44	
evening rise	3382 Aug 29 07:09	15°♊57'58		evening rise	3383 Aug 12 22:43	0°♊	
	3382 Sep 06 00:12	0°♊			3383 Aug 30 01:21	0°♊	
desc. node	3382 Sep 13 15:53	12°♊29'16		desc. node	3383 Aug 31 12:54	2°♊12'51	
	3382 Sep 26 06:50	0°♊			3383 Sep 15 23:55	21°♊18'29	27°21'09
evening max el	3382 Oct 03 12:06	7°♊56'11	26°49'28	evening max el	3383 Sep 29 12:17	28°♊36'57	
retrograde	3382 Oct 16 14:12	15°♊11'50		retrograde	3383 Oct 06 13:48	25°♊55'42	
evening set	3382 Oct 23 06:26	12°♊30'44		evening set	3383 Oct 10 07:45	22°♊29'28	0.64358 AU
min. Earth dist.	3382 Oct 27 06:24	8°♊29'39	0.65768 AU	min. Earth dist.	3383 Oct 12 16:42	19°♊57'53	-2°43'36
inferior conj	3382 Oct 29 02:59	6°♊19'31	-1°43'09	inferior conj	3383 Oct 12 21:12	19°♊45'52	2°41'58
minimum elong	3382 Oct 29 05:49	6°♊11'12	1°41'58	minimum elong	3383 Oct 19 05:47	14°♊32'21	
asc. node	3382 Nov 03 05:15	1°♊16'28		morning rise	3383 Oct 21 02:19	14°♊01'22	
morning rise	3382 Nov 04 05:57	0°♊39'10		asc. node	3383 Oct 21 19:18	13°♊58'47	
	3382 Nov 06 02:45	30°♊		direct	3383 Oct 28 07:27	17°♊24'53	17°56'23
direct	3382 Nov 07 01:59	29°♊54'49		morning max el	3383 Nov 06 10:18	0°♊	
	3382 Nov 08 01:21	0°♊			3383 Nov 14 12:09	13°♊32'28	
morning max el	3382 Nov 13 15:18	3°♊28'06	18°19'35	morning set	3383 Nov 24 08:35	0°♊	
	3382 Dec 01 16:43	0°♊					
morning set	3382 Dec 02 21:28	1°♊56'20					
desc. node	3382 Dec 10 15:11	14°♊22'55		superior conj	3383 Nov 27 18:25	5°♊32'38	-0°01'48
				minimum elong	3383 Nov 27 18:12	5°♊31'47	0°01'45
superior conj	3382 Dec 18 04:02	26°♊18'44	-0°49'43	behind sun begin	3383 Nov 27 08:01	4°♊50'35	
minimum elong	3382 Dec 17 21:46	25°♊54'03	0°48'54	behind sun end	3383 Nov 28 04:24	6°♊12'55	
max. Earth dist.	3382 Dec 19 22:21	29°♊04'58	1.45209 AU	desc. node	3383 Nov 27 12:11	5°♊07'29	
	3382 Dec 20 12:22	0°♊		max. Earth dist.	3383 Dec 02 16:53	13°♊26'08	1.44675 AU
evening rise	3383 Jan 03 09:12	21°♊43'00			3383 Dec 13 07:39	0°♊	
	3383 Jan 08 16:05	0°♊		evening rise	3383 Dec 13 22:22	0°♊56'43	
greatest brilliancy	3383 Jan 14 08:47	8°♊50'50	-0.8m	greatest brilliancy	3383 Dec 28 10:11	22°♊51'15	-0.6m
evening max el	3383 Jan 26 19:37	25°♊50'57	19°17'13		3384 Jan 02 10:03	0°♊	
asc. node	3383 Jan 30 04:31	28°♊40'54		evening max el	3384 Jan 09 23:29	9°♊21'48	20°13'39
retrograde	3383 Feb 02 21:18	29°♊53'43		asc. node	3384 Jan 17 01:34	13°♊54'18	
evening set	3383 Feb 06 07:39	28°♊44'54		retrograde	3384 Jan 17 19:19	13°♊57'18	
inferior conj	3383 Feb 11 20:21	22°♊53'22	3°19'56	evening set	3384 Jan 21 13:54	12°♊34'29	
minimum elong	3383 Feb 11 18:21	22°♊59'51	3°19'37	inferior conj	3384 Jan 26 23:29	6°♊29'36	2°52'52
min. Earth dist.	3383 Feb 13 04:53	21°♊08'31	0.66259 AU	minimum elong	3384 Jan 26 21:00	6°♊38'00	2°52'15
morning rise	3383 Feb 17 04:47	16°♊40'09		min. Earth dist.	3384 Jan 27 18:15	5°♊26'09	0.67213 AU
direct	3383 Feb 23 12:23	13°♊52'34		morning rise	3384 Feb 01 03:54	0°♊15'49	
morning max el	3383 Mar 08 03:39	21°♊22'39	26°09'23		3384 Feb 01 11:03	30°♊	
desc. node	3383 Mar 08 14:24	21°♊50'02		direct	3384 Feb 06 22:14	27°♊41'29	
	3383 Mar 15 15:41	0°♊			3384 Feb 13 03:23	0°♊	
	3383 Apr 04 19:34	0°♊		morning max el	3384 Feb 18 12:20	4°♊37'03	24°48'45
morning set	3383 Apr 13 07:29	15°♊03'19		desc. node	3384 Feb 23 11:25	10°♊07'50	
max. Earth dist.	3383 Apr 17 06:44	22°♊36'18	1.35247 AU		3384 Mar 09 00:45	0°♊	
	3383 Apr 21 00:22	0°♊		morning set	3384 Mar 25 14:35	27°♊03'41	
					3384 Mar 27 06:03	0°♊	
superior conj	3383 Apr 22 08:51	2°♊44'32	-0°57'17	max. Earth dist.	3384 Mar 29 05:48	3°♊37'11	1.37123 AU
minimum elong	3383 Apr 22 11:52	2°♊59'53	0°56'44				
asc. node	3383 Apr 28 03:48	14°♊41'38		superior conj	3384 Apr 04 19:01	16°♊02'41	-1°24'44
evening rise	3383 Apr 30 03:49	18°♊49'46		minimum elong	3384 Apr 04 23:16	16°♊23'30	1°24'06
	3383 May 05 18:55	0°♊			3384 Apr 11 19:14	0°♊	
evening max el	3383 May 18 14:13	18°♊47'54	20°29'23	evening rise	3384 Apr 13 06:17	2°♊55'45	
retrograde	3383 May 29 14:59	24°♊10'36		asc. node	3384 Apr 14 00:51	4°♊28'20	
evening set	3383 May 31 15:32	24°♊00'30			3384 Apr 29 18:25	0°♊	
desc. node	3383 Jun 04 13:35	22°♊49'19		evening max el	3384 Apr 30 05:14	0°♊26'53	19°23'55
inferior conj	3383 Jun 09 20:29	20°♊02'40	-1°33'16	retrograde	3384 May 09 12:38	4°♊57'57	
minimum elong	3383 Jun 09 16:05	20°♊09'03	1°31'39	evening set	3384 May 11 12:55	4°♊46'13	
min. Earth dist.	3383 Jun 11 03:39	19°♊17'30	0.54997 AU	inferior conj	3384 May 20 01:48	0°♊39'32	0°23'51
morning rise	3383 Jun 18 15:43	15°♊52'14		minimum elong	3384 May 20 02:48	0°♊37'53	0°23'29
direct	3383 Jun 22 10:23	15°♊21'27		desc. node	3384 May 21 10:35	29°♊45'53	

	3384 May 21 01:57	30°		min. Earth dist.	3385 May 04 11:47	9°	0.57699 AU
min. Earth dist.	3384 May 22 18:12	28°	0.55981 AU	desc. node	3385 May 08 07:38	6°	
morning rise	3384 May 28 13:46	25°		morning rise	3385 May 09 00:07	6°	
direct	3384 Jun 02 06:39	25°		direct	3385 May 14 17:06	5°	
	3384 Jun 13 20:22	0°		morning max el	3385 May 29 01:54	12°	26°31'34
morning max el	3384 Jun 16 09:40	2°	25°04'52		3385 Jun 11 13:36	0°	
	3384 Jul 05 19:29	0°		morning set	3385 Jun 27 04:33	28°	
asc. node	3384 Jul 11 00:06	10°		asc. node	3385 Jun 27 21:07	0°	
morning set	3384 Jul 12 17:58	13°			3385 Jun 27 19:06	0°	
superior conj	3384 Jul 19 16:55	28°	1°20'09	superior conj	3385 Jul 04 04:28	13°	1°02'03
minimum elong	3384 Jul 19 14:34	28°	1°19'50	minimum elong	3385 Jul 04 02:14	13°	1°01'39
	3384 Jul 20 04:08	0°		max. Earth dist.	3385 Jul 04 11:30	14°	1.32176 AU
max. Earth dist.	3384 Jul 21 00:52	1°	1.32660 AU	evening rise	3385 Jul 11 02:21	28°	
evening rise	3384 Jul 26 20:39	14°			3385 Jul 11 15:06	0°	
	3384 Aug 04 00:18	0°			3385 Jul 28 06:39	0°	
desc. node	3384 Aug 17 09:54	21°		desc. node	3385 Aug 04 06:55	9°	
	3384 Aug 24 07:28	0°		evening max el	3385 Aug 10 13:55	16°	26°53'11
evening max el	3384 Aug 28 09:24	4°	27°23'41	retrograde	3385 Aug 24 11:55	23°	
retrograde	3384 Sep 11 03:59	11°		evening set	3385 Aug 31 10:35	21°	
evening set	3384 Sep 18 08:40	9°		min. Earth dist.	3385 Sep 04 04:05	18°	0.60642 AU
min. Earth dist.	3384 Sep 21 23:13	6°	0.62623 AU	inferior conj	3385 Sep 07 09:11	16°	-4°30'46
inferior conj	3384 Sep 24 19:54	3°	-3°41'22	minimum elong	3385 Sep 07 14:34	16°	4°29'44
minimum elong	3384 Sep 25 01:32	3°	3°39'44	morning rise	3385 Sep 14 20:24	11°	
	3384 Sep 28 15:23	30°		direct	3385 Sep 17 05:28	11°	
morning rise	3384 Oct 01 19:59	28°		asc. node	3385 Sep 23 20:21	14°	
direct	3384 Oct 04 05:45	27°		morning max el	3385 Sep 24 12:38	14°	18°04'32
asc. node	3384 Oct 06 23:20	28°			3385 Oct 05 00:28	0°	
	3384 Oct 09 15:07	0°		morning set	3385 Oct 10 07:50	9°	
morning max el	3384 Oct 10 23:38	1°	17°50'57				
morning set	3384 Oct 27 01:43	26°		superior conj	3385 Oct 20 03:55	27°	1°12'10
	3384 Oct 29 04:24	0°		minimum elong	3385 Oct 20 08:07	28°	1°11'40
					3385 Oct 21 09:53	0°	
superior conj	3384 Nov 07 10:04	16°	0°40'33	max. Earth dist.	3385 Oct 27 19:15	10°	1.41766 AU
minimum elong	3384 Nov 07 13:40	16°	0°40'03	desc. node	3385 Oct 31 06:14	16°	
desc. node	3384 Nov 13 09:13	25°		evening rise	3385 Nov 02 06:56	19°	
max. Earth dist.	3384 Nov 14 08:20	27°	1.43482 AU		3385 Nov 08 16:16	0°	
	3384 Nov 15 21:53	0°			3385 Nov 29 22:14	0°	
evening rise	3384 Nov 22 08:15	10°		evening max el	3385 Dec 05 15:14	6°	22°39'47
	3384 Dec 05 12:18	0°		retrograde	3385 Dec 15 12:25	12°	
evening max el	3384 Dec 22 21:52	22°	21°22'35	evening set	3385 Dec 20 04:50	10°	
retrograde	3384 Dec 31 16:54	28°		asc. node	3385 Dec 20 19:36	9°	
asc. node	3385 Jan 02 22:36	27°		inferior conj	3385 Dec 25 13:34	4°	1°33'37
evening set	3385 Jan 04 21:30	26°		minimum elong	3385 Dec 25 11:37	4°	1°32'52
inferior conj	3385 Jan 10 05:53	20°	2°16'54	min. Earth dist.	3385 Dec 25 08:43	4°	0.67958 AU
minimum elong	3385 Jan 10 03:26	20°	2°16'07		3385 Dec 28 16:24	30°	
min. Earth dist.	3385 Jan 10 12:19	19°	0.67773 AU	morning rise	3385 Dec 30 18:17	27°	
morning rise	3385 Jan 15 09:10	14°		direct	3386 Jan 04 07:11	26°	
direct	3385 Jan 20 12:50	11°			3386 Jan 11 22:48	0°	
morning max el	3385 Jan 30 21:07	17°	23°20'13	morning max el	3386 Jan 13 09:33	1°	21°53'20
desc. node	3385 Feb 09 08:27	29°		desc. node	3386 Jan 27 05:29	18°	
	3385 Feb 09 22:38	0°			3386 Feb 03 20:25	0°	
	3385 Mar 02 03:16	0°		morning set	3386 Feb 14 23:32	17°	
morning set	3385 Mar 06 21:28	7°		max. Earth dist.	3386 Feb 20 23:07	27°	1.41401 AU
max. Earth dist.	3385 Mar 11 00:30	14°	1.39263 AU		3386 Feb 22 17:33	0°	
superior conj	3385 Mar 18 15:02	28°	-1°48'06	superior conj	3386 Feb 28 16:04	10°	-2°03'29
minimum elong	3385 Mar 18 19:33	28°	1°47'40	minimum elong	3386 Feb 28 18:48	10°	2°03'23
	3385 Mar 19 08:57	0°		evening rise	3386 Mar 11 07:12	29°	
evening rise	3385 Mar 28 00:34	16°			3386 Mar 11 13:05	0°	
asc. node	3385 Mar 31 21:53	23°		asc. node	3386 Mar 18 18:55	13°	
	3385 Apr 04 05:34	0°		evening max el	3386 Mar 27 14:50	25°	18°13'10
evening max el	3385 Apr 13 06:33	12°	18°38'31	retrograde	3386 Apr 03 13:53	29°	
retrograde	3385 Apr 21 03:49	16°		evening set	3386 Apr 06 02:31	28°	
evening set	3385 Apr 23 10:03	16°		inferior conj	3386 Apr 13 01:31	23°	2°58'24
inferior conj	3385 May 01 03:02	11°	1°57'29	minimum elong	3386 Apr 13 04:50	23°	2°57'44
minimum elong	3385 May 01 06:40	11°	1°56'23	min. Earth dist.	3386 Apr 16 10:40	20°	0.59805 AU

morning rise	3386 Apr 20 04:44	18° Υ 04'47		morning rise	3387 Apr 02 04:52	0° Υ 17'55	
desc. node	3386 Apr 25 04:39	16° Υ 13'55			3387 Apr 02 15:11	30° \Re Υ	
direct	3386 Apr 26 16:04	16° Υ 07'54		direct	3387 Apr 09 01:25	27° \Re 50'11	
morning max el	3386 May 11 00:05	23° Υ 57'56	27°29'37	desc. node	3387 Apr 12 01:42	28° \Re 16'16	
	3386 May 16 10:56	0° \Re			3387 Apr 15 23:51	0° Υ	
	3386 Jun 04 18:08	0° Π		morning max el	3387 Apr 23 04:32	5° Υ 47'46	27°51'12
morning set	3386 Jun 11 12:17	13° Π 22'26			3387 May 11 10:05	0° \Re	
asc. node	3386 Jun 14 18:10	20° Π 15'27		morning set	3387 May 26 15:10	27° \Re 44'26	
max. Earth dist.	3386 Jun 17 23:26	27° Π 16'49	1.32089 AU		3387 May 27 17:35	0° Π	
				max. Earth dist.	3387 Jun 01 08:39	9° Π 48'04	1.32398 AU
superior conj	3386 Jun 18 16:05	28° Π 48'29	0°40'11	asc. node	3387 Jun 01 15:14	10° Π 23'38	
minimum elong	3386 Jun 18 14:25	28° Π 39'15	0°39'50				
	3386 Jun 19 05:04	0° \Re		superior conj	3387 Jun 03 02:02	13° Π 32'42	0°15'13
evening rise	3386 Jun 25 12:02	13° \Re 41'36		minimum elong	3387 Jun 03 01:19	13° Π 28'51	0°15'03
	3386 Jul 03 16:51	0° Ω		behind sun begin	3387 Jun 02 23:40	13° Π 19'48	
desc. node	3386 Jul 22 03:55	26° Ω 39'52		behind sun end	3387 Jun 03 02:59	13° Π 37'54	
evening max el	3386 Jul 23 11:08	27° Ω 56'55	25°50'29	evening rise	3387 Jun 09 23:37	28° Π 31'47	
	3386 Jul 25 18:30	0° \Re			3387 Jun 10 16:17	0° \Re	
retrograde	3386 Aug 06 10:36	5° \Re 04'46			3387 Jun 27 15:27	0° Ω	
evening set	3386 Aug 12 14:49	3° \Re 34'04		evening max el	3387 Jul 05 01:45	8° Ω 41'10	24°23'46
min. Earth dist.	3386 Aug 16 23:23	0° \Re 57'06	0.58579 AU	desc. node	3387 Jul 09 00:56	12° Ω 01'39	
	3386 Aug 18 07:23	30° \Re Ω		retrograde	3387 Jul 18 22:31	15° Ω 41'16	
inferior conj	3386 Aug 20 05:01	28° Ω 36'25	-5°02'15	evening set	3387 Jul 23 19:07	14° Ω 48'29	
minimum elong	3386 Aug 20 07:36	28° Ω 31'42	5°02'04	min. Earth dist.	3387 Jul 29 12:36	11° Ω 54'40	0.56700 AU
morning rise	3386 Aug 28 02:38	24° Ω 13'08		inferior conj	3387 Aug 01 04:52	10° Ω 13'01	-5°01'54
direct	3386 Aug 30 14:05	23° Ω 53'14		minimum elong	3387 Aug 01 02:00	10° Ω 17'34	5°01'42
morning max el	3386 Sep 07 19:16	27° Ω 48'31	18°38'26	morning rise	3387 Aug 09 11:32	6° Ω 10'45	
	3386 Sep 09 20:47	0° \Re		direct	3387 Aug 12 03:36	5° Ω 51'33	
asc. node	3386 Sep 10 17:23	1° \Re 02'30		morning max el	3387 Aug 21 16:31	10° Ω 18'04	19°33'49
morning set	3386 Sep 24 01:35	23° \Re 46'50		asc. node	3387 Aug 28 14:27	18° Ω 55'33	
	3386 Sep 27 06:21	0° \Re			3387 Sep 03 23:05	0° \Re	
				morning set	3387 Sep 08 03:24	8° \Re 12'51	
superior conj	3386 Oct 02 19:18	10° \Re 36'01	1°32'28				
minimum elong	3386 Oct 02 22:17	10° \Re 50'04	1°32'12	superior conj	3387 Sep 16 02:47	24° \Re 12'56	1°42'41
max. Earth dist.	3386 Oct 10 01:23	23° \Re 46'27	1.39742 AU	minimum elong	3387 Sep 16 04:02	24° \Re 19'04	1°42'38
	3386 Oct 13 16:07	0° \Re			3387 Sep 19 02:13	0° \Re	
evening rise	3386 Oct 14 03:43	0° \Re 48'58		max. Earth dist.	3387 Sep 22 05:39	5° \Re 55'22	1.37671 AU
desc. node	3386 Oct 18 03:15	7° \Re 23'46		evening rise	3387 Sep 25 23:48	12° \Re 44'13	
	3386 Nov 02 01:15	0° \Re		desc. node	3387 Oct 05 00:16	27° \Re 57'29	
evening max el	3386 Nov 18 04:59	20° \Re 06'06	23°59'42		3387 Oct 06 07:04	0° \Re	
retrograde	3386 Nov 29 04:40	26° \Re 33'49			3387 Oct 28 03:02	0° \Re	
evening set	3386 Dec 04 10:19	24° \Re 22'59		evening max el	3387 Oct 31 17:15	3° \Re 47'00	25°15'41
asc. node	3386 Dec 07 16:38	20° \Re 51'20		retrograde	3387 Nov 12 16:48	10° \Re 42'13	
min. Earth dist.	3386 Dec 09 05:07	18° \Re 51'03	0.67788 AU	evening set	3387 Nov 18 12:20	8° \Re 16'25	
inferior conj	3386 Dec 09 20:46	17° \Re 58'05	0°44'10	min. Earth dist.	3387 Nov 22 23:17	3° \Re 18'50	0.67273 AU
minimum elong	3386 Dec 09 19:44	18° \Re 01'35	0°43'45	inferior conj	3387 Nov 24 01:42	1° \Re 52'57	-0°10'16
morning rise	3386 Dec 15 05:09	11° \Re 53'36		minimum elong	3387 Nov 24 01:58	1° \Re 52'06	0°10'09
direct	3386 Dec 19 04:14	10° \Re 24'39		transit middle	3387 Nov 24 01:58	1° \Re 52'06	0°10'09
morning max el	3386 Dec 27 04:54	15° \Re 01'21	20°35'09	transit begin	3387 Nov 23 23:48	1° \Re 59'10	
	3387 Jan 07 23:49	0° \Re		transit end	3387 Nov 24 04:08	1° \Re 45'04	
desc. node	3387 Jan 14 02:31	8° \Re 55'31		asc. node	3387 Nov 24 13:40	1° \Re 14'10	
morning set	3387 Jan 25 01:13	25° \Re 34'37			3387 Nov 25 13:06	30° \Re \Re	
	3387 Jan 27 21:13	0° \Re		morning rise	3387 Nov 29 15:51	25° \Re 55'36	
max. Earth dist.	3387 Feb 03 05:14	10° \Re 04'53	1.43243 AU	direct	3387 Dec 03 02:44	24° \Re 46'50	
				morning max el	3387 Dec 10 08:12	28° \Re 50'50	19°30'08
superior conj	3387 Feb 09 17:04	20° \Re 44'41	-2°05'53		3387 Dec 11 10:36	0° \Re	
minimum elong	3387 Feb 09 15:10	20° \Re 36'42	2°05'51	greatest brilliancy	3387 Dec 23 13:27	16° \Re 27'08	-0.7m
	3387 Feb 15 04:04	0° \Re		desc. node	3387 Dec 31 23:34	29° \Re 16'46	
evening rise	3387 Feb 21 22:03	11° \Re 46'35			3388 Jan 01 10:48	0° \Re	
	3387 Mar 04 13:41	0° Υ		morning set	3388 Jan 03 22:50	3° \Re 51'47	
asc. node	3387 Mar 05 15:58	1° Υ 40'49		max. Earth dist.	3388 Jan 16 18:08	23° \Re 52'03	1.44554 AU
evening max el	3387 Mar 11 02:42	8° Υ 37'44	18°07'22				
retrograde	3387 Mar 17 14:58	12° Υ 00'45		superior conj	3388 Jan 20 16:15	0° \Re 06'34	-1°50'20
evening set	3387 Mar 20 09:19	11° Υ 23'29		minimum elong	3388 Jan 20 08:40	29° \Re 36'13	1°49'47
inferior conj	3387 Mar 26 18:12	6° Υ 17'13	3°30'00		3388 Jan 20 14:37	0° \Re	
minimum elong	3387 Mar 26 19:51	6° Υ 13'01	3°29'51	evening rise	3388 Feb 03 16:51	23° \Re 06'42	
min. Earth dist.	3387 Mar 29 17:32	3° Υ 16'32	0.61962 AU		3388 Feb 07 19:24	0° \Re	

asc. node	3388 Feb 20 13:00	19° H 36'53			3389 Jan 31 14:35	0° H	
evening max el	3388 Feb 22 15:19	21° H 57'57	18°20'30	evening max el	3389 Feb 05 02:07	5° H 25'37	18°51'45
retrograde	3388 Feb 29 02:27	25° H 27'28		asc. node	3389 Feb 06 10:02	6° H 41'14	
evening set	3388 Mar 03 02:26	24° H 38'46		retrograde	3389 Feb 11 20:20	9° H 13'09	
inferior conj	3388 Mar 09 01:02	19° H 13'36	3°38'49	evening set	3389 Feb 15 02:36	8° H 11'59	
minimum elong	3388 Mar 09 00:54	19° H 13'59	3°38'48	inferior conj	3389 Feb 20 18:10	2° H 29'40	3°30'39
min. Earth dist.	3388 Mar 11 09:51	16° H 32'18	0.63922 AU	minimum elong	3389 Feb 20 16:40	2° H 34'18	3°30'29
morning rise	3388 Mar 14 22:33	13° H 05'41		min. Earth dist.	3389 Feb 22 11:24	0° H 21'54	0.65526 AU
direct	3388 Mar 21 19:24	10° H 19'01			3389 Feb 22 18:37	30° R \approx	
desc. node	3388 Mar 28 22:46	12° H 45'45		morning rise	3389 Feb 26 06:20	26° \approx 17'45	
morning max el	3388 Apr 04 13:07	18° H 15'35	27°35'37	direct	3389 Mar 04 20:22	23° \approx 26'34	
	3388 Apr 14 10:11	0° Y		desc. node	3389 Mar 15 19:49	29° \approx 07'34	
	3388 May 03 07:15	0° B			3389 Mar 16 18:22	0° H	
morning set	3388 May 09 10:45	11° B 41'21		morning max el	3389 Mar 17 22:56	1° H 10'06	26°48'00
max. Earth dist.	3388 May 14 11:02	21° B 54'31	1.33139 AU		3389 Apr 08 11:45	0° Y	
				morning set	3389 Apr 22 19:47	25° Y 03'42	
superior conj	3388 May 17 08:28	28° B 02'04	-0°12'08		3389 Apr 25 08:59	0° B	
minimum elong	3388 May 17 09:04	28° B 05'19	0°12'01	max. Earth dist.	3389 Apr 27 03:12	3° B 29'17	1.34342 AU
behind sun begin	3388 May 17 05:31	27° B 46'15					
behind sun end	3388 May 17 12:38	28° B 24'23		superior conj	3389 May 01 09:16	12° B 10'29	-0°40'46
	3388 May 18 06:29	0° II		minimum elong	3389 May 01 11:24	12° B 21'33	0°40'20
asc. node	3388 May 18 12:17	0° II 31'11		asc. node	3389 May 05 09:20	20° B 34'19	
evening rise	3388 May 24 11:16	13° II 17'47		evening rise	3389 May 08 21:05	27° B 53'58	
	3388 Jun 01 22:32	0° E			3389 May 09 21:25	0° II	
evening max el	3388 Jun 15 15:25	19° E 06'35	22°47'11	evening max el	3389 May 28 12:01	29° II 46'16	21°15'37
desc. node	3388 Jun 24 21:58	25° E 06'27			3389 May 28 17:43	0° E	
retrograde	3388 Jun 28 21:59	25° E 43'06		retrograde	3389 Jun 09 11:36	5° E 38'44	
evening set	3388 Jul 02 06:12	25° E 18'35		evening set	3389 Jun 11 18:40	5° E 26'35	
min. Earth dist.	3388 Jul 09 23:48	21° E 53'54	0.55354 AU	desc. node	3389 Jun 11 19:01	5° E 26'26	
inferior conj	3388 Jul 11 09:48	21° E 05'07	-4°15'21	inferior conj	3389 Jun 21 03:52	1° E 27'57	-2°41'03
minimum elong	3388 Jul 11 02:01	21° E 16'18	4°13'40	minimum elong	3389 Jun 20 20:40	1° E 38'03	2°38'40
morning rise	3388 Jul 20 00:05	17° E 13'45		min. Earth dist.	3389 Jun 21 11:19	1° E 17'30	0.54850 AU
direct	3388 Jul 22 22:44	16° E 53'34			3389 Jun 23 19:39	30° R II	
morning max el	3388 Aug 03 02:14	22° E 04'04	20°50'23	morning rise	3389 Jun 29 23:04	27° II 30'11	
	3388 Aug 09 18:32	0° O		direct	3389 Jul 03 08:42	27° II 05'08	
asc. node	3388 Aug 14 11:31	7° O 31'39			3389 Jul 12 03:20	0° E	
morning set	3388 Aug 22 10:31	22° O 54'13		morning max el	3389 Jul 16 00:46	3° E 06'08	22°24'30
	3388 Aug 25 20:30	0° P		asc. node	3389 Aug 01 08:35	26° E 40'17	
					3389 Aug 03 01:42	0° O	
superior conj	3388 Aug 29 21:40	8° P 23'27	1°44'31	morning set	3389 Aug 06 20:49	7° O 45'04	
minimum elong	3388 Aug 29 21:19	8° P 21'41	1°44'31				
max. Earth dist.	3388 Sep 03 13:44	17° P 46'25	1.35793 AU	superior conj	3389 Aug 14 00:23	22° O 57'04	1°39'26
evening rise	3388 Sep 07 15:40	25° P 35'19		minimum elong	3389 Aug 13 22:52	22° O 49'02	1°39'21
	3388 Sep 10 01:15	0° A			3389 Aug 17 09:16	0° P	
desc. node	3388 Sep 20 21:17	18° A 17'11		max. Earth dist.	3389 Aug 17 06:20	29° O 44'56	1.34260 AU
	3388 Sep 28 18:36	0° M		evening rise	3389 Aug 21 22:53	9° P 10'21	
evening max el	3388 Oct 13 05:34	17° M 27'48	26°20'24		3389 Sep 02 12:48	0° A	
retrograde	3388 Oct 25 23:55	24° M 39'16		desc. node	3389 Sep 07 18:17	8° A 16'20	
evening set	3388 Nov 01 08:57	22° M 02'15			3389 Sep 24 17:15	0° M	
min. Earth dist.	3388 Nov 05 12:49	17° M 40'09	0.66417 AU	evening max el	3389 Sep 25 18:09	1° M 00'56	27°06'11
inferior conj	3388 Nov 07 02:30	15° M 44'59	-1°08'30	retrograde	3389 Oct 09 01:19	8° M 18'11	
minimum elong	3388 Nov 07 04:21	15° M 39'20	1°07'43	evening set	3389 Oct 15 21:55	5° M 36'12	
asc. node	3388 Nov 10 10:44	11° M 57'57		min. Earth dist.	3389 Oct 19 19:17	1° M 49'58	0.65214 AU
morning rise	3388 Nov 13 00:17	9° M 57'22			3389 Oct 21 10:24	30° R A	
direct	3388 Nov 16 01:02	9° M 05'14		inferior conj	3389 Oct 21 20:58	29° A 30'05	-2°08'50
morning max el	3388 Nov 22 18:18	12° M 47'06	18°40'30	minimum elong	3389 Oct 22 00:33	29° A 20'00	2°07'26
	3388 Dec 05 07:00	0° J		morning rise	3389 Oct 28 04:04	23° A 55'17	
morning set	3388 Dec 13 16:14	13° J 13'19		asc. node	3389 Oct 28 07:47	23° A 50'56	
desc. node	3388 Dec 17 20:35	19° J 50'00		direct	3389 Oct 30 21:02	23° A 15'54	
	3388 Dec 24 07:35	0° Z		morning max el	3389 Nov 06 08:59	26° A 45'10	18°07'28
					3389 Nov 09 05:01	0° M	
superior conj	3388 Dec 29 20:52	8° Z 43'01	-1°15'46	morning set	3389 Nov 24 15:04	24° M 03'24	
minimum elong	3388 Dec 29 12:09	8° Z 08'49	1°14'48		3389 Nov 28 05:50	0° J	
max. Earth dist.	3388 Dec 29 11:29	8° Z 06'12	1.45186 AU	desc. node	3389 Dec 04 17:34	10° J 31'18	
	3389 Jan 12 08:07	0° \approx					
evening rise	3389 Jan 14 12:26	3° \approx 28'55		superior conj	3389 Dec 09 01:42	17° J 26'38	-0°29'15
greatest brilliancy	3389 Jan 22 09:01	16° \approx 03'15	-0.9m	minimum elong	3389 Dec 08 22:01	17° J 11'59	0°28'45

max. Earth dist.	3389 Dec 12 06:54	22° ♊ 31'31	1.45078 AU	evening rise	3390 Dec 04 20:12	22° ♊ 10'00	
	3389 Dec 17 01:21	0° ♋			3390 Dec 09 23:17	0° ♋	
evening rise	3389 Dec 25 10:21	13° ♋ 01'17			3390 Dec 31 04:44	0° ♌	
	3390 Jan 05 11:02	0° ♌		evening max el	3391 Jan 02 10:35	2° ♌ 27'56	20°41'37
greatest brilliancy	3390 Jan 07 08:53	2° ♌ 52'57	-0.7m	retrograde	3391 Jan 10 15:35	7° ♌ 18'46	
evening max el	3390 Jan 19 08:59	18° ♌ 56'09	19°39'34	asc. node	3391 Jan 11 04:05	7° ♌ 17'16	
asc. node	3390 Jan 24 07:04	22° ♌ 39'26		evening set	3391 Jan 14 14:18	5° ♌ 49'22	
retrograde	3390 Jan 26 17:30	23° ♌ 11'29		inferior conj	3391 Jan 19 23:09	29° ♋ 39'36	2°38'34
evening set	3390 Jan 30 07:15	21° ♌ 56'46		minimum elong	3391 Jan 19 20:38	29° ♋ 48'16	2°37'52
inferior conj	3390 Feb 04 18:23	15° ♌ 59'24	3°09'38		3391 Jan 19 17:12	30° ♋ 30	
minimum elong	3390 Feb 04 16:06	16° ♌ 06'55	3°09'10	min. Earth dist.	3391 Jan 20 12:26	28° ♋ 54'10	0.67502 AU
min. Earth dist.	3390 Feb 05 20:52	14° ♌ 32'03	0.66721 AU	morning rise	3391 Jan 25 02:47	23° ♋ 26'21	
morning rise	3390 Feb 10 00:44	9° ♌ 45'58		direct	3391 Jan 30 14:55	21° ♋ 00'11	
direct	3390 Feb 16 03:05	7° ♌ 02'56		morning max el	3391 Feb 10 16:38	27° ♋ 36'28	24°11'30
morning max el	3390 Feb 28 08:05	14° ♌ 19'19	25°36'40		3391 Feb 12 22:46	0° ♌	
desc. node	3390 Mar 02 16:50	16° ♌ 49'48		desc. node	3391 Feb 17 13:50	5° ♌ 29'38	
	3390 Mar 13 03:11	0° ♍			3391 Mar 06 19:36	0° ♍	
	3390 Apr 01 07:04	0° ♎		morning set	3391 Mar 18 11:22	19° ♍ 08'41	
morning set	3390 Apr 05 13:50	7° ♎ 37'43		max. Earth dist.	3391 Mar 22 04:41	25° ♍ 42'39	1.38022 AU
max. Earth dist.	3390 Apr 09 07:57	14° ♎ 37'05	1.36003 AU		3391 Mar 24 13:22	0° ♎	
superior conj	3390 Apr 15 01:41	25° ♎ 49'18	-1°09'14	superior conj	3391 Mar 29 06:20	8° ♎ 49'44	-1°35'20
minimum elong	3390 Apr 15 05:17	26° ♎ 07'23	1°08'37	minimum elong	3391 Mar 29 10:53	9° ♎ 11'31	1°34'46
	3390 Apr 17 03:25	0° ♏		evening rise	3391 Apr 07 02:16	26° ♎ 07'37	
asc. node	3390 Apr 22 06:22	10° ♏ 28'10		asc. node	3391 Apr 09 03:23	0° ♏ 08'16	
evening rise	3390 Apr 23 02:54	12° ♏ 12'50			3391 Apr 09 01:41	0° ♏	
	3390 May 02 13:11	0° ♐		evening max el	3391 Apr 23 15:43	22° ♏ 56'09	19°02'01
evening max el	3390 May 10 20:05	11° ♐ 00'55	19°59'07	retrograde	3391 May 02 07:23	27° ♏ 09'01	
retrograde	3390 May 21 02:33	16° ♐ 00'24		evening set	3391 May 04 09:50	26° ♏ 55'06	
evening set	3390 May 23 01:57	15° ♐ 50'09		inferior conj	3391 May 12 14:14	22° ♏ 40'52	1°07'27
desc. node	3390 May 29 16:03	13° ♐ 13'55		minimum elong	3391 May 12 16:47	22° ♏ 36'25	1°06'33
inferior conj	3390 Jun 01 01:02	11° ♐ 50'03	-0°42'02	min. Earth dist.	3391 May 15 15:31	20° ♏ 34'11	0.56644 AU
minimum elong	3390 May 31 23:06	11° ♐ 53'00	0°41'19	desc. node	3391 May 16 13:04	19° ♏ 59'02	
min. Earth dist.	3390 Jun 03 00:05	10° ♐ 39'10	0.55313 AU	morning rise	3391 May 20 20:34	17° ♏ 42'25	
morning rise	3390 Jun 09 18:22	7° ♐ 27'05		direct	3391 May 25 23:43	16° ♏ 40'18	
direct	3390 Jun 13 22:02	6° ♐ 49'23		morning max el	3391 Jun 09 06:34	24° ♏ 02'08	25°44'35
morning max el	3390 Jun 27 16:05	13° ♐ 36'35	24°07'22		3391 Jun 14 16:52	0° ♐	
	3390 Jul 10 08:45	0° ♑			3391 Jul 03 04:01	0° ♑	
asc. node	3390 Jul 19 05:36	16° ♑ 12'23		asc. node	3391 Jul 06 02:38	6° ♑ 01'29	
morning set	3390 Jul 22 08:30	22° ♑ 39'31		morning set	3391 Jul 06 19:57	7° ♑ 32'33	
	3390 Jul 25 18:38	0° ♒		superior conj	3391 Jul 13 18:56	22° ♑ 39'37	1°12'58
superior conj	3390 Jul 29 08:12	7° ♒ 44'43	1°28'37	minimum elong	3391 Jul 13 16:35	22° ♑ 26'41	1°12'35
minimum elong	3390 Jul 29 06:01	7° ♒ 32'52	1°28'22	max. Earth dist.	3391 Jul 14 16:10	24° ♑ 36'03	1.32404 AU
max. Earth dist.	3390 Jul 31 07:56	12° ♒ 02'02	1.33127 AU		3391 Jul 17 03:40	0° ♒	
evening rise	3390 Aug 05 17:19	23° ♒ 17'18		evening rise	3391 Jul 20 19:41	7° ♒ 46'35	
	3390 Aug 09 02:55	0° ♓			3391 Aug 01 13:36	0° ♓	
desc. node	3390 Aug 25 15:20	27° ♓ 45'54		desc. node	3391 Aug 12 12:22	16° ♓ 33'25	
	3390 Aug 27 05:16	0° ♈		evening max el	3391 Aug 21 12:54	26° ♓ 52'28	27°14'45
evening max el	3390 Sep 08 05:26	14° ♈ 13'44	27°26'07		3391 Aug 25 04:56	0° ♈	
retrograde	3390 Sep 21 20:29	21° ♈ 30'36		retrograde	3391 Sep 04 08:55	4° ♈ 06'45	
evening set	3390 Sep 29 00:23	18° ♈ 52'49		evening set	3391 Sep 11 12:36	1° ♈ 45'15	
min. Earth dist.	3390 Oct 02 16:31	15° ♈ 40'04	0.63660 AU		3391 Sep 13 21:53	30° ♈ 00	
inferior conj	3390 Oct 05 06:35	13° ♈ 02'17	-3°08'42	min. Earth dist.	3391 Sep 15 03:11	28° ♈ 58'18	0.61800 AU
minimum elong	3390 Oct 05 11:41	12° ♈ 49'18	3°06'59	inferior conj	3391 Sep 18 04:14	26° ♈ 13'38	-4°03'52
morning rise	3390 Oct 12 00:15	7° ♈ 43'53		minimum elong	3391 Sep 18 10:00	26° ♈ 00'34	4°02'24
direct	3390 Oct 14 11:58	7° ♈ 13'39		morning rise	3391 Sep 25 09:08	21° ♈ 15'01	
asc. node	3390 Oct 15 04:49	7° ♈ 16'06		direct	3391 Sep 27 18:17	20° ♈ 50'50	
morning max el	3390 Oct 21 01:29	10° ♈ 38'53	17°51'52	asc. node	3391 Oct 02 01:50	22° ♈ 13'07	
	3390 Nov 03 02:35	0° ♉		morning max el	3391 Oct 04 16:45	24° ♈ 20'29	17°54'28
morning set	3390 Nov 06 16:22	6° ♉ 10'39			3391 Oct 09 07:03	0° ♉	
superior conj	3390 Nov 19 02:05	27° ♉ 10'38	0°17'18	morning set	3391 Oct 20 13:39	19° ♉ 14'30	
minimum elong	3390 Nov 19 03:56	27° ♉ 18'11	0°17'04		3391 Oct 26 12:47	0° ♉	
	3390 Nov 20 19:30	0° ♊		superior conj	3391 Oct 31 05:17	8° ♉ 13'22	0°55'23
desc. node	3390 Nov 21 14:35	1° ♊ 17'33		minimum elong	3391 Oct 31 09:29	8° ♉ 31'25	0°54'50
max. Earth dist.	3390 Nov 25 01:06	6° ♊ 49'29	1.44246 AU	max. Earth dist.	3391 Nov 07 14:50	20° ♉ 39'58	1.42797 AU

desc. node	3391 Nov 08 11:37	22°♄04'53		evening rise	3392 Oct 24 17:16	11°♄47'25	
	3391 Nov 13 10:05	0°♄		desc. node	3392 Oct 25 08:40	12°♄50'15	
evening rise	3391 Nov 14 09:45	1°♄33'14			3392 Nov 05 09:02	0°♄	
	3391 Dec 03 12:15	0°♄		evening max el	3392 Nov 27 22:07	29°♄35'45	23°13'48
evening max el	3391 Dec 16 06:34	16°♄00'19	21°54'38		3392 Nov 28 07:54	0°♄	
retrograde	3391 Dec 25 12:35	21°♄30'42		retrograde	3392 Dec 08 07:01	5°♄44'20	
asc. node	3391 Dec 29 01:07	20°♄23'39		evening set	3392 Dec 13 04:47	3°♄43'02	
evening set	3391 Dec 29 22:01	19°♄45'38		asc. node	3392 Dec 14 22:08	2°♄01'56	
inferior conj	3392 Jan 04 06:20	13°♄26'52	1°59'21		3392 Dec 16 14:27	30°♄♄	
minimum elong	3392 Jan 04 04:03	13°♄34'49	1°58'34	min. Earth dist.	3392 Dec 18 04:38	27°♄51'37	0.67925 AU
min. Earth dist.	3392 Jan 04 07:48	13°♄21'46	0.67893 AU	inferior conj	3392 Dec 18 14:04	27°♄19'09	1°13'21
morning rise	3392 Jan 09 09:56	7°♄15'20		minimum elong	3392 Dec 18 12:28	27°♄24'42	1°12'43
direct	3392 Jan 14 07:08	5°♄10'44		morning rise	3392 Dec 23 20:04	21°♄11'17	
morning max el	3392 Jan 24 02:41	10°♄59'05	22°42'34	direct	3392 Dec 28 02:53	19°♄29'27	
desc. node	3392 Feb 04 10:51	24°♄50'18		morning max el	3393 Jan 05 17:45	24°♄30'23	21°18'36
	3392 Feb 08 03:35	0°♄			3393 Jan 10 13:55	0°♄	
morning set	3392 Feb 27 06:19	29°♄20'59		desc. node	3393 Jan 21 07:54	14°♄40'42	
	3392 Feb 27 15:47	0°♄			3393 Jan 31 13:54	0°♄	
max. Earth dist.	3392 Mar 03 00:13	7°♄18'22	1.40191 AU	morning set	3393 Feb 05 20:36	8°♄12'57	
				max. Earth dist.	3393 Feb 13 01:15	19°♄47'18	1.42236 AU
superior conj	3392 Mar 10 18:52	21°♄00'42	-1°55'52		3393 Feb 19 03:40	0°♄	
minimum elong	3392 Mar 10 22:57	21°♄19'17	1°55'35				
	3392 Mar 15 15:35	0°♄		superior conj	3393 Feb 20 10:16	2°♄11'02	-2°06'26
evening rise	3392 Mar 20 16:04	9°♄29'48		minimum elong	3393 Feb 20 11:22	2°♄15'48	2°06'25
asc. node	3392 Mar 26 00:26	19°♄28'57		evening rise	3393 Mar 03 16:33	22°♄11'03	
	3392 Apr 01 09:08	0°♄			3393 Mar 08 00:29	0°♄	
evening max el	3392 Apr 05 20:21	5°♄26'37	18°25'16	asc. node	3393 Mar 12 21:28	8°♄23'37	
retrograde	3392 Apr 13 06:56	9°♄07'23		evening max el	3393 Mar 20 06:38	18°♄23'22	18°08'23
evening set	3392 Apr 15 15:46	8°♄46'06		retrograde	3393 Mar 26 23:47	21°♄48'13	
inferior conj	3392 Apr 23 00:43	4°♄12'30	2°27'15	evening set	3393 Mar 29 14:54	21°♄17'08	
minimum elong	3392 Apr 23 04:30	4°♄04'48	2°26'17	inferior conj	3393 Apr 05 07:27	16°♄22'47	3°14'59
min. Earth dist.	3392 Apr 26 11:21	1°♄25'36	0.58564 AU	minimum elong	3393 Apr 05 10:08	16°♄16'27	3°14'34
	3392 Apr 28 10:34	30°♄♄		min. Earth dist.	3393 Apr 08 13:31	13°♄19'56	0.60735 AU
morning rise	3392 Apr 30 14:13	28°♄42'34		morning rise	3393 Apr 12 03:18	10°♄31'45	
desc. node	3392 May 02 10:04	27°♄53'27		direct	3393 Apr 18 19:56	8°♄20'13	
direct	3392 May 06 15:50	27°♄06'01		desc. node	3393 Apr 19 07:07	8°♄20'50	
	3392 May 15 04:00	0°♄		morning max el	3393 May 03 02:10	16°♄14'48	27°43'23
morning max el	3392 May 21 01:18	4°♄49'39	27°00'26		3393 May 14 08:59	0°♄	
	3392 Jun 08 12:58	0°♄			3393 Jun 01 01:51	0°♄	
morning set	3392 Jun 20 05:34	22°♄18'59		morning set	3393 Jun 04 11:30	6°♄51'45	
asc. node	3392 Jun 21 23:41	26°♄02'12		asc. node	3393 Jun 08 20:44	16°♄08'56	
	3392 Jun 23 19:44	0°♄		max. Earth dist.	3393 Jun 10 14:48	19°♄57'47	1.32166 AU
superior conj	3392 Jun 27 06:46	7°♄35'47	0°53'12	superior conj	3393 Jun 11 17:54	22°♄26'13	0°29'57
minimum elong	3392 Jun 27 04:43	7°♄24'28	0°52'48	minimum elong	3393 Jun 11 16:35	22°♄19'01	0°29'39
max. Earth dist.	3392 Jun 27 03:43	7°♄18'59	1.32083 AU		3393 Jun 15 04:35	0°♄	
evening rise	3392 Jul 04 03:22	22°♄30'19		evening rise	3393 Jun 18 14:05	7°♄20'12	
	3392 Jul 07 18:49	0°♄			3393 Jun 30 09:23	0°♄	
	3392 Jul 25 20:14	0°♄		evening max el	3393 Jul 15 08:34	19°♄55'22	25°15'57
desc. node	3392 Jul 29 09:23	4°♄21'52		desc. node	3393 Jul 16 06:25	20°♄46'12	
evening max el	3392 Aug 02 14:20	8°♄47'34	26°30'10	retrograde	3393 Jul 29 08:05	27°♄00'54	
retrograde	3392 Aug 16 13:36	15°♄58'37		evening set	3393 Aug 03 23:57	25°♄47'00	
evening set	3392 Aug 23 05:58	14°♄06'37		min. Earth dist.	3393 Aug 08 20:25	23°♄04'37	0.57734 AU
min. Earth dist.	3392 Aug 27 03:49	11°♄31'02	0.59752 AU	inferior conj	3393 Aug 11 22:08	20°♄58'39	-5°06'58
inferior conj	3392 Aug 30 10:33	8°♄55'55	-4°47'06	minimum elong	3393 Aug 11 22:39	20°♄57'46	5°06'58
minimum elong	3392 Aug 30 15:07	8°♄46'52	4°46'26	morning rise	3393 Aug 19 23:44	16°♄44'34	
morning rise	3392 Sep 07 02:23	4°♄19'28		direct	3393 Aug 22 12:46	16°♄25'11	
direct	3392 Sep 09 11:57	3°♄58'44		morning max el	3393 Aug 31 06:33	20°♄32'40	18°59'17
morning max el	3392 Sep 17 03:34	7°♄42'01	18°16'27	asc. node	3393 Sep 04 19:57	25°♄52'51	
asc. node	3392 Sep 17 22:53	8°♄30'44			3393 Sep 07 13:58	0°♄	
	3392 Oct 01 11:21	0°♄		morning set	3393 Sep 16 22:50	17°♄12'48	
morning set	3392 Oct 03 01:16	2°♄59'28			3393 Sep 23 10:37	0°♄	
superior conj	3392 Oct 12 09:03	20°♄28'05	1°22'06	superior conj	3393 Sep 25 07:53	3°♄38'35	1°37'55
minimum elong	3392 Oct 12 12:53	20°♄45'30	1°21'41	minimum elong	3393 Sep 25 10:09	3°♄49'28	1°37'46
	3392 Oct 17 17:31	0°♄		max. Earth dist.	3393 Oct 02 03:38	16°♄18'56	1.38854 AU
max. Earth dist.	3392 Oct 19 23:03	3°♄50'31	1.40921 AU	evening rise	3393 Oct 06 00:14	23°♄05'59	

	3393 Oct 10 02:27	0°♍		minimum elong	3394 Sep 08 21:12	17°♎33'18	1°44'23
desc. node	3393 Oct 12 05:43	3°♍29'17		max. Earth dist.	3394 Sep 14 09:11	28°♎18'21	1.36844 AU
	3393 Oct 30 05:38	0°♊			3394 Sep 15 06:42	0°♊	
evening max el	3393 Nov 10 11:10	13°♊15'12	24°33'02	evening rise	3394 Sep 18 05:14	5°♊25'48	
retrograde	3393 Nov 21 21:33	19°♊55'33		desc. node	3394 Sep 29 02:45	23°♊57'33	
evening set	3393 Nov 27 09:00	17°♊38'22			3394 Oct 03 00:08	0°♍	
asc. node	3393 Dec 01 19:11	12°♊38'13		evening max el	3394 Oct 23 23:28	26°♍56'47	25°45'06
min. Earth dist.	3393 Dec 02 00:28	12°♊20'42	0.67609 AU		3394 Oct 27 09:48	0°♊	
inferior conj	3393 Dec 02 20:33	11°♊13'39	0°21'40	retrograde	3394 Nov 05 07:25	3°♊59'26	
minimum elong	3393 Dec 02 20:02	11°♊15'25	0°21'26	evening set	3394 Nov 11 08:55	1°♊28'19	
morning rise	3393 Dec 08 07:07	5°♊11'42			3394 Nov 12 22:16	30°♋	
direct	3393 Dec 12 00:51	3°♊51'30		min. Earth dist.	3394 Nov 15 16:50	26°♋45'51	0.66954 AU
morning max el	3393 Dec 19 16:22	8°♊12'51	20°05'41	inferior conj	3394 Nov 16 23:57	25°♋07'12	-0°34'35
	3394 Jan 04 23:03	0°♊		minimum elong	3394 Nov 17 00:51	25°♋04'20	0°34'12
desc. node	3394 Jan 08 04:57	4°♊52'30		asc. node	3394 Nov 18 16:14	23°♋02'20	
morning set	3394 Jan 15 17:22	16°♊21'53		morning rise	3394 Nov 22 17:08	19°♋13'44	
	3394 Jan 24 10:30	0°♋		direct	3394 Nov 25 23:32	18°♋12'22	
max. Earth dist.	3394 Jan 26 10:30	3°♋11'07	1.43878 AU	morning max el	3394 Dec 02 22:45	22°♋05'15	19°07'05
					3394 Dec 09 09:15	0°♊	
superior conj	3394 Feb 01 00:16	12°♋12'06	-2°01'43	morning set	3394 Dec 25 21:05	25°♊00'08	
minimum elong	3394 Jan 31 19:48	11°♋53'49	2°01'31	desc. node	3394 Dec 26 01:59	25°♊19'10	
	3394 Feb 11 14:54	0°♋			3394 Dec 29 02:03	0°♊	
evening rise	3394 Feb 13 23:23	4°♋02'56		max. Earth dist.	3395 Jan 09 02:15	17°♊14'01	1.44911 AU
asc. node	3394 Feb 27 18:31	26°♋44'12					
	3394 Mar 02 07:20	0°♎		superior conj	3395 Jan 11 13:48	21°♊09'04	-1°37'47
evening max el	3394 Mar 03 19:17	1°♎37'36	18°10'42	minimum elong	3395 Jan 11 04:52	20°♊33'43	1°36'58
retrograde	3394 Mar 10 05:46	5°♎01'28			3395 Jan 17 03:08	0°♋	
evening set	3394 Mar 13 02:37	4°♎19'17		evening rise	3395 Jan 26 08:30	14°♋58'19	
	3394 Mar 18 09:52	30°♋			3395 Feb 04 13:01	0°♋	
inferior conj	3394 Mar 19 06:41	29°♋04'48	3°36'07	asc. node	3395 Feb 14 15:33	14°♋19'43	
minimum elong	3394 Mar 19 07:32	29°♋02'30	3°36'04	evening max el	3395 Feb 15 07:24	15°♋01'19	18°31'37
min. Earth dist.	3394 Mar 22 00:09	26°♋10'21	0.62836 AU	retrograde	3395 Feb 21 20:30	18°♋37'10	
morning rise	3394 Mar 25 11:20	23°♋01'27		evening set	3395 Feb 24 23:06	17°♋43'07	
direct	3394 Apr 01 09:11	20°♋24'01		inferior conj	3395 Mar 02 18:18	12°♋10'09	3°37'08
desc. node	3394 Apr 06 04:08	21°♋30'10		minimum elong	3395 Mar 02 17:32	12°♋12'26	3°37'06
morning max el	3394 Apr 15 08:31	28°♋21'28	27°48'53	min. Earth dist.	3395 Mar 04 20:21	9°♋42'11	0.64651 AU
	3394 Apr 16 22:38	0°♎		morning rise	3395 Mar 08 11:24	6°♋00'10	
	3394 May 08 04:10	0°♏		direct	3395 Mar 15 06:00	3°♋10'16	
morning set	3394 May 19 11:37	21°♏04'08		desc. node	3395 Mar 24 01:10	6°♋51'27	
	3394 May 23 19:16	0°♐		morning max el	3395 Mar 28 18:02	11°♋02'16	27°18'56
max. Earth dist.	3394 May 24 21:39	2°♐20'17	1.32665 AU		3395 Apr 12 18:23	0°♎	
asc. node	3394 May 26 17:48	6°♐17'29			3395 Apr 30 15:17	0°♏	
				morning set	3395 May 03 03:08	4°♏47'23	
superior conj	3394 May 27 02:37	7°♐05'08	0°03'52	max. Earth dist.	3395 May 07 20:18	14°♏14'48	1.33602 AU
minimum elong	3394 May 27 02:25	7°♐04'07	0°03'50				
behind sun begin	3394 May 26 21:20	6°♐36'34		superior conj	3395 May 11 06:54	21°♏26'04	-0°24'11
behind sun end	3394 May 27 07:31	7°♐31'42		minimum elong	3395 May 11 08:09	21°♏32'36	0°23'55
evening rise	3394 Jun 03 01:57	22°♐09'46		asc. node	3395 May 13 14:51	26°♏23'30	
	3394 Jun 06 20:50	0°♑			3395 May 15 07:23	0°♐	
	3394 Jun 26 10:32	0°♑		evening rise	3395 May 18 13:03	6°♐52'20	
evening max el	3394 Jun 26 22:00	0°♑28'08	23°42'55		3395 May 30 22:28	0°♑	
desc. node	3394 Jul 03 03:25	5°♑14'12		evening max el	3395 Jun 08 13:34	10°♑55'02	22°06'44
retrograde	3394 Jul 10 14:11	7°♑19'47		desc. node	3395 Jun 20 00:25	17°♑11'04	
evening set	3394 Jul 14 19:12	6°♑40'53		retrograde	3395 Jun 21 08:40	17°♑15'14	
min. Earth dist.	3394 Jul 21 08:12	3°♑35'36	0.56051 AU	evening set	3395 Jun 24 04:18	16°♑57'34	
inferior conj	3394 Jul 23 13:26	2°♑15'28	-4°48'23	min. Earth dist.	3395 Jul 02 18:55	13°♑16'00	0.55029 AU
minimum elong	3394 Jul 23 08:05	2°♑23'33	4°47'40	inferior conj	3395 Jul 03 12:14	12°♑51'41	-3°40'22
	3394 Jul 27 12:57	30°♒		minimum elong	3395 Jul 03 03:52	13°♑03'25	3°38'05
morning rise	3394 Jul 31 23:31	28°♑19'23		morning rise	3395 Jul 12 05:13	9°♑00'31	
direct	3394 Aug 03 18:23	27°♑59'50		direct	3395 Jul 15 07:52	8°♑38'58	
	3394 Aug 10 09:57	0°♑		morning max el	3395 Jul 27 03:34	14°♑10'01	21°28'43
morning max el	3394 Aug 13 22:53	2°♑43'30	20°03'50		3395 Aug 07 22:21	0°♑	
asc. node	3394 Aug 22 17:01	14°♑05'20		asc. node	3395 Aug 09 14:04	2°♑56'24	
	3394 Aug 31 06:14	0°♒		morning set	3395 Aug 16 11:53	16°♑32'19	
morning set	3394 Sep 01 03:10	1°♒45'57			3395 Aug 22 21:43	0°♒	
superior conj	3394 Sep 08 20:40	17°♒30'38	1°44'23	superior conj	3395 Aug 23 19:17	1°♒52'27	1°43'08

minimum elong	3395 Aug 23 18:22	1° \mathbb{M} 47'45	1°43'06	minimum elong	3396 Aug 06 22:37	16° \mathcal{Q} 23'19	1°35'20
max. Earth dist.	3395 Aug 27 20:44	10° \mathbb{M} 11'04	1.35092 AU	max. Earth dist.	3396 Aug 09 17:01	22° \mathcal{Q} 15'44	1.33721 AU
evening rise	3395 Sep 01 04:09	18° \mathbb{M} 36'57			3396 Aug 13 11:11	0° \mathbb{M}	
	3395 Sep 07 09:39	0° \mathcal{A}		evening rise	3396 Aug 14 16:34	2° \mathbb{M} 26'53	
desc. node	3395 Sep 15 23:45	14° \mathcal{A} 09'39			3396 Aug 30 06:20	0° \mathcal{A}	
	3395 Sep 27 03:47	0° \mathbb{M}		desc. node	3396 Sep 01 20:46	3° \mathcal{A} 57'36	
evening max el	3395 Oct 06 11:50	10° \mathbb{M} 35'12	26°42'33	evening max el	3396 Sep 17 23:51	24° \mathcal{A} 00'37	27°18'09
retrograde	3395 Oct 19 12:06	17° \mathbb{M} 50'17			3396 Sep 26 03:48	0° \mathbb{M}	
evening set	3395 Oct 26 02:35	15° \mathbb{M} 09'53		retrograde	3396 Oct 01 11:10	1° \mathbb{M} 19'13	
min. Earth dist.	3395 Oct 30 03:30	11° \mathbb{M} 03'27	0.65949 AU		3396 Oct 06 09:25	30° \mathcal{R} \mathcal{A}	
inferior conj	3395 Oct 31 22:19	8° \mathbb{M} 56'54	-1°33'58	evening set	3396 Oct 08 11:30	28° \mathcal{A} 37'28	
minimum elong	3395 Nov 01 00:53	8° \mathbb{M} 49'16	1°32'54	min. Earth dist.	3396 Oct 12 06:15	25° \mathcal{A} 06'07	0.64591 AU
asc. node	3395 Nov 05 13:16	4° \mathbb{M} 11'07		inferior conj	3396 Oct 14 13:20	22° \mathcal{A} 37'13	-2°34'31
morning rise	3395 Nov 06 23:54	3° \mathbb{M} 14'39		minimum elong	3396 Oct 14 17:36	22° \mathcal{A} 25'39	2°32'55
direct	3395 Nov 09 21:03	2° \mathbb{M} 28'28		morning rise	3396 Oct 21 00:50	17° \mathcal{A} 09'10	
morning max el	3395 Nov 16 11:13	6° \mathbb{M} 03'41	18°24'28	asc. node	3396 Oct 22 10:18	16° \mathcal{A} 41'48	
	3395 Dec 03 00:24	0° \mathcal{X}		direct	3396 Oct 23 15:08	16° \mathcal{A} 34'15	
morning set	3395 Dec 06 02:48	4° \mathcal{X} 59'25		morning max el	3396 Oct 30 03:04	20° \mathcal{A} 01'03	17°58'40
desc. node	3395 Dec 12 23:00	15° \mathcal{X} 56'33			3396 Nov 06 15:15	0° \mathbb{M}	
				morning set	3396 Nov 16 13:34	16° \mathbb{M} 24'10	
superior conj	3395 Dec 21 15:48	29° \mathcal{X} 41'06	-0°56'49		3396 Nov 24 17:36	0° \mathcal{X}	
minimum elong	3395 Dec 21 08:43	29° \mathcal{X} 13'18	0°55'56	desc. node	3396 Nov 28 20:01	6° \mathcal{X} 40'22	
	3395 Dec 21 20:37	0° \mathcal{Z}					
max. Earth dist.	3395 Dec 22 21:01	1° \mathcal{Z} 35'44	1.45227 AU	superior conj	3396 Nov 30 03:13	8° \mathcal{X} 45'54	-0°08'54
evening rise	3396 Jan 06 18:20	24° \mathcal{Z} 57'47		minimum elong	3396 Nov 30 02:09	8° \mathcal{X} 41'35	0°08'44
	3396 Jan 09 23:04	0° \approx		behind sun begin	3396 Nov 29 17:17	8° \mathcal{X} 06'01	
greatest brilliancy	3396 Jan 17 00:25	11° \approx 03'19	-0.8m	behind sun end	3396 Nov 30 11:00	9° \mathcal{X} 17'07	
evening max el	3396 Jan 29 16:38	28° \approx 29'58	19°10'06	max. Earth dist.	3396 Dec 04 15:38	15° \mathcal{X} 57'39	1.44804 AU
	3396 Jan 31 06:51	0° \mathcal{H}			3396 Dec 13 15:16	0° \mathcal{Z}	
asc. node	3396 Feb 01 12:34	0° \mathcal{H} 57'35		evening rise	3396 Dec 16 09:21	4° \mathcal{Z} 15'05	
retrograde	3396 Feb 05 16:14	2° \mathcal{H} 28'39		greatest brilliancy	3396 Dec 30 19:25	26° \mathcal{Z} 06'40	-0.6m
evening set	3396 Feb 09 01:27	1° \mathcal{H} 21'54			3397 Jan 02 11:39	0° \approx	
	3396 Feb 10 18:15	30° \mathcal{R} \approx		evening max el	3397 Jan 11 21:18	12° \approx 00'45	20°04'26
inferior conj	3396 Feb 14 14:49	25° \approx 32'40	3°23'07	asc. node	3397 Jan 18 09:35	16° \approx 23'05	
minimum elong	3396 Feb 14 12:55	25° \approx 38'42	3°22'49	retrograde	3397 Jan 19 14:05	16° \approx 30'48	
min. Earth dist.	3396 Feb 16 01:34	23° \approx 41'38	0.66081 AU	evening set	3397 Jan 23 07:20	15° \approx 10'11	
morning rise	3396 Feb 20 00:05	19° \approx 19'36		inferior conj	3397 Jan 28 17:16	9° \approx 07'15	2°57'33
direct	3396 Feb 26 09:26	16° \approx 30'40		minimum elong	3397 Jan 28 14:49	9° \approx 15'29	2°56'59
desc. node	3396 Mar 09 22:13	23° \approx 50'35		min. Earth dist.	3397 Jan 29 14:02	7° \approx 57'27	0.67098 AU
morning max el	3396 Mar 10 03:58	24° \approx 05'01	26°20'03	morning rise	3397 Feb 02 22:05	2° \approx 53'28	
	3396 Mar 15 11:31	0° \mathcal{H}		direct	3397 Feb 08 18:35	0° \approx 16'32	
	3396 Apr 05 03:51	0° \mathcal{Y}		morning max el	3397 Feb 20 12:42	7° \approx 18'03	25°01'29
morning set	3396 Apr 15 06:25	17° \mathcal{Y} 50'55		desc. node	3397 Feb 24 19:14	11° \approx 59'36	
max. Earth dist.	3396 Apr 19 07:38	25° \mathcal{Y} 36'39	1.34995 AU		3397 Mar 10 05:38	0° \mathcal{H}	
	3396 Apr 21 12:49	0° \mathcal{B}		morning set	3397 Mar 28 16:34	0° \mathcal{Y} 00'42	
					3397 Mar 28 16:24	0° \mathcal{Y}	
superior conj	3396 Apr 24 04:28	5° \mathcal{B} 22'27	-0°52'58	max. Earth dist.	3397 Apr 01 07:55	6° \mathcal{Y} 38'01	1.36817 AU
minimum elong	3396 Apr 24 07:15	5° \mathcal{B} 36'43	0°52'27				
asc. node	3396 Apr 29 11:53	16° \mathcal{B} 22'58		superior conj	3397 Apr 07 16:23	18° \mathcal{Y} 46'28	-1°20'45
evening rise	3396 May 01 21:27	21° \mathcal{B} 21'44		minimum elong	3397 Apr 07 20:30	19° \mathcal{Y} 06'43	1°20'08
	3396 May 06 04:26	0° \mathbb{I}			3397 Apr 13 07:09	0° \mathcal{B}	
evening max el	3396 May 20 14:39	21° \mathbb{I} 47'27	20°40'49	evening rise	3397 Apr 16 00:52	5° \mathcal{B} 31'23	
retrograde	3396 May 31 21:41	27° \mathbb{I} 18'08		asc. node	3397 Apr 16 08:54	6° \mathcal{B} 11'43	
evening set	3396 Jun 02 23:15	27° \mathbb{I} 07'48			3397 Apr 30 04:04	0° \mathbb{I}	
desc. node	3396 Jun 05 21:26	26° \mathbb{I} 20'41		evening max el	3397 May 03 04:00	3° \mathbb{I} 20'43	19°32'29
inferior conj	3396 Jun 12 05:47	23° \mathbb{I} 10'18	-1°51'29	retrograde	3397 May 12 17:09	7° \mathbb{I} 58'41	
minimum elong	3396 Jun 12 00:33	23° \mathbb{I} 17'49	1°49'37	evening set	3397 May 14 17:00	7° \mathbb{I} 47'27	
min. Earth dist.	3396 Jun 13 07:02	22° \mathbb{I} 34'04	0.54924 AU	inferior conj	3397 May 23 08:43	3° \mathbb{I} 42'58	0°07'07
morning rise	3396 Jun 21 01:13	19° \mathbb{I} 03'36		minimum elong	3397 May 23 09:02	3° \mathbb{I} 42'28	0°07'00
direct	3396 Jun 24 17:13	18° \mathbb{I} 34'38		transit middle	3397 May 23 09:02	3° \mathbb{I} 42'28	0°07'00
morning max el	3396 Jul 07 22:31	24° \mathbb{I} 56'50	23°08'01	transit begin	3397 May 23 05:31	3° \mathbb{I} 48'04	
	3396 Jul 12 14:46	0° \mathcal{E}		transit end	3397 May 23 12:32	3° \mathbb{I} 36'52	
asc. node	3396 Jul 26 11:06	22° \mathcal{E} 15'51		desc. node	3397 May 23 18:28	3° \mathbb{I} 27'23	
	3396 Jul 30 06:40	0° \mathcal{O}		min. Earth dist.	3397 May 25 21:11	2° \mathbb{I} 06'54	0.55781 AU
morning set	3396 Jul 30 22:57	1° \mathcal{O} 25'22			3397 May 29 16:12	30° \mathcal{R} \mathcal{B}	
				morning rise	3397 May 31 22:21	29° \mathcal{B} 04'59	
superior conj	3396 Aug 07 00:28	16° \mathcal{O} 33'17	1°35'30	direct	3397 Jun 05 11:46	28° \mathcal{B} 18'12	

	3397 Jun 12 04:45	0°♂		morning max el	3398 Jun 01 04:20	15°♂53'28	26°20'14
morning max el	3397 Jun 19 12:46	5°♂22'32	24°50'14		3398 Jun 12 15:03	0°♂	
	3397 Jul 07 04:15	0°♂			3398 Jun 29 08:08	0°♂	
asc. node	3397 Jul 13 08:09	11°♂56'19		morning set	3398 Jun 29 21:38	1°♂10'54	
morning set	3397 Jul 15 10:45	16°♂20'12		asc. node	3398 Jun 30 05:12	1°♂50'53	
	3397 Jul 21 18:09	0°♂					
				superior conj	3398 Jul 06 21:14	16°♂21'28	1°05'04
superior conj	3397 Jul 22 09:49	1°♂25'29	1°22'33	minimum elong	3398 Jul 06 18:57	16°♂08'54	1°04'40
minimum elong	3397 Jul 22 07:30	1°♂12'50	1°22'14	max. Earth dist.	3398 Jul 07 07:54	17°♂20'14	1.32226 AU
max. Earth dist.	3397 Jul 23 21:42	4°♂40'40	1.32771 AU		3398 Jul 13 04:11	0°♂	
evening rise	3397 Jul 29 14:48	16°♂45'13		evening rise	3398 Jul 13 19:45	1°♂21'45	
	3397 Aug 05 10:08	0°♂			3398 Jul 29 09:57	0°♂	
desc. node	3397 Aug 19 17:47	23°♂11'12		desc. node	3398 Aug 06 14:49	11°♂35'59	
	3397 Aug 24 22:55	0°♂		evening max el	3398 Aug 13 15:24	19°♂23'10	26°59'48
evening max el	3397 Aug 31 09:58	7°♂01'12	27°25'20	retrograde	3398 Aug 27 12:48	26°♂35'08	
retrograde	3397 Sep 14 03:45	14°♂17'15		evening set	3398 Sep 03 13:12	24°♂25'03	
evening set	3397 Sep 21 08:26	11°♂45'03		min. Earth dist.	3398 Sep 07 05:40	21°♂44'49	0.60948 AU
min. Earth dist.	3397 Sep 24 23:19	8°♂44'14	0.62902 AU	inferior conj	3398 Sep 10 09:53	19°♂02'20	-4°24'13
inferior conj	3397 Sep 27 18:17	6°♂01'56	-3°33'02	minimum elong	3398 Sep 10 15:27	18°♂50'25	4°23'03
minimum elong	3397 Sep 27 23:49	5°♂48'28	3°31'21	morning rise	3398 Sep 17 19:29	14°♂12'34	
morning rise	3397 Oct 04 16:42	0°♂51'17		direct	3398 Sep 20 04:33	13°♂50'01	
direct	3397 Oct 07 02:52	0°♂24'04		asc. node	3398 Sep 26 04:23	16°♂19'42	
asc. node	3397 Oct 09 07:20	0°♂46'48		morning max el	3398 Sep 27 09:05	17°♂24'15	18°01'18
morning max el	3397 Oct 13 19:23	3°♂50'30	17°50'34		3398 Oct 06 08:09	0°♂	
morning set	3397 Oct 30 00:09	28°♂57'47		morning set	3398 Oct 13 04:11	12°♂21'20	
	3397 Oct 30 14:14	0°♂			3398 Oct 22 20:29	0°♂	
superior conj	3397 Nov 10 14:46	19°♂02'37	0°34'47	superior conj	3398 Oct 23 05:00	0°♂37'38	1°08'07
minimum elong	3397 Nov 10 18:02	19°♂16'16	0°34'19	minimum elong	3398 Oct 23 09:16	0°♂56'29	1°07'36
desc. node	3397 Nov 15 17:03	27°♂27'26		max. Earth dist.	3398 Oct 30 19:51	13°♂41'37	1.42045 AU
	3397 Nov 17 06:44	0°♂		desc. node	3398 Nov 02 14:06	18°♂14'31	
max. Earth dist.	3397 Nov 17 07:56	0°♂04'50	1.43701 AU	evening rise	3398 Nov 05 14:41	23°♂07'10	
evening rise	3397 Nov 25 18:41	13°♂24'48			3398 Nov 09 23:45	0°♂	
	3397 Dec 06 17:41	0°♂			3398 Nov 30 20:05	0°♂	
evening max el	3397 Dec 25 20:34	25°♂32'55	21°11'42	evening max el	3398 Dec 08 14:37	9°♂07'13	22°27'54
	3397 Dec 31 15:21	0°♂		retrograde	3398 Dec 18 07:45	14°♂53'40	
retrograde	3398 Jan 03 11:47	0°♂40'03		evening set	3398 Dec 22 22:21	13°♂01'36	
asc. node	3398 Jan 05 06:36	0°♂22'35		asc. node	3398 Dec 23 03:38	12°♂50'29	
	3398 Jan 06 04:13	30°♂		inferior conj	3398 Dec 28 06:56	6°♂40'22	1°40'37
evening set	3398 Jan 07 14:50	29°♂04'14		minimum elong	3398 Dec 28 04:53	6°♂47'29	1°39'51
inferior conj	3398 Jan 12 23:18	22°♂50'29	2°22'50	min. Earth dist.	3398 Dec 28 03:40	6°♂51'40	0.67955 AU
minimum elong	3398 Jan 12 20:49	22°♂59'03	2°22'04	morning rise	3399 Jan 02 11:17	0°♂30'25	
min. Earth dist.	3398 Jan 13 07:29	22°♂22'15	0.67717 AU		3399 Jan 03 02:53	30°♂	
morning rise	3398 Jan 18 02:36	16°♂37'47		direct	3399 Jan 07 02:20	28°♂35'29	
direct	3398 Jan 23 08:31	14°♂20'09			3399 Jan 11 11:17	0°♂	
morning max el	3398 Feb 02 21:15	20°♂36'17	23°33'30	morning max el	3399 Jan 16 09:01	4°♂02'24	22°05'52
	3398 Feb 10 22:18	0°♂		desc. node	3399 Jan 29 13:19	20°♂33'05	
desc. node	3398 Feb 11 16:16	0°♂58'18			3399 Feb 05 02:12	0°♂	
	3398 Mar 03 11:21	0°♂		morning set	3399 Feb 18 09:50	20°♂35'48	
morning set	3398 Mar 10 03:23	10°♂59'11		max. Earth dist.	3399 Feb 24 00:46	29°♂50'37	1.41099 AU
max. Earth dist.	3398 Mar 14 02:52	17°♂51'06	1.38939 AU		3399 Feb 24 03:00	0°♂	
	3398 Mar 20 20:03	0°♂					
				superior conj	3399 Mar 03 18:58	13°♂14'10	-2°01'53
superior conj	3398 Mar 21 14:46	1°♂27'21	-1°44'58	minimum elong	3399 Mar 03 22:10	13°♂28'20	2°01'44
minimum elong	3398 Mar 21 19:22	1°♂48'51	1°44'30		3399 Mar 12 23:20	0°♂	
evening rise	3398 Mar 30 20:33	19°♂12'59		evening rise	3399 Mar 14 05:13	2°♂19'06	
asc. node	3398 Apr 03 05:56	25°♂44'07		asc. node	3399 Mar 21 02:59	14°♂54'36	
	3398 Apr 05 12:59	0°♂		evening max el	3399 Mar 30 11:20	28°♂14'28	18°15'37
evening max el	3398 Apr 16 03:57	15°♂32'10	18°44'01		3399 Apr 01 13:17	0°♂	
retrograde	3398 Apr 24 05:33	19°♂28'59		retrograde	3399 Apr 06 13:03	1°♂46'40	
evening set	3398 Apr 26 10:49	19°♂12'11		evening set	3399 Apr 09 00:41	1°♂21'21	
inferior conj	3398 May 04 06:43	14°♂50'06	1°45'19		3399 Apr 11 18:50	30°♂	
minimum elong	3398 May 04 10:10	14°♂43'40	1°44'15	inferior conj	3399 Apr 16 02:08	26°♂38'31	2°51'11
min. Earth dist.	3398 May 07 14:01	12°♂23'56	0.57409 AU	minimum elong	3399 Apr 16 05:37	26°♂30'55	2°50'26
desc. node	3398 May 10 15:29	10°♂26'32		min. Earth dist.	3399 Apr 19 11:59	23°♂42'00	0.59480 AU
morning rise	3398 May 12 06:21	9°♂37'38		morning rise	3399 Apr 23 07:59	20°♂58'24	
direct	3398 May 17 19:55	8°♂21'33		desc. node	3399 Apr 27 12:31	19°♂19'53	

direct	3399 Apr 29 17:00	19° Υ 06'47		desc. node	3400 Apr 14 09:32	0° Υ 57'46	
morning max el	3399 May 14 01:38	26° Υ 55'23	27°23'16	morning max el	3400 Apr 26 05:19	8° Υ 39'20	27°50'25
	3399 May 16 23:53	0° \mathcal{B}			3400 May 12 15:00	0° \mathcal{B}	
	3399 Jun 06 03:50	0° Π		morning set	3400 May 29 09:42	0° Π 17'22	
morning set	3399 Jun 14 05:56	15° Π 52'02			3400 May 29 06:18	0° Π	
asc. node	3399 Jun 17 02:16	21° Π 54'29		asc. node	3400 Jun 03 23:20	12° Π 02'37	
	3399 Jun 20 19:16	0° \mathfrak{E}		max. Earth dist.	3400 Jun 04 05:42	12° Π 37'04	1.32319 AU
superior conj	3399 Jun 21 08:57	1° \mathfrak{E} 15'21	0°43'43	superior conj	3400 Jun 05 19:17	16° Π 01'39	0°19'10
minimum elong	3399 Jun 21 07:10	1° \mathfrak{E} 05'30	0°43'22	minimum elong	3400 Jun 05 18:24	15° Π 56'51	0°18'59
max. Earth dist.	3399 Jun 20 19:54	0° \mathfrak{E} 03'26	1.32072 AU		3400 Jun 12 05:18	0° \mathfrak{E}	
evening rise	3399 Jun 28 04:57	16° \mathfrak{E} 08'36		evening rise	3400 Jun 12 16:23	0° \mathfrak{E} 59'02	
	3399 Jul 05 02:21	0° Ω			3400 Jun 28 13:28	0° Ω	
desc. node	3399 Jul 24 11:49	28° Ω 51'52		evening max el	3400 Jul 08 05:03	11° Ω 47'08	24°37'48
	3399 Jul 25 14:15	0° \mathfrak{M}		desc. node	3400 Jul 11 08:50	14° Ω 31'27	
evening max el	3399 Jul 26 13:40	0° \mathfrak{M} 57'15	26°01'39	retrograde	3400 Jul 22 02:58	18° Ω 49'23	
retrograde	3399 Aug 09 13:07	8° \mathfrak{M} 06'06		evening set	3400 Jul 27 04:48	17° Ω 51'18	
evening set	3399 Aug 15 21:00	6° \mathfrak{M} 29'31		min. Earth dist.	3400 Aug 01 16:12	15° Ω 00'56	0.56949 AU
min. Earth dist.	3399 Aug 20 02:09	3° \mathfrak{M} 53'40	0.58878 AU	inferior conj	3400 Aug 04 11:28	13° Ω 12'24	-5°04'45
inferior conj	3399 Aug 23 08:33	1° \mathfrak{M} 28'33	-4°59'13	minimum elong	3400 Aug 04 09:32	13° Ω 15'33	5°04'39
minimum elong	3399 Aug 23 11:45	1° \mathfrak{M} 22'34	4°58'56	morning rise	3400 Aug 12 16:53	9° Ω 07'21	
	3399 Aug 25 09:24	30° \mathfrak{R} Ω		direct	3400 Aug 15 08:01	8° Ω 48'13	
morning rise	3399 Aug 31 04:43	27° Ω 01'59		morning max el	3400 Aug 24 15:49	13° Ω 09'29	19°24'10
direct	3399 Sep 02 15:36	26° Ω 41'56		asc. node	3400 Aug 30 22:32	20° Ω 52'15	
	3399 Sep 10 02:19	0° \mathfrak{M}			3400 Sep 05 08:32	0° \mathfrak{M}	
morning max el	3399 Sep 10 16:57	0° \mathfrak{M} 33'38	18°32'06	morning set	3400 Sep 10 21:17	10° \mathfrak{M} 42'49	
asc. node	3399 Sep 13 01:28	3° \mathfrak{M} 06'30					
morning set	3399 Sep 26 20:29	26° \mathfrak{M} 19'36		superior conj	3400 Sep 18 22:58	26° \mathfrak{M} 49'01	1°41'41
	3399 Sep 28 18:04	0° \mathfrak{L}		minimum elong	3400 Sep 19 00:29	26° \mathfrak{M} 56'26	1°41'37
					3400 Sep 20 14:18	0° \mathfrak{L}	
superior conj	3399 Oct 05 17:34	13° \mathfrak{L} 18'12	1°30'02	max. Earth dist.	3400 Sep 25 06:28	8° \mathfrak{L} 48'09	1.37973 AU
minimum elong	3399 Oct 05 20:48	13° \mathfrak{L} 33'16	1°29'46	evening rise	3400 Sep 29 00:43	15° \mathfrak{L} 34'03	
max. Earth dist.	3399 Oct 13 02:28	26° \mathfrak{L} 35'08	1.40049 AU	desc. node	3400 Oct 07 08:10	29° \mathfrak{L} 33'01	
	3399 Oct 15 02:00	0° \mathfrak{M}			3400 Oct 07 14:54	0° \mathfrak{M}	
evening rise	3399 Oct 17 07:55	3° \mathfrak{M} 47'45			3400 Oct 28 20:38	0° \mathfrak{X}	
desc. node	3399 Oct 20 11:08	8° \mathfrak{M} 57'35		evening max el	3400 Nov 03 17:04	6° \mathfrak{X} 24'19	25°04'55
	3399 Nov 03 05:24	0° \mathfrak{X}		retrograde	3400 Nov 15 13:28	13° \mathfrak{X} 16'15	
evening max el	3399 Nov 21 04:43	22° \mathfrak{X} 43'53	23°47'51	evening set	3400 Nov 21 06:51	10° \mathfrak{X} 52'37	
retrograde	3399 Dec 02 00:39	29° \mathfrak{X} 07'06		min. Earth dist.	3400 Nov 25 18:58	5° \mathfrak{X} 49'41	0.67373 AU
evening set	3399 Dec 07 04:14	26° \mathfrak{X} 58'38		inferior conj	3400 Nov 26 19:44	4° \mathfrak{X} 28'34	-0°01'43
asc. node	3399 Dec 10 00:41	23° \mathfrak{X} 57'38		minimum elong	3400 Nov 26 19:46	4° \mathfrak{X} 28'26	0°01'42
min. Earth dist.	3399 Dec 12 00:15	21° \mathfrak{X} 21'40	0.67834 AU	transit middle	3400 Nov 26 19:46	4° \mathfrak{X} 28'26	0°01'42
inferior conj	3399 Dec 12 14:20	20° \mathfrak{X} 33'46	0°52'03	transit begin	3400 Nov 26 17:01	4° \mathfrak{X} 37'29	
minimum elong	3399 Dec 12 13:08	20° \mathfrak{X} 37'51	0°51'33	transit end	3400 Nov 26 22:31	4° \mathfrak{X} 19'24	
morning rise	3399 Dec 17 22:02	14° \mathfrak{X} 28'22		asc. node	3400 Nov 26 21:43	4° \mathfrak{X} 22'01	
direct	3399 Dec 21 23:02	12° \mathfrak{X} 56'14			3400 Nov 30 13:48	30° \mathfrak{R} \mathfrak{M}	
morning max el	3399 Dec 30 03:15	17° \mathfrak{X} 39'00	20°46'01	morning rise	3400 Dec 02 08:53	28° \mathfrak{M} 29'51	
	3400 Jan 09 02:24	0° \mathfrak{Z}		direct	3400 Dec 05 21:26	27° \mathfrak{M} 18'15	
desc. node	3400 Jan 16 10:22	10° \mathfrak{Z} 33'22			3400 Dec 11 16:07	0° \mathfrak{X}	
morning set	3400 Jan 28 14:18	29° \mathfrak{Z} 02'19		morning max el	3400 Dec 13 05:19	1° \mathfrak{X} 26'32	19°38'46
	3400 Jan 29 05:06	0° \approx		greatest brilliancy	3400 Dec 26 08:51	18° \mathfrak{X} 50'46	-0.7m
max. Earth dist.	3400 Feb 06 05:33	12° \approx 45'02	1.42999 AU		3401 Jan 02 17:47	0° \mathfrak{Z}	
				desc. node	3401 Jan 03 07:24	0° \mathfrak{Z} 52'08	
superior conj	3400 Feb 12 23:49	23° \approx 55'02	-2°06'36	morning set	3401 Jan 07 10:42	7° \mathfrak{Z} 14'18	
minimum elong	3400 Feb 12 22:47	23° \approx 50'39	2°06'34	max. Earth dist.	3401 Jan 19 17:13	26° \mathfrak{Z} 52'20	1.44400 AU
	3400 Feb 16 13:40	0° \mathfrak{X}			3401 Jan 21 23:10	0° \approx	
evening rise	3400 Feb 24 22:43	14° \mathfrak{X} 40'26					
	3400 Mar 05 17:56	0° Υ		superior conj	3401 Jan 24 02:39	3° \approx 26'22	-1°53'57
asc. node	3400 Mar 08 00:01	3° Υ 35'50		minimum elong	3401 Jan 23 19:47	2° \approx 58'44	1°53'31
evening max el	3400 Mar 13 22:53	11° Υ 19'00	18°06'58	evening rise	3401 Feb 06 20:41	26° \approx 08'39	
retrograde	3400 Mar 20 12:09	14° Υ 42'07			3401 Feb 09 03:26	0° \mathfrak{X}	
evening set	3400 Mar 23 05:38	14° Υ 06'33		asc. node	3401 Feb 22 21:02	21° \mathfrak{X} 38'49	
inferior conj	3400 Mar 29 16:22	9° Υ 03'23	3°26'49	evening max el	3401 Feb 25 11:35	24° \mathfrak{X} 37'59	18°17'24
minimum elong	3400 Mar 29 18:18	8° Υ 58'34	3°26'35	retrograde	3401 Mar 03 22:17	28° \mathfrak{X} 05'37	
min. Earth dist.	3400 Apr 01 17:40	6° Υ 01'16	0.61649 AU	evening set	3401 Mar 06 21:26	27° \mathfrak{X} 18'40	
morning rise	3400 Apr 05 05:18	3° Υ 05'49		inferior conj	3401 Mar 12 21:21	21° \mathfrak{X} 56'19	3°38'39
direct	3400 Apr 12 01:07	0° Υ 41'54		minimum elong	3401 Mar 12 21:28	21° \mathfrak{X} 56'00	3°38'39

min. Earth dist.	3401 Mar 15 08:31	19° H 11'00	0.63651 AU	minimum elong	3402 Feb 24 11:50	5° H 14'02	3°32'37
morning rise	3401 Mar 18 20:35	15° H 49'28		min. Earth dist.	3402 Feb 26 08:39	2° H 56'46	0.65314 AU
direct	3401 Mar 25 18:00	13° H 04'35			3402 Mar 01 00:09	30° R \approx	
desc. node	3401 Apr 01 06:34	15° H 07'22		morning rise	3402 Mar 02 02:30	28° \approx 58'34	
morning max el	3401 Apr 08 13:17	21° H 01'52	27°40'07	direct	3402 Mar 08 17:54	26° \approx 07'19	
	3401 Apr 16 07:49	0° Y			3402 Mar 17 15:35	0° H	
	3401 May 05 17:01	0° B		desc. node	3402 Mar 19 03:35	1° H 14'30	
morning set	3401 May 13 06:30	14° B 18'37		morning max el	3402 Mar 21 23:01	3° H 53'12	26°56'50
max. Earth dist.	3401 May 18 09:14	24° B 47'39	1.32999 AU		3402 Apr 10 17:48	0° Y	
	3401 May 20 20:02	0° II		morning set	3402 Apr 26 17:18	27° Y 46'41	
					3402 Apr 27 20:53	0° B	
superior conj	3401 May 21 02:20	0° II 33'49	-0°07'53	max. Earth dist.	3402 May 01 03:08	6° B 27'44	1.34140 AU
minimum elong	3401 May 21 02:44	0° II 35'54	0°07'47				
behind sun begin	3401 May 20 22:03	0° II 10'46		superior conj	3402 May 05 04:06	14° B 45'49	-0°36'23
behind sun end	3401 May 21 07:25	1° II 01'02		minimum elong	3402 May 05 05:59	14° B 55'42	0°36'00
asc. node	3401 May 21 20:21	2° II 10'34		asc. node	3402 May 08 17:22	22° B 14'42	
evening rise	3401 May 28 04:06	15° II 46'12			3402 May 12 09:39	0° II	
	3401 Jun 04 06:33	0° E		evening rise	3402 May 12 14:18	0° II 24'20	
evening max el	3401 Jun 19 18:25	22° E 13'30	23°01'36		3402 May 29 22:30	0° E	
desc. node	3401 Jun 28 05:51	27° E 59'11		evening max el	3402 Jun 01 13:30	2° E 48'56	21°28'23
retrograde	3401 Jul 03 04:05	28° E 54'33		retrograde	3402 Jun 13 18:25	8° E 48'48	
evening set	3401 Jul 06 17:23	28° E 26'54		desc. node	3402 Jun 15 02:50	8° E 44'35	
min. Earth dist.	3401 Jul 14 03:32	25° E 07'38	0.55508 AU	evening set	3402 Jun 16 04:14	8° E 35'34	
inferior conj	3401 Jul 15 18:53	24° E 10'35	-4°25'45	inferior conj	3402 Jun 25 13:39	4° E 35'35	-2°57'39
minimum elong	3401 Jul 15 11:34	24° E 21'12	4°24'19	minimum elong	3402 Jun 25 05:57	4° E 46'22	2°55'13
morning rise	3401 Jul 24 08:06	20° E 18'24		min. Earth dist.	3402 Jun 25 14:38	4° E 34'13	0.54870 AU
direct	3401 Jul 27 05:42	19° E 58'27		morning rise	3402 Jul 04 08:27	0° E 40'15	
morning max el	3401 Aug 07 03:13	25° E 01'54	20°37'41	direct	3402 Jul 07 16:11	0° E 16'15	
	3401 Aug 11 14:45	0° O		morning max el	3402 Jul 20 03:07	6° E 09'21	22°09'42
asc. node	3401 Aug 17 19:35	9° O 22'29		asc. node	3402 Aug 04 16:37	28° E 26'35	
morning set	3401 Aug 26 03:44	25° O 22'12			3402 Aug 05 12:15	0° O	
	3401 Aug 28 09:31	0° P		morning set	3402 Aug 10 13:39	10° O 11'48	
superior conj	3401 Sep 02 16:22	10° P 55'02	1°44'42	superior conj	3402 Aug 17 18:05	25° O 25'30	1°40'36
minimum elong	3401 Sep 02 16:14	10° P 54'23	1°44'42	minimum elong	3402 Aug 17 16:43	25° O 18'16	1°40'31
max. Earth dist.	3401 Sep 07 13:41	20° P 40'22	1.36057 AU		3402 Aug 19 22:33	0° P	
evening rise	3401 Sep 11 13:55	28° P 17'32		max. Earth dist.	3402 Aug 21 05:00	2° P 37'01	1.34463 AU
	3401 Sep 12 12:09	0° A		evening rise	3402 Aug 25 19:05	11° P 46'25	
desc. node	3401 Sep 24 05:11	19° A 55'18			3402 Sep 04 20:54	0° A	
	3401 Sep 30 21:48	0° M		desc. node	3402 Sep 11 02:12	9° A 58'03	
evening max el	3401 Oct 17 05:27	20° M 05'59	26°11'49		3402 Sep 26 04:21	0° M	
retrograde	3401 Oct 29 21:18	27° M 15'21		evening max el	3402 Sep 29 18:02	3° M 40'58	27°00'52
evening set	3401 Nov 05 04:23	24° M 39'51		retrograde	3402 Oct 12 23:28	10° M 57'37	
min. Earth dist.	3401 Nov 09 09:19	20° M 12'20	0.66568 AU	evening set	3402 Oct 19 18:38	8° M 15'49	
inferior conj	3401 Nov 10 21:15	18° M 21'25	-0°59'29	min. Earth dist.	3402 Oct 23 16:55	4° M 24'26	0.65414 AU
minimum elong	3401 Nov 10 22:51	18° M 16'30	0°58'48	inferior conj	3402 Oct 25 16:48	2° M 07'54	-1°59'40
asc. node	3401 Nov 13 18:46	14° M 59'11		minimum elong	3402 Oct 25 20:06	1° M 58'26	1°58'21
morning rise	3401 Nov 16 17:47	12° M 32'05			3402 Oct 27 14:57	30° R $\underline{\text{A}}$	
direct	3401 Nov 19 19:57	11° M 37'38		morning rise	3402 Oct 31 22:25	26° $\underline{\text{A}}$ 31'04	
morning max el	3401 Nov 26 14:29	15° M 22'01	18°46'49	asc. node	3402 Oct 31 15:48	26° $\underline{\text{A}}$ 39'36	
	3401 Dec 07 12:21	0° X		direct	3402 Nov 03 16:26	25° $\underline{\text{A}}$ 49'59	
morning set	3401 Dec 18 00:10	16° X 23'53		morning max el	3402 Nov 10 04:40	29° $\underline{\text{A}}$ 20'24	18°11'22
desc. node	3401 Dec 21 04:26	21° X 24'07			3402 Nov 10 19:58	0° M	
	3401 Dec 26 15:46	0° Z		morning set	3402 Nov 28 18:40	27° M 01'31	
max. Earth dist.	3402 Jan 02 10:19	10° Z 37'39	1.45139 AU	desc. node	3402 Nov 30 14:19	0° X	
					3402 Dec 08 01:28	12° X 04'47	
superior conj	3402 Jan 03 09:03	12° Z 06'58	-1°22'02				
minimum elong	3402 Jan 03 00:02	11° Z 31'32	1°21'04	superior conj	3402 Dec 13 12:29	20° X 45'52	-0°36'35
	3402 Jan 14 16:09	0° \approx		minimum elong	3402 Dec 13 07:50	20° X 27'31	0°35'57
evening rise	3402 Jan 18 19:45	6° \approx 39'32		max. Earth dist.	3402 Dec 16 05:55	25° X 03'46	1.45141 AU
greatest brilliancy	3402 Jan 25 09:48	17° \approx 16'12	-0.9m		3402 Dec 19 09:28	0° Z	
	3402 Feb 02 14:27	0° H		evening rise	3402 Dec 29 20:35	16° Z 18'40	
evening max el	3402 Feb 08 22:49	8° H 05'13	18°46'01		3403 Jan 07 16:35	0° \approx	
asc. node	3402 Feb 09 18:03	8° H 52'06		greatest brilliancy	3403 Jan 11 03:18	5° \approx 15'34	-0.7m
retrograde	3402 Feb 15 15:24	11° H 49'14		evening max el	3403 Jan 23 06:21	21° \approx 35'29	19°31'26
evening set	3402 Feb 18 20:44	10° H 49'53		asc. node	3403 Jan 27 15:04	25° \approx 01'25	
inferior conj	3402 Feb 24 13:09	5° H 10'00	3°32'44	retrograde	3403 Jan 30 12:19	25° \approx 46'12	

evening set	3403 Feb 03 00:52	24° \approx 33'30		evening set	3404 Jan 18 07:42	8° \approx 25'27	
inferior conj	3403 Feb 08 12:29	18° \approx 38'04	3°13'28	inferior conj	3404 Jan 23 16:47	2° \approx 17'15	2°43'51
minimum elong	3403 Feb 08 10:18	18° \approx 45'15	3°13'04	minimum elong	3404 Jan 23 14:15	2° \approx 25'51	2°43'10
min. Earth dist.	3403 Feb 09 17:02	17° \approx 04'38	0.66570 AU	min. Earth dist.	3404 Jan 24 07:55	1° \approx 25'34	0.67412 AU
morning rise	3403 Feb 13 19:31	12° \approx 24'44			3404 Jan 25 09:25	30° \approx 3	
direct	3403 Feb 19 23:45	9° \approx 39'59		morning rise	3404 Jan 28 20:37	26° \approx 30'43	
morning max el	3403 Mar 04 08:27	17° \approx 01'17	25°48'26	direct	3404 Feb 03 10:54	23° \approx 34'40	
desc. node	3403 Mar 06 00:37	18° \approx 46'20			3404 Feb 14 09:56	0° \approx	
	3403 Mar 15 04:13	0° \approx		morning max el	3404 Feb 14 17:05	0° \approx 17'55	24°24'36
	3403 Apr 03 16:24	0° \approx		desc. node	3404 Feb 20 21:41	7° \approx 18'55	
morning set	3403 Apr 09 13:54	10° \approx 28'51			3404 Mar 08 02:05	0° \approx	
max. Earth dist.	3403 Apr 13 09:40	17° \approx 39'07	1.35732 AU	morning set	3404 Mar 21 14:56	22° \approx 10'30	
				max. Earth dist.	3404 Mar 25 07:06	28° \approx 42'30	1.37703 AU
					3404 Mar 26 00:10	0° \approx	
superior conj	3403 Apr 18 21:56	28° \approx 29'27	-1°05'00				
minimum elong	3403 Apr 19 01:20	28° \approx 46'37	1°04'25				
	3403 Apr 19 15:52	0° \approx		superior conj	3404 Apr 01 04:36	11° \approx 36'13	-1°31'40
asc. node	3403 Apr 25 14:24	12° \approx 10'16		minimum elong	3404 Apr 01 09:04	11° \approx 57'48	1°31'04
evening rise	3403 Apr 26 20:52	14° \approx 46'19		evening rise	3404 Apr 09 21:24	28° \approx 45'13	
	3403 May 04 18:26	0° \approx			3404 Apr 10 12:31	0° \approx	
evening max el	3403 May 14 19:41	13° \approx 57'28	20°09'16	asc. node	3404 Apr 11 11:26	1° \approx 52'47	
retrograde	3403 May 25 08:32	19° \approx 05'05		evening max el	3404 Apr 26 13:46	25° \approx 47'09	19°09'17
evening set	3403 May 27 08:05	18° \approx 54'59			3404 May 04 01:17	0° \approx	
desc. node	3403 Jun 01 23:50	16° \approx 51'42		retrograde	3404 May 05 10:49	0° \approx 06'14	
inferior conj	3403 Jun 05 09:26	14° \approx 55'54	-1°00'11		3404 May 06 20:54	30° \approx 8	
minimum elong	3403 Jun 05 06:36	15° \approx 00'05	0°59'08	evening set	3404 May 07 12:22	29° \approx 53'11	
min. Earth dist.	3403 Jun 07 03:07	13° \approx 53'59	0.55184 AU	inferior conj	3404 May 15 19:46	25° \approx 41'44	0°52'28
morning rise	3403 Jun 14 03:36	10° \approx 37'39		minimum elong	3404 May 15 21:50	25° \approx 38'12	0°51'45
direct	3403 Jun 18 03:58	10° \approx 02'38		desc. node	3404 May 18 20:52	23° \approx 38'19	
morning max el	3403 Jul 01 19:12	16° \approx 43'32	23°52'07	min. Earth dist.	3404 May 18 18:18	23° \approx 42'30	0.56394 AU
	3403 Jul 12 11:30	0° \approx		morning rise	3404 May 24 04:12	20° \approx 48'25	
asc. node	3403 Jul 22 13:40	17° \approx 55'56		direct	3404 May 29 03:41	19° \approx 50'40	
morning set	3403 Jul 26 01:15	25° \approx 06'27		morning max el	3404 Jun 12 09:33	27° \approx 08'42	25°31'07
	3403 Jul 28 08:16	0° \approx			3404 Jun 15 03:57	0° \approx	
					3404 Jul 04 15:03	0° \approx	
superior conj	3403 Aug 02 01:18	10° \approx 11'57	1°30'36	asc. node	3404 Jul 08 10:43	7° \approx 43'10	
minimum elong	3403 Aug 01 23:11	10° \approx 00'32	1°30'22	morning set	3404 Jul 09 12:51	10° \approx 00'20	
max. Earth dist.	3403 Aug 04 05:20	14° \approx 51'20	1.33265 AU				
evening rise	3403 Aug 09 12:05	25° \approx 04'32		superior conj	3404 Jul 16 11:45	25° \approx 06'39	1°15'38
	3403 Aug 11 14:35	0° \approx		minimum elong	3404 Jul 16 09:23	24° \approx 53'42	1°15'17
desc. node	3403 Aug 28 23:12	29° \approx 33'01		max. Earth dist.	3404 Jul 17 12:42	27° \approx 23'16	1.32482 AU
	3403 Aug 29 06:40	0° \approx			3404 Jul 18 17:28	0° \approx	
evening max el	3403 Sep 12 05:32	16° \approx 57'36	27°25'01	evening rise	3404 Jul 23 13:27	10° \approx 16'23	
retrograde	3403 Sep 25 19:40	24° \approx 15'07			3404 Aug 02 21:20	0° \approx	
evening set	3403 Oct 02 22:55	21° \approx 35'51		desc. node	3404 Aug 14 20:13	18° \approx 28'05	
min. Earth dist.	3403 Oct 06 15:35	18° \approx 18'35	0.63910 AU	evening max el	3404 Aug 24 13:44	29° \approx 42'23	27°18'35
inferior conj	3403 Oct 09 03:55	15° \approx 42'44	-2°59'50		3404 Aug 24 21:15	0° \approx	
minimum elong	3403 Oct 09 08:49	15° \approx 30'02	2°58'08	retrograde	3404 Sep 07 09:22	6° \approx 57'28	
morning rise	3403 Oct 15 19:58	10° \approx 21'51		evening set	3404 Sep 14 13:34	4° \approx 32'42	
direct	3403 Oct 18 08:17	9° \approx 50'31		min. Earth dist.	3404 Sep 18 03:58	1° \approx 42'35	0.62091 AU
asc. node	3403 Oct 18 12:51	9° \approx 50'42			3404 Sep 20 00:52	30° \approx 8	
morning max el	3403 Oct 24 21:09	13° \approx 15'48	17°53'07	inferior conj	3404 Sep 21 03:35	28° \approx 57'56	-3°56'06
	3403 Nov 05 10:32	0° \approx		minimum elong	3404 Sep 21 09:21	28° \approx 44'39	3°54'33
morning set	3403 Nov 10 16:27	8° \approx 58'46		morning rise	3404 Sep 28 06:50	23° \approx 56'11	
				direct	3404 Sep 30 16:05	23° \approx 31'21	
superior conj	3403 Nov 23 09:15	0° \approx 19'24	0°10'40	asc. node	3404 Oct 04 09:56	24° \approx 34'32	
minimum elong	3403 Nov 23 10:26	0° \approx 24'13	0°10'30	morning max el	3404 Oct 07 12:50	27° \approx 00'01	17°52'51
behind sun begin	3403 Nov 23 02:49	29° \approx 53'08			3404 Oct 10 04:16	0° \approx	
behind sun end	3403 Nov 23 18:02	0° \approx 55'14		morning set	3404 Oct 23 11:08	21° \approx 55'19	
	3403 Nov 23 04:30	0° \approx			3404 Oct 27 23:06	0° \approx	
desc. node	3403 Nov 24 22:31	2° \approx 50'53					
max. Earth dist.	3403 Nov 29 00:24	9° \approx 23'49	1.44411 AU	superior conj	3404 Nov 03 08:26	11° \approx 10'30	0°50'18
evening rise	3403 Dec 09 07:21	25° \approx 28'52		minimum elong	3404 Nov 03 12:29	11° \approx 27'48	0°49'46
	3403 Dec 12 06:07	0° \approx		max. Earth dist.	3404 Nov 10 14:40	23° \approx 18'31	1.43045 AU
	3404 Jan 01 22:56	0° \approx		desc. node	3404 Nov 10 19:33	23° \approx 38'24	
evening max el	3404 Jan 06 08:45	5° \approx 07'08	20°31'32		3404 Nov 14 18:23	0° \approx	
retrograde	3404 Jan 14 10:27	9° \approx 52'33		evening rise	3404 Nov 17 19:17	4° \approx 47'20	
asc. node	3404 Jan 14 12:06	9° \approx 52'31			3404 Dec 04 15:27	0° \approx	

evening max el	3404 Dec 19 05:35	18° Z 39'39	21°43'16	evening set	3405 Dec 16 22:26	6° Z 18'48	
retrograde	3404 Dec 28 07:47	24° Z 04'10		asc. node	3405 Dec 18 06:13	5° Z 03'46	
asc. node	3404 Dec 31 09:09	23° Z 13'22		inferior conj	3405 Dec 22 07:31	29° Z 55'33	1°20'45
evening set	3405 Jan 01 15:27	22° Z 21'36		minimum elong	3405 Dec 22 05:46	0° Z 01'34	1°20'04
inferior conj	3405 Jan 06 23:45	16° Z 04'00	2°05'49	min. Earth dist.	3405 Dec 21 23:41	0° Z 22'32	0.67942 AU
minimum elong	3405 Jan 06 21:24	16° Z 12'10	2°05'00		3405 Dec 22 06:13	30° R Z	
min. Earth dist.	3405 Jan 07 02:57	15° Z 52'54	0.67858 AU	morning rise	3405 Dec 27 12:59	23° Z 47'03	
morning rise	3405 Jan 12 03:11	9° Z 52'01		direct	3405 Dec 31 21:56	22° Z 01'46	
direct	3405 Jan 17 02:38	7° Z 43'53		morning max el	3406 Jan 09 16:42	27° Z 09'10	21°30'32
morning max el	3405 Jan 27 02:41	13° Z 39'45	22°55'40		3406 Jan 12 07:55	0° Z	
desc. node	3405 Feb 06 18:45	26° Z 34'42		desc. node	3406 Jan 24 15:48	16° Z 21'19	
	3405 Feb 09 06:33	0° \approx			3406 Feb 02 20:38	0° \approx	
	3405 Mar 01 00:23	0° H		morning set	3406 Feb 10 08:30	11° \approx 38'39	
morning set	3405 Mar 02 14:15	2° H 35'59		max. Earth dist.	3406 Feb 17 02:15	22° \approx 32'39	1.41951 AU
max. Earth dist.	3405 Mar 07 02:10	10° H 11'35	1.39866 AU		3406 Feb 21 13:05	0° H	
superior conj	3405 Mar 14 19:56	23° H 56'05	-1°53'18	superior conj	3406 Feb 24 14:49	5° H 16'29	-2°05'42
minimum elong	3405 Mar 15 00:13	24° H 15'46	1°52'57	minimum elong	3406 Feb 24 16:35	5° H 24'06	2°05'39
	3405 Mar 18 02:28	0° Y		evening rise	3406 Mar 07 15:38	25° H 01'25	
evening rise	3405 Mar 24 12:54	12° Y 13'23			3406 Mar 10 09:10	0° Y	
asc. node	3405 Mar 29 08:28	21° Y 17'09		asc. node	3406 Mar 16 05:30	10° Y 16'20	
	3405 Apr 03 09:42	0° Z		evening max el	3406 Mar 24 03:02	21° Y 07'21	18°09'37
evening max el	3405 Apr 09 17:23	8° Z 13'50	18°29'31	retrograde	3406 Mar 30 21:58	24° Y 33'27	
retrograde	3405 Apr 17 07:28	11° Z 58'08		evening set	3406 Apr 02 12:15	24° Y 03'52	
evening set	3405 Apr 19 15:23	11° Z 38'06		inferior conj	3406 Apr 09 06:58	19° Y 12'29	3°09'36
inferior conj	3405 Apr 27 03:06	7° Z 07'41	2°17'16	minimum elong	3406 Apr 09 09:54	19° Y 05'42	3°09'05
minimum elong	3405 Apr 27 06:53	7° Z 00'10	2°16'13	min. Earth dist.	3406 Apr 12 14:19	16° Y 10'31	0.60413 AU
min. Earth dist.	3405 Apr 30 13:24	4° Z 25'22	0.58254 AU	morning rise	3406 Apr 16 05:23	13° Y 24'05	
morning rise	3405 May 04 19:17	1° Z 41'57		direct	3406 Apr 22 20:25	11° Y 17'30	
desc. node	3405 May 05 17:54	1° Z 15'37		desc. node	3406 Apr 22 14:57	11° Y 17'39	
direct	3405 May 10 18:03	0° Z 10'43		morning max el	3406 May 07 03:14	19° Y 10'27	27°39'20
morning max el	3405 May 25 03:24	7° Z 51'49	26°50'58		3406 May 16 07:17	0° Z	
	3405 Jun 10 18:49	0° II			3406 Jun 03 12:58	0° II	
morning set	3405 Jun 23 22:52	24° II 48'20		morning set	3406 Jun 08 05:28	9° II 23'24	
asc. node	3405 Jun 25 07:46	27° II 42'39		asc. node	3406 Jun 12 04:48	17° II 48'35	
	3405 Jun 26 09:21	0° O		max. Earth dist.	3406 Jun 14 11:26	22° II 46'02	1.32132 AU
superior conj	3405 Jun 30 23:33	10° O 03'18	0°56'27	superior conj	3406 Jun 15 10:54	24° II 54'49	0°33'40
minimum elong	3405 Jun 30 21:26	9° O 51'35	0°56'03	minimum elong	3406 Jun 15 09:27	24° II 46'51	0°33'22
max. Earth dist.	3405 Jun 30 23:59	10° O 05'40	1.32108 AU		3406 Jun 17 18:23	0° O	
evening rise	3405 Jul 07 20:31	24° O 58'49		evening rise	3406 Jun 22 06:54	9° O 48'13	
	3405 Jul 10 06:40	0° Q			3406 Jul 02 15:38	0° Q	
	3405 Jul 27 17:07	0° P		evening max el	3406 Jul 19 11:34	22° Q 59'16	25°28'28
desc. node	3405 Aug 01 17:13	6° P 26'48		desc. node	3406 Jul 19 14:13	23° Q 05'35	
evening max el	3405 Aug 06 16:17	11° P 44'44	26°38'51		3406 Jul 31 22:36	0° P	
retrograde	3405 Aug 20 15:13	18° P 56'00		retrograde	3406 Aug 02 11:09	0° P 05'30	
evening set	3405 Aug 27 10:02	16° P 59'04			3406 Aug 03 23:39	30° R Q	
min. Earth dist.	3405 Aug 31 06:07	14° P 22'43	0.60065 AU	evening set	3406 Aug 08 07:36	28° Q 45'47	
inferior conj	3405 Sep 03 12:25	11° P 45'08	-4°41'47	min. Earth dist.	3406 Aug 12 23:33	26° Q 05'39	0.58025 AU
minimum elong	3405 Sep 03 17:20	11° P 35'12	4°40'59	inferior conj	3406 Aug 16 02:54	23° Q 54'15	-5°06'08
morning rise	3405 Sep 11 02:40	7° P 05'06		minimum elong	3406 Aug 16 04:13	23° Q 51'57	5°06'05
direct	3405 Sep 13 11:57	6° P 44'00		morning rise	3406 Aug 24 03:08	19° Q 36'56	
morning max el	3405 Sep 21 00:28	10° P 24'44	18°11'49	direct	3406 Aug 26 15:36	19° Q 17'22	
asc. node	3405 Sep 21 06:59	10° P 40'44		morning max el	3406 Sep 04 04:45	23° Q 20'24	18°51'32
	3405 Oct 03 21:26	0° U		asc. node	3406 Sep 08 04:02	27° Q 54'03	
morning set	3405 Oct 06 20:54	5° U 34'47			3406 Sep 09 15:52	0° P	
				morning set	3406 Sep 20 17:12	19° P 44'43	
superior conj	3405 Oct 16 08:47	23° U 14'50	1°18'45		3406 Sep 25 22:37	0° U	
minimum elong	3405 Oct 16 12:46	23° U 32'51	1°18'20	superior conj	3406 Sep 29 05:06	6° U 18'07	1°36'09
	3405 Oct 20 03:51	0° M		minimum elong	3406 Sep 29 07:38	6° U 30'09	1°35'58
max. Earth dist.	3405 Oct 23 23:38	6° M 35'10	1.41222 AU	max. Earth dist.	3406 Oct 06 04:47	19° U 10'43	1.39165 AU
evening rise	3405 Oct 28 23:30	14° M 52'16		evening rise	3406 Oct 10 02:55	26° U 01'09	
desc. node	3405 Oct 28 16:34	14° M 24'05			3406 Oct 12 11:29	0° M	
	3405 Nov 07 15:24	0° Z		desc. node	3406 Oct 15 13:35	5° M 04'22	
	3405 Nov 29 18:45	0° Z			3406 Nov 01 06:53	0° Z	
evening max el	3405 Dec 01 21:44	2° Z 14'39	23°01'56	evening max el	3406 Nov 14 11:01	15° Z 53'38	24°21'32
retrograde	3405 Dec 12 02:35	8° Z 17'37					

























































































































retrograde	3406 Nov 25 17:41	22°♄29'36		evening max el	3407 Oct 27 23:12	29°♄34'51	25°35'05
evening set	3406 Dec 01 03:06	20°♄14'36			3407 Oct 28 09:37	0°♄	
asc. node	3406 Dec 05 03:15	15°♄46'33		retrograde	3407 Nov 09 04:17	6°♄35'07	
min. Earth dist.	3406 Dec 05 19:43	14°♄51'59	0.67679 AU	evening set	3407 Nov 15 03:45	4°♄05'42	
inferior conj	3406 Dec 06 14:15	13°♄49'49	0°29'49		3407 Nov 18 23:20	30°♄♄	
minimum elong	3406 Dec 06 13:32	13°♄52'13	0°29'31	min. Earth dist.	3407 Nov 19 12:42	29°♄18'00	0.67074 AU
morning rise	3406 Dec 12 00:01	7°♄46'58		inferior conj	3407 Nov 20 18:11	27°♄43'40	-0°25'51
direct	3406 Dec 15 19:37	6°♄23'43		minimum elong	3407 Nov 20 18:51	27°♄41'32	0°25'33
morning max el	3406 Dec 23 14:07	10°♄50'06	20°15'43	asc. node	3407 Nov 22 00:17	26°♄08'43	
	3407 Jan 07 03:56	0°♄		morning rise	3407 Nov 26 10:17	21°♄48'53	
desc. node	3407 Jan 11 12:50	6°♄30'18		direct	3407 Nov 29 18:12	20°♄45'02	
morning set	3407 Jan 20 06:27	19°♄49'44		morning max el	3407 Dec 06 19:27	24°♄41'30	19°14'49
	3407 Jan 26 18:38	0°♄			3407 Dec 11 08:11	0°♄	
max. Earth dist.	3407 Jan 30 10:34	5°♄50'05	1.43668 AU	greatest brilliancy	3407 Dec 20 16:01	13°♄26'57	-0.7m
				desc. node	3407 Dec 29 09:50	26°♄54'58	
superior conj	3407 Feb 05 08:40	15°♄27'43	-2°03'36	morning set	3407 Dec 30 07:29	28°♄18'56	
minimum elong	3407 Feb 05 05:07	15°♄13'05	2°03'29		3407 Dec 31 09:30	0°♄	
	3407 Feb 13 23:54	0°♄		max. Earth dist.	3408 Jan 13 01:20	19°♄47'36	1.44800 AU
evening rise	3407 Feb 18 01:21	7°♄01'08					
asc. node	3407 Mar 03 02:32	28°♄42'40		superior conj	3408 Jan 16 01:16	24°♄32'14	-1°42'39
	3407 Mar 04 00:38	0°♄		minimum elong	3408 Jan 15 16:40	23°♄58'07	1°41'54
evening max el	3407 Mar 07 15:28	4°♄19'11	18°09'06		3408 Jan 19 11:26	0°♄	
retrograde	3407 Mar 14 02:20	7°♄42'27		evening rise	3408 Jan 30 13:48	18°♄04'52	
evening set	3407 Mar 16 22:20	7°♄01'58			3408 Feb 06 18:59	0°♄	
inferior conj	3407 Mar 23 03:59	1°♄50'15	3°34'19	asc. node	3408 Feb 17 23:34	16°♄25'43	
minimum elong	3407 Mar 23 05:08	1°♄47'15	3°34'14	evening max el	3408 Feb 19 03:45	17°♄41'33	18°27'23
	3407 Mar 24 21:41	30°♄♄		retrograde	3408 Feb 25 16:02	21°♄15'04	
min. Earth dist.	3407 Mar 25 23:33	28°♄53'17	0.62538 AU	evening set	3408 Feb 28 17:42	20°♄22'55	
morning rise	3407 Mar 29 10:41	25°♄48'11		inferior conj	3408 Mar 05 14:00	14°♄52'36	3°38'00
direct	3407 Apr 05 08:14	23°♄13'58		minimum elong	3408 Mar 05 13:27	14°♄54'13	3°38'00
desc. node	3407 Apr 09 11:59	24°♄03'45		min. Earth dist.	3408 Mar 07 18:24	12°♄19'43	0.64400 AU
	3407 Apr 18 03:29	0°♄		morning rise	3408 Mar 11 08:34	8°♄43'11	
morning max el	3407 Apr 19 08:59	1°♄11'27	27°50'27	direct	3408 Mar 18 04:02	5°♄54'11	
	3407 May 10 11:24	0°♄		desc. node	3408 Mar 26 09:01	9°♄07'15	
morning set	3407 May 23 06:35	23°♄39'16		morning max el	3408 Mar 31 18:17	13°♄48'13	27°25'28
	3407 May 26 08:26	0°♄			3408 Apr 13 20:35	0°♄	
max. Earth dist.	3407 May 28 19:13	5°♄12'04	1.32565 AU		3408 May 02 01:57	0°♄	
asc. node	3407 May 30 01:50	7°♄56'55		morning set	3408 May 05 23:36	7°♄27'56	
				max. Earth dist.	3408 May 10 19:19	17°♄11'34	1.33428 AU
superior conj	3407 May 30 20:03	9°♄35'39	0°07'59				
minimum elong	3407 May 30 19:40	9°♄33'36	0°07'54	superior conj	3408 May 14 01:09	24°♄00'01	-0°19'50
behind sun begin	3407 May 30 15:08	9°♄08'57		minimum elong	3408 May 14 02:09	24°♄05'22	0°19'38
behind sun end	3407 May 31 00:13	9°♄58'15		asc. node	3408 May 15 22:52	28°♄03'47	
evening rise	3407 Jun 06 18:42	24°♄38'09			3408 May 16 20:33	0°♄	
	3407 Jun 09 08:17	0°♄		evening rise	3408 May 21 06:03	9°♄22'27	
	3407 Jun 27 16:21	0°♄			3408 Jun 01 01:00	0°♄	
evening max el	3407 Jul 01 01:15	3°♄35'24	23°57'17	evening max el	3408 Jun 11 15:59	14°♄01'32	22°20'44
desc. node	3407 Jul 06 11:14	7°♄53'34		desc. node	3408 Jun 22 08:14	20°♄15'51	
retrograde	3407 Jul 14 19:12	10°♄30'18		retrograde	3408 Jun 24 15:29	20°♄28'04	
evening set	3407 Jul 19 05:47	9°♄46'45		evening set	3408 Jun 27 15:15	20°♄08'17	
min. Earth dist.	3407 Jul 25 11:38	6°♄45'49	0.56265 AU	min. Earth dist.	3408 Jul 05 22:33	16°♄32'55	0.55124 AU
inferior conj	3407 Jul 27 21:07	5°♄17'55	-4°54'18	inferior conj	3408 Jul 06 21:56	15°♄59'52	-3°53'49
minimum elong	3407 Jul 27 16:37	5°♄24'51	4°53'48	minimum elong	3408 Jul 06 13:39	16°♄11'36	3°51'44
morning rise	3407 Aug 05 06:03	1°♄19'59		morning rise	3408 Jul 15 14:02	12°♄09'04	
direct	3407 Aug 07 23:55	1°♄00'35		direct	3408 Jul 18 15:09	11°♄48'08	
morning max el	3407 Aug 17 22:49	5°♄37'52	19°52'55	morning max el	3408 Jul 30 05:18	17°♄11'51	21°14'57
asc. node	3407 Aug 26 01:04	15°♄59'53			3408 Aug 09 03:28	0°♄	
	3407 Sep 02 17:40	0°♄		asc. node	3408 Aug 11 22:06	4°♄45'58	
morning set	3407 Sep 04 20:42	4°♄15'40		morning set	3408 Aug 19 04:54	19°♄00'47	
					3408 Aug 24 10:53	0°♄	
superior conj	3407 Sep 12 16:06	20°♄05'14	1°43'56				
minimum elong	3407 Sep 12 16:53	20°♄09'08	1°43'54	superior conj	3408 Aug 26 13:31	4°♄23'48	1°43'46
	3407 Sep 17 18:18	0°♄		minimum elong	3408 Aug 26 12:49	4°♄20'07	1°43'44
max. Earth dist.	3407 Sep 18 09:51	1°♄13'27	1.37127 AU	max. Earth dist.	3408 Aug 30 20:04	13°♄05'09	1.35330 AU
evening rise	3407 Sep 22 04:51	8°♄12'34		evening rise	3408 Sep 04 01:27	21°♄17'22	
desc. node	3407 Oct 02 10:34	25°♄34'40			3408 Sep 08 19:27	0°♄	
	3407 Oct 05 06:14	0°♄		desc. node	3408 Sep 18 07:36	15°♄49'50	






























































































































	3408 Sep 28 02:46	0°♄		evening rise	3409 Aug 18 12:10	5°♄02'24	
evening max el	3408 Oct 09 11:31	13°♄14'16	26°35'09		3409 Sep 01 12:13	0°♄	
retrograde	3408 Oct 22 09:52	20°♄28'27		desc. node	3409 Sep 05 04:37	5°♄41'53	
evening set	3408 Oct 28 22:30	17°♄49'02		evening max el	3409 Sep 21 23:50	26°♄42'49	27°14'30
min. Earth dist.	3408 Nov 02 00:24	13°♄37'08	0.66123 AU		3409 Sep 25 19:29	0°♄	
inferior conj	3408 Nov 03 17:26	11°♄34'21	-1°24'52	retrograde	3409 Oct 05 09:52	4°♄01'07	
minimum elong	3408 Nov 03 19:45	11°♄27'25	1°23'53	evening set	3409 Oct 12 08:55	1°♄19'09	
asc. node	3408 Nov 07 21:19	7°♄07'46			3409 Oct 13 22:00	30°♄	
morning rise	3408 Nov 09 17:41	5°♄50'12		min. Earth dist.	3409 Oct 16 04:35	27°♄42'33	0.64816 AU
direct	3408 Nov 12 16:01	5°♄02'04		inferior conj	3409 Oct 18 09:45	25°♄16'40	-2°25'22
morning max el	3408 Nov 19 07:09	8°♄39'26	18°29'40	minimum elong	3409 Oct 18 13:47	25°♄05'36	2°23'51
	3408 Dec 04 07:31	0°♄		morning rise	3409 Oct 24 19:41	19°♄46'08	
morning set	3408 Dec 09 08:44	8°♄04'31		asc. node	3409 Oct 25 18:21	19°♄24'48	
desc. node	3408 Dec 15 06:52	17°♄30'54		direct	3409 Oct 27 10:51	19°♄09'45	
	3408 Dec 23 04:44	0°♄		morning max el	3409 Nov 02 22:41	22°♄37'20	18°01'22
					3409 Nov 08 18:06	0°♄	
superior conj	3408 Dec 25 03:41	3°♄04'17	-1°03'45	morning set	3409 Nov 20 15:31	19°♄17'59	
minimum elong	3408 Dec 24 19:55	2°♄33'47	1°02'48		3409 Nov 27 02:24	0°♄	
max. Earth dist.	3408 Dec 25 19:29	4°♄06'17	1.45229 AU	desc. node	3409 Dec 02 03:56	8°♄14'10	
evening rise	3409 Jan 10 02:55	28°♄11'34					
	3409 Jan 11 06:19	0°♄		superior conj	3409 Dec 04 12:34	12°♄01'21	-0°16'05
greatest brilliancy	3409 Jan 19 14:42	13°♄11'06	-0.8m	minimum elong	3409 Dec 04 10:35	11°♄53'27	0°15'48
	3409 Jan 31 11:40	0°♄		behind sun begin	3409 Dec 04 08:18	11°♄44'18	
evening max el	3409 Feb 01 13:32	1°♄09'30	19°03'25	behind sun end	3409 Dec 04 12:53	12°♄02'36	
asc. node	3409 Feb 03 20:36	3°♄13'04		max. Earth dist.	3409 Dec 08 14:28	18°♄29'59	1.44915 AU
retrograde	3409 Feb 08 11:10	5°♄04'11			3409 Dec 15 22:53	0°♄	
evening set	3409 Feb 11 19:18	3°♄59'27		evening rise	3409 Dec 20 20:13	7°♄34'03	
	3409 Feb 15 22:49	30°♄		greatest brilliancy	3410 Jan 03 20:15	28°♄52'31	-0.6m
inferior conj	3409 Feb 17 09:23	28°♄12'38	3°26'00		3410 Jan 04 14:33	0°♄	
minimum elong	3409 Feb 17 07:37	28°♄18'11	3°25'46	evening max el	3410 Jan 15 19:03	14°♄40'36	19°55'28
min. Earth dist.	3409 Feb 18 22:24	26°♄15'31	0.65892 AU	asc. node	3410 Jan 21 17:37	18°♄50'45	
morning rise	3409 Feb 22 19:35	21°♄59'51		retrograde	3410 Jan 23 08:49	19°♄05'17	
direct	3409 Mar 01 06:37	19°♄09'50		evening set	3410 Jan 27 00:48	17°♄46'47	
desc. node	3409 Mar 13 06:03	25°♄53'18		inferior conj	3410 Feb 01 11:07	11°♄45'48	3°02'03
morning max el	3409 Mar 14 04:11	26°♄47'59	26°30'17	minimum elong	3410 Feb 01 08:43	11°♄53'49	3°01'31
	3409 Mar 17 03:54	0°♄		min. Earth dist.	3410 Feb 02 09:53	10°♄29'47	0.66976 AU
	3409 Apr 07 11:28	0°♄		morning rise	3410 Feb 06 16:25	5°♄32'07	
morning set	3409 Apr 19 04:58	20°♄38'07		direct	3410 Feb 12 15:03	2°♄52'48	
max. Earth dist.	3409 Apr 23 08:17	28°♄37'21	1.34753 AU	morning max el	3410 Feb 24 13:02	9°♄59'48	25°14'00
	3409 Apr 24 00:58	0°♄		desc. node	3410 Feb 28 03:07	13°♄53'20	
					3410 Mar 12 09:30	0°♄	
superior conj	3409 Apr 27 23:53	8°♄00'34	-0°48'37		3410 Mar 31 02:25	0°♄	
minimum elong	3409 Apr 28 02:26	8°♄13'43	0°48'08	morning set	3410 Apr 01 18:00	2°♄56'33	
asc. node	3409 May 02 19:54	18°♄04'33		max. Earth dist.	3410 Apr 05 09:55	9°♄39'40	1.36524 AU
evening rise	3409 May 05 14:58	23°♄54'07					
	3409 May 08 14:47	0°♄		superior conj	3410 Apr 11 13:27	21°♄29'51	-1°16'43
evening max el	3409 May 24 15:26	24°♄49'10	20°52'43	minimum elong	3410 Apr 11 17:24	21°♄49'25	1°16'05
	3409 Jun 01 20:41	0°♄			3410 Apr 15 19:13	0°♄	
retrograde	3409 Jun 05 04:31	0°♄27'38		evening rise	3410 Apr 19 19:17	8°♄06'57	
evening set	3409 Jun 07 07:36	0°♄16'53		asc. node	3410 Apr 19 16:57	7°♄55'10	
	3409 Jun 08 15:11	30°♄			3410 May 01 22:52	0°♄	
desc. node	3409 Jun 09 05:16	29°♄50'09		evening max el	3410 May 07 03:00	6°♄15'46	19°41'26
inferior conj	3409 Jun 16 15:23	26°♄19'23	-2°09'33	retrograde	3410 May 16 22:04	11°♄00'57	
minimum elong	3409 Jun 16 09:22	26°♄27'55	2°07'27	evening set	3410 May 18 21:36	10°♄50'09	
min. Earth dist.	3409 Jun 17 10:30	25°♄52'11	0.54877 AU	desc. node	3410 May 27 02:17	7°♄08'54	
morning rise	3409 Jun 25 10:52	22°♄16'07		inferior conj	3410 May 27 16:02	6°♄47'29	-0°10'06
direct	3409 Jun 29 00:29	21°♄48'40		minimum elong	3410 May 27 15:35	6°♄48'11	0°09'56
morning max el	3409 Jul 12 01:26	28°♄03'44	22°52'37	transit middle	3410 May 27 15:35	6°♄48'11	0°09'56
	3409 Jul 14 00:07	0°♄		transit begin	3410 May 27 12:30	6°♄53'00	
asc. node	3409 Jul 29 19:09	24°♄01'35		transit end	3410 May 27 18:40	6°♄43'22	
	3409 Aug 01 18:53	0°♄		min. Earth dist.	3410 May 30 00:08	5°♄20'07	0.55600 AU
morning set	3409 Aug 03 15:46	3°♄53'05		morning rise	3410 Jun 05 07:08	2°♄14'58	
				direct	3410 Jun 09 17:08	1°♄31'33	
superior conj	3409 Aug 10 17:56	19°♄02'18	1°37'02	morning max el	3410 Jun 23 15:52	8°♄30'05	24°35'25
minimum elong	3409 Aug 10 16:11	18°♄52'59	1°36'53		3410 Jul 09 11:39	0°♄	
max. Earth dist.	3409 Aug 13 15:02	25°♄07'15	1.33903 AU	asc. node	3410 Jul 16 16:13	13°♄39'08	
	3409 Aug 15 23:49	0°♄		morning set	3410 Jul 19 03:34	18°♄47'43	

	3410 Jul 24 08:05	0°♎		superior conj	3411 Jul 10 14:01	18°♊48'33	1°07'58
				minimum elong	3411 Jul 10 11:42	18°♊35'48	1°07'36
superior conj	3410 Jul 26 02:47	3°♎52'52	1°24'49	max. Earth dist.	3411 Jul 11 04:23	20°♊07'37	1.32276 AU
minimum elong	3410 Jul 26 00:31	3°♎40'27	1°24'32		3411 Jul 15 17:27	0°♎	
max. Earth dist.	3410 Jul 27 18:44	7°♎29'28	1.32890 AU	evening rise	3411 Jul 17 13:13	3°♎51'00	
evening rise	3410 Aug 02 09:08	19°♎16'51			3411 Jul 31 14:33	0°♎	
	3410 Aug 07 20:27	0°♎		desc. node	3411 Aug 09 22:37	13°♎34'35	
desc. node	3410 Aug 23 01:38	25°♎01'13		evening max el	3411 Aug 17 16:45	22°♎16'35	27°05'47
	3410 Aug 26 18:02	0°♎		retrograde	3411 Aug 31 13:36	29°♎29'12	
evening max el	3410 Sep 04 10:29	9°♎48'04	27°26'16	evening set	3411 Sep 07 15:27	27°♎14'49	
retrograde	3410 Sep 18 03:20	17°♎04'14		min. Earth dist.	3411 Sep 11 07:01	24°♎32'38	0.61251 AU
evening set	3410 Sep 25 07:54	14°♎29'56		inferior conj	3411 Sep 14 10:17	21°♎49'02	-4°17'16
min. Earth dist.	3410 Sep 28 23:11	11°♎25'02	0.63173 AU	minimum elong	3411 Sep 14 15:58	21°♎36'37	4°15'59
inferior conj	3410 Oct 01 16:26	8°♎44'11	-3°24'29	morning rise	3411 Sep 21 18:16	16°♎56'07	
minimum elong	3410 Oct 01 21:50	8°♎30'49	3°22'47	direct	3411 Sep 24 03:19	16°♎33'01	
morning rise	3410 Oct 08 13:10	3°♎30'40		asc. node	3411 Sep 29 12:29	18°♎36'22	
direct	3410 Oct 10 23:50	3°♎02'25		morning max el	3411 Oct 01 05:29	20°♎05'21	17°58'27
asc. node	3410 Oct 12 15:25	3°♎15'35			3411 Oct 08 14:01	0°♎	
morning max el	3410 Oct 17 15:08	6°♎28'16	17°50'38	morning set	3411 Oct 17 00:50	15°♎00'05	
	3410 Nov 01 23:34	0°♎			3411 Oct 25 06:54	0°♎	
morning set	3410 Nov 02 23:02	1°♎42'52					
				superior conj	3411 Oct 27 06:37	3°♎30'33	1°03'47
superior conj	3410 Nov 14 20:09	22°♎06'22	0°28'45	minimum elong	3411 Oct 27 10:54	3°♎49'19	1°03'15
minimum elong	3410 Nov 14 22:58	22°♎18'07	0°28'21	max. Earth dist.	3411 Nov 03 20:20	16°♎24'11	1.42319 AU
desc. node	3410 Nov 19 00:58	29°♎00'55		desc. node	3411 Nov 05 21:59	19°♎48'05	
	3410 Nov 19 15:31	0°♎		evening rise	3411 Nov 09 22:57	26°♎17'57	
max. Earth dist.	3410 Nov 21 07:35	2°♎41'33	1.43905 AU		3411 Nov 12 07:22	0°♎	
evening rise	3410 Nov 30 05:26	16°♎42'44			3411 Dec 02 19:47	0°♎	
	3410 Dec 08 23:22	0°♎		evening max el	3411 Dec 12 13:53	11°♎46'27	22°16'06
evening max el	3410 Dec 29 19:10	28°♎12'48	21°00'57	retrograde	3411 Dec 22 03:04	17°♎27'16	
	3410 Dec 31 16:09	0°♎		asc. node	3411 Dec 26 11:43	15°♎45'53	
retrograde	3411 Jan 07 06:40	3°♎14'02		evening set	3411 Dec 26 15:50	15°♎37'36	
asc. node	3411 Jan 08 14:40	3°♎04'15		inferior conj	3412 Jan 01 00:18	9°♎17'05	1°47'28
evening set	3411 Jan 11 08:12	1°♎40'26		minimum elong	3411 Dec 31 22:09	9°♎24'31	1°46'41
	3411 Jan 13 03:16	30°♎		min. Earth dist.	3411 Dec 31 22:39	9°♎22'49	0.67945 AU
inferior conj	3411 Jan 16 16:47	25°♎28'03	2°28'38	morning rise	3412 Jan 06 04:21	3°♎06'35	
minimum elong	3411 Jan 16 14:16	25°♎36'41	2°27'52	direct	3412 Jan 10 21:32	1°♎08'19	
min. Earth dist.	3411 Jan 17 02:42	24°♎53'51	0.67654 AU	morning max el	3412 Jan 20 08:39	6°♎42'35	22°18'31
morning rise	3411 Jan 21 20:09	19°♎15'11		desc. node	3412 Feb 01 21:14	22°♎15'37	
direct	3411 Jan 27 04:16	16°♎54'29			3412 Feb 07 07:14	0°♎	
morning max el	3411 Feb 06 21:30	23°♎17'32	23°46'48	morning set	3412 Feb 22 19:32	23°♎55'30	
	3411 Feb 12 19:41	0°♎			3412 Feb 26 12:08	0°♎	
desc. node	3411 Feb 15 00:10	2°♎45'39		max. Earth dist.	3412 Feb 28 02:29	2°♎40'52	1.40789 AU
	3411 Mar 05 18:54	0°♎					
morning set	3411 Mar 14 08:41	14°♎06'26		superior conj	3412 Mar 06 21:20	16°♎12'59	-1°59'59
max. Earth dist.	3411 Mar 18 05:24	20°♎49'30	1.38619 AU	minimum elong	3412 Mar 07 00:54	16°♎28'58	1°59'47
	3411 Mar 23 07:01	0°♎			3412 Mar 14 09:44	0°♎	
				evening rise	3412 Mar 17 02:52	5°♎05'00	
superior conj	3411 Mar 25 14:07	4°♎17'35	-1°41'41	asc. node	3412 Mar 23 11:01	16°♎44'19	
minimum elong	3411 Mar 25 18:44	4°♎39'21	1°41'10		3412 Apr 01 09:00	0°♎	
evening rise	3411 Apr 03 16:19	21°♎53'03		evening max el	3412 Apr 02 07:55	0°♎59'14	18°18'32
asc. node	3411 Apr 06 13:59	27°♎30'10		retrograde	3412 Apr 09 12:31	4°♎34'11	
	3411 Apr 07 21:36	0°♎		evening set	3412 Apr 11 23:09	4°♎10'20	
evening max el	3411 Apr 20 01:28	18°♎21'10	18°49'53		3412 Apr 18 13:17	30°♎	
retrograde	3411 Apr 28 07:43	22°♎23'19		inferior conj	3412 Apr 19 03:09	29°♎30'41	2°43'17
evening set	3411 Apr 30 11:59	22°♎07'34		minimum elong	3412 Apr 19 06:46	29°♎22'58	2°42'26
inferior conj	3411 May 08 10:50	17°♎48'14	1°32'29	min. Earth dist.	3412 Apr 22 13:30	26°♎36'58	0.59155 AU
minimum elong	3411 May 08 14:02	17°♎42'24	1°31'27	morning rise	3412 Apr 26 11:39	23°♎53'49	
min. Earth dist.	3411 May 11 16:22	15°♎28'33	0.57129 AU	desc. node	3412 Apr 29 20:22	22°♎30'25	
desc. node	3411 May 13 23:19	13°♎59'44		direct	3412 May 02 18:13	22°♎07'29	
morning rise	3411 May 16 12:54	12°♎40'36		morning max el	3412 May 17 03:21	29°♎54'39	27°16'07
direct	3411 May 21 22:53	11°♎29'39			3412 May 17 05:31	0°♎	
morning max el	3411 Jun 05 06:56	18°♎58'09	26°08'23		3412 Jun 07 12:32	0°♎	
	3411 Jun 14 13:54	0°♎		morning set	3412 Jun 16 23:28	18°♎22'11	
	3411 Jul 01 20:38	0°♎		asc. node	3412 Jun 19 10:18	23°♎34'11	
morning set	3411 Jul 03 14:42	3°♎39'22			3412 Jun 22 09:15	0°♎	
asc. node	3411 Jul 03 13:17	3°♎31'52		max. Earth dist.	3412 Jun 23 16:16	2°♎50'35	1.32062 AU

superior conj	3412 Jun 24 01:46	3° \mathfrak{G} 42'59	0°47'11	superior conj	3413 Jun 08 12:24	18° \mathbb{I} 30'51	0°23'06
minimum elong	3412 Jun 23 23:53	3° \mathfrak{G} 32'34	0°46'49	minimum elong	3413 Jun 08 11:22	18° \mathbb{I} 25'09	0°22'52
evening rise	3412 Jun 30 21:54	18° \mathfrak{G} 36'28			3413 Jun 13 18:33	0° \mathfrak{G}	
	3412 Jul 06 12:31	0° \mathcal{O}		evening rise	3413 Jun 15 09:06	3° \mathfrak{G} 26'45	
	3412 Jul 25 21:16	0° \mathfrak{M}			3413 Jun 29 14:29	0° \mathcal{O}	
desc. node	3412 Jul 26 19:38	1° \mathfrak{M} 02'28		evening max el	3413 Jul 11 08:15	14° \mathcal{O} 52'49	24°51'28
evening max el	3412 Jul 29 16:03	3° \mathfrak{M} 57'33	26°12'17	desc. node	3413 Jul 13 16:38	16° \mathcal{O} 58'23	
retrograde	3412 Aug 12 15:30	11° \mathfrak{M} 07'25		retrograde	3413 Jul 25 07:01	21° \mathcal{O} 56'34	
evening set	3412 Aug 19 02:41	9° \mathfrak{M} 25'10		evening set	3413 Jul 30 13:55	20° \mathcal{O} 53'05	
min. Earth dist.	3412 Aug 23 04:51	6° \mathfrak{M} 49'54	0.59181 AU	min. Earth dist.	3413 Aug 04 19:42	18° \mathcal{O} 05'47	0.57214 AU
inferior conj	3412 Aug 26 11:40	4° \mathfrak{M} 20'48	-4°55'34	inferior conj	3413 Aug 07 17:33	16° \mathcal{O} 10'48	-5°06'32
minimum elong	3412 Aug 26 15:26	4° \mathfrak{M} 13'38	4°55'08	minimum elong	3413 Aug 07 16:30	16° \mathcal{O} 12'31	5°06'30
	3412 Sep 02 18:08	30° \mathcal{R} \mathcal{O}		morning rise	3413 Aug 15 21:39	12° \mathcal{O} 02'43	
morning rise	3412 Sep 03 06:22	29° \mathcal{O} 50'52		direct	3413 Aug 18 11:58	11° \mathcal{O} 43'33	
direct	3412 Sep 05 16:42	29° \mathcal{O} 30'39		morning max el	3413 Aug 27 14:46	15° \mathcal{O} 59'52	19°15'01
	3412 Sep 08 13:02	0° \mathfrak{M}		asc. node	3413 Sep 02 06:34	22° \mathcal{O} 50'04	
morning max el	3412 Sep 13 14:27	3° \mathfrak{M} 19'07	18°26'09		3413 Sep 06 16:36	0° \mathfrak{M}	
asc. node	3412 Sep 15 09:33	5° \mathfrak{M} 12'55		morning set	3413 Sep 13 15:15	13° \mathfrak{M} 13'14	
morning set	3412 Sep 29 15:32	28° \mathfrak{M} 53'45					
	3412 Sep 30 05:20	0° \mathfrak{L}		superior conj	3413 Sep 21 19:23	29° \mathfrak{M} 25'56	1°40'30
				minimum elong	3413 Sep 21 21:10	29° \mathfrak{M} 34'36	1°40'25
superior conj	3412 Oct 08 16:12	16° \mathfrak{L} 02'22	1°27'24		3413 Sep 22 02:24	0° \mathfrak{L}	
minimum elong	3412 Oct 08 19:40	16° \mathfrak{L} 18'21	1°27'05	max. Earth dist.	3413 Sep 28 07:18	11° \mathfrak{L} 40'24	1.38280 AU
max. Earth dist.	3412 Oct 16 03:24	29° \mathfrak{L} 23'24	1.40359 AU	evening rise	3413 Oct 02 02:03	18° \mathfrak{L} 25'20	
	3412 Oct 16 11:53	0° \mathfrak{M}			3413 Oct 08 23:05	0° \mathfrak{M}	
evening rise	3412 Oct 20 12:41	6° \mathfrak{M} 48'57		desc. node	3413 Oct 09 15:58	1° \mathfrak{M} 08'14	
desc. node	3412 Oct 22 18:58	10° \mathfrak{M} 31'48			3413 Oct 29 17:05	0° \mathfrak{X}	
	3412 Nov 04 10:09	0° \mathfrak{X}		evening max el	3413 Nov 06 16:55	9° \mathfrak{X} 02'10	24°53'56
evening max el	3412 Nov 24 04:23	25° \mathfrak{X} 22'15	23°35'55	retrograde	3413 Nov 18 09:59	15° \mathfrak{X} 50'19	
	3412 Nov 29 18:53	0° \mathfrak{Z}		evening set	3413 Nov 24 01:14	13° \mathfrak{X} 28'58	
retrograde	3412 Dec 04 20:32	1° \mathfrak{Z} 40'41		min. Earth dist.	3413 Nov 28 14:31	8° \mathfrak{X} 20'46	0.67464 AU
	3412 Dec 09 09:24	30° \mathcal{R} \mathfrak{X}		asc. node	3413 Nov 29 05:48	7° \mathfrak{X} 30'24	
evening set	3412 Dec 09 22:03	29° \mathfrak{X} 34'40		inferior conj	3413 Nov 29 13:38	7° \mathfrak{X} 04'32	0°06'43
asc. node	3412 Dec 12 08:45	27° \mathfrak{X} 03'16		minimum elong	3413 Nov 29 13:28	7° \mathfrak{X} 05'05	0°06'39
inferior conj	3412 Dec 15 07:51	23° \mathfrak{X} 09'59	0°59'47	transit middle	3413 Nov 29 13:28	7° \mathfrak{X} 05'05	0°06'39
minimum elong	3412 Dec 15 06:29	23° \mathfrak{X} 14'37	0°59'14	transit begin	3413 Nov 29 10:57	7° \mathfrak{X} 13'24	
min. Earth dist.	3412 Dec 14 19:23	23° \mathfrak{X} 52'35	0.67875 AU	transit end	3413 Nov 29 15:59	6° \mathfrak{X} 56'47	
morning rise	3412 Dec 20 14:54	17° \mathfrak{X} 03'38		morning rise	3413 Dec 05 01:50	1° \mathfrak{X} 04'34	
direct	3412 Dec 24 17:52	15° \mathfrak{X} 28'11			3413 Dec 07 08:19	30° \mathcal{R} \mathfrak{M}	
morning max el	3413 Jan 02 01:45	20° \mathfrak{X} 17'13	20°57'07	direct	3413 Dec 08 16:10	29° \mathfrak{M} 50'01	
	3413 Jan 10 03:20	0° \mathfrak{Z}			3413 Dec 10 00:47	0° \mathfrak{X}	
desc. node	3413 Jan 18 18:15	12° \mathfrak{Z} 12'23		morning max el	3413 Dec 16 02:34	4° \mathfrak{X} 02'40	19°47'49
	3413 Jan 30 12:37	0° \approx		greatest brilliancy	3413 Dec 29 10:59	21° \mathfrak{X} 39'34	-0.7m
morning set	3413 Feb 01 03:09	2° \approx 30'03			3414 Jan 04 00:15	0° \mathfrak{Z}	
max. Earth dist.	3413 Feb 09 05:48	15° \approx 26'01	1.42740 AU	desc. node	3414 Jan 05 15:16	2° \mathfrak{Z} 28'28	
				morning set	3414 Jan 10 23:02	10° \mathfrak{Z} 38'47	
superior conj	3413 Feb 16 05:58	27° \approx 04'25	-2°06'53	max. Earth dist.	3414 Jan 22 16:32	29° \mathfrak{Z} 00'10	1.44230 AU
minimum elong	3413 Feb 16 05:44	27° \approx 03'28	2°06'54		3414 Jan 23 07:34	0° \approx	
	3413 Feb 17 23:10	0° \mathfrak{X}					
evening rise	3413 Feb 27 22:55	17° \mathfrak{X} 33'43		superior conj	3414 Jan 27 12:35	6° \approx 45'32	-1°57'09
	3413 Mar 06 23:48	0° \mathfrak{Y}		minimum elong	3414 Jan 27 06:31	6° \approx 20'58	1°56'48
asc. node	3413 Mar 10 08:02	5° \mathfrak{Y} 30'47		evening rise	3414 Feb 10 00:00	29° \approx 09'46	
evening max el	3413 Mar 16 19:06	14° \mathfrak{Y} 01'31	18°07'03		3414 Feb 10 11:49	0° \mathfrak{X}	
retrograde	3413 Mar 23 09:32	17° \mathfrak{Y} 24'58		asc. node	3414 Feb 25 05:04	23° \mathfrak{X} 40'06	
evening set	3413 Mar 26 02:10	16° \mathfrak{Y} 51'02		evening max el	3414 Feb 28 07:50	27° \mathfrak{X} 18'47	18°14'42
inferior conj	3413 Apr 01 14:52	11° \mathfrak{Y} 51'00	3°23'02		3414 Mar 03 20:09	0° \mathfrak{Y}	
minimum elong	3413 Apr 01 17:04	11° \mathfrak{Y} 45'36	3°22'45	retrograde	3414 Mar 06 18:15	0° \mathfrak{Y} 44'45	
min. Earth dist.	3413 Apr 04 17:59	8° \mathfrak{Y} 48'03	0.61331 AU	evening set	3414 Mar 09 16:36	29° \mathfrak{X} 59'28	
morning rise	3413 Apr 08 06:09	5° \mathfrak{Y} 55'28			3414 Mar 09 16:11	30° \mathcal{R} \mathfrak{X}	
direct	3413 Apr 15 01:02	3° \mathfrak{Y} 35'35		inferior conj	3414 Mar 15 17:54	24° \mathfrak{X} 39'56	3°38'04
desc. node	3413 Apr 16 17:25	3° \mathfrak{Y} 43'41		minimum elong	3414 Mar 15 18:16	24° \mathfrak{X} 38'53	3°38'03
morning max el	3413 Apr 29 06:04	11° \mathfrak{Y} 32'24	27°48'45	min. Earth dist.	3414 Mar 18 07:21	21° \mathfrak{X} 51'01	0.63372 AU
	3413 May 13 18:21	0° \mathfrak{Z}		morning rise	3414 Mar 21 18:58	18° \mathfrak{X} 34'13	
	3413 May 30 18:32	0° \mathbb{I}		direct	3414 Mar 28 16:44	15° \mathfrak{X} 51'36	
morning set	3413 Jun 01 04:01	2° \mathbb{I} 50'16		desc. node	3414 Apr 03 14:27	17° \mathfrak{X} 32'17	
asc. node	3413 Jun 06 07:19	13° \mathbb{I} 41'47		morning max el	3414 Apr 11 13:28	23° \mathfrak{X} 49'08	27°43'53
max. Earth dist.	3413 Jun 07 02:31	15° \mathbb{I} 25'58	1.32255 AU		3414 Apr 17 02:36	0° \mathfrak{Y}	

	3414 May 07 02:09	0°♄			3415 Mar 16 09:07	0°♄	
morning set	3414 May 16 02:00	16°♄55'19		desc. node	3415 Mar 21 11:30	3°♄23'42	
max. Earth dist.	3414 May 21 07:15	27°♄40'35	1.32874 AU	morning max el	3415 Mar 24 23:10	6°♄36'46	27°05'05
	3414 May 22 09:29	0°♄			3415 Apr 11 23:03	0°♄	
					3415 Apr 29 08:35	0°♄	
superior conj	3414 May 23 20:04	3°♄05'19	-0°03'38	morning set	3415 Apr 29 14:31	0°♄28'34	
minimum elong	3414 May 23 20:15	3°♄06'17	0°03'37	max. Earth dist.	3415 May 04 02:52	9°♄25'30	1.33943 AU
behind sun begin	3414 May 23 15:04	2°♄38'27					
behind sun end	3414 May 24 01:25	3°♄34'09		superior conj	3415 May 07 22:46	17°♄20'22	-0°32'01
asc. node	3414 May 24 04:20	3°♄49'52		minimum elong	3415 May 08 00:25	17°♄29'04	0°31'40
evening rise	3414 May 30 20:54	18°♄14'40		asc. node	3415 May 11 01:23	23°♄54'35	
	3414 Jun 05 15:47	0°♄			3415 May 13 22:18	0°♄	
evening max el	3414 Jun 22 21:30	25°♄20'37	23°16'01	evening rise	3415 May 15 07:28	2°♄54'19	
	3414 Jun 28 23:08	0°♄			3415 May 30 13:27	0°♄	
desc. node	3414 Jun 30 13:40	0°♄48'07		evening max el	3415 Jun 04 15:15	5°♄52'21	21°41'31
retrograde	3414 Jul 06 09:46	2°♄05'35		retrograde	3415 Jun 17 01:19	11°♄59'33	
evening set	3414 Jul 10 04:26	1°♄34'23		desc. node	3415 Jun 17 10:42	11°♄59'12	
	3414 Jul 14 05:33	30°♄		evening set	3415 Jun 19 14:16	11°♄45'00	
min. Earth dist.	3414 Jul 17 07:07	28°♄20'14	0.55683 AU	inferior conj	3415 Jun 28 23:30	7°♄43'14	-3°13'37
inferior conj	3414 Jul 19 03:34	27°♄15'02	-4°34'54	minimum elong	3415 Jun 28 15:25	7°♄54'31	3°11'11
minimum elong	3414 Jul 18 20:52	27°♄24'54	4°33'45	min. Earth dist.	3415 Jun 28 18:00	7°♄50'55	0.54907 AU
morning rise	3414 Jul 27 15:42	23°♄21'43		morning rise	3415 Jul 07 17:45	3°♄49'51	
direct	3414 Jul 30 12:21	23°♄01'55		direct	3415 Jul 10 23:39	3°♄26'48	
morning max el	3414 Aug 10 03:51	27°♄58'21	20°25'29	morning max el	3415 Jul 23 05:20	9°♄12'00	21°55'09
	3414 Aug 12 03:55	0°♄			3415 Aug 06 21:46	0°♄	
asc. node	3414 Aug 20 03:36	11°♄13'53		asc. node	3415 Aug 07 00:38	0°♄13'19	
morning set	3414 Aug 28 21:00	27°♄50'24		morning set	3415 Aug 13 06:32	12°♄38'52	
	3414 Aug 29 22:16	0°♄					
				superior conj	3415 Aug 20 11:55	27°♄54'28	1°41'37
superior conj	3414 Sep 05 11:14	13°♄27'06	1°44'44	minimum elong	3415 Aug 20 10:42	27°♄48'06	1°41'34
minimum elong	3414 Sep 05 11:20	13°♄27'37	1°44'44		3415 Aug 21 11:54	0°♄	
max. Earth dist.	3414 Sep 10 13:53	23°♄34'44	1.36324 AU	max. Earth dist.	3415 Aug 24 03:54	5°♄29'46	1.34673 AU
	3414 Sep 13 23:20	0°♄		evening rise	3415 Aug 28 15:32	14°♄23'22	
evening rise	3414 Sep 14 12:29	1°♄00'43			3415 Sep 06 05:36	0°♄	
desc. node	3414 Sep 26 12:59	21°♄32'43		desc. node	3415 Sep 13 10:01	11°♄38'54	
	3414 Oct 02 02:01	0°♄			3415 Sep 26 20:23	0°♄	
evening max el	3414 Oct 20 05:20	22°♄44'20	26°02'50	evening max el	3415 Oct 02 17:52	6°♄20'34	26°54'59
retrograde	3414 Nov 01 18:30	29°♄51'25		retrograde	3415 Oct 15 21:32	13°♄36'44	
evening set	3414 Nov 07 23:39	27°♄17'25		evening set	3415 Oct 22 15:10	10°♄55'15	
min. Earth dist.	3414 Nov 12 05:40	22°♄44'39	0.66710 AU	min. Earth dist.	3415 Oct 26 14:21	6°♄58'42	0.65608 AU
inferior conj	3414 Nov 13 15:52	20°♄58'00	-0°50'31	inferior conj	3415 Oct 28 12:27	4°♄45'32	-1°50'28
minimum elong	3414 Nov 13 17:13	20°♄53'49	0°49'56	minimum elong	3415 Oct 28 15:31	4°♄36'42	1°49'14
asc. node	3414 Nov 16 02:50	18°♄02'08			3415 Nov 02 06:32	30°♄	
morning rise	3414 Nov 19 11:11	15°♄07'06		asc. node	3415 Nov 02 23:53	29°♄30'29	
direct	3414 Nov 22 14:49	14°♄10'16		morning rise	3415 Nov 03 16:39	29°♄06'48	
morning max el	3414 Nov 29 10:49	17°♄57'22	18°53'34	direct	3415 Nov 06 11:44	28°♄23'59	
	3414 Dec 08 16:34	0°♄			3415 Nov 10 18:50	0°♄	
morning set	3414 Dec 21 08:51	19°♄37'01		morning max el	3415 Nov 13 00:28	1°♄55'47	18°15'38
desc. node	3414 Dec 23 12:17	22°♄58'40		morning set	3415 Dec 01 22:55	0°♄01'25	
	3414 Dec 27 23:49	0°♄			3415 Dec 01 22:34	0°♄	
max. Earth dist.	3415 Jan 05 09:23	13°♄10'17	1.45079 AU	desc. node	3415 Dec 10 09:18	13°♄38'08	
superior conj	3415 Jan 06 21:13	15°♄31'12	-1°27'59	superior conj	3415 Dec 16 23:43	24°♄06'27	-0°43'52
minimum elong	3415 Jan 06 12:04	14°♄55'12	1°27'02	minimum elong	3415 Dec 16 18:09	23°♄44'30	0°43'08
	3415 Jan 16 00:17	0°♄		max. Earth dist.	3415 Dec 19 04:54	27°♄35'40	1.45189 AU
evening rise	3415 Jan 22 02:37	9°♄49'17			3415 Dec 20 17:41	0°♄	
	3415 Feb 03 16:52	0°♄		evening rise	3416 Jan 02 06:31	19°♄35'20	
evening max el	3415 Feb 11 19:27	10°♄44'53	18°40'37		3416 Jan 08 22:47	0°♄	
asc. node	3415 Feb 12 02:07	11°♄01'36		greatest brilliancy	3416 Jan 13 20:40	7°♄34'18	-0.7m
retrograde	3415 Feb 18 10:36	14°♄25'42		evening max el	3416 Jan 26 03:37	24°♄14'36	19°23'37
evening set	3415 Feb 21 15:00	13°♄28'11		asc. node	3416 Jan 29 23:10	27°♄21'27	
inferior conj	3415 Feb 27 08:20	7°♄50'38	3°34'33	retrograde	3416 Feb 02 07:13	28°♄20'56	
minimum elong	3415 Feb 27 07:12	7°♄54'04	3°34'28	evening set	3416 Feb 05 18:35	27°♄10'18	
min. Earth dist.	3415 Mar 01 06:05	5°♄32'09	0.65094 AU	inferior conj	3416 Feb 11 06:46	21°♄16'53	3°17'07
morning rise	3415 Mar 04 22:56	1°♄39'43		minimum elong	3416 Feb 11 04:40	21°♄23'42	3°16'45
	3415 Mar 07 07:01	30°♄		min. Earth dist.	3416 Feb 12 13:26	19°♄37'17	0.66411 AU
direct	3415 Mar 11 15:35	28°♄48'43		morning rise	3416 Feb 16 14:31	15°♄03'35	

direct	3416 Feb 22 20:34	12°  17'15		morning rise	3417 Jan 30 14:35	28°  40'52	
morning max el	3416 Mar 06 08:52	19°  43'21	25°59'49	direct	3417 Feb 05 07:02	26°  08'57	
desc. node	3416 Mar 07 08:32	20°  44'22			3417 Feb 13 12:10	0° 	
	3416 Mar 15 03:46	0° 		morning max el	3417 Feb 16 17:34	2°  59'00	24°37'37
	3416 Apr 04 01:24	0° 		desc. node	3417 Feb 22 05:35	9°  08'57	
morning set	3416 Apr 11 13:36	13°  18'35			3417 Mar 09 08:08	0° 	
max. Earth dist.	3416 Apr 15 11:10	20°  40'41	1.35465 AU	morning set	3417 Mar 24 17:59	25°  10'30	
	3416 Apr 20 04:25	0° 			3417 Mar 27 10:53	0° 	
				max. Earth dist.	3417 Mar 28 09:27	1°  42'29	1.37388 AU
superior conj	3416 Apr 20 18:00	1°  08'40	-1°00'45				
minimum elong	3416 Apr 20 21:11	1°  24'51	1°00'10	superior conj	3417 Apr 04 02:35	14°  21'36	-1°27'53
asc. node	3416 Apr 26 22:27	13°  51'51		minimum elong	3417 Apr 04 06:57	14°  42'49	1°27'16
evening rise	3416 Apr 28 14:45	17°  19'13			3417 Apr 11 23:56	0° 	
	3416 May 05 01:42	0° 		evening rise	3417 Apr 12 16:22	1°  21'57	
evening max el	3416 May 16 19:38	16°  55'12	20°19'58	asc. node	3417 Apr 13 19:31	3°  36'41	
retrograde	3416 May 27 14:56	22°  11'05		evening max el	3417 Apr 29 12:05	28°  38'58	19°16'58
evening set	3416 May 29 14:54	22°  10'02			3417 May 01 00:22	0° 	
desc. node	3416 Jun 03 07:44	20°  27'55		retrograde	3417 May 08 14:39	3°  10'42'5	
inferior conj	3416 Jun 07 18:17	18°  10'24'5	-1°18'32	evening set	3417 May 10 15:26	2°  15'20'9	
minimum elong	3416 Jun 07 14:35	18°  08'10	1°17'09		3417 May 17 02:35	30°  08'00	
min. Earth dist.	3416 Jun 09 06:22	17°  09'52	0.55070 AU	inferior conj	3417 May 19 01:50	28°  43'22	0°36'52
morning rise	3416 Jun 16 13:04	13°  14'53		minimum elong	3417 May 19 03:20	28°  40'51	0°36'19
direct	3416 Jun 20 10:17	13°  16'17		desc. node	3417 May 21 04:46	27°  18'39	
morning max el	3416 Jul 03 22:25	19°  50'48	23°36'43	min. Earth dist.	3417 May 21 21:13	26°  51'56	0.56162 AU
	3416 Jul 12 11:28	0° 		morning rise	3417 May 27 12:12	23°  55'22	
asc. node	3416 Jul 23 21:41	19°  39'33		direct	3417 Jun 01 08:09	23°  01'40	
morning set	3416 Jul 27 18:02	27°  33'27			3417 Jun 15 06:06	0° 	
	3416 Jul 28 21:40	0° 		morning max el	3417 Jun 15 12:37	0°  15'27	25°17'12
					3417 Jul 06 01:25	0° 	
superior conj	3416 Aug 03 18:31	12°  09'32	1°32'27	asc. node	3417 Jul 10 18:45	9°  24'24	
minimum elong	3416 Aug 03 16:29	12°  08'34	1°32'16	morning set	3417 Jul 12 05:44	12°  27'41	
max. Earth dist.	3416 Aug 06 02:54	17°  04'10'4	1.33415 AU				
evening rise	3416 Aug 11 07:03	28°  02'20		superior conj	3417 Jul 19 04:37	27°  33'25	1°18'12
	3416 Aug 12 02:40	0° 		minimum elong	3417 Jul 19 02:16	27°  20'32	1°17'52
	3416 Aug 29 09:42	0° 			3417 Jul 20 07:27	0° 	
desc. node	3416 Aug 30 07:03	1°  18'54		max. Earth dist.	3417 Jul 20 09:20	0°  10'17	1.32572 AU
evening max el	3416 Sep 14 05:35	19°  40'26	27°23'11	evening rise	3417 Jul 26 07:22	12°  04'16	
retrograde	3416 Sep 27 18:46	26°  05'29			3417 Aug 04 06:03	0° 	
evening set	3416 Oct 04 21:09	24°  18'00		desc. node	3417 Aug 17 04:04	20°  10'50	
min. Earth dist.	3416 Oct 08 14:28	20°  05'00	0.64156 AU		3417 Aug 25 02:24	0° 	
inferior conj	3416 Oct 11 01:00	18°  02'19	-2°50'51	evening max el	3417 Aug 27 14:27	2°  30'46	27°21'38
minimum elong	3416 Oct 11 05:42	18°  09'58	2°49'12	retrograde	3417 Sep 10 09:33	9°  04'23	
morning rise	3416 Oct 17 15:28	12°  05'55		evening set	3417 Sep 17 14:06	7°  18'43	
asc. node	3416 Oct 19 20:55	12°  02'65		min. Earth dist.	3417 Sep 21 04:32	4°  02'50'2	0.62379 AU
direct	3416 Oct 20 04:24	12°  02'66		inferior conj	3417 Sep 24 02:35	1°  40'53	-3°48'06
morning max el	3416 Oct 26 16:49	15°  52'03	17°54'42	minimum elong	3417 Sep 24 08:18	1°  27'26	3°46'30
	3416 Nov 05 17:44	0° 			3417 Sep 25 22:39	30°  08'10	
morning set	3416 Nov 12 16:57	11°  14'72'6		morning rise	3417 Oct 01 04:09	26°  35'58	
	3416 Nov 23 13:38	0° 		direct	3417 Oct 03 13:37	26°  10'24	
				asc. node	3417 Oct 06 17:57	26°  10'56'54	
superior conj	3416 Nov 25 16:59	3°  29'14	0°03'51	morning max el	3417 Oct 10 08:47	29°  10'38'11	17°51'38
minimum elong	3416 Nov 25 17:25	3°  31'00	0°03'47		3417 Oct 10 17:27	0° 	
behind sun begin	3416 Nov 25 07:33	2°  29'50'57		morning set	3417 Oct 26 08:54	24°  03'6'10	
behind sun end	3416 Nov 26 03:17	4°  29'10'58			3417 Oct 29 09:24	0° 	
desc. node	3416 Nov 26 06:21	4°  23'25					
max. Earth dist.	3416 Nov 30 23:27	11°  29'56'29	1.44562 AU	superior conj	3417 Nov 06 12:04	14°  10'08'13	0°44'59
evening rise	3416 Dec 11 18:28	28°  29'47'06		minimum elong	3417 Nov 06 15:54	14°  10'24'28	0°44'28
	3416 Dec 12 13:27	0° 		desc. node	3417 Nov 13 03:23	25°  10'10'49	
	3417 Jan 01 20:57	0° 		max. Earth dist.	3417 Nov 13 14:16	25°  10'55'05	1.43283 AU
evening max el	3417 Jan 08 06:49	7°  45'49	20°21'46		3417 Nov 16 03:02	0° 	
asc. node	3417 Jan 15 20:13	12°  25'04		evening rise	3417 Nov 21 05:07	8°  29'01'34	
retrograde	3417 Jan 16 05:20	12°  25'52			3417 Dec 05 19:44	0° 	
evening set	3417 Jan 20 01:08	11°  01'04		evening max el	3417 Dec 22 04:29	21°  18'24	21°32'04
inferior conj	3417 Jan 25 10:28	4° 54'36	2°48'56	retrograde	3417 Dec 31 02:50	26° 03'36'54	
minimum elong	3417 Jan 25 07:57	5° 03'07	2°48'16	asc. node	3418 Jan 02 17:14	26° 00'02	
min. Earth dist.	3417 Jan 26 03:32	3° 56'36	0.67311 AU	evening set	3418 Jan 04 08:49	24° 03'56'47	
	3417 Jan 29 07:02	30° 08'00		inferior conj	3418 Jan 09 17:09	18° 03'40'28	2°12'04

minimum elong	3418 Jan 09 14:44	18°  48'50	2°11'16			3418 Dec 26 21:36	30° 	
min. Earth dist.	3418 Jan 09 22:06	18°  23'21	0.67815 AU	morning rise		3418 Dec 30 05:54	26°  22'13	
morning rise	3418 Jan 14 20:28	12°  28'10		direct		3419 Jan 03 16:59	24°  33'29	
direct	3418 Jan 19 22:12	10°  316'35		morning max el		3419 Jan 12 15:46	29°  47'29	21°42'42
morning max el	3418 Jan 30 02:41	16°  319'41	23°08'51			3419 Jan 12 20:43	0° 	
desc. node	3418 Feb 09 02:37	28°  319'09		desc. node		3419 Jan 26 23:37	18°  301'29	
	3418 Feb 10 08:33	0° 				3419 Feb 04 03:09	0° 	
	3418 Mar 02 08:55	0° 		morning set		3419 Feb 13 19:49	15° 	02'07
morning set	3418 Mar 05 21:27	5°  48'12		max. Earth dist.		3419 Feb 20 03:30	25° 	18'54 1.41661 AU
max. Earth dist.	3418 Mar 10 04:13	13°  05'14	1.39544 AU			3419 Feb 22 22:37	0° 	
superior conj	3418 Mar 17 20:31	26°  49'26	-1°50'31	superior conj		3419 Feb 27 18:44	8° 	19'17 -2°04'38
minimum elong	3418 Mar 18 00:58	27°  09'58	1°50'07	minimum elong		3419 Feb 27 21:04	8° 	29'28 2°04'34
	3418 Mar 19 13:33	0° 		evening rise		3419 Mar 10 14:16	27° 	49'41
evening rise	3418 Mar 27 09:26	14°  055'14				3419 Mar 11 18:38	0° 	
asc. node	3418 Mar 31 16:33	23°  04'12		asc. node		3419 Mar 18 13:35	12° 	07'37
	3418 Apr 04 13:50	0° 		evening max el		3419 Mar 26 23:26	23° 	50'34 18°11'17
evening max el	3418 Apr 12 14:30	11°  00'39	18°34'07	retrograde		3419 Apr 02 20:25	27° 	18'25
retrograde	3418 Apr 20 08:20	14°  048'51		evening set		3419 Apr 05 09:50	26° 	05'18
evening set	3418 Apr 22 15:18	14°  030'00		inferior conj		3419 Apr 12 06:50	22° 	01'52 3°03'32
inferior conj	3418 Apr 30 05:51	10°  02'35	2°06'31	minimum elong		3419 Apr 12 09:59	21° 	05'43 3°02'57
minimum elong	3418 Apr 30 09:35	9°  055'21	2°05'27	min. Earth dist.		3419 Apr 15 15:15	19° 	01'21 0.60090 AU
min. Earth dist.	3418 May 03 15:30	7°  025'24	0.57954 AU	morning rise		3419 Apr 19 07:50	16° 	16'11
morning rise	3418 May 08 00:42	4°  041'21		desc. node		3419 Apr 24 22:50	14° 	17'10
desc. node	3418 May 08 01:48	4°  040'02		direct		3419 Apr 25 20:58	14° 	14'47
direct	3418 May 13 20:27	3°  015'24		morning max el		3419 May 10 04:27	22° 	06'08 27°34'28
morning max el	3418 May 28 05:31	10°  053'30	26°40'50			3419 May 17 03:03	0° 	
	3418 Jun 11 23:25	0° 				3419 Jun 04 23:41	0° 	
morning set	3418 Jun 26 16:03	27°  16'21		morning set		3419 Jun 10 23:16	11° 	53'41
asc. node	3418 Jun 27 15:48	29°  122'04		asc. node		3419 Jun 14 12:50	19° 	27'19
	3418 Jun 27 22:55	0° 		max. Earth dist.		3419 Jun 17 07:58	25° 	33'13 1.32102 AU
superior conj	3418 Jul 03 16:18	12°  029'42	0°59'37	superior conj		3419 Jun 18 03:48	27° 	12'12 0°37'21
minimum elong	3418 Jul 03 14:06	12°  017'37	0°59'13	minimum elong		3419 Jun 18 02:13	27° 	13'31 0°37'00
max. Earth dist.	3418 Jul 03 20:13	12°  051'19	1.32139 AU			3419 Jun 19 08:27	0° 	
evening rise	3418 Jul 10 13:42	27°  026'32		evening rise		3419 Jun 24 23:43	12° 	05'20
	3418 Jul 11 19:09	0° 				3419 Jul 03 23:22	0° 	
	3418 Jul 28 17:04	0° 		desc. node		3419 Jul 21 22:05	25° 	022'01
desc. node	3418 Aug 04 01:04	8°  029'09		evening max el		3419 Jul 22 14:27	26° 	01'48 25°40'37
evening max el	3418 Aug 09 18:04	14°  040'09	26°46'54			3419 Jul 27 11:31	0° 	
retrograde	3418 Aug 23 16:34	21°  051'34		retrograde		3419 Aug 05 13:59	3° 	08'53
evening set	3418 Aug 30 13:33	19°  049'53		evening set		3419 Aug 11 14:46	1° 	043'13
min. Earth dist.	3418 Sep 03 08:08	17°  012'30	0.60374 AU			3419 Aug 14 17:20	30° 	05'03
inferior conj	3418 Sep 06 13:50	14°  032'52	-4°36'01	min. Earth dist.		3419 Aug 16 02:33	29° 	05'03 0.58318 AU
minimum elong	3418 Sep 06 19:03	14°  022'07	4°35'04	inferior conj		3419 Aug 19 07:16	26° 	048'31 -5°04'28
morning rise	3418 Sep 14 02:29	9°  049'18		minimum elong		3419 Aug 19 09:19	26° 	044'51 5°04'21
direct	3418 Sep 16 11:36	9°  027'44		morning rise		3419 Aug 27 06:07	22° 	028'00
asc. node	3418 Sep 23 15:00	12°  051'24		direct		3419 Aug 29 18:00	22° 	008'16
morning max el	3418 Sep 23 21:10	13°  006'05	18°07'40	morning max el		3419 Sep 07 02:46	26° 	07'02 18°44'17
	3418 Oct 05 06:51	0° 		asc. node		3419 Sep 10 12:03	29° 	055'48
morning set	3418 Oct 09 16:44	8°  010'15				3419 Sep 10 13:20	0° 	
				morning set		3419 Sep 23 11:45	22° 	16'52
superior conj	3418 Oct 19 08:55	26°  002'18	1°15'12			3419 Sep 27 10:34	0° 	
minimum elong	3418 Oct 19 13:02	26°  020'46	1°14'43	superior conj		3419 Oct 02 02:41	8° 	058'28 1°34'10
	3418 Oct 21 14:25	0° 		minimum elong		3419 Oct 02 05:29	9° 	011'39 1°33'56
max. Earth dist.	3418 Oct 27 00:14	9°  018'53	1.41515 AU	max. Earth dist.		3419 Oct 09 06:04	22° 	001'52 1.39476 AU
desc. node	3418 Oct 31 00:22	15°  056'54		evening rise		3419 Oct 13 06:09	28° 	057'30
evening rise	3418 Nov 01 06:13	17°  057'58				3419 Oct 13 20:56	0° 	
	3418 Nov 08 22:18	0° 		desc. node		3419 Oct 17 21:22	6° 	038'29
	3418 Nov 30 11:24	0° 				3419 Nov 02 09:29	0° 	
evening max el	3418 Dec 04 21:16	4°  053'03	22°50'02	evening max el		3419 Nov 17 10:49	18° 	031'26 24°09'48
retrograde	3418 Dec 14 21:59	10°  050'12		retrograde		3419 Nov 28 13:43	25° 	002'58
evening set	3418 Dec 19 15:59	8°  053'47		evening set		3419 Dec 03 21:06	22° 	050'10
asc. node	3418 Dec 20 14:15	8°  003'09		asc. node		3419 Dec 07 11:17	18° 	053'49
inferior conj	3418 Dec 25 00:52	2°  031'15	1°27'58	min. Earth dist.		3419 Dec 08 14:53	17° 	022'34 0.67744 AU
minimum elong	3418 Dec 24 23:00	2° 037'41	1°27'16	inferior conj		3419 Dec 09 07:52	16°	025'16 0°37'52
min. Earth dist.	3418 Dec 24 18:38	2° 052'45	0.67954 AU					

minimum elong	3419 Dec 09 06:58	16° ♊ 28'18	0°37'30	inferior conj	3420 Nov 22 12:22	0° ♊ 19'37	-0°17'08
morning rise	3419 Dec 14 16:52	10° ♊ 21'35		minimum elong	3420 Nov 22 12:48	0° ♊ 18'12	0°16'56
direct	3419 Dec 18 14:21	8° ♊ 55'15			3420 Nov 22 18:27	30° ♋	
morning max el	3419 Dec 26 12:04	13° ♊ 27'00	20°26'00	asc. node	3420 Nov 23 08:19	29° ♋ 15'41	
	3420 Jan 08 08:15	0° ♋		morning rise	3420 Nov 28 03:24	24° ♋ 23'26	
desc. node	3420 Jan 13 20:39	8° ♋ 07'26		direct	3420 Dec 01 12:53	23° ♋ 17'01	
morning set	3420 Jan 23 19:32	23° ♋ 16'58		morning max el	3420 Dec 08 16:19	27° ♋ 17'21	19°22'51
	3420 Jan 28 02:47	0° ♌			3420 Dec 11 03:26	0° ♌	
max. Earth dist.	3420 Feb 02 10:40	8° ♌ 28'43	1.43447 AU	greatest brilliancy	3420 Dec 22 02:12	15° ♌ 16'01	-0.7m
				desc. node	3420 Dec 30 17:40	28° ♌ 30'07	
superior conj	3420 Feb 08 16:24	18° ♌ 40'37	-2°05'04		3420 Dec 31 16:55	0° ♍	
minimum elong	3420 Feb 08 13:46	18° ♌ 29'39	2°05'00	morning set	3421 Jan 01 18:27	1° ♍ 38'50	
	3420 Feb 15 09:16	0° ♍		max. Earth dist.	3421 Jan 15 00:20	22° ♍ 20'19	1.44673 AU
evening rise	3420 Feb 21 02:45	9° ♍ 56'59					
	3420 Mar 03 24:00	0° ♎		superior conj	3421 Jan 18 12:25	27° ♍ 53'59	-1°47'05
asc. node	3420 Mar 04 10:36	0° ♎ 39'24		minimum elong	3421 Jan 18 04:20	27° ♍ 21'43	1°46'27
evening max el	3420 Mar 09 11:35	6° ♎ 59'55	18°07'59		3421 Jan 19 19:58	0° ♏	
retrograde	3420 Mar 15 23:07	10° ♎ 22'55		evening rise	3421 Feb 01 18:37	21° ♏ 09'25	
evening set	3420 Mar 18 18:14	9° ♎ 44'11			3421 Feb 07 01:58	0° ♏	
inferior conj	3420 Mar 25 01:34	4° ♎ 35'20	3°32'02	asc. node	3421 Feb 19 07:38	18° ♏ 29'54	
minimum elong	3420 Mar 25 03:00	4° ♎ 31'39	3°31'55	evening max el	3421 Feb 21 00:04	20° ♏ 21'17	18°23'34
min. Earth dist.	3420 Mar 27 23:11	1° ♎ 36'12	0.62230 AU	retrograde	3421 Feb 27 11:41	23° ♏ 52'38	
	3420 Mar 29 16:07	30° ♏		evening set	3421 Mar 02 12:26	23° ♏ 02'21	
morning rise	3420 Mar 31 10:23	28° ♏ 34'39		inferior conj	3421 Mar 08 09:56	17° ♏ 34'49	3°38'34
direct	3420 Apr 07 07:28	26° ♏ 03'52		minimum elong	3421 Mar 08 09:36	17° ♏ 35'44	3°38'33
desc. node	3420 Apr 10 19:52	26° ♏ 39'29		min. Earth dist.	3421 Mar 10 16:44	14° ♏ 57'13	0.64140 AU
	3420 Apr 16 20:05	0° ♐		morning rise	3421 Mar 14 06:03	11° ♏ 26'07	
morning max el	3420 Apr 21 09:32	4° ♐ 01'28	27°51'14	direct	3421 Mar 21 02:16	8° ♏ 38'16	
	3420 May 10 17:56	0° ♑		desc. node	3421 Mar 28 16:54	11° ♏ 24'43	
morning set	3420 May 25 01:22	26° ♑ 13'10		morning max el	3421 Apr 03 18:30	16° ♏ 33'57	27°31'18
	3420 May 26 21:31	0° ♒			3421 Apr 14 21:26	0° ♐	
max. Earth dist.	3420 May 30 16:36	8° ♒ 02'32	1.32471 AU		3421 May 03 12:22	0° ♑	
asc. node	3420 May 31 09:52	9° ♒ 35'46		morning set	3421 May 08 19:49	10° ♑ 06'57	
				max. Earth dist.	3421 May 13 18:03	20° ♑ 06'44	1.33268 AU
superior conj	3420 Jun 01 13:24	12° ♒ 05'09	0°12'03				
minimum elong	3420 Jun 01 12:50	12° ♒ 02'05	0°11'55	superior conj	3421 May 16 19:16	26° ♑ 32'47	-0°15'31
behind sun begin	3420 Jun 01 09:24	11° ♒ 43'20		minimum elong	3421 May 16 20:03	26° ♑ 36'57	0°15'21
behind sun end	3420 Jun 01 16:17	12° ♒ 20'50		behind sun begin	3421 May 16 18:34	26° ♑ 29'01	
evening rise	3420 Jun 08 11:27	27° ♒ 05'43		behind sun end	3421 May 16 21:32	26° ♑ 44'54	
	3420 Jun 09 20:30	0° ♓		asc. node	3421 May 18 06:56	29° ♑ 43'28	
	3420 Jun 27 06:35	0° ♓			3421 May 18 10:00	0° ♒	
evening max el	3420 Jul 03 04:32	6° ♓ 41'56	24°11'36	evening rise	3421 May 23 23:00	11° ♒ 51'31	
desc. node	3420 Jul 07 19:07	10° ♓ 29'09			3421 Jun 02 06:11	0° ♓	
retrograde	3420 Jul 17 00:05	13° ♓ 39'51		evening max el	3421 Jun 14 18:37	17° ♓ 07'43	22°34'51
evening set	3420 Jul 21 16:09	12° ♓ 51'22		desc. node	3421 Jun 24 16:08	23° ♓ 15'37	
min. Earth dist.	3420 Jul 27 15:11	9° ♓ 54'26	0.56492 AU	retrograde	3421 Jun 27 22:06	23° ♓ 39'51	
inferior conj	3420 Jul 30 04:28	8° ♓ 19'02	-4°59'05	evening set	3421 Jul 01 02:19	23° ♓ 17'39	
minimum elong	3420 Jul 30 00:51	8° ♓ 24'42	4°58'46	min. Earth dist.	3421 Jul 09 02:14	19° ♓ 48'08	0.55244 AU
morning rise	3420 Aug 07 12:12	4° ♓ 18'56		inferior conj	3421 Jul 10 07:26	19° ♓ 06'32	-4°06'16
direct	3420 Aug 10 05:05	3° ♓ 59'40		minimum elong	3421 Jul 09 23:22	19° ♓ 18'03	4°04'23
morning max el	3420 Aug 19 22:33	8° ♓ 31'00	19°42'28	morning rise	3421 Jul 18 22:34	15° ♓ 15'36	
asc. node	3420 Aug 27 09:05	17° ♓ 54'33		direct	3421 Jul 21 22:21	14° ♓ 55'06	
	3420 Sep 03 04:35	0° ♔		morning max el	3421 Aug 02 06:48	20° ♓ 11'38	21°01'32
morning set	3420 Sep 06 14:23	6° ♔ 45'17			3421 Aug 10 06:15	0° ♔	
				asc. node	3421 Aug 14 06:09	6° ♔ 35'13	
superior conj	3420 Sep 14 11:52	22° ♔ 40'18	1°43'17	morning set	3421 Aug 21 22:00	21° ♔ 28'19	
minimum elong	3420 Sep 14 12:54	22° ♔ 45'27	1°43'15		3421 Aug 26 00:11	0° ♕	
	3420 Sep 18 06:12	0° ♕					
max. Earth dist.	3420 Sep 20 10:38	4° ♕ 07'36	1.37418 AU	superior conj	3421 Aug 29 07:57	6° ♕ 54'33	1°44'13
evening rise	3420 Sep 24 04:59	11° ♕ 00'21		minimum elong	3421 Aug 29 07:26	6° ♕ 51'55	1°44'13
desc. node	3420 Oct 03 18:24	27° ♕ 10'47		max. Earth dist.	3421 Sep 02 19:34	15° ♕ 58'10	1.35578 AU
	3420 Oct 05 13:09	0° ♖		evening rise	3421 Sep 06 23:05	23° ♕ 57'44	
	3420 Oct 27 19:17	0° ♖			3421 Sep 10 05:52	0° ♖	
evening max el	3420 Oct 29 22:59	2° ♖ 12'21	25°24'43	desc. node	3421 Sep 20 15:26	17° ♖ 28'26	
retrograde	3420 Nov 11 01:07	9° ♖ 10'02			3421 Sep 29 03:47	0° ♗	
evening set	3420 Nov 16 22:30	6° ♖ 42'30		evening max el	3421 Oct 12 11:18	15° ♗ 52'32	26°27'24
min. Earth dist.	3420 Nov 21 08:31	1° ♖ 49'29	0.67188 AU	retrograde	3421 Oct 25 07:36	23° ♗ 05'25	

evening set	3421 Oct 31 18:16	20° \mathbb{M} 27'15		evening max el	3422 Sep 24 23:49	29° \mathbb{L} 23'57	27°10'19
min. Earth dist.	3421 Nov 04 21:13	16° \mathbb{M} 09'51	0.66284 AU		3422 Sep 25 15:09	0° \mathbb{M}	
inferior conj	3421 Nov 06 12:28	14° \mathbb{M} 11'05	-1°15'45	retrograde	3422 Oct 08 08:22	6° \mathbb{M} 41'48	
minimum elong	3421 Nov 06 14:31	14° \mathbb{M} 04'51	1°14'53	evening set	3422 Oct 15 06:08	3° \mathbb{M} 59'49	
asc. node	3421 Nov 10 05:22	10° \mathbb{M} 05'49		min. Earth dist.	3422 Oct 19 02:43	0° \mathbb{M} 18'01	0.65030 AU
morning rise	3421 Nov 12 11:23	8° \mathbb{M} 25'03			3422 Oct 19 09:18	30° \mathbb{R} \mathbb{L}	
direct	3421 Nov 15 10:59	7° \mathbb{M} 34'49		inferior conj	3422 Oct 21 06:00	27° \mathbb{L} 55'20	-2°16'13
morning max el	3421 Nov 22 03:12	11° \mathbb{M} 14'33	18°35'19	minimum elong	3422 Oct 21 09:47	27° \mathbb{L} 44'47	2°14'46
	3421 Dec 05 14:12	0° \mathbb{X}		morning rise	3422 Oct 27 14:23	22° \mathbb{L} 22'27	
morning set	3421 Dec 12 15:27	11° \mathbb{X} 11'27		asc. node	3422 Oct 28 02:25	22° \mathbb{L} 09'39	
desc. node	3421 Dec 17 14:42	19° \mathbb{X} 04'38		direct	3422 Oct 30 06:29	21° \mathbb{L} 44'31	
	3421 Dec 24 12:59	0° \mathbb{Z}		morning max el	3422 Nov 05 18:20	25° \mathbb{L} 12'57	18°04'30
					3422 Nov 09 18:12	0° \mathbb{M}	
superior conj	3421 Dec 28 15:51	6° \mathbb{Z} 28'00	-1°10'29	morning set	3422 Nov 23 18:04	22° \mathbb{M} 13'07	
minimum elong	3421 Dec 28 07:30	5° \mathbb{Z} 55'14	1°09'31		3422 Nov 28 11:10	0° \mathbb{X}	
max. Earth dist.	3421 Dec 28 18:08	6° \mathbb{Z} 36'56	1.45212 AU	desc. node	3422 Dec 04 11:45	9° \mathbb{X} 47'14	
	3422 Jan 12 13:59	0° \mathbb{W}					
evening rise	3422 Jan 13 11:11	1° \mathbb{W} 24'20		superior conj	3422 Dec 07 22:29	15° \mathbb{X} 18'07	-0°23'22
greatest brilliancy	3422 Jan 22 03:09	15° \mathbb{W} 11'14	-0.8m	minimum elong	3422 Dec 07 19:34	15° \mathbb{X} 06'29	0°22'57
	3422 Feb 01 03:51	0° \mathbb{X}		max. Earth dist.	3422 Dec 11 13:26	21° \mathbb{X} 02'17	1.45010 AU
evening max el	3422 Feb 04 10:24	3° \mathbb{X} 49'00	18°57'01		3422 Dec 17 06:44	0° \mathbb{Z}	
asc. node	3422 Feb 06 04:40	5° \mathbb{X} 26'45		evening rise	3422 Dec 24 06:57	10° \mathbb{Z} 52'37	
retrograde	3422 Feb 11 06:10	7° \mathbb{X} 39'44			3423 Jan 05 18:42	0° \mathbb{W}	
evening set	3422 Feb 14 13:17	6° \mathbb{X} 36'57		greatest brilliancy	3423 Jan 06 17:59	1° \mathbb{W} 27'04	-0.7m
inferior conj	3422 Feb 20 04:07	0° \mathbb{X} 52'35	3°28'40	evening max el	3423 Jan 18 16:42	17° \mathbb{W} 20'17	19°46'44
minimum elong	3422 Feb 20 02:30	0° \mathbb{X} 57'37	3°28'28	asc. node	3423 Jan 24 01:42	21° \mathbb{W} 16'22	
	3422 Feb 20 20:51	30° \mathbb{R} \mathbb{W}		retrograde	3423 Jan 26 03:34	21° \mathbb{W} 39'47	
min. Earth dist.	3422 Feb 21 19:25	28° \mathbb{W} 49'36	0.65697 AU	evening set	3423 Jan 29 18:21	20° \mathbb{W} 23'18	
morning rise	3422 Feb 25 15:21	24° \mathbb{W} 40'13		inferior conj	3423 Feb 04 05:05	14° \mathbb{W} 24'16	3°06'19
direct	3422 Mar 04 04:03	21° \mathbb{W} 49'25		minimum elong	3423 Feb 04 02:45	14° \mathbb{W} 32'01	3°05'49
desc. node	3422 Mar 15 13:56	27° \mathbb{W} 57'20		min. Earth dist.	3423 Feb 05 05:50	13° \mathbb{W} 02'08	0.66847 AU
morning max el	3422 Mar 17 04:23	29° \mathbb{W} 30'46	26°40'03	morning rise	3423 Feb 09 10:56	8° \mathbb{W} 10'43	
	3422 Mar 17 15:51	0° \mathbb{X}		direct	3423 Feb 15 11:36	5° \mathbb{W} 29'18	
	3422 Apr 08 18:39	0° \mathbb{Y}		morning max el	3423 Feb 27 13:22	12° \mathbb{W} 41'21	25°26'15
morning set	3422 Apr 22 03:10	23° \mathbb{Y} 23'29		desc. node	3423 Mar 02 10:58	15° \mathbb{W} 47'49	
	3422 Apr 25 13:08	0° \mathbb{Z}			3423 Mar 13 12:29	0° \mathbb{X}	
max. Earth dist.	3422 Apr 26 08:39	1° \mathbb{Z} 36'41	1.34526 AU		3423 Apr 01 12:16	0° \mathbb{Y}	
				morning set	3423 Apr 04 18:56	5° \mathbb{Y} 50'14	
superior conj	3422 Apr 30 19:06	10° \mathbb{Z} 37'21	-0°44'15	max. Earth dist.	3423 Apr 08 11:50	12° \mathbb{Y} 41'07	1.36242 AU
minimum elong	3422 Apr 30 21:25	10° \mathbb{Z} 49'21	0°43'47				
asc. node	3422 May 05 03:58	19° \mathbb{Z} 45'31		superior conj	3423 Apr 14 10:13	24° \mathbb{Y} 11'40	-1°12'36
evening rise	3422 May 08 08:23	26° \mathbb{Z} 25'20		minimum elong	3423 Apr 14 13:59	24° \mathbb{Y} 30'27	1°11'59
	3422 May 10 02:05	0° \mathbb{II}			3423 Apr 17 07:31	0° \mathbb{Z}	
evening max el	3422 May 27 16:30	27° \mathbb{II} 50'50	21°04'55	asc. node	3423 Apr 22 01:01	9° \mathbb{Z} 37'52	
	3422 May 30 03:29	0° \mathbb{E}		evening rise	3423 Apr 22 13:31	10° \mathbb{Z} 41'17	
retrograde	3422 Jun 08 11:21	3° \mathbb{E} 36'52			3423 May 02 23:10	0° \mathbb{II}	
evening set	3422 Jun 10 16:23	3° \mathbb{E} 25'28		evening max el	3423 May 10 02:09	9° \mathbb{II} 10'42	19°50'46
desc. node	3422 Jun 11 13:11	3° \mathbb{E} 15'02		retrograde	3423 May 20 03:18	14° \mathbb{II} 03'30	
	3422 Jun 19 01:58	30° \mathbb{R} \mathbb{II}		evening set	3423 May 22 02:40	13° \mathbb{II} 53'02	
inferior conj	3422 Jun 20 01:05	29° \mathbb{II} 27'31	-2°27'12	desc. node	3423 May 29 10:12	10° \mathbb{II} 48'34	
minimum elong	3422 Jun 19 18:22	29° \mathbb{II} 36'59	2°24'55	inferior conj	3423 May 30 23:41	9° \mathbb{II} 51'53	-0°27'37
min. Earth dist.	3422 Jun 20 13:57	29° \mathbb{II} 09'23	0.54856 AU	minimum elong	3423 May 30 22:25	9° \mathbb{II} 53'49	0°27'10
morning rise	3422 Jun 28 20:26	25° \mathbb{II} 27'23		min. Earth dist.	3423 Jun 02 03:04	8° \mathbb{II} 33'21	0.55436 AU
direct	3422 Jul 02 07:54	25° \mathbb{II} 01'15		morning rise	3423 Jun 08 16:03	5° \mathbb{II} 24'39	
	3422 Jul 13 21:13	0° \mathbb{E}		direct	3423 Jun 12 22:37	4° \mathbb{II} 44'24	
morning max el	3422 Jul 15 04:09	1° \mathbb{E} 08'48	22°37'24	morning max el	3423 Jun 26 18:56	11° \mathbb{II} 36'53	24°20'28
asc. node	3422 Aug 01 03:13	25° \mathbb{E} 47'04			3423 Jul 10 17:38	0° \mathbb{E}	
	3422 Aug 03 06:41	0° \mathbb{O}		asc. node	3423 Jul 19 00:15	15° \mathbb{E} 21'52	
morning set	3422 Aug 06 08:34	6° \mathbb{O} 19'53		morning set	3423 Jul 21 20:19	21° \mathbb{E} 14'40	
					3423 Jul 25 22:00	0° \mathbb{O}	
superior conj	3422 Aug 13 11:28	21° \mathbb{O} 30'30	1°38'24				
minimum elong	3422 Aug 13 09:51	21° \mathbb{O} 21'53	1°38'18	superior conj	3423 Jul 28 19:46	6° \mathbb{O} 19'46	1°26'59
max. Earth dist.	3422 Aug 16 13:16	27° \mathbb{O} 58'20	1.34093 AU	minimum elong	3423 Jul 28 17:32	6° \mathbb{O} 07'39	1°26'43
	3422 Aug 17 12:50	0° \mathbb{P}		max. Earth dist.	3423 Jul 30 15:53	10° \mathbb{O} 18'14	1.33012 AU
evening rise	3422 Aug 21 07:57	7° \mathbb{P} 37'34		evening rise	3423 Aug 05 03:34	21° \mathbb{O} 48'16	
	3422 Sep 02 19:10	0° \mathbb{L}			3423 Aug 09 07:22	0° \mathbb{P}	
desc. node	3422 Sep 07 12:29	7° \mathbb{L} 24'41		desc. node	3423 Aug 25 09:31	26° \mathbb{P} 50'04	

























































































































	3423 Aug 27 16:06	0°♄		evening max el	3424 Aug 19 17:49	25°♄08'25	27°10'57
evening max el	3423 Sep 07 10:51	12°♄33'43	27°26'30		3424 Aug 25 23:48	0°♄	
retrograde	3423 Sep 21 02:45	19°♄50'10		retrograde	3424 Sep 02 14:09	2°♄21'51	
evening set	3423 Sep 28 07:01	17°♄13'56		evening set	3424 Sep 09 17:09	0°♄03'28	
min. Earth dist.	3423 Oct 01 22:44	14°♄04'53	0.63439 AU		3424 Sep 09 19:19	30°♄	
inferior conj	3423 Oct 04 14:17	11°♄25'36	-3°15'51	min. Earth dist.	3424 Sep 13 08:06	27°♄18'54	0.61552 AU
minimum elong	3423 Oct 04 19:32	11°♄12'24	3°14'07	inferior conj	3424 Sep 16 10:14	24°♄34'32	-4°10'02
morning rise	3423 Oct 11 09:22	6°♄09'23		minimum elong	3424 Sep 16 16:00	24°♄21'43	4°08'38
direct	3423 Oct 13 20:35	5°♄40'06		morning rise	3424 Sep 23 16:35	19°♄38'31	
asc. node	3423 Oct 14 23:28	5°♄46'16		direct	3424 Sep 26 01:38	19°♄14'53	
morning max el	3423 Oct 20 10:49	9°♄05'32	17°51'05	asc. node	3424 Sep 30 20:30	20°♄54'24	
	3423 Nov 03 08:31	0°♄		morning max el	3424 Oct 03 01:43	22°♄45'36	17°56'04
morning set	3423 Nov 05 22:15	4°♄28'37			3424 Oct 08 17:38	0°♄	
				morning set	3424 Oct 18 21:41	17°♄39'07	
superior conj	3423 Nov 18 02:05	25°♄11'28	0°22'30		3424 Oct 25 17:19	0°♄	
minimum elong	3423 Nov 18 04:24	25°♄21'01	0°22'11				
desc. node	3423 Nov 21 08:46	0°♄33'44		superior conj	3424 Oct 29 08:41	6°♄24'32	0°59'13
	3423 Nov 21 00:28	0°♄		minimum elong	3424 Oct 29 12:56	6°♄42'59	0°58'39
max. Earth dist.	3423 Nov 24 07:10	5°♄17'29	1.44097 AU	max. Earth dist.	3424 Nov 05 20:29	19°♄04'47	1.42586 AU
evening rise	3423 Dec 03 16:19	20°♄00'47		desc. node	3424 Nov 07 05:48	21°♄21'14	
	3423 Dec 10 05:34	0°♄		evening rise	3424 Nov 12 07:35	29°♄29'25	
	3423 Dec 31 21:46	0°♄			3424 Nov 12 15:21	0°♄	
evening max el	3424 Jan 01 17:37	0°♄52'14	20°50'25		3424 Dec 02 21:07	0°♄	
retrograde	3424 Jan 10 01:33	5°♄47'46		evening max el	3424 Dec 14 12:59	14°♄25'08	22°04'29
asc. node	3424 Jan 10 22:44	5°♄43'29		retrograde	3424 Dec 23 22:18	20°♄00'24	
evening set	3424 Jan 14 01:35	4°♄16'24		asc. node	3424 Dec 27 19:45	18°♄38'54	
	3424 Jan 18 00:25	30°♄		evening set	3424 Dec 28 09:16	18°♄13'10	
inferior conj	3424 Jan 19 10:17	28°♄05'23	2°34'12	inferior conj	3425 Jan 02 17:38	11°♄53'31	1°54'07
minimum elong	3424 Jan 19 07:45	28°♄14'03	2°33'28	minimum elong	3425 Jan 02 15:24	12°♄01'16	1°53'21
min. Earth dist.	3424 Jan 19 21:59	27°♄25'12	0.67580 AU	min. Earth dist.	3425 Jan 02 17:38	11°♄53'31	0.67923 AU
morning rise	3424 Jan 24 13:46	21°♄52'19		morning rise	3425 Jan 07 21:25	5°♄42'29	
direct	3424 Jan 30 00:03	19°♄28'40		direct	3425 Jan 12 16:44	3°♄40'48	
morning max el	3424 Feb 09 21:50	25°♄58'47	24°00'03	morning max el	3425 Jan 22 08:23	9°♄22'40	22°31'22
	3424 Feb 13 14:20	0°♄		desc. node	3425 Feb 03 05:01	23°♄58'17	
desc. node	3424 Feb 17 07:59	4°♄33'18			3425 Feb 07 11:37	0°♄	
	3424 Mar 06 02:03	0°♄		morning set	3425 Feb 25 04:36	27°♄13'35	
morning set	3424 Mar 16 13:21	17°♄11'40			3425 Feb 26 21:03	0°♄	
max. Earth dist.	3424 Mar 20 07:58	23°♄48'41	1.38297 AU	max. Earth dist.	3425 Mar 02 04:13	5°♄31'55	1.40468 AU
	3424 Mar 23 17:56	0°♄					
superior conj	3424 Mar 27 13:04	7°♄06'26	-1°38'14	superior conj	3425 Mar 09 23:12	19°♄10'35	-1°57'50
minimum elong	3424 Mar 27 17:40	7°♄28'19	1°37'42	minimum elong	3425 Mar 10 03:05	19°♄28'07	1°57'36
evening rise	3424 Apr 05 11:51	24°♄32'18			3425 Mar 15 20:19	0°♄	
asc. node	3424 Apr 07 22:03	29°♄15'55		evening rise	3425 Mar 20 00:12	7°♄50'12	
	3424 Apr 08 07:13	0°♄		asc. node	3425 Mar 25 19:05	18°♄33'58	
evening max el	3424 Apr 21 23:07	21°♄10'46	18°56'13		3425 Apr 01 22:55	0°♄	
retrograde	3424 Apr 30 10:19	25°♄18'38		evening max el	3425 Apr 05 04:38	3°♄45'04	18°21'57
evening set	3424 May 02 13:35	25°♄03'55		retrograde	3425 Apr 12 12:22	7°♄23'02	
inferior conj	3424 May 10 15:24	20°♄47'22	1°18'52	evening set	3425 Apr 14 21:59	7°♄00'37	
minimum elong	3424 May 10 18:17	20°♄42'15	1°17'55	inferior conj	3425 Apr 22 04:37	2°♄24'14	2°34'37
min. Earth dist.	3424 May 13 18:49	18°♄34'32	0.56856 AU	minimum elong	3425 Apr 22 08:21	2°♄16'29	2°33'42
desc. node	3424 May 15 07:12	17°♄35'17			3425 Apr 25 02:08	30°♄	
morning rise	3424 May 18 19:48	15°♄44'40		min. Earth dist.	3425 Apr 25 15:14	29°♄33'55	0.58832 AU
direct	3424 May 24 02:07	14°♄38'36		morning rise	3425 Apr 29 15:48	26°♄50'57	
morning max el	3424 Jun 07 09:39	22°♄03'41	25°55'57	desc. node	3425 May 02 04:13	25°♄45'27	
	3424 Jun 14 09:24	0°♄		direct	3425 May 05 19:46	25°♄09'52	
	3424 Jul 02 08:36	0°♄			3425 May 16 22:52	0°♄	
asc. node	3424 Jul 04 21:18	5°♄13'04		morning max el	3425 May 20 05:10	2°♄55'20	27°08'06
morning set	3424 Jul 05 07:40	6°♄07'39			3425 Jun 08 20:13	0°♄	
				morning set	3425 Jun 19 16:53	20°♄52'17	
superior conj	3424 Jul 12 06:45	21°♄15'34	1°10'49	asc. node	3425 Jun 21 18:20	25°♄14'26	
minimum elong	3424 Jul 12 04:25	21°♄02'41	1°10'26		3425 Jun 23 23:04	0°♄	
max. Earth dist.	3424 Jul 13 00:52	22°♄55'01	1.32336 AU	superior conj	3425 Jun 26 18:33	6°♄10'49	0°50'36
	3424 Jul 16 06:56	0°♄		minimum elong	3425 Jun 26 16:34	5°♄59'53	0°50'12
evening rise	3424 Jul 19 06:45	6°♄20'23		max. Earth dist.	3425 Jun 26 12:31	5°♄37'35	1.32066 AU
	3424 Jul 31 20:28	0°♄		evening rise	3425 Jul 03 14:53	21°♄04'42	
desc. node	3424 Aug 11 06:31	15°♄31'55			3425 Jul 07 23:23	0°♄	

	3425 Jul 26 11:09	0°♊		evening max el	3426 Jul 14 11:26	17°♏58'12	25°04'48
desc. node	3425 Jul 29 03:32	3°♊11'16		desc. node	3426 Jul 16 00:33	19°♏22'56	
evening max el	3425 Aug 01 18:10	6°♊56'34	26°22'12	retrograde	3426 Jul 28 10:44	25°♏02'59	
retrograde	3425 Aug 15 17:34	14°♊07'11		evening set	3426 Aug 02 22:31	23°♏53'56	
evening set	3425 Aug 22 07:42	12°♊19'34		min. Earth dist.	3426 Aug 07 23:06	21°♏09'26	0.57488 AU
min. Earth dist.	3425 Aug 26 07:21	9°♊44'19	0.59488 AU	inferior conj	3426 Aug 10 23:09	19°♏08'25	-5°07'17
inferior conj	3425 Aug 29 14:15	7°♊11'46	-4°51'13	minimum elong	3426 Aug 10 22:59	19°♏08'41	5°07'18
minimum elong	3425 Aug 29 18:29	7°♊03'31	4°50'40	morning rise	3426 Aug 19 01:56	14°♏57'07	
morning rise	3425 Sep 06 07:27	2°♊38'22		direct	3426 Aug 21 15:30	14°♏37'52	
direct	3425 Sep 08 17:18	2°♊17'55		morning max el	3426 Aug 30 13:26	18°♏49'27	19°06'23
morning max el	3425 Sep 16 11:41	6°♊03'30	18°20'43	asc. node	3426 Sep 04 14:35	24°♏49'09	
asc. node	3425 Sep 17 17:32	7°♊20'22			3426 Sep 07 22:48	0°♊	
	3425 Oct 01 16:15	0°♊		morning set	3426 Sep 16 09:21	15°♊44'26	
morning set	3425 Oct 02 10:46	1°♊28'11			3426 Sep 23 14:27	0°♊	
superior conj	3425 Oct 11 15:10	18°♊47'20	1°24'31	superior conj	3426 Sep 24 16:03	2°♊04'00	1°39'07
minimum elong	3425 Oct 11 18:51	19°♊04'09	1°24'09	minimum elong	3426 Sep 24 18:06	2°♊13'54	1°39'00
	3425 Oct 17 21:56	0°♊		max. Earth dist.	3426 Oct 01 08:17	14°♊33'02	1.38586 AU
max. Earth dist.	3425 Oct 19 04:02	2°♊09'49	1.40665 AU	evening rise	3426 Oct 05 03:52	21°♊18'20	
evening rise	3425 Oct 23 17:55	9°♊51'21			3426 Oct 10 07:32	0°♊	
desc. node	3425 Oct 25 02:50	12°♊06'02		desc. node	3426 Oct 11 23:52	2°♊44'06	
	3425 Nov 05 15:33	0°♊			3426 Oct 30 15:36	0°♊	
evening max el	3425 Nov 27 04:00	28°♊00'55	23°24'03	evening max el	3426 Nov 09 16:49	11°♊40'53	24°42'47
	3425 Nov 29 06:28	0°♊		retrograde	3426 Nov 21 06:22	18°♊24'56	
retrograde	3425 Dec 07 16:18	4°♊14'15		evening set	3426 Nov 26 19:33	16°♊05'51	
evening set	3425 Dec 12 15:47	2°♊10'47		min. Earth dist.	3426 Dec 01 10:00	10°♊52'32	0.67546 AU
asc. node	3425 Dec 14 16:46	0°♊08'00		asc. node	3426 Dec 01 13:49	10°♊39'56	
	3425 Dec 14 19:32	30°♊		inferior conj	3426 Dec 02 07:29	9°♊41'11	0°15'07
min. Earth dist.	3425 Dec 17 14:28	26°♊23'39	0.67905 AU	minimum elong	3426 Dec 02 07:07	9°♊42'26	0°14'57
inferior conj	3425 Dec 18 01:18	25°♊46'27	1°07'25	transit middle	3426 Dec 02 07:07	9°♊42'26	0°14'57
minimum elong	3425 Dec 17 23:48	25°♊51'36	1°06'48	transit begin	3426 Dec 02 06:03	9°♊45'59	
morning rise	3425 Dec 23 07:45	19°♊39'15		transit end	3426 Dec 02 08:11	9°♊38'53	
direct	3425 Dec 27 12:47	18°♊00'23		morning rise	3426 Dec 07 18:47	3°♊40'07	
morning max el	3426 Jan 05 00:22	22°♊55'46	21°08'31	direct	3426 Dec 11 10:57	2°♊22'32	
	3426 Jan 11 02:14	0°♊		morning max el	3426 Dec 19 00:00	6°♊39'44	19°57'14
desc. node	3426 Jan 21 02:03	13°♊51'47			3427 Jan 05 06:04	0°♊	
	3426 Jan 31 19:50	0°♊		desc. node	3427 Jan 07 23:05	4°♊05'33	
morning set	3426 Feb 04 15:41	5°♊57'22		morning set	3427 Jan 14 11:44	14°♊05'17	
max. Earth dist.	3426 Feb 12 06:14	18°♊08'26	1.42472 AU		3427 Jan 24 15:46	0°♊	
				max. Earth dist.	3427 Jan 25 16:11	1°♊37'11	1.44050 AU
superior conj	3426 Feb 19 11:30	0°♊12'28	-2°06'49	superior conj	3427 Jan 30 22:03	10°♊04'05	-1°59'52
minimum elong	3426 Feb 19 12:03	0°♊14'46	2°06'49	minimum elong	3427 Jan 30 16:50	9°♊42'54	1°59'37
	3426 Feb 19 08:35	0°♊			3427 Feb 11 20:24	0°♊	
evening rise	3426 Mar 02 22:41	20°♊25'57		evening rise	3427 Feb 13 02:51	2°♊10'19	
asc. node	3426 Mar 08 06:58	0°♊		asc. node	3427 Feb 27 13:09	25°♊40'50	
evening max el	3426 Mar 12 16:07	7°♊25'18		evening max el	3427 Mar 03 04:06	0°♊00'18	18°12'23
retrograde	3426 Mar 26 07:10	20°♊08'46	18°07'35		3427 Mar 03 03:59	0°♊	
evening set	3426 Mar 28 22:59	19°♊36'24		retrograde	3427 Mar 09 14:26	3°♊24'56	
inferior conj	3426 Apr 04 13:43	14°♊39'27	3°18'42	evening set	3427 Mar 12 12:00	2°♊41'19	
minimum elong	3426 Apr 04 16:12	14°♊33'30	3°18'21		3427 Mar 16 02:38	30°♊	
min. Earth dist.	3426 Apr 07 18:31	11°♊36'16	0.61013 AU	inferior conj	3427 Mar 18 14:44	27°♊24'31	3°37'04
morning rise	3426 Apr 11 07:27	8°♊46'13		minimum elong	3427 Mar 18 15:23	27°♊22'45	3°37'02
direct	3426 Apr 18 01:12	6°♊30'42		min. Earth dist.	3427 Mar 21 06:23	24°♊32'27	0.63089 AU
desc. node	3426 Apr 19 01:14	6°♊33'34		morning rise	3427 Mar 24 17:43	21°♊20'00	
morning max el	3426 May 02 06:55	14°♊26'26	27°46'11	direct	3427 Mar 31 15:37	18°♊40'05	
	3426 May 14 20:03	0°♊		desc. node	3427 Apr 05 22:16	20°♊00'29	
	3426 Jun 01 06:21	0°♊		morning max el	3427 Apr 14 13:45	26°♊37'37	27°46'52
morning set	3426 Jun 03 22:11	5°♊22'46			3427 Apr 17 17:35	0°♊	
asc. node	3426 Jun 08 15:23	15°♊21'36			3427 May 08 10:34	0°♊	
max. Earth dist.	3426 Jun 09 23:14	18°♊14'34	1.32203 AU	morning set	3427 May 18 21:20	19°♊31'44	
					3427 May 23 22:50	0°♊	
superior conj	3426 Jun 11 05:28	20°♊59'58	0°26'56	max. Earth dist.	3427 May 24 05:07	0°♊33'22	1.32757 AU
minimum elong	3426 Jun 11 04:17	20°♊53'25	0°26'41				
	3426 Jun 15 08:01	0°♊		superior conj	3427 May 26 13:44	5°♊36'56	0°00'34
evening rise	3426 Jun 18 01:51	5°♊54'39		minimum elong	3427 May 26 13:42	5°♊36'45	0°00'34
	3426 Jun 30 17:52	0°♊		behind sun begin	3427 May 26 08:27	5°♊08'27	

behind sun end	3427 May 26 18:57	6° Π 05'05		superior conj	3428 May 09 17:19	19° \mathcal{B} 55'13	-0°27'39
asc. node	3427 May 26 12:27	5° Π 30'01		minimum elong	3428 May 09 18:44	20° \mathcal{B} 02'43	0°27'21
evening rise	3427 Jun 02 13:43	20° Π 43'33		asc. node	3428 May 12 09:30	25° \mathcal{B} 35'32	
	3427 Jun 07 01:57	0° \mathcal{E}			3428 May 14 11:09	0° Π	
evening max el	3427 Jun 26 00:46	28° \mathcal{E} 28'40	23°30'32	evening rise	3428 May 17 00:36	5° Π 24'57	
	3427 Jun 27 16:42	0° Ω			3428 May 30 10:07	0° \mathcal{E}	
desc. node	3427 Jul 02 21:33	3° Ω 34'23		evening max el	3428 Jun 06 17:16	8° \mathcal{E} 57'30	21°54'59
retrograde	3427 Jul 09 15:16	5° Ω 17'21		desc. node	3428 Jun 18 18:34	15° \mathcal{E} 11'10	
evening set	3427 Jul 13 15:30	4° Ω 42'09		retrograde	3428 Jun 19 08:18	15° \mathcal{E} 11'56	
min. Earth dist.	3427 Jul 20 10:44	1° Ω 32'56	0.55871 AU	evening set	3428 Jun 22 00:44	14° \mathcal{E} 55'48	
inferior conj	3427 Jul 22 12:02	0° Ω 19'40	-4°43'00	inferior conj	3428 Jul 01 09:24	10° \mathcal{E} 51'57	-3°28'51
minimum elong	3427 Jul 22 06:02	0° Ω 28'37	4°42'04	minimum elong	3428 Jul 01 01:06	11° \mathcal{E} 03'34	3°26'28
	3427 Jul 23 01:15	30° \mathcal{R} \mathcal{E}		min. Earth dist.	3428 Jun 30 21:28	11° \mathcal{E} 08'38	0.54962 AU
morning rise	3427 Jul 30 23:02	26° \mathcal{E} 24'59		morning rise	3428 Jul 10 02:59	7° \mathcal{E} 00'02	
direct	3427 Aug 02 18:44	26° \mathcal{E} 05'20		direct	3428 Jul 13 07:08	6° \mathcal{E} 37'50	
	3427 Aug 12 03:29	0° Ω		morning max el	3428 Jul 25 07:29	12° \mathcal{E} 15'20	21°40'50
morning max el	3427 Aug 13 04:17	0° Ω 54'49	20°13'42		3428 Aug 07 05:47	0° Ω	
asc. node	3427 Aug 22 11:39	13° Ω 07'06		asc. node	3428 Aug 08 08:43	2° Ω 01'59	
	3427 Aug 31 10:30	0° \mathcal{M}		morning set	3428 Aug 14 23:31	15° Ω 07'15	
morning set	3427 Aug 31 14:25	0° \mathcal{M} 19'57					
				superior conj	3428 Aug 22 05:56	0° \mathcal{M} 25'05	1°42'31
superior conj	3427 Sep 08 06:20	16° \mathcal{M} 00'47	1°44'35	minimum elong	3428 Aug 22 04:53	0° \mathcal{M} 19'39	1°42'28
minimum elong	3427 Sep 08 06:40	16° \mathcal{M} 02'29	1°44'35		3428 Aug 22 01:08	0° \mathcal{M}	
max. Earth dist.	3427 Sep 13 14:23	26° \mathcal{M} 30'35	1.36599 AU	max. Earth dist.	3428 Aug 26 03:01	8° \mathcal{M} 23'56	1.34893 AU
	3427 Sep 15 10:37	0° \mathcal{A}		evening rise	3428 Aug 30 12:19	17° \mathcal{M} 02'15	
evening rise	3427 Sep 17 11:28	3° \mathcal{A} 45'57			3428 Sep 06 14:40	0° \mathcal{A}	
desc. node	3427 Sep 28 20:54	23° \mathcal{A} 11'03		desc. node	3428 Sep 14 17:55	13° \mathcal{A} 20'25	
	3427 Oct 03 06:54	0° \mathcal{M}			3428 Sep 26 15:33	0° \mathcal{M}	
evening max el	3427 Oct 23 05:13	25° \mathcal{M} 23'16	25°53'25	evening max el	3428 Oct 04 17:40	9° \mathcal{M} 00'32	26°48'29
	3427 Oct 28 18:58	0° \mathcal{A}		retrograde	3428 Oct 17 19:31	16° \mathcal{M} 16'09	
retrograde	3427 Nov 04 15:36	2° \mathcal{A} 28'00		evening set	3428 Oct 24 11:30	13° \mathcal{M} 35'10	
evening set	3427 Nov 10 18:48	29° \mathcal{M} 55'33		min. Earth dist.	3428 Oct 28 11:35	9° \mathcal{M} 33'21	0.65796 AU
	3427 Nov 10 16:40	30° \mathcal{R} \mathcal{M}		inferior conj	3428 Oct 30 07:57	7° \mathcal{M} 23'38	-1°41'17
min. Earth dist.	3427 Nov 15 01:51	25° \mathcal{M} 17'32	0.66847 AU	minimum elong	3428 Oct 30 10:44	7° \mathcal{M} 15'28	1°40'08
inferior conj	3427 Nov 16 10:23	23° \mathcal{M} 35'11	-0°41'34	asc. node	3428 Nov 04 07:54	2° \mathcal{M} 24'10	
minimum elong	3427 Nov 16 11:29	23° \mathcal{M} 31'44	0°41'07	morning rise	3428 Nov 05 10:43	1° \mathcal{M} 43'02	
asc. node	3427 Nov 18 10:50	21° \mathcal{M} 07'25		direct	3428 Nov 08 06:54	0° \mathcal{M} 58'26	
morning rise	3427 Nov 22 04:32	17° \mathcal{M} 42'52		morning max el	3428 Nov 14 20:19	4° \mathcal{M} 31'55	18°20'13
direct	3427 Nov 25 09:39	16° \mathcal{M} 43'35			3428 Dec 02 06:22	0° \mathcal{A}	
morning max el	3427 Dec 02 07:17	20° \mathcal{M} 33'37	19°00'41	morning set	3428 Dec 04 03:45	3° \mathcal{A} 03'38	
	3427 Dec 09 19:09	0° \mathcal{A}		desc. node	3428 Dec 11 17:11	15° \mathcal{A} 12'30	
morning set	3427 Dec 24 18:12	22° \mathcal{A} 52'51					
desc. node	3427 Dec 25 20:09	24° \mathcal{A} 34'12		superior conj	3428 Dec 19 11:16	27° \mathcal{A} 28'45	-0°51'05
	3427 Dec 29 07:33	0° \mathcal{B}		minimum elong	3428 Dec 19 04:50	27° \mathcal{A} 03'27	0°50'15
max. Earth dist.	3428 Jan 08 08:33	15° \mathcal{B} 43'56	1.45001 AU	max. Earth dist.	3428 Dec 21 03:42	0° \mathcal{B} 07'35	1.45218 AU
					3428 Dec 21 01:47	0° \mathcal{B}	
superior conj	3428 Jan 10 09:15	18° \mathcal{B} 55'49	-1°33'33	evening rise	3429 Jan 04 16:03	22° \mathcal{B} 51'46	
minimum elong	3428 Jan 10 00:08	18° \mathcal{B} 19'53	1°32'41		3429 Jan 09 05:17	0° \mathcal{A}	
	3428 Jan 17 08:25	0° \mathcal{A}		greatest brilliancy	3429 Jan 15 13:16	9° \mathcal{A} 51'08	-0.8m
evening rise	3428 Jan 25 09:00	12° \mathcal{A} 58'35		evening max el	3429 Jan 28 00:46	26° \mathcal{A} 54'32	19°16'11
	3428 Feb 04 20:55	0° \mathcal{H}		asc. node	3429 Jan 31 07:11	29° \mathcal{A} 40'24	
asc. node	3428 Feb 14 10:11	13° \mathcal{H} 10'12			3429 Jan 31 20:15	0° \mathcal{H}	
evening max el	3428 Feb 14 16:00	13° \mathcal{H} 25'11	18°35'35	retrograde	3429 Feb 04 02:09	0° \mathcal{H} 56'41	
retrograde	3428 Feb 21 05:58	17° \mathcal{H} 03'10			3429 Feb 07 04:52	30° \mathcal{R} \mathcal{A}	
evening set	3428 Feb 24 09:24	16° \mathcal{H} 07'30		evening set	3429 Feb 07 12:21	29° \mathcal{A} 48'08	
inferior conj	3428 Mar 01 03:42	10° \mathcal{H} 32'21	3°36'02	inferior conj	3429 Feb 13 01:08	23° \mathcal{A} 56'56	3°20'31
minimum elong	3428 Mar 01 02:46	10° \mathcal{H} 35'09	3°35'59	minimum elong	3429 Feb 12 23:09	24° \mathcal{A} 03'19	3°20'12
min. Earth dist.	3428 Mar 03 03:45	8° \mathcal{H} 08'41	0.64863 AU	min. Earth dist.	3429 Feb 14 09:59	22° \mathcal{A} 11'07	0.66237 AU
morning rise	3428 Mar 06 19:38	4° \mathcal{H} 21'54		morning rise	3429 Feb 18 09:40	17° \mathcal{A} 43'41	
direct	3428 Mar 13 13:21	1° \mathcal{H} 31'24		direct	3429 Feb 24 17:30	14° \mathcal{A} 55'54	
desc. node	3428 Mar 22 19:19	5° \mathcal{H} 35'28		morning max el	3429 Mar 09 09:17	22° \mathcal{A} 26'41	26°10'54
morning max el	3428 Mar 26 23:22	9° \mathcal{H} 21'37	27°12'47	desc. node	3429 Mar 09 16:22	22° \mathcal{A} 44'42	
	3428 Apr 12 03:11	0° \mathcal{Y}			3429 Mar 16 00:55	0° \mathcal{H}	
	3428 Apr 29 19:52	0° \mathcal{B}			3429 Apr 05 09:45	0° \mathcal{Y}	
morning set	3428 May 01 11:31	3° \mathcal{B} 10'31		morning set	3429 Apr 14 12:56	16° \mathcal{Y} 08'18	
max. Earth dist.	3428 May 06 02:26	12° \mathcal{B} 23'43	1.33754 AU	max. Earth dist.	3429 Apr 18 12:27	23° \mathcal{Y} 43'00	1.35206 AU
					3429 Apr 21 16:43	0° \mathcal{B}	

superior conj	3429 Apr 23 13:51	3°♄48'14	-0°56'26	max. Earth dist.	3430 Mar 31 11:39	4°♄43'39	1.37080 AU
minimum elong	3429 Apr 23 16:49	4°♄03'23	0°55'53				
asc. node	3429 Apr 29 06:32	15°♄34'11		superior conj	3430 Apr 07 00:13	17°♄06'53	-1°23'58
evening rise	3429 May 01 08:31	19°♄52'38		minimum elong	3430 Apr 07 04:28	17°♄27'38	1°23'21
	3429 May 06 10:17	0°♄			3430 Apr 13 11:32	0°♄	
evening max el	3429 May 19 19:51	19°♄54'48	20°31'01	evening rise	3430 Apr 15 11:07	3°♄58'49	
retrograde	3429 May 30 21:34	25°♄18'46		asc. node	3430 Apr 16 03:33	5°♄20'53	
evening set	3429 Jun 01 22:13	25°♄08'38			3430 Apr 30 23:14	0°♄	
desc. node	3429 Jun 05 15:35	24°♄02'31		evening max el	3430 May 02 10:37	1°♄32'25	19°25'06
inferior conj	3429 Jun 11 03:25	21°♄10'54	-1°36'51	retrograde	3430 May 11 18:49	6°♄04'28	
minimum elong	3429 Jun 10 22:51	21°♄17'31	1°35'11	evening set	3430 May 13 19:00	5°♄52'49	
min. Earth dist.	3429 Jun 12 09:42	20°♄27'03	0.54982 AU	inferior conj	3430 May 22 08:19	1°♄46'27	0°20'36
morning rise	3429 Jun 19 22:37	17°♄01'05		minimum elong	3430 May 22 09:11	1°♄45'02	0°20'17
direct	3429 Jun 23 16:58	16°♄30'31		desc. node	3430 May 23 12:36	1°♄00'20	
morning max el	3429 Jul 07 01:34	22°♄58'30	23°21'14	min. Earth dist.	3430 May 25 00:10	0°♄03'10	0.55951 AU
	3429 Jul 13 07:24	0°♄			3430 May 25 02:11	30°♄	
asc. node	3429 Jul 26 05:47	21°♄24'35		morning rise	3430 May 30 20:30	27°♄03'51	
morning set	3429 Jul 30 10:47	0°♄00'55		direct	3430 Jun 04 12:56	26°♄13'56	
	3429 Jul 30 10:37	0°♄			3430 Jun 14 15:00	0°♄	
				morning max el	3430 Jun 18 15:39	3°♄22'49	25°02'51
superior conj	3429 Aug 06 11:47	15°♄07'50	1°34'12		3430 Jul 07 10:44	0°♄	
minimum elong	3429 Aug 06 09:51	14°♄57'25	1°34'01	asc. node	3430 Jul 13 02:50	11°♄06'42	
max. Earth dist.	3429 Aug 09 00:33	20°♄31'26	1.33577 AU	morning set	3430 Jul 14 22:32	14°♄55'07	
	3429 Aug 13 14:56	0°♄					
evening rise	3429 Aug 14 02:11	0°♄56'14		superior conj	3430 Jul 21 21:29	0°♄00'32	1°20'40
	3429 Aug 30 13:54	0°♄		minimum elong	3430 Jul 21 19:09	29°♄47'45	1°20'20
desc. node	3429 Sep 01 14:55	3°♄04'35			3430 Jul 21 21:23	0°♄	
evening max el	3429 Sep 17 05:31	22°♄23'02	27°20'44	max. Earth dist.	3430 Jul 23 05:59	2°♄57'43	1.32674 AU
retrograde	3429 Sep 30 17:44	29°♄41'30		evening rise	3430 Jul 29 01:23	15°♄16'53	
evening set	3429 Oct 07 19:04	27°♄00'11			3430 Aug 05 15:24	0°♄	
min. Earth dist.	3429 Oct 11 13:08	23°♄33'12	0.64393 AU	desc. node	3430 Aug 19 11:56	22°♄12'56	
inferior conj	3429 Oct 13 21:50	21°♄01'59	-2°41'52		3430 Aug 25 14:30	0°♄	
minimum elong	3429 Oct 14 02:18	20°♄50'02	2°40'14	evening max el	3430 Aug 30 15:04	5°♄18'53	27°23'59
morning rise	3429 Oct 20 10:42	15°♄36'04		retrograde	3430 Sep 13 09:32	12°♄34'50	
asc. node	3429 Oct 22 04:57	15°♄05'43		evening set	3430 Sep 20 14:13	10°♄04'40	
direct	3429 Oct 23 00:18	15°♄02'21		min. Earth dist.	3430 Sep 24 04:51	7°♄07'13	0.62660 AU
morning max el	3429 Oct 29 12:25	18°♄28'32	17°56'38	inferior conj	3430 Sep 27 01:16	4°♄23'55	-3°39'55
	3429 Nov 06 23:33	0°♄		minimum elong	3430 Sep 27 06:54	4°♄10'25	3°38'15
morning set	3429 Nov 15 17:52	14°♄37'57			3430 Oct 02 11:17	30°♄	
	3429 Nov 24 22:34	0°♄		morning rise	3430 Oct 04 01:08	29°♄15'54	
desc. node	3429 Nov 28 14:12	5°♄56'45		direct	3430 Oct 06 10:56	28°♄49'29	
				asc. node	3430 Oct 09 02:00	29°♄21'50	
superior conj	3429 Nov 29 01:13	6°♄41'16	-0°03'10		3430 Oct 10 08:15	0°♄	
minimum elong	3429 Nov 29 00:50	6°♄39'44	0°03'07	morning max el	3430 Oct 13 04:37	2°♄16'30	17°50'51
behind sun begin	3429 Nov 28 14:43	5°♄58'53		morning set	3430 Oct 29 07:00	27°♄18'47	
behind sun end	3429 Nov 29 10:57	7°♄20'31			3430 Oct 30 19:18	0°♄	
max. Earth dist.	3429 Dec 03 22:16	14°♄28'49	1.44696 AU				
	3429 Dec 13 20:48	0°♄		superior conj	3430 Nov 09 16:15	17°♄08'15	0°39'26
evening rise	3429 Dec 15 05:28	2°♄05'54		minimum elong	3430 Nov 09 19:47	17°♄23'11	0°38'56
greatest brilliancy	3429 Dec 29 18:19	24°♄04'42	-0.6m	desc. node	3430 Nov 15 11:13	26°♄44'00	
	3430 Jan 02 21:09	0°♄		max. Earth dist.	3430 Nov 16 13:50	28°♄31'58	1.43511 AU
evening max el	3430 Jan 11 04:44	10°♄25'25	20°12'19		3430 Nov 17 11:39	0°♄	
asc. node	3430 Jan 18 04:12	14°♄56'19		evening rise	3430 Nov 24 15:16	11°♄17'29	
retrograde	3430 Jan 19 00:08	15°♄00'06			3430 Dec 07 00:34	0°♄	
evening set	3430 Jan 22 18:33	13°♄37'34		evening max el	3430 Dec 25 03:16	23°♄57'52	21°21'02
inferior conj	3430 Jan 28 04:10	7°♄32'58	2°53'47	retrograde	3431 Jan 02 21:45	29°♄10'13	
minimum elong	3430 Jan 28 01:42	7°♄41'20	2°53'11	asc. node	3431 Jan 05 01:14	28°♄45'03	
min. Earth dist.	3430 Jan 28 23:13	6°♄28'35	0.67200 AU	evening set	3431 Jan 07 02:09	27°♄32'26	
morning rise	3430 Feb 02 08:38	1°♄19'10		inferior conj	3431 Jan 12 10:32	21°♄17'30	2°18'08
	3430 Feb 04 01:35	30°♄		minimum elong	3431 Jan 12 08:05	21°♄26'00	2°17'21
direct	3430 Feb 08 03:17	28°♄44'26		min. Earth dist.	3431 Jan 12 17:13	20°♄54'23	0.67767 AU
	3430 Feb 12 14:57	0°♄		morning rise	3431 Jan 17 13:48	15°♄04'57	
morning max el	3430 Feb 19 17:58	5°♄40'54	24°50'32	direct	3431 Jan 22 17:48	12°♄50'02	
desc. node	3430 Feb 24 13:24	11°♄00'45		morning max el	3431 Feb 02 02:43	19°♄00'09	23°22'05
	3430 Mar 10 13:15	0°♄		desc. node	3431 Feb 11 10:25	0°♄04'39	
morning set	3430 Mar 27 20:26	28°♄09'45			3431 Feb 11 09:01	0°♄	
	3430 Mar 28 21:10	0°♄			3431 Mar 03 17:00	0°♄	

morning set	3431 Mar 09 03:55	8° X 58'45		max. Earth dist.	3432 Feb 23 04:56	28° \approx 06'38	1.41362 AU
max. Earth dist.	3431 Mar 13 06:26	16° X 00'53	1.39222 AU		3432 Feb 24 08:00	0° X	
superior conj	3431 Mar 20 20:36	29° X 41'50	-1°47'32	superior conj	3432 Mar 01 22:04	11° X 20'40	-2°03'16
minimum elong	3431 Mar 21 01:09	0° Y 03'01	1°47'06	minimum elong	3432 Mar 02 00:54	11° X 33'10	2°03'09
	3431 Mar 21 00:30	0° Y			3432 Mar 12 04:30	0° Y	
evening rise	3431 Mar 30 05:37	17° Y 36'34		evening rise	3432 Mar 12 12:32	0° Y 37'11	
asc. node	3431 Apr 03 00:34	24° Y 50'59		asc. node	3432 Mar 19 21:36	13° Y 58'20	
	3431 Apr 05 20:04	0° Z		evening max el	3432 Mar 28 19:53	26° Y 34'35	18°13'27
evening max el	3431 Apr 15 11:43	13° Z 48'33	18°39'11		3432 Apr 03 18:33	0° Z	
retrograde	3431 Apr 23 09:35	17° Z 41'10		retrograde	3432 Apr 04 19:17	0° Z 04'37	
evening set	3431 Apr 25 15:38	17° Z 23'26			3432 Apr 05 20:15	30° R Y	
inferior conj	3431 May 03 09:04	12° Z 58'54	1°55'02	evening set	3432 Apr 07 07:45	29° Y 38'01	
minimum elong	3431 May 03 12:40	12° Z 52'03	1°53'57	inferior conj	3432 Apr 14 07:07	24° Y 52'33	2°56'54
min. Earth dist.	3431 May 06 17:38	10° Z 27'24	0.57660 AU	minimum elong	3432 Apr 14 10:27	24° Y 45'08	2°56'12
desc. node	3431 May 10 09:37	8° Z 08'08		min. Earth dist.	3432 Apr 17 16:22	21° Y 54'00	0.59758 AU
morning rise	3431 May 11 06:30	7° Z 42'18		morning rise	3432 Apr 21 10:43	19° Y 09'47	
direct	3431 May 16 23:02	6° Z 21'40		desc. node	3432 Apr 26 06:38	17° Y 21'00	
morning max el	3431 May 31 07:46	13° Z 56'28	26°30'04	direct	3432 Apr 27 21:43	17° Y 13'40	
	3431 Jun 13 02:04	0° II		morning max el	3432 May 12 05:51	25° Y 03'35	27°28'53
morning set	3431 Jun 29 09:10	29° II 44'44			3432 May 16 18:52	0° Z	
asc. node	3431 Jun 29 23:51	1° Z 02'25			3432 Jun 05 09:36	0° II	
	3431 Jun 29 12:04	0° Z		morning set	3432 Jun 12 17:01	14° II 24'34	
				asc. node	3432 Jun 15 20:54	21° II 06'56	
superior conj	3431 Jul 06 09:02	14° Z 56'34	1°02'41	max. Earth dist.	3432 Jun 19 04:33	28° II 21'16	1.32081 AU
minimum elong	3431 Jul 06 06:47	14° Z 44'12	1°02'17				
max. Earth dist.	3431 Jul 06 16:33	15° Z 37'57	1.32179 AU	superior conj	3432 Jun 19 20:43	29° II 50'15	0°40'57
evening rise	3431 Jul 13 06:59	29° Z 55'07		minimum elong	3432 Jun 19 19:00	29° II 40'53	0°40'36
	3431 Jul 13 07:55	0° O			3432 Jun 19 22:29	0° Z	
	3431 Jul 29 19:03	0° P		evening rise	3432 Jun 26 16:38	14° Z 43'21	
desc. node	3431 Aug 06 08:57	10° P 30'30			3432 Jul 04 08:05	0° O	
evening max el	3431 Aug 12 19:44	17° P 35'17	26°54'13	desc. node	3432 Jul 23 05:58	27° O 36'36	
retrograde	3431 Aug 26 17:39	24° P 46'54		evening max el	3432 Jul 24 17:10	29° O 03'53	25°52'12
evening set	3431 Sep 02 16:35	22° P 40'36			3432 Jul 25 17:26	0° P	
min. Earth dist.	3431 Sep 06 09:55	20° P 01'51	0.60682 AU	retrograde	3432 Aug 07 16:37	6° P 11'52	
inferior conj	3431 Sep 09 14:53	17° P 20'33	-4°29'45	evening set	3432 Aug 13 21:26	4° P 40'14	
minimum elong	3431 Sep 09 20:19	17° P 09'07	4°28'41	min. Earth dist.	3432 Aug 18 05:27	2° P 03'32	0.58619 AU
morning rise	3431 Sep 17 01:55	12° P 33'35		inferior conj	3432 Aug 21 11:11	29° O 42'14	-5°01'58
direct	3431 Sep 19 10:57	12° P 11'31		minimum elong	3432 Aug 21 13:55	29° O 37'15	5°01'47
asc. node	3431 Sep 25 23:04	15° P 04'28			3432 Aug 21 01:31	30° R O	
morning max el	3431 Sep 26 17:45	15° P 47'36	18°04'01	morning rise	3432 Aug 29 08:38	25° O 18'28	
	3431 Oct 06 15:09	0° A		direct	3432 Aug 31 19:57	24° O 58'35	
morning set	3431 Oct 12 12:52	10° A 47'19		morning max el	3432 Sep 09 00:37	28° O 53'23	18°37'30
					3432 Sep 10 02:58	0° P	
superior conj	3431 Oct 22 09:35	28° A 52'04	1°11'20	asc. node	3432 Sep 11 20:07	1° P 59'19	
minimum elong	3431 Oct 22 13:48	29° A 10'48	1°10'51	morning set	3432 Sep 25 06:30	24° P 49'49	
	3431 Oct 23 00:54	0° M			3432 Sep 27 22:21	0° A	
max. Earth dist.	3431 Oct 30 00:56	12° M 02'59	1.41806 AU				
desc. node	3431 Nov 02 08:14	17° M 30'26		superior conj	3432 Oct 04 00:40	11° A 40'15	1°31'56
evening rise	3431 Nov 04 13:33	21° M 05'57		minimum elong	3432 Oct 04 03:43	11° A 54'30	1°31'41
	3431 Nov 10 05:27	0° J		max. Earth dist.	3432 Oct 11 07:14	24° A 51'55	1.39790 AU
	3431 Dec 01 07:29	0° Z			3432 Oct 14 06:38	0° M	
evening max el	3431 Dec 07 20:43	7° Z 31'58	22°38'06	evening rise	3432 Oct 15 09:57	1° M 55'33	
retrograde	3431 Dec 17 17:20	13° Z 23'18		desc. node	3432 Oct 19 05:17	8° M 12'55	
evening set	3431 Dec 22 09:30	11° Z 29'13			3432 Nov 02 13:02	0° J	
asc. node	3431 Dec 22 22:17	11° Z 01'20		evening max el	3432 Nov 19 10:32	21° J 09'14	23°57'58
inferior conj	3431 Dec 27 18:13	5° Z 07'21	1°35'04	retrograde	3432 Nov 30 09:42	27° J 36'20	
minimum elong	3431 Dec 27 16:15	5° Z 14'11	1°34'20	evening set	3432 Dec 05 15:03	25° J 25'49	
min. Earth dist.	3431 Dec 27 13:34	5° Z 23'26	0.67961 AU	asc. node	3432 Dec 08 19:20	22° J 00'36	
	3431 Dec 31 20:03	30° R J		min. Earth dist.	3432 Dec 10 10:02	19° J 53'11	0.67801 AU
morning rise	3432 Jan 01 22:52	28° J 57'51		inferior conj	3432 Dec 11 01:28	19° J 00'53	0°45'50
direct	3432 Jan 06 12:05	27° J 05'45		minimum elong	3432 Dec 11 00:24	19° J 04'30	0°45'23
	3432 Jan 12 22:50	0° Z		morning rise	3432 Dec 16 09:45	12° J 56'16	
morning max el	3432 Jan 15 15:02	2° Z 26'34	21°55'02	direct	3432 Dec 20 09:06	11° J 26'51	
desc. node	3432 Jan 29 07:27	19° Z 42'28		morning max el	3432 Dec 28 10:14	16° J 04'19	20°36'34
	3432 Feb 05 09:07	0° \approx			3433 Jan 08 11:35	0° Z	
morning set	3432 Feb 17 06:35	18° \approx 24'21		desc. node	3433 Jan 15 04:30	9° Z 45'04	

morning set	3433 Jan 26 08:37	26°  44'27		direct	3433 Dec 04 07:36	25°  48'54	
	3433 Jan 28 10:46	0° 		morning max el	3433 Dec 11 13:22	29°  53'25	19°31'14
max. Earth dist.	3433 Feb 04 10:47	11°  07'51	1.43210 AU		3433 Dec 11 15:59	0° 	
				greatest brilliancy	3433 Dec 24 18:06	17°  26'53	-0.7m
superior conj	3433 Feb 10 23:35	21°  52'04	-2°06'07	desc. node	3434 Jan 02 01:34	0°  05'46	
minimum elong	3433 Feb 10 21:50	21°  44'46	2°06'04		3434 Jan 02 00:04	0° 	
	3433 Feb 15 18:45	0° 		morning set	3434 Jan 05 06:00	5°  00'36	
evening rise	3433 Feb 23 03:45	12°  51'48		max. Earth dist.	3434 Jan 17 23:29	24°  53'52	1.44532 AU
	3433 Mar 05 02:43	0° 			3434 Jan 21 04:29	0° 	
asc. node	3433 Mar 06 18:38	2°  35'19					
evening max el	3433 Mar 12 07:45	9°  41'10	18°07'19	superior conj	3434 Jan 21 23:15	1°  55'07	-1°51'05
retrograde	3433 Mar 18 20:09	13°  04'10		minimum elong	3434 Jan 21 15:47	0°  45'11	1°50'33
evening set	3433 Mar 21 14:22	12°  07'10		evening rise	3434 Feb 04 22:57	24°  12'51	
inferior conj	3433 Mar 27 23:29	7°  21'21	3°29'16		3434 Feb 08 09:37	0° 	
minimum elong	3433 Mar 28 01:12	7°  17'01	3°29'05	asc. node	3434 Feb 21 15:40	20°  32'48	
min. Earth dist.	3433 Mar 30 23:07	4°  20'24	0.61914 AU	evening max el	3434 Feb 23 20:23	23°  01'12	18°20'05
morning rise	3433 Apr 03 10:29	1°  22'14		retrograde	3434 Mar 02 07:26	26°  30'27	
	3433 Apr 05 17:28	30°  38'38		evening set	3434 Mar 05 07:19	25°  41'58	
direct	3433 Apr 10 06:55	28°  55'04		inferior conj	3434 Mar 11 06:04	20°  17'16	3°38'40
desc. node	3433 Apr 13 03:41	29°  18'41		minimum elong	3434 Mar 11 05:59	20°  17'29	3°38'40
	3433 Apr 15 02:40	0° 		min. Earth dist.	3434 Mar 13 15:15	17°  35'18	0.63879 AU
morning max el	3433 Apr 24 10:13	6°  52'44	27°51'13	morning rise	3434 Mar 17 03:50	14°  09'27	
	3433 May 11 23:25	0° 		direct	3434 Mar 24 00:45	11°  23'04	
morning set	3433 May 27 20:02	28°  47'05		desc. node	3434 Mar 31 00:42	13°  44'14	
	3433 May 28 10:16	0° 		morning max el	3434 Apr 06 18:43	19°  19'52	27°36'22
max. Earth dist.	3433 Jun 02 13:51	10°  52'59	1.32384 AU		3434 Apr 15 20:31	0° 	
asc. node	3433 Jun 02 17:56	11°  15'02			3434 May 04 22:26	0° 	
				morning set	3434 May 11 15:46	12°  44'40	
superior conj	3433 Jun 04 06:42	14°  34'50	0°16'04	max. Earth dist.	3434 May 16 16:26	23°  00'14	1.33118 AU
minimum elong	3433 Jun 04 05:58	14°  30'47	0°15'54				
evening rise	3433 Jun 11 04:12	29°  33'36		superior conj	3434 May 19 13:13	29°  04'39	-0°11'14
	3433 Jun 11 09:10	0° 		minimum elong	3434 May 19 13:47	29°  07'39	0°11'07
	3433 Jun 28 01:59	0° 		behind sun begin	3434 May 19 09:54	28°  46'54	
evening max el	3433 Jul 06 07:50	9°  48'34	24°25'47	behind sun end	3434 May 19 17:40	29°  28'25	
desc. node	3433 Jul 10 02:59	13°  01'46			3434 May 19 23:34	0° 	
retrograde	3433 Jul 20 04:45	16°  48'59		asc. node	3434 May 20 14:59	1°  22'46	
evening set	3433 Jul 25 02:11	15°  55'23		evening rise	3434 May 26 15:51	14°  19'49	
min. Earth dist.	3433 Jul 30 18:45	13°  02'06	0.56736 AU		3434 Jun 03 13:18	0° 	
inferior conj	3433 Aug 02 11:26	11°  01'28	-5°02'47	evening max el	3434 Jun 17 21:27	20°  14'07	22°49'13
minimum elong	3433 Aug 02 08:45	11°  23'46	5°02'36	desc. node	3434 Jun 26 23:58	26°  11'06	
morning rise	3433 Aug 10 17:57	7°  16'49		retrograde	3434 Jul 01 04:28	26°  51'14	
direct	3433 Aug 13 09:53	6°  57'38		evening set	3434 Jul 04 13:27	26°  26'15	
morning max el	3433 Aug 22 22:05	11°  23'25	19°32'25	min. Earth dist.	3434 Jul 12 05:56	23°  02'21	0.55380 AU
asc. node	3433 Aug 29 17:11	19°  50'31		inferior conj	3434 Jul 13 16:42	22°  12'21	-4°17'35
	3433 Sep 04 14:39	0° 		minimum elong	3434 Jul 13 09:00	22°  23'28	4°15'56
morning set	3433 Sep 09 08:10	9°  15'04		morning rise	3434 Jul 22 06:49	18°  20'52	
				direct	3434 Jul 25 05:23	18°  00'40	
superior conj	3433 Sep 17 07:51	25°  15'55	1°42'27	morning max el	3434 Aug 05 08:00	23°  10'08	20°48'31
minimum elong	3433 Sep 17 09:09	25°  22'19	1°42'24		3434 Aug 11 05:28	0° 	
	3433 Sep 19 18:14	0° 		asc. node	3434 Aug 16 14:13	8°  25'17	
max. Earth dist.	3433 Sep 23 11:22	7°  00'42	1.37716 AU	morning set	3434 Aug 24 15:09	23°  02'55	
evening rise	3433 Sep 27 05:32	13°  49'10			3434 Aug 27 13:21	0° 	
desc. node	3433 Oct 06 02:20	28°  46'47					
	3433 Oct 06 20:40	0° 		superior conj	3434 Sep 01 02:30	9°  25'34	1°44'33
	3433 Oct 28 10:26	0° 		minimum elong	3434 Sep 01 02:12	9°  24'02	1°44'32
evening max el	3433 Nov 01 22:48	4°  49'53	25°14'10	max. Earth dist.	3434 Sep 05 19:18	18°  51'40	1.35832 AU
retrograde	3433 Nov 13 21:56	11°  44'40		evening rise	3434 Sep 09 21:01	26°  38'58	
evening set	3433 Nov 19 17:09	9°  19'12			3434 Sep 11 16:38	0° 	
min. Earth dist.	3433 Nov 24 04:16	4°  20'53	0.67291 AU	desc. node	3434 Sep 22 23:21	19°  06'50	
inferior conj	3433 Nov 25 06:29	2°  55'35	-0°08'29		3434 Sep 30 06:16	0° 	
minimum elong	3433 Nov 25 06:42	2°  54'54	0°08'24	evening max el	3434 Oct 15 11:09	18°  30'49	26°19'13
transit middle	3433 Nov 25 06:42	2°  54'54	0°08'24	retrograde	3434 Oct 28 05:10	25°  14'20	
transit begin	3433 Nov 25 04:19	3°  02'39		evening set	3434 Nov 03 13:54	23°  10'51	
transit end	3433 Nov 25 09:04	2° 47'09		min. Earth dist.	3434 Nov 07 17:55	18° 42'23	0.66438 AU
asc. node	3433 Nov 25 16:22	2° 23'29		inferior conj	3434 Nov 09 07:22	16° 47'46	-1°06'41
	3433 Nov 27 14:40	30° 38'38		minimum elong	3434 Nov 09 09:10	16° 42'16	1°05'55
morning rise	3433 Nov 30 20:29	26° 58'04		asc. node	3434 Nov 12 13:25	13° 05'47	

morning rise	3434 Nov 15 04:59	10°♍59'55		inferior conj	3435 Oct 24 02:01	0°♍33'31	-2°07'02
direct	3434 Nov 18 05:55	10°♍07'28		minimum elong	3435 Oct 24 05:32	0°♍23'33	2°05'38
morning max el	3434 Nov 24 23:21	13°♍49'39	18°41'20		3435 Oct 24 13:55	30°♍	
	3434 Dec 06 20:07	0°♌		morning rise	3435 Oct 30 08:54	24°♌58'26	
morning set	3434 Dec 15 22:52	14°♌20'35		asc. node	3435 Oct 30 10:28	24°♌56'34	
desc. node	3434 Dec 19 22:37	20°♌38'51		direct	3435 Nov 02 02:01	24°♌18'49	
	3434 Dec 25 21:12	0°♋		morning max el	3435 Nov 08 13:59	27°♌48'12	18°08'00
max. Earth dist.	3434 Dec 31 16:55	9°♋08'12	1.45182 AU		3435 Nov 10 13:40	0°♌	
				morning set	3435 Nov 26 21:09	25°♌09'32	
superior conj	3435 Jan 01 04:08	9°♋52'15	-1°17'00		3435 Nov 29 19:51	0°♌	
minimum elong	3434 Dec 31 19:21	9°♋17'46	1°16'00	desc. node	3435 Dec 06 19:39	11°♌20'27	
	3435 Jan 13 21:53	0°♋					
evening rise	3435 Jan 16 19:02	4°♋36'15		superior conj	3435 Dec 11 08:52	18°♌35'52	-0°30'40
greatest brilliancy	3435 Jan 24 12:21	16°♋58'11	-0.9m	minimum elong	3435 Dec 11 04:59	18°♌20'30	0°30'09
	3435 Feb 02 01:32	0°♊		max. Earth dist.	3435 Dec 14 12:24	23°♌34'06	1.45091 AU
evening max el	3435 Feb 07 07:13	6°♊28'29	18°50'53		3435 Dec 18 14:50	0°♋	
asc. node	3435 Feb 08 12:42	7°♊38'44		evening rise	3435 Dec 27 17:26	14°♋10'10	
retrograde	3435 Feb 14 01:11	10°♊15'26			3436 Jan 06 23:52	0°♋	
evening set	3435 Feb 17 07:20	9°♊14'31		greatest brilliancy	3436 Jan 09 13:45	3°♋54'07	-0.7m
inferior conj	3435 Feb 22 22:59	3°♊32'33	3°30'57	evening max el	3436 Jan 21 14:12	19°♋59'19	19°38'18
minimum elong	3435 Feb 22 21:32	3°♊37'02	3°30'48	asc. node	3436 Jan 26 09:43	23°♋39'29	
min. Earth dist.	3435 Feb 24 16:33	1°♊23'57	0.65500 AU	retrograde	3436 Jan 28 22:19	24°♋13'55	
	3435 Feb 25 20:53	30°♋		evening set	3436 Feb 01 11:55	22°♋59'26	
morning rise	3435 Feb 28 11:20	27°♋20'39		inferior conj	3436 Feb 06 23:06	17°♋02'21	3°10'21
direct	3435 Mar 07 01:34	24°♋29'28		minimum elong	3436 Feb 06 20:51	17°♋09'47	3°09'54
desc. node	3435 Mar 17 21:45	0°♊02'41		min. Earth dist.	3436 Feb 08 01:53	15°♋34'06	0.66708 AU
	3435 Mar 17 20:34	0°♊		morning rise	3436 Feb 12 05:34	10°♋48'53	
morning max el	3435 Mar 20 04:29	2°♊13'22	26°49'15	direct	3436 Feb 18 08:11	8°♋05'35	
	3435 Apr 10 01:15	0°♑		morning max el	3436 Mar 01 13:41	15°♋22'36	25°38'15
morning set	3435 Apr 25 00:58	26°♑06'59		desc. node	3436 Mar 03 18:49	17°♋43'03	
	3435 Apr 27 01:13	0°♑			3436 Mar 13 14:28	0°♊	
max. Earth dist.	3435 Apr 29 08:41	4°♑34'32	1.34312 AU		3436 Apr 01 21:53	0°♑	
				morning set	3436 Apr 06 19:23	8°♑42'05	
superior conj	3435 May 03 14:06	13°♑12'48	-0°39'53	max. Earth dist.	3436 Apr 10 13:41	15°♑42'39	1.35965 AU
minimum elong	3435 May 03 16:11	13°♑23'39	0°39'28				
asc. node	3435 May 07 12:01	21°♑25'38		superior conj	3436 Apr 16 06:42	26°♑52'11	-1°08'25
evening rise	3435 May 11 01:40	28°♑55'32		minimum elong	3436 Apr 16 10:17	27°♑10'06	1°07'49
	3435 May 11 14:05	0°♐			3436 Apr 17 20:00	0°♑	
	3435 May 29 20:55	0°♐		asc. node	3436 Apr 23 09:02	11°♑19'41	
evening max el	3435 May 30 17:46	0°♐52'32	21°17'26	evening rise	3436 Apr 24 07:36	13°♑14'46	
retrograde	3435 Jun 11 18:08	6°♐46'08			3436 May 03 02:57	0°♐	
desc. node	3435 Jun 13 20:57	6°♐35'47		evening max el	3436 May 12 01:32	12°♐06'02	20°00'31
evening set	3435 Jun 14 01:34	6°♐33'51		retrograde	3436 May 22 08:55	17°♐06'49	
inferior conj	3435 Jun 23 10:48	2°♐35'03	-2°44'20	evening set	3436 May 24 08:18	16°♐56'35	
minimum elong	3435 Jun 23 03:29	2°♐45'19	2°41'56	desc. node	3436 May 30 17:59	14°♐27'00	
min. Earth dist.	3435 Jun 23 17:19	2°♐25'56	0.54849 AU	inferior conj	3436 Jun 02 07:44	12°♐56'41	-0°45'34
	3435 Jun 28 08:53	30°♐		minimum elong	3436 Jun 02 05:37	12°♐59'53	0°44'46
morning rise	3435 Jul 02 05:53	28°♐37'43		min. Earth dist.	3436 Jun 04 06:01	11°♐47'05	0.55287 AU
direct	3435 Jul 05 15:18	28°♐12'47		morning rise	3436 Jun 11 01:07	8°♐34'29	
	3435 Jul 12 11:58	0°♐		direct	3436 Jun 15 04:21	7°♐57'10	
morning max el	3435 Jul 18 06:39	4°♐12'39	22°22'27	morning max el	3436 Jun 28 22:02	14°♐43'31	24°05'22
asc. node	3435 Aug 03 11:17	27°♐33'06			3436 Jul 10 21:51	0°♐	
	3435 Aug 04 17:44	0°♏		asc. node	3436 Jul 20 08:19	17°♐04'47	
morning set	3435 Aug 09 01:24	8°♏46'43		morning set	3436 Jul 23 13:04	23°♐41'21	
					3436 Jul 26 11:48	0°♏	
superior conj	3435 Aug 16 05:04	23°♏58'54	1°39'41				
minimum elong	3435 Aug 16 03:35	23°♏51'02	1°39'35	superior conj	3436 Jul 30 12:48	8°♏46'32	1°29'02
	3435 Aug 19 02:01	0°♏		minimum elong	3436 Jul 30 10:38	8°♏34'47	1°28'48
max. Earth dist.	3435 Aug 19 11:45	0°♏50'18	1.34286 AU	max. Earth dist.	3436 Aug 01 13:11	13°♏07'15	1.33141 AU
evening rise	3435 Aug 24 03:56	10°♏13'20		evening rise	3436 Aug 06 22:09	24°♏19'50	
	3435 Sep 04 02:50	0°♎			3436 Aug 09 18:50	0°♏	
desc. node	3435 Sep 09 20:20	9°♎06'50		desc. node	3436 Aug 26 17:19	28°♏37'30	
	3435 Sep 25 21:56	0°♎			3436 Aug 27 16:27	0°♎	
evening max el	3435 Sep 27 23:46	2°♎04'38	27°05'29	evening max el	3436 Sep 09 11:03	15°♎18'07	27°26'00
retrograde	3435 Oct 11 06:41	9°♎21'50		retrograde	3436 Sep 23 01:59	22°♎35'02	
evening set	3435 Oct 18 03:04	6°♎39'56		evening set	3436 Sep 30 05:47	19°♎57'02	
min. Earth dist.	3435 Oct 22 00:34	2°♎52'57	0.65241 AU	min. Earth dist.	3436 Oct 03 22:00	16°♎43'40	0.63699 AU

inferior conj	3436 Oct 06 11:50	14°♌06'08	-3°07'02	evening set	3437 Sep 12 18:23	2°♌50'20	
minimum elong	3436 Oct 06 16:54	13°♌53'11	3°05'19		3437 Sep 16 10:17	30°♋♎	
morning rise	3436 Oct 13 05:18	8°♌47'21		min. Earth dist.	3437 Sep 16 08:57	0°♌02'56	0.61845 AU
direct	3436 Oct 15 17:04	8°♌16'59		inferior conj	3437 Sep 19 09:47	27°♎18'15	-4°02'30
asc. node	3436 Oct 16 07:31	8°♌18'48		minimum elong	3437 Sep 19 15:35	27°♎05'07	4°01'01
morning max el	3436 Oct 22 06:29	11°♌42'12	17°51'57	morning rise	3437 Sep 26 14:29	22°♎19'10	
	3436 Nov 03 17:00	0°♌		direct	3437 Sep 28 23:37	21°♎54'56	
morning set	3436 Nov 07 21:54	7°♌15'06		asc. node	3437 Oct 03 04:34	23°♎13'22	
				morning max el	3437 Oct 05 21:49	25°♎24'25	17°54'07
superior conj	3436 Nov 20 08:39	28°♌17'59	0°16'02		3437 Oct 09 18:04	0°♌	
minimum elong	3436 Nov 20 10:22	28°♌25'01	0°15'47	morning set	3437 Oct 21 18:50	20°♌18'07	
behind sun begin	3436 Nov 20 08:20	28°♌16'41			3437 Oct 27 03:51	0°♌	
behind sun end	3436 Nov 20 12:23	28°♌33'22					
	3436 Nov 21 09:34	0°♌		superior conj	3437 Nov 01 11:16	9°♌19'15	0°54'22
desc. node	3436 Nov 22 16:39	2°♌06'28		minimum elong	3437 Nov 01 15:26	9°♌37'09	0°53'49
max. Earth dist.	3436 Nov 26 06:34	7°♌52'01	1.44275 AU	max. Earth dist.	3437 Nov 08 20:21	21°♌43'09	1.42838 AU
evening rise	3436 Dec 06 03:19	23°♌18'39		desc. node	3437 Nov 09 13:40	22°♌53'53	
	3436 Dec 10 12:18	0°♌			3437 Nov 13 23:43	0°♌	
	3436 Dec 31 12:50	0°♌		evening rise	3437 Nov 15 16:38	2°♌41'23	
evening max el	3437 Jan 03 15:54	3°♌31'01	20°40'11		3437 Dec 03 23:49	0°♌	
retrograde	3437 Jan 11 20:26	8°♌21'04		evening max el	3437 Dec 17 12:00	17°♌03'30	21°53'03
asc. node	3437 Jan 12 06:45	8°♌20'03		retrograde	3437 Dec 26 17:30	22°♌33'08	
evening set	3437 Jan 15 18:58	6°♌51'58		asc. node	3437 Dec 30 03:48	21°♌29'31	
inferior conj	3437 Jan 21 03:50	0°♌42'25	2°39'39	evening set	3437 Dec 31 02:41	20°♌48'23	
minimum elong	3437 Jan 21 01:18	0°♌51'03	2°38'56	inferior conj	3438 Jan 05 11:00	14°♌29'46	2°00'42
min. Earth dist.	3437 Jan 21 17:22	29°♌56'06	0.67492 AU	minimum elong	3438 Jan 05 08:42	14°♌37'46	1°59'54
	3437 Jan 21 16:13	30°♋♌		min. Earth dist.	3438 Jan 05 12:43	14°♌23'50	0.67891 AU
morning rise	3437 Jan 26 07:29	24°♌29'07		morning rise	3438 Jan 10 14:34	8°♌18'11	
direct	3437 Jan 31 19:56	22°♌02'32		direct	3438 Jan 15 12:05	6°♌13'02	
morning max el	3437 Feb 11 22:16	28°♌39'51	24°13'19	morning max el	3438 Jan 25 08:15	12°♌02'28	22°44'22
	3437 Feb 13 05:07	0°♌		desc. node	3438 Feb 05 12:54	25°♌41'29	
desc. node	3437 Feb 18 15:52	6°♌21'38			3438 Feb 08 15:21	0°♌	
	3437 Mar 07 08:51	0°♌			3438 Feb 28 05:53	0°♌	
morning set	3437 Mar 19 17:29	20°♌15'05		morning set	3438 Feb 28 13:03	0°♌29'27	
max. Earth dist.	3437 Mar 23 10:35	26°♌48'36	1.37975 AU	max. Earth dist.	3438 Mar 05 06:03	8°♌23'34	1.40145 AU
	3437 Mar 25 04:49	0°♌					
superior conj	3437 Mar 30 11:41	9°♌53'59	-1°34'39	superior conj	3438 Mar 13 00:37	22°♌06'21	-1°55'27
minimum elong	3437 Mar 30 16:14	10°♌15'47	1°34'05	minimum elong	3438 Mar 13 04:46	22°♌25'12	1°55'09
evening rise	3437 Apr 08 07:12	27°♌10'41			3438 Mar 17 07:13	0°♌	
	3437 Apr 09 17:39	0°♌		evening rise	3438 Mar 22 21:16	10°♌33'56	
asc. node	3437 Apr 10 06:04	1°♌00'33		asc. node	3438 Mar 28 03:06	20°♌22'05	
evening max el	3437 Apr 24 21:00	24°♌01'02	19°03'02		3438 Apr 02 20:43	0°♌	
retrograde	3437 May 03 13:27	28°♌14'51		evening max el	3438 Apr 08 01:31	6°♌31'03	18°25'49
evening set	3437 May 05 15:43	28°♌01'05		retrograde	3438 Apr 15 12:35	10°♌12'19	
inferior conj	3437 May 13 20:34	23°♌47'17	1°04'29	evening set	3438 Apr 17 21:15	9°♌51'13	
minimum elong	3437 May 13 23:01	23°♌43'01	1°03'38	inferior conj	3438 Apr 25 06:37	5°♌18'04	2°25'14
min. Earth dist.	3437 May 16 21:28	21°♌41'41	0.56601 AU	minimum elong	3438 Apr 25 10:23	5°♌10'24	2°24'14
desc. node	3437 May 17 15:01	21°♌13'00		min. Earth dist.	3438 Apr 28 17:12	2°♌31'48	0.58520 AU
morning rise	3437 May 22 03:10	18°♌49'37			3438 May 02 12:00	30°♋♌	
direct	3437 May 27 05:50	17°♌48'08		morning rise	3438 May 02 20:29	29°♌48'42	
morning max el	3437 Jun 10 12:34	25°♌09'32	25°42'49	desc. node	3438 May 04 12:04	29°♌03'53	
	3437 Jun 15 00:33	0°♌		direct	3438 May 08 21:42	28°♌12'55	
	3437 Jul 03 20:08	0°♌			3438 May 15 12:14	0°♌	
asc. node	3437 Jul 07 05:21	6°♌53'47		morning max el	3438 May 23 07:09	5°♌56'10	26°59'11
morning set	3437 Jul 08 00:35	8°♌34'52			3438 Jun 10 03:01	0°♌	
				morning set	3438 Jun 22 10:14	23°♌21'02	
superior conj	3437 Jul 14 23:32	23°♌41'46	1°13'32	asc. node	3438 Jun 24 02:23	26°♌53'50	
minimum elong	3437 Jul 14 21:10	23°♌28'50	1°13'11		3438 Jun 25 12:57	0°♌	
max. Earth dist.	3437 Jul 15 21:19	25°♌41'17	1.32411 AU	superior conj	3438 Jun 29 11:21	8°♌37'34	0°53'53
	3437 Jul 17 20:47	0°♌		minimum elong	3438 Jun 29 09:17	8°♌26'10	0°53'30
evening rise	3437 Jul 22 00:24	8°♌49'05		max. Earth dist.	3438 Jun 29 08:45	8°♌23'17	1.32084 AU
	3437 Aug 02 03:47	0°♌		evening rise	3438 Jul 06 07:58	23°♌32'09	
desc. node	3437 Aug 13 14:20	17°♌26'36			3438 Jul 09 11:07	0°♌	
evening max el	3437 Aug 22 18:39	27°♌57'58	27°15'21		3438 Jul 27 06:04	0°♌	
	3437 Aug 25 01:34	0°♌		desc. node	3438 Jul 31 11:21	5°♌16'46	
retrograde	3437 Sep 05 14:36	5°♌12'20		evening max el	3438 Aug 04 20:12	9°♌53'36	26°31'27

retrograde	3438 Aug 18 19:26	17° \mathbb{M} 04'40		evening set	3439 Aug 06 06:40	26° Ω 53'11	
evening set	3438 Aug 25 12:10	15° \mathbb{M} 11'58		min. Earth dist.	3439 Aug 11 02:26	24° Ω 11'11	0.57772 AU
min. Earth dist.	3438 Aug 29 09:45	12° \mathbb{M} 36'18	0.59795 AU	inferior conj	3439 Aug 14 04:22	22° Ω 04'30	-5°07'11
inferior conj	3438 Sep 01 16:25	10° \mathbb{M} 00'52	-4°46'21	minimum elong	3439 Aug 14 05:02	22° Ω 03'21	5°07'10
minimum elong	3438 Sep 01 21:04	9° \mathbb{M} 51'38	4°45'40	morning rise	3439 Aug 22 05:47	17° Ω 49'59	
morning rise	3438 Sep 09 08:03	5° \mathbb{M} 23'55		direct	3439 Aug 24 18:43	17° Ω 30'35	
direct	3438 Sep 11 17:33	5° \mathbb{M} 03'09		morning max el	3439 Sep 02 11:53	21° Ω 37'32	18°58'13
morning max el	3438 Sep 19 08:44	8° \mathbb{M} 46'09	18°15'46	asc. node	3439 Sep 06 22:40	26° Ω 48'57	
asc. node	3438 Sep 20 01:37	9° \mathbb{M} 28'31			3439 Sep 09 02:45	0° \mathbb{M}	
	3438 Oct 03 02:52	0° $\underline{\Omega}$		morning set	3439 Sep 19 03:38	18° \mathbb{M} 15'35	
morning set	3438 Oct 05 06:13	4° $\underline{\Omega}$ 02'28			3439 Sep 25 02:39	0° $\underline{\Omega}$	
superior conj	3438 Oct 14 14:34	21° $\underline{\Omega}$ 32'39	1°21'24	superior conj	3439 Sep 27 13:04	4° $\underline{\Omega}$ 42'24	1°37'32
minimum elong	3438 Oct 14 18:25	21° $\underline{\Omega}$ 50'10	1°21'00	minimum elong	3439 Sep 27 15:23	4° $\underline{\Omega}$ 53'30	1°37'22
	3438 Oct 19 08:20	0° \mathbb{M}		max. Earth dist.	3439 Oct 04 09:27	17° $\underline{\Omega}$ 24'53	1.38896 AU
max. Earth dist.	3438 Oct 22 04:42	4° \mathbb{M} 54'52	1.40965 AU	evening rise	3439 Oct 08 06:11	24° $\underline{\Omega}$ 12'05	
evening rise	3438 Oct 26 23:42	12° \mathbb{M} 54'34			3439 Oct 11 16:31	0° \mathbb{M}	
desc. node	3438 Oct 27 10:42	13° \mathbb{M} 39'24		desc. node	3439 Oct 14 07:43	4° \mathbb{M} 18'49	
	3438 Nov 06 21:44	0° \mathbb{X}			3439 Oct 31 16:08	0° \mathbb{X}	
	3438 Nov 29 12:14	0° \mathbb{Z}		evening max el	3439 Nov 12 16:43	14° \mathbb{X} 18'54	24°31'24
evening max el	3438 Nov 30 03:39	0° \mathbb{Z} 39'17	23°12'08	retrograde	3439 Nov 24 02:35	20° \mathbb{X} 58'39	
retrograde	3438 Dec 10 11:59	6° \mathbb{Z} 47'06		evening set	3439 Nov 29 13:44	18° \mathbb{X} 41'47	
evening set	3438 Dec 15 09:29	4° \mathbb{Z} 46'11		asc. node	3439 Dec 03 21:54	13° \mathbb{X} 48'13	
asc. node	3438 Dec 17 00:51	3° \mathbb{Z} 10'36		min. Earth dist.	3439 Dec 04 05:22	13° \mathbb{X} 23'28	0.67624 AU
	3438 Dec 19 14:13	30° \mathbb{R} \mathbb{X}		inferior conj	3439 Dec 05 01:15	12° \mathbb{X} 17'02	0°23'21
inferior conj	3438 Dec 20 18:45	28° \mathbb{X} 22'21	1°14'55	minimum elong	3439 Dec 05 00:41	12° \mathbb{X} 18'56	0°23'08
minimum elong	3438 Dec 20 17:07	28° \mathbb{X} 28'00	1°14'16	morning rise	3439 Dec 10 11:43	6° \mathbb{X} 14'58	
min. Earth dist.	3438 Dec 20 09:32	28° \mathbb{X} 54'06	0.67930 AU	direct	3439 Dec 14 05:43	4° \mathbb{X} 54'19	
morning rise	3438 Dec 26 00:39	22° \mathbb{X} 14'25		morning max el	3439 Dec 21 21:37	9° \mathbb{X} 16'17	20°07'00
direct	3438 Dec 30 07:48	20° \mathbb{X} 32'04			3440 Jan 06 11:31	0° \mathbb{Z}	
morning max el	3439 Jan 07 23:11	25° \mathbb{X} 33'51	21°20'13	desc. node	3440 Jan 10 06:59	5° \mathbb{Z} 42'38	
	3439 Jan 11 22:38	0° \mathbb{Z}		morning set	3440 Jan 18 00:43	17° \mathbb{Z} 32'02	
desc. node	3439 Jan 23 09:57	15° \mathbb{Z} 31'23			3440 Jan 26 00:06	0° \approx	
	3439 Feb 02 02:57	0° \approx		max. Earth dist.	3440 Jan 28 16:02	4° \approx 14'25	1.43854 AU
morning set	3439 Feb 08 03:53	9° \approx 23'06		superior conj	3440 Feb 03 06:58	13° \approx 20'27	-2°02'08
max. Earth dist.	3439 Feb 15 06:59	20° \approx 51'42	1.42198 AU	minimum elong	3440 Feb 03 02:39	13° \approx 02'48	2°01'58
	3439 Feb 20 18:10	0° \mathbb{X}			3440 Feb 13 05:24	0° \mathbb{X}	
superior conj	3439 Feb 22 16:30	3° \mathbb{X} 18'16	-2°06'22	evening rise	3440 Feb 16 05:13	5° \mathbb{X} 08'53	
minimum elong	3439 Feb 22 17:45	3° \mathbb{X} 23'37	2°06'21	asc. node	3440 Feb 29 21:11	27° \mathbb{X} 39'33	
evening rise	3439 Mar 05 22:03	23° \mathbb{X} 16'16			3440 Mar 02 15:23	0° \mathbb{Y}	
	3439 Mar 09 15:20	0° \mathbb{Y}		evening max el	3440 Mar 05 00:18	2° \mathbb{Y} 41'09	18°10'28
asc. node	3439 Mar 15 00:09	9° \mathbb{Y} 17'52		retrograde	3440 Mar 11 10:49	6° \mathbb{Y} 04'54	
evening max el	3439 Mar 22 11:43	19° \mathbb{Y} 27'29	18°08'30	evening set	3440 Mar 14 07:33	5° \mathbb{Y} 22'57	
retrograde	3439 Mar 29 05:05	22° \mathbb{Y} 52'27		inferior conj	3440 Mar 20 11:49	0° \mathbb{Y} 08'52	3°35'37
evening set	3439 Mar 31 20:05	22° \mathbb{Y} 21'35		minimum elong	3440 Mar 20 12:44	0° \mathbb{Y} 06'24	3°35'35
inferior conj	3439 Apr 07 12:56	17° \mathbb{Y} 27'39	3°13'48		3440 Mar 20 15:08	30° \mathbb{R} \mathbb{X}	
minimum elong	3439 Apr 07 15:40	17° \mathbb{Y} 21'13	3°13'21	min. Earth dist.	3440 Mar 23 05:36	27° \mathbb{X} 14'00	0.62793 AU
min. Earth dist.	3439 Apr 10 19:11	14° \mathbb{Y} 24'53	0.60691 AU	morning rise	3440 Mar 26 16:47	24° \mathbb{X} 05'38	
morning rise	3439 Apr 14 09:10	11° \mathbb{Y} 36'55		direct	3440 Apr 02 14:34	21° \mathbb{X} 28'41	
direct	3439 Apr 21 01:33	9° \mathbb{Y} 26'07		desc. node	3440 Apr 07 06:09	22° \mathbb{X} 31'04	
desc. node	3439 Apr 21 09:07	9° \mathbb{Y} 26'24		morning max el	3440 Apr 16 14:08	29° \mathbb{X} 26'16	27°49'14
morning max el	3439 May 05 07:53	17° \mathbb{Y} 20'28	27°42'52		3440 Apr 17 03:28	0° \mathbb{Y}	
	3439 May 15 20:01	0° \mathbb{B}			3440 May 08 18:22	0° \mathbb{B}	
	3439 Jun 02 17:54	0° \mathbb{I}		morning set	3440 May 20 16:31	22° \mathbb{B} 07'18	
morning set	3439 Jun 06 16:15	7° \mathbb{I} 54'06			3440 May 24 12:08	0° \mathbb{I}	
asc. node	3439 Jun 10 23:26	17° \mathbb{I} 00'25		max. Earth dist.	3440 May 26 02:53	3° \mathbb{I} 25'40	1.32645 AU
max. Earth dist.	3439 Jun 12 19:54	21° \mathbb{I} 02'16	1.32159 AU	asc. node	3440 May 27 20:29	7° \mathbb{I} 09'15	
superior conj	3439 Jun 13 22:31	23° \mathbb{I} 28'10	0°30'44	superior conj	3440 May 28 07:18	8° \mathbb{I} 07'45	0°04'45
minimum elong	3439 Jun 13 21:11	23° \mathbb{I} 20'48	0°30'27	minimum elong	3440 May 28 07:04	8° \mathbb{I} 06'31	0°04'42
	3439 Jun 16 21:52	0° \mathbb{E}		behind sun begin	3440 May 28 02:03	7° \mathbb{I} 39'23	
evening rise	3439 Jun 20 18:39	8° \mathbb{E} 22'00		behind sun end	3440 May 28 12:05	8° \mathbb{I} 33'42	
	3439 Jul 01 23:20	0° Ω		evening rise	3440 Jun 04 06:31	23° \mathbb{I} 12'02	
evening max el	3439 Jul 17 14:35	21° Ω 02'23	25°17'44		3440 Jun 07 13:02	0° \mathbb{E}	
desc. node	3439 Jul 18 08:23	21° Ω 43'59			3440 Jun 26 14:07	0° Ω	
retrograde	3439 Jul 31 14:06	28° Ω 07'57		evening max el	3440 Jun 28 04:06	1° Ω 36'20	23°45'02

desc. node	3440 Jul 04 05:23	6°♎16'44		evening max el	3441 Jun 09 19:30	12°♊03'03	22°08'46
retrograde	3440 Jul 11 20:32	8°♎28'31		desc. node	3441 Jun 21 02:24	18°♊18'51	
evening set	3440 Jul 16 02:26	7°♎48'54		retrograde	3441 Jun 22 15:16	18°♊24'17	
min. Earth dist.	3440 Jul 22 14:19	4°♎44'20	0.56078 AU	evening set	3441 Jun 25 11:31	18°♊06'19	
inferior conj	3440 Jul 24 20:11	3°♎23'05	-4°49'51	min. Earth dist.	3441 Jul 04 01:01	14°♊25'42	0.55040 AU
minimum elong	3440 Jul 24 14:58	3°♎30'59	4°49'11	inferior conj	3441 Jul 04 19:14	14°♊00'05	-3°43'08
	3440 Jul 31 09:19	30°♋♊		minimum elong	3441 Jul 04 10:52	14°♊11'50	3°40'54
morning rise	3440 Aug 02 06:04	29°♊26'47		morning rise	3441 Jul 13 12:02	10°♊09'03	
direct	3440 Aug 05 00:48	29°♊07'16		direct	3441 Jul 16 14:32	9°♊47'33	
	3440 Aug 09 10:49	0°♎		morning max el	3441 Jul 28 09:26	15°♊17'32	21°26'44
morning max el	3440 Aug 15 04:31	3°♎50'01	20°02'16		3441 Aug 08 12:14	0°♎	
asc. node	3440 Aug 23 19:43	15°♎00'39		asc. node	3441 Aug 10 16:45	3°♎50'35	
	3440 Aug 31 22:22	0°♐		morning set	3441 Aug 17 16:30	17°♎35'04	
morning set	3440 Sep 02 07:53	2°♐49'06			3441 Aug 23 14:25	0°♐	
superior conj	3440 Sep 10 01:38	18°♐34'24	1°44'17	superior conj	3441 Aug 25 00:02	2°♐55'30	1°43'15
minimum elong	3440 Sep 10 02:13	18°♐37'19	1°44'15	minimum elong	3441 Aug 24 23:11	2°♐51'02	1°43'13
max. Earth dist.	3440 Sep 15 14:58	29°♐25'23	1.36884 AU	max. Earth dist.	3441 Aug 29 02:15	11°♐17'28	1.35126 AU
	3440 Sep 15 22:16	0°♊		evening rise	3441 Sep 02 09:21	19°♐41'18	
evening rise	3440 Sep 19 10:48	6°♊31'23			3441 Sep 08 00:21	0°♊	
desc. node	3440 Sep 30 04:44	24°♊47'52		desc. node	3441 Sep 17 01:44	15°♊00'23	
	3440 Oct 03 12:47	0°♌			3441 Sep 27 13:28	0°♌	
evening max el	3440 Oct 25 05:02	28°♌00'54	25°43'38	evening max el	3441 Oct 07 17:22	11°♌39'15	26°41'31
	3440 Oct 27 08:36	0°♌		retrograde	3441 Oct 20 17:23	18°♌54'14	
retrograde	3440 Nov 06 12:34	5°♌03'14		evening set	3441 Oct 27 07:35	16°♌14'01	
evening set	3440 Nov 12 13:46	2°♌32'23		min. Earth dist.	3441 Oct 31 08:39	12°♌06'48	0.65975 AU
	3440 Nov 15 02:32	30°♋♌		inferior conj	3441 Nov 02 03:13	10°♌00'44	-1°32'08
min. Earth dist.	3440 Nov 16 21:50	27°♌49'11	0.66977 AU	minimum elong	3441 Nov 02 05:45	9°♌53'15	1°31'06
inferior conj	3440 Nov 18 04:44	26°♌11'04	-0°32'47	asc. node	3441 Nov 06 15:57	5°♌18'49	
minimum elong	3440 Nov 18 05:36	26°♌08'21	0°32'24	morning rise	3441 Nov 08 04:37	4°♌18'15	
asc. node	3440 Nov 19 18:56	24°♌12'20		direct	3441 Nov 11 01:55	3°♌31'48	
morning rise	3440 Nov 23 21:46	20°♌17'27		morning max el	3441 Nov 17 16:12	7°♌07'17	18°25'08
direct	3440 Nov 27 04:23	19°♌15'44			3441 Dec 03 13:53	0°♌	
morning max el	3440 Dec 04 03:51	23°♌09'00	19°08'04	morning set	3441 Dec 07 09:09	6°♌06'53	
	3440 Dec 09 19:56	0°♌		desc. node	3441 Dec 14 01:03	16°♌46'27	
morning set	3440 Dec 27 04:03	26°♌09'22			3441 Dec 22 09:58	0°♊	
desc. node	3440 Dec 27 04:01	26°♌09'13		superior conj	3441 Dec 22 23:02	0°♊51'17	-0°58'09
	3440 Dec 29 15:17	0°♊		minimum elong	3441 Dec 22 15:49	0°♊22'57	0°57'15
max. Earth dist.	3441 Jan 10 07:38	18°♊16'45	1.44903 AU	max. Earth dist.	3441 Dec 24 02:22	2°♊38'33	1.45229 AU
superior conj	3441 Jan 12 20:57	22°♊18'52	-1°38'45	evening rise	3442 Jan 08 01:07	26°♊06'37	
minimum elong	3441 Jan 12 12:03	21°♊43'39	1°37'56		3442 Jan 10 12:19	0°♋	
	3441 Jan 17 16:48	0°♋		greatest brilliancy	3442 Jan 18 04:49	12°♋03'42	-0.8m
evening rise	3441 Jan 27 14:47	16°♋05'42		evening max el	3442 Jan 30 21:46	29°♋33'59	19°09'06
	3441 Feb 05 02:23	0°♋			3442 Jan 31 08:08	0°♋	
asc. node	3441 Feb 15 18:13	15°♋16'48		asc. node	3442 Feb 02 15:14	1°♋57'10	
evening max el	3441 Feb 16 12:25	16°♋04'50	18°31'00	retrograde	3442 Feb 06 21:04	3°♋32'03	
retrograde	3441 Feb 23 01:23	19°♋40'19		evening set	3442 Feb 10 06:08	2°♋25'34	
evening set	3441 Feb 26 03:52	18°♋46'31			3442 Feb 13 00:07	30°♋♋	
inferior conj	3441 Mar 03 23:13	13°♋13'56	3°37'11	inferior conj	3442 Feb 15 19:35	26°♋36'42	3°23'38
minimum elong	3441 Mar 03 22:29	13°♋16'04	3°37'10	minimum elong	3442 Feb 15 17:43	26°♋42'38	3°23'22
min. Earth dist.	3441 Mar 06 01:37	10°♋45'10	0.64617 AU	min. Earth dist.	3442 Feb 17 06:40	24°♋44'44	0.66056 AU
morning rise	3441 Mar 09 16:32	7°♋03'58		morning rise	3442 Feb 21 04:59	20°♋23'38	
direct	3441 Mar 16 11:13	4°♋14'12		direct	3442 Feb 27 14:34	17°♋34'33	
desc. node	3441 Mar 25 03:11	7°♋49'04		desc. node	3442 Mar 12 00:13	24°♋46'11	
morning max el	3441 Mar 29 23:36	12°♋06'36	27°19'56	morning max el	3442 Mar 12 09:34	25°♋09'33	26°21'31
	3441 Apr 13 06:18	0°♐			3442 Mar 16 19:26	0°♋	
	3441 May 01 06:50	0°♋			3442 Apr 06 17:42	0°♐	
morning set	3441 May 04 08:13	5°♋51'20		morning set	3442 Apr 17 11:47	18°♐56'06	
max. Earth dist.	3441 May 09 01:44	15°♋21'02	1.33571 AU	max. Earth dist.	3442 Apr 21 13:18	26°♐43'42	1.34960 AU
					3442 Apr 23 05:00	0°♋	
superior conj	3441 May 12 11:41	22°♋29'10	-0°23'17	superior conj	3442 Apr 26 09:24	6°♋26'25	-0°52'06
minimum elong	3441 May 12 12:52	22°♋35'29	0°23'02	minimum elong	3442 Apr 26 12:09	6°♋40'29	0°51'35
asc. node	3441 May 14 17:30	27°♋15'28		asc. node	3442 May 01 14:32	17°♋15'28	
	3441 May 16 00:17	0°♐		evening rise	3442 May 04 02:06	22°♋24'52	
evening rise	3441 May 19 17:38	7°♐54'55			3442 May 07 20:08	0°♐	
	3441 May 31 10:53	0°♑					

evening max el	3442 May 22 20:19	22° Π 54'47	20°42'30	evening rise	3443 Apr 18 05:39	6° \mathcal{B} 34'42	
retrograde	3442 Jun 03 04:16	28° Π 26'38		asc. node	3443 Apr 18 11:34	7° \mathcal{B} 04'26	
evening set	3442 Jun 05 06:00	28° Π 16'16			3443 May 01 13:04	0° Π	
desc. node	3442 Jun 07 23:24	27° Π 33'28		evening max el	3443 May 05 09:21	4° Π 26'27	19°33'39
inferior conj	3442 Jun 14 12:43	24° Π 18'47	-1°55'03	retrograde	3443 May 14 23:19	9° Π 05'25	
minimum elong	3442 Jun 14 07:20	24° Π 26'30	1°53'07	evening set	3443 May 16 23:04	8° Π 54'17	
min. Earth dist.	3442 Jun 15 13:05	23° Π 43'53	0.54916 AU	inferior conj	3443 May 25 15:13	4° Π 50'04	0°03'49
morning rise	3442 Jun 23 08:07	20° Π 12'39		minimum elong	3443 May 25 15:23	4° Π 49'48	0°03'46
direct	3442 Jun 26 23:51	19° Π 43'50		transit middle	3443 May 25 15:23	4° Π 49'48	0°03'46
morning max el	3442 Jul 10 04:31	26° Π 04'59	23°05'51	transit begin	3443 May 25 11:35	4° Π 55'50	
	3442 Jul 13 21:55	0° \mathcal{E}		transit end	3443 May 25 19:11	4° Π 43'45	
asc. node	3442 Jul 28 13:48	23° \mathcal{E} 09'19		desc. node	3443 May 25 20:26	4° Π 41'44	
	3442 Jul 31 23:12	0° \mathcal{O}		min. Earth dist.	3443 May 28 03:06	3° Π 15'11	0.55754 AU
morning set	3442 Aug 02 03:33	2° \mathcal{O} 28'02		morning rise	3443 Jun 03 05:00	0° Π 12'55	
					3443 Jun 03 21:42	30° \mathcal{R}	
superior conj	3442 Aug 09 05:08	17° \mathcal{O} 36'03	1°35'49	direct	3443 Jun 07 18:00	29° \mathcal{B} 26'34	
minimum elong	3442 Aug 09 03:18	17° \mathcal{O} 26'14	1°35'40		3443 Jun 11 13:44	0° Π	
max. Earth dist.	3442 Aug 11 22:20	23° \mathcal{O} 21'45	1.33747 AU	morning max el	3443 Jun 21 18:42	6° Π 30'06	24°48'20
	3442 Aug 15 03:31	0° \mathcal{M}			3443 Jul 08 18:55	0° \mathcal{E}	
evening rise	3442 Aug 16 21:32	3° \mathcal{M} 30'33		asc. node	3443 Jul 15 10:51	12° \mathcal{E} 49'04	
	3442 Aug 31 19:17	0° \mathcal{E}		morning set	3443 Jul 17 15:21	17° \mathcal{E} 22'46	
desc. node	3442 Sep 03 22:44	4° \mathcal{E} 49'05			3443 Jul 23 11:19	0° \mathcal{O}	
evening max el	3442 Sep 20 05:26	25° \mathcal{E} 05'09	27°17'41				
	3442 Sep 26 09:59	0° \mathcal{M}		superior conj	3443 Jul 24 14:25	2° \mathcal{O} 28'00	1°23'01
retrograde	3442 Oct 03 16:35	2° \mathcal{M} 23'43		minimum elong	3443 Jul 24 12:06	2° \mathcal{O} 15'25	1°22'44
	3442 Oct 10 07:07	30° \mathcal{R} \mathcal{E}		max. Earth dist.	3443 Jul 26 02:52	5° \mathcal{O} 46'11	1.32780 AU
evening set	3442 Oct 10 16:43	29° \mathcal{E} 41'58		evening rise	3443 Jul 31 19:34	17° \mathcal{O} 48'20	
min. Earth dist.	3442 Oct 14 11:38	26° \mathcal{E} 09'50	0.64621 AU		3443 Aug 07 01:20	0° \mathcal{M}	
inferior conj	3442 Oct 16 18:26	23° \mathcal{E} 41'22	-2°32'45	desc. node	3443 Aug 21 19:45	24° \mathcal{M} 04'03	
minimum elong	3442 Oct 16 22:40	23° \mathcal{E} 29'53	2°31'11		3443 Aug 26 07:16	0° \mathcal{E}	
morning rise	3442 Oct 23 05:43	18° \mathcal{E} 12'58		evening max el	3443 Sep 02 15:41	8° \mathcal{E} 06'57	27°25'36
asc. node	3442 Oct 24 13:01	17° \mathcal{E} 46'40		retrograde	3443 Sep 16 09:21	15° \mathcal{E} 23'01	
direct	3442 Oct 25 20:06	17° \mathcal{E} 37'52		evening set	3443 Sep 23 14:01	12° \mathcal{E} 50'33	
morning max el	3442 Nov 01 08:01	21° \mathcal{E} 04'45	17°59'00	min. Earth dist.	3443 Sep 27 04:57	9° \mathcal{E} 49'10	0.62938 AU
	3442 Nov 08 03:46	0° \mathcal{M}		inferior conj	3443 Sep 29 23:41	7° \mathcal{E} 07'03	-3°31'28
morning set	3442 Nov 18 19:21	17° \mathcal{M} 30'06		minimum elong	3443 Sep 30 05:12	6° \mathcal{E} 53'35	3°29'47
	3442 Nov 26 07:30	0° \mathcal{X}		morning rise	3443 Oct 06 21:52	1° \mathcal{E} 55'59	
desc. node	3442 Nov 30 22:03	7° \mathcal{X} 30'08		direct	3443 Oct 09 08:05	1° \mathcal{E} 28'38	
				asc. node	3443 Oct 11 10:04	1° \mathcal{E} 49'19	
superior conj	3442 Dec 02 10:04	9° \mathcal{X} 55'02	-0°10'16	morning max el	3443 Oct 16 00:26	4° \mathcal{E} 55'00	17°50'32
minimum elong	3442 Dec 02 08:50	9° \mathcal{X} 50'04	0°10'06	morning set	3443 Nov 01 05:34	0° \mathcal{M} 03'06	
behind sun begin	3442 Dec 02 00:35	9° \mathcal{X} 16'58			3443 Nov 01 04:52	0° \mathcal{M}	
behind sun end	3442 Dec 02 17:04	10° \mathcal{X} 23'07					
max. Earth dist.	3442 Dec 06 21:02	17° \mathcal{X} 00'46	1.44820 AU	superior conj	3443 Nov 12 21:07	20° \mathcal{M} 10'36	0°33'35
	3442 Dec 15 04:21	0° \mathcal{Z}		minimum elong	3443 Nov 13 00:18	20° \mathcal{M} 23'52	0°33'09
evening rise	3442 Dec 18 16:27	5° \mathcal{Z} 24'47		desc. node	3443 Nov 17 19:05	28° \mathcal{M} 17'21	
greatest brilliancy	3443 Jan 02 01:37	27° \mathcal{Z} 13'40	-0.6m		3443 Nov 18 20:23	0° \mathcal{X}	
	3443 Jan 03 23:12	0° \mathcal{A}		max. Earth dist.	3443 Nov 19 13:31	1° \mathcal{X} 09'07	1.43732 AU
evening max el	3443 Jan 14 02:34	13° \mathcal{A} 05'01	20°03'06	evening rise	3443 Nov 28 01:48	14° \mathcal{X} 34'46	
asc. node	3443 Jan 20 12:17	17° \mathcal{A} 25'24			3443 Dec 08 05:57	0° \mathcal{Z}	
retrograde	3443 Jan 21 18:54	17° \mathcal{A} 34'17		evening max el	3443 Dec 28 01:59	26° \mathcal{Z} 37'31	21°10'08
evening set	3443 Jan 25 11:59	16° \mathcal{A} 13'56			3443 Dec 31 23:31	0° \mathcal{A}	
inferior conj	3443 Jan 30 21:57	10° \mathcal{A} 11'18	2°58'27	retrograde	3444 Jan 05 16:40	1° \mathcal{A} 43'46	
minimum elong	3443 Jan 30 19:31	10° \mathcal{A} 19'28	2°57'53	asc. node	3444 Jan 07 09:20	1° \mathcal{A} 28'01	
min. Earth dist.	3443 Jan 31 19:00	9° \mathcal{A} 00'35	0.67086 AU	evening set	3444 Jan 09 19:31	0° \mathcal{A} 08'14	
morning rise	3443 Feb 05 02:50	3° \mathcal{A} 57'32			3444 Jan 09 23:39	30° \mathcal{R} \mathcal{Z}	
direct	3443 Feb 10 23:39	1° \mathcal{A} 20'13		inferior conj	3444 Jan 15 03:59	23° \mathcal{Z} 54'41	2°24'03
morning max el	3443 Feb 22 18:18	8° \mathcal{A} 22'30	25°03'13	minimum elong	3444 Jan 15 01:29	24° \mathcal{Z} 03'16	2°23'16
desc. node	3443 Feb 26 21:16	12° \mathcal{A} 53'33		min. Earth dist.	3444 Jan 15 12:24	23° \mathcal{Z} 25'36	0.67713 AU
	3443 Mar 11 17:40	0° \mathcal{H}		morning rise	3444 Jan 20 07:17	17° \mathcal{Z} 41'57	
	3443 Mar 30 07:18	0° \mathcal{Y}		direct	3444 Jan 25 13:31	15° \mathcal{Z} 23'52	
morning set	3443 Mar 30 22:19	1° \mathcal{Y} 06'55		morning max el	3444 Feb 05 02:53	21° \mathcal{Z} 40'56	23°35'19
max. Earth dist.	3443 Apr 03 13:42	7° \mathcal{Y} 44'47	1.36781 AU		3444 Feb 12 07:46	0° \mathcal{A}	
				desc. node	3444 Feb 13 18:19	1° \mathcal{A} 51'09	
superior conj	3443 Apr 09 21:32	19° \mathcal{Y} 50'55	-1°20'00		3444 Mar 04 00:47	0° \mathcal{H}	
minimum elong	3443 Apr 10 01:37	20° \mathcal{Y} 11'03	1°19'22	morning set	3444 Mar 11 09:44	12° \mathcal{H} 07'24	
	3443 Apr 14 23:27	0° \mathcal{B}		max. Earth dist.	3444 Mar 15 08:49	18° \mathcal{H} 57'58	1.38898 AU

	3444 Mar 21 11:26	0°♿		superior conj	3445 Mar 05 00:54	14°♿21'11	-2°01'35
				minimum elong	3445 Mar 05 04:11	14°♿35'45	2°01'26
superior conj	3444 Mar 22 20:17	2°♿33'06	-1°44'23		3445 Mar 13 14:37	0°♿	
minimum elong	3444 Mar 23 00:53	2°♿54'42	1°43'54	evening rise	3445 Mar 15 10:30	3°♿24'26	
evening rise	3444 Apr 01 01:34	20°♿17'18		asc. node	3445 Mar 22 05:40	15°♿49'08	
asc. node	3444 Apr 04 08:37	26°♿37'36		evening max el	3445 Mar 31 16:27	29°♿19'39	18°16'02
	3444 Apr 06 03:53	0°♿			3445 Apr 01 09:45	0°♿	
evening max el	3444 Apr 17 09:08	16°♿37'23	18°44'45	retrograde	3445 Apr 07 18:35	2°♿52'16	
retrograde	3444 Apr 25 11:22	20°♿34'56		evening set	3445 Apr 10 06:02	2°♿27'11	
evening set	3444 Apr 27 16:28	20°♿18'18			3445 Apr 14 14:12	30°♿♿	
inferior conj	3444 May 05 12:47	15°♿56'35	1°42'49	inferior conj	3445 Apr 17 07:51	27°♿44'49	2°49'31
minimum elong	3444 May 05 16:12	15°♿50'16	1°41'44	minimum elong	3445 Apr 17 11:22	27°♿37'11	2°48'44
min. Earth dist.	3444 May 08 19:52	13°♿31'18	0.57368 AU	min. Earth dist.	3445 Apr 20 17:47	24°♿48'42	0.59429 AU
desc. node	3444 May 11 17:30	11°♿39'36		morning rise	3445 Apr 24 14:06	22°♿05'08	
morning rise	3444 May 13 12:46	10°♿44'48		desc. node	3445 Apr 28 14:32	20°♿29'20	
direct	3444 May 19 01:51	9°♿29'27		direct	3445 Apr 30 22:45	20°♿14'19	
morning max el	3444 Jun 02 10:14	17°♿00'53	26°18'43	morning max el	3445 May 15 07:28	28°♿02'46	27°22'22
	3444 Jun 13 02:26	0°♿			3445 May 17 05:05	0°♿	
	3444 Jun 30 00:45	0°♿			3445 Jun 06 18:40	0°♿	
morning set	3444 Jul 01 02:16	2°♿13'41		morning set	3445 Jun 15 10:39	16°♿55'30	
asc. node	3444 Jul 01 07:53	2°♿43'17		asc. node	3445 Jun 18 04:56	22°♿46'57	
					3445 Jun 21 12:25	0°♿	
superior conj	3444 Jul 08 01:49	17°♿24'03	1°05'41	max. Earth dist.	3445 Jun 22 01:01	1°♿09'20	1.32069 AU
minimum elong	3444 Jul 07 23:31	17°♿11'26	1°05'18				
max. Earth dist.	3444 Jul 08 13:00	18°♿25'40	1.32226 AU	superior conj	3445 Jun 22 13:34	2°♿18'28	0°44'29
	3444 Jul 13 20:57	0°♿		minimum elong	3445 Jun 22 11:45	2°♿08'29	0°44'07
evening rise	3444 Jul 15 00:24	2°♿24'36		evening rise	3445 Jun 29 09:34	17°♿11'40	
	3444 Jul 29 22:41	0°♿			3445 Jul 05 17:41	0°♿	
desc. node	3444 Aug 07 16:47	12°♿30'41		desc. node	3445 Jul 25 13:48	29°♿49'02	
evening max el	3444 Aug 14 21:15	20°♿30'00	27°00'48		3445 Jul 25 17:56	0°♿	
retrograde	3444 Aug 28 18:34	27°♿42'03		evening max el	3445 Jul 27 19:39	2°♿05'01	26°03'11
evening set	3444 Sep 04 19:13	25°♿31'18		retrograde	3445 Aug 10 19:04	9°♿13'58	
min. Earth dist.	3444 Sep 08 11:31	22°♿50'52	0.60989 AU	evening set	3445 Aug 17 03:30	7°♿36'31	
inferior conj	3444 Sep 11 15:37	20°♿08'13	-4°23'05	min. Earth dist.	3445 Aug 21 08:11	5°♿00'46	0.58923 AU
minimum elong	3444 Sep 11 21:13	19°♿56'11	4°21'53	inferior conj	3445 Aug 24 14:38	2°♿35'06	-4°58'50
morning rise	3444 Sep 19 01:01	15°♿18'00		minimum elong	3445 Aug 24 17:58	2°♿28'53	4°58'30
direct	3444 Sep 21 10:02	14°♿55'24			3445 Aug 28 07:52	30°♿♿	
asc. node	3444 Sep 27 07:08	17°♿19'52		morning rise	3445 Sep 01 10:38	28°♿08'03	
morning max el	3444 Sep 28 14:15	18°♿29'21	18°00'50	direct	3445 Sep 03 21:24	27°♿48'00	
	3444 Oct 06 21:59	0°♿			3445 Sep 09 23:06	0°♿	
morning set	3444 Oct 14 09:19	13°♿25'49		morning max el	3445 Sep 11 22:15	1°♿39'14	18°31'12
	3444 Oct 23 11:19	0°♿		asc. node	3445 Sep 14 04:10	4°♿04'24	
				morning set	3445 Sep 28 01:23	27°♿23'25	
superior conj	3444 Oct 24 10:49	1°♿44'03	1°07'14		3445 Sep 29 09:49	0°♿	
minimum elong	3444 Oct 24 15:05	2°♿02'52	1°06'43				
max. Earth dist.	3444 Nov 01 01:35	14°♿46'49	1.42090 AU	superior conj	3445 Oct 06 22:58	14°♿23'23	1°29'29
desc. node	3444 Nov 03 16:06	19°♿04'14		minimum elong	3445 Oct 07 02:15	14°♿38'37	1°29'11
evening rise	3444 Nov 06 21:27	24°♿15'59		max. Earth dist.	3445 Oct 14 08:13	27°♿40'55	1.40097 AU
	3444 Nov 10 12:50	0°♿			3445 Oct 15 16:25	0°♿	
	3444 Dec 01 05:58	0°♿		evening rise	3445 Oct 18 14:13	4°♿55'20	
evening max el	3444 Dec 09 20:06	10°♿11'21	22°26'14	desc. node	3445 Oct 21 13:07	9°♿47'20	
retrograde	3444 Dec 19 12:41	15°♿57'01			3445 Nov 03 17:16	0°♿	
evening set	3444 Dec 24 03:02	14°♿05'16		evening max el	3445 Nov 22 10:15	23°♿47'52	23°46'08
asc. node	3444 Dec 24 06:23	13°♿58'18			3445 Dec 01 16:11	0°♿	
inferior conj	3444 Dec 29 11:36	7°♿44'06	1°42'02	retrograde	3445 Dec 03 05:40	0°♿10'25	
minimum elong	3444 Dec 29 09:32	7°♿51'17	1°41'16		3445 Dec 04 17:47	30°♿♿	
min. Earth dist.	3444 Dec 29 08:34	7°♿54'40	0.67958 AU	evening set	3445 Dec 08 08:57	28°♿02'18	
morning rise	3445 Jan 03 15:54	1°♿34'06		asc. node	3445 Dec 11 03:25	25°♿07'25	
	3445 Jan 06 06:38	30°♿♿		min. Earth dist.	3445 Dec 13 05:10	22°♿24'36	0.67844 AU
direct	3445 Jan 08 07:15	29°♿38'40		inferior conj	3445 Dec 13 19:01	21°♿37'23	0°53'39
	3445 Jan 10 10:20	0°♿		minimum elong	3445 Dec 13 17:47	21°♿41'35	0°53'09
morning max el	3445 Jan 17 14:33	5°♿06'36	22°07'34	morning rise	3445 Dec 19 02:37	15°♿31'52	
desc. node	3445 Jan 30 15:22	21°♿24'42		direct	3445 Dec 23 03:54	13°♿59'15	
	3445 Feb 05 14:29	0°♿		morning max el	3445 Dec 31 08:36	18°♿42'48	20°47'28
morning set	3445 Feb 19 16:50	21°♿45'46			3446 Jan 09 13:24	0°♿	
	3445 Feb 24 17:09	0°♿		desc. node	3446 Jan 17 12:24	11°♿24'05	
max. Earth dist.	3445 Feb 25 06:34	0°♿56'12	1.41053 AU	morning set	3446 Jan 29 21:40	0°♿12'58	

	3446 Jan 29 18:20	0°♊		greatest brilliancy	3446 Dec 27 14:10	19°♊54'08	-0.7m
max. Earth dist.	3446 Feb 07 11:04	13°♊48'50	1.42962 AU		3447 Jan 03 06:38	0°♊	
				desc. node	3447 Jan 04 09:25	1°♊42'25	
superior conj	3446 Feb 14 06:15	25°♊03'06	-2°06'44	morning set	3447 Jan 08 18:03	8°♊24'50	
minimum elong	3446 Feb 14 05:21	24°♊59'22	2°06'44	max. Earth dist.	3447 Jan 20 22:44	27°♊28'52	1.44379 AU
	3446 Feb 17 04:08	0°♋			3447 Jan 22 12:44	0°♋	
evening rise	3446 Feb 26 04:20	15°♋46'26					
	3446 Mar 06 07:30	0°♋		superior conj	3447 Jan 25 09:40	4°♋36'08	-1°54'39
asc. node	3446 Mar 09 02:43	4°♋31'15		minimum elong	3447 Jan 25 02:56	4°♋09'01	1°54'13
evening max el	3446 Mar 15 03:56	12°♋23'29	18°06'59	evening rise	3447 Feb 08 02:46	27°♋15'50	
retrograde	3446 Mar 21 17:21	15°♋46'39			3447 Feb 09 17:36	0°♋	
evening set	3446 Mar 24 10:42	15°♋11'20		asc. node	3447 Feb 23 23:44	22°♋35'25	
inferior conj	3446 Mar 30 21:43	10°♋08'38	3°25'55	evening max el	3447 Feb 26 16:38	25°♋42'05	18°16'58
minimum elong	3446 Mar 30 23:42	10°♋03'41	3°25'42	retrograde	3447 Mar 05 03:16	29°♋09'23	
min. Earth dist.	3446 Apr 02 23:17	7°♋06'20	0.61600 AU	evening set	3447 Mar 08 02:18	28°♋22'39	
morning rise	3446 Apr 06 10:59	4°♋11'18		inferior conj	3447 Mar 14 02:24	23°♋00'44	3°38'24
direct	3446 Apr 13 06:38	1°♋47'59		minimum elong	3447 Mar 14 02:34	23°♋00'15	3°38'24
desc. node	3446 Apr 15 11:35	2°♋01'58		min. Earth dist.	3447 Mar 16 13:55	20°♋14'49	0.63613 AU
morning max el	3446 Apr 27 10:58	9°♋45'25	27°50'16	morning rise	3447 Mar 20 01:55	16°♋53'57	
	3446 May 13 03:34	0°♌		direct	3447 Mar 26 23:23	14°♋09'25	
	3446 May 29 22:38	0°♌		desc. node	3447 Apr 02 08:37	16°♋07'11	
morning set	3446 May 30 14:29	1°♌20'46		morning max el	3447 Apr 09 18:53	22°♋06'48	27°40'42
asc. node	3446 Jun 05 01:58	12°♌54'39			3447 Apr 16 17:01	0°♋	
max. Earth dist.	3446 Jun 05 10:51	13°♌42'47	1.32310 AU		3447 May 06 07:52	0°♌	
				morning set	3447 May 14 11:27	15°♌22'07	
superior conj	3446 Jun 06 23:54	17°♌04'32	0°20'01	max. Earth dist.	3447 May 19 14:30	25°♌53'18	1.32979 AU
minimum elong	3446 Jun 06 22:59	16°♌59'33	0°19'49		3447 May 21 13:00	0°♌	
	3446 Jun 12 22:10	0°♍					
evening rise	3446 Jun 13 20:56	2°♍01'38		superior conj	3447 May 22 07:02	1°♌36'38	-0°06'59
	3446 Jun 29 01:04	0°♍		minimum elong	3447 May 22 07:23	1°♌38'29	0°06'55
evening max el	3446 Jul 09 11:05	12°♍55'01	24°39'42	behind sun begin	3447 May 22 02:33	1°♌12'34	
desc. node	3446 Jul 12 10:48	15°♍31'26		behind sun end	3447 May 22 12:13	2°♌04'25	
retrograde	3446 Jul 23 09:07	19°♍57'22		asc. node	3447 May 22 23:00	3°♌02'27	
evening set	3446 Jul 28 11:43	18°♍58'30		evening rise	3447 May 29 08:39	16°♌48'30	
min. Earth dist.	3446 Aug 02 22:16	16°♍08'34	0.56989 AU		3447 Jun 04 21:45	0°♍	
inferior conj	3446 Aug 05 17:54	14°♍19'08	-5°05'24	evening max el	3447 Jun 21 00:25	23°♍21'24	23°03'39
minimum elong	3446 Aug 05 16:07	14°♍22'02	5°05'19	desc. node	3447 Jun 29 07:50	29°♍03'27	
morning rise	3446 Aug 13 23:08	10°♍13'39			3447 Jul 03 06:57	0°♍	
direct	3446 Aug 16 14:09	9°♍54'31		retrograde	3447 Jul 04 10:27	0°♍02'59	
morning max el	3446 Aug 25 21:16	14°♍15'07	19°22'51		3447 Jul 05 14:08	30°♌♍	
asc. node	3446 Sep 01 01:12	21°♍47'52		evening set	3447 Jul 08 00:34	29°♍34'48	
	3446 Sep 05 23:27	0°♎		min. Earth dist.	3447 Jul 15 09:36	26°♍16'19	0.55532 AU
morning set	3446 Sep 12 02:00	11°♎45'36		inferior conj	3447 Jul 17 01:41	25°♍18'06	-4°27'45
				minimum elong	3447 Jul 16 18:28	25°♍28'37	4°26'22
superior conj	3446 Sep 20 04:01	27°♎52'41	1°41'26	morning rise	3447 Jul 25 14:43	21°♍25'47	
minimum elong	3446 Sep 20 05:35	28°♎00'21	1°41'21	direct	3447 Jul 28 12:13	21°♍05'50	
	3446 Sep 21 06:12	0°♏		morning max el	3447 Aug 08 08:53	26°♍08'16	20°35'56
max. Earth dist.	3446 Sep 26 12:08	9°♏53'58	1.38016 AU		3447 Aug 11 23:09	0°♏	
evening rise	3446 Sep 30 06:28	16°♏39'49		asc. node	3447 Aug 18 22:14	10°♏16'48	
desc. node	3446 Oct 08 10:08	0°♐22'43		morning set	3447 Aug 27 08:21	26°♏24'36	
	3446 Oct 08 04:29	0°♐			3447 Aug 29 02:07	0°♐	
	3446 Oct 29 04:58	0°♑					
evening max el	3446 Nov 04 22:38	7°♑28'18	25°03'24	superior conj	3447 Sep 03 21:11	11°♐57'53	1°44'41
retrograde	3446 Nov 16 18:35	14°♑19'46		minimum elong	3447 Sep 03 21:06	11°♐57'29	1°44'42
evening set	3446 Nov 22 11:39	11°♑56'30		max. Earth dist.	3447 Sep 08 19:17	21°♐46'34	1.36094 AU
min. Earth dist.	3446 Nov 26 23:55	6°♑52'51	0.67385 AU	evening rise	3447 Sep 12 19:16	29°♐22'02	
inferior conj	3446 Nov 28 00:28	5°♑32'22	0°00'02		3447 Sep 13 03:29	0°♑	
minimum elong	3446 Nov 28 00:28	5°♑32'22	0°00'03	desc. node	3447 Sep 25 07:07	20°♑45'14	
transit middle	3446 Nov 28 00:28	5°♑32'22	0°00'03		3447 Oct 01 09:40	0°♐	
transit begin	3446 Nov 27 21:42	5°♑41'28		evening max el	3447 Oct 18 10:59	21°♐09'48	26°10'35
transit end	3446 Nov 28 03:14	5°♑23'17		retrograde	3447 Oct 31 02:29	28°♐18'53	
asc. node	3446 Nov 28 00:26	5°♑32'29		evening set	3447 Nov 06 09:17	25°♐43'38	
	3446 Dec 02 23:03	30°♑♐		min. Earth dist.	3447 Nov 10 14:23	21°♐15'23	0.66589 AU
morning rise	3446 Dec 03 13:29	29°♐33'29		inferior conj	3447 Nov 12 02:05	19°♐25'02	-0°57'40
direct	3446 Dec 07 02:18	28°♐21'27		minimum elong	3447 Nov 12 03:37	19°♐20'15	0°57'00
	3446 Dec 11 12:31	0°♑		asc. node	3447 Nov 14 21:28	16°♐08'04	
morning max el	3446 Dec 14 10:31	2°♑30'18	19°40'01	morning rise	3447 Nov 17 22:26	13°♐35'29	

direct	3447 Nov 21 00:48	12° \mathbb{M} 40'42		morning rise	3448 Nov 01 03:14	27° \mathbb{A} 34'43	
morning max el	3447 Nov 27 19:32	16° \mathbb{M} 25'24	18°47'44	direct	3448 Nov 03 21:24	26° \mathbb{A} 53'24	
	3447 Dec 08 00:54	0° \mathbb{A}			3448 Nov 09 23:52	0° \mathbb{M}	
morning set	3447 Dec 19 06:55	17° \mathbb{A} 32'22		morning max el	3448 Nov 10 09:40	0° \mathbb{M} 23'55	18°11'51
desc. node	3447 Dec 22 06:25	22° \mathbb{A} 13'38		morning set	3448 Nov 29 00:46	28° \mathbb{M} 07'55	
	3447 Dec 27 05:10	0° \mathbb{B}			3448 Nov 30 04:11	0° \mathbb{A}	
max. Earth dist.	3448 Jan 03 15:45	11° \mathbb{B} 40'30	1.45136 AU	desc. node	3448 Dec 08 03:26	12° \mathbb{A} 53'52	
superior conj	3448 Jan 04 16:20	13° \mathbb{B} 17'03	-1°23'12	superior conj	3448 Dec 13 19:36	21° \mathbb{A} 55'11	-0°37'58
minimum elong	3448 Jan 04 07:16	12° \mathbb{B} 41'27	1°22'14	minimum elong	3448 Dec 13 14:46	21° \mathbb{A} 36'09	0°37'19
	3448 Jan 15 05:45	0° \mathbb{A}		max. Earth dist.	3448 Dec 16 11:19	26° \mathbb{A} 06'13	1.45154 AU
evening rise	3448 Jan 20 02:18	7° \mathbb{A} 47'29			3448 Dec 18 22:55	0° \mathbb{B}	
	3448 Feb 03 02:19	0° \mathbb{H}		evening rise	3448 Dec 30 03:31	17° \mathbb{B} 27'20	
evening max el	3448 Feb 10 03:54	9° \mathbb{H} 08'43	18°45'11		3449 Jan 07 05:34	0° \mathbb{A}	
asc. node	3448 Feb 10 20:46	9° \mathbb{H} 50'03		greatest brilliancy	3449 Jan 11 08:04	6° \mathbb{A} 16'40	-0.7m
retrograde	3448 Feb 16 20:16	12° \mathbb{H} 52'12		evening max el	3449 Jan 23 11:33	22° \mathbb{A} 38'51	19°30'18
evening set	3448 Feb 20 01:29	11° \mathbb{H} 53'05		asc. node	3449 Jan 27 17:49	26° \mathbb{A} 01'25	
inferior conj	3448 Feb 25 18:00	6° \mathbb{H} 13'30	3°33'01	retrograde	3449 Jan 30 17:09	26° \mathbb{A} 48'53	
minimum elong	3448 Feb 25 16:43	6° \mathbb{H} 17'24	3°32'54	evening set	3449 Feb 03 05:33	25° \mathbb{A} 36'27	
min. Earth dist.	3448 Feb 27 13:50	3° \mathbb{H} 59'28	0.65288 AU	inferior conj	3449 Feb 08 17:14	19° \mathbb{A} 41'17	3°14'11
morning rise	3448 Mar 02 07:32	0° \mathbb{H} 02'06		minimum elong	3449 Feb 08 15:04	19° \mathbb{A} 48'23	3°13'46
	3448 Mar 02 08:31	30° \mathbb{R} \mathbb{A}		min. Earth dist.	3449 Feb 09 22:05	18° \mathbb{A} 06'57	0.66551 AU
direct	3448 Mar 08 23:07	27° \mathbb{A} 10'53		morning rise	3449 Feb 14 00:22	13° \mathbb{A} 27'55	
	3448 Mar 16 10:30	0° \mathbb{H}		direct	3449 Feb 20 04:51	10° \mathbb{A} 42'56	
desc. node	3448 Mar 19 05:39	2° \mathbb{H} 10'49		morning max el	3449 Mar 04 14:04	18° \mathbb{A} 04'57	25°50'01
morning max el	3448 Mar 22 04:35	4° \mathbb{H} 57'05	26°58'01	desc. node	3449 Mar 06 02:40	19° \mathbb{A} 40'24	
	3448 Apr 10 06:51	0° \mathbb{Y}			3449 Mar 14 14:50	0° \mathbb{H}	
morning set	3448 Apr 26 22:29	28° \mathbb{Y} 50'32			3449 Apr 03 06:57	0° \mathbb{Y}	
	3448 Apr 27 12:54	0° \mathbb{B}		morning set	3449 Apr 09 19:27	11° \mathbb{Y} 33'41	
max. Earth dist.	3448 May 01 08:37	7° \mathbb{B} 33'31	1.34106 AU	max. Earth dist.	3449 Apr 13 15:26	18° \mathbb{Y} 45'28	1.35692 AU
superior conj	3448 May 05 08:56	15° \mathbb{B} 48'44	-0°35'30	superior conj	3449 Apr 19 02:59	29° \mathbb{Y} 32'54	-1°04'11
minimum elong	3448 May 05 10:47	15° \mathbb{B} 58'23	0°35'07	minimum elong	3449 Apr 19 06:21	29° \mathbb{Y} 49'54	1°03'35
asc. node	3448 May 08 20:03	23° \mathbb{B} 06'32			3449 Apr 19 08:21	0° \mathbb{B}	
	3448 May 12 02:21	0° \mathbb{II}		asc. node	3449 Apr 25 17:06	13° \mathbb{B} 02'19	
evening rise	3448 May 12 18:54	1° \mathbb{II} 26'35		evening rise	3449 Apr 27 01:36	15° \mathbb{B} 48'53	
	3448 May 29 05:55	0° \mathbb{B}			3449 May 04 08:56	0° \mathbb{II}	
evening max el	3448 Jun 01 19:19	3° \mathbb{B} 56'15	21°30'18	evening max el	3449 May 15 01:14	15° \mathbb{II} 03'35	20°10'46
retrograde	3448 Jun 14 01:01	9° \mathbb{B} 57'20		retrograde	3449 May 25 15:02	20° \mathbb{II} 12'30	
desc. node	3448 Jun 15 04:51	9° \mathbb{B} 54'13		evening set	3449 May 27 14:36	20° \mathbb{II} 02'25	
evening set	3448 Jun 16 11:17	9° \mathbb{B} 43'56		desc. node	3449 Jun 02 01:54	18° \mathbb{II} 05'11	
inferior conj	3448 Jun 25 20:40	5° \mathbb{B} 43'46	-3°00'55	inferior conj	3449 Jun 05 16:15	16° \mathbb{II} 03'28	-1°03'44
minimum elong	3448 Jun 25 12:52	5° \mathbb{B} 54'40	2°58'27	minimum elong	3449 Jun 05 13:16	16° \mathbb{II} 07'54	1°02'38
min. Earth dist.	3448 Jun 25 20:41	5° \mathbb{B} 43'45	0.54867 AU	min. Earth dist.	3449 Jun 07 09:08	15° \mathbb{II} 02'54	0.55161 AU
morning rise	3448 Jul 04 15:19	1° \mathbb{B} 48'50		morning rise	3449 Jun 14 10:27	11° \mathbb{II} 45'56	
direct	3448 Jul 07 22:51	1° \mathbb{B} 24'57		direct	3449 Jun 18 10:26	11° \mathbb{II} 11'15	
morning max el	3448 Jul 20 09:03	7° \mathbb{B} 16'56	22°07'40	morning max el	3449 Jul 02 01:15	17° \mathbb{II} 51'16	23°50'03
asc. node	3448 Aug 04 19:17	29° \mathbb{B} 20'13			3449 Jul 11 23:31	0° \mathbb{B}	
	3448 Aug 05 03:42	0° \mathbb{Q}		asc. node	3449 Jul 22 16:20	18° \mathbb{B} 48'30	
morning set	3448 Aug 10 18:16	11° \mathbb{Q} 14'33		morning set	3449 Jul 26 05:52	26° \mathbb{B} 08'49	
					3449 Jul 28 01:17	0° \mathbb{Q}	
superior conj	3448 Aug 17 22:48	26° \mathbb{Q} 28'25	1°40'48	superior conj	3449 Aug 02 05:57	11° \mathbb{Q} 14'18	1°31'00
minimum elong	3448 Aug 17 21:28	26° \mathbb{Q} 21'23	1°40'44	minimum elong	3449 Aug 02 03:51	11° \mathbb{Q} 02'58	1°30'46
	3448 Aug 19 15:11	0° \mathbb{P}		max. Earth dist.	3449 Aug 04 10:39	15° \mathbb{Q} 57'07	1.33284 AU
max. Earth dist.	3448 Aug 21 10:31	3° \mathbb{P} 43'43	1.34492 AU	evening rise	3449 Aug 09 16:58	26° \mathbb{Q} 52'36	
evening rise	3448 Aug 26 00:11	12° \mathbb{P} 50'32			3449 Aug 11 06:38	0° \mathbb{P}	
	3448 Sep 04 11:00	0° \mathbb{A}			3449 Aug 28 18:27	0° \mathbb{A}	
desc. node	3448 Sep 11 04:09	10° \mathbb{A} 48'55		desc. node	3449 Aug 29 01:12	0° \mathbb{A} 24'37	
	3448 Sep 25 10:57	0° \mathbb{M}		evening max el	3449 Sep 12 11:09	18° \mathbb{A} 01'57	27°24'45
evening max el	3448 Sep 29 23:38	4° \mathbb{M} 45'17	27°00'00	retrograde	3449 Sep 26 01:08	25° \mathbb{A} 19'30	
retrograde	3448 Oct 13 04:48	12° \mathbb{M} 01'48		evening set	3449 Oct 03 04:16	22° \mathbb{A} 40'03	
evening set	3448 Oct 19 23:44	9° \mathbb{M} 20'04		min. Earth dist.	3449 Oct 06 21:03	19° \mathbb{A} 22'06	0.63949 AU
min. Earth dist.	3448 Oct 23 22:10	5° \mathbb{M} 27'56	0.65448 AU	inferior conj	3449 Oct 09 09:07	16° \mathbb{A} 46'32	-2°58'07
inferior conj	3448 Oct 25 21:48	3° \mathbb{M} 11'49	-1°57'49	minimum elong	3449 Oct 09 14:00	16° \mathbb{A} 33'54	2°56'26
minimum elong	3448 Oct 26 01:04	3° \mathbb{M} 02'29	1°56'31	morning rise	3449 Oct 16 00:59	11° \mathbb{A} 25'17	
	3448 Oct 28 21:11	30° \mathbb{R} \mathbb{A}		direct	3449 Oct 18 13:20	10° \mathbb{A} 53'50	
asc. node	3448 Oct 31 18:30	27° \mathbb{A} 46'11					

asc. node	3449 Oct 18 15:32	10°♄53'52		inferior conj	3450 Sep 22 09:04	0°♄02'02	-3°54'43
morning max el	3449 Oct 25 02:08	14°♄19'07	17°53'14	minimum elong	3450 Sep 22 14:50	29°♄48'41	3°53'09
	3449 Nov 05 00:39	0°♄			3450 Sep 22 09:57	30°♄	
morning set	3449 Nov 10 22:01	10°♄03'17		morning rise	3450 Sep 29 12:06	24°♄59'50	
	3449 Nov 22 18:34	0°♄		direct	3450 Oct 01 21:21	24°♄34'56	
				asc. node	3450 Oct 05 12:36	25°♄34'40	
superior conj	3449 Nov 23 15:51	1°♄26'55	0°09'21	morning max el	3450 Oct 08 17:52	28°♄03'29	17°52'38
minimum elong	3449 Nov 23 16:53	1°♄31'09	0°09'13		3450 Oct 10 12:42	0°♄	
behind sun begin	3449 Nov 23 08:39	0°♄57'32		morning set	3450 Oct 24 16:22	22°♄58'51	
behind sun end	3449 Nov 24 01:07	2°♄04'43			3450 Oct 28 14:11	0°♄	
desc. node	3449 Nov 25 00:29	3°♄39'31					
max. Earth dist.	3449 Nov 29 05:47	10°♄26'06	1.44437 AU	superior conj	3450 Nov 04 14:29	12°♄16'23	0°49'15
evening rise	3449 Dec 09 14:25	26°♄37'25		minimum elong	3450 Nov 04 18:29	12°♄33'27	0°48'43
	3449 Dec 11 19:15	0°♄		desc. node	3450 Nov 11 21:30	24°♄26'53	
	3450 Jan 01 08:36	0°♄		max. Earth dist.	3450 Nov 11 20:09	24°♄21'23	1.43082 AU
evening max el	3450 Jan 06 14:03	6°♄10'19	20°30'10		3450 Nov 15 08:09	0°♄	
retrograde	3450 Jan 14 15:19	10°♄55'01		evening rise	3450 Nov 19 02:11	5°♄55'26	
asc. node	3450 Jan 14 14:50	10°♄55'01			3450 Dec 05 03:24	0°♄	
evening set	3450 Jan 18 12:22	9°♄28'12		evening max el	3450 Dec 20 10:59	19°♄42'43	21°41'40
inferior conj	3450 Jan 23 21:27	3°♄20'15	2°44'52	retrograde	3450 Dec 29 12:39	25°♄06'23	
minimum elong	3450 Jan 23 18:56	3°♄28'50	2°44'12	asc. node	3451 Jan 01 11:52	24°♄18'30	
min. Earth dist.	3450 Jan 24 12:52	2°♄27'40	0.67398 AU	evening set	3451 Jan 02 20:05	23°♄24'09	
	3450 Jan 26 09:44	30°♄		inferior conj	3451 Jan 08 04:24	17°♄06'42	2°07'04
morning rise	3450 Jan 29 01:20	27°♄06'42		minimum elong	3451 Jan 08 02:02	17°♄14'55	2°06'17
direct	3450 Feb 03 15:55	24°♄37'12		min. Earth dist.	3451 Jan 08 07:50	16°♄54'47	0.67857 AU
	3450 Feb 13 13:17	0°♄		morning rise	3451 Jan 13 07:48	10°♄54'41	
morning max el	3450 Feb 14 22:44	1°♄21'31	24°26'27	direct	3451 Jan 18 07:35	8°♄46'03	
desc. node	3450 Feb 20 23:43	8°♄11'20		morning max el	3451 Jan 28 08:13	14°♄42'52	22°57'25
	3450 Mar 08 15:04	0°♄		desc. node	3451 Feb 07 20:44	27°♄25'36	
morning set	3450 Mar 22 20:59	23°♄17'01			3451 Feb 09 17:58	0°♄	
max. Earth dist.	3450 Mar 26 13:03	29°♄48'55	1.37658 AU		3451 Mar 01 14:27	0°♄	
	3450 Mar 26 15:29	0°♄		morning set	3451 Mar 03 20:48	3°♄43'30	
				max. Earth dist.	3451 Mar 08 07:58	11°♄16'22	1.39825 AU
superior conj	3450 Apr 02 09:57	12°♄40'41	-1°30'57				
minimum elong	3450 Apr 02 14:25	13°♄02'14	1°30'21	superior conj	3451 Mar 16 01:33	25°♄00'55	-1°52'50
evening rise	3450 Apr 11 02:20	29°♄48'31		minimum elong	3451 Mar 16 05:53	25°♄20'49	1°52'29
	3450 Apr 11 04:39	0°♄			3451 Mar 18 18:10	0°♄	
asc. node	3450 Apr 12 14:10	2°♄45'27		evening rise	3451 Mar 25 18:00	13°♄16'42	
evening max el	3450 Apr 27 19:07	26°♄52'22	19°10'18	asc. node	3451 Mar 30 11:12	22°♄09'59	
	3450 May 01 23:40	0°♄			3451 Apr 03 22:54	0°♄	
retrograde	3450 May 06 16:57	1°♄12'21		evening max el	3451 Apr 10 22:31	9°♄17'36	18°30'06
evening set	3450 May 08 18:20	0°♄59'27		retrograde	3451 Apr 18 13:06	13°♄02'26	
	3450 May 11 17:14	30°♄		evening set	3451 Apr 20 20:51	12°♄42'35	
inferior conj	3450 May 17 02:11	26°♄48'21	0°49'26	inferior conj	3451 Apr 28 08:59	8°♄12'34	2°15'05
minimum elong	3450 May 17 04:09	26°♄45'01	0°48'44	minimum elong	3451 Apr 28 12:45	8°♄05'06	2°14'03
desc. node	3450 May 19 22:55	24°♄52'26		min. Earth dist.	3451 May 01 19:13	5°♄30'55	0.58212 AU
min. Earth dist.	3450 May 20 00:17	24°♄50'14	0.56360 AU	morning rise	3451 May 06 01:32	2°♄47'26	
morning rise	3450 May 25 10:51	21°♄55'48		desc. node	3451 May 06 19:57	2°♄25'48	
direct	3450 May 30 09:54	20°♄58'35		direct	3451 May 11 23:54	1°♄16'56	
morning max el	3450 Jun 13 15:33	28°♄16'00	25°29'16	morning max el	3451 May 26 09:13	8°♄57'37	26°49'41
	3450 Jun 15 08:58	0°♄			3451 Jun 11 08:28	0°♄	
	3450 Jul 05 06:56	0°♄		morning set	3451 Jun 25 03:31	25°♄49'51	
asc. node	3450 Jul 09 13:24	8°♄34'59		asc. node	3451 Jun 26 10:28	28°♄33'46	
morning set	3450 Jul 10 17:29	11°♄02'21			3451 Jun 27 02:34	0°♄	
superior conj	3450 Jul 17 16:22	26°♄08'31	1°16'11	superior conj	3451 Jul 02 04:08	11°♄04'36	0°57'08
minimum elong	3450 Jul 17 14:01	25°♄55'35	1°15'50	minimum elong	3451 Jul 02 01:59	10°♄52'48	0°56'44
max. Earth dist.	3450 Jul 18 17:50	28°♄27'53	1.32492 AU	max. Earth dist.	3451 Jul 02 05:01	11°♄09'28	1.32105 AU
	3450 Jul 19 10:43	0°♄		evening rise	3451 Jul 09 01:07	26°♄00'14	
evening rise	3450 Jul 24 18:12	11°♄18'38			3451 Jul 10 23:15	0°♄	
	3450 Aug 03 11:58	0°♄			3451 Jul 28 04:11	0°♄	
desc. node	3450 Aug 15 22:14	19°♄20'46		desc. node	3451 Aug 02 19:15	7°♄21'18	
	3450 Aug 24 23:52	0°♄		evening max el	3451 Aug 07 22:11	12°♄50'40	26°40'10
evening max el	3450 Aug 25 19:27	0°♄47'16	27°19'05	retrograde	3451 Aug 21 21:04	20°♄01'58	
retrograde	3450 Sep 08 15:00	8°♄02'25		evening set	3451 Aug 28 16:13	18°♄04'19	
evening set	3450 Sep 15 19:16	5°♄37'14		min. Earth dist.	3451 Sep 01 12:02	15°♄27'55	0.60102 AU
min. Earth dist.	3450 Sep 19 09:40	2°♄46'37	0.62131 AU	inferior conj	3451 Sep 04 18:16	12°♄50'03	-4°40'57

minimum elong	3451 Sep 04 23:15	12° \mathbb{M} 39'55	4°40'07	inferior conj	3452 Aug 16 09:09	24° Ω 59'56	-5°06'09
morning rise	3451 Sep 12 08:18	8° \mathbb{M} 09'30		minimum elong	3452 Aug 16 10:37	24° Ω 57'22	5°06'06
direct	3451 Sep 14 17:31	7° \mathbb{M} 48'21		morning rise	3452 Aug 24 09:12	20° Ω 42'10	
morning max el	3451 Sep 22 05:39	11° \mathbb{M} 28'51	18°11'14	direct	3452 Aug 26 21:34	20° Ω 22'36	
asc. node	3451 Sep 22 09:39	11° \mathbb{M} 38'36		morning max el	3452 Sep 04 10:06	24° Ω 25'03	18°50'30
	3451 Oct 04 12:42	0° $\underline{\Omega}$		asc. node	3452 Sep 08 06:41	28° Ω 49'55	
morning set	3451 Oct 08 01:55	6° $\underline{\Omega}$ 38'03			3452 Sep 09 03:09	0° \mathbb{M}	
				morning set	3452 Sep 20 22:02	20° \mathbb{M} 47'23	
superior conj	3451 Oct 17 14:24	24° $\underline{\Omega}$ 19'48	1°18'02		3452 Sep 25 14:42	0° $\underline{\Omega}$	
minimum elong	3451 Oct 17 18:25	24° $\underline{\Omega}$ 37'54	1°17'34				
	3451 Oct 20 18:46	0° \mathbb{M}		superior conj	3452 Sep 29 10:22	7° $\underline{\Omega}$ 21'53	1°35'43
max. Earth dist.	3451 Oct 25 05:26	7° \mathbb{M} 40'01	1.41264 AU	minimum elong	3452 Sep 29 12:56	7° $\underline{\Omega}$ 34'09	1°35'32
desc. node	3451 Oct 29 18:32	15° \mathbb{M} 12'57		max. Earth dist.	3452 Oct 06 10:39	20° $\underline{\Omega}$ 16'24	1.39210 AU
evening rise	3451 Oct 30 06:05	15° \mathbb{M} 59'53		evening rise	3452 Oct 10 09:00	27° $\underline{\Omega}$ 07'18	
	3451 Nov 08 04:17	0° \mathbb{M}			3452 Oct 12 01:49	0° \mathbb{M}	
	3451 Nov 30 01:42	0° \mathbb{Z}		desc. node	3452 Oct 15 15:34	5° \mathbb{M} 53'21	
evening max el	3451 Dec 03 03:16	3° \mathbb{Z} 18'07	23°00'10		3452 Oct 31 18:02	0° \mathbb{M}	
retrograde	3451 Dec 13 07:31	9° \mathbb{Z} 20'12		evening max el	3452 Nov 14 16:35	16° \mathbb{M} 56'52	24°19'48
evening set	3451 Dec 18 03:07	7° \mathbb{Z} 21'43		retrograde	3452 Nov 25 22:42	23° \mathbb{M} 32'12	
asc. node	3451 Dec 19 08:53	6° \mathbb{Z} 11'56		evening set	3452 Dec 01 07:50	21° \mathbb{M} 17'31	
min. Earth dist.	3451 Dec 23 04:33	1° \mathbb{Z} 24'48	0.67952 AU	asc. node	3452 Dec 05 05:54	16° \mathbb{M} 56'09	
inferior conj	3451 Dec 23 12:10	0° \mathbb{Z} 58'33	1°22'15	min. Earth dist.	3452 Dec 06 00:37	15° \mathbb{M} 54'13	0.67695 AU
minimum elong	3451 Dec 23 10:24	1° \mathbb{Z} 04'38	1°21'34	inferior conj	3452 Dec 06 18:57	14° \mathbb{M} 52'40	0°31'32
	3451 Dec 24 05:12	30° \mathbb{R} \mathbb{M}		minimum elong	3452 Dec 06 18:11	14° \mathbb{M} 55'12	0°31'12
morning rise	3451 Dec 28 17:34	24° \mathbb{M} 49'58		morning rise	3452 Dec 12 04:35	8° \mathbb{M} 49'43	
direct	3452 Jan 02 02:51	23° \mathbb{M} 04'09		direct	3452 Dec 16 00:28	7° \mathbb{M} 26'01	
morning max el	3452 Jan 10 22:08	28° \mathbb{M} 12'22	21°32'07	morning max el	3452 Dec 23 19:23	11° \mathbb{M} 53'02	20°17'03
	3452 Jan 12 14:55	0° \mathbb{Z}			3453 Jan 06 16:17	0° \mathbb{Z}	
desc. node	3452 Jan 25 17:46	17° \mathbb{Z} 11'24		desc. node	3453 Jan 11 14:48	7° \mathbb{Z} 19'43	
	3452 Feb 03 09:40	0° \approx		morning set	3453 Jan 20 13:50	20° \mathbb{Z} 59'27	
morning set	3452 Feb 11 15:37	12° \approx 47'43			3453 Jan 26 08:18	0° \approx	
max. Earth dist.	3452 Feb 18 07:55	23° \approx 36'22	1.41918 AU	max. Earth dist.	3453 Jan 30 16:04	6° \approx 52'45	1.43642 AU
	3452 Feb 22 03:40	0° \mathbb{H}					
superior conj	3452 Feb 25 20:53	6° \mathbb{H} 22'30	-2°05'34	superior conj	3453 Feb 05 15:18	16° \approx 35'19	-2°03'58
minimum elong	3452 Feb 25 22:45	6° \mathbb{H} 30'37	2°05'32	minimum elong	3453 Feb 05 11:55	16° \approx 21'21	2°03'51
evening rise	3452 Mar 07 21:00	26° \mathbb{H} 05'27			3453 Feb 13 14:34	0° \mathbb{H}	
	3452 Mar 10 00:23	0° \mathbb{Y}		evening rise	3453 Feb 18 07:06	8° \mathbb{H} 06'23	
asc. node	3452 Mar 16 08:13	11° \mathbb{Y} 09'51		asc. node	3453 Mar 03 05:14	29° \mathbb{H} 37'21	
evening max el	3452 Mar 24 08:03	22° \mathbb{Y} 10'30	18°09'49		3453 Mar 03 11:33	0° \mathbb{Y}	
retrograde	3452 Mar 31 03:15	25° \mathbb{Y} 36'48		evening max el	3453 Mar 07 20:27	5° \mathbb{Y} 22'09	18°08'55
evening set	3452 Apr 02 17:24	25° \mathbb{Y} 07'26		retrograde	3453 Mar 14 07:25	8° \mathbb{Y} 45'22	
inferior conj	3452 Apr 09 12:27	20° \mathbb{Y} 16'27	3°08'17	evening set	3453 Mar 17 03:16	8° \mathbb{Y} 05'08	
minimum elong	3452 Apr 09 15:25	20° \mathbb{Y} 09'36	3°07'46	inferior conj	3453 Mar 23 09:09	2° \mathbb{Y} 53'49	3°33'45
min. Earth dist.	3452 Apr 12 19:57	17° \mathbb{Y} 14'39	0.60367 AU	minimum elong	3453 Mar 23 10:21	2° \mathbb{Y} 50'40	3°33'40
morning rise	3452 Apr 16 11:14	14° \mathbb{Y} 28'22		min. Earth dist.	3453 Mar 26 05:02	29° \mathbb{H} 56'28	0.62492 AU
desc. node	3452 Apr 22 16:59	12° \mathbb{Y} 22'58			3453 Mar 26 03:38	30° \mathbb{R} \mathbb{H}	
direct	3452 Apr 23 02:00	12° \mathbb{Y} 22'34		morning rise	3453 Mar 29 16:10	26° \mathbb{H} 51'54	
morning max el	3452 May 07 08:55	20° \mathbb{Y} 15'20	27°38'46	direct	3453 Apr 05 13:37	24° \mathbb{H} 18'13	
	3452 May 15 17:34	0° \mathbb{B}		desc. node	3453 Apr 09 14:00	25° \mathbb{H} 04'43	
	3452 Jun 03 04:54	0° \mathbb{H}			3453 Apr 17 04:48	0° \mathbb{Y}	
morning set	3452 Jun 08 10:10	10° \mathbb{H} 25'05		morning max el	3453 Apr 19 14:35	2° \mathbb{Y} 15'48	27°50'41
asc. node	3452 Jun 12 07:29	18° \mathbb{H} 39'35			3453 May 10 01:23	0° \mathbb{B}	
max. Earth dist.	3452 Jun 14 16:29	23° \mathbb{H} 50'00	1.32122 AU	morning set	3453 May 23 11:25	24° \mathbb{B} 41'45	
					3453 May 26 01:18	0° \mathbb{H}	
superior conj	3452 Jun 15 15:28	25° \mathbb{H} 56'11	0°34'28	max. Earth dist.	3453 May 29 00:26	6° \mathbb{H} 16'56	1.32547 AU
minimum elong	3452 Jun 15 14:00	25° \mathbb{H} 48'03	0°34'09	asc. node	3453 May 30 04:31	8° \mathbb{H} 48'15	
	3452 Jun 17 11:48	0° \mathbb{S}					
evening rise	3452 Jun 22 11:27	10° \mathbb{S} 49'29		superior conj	3453 May 31 00:42	10° \mathbb{H} 37'35	0°08'50
	3452 Jul 02 06:12	0° Ω		minimum elong	3453 May 31 00:17	10° \mathbb{H} 35'19	0°08'45
evening max el	3452 Jul 19 17:37	24° Ω 06'05	25°30'19	behind sun begin	3453 May 30 19:55	10° \mathbb{H} 11'37	
desc. node	3452 Jul 19 16:16	24° Ω 02'52		behind sun end	3453 May 31 04:39	10° \mathbb{H} 59'02	
	3452 Jul 28 03:18	0° \mathbb{M}		evening rise	3453 Jun 06 23:15	25° \mathbb{H} 39'47	
retrograde	3452 Aug 02 17:10	1° \mathbb{M} 12'26			3453 Jun 29 00:52	0° \mathbb{S}	
	3452 Aug 08 06:47	30° \mathbb{R} Ω			3453 Jun 26 23:41	0° Ω	
evening set	3452 Aug 08 14:20	29° Ω 51'48		evening max el	3453 Jul 01 07:20	4° Ω 42'51	23°59'23
min. Earth dist.	3452 Aug 13 05:37	27° Ω 12'02	0.58062 AU	desc. node	3453 Jul 06 13:16	8° Ω 54'48	
				retrograde	3453 Jul 15 01:30	11° Ω 38'12	

evening set	3453 Jul 19 12:58	10°♎53'53		evening set	3454 Jun 28 22:21	21°♎15'25	
min. Earth dist.	3453 Jul 25 17:45	7°♎53'34	0.56298 AU	min. Earth dist.	3454 Jul 07 04:35	17°♎40'54	0.55141 AU
inferior conj	3453 Jul 28 03:48	6°♎24'35	-4°55'33	inferior conj	3454 Jul 08 04:48	17°♎06'38	-3°56'26
minimum elong	3453 Jul 27 23:27	6°♎31'17	4°55'04	minimum elong	3454 Jul 07 20:32	17°♎18'21	3°54'21
morning rise	3453 Aug 05 12:32	2°♎26'21		morning rise	3454 Jul 16 20:43	13°♎15'51	
direct	3453 Aug 08 06:18	2°♎06'57		direct	3454 Jul 19 21:42	12°♎54'57	
morning max el	3453 Aug 18 04:25	6°♎43'23	19°51'24	morning max el	3454 Jul 31 11:05	18°♎17'39	21°13'04
asc. node	3453 Aug 26 03:44	16°♎54'17			3454 Aug 09 16:44	0°♎	
	3453 Sep 02 09:46	0°♎		asc. node	3454 Aug 13 00:48	5°♎39'00	
morning set	3453 Sep 05 01:24	5°♎17'46		morning set	3454 Aug 20 09:31	20°♎02'09	
					3454 Aug 25 03:49	0°♎	
superior conj	3453 Sep 12 21:06	21°♎08'02	1°43'46	superior conj	3454 Aug 27 18:17	5°♎25'33	1°43'50
minimum elong	3453 Sep 12 21:56	21°♎12'11	1°43'46	minimum elong	3454 Aug 27 17:37	5°♎22'05	1°43'49
	3453 Sep 17 10:12	0°♎		max. Earth dist.	3454 Sep 01 01:33	14°♎10'04	1.35363 AU
max. Earth dist.	3453 Sep 18 15:34	2°♎19'02	1.37170 AU	evening rise	3454 Sep 05 06:40	22°♎20'29	
evening rise	3453 Sep 22 10:28	9°♎17'13			3454 Sep 09 10:36	0°♎	
desc. node	3453 Oct 02 12:34	26°♎23'51		desc. node	3454 Sep 19 09:35	16°♎39'19	
	3453 Oct 04 19:27	0°♎			3454 Sep 28 13:31	0°♎	
	3453 Oct 27 13:28	0°♎		evening max el	3454 Oct 10 17:05	14°♎17'20	26°34'11
evening max el	3453 Oct 28 04:47	0°♎37'54	25°33'37	retrograde	3454 Oct 23 15:11	21°♎31'27	
retrograde	3453 Nov 09 09:26	7°♎37'49		evening set	3454 Oct 30 03:31	18°♎52'14	
evening set	3453 Nov 15 08:36	5°♎08'42		min. Earth dist.	3454 Nov 03 05:34	14°♎39'34	0.66141 AU
min. Earth dist.	3453 Nov 19 17:41	0°♎20'16	0.67092 AU	inferior conj	3454 Nov 04 22:22	12°♎37'20	-1°23'01
	3453 Nov 20 00:03	30°♎		minimum elong	3454 Nov 05 00:38	12°♎30'32	1°22'04
inferior conj	3453 Nov 20 22:58	28°♎46'29	-0°24'01	asc. node	3454 Nov 08 24:00	8°♎15'05	
minimum elong	3453 Nov 20 23:35	28°♎44'30	0°23'45	morning rise	3454 Nov 10 22:24	6°♎52'55	
asc. node	3453 Nov 22 02:57	27°♎17'58		direct	3454 Nov 13 20:54	6°♎04'31	
morning rise	3453 Nov 26 14:54	22°♎51'32		morning max el	3454 Nov 20 12:11	9°♎42'13	18°30'28
direct	3453 Nov 29 23:03	21°♎47'19			3454 Dec 04 21:02	0°♎	
morning max el	3453 Dec 07 00:34	25°♎44'15	19°15'53	morning set	3454 Dec 10 15:16	9°♎11'49	
	3453 Dec 10 17:51	0°♎		desc. node	3454 Dec 16 08:51	18°♎19'46	
greatest brilliancy	3453 Dec 20 18:19	14°♎17'58	-0.7m		3454 Dec 23 18:17	0°♎	
desc. node	3453 Dec 29 11:49	27°♎43'59		superior conj	3454 Dec 26 11:03	4°♎14'14	-1°05'04
morning set	3453 Dec 30 14:34	29°♎27'43		minimum elong	3454 Dec 26 03:09	3°♎43'15	1°04'07
	3453 Dec 30 22:53	0°♎		max. Earth dist.	3454 Dec 27 00:56	5°♎08'44	1.45225 AU
max. Earth dist.	3454 Jan 13 06:46	20°♎49'48	1.44784 AU	evening rise	3455 Jan 11 09:45	29°♎20'02	
superior conj	3454 Jan 16 08:25	25°♎41'21	-1°43'32		3455 Jan 11 19:51	0°♎	
minimum elong	3454 Jan 15 23:54	25°♎07'31	1°42'50	greatest brilliancy	3455 Jan 20 18:56	14°♎10'09	-0.8m
	3454 Jan 19 01:18	0°♎			3455 Jan 31 18:55	0°♎	
evening rise	3454 Jan 30 20:05	19°♎11'36		evening max el	3455 Feb 02 18:43	2°♎13'07	19°02'26
	3454 Feb 06 08:50	0°♎		asc. node	3455 Feb 04 23:18	4°♎11'50	
asc. node	3454 Feb 18 02:15	17°♎22'01		retrograde	3455 Feb 09 16:03	6°♎07'11	
evening max el	3454 Feb 19 08:48	18°♎44'34	18°26'47	evening set	3455 Feb 13 00:03	5°♎02'43	
retrograde	3454 Feb 25 20:57	22°♎17'42			3455 Feb 18 00:19	30°♎	
evening set	3454 Feb 28 22:29	21°♎25'49		inferior conj	3455 Feb 18 14:13	29°♎16'15	3°26'29
inferior conj	3454 Mar 06 18:57	15°♎55'54	3°38'02	minimum elong	3455 Feb 18 12:30	29°♎21'42	3°26'15
minimum elong	3454 Mar 06 18:27	15°♎57'23	3°38'01	min. Earth dist.	3455 Feb 20 03:34	27°♎18'16	0.65869 AU
min. Earth dist.	3454 Mar 08 23:43	13°♎22'16	0.64365 AU	morning rise	3455 Feb 24 00:35	23°♎03'29	
morning rise	3454 Mar 12 13:45	9°♎46'31		direct	3455 Mar 02 11:52	20°♎13'20	
direct	3454 Mar 19 09:18	6°♎57'42		desc. node	3455 Mar 14 08:04	26°♎48'35	
desc. node	3454 Mar 27 11:02	10°♎04'43		morning max el	3455 Mar 15 09:49	27°♎51'58	26°31'39
morning max el	3454 Apr 01 23:52	14°♎52'04	27°26'19		3455 Mar 17 10:30	0°♎	
	3454 Apr 14 08:08	0°♎			3455 Apr 08 01:18	0°♎	
	3454 May 02 17:30	0°♎		morning set	3455 Apr 20 10:18	21°♎42'07	
morning set	3454 May 07 04:37	8°♎30'47		max. Earth dist.	3455 Apr 24 13:53	29°♎43'06	1.34725 AU
max. Earth dist.	3454 May 12 00:41	18°♎16'40	1.33405 AU		3455 Apr 24 17:18	0°♎	
superior conj	3454 May 15 05:53	25°♎02'03	-0°18'58	superior conj	3455 Apr 29 04:48	9°♎03'21	-0°47'45
minimum elong	3454 May 15 06:51	25°♎07'09	0°18'45	minimum elong	3455 Apr 29 07:18	9°♎16'18	0°47'15
asc. node	3454 May 17 01:33	28°♎55'02		asc. node	3455 May 03 22:36	18°♎56'09	
	3454 May 17 13:41	0°♎		evening rise	3455 May 06 19:37	24°♎56'03	
evening rise	3454 May 22 10:36	10°♎23'53			3455 May 09 07:04	0°♎	
	3454 Jun 01 14:42	0°♎		evening max el	3455 May 25 21:05	25°♎55'04	20°54'20
evening max el	3454 Jun 12 21:52	15°♎08'10	22°22'40		3455 May 31 07:55	0°♎	
desc. node	3454 Jun 23 10:17	21°♎21'16		retrograde	3455 Jun 06 10:59	1°♎34'37	
retrograde	3454 Jun 25 21:59	21°♎35'31					

evening set	3455 Jun 08 14:18	1°☿23'47	evening max el	3456 May 07 08:25	7°♊21'08	19°42'42
desc. node	3455 Jun 10 07:19	1°☿00'26	retrograde	3456 May 17 04:21	12°♊07'27	
	3455 Jun 13 00:52	30°♋♊	evening set	3456 May 19 03:48	11°♊56'44	
inferior conj	3455 Jun 17 22:15	27°♊26'16 -2°12'57	desc. node	3456 May 27 04:20	8°♊22'42	
minimum elong	3455 Jun 17 16:06	27°♊35'00 2°10'48	inferior conj	3456 May 27 22:39	7°♊54'18	-0°13'28
min. Earth dist.	3455 Jun 18 16:32	27°♊00'19 0.54874 AU	minimum elong	3456 May 27 22:03	7°♊55'14	0°13'15
morning rise	3455 Jun 26 17:39	23°♊23'30	transit middle	3456 May 27 22:03	7°♊55'14	0°13'15
direct	3455 Jun 30 07:02	22°♊56'12	transit begin	3456 May 27 19:51	7°♊58'40	
morning max el	3455 Jul 13 07:21	29°♊10'13 22°50'33	transit end	3456 May 28 00:14	7°♊51'49	
	3455 Jul 14 04:03	0°☿	min. Earth dist.	3456 May 30 06:06	6°♊28'12	0.55573 AU
asc. node	3455 Jul 30 21:51	24°☿54'00	morning rise	3456 Jun 05 13:53	3°♊22'36	
	3455 Aug 02 11:26	0°♊	direct	3456 Jun 09 23:27	2°♊39'37	
morning set	3455 Aug 04 20:20	4°♊54'28	morning max el	3456 Jun 23 21:51	9°♊37'19	24°33'26
				3456 Jul 09 01:53	0°☿	
superior conj	3455 Aug 11 22:35	20°♊03'49 1°37'19	asc. node	3456 Jul 16 18:54	14°☿31'25	
minimum elong	3455 Aug 11 20:51	19°♊54'38 1°37'10	morning set	3456 Jul 19 08:10	19°☿49'46	
max. Earth dist.	3455 Aug 14 20:20	26°♊11'59 1.33926 AU		3456 Jul 24 01:19	0°♊	
	3455 Aug 16 16:28	0°♎				
evening rise	3455 Aug 19 17:06	6°♎04'55	superior conj	3456 Jul 26 07:24	4°♊54'52	1°25'18
	3455 Sep 02 01:48	0°♊	minimum elong	3456 Jul 26 05:08	4°♊42'32	1°25'00
desc. node	3455 Sep 06 06:38	6°♊32'22	max. Earth dist.	3456 Jul 27 23:57	8°♊34'44	1.32902 AU
evening max el	3455 Sep 23 05:25	27°♊46'24 27°14'01	evening rise	3456 Aug 02 13:56	20°♊19'30	
	3455 Sep 25 17:08	0°♌		3456 Aug 07 12:01	0°♎	
retrograde	3455 Oct 06 15:17	5°♌04'42	desc. node	3456 Aug 23 03:40	25°♎53'30	
evening set	3455 Oct 13 14:08	2°♌22'46		3456 Aug 26 03:48	0°♊	
	3455 Oct 16 05:24	30°♋♊	evening max el	3456 Sep 04 16:11	10°♊53'01	27°26'22
min. Earth dist.	3455 Oct 17 09:56	28°♊45'27 0.64844 AU	retrograde	3456 Sep 18 08:54	18°♊09'10	
inferior conj	3455 Oct 19 14:51	26°♊19'58 -2°23'38	evening set	3456 Sep 25 13:25	15°♊34'36	
minimum elong	3455 Oct 19 18:50	26°♊08'59 2°22'06	min. Earth dist.	3456 Sep 29 04:46	12°♊29'07	0.63214 AU
morning rise	3455 Oct 26 00:35	20°♊49'07	inferior conj	3456 Oct 01 21:47	9°♊48'29	-3°22'54
asc. node	3455 Oct 26 21:04	20°♊29'22	minimum elong	3456 Oct 02 03:10	9°♊35'08	3°21'11
direct	3455 Oct 28 15:51	20°♊12'32	morning rise	3456 Oct 08 18:19	4°♊34'33	
morning max el	3455 Nov 04 03:40	23°♊40'12 18°01'45	direct	3456 Oct 11 05:01	4°♊06'12	
	3455 Nov 09 05:51	0°♌	asc. node	3456 Oct 12 18:06	4°♊17'46	
morning set	3455 Nov 21 21:24	20°♌23'18	morning max el	3456 Oct 17 20:09	7°♊31'57	17°50'37
	3455 Nov 27 16:31	0°♎		3456 Nov 01 14:16	0°♌	
desc. node	3455 Dec 03 05:53	9°♎02'40	morning set	3456 Nov 03 04:28	2°♌47'18	
superior conj	3455 Dec 05 19:30	13°♎09'47 -0°17'29	superior conj	3456 Nov 15 02:33	23°♌13'29	0°27'32
minimum elong	3455 Dec 05 17:21	13°♎01'11 0°17'10	minimum elong	3456 Nov 15 05:16	23°♌24'48	0°27'08
max. Earth dist.	3455 Dec 09 19:54	19°♎32'16 1.44930 AU	desc. node	3456 Nov 19 02:56	29°♌49'39	
	3455 Dec 16 12:17	0°♏		3456 Nov 19 05:29	0°♎	
evening rise	3455 Dec 22 03:16	8°♏42'43	max. Earth dist.	3456 Nov 21 13:07	3°♎44'38	1.43939 AU
greatest brilliancy	3456 Jan 05 01:54	29°♏56'34 -0.6m	evening rise	3456 Nov 30 12:31	17°♎51'31	
	3456 Jan 05 02:50	0°♐		3456 Dec 08 12:06	0°♏	
evening max el	3456 Jan 17 00:19	15°♐43'59 19°54'13	evening max el	3456 Dec 30 00:32	29°♏16'07	20°59'27
asc. node	3456 Jan 22 20:21	19°♐51'46		3456 Dec 30 18:09	0°♐	
retrograde	3456 Jan 24 13:39	20°♐07'53	retrograde	3457 Jan 07 11:32	4°♐16'31	
evening set	3456 Jan 28 05:30	18°♐49'38	asc. node	3457 Jan 08 17:23	4°♐08'01	
inferior conj	3456 Feb 02 15:52	12°♐48'57 3°02'52	evening set	3457 Jan 11 12:53	2°♐43'11	
minimum elong	3456 Feb 02 13:29	12°♐56'54 3°02'21		3457 Jan 14 05:55	30°♋♏	
min. Earth dist.	3456 Feb 03 14:54	11°♐32'02 0.66961 AU	inferior conj	3457 Jan 16 21:27	26°♏30'59	2°29'44
morning rise	3456 Feb 07 21:14	6°♐35'16	minimum elong	3457 Jan 16 18:56	26°♏39'37	2°29'00
direct	3456 Feb 13 20:09	3°♐55'38	min. Earth dist.	3457 Jan 17 07:37	25°♏55'57	0.67646 AU
morning max el	3456 Feb 25 18:39	11°♐03'20 25°15'42	morning rise	3457 Jan 22 00:49	20°♏18'06	
desc. node	3456 Feb 29 05:06	14°♐46'25	direct	3457 Jan 27 09:15	17°♏56'57	
	3456 Mar 11 21:25	0°♐	morning max el	3457 Feb 07 03:08	24°♏21'03	23°48'38
	3456 Mar 30 17:22	0°♑		3457 Feb 12 04:31	0°♐	
morning set	3456 Apr 01 23:44	4°♑01'51	desc. node	3457 Feb 15 02:08	3°♐37'17	
max. Earth dist.	3456 Apr 05 15:45	10°♑45'53 1.36485 AU		3457 Mar 05 08:22	0°♐	
			morning set	3457 Mar 14 14:58	15°♐13'37	
superior conj	3456 Apr 11 18:36	22°♑33'32 -1°15'55	max. Earth dist.	3457 Mar 18 11:20	21°♐55'37	1.38570 AU
minimum elong	3456 Apr 11 22:31	22°♑52'58 1°15'18		3457 Mar 22 22:30	0°♑	
	3456 Apr 15 11:42	0°♒				
asc. node	3456 Apr 19 19:40	8°♒47'20	superior conj	3457 Mar 25 19:35	5°♑22'31	-1°41'03
evening rise	3456 Apr 20 00:04	9°♒09'33	minimum elong	3457 Mar 26 00:13	5°♑44'22	1°40'32
	3456 May 01 10:25	0°♓	evening rise	3457 Apr 03 21:19	22°♑56'44	

asc. node	3457 Apr 06 16:43	28°♄23'15		asc. node	3458 Mar 24 13:44	17°♄38'24	
	3457 Apr 07 13:01	0°♄			3458 Apr 01 15:27	0°♄	
evening max el	3457 Apr 20 06:43	19°♄26'17	18°50'46	evening max el	3458 Apr 03 13:03	2°♄04'01	18°19'02
retrograde	3457 Apr 28 13:40	23°♄29'17		retrograde	3458 Apr 10 18:07	5°♄39'26	
evening set	3457 Apr 30 17:46	23°♄13'43		evening set	3458 Apr 13 04:33	5°♄15'50	
inferior conj	3457 May 08 17:03	18°♄54'47	1°29'45	inferior conj	3458 Apr 20 08:56	0°♄36'39	2°41'27
minimum elong	3457 May 08 20:11	18°♄49'05	1°28'44	minimum elong	3458 Apr 20 12:35	0°♄28'55	2°40'36
min. Earth dist.	3457 May 11 22:16	16°♄36'07	0.57085 AU		3458 Apr 21 02:08	30°♄	
desc. node	3457 May 14 01:21	15°♄13'18		min. Earth dist.	3458 Apr 23 19:20	27°♄43'25	0.59104 AU
morning rise	3457 May 16 19:26	13°♄47'54		morning rise	3458 Apr 27 17:50	25°♄00'17	
direct	3457 May 22 04:55	12°♄37'39		desc. node	3458 Apr 30 22:21	23°♄40'12	
morning max el	3457 Jun 05 12:53	20°♄05'39	26°06'43	direct	3458 May 03 23:59	23°♄14'44	
	3457 Jun 14 00:12	0°♄			3458 May 17 07:19	0°♄	
	3457 Jul 01 13:06	0°♄		morning max el	3458 May 18 09:11	1°♄01'42	27°15'03
morning set	3457 Jul 03 19:19	4°♄41'47			3458 Jun 08 03:06	0°♄	
asc. node	3457 Jul 03 15:57	4°♄24'00		morning set	3458 Jun 18 04:09	19°♄25'00	
				asc. node	3458 Jun 20 13:00	24°♄26'28	
superior conj	3457 Jul 10 18:35	19°♄50'44	1°08'36		3458 Jun 23 02:27	0°♄	
minimum elong	3457 Jul 10 16:16	19°♄37'57	1°08'12	superior conj	3458 Jun 25 06:21	4°♄45'28	0°47'55
max. Earth dist.	3457 Jul 11 09:30	21°♄12'46	1.32284 AU	minimum elong	3458 Jun 25 04:27	4°♄34'55	0°47'33
	3457 Jul 15 10:25	0°♄		max. Earth dist.	3458 Jun 24 21:21	3°♄55'48	1.32062 AU
evening rise	3457 Jul 17 17:54	4°♄53'29		evening rise	3458 Jul 02 02:29	19°♄38'55	
	3457 Jul 31 04:00	0°♄			3458 Jul 07 04:18	0°♄	
desc. node	3457 Aug 10 00:41	14°♄28'31			3458 Jul 26 04:08	0°♄	
evening max el	3457 Aug 17 22:29	23°♄22'08	27°06'30	desc. node	3458 Jul 27 21:41	1°♄58'40	
	3457 Aug 28 02:40	0°♄		evening max el	3458 Jul 30 21:56	5°♄04'13	26°13'40
retrograde	3457 Aug 31 19:14	0°♄34'48		retrograde	3458 Aug 13 21:21	12°♄14'05	
	3457 Sep 04 09:25	30°♄		evening set	3458 Aug 20 09:00	10°♄31'01	
evening set	3457 Sep 07 21:17	28°♄19'51		min. Earth dist.	3458 Aug 24 10:47	7°♄55'46	0.59227 AU
min. Earth dist.	3457 Sep 11 12:47	25°♄37'18	0.61297 AU	inferior conj	3458 Aug 27 17:36	5°♄26'12	-4°54'58
inferior conj	3457 Sep 14 15:52	22°♄53'38	-4°16'04	minimum elong	3458 Aug 27 21:28	5°♄18'49	4°54'32
minimum elong	3457 Sep 14 21:35	22°♄41'07	4°14'45	morning rise	3458 Sep 04 12:08	0°♄55'45	
morning rise	3457 Sep 21 23:39	18°♄00'17		direct	3458 Sep 06 22:21	0°♄35'31	
direct	3457 Sep 24 08:40	17°♄37'08		morning max el	3458 Sep 14 19:39	4°♄23'37	18°25'20
asc. node	3457 Sep 29 15:08	19°♄35'41		asc. node	3458 Sep 16 12:11	6°♄10'08	
morning max el	3457 Oct 01 10:33	21°♄09'14	17°58'04	morning set	3458 Sep 30 20:24	29°♄56'39	
	3457 Oct 08 03:15	0°♄			3458 Sep 30 21:06	0°♄	
morning set	3457 Oct 17 05:56	16°♄03'34		superior conj	3458 Oct 09 21:34	17°♄06'43	1°26'48
	3457 Oct 24 21:56	0°♄		minimum elong	3458 Oct 10 01:04	17°♄22'51	1°26'28
superior conj	3457 Oct 27 12:27	4°♄36'08	1°02'53		3458 Oct 17 02:32	0°♄	
minimum elong	3457 Oct 27 16:44	4°♄54'49	1°02'19	max. Earth dist.	3458 Oct 17 09:00	0°♄27'58	1.40403 AU
max. Earth dist.	3457 Nov 04 01:54	17°♄27'50	1.42361 AU	evening rise	3458 Oct 21 18:57	7°♄55'46	
desc. node	3457 Nov 05 23:59	20°♄37'07		desc. node	3458 Oct 23 21:00	11°♄21'12	
evening rise	3457 Nov 10 05:42	27°♄25'55			3458 Nov 04 22:25	0°♄	
	3457 Nov 11 20:48	0°♄		evening max el	3458 Nov 25 09:52	26°♄25'48	23°34'16
	3457 Dec 02 06:31	0°♄			3458 Nov 29 11:02	0°♄	
evening max el	3457 Dec 12 19:18	12°♄49'45	22°14'28	retrograde	3458 Dec 06 01:31	2°♄43'35	
retrograde	3457 Dec 22 07:58	18°♄29'51		evening set	3458 Dec 11 02:44	0°♄37'57	
evening set	3457 Dec 26 20:30	16°♄40'30			3458 Dec 11 19:34	30°♄	
asc. node	3457 Dec 26 14:23	16°♄52'39		asc. node	3458 Dec 13 11:24	28°♄12'38	
inferior conj	3458 Jan 01 04:57	10°♄20'05	1°48'51	min. Earth dist.	3458 Dec 16 00:14	24°♄55'11	0.67881 AU
minimum elong	3458 Jan 01 02:47	10°♄27'36	1°48'04	inferior conj	3458 Dec 16 12:29	24°♄13'17	1°01'24
min. Earth dist.	3458 Jan 01 03:31	10°♄25'02	0.67944 AU	minimum elong	3458 Dec 16 11:06	24°♄18'01	1°00'50
morning rise	3458 Jan 06 08:56	4°♄09'32		morning rise	3458 Dec 21 19:27	18°♄06'50	
direct	3458 Jan 11 02:25	2°♄10'46		direct	3458 Dec 25 22:43	16°♄30'52	
morning max el	3458 Jan 20 14:11	7°♄46'07	22°20'18	morning max el	3459 Jan 03 07:06	21°♄20'45	20°58'39
desc. node	3458 Feb 01 23:10	23°♄06'25			3459 Jan 10 13:43	0°♄	
	3458 Feb 06 19:26	0°♄		desc. node	3459 Jan 19 20:12	13°♄02'41	
morning set	3458 Feb 23 02:26	25°♄04'43			3459 Jan 31 01:49	0°♄	
	3458 Feb 26 02:19	0°♄		morning set	3459 Feb 02 10:27	3°♄40'21	
max. Earth dist.	3458 Feb 28 08:17	3°♄45'58	1.40740 AU	max. Earth dist.	3459 Feb 10 11:24	16°♄29'57	1.42706 AU
superior conj	3458 Mar 08 03:12	17°♄19'17	-1°59'39	superior conj	3459 Feb 17 12:17	28°♄11'53	-2°06'58
minimum elong	3458 Mar 08 06:51	17°♄35'37	1°59'26	minimum elong	3459 Feb 17 12:12	28°♄11'33	2°06'58
	3458 Mar 15 01:12	0°♄			3459 Feb 18 13:40	0°♄	
evening rise	3458 Mar 18 08:07	6°♄09'42					

evening rise	3459 Mar 01 04:27	18° K 39'03		evening rise	3460 Feb 11 06:00	0° K 16'42	
	3459 Mar 07 14:01	0° Y			3460 Feb 11 02:05	0° K	
asc. node	3459 Mar 11 10:44	6° Y 25'34		asc. node	3460 Feb 26 07:45	24° K 36'18	
evening max el	3459 Mar 18 00:07	15° Y 05'25	18°07'06	evening max el	3460 Feb 29 12:52	28° K 22'42	18°14'19
retrograde	3459 Mar 24 14:44	18° Y 28'54			3460 Mar 02 08:53	0° Y	
evening set	3459 Mar 27 07:14	17° Y 55'12		retrograde	3460 Mar 06 23:15	1° Y 48'23	
inferior conj	3459 Apr 02 20:13	12° Y 55'37	3°22'05	evening set	3460 Mar 09 21:29	1° Y 03'20	
minimum elong	3459 Apr 02 22:28	12° Y 50'06	3°21'46		3460 Mar 11 13:32	30° R K	
min. Earth dist.	3459 Apr 05 23:36	9° Y 52'33	0.61285 AU	inferior conj	3460 Mar 15 22:58	25° K 44'10	3°37'45
morning rise	3459 Apr 09 11:52	7° Y 00'21		minimum elong	3460 Mar 15 23:24	25° K 42'59	3°37'44
direct	3459 Apr 16 06:35	4° Y 41'06		min. Earth dist.	3460 Mar 18 12:45	22° K 54'44	0.63336 AU
desc. node	3459 Apr 17 19:22	4° Y 47'50		morning rise	3460 Mar 22 00:20	19° K 38'34	
morning max el	3459 Apr 30 11:44	12° Y 37'53	27°48'30	direct	3460 Mar 28 22:07	16° K 56'20	
	3459 May 14 06:31	0° B		desc. node	3460 Apr 03 16:25	18° K 32'20	
	3459 May 31 10:48	0° II		morning max el	3460 Apr 11 19:03	24° K 53'54	27°44'22
morning set	3459 Jun 02 08:47	3° II 53'05			3460 Apr 16 10:37	0° Y	
asc. node	3459 Jun 07 10:03	14° II 33'56			3460 May 06 16:46	0° B	
max. Earth dist.	3459 Jun 08 07:37	16° II 30'56	1.32241 AU	morning set	3460 May 16 06:56	17° B 58'41	
				max. Earth dist.	3460 May 21 12:29	28° B 45'59	1.32851 AU
superior conj	3459 Jun 09 17:01	19° II 33'14	0°23'54		3460 May 22 02:26	0° II	
minimum elong	3459 Jun 09 15:56	19° II 27'21	0°23'41				
	3459 Jun 14 11:36	0° B		superior conj	3460 May 24 00:47	4° II 08'08	-0°02'46
evening rise	3459 Jun 16 13:38	4° B 28'53		minimum elong	3460 May 24 00:55	4° II 08'51	0°02'44
	3459 Jun 30 03:07	0° Ω		behind sun begin	3460 May 23 19:41	3° II 40'45	
evening max el	3459 Jul 12 14:20	16° Ω 00'49	24°53'29	behind sun end	3460 May 24 06:08	4° II 36'59	
desc. node	3459 Jul 14 18:40	17° Ω 57'59		asc. node	3460 May 24 07:07	4° II 42'15	
retrograde	3459 Jul 26 13:11	23° Ω 04'43		evening rise	3460 May 31 01:27	19° II 17'01	
evening set	3459 Jul 31 20:52	22° Ω 00'23			3460 Jun 05 07:25	0° B	
min. Earth dist.	3459 Aug 06 01:49	19° Ω 13'34	0.57250 AU	evening max el	3460 Jun 23 03:35	26° B 29'02	23°18'11
inferior conj	3459 Aug 08 23:59	17° Ω 17'43	-5°07'02		3460 Jun 27 09:13	0° Ω	
minimum elong	3459 Aug 08 23:07	17° Ω 19'10	5°07'00	desc. node	3460 Jun 30 15:41	1° Ω 52'15	
morning rise	3459 Aug 17 03:54	13° Ω 09'11		retrograde	3460 Jul 06 16:12	3° Ω 14'39	
direct	3459 Aug 19 18:05	12° Ω 50'02		evening set	3460 Jul 10 11:43	2° Ω 42'51	
morning max el	3459 Aug 28 20:13	17° Ω 05'42	19°13'45		3460 Jul 16 15:58	30° R B	
asc. node	3459 Sep 03 09:15	23° Ω 46'14		min. Earth dist.	3460 Jul 17 13:15	29° B 29'32	0.55704 AU
	3459 Sep 07 06:48	0° M		inferior conj	3460 Jul 19 10:25	28° B 23'10	-4°36'49
morning set	3459 Sep 14 20:00	14° M 16'24		minimum elong	3460 Jul 19 03:50	28° B 32'53	4°35'41
	3459 Sep 22 18:18	0° $\underline{\text{L}}$		morning rise	3460 Jul 27 22:21	24° B 29'44	
superior conj	3459 Sep 23 00:28	0° $\underline{\text{L}}$ 30'02	1°40'12	direct	3460 Jul 30 18:54	24° B 09'56	
minimum elong	3459 Sep 23 02:19	0° $\underline{\text{L}}$ 38'56	1°40'06	morning max el	3460 Aug 10 09:34	29° B 05'24	20°23'47
max. Earth dist.	3459 Sep 29 13:05	12° $\underline{\text{L}}$ 46'54	1.38324 AU		3460 Aug 11 08:07	0° Ω	
evening rise	3459 Oct 03 07:54	19° $\underline{\text{L}}$ 31'39		asc. node	3460 Aug 20 06:19	12° Ω 09'12	
	3459 Oct 09 12:48	0° M		morning set	3460 Aug 29 01:42	28° Ω 53'41	
desc. node	3459 Oct 10 18:01	1° M 58'28			3460 Aug 29 14:39	0° M	
	3459 Oct 30 02:20	0° J		superior conj	3460 Sep 05 16:08	14° M 30'52	1°44'41
evening max el	3459 Nov 07 22:29	10° J 06'20	24°52'20	minimum elong	3460 Sep 05 16:17	14° M 31'38	1°44'41
retrograde	3459 Nov 19 15:04	16° J 53'58		max. Earth dist.	3460 Sep 10 19:37	24° M 42'01	1.36364 AU
evening set	3459 Nov 25 06:01	14° J 32'58			3460 Sep 13 14:42	0° $\underline{\text{L}}$	
min. Earth dist.	3459 Nov 29 19:28	9° J 24'03	0.67479 AU	evening rise	3460 Sep 14 17:57	2° $\underline{\text{L}}$ 06'12	
asc. node	3459 Nov 30 08:26	8° J 41'19		desc. node	3460 Sep 26 15:02	22° $\underline{\text{L}}$ 23'33	
inferior conj	3459 Nov 30 18:22	8° J 08'27	0°08'31		3460 Oct 01 14:08	0° M	
minimum elong	3459 Nov 30 18:09	8° J 09'10	0°08'24	evening max el	3460 Oct 20 10:55	23° M 48'36	26°01'27
transit middle	3459 Nov 30 18:09	8° J 09'10	0°08'24		3460 Oct 28 21:50	0° J	
transit begin	3459 Nov 30 15:47	8° J 16'58		retrograde	3460 Nov 01 23:41	0° J 55'18	
transit end	3459 Nov 30 20:31	8° J 01'22			3460 Nov 05 18:02	30° R M	
morning rise	3459 Dec 06 06:25	2° J 08'21		evening set	3460 Nov 08 04:33	28° M 21'34	
direct	3459 Dec 09 21:01	0° J 53'21		min. Earth dist.	3460 Nov 12 10:43	23° M 48'03	0.66736 AU
morning max el	3459 Dec 17 07:46	5° J 06'34	19°49'04	inferior conj	3460 Nov 13 20:42	22° M 01'57	-0°48'40
	3460 Jan 04 12:55	0° B		minimum elong	3460 Nov 13 22:00	21° M 57'55	0°48'07
desc. node	3460 Jan 06 17:15	3° B 18'46		asc. node	3460 Nov 16 05:30	19° M 11'52	
morning set	3460 Jan 12 06:23	11° B 49'27		morning rise	3460 Nov 19 15:51	16° M 10'52	
	3460 Jan 23 21:06	0° \approx		direct	3460 Nov 22 19:41	15° M 13'40	
max. Earth dist.	3460 Jan 23 22:02	0° \approx 03'46	1.44212 AU	morning max el	3460 Nov 29 15:53	19° M 01'04	18°54'27
					3460 Dec 08 04:33	0° J	
superior conj	3460 Jan 28 19:30	7° \approx 55'02	-1°57'44	morning set	3460 Dec 21 15:38	20° J 45'50	
minimum elong	3460 Jan 28 13:35	7° \approx 31'03	1°57'24	desc. node	3460 Dec 23 14:18	23° J 48'38	

	3460 Dec 27 13:07	0°♄		morning set	3461 Dec 02 05:04	1°♄08'23	
max. Earth dist.	3461 Jan 05 14:46	14°♄13'10 1.45072 AU		desc. node	3461 Dec 10 11:20	14°♄27'57	
superior conj	3461 Jan 07 04:27	16°♄41'22 -1°29'04		superior conj	3461 Dec 17 06:50	25°♄16'16 -0°45'15	
minimum elong	3461 Jan 06 19:17	16°♄05'17 1°28'08		minimum elong	3461 Dec 17 01:06	24°♄53'41 0°44'29	
	3461 Jan 15 13:51	0°♄		max. Earth dist.	3461 Dec 19 10:16	28°♄38'29 1.45197 AU	
evening rise	3461 Jan 22 09:05	10°♄57'21			3461 Dec 20 07:02	0°♄	
	3461 Feb 03 05:23	0°♄		evening rise	3462 Jan 02 13:22	20°♄44'17	
evening max el	3461 Feb 12 00:32	11°♄48'55 18°39'53			3462 Jan 08 11:48	0°♄	
asc. node	3461 Feb 12 04:47	11°♄59'36		greatest brilliancy	3462 Jan 14 01:23	8°♄35'52 -0.7m	
retrograde	3461 Feb 18 15:30	15°♄29'18		evening max el	3462 Jan 26 08:47	25°♄18'37 19°22'34	
evening set	3461 Feb 21 19:47	14°♄32'00		asc. node	3462 Jan 30 01:50	28°♄21'39	
inferior conj	3461 Feb 27 13:13	8°♄54'50 3°34'46		retrograde	3462 Feb 02 12:04	29°♄24'21	
minimum elong	3461 Feb 27 12:08	8°♄58'07 3°34'41		evening set	3462 Feb 05 23:17	28°♄13'59	
min. Earth dist.	3461 Mar 01 11:19	6°♄35'31 0.65061 AU		inferior conj	3462 Feb 11 11:31	22°♄20'54 3°17'44	
morning rise	3461 Mar 05 04:01	2°♄43'55		minimum elong	3462 Feb 11 09:27	22°♄27'36 3°17'24	
	3461 Mar 10 11:20	30°♄		min. Earth dist.	3462 Feb 12 18:30	20°♄40'23 0.66386 AU	
direct	3461 Mar 11 20:47	29°♄53'01		morning rise	3462 Feb 16 19:23	16°♄07'34	
	3461 Mar 13 07:08	0°♄		direct	3462 Feb 23 01:41	13°♄21'03	
desc. node	3461 Mar 21 13:28	4°♄20'54		morning max el	3462 Mar 07 14:30	20°♄47'56 26°01'25	
morning max el	3461 Mar 25 04:46	7°♄41'29 27°06'15		desc. node	3462 Mar 08 10:31	21°♄39'23	
	3461 Apr 11 11:33	0°♄			3462 Mar 15 13:22	0°♄	
	3461 Apr 29 00:20	0°♄			3462 Apr 04 15:33	0°♄	
morning set	3461 Apr 29 19:43	1°♄33'14		morning set	3462 Apr 12 19:06	14°♄24'11	
max. Earth dist.	3461 May 04 08:25	10°♄32'24 1.33913 AU		max. Earth dist.	3462 Apr 16 16:56	21°♄48'03 1.35429 AU	
					3462 Apr 20 20:41	0°♄	
superior conj	3461 May 08 03:38	18°♄24'08 -0°31'07		superior conj	3462 Apr 21 23:01	2°♄12'53 -0°59'53	
minimum elong	3461 May 08 05:15	18°♄32'36 0°30'47		minimum elong	3462 Apr 22 02:10	2°♄28'53 0°59'20	
asc. node	3461 May 11 04:08	24°♄47'20		asc. node	3462 Apr 28 01:09	14°♄44'37	
	3461 May 13 15:02	0°♄		evening rise	3462 Apr 29 19:29	18°♄22'35	
evening rise	3461 May 15 12:07	3°♄57'27			3462 May 05 16:41	0°♄	
	3461 May 29 23:17	0°♄		evening max el	3462 May 18 01:12	18°♄02'02 20°21'26	
evening max el	3461 Jun 04 21:09	7°♄00'32 21°43'26		retrograde	3462 May 28 21:26	23°♄19'05	
retrograde	3461 Jun 17 07:58	13°♄08'54		evening set	3462 May 30 21:26	23°♄09'03	
desc. node	3461 Jun 17 12:42	13°♄08'48		desc. node	3462 Jun 04 09:44	21°♄41'23	
evening set	3461 Jun 19 21:24	12°♄54'08		inferior conj	3462 Jun 09 01:06	19°♄10'49 -1°22'02	
inferior conj	3461 Jun 29 06:33	8°♄52'07 -3°16'44		minimum elong	3462 Jun 08 21:14	19°♄16'29 1°20'37	
minimum elong	3461 Jun 28 22:24	9°♄03'29 3°14'18		min. Earth dist.	3462 Jun 10 12:23	18°♄19'14 0.55057 AU	
min. Earth dist.	3461 Jun 29 00:05	9°♄01'08 0.54910 AU		morning rise	3462 Jun 17 19:54	14°♄57'34	
morning rise	3461 Jul 08 00:39	4°♄59'03		direct	3462 Jun 21 16:46	14°♄25'13	
direct	3461 Jul 11 06:21	4°♄36'05		morning max el	3462 Jul 05 04:25	20°♄58'47 23°34'37	
morning max el	3461 Jul 23 11:18	10°♄20'11 21°53'08			3462 Jul 12 22:05	0°♄	
	3461 Aug 06 12:38	0°♄		asc. node	3462 Jul 25 00:26	20°♄33'00	
asc. node	3461 Aug 07 03:23	1°♄07'58		morning set	3462 Jul 28 22:38	28°♄36'05	
morning set	3461 Aug 13 11:12	13°♄42'14			3462 Jul 29 14:30	0°♄	
superior conj	3461 Aug 20 16:42	28°♄58'02 1°41'48		superior conj	3462 Aug 04 23:10	13°♄42'12 1°32'50	
minimum elong	3461 Aug 20 15:32	28°♄51'52 1°41'45		minimum elong	3462 Aug 04 21:09	13°♄31'22 1°32'38	
	3461 Aug 21 04:32	0°♄		max. Earth dist.	3462 Aug 07 08:09	18°♄46'49 1.33434 AU	
max. Earth dist.	3461 Aug 24 09:29	6°♄37'00 1.34704 AU		evening rise	3462 Aug 12 11:57	29°♄25'46	
evening rise	3461 Aug 28 20:44	15°♄28'08			3462 Aug 12 18:48	0°♄	
	3461 Sep 05 19:52	0°♄			3462 Aug 29 21:54	0°♄	
desc. node	3461 Sep 13 12:03	12°♄30'23		desc. node	3462 Aug 31 09:05	2°♄11'00	
	3461 Sep 26 04:20	0°♄		evening max el	3462 Sep 15 11:10	20°♄45'18 27°22'56	
evening max el	3461 Oct 02 23:28	7°♄25'11 26°54'02		retrograde	3462 Sep 29 00:16	28°♄03'31	
retrograde	3461 Oct 16 02:52	14°♄41'13		evening set	3462 Oct 06 02:29	25°♄22'57	
evening set	3461 Oct 22 20:15	11°♄59'50		min. Earth dist.	3462 Oct 09 19:54	22°♄00'15 0.64187 AU	
min. Earth dist.	3461 Oct 26 19:35	8°♄02'30 0.65640 AU		inferior conj	3462 Oct 12 06:12	19°♄26'52 -2°49'10	
inferior conj	3461 Oct 28 17:27	5°♄49'47 -1°48'39		minimum elong	3462 Oct 12 10:51	19°♄14'35 2°47'30	
minimum elong	3461 Oct 28 20:27	5°♄41'05 1°47'25		morning rise	3462 Oct 18 20:27	14°♄03'09	
asc. node	3461 Nov 03 02:34	0°♄37'53		asc. node	3462 Oct 20 23:37	13°♄31'23	
morning rise	3461 Nov 03 21:27	0°♄10'48		direct	3462 Oct 21 09:26	13°♄30'31	
	3461 Nov 04 06:33	30°♄		morning max el	3462 Oct 27 21:49	16°♄56'12 17°54'55	
direct	3461 Nov 06 16:41	29°♄27'45			3462 Nov 06 07:13	0°♄	
	3461 Nov 09 03:32	0°♄		morning set	3462 Nov 13 22:37	12°♄53'15	
morning max el	3461 Nov 13 05:28	2°♄59'41 18°16'09			3462 Nov 24 03:29	0°♄	
	3461 Dec 01 12:15	0°♄					

superior conj	3462 Nov 26 23:41	4°♊38'08	0°02'30			3463 Oct 10 19:38	0°♊	
minimum elong	3462 Nov 26 23:59	4°♊39'18	0°02'27	morning max el		3463 Oct 11 13:49	0°♊42'36	17°51'31
behind sun begin	3462 Nov 26 13:57	3°♊58'37		morning set		3463 Oct 27 14:12	25°♊41'02	
behind sun end	3462 Nov 27 10:00	5°♊19'54				3463 Oct 30 00:12	0°♊	
desc. node	3462 Nov 27 08:24	5°♊13'25						
max. Earth dist.	3462 Dec 02 04:52	12°♊59'51	1.44583 AU	superior conj		3463 Nov 07 18:14	15°♊15'34	0°43'53
evening rise	3462 Dec 13 01:34	29°♊56'53		minimum elong		3463 Nov 07 22:00	15°♊31'34	0°43'22
	3462 Dec 13 02:23	0°♊		desc. node		3463 Nov 14 05:24	26°♊00'38	
	3463 Jan 02 07:21	0°♊		max. Earth dist.		3463 Nov 14 19:51	26°♊59'23	1.43318 AU
evening max el	3463 Jan 09 12:06	8°♊50'06	20°20'24			3463 Nov 16 16:36	0°♊	
asc. node	3463 Jan 16 22:52	13°♊28'09		evening rise		3463 Nov 22 12:07	9°♊11'05	
retrograde	3463 Jan 17 10:10	13°♊29'23				3463 Dec 06 07:41	0°♊	
evening set	3463 Jan 21 05:47	12°♊04'52		evening max el		3463 Dec 23 09:53	22°♊22'32	21°30'27
inferior conj	3463 Jan 26 15:09	5°♊58'40	2°49'53	retrograde		3464 Jan 01 07:41	27°♊40'05	
minimum elong	3463 Jan 26 12:39	6°♊07'09	2°49'15	asc. node		3464 Jan 03 19:54	27°♊05'45	
min. Earth dist.	3463 Jan 27 08:31	4°♊59'44	0.67300 AU	evening set		3464 Jan 05 13:27	26°♊00'17	
morning rise	3463 Jan 31 19:19	29°♊44'54		inferior conj		3464 Jan 10 21:47	19°♊44'09	2°13'18
	3463 Jan 31 12:48	30°♊30		minimum elong		3464 Jan 10 19:22	19°♊52'31	2°12'31
direct	3463 Feb 06 12:04	27°♊12'33		min. Earth dist.		3464 Jan 11 02:58	19°♊26'12	0.67817 AU
	3463 Feb 13 08:53	0°♊		morning rise		3464 Jan 16 01:06	13°♊31'47	
morning max el	3463 Feb 17 23:11	4°♊03'32	24°39'23	direct		3464 Jan 21 03:10	11°♊19'42	
desc. node	3463 Feb 23 07:33	10°♊02'23		morning max el		3464 Jan 31 08:14	17°♊23'43	23°10'35
	3463 Mar 09 20:37	0°♊		desc. node		3464 Feb 10 04:35	29°♊11'01	
morning set	3463 Mar 25 23:53	26°♊17'22				3464 Feb 10 19:13	0°♊	
	3463 Mar 28 01:54	0°♊				3464 Mar 01 22:39	0°♊	
max. Earth dist.	3463 Mar 29 15:19	2°♊49'33	1.37347 AU	morning set		3464 Mar 06 03:52	6°♊56'08	
				max. Earth dist.		3464 Mar 10 09:59	14°♊10'49	1.39501 AU
superior conj	3463 Apr 05 07:49	15°♊26'29	-1°27'08					
minimum elong	3463 Apr 05 12:10	15°♊47'39	1°26'32	superior conj		3464 Mar 18 02:02	27°♊54'49	-1°50'01
	3463 Apr 12 16:02	0°♊		minimum elong		3464 Mar 18 06:31	28°♊15'31	1°49'36
evening rise	3463 Apr 13 21:13	2°♊25'41				3464 Mar 19 05:01	0°♊	
asc. node	3463 Apr 14 22:11	4°♊29'44		evening rise		3464 Mar 27 14:26	15°♊59'09	
evening max el	3463 Apr 30 17:24	29°♊44'46	19°18'03	asc. node		3464 Mar 31 19:12	23°♊57'34	
	3463 Apr 30 23:45	0°♊				3464 Apr 04 03:45	0°♊	
retrograde	3463 May 09 20:45	4°♊11'09		evening max el		3464 Apr 12 19:37	12°♊05'30	18°34'50
evening set	3463 May 11 21:25	3°♊58'59		retrograde		3464 Apr 20 14:01	15°♊54'20	
inferior conj	3463 May 20 08:15	29°♊50'32	0°33'42	evening set		3464 Apr 22 20:49	15°♊35'40	
minimum elong	3463 May 20 09:38	29°♊48'14	0°33'12	inferior conj		3464 Apr 30 11:48	11°♊08'41	2°04'14
	3463 May 20 02:32	30°♊30		minimum elong		3464 Apr 30 15:29	11°♊01'31	2°03'10
desc. node	3463 May 22 06:45	28°♊33'22		min. Earth dist.		3464 May 03 21:18	8°♊32'18	0.57907 AU
min. Earth dist.	3463 May 23 03:09	28°♊00'14	0.56133 AU	morning rise		3464 May 08 07:00	5°♊48'07	
morning rise	3463 May 28 18:50	25°♊03'18		desc. node		3464 May 08 03:45	5°♊52'04	
direct	3463 Jun 02 14:20	24°♊10'05		direct		3464 May 14 02:18	4°♊22'57	
	3463 Jun 15 06:12	0°♊		morning max el		3464 May 28 11:20	12°♊00'38	26°39'29
morning max el	3463 Jun 16 18:33	1°♊23'09	25°15'17			3464 Jun 11 12:05	0°♊	
	3463 Jun 06 16:48	0°♊		morning set		3464 Jun 26 20:41	28°♊19'11	
asc. node	3463 Jul 11 21:28	10°♊17'08		asc. node		3464 Jun 27 18:29	0°♊14'36	
morning set	3463 Jul 13 10:19	13°♊30'03				3464 Jun 27 15:45	0°♊	
superior conj	3463 Jul 20 09:12	28°♊35'44	1°18'44	superior conj		3464 Jul 03 20:52	13°♊32'20	1°00'17
minimum elong	3463 Jul 20 06:51	28°♊22'53	1°18'23	minimum elong		3464 Jul 03 18:40	13°♊20'11	0°59'53
	3463 Jul 21 00:36	0°♊		max. Earth dist.		3464 Jul 04 01:18	13°♊56'46	1.32140 AU
max. Earth dist.	3463 Jul 21 14:24	1°♊15'18	1.32582 AU	evening rise		3464 Jul 10 18:20	28°♊29'24	
evening rise	3463 Jul 27 12:05	13°♊49'03				3464 Jul 11 11:39	0°♊	
	3463 Aug 04 20:51	0°♊				3464 Jul 28 04:41	0°♊	
desc. node	3463 Aug 18 06:06	21°♊14'07		desc. node		3464 Aug 04 03:05	9°♊24'32	
	3463 Aug 25 07:50	0°♊		evening max el		3464 Aug 09 23:58	15°♊47'12	26°48'03
evening max el	3463 Aug 28 20:09	3°♊36'25	27°22'06	retrograde		3464 Aug 23 22:21	22°♊58'36	
retrograde	3463 Sep 11 15:12	10°♊52'07		evening set		3464 Aug 30 19:40	20°♊56'13	
evening set	3463 Sep 18 19:45	8°♊24'07		min. Earth dist.		3464 Sep 03 14:03	18°♊18'39	0.60417 AU
min. Earth dist.	3463 Sep 22 10:12	5°♊29'56	0.62414 AU	inferior conj		3464 Sep 06 19:38	15°♊38'49	-4°35'01
inferior conj	3463 Sep 25 08:02	2°♊45'53	-3°46'40	minimum elong		3464 Sep 07 00:54	15°♊27'55	4°34'03
minimum elong	3463 Sep 25 13:45	2°♊32'25	3°45'03	morning rise		3464 Sep 14 08:05	10°♊54'44	
	3463 Sep 28 10:58	30°♊30		direct		3464 Sep 16 17:09	10°♊33'08	
morning rise	3463 Oct 02 09:22	27°♊40'32		asc. node		3464 Sep 23 17:42	13°♊50'45	
direct	3463 Oct 04 18:51	27°♊14'53		morning max el		3464 Sep 24 02:20	14°♊11'11	18°07'08
asc. node	3463 Oct 07 20:40	27°♊58'29				3464 Oct 04 21:33	0°♊	

morning set	3464 Oct 09 21:48	9°♄14'36		asc. node	3465 Sep 10 14:45	0°♄52'46	
				morning set	3465 Sep 23 16:35	23°♄20'03	
superior conj	3464 Oct 19 14:38	27°♄08'27	1°14'23		3465 Sep 27 02:31	0°♄	
minimum elong	3464 Oct 19 18:46	27°♄26'58	1°13'55				
	3464 Oct 21 05:12	0°♄		superior conj	3465 Oct 02 07:58	10°♄02'49	1°33'41
max. Earth dist.	3464 Oct 27 06:00	10°♄24'23	1.41561 AU	minimum elong	3465 Oct 02 10:48	10°♄16'12	1°33'28
desc. node	3464 Oct 31 02:25	16°♄46'56		max. Earth dist.	3465 Oct 09 11:48	23°♄07'22	1.39522 AU
evening rise	3464 Nov 01 12:55	19°♄06'44			3465 Oct 13 11:16	0°♄	
	3464 Nov 08 11:09	0°♄		evening rise	3465 Oct 13 12:15	0°♄04'10	
	3464 Nov 29 19:40	0°♄		desc. node	3465 Oct 17 23:26	7°♄28'19	
evening max el	3464 Dec 05 02:47	5°♄57'15	22°48'16		3465 Nov 01 20:52	0°♄	
retrograde	3464 Dec 15 02:54	11°♄53'32		evening max el	3465 Nov 17 16:22	19°♄35'16	24°08'09
evening set	3464 Dec 19 20:39	9°♄57'25		retrograde	3465 Nov 28 18:45	26°♄06'15	
asc. node	3464 Dec 20 16:55	9°♄11'42		evening set	3465 Dec 04 01:51	23°♄53'46	
inferior conj	3464 Dec 25 05:31	3°♄34'57	1°29'29	asc. node	3465 Dec 07 13:58	20°♄03'58	
minimum elong	3464 Dec 25 03:38	3°♄41'28	1°28'45	min. Earth dist.	3465 Dec 08 19:47	18°♄25'30	0.67753 AU
min. Earth dist.	3464 Dec 24 23:30	3°♄55'44	0.67963 AU	inferior conj	3465 Dec 09 12:34	17°♄28'50	0°39'34
	3464 Dec 27 22:32	30°♄♂		minimum elong	3465 Dec 09 11:38	17°♄31'59	0°39'10
morning rise	3464 Dec 30 10:29	27°♄25'51		morning rise	3465 Dec 14 21:27	11°♄25'03	
direct	3465 Jan 03 21:53	25°♄36'38		direct	3465 Dec 18 19:12	9°♄58'16	
	3465 Jan 12 00:08	0°♄		morning max el	3465 Dec 26 17:23	14°♄30'46	20°27'27
morning max el	3465 Jan 12 21:13	0°♄51'27	21°44'19		3466 Jan 07 20:03	0°♄	
desc. node	3465 Jan 27 01:38	18°♄52'35		desc. node	3466 Jan 13 22:41	8°♄57'59	
	3465 Feb 03 15:48	0°♄		morning set	3466 Jan 24 03:01	24°♄27'58	
morning set	3465 Feb 14 02:53	16°♄11'53			3466 Jan 27 16:10	0°♄	
max. Earth dist.	3465 Feb 20 09:10	26°♄23'26	1.41622 AU	max. Earth dist.	3466 Feb 02 16:18	9°♄32'48	1.43414 AU
	3465 Feb 22 12:56	0°♄					
superior conj	3465 Feb 28 00:44	9°♄26'01	-2°04'28	superior conj	3466 Feb 08 23:03	19°♄49'17	-2°05'21
minimum elong	3465 Feb 28 03:10	9°♄36'41	2°04'22	minimum elong	3466 Feb 08 20:34	19°♄39'00	2°05'18
evening rise	3465 Mar 10 19:35	28°♄54'32			3466 Feb 14 23:44	0°♄	
	3465 Mar 11 09:49	0°♄		evening rise	3466 Feb 21 08:32	11°♄03'22	
asc. node	3465 Mar 18 16:13	13°♄01'42			3466 Mar 04 12:10	0°♄	
evening max el	3465 Mar 27 04:27	24°♄54'48	18°11'34	asc. node	3466 Mar 05 13:16	1°♄34'49	
retrograde	3465 Apr 03 01:47	28°♄22'57		evening max el	3466 Mar 10 16:38	8°♄04'06	18°07'49
evening set	3465 Apr 05 15:02	27°♄55'05		retrograde	3466 Mar 17 04:15	11°♄27'03	
inferior conj	3465 Apr 12 12:22	23°♄07'03	3°02'10	evening set	3466 Mar 19 23:14	10°♄48'34	
minimum elong	3465 Apr 12 15:33	22°♄59'51	3°01'33	inferior conj	3466 Mar 26 06:49	5°♄40'09	3°31'21
min. Earth dist.	3465 Apr 15 20:55	20°♄06'46	0.60038 AU	minimum elong	3466 Mar 26 08:18	5°♄36'20	3°31'13
morning rise	3465 Apr 19 13:44	17°♄21'46		min. Earth dist.	3466 Mar 29 04:45	2°♄40'40	0.62185 AU
desc. node	3465 Apr 25 00:47	15°♄24'22			3466 Apr 01 05:03	30°♄♂	
direct	3465 Apr 26 02:33	15°♄21'09		morning rise	3466 Apr 01 15:58	29°♄39'36	
morning max el	3465 May 10 10:08	23°♄12'21	27°33'51	direct	3466 Apr 08 12:55	27°♄09'23	
	3465 May 16 11:44	0°♄		desc. node	3466 Apr 11 21:49	27°♄42'08	
	3465 Jun 04 15:05	0°♄			3466 Apr 16 12:50	0°♄	
morning set	3465 Jun 11 03:58	12°♄56'40		morning max el	3466 Apr 22 15:13	5°♄07'03	27°51'18
asc. node	3465 Jun 14 15:31	20°♄19'31			3466 May 11 07:21	0°♄	
max. Earth dist.	3465 Jun 17 13:04	26°♄38'41	1.32095 AU	morning set	3466 May 26 06:12	27°♄16'22	
					3466 May 27 14:08	0°♄	
superior conj	3465 Jun 18 08:22	28°♄24'48	0°38'07	max. Earth dist.	3466 May 31 21:48	9°♄08'05	1.32457 AU
minimum elong	3465 Jun 18 06:46	28°♄15'58	0°37'47	asc. node	3466 Jun 01 12:34	10°♄27'44	
	3465 Jun 19 01:40	0°♄					
evening rise	3465 Jun 25 04:17	13°♄17'52		superior conj	3466 Jun 02 18:03	13°♄07'46	0°12'53
	3465 Jul 03 14:08	0°♄		minimum elong	3466 Jun 02 17:27	13°♄04'28	0°12'45
desc. node	3465 Jul 22 00:05	26°♄19'41		behind sun begin	3466 Jun 02 14:20	12°♄47'35	
evening max el	3465 Jul 22 20:26	27°♄09'22	25°42'18	behind sun end	3466 Jun 02 20:33	13°♄21'22	
	3465 Jul 26 03:45	0°♄		evening rise	3466 Jun 09 15:59	28°♄07'59	
retrograde	3465 Aug 05 19:56	4°♄16'29			3466 Jun 10 13:10	0°♄	
evening set	3465 Aug 11 21:22	2°♄49'54			3466 Jun 27 15:56	0°♄	
min. Earth dist.	3465 Aug 16 08:34	0°♄11'59	0.58363 AU	evening max el	3466 Jul 04 10:35	7°♄49'49	24°13'38
	3465 Aug 16 15:29	30°♄♂		desc. node	3466 Jul 08 21:06	11°♄30'06	
inferior conj	3465 Aug 19 13:25	27°♄54'47	-5°04'17	retrograde	3466 Jul 18 06:20	14°♄48'03	
minimum elong	3465 Aug 19 15:37	27°♄50'50	5°04'10	evening set	3466 Jul 22 23:14	13°♄58'48	
morning rise	3465 Aug 27 12:06	23°♄33'47		min. Earth dist.	3466 Jul 28 21:15	11°♄02'25	0.56528 AU
direct	3465 Aug 29 23:54	23°♄14'02		inferior conj	3466 Jul 31 11:03	9°♄25'58	-5°00'08
morning max el	3465 Sep 07 08:05	27°♄12'15	18°43'16	minimum elong	3466 Jul 31 07:36	9°♄31'23	4°59'50
	3465 Sep 09 21:53	0°♄		morning rise	3466 Aug 08 18:36	5°♄25'30	
				direct	3466 Aug 11 11:22	5°♄06'15	

morning max el	3466 Aug 21 04:05	9°Ω36'47	19°41'00	min. Earth dist.	3467 Jul 10 08:19	20°Ω56'37	0.55257 AU
asc. node	3466 Aug 28 11:48	18°Ω49'50		inferior conj	3467 Jul 11 14:18	20°Ω13'52	-4°08'39
	3466 Sep 03 20:16	0°൬		minimum elong	3467 Jul 11 06:16	20°Ω25'21	4°06'49
morning set	3466 Sep 07 19:03	7°൬47'42		morning rise	3467 Jul 20 05:14	16°Ω22'55	
				direct	3467 Jul 23 04:52	16°Ω02'27	
superior conj	3466 Sep 15 16:50	23°൬43'27	1°43'06	morning max el	3467 Aug 03 12:33	21°Ω18'04	20°59'45
minimum elong	3466 Sep 15 17:55	23°൬48'51	1°43'03		3467 Aug 10 18:05	0°Ω	
	3466 Sep 18 22:04	0°Ω		asc. node	3467 Aug 15 08:52	7°Ω29'18	
max. Earth dist.	3466 Sep 21 16:17	5°Ω13'20	1.37461 AU	morning set	3467 Aug 23 02:39	22°Ω30'41	
evening rise	3466 Sep 25 10:36	12°Ω05'22			3467 Aug 26 16:56	0°൬	
desc. node	3466 Oct 04 20:27	28°Ω00'34					
	3466 Oct 06 02:30	0°൬		superior conj	3467 Aug 30 12:45	7°൬57'19	1°44'17
	3466 Oct 28 01:25	0°✗		minimum elong	3467 Aug 30 12:17	7°൬54'56	1°44'16
evening max el	3466 Oct 31 04:32	3°✗15'52	25°23'18	max. Earth dist.	3467 Sep 04 01:09	17°൬04'25	1.35610 AU
retrograde	3466 Nov 12 06:17	10°✗13'15		evening rise	3467 Sep 08 04:22	25°൬02'01	
evening set	3466 Nov 18 03:21	7°✗46'02			3467 Sep 10 20:59	0°Ω	
min. Earth dist.	3466 Nov 22 13:30	2°✗52'18	0.67201 AU	desc. node	3467 Sep 21 17:28	18°Ω18'50	
inferior conj	3466 Nov 23 17:09	1°✗22'59	-0°15'21		3467 Sep 29 14:54	0°൬	
minimum elong	3466 Nov 23 17:33	1°✗21'44	0°15'11	evening max el	3467 Oct 13 16:53	16°൬56'28	26°26'16
transit middle	3466 Nov 23 17:33	1°✗21'44	0°15'11	retrograde	3467 Oct 26 12:54	24°൬09'10	
transit begin	3466 Nov 23 16:34	1°✗24'52		evening set	3467 Nov 01 23:17	21°൬31'15	
transit end	3466 Nov 23 18:31	1°✗18'36		min. Earth dist.	3467 Nov 06 02:23	17°൬13'05	0.66307 AU
asc. node	3466 Nov 24 11:02	0°✗25'33		inferior conj	3467 Nov 07 17:23	15°൬14'50	-1°13'55
	3466 Nov 24 19:07	30°൬		minimum elong	3467 Nov 07 19:24	15°൬08'45	1°13'03
morning rise	3466 Nov 29 08:01	25°൬26'40		asc. node	3467 Nov 11 08:05	11°൬14'17	
direct	3466 Dec 02 17:44	24°൬19'50		morning rise	3467 Nov 13 16:07	9°൬28'33	
morning max el	3466 Dec 09 21:29	28°൬20'45	19°23'59	direct	3467 Nov 16 15:54	8°൬38'00	
	3466 Dec 11 10:43	0°✗		morning max el	3467 Nov 23 08:16	12°൬18'01	18°36'06
greatest brilliancy	3466 Dec 23 05:56	16°✗13'13	-0.7m		3467 Dec 06 03:20	0°✗	
desc. node	3466 Dec 31 19:42	29°✗20'02		morning set	3467 Dec 13 22:03	12°✗19'25	
	3467 Jan 01 06:03	0°Ω		desc. node	3467 Dec 18 16:46	19°✗54'17	
morning set	3467 Jan 03 01:39	2°Ω48'38			3467 Dec 25 02:27	0°Ω	
max. Earth dist.	3467 Jan 16 05:52	23°Ω23'35	1.44654 AU				
				superior conj	3467 Dec 29 23:12	7°Ω38'15	-1°11'46
superior conj	3467 Jan 19 19:34	29°Ω03'49	-1°47'54	minimum elong	3467 Dec 29 14:45	7°Ω05'06	1°10'46
minimum elong	3467 Jan 19 11:34	28°Ω31'54	1°47'17	max. Earth dist.	3467 Dec 29 23:32	7°Ω39'33	1.45212 AU
	3467 Jan 20 09:38	0°≈			3468 Jan 13 03:31	0°≈	
evening rise	3467 Feb 03 00:52	22°≈16'50		evening rise	3468 Jan 14 17:55	2°≈32'48	
	3467 Feb 07 15:54	0°✗		greatest brilliancy	3468 Jan 23 07:06	16°≈09'21	-0.8m
asc. node	3467 Feb 20 10:20	19°✗26'39			3468 Feb 01 13:37	0°✗	
evening max el	3467 Feb 22 05:09	21°✗25'06	18°23'00	evening max el	3468 Feb 05 15:35	4°✗52'45	18°56'05
retrograde	3467 Feb 28 16:39	24°✗56'04		asc. node	3468 Feb 07 07:22	6°✗25'19	
evening set	3467 Mar 03 17:17	24°✗06'02		retrograde	3468 Feb 12 11:03	8°✗42'53	
inferior conj	3467 Mar 09 14:57	18°✗38'54	3°38'25	evening set	3468 Feb 15 18:03	7°✗40'19	
minimum elong	3467 Mar 09 14:40	18°✗39'40	3°38'26	inferior conj	3468 Feb 21 08:59	1°✗56'18	3°29'01
min. Earth dist.	3467 Mar 11 22:05	16°✗00'37	0.64108 AU	minimum elong	3468 Feb 21 07:24	2°✗01'13	3°28'50
morning rise	3467 Mar 15 11:19	12°✗30'14			3468 Feb 22 22:10	30°൬	
direct	3467 Mar 22 07:38	9°✗42'36		min. Earth dist.	3468 Feb 23 00:37	29°≈52'28	0.65674 AU
desc. node	3467 Mar 29 18:52	12°✗23'12		morning rise	3468 Feb 26 20:23	25°≈43'57	
morning max el	3467 Apr 05 00:07	17°✗38'28	27°32'00	direct	3468 Mar 04 09:17	22°≈53'05	
	3467 Apr 15 08:12	0°൬		desc. node	3468 Mar 15 15:56	28°≈52'59	
	3467 May 04 03:40	0°✗			3468 Mar 16 20:00	0°✗	
morning set	3467 May 10 00:49	11°✗10'04		morning max el	3468 Mar 17 09:59	0°✗34'47	26°41'20
max. Earth dist.	3467 May 14 23:20	21°✗11'44	1.33246 AU		3468 Apr 08 08:11	0°൬	
				morning set	3468 Apr 22 08:27	24°൬27'32	
superior conj	3467 May 17 24:00	27°✗35'08	-0°14'38		3468 Apr 25 05:20	0°✗	
minimum elong	3467 May 18 00:44	27°✗39'04	0°14'29	max. Earth dist.	3468 Apr 26 14:13	2°✗42'31	1.34496 AU
behind sun begin	3467 May 17 22:27	27°✗26'53					
behind sun end	3467 May 18 03:01	27°✗51'16		superior conj	3468 May 01 00:01	11°✗40'20	-0°43'22
asc. node	3467 May 19 09:37	0°൬35'00		minimum elong	3468 May 01 02:17	11°✗52'07	0°42'55
	3467 May 19 03:05	0°൬		asc. node	3468 May 05 06:40	20°✗37'09	
evening rise	3467 May 25 03:33	12°൬53'17		evening rise	3468 May 08 13:02	27°✗27'31	
	3467 Jun 02 20:35	0°Ω			3468 May 09 18:34	0°൬	
evening max el	3467 Jun 16 00:33	18°Ω14'57	22°36'53	evening max el	3468 May 27 22:13	28°൬57'17	21°06'37
desc. node	3467 Jun 25 18:06	24°Ω20'45			3468 May 29 01:11	0°Ω	
retrograde	3467 Jun 29 04:35	24°Ω47'53		retrograde	3468 Jun 08 17:50	4°Ω44'26	
evening set	3467 Jul 02 09:28	24°Ω25'18		evening set	3468 Jun 10 23:11	4°Ω32'55	

desc. node	3468 Jun 11 15:08	4°☿25'11		retrograde	3469 May 20 09:44	15°♊10'52	
inferior conj	3468 Jun 20 07:59	0°☿34'55	-2°30'33	evening set	3469 May 22 09:03	15°♊00'27	
minimum elong	3468 Jun 20 01:09	0°☿44'33	2°28'15	desc. node	3469 May 29 12:09	12°♊03'05	
min. Earth dist.	3468 Jun 20 19:58	0°☿18'02	0.54850 AU	inferior conj	3469 May 31 06:27	10°♊59'28	-0°31'12
	3468 Jun 21 08:48	30°♋♊		minimum elong	3469 May 31 05:01	11°♊01'39	0°30'39
morning rise	3468 Jun 29 03:14	26°♊35'15		min. Earth dist.	3469 Jun 02 09:04	9°♊42'17	0.55412 AU
direct	3468 Jul 02 14:29	26°♊09'15		morning rise	3469 Jun 08 22:55	6°♊33'02	
	3468 Jul 12 17:32	0°☿		direct	3469 Jun 13 05:04	5°♊53'11	
morning max el	3468 Jul 15 10:04	2°☿15'46	22°35'23	morning max el	3469 Jun 27 00:59	12°♊44'41	24°18'20
asc. node	3468 Aug 01 05:55	26°☿40'08			3469 Jul 10 07:08	0°☿	
	3468 Aug 02 22:50	0°♊		asc. node	3469 Jul 19 02:57	16°☿14'22	
morning set	3468 Aug 06 13:10	7°♊22'00		morning set	3469 Jul 22 00:55	22°☿16'49	
					3469 Jul 25 15:11	0°♊	
superior conj	3468 Aug 13 16:09	22°♊32'47	1°38'41	superior conj	3469 Jul 29 00:23	7°♊21'50	1°27'25
minimum elong	3468 Aug 13 14:34	22°♊24'20	1°38'34	minimum elong	3469 Jul 28 22:10	7°♊09'48	1°27'10
max. Earth dist.	3468 Aug 16 18:40	29°♊04'10	1.34115 AU	max. Earth dist.	3469 Jul 30 21:08	11°♊23'37	1.33031 AU
	3468 Aug 17 05:28	0°♋		evening rise	3469 Aug 05 08:24	22°♊51'01	
evening rise	3468 Aug 21 12:57	8°♋40'55			3469 Aug 08 23:11	0°♋	
	3468 Sep 02 08:55	0°♌		desc. node	3469 Aug 25 11:28	27°♋41'40	
desc. node	3468 Sep 07 14:29	8°♌15'35			3469 Aug 27 02:51	0°♌	
	3468 Sep 24 17:47	0°♍		evening max el	3469 Sep 07 16:29	13°♌38'07	27°26'26
evening max el	3468 Sep 25 05:24	0°♍28'03	27°09'39	retrograde	3469 Sep 21 08:13	20°♌54'34	
retrograde	3468 Oct 08 13:44	7°♍45'46		evening set	3469 Sep 28 12:25	18°♌18'06	
evening set	3468 Oct 15 11:17	5°♍03'49		min. Earth dist.	3469 Oct 02 04:14	15°♌08'24	0.63478 AU
min. Earth dist.	3468 Oct 19 08:01	1°♍21'17	0.65064 AU	inferior conj	3469 Oct 04 19:32	12°♌29'23	-3°14'11
	3468 Oct 20 13:19	30°♋♌		minimum elong	3469 Oct 05 00:45	12°♌16'13	3°12'28
inferior conj	3468 Oct 21 11:03	28°♌59'01	-2°14'25	morning rise	3469 Oct 11 14:25	7°♌12'48	
minimum elong	3468 Oct 21 14:47	28°♌48'35	2°12'58	direct	3469 Oct 14 01:41	6°♌43'23	
morning rise	3468 Oct 27 19:15	23°♌25'47		asc. node	3469 Oct 15 02:09	6°♌48'31	
asc. node	3468 Oct 28 05:07	23°♌15'02		morning max el	3469 Oct 20 15:47	10°♌08'44	17°51'09
direct	3468 Oct 30 11:28	22°♌47'37			3469 Nov 02 23:05	0°♍	
morning max el	3468 Nov 05 23:18	26°♌16'08	18°04'54	morning set	3469 Nov 06 03:43	5°♍32'52	
	3468 Nov 09 04:16	0°♍					
morning set	3468 Nov 23 24:00	23°♍18'44		superior conj	3469 Nov 18 08:32	26°♍18'31	0°21'15
	3468 Nov 28 01:14	0°♎		minimum elong	3469 Nov 18 10:44	26°♍27'36	0°20'56
desc. node	3468 Dec 04 13:48	10°♎36'16			3469 Nov 20 14:31	0°♎	
				desc. node	3469 Nov 21 10:48	1°♎22'33	
superior conj	3468 Dec 08 05:27	16°♎26'42	-0°24'45	max. Earth dist.	3469 Nov 24 12:37	6°♎20'02	1.44126 AU
minimum elong	3468 Dec 08 02:21	16°♎14'22	0°24'19	evening rise	3469 Dec 03 23:23	21°♎09'17	
max. Earth dist.	3468 Dec 11 18:48	22°♎04'22	1.45027 AU		3469 Dec 09 18:29	0°♏	
	3468 Dec 16 20:11	0°♏			3469 Dec 31 04:21	0°♏	
evening rise	3468 Dec 24 13:56	12°♏01'00		evening max el	3470 Jan 01 22:55	1°♏55'13	20°48'59
	3469 Jan 05 07:21	0°♐		retrograde	3470 Jan 10 06:22	6°♏50'00	
greatest brilliancy	3469 Jan 06 23:07	2°♏29'10	-0.7m	asc. node	3470 Jan 11 01:24	6°♏46'32	
evening max el	3469 Jan 18 21:56	18°♏23'30	19°45'34	evening set	3470 Jan 14 06:13	5°♏18'53	
asc. node	3469 Jan 24 04:23	22°♏16'49			3470 Jan 18 23:44	30°♋♏	
retrograde	3469 Jan 26 08:24	22°♏42'16		inferior conj	3470 Jan 19 14:55	29°♏08'05	2°35'20
evening set	3469 Jan 29 23:02	21°♏26'02		minimum elong	3470 Jan 19 12:24	29°♏16'44	2°34'36
inferior conj	3469 Feb 04 09:48	15°♏27'18	3°07'06	min. Earth dist.	3470 Jan 20 02:53	28°♏27'01	0.67570 AU
minimum elong	3469 Feb 04 07:30	15°♏34'58	3°06'37	morning rise	3470 Jan 24 18:25	22°♏54'59	
min. Earth dist.	3469 Feb 05 10:52	14°♏04'15	0.66827 AU	direct	3470 Jan 30 05:01	20°♏30'53	
morning rise	3469 Feb 09 15:44	9°♏13'45		morning max el	3470 Feb 10 03:27	27°♏02'03	24°01'55
direct	3469 Feb 15 16:41	6°♏32'04			3470 Feb 12 21:52	0°♏	
morning max el	3469 Feb 27 19:00	13°♏44'56	25°28'00	desc. node	3470 Feb 17 10:02	5°♏25'11	
desc. node	3469 Mar 02 12:59	16°♏41'15			3470 Mar 06 15:24	0°♋	
	3469 Mar 12 23:58	0°♌		morning set	3470 Mar 17 19:32	18°♋18'21	
	3469 Apr 01 03:02	0°♍		max. Earth dist.	3470 Mar 21 13:55	24°♋54'47	1.38250 AU
morning set	3469 Apr 05 00:38	6°♍55'47			3470 Mar 24 09:23	0°♍	
max. Earth dist.	3469 Apr 08 17:44	13°♍47'59	1.36198 AU				
				superior conj	3470 Mar 28 18:28	8°♍10'53	-1°37'35
superior conj	3469 Apr 14 15:22	25°♍15'41	-1°11'46	minimum elong	3470 Mar 28 23:04	8°♍32'48	1°37'02
minimum elong	3469 Apr 14 19:06	25°♍34'20	1°11'09	evening rise	3470 Apr 06 16:47	25°♍35'34	
	3469 Apr 16 23:58	0°♎			3470 Apr 08 22:59	0°♎	
asc. node	3469 Apr 22 03:41	10°♎30'03		asc. node	3470 Apr 09 00:42	0°♎08'17	
evening rise	3469 Apr 22 18:19	11°♎44'19		evening max el	3470 Apr 23 04:23	22°♎15'41	18°57'11
	3469 May 02 12:06	0°♊		retrograde	3470 May 01 16:22	26°♎24'27	
evening max el	3469 May 10 07:40	10°♊16'51	19°52'09				

evening set	3470 May 03 19:26	26° $\text{8}^{\circ}09'54''$		evening set	3471 Apr 16 03:24	8° $\text{8}^{\circ}05'06''$	
inferior conj	3470 May 11 21:43	21° $\text{8}^{\circ}53'43''$	1°16'01	inferior conj	3471 Apr 23 10:26	3° $\text{8}^{\circ}29'11''$	2°32'43
minimum elong	3470 May 12 00:31	21° $\text{8}^{\circ}48'46''$	1°15'05	minimum elong	3471 Apr 23 14:09	3° $\text{8}^{\circ}21'26''$	2°31'46
min. Earth dist.	3470 May 15 00:45	19° $\text{8}^{\circ}41'58''$	0.56818 AU	min. Earth dist.	3471 Apr 26 21:04	0° $\text{8}^{\circ}39'23''$	0.58787 AU
desc. node	3470 May 16 09:11	18° $\text{8}^{\circ}49'02''$			3471 Apr 27 17:39	30° $\text{8}^{\circ}00'00''$	
morning rise	3470 May 20 02:25	16° $\text{8}^{\circ}51'46''$		morning rise	3471 Apr 30 22:00	27° $\text{8}^{\circ}56'24''$	
direct	3470 May 25 08:12	15° $\text{8}^{\circ}46'21''$		desc. node	3471 May 03 06:13	26° $\text{8}^{\circ}54'44''$	
morning max el	3470 Jun 08 15:38	23° $\text{8}^{\circ}10'51''$	25°54'06	direct	3471 May 07 01:34	26° $\text{8}^{\circ}16'06''$	
	3470 Jun 14 18:23	0° $\text{8}^{\circ}00'00''$			3471 May 16 18:14	0° $\text{8}^{\circ}00'00''$	
	3470 Jul 03 00:57	0° $\text{8}^{\circ}00'00''$		morning max el	3471 May 21 11:00	4° $\text{8}^{\circ}01'19''$	27°06'56
asc. node	3470 Jul 05 23:59	6° $\text{8}^{\circ}04'40''$			3471 Jun 09 10:37	0° $\text{8}^{\circ}00'00''$	
morning set	3470 Jul 06 12:16	7° $\text{8}^{\circ}09'18''$		morning set	3471 Jun 20 21:33	21° $\text{8}^{\circ}53'58''$	
				asc. node	3471 Jun 22 21:01	26° $\text{8}^{\circ}05'36''$	
					3471 Jun 24 16:23	0° $\text{8}^{\circ}00'00''$	
superior conj	3470 Jul 13 11:19	22° $\text{8}^{\circ}01'01''$	1°11'23	superior conj	3471 Jun 27 23:08	7° $\text{8}^{\circ}12'14''$	0°51'18
minimum elong	3470 Jul 13 08:58	22° $\text{8}^{\circ}04'08''$	1°11'02	minimum elong	3471 Jun 27 21:08	7° $\text{8}^{\circ}01'11''$	0°50'55
max. Earth dist.	3470 Jul 14 05:56	23° $\text{8}^{\circ}59'16''$	1.32348 AU	max. Earth dist.	3471 Jun 27 17:35	6° $\text{8}^{\circ}41'37''$	1.32065 AU
	3470 Jul 17 00:08	0° $\text{8}^{\circ}00'00''$		evening rise	3471 Jul 04 19:28	22° $\text{8}^{\circ}06'09''$	
evening rise	3470 Jul 20 11:25	7° $\text{8}^{\circ}22'07''$			3471 Jul 08 15:38	0° $\text{8}^{\circ}00'00''$	
	3470 Aug 01 10:34	0° $\text{8}^{\circ}00'00''$			3471 Jul 26 20:12	0° $\text{8}^{\circ}00'00''$	
desc. node	3470 Aug 12 08:28	16° $\text{8}^{\circ}24'31''$		desc. node	3471 Jul 30 05:29	4° $\text{8}^{\circ}06'02''$	
evening max el	3470 Aug 20 23:31	26° $\text{8}^{\circ}13'04''$	27°11'36	evening max el	3471 Aug 03 00:05	8° $\text{8}^{\circ}02'28''$	26°23'36
	3470 Aug 25 13:23	0° $\text{8}^{\circ}00'00''$		retrograde	3471 Aug 16 23:26	15° $\text{8}^{\circ}13'05''$	
retrograde	3470 Sep 03 19:48	3° $\text{8}^{\circ}26'36''$		evening set	3471 Aug 23 13:59	13° $\text{8}^{\circ}24'42''$	
evening set	3470 Sep 10 22:55	1° $\text{8}^{\circ}07'41''$		min. Earth dist.	3471 Aug 27 13:19	10° $\text{8}^{\circ}49'26''$	0.59530 AU
	3470 Sep 12 13:43	30° $\text{8}^{\circ}00'00''$		inferior conj	3471 Aug 30 20:10	8° $\text{8}^{\circ}16'29''$	-4°50'36
min. Earth dist.	3470 Sep 14 13:48	28° $\text{8}^{\circ}22'43''$	0.61593 AU	minimum elong	3471 Aug 31 00:31	8° $\text{8}^{\circ}08'01''$	4°50'00
inferior conj	3470 Sep 17 15:45	25° $\text{8}^{\circ}38'20''$	-4°08'45	morning rise	3471 Sep 07 13:10	3° $\text{8}^{\circ}42'34''$	
minimum elong	3470 Sep 17 21:32	25° $\text{8}^{\circ}25'26''$	4°07'21	direct	3471 Sep 09 22:56	3° $\text{8}^{\circ}22'06''$	
morning rise	3470 Sep 24 21:53	20° $\text{8}^{\circ}41'54''$		morning max el	3471 Sep 17 16:53	7° $\text{8}^{\circ}07'21''$	18°19'58
direct	3470 Sep 27 06:56	20° $\text{8}^{\circ}18'12''$		asc. node	3471 Sep 18 20:16	8° $\text{8}^{\circ}17'30''$	
asc. node	3470 Oct 01 23:12	21° $\text{8}^{\circ}53'34''$			3471 Oct 02 07:59	0° $\text{8}^{\circ}00'00''$	
morning max el	3470 Oct 04 06:45	23° $\text{8}^{\circ}48'47''$	17°55'46	morning set	3471 Oct 03 15:40	2° $\text{8}^{\circ}30'40''$	
	3470 Oct 09 05:49	0° $\text{8}^{\circ}00'00''$					
morning set	3470 Oct 20 02:48	18° $\text{8}^{\circ}42'12''$		superior conj	3471 Oct 12 20:38	19° $\text{8}^{\circ}51'21''$	1°23'52
	3470 Oct 26 08:27	0° $\text{8}^{\circ}00'00''$		minimum elong	3471 Oct 13 00:20	20° $\text{8}^{\circ}08'17''$	1°23'30
superior conj	3470 Oct 30 14:35	7° $\text{8}^{\circ}29'54''$	0°58'14		3471 Oct 18 12:49	0° $\text{8}^{\circ}00'00''$	
minimum elong	3470 Oct 30 18:49	7° $\text{8}^{\circ}48'14''$	0°57'42	max. Earth dist.	3471 Oct 20 09:44	3° $\text{8}^{\circ}14'00''$	1.40708 AU
max. Earth dist.	3470 Nov 07 02:02	20° $\text{8}^{\circ}07'58''$	1.42620 AU	evening rise	3471 Oct 25 00:17	10° $\text{8}^{\circ}57'55''$	
desc. node	3470 Nov 08 07:49	22° $\text{8}^{\circ}09'55''$		desc. node	3471 Oct 26 04:49	12° $\text{8}^{\circ}54'36''$	
	3470 Nov 13 04:58	0° $\text{8}^{\circ}00'00''$			3471 Nov 06 04:15	0° $\text{8}^{\circ}00'00''$	
evening rise	3470 Nov 13 14:24	0° $\text{8}^{\circ}37'14''$		evening max el	3471 Nov 28 09:31	29° $\text{8}^{\circ}03'54''$	23°22'21
	3470 Dec 03 08:25	0° $\text{8}^{\circ}00'00''$			3471 Nov 29 08:29	0° $\text{8}^{\circ}00'00''$	
evening max el	3470 Dec 15 18:24	15° $\text{8}^{\circ}28'20''$	22°02'50	retrograde	3471 Dec 08 21:17	5° $\text{8}^{\circ}16'30''$	
retrograde	3470 Dec 25 03:11	21° $\text{8}^{\circ}02'49''$		evening set	3471 Dec 13 20:28	3° $\text{8}^{\circ}13'23''$	
asc. node	3470 Dec 28 22:26	19° $\text{8}^{\circ}45'05''$		asc. node	3471 Dec 15 19:29	1° $\text{8}^{\circ}16'15''$	
evening set	3470 Dec 29 13:54	19° $\text{8}^{\circ}15'56''$			3471 Dec 16 20:51	30° $\text{8}^{\circ}00'00''$	
inferior conj	3471 Jan 03 22:16	12° $\text{8}^{\circ}56'24''$	1°55'31	inferior conj	3471 Dec 19 05:57	26° $\text{8}^{\circ}49'05''$	1°08'58
minimum elong	3471 Jan 03 20:01	13° $\text{8}^{\circ}04'12''$	1°54'43	minimum elong	3471 Dec 19 04:25	26° $\text{8}^{\circ}54'21''$	1°08'22
min. Earth dist.	3471 Jan 03 22:30	12° $\text{8}^{\circ}55'35''$	0.67922 AU	min. Earth dist.	3471 Dec 18 19:20	27° $\text{8}^{\circ}25'34''$	0.67913 AU
morning rise	3471 Jan 09 02:00	6° $\text{8}^{\circ}45'16''$		morning rise	3471 Dec 24 12:19	20° $\text{8}^{\circ}41'48''$	
direct	3471 Jan 13 21:39	4° $\text{8}^{\circ}43'05''$		direct	3471 Dec 28 17:39	19° $\text{8}^{\circ}02'24''$	
morning max el	3471 Jan 23 13:56	10° $\text{8}^{\circ}25'59''$	22°33'09	morning max el	3472 Jan 06 05:45	23° $\text{8}^{\circ}58'39''$	21°10'05
desc. node	3471 Feb 04 07:04	24° $\text{8}^{\circ}49'16''$			3472 Jan 11 11:53	0° $\text{8}^{\circ}00'00''$	
	3471 Feb 07 23:38	0° $\text{8}^{\circ}00'00''$		desc. node	3472 Jan 22 04:06	14° $\text{8}^{\circ}41'50''$	
morning set	3471 Feb 26 11:22	28° $\text{8}^{\circ}21'54''$			3472 Feb 01 09:07	0° $\text{8}^{\circ}00'00''$	
	3471 Feb 27 11:15	0° $\text{8}^{\circ}00'00''$		morning set	3472 Feb 05 22:57	7° $\text{8}^{\circ}06'47''$	
max. Earth dist.	3471 Mar 03 10:02	6° $\text{8}^{\circ}36'44''$	1.40426 AU	max. Earth dist.	3472 Feb 13 11:50	19° $\text{8}^{\circ}11'38''$	1.42438 AU
					3472 Feb 19 23:15	0° $\text{8}^{\circ}00'00''$	
superior conj	3471 Mar 11 04:58	20° $\text{8}^{\circ}15'55''$	-1°57'27	superior conj	3472 Feb 20 17:45	1° $\text{8}^{\circ}18'58''$	-2°06'49
minimum elong	3471 Mar 11 08:55	20° $\text{8}^{\circ}33'46''$	1°57'11	minimum elong	3472 Feb 20 18:26	1° $\text{8}^{\circ}21'52''$	2°06'49
	3471 Mar 16 11:58	0° $\text{8}^{\circ}00'00''$		evening rise	3472 Mar 03 04:10	21° $\text{8}^{\circ}30'21''$	
evening rise	3471 Mar 21 05:23	8° $\text{8}^{\circ}53'55''$			3472 Mar 07 21:46	0° $\text{8}^{\circ}00'00''$	
asc. node	3471 Mar 26 21:44	19° $\text{8}^{\circ}26'48''$		asc. node	3472 Mar 12 18:47	8° $\text{8}^{\circ}18'55''$	
	3471 Apr 02 09:18	0° $\text{8}^{\circ}00'00''$		evening max el	3472 Mar 19 20:24	17° $\text{8}^{\circ}47'51''$	18°07'40
evening max el	3471 Apr 06 09:44	4° $\text{8}^{\circ}48'53''$	18°22'28				
retrograde	3471 Apr 13 17:55	8° $\text{8}^{\circ}27'18''$					

retrograde	3472 Mar 26 12:24	21°♿11'59			3473 Mar 17 09:10	30°♿♿	
evening set	3472 Mar 29 04:05	20°♿39'50		inferior conj	3473 Mar 18 19:50	28°♿27'57	3°36'39
inferior conj	3472 Apr 04 19:06	15°♿43'19	3°17'38	minimum elong	3473 Mar 18 20:32	28°♿26'03	3°36'38
minimum elong	3472 Apr 04 21:37	15°♿37'16	3°17'15	min. Earth dist.	3473 Mar 21 11:49	25°♿35'25	0.63046 AU
min. Earth dist.	3472 Apr 08 00:08	12°♿40'07	0.60964 AU	morning rise	3473 Mar 24 23:06	22°♿23'35	
morning rise	3472 Apr 11 13:12	9°♿50'25		direct	3473 Mar 31 20:58	19°♿44'06	
direct	3472 Apr 18 06:45	7°♿35'34		desc. node	3473 Apr 06 00:19	21°♿00'26	
desc. node	3472 Apr 19 03:16	7°♿37'39		morning max el	3473 Apr 14 19:20	27°♿41'43	27°47'20
morning max el	3472 May 02 12:35	15°♿31'14	27°45'55		3473 Apr 17 00:07	0°♿	
	3472 May 14 07:44	0°♿			3473 May 08 01:04	0°♿	
	3472 May 31 22:35	0°♿		morning set	3473 May 19 02:16	20°♿34'28	
morning set	3472 Jun 04 02:59	6°♿25'04			3473 May 23 15:50	0°♿	
asc. node	3472 Jun 08 18:04	16°♿12'45		max. Earth dist.	3473 May 24 10:24	1°♿38'26	1.32736 AU
max. Earth dist.	3472 Jun 10 04:21	19°♿19'03	1.32188 AU				
				superior conj	3473 May 26 18:26	6°♿39'03	0°01'28
superior conj	3472 Jun 11 10:07	22°♿01'54	0°27'46	minimum elong	3473 May 26 18:22	6°♿38'40	0°01'26
minimum elong	3472 Jun 11 08:54	21°♿55'10	0°27'30	behind sun begin	3473 May 26 13:08	6°♿10'26	
	3472 Jun 15 01:18	0°♿		behind sun end	3473 May 26 23:36	7°♿06'57	
evening rise	3472 Jun 18 06:26	6°♿56'24		asc. node	3473 May 26 15:06	6°♿21'04	
	3472 Jun 30 07:25	0°♿		evening rise	3473 Jun 02 18:17	21°♿45'19	
evening max el	3472 Jul 14 17:34	19°♿05'49	25°06'47		3473 Jun 06 18:05	0°♿	
desc. node	3472 Jul 16 02:30	20°♿21'26		evening max el	3473 Jun 26 06:52	29°♿36'19	23°32'39
retrograde	3472 Jul 28 16:54	26°♿10'43			3473 Jun 26 16:48	0°♿	
evening set	3472 Aug 03 05:28	25°♿00'48		desc. node	3473 Jul 02 23:33	4°♿36'58	
min. Earth dist.	3472 Aug 08 05:17	22°♿16'45	0.57527 AU	retrograde	3473 Jul 09 21:39	6°♿25'32	
inferior conj	3472 Aug 11 05:37	20°♿14'54	-5°07'39	evening set	3473 Jul 13 22:46	5°♿49'41	
minimum elong	3472 Aug 11 05:37	20°♿14'55	5°07'38	min. Earth dist.	3473 Jul 20 16:51	2°♿41'13	0.55899 AU
morning rise	3472 Aug 19 08:12	16°♿03'09		inferior conj	3473 Jul 22 18:50	1°♿26'47	-4°44'35
direct	3472 Aug 21 21:41	15°♿43'53		minimum elong	3473 Jul 22 12:58	1°♿35'34	4°43'44
morning max el	3472 Aug 30 18:55	19°♿54'49	19°05'08		3473 Jul 25 06:31	30°♿♿	
asc. node	3472 Sep 04 17:19	25°♿45'09		morning rise	3473 Jul 31 05:40	27°♿31'56	
	3472 Sep 07 12:17	0°♿		direct	3473 Aug 03 01:16	27°♿12'17	
morning set	3472 Sep 16 14:10	16°♿47'10			3473 Aug 10 23:08	0°♿	
	3472 Sep 23 06:33	0°♿		morning max el	3473 Aug 13 09:59	2°♿00'50	20°12'01
				asc. node	3473 Aug 22 14:22	14°♿01'29	
superior conj	3472 Sep 24 21:15	3°♿07'40	1°38'46		3473 Aug 31 02:56	0°♿	
minimum elong	3472 Sep 24 23:21	3°♿17'49	1°38'38	morning set	3473 Aug 31 19:07	1°♿22'10	
max. Earth dist.	3472 Oct 01 14:07	15°♿38'48	1.38636 AU				
evening rise	3472 Oct 05 09:50	22°♿24'14		superior conj	3473 Sep 08 11:16	17°♿03'30	1°44'30
	3472 Oct 09 21:38	0°♿		minimum elong	3473 Sep 08 11:40	17°♿05'28	1°44'30
desc. node	3472 Oct 12 01:50	3°♿33'05		max. Earth dist.	3473 Sep 13 20:06	27°♿36'31	1.36642 AU
	3472 Oct 30 01:55	0°♿			3473 Sep 15 02:21	0°♿	
evening max el	3472 Nov 09 22:24	12°♿44'01	24°41'06	evening rise	3473 Sep 17 16:59	4°♿50'21	
retrograde	3472 Nov 21 11:25	19°♿27'24		desc. node	3473 Sep 28 22:52	24°♿00'19	
evening set	3472 Nov 27 00:19	17°♿08'40			3473 Oct 02 19:40	0°♿	
min. Earth dist.	3472 Dec 01 14:56	11°♿54'38	0.67565 AU	evening max el	3473 Oct 23 10:48	26°♿26'19	25°52'02
asc. node	3472 Dec 01 16:33	11°♿49'18			3473 Oct 27 12:57	0°♿	
inferior conj	3472 Dec 02 12:13	10°♿43'57	0°16'49	retrograde	3473 Nov 04 20:47	3°♿30'41	
minimum elong	3472 Dec 02 11:48	10°♿45'19	0°16'39	evening set	3473 Nov 10 23:41	0°♿58'28	
morning rise	3472 Dec 07 23:23	4°♿42'43			3473 Nov 12 01:20	30°♿♿	
direct	3472 Dec 11 15:49	3°♿24'41		min. Earth dist.	3473 Nov 15 06:53	26°♿19'45	0.66870 AU
morning max el	3472 Dec 19 05:13	7°♿42'25	19°58'29	inferior conj	3473 Nov 16 15:13	24°♿37'56	-0°39'47
	3473 Jan 04 18:52	0°♿		minimum elong	3473 Nov 16 16:16	24°♿34'38	0°39'20
desc. node	3473 Jan 08 01:07	4°♿55'01		asc. node	3473 Nov 18 13:36	22°♿16'00	
morning set	3473 Jan 14 19:04	15°♿14'43		morning rise	3473 Nov 22 09:12	18°♿45'27	
	3473 Jan 24 05:33	0°♿		direct	3473 Nov 25 14:31	17°♿45'50	
max. Earth dist.	3473 Jan 25 21:39	2°♿39'30	1.44026 AU	morning max el	3473 Dec 02 12:22	21°♿36'14	19°01'36
					3473 Dec 09 06:44	0°♿	
superior conj	3473 Jan 31 04:51	11°♿12'06	-2°00'23	morning set	3473 Dec 25 01:03	24°♿00'48	
minimum elong	3473 Jan 30 23:47	10°♿51'31	2°00'08	desc. node	3473 Dec 25 22:09	25°♿23'12	
	3473 Feb 11 10:59	0°♿			3473 Dec 28 21:03	0°♿	
evening rise	3473 Feb 13 08:46	3°♿15'54		max. Earth dist.	3474 Jan 08 13:57	16°♿46'00	1.44988 AU
asc. node	3473 Feb 27 15:50	26°♿35'50					
	3473 Mar 02 09:12	0°♿		superior conj	3474 Jan 10 16:24	20°♿04'49	-1°34'35
evening max el	3473 Mar 03 09:07	1°♿03'18	18°12'05	minimum elong	3474 Jan 10 07:19	19°♿28'57	1°33'43
retrograde	3473 Mar 09 19:27	4°♿27'46			3474 Jan 16 22:14	0°♿	
evening set	3473 Mar 12 16:54	3°♿44'22		evening rise	3474 Jan 25 15:22	14°♿05'29	




































































































































	3474 Feb 04 10:10	0°♄			3475 Jan 31 11:54	0°♄	
asc. node	3474 Feb 14 12:53	14°♄07'11		asc. node	3475 Feb 01 09:55	0°♄39'23	
evening max el	3474 Feb 14 21:05	14°♄28'23	18°34'56	retrograde	3475 Feb 05 06:58	1°♄59'06	
retrograde	3474 Feb 21 10:53	18°♄05'59		evening set	3475 Feb 08 17:02	0°♄50'49	
evening set	3474 Feb 24 14:12	17°♄10'33			3475 Feb 09 19:41	30°♄	
inferior conj	3474 Mar 02 08:37	11°♄35'47	3°36'10	inferior conj	3475 Feb 14 05:53	24°♄59'56	3°21'04
minimum elong	3474 Mar 02 07:43	11°♄38'26	3°36'07	minimum elong	3475 Feb 14 03:56	25°♄06'14	3°20'45
min. Earth dist.	3474 Mar 04 09:00	9°♄11'21	0.64826 AU	min. Earth dist.	3475 Feb 15 15:04	23°♄13'13	0.66216 AU
morning rise	3474 Mar 08 00:44	5°♄25'21		morning rise	3475 Feb 19 14:33	18°♄46'40	
direct	3474 Mar 14 18:35	2°♄35'00		direct	3475 Feb 25 22:36	15°♄58'42	
desc. node	3474 Mar 23 21:21	6°♄32'27		morning max el	3475 Mar 10 14:51	23°♄30'07	26°12'21
morning max el	3474 Mar 28 04:59	10°♄25'38	27°13'52	desc. node	3475 Mar 10 18:23	23°♄39'04	
	3474 Apr 12 15:29	0°♄			3475 Mar 16 09:53	0°♄	
	3474 Apr 30 11:36	0°♄			3475 Apr 05 23:57	0°♄	
morning set	3474 May 02 16:38	4°♄14'06		morning set	3475 Apr 15 18:18	17°♄12'21	
max. Earth dist.	3474 May 07 07:56	13°♄29'38	1.33727 AU	max. Earth dist.	3475 Apr 19 18:04	24°♄48'41	1.35172 AU
					3475 Apr 22 09:09	0°♄	
superior conj	3474 May 10 22:07	20°♄57'55	-0°26'45	superior conj	3475 Apr 24 18:46	4°♄51'00	-0°55'36
minimum elong	3474 May 10 23:30	21°♄05'10	0°26'28	minimum elong	3475 Apr 24 21:42	5°♄05'57	0°55'02
asc. node	3474 May 13 12:09	26°♄26'54		asc. node	3475 Apr 30 09:11	16°♄25'41	
	3474 May 15 04:08	0°♄		evening rise	3475 May 02 13:10	20°♄54'35	
evening rise	3474 May 18 05:12	6°♄27'02			3475 May 07 01:58	0°♄	
	3474 May 30 21:56	0°♄		evening max el	3475 May 21 01:24	21°♄00'32	20°32'35
evening max el	3474 Jun 07 23:08	10°♄04'34	21°56'54	retrograde	3475 Jun 01 04:00	26°♄25'42	
desc. node	3474 Jun 19 20:34	16°♄18'40		evening set	3475 Jun 03 04:46	26°♄15'33	
retrograde	3474 Jun 20 14:52	16°♄20'00		desc. node	3475 Jun 06 17:34	25°♄14'11	
evening set	3474 Jun 23 07:51	16°♄03'37		inferior conj	3475 Jun 12 10:12	22°♄17'53	-1°40'23
min. Earth dist.	3474 Jul 02 03:32	12°♄17'24	0.54973 AU	minimum elong	3475 Jun 12 05:29	22°♄24'43	1°38'39
inferior conj	3474 Jul 02 16:22	11°♄59'26	-3°31'44	min. Earth dist.	3475 Jun 13 15:41	21°♄35'16	0.54968 AU
minimum elong	3474 Jul 02 08:02	12°♄11'06	3°29'23	morning rise	3475 Jun 21 05:21	18°♄08'38	
morning rise	3474 Jul 11 09:47	8°♄07'42		direct	3475 Jun 24 23:23	17°♄38'18	
direct	3474 Jul 14 13:45	7°♄45'34		morning max el	3475 Jul 08 07:29	24°♄05'22	23°19'13
morning max el	3474 Jul 26 13:20	13°♄21'58	21°38'52		3475 Jul 13 16:26	0°♄	
	3474 Aug 07 20:18	0°♄		asc. node	3475 Jul 27 08:26	22°♄16'57	
asc. node	3474 Aug 09 11:23	2°♄55'08			3475 Jul 31 03:24	0°♄	
morning set	3474 Aug 16 04:08	16°♄09'12		morning set	3475 Jul 31 15:22	1°♄02'51	
	3474 Aug 22 18:00	0°♄					
superior conj	3474 Aug 23 10:41	1°♄27'18	1°42'39	superior conj	3475 Aug 07 16:26	16°♄09'54	1°34'32
minimum elong	3474 Aug 23 09:41	1°♄22'05	1°42'37	minimum elong	3475 Aug 07 14:31	15°♄59'36	1°34'22
max. Earth dist.	3474 Aug 27 08:32	9°♄29'34	1.34925 AU	max. Earth dist.	3475 Aug 10 05:49	21°♄36'39	1.33594 AU
evening rise	3474 Aug 31 17:30	18°♄05'44			3475 Aug 14 07:19	0°♄	
	3474 Sep 07 05:26	0°♄		evening rise	3475 Aug 15 07:06	1°♄59'12	
desc. node	3474 Sep 15 19:54	14°♄10'24			3475 Aug 31 02:43	0°♄	
	3474 Sep 27 00:57	0°♄		desc. node	3475 Sep 02 16:53	3°♄55'49	
evening max el	3474 Oct 05 23:13	10°♄03'53	26°47'32	evening max el	3475 Sep 18 11:08	23°♄27'32	27°20'24
retrograde	3474 Oct 19 00:50	17°♄19'29			3475 Sep 27 22:52	0°♄	
evening set	3474 Oct 25 16:32	14°♄38'40		retrograde	3475 Oct 01 23:15	0°♄46'06	
min. Earth dist.	3474 Oct 29 16:47	10°♄36'05	0.65823 AU		3475 Oct 05 18:22	30°♄	
inferior conj	3474 Oct 31 12:54	8°♄26'50	-1°39'27	evening set	3475 Oct 09 00:22	28°♄04'46	
minimum elong	3474 Oct 31 15:39	8°♄18'47	1°38'19	min. Earth dist.	3475 Oct 12 18:33	24°♄37'04	0.64424 AU
asc. node	3474 Nov 05 10:38	3°♄30'52		inferior conj	3475 Oct 15 03:00	22°♄06'12	-2°40'04
morning rise	3474 Nov 06 15:29	2°♄45'59		minimum elong	3475 Oct 15 07:25	21°♄54'20	2°38'27
direct	3474 Nov 09 11:49	2°♄01'09		morning rise	3475 Oct 21 15:39	16°♄39'56	
morning max el	3474 Nov 16 01:19	5°♄34'50	18°20'49	asc. node	3475 Oct 23 07:38	16°♄10'17	
	3474 Dec 02 20:09	0°♄		direct	3475 Oct 24 05:21	16°♄06'02	
morning set	3474 Dec 05 10:00	4°♄10'01		morning max el	3475 Oct 30 17:26	19°♄32'20	17°56'57
desc. node	3474 Dec 12 19:11	16°♄01'22			3475 Nov 07 12:35	0°♄	
				morning set	3475 Nov 16 23:40	15°♄43'45	
superior conj	3474 Dec 20 18:26	28°♄37'54	-0°52'26		3475 Nov 25 12:34	0°♄	
minimum elong	3474 Dec 20 11:51	28°♄12'00	0°51'35	desc. node	3475 Nov 29 16:12	6°♄46'03	
	3474 Dec 21 15:20	0°♄					
max. Earth dist.	3474 Dec 22 09:04	1°♄09'37	1.45223 AU	superior conj	3475 Nov 30 08:06	7°♄50'11	-0°04'34
evening rise	3475 Jan 05 22:51	23°♄59'48		minimum elong	3475 Nov 30 07:34	7°♄48'01	0°04'29
	3475 Jan 09 18:40	0°♄		behind sun begin	3475 Nov 29 21:37	7°♄07'52	
greatest brilliancy	3475 Jan 16 17:48	10°♄51'09	-0.8m	behind sun end	3475 Nov 30 17:31	8°♄28'06	
evening max el	3475 Jan 29 05:54	27°♄57'33	19°15'08	max. Earth dist.	3475 Dec 05 03:44	15°♄31'50	1.44721 AU

	3475 Dec 14 09:59	0°♄		superior conj	3476 Nov 09 22:33	18°♍15'35	0°38'15
evening rise	3475 Dec 16 12:39	3°♄15'23		minimum elong	3476 Nov 10 02:01	18°♍30'10	0°37'47
greatest brilliancy	3475 Dec 31 01:35	25°♄14'49	-0.6m	desc. node	3476 Nov 15 13:13	27°♍33'16	
	3476 Jan 03 08:31	0°♌		max. Earth dist.	3476 Nov 16 19:25	29°♍35'44	1.43548 AU
evening max el	3476 Jan 12 10:01	11°♌28'55	20°10'55		3476 Nov 17 01:25	0°♌	
asc. node	3476 Jan 19 06:55	15°♌58'08		evening rise	3476 Nov 24 22:21	12°♌26'49	
retrograde	3476 Jan 20 04:57	16°♌02'45			3476 Dec 06 12:52	0°♄	
evening set	3476 Jan 23 23:11	14°♌40'30		evening max el	3476 Dec 25 08:40	25°♄01'38	21°19'26
inferior conj	3476 Jan 29 08:51	8°♌36'10	2°54'43		3477 Jan 01 11:59	0°♌	
minimum elong	3476 Jan 29 06:23	8°♌44'30	2°54'06	retrograde	3477 Jan 03 02:37	0°♌13'06	
min. Earth dist.	3476 Jan 30 04:12	7°♌30'52	0.67193 AU		3477 Jan 04 15:54	30°♌3	
morning rise	3476 Feb 03 13:23	2°♌22'20		asc. node	3477 Jan 05 03:57	29°♌49'59	
	3476 Feb 07 15:19	30°♌3		evening set	3477 Jan 07 06:48	28°♌35'36	
direct	3476 Feb 09 08:21	29°♌47'13		inferior conj	3477 Jan 12 15:12	22°♌20'52	2°19'22
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morning max el	3476 Feb 20 23:35	6°♌44'28	24°52'12	min. Earth dist.	3477 Jan 12 22:07	21°♌56'55	0.67766 AU
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	3476 Mar 28 12:17	0°♌			3477 Feb 10 19:10	0°♌	
max. Earth dist.	3476 Mar 31 17:23	5°♌49'23	1.37039 AU	desc. node	3477 Feb 11 12:28	0°♌56'38	
					3477 Mar 03 06:41	0°♌	
superior conj	3476 Apr 07 05:23	18°♌10'34	-1°23'14	morning set	3477 Mar 09 10:19	10°♌06'28	
minimum elong	3476 Apr 07 09:36	18°♌31'14	1°22'36	max. Earth dist.	3477 Mar 13 12:16	17°♌06'35	1.39176 AU
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evening rise	3476 Apr 15 15:53	5°♌01'23					
asc. node	3476 Apr 16 06:13	6°♌13'02		superior conj	3477 Mar 21 02:08	0°♌47'06	-1°46'58
	3476 Apr 30 06:08	0°♌		minimum elong	3477 Mar 21 06:42	1°♌08'25	1°46'32
evening max el	3476 May 02 15:56	2°♌37'31	19°26'17	evening rise	3477 Mar 30 10:38	18°♌40'25	
retrograde	3476 May 12 00:57	7°♌10'35		asc. node	3477 Apr 03 03:16	25°♌44'14	
evening set	3476 May 14 01:02	6°♌59'02			3477 Apr 05 10:43	0°♌	
inferior conj	3476 May 22 14:46	2°♌53'01	0°17'23	evening max el	3477 Apr 15 16:55	14°♌53'32	18°39'59
minimum elong	3476 May 22 15:31	2°♌51'49	0°17'06	retrograde	3477 Apr 23 15:24	18°♌46'53	
desc. node	3476 May 23 14:36	2°♌14'17		evening set	3477 Apr 25 21:17	18°♌29'20	
min. Earth dist.	3476 May 25 06:04	1°♌10'55	0.55917 AU	inferior conj	3477 May 03 15:08	14°♌05'13	1°52'36
	3476 May 27 05:21	30°♌3		minimum elong	3477 May 03 18:42	13°♌58'28	1°51'30
morning rise	3476 May 31 03:08	28°♌11'15		min. Earth dist.	3477 May 06 23:30	11°♌34'37	0.57613 AU
direct	3476 Jun 04 19:08	27°♌21'49		desc. node	3477 May 10 11:39	9°♌20'52	
	3476 Jun 13 04:29	0°♌		morning rise	3477 May 11 12:56	8°♌49'22	
morning max el	3476 Jun 18 21:35	4°♌30'00	25°00'59	direct	3477 May 17 04:58	7°♌29'30	
	3476 Jul 07 01:46	0°♌		morning max el	3477 May 31 13:39	15°♌03'50	26°28'35
asc. node	3476 Jul 13 05:28	11°♌58'48			3477 Jun 12 14:00	0°♌	
morning set	3476 Jul 15 03:07	15°♌57'17			3477 Jun 29 04:46	0°♌	
	3476 Jul 21 14:36	0°♌		morning set	3477 Jun 29 13:48	0°♌47'28	
				asc. node	3477 Jun 30 02:31	1°♌54'42	
superior conj	3476 Jul 22 02:03	1°♌02'39	1°21'10				
minimum elong	3476 Jul 21 23:43	0°♌49'55	1°20'51	superior conj	3477 Jul 06 13:36	15°♌59'06	1°03'20
max. Earth dist.	3476 Jul 23 11:08	4°♌02'56	1.32682 AU	minimum elong	3477 Jul 06 11:21	15°♌46'40	1°02'57
evening rise	3476 Jul 29 06:07	16°♌19'35		max. Earth dist.	3477 Jul 06 21:39	16°♌43'25	1.32183 AU
	3476 Aug 05 06:31	0°♌		evening rise	3477 Jul 13 11:38	0°♌57'52	
desc. node	3476 Aug 19 13:54	23°♌05'37			3477 Jul 13 00:37	0°♌	
	3476 Aug 24 22:02	0°♌			3477 Jul 29 07:29	0°♌	
evening max el	3476 Aug 30 20:46	6°♌24'20	27°24'19	desc. node	3477 Aug 06 10:54	11°♌25'06	
retrograde	3476 Sep 13 15:08	13°♌40'17		evening max el	3477 Aug 13 01:35	18°♌41'47	26°55'13
evening set	3476 Sep 20 19:49	11°♌09'48		retrograde	3477 Aug 26 23:23	25°♌53'23	
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inferior conj	3476 Sep 27 06:40	5°♌28'40	-3°38'23	min. Earth dist.	3477 Sep 06 15:47	21°♌07'26	0.60728 AU
minimum elong	3476 Sep 27 12:18	5°♌15'09	3°36'43	inferior conj	3477 Sep 09 20:37	18°♌25'58	-4°28'42
morning rise	3476 Oct 04 06:19	0°♌20'12		minimum elong	3477 Sep 10 02:06	18°♌14'23	4°27'35
	3476 Oct 05 12:07	30°♌		morning rise	3477 Sep 17 07:27	13°♌38'30	
direct	3476 Oct 06 16:08	29°♌53'41		direct	3477 Sep 19 16:27	13°♌16'23	
	3476 Oct 07 19:59	0°♌		asc. node	3477 Sep 26 01:44	16°♌03'41	
asc. node	3476 Oct 09 04:41	0°♌23'33		morning max el	3477 Sep 26 22:52	16°♌52'10	18°03'31
morning max el	3476 Oct 13 09:38	3°♌20'37	17°50'47		3477 Oct 06 05:27	0°♌	
morning set	3476 Oct 29 12:23	28°♌23'31		morning set	3477 Oct 12 17:55	11°♌51'11	
	3476 Oct 30 10:08	0°♌					
				superior conj	3477 Oct 22 15:19	29°♌57'50	1°10'31

































































































































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	3477 Oct 22 15:49	0° \mathbb{M}			3478 Sep 28 14:13	0° \mathbb{A}	
max. Earth dist.	3477 Oct 30 06:36	13° \mathbb{M} 07'37	1.41849 AU				
desc. node	3477 Nov 02 10:13	18° \mathbb{M} 19'48		superior conj	3478 Oct 05 05:58	12° \mathbb{A} 44'43	1°31'25
evening rise	3477 Nov 04 20:14	22° \mathbb{M} 14'18		minimum elong	3478 Oct 05 09:03	12° \mathbb{A} 59'09	1°31'10
	3477 Nov 09 18:32	0° \mathbb{A}		max. Earth dist.	3478 Oct 12 12:58	25° \mathbb{A} 57'29	1.39831 AU
	3477 Nov 30 16:55	0° \mathbb{B}			3478 Oct 14 21:03	0° \mathbb{M}	
evening max el	3477 Dec 08 02:14	8° \mathbb{B} 35'59	22°36'25	evening rise	3478 Oct 16 16:05	3° \mathbb{M} 02'25	
retrograde	3477 Dec 17 22:17	14° \mathbb{B} 26'34		desc. node	3478 Oct 20 07:15	9° \mathbb{M} 02'25	
evening set	3477 Dec 22 14:12	12° \mathbb{B} 32'47			3478 Nov 03 00:43	0° \mathbb{A}	
asc. node	3477 Dec 23 01:00	12° \mathbb{B} 09'26		evening max el	3478 Nov 20 16:06	22° \mathbb{A} 13'28	23°56'21
inferior conj	3477 Dec 27 22:54	6° \mathbb{B} 11'01	1°36'32	retrograde	3478 Dec 01 14:46	28° \mathbb{A} 40'01	
minimum elong	3477 Dec 27 20:54	6° \mathbb{B} 17'55	1°35'47	evening set	3478 Dec 06 19:49	26° \mathbb{A} 29'50	
min. Earth dist.	3477 Dec 27 18:28	6° \mathbb{B} 26'21	0.67963 AU	asc. node	3478 Dec 09 22:03	23° \mathbb{A} 10'59	
morning rise	3478 Jan 02 03:28	0° \mathbb{B} 01'27		min. Earth dist.	3478 Dec 11 14:56	20° \mathbb{A} 56'32	0.67806 AU
	3478 Jan 02 04:10	30° \mathbb{R} \mathbb{A}		inferior conj	3478 Dec 12 06:10	20° \mathbb{A} 04'52	0°47'28
direct	3478 Jan 06 17:00	28° \mathbb{A} 08'52		minimum elong	3478 Dec 12 05:04	20° \mathbb{A} 08'37	0°47'01
	3478 Jan 11 18:03	0° \mathbb{B}		morning rise	3478 Dec 17 14:20	14° \mathbb{A} 00'11	
morning max el	3478 Jan 15 20:33	3° \mathbb{B} 30'38	21°56'45	direct	3478 Dec 21 13:59	12° \mathbb{A} 30'17	
desc. node	3478 Jan 29 09:30	20° \mathbb{B} 33'51		morning max el	3478 Dec 29 15:37	17° \mathbb{A} 08'37	20°38'06
	3478 Feb 04 21:34	0° \mathbb{A}			3479 Jan 08 22:49	0° \mathbb{B}	
morning set	3478 Feb 17 13:39	19° \mathbb{A} 34'21		desc. node	3479 Jan 16 06:31	10° \mathbb{B} 36'05	
max. Earth dist.	3478 Feb 23 10:46	29° \mathbb{A} 12'03	1.41321 AU	morning set	3479 Jan 27 16:09	27° \mathbb{B} 56'07	
	3478 Feb 23 22:14	0° \mathbb{H}			3479 Jan 28 23:57	0° \mathbb{A}	
				max. Earth dist.	3479 Feb 05 16:32	12° \mathbb{A} 12'50	1.43178 AU
superior conj	3478 Mar 03 04:04	12° \mathbb{H} 27'36	-2°03'00				
minimum elong	3478 Mar 03 07:00	12° \mathbb{H} 40'33	2°02'54	superior conj	3479 Feb 12 06:12	23° \mathbb{A} 01'10	-2°06'19
	3478 Mar 12 19:47	0° \mathbb{Y}		minimum elong	3479 Feb 12 04:37	22° \mathbb{A} 54'32	2°06'17
evening rise	3478 Mar 13 17:53	1° \mathbb{Y} 42'20			3479 Feb 16 09:09	0° \mathbb{H}	
asc. node	3478 Mar 21 00:19	14° \mathbb{Y} 52'39		evening rise	3479 Feb 24 09:32	13° \mathbb{H} 58'37	
evening max el	3478 Mar 30 00:58	27° \mathbb{Y} 39'05	18°13'44		3479 Mar 05 15:48	0° \mathbb{Y}	
	3478 Apr 02 00:56	0° \mathbb{B}		asc. node	3479 Mar 07 21:22	3° \mathbb{Y} 31'05	
retrograde	3478 Apr 06 00:44	1° \mathbb{B} 09'29		evening max el	3479 Mar 13 12:49	10° \mathbb{Y} 45'45	18°07'09
evening set	3478 Apr 08 13:02	0° \mathbb{B} 43'07		retrograde	3479 Mar 20 01:20	14° \mathbb{Y} 08'41	
	3478 Apr 10 04:04	30° \mathbb{R} \mathbb{Y}		evening set	3479 Mar 22 19:24	13° \mathbb{Y} 31'56	
inferior conj	3478 Apr 15 12:45	25° \mathbb{Y} 58'04	2°55'19	inferior conj	3479 Mar 29 04:48	8° \mathbb{Y} 26'33	3°28'27
minimum elong	3478 Apr 15 16:07	25° \mathbb{Y} 50'36	2°54'37	minimum elong	3479 Mar 29 06:33	8° \mathbb{Y} 22'06	3°28'16
min. Earth dist.	3478 Apr 18 22:07	22° \mathbb{Y} 59'49	0.59712 AU	min. Earth dist.	3479 Apr 01 04:43	5° \mathbb{Y} 25'21	0.61875 AU
morning rise	3478 Apr 22 16:45	20° \mathbb{Y} 15'41		morning rise	3479 Apr 04 16:09	2° \mathbb{Y} 27'36	
desc. node	3478 Apr 27 08:42	18° \mathbb{Y} 29'05		direct	3479 Apr 11 12:28	0° \mathbb{Y} 01'00	
direct	3478 Apr 29 03:23	18° \mathbb{Y} 20'21		desc. node	3479 Apr 14 05:45	0° \mathbb{Y} 22'18	
morning max el	3478 May 13 11:37	26° \mathbb{Y} 10'03	27°28'02	morning max el	3479 Apr 25 15:55	7° \mathbb{Y} 58'40	27°51'05
	3478 May 17 01:50	0° \mathbb{B}			3479 May 12 12:23	0° \mathbb{B}	
	3478 Jun 06 00:46	0° \mathbb{H}		morning set	3479 May 29 00:50	29° \mathbb{B} 50'08	
morning set	3478 Jun 13 21:42	15° \mathbb{H} 27'10			3479 May 29 02:46	0° \mathbb{H}	
asc. node	3478 Jun 16 23:35	21° \mathbb{H} 58'50		asc. node	3479 Jun 03 20:38	12° \mathbb{H} 06'58	
max. Earth dist.	3478 Jun 20 09:37	29° \mathbb{H} 26'13	1.32077 AU	max. Earth dist.	3479 Jun 03 18:58	11° \mathbb{H} 58'00	1.32373 AU
	3478 Jun 20 15:45	0° \mathbb{E}					
superior conj	3478 Jun 21 01:17	0° \mathbb{E} 52'28	0°41'42	superior conj	3479 Jun 05 11:21	15° \mathbb{H} 37'21	0°16'54
minimum elong	3478 Jun 20 23:33	0° \mathbb{E} 42'58	0°41'21	minimum elong	3479 Jun 05 10:34	15° \mathbb{H} 33'06	0°16'43
evening rise	3478 Jun 27 21:11	15° \mathbb{E} 45'31		evening rise	3479 Jun 12 08:45	0° \mathbb{E} 35'47	
	3478 Jul 04 23:21	0° \mathbb{Q}			3479 Jun 12 02:02	0° \mathbb{E}	
desc. node	3478 Jul 24 07:57	28° \mathbb{Q} 33'25			3479 Jun 28 12:54	0° \mathbb{Q}	
	3478 Jul 25 18:33	0° \mathbb{M}		evening max el	3479 Jul 07 13:52	10° \mathbb{Q} 56'16	24°27'45
evening max el	3478 Jul 25 23:07	0° \mathbb{M} 10'55	25°53'48	desc. node	3479 Jul 11 04:59	14° \mathbb{Q} 02'03	
retrograde	3478 Aug 08 22:32	7° \mathbb{M} 19'00		retrograde	3479 Jul 21 10:57	17° \mathbb{Q} 56'59	
evening set	3478 Aug 15 03:56	5° \mathbb{M} 46'29		evening set	3479 Jul 26 09:10	17° \mathbb{Q} 02'37	
min. Earth dist.	3478 Aug 19 11:25	3° \mathbb{M} 09'59	0.58660 AU	min. Earth dist.	3479 Aug 01 00:50	14° \mathbb{Q} 09'51	0.56767 AU
inferior conj	3478 Aug 22 17:16	0° \mathbb{M} 48'04	-5°01'43	inferior conj	3479 Aug 03 17:55	12° \mathbb{Q} 26'18	-5°03'36
minimum elong	3478 Aug 22 20:07	0° \mathbb{M} 42'50	5°01'29	minimum elong	3479 Aug 03 15:23	12° \mathbb{Q} 30'22	5°03'28
	3478 Aug 23 19:45	30° \mathbb{R} \mathbb{Q}		morning rise	3479 Aug 12 00:14	8° \mathbb{Q} 23'19	
morning rise	3478 Aug 30 14:32	26° \mathbb{Q} 23'51		direct	3479 Aug 14 16:02	8° \mathbb{Q} 04'08	
direct	3478 Sep 02 01:44	26° \mathbb{Q} 03'58		morning max el	3479 Aug 24 03:34	12° \mathbb{Q} 29'16	19°31'05
morning max el	3478 Sep 10 05:53	29° \mathbb{Q} 58'18	18°36'35	asc. node	3479 Aug 30 19:51	20° \mathbb{Q} 46'09	
	3478 Sep 10 06:36	0° \mathbb{M}			3479 Sep 05 05:51	0° \mathbb{M}	
asc. node	3478 Sep 12 22:48	2° \mathbb{M} 56'20		morning set	3479 Sep 10 12:52	10° \mathbb{M} 18'02	

superior conj	3479 Sep 18 12:51	26° \mathbb{M} 19'41	1°42'13	morning max el	3480 Aug 05 13:46	24° \mathbb{G} 17'32	20°46'44
minimum elong	3479 Sep 18 14:13	26° \mathbb{M} 26'21	1°42'10		3480 Aug 10 15:14	0° \mathbb{Q}	
	3479 Sep 20 10:03	0° \mathbb{L}		asc. node	3480 Aug 16 16:53	9° \mathbb{Q} 20'08	
max. Earth dist.	3479 Sep 24 17:05	8° \mathbb{L} 07'06	1.37756 AU	morning set	3480 Aug 24 19:49	24° \mathbb{Q} 59'13	
evening rise	3479 Sep 28 11:13	14° \mathbb{L} 54'57			3480 Aug 27 05:53	0° \mathbb{M}	
desc. node	3479 Oct 07 04:16	29° \mathbb{L} 36'38					
	3479 Oct 07 10:05	0° \mathbb{M}		superior conj	3480 Sep 01 07:21	10° \mathbb{M} 29'19	1°44'33
	3479 Oct 28 17:59	0° \mathbb{J}		minimum elong	3480 Sep 01 07:06	10° \mathbb{M} 28'02	1°44'33
evening max el	3479 Nov 03 04:20	5° \mathbb{J} 53'56	25°12'41	max. Earth dist.	3480 Sep 06 00:57	19° \mathbb{M} 58'54	1.35868 AU
retrograde	3479 Nov 15 03:03	12° \mathbb{J} 48'21		evening rise	3480 Sep 10 02:23	27° \mathbb{M} 44'19	
evening set	3479 Nov 20 21:58	10° \mathbb{J} 23'13			3480 Sep 11 07:44	0° \mathbb{L}	
min. Earth dist.	3479 Nov 25 09:14	5° \mathbb{J} 24'09	0.67306 AU	desc. node	3480 Sep 23 01:18	19° \mathbb{L} 57'37	
inferior conj	3479 Nov 26 11:14	3° \mathbb{J} 59'29	-0°06'44		3480 Sep 29 17:40	0° \mathbb{M}	
minimum elong	3479 Nov 26 11:24	3° \mathbb{J} 58'56	0°06'39	evening max el	3480 Oct 15 16:43	19° \mathbb{M} 35'21	26°17'58
transit middle	3479 Nov 26 11:24	3° \mathbb{J} 58'56	0°06'39	retrograde	3480 Oct 28 10:23	26° \mathbb{M} 46'12	
transit begin	3479 Nov 26 08:52	4° \mathbb{J} 07'12		evening set	3480 Nov 03 18:49	24° \mathbb{M} 09'42	
transit end	3479 Nov 26 13:56	3° \mathbb{J} 50'40		min. Earth dist.	3480 Nov 07 23:00	19° \mathbb{M} 46'03	0.66465 AU
asc. node	3479 Nov 26 19:05	3° \mathbb{J} 33'55		inferior conj	3480 Nov 09 12:13	17° \mathbb{M} 52'00	-1°04'49
	3479 Nov 29 18:26	30° \mathbb{R} \mathbb{M}		minimum elong	3480 Nov 09 13:58	17° \mathbb{M} 46'38	1°04'05
morning rise	3479 Dec 02 01:05	28° \mathbb{M} 01'45		asc. node	3480 Nov 12 16:06	14° \mathbb{M} 15'06	
direct	3479 Dec 05 12:26	26° \mathbb{M} 52'12		morning rise	3480 Nov 15 09:40	12° \mathbb{M} 03'53	
	3479 Dec 11 18:34	0° \mathbb{J}		direct	3480 Nov 18 10:49	11° \mathbb{M} 11'06	
morning max el	3479 Dec 12 18:31	0° \mathbb{J} 57'15	19°32'25	morning max el	3480 Nov 25 04:22	14° \mathbb{M} 53'32	18°42'07
greatest brilliancy	3479 Dec 25 22:44	18° \mathbb{J} 27'57	-0.7m		3480 Dec 06 08:48	0° \mathbb{J}	
	3480 Jan 02 12:58	0° \mathbb{Z}		morning set	3480 Dec 16 05:27	15° \mathbb{J} 28'56	
desc. node	3480 Jan 03 03:32	0° \mathbb{Z} 55'55		desc. node	3480 Dec 20 00:33	21° \mathbb{J} 28'33	
morning set	3480 Jan 06 13:14	6° \mathbb{Z} 10'55			3480 Dec 25 10:31	0° \mathbb{Z}	
max. Earth dist.	3480 Jan 19 04:54	25° \mathbb{Z} 57'11	1.44513 AU				
	3480 Jan 21 18:00	0° \mathbb{A}		superior conj	3481 Jan 01 11:20	11° \mathbb{Z} 02'26	-1°18'11
				minimum elong	3481 Jan 01 02:29	10° \mathbb{Z} 27'40	1°17'12
superior conj	3480 Jan 23 06:17	2° \mathbb{A} 25'03	-1°51'50	max. Earth dist.	3480 Dec 31 22:13	10° \mathbb{Z} 10'55	1.45180 AU
minimum elong	3480 Jan 22 22:56	1° \mathbb{A} 55'35	1°51'19		3481 Jan 13 11:20	0° \mathbb{A}	
evening rise	3480 Feb 06 05:05	25° \mathbb{A} 20'19		evening rise	3481 Jan 17 01:33	5° \mathbb{A} 44'27	
	3480 Feb 08 23:37	0° \mathbb{H}		greatest brilliancy	3481 Jan 24 15:35	17° \mathbb{A} 53'57	-0.9m
asc. node	3480 Feb 22 18:24	21° \mathbb{H} 29'53			3481 Feb 01 12:37	0° \mathbb{H}	
evening max el	3480 Feb 25 01:26	24° \mathbb{H} 05'29	18°19'37	evening max el	3481 Feb 07 12:19	7° \mathbb{H} 32'34	18°50'07
retrograde	3480 Mar 02 12:25	27° \mathbb{H} 34'25		asc. node	3481 Feb 08 15:25	8° \mathbb{H} 37'29	
evening set	3480 Mar 05 12:11	26° \mathbb{H} 46'11		retrograde	3481 Feb 14 06:02	11° \mathbb{H} 18'58	
inferior conj	3480 Mar 11 11:07	21° \mathbb{H} 21'53	3°38'31	evening set	3481 Feb 17 12:04	10° \mathbb{H} 18'17	
minimum elong	3480 Mar 11 11:05	21° \mathbb{H} 21'57	3°38'30	inferior conj	3481 Feb 23 03:49	4° \mathbb{H} 36'41	3°31'19
min. Earth dist.	3480 Mar 13 20:39	18° \mathbb{H} 39'17	0.63842 AU	minimum elong	3481 Feb 23 02:25	4° \mathbb{H} 41'02	3°31'10
morning rise	3480 Mar 17 09:08	15° \mathbb{H} 14'10		min. Earth dist.	3481 Feb 24 21:44	2° \mathbb{H} 27'14	0.65468 AU
direct	3480 Mar 24 06:06	12° \mathbb{H} 28'03			3481 Feb 27 01:05	30° \mathbb{R} \mathbb{A}	
desc. node	3480 Mar 31 02:46	14° \mathbb{H} 43'56		morning rise	3481 Feb 28 16:21	28° \mathbb{A} 24'49	
morning max el	3480 Apr 07 00:19	20° \mathbb{H} 25'01	27°37'03	direct	3481 Mar 07 06:45	25° \mathbb{A} 33'39	
	3480 Apr 15 06:15	0° \mathbb{Y}			3481 Mar 16 20:10	0° \mathbb{H}	
	3480 May 04 13:21	0° \mathbb{B}		desc. node	3481 Mar 17 23:46	0° \mathbb{H} 59'20	
morning set	3480 May 11 20:47	13° \mathbb{B} 48'44		morning max el	3481 Mar 20 10:04	3° \mathbb{H} 18'00	26°50'34
max. Earth dist.	3480 May 16 21:45	24° \mathbb{B} 06'19	1.33095 AU		3481 Apr 09 14:16	0° \mathbb{Y}	
				morning set	3481 Apr 25 06:13	27° \mathbb{Y} 12'01	
superior conj	3480 May 19 17:59	0° \mathbb{I} 08'01	-0°10'21		3481 Apr 26 17:05	0° \mathbb{B}	
minimum elong	3480 May 19 18:30	0° \mathbb{I} 10'46	0°10'14	max. Earth dist.	3481 Apr 29 14:18	5° \mathbb{B} 41'50	1.34279 AU
behind sun begin	3480 May 19 14:21	29° \mathbb{B} 48'36					
behind sun end	3480 May 19 22:38	0° \mathbb{I} 32'57		superior conj	3481 May 03 18:59	14° \mathbb{B} 16'52	-0°39'00
	3480 May 19 16:29	0° \mathbb{I}		minimum elong	3481 May 03 21:01	14° \mathbb{B} 27'28	0°38'34
asc. node	3480 May 20 17:41	2° \mathbb{I} 15'06		asc. node	3481 May 07 14:42	22° \mathbb{B} 18'23	
evening rise	3480 May 26 20:27	15° \mathbb{I} 22'38		evening rise	3481 May 11 06:19	29° \mathbb{B} 58'53	
	3480 Jun 03 04:08	0° \mathbb{G}			3481 May 11 06:32	0° \mathbb{I}	
evening max el	3480 Jun 18 03:28	21° \mathbb{G} 22'33	22°51'16		3481 May 29 01:32	0° \mathbb{G}	
desc. node	3480 Jun 27 02:01	27° \mathbb{G} 16'39		evening max el	3481 May 30 23:35	2° \mathbb{G} 00'38	21°19'15
retrograde	3480 Jul 01 10:57	28° \mathbb{G} 00'22		retrograde	3481 Jun 12 00:44	7° \mathbb{G} 55'20	
evening set	3480 Jul 04 20:42	27° \mathbb{G} 34'56		desc. node	3481 Jun 13 23:02	7° \mathbb{G} 46'44	
min. Earth dist.	3480 Jul 12 12:05	24° \mathbb{G} 11'53	0.55398 AU	evening set	3481 Jun 14 08:34	7° \mathbb{G} 42'54	
inferior conj	3480 Jul 13 23:36	23° \mathbb{G} 20'44	-4°19'48	inferior conj	3481 Jun 23 17:50	3° \mathbb{G} 43'54	-2°47'39
minimum elong	3480 Jul 13 15:58	23° \mathbb{G} 31'45	4°18'13	minimum elong	3481 Jun 23 10:25	3° \mathbb{G} 54'18	2°45'14
morning rise	3480 Jul 22 13:31	19° \mathbb{G} 29'11		min. Earth dist.	3481 Jun 23 23:22	3° \mathbb{G} 36'09	0.54853 AU
direct	3480 Jul 25 11:59	19° \mathbb{G} 09'00			3481 Jul 01 17:10	30° \mathbb{R} \mathbb{I}	

morning rise	3481 Jul 02 12:47	29° Π 46'59		min. Earth dist.	3482 Jun 05 12:02	12° Π 56'57	0.55269 AU
direct	3481 Jul 05 22:02	29° Π 22'09		morning rise	3482 Jun 12 08:01	9° Π 43'42	
	3481 Jul 09 23:53	0° \mathfrak{S}		direct	3482 Jun 16 10:48	9° Π 06'45	
morning max el	3481 Jul 18 12:36	5° \mathfrak{S} 20'48	22°20'19	morning max el	3482 Jun 30 04:05	15° Π 52'04	24°03'11
asc. node	3481 Aug 03 13:55	28° \mathfrak{S} 26'51			3482 Jul 11 10:19	0° \mathfrak{S}	
	3481 Aug 04 09:22	0° Ω		asc. node	3482 Jul 21 10:58	17° \mathfrak{S} 57'55	
morning set	3481 Aug 09 06:00	9° Ω 49'37		morning set	3482 Jul 24 17:40	24° \mathfrak{S} 44'09	
					3482 Jul 27 04:47	0° Ω	
superior conj	3481 Aug 16 09:46	25° Ω 01'56	1°39'54	superior conj	3482 Jul 31 17:26	9° Ω 49'18	1°29'28
minimum elong	3481 Aug 16 08:19	24° Ω 54'15	1°39'49	minimum elong	3482 Jul 31 15:17	9° Ω 37'38	1°29'13
	3481 Aug 18 18:36	0° \mathfrak{M}		max. Earth dist.	3482 Aug 02 18:26	14° Ω 13'08	1.33164 AU
max. Earth dist.	3481 Aug 19 17:12	1° \mathfrak{M} 56'51	1.34318 AU	evening rise	3482 Aug 08 03:01	25° Ω 23'17	
evening rise	3481 Aug 24 09:00	11° \mathfrak{M} 17'29			3482 Aug 10 10:42	0° \mathfrak{M}	
	3481 Sep 03 16:45	0° \mathfrak{L}		desc. node	3482 Aug 27 19:22	29° \mathfrak{M} 29'47	
desc. node	3481 Sep 09 22:21	9° \mathfrak{L} 58'12			3482 Aug 28 03:45	0° \mathfrak{L}	
	3481 Sep 25 03:15	0° \mathfrak{M}		evening max el	3482 Sep 10 16:40	16° \mathfrak{L} 22'55	27°25'49
evening max el	3481 Sep 28 05:19	3° \mathfrak{M} 09'05	27°04'43	retrograde	3482 Sep 24 07:27	23° \mathfrak{L} 39'54	
retrograde	3481 Oct 11 12:00	10° \mathfrak{M} 26'09		evening set	3482 Oct 01 11:09	21° \mathfrak{L} 01'44	
evening set	3481 Oct 18 08:09	7° \mathfrak{M} 44'20		min. Earth dist.	3482 Oct 05 03:27	17° \mathfrak{L} 47'41	0.63734 AU
min. Earth dist.	3481 Oct 22 05:49	3° \mathfrak{M} 56'36	0.65272 AU	inferior conj	3482 Oct 07 17:02	15° \mathfrak{L} 10'25	-3°05'23
inferior conj	3481 Oct 24 07:00	1° \mathfrak{M} 37'38	-2°05'12	minimum elong	3482 Oct 07 22:05	14° \mathfrak{L} 57'31	3°03'40
minimum elong	3481 Oct 24 10:29	1° \mathfrak{M} 27'48	2°03'50	morning rise	3482 Oct 14 10:18	9° \mathfrak{L} 51'19	
	3481 Oct 25 18:11	30° \mathfrak{R} \mathfrak{L}		direct	3482 Oct 16 22:08	9° \mathfrak{L} 20'49	
morning rise	3481 Oct 30 13:42	26° \mathfrak{L} 02'17		asc. node	3482 Oct 17 10:10	9° \mathfrak{L} 22'05	
asc. node	3481 Oct 30 13:07	26° \mathfrak{L} 02'59		morning max el	3482 Oct 23 11:27	12° \mathfrak{L} 46'02	17°52'06
direct	3481 Nov 02 06:56	25° \mathfrak{L} 22'27			3482 Nov 04 07:09	0° \mathfrak{M}	
morning max el	3481 Nov 08 18:56	28° \mathfrak{L} 51'56	18°08'29	morning set	3482 Nov 09 03:26	8° \mathfrak{M} 20'19	
	3481 Nov 09 20:39	0° \mathfrak{M}					
morning set	3481 Nov 27 03:09	26° \mathfrak{M} 16'07		superior conj	3482 Nov 21 15:12	29° \mathfrak{M} 26'13	0°14'44
	3481 Nov 29 09:39	0° \mathfrak{J}		minimum elong	3482 Nov 21 16:47	29° \mathfrak{M} 32'43	0°14'31
desc. node	3481 Dec 06 21:35	12° \mathfrak{J} 09'56		behind sun begin	3482 Nov 21 12:28	29° \mathfrak{M} 15'01	
				behind sun end	3482 Nov 21 21:06	29° \mathfrak{M} 50'23	
superior conj	3481 Dec 11 15:53	19° \mathfrak{J} 45'26	-0°32'04		3482 Nov 21 23:27	0° \mathfrak{J}	
minimum elong	3481 Dec 11 11:49	19° \mathfrak{J} 29'22	0°31'31	desc. node	3482 Nov 23 18:37	2° \mathfrak{J} 55'53	
max. Earth dist.	3481 Dec 14 17:46	24° \mathfrak{J} 37'04	1.45103 AU	max. Earth dist.	3482 Nov 27 12:02	8° \mathfrak{J} 55'27	1.44299 AU
	3481 Dec 18 04:06	0° \mathfrak{Z}		evening rise	3482 Dec 07 10:25	24° \mathfrak{J} 28'14	
evening rise	3481 Dec 28 00:21	15° \mathfrak{Z} 19'23			3482 Dec 11 01:07	0° \mathfrak{Z}	
	3482 Jan 06 12:32	0° \mathfrak{A}			3482 Dec 31 21:19	0° \mathfrak{A}	
greatest brilliancy	3482 Jan 09 18:35	4° \mathfrak{A} 56'05	-0.7m	evening max el	3483 Jan 04 21:11	4° \mathfrak{A} 35'01	20°38'43
evening max el	3482 Jan 21 19:23	21° \mathfrak{A} 03'23	19°37'11	retrograde	3483 Jan 13 01:15	9° \mathfrak{A} 24'17	
asc. node	3482 Jan 26 12:25	24° \mathfrak{A} 40'29		asc. node	3483 Jan 13 09:27	9° \mathfrak{A} 23'39	
retrograde	3482 Jan 29 03:08	25° \mathfrak{A} 17'19		evening set	3483 Jan 16 23:35	7° \mathfrak{A} 55'29	
evening set	3482 Feb 01 16:34	24° \mathfrak{A} 03'05		inferior conj	3483 Jan 22 08:29	1° \mathfrak{A} 46'08	2°40'40
inferior conj	3482 Feb 07 03:49	18° \mathfrak{A} 06'16	3°11'05	minimum elong	3483 Jan 22 05:57	1° \mathfrak{A} 54'46	2°39'59
minimum elong	3482 Feb 07 01:35	18° \mathfrak{A} 13'37	3°10'39	min. Earth dist.	3483 Jan 22 22:17	0° \mathfrak{A} 58'56	0.67484 AU
min. Earth dist.	3482 Feb 08 06:54	16° \mathfrak{A} 37'08	0.66685 AU		3483 Jan 23 15:40	30° \mathfrak{R} \mathfrak{Z}	
morning rise	3482 Feb 12 10:22	11° \mathfrak{A} 52'49		morning rise	3483 Jan 27 12:09	25° \mathfrak{Z} 32'46	
direct	3482 Feb 18 13:15	9° \mathfrak{A} 09'16		direct	3483 Feb 02 00:54	23° \mathfrak{Z} 05'46	
morning max el	3482 Mar 02 19:18	16° \mathfrak{A} 27'05	25°39'58	morning max el	3483 Feb 13 03:53	29° \mathfrak{Z} 44'02	24°15'06
desc. node	3482 Mar 04 20:47	18° \mathfrak{A} 37'32			3483 Feb 13 10:10	0° \mathfrak{A}	
	3482 Mar 14 01:10	0° \mathfrak{H}		desc. node	3483 Feb 19 17:50	7° \mathfrak{A} 14'22	
	3482 Apr 02 12:17	0° \mathfrak{Y}			3483 Mar 07 21:48	0° \mathfrak{H}	
morning set	3482 Apr 08 00:59	9° \mathfrak{Y} 48'11		morning set	3483 Mar 20 23:30	21° \mathfrak{H} 21'54	
max. Earth dist.	3482 Apr 11 19:31	16° \mathfrak{Y} 50'22	1.35923 AU	max. Earth dist.	3483 Mar 24 16:26	27° \mathfrak{H} 55'02	1.37933 AU
					3483 Mar 25 20:03	0° \mathfrak{Y}	
superior conj	3482 Apr 17 11:47	27° \mathfrak{Y} 56'49	-1°07'35	superior conj	3483 Mar 31 16:59	10° \mathfrak{Y} 58'38	-1°33'59
minimum elong	3482 Apr 17 15:19	28° \mathfrak{Y} 14'35	1°06'58	minimum elong	3483 Mar 31 21:31	11° \mathfrak{Y} 20'26	1°33'24
	3482 Apr 18 12:15	0° \mathfrak{B}		evening rise	3483 Apr 09 12:03	28° \mathfrak{Y} 14'07	
asc. node	3482 Apr 24 11:45	12° \mathfrak{B} 12'55			3483 Apr 10 09:33	0° \mathfrak{B}	
evening rise	3482 Apr 25 12:21	14° \mathfrak{B} 18'30		asc. node	3483 Apr 11 08:47	1° \mathfrak{B} 53'44	
	3482 May 03 16:43	0° \mathfrak{H}		evening max el	3483 Apr 26 02:14	25° \mathfrak{B} 06'13	19°04'01
evening max el	3482 May 13 07:04	13° \mathfrak{H} 13'09	20°01'59	retrograde	3483 May 04 19:27	29° \mathfrak{B} 20'59	
retrograde	3482 May 23 15:25	18° \mathfrak{H} 15'10		evening set	3483 May 06 21:33	29° \mathfrak{B} 07'22	
evening set	3482 May 25 14:46	18° \mathfrak{H} 04'59		inferior conj	3483 May 15 02:51	24° \mathfrak{B} 53'58	1°01'33
desc. node	3482 May 31 20:02	15° \mathfrak{H} 41'54		minimum elong	3483 May 15 05:12	24° \mathfrak{B} 49'53	1°00'45
inferior conj	3482 Jun 03 14:33	14° \mathfrak{H} 05'11	-0°49'07				
minimum elong	3482 Jun 03 12:16	14° \mathfrak{H} 08'38	0°48'16				

min. Earth dist.	3483 May 18 03:23	22°  49'24	0.56562 AU	min. Earth dist.	3484 Apr 28 22:59	3°  37'54	0.58472 AU
desc. node	3483 May 18 17:03	22°  27'01		morning rise	3484 May 03 02:40	0°  54'48	
morning rise	3483 May 23 09:43	19°  57'03		desc. node	3484 May 04 14:05	0°  14'18	
direct	3483 May 28 11:52	18°  56'10			3484 May 05 05:33	30°  R  Y	
morning max el	3483 Jun 11 18:31	26°  17'06	25°41'05	direct	3484 May 09 03:31	29°  Y19'44	
	3483 Jun 15 07:16	0°  II			3484 May 13 03:28	0°  8	
	3483 Jul 04 12:03	0°  ☿		morning max el	3484 May 23 12:57	7°  802'44	26°58'04
asc. node	3483 Jul 08 08:03	7°  ☿46'24			3484 Jun 09 16:46	0°  II	
morning set	3483 Jul 09 05:12	9°  ☿37'32		morning set	3484 Jun 22 14:54	24°  II23'42	
				asc. node	3484 Jun 24 05:06	27°  II46'07	
superior conj	3483 Jul 16 04:07	24°  ☿44'18	1°14'07		3484 Jun 25 06:01	0°  ☿	
minimum elong	3483 Jul 16 01:46	24°  ☿31'22	1°13'45	superior conj	3484 Jun 29 15:56	9°  ☿40'00	0°54'36
max. Earth dist.	3483 Jul 17 02:27	26°  ☿46'42	1.32415 AU	minimum elong	3484 Jun 29 13:51	9°  ☿28'31	0°54'12
	3483 Jul 18 13:52	0°  Ω		max. Earth dist.	3484 Jun 29 13:49	9°  ☿28'22	1.32078 AU
evening rise	3483 Jul 23 05:06	9°  Ω52'00		evening rise	3484 Jul 06 12:34	24°  ☿34'40	
	3483 Aug 02 18:00	0°  ♍			3484 Jul 09 03:22	0°  Ω	
desc. node	3483 Aug 14 16:22	18°  ♍20'31			3484 Jul 26 16:07	0°  ♍	
evening max el	3483 Aug 24 00:25	29°  ♍04'04	27°16'00	desc. node	3484 Jul 31 13:24	6°  ♍12'46	
	3483 Aug 25 00:42	0°  ♌		evening max el	3484 Aug 05 02:09	11°  ♍00'51	26°32'52
retrograde	3483 Sep 06 20:20	6°  ♌18'33		retrograde	3484 Aug 19 01:20	18°  ♍11'57	
evening set	3483 Sep 14 00:11	3°  ♌56'05		evening set	3484 Aug 25 18:29	16°  ♍18'29	
min. Earth dist.	3483 Sep 17 14:43	1°  ♌08'14	0.61885 AU	min. Earth dist.	3484 Aug 29 15:46	13°  ♍42'47	0.59838 AU
	3483 Sep 18 21:14	30°  R  ♍		inferior conj	3484 Sep 01 22:22	11°  ♍06'58	-4°45'34
inferior conj	3483 Sep 20 15:21	28°  ♍23'34	-4°01'10	minimum elong	3484 Sep 02 03:06	10°  ♍57'33	4°44'51
minimum elong	3483 Sep 20 21:09	28°  ♍10'22	3°59'39	morning rise	3484 Sep 09 13:49	6°  ♍29'30	
morning rise	3483 Sep 27 19:51	23°  ♍24'01		direct	3484 Sep 11 23:14	6°  ♍08'43	
direct	3483 Sep 30 04:56	22°  ♍59'43		morning max el	3484 Sep 19 13:59	9°  ♍51'21	18°15'02
asc. node	3483 Oct 04 07:14	24°  ♍14'18		asc. node	3484 Sep 20 04:18	10°  ♍27'07	
morning max el	3483 Oct 07 02:55	26°  ♍29'06	17°53'52		3484 Oct 02 18:09	0°  ♌	
	3483 Oct 10 03:59	0°  ♌		morning set	3484 Oct 05 11:12	5°  ♌06'18	
morning set	3483 Oct 23 00:04	21°  ♌22'46		superior conj	3484 Oct 14 20:08	22°  ♌38'02	1°20'42
	3483 Oct 27 18:45	0°  ♍		minimum elong	3484 Oct 15 00:01	22°  ♌55'40	1°20'17
superior conj	3483 Nov 02 17:20	10°  ♍26'16	0°53'21		3484 Oct 18 23:05	0°  ♍	
minimum elong	3483 Nov 02 21:27	10°  ♍43'59	0°52'47	max. Earth dist.	3484 Oct 22 10:25	6°  ♍00'01	1.41014 AU
max. Earth dist.	3483 Nov 10 01:59	22°  ♍47'39	1.42876 AU	evening rise	3484 Oct 27 06:13	14°  ♍02'29	
desc. node	3483 Nov 10 15:40	23°  ♍43'30		desc. node	3484 Oct 27 12:41	14°  ♍28'54	
	3483 Nov 14 13:10	0°  ♌			3484 Nov 06 10:24	0°  ♌	
evening rise	3483 Nov 16 23:36	3°  ♌50'45			3484 Nov 28 17:40	0°  ♌	
	3483 Dec 04 11:16	0°  ♌		evening max el	3484 Nov 30 09:11	1°  ♌43'06	23°10'25
evening max el	3483 Dec 18 17:27	18°  ♌07'43	21°51'21	retrograde	3484 Dec 10 16:57	7°  ♌50'07	
retrograde	3483 Dec 27 22:24	23°  ♌36'28		evening set	3484 Dec 15 14:11	5°  ♌49'32	
asc. node	3483 Dec 31 06:29	22°  ♌36'13		asc. node	3484 Dec 17 03:32	4°  ♌19'29	
evening set	3484 Jan 01 07:21	21°  ♌52'04		inferior conj	3484 Dec 20 23:26	29°  ♌25'47	1°16'27
inferior conj	3484 Jan 06 15:40	15°  ♌33'35	2°02'01	minimum elong	3484 Dec 20 21:46	29°  ♌31'31	1°15'47
minimum elong	3484 Jan 06 13:21	15°  ♌41'38	2°01'13	min. Earth dist.	3484 Dec 20 14:26	29°  ♌56'46	0.67939 AU
min. Earth dist.	3484 Jan 06 17:36	15°  ♌26'50	0.67893 AU		3484 Dec 20 13:29	30°  R  ♌	
morning rise	3484 Jan 11 19:11	9°  ♌21'56		morning rise	3484 Dec 26 05:15	23°  ♌17'45	
direct	3484 Jan 16 17:02	7°  ♌16'15		direct	3484 Dec 30 12:41	21°  ♌34'54	
morning max el	3484 Jan 26 13:50	13°  ♌06'42	22°46'06	morning max el	3485 Jan 08 04:35	26°  ♌37'30	21°21'47
desc. node	3484 Feb 06 14:53	26°  ♌33'10			3485 Jan 11 06:40	0°  ♌	
	3484 Feb 09 02:47	0°  ♌		desc. node	3485 Jan 23 11:55	16°  ♌22'01	
	3484 Feb 28 19:49	0°  ♌			3485 Feb 01 15:54	0°  ♌	
morning set	3484 Feb 29 19:42	1°  ♌38'05		morning set	3485 Feb 08 11:07	10°  ♌33'15	
max. Earth dist.	3484 Mar 05 11:49	9°  ♌28'53	1.40105 AU	max. Earth dist.	3485 Feb 15 12:37	21°  ♌55'53	1.42159 AU
					3485 Feb 20 08:35	0°  ♌	
superior conj	3484 Mar 13 06:18	23°  ♌12'07	-1°55'00	superior conj	3485 Feb 22 22:42	4°  ♌25'32	-2°06'18
minimum elong	3484 Mar 13 10:30	23°  ♌31'13	1°54'42	minimum elong	3485 Feb 23 00:04	4°  ♌31'26	2°06'17
	3484 Mar 16 22:44	0°  Y		evening rise	3485 Mar 06 03:31	24°  ♌21'31	
evening rise	3484 Mar 23 02:23	11°  Y38'05			3485 Mar 09 06:12	0°  Y	
asc. node	3484 Mar 28 05:50	21°  Y15'45		asc. node	3485 Mar 15 02:52	10°  Y12'28	
	3484 Apr 02 08:54	0°  8		evening max el	3485 Mar 22 16:46	20°  Y31'43	18°08'39
evening max el	3484 Apr 08 06:37	7°  835'28	18°26'22	retrograde	3485 Mar 29 10:22	23°  Y56'51	
retrograde	3484 Apr 15 18:09	11°  817'11		evening set	3485 Apr 01 01:14	23°  Y26'12	
evening set	3484 Apr 18 02:39	10°  856'18		inferior conj	3485 Apr 07 18:23	18°  Y32'41	3°12'36
inferior conj	3484 Apr 25 12:25	6°  823'36	2°23'10				
minimum elong	3484 Apr 25 16:11	6°  815'58	2°22'11				

minimum elong	3485 Apr 07 21:10	18° Υ 26'10	3°12'08	min. Earth dist.	3486 Mar 24 11:03	28° X 17'47	0.62751 AU
min. Earth dist.	3485 Apr 11 00:51	15° Υ 29'59	0.60643 AU	morning rise	3486 Mar 27 22:13	25° X 09'56	
morning rise	3485 Apr 14 14:59	12° Υ 42'18		direct	3486 Apr 03 19:57	22° X 33'30	
direct	3485 Apr 21 07:08	10° Υ 32'14		desc. node	3486 Apr 08 08:08	23° X 32'11	
desc. node	3485 Apr 21 11:07	10° Υ 32'18			3486 Apr 17 07:07	0° Υ	
morning max el	3485 May 05 13:34	18° Υ 26'22	27°42'26	morning max el	3486 Apr 17 19:44	0° Υ 31'06	27°49'29
	3485 May 15 06:36	0° Z			3486 May 09 08:27	0° Z	
	3485 Jun 02 09:45	0° Π		morning set	3486 May 21 21:21	23° Z 10'01	
morning set	3485 Jun 06 21:01	8° Π 57'04			3486 May 25 05:00	0° Π	
asc. node	3485 Jun 11 02:09	17° Π 52'35		max. Earth dist.	3486 May 27 08:05	4° Π 30'39	1.32631 AU
max. Earth dist.	3485 Jun 13 01:01	22° Π 07'33	1.32149 AU	asc. node	3486 May 28 23:11	8° Π 00'50	
superior conj	3485 Jun 14 03:08	24° Π 30'45	0°31'32	superior conj	3486 May 29 11:56	9° Π 09'53	0°05'36
minimum elong	3485 Jun 14 01:46	24° Π 23'13	0°31'15	minimum elong	3486 May 29 11:40	9° Π 08'26	0°05'33
	3485 Jun 16 15:03	0° S		behind sun begin	3486 May 29 06:45	8° Π 41'48	
evening rise	3485 Jun 20 23:13	9° S 24'25		behind sun end	3486 May 29 16:36	9° Π 35'05	
	3485 Jul 01 13:21	0° Ω		evening rise	3486 Jun 05 11:03	24° Π 13'47	
evening max el	3485 Jul 17 20:40	22° Ω 10'19	25°19'37		3486 Jun 08 05:25	0° S	
desc. node	3485 Jul 18 10:25	22° Ω 42'37			3486 Jun 26 19:29	0° Ω	
retrograde	3485 Jul 31 20:11	29° Ω 15'56		evening max el	3486 Jun 29 10:05	2° Ω 43'31	23°47'01
evening set	3485 Aug 06 13:29	28° Ω 00'17		desc. node	3486 Jul 05 07:25	7° Ω 18'17	
min. Earth dist.	3485 Aug 11 08:32	25° Ω 18'40	0.57813 AU	retrograde	3486 Jul 13 02:45	9° Ω 36'07	
inferior conj	3485 Aug 14 10:42	23° Ω 11'12	-5°07'18	evening set	3486 Jul 17 09:29	8° Ω 55'48	
minimum elong	3485 Aug 14 11:32	23° Ω 09'46	5°07'17	min. Earth dist.	3486 Jul 23 20:20	5° Ω 51'51	0.56106 AU
morning rise	3485 Aug 22 11:57	18° Ω 56'12		inferior conj	3486 Jul 26 02:46	4° Ω 29'34	-4°51'15
direct	3485 Aug 25 00:47	18° Ω 36'46		minimum elong	3486 Jul 25 21:43	4° Ω 37'15	4°50'37
morning max el	3485 Sep 02 17:17	22° Ω 43'06	18°57'03	morning rise	3486 Aug 03 12:29	0° Ω 33'01	
asc. node	3485 Sep 07 01:21	27° Ω 45'26		direct	3486 Aug 06 07:06	0° Ω 13'31	
	3485 Sep 08 14:53	0° P		morning max el	3486 Aug 16 10:04	4° Ω 55'24	20°00'48
morning set	3485 Sep 19 08:27	19° P 18'42		asc. node	3486 Aug 24 22:23	15° Ω 55'02	
	3485 Sep 24 18:39	0° A			3486 Sep 01 14:35	0° P	
superior conj	3485 Sep 27 18:16	5° A 46'30	1°37'07	morning set	3486 Sep 03 12:33	3° P 51'17	
minimum elong	3485 Sep 27 20:38	5° A 57'50	1°36'58	superior conj	3486 Sep 11 06:33	19° P 37'12	1°44'09
max. Earth dist.	3485 Oct 04 15:15	18° A 30'51	1.38946 AU	minimum elong	3486 Sep 11 07:11	19° P 40'23	1°44'08
evening rise	3485 Oct 08 12:12	25° A 18'26			3486 Sep 16 14:04	0° A	
	3485 Oct 11 06:40	0° M		max. Earth dist.	3486 Sep 16 20:40	0° A 31'19	1.36921 AU
desc. node	3485 Oct 14 09:44	5° M 08'22		evening rise	3486 Sep 20 16:19	7° A 36'00	
	3485 Oct 31 02:53	0° J		desc. node	3486 Oct 01 06:45	25° A 37'34	
evening max el	3485 Nov 12 22:18	15° J 22'28	24°29'44		3486 Oct 04 01:44	0° M	
retrograde	3485 Nov 24 07:38	22° J 01'33		evening max el	3486 Oct 26 10:35	29° M 04'23	25°42'16
evening set	3485 Nov 29 18:30	19° J 44'59			3486 Oct 27 09:56	0° J	
asc. node	3485 Dec 04 00:34	14° J 58'09		retrograde	3486 Nov 07 17:44	6° J 06'28	
min. Earth dist.	3485 Dec 04 10:17	14° J 25'59	0.67640 AU	evening set	3486 Nov 13 18:38	3° J 35'53	
inferior conj	3485 Dec 05 05:59	13° J 20'10	0°25'05		3486 Nov 17 04:53	30° R M	
minimum elong	3485 Dec 05 05:22	13° J 22'12	0°24'49	min. Earth dist.	3486 Nov 18 02:51	28° M 51'58	0.66993 AU
morning rise	3485 Dec 10 16:18	7° J 18'00		inferior conj	3486 Nov 19 09:33	27° M 14'24	-0°30'56
direct	3485 Dec 14 10:35	5° J 56'55		minimum elong	3486 Nov 19 10:21	27° M 11'50	0°30'36
morning max el	3485 Dec 22 02:51	10° J 19'28	20°08'17	asc. node	3486 Nov 20 21:35	25° M 21'58	
	3486 Jan 05 23:56	0° Z		morning rise	3486 Nov 25 02:24	21° M 20'36	
desc. node	3486 Jan 10 08:57	6° Z 32'23		direct	3486 Nov 28 09:14	20° M 18'32	
morning set	3486 Jan 18 08:04	18° Z 42'05		morning max el	3486 Dec 05 08:59	24° M 12'15	19°09'08
	3486 Jan 25 13:41	0° \approx			3486 Dec 10 06:20	0° J	
max. Earth dist.	3486 Jan 28 21:35	5° \approx 17'41	1.43826 AU	morning set	3486 Dec 28 11:06	27° J 18'31	
superior conj	3486 Feb 03 13:41	14° \approx 28'49	-2°02'34	desc. node	3486 Dec 28 05:59	26° J 58'37	
minimum elong	3486 Feb 03 09:32	14° \approx 11'50	2°02'24		3486 Dec 30 04:36	0° Z	
	3486 Feb 12 19:53	0° X		max. Earth dist.	3487 Jan 11 13:07	19° Z 19'36	1.44889 AU
evening rise	3486 Feb 16 11:04	6° X 14'59		superior conj	3487 Jan 14 04:10	23° Z 28'37	-1°39'42
asc. node	3486 Mar 01 23:53	28° X 35'03		minimum elong	3487 Jan 13 19:19	22° Z 53'35	1°38'56
	3486 Mar 03 00:42	0° Υ			3487 Jan 18 06:31	0° \approx	
evening max el	3486 Mar 06 05:20	3° Υ 44'50	18°10'12	evening rise	3487 Jan 28 21:08	17° \approx 13'07	
retrograde	3486 Mar 12 15:53	7° Υ 08'27			3487 Feb 05 15:55	0° X	
evening set	3486 Mar 15 12:29	6° Υ 26'45		asc. node	3487 Feb 16 20:54	16° X 13'45	
inferior conj	3486 Mar 21 16:58	1° Υ 13'03	3°35'09	evening max el	3487 Feb 17 17:29	17° X 08'21	18°30'20
minimum elong	3486 Mar 21 17:56	1° Υ 10'27	3°35'05	retrograde	3487 Feb 24 06:20	20° X 43'26	
	3486 Mar 22 20:12	30° R X		evening set	3487 Feb 27 08:41	19° X 49'55	

inferior conj	3487 Mar 05 04:10	14°  17'41	3°37'16	inferior conj	3488 Feb 17 00:22	27°  39'39	3°24'07
minimum elong	3487 Mar 05 03:29	14°  19'41	3°37'14	minimum elong	3488 Feb 16 22:33	27°  45'29	3°23'52
min. Earth dist.	3487 Mar 07 06:54	11°  48'12	0.64585 AU	min. Earth dist.	3488 Feb 18 11:48	25°  46'45	0.66035 AU
morning rise	3487 Mar 10 21:42	8°  07'44		morning rise	3488 Feb 22 09:55	21°  26'34	
direct	3487 Mar 17 16:30	5°  18'08		direct	3488 Feb 28 19:44	18°  37'20	
desc. node	3487 Mar 26 05:10	8°  46'34		desc. node	3488 Mar 12 02:12	25°  40'34	
morning max el	3487 Mar 31 05:12	13°  10'51	27°20'49	morning max el	3488 Mar 12 15:10	26°  12'54	26°22'55
	3487 Apr 13 18:06	0°  Y			3488 Mar 16 03:13	0°  X	
	3487 May 01 22:25	0°  8			3488 Apr 06 07:44	0°  Y	
morning set	3487 May 05 13:15	6°  54'33		morning set	3488 Apr 17 17:08	20°  Y00'01	
max. Earth dist.	3487 May 10 07:07	16°  26'24	1.33549 AU	max. Earth dist.	3488 Apr 21 18:55	27°  Y49'20	1.34923 AU
					3488 Apr 22 21:23	0°  8	
superior conj	3487 May 13 16:26	23°  31'31	-0°22'24	superior conj	3488 Apr 26 14:20	7°  829'09	-0°51'14
minimum elong	3487 May 13 17:35	23°  37'35	0°22'09	minimum elong	3488 Apr 26 17:02	7°  843'01	0°50'43
asc. node	3487 May 15 20:12	28°  307'00		asc. node	3488 May 01 17:15	18°  807'08	
	3487 May 16 17:21	0°  II			3488 May 04 06:45	23°  826'47	
evening rise	3487 May 20 22:12	8°  II56'39		evening rise	3488 May 07 12:13	0°  II	
	3487 May 31 23:57	0°  G			3488 May 23 01:58	24°  II01'00	20°44'12
evening max el	3487 Jun 11 01:20	13°  G09'41	22°10'40	evening max el	3488 Jun 03 10:48	29°  II34'03	
desc. node	3487 Jun 22 04:25	19°  G25'00		retrograde	3488 Jun 05 12:43	29°  II23'38	
retrograde	3487 Jun 23 21:42	19°  G31'49		evening set	3488 Jun 08 01:26	28°  II44'56	
evening set	3487 Jun 26 18:33	19°  G13'33		desc. node	3488 Jun 14 19:39	25°  II26'13	-1°58'33
min. Earth dist.	3487 Jul 05 07:02	15°  G33'47	0.55052 AU	inferior conj	3488 Jun 14 14:06	25°  II34'09	1°56'35
inferior conj	3487 Jul 06 02:05	15°  G06'59	-3°45'51	minimum elong	3488 Jun 15 19:08	24°  II52'38	0.54904 AU
minimum elong	3487 Jul 05 17:42	15°  G18'46	3°43'38	min. Earth dist.	3488 Jun 23 14:58	21°  II20'38	
morning rise	3487 Jul 14 18:42	11°  G16'01		morning rise	3488 Jun 27 06:26	20°  II52'00	
direct	3487 Jul 17 21:03	10°  G54'35		direct	3488 Jul 10 10:30	27°  II12'11	23°03'44
morning max el	3487 Jul 29 15:11	16°  G23'34	21°24'54	morning max el	3488 Jul 13 04:13	0°  G	
	3487 Aug 09 02:01	0°  Q			3488 Jul 28 16:29	24°  G02'02	
asc. node	3487 Aug 11 19:26	4°  Q43'46		asc. node	3488 Jul 31 15:48	0°  Q	
morning set	3487 Aug 18 21:05	18°  Q36'48		morning set	3488 Aug 02 08:08	3°  Q29'58	
	3487 Aug 24 07:18	0°  P					
superior conj	3487 Aug 26 04:47	3°  P57'34	1°43'22	superior conj	3488 Aug 09 09:47	18°  Q38'07	1°36'08
minimum elong	3487 Aug 26 03:57	3°  P53'19	1°43'20	minimum elong	3488 Aug 09 07:59	18°  Q28'26	1°35'59
max. Earth dist.	3487 Aug 30 07:42	12°  P22'48	1.35154 AU	max. Earth dist.	3488 Aug 12 03:40	24°  Q27'14	1.33769 AU
evening rise	3487 Sep 03 14:31	20°  P44'42			3488 Aug 14 20:02	0°  P	
	3487 Sep 08 15:18	0°  G		evening rise	3488 Aug 17 02:29	4°  P33'35	
desc. node	3487 Sep 18 03:45	15°  G50'32			3488 Aug 31 08:34	0°  G	
	3487 Sep 27 23:39	0°  M		desc. node	3488 Sep 04 00:47	5°  G40'11	
evening max el	3487 Oct 08 22:54	12°  M42'44	26°40'33	evening max el	3488 Sep 20 11:04	26°  G09'15	27°17'12
retrograde	3487 Oct 21 22:41	19°  M57'42			3488 Sep 25 01:01	0°  M	
evening set	3487 Oct 28 12:36	17°  M17'39		retrograde	3488 Oct 03 22:01	3°  M27'46	
min. Earth dist.	3487 Nov 01 13:47	13°  M09'42	0.65997 AU	evening set	3488 Oct 10 21:58	0°  M46'02	
inferior conj	3487 Nov 03 08:08	11°  M04'06	-1°30'18		3488 Oct 11 20:28	30°  R $\frac{1}{2}$	
minimum elong	3487 Nov 03 10:37	10°  M56'44	1°29'16	min. Earth dist.	3488 Oct 14 17:01	27°  G13'08	0.64655 AU
asc. node	3487 Nov 07 18:37	6°  M26'12		inferior conj	3488 Oct 16 23:33	24°  G45'04	-2°31'00
morning rise	3487 Nov 09 09:21	5°  M21'21		minimum elong	3488 Oct 17 03:44	24°  G33'40	2°29'25
direct	3487 Nov 12 06:49	4°  M34'38		morning rise	3488 Oct 23 10:37	19°  G16'17	
morning max el	3487 Nov 18 21:13	8°  M10'23	18°25'51	asc. node	3488 Oct 24 15:40	18°  G51'12	
	3487 Dec 04 03:29	0°  X		direct	3488 Oct 26 01:07	18°  G41'00	
morning set	3487 Dec 08 15:32	7°  X13'53		morning max el	3488 Nov 01 13:00	22°  G07'59	17°59'20
desc. node	3487 Dec 15 03:00	17°  X35'20			3488 Nov 07 16:06	0°  M	
	3487 Dec 22 23:31	0°  Z		morning set	3488 Nov 19 01:11	18°  M35'29	
					3488 Nov 25 21:37	0°  X	
superior conj	3487 Dec 24 06:17	2°  Z00'49	-0°59'30	desc. node	3488 Dec 01 00:03	8°  X18'54	
minimum elong	3487 Dec 23 22:56	1°  Z31'56	0°58'34				
max. Earth dist.	3487 Dec 25 07:44	3°  Z40'41	1.45235 AU	superior conj	3488 Dec 02 16:59	11°  X03'32	-0°11'40
evening rise	3488 Jan 09 07:53	27°  Z14'37		minimum elong	3488 Dec 02 15:34	10°  X57'51	0°11'28
	3488 Jan 11 01:49	0°  Z		behind sun begin	3488 Dec 02 08:07	10°  X27'55	
greatest brilliancy	3488 Jan 19 09:03	13°  Z02'30	-0.8m	behind sun end	3488 Dec 02 23:02	11°  X27'46	
	3488 Jan 31 12:51	0°  X		max. Earth dist.	3488 Dec 07 02:27	18°  X03'08	1.44841 AU
evening max el	3488 Feb 01 02:53	0°  X36'58	19°08'07		3488 Dec 14 17:44	0°  Z	
asc. node	3488 Feb 03 17:55	2°  X55'39		evening rise	3488 Dec 18 23:33	6°  Z33'32	
retrograde	3488 Feb 08 01:54	4°  X34'23		greatest brilliancy	3489 Jan 02 07:20	28°  Z17'45	-0.6m
evening set	3488 Feb 11 10:50	3°  X28'10			3489 Jan 03 11:14	0°  Z	
	3488 Feb 15 03:03	30°  R $\frac{1}{2}$		evening max el	3489 Jan 14 07:50	14°  Z08'07	20°01'48

asc. node	3489 Jan 20 14:57	18° \approx 26'23		3489 Dec 30 19:23	0° \approx	
retrograde	3489 Jan 21 23:43	18° \approx 36'33		retrograde	3490 Jan 05 21:31	2° \approx 46'11
evening set	3489 Jan 25 16:39	17° \approx 16'28		asc. node	3490 Jan 07 11:59	2° \approx 32'06
inferior conj	3489 Jan 31 02:40	11° \approx 14'06	2°59'18	evening set	3490 Jan 10 00:11	1° \approx 10'56
minimum elong	3489 Jan 31 00:15	11° \approx 22'13	2°58'45		3490 Jan 11 07:47	30° \approx 3
min. Earth dist.	3489 Feb 01 00:00	10° \approx 02'29	0.67073 AU	inferior conj	3490 Jan 15 08:39	24° \approx 57'35 2°25'13
morning rise	3489 Feb 05 07:37	5° \approx 00'19		minimum elong	3490 Jan 15 06:09	25° \approx 06'11 2°24'27
direct	3489 Feb 11 04:44	2° \approx 22'39		min. Earth dist.	3490 Jan 15 17:19	24° \approx 27'40 0.67705 AU
morning max el	3489 Feb 22 23:56	9° \approx 25'43	25°04'56	morning rise	3490 Jan 20 11:56	18° \approx 344'51
desc. node	3489 Feb 26 23:14	13° \approx 46'05		direct	3490 Jan 25 18:30	16° \approx 326'18
	3489 Mar 11 05:53	0° \approx		morning max el	3490 Feb 05 08:30	22° \approx 344'21 23°37'13
	3489 Mar 29 22:22	0° \approx			3490 Feb 11 17:15	0° \approx
morning set	3489 Mar 31 04:06	2° \approx 12'05		desc. node	3490 Feb 13 20:17	2° \approx 42'35
max. Earth dist.	3489 Apr 03 19:30	8° \approx 50'30	1.36738 AU		3490 Mar 04 14:25	0° \approx
				morning set	3490 Mar 12 16:08	13° \approx 14'43
superior conj	3489 Apr 10 02:42	20° \approx 54'26	-1°19'12	max. Earth dist.	3490 Mar 16 14:48	20° \approx 03'57 1.38853 AU
minimum elong	3489 Apr 10 06:46	21° \approx 14'28	1°18'35		3490 Mar 22 03:00	0° \approx
	3489 Apr 14 15:56	0° \approx				
evening rise	3489 Apr 18 10:27	7° \approx 37'10		superior conj	3490 Mar 24 01:50	3° \approx 37'58 -1°43'46
asc. node	3489 Apr 18 14:17	7° \approx 56'26		minimum elong	3490 Mar 24 06:27	3° \approx 59'41 1°43'17
	3489 Apr 30 23:20	0° \approx		evening rise	3490 Apr 02 06:37	21° \approx 20'47
evening max el	3489 May 05 14:47	5° \approx 31'47	19°34'56	asc. node	3490 Apr 05 11:21	27° \approx 30'18
retrograde	3489 May 15 05:38	10° \approx 11'52			3490 Apr 06 19:09	0° \approx
evening set	3489 May 17 05:17	10° \approx 00'49		evening max el	3490 Apr 18 14:22	17° \approx 41'52 18°45'31
inferior conj	3489 May 25 21:50	5° \approx 56'51	0°00'27	retrograde	3490 Apr 26 17:15	21° \approx 340'13
minimum elong	3489 May 25 21:51	5° \approx 56'50	0°00'27	evening set	3490 Apr 28 22:10	21° \approx 323'45
transit middle	3489 May 25 21:51	5° \approx 56'50	0°00'27	inferior conj	3490 May 06 18:57	17° \approx 302'25 1°40'10
transit begin	3489 May 25 17:57	6° \approx 03'02		minimum elong	3490 May 06 22:18	16° \approx 356'13 1°39'07
transit end	3489 May 26 01:46	5° \approx 50'37		min. Earth dist.	3490 May 10 01:47	14° \approx 38'04 0.57328 AU
desc. node	3489 May 25 22:28	5° \approx 55'52		desc. node	3490 May 12 19:29	12° \approx 352'13
min. Earth dist.	3489 May 28 09:05	4° \approx 23'18	0.55723 AU	morning rise	3490 May 14 19:15	11° \approx 351'19
morning rise	3489 Jun 03 11:48	1° \approx 20'35		direct	3490 May 20 07:50	10° \approx 336'43
direct	3489 Jun 08 00:20	0° \approx 34'42		morning max el	3490 Jun 03 16:10	18° \approx 307'37 26°17'06
morning max el	3489 Jun 22 00:42	7° \approx 37'22	24°46'17		3490 Jun 13 13:40	0° \approx
	3489 Jul 08 09:32	0° \approx			3490 Jun 30 17:29	0° \approx
asc. node	3489 Jul 15 13:33	13° \approx 41'10		morning set	3490 Jul 02 06:55	3° \approx 15'24
morning set	3489 Jul 17 19:57	18° \approx 24'31		asc. node	3490 Jul 02 10:37	3° \approx 35'00
	3489 Jul 23 04:37	0° \approx				
				superior conj	3490 Jul 09 06:23	18° \approx 25'31 1°06'19
superior conj	3489 Jul 24 19:01	3° \approx 29'40	1°23'31	minimum elong	3490 Jul 09 04:06	18° \approx 12'52 1°05'55
minimum elong	3489 Jul 24 16:43	3° \approx 17'09	1°23'13	max. Earth dist.	3490 Jul 09 18:06	19° \approx 30'00 1.32233 AU
max. Earth dist.	3489 Jul 26 08:04	6° \approx 51'02	1.32798 AU		3490 Jul 14 13:59	0° \approx
evening rise	3489 Aug 01 00:21	18° \approx 50'35		evening rise	3490 Jul 16 05:03	3° \approx 26'19
	3489 Aug 06 16:52	0° \approx			3490 Jul 30 12:00	0° \approx
desc. node	3489 Aug 21 21:48	24° \approx 55'59		desc. node	3490 Aug 08 18:49	13° \approx 24'01
	3489 Aug 25 16:31	0° \approx		evening max el	3490 Aug 16 03:02	21° \approx 35'01 27°01'38
evening max el	3489 Sep 02 21:21	9° \approx 11'12	27°25'44	retrograde	3490 Aug 30 00:14	28° \approx 47'03
retrograde	3489 Sep 16 14:52	16° \approx 27'12		evening set	3490 Sep 06 01:07	26° \approx 35'40
evening set	3489 Sep 23 19:31	13° \approx 54'27		min. Earth dist.	3490 Sep 09 17:17	23° \approx 54'57 0.61034 AU
min. Earth dist.	3489 Sep 27 10:33	10° \approx 52'27	0.62978 AU	inferior conj	3490 Sep 12 21:15	21° \approx 12'10 -4°21'57
inferior conj	3489 Sep 30 05:01	8° \approx 10'35	-3°29'56	minimum elong	3490 Sep 13 02:53	21° \approx 00'02 4°20'44
minimum elong	3489 Sep 30 10:31	7° \approx 57'07	3°28'14	morning rise	3490 Sep 20 06:27	16° \approx 21'30
morning rise	3489 Oct 07 02:59	2° \approx 59'06		direct	3490 Sep 22 15:26	15° \approx 58'51
direct	3489 Oct 09 13:15	2° \approx 31'37		asc. node	3490 Sep 28 09:49	18° \approx 18'15
asc. node	3489 Oct 11 12:44	2° \approx 50'20		morning max el	3490 Sep 29 19:19	19° \approx 32'33 18°00'23
morning max el	3489 Oct 16 05:24	5° \approx 57'53	17°50'30		3490 Oct 07 11:54	0° \approx
	3489 Oct 31 19:47	0° \approx		morning set	3490 Oct 15 14:21	14° \approx 28'27
morning set	3489 Nov 01 10:56	1° \approx 06'48			3490 Oct 24 02:29	0° \approx
superior conj	3489 Nov 13 03:25	21° \approx 16'59	0°32'25	superior conj	3490 Oct 25 16:33	2° \approx 48'40 1°06'22
minimum elong	3489 Nov 13 06:30	21° \approx 29'53	0°31'58	minimum elong	3490 Oct 25 20:49	3° \approx 07'27 1°05'50
desc. node	3489 Nov 17 21:06	29° \approx 05'54		max. Earth dist.	3490 Nov 02 07:10	15° \approx 50'04 1.42127 AU
	3489 Nov 18 10:25	0° \approx		desc. node	3490 Nov 04 18:07	19° \approx 52'44
max. Earth dist.	3489 Nov 19 18:59	2° \approx 11'37	1.43761 AU	evening rise	3490 Nov 08 04:06	25° \approx 23'06
evening rise	3489 Nov 28 08:51	15° \approx 43'08			3490 Nov 11 02:20	0° \approx
	3489 Dec 07 18:39	0° \approx			3490 Dec 01 16:27	0° \approx
evening max el	3489 Dec 28 07:22	27° \approx 40'45	21°08'37	evening max el	3490 Dec 11 01:33	11° \approx 314'23 22°24'36

retrograde	3490 Dec 20 17:36	16°♄59'19		evening max el	3491 Nov 23 15:46	24°♄51'03	23°44'26
evening set	3490 Dec 25 07:42	15°♄07'53			3491 Nov 30 03:43	0°♄	
asc. node	3490 Dec 25 09:02	15°♄05'07		retrograde	3491 Dec 04 10:40	1°♄12'59	
inferior conj	3490 Dec 30 16:15	8°♄46'47	1°43'27		3491 Dec 08 08:13	30°♄♂	
minimum elong	3490 Dec 30 14:09	8°♄54'03	1°42'41	evening set	3491 Dec 09 13:40	29°♄05'13	
min. Earth dist.	3490 Dec 30 13:24	8°♄56'38	0.67957 AU	asc. node	3491 Dec 12 06:04	26°♄16'37	
morning rise	3491 Jan 04 20:29	2°♄36'45		inferior conj	3491 Dec 14 23:41	22°♄40'19	0°55'18
direct	3491 Jan 09 12:09	0°♄40'49		minimum elong	3491 Dec 14 22:26	22°♄44'37	0°54'47
morning max el	3491 Jan 18 20:04	6°♄09'48	22°09'21	min. Earth dist.	3491 Dec 14 10:03	23°♄26'48	0.67854 AU
desc. node	3491 Jan 31 17:19	22°♄15'04		morning rise	3491 Dec 20 07:11	16°♄34'38	
	3491 Feb 06 02:56	0°♄		direct	3491 Dec 24 08:45	15°♄01'32	
morning set	3491 Feb 20 23:48	22°♄54'41		morning max el	3492 Jan 01 13:57	19°♄45'55	20°48'58
	3491 Feb 25 07:30	0°♄			3492 Jan 10 00:22	0°♄	
max. Earth dist.	3491 Feb 26 12:27	2°♄01'06	1.41012 AU	desc. node	3492 Jan 18 14:22	12°♄13'53	
					3492 Jan 30 07:43	0°♄	
superior conj	3491 Mar 06 06:50	15°♄27'01	-2°01'18	morning set	3492 Jan 31 05:02	1°♄22'59	
minimum elong	3491 Mar 06 10:11	15°♄41'58	2°01'07	max. Earth dist.	3492 Feb 08 16:38	14°♄52'07	1.42928 AU
	3491 Mar 14 06:10	0°♄					
evening rise	3491 Mar 16 15:47	4°♄28'31		superior conj	3492 Feb 15 12:40	26°♄10'24	-2°06'52
asc. node	3491 Mar 23 08:22	16°♄42'21		minimum elong	3492 Feb 15 11:56	26°♄07'20	2°06'51
	3491 Apr 01 12:16	0°♄			3492 Feb 17 18:45	0°♄	
evening max el	3491 Apr 01 21:32	0°♄23'11	18°16'22	evening rise	3492 Feb 27 09:57	16°♄51'34	
retrograde	3491 Apr 09 00:02	3°♄56'09			3492 Mar 05 21:30	0°♄	
evening set	3491 Apr 11 11:19	3°♄31'18		asc. node	3492 Mar 09 05:23	5°♄25'34	
	3491 Apr 17 04:13	30°♄♂		evening max el	3492 Mar 15 08:58	13°♄26'57	18°06'59
inferior conj	3491 Apr 18 13:31	28°♄49'21	2°47'50	retrograde	3492 Mar 21 22:32	16°♄50'07	
minimum elong	3491 Apr 18 17:03	28°♄41'42	2°47'02	evening set	3492 Mar 24 15:45	16°♄15'02	
min. Earth dist.	3491 Apr 21 23:31	25°♄53'35	0.59385 AU	inferior conj	3492 Mar 31 03:02	11°♄12'47	3°25'03
morning rise	3491 Apr 25 20:09	23°♄10'04		minimum elong	3492 Mar 31 05:04	11°♄07'43	3°24'48
desc. node	3491 Apr 29 16:30	21°♄37'03		min. Earth dist.	3492 Apr 03 04:53	8°♄10'19	0.61555 AU
direct	3491 May 02 04:27	21°♄20'00		morning rise	3492 Apr 06 16:40	5°♄15'41	
morning max el	3491 May 16 13:16	29°♄08'18	27°21'27	direct	3492 Apr 13 12:09	2°♄52'56	
	3491 May 17 09:53	0°♄		desc. node	3492 Apr 15 13:31	3°♄05'06	
	3491 Jun 07 09:44	0°♄		morning max el	3492 Apr 27 16:38	10°♄50'21	27°50'07
morning set	3491 Jun 16 15:21	17°♄57'11			3492 May 12 16:14	0°♄	
asc. node	3491 Jun 19 07:41	23°♄38'16			3492 May 29 15:07	0°♄	
	3491 Jun 22 05:50	0°♄		morning set	3492 May 30 19:17	2°♄23'04	
				asc. node	3492 Jun 05 04:41	13°♄46'02	
superior conj	3491 Jun 23 18:09	3°♄19'48	0°45'12	max. Earth dist.	3492 Jun 05 15:58	14°♄47'09	1.32296 AU
minimum elong	3491 Jun 23 16:19	3°♄09'42	0°44'51				
max. Earth dist.	3491 Jun 23 06:04	2°♄13'12	1.32062 AU	superior conj	3492 Jun 07 04:32	18°♄06'24	0°20'51
evening rise	3491 Jun 30 14:08	18°♄12'58		minimum elong	3492 Jun 07 03:35	18°♄01'13	0°20'38
	3491 Jul 06 09:29	0°♄			3492 Jun 12 15:17	0°♄	
	3491 Jul 25 23:22	0°♄		evening rise	3492 Jun 14 01:29	3°♄03'12	
desc. node	3491 Jul 26 15:49	0°♄44'53			3492 Jun 28 13:17	0°♄	
evening max el	3491 Jul 29 01:37	3°♄11'23	26°04'49	evening max el	3492 Jul 09 17:10	14°♄02'24	24°41'44
retrograde	3491 Aug 12 01:02	10°♄20'31		desc. node	3492 Jul 12 12:50	16°♄30'48	
evening set	3491 Aug 18 09:59	8°♄42'12		retrograde	3492 Jul 23 15:20	21°♄05'01	
min. Earth dist.	3491 Aug 22 14:12	6°♄06'37	0.58962 AU	evening set	3492 Jul 28 18:44	20°♄05'20	
inferior conj	3491 Aug 25 20:42	3°♄40'24	-4°58'23	min. Earth dist.	3492 Aug 03 04:24	17°♄15'55	0.57023 AU
minimum elong	3491 Aug 26 00:09	3°♄33'56	4°58'03	inferior conj	3492 Aug 06 00:24	15°♄25'35	-5°06'04
	3491 Aug 31 13:42	30°♄♂		minimum elong	3492 Aug 05 22:48	15°♄28'12	5°06'00
morning rise	3491 Sep 02 16:32	29°♄12'54		morning rise	3492 Aug 14 05:27	11°♄19'42	
direct	3491 Sep 05 03:10	28°♄52'52		direct	3492 Aug 16 20:20	11°♄00'33	
	3491 Sep 09 11:07	0°♄		morning max el	3492 Aug 26 02:46	15°♄20'33	19°21'32
morning max el	3491 Sep 13 03:32	2°♄43'42	18°30'19	asc. node	3492 Sep 01 03:54	22°♄43'19	
asc. node	3491 Sep 15 06:52	5°♄01'18			3492 Sep 05 14:13	0°♄	
morning set	3491 Sep 29 06:16	28°♄26'09		morning set	3492 Sep 12 06:46	12°♄48'11	
	3491 Sep 30 01:43	0°♄					
				superior conj	3492 Sep 20 09:07	28°♄56'07	1°41'09
superior conj	3491 Oct 08 04:21	15°♄27'30	1°28'55	minimum elong	3492 Sep 20 10:44	29°♄04'02	1°41'04
minimum elong	3491 Oct 08 07:40	15°♄42'55	1°28'37		3492 Sep 20 22:14	0°♄	
max. Earth dist.	3491 Oct 15 13:59	28°♄45'55	1.40142 AU	max. Earth dist.	3492 Sep 26 17:55	10°♄59'50	1.38062 AU
	3491 Oct 16 07:06	0°♄		evening rise	3492 Sep 30 12:17	17°♄45'21	
evening rise	3491 Oct 19 20:28	6°♄01'54			3492 Oct 07 18:17	0°♄	
desc. node	3491 Oct 22 15:09	10°♄36'26		desc. node	3492 Oct 08 12:11	1°♄12'16	
	3491 Nov 04 05:28	0°♄			3492 Oct 28 13:57	0°♄	

evening max el	3492 Nov 05 04:11	8° ♁ 31'29	25°01'47		3493 Aug 28 18:45	0° ♁	
retrograde	3492 Nov 16 23:41	15° ♁ 22'22					
evening set	3492 Nov 22 16:26	12° ♁ 59'28		superior conj	3493 Sep 04 02:05	13° ♁ 00'48	1°44'41
min. Earth dist.	3492 Nov 27 04:52	7° ♁ 55'04	0.67405 AU	minimum elong	3493 Sep 04 02:03	13° ♁ 00'39	1°44'40
inferior conj	3492 Nov 28 05:12	6° ♁ 35'11	0°01'49	max. Earth dist.	3493 Sep 09 00:58	22° ♁ 52'46	1.36136 AU
minimum elong	3492 Nov 28 05:09	6° ♁ 35'21	0°01'47		3493 Sep 12 18:58	0° ♁	
transit middle	3492 Nov 28 05:09	6° ♁ 35'21	0°01'47	evening rise	3493 Sep 13 00:42	0° ♁ 26'35	
transit begin	3492 Nov 28 02:24	6° ♁ 44'24		desc. node	3493 Sep 25 09:11	21° ♁ 35'17	
transit end	3492 Nov 28 07:54	6° ♁ 26'19			3493 Sep 30 21:48	0° ♁	
asc. node	3492 Nov 28 03:05	6° ♁ 42'09		evening max el	3493 Oct 18 16:35	22° ♁ 13'18	26°09'16
morning rise	3492 Dec 03 18:04	0° ♁ 36'09		retrograde	3493 Oct 31 07:41	29° ♁ 22'01	
	3492 Dec 04 18:48	30° ♁		evening set	3493 Nov 06 14:12	26° ♁ 47'02	
direct	3492 Dec 07 07:09	29° ♁ 23'41		min. Earth dist.	3493 Nov 10 19:28	22° ♁ 18'02	0.66614 AU
	3492 Dec 09 22:08	0° ♁		inferior conj	3493 Nov 12 06:56	20° ♁ 28'15	-0°55'49
morning max el	3492 Dec 14 15:40	3° ♁ 33'03	19°41'10	minimum elong	3493 Nov 12 08:25	20° ♁ 23'37	0°55'11
greatest brilliancy	3492 Dec 27 19:42	20° ♁ 57'27	-0.7m	asc. node	3493 Nov 15 00:08	17° ♁ 16'48	
	3493 Jan 02 19:41	0° ♁		morning rise	3493 Nov 18 03:06	14° ♁ 38'29	
desc. node	3493 Jan 04 11:25	2° ♁ 31'44		direct	3493 Nov 21 05:41	13° ♁ 43'22	
morning set	3493 Jan 09 01:15	9° ♁ 33'58		morning max el	3493 Nov 28 00:35	17° ♁ 28'22	18°48'35
max. Earth dist.	3493 Jan 21 04:04	28° ♁ 30'52	1.44356 AU		3493 Dec 07 13:24	0° ♁	
	3493 Jan 22 02:30	0° ♁		morning set	3493 Dec 19 13:38	18° ♁ 40'14	
				desc. node	3493 Dec 22 08:27	23° ♁ 02'58	
superior conj	3493 Jan 25 16:33	5° ♁ 44'34	-1°55'17		3493 Dec 26 18:41	0° ♁	
minimum elong	3493 Jan 25 09:57	5° ♁ 17'58	1°54'53	max. Earth dist.	3494 Jan 03 21:08	12° ♁ 42'41	1.45130 AU
evening rise	3493 Feb 08 08:45	28° ♁ 21'52					
	3493 Feb 09 07:57	0° ♁		superior conj	3494 Jan 04 23:34	14° ♁ 26'30	-1°24'20
asc. node	3493 Feb 24 02:23	23° ♁ 31'09		minimum elong	3494 Jan 04 14:28	13° ♁ 50'44	1°23'22
evening max el	3493 Feb 26 21:41	26° ♁ 45'30	18°16'38		3494 Jan 14 19:28	0° ♁	
	3493 Mar 03 19:28	0° ♁		evening rise	3494 Jan 20 08:47	8° ♁ 54'53	
retrograde	3493 Mar 05 08:15	0° ♁ 12'33			3494 Feb 02 14:34	0° ♁	
	3493 Mar 06 20:55	30° ♁		evening max el	3494 Feb 10 08:59	10° ♁ 12'02	18°44'26
evening set	3493 Mar 08 07:12	29° ♁ 26'02		asc. node	3494 Feb 10 23:24	10° ♁ 47'32	
inferior conj	3493 Mar 14 07:27	24° ♁ 04'34	3°38'10	retrograde	3494 Feb 17 01:08	13° ♁ 55'01	
minimum elong	3493 Mar 14 07:41	24° ♁ 03'56	3°38'10	evening set	3494 Feb 20 06:14	12° ♁ 56'08	
min. Earth dist.	3493 Mar 16 19:19	21° ♁ 18'04	0.63568 AU	inferior conj	3494 Feb 25 22:51	7° ♁ 16'55	3°33'16
morning rise	3493 Mar 20 07:15	17° ♁ 57'55		minimum elong	3494 Feb 25 21:37	7° ♁ 20'41	3°33'10
direct	3493 Mar 27 04:43	15° ♁ 13'45		min. Earth dist.	3494 Feb 27 19:01	5° ♁ 02'05	0.65255 AU
desc. node	3493 Apr 02 10:33	17° ♁ 06'28		morning rise	3494 Mar 03 12:34	1° ♁ 05'33	
morning max el	3493 Apr 10 00:28	23° ♁ 11'19	27°41'22		3494 Mar 04 22:21	30° ♁	
	3493 Apr 16 01:54	0° ♁		direct	3494 Mar 10 04:19	28° ♁ 14'24	
	3493 May 05 22:39	0° ♁			3494 Mar 15 23:31	0° ♁	
morning set	3493 May 14 16:26	16° ♁ 25'37		desc. node	3494 Mar 20 07:37	3° ♁ 07'01	
max. Earth dist.	3493 May 19 19:52	26° ♁ 59'14	1.32958 AU	morning max el	3494 Mar 23 10:09	6° ♁ 01'01	26°59'15
	3493 May 21 05:58	0° ♁			3494 Apr 10 19:43	0° ♁	
				morning set	3494 Apr 28 03:40	29° ♁ 54'30	
superior conj	3493 May 22 11:47	2° ♁ 39'30	-0°06'06		3494 Apr 28 04:48	0° ♁	
minimum elong	3493 May 22 12:05	2° ♁ 41'07	0°06'02	max. Earth dist.	3494 May 02 14:10	8° ♁ 39'46	1.34076 AU
behind sun begin	3493 May 22 07:08	2° ♁ 14'31					
behind sun end	3493 May 22 17:02	3° ♁ 07'45		superior conj	3494 May 06 13:46	16° ♁ 51'46	-0°34'36
asc. node	3493 May 23 01:42	3° ♁ 54'20		minimum elong	3494 May 06 15:34	17° ♁ 01'11	0°34'14
evening rise	3493 May 29 13:15	17° ♁ 50'53		asc. node	3494 May 09 22:44	23° ♁ 58'23	
	3493 Jun 04 13:11	0° ♁			3494 May 12 19:07	0° ♁	
evening max el	3493 Jun 21 06:30	24° ♁ 29'33	23°05'44	evening rise	3494 May 13 23:31	2° ♁ 28'56	
desc. node	3493 Jun 29 09:48	0° ♁ 07'45			3494 May 29 14:31	0° ♁	
	3493 Jun 29 02:18	0° ♁		evening max el	3494 Jun 03 01:08	5° ♁ 03'24	21°32'09
retrograde	3493 Jul 04 16:55	1° ♁ 11'40		retrograde	3494 Jun 15 07:35	11° ♁ 05'33	
evening set	3493 Jul 08 07:52	0° ♁ 42'57		desc. node	3494 Jun 16 06:49	11° ♁ 03'23	
	3493 Jul 10 12:22	30° ♁		evening set	3494 Jun 17 18:17	10° ♁ 51'57	
min. Earth dist.	3493 Jul 15 15:45	27° ♁ 25'14	0.55559 AU	inferior conj	3494 Jun 27 03:39	6° ♁ 51'32	-3°04'04
inferior conj	3493 Jul 17 08:35	26° ♁ 25'50	-4°29'47	minimum elong	3494 Jun 26 19:46	7° ♁ 02'32	3°01'36
minimum elong	3493 Jul 17 01:28	26° ♁ 36'13	4°28'27	min. Earth dist.	3494 Jun 27 02:44	6° ♁ 52'49	0.54874 AU
morning rise	3493 Jul 25 21:25	22° ♁ 33'21		morning rise	3494 Jul 05 22:10	2° ♁ 56'54	
direct	3493 Jul 28 18:51	22° ♁ 13'23		direct	3494 Jul 09 05:30	2° ♁ 33'07	
morning max el	3493 Aug 08 14:37	27° ♁ 14'48	20°34'09	morning max el	3494 Jul 21 14:56	8° ♁ 23'53	22°05'37
	3493 Aug 11 06:21	0° ♁		asc. node	3494 Aug 05 22:00	0° ♁ 13'36	
asc. node	3493 Aug 19 00:57	11° ♁ 11'12			3494 Aug 05 19:06	0° ♁	
morning set	3493 Aug 27 13:02	27° ♁ 27'01		morning set	3494 Aug 11 22:52	12° ♁ 16'36	

superior conj	3494 Aug 19 03:32	27° Ω 30'38	1°41'01	superior conj	3495 Aug 03 10:34	12° Ω 16'30	1°31'23
minimum elong	3494 Aug 19 02:14	27° Ω 23'48	1°40'56	minimum elong	3495 Aug 03 08:30	12° Ω 05'17	1°31'10
	3494 Aug 20 08:00	0° \cap		max. Earth dist.	3495 Aug 05 15:54	17° Ω 02'32	1.33301 AU
max. Earth dist.	3494 Aug 22 15:57	4° \cap 49'20	1.34522 AU	evening rise	3495 Aug 10 21:49	27° Ω 55'33	
evening rise	3494 Aug 27 05:17	13° \cap 53'56			3495 Aug 11 22:46	0° \cap	
	3494 Sep 05 01:22	0° $\underline{\Omega}$			3495 Aug 29 06:26	0° $\underline{\Omega}$	
desc. node	3494 Sep 12 06:11	11° $\underline{\Omega}$ 39'31		desc. node	3495 Aug 30 03:12	1° $\underline{\Omega}$ 16'23	
	3494 Sep 25 18:22	0° \cap		evening max el	3495 Sep 13 16:47	19° $\underline{\Omega}$ 06'36	27°24'35
evening max el	3494 Oct 01 05:13	5° \cap 49'06	26°59'13	retrograde	3495 Sep 27 06:39	26° $\underline{\Omega}$ 24'16	
retrograde	3494 Oct 14 10:10	13° \cap 05'36		evening set	3495 Oct 04 09:39	23° $\underline{\Omega}$ 44'40	
evening set	3494 Oct 21 04:51	10° \cap 23'59		min. Earth dist.	3495 Oct 08 02:31	20° $\underline{\Omega}$ 26'05	0.63983 AU
min. Earth dist.	3494 Oct 25 03:25	6° \cap 31'07	0.65473 AU	inferior conj	3495 Oct 10 14:21	17° $\underline{\Omega}$ 50'47	-2°56'27
inferior conj	3494 Oct 27 02:49	4° \cap 15'28	-1°56'01	minimum elong	3495 Oct 10 19:12	17° $\underline{\Omega}$ 38'11	2°54'45
minimum elong	3494 Oct 27 06:02	4° \cap 06'14	1°54'43	morning rise	3495 Oct 17 06:00	12° $\underline{\Omega}$ 29'11	
	3494 Oct 31 06:36	30° \cap $\underline{\Omega}$		direct	3495 Oct 19 18:25	11° $\underline{\Omega}$ 57'35	
asc. node	3494 Nov 01 21:12	28° $\underline{\Omega}$ 52'37		asc. node	3495 Oct 19 18:17	11° $\underline{\Omega}$ 57'35	
morning rise	3494 Nov 02 08:02	28° $\underline{\Omega}$ 38'08		morning max el	3495 Oct 26 07:09	15° $\underline{\Omega}$ 22'55	17°53'25
direct	3494 Nov 05 02:21	27° $\underline{\Omega}$ 56'35			3495 Nov 05 14:31	0° \cap	
	3494 Nov 10 00:00	0° \cap		morning set	3495 Nov 12 03:38	11° \cap 08'33	
morning max el	3494 Nov 11 14:40	1° \cap 27'16	18°12'27		3495 Nov 23 08:33	0° \nearrow	
morning set	3494 Nov 30 06:57	29° \cap 14'41					
	3494 Nov 30 18:02	0° \nearrow		superior conj	3495 Nov 24 22:31	2° \nearrow 35'13	0°08'02
desc. node	3494 Dec 09 05:30	13° \nearrow 43'26		minimum elong	3495 Nov 24 23:25	2° \nearrow 38'53	0°07'54
				behind sun begin	3495 Nov 24 14:39	2° \nearrow 03'08	
superior conj	3494 Dec 15 02:48	23° \nearrow 05'02	-0°39'23	behind sun end	3495 Nov 25 08:11	3° \nearrow 14'33	
minimum elong	3494 Dec 14 21:48	22° \nearrow 45'18	0°38'42	desc. node	3495 Nov 26 02:31	4° \nearrow 28'57	
max. Earth dist.	3494 Dec 17 16:48	27° \nearrow 09'14	1.45162 AU	max. Earth dist.	3495 Nov 30 11:17	11° \nearrow 29'21	1.44461 AU
	3494 Dec 19 12:19	0° $\overline{\Omega}$		evening rise	3495 Dec 10 21:33	27° \nearrow 46'50	
evening rise	3494 Dec 31 10:32	18° $\overline{\Omega}$ 36'34			3495 Dec 12 08:15	0° $\overline{\Omega}$	
	3495 Jan 07 18:32	0° \approx			3496 Jan 01 18:34	0° \approx	
greatest brilliancy	3495 Jan 12 12:48	7° \approx 17'55	-0.7m	evening max el	3496 Jan 07 19:22	7° \approx 14'04	20°28'44
evening max el	3495 Jan 24 16:45	23° \approx 42'38	19°29'07	retrograde	3496 Jan 15 20:10	11° \approx 57'57	
asc. node	3495 Jan 28 20:27	27° \approx 01'38		asc. node	3496 Jan 15 17:31	11° \approx 57'53	
retrograde	3495 Jan 31 22:00	27° \approx 52'01		evening set	3496 Jan 19 17:02	10° \approx 31'27	
evening set	3495 Feb 04 10:15	26° \approx 39'49		inferior conj	3496 Jan 25 02:08	4° \approx 23'44	2°45'52
inferior conj	3495 Feb 09 22:00	20° \approx 44'58	3°14'50	minimum elong	3496 Jan 24 23:38	4° \approx 32'17	2°45'12
minimum elong	3495 Feb 09 19:51	20° \approx 51'58	3°14'27	min. Earth dist.	3496 Jan 25 17:50	3° \approx 30'15	0.67391 AU
min. Earth dist.	3495 Feb 11 03:10	19° \approx 09'42	0.66533 AU		3496 Jan 28 11:33	30° \cap $\overline{\Omega}$	
morning rise	3495 Feb 15 05:14	14° \approx 31'33		morning rise	3496 Jan 30 06:03	28° $\overline{\Omega}$ 10'07	
direct	3495 Feb 21 09:58	11° \approx 46'21		direct	3496 Feb 04 20:57	25° $\overline{\Omega}$ 40'13	
morning max el	3495 Mar 05 19:42	19° \approx 09'03	25°51'35		3496 Feb 13 14:39	0° \approx	
desc. node	3495 Mar 07 04:40	20° \approx 34'44		morning max el	3496 Feb 16 04:23	2° \approx 25'30	24°28'11
	3495 Mar 15 01:04	0° \bowtie		desc. node	3496 Feb 22 01:43	9° \approx 04'06	
	3495 Apr 03 21:20	0° Υ			3496 Mar 08 03:52	0° \bowtie	
morning set	3495 Apr 11 00:57	12° Υ 38'39		morning set	3496 Mar 23 02:57	24° \bowtie 23'25	
max. Earth dist.	3495 Apr 14 21:11	19° Υ 52'01	1.35656 AU		3496 Mar 26 06:41	0° Υ	
				max. Earth dist.	3496 Mar 26 18:51	0° Υ 55'03	1.37615 AU
superior conj	3495 Apr 20 08:00	0° $\overline{\Omega}$ 36'26	-1°03'20				
minimum elong	3495 Apr 20 11:20	0° $\overline{\Omega}$ 53'15	1°02'45	superior conj	3496 Apr 02 15:13	13° Υ 45'04	-1°30'15
	3495 Apr 20 00:46	0° $\overline{\Omega}$		minimum elong	3496 Apr 02 19:40	14° Υ 06'36	1°29'39
asc. node	3495 Apr 26 19:46	13° $\overline{\Omega}$ 54'23			3496 Apr 10 20:46	0° $\overline{\Omega}$	
evening rise	3495 Apr 28 06:18	16° $\overline{\Omega}$ 51'31		evening rise	3496 Apr 11 07:11	0° $\overline{\Omega}$ 51'45	
	3495 May 04 23:40	0° \cap		asc. node	3496 Apr 12 16:49	3° $\overline{\Omega}$ 38'00	
evening max el	3495 May 16 06:45	16° \cap 09'37	20°12'15	evening max el	3496 Apr 28 00:24	27° $\overline{\Omega}$ 57'42	19°11'23
retrograde	3495 May 26 21:29	21° \cap 19'47			3496 Apr 30 10:23	0° \cap	
evening set	3495 May 28 21:04	21° \cap 09'44		retrograde	3496 May 06 23:02	2° \cap 18'40	
desc. node	3495 Jun 03 03:51	19° \cap 18'32		evening set	3496 May 09 00:15	2° \cap 05'54	
inferior conj	3495 Jun 06 23:02	17° \cap 10'55	-1°07'18		3496 May 14 02:32	30° \cap $\overline{\Omega}$	
minimum elong	3495 Jun 06 19:53	17° \cap 15'36	1°06'07	inferior conj	3496 May 17 08:33	27° $\overline{\Omega}$ 55'14	0°46'21
min. Earth dist.	3495 Jun 08 15:07	16° \cap 11'38	0.55142 AU	minimum elong	3496 May 17 10:25	27° $\overline{\Omega}$ 52'06	0°45'42
morning rise	3495 Jun 15 17:16	12° \cap 54'03		desc. node	3496 May 20 00:53	26° $\overline{\Omega}$ 06'56	
direct	3495 Jun 19 16:51	12° \cap 19'42		min. Earth dist.	3496 May 20 06:13	25° $\overline{\Omega}$ 58'13	0.56320 AU
morning max el	3495 Jul 03 07:14	18° \cap 58'49	23°47'57	morning rise	3496 May 25 17:28	23° $\overline{\Omega}$ 03'31	
	3495 Jul 12 11:06	0° $\overline{\Omega}$		direct	3496 May 30 16:02	22° $\overline{\Omega}$ 06'51	
asc. node	3495 Jul 23 19:04	19° $\overline{\Omega}$ 41'28		morning max el	3496 Jun 13 21:31	29° $\overline{\Omega}$ 23'47	25°27'29
morning set	3495 Jul 27 10:26	27° $\overline{\Omega}$ 10'59			3496 Jun 14 12:22	0° \cap	
	3495 Jul 28 18:15	0° Ω			3496 Jul 04 22:30	0° $\overline{\Omega}$	

asc. node	3496 Jul 09 16:06	9°♄27'50		asc. node	3497 Jun 26 13:08	29°♄26'09	
morning set	3496 Jul 10 22:06	12°♄05'11			3497 Jun 26 19:28	0°♄	
superior conj	3496 Jul 17 20:58	27°♄11'15	1°16'44	superior conj	3497 Jul 02 08:42	12°♄07'16	0°57'49
minimum elong	3496 Jul 17 18:36	26°♄58'20	1°16'24	minimum elong	3497 Jul 02 06:32	11°♄55'23	0°57'25
max. Earth dist.	3496 Jul 18 22:59	29°♄33'41	1.32498 AU	max. Earth dist.	3497 Jul 02 10:04	12°♄14'50	1.32106 AU
	3496 Jul 19 03:49	0°♄		evening rise	3497 Jul 09 05:44	27°♄03'02	
evening rise	3496 Jul 24 22:55	12°♄21'48			3497 Jul 10 15:40	0°♄	
	3496 Aug 03 02:31	0°♄			3497 Jul 27 15:17	0°♄	
desc. node	3496 Aug 16 00:13	20°♄14'25		desc. node	3497 Aug 02 21:13	8°♄16'43	
	3496 Aug 24 03:26	0°♄		evening max el	3497 Aug 08 04:02	13°♄57'32	26°41'20
evening max el	3496 Aug 26 01:12	1°♄53'24	27°19'36	retrograde	3497 Aug 22 02:51	21°♄08'46	
retrograde	3496 Sep 08 20:41	9°♄08'39		evening set	3497 Aug 28 22:20	19°♄10'26	
evening set	3496 Sep 16 01:01	6°♄43'02		min. Earth dist.	3497 Sep 01 17:56	16°♄33'53	0.60148 AU
min. Earth dist.	3496 Sep 19 15:25	3°♄51'54	0.62174 AU	inferior conj	3497 Sep 05 00:04	13°♄55'45	-4°40'02
inferior conj	3496 Sep 22 14:36	1°♄07'22	-3°53'15	minimum elong	3497 Sep 05 05:07	13°♄45'27	4°39'11
minimum elong	3496 Sep 22 20:22	0°♄53'59	3°51'41	morning rise	3497 Sep 12 13:55	9°♄14'40	
	3496 Sep 23 20:04	30°♄		direct	3497 Sep 14 23:05	8°♄53'29	
morning rise	3496 Sep 29 17:25	26°♄04'42		morning max el	3497 Sep 22 10:48	12°♄33'40	18°10'35
direct	3496 Oct 02 02:40	25°♄39'44		asc. node	3497 Sep 22 12:21	12°♄37'27	
asc. node	3496 Oct 05 15:20	26°♄36'09			3497 Oct 04 03:41	0°♄	
morning max el	3496 Oct 08 22:57	29°♄08'07	17°52'22	morning set	3497 Oct 08 06:53	7°♄41'47	
	3496 Oct 09 19:01	0°♄		superior conj	3497 Oct 17 19:59	25°♄25'11	1°17'16
morning set	3496 Oct 24 21:37	24°♄03'26		minimum elong	3497 Oct 18 00:01	25°♄43'21	1°16'50
	3496 Oct 28 05:04	0°♄			3497 Oct 20 09:35	0°♄	
superior conj	3496 Nov 04 20:36	13°♄23'22	0°48'10	max. Earth dist.	3497 Oct 25 11:04	8°♄44'46	1.41310 AU
minimum elong	3496 Nov 05 00:33	13°♄40'13	0°47'39	desc. node	3497 Oct 29 20:34	16°♄02'39	
desc. node	3496 Nov 11 23:33	25°♄16'32		evening rise	3497 Oct 30 12:36	17°♄07'48	
max. Earth dist.	3496 Nov 12 01:41	25°♄25'16	1.43123 AU		3497 Nov 07 17:06	0°♄	
	3496 Nov 14 21:44	0°♄			3497 Nov 29 09:08	0°♄	
evening rise	3496 Nov 19 09:11	7°♄04'36		evening max el	3497 Dec 03 08:46	4°♄22'04	22°58'30
	3496 Dec 04 15:15	0°♄		retrograde	3497 Dec 13 12:27	10°♄23'19	
evening max el	3496 Dec 20 16:25	20°♄46'34	21°40'03	evening set	3497 Dec 18 07:47	8°♄25'11	
retrograde	3496 Dec 29 17:32	26°♄09'23		asc. node	3497 Dec 19 11:35	7°♄20'32	
asc. node	3497 Jan 01 14:34	25°♄24'23		inferior conj	3497 Dec 23 16:49	2°♄02'05	1°23'47
evening set	3497 Jan 03 00:45	24°♄27'28		minimum elong	3497 Dec 23 15:01	2°♄08'17	1°23'05
inferior conj	3497 Jan 08 09:03	18°♄10'12	2°08'22	min. Earth dist.	3497 Dec 23 09:25	2°♄27'37	0.67956 AU
minimum elong	3497 Jan 08 06:41	18°♄18'27	2°07'34		3497 Dec 25 04:43	30°♄	
min. Earth dist.	3497 Jan 08 12:44	17°♄57'25	0.67857 AU	morning rise	3497 Dec 28 22:09	25°♄53'28	
morning rise	3497 Jan 13 12:26	11°♄58'08		direct	3498 Jan 02 07:44	24°♄07'09	
direct	3497 Jan 18 12:32	9°♄48'58		morning max el	3498 Jan 11 03:33	29°♄16'14	21°33'47
morning max el	3497 Jan 28 13:47	15°♄46'47	22°59'11		3498 Jan 11 20:36	0°♄	
desc. node	3497 Feb 07 22:45	28°♄17'27		desc. node	3498 Jan 25 19:48	18°♄02'36	
	3497 Feb 09 05:00	0°♄			3498 Feb 02 22:23	0°♄	
	3497 Mar 01 04:16	0°♄		morning set	3498 Feb 11 22:48	13°♄58'10	
morning set	3497 Mar 04 03:23	4°♄51'58		max. Earth dist.	3498 Feb 18 13:40	24°♄41'28	1.41876 AU
max. Earth dist.	3497 Mar 08 13:44	12°♄21'51	1.39779 AU		3498 Feb 21 17:57	0°♄	
superior conj	3497 Mar 16 07:12	26°♄06'45	-1°52'21	superior conj	3498 Feb 26 03:02	7°♄30'01	-2°05'27
minimum elong	3497 Mar 16 11:35	26°♄26'51	1°51'59	minimum elong	3498 Feb 26 05:01	7°♄38'41	2°05'23
	3497 Mar 18 09:39	0°♄		evening rise	3498 Mar 09 02:25	27°♄11'04	
evening rise	3497 Mar 25 23:06	14°♄21'01			3498 Mar 10 15:23	0°♄	
asc. node	3497 Mar 30 13:52	23°♄03'26		asc. node	3498 Mar 17 10:53	12°♄04'32	
	3497 Apr 03 12:16	0°♄		evening max el	3498 Mar 25 13:08	23°♄15'18	18°10'01
evening max el	3497 Apr 11 03:39	10°♄22'31	18°30'43	retrograde	3498 Apr 01 08:36	26°♄41'50	
retrograde	3497 Apr 18 18:45	14°♄07'55		evening set	3498 Apr 03 22:37	26°♄12'41	
evening set	3497 Apr 21 02:20	13°♄48'16		inferior conj	3498 Apr 10 17:59	21°♄22'07	3°06'57
inferior conj	3497 Apr 28 14:53	9°♄18'41	2°12'56	minimum elong	3498 Apr 10 20:59	21°♄15'12	3°06'25
minimum elong	3497 Apr 28 18:38	9°♄11'16	2°11'52	min. Earth dist.	3498 Apr 14 01:39	18°♄20'31	0.60319 AU
min. Earth dist.	3497 May 02 01:03	6°♄37'45	0.58165 AU	morning rise	3498 Apr 17 17:09	15°♄34'24	
morning rise	3497 May 06 07:48	3°♄54'14		desc. node	3498 Apr 23 18:57	13°♄30'10	
desc. node	3497 May 06 21:55	3°♄37'29		direct	3498 Apr 24 07:37	13°♄29'23	
direct	3497 May 12 05:44	2°♄24'28		morning max el	3498 May 08 14:39	21°♄21'56	27°38'09
morning max el	3497 May 26 15:01	10°♄04'46	26°48'24		3498 May 16 02:59	0°♄	
	3497 Jun 10 21:33	0°♄			3498 Jun 03 20:26	0°♄	
morning set	3497 Jun 25 08:09	26°♄52'43		morning set	3498 Jun 09 14:53	11°♄28'11	

asc. node	3498 Jun 13 10:09	19° Π 31'46		morning set	3499 May 24 16:15	25° \mathcal{B} 44'56	
max. Earth dist.	3498 Jun 15 21:35	24° Π 55'26	1.32117 AU		3499 May 26 17:58	0° Π	
				max. Earth dist.	3499 May 30 05:36	7° Π 22'16	1.32531 AU
superior conj	3498 Jun 16 20:04	26° Π 58'52	0°35'14	asc. node	3499 May 31 07:12	9° Π 40'13	
minimum elong	3498 Jun 16 18:33	26° Π 50'35	0°34'55				
	3498 Jun 18 04:59	0° \mathcal{C}		superior conj	3499 Jun 01 05:20	11° Π 40'14	0°09'41
evening rise	3498 Jun 23 16:00	11° \mathcal{C} 52'04		minimum elong	3499 Jun 01 04:53	11° Π 37'44	0°09'35
	3498 Jul 02 20:43	0° Ω		behind sun begin	3499 Jun 01 00:43	11° Π 15'06	
desc. node	3498 Jul 20 18:13	25° Ω 00'47		behind sun end	3499 Jun 01 09:03	12° Π 00'23	
evening max el	3498 Jul 20 23:36	25° Ω 13'43	25°32'02	evening rise	3499 Jun 08 03:46	26° Π 42'05	
	3498 Jul 27 03:37	0° \mathcal{M}			3499 Jun 09 17:23	0° \mathcal{C}	
retrograde	3498 Aug 03 23:07	2° \mathcal{M} 20'04			3499 Jun 27 07:41	0° Ω	
evening set	3498 Aug 09 20:57	0° \mathcal{M} 58'32		evening max el	3499 Jul 02 13:22	5° Ω 50'57	24°01'27
	3498 Aug 11 19:04	30° \mathcal{R} Ω		desc. node	3499 Jul 07 15:13	9° Ω 56'30	
min. Earth dist.	3498 Aug 14 11:36	28° Ω 19'04	0.58104 AU	retrograde	3499 Jul 16 07:47	12° Ω 46'48	
inferior conj	3498 Aug 17 15:20	26° Ω 06'18	-5°06'08	evening set	3499 Jul 20 20:05	12° Ω 01'45	
minimum elong	3498 Aug 17 16:56	26° Ω 03'28	5°06'04	min. Earth dist.	3499 Jul 26 23:50	9° Ω 02'03	0.56325 AU
morning rise	3498 Aug 25 15:12	21° Ω 48'04		inferior conj	3499 Jul 29 10:25	7° Ω 32'02	-4°56'46
direct	3498 Aug 28 03:28	21° Ω 28'29		minimum elong	3499 Jul 29 06:13	7° Ω 38'31	4°56'20
morning max el	3498 Sep 05 15:24	25° Ω 30'22	18°49'27	morning rise	3499 Aug 06 18:58	3° Ω 33'33	
asc. node	3498 Sep 09 09:23	29° Ω 46'47		direct	3499 Aug 09 12:36	3° Ω 14'11	
	3498 Sep 09 13:21	0° \mathcal{M}		morning max el	3499 Aug 19 09:58	7° Ω 49'50	19°49'58
morning set	3498 Sep 22 02:50	21° \mathcal{M} 50'38		asc. node	3499 Aug 27 06:25	17° Ω 49'55	
	3498 Sep 26 06:37	0° $\underline{\Omega}$			3499 Sep 03 01:30	0° \mathcal{M}	
				morning set	3499 Sep 06 06:07	6° \mathcal{M} 21'10	
superior conj	3498 Sep 30 15:34	8° $\underline{\Omega}$ 26'15	1°35'17				
minimum elong	3498 Sep 30 18:11	8° $\underline{\Omega}$ 38'44	1°35'05	superior conj	3499 Sep 14 02:05	22° \mathcal{M} 12'09	1°43'38
max. Earth dist.	3498 Oct 07 16:25	21° $\underline{\Omega}$ 22'27	1.39254 AU	minimum elong	3499 Sep 14 02:58	22° \mathcal{M} 16'34	1°43'35
evening rise	3498 Oct 11 15:00	28° $\underline{\Omega}$ 13'56			3499 Sep 18 01:51	0° $\underline{\Omega}$	
	3498 Oct 12 16:00	0° \mathcal{M}		max. Earth dist.	3499 Sep 19 21:20	3° $\underline{\Omega}$ 26'13	1.37208 AU
desc. node	3498 Oct 16 17:34	6° \mathcal{M} 43'20		evening rise	3499 Sep 23 16:06	10° $\underline{\Omega}$ 23'16	
	3498 Nov 01 05:06	0° \mathcal{X}		desc. node	3499 Oct 03 14:35	27° $\underline{\Omega}$ 14'34	
evening max el	3498 Nov 15 22:06	18° \mathcal{X} 00'53	24°18'11		3499 Oct 05 08:25	0° \mathcal{M}	
retrograde	3498 Nov 27 03:43	24° \mathcal{X} 35'39			3499 Oct 27 17:52	0° \mathcal{X}	
evening set	3498 Dec 02 12:34	22° \mathcal{X} 21'15		evening max el	3499 Oct 29 10:21	1° \mathcal{X} 42'29	25°32'08
asc. node	3498 Dec 06 08:36	18° \mathcal{X} 06'24		retrograde	3499 Nov 10 14:37	8° \mathcal{X} 42'07	
min. Earth dist.	3498 Dec 07 05:30	16° \mathcal{X} 57'18	0.67706 AU	evening set	3499 Nov 16 13:27	6° \mathcal{X} 13'18	
inferior conj	3498 Dec 07 23:38	15° \mathcal{X} 56'23	0°33'12	min. Earth dist.	3499 Nov 20 22:41	1° \mathcal{X} 24'08	0.67112 AU
minimum elong	3498 Dec 07 22:50	15° \mathcal{X} 59'03	0°32'52	inferior conj	3499 Nov 22 03:46	29° \mathcal{M} 50'54	-0°22'12
morning rise	3498 Dec 13 09:09	9° \mathcal{X} 53'20		minimum elong	3499 Nov 22 04:20	29° \mathcal{M} 49'04	0°21'57
direct	3498 Dec 17 05:18	8° \mathcal{X} 29'11			3499 Nov 22 00:56	30° \mathcal{R} \mathcal{M}	
morning max el	3498 Dec 25 00:40	12° \mathcal{X} 56'53	20°18'27	asc. node	3499 Nov 23 05:38	28° \mathcal{M} 28'49	
	3499 Jan 07 04:15	0° \mathcal{Z}		morning rise	3499 Nov 27 19:32	23° \mathcal{M} 55'46	
desc. node	3499 Jan 12 16:49	8° \mathcal{Z} 10'20		direct	3499 Dec 01 03:55	22° \mathcal{M} 51'10	
morning set	3499 Jan 21 21:12	22° \mathcal{Z} 10'11		morning max el	3499 Dec 08 05:43	26° \mathcal{M} 48'34	19°16'57
	3499 Jan 26 21:40	0° \approx			3499 Dec 11 02:19	0° \mathcal{X}	
max. Earth dist.	3499 Jan 31 21:40	7° \approx 56'48	1.43614 AU	greatest brilliancy	3499 Dec 21 21:46	15° \mathcal{X} 14'48	-0.7m
				desc. node	3499 Dec 30 13:52	28° \mathcal{X} 34'36	
superior conj	3499 Feb 06 21:54	17° \approx 43'56	-2°04'18		3499 Dec 31 11:54	0° \mathcal{Z}	
minimum elong	3499 Feb 06 18:41	17° \approx 30'37	2°04'12	morning set	3499 Dec 31 21:41	0° \mathcal{Z} 37'54	
	3499 Feb 14 04:57	0° \mathcal{H}		max. Earth dist.	3500 Jan 14 12:12	21° \mathcal{Z} 53'13	1.44774 AU
evening rise	3499 Feb 19 12:52	9° \mathcal{H} 12'43					
	3499 Mar 03 22:52	0° \mathcal{Y}		superior conj	3500 Jan 17 15:34	26° \mathcal{Z} 51'38	-1°44'26
asc. node	3499 Mar 04 07:55	0° \mathcal{Y} 33'01		minimum elong	3500 Jan 17 07:07	26° \mathcal{Z} 18'04	1°43'44
evening max el	3499 Mar 09 01:28	6° \mathcal{Y} 26'14	18°08'44		3500 Jan 19 14:50	0° \approx	
retrograde	3499 Mar 15 12:30	9° \mathcal{Y} 49'22		evening rise	3500 Feb 01 02:20	20° \approx 19'21	
evening set	3499 Mar 18 08:14	9° \mathcal{Y} 09'23			3500 Feb 06 22:30	0° \mathcal{H}	
inferior conj	3499 Mar 24 14:21	3° \mathcal{Y} 58'28	3°33'07	asc. node	3500 Feb 19 04:56	18° \mathcal{H} 19'13	
minimum elong	3499 Mar 24 15:36	3° \mathcal{Y} 55'11	3°33'02	evening max el	3500 Feb 20 13:50	19° \mathcal{H} 48'33	18°26'12
min. Earth dist.	3499 Mar 27 10:31	1° \mathcal{Y} 00'47	0.62451 AU	retrograde	3500 Feb 27 01:53	23° \mathcal{H} 21'19	
	3499 Mar 28 11:27	30° \mathcal{R} \mathcal{H}		evening set	3500 Mar 02 03:18	22° \mathcal{H} 29'41	
morning rise	3499 Mar 30 21:40	27° \mathcal{H} 56'40		inferior conj	3500 Mar 07 23:55	17° \mathcal{H} 00'10	3°37'58
direct	3499 Apr 06 19:02	25° \mathcal{H} 23'30		minimum elong	3500 Mar 07 23:28	17° \mathcal{H} 01'29	3°37'58
desc. node	3499 Apr 10 15:59	26° \mathcal{H} 06'47		min. Earth dist.	3500 Mar 10 05:03	14° \mathcal{H} 25'46	0.64333 AU
	3499 Apr 17 03:28	0° \mathcal{Y}		morning rise	3500 Mar 13 18:57	10° \mathcal{H} 50'47	
morning max el	3499 Apr 20 20:12	3° \mathcal{Y} 21'09	27°50'50	direct	3500 Mar 20 14:36	8° \mathcal{H} 02'09	
	3499 May 10 15:01	0° \mathcal{B}		desc. node	3500 Mar 28 13:02	11° \mathcal{H} 03'09	

morning max el	3500 Apr 03 05:27	15° X 56'47	27°27'08	morning max el	3501 Mar 16 15:25	28° \approx 56'29	26°33'04
	3500 Apr 14 19:12	0° Y			3501 Mar 17 16:03	0° X	
	3500 May 03 08:47	0° B			3501 Apr 08 14:49	0° Y	
morning set	3500 May 08 09:39	9° B 34'39		morning set	3501 Apr 21 15:39	22° Y 47'13	
max. Earth dist.	3500 May 13 06:02	19° B 22'37	1.33378 AU	max. Earth dist.	3501 Apr 25 09:22	0° B	
					3501 Apr 25 19:30	0° B 49'59	1.34688 AU
superior conj	3500 May 16 10:38	26° B 05'08	-0°18'04	superior conj	3501 Apr 30 09:44	10° B 07'21	-0°46'52
minimum elong	3500 May 16 11:33	26° B 10'01	0°17'52	minimum elong	3501 Apr 30 12:12	10° B 20'04	0°46'23
asc. node	3500 May 18 04:14	29° B 47'09		asc. node	3501 May 05 01:18	19° B 48'43	
	3500 May 18 06:38	0° II		evening rise	3501 May 08 00:17	25° B 59'13	
evening rise	3500 May 23 15:10	11° II 26'26			3501 May 09 23:13	0° II	
	3500 Jun 02 04:29	0° B		evening max el	3501 May 27 02:51	27° II 02'48	20°56'06
evening max el	3500 Jun 14 03:50	16° B 16'17	22°24'44		3501 May 30 16:23	0° B	
desc. node	3500 Jun 24 12:15	22° B 28'01		retrograde	3501 Jun 07 17:37	2° B 43'30	
retrograde	3500 Jun 27 04:33	22° B 44'33		evening set	3501 Jun 09 21:10	2° B 32'35	
evening set	3500 Jun 30 05:35	22° B 24'05		desc. node	3501 Jun 11 09:16	2° B 12'39	
min. Earth dist.	3500 Jul 08 10:41	18° B 50'28	0.55152 AU		3501 Jun 16 15:54	30° R II	
inferior conj	3500 Jul 09 11:45	18° B 14'58	-3°58'59	inferior conj	3501 Jun 19 05:16	28° II 35'02	-2°16'29
minimum elong	3500 Jul 09 03:30	18° B 26'40	3°56'57	minimum elong	3501 Jun 18 22:58	28° II 43'58	2°14'17
morning rise	3500 Jul 18 03:28	14° B 24'15		min. Earth dist.	3501 Jun 19 22:37	28° II 10'26	0.54867 AU
direct	3500 Jul 21 04:19	14° B 03'23		morning rise	3501 Jun 28 00:35	24° II 32'48	
morning max el	3500 Aug 01 16:54	19° B 25'08	21°11'12	direct	3501 Jul 01 13:43	24° II 05'39	
	3500 Aug 10 05:11	0° Ω			3501 Jul 14 05:19	0° B	
asc. node	3500 Aug 14 03:29	6° Ω 33'35		morning max el	3501 Jul 14 13:21	0° B 18'32	22°48'24
morning set	3500 Aug 21 14:09	21° Ω 05'15		asc. node	3501 Aug 01 00:34	25° B 47'53	
	3500 Aug 25 20:28	0° B			3501 Aug 03 03:36	0° Ω	
superior conj	3500 Aug 28 23:06	6° B 29'03	1°43'55	morning set	3501 Aug 06 00:57	5° Ω 57'27	
minimum elong	3500 Aug 28 22:28	6° B 25'50	1°43'54	superior conj	3501 Aug 13 03:16	21° Ω 06'53	1°37'35
max. Earth dist.	3500 Sep 02 07:08	15° B 17'03	1.35396 AU	minimum elong	3501 Aug 13 01:35	20° Ω 57'53	1°37'28
evening rise	3500 Sep 06 11:56	23° B 25'26		max. Earth dist.	3501 Aug 16 01:44	27° Ω 18'31	1.33953 AU
	3500 Sep 10 01:29	0° Ω			3501 Aug 17 08:56	0° B	
desc. node	3500 Sep 20 11:36	17° Ω 30'20		evening rise	3501 Aug 20 22:08	7° B 09'00	
	3500 Sep 29 00:05	0° B			3501 Sep 02 15:14	0° Ω	
evening max el	3500 Oct 11 22:39	15° B 21'52	26°33'02	desc. node	3501 Sep 07 08:36	7° Ω 23'48	
retrograde	3500 Oct 24 20:29	22° B 35'48		evening max el	3501 Sep 24 11:01	28° Ω 51'05	27°13'24
evening set	3500 Oct 31 08:30	19° B 56'49			3501 Sep 25 16:49	0° B	
min. Earth dist.	3500 Nov 04 10:43	15° B 43'21	0.66168 AU	retrograde	3501 Oct 07 20:40	6° B 09'16	
inferior conj	3500 Nov 06 03:16	13° B 41'37	-1°21'10	evening set	3501 Oct 14 19:20	3° B 27'24	
minimum elong	3500 Nov 06 05:29	13° B 34'58	1°20'14		3501 Oct 18 11:17	30° R Ω	
asc. node	3500 Nov 10 02:41	9° B 23'46		min. Earth dist.	3501 Oct 18 15:17	29° Ω 49'17	0.64876 AU
morning rise	3500 Nov 12 03:07	7° B 56'57		inferior conj	3501 Oct 20 19:56	27° Ω 24'15	-2°21'50
direct	3500 Nov 15 01:47	7° B 08'14		minimum elong	3501 Oct 20 23:52	27° Ω 13'23	2°20'19
morning max el	3500 Nov 21 17:13	10° B 46'13	18°31'12	morning rise	3501 Oct 27 05:26	21° Ω 53'04	
	3500 Dec 05 10:12	0° X		asc. node	3501 Oct 27 23:46	21° Ω 34'58	
morning set	3500 Dec 11 21:45	10° X 19'55		direct	3501 Oct 29 20:50	21° Ω 16'17	
desc. node	3500 Dec 17 10:55	19° X 09'59		morning max el	3501 Nov 05 08:37	24° Ω 44'01	18°02'08
	3500 Dec 24 07:37	0° B			3501 Nov 09 16:47	0° B	
superior conj	3500 Dec 27 18:20	5° B 24'46	-1°06'22	morning set	3501 Nov 23 03:16	21° B 29'34	
minimum elong	3500 Dec 27 10:20	4° B 53'19	1°05'24		3501 Nov 28 06:25	0° X	
max. Earth dist.	3500 Dec 28 06:18	6° B 11'40	1.45228 AU	desc. node	3501 Dec 04 07:55	9° X 52'30	
	3501 Jan 12 09:12	0° \approx		superior conj	3501 Dec 07 02:27	14° X 19'13	-0°18'52
evening rise	3501 Jan 12 16:29	0° \approx 28'51		minimum elong	3501 Dec 07 00:07	14° X 09'54	0°18'33
greatest brilliancy	3501 Jan 21 23:01	15° \approx 09'21	-0.8m	max. Earth dist.	3501 Dec 11 01:16	20° X 35'16	1.44945 AU
	3501 Feb 01 03:11	0° X			3501 Dec 17 01:28	0° B	
evening max el	3501 Feb 03 23:50	3° X 17'11	19°01'29	evening rise	3501 Dec 23 10:21	9° B 52'20	
asc. node	3501 Feb 06 01:58	5° X 11'02			3502 Jan 05 15:00	0° \approx	
retrograde	3501 Feb 10 20:54	7° X 10'37		greatest brilliancy	3502 Jan 06 07:24	1° \approx 00'56	-0.7m
evening set	3501 Feb 14 04:46	6° X 06'24		evening max el	3502 Jan 18 05:34	16° \approx 48'14	19°52'57
inferior conj	3501 Feb 19 19:01	0° X 20'18	3°26'56	asc. node	3502 Jan 23 23:02	20° \approx 53'33	
minimum elong	3501 Feb 19 17:20	0° X 25'38	3°26'42	retrograde	3502 Jan 25 18:28	21° \approx 11'22	
	3501 Feb 20 01:26	30° R \approx		evening set	3502 Jan 29 10:10	19° \approx 53'22	
min. Earth dist.	3501 Feb 21 08:43	28° \approx 21'25	0.65843 AU	inferior conj	3502 Feb 03 20:34	13° \approx 52'58	3°03'43
morning rise	3501 Feb 25 05:32	24° \approx 07'34		minimum elong	3502 Feb 03 18:12	14° \approx 00'52	3°03'12
direct	3501 Mar 03 17:04	21° \approx 17'18		min. Earth dist.	3502 Feb 04 19:54	12° \approx 35'09	0.66945 AU
desc. node	3501 Mar 15 10:06	27° \approx 44'33					

morning rise	3502 Feb 09 02:00	7° \approx 39'18	direct	3503 Jan 29 14:14	19° \approx 00'29	
direct	3502 Feb 15 01:13	4° \approx 59'21	morning max el	3503 Feb 09 08:46	25° \approx 25'34	23°50'29
morning max el	3502 Feb 27 00:17	12° \approx 07'47		3503 Feb 13 12:33	0° \approx	
desc. node	3502 Mar 02 07:09	15° \approx 40'40	desc. node	3503 Feb 17 04:11	4° \approx 30'11	
	3502 Mar 13 08:55	0° \approx		3503 Mar 06 21:34	0° \approx	
	3502 Apr 01 08:03	0° \approx	morning set	3503 Mar 16 21:13	16° \approx 21'23	
morning set	3502 Apr 04 05:27	5° \approx 08'01	max. Earth dist.	3503 Mar 20 17:20	23° \approx 02'42	1.38530 AU
max. Earth dist.	3502 Apr 07 21:36	11° \approx 53'06		3503 Mar 24 13:48	0° \approx	
		1.36447 AU				
superior conj	3502 Apr 13 23:44	23° \approx 38'02	superior conj	3503 Mar 28 01:02	6° \approx 27'53	-1°40'25
minimum elong	3502 Apr 14 03:38	23° \approx 57'20	minimum elong	3503 Mar 28 05:40	6° \approx 49'48	1°39'53
	3502 Apr 17 04:01	0° \approx	evening rise	3503 Apr 06 02:17	24° \approx 00'44	
asc. node	3502 Apr 21 22:20	9° \approx 39'58	asc. node	3503 Apr 08 19:21	29° \approx 16'18	
evening rise	3502 Apr 22 04:51	10° \approx 12'59		3503 Apr 09 04:29	0° \approx	
	3502 May 02 22:24	0° \approx	evening max el	3503 Apr 22 11:55	20° \approx 31'20	18°51'34
evening max el	3502 May 09 13:50	8° \approx 12'13	retrograde	3503 Apr 30 19:33	24° \approx 35'07	
retrograde	3502 May 19 10:37	13° \approx 14'39	evening set	3503 May 02 23:27	24° \approx 19'42	
evening set	3502 May 21 10:02	13° \approx 03'59	inferior conj	3503 May 10 23:12	20° \approx 01'07	1°27'05
desc. node	3502 May 29 06:20	9° \approx 13'09	minimum elong	3503 May 11 02:16	19° \approx 55'34	1°26'04
inferior conj	3502 May 30 05:16	9° \approx 01'45	min. Earth dist.	3503 May 14 04:07	17° \approx 43'24	0.57049 AU
minimum elong	3502 May 30 04:31	9° \approx 02'56	desc. node	3503 May 16 03:22	16° \approx 26'34	
min. Earth dist.	3502 Jun 01 12:03	7° \approx 13'54	morning rise	3503 May 19 01:54	14° \approx 54'54	
morning rise	3502 Jun 07 20:39	4° \approx 13'51	direct	3503 May 24 10:54	13° \approx 45'19	
direct	3502 Jun 12 05:46	3° \approx 14'17	morning max el	3503 Jun 07 18:48	21° \approx 12'47	26°05'03
morning max el	3502 Jun 26 03:49	10° \approx 14'52		3503 Jun 15 10:06	0° \approx	
	3502 Jul 10 15:46	0° \approx		3503 Jul 03 05:30	0° \approx	
asc. node	3502 Jul 18 21:37	15° \approx 24'09	morning set	3503 Jul 05 23:55	5° \approx 43'53	
morning set	3502 Jul 21 12:45	20° \approx 52'03	asc. node	3503 Jul 05 18:37	5° \approx 15'59	
	3502 Jul 25 18:29	0° \approx				
superior conj	3502 Jul 28 11:59	5° \approx 57'04	superior conj	3503 Jul 12 23:08	20° \approx 52'37	1°09'12
minimum elong	3502 Jul 28 09:44	5° \approx 44'48	minimum elong	3503 Jul 12 20:49	20° \approx 39'49	1°08'49
max. Earth dist.	3502 Jul 30 05:07	9° \approx 39'59	max. Earth dist.	3503 Jul 13 14:33	22° \approx 17'26	1.32288 AU
evening rise	3502 Aug 04 18:43	21° \approx 02'19	evening rise	3503 Jul 17 03:27	0° \approx	
	3502 Aug 09 03:38	0° \approx		3503 Jul 19 22:32	5° \approx 55'40	
desc. node	3502 Aug 25 05:37	26° \approx 14'53	desc. node	3503 Aug 01 17:39	0° \approx	
	3502 Aug 27 13:53	0° \approx	evening max el	3503 Aug 12 02:38	15° \approx 22'06	
evening max el	3502 Sep 06 21:50	11° \approx 57'59		3503 Aug 20 04:15	24° \approx 27'54	27°07'22
retrograde	3502 Sep 20 14:25	19° \approx 14'10	retrograde	3503 Aug 27 16:01	0° \approx	
evening set	3502 Sep 27 18:53	16° \approx 39'21		3503 Sep 03 00:55	1° \approx 40'42	
min. Earth dist.	3502 Oct 01 10:19	13° \approx 33'17	evening set	3503 Sep 09 03:22	30° \approx 11'00	
inferior conj	3502 Oct 04 03:05	10° \approx 52'52	min. Earth dist.	3503 Sep 10 03:09	29° \approx 12'50	
minimum elong	3502 Oct 04 08:27	10° \approx 39'32	inferior conj	3503 Sep 13 18:33	26° \approx 14'19	0.61335 AU
morning rise	3502 Oct 10 23:24	5° \approx 38'34	minimum elong	3503 Sep 16 21:29	23° \approx 58'32	-4°14'52
direct	3502 Oct 13 10:09	5° \approx 10'05	morning rise	3503 Sep 17 03:14	23° \approx 45'56	4°13'32
asc. node	3502 Oct 14 20:50	5° \approx 20'14	direct	3503 Sep 24 05:04	19° \approx 04'45	
morning max el	3502 Oct 20 01:08	8° \approx 35'47	asc. node	3503 Sep 26 14:02	18° \approx 41'34	
	3502 Nov 03 04:48	0° \approx	morning set	3503 Oct 01 17:52	20° \approx 13'34	
morning set	3502 Nov 05 09:53	3° \approx 15'09	morning max el	3503 Oct 03 15:38	22° \approx 13'28	17°57'42
				3503 Oct 09 15:59	0° \approx	
superior conj	3502 Nov 17 08:55	24° \approx 12'08	morning set	3503 Oct 19 11:02	17° \approx 07'25	
minimum elong	3502 Nov 17 11:32	24° \approx 12'02		3503 Oct 26 12:55	0° \approx	
	3502 Nov 20 19:19	0° \approx	superior conj	3503 Oct 29 18:17	5° \approx 42'04	1°01'56
desc. node	3502 Nov 21 04:56	0° \approx 39'08	minimum elong	3503 Oct 29 22:33	6° \approx 00'40	1°01'24
max. Earth dist.	3502 Nov 23 18:39	4° \approx 48'22	max. Earth dist.	3503 Nov 06 07:32	18° \approx 32'09	1.42400 AU
evening rise	3502 Dec 02 19:35	19° \approx 01'01	desc. node	3503 Nov 08 01:56	21° \approx 12'26	
	3502 Dec 10 00:40	0° \approx	evening rise	3503 Nov 12 12:28	28° \approx 13'41	
	3502 Dec 31 22:01	0° \approx		3503 Nov 13 10:11	0° \approx	
evening max el	3503 Jan 01 05:55	0° \approx 20'26		3503 Dec 03 17:22	0° \approx	
retrograde	3503 Jan 09 16:23	5° \approx 20'01	evening max el	3503 Dec 15 00:44	13° \approx 53'24	22°12'49
asc. node	3503 Jan 10 20:05	5° \approx 12'43	retrograde	3503 Dec 24 12:52	19° \approx 32'45	
evening set	3503 Jan 13 17:32	3° \approx 46'58	asc. node	3503 Dec 28 17:07	17° \approx 59'31	
	3503 Jan 17 07:01	30° \approx 13'03	evening set	3503 Dec 29 01:09	17° \approx 43'43	
inferior conj	3503 Jan 19 02:06	27° \approx 34'58	inferior conj	3504 Jan 03 09:34	11° \approx 23'24	1°50'13
minimum elong	3503 Jan 18 23:36	27° \approx 43'37	minimum elong	3504 Jan 03 07:24	11° \approx 30'58	1°49'26
min. Earth dist.	3503 Jan 19 12:32	26° \approx 59'06	min. Earth dist.	3504 Jan 03 08:22	11° \approx 27'34	0.67945 AU
morning rise	3503 Jan 24 05:29	21° \approx 32'04	morning rise	3504 Jan 08 13:31	5° \approx 12'46	

direct	3504 Jan 13 07:18	3° Z 13'29		morning rise	3504 Dec 23 00:01	19° Z 09'49	
morning max el	3504 Jan 22 19:42	8° Z 49'53	22°22'02	direct	3504 Dec 27 03:36	17° Z 33'22	
desc. node	3504 Feb 04 01:11	23° Z 57'43		morning max el	3505 Jan 04 12:27	22° Z 24'02	21°00'08
	3504 Feb 08 07:28	0° \approx			3505 Jan 10 23:52	0° Z	
morning set	3504 Feb 25 09:16	26° \approx 13'49		desc. node	3505 Jan 20 22:13	13° Z 52'57	
	3504 Feb 27 16:25	0° H			3505 Jan 31 15:03	0° \approx	
max. Earth dist.	3504 Mar 01 14:02	4° H 51'05	1.40696 AU	morning set	3505 Feb 03 17:45	4° \approx 50'15	
				max. Earth dist.	3505 Feb 11 16:54	17° \approx 33'13	1.42668 AU
superior conj	3504 Mar 09 09:01	18° H 25'25	-1°59'18				
minimum elong	3504 Mar 09 12:44	18° H 42'07	1°59'05	superior conj	3505 Feb 18 18:35	29° \approx 19'03	-2°07'01
	3504 Mar 15 16:39	0° Y		minimum elong	3505 Feb 18 18:39	29° \approx 19'21	2°07'01
evening rise	3504 Mar 19 13:19	7° Y 14'14			3505 Feb 19 04:13	0° H	
asc. node	3504 Mar 25 16:23	18° Y 32'08		evening rise	3505 Mar 02 09:59	19° H 44'09	
	3504 Apr 01 23:42	0° B			3505 Mar 08 04:25	0° Y	
evening max el	3504 Apr 04 18:08	3° B 08'32	18°19'30	asc. node	3505 Mar 12 13:25	7° Y 20'07	
retrograde	3504 Apr 11 23:38	6° B 44'23		evening max el	3505 Mar 19 05:09	16° Y 09'21	18°07'12
evening set	3504 Apr 14 09:54	6° B 21'00		retrograde	3505 Mar 25 19:57	19° Y 32'56	
inferior conj	3504 Apr 21 14:40	1° B 42'18	2°39'39	evening set	3505 Mar 28 12:20	18° Y 59'28	
minimum elong	3504 Apr 21 18:20	1° B 34'33	2°38'46	inferior conj	3505 Apr 04 01:36	14° Y 00'20	3°21'04
	3504 Apr 23 14:51	30° R Y		minimum elong	3505 Apr 04 03:54	13° Y 54'43	3°20'45
min. Earth dist.	3504 Apr 25 01:07	28° Y 49'31	0.59055 AU	min. Earth dist.	3505 Apr 07 05:15	10° Y 57'12	0.61234 AU
morning rise	3504 Apr 28 23:57	26° Y 06'25		morning rise	3505 Apr 10 17:36	8° Y 05'23	
desc. node	3504 May 02 00:22	24° Y 49'40		direct	3505 Apr 17 12:07	5° Y 46'48	
direct	3504 May 05 05:44	24° Y 21'37		desc. node	3505 Apr 18 21:25	5° Y 52'19	
	3504 May 17 07:18	0° B		morning max el	3505 May 01 17:24	13° Y 43'31	27°48'17
morning max el	3504 May 19 14:59	2° B 08'24	27°14'03		3505 May 14 18:24	0° B	
	3504 Jun 08 17:34	0° II			3505 Jun 01 02:59	0° II	
morning set	3504 Jun 19 08:50	20° II 27'45		morning set	3505 Jun 03 13:34	4° II 56'04	
asc. node	3504 Jun 21 15:38	25° II 18'16		asc. node	3505 Jun 08 12:40	15° II 25'28	
	3504 Jun 23 19:38	0° E		max. Earth dist.	3505 Jun 09 12:46	17° II 36'17	1.32232 AU
superior conj	3504 Jun 26 10:57	5° E 47'54	0°48'40	superior conj	3505 Jun 10 21:39	20° II 35'46	0°24'45
minimum elong	3504 Jun 26 09:01	5° E 37'15	0°48'17	minimum elong	3505 Jun 10 20:32	20° II 29'42	0°24'30
max. Earth dist.	3504 Jun 26 02:25	5° E 00'51	1.32058 AU		3505 Jun 15 04:42	0° E	
evening rise	3504 Jul 03 07:05	20° E 41'21		evening rise	3505 Jun 17 18:12	5° E 31'11	
	3504 Jul 07 20:12	0° O			3505 Jun 30 16:06	0° O	
	3504 Jul 26 11:43	0° M		evening max el	3505 Jul 13 20:24	17° O 08'28	24°55'22
desc. node	3504 Jul 28 23:39	2° M 54'52		desc. node	3505 Jul 15 20:40	18° O 57'07	
evening max el	3504 Aug 01 03:53	6° M 11'22	26°15'10	retrograde	3505 Jul 27 19:18	24° O 12'23	
retrograde	3504 Aug 15 03:17	13° M 21'20		evening set	3505 Aug 02 03:45	23° O 07'11	
evening set	3504 Aug 21 15:25	11° M 37'28		min. Earth dist.	3505 Aug 07 07:55	20° O 20'47	0.57293 AU
min. Earth dist.	3504 Aug 25 16:48	9° M 02'15	0.59270 AU	inferior conj	3505 Aug 10 06:23	18° O 24'06	-5°07'26
inferior conj	3504 Aug 28 23:37	6° M 32'12	-4°54'26	minimum elong	3505 Aug 10 05:40	18° O 25'17	5°07'26
minimum elong	3504 Aug 29 03:36	6° M 24'35	4°53'57	morning rise	3505 Aug 18 10:08	14° O 15'03	
morning rise	3504 Sep 05 17:58	2° M 01'15		direct	3505 Aug 21 00:12	13° O 55'53	
direct	3504 Sep 08 04:06	1° M 41'01		morning max el	3505 Aug 30 01:39	18° O 10'55	19°12'29
morning max el	3504 Sep 16 00:55	5° M 28'44	18°24'32	asc. node	3505 Sep 04 11:54	24° O 41'42	
asc. node	3504 Sep 17 14:52	7° M 08'00			3505 Sep 07 20:51	0° M	
	3504 Oct 01 12:46	0° O		morning set	3505 Sep 16 00:46	15° M 18'51	
morning set	3504 Oct 02 01:21	1° O 00'12			3505 Sep 23 10:24	0° O	
superior conj	3504 Oct 11 03:04	18° O 11'44	1°26'11	superior conj	3505 Sep 24 05:36	1° O 33'24	1°39'53
minimum elong	3504 Oct 11 06:36	18° O 28'02	1°25'50	minimum elong	3505 Sep 24 07:29	1° O 42'34	1°39'46
	3504 Oct 17 17:12	0° M		max. Earth dist.	3505 Sep 30 18:48	13° O 52'15	1.38370 AU
max. Earth dist.	3504 Oct 18 14:45	1° M 33'14	1.40452 AU	evening rise	3505 Oct 04 13:46	20° O 37'10	
evening rise	3504 Oct 23 01:20	9° M 03'15			3505 Oct 10 02:48	0° M	
desc. node	3504 Oct 24 22:57	12° M 10'26		desc. node	3505 Oct 11 19:59	2° M 47'34	
	3504 Nov 05 10:47	0° Z			3505 Oct 30 12:10	0° Z	
evening max el	3504 Nov 26 15:23	27° Z 29'20	23°32'31	evening max el	3505 Nov 09 04:04	11° Z 09'39	24°50'47
	3504 Nov 29 08:34	0° Z		retrograde	3505 Nov 20 20:10	17° Z 56'42	
retrograde	3504 Dec 07 06:30	3° Z 46'21		evening set	3505 Nov 26 10:48	15° Z 36'03	
evening set	3504 Dec 12 07:26	1° Z 41'04		min. Earth dist.	3505 Dec 01 00:25	10° Z 26'26	0.67493 AU
	3504 Dec 14 00:41	30° R Z		asc. node	3505 Dec 01 11:09	9° Z 51'02	
asc. node	3504 Dec 14 14:08	29° Z 21'35		inferior conj	3505 Dec 01 23:06	9° Z 11'29	0°10'14
min. Earth dist.	3504 Dec 17 05:07	25° Z 57'35	0.67893 AU	minimum elong	3505 Dec 01 22:51	9° Z 12'19	0°10'07
inferior conj	3504 Dec 17 17:09	25° Z 16'23	1°02'57	transit middle	3505 Dec 01 22:51	9° Z 12'19	0°10'07
minimum elong	3504 Dec 17 15:44	25° Z 21'14	1°02'24	transit begin	3505 Dec 01 20:42	9° Z 19'27	

transit end	3505 Dec 02 01:00	9°♊05'12			3506 Nov 09 15:35	30°♏♏	
morning rise	3505 Dec 07 11:02	3°♊11'13		evening set	3506 Nov 10 09:28	29°♏24'41	
direct	3505 Dec 11 01:54	1°♊55'46		min. Earth dist.	3506 Nov 14 15:47	24°♏50'27	0.66754 AU
morning max el	3505 Dec 18 12:59	6°♊09'34	19°50'20	inferior conj	3506 Nov 16 01:33	23°♏04'55	-0°46'52
	3506 Jan 05 01:46	0°♊		minimum elong	3506 Nov 16 02:47	23°♏01'01	0°46'19
desc. node	3506 Jan 07 19:16	4°♊08'23		asc. node	3506 Nov 18 08:13	20°♏20'30	
morning set	3506 Jan 13 13:44	12°♊59'16		morning rise	3506 Nov 21 20:31	17°♏13'39	
	3506 Jan 24 10:47	0°♊		direct	3506 Nov 25 00:34	16°♏16'07	
max. Earth dist.	3506 Jan 25 03:32	1°♊06'35	1.44186 AU	morning max el	3506 Dec 01 20:57	20°♏03'51	18°55'25
					3506 Dec 09 16:32	0°♊	
superior conj	3506 Jan 30 02:24	9°♊03'43	-1°58'19	morning set	3506 Dec 23 22:30	21°♊54'04	
minimum elong	3506 Jan 29 20:37	8°♊40'19	1°58'00	desc. node	3506 Dec 25 16:17	24°♊37'41	
	3506 Feb 11 16:30	0°♊			3506 Dec 29 02:37	0°♊	
evening rise	3506 Feb 12 11:59	1°♊22'55		max. Earth dist.	3507 Jan 07 20:16	15°♊15'40	1.45063 AU
asc. node	3506 Feb 27 10:28	25°♊32'07					
evening max el	3506 Mar 02 17:56	29°♊26'19	18°14'00	superior conj	3507 Jan 09 11:42	17°♊50'51	-1°30'09
	3506 Mar 03 07:53	0°♊		minimum elong	3507 Jan 09 02:32	17°♊14'45	1°29'14
retrograde	3506 Mar 09 04:16	2°♊51'47			3507 Jan 17 03:38	0°♊	
evening set	3506 Mar 12 02:25	2°♊06'57		evening rise	3507 Jan 24 15:34	12°♊04'40	
	3506 Mar 15 01:13	30°♊			3507 Feb 04 18:19	0°♊	
inferior conj	3506 Mar 18 04:05	26°♊48'12	3°37'24	evening max el	3507 Feb 14 05:38	12°♊51'58	18°39'07
minimum elong	3506 Mar 18 04:34	26°♊46'52	3°37'24	asc. node	3507 Feb 14 07:32	12°♊56'46	
min. Earth dist.	3506 Mar 20 18:11	23°♊58'16	0.63292 AU	retrograde	3507 Feb 20 20:24	16°♊31'53	
morning rise	3506 Mar 24 05:44	20°♊42'43		evening set	3507 Feb 24 00:33	15°♊34'49	
direct	3506 Mar 31 03:31	18°♊00'56		inferior conj	3507 Mar 01 18:06	9°♊57'58	3°34'56
desc. node	3506 Apr 05 18:27	19°♊32'25		minimum elong	3507 Mar 01 17:04	10°♊01'07	3°34'52
morning max el	3506 Apr 14 00:40	25°♊58'36	27°44'54	min. Earth dist.	3507 Mar 03 16:33	7°♊37'53	0.65033 AU
	3506 Apr 17 18:06	0°♊		morning rise	3507 Mar 07 09:06	3°♊47'04	
	3506 May 08 07:19	0°♊		direct	3507 Mar 14 02:01	0°♊56'15	
morning set	3506 May 18 11:53	19°♊01'54		desc. node	3507 Mar 23 15:30	5°♊17'13	
max. Earth dist.	3506 May 23 17:47	29°♊51'35	1.32832 AU	morning max el	3507 Mar 27 10:20	8°♊45'00	27°07'19
	3506 May 23 19:23	0°♊			3507 Apr 13 00:13	0°♊	
superior conj	3506 May 26 05:29	5°♊10'44	-0°01'52		3507 Apr 30 16:14	0°♊	
minimum elong	3506 May 26 05:35	5°♊11'13	0°01'52	morning set	3507 May 02 00:51	2°♊36'19	
behind sun begin	3506 May 26 00:19	4°♊42'56		max. Earth dist.	3507 May 06 13:52	11°♊37'33	1.33883 AU
behind sun end	3506 May 26 10:50	5°♊39'32					
asc. node	3506 May 26 09:44	5°♊33'39		superior conj	3507 May 10 08:26	19°♊26'18	-0°30'14
evening rise	3506 Jun 02 06:02	20°♊19'10		minimum elong	3507 May 10 09:59	19°♊34'32	0°29'54
	3506 Jun 06 23:16	0°♊		asc. node	3507 May 13 06:49	25°♊38'33	
evening max el	3506 Jun 25 09:40	27°♊36'51	23°20'15		3507 May 15 08:01	0°♊	
	3506 Jun 28 02:39	0°♊		evening rise	3507 May 17 16:41	4°♊59'01	
desc. node	3506 Jul 02 17:42	2°♊55'30			3507 May 31 10:12	0°♊	
retrograde	3506 Jul 08 22:33	4°♊22'55		evening max el	3507 Jun 07 02:58	8°♊07'11	21°45'22
evening set	3506 Jul 12 18:58	3°♊50'29		retrograde	3507 Jun 19 14:32	14°♊16'43	
min. Earth dist.	3506 Jul 19 19:23	0°♊37'54	0.55734 AU	desc. node	3507 Jun 19 14:42	14°♊16'43	
	3506 Jul 20 21:12	30°♊		evening set	3507 Jun 22 04:28	14°♊01'43	
inferior conj	3506 Jul 21 17:15	29°♊30'22	-4°38'34	inferior conj	3507 Jul 01 13:31	9°♊59'28	-3°19'49
minimum elong	3506 Jul 21 10:46	29°♊39'56	4°37'29	minimum elong	3507 Jul 01 05:19	10°♊10'56	3°17'22
morning rise	3506 Jul 30 04:59	25°♊36'43		min. Earth dist.	3507 Jul 01 06:08	10°♊09'47	0.54912 AU
direct	3506 Aug 02 01:27	25°♊16'55		morning rise	3507 Jul 10 07:27	6°♊06'43	
	3506 Aug 12 10:18	0°♊		direct	3507 Jul 13 12:58	5°♊43'51	
morning max el	3506 Aug 12 15:14	0°♊11'19	20°22'03	morning max el	3507 Jul 25 17:10	11°♊26'53	21°51'10
asc. node	3506 Aug 22 08:58	13°♊03'11			3507 Aug 08 03:32	0°♊	
morning set	3506 Aug 31 06:21	29°♊55'39		asc. node	3507 Aug 09 06:02	2°♊01'00	
	3506 Aug 31 07:12	0°♊		morning set	3507 Aug 15 15:49	14°♊44'17	
superior conj	3506 Sep 07 21:00	15°♊33'18	1°44'38				
minimum elong	3506 Sep 07 21:13	15°♊34'19	1°44'38	superior conj	3507 Aug 22 21:26	0°♊00'20	1°41'58
max. Earth dist.	3506 Sep 13 01:15	25°♊47'36	1.36406 AU	minimum elong	3507 Aug 22 20:18	29°♊54'23	1°41'56
	3506 Sep 15 06:23	0°♊			3507 Aug 22 21:23	0°♊	
evening rise	3506 Sep 16 23:24	3°♊10'19		max. Earth dist.	3507 Aug 26 15:00	7°♊42'56	1.34733 AU
desc. node	3506 Sep 28 17:01	23°♊12'53		evening rise	3507 Aug 31 01:52	16°♊31'40	
	3506 Oct 03 02:43	0°♊			3507 Sep 07 10:29	0°♊	
evening max el	3506 Oct 22 16:29	24°♊51'45	26°00'10	desc. node	3507 Sep 15 14:02	13°♊20'38	
	3506 Oct 29 02:27	0°♊			3507 Sep 27 13:04	0°♊	
retrograde	3506 Nov 04 04:53	1°♊58'10		evening max el	3507 Oct 05 05:04	8°♊28'56	26°53'07
				retrograde	3507 Oct 18 08:13	15°♊44'54	
				evening set	3507 Oct 25 01:20	13°♊03'37	

min. Earth dist.	3507 Oct 29 00:48	9° \mathbb{M} 05'33	0.65669 AU	min. Earth dist.	3508 Oct 11 01:20	23° \mathbb{Q} 03'36	0.64226 AU
inferior conj	3507 Oct 30 22:27	6° \mathbb{M} 53'16	-1°46'46	inferior conj	3508 Oct 13 11:22	20° \mathbb{Q} 30'32	-2°47'24
minimum elong	3507 Oct 31 01:24	6° \mathbb{M} 44'41	1°45'34	minimum elong	3508 Oct 13 16:00	20° \mathbb{Q} 18'19	2°45'45
asc. node	3507 Nov 05 05:16	1° \mathbb{M} 44'37		morning rise	3508 Oct 20 01:25	15° \mathbb{Q} 06'26	
morning rise	3507 Nov 06 02:15	1° \mathbb{M} 14'01		asc. node	3508 Oct 22 02:18	14° \mathbb{Q} 34'59	
direct	3507 Nov 08 21:37	0° \mathbb{M} 30'43		direct	3508 Oct 22 14:29	14° \mathbb{Q} 33'39	
morning max el	3507 Nov 15 10:29	4° \mathbb{M} 02'51	18°16'45	morning max el	3508 Oct 29 02:47	17° \mathbb{Q} 59'22	17°55'06
	3507 Dec 03 02:07	0° \mathbb{X}			3508 Nov 06 20:46	0° \mathbb{M}	
morning set	3507 Dec 04 11:19	2° \mathbb{X} 14'54		morning set	3508 Nov 15 04:16	13° \mathbb{M} 57'51	
desc. node	3507 Dec 12 13:19	15° \mathbb{X} 16'50			3508 Nov 24 17:39	0° \mathbb{X}	
superior conj	3507 Dec 19 14:05	26° \mathbb{X} 25'41	-0°46'38	superior conj	3508 Nov 28 06:24	5° \mathbb{X} 45'46	0°01'08
minimum elong	3507 Dec 19 08:11	26° \mathbb{X} 02'27	0°45'51	minimum elong	3508 Nov 28 06:32	5° \mathbb{X} 46'18	0°01'08
max. Earth dist.	3507 Dec 21 15:43	29° \mathbb{X} 40'52	1.45206 AU	behind sun begin	3508 Nov 27 20:25	5° \mathbb{X} 05'18	
	3507 Dec 21 20:36	0° \mathbb{Z}		behind sun end	3508 Nov 28 16:39	6° \mathbb{X} 27'13	
evening rise	3508 Jan 04 20:19	21° \mathbb{Z} 52'45		desc. node	3508 Nov 28 10:20	6° \mathbb{X} 01'43	
	3508 Jan 10 01:05	0° \approx		max. Earth dist.	3508 Dec 03 10:12	14° \mathbb{X} 01'41	1.44609 AU
greatest brilliancy	3508 Jan 16 06:04	9° \approx 36'19	-0.7m		3508 Dec 13 15:42	0° \mathbb{Z}	
evening max el	3508 Jan 28 13:59	26° \approx 21'40	19°21'25	evening rise	3508 Dec 14 08:39	1° \mathbb{Z} 05'14	
asc. node	3508 Feb 01 04:34	29° \approx 20'54			3509 Jan 02 18:28	0° \approx	
	3508 Feb 02 11:58	0° \mathbb{X}		evening max el	3509 Jan 10 17:22	9° \approx 52'56	20°19'04
retrograde	3508 Feb 04 16:54	0° \mathbb{X} 26'44		asc. node	3509 Jan 18 01:35	14° \approx 29'45	
	3508 Feb 06 20:15	30° \mathbb{R} \approx		retrograde	3509 Jan 18 15:00	14° \approx 31'28	
evening set	3508 Feb 08 03:58	29° \approx 16'38		evening set	3509 Jan 22 10:26	13° \approx 07'15	
inferior conj	3508 Feb 13 16:17	23° \approx 23'51	3°18'22	inferior conj	3509 Jan 27 19:49	7° \approx 01'19	2°50'51
minimum elong	3508 Feb 13 14:14	23° \approx 30'28	3°18'00	minimum elong	3509 Jan 27 17:20	7° \approx 09'46	2°50'13
min. Earth dist.	3508 Feb 14 23:35	21° \approx 42'24	0.66369 AU	min. Earth dist.	3509 Jan 28 13:28	6° \approx 01'27	0.67287 AU
morning rise	3508 Feb 19 00:15	17° \approx 10'28		morning rise	3509 Feb 02 00:01	0° \approx 47'33	
direct	3508 Feb 25 06:48	14° \approx 23'43			3509 Feb 02 22:54	30° \mathbb{R} \mathbb{Z}	
morning max el	3508 Mar 08 20:07	21° \approx 51'17	26°02'54	direct	3509 Feb 07 17:06	28° \mathbb{Z} 14'46	
desc. node	3508 Mar 09 12:33	22° \approx 33'22			3509 Feb 13 01:04	0° \approx	
	3508 Mar 15 23:02	0° \mathbb{X}		morning max el	3509 Feb 19 04:49	5° \approx 06'44	24°41'12
	3508 Apr 05 05:57	0° \mathbb{Y}		desc. node	3509 Feb 24 09:35	10° \approx 54'42	
morning set	3508 Apr 14 00:33	15° \mathbb{Y} 28'13			3509 Mar 10 09:20	0° \mathbb{X}	
max. Earth dist.	3508 Apr 17 22:37	22° \mathbb{Y} 53'32	1.35391 AU	morning set	3509 Mar 27 05:50	27° \mathbb{X} 23'14	
	3508 Apr 21 13:13	0° \mathbb{B}			3509 Mar 28 17:07	0° \mathbb{Y}	
superior conj	3508 Apr 23 04:00	3° \mathbb{B} 15'36	-0°59'03	max. Earth dist.	3509 Mar 30 21:09	3° \mathbb{Y} 55'23	1.37301 AU
minimum elong	3508 Apr 23 07:07	3° \mathbb{B} 31'24	0°58'29	superior conj	3509 Apr 06 13:06	16° \mathbb{Y} 30'25	-1°26'24
asc. node	3508 Apr 29 03:52	15° \mathbb{B} 36'05		minimum elong	3509 Apr 06 17:26	16° \mathbb{Y} 51'32	1°25'47
evening rise	3508 May 01 00:10	19° \mathbb{B} 24'24			3509 Apr 13 08:23	0° \mathbb{B}	
	3508 May 06 08:08	0° \mathbb{I}		evening rise	3509 Apr 15 02:05	3° \mathbb{B} 28'29	
evening max el	3508 May 19 06:45	19° \mathbb{I} 07'35	20°22'59	asc. node	3509 Apr 16 00:54	5° \mathbb{B} 21'57	
retrograde	3508 May 30 03:56	24° \mathbb{I} 25'54			3509 May 01 03:04	0° \mathbb{I}	
evening set	3508 Jun 01 03:58	24° \mathbb{I} 15'53		evening max el	3509 May 01 22:45	0° \mathbb{I} 49'53	19°19'11
desc. node	3508 Jun 05 11:45	22° \mathbb{I} 53'35		retrograde	3509 May 11 02:56	5° \mathbb{I} 17'16	
inferior conj	3508 Jun 10 07:55	20° \mathbb{I} 17'48	-1°25'36	evening set	3509 May 13 03:27	5° \mathbb{I} 05'14	
minimum elong	3508 Jun 10 03:53	20° \mathbb{I} 23'42	1°24'07	inferior conj	3509 May 21 14:44	0° \mathbb{I} 57'09	0°30'31
min. Earth dist.	3508 Jun 11 18:22	19° \mathbb{I} 27'30	0.55036 AU	minimum elong	3509 May 21 16:00	0° \mathbb{I} 55'03	0°30'03
morning rise	3508 Jun 19 02:41	16° \mathbb{I} 05'14		desc. node	3509 May 23 08:46	29° \mathbb{B} 47'33	
direct	3508 Jun 22 23:12	15° \mathbb{I} 33'08			3509 May 23 01:13	30° \mathbb{R} \mathbb{B}	
morning max el	3508 Jul 06 10:24	22° \mathbb{I} 05'54	23°32'35	min. Earth dist.	3509 May 24 09:08	29° \mathbb{B} 08'01	0.56097 AU
	3508 Jul 13 08:18	0° \mathbb{Q}		morning rise	3509 May 30 01:32	26° \mathbb{B} 10'44	
asc. node	3508 Jul 26 03:05	21° \mathbb{Q} 25'18		direct	3509 Jun 03 20:34	25° \mathbb{B} 18'03	
morning set	3508 Jul 30 03:14	29° \mathbb{Q} 38'05			3509 Jun 15 03:52	0° \mathbb{I}	
	3508 Jul 30 07:23	0° \mathbb{Q}		morning max el	3509 Jun 18 00:33	2° \mathbb{I} 30'26	25°13'22
					3509 Jul 07 08:09	0° \mathbb{Q}	
superior conj	3508 Aug 06 03:48	14° \mathbb{Q} 44'15	1°33'11	asc. node	3509 Jul 13 00:08	11° \mathbb{Q} 09'02	
minimum elong	3508 Aug 06 01:49	14° \mathbb{Q} 33'32	1°33'00	morning set	3509 Jul 14 14:55	14° \mathbb{Q} 32'04	
max. Earth dist.	3508 Aug 08 13:29	19° \mathbb{Q} 52'22	1.33451 AU				
	3508 Aug 13 11:07	0° \mathbb{M}		superior conj	3509 Jul 21 13:47	29° \mathbb{Q} 37'39	1°19'15
evening rise	3508 Aug 13 16:51	0° \mathbb{M} 28'39		minimum elong	3509 Jul 21 11:27	29° \mathbb{Q} 24'50	1°18'55
	3508 Aug 30 10:29	0° \mathbb{Q}			3509 Jul 21 17:53	0° \mathbb{Q}	
desc. node	3508 Sep 01 11:03	3° \mathbb{Q} 02'10		max. Earth dist.	3509 Jul 22 19:33	2° \mathbb{Q} 20'11	1.32593 AU
evening max el	3508 Sep 16 16:46	21° \mathbb{Q} 49'26	27°22'36	evening rise	3509 Jul 28 16:50	14° \mathbb{Q} 51'26	
retrograde	3508 Sep 30 05:43	29° \mathbb{Q} 07'42			3509 Aug 05 11:55	0° \mathbb{M}	
evening set	3508 Oct 07 07:47	26° \mathbb{Q} 27'02		desc. node	3509 Aug 19 08:03	22° \mathbb{M} 06'30	



























































































































	3509 Aug 25 14:23	0°♄		evening max el	3510 Aug 12 05:48	16°♏52'44	26°49'10
evening max el	3509 Aug 30 01:51	4°♄41'19	27°22'27	retrograde	3510 Aug 26 04:06	24°♏04'07	
retrograde	3509 Sep 12 20:49	11°♄57'00		evening set	3510 Sep 02 01:42	22°♏01'04	
evening set	3509 Sep 20 01:22	9°♄28'40		min. Earth dist.	3510 Sep 05 19:54	19°♏23'21	0.60457 AU
min. Earth dist.	3509 Sep 23 15:52	6°♄33'56	0.62458 AU	inferior conj	3510 Sep 09 01:23	16°♏43'20	-4°34'05
inferior conj	3509 Sep 26 13:27	3°♄50'00	-3°45'11	minimum elong	3510 Sep 09 06:42	16°♏32'16	4°33'04
minimum elong	3509 Sep 26 19:10	3°♄36'30	3°43'33	morning rise	3510 Sep 16 13:37	11°♏58'45	
	3509 Oct 01 03:20	30°♏		direct	3510 Sep 18 22:38	11°♏37'07	
morning rise	3509 Oct 03 14:35	28°♏44'11		asc. node	3510 Sep 25 20:21	14°♏48'48	
direct	3509 Oct 06 00:05	28°♏18'26		morning max el	3510 Sep 26 07:26	15°♏14'55	18°06'37
asc. node	3509 Oct 08 23:19	28°♏59'09			3510 Oct 06 12:20	0°♄	
	3509 Oct 10 16:58	0°♄		morning set	3510 Oct 12 02:49	10°♄17'42	
morning max el	3509 Oct 12 18:50	1°♄46'02	17°51'19				
morning set	3509 Oct 28 19:28	26°♄44'38		superior conj	3510 Oct 21 20:18	28°♄13'22	1°13'36
	3509 Oct 30 15:14	0°♌		minimum elong	3510 Oct 22 00:27	28°♄31'55	1°13'07
					3510 Oct 22 20:14	0°♌	
superior conj	3509 Nov 09 00:22	16°♌21'36	0°42'46	max. Earth dist.	3510 Oct 29 11:45	11°♌28'48	1.41603 AU
minimum elong	3509 Nov 09 04:04	16°♌37'18	0°42'16	desc. node	3510 Nov 02 04:22	17°♌35'34	
desc. node	3509 Nov 15 07:20	26°♌48'59		evening rise	3510 Nov 03 19:32	20°♌14'18	
max. Earth dist.	3509 Nov 16 01:17	28°♌01'56	1.43357 AU		3510 Nov 10 00:18	0°♊	
	3509 Nov 17 06:30	0°♊			3510 Dec 01 04:39	0°♊	
evening rise	3509 Nov 23 19:04	10°♊19'11		evening max el	3510 Dec 07 08:17	7°♊00'41	22°46'33
	3509 Dec 06 20:03	0°♊		retrograde	3510 Dec 17 07:50	12°♊56'09	
evening max el	3509 Dec 24 15:16	23°♊25'26	21°28'54	evening set	3510 Dec 22 01:20	11°♊00'21	
retrograde	3510 Jan 02 12:31	28°♊42'08		asc. node	3510 Dec 22 19:36	10°♊19'28	
asc. node	3510 Jan 04 22:35	28°♊10'11		inferior conj	3510 Dec 27 10:10	4°♊37'57	1°30'57
evening set	3510 Jan 06 18:05	27°♊02'38		minimum elong	3510 Dec 27 08:16	4°♊44'33	1°30'14
inferior conj	3510 Jan 12 02:25	20°♊46'41	2°14'32	min. Earth dist.	3510 Dec 27 04:22	4°♊58'01	0.67968 AU
minimum elong	3510 Jan 11 24:00	20°♊55'06	2°13'45		3510 Dec 31 01:04	30°♏♊	
min. Earth dist.	3510 Jan 12 07:51	20°♊27'54	0.67813 AU	morning rise	3511 Jan 01 15:04	28°♊28'49	
morning rise	3510 Jan 17 05:43	14°♊34'19		direct	3511 Jan 06 02:48	26°♊39'05	
direct	3510 Jan 22 08:06	12°♊21'44			3511 Jan 13 01:35	0°♊	
morning max el	3510 Feb 01 13:47	18°♊26'42	23°12'24	morning max el	3511 Jan 15 02:42	1°♊54'49	21°46'00
desc. node	3510 Feb 11 06:35	0°♊02'06		desc. node	3511 Jan 29 03:37	19°♊43'01	
	3510 Feb 11 05:57	0°♊			3511 Feb 05 04:32	0°♊	
	3510 Mar 03 12:31	0°♋		morning set	3511 Feb 16 09:58	17°♊21'09	
morning set	3510 Mar 08 10:20	8°♋03'31		max. Earth dist.	3511 Feb 22 14:57	27°♊27'55	1.41585 AU
max. Earth dist.	3510 Mar 12 15:51	15°♋16'06	1.39456 AU		3511 Feb 24 03:22	0°♋	
superior conj	3510 Mar 20 07:37	28°♋59'39	-1°49'28	superior conj	3511 Mar 02 06:45	10°♋32'12	-2°04'15
minimum elong	3510 Mar 20 12:08	29°♋20'32	1°49'04	minimum elong	3511 Mar 02 09:18	10°♋43'21	2°04'10
	3510 Mar 20 20:38	0°♎		evening rise	3511 Mar 13 00:56	29°♋58'52	
evening rise	3510 Mar 29 19:29	17°♎02'32			3511 Mar 13 01:11	0°♎	
asc. node	3510 Apr 02 21:55	24°♎50'18		asc. node	3511 Mar 20 18:56	13°♎55'20	
	3510 Apr 05 18:09	0°♏		evening max el	3511 Mar 29 09:32	25°♎58'27	18°11'50
evening max el	3510 Apr 15 00:48	13°♏09'40	18°35'31	retrograde	3511 Apr 05 07:11	29°♎26'53	
retrograde	3510 Apr 22 19:44	16°♏59'09		evening set	3511 Apr 07 20:17	28°♎59'14	
evening set	3510 Apr 25 02:24	16°♏40'39		inferior conj	3511 Apr 14 17:57	24°♎11'35	3°00'41
inferior conj	3510 May 02 17:48	12°♏14'03	2°01'53	minimum elong	3511 Apr 14 21:10	24°♎04'19	3°00'03
minimum elong	3510 May 02 21:28	12°♏06'58	2°00'49	min. Earth dist.	3511 Apr 18 02:36	21°♎11'35	0.59993 AU
min. Earth dist.	3510 May 06 03:08	9°♏38'29	0.57866 AU	morning rise	3511 Apr 21 19:42	18°♎26'39	
desc. node	3510 May 10 05:48	7°♏03'22		desc. node	3511 Apr 27 02:50	16°♎30'59	
morning rise	3510 May 10 13:22	6°♏54'08		direct	3511 Apr 28 08:13	16°♎26'49	
direct	3510 May 16 08:13	5°♏29'43		morning max el	3511 May 12 15:53	24°♎17'48	27°33'07
morning max el	3510 May 30 17:12	13°♏06'53	26°38'02		3511 May 17 20:08	0°♏	
	3510 Jun 13 00:47	0°♐			3511 Jun 06 06:37	0°♐	
morning set	3510 Jun 29 01:18	29°♐20'41		morning set	3511 Jun 13 08:40	13°♐58'26	
	3510 Jun 29 08:45	0°♑		asc. node	3511 Jun 16 18:13	21°♐10'38	
asc. node	3510 Jun 29 21:10	1°♑05'47		max. Earth dist.	3511 Jun 19 18:08	27°♐42'40	1.32090 AU
superior conj	3510 Jul 06 01:25	14°♑33'37	1°00'57	superior conj	3511 Jun 20 12:58	29°♐26'14	0°38'53
minimum elong	3510 Jul 05 23:12	14°♑21'24	1°00'32	minimum elong	3511 Jun 20 11:20	29°♐17'15	0°38'32
max. Earth dist.	3510 Jul 06 06:20	15°♑00'42	1.32142 AU		3511 Jun 20 19:06	0°♑	
evening rise	3510 Jul 12 22:56	29°♑30'52		evening rise	3511 Jun 27 08:51	14°♑19'14	
	3510 Jul 13 04:30	0°♒			3511 Jul 05 05:22	0°♒	
	3510 Jul 29 16:59	0°♓		desc. node	3511 Jul 24 02:07	27°♒16'14	
desc. node	3510 Aug 06 05:05	10°♓18'25		evening max el	3511 Jul 25 02:25	28°♒15'50	25°44'01

	3511 Jul 27 00:43	0°♍			3512 Jun 11 06:00	0°♊	
retrograde	3511 Aug 08 01:53	5°♍23'05			3512 Jun 28 02:00	0°♊	
evening set	3511 Aug 14 03:58	3°♍55'37		evening max el	3512 Jul 05 16:42	8°♊57'39	24°15'44
min. Earth dist.	3511 Aug 18 14:34	1°♍17'57	0.58399 AU	desc. node	3512 Jul 09 23:08	12°♊30'57	
	3511 Aug 20 10:30	30°♋♊		retrograde	3512 Jul 19 12:39	15°♊56'17	
inferior conj	3511 Aug 21 19:34	29°♊00'07	-5°04'08	evening set	3512 Jul 24 06:24	15°♊06'16	
minimum elong	3511 Aug 21 21:53	28°♊55'56	5°03'59	min. Earth dist.	3512 Jul 30 03:24	12°♊10'28	0.56559 AU
morning rise	3511 Aug 29 18:03	24°♊38'42		inferior conj	3512 Aug 01 17:41	10°♊32'59	-5°01'08
direct	3511 Sep 01 05:45	24°♊18'57		minimum elong	3512 Aug 01 14:24	10°♊38'09	5°00'52
morning max el	3511 Sep 09 13:22	28°♊16'41	18°42'21	morning rise	3512 Aug 10 01:04	6°♊32'12	
	3511 Sep 11 05:09	0°♍		direct	3512 Aug 12 17:41	6°♊12'57	
asc. node	3511 Sep 12 17:24	1°♍48'56		morning max el	3512 Aug 22 09:41	10°♊42'46	19°39'34
morning set	3511 Sep 25 21:26	24°♍22'48		asc. node	3512 Aug 29 14:29	19°♊44'59	
	3511 Sep 28 18:33	0°♊			3512 Sep 04 11:48	0°♍	
				morning set	3512 Sep 08 23:49	8°♍50'31	
superior conj	3511 Oct 04 13:16	11°♊06'49	1°33'12				
minimum elong	3511 Oct 04 16:09	11°♊20'25	1°32'58	superior conj	3512 Sep 16 21:53	24°♍47'03	1°42'53
max. Earth dist.	3511 Oct 11 17:38	24°♊12'56	1.39565 AU	minimum elong	3512 Sep 16 23:02	24°♍52'43	1°42'51
	3511 Oct 15 01:47	0°♌			3512 Sep 19 13:58	0°♊	
evening rise	3511 Oct 15 18:24	1°♌10'36		max. Earth dist.	3512 Sep 22 22:05	6°♊19'40	1.37503 AU
desc. node	3511 Oct 20 01:24	8°♌17'18		evening rise	3512 Sep 26 16:20	13°♊10'56	
	3511 Nov 03 08:31	0°♌		desc. node	3512 Oct 05 22:26	28°♊50'13	
evening max el	3511 Nov 19 21:54	20°♌38'43	24°06'26		3512 Oct 06 15:55	0°♌	
retrograde	3511 Nov 30 23:46	27°♌09'06			3512 Oct 28 08:14	0°♌	
evening set	3511 Dec 06 06:35	24°♌56'57		evening max el	3512 Nov 01 10:07	4°♌19'35	25°21'45
asc. node	3511 Dec 09 16:38	21°♌13'40		retrograde	3512 Nov 13 11:27	11°♌16'34	
min. Earth dist.	3511 Dec 11 00:41	19°♌28'00	0.67767 AU	evening set	3512 Nov 19 08:11	8°♌49'40	
inferior conj	3511 Dec 11 17:16	18°♌31'58	0°41'13	min. Earth dist.	3512 Nov 23 18:30	3°♌55'12	0.67221 AU
minimum elong	3511 Dec 11 16:17	18°♌35'15	0°40'49	inferior conj	3512 Nov 24 21:56	2°♌26'28	-0°13'32
morning rise	3511 Dec 17 02:02	12°♌28'04		minimum elong	3512 Nov 24 22:16	2°♌25'21	0°13'23
direct	3511 Dec 21 00:04	11°♌00'50		transit middle	3512 Nov 24 22:16	2°♌25'21	0°13'23
morning max el	3511 Dec 28 22:42	15°♌34'03	20°28'51	transit begin	3512 Nov 24 20:42	2°♌30'26	
	3512 Jan 09 07:51	0°♎		transit end	3512 Nov 24 23:51	2°♌20'16	
desc. node	3512 Jan 16 00:39	9°♎47'43		asc. node	3512 Nov 25 13:42	1°♌35'42	
morning set	3512 Jan 26 10:24	25°♎37'56			3512 Nov 26 20:33	30°♌♌	
	3512 Jan 29 05:41	0°♏		morning rise	3512 Nov 30 12:39	26°♌29'57	
max. Earth dist.	3512 Feb 04 21:49	10°♏35'46	1.43387 AU	direct	3512 Dec 03 22:35	25°♌22'44	
				morning max el	3512 Dec 11 02:39	29°♌24'09	19°25'06
superior conj	3512 Feb 11 05:35	20°♏56'47	-2°05'37		3512 Dec 11 16:37	0°♌	
minimum elong	3512 Feb 11 03:16	20°♏47'11	2°05'33	greatest brilliancy	3512 Dec 24 10:14	17°♌12'21	-0.7m
	3512 Feb 16 14:21	0°♐		desc. node	3513 Jan 01 21:41	0°♎09'32	
evening rise	3512 Feb 23 14:14	12°♐08'36			3513 Jan 01 19:13	0°♎	
	3512 Mar 05 00:59	0°♑		morning set	3513 Jan 04 08:50	3°♎58'09	
asc. node	3512 Mar 06 15:58	2°♑29'28		max. Earth dist.	3513 Jan 17 11:17	24°♎26'12	1.44640 AU
evening max el	3512 Mar 11 21:38	9°♑07'14	18°07'42		3513 Jan 20 23:21	0°♏	
retrograde	3512 Mar 18 09:23	12°♑30'11					
evening set	3512 Mar 21 04:13	11°♑51'57		superior conj	3513 Jan 21 02:39	0°♏13'11	-1°48'43
inferior conj	3512 Mar 27 12:03	6°♑43'58	3°30'40	minimum elong	3513 Jan 20 18:45	29°♎41'39	1°48'07
minimum elong	3512 Mar 27 13:35	6°♑40'01	3°30'31	evening rise	3513 Feb 04 07:03	23°♏23'39	
min. Earth dist.	3512 Mar 30 10:17	3°♑44'09	0.62139 AU		3513 Feb 08 05:57	0°♐	
morning rise	3512 Apr 02 21:31	0°♑43'36		asc. node	3513 Feb 21 13:01	20°♐22'59	
	3512 Apr 03 23:32	30°♐♐		evening max el	3513 Feb 23 10:11	22°♐28'26	18°22'28
direct	3512 Apr 09 18:21	28°♐13'55		retrograde	3513 Mar 01 21:35	25°♐59'01	
desc. node	3512 Apr 12 23:52	28°♐44'00		evening set	3513 Mar 04 22:06	25°♐09'15	
	3512 Apr 15 23:29	0°♑		inferior conj	3513 Mar 10 19:55	19°♐42'32	3°38'22
morning max el	3512 Apr 23 20:51	6°♑11'44	27°51'25	minimum elong	3513 Mar 10 19:42	19°♐43'10	3°38'21
	3512 May 11 20:46	0°♒		min. Earth dist.	3513 Mar 13 03:26	17°♐03'33	0.64071 AU
morning set	3512 May 27 11:03	28°♒19'04		morning rise	3513 Mar 16 16:32	13°♐33'57	
	3512 May 28 06:48	0°♓		direct	3513 Mar 23 12:56	10°♐46'32	
max. Earth dist.	3512 Jun 02 03:01	10°♓13'03	1.32438 AU	desc. node	3513 Mar 30 20:54	13°♐21'33	
asc. node	3512 Jun 02 15:17	11°♓19'17		morning max el	3513 Apr 06 05:42	18°♐42'42	27°32'47
					3513 Apr 15 18:42	0°♑	
superior conj	3512 Jun 03 22:43	14°♓09'56	0°13'44		3513 May 04 18:51	0°♒	
minimum elong	3512 Jun 03 22:04	14°♓06'27	0°13'36	morning set	3513 May 11 05:50	12°♒13'28	
behind sun begin	3512 Jun 03 19:23	13°♓51'48		max. Earth dist.	3513 May 16 04:40	22°♒17'19	1.33220 AU
behind sun end	3512 Jun 04 00:46	14°♓21'05					
evening rise	3512 Jun 10 20:33	29°♓09'54		superior conj	3513 May 19 04:44	28°♒37'48	-0°13'45

minimum elong	3513 May 19 05:26	28° ♁ 41'29	0°13'36	max. Earth dist.	3514 Apr 28 19:46	3° ♁ 48'58	1.34467 AU
behind sun begin	3513 May 19 02:35	28° ♁ 26'18					
behind sun end	3513 May 19 08:16	28° ♁ 56'41		superior conj	3514 May 03 04:53	12° ♁ 43'45	-0°42'29
	3513 May 19 20:07	0° ♁		minimum elong	3514 May 03 07:07	12° ♁ 55'18	0°42'02
asc. node	3513 May 20 12:19	1° ♁ 26'47		asc. node	3514 May 07 09:22	21° ♁ 29'26	
evening rise	3513 May 26 08:07	13° ♁ 55'23		evening rise	3514 May 10 17:40	28° ♁ 30'08	
	3513 Jun 03 11:10	0° ♁			3514 May 11 11:01	0° ♁	
evening max el	3513 Jun 17 06:33	19° ♁ 22'45	22°38'58	evening max el	3514 May 30 03:56	0° ♁ 04'17	21°08'20
desc. node	3513 Jun 26 20:10	25° ♁ 26'18			3514 May 30 02:11	0° ♁	
retrograde	3513 Jun 30 11:08	25° ♁ 56'26		retrograde	3514 Jun 11 00:21	5° ♁ 52'32	
evening set	3513 Jul 03 16:44	25° ♁ 33'26		evening set	3514 Jun 13 06:02	5° ♁ 40'54	
min. Earth dist.	3513 Jul 11 14:27	22° ♁ 05'38	0.55276 AU	desc. node	3514 Jun 13 17:10	5° ♁ 35'41	
inferior conj	3513 Jul 12 21:15	21° ♁ 21'39	-4°11'04	inferior conj	3514 Jun 22 14:56	1° ♁ 42'48	-2°33'55
minimum elong	3513 Jul 12 13:16	21° ♁ 33'04	4°09'15	minimum elong	3514 Jun 22 07:58	1° ♁ 52'36	2°31'34
morning rise	3513 Jul 21 12:00	17° ♁ 30'38		min. Earth dist.	3514 Jun 23 02:00	1° ♁ 27'12	0.54851 AU
direct	3513 Jul 24 11:29	17° ♁ 10'12			3514 Jun 25 17:43	30° ♁	
morning max el	3513 Aug 04 18:21	22° ♁ 24'47	20°57'51	morning rise	3514 Jul 01 10:05	27° ♁ 43'35	
	3513 Aug 11 05:16	0° ♁		direct	3514 Jul 04 21:07	27° ♁ 17'43	
asc. node	3513 Aug 16 11:33	8° ♁ 23'14			3514 Jul 13 08:28	0° ♁	
morning set	3513 Aug 24 07:16	23° ♁ 32'54		morning max el	3514 Jul 17 15:59	3° ♁ 23'04	22°33'16
	3513 Aug 27 09:41	0° ♁		asc. node	3514 Aug 03 08:35	27° ♁ 33'21	
					3514 Aug 04 14:49	0° ♁	
superior conj	3513 Aug 31 17:33	8° ♁ 59'55	1°44'19	morning set	3514 Aug 08 17:45	8° ♁ 24'09	
minimum elong	3513 Aug 31 17:08	8° ♁ 57'46	1°44'19				
max. Earth dist.	3513 Sep 05 06:43	18° ♁ 10'17	1.35647 AU	superior conj	3514 Aug 15 20:49	23° ♁ 35'03	1°38'56
evening rise	3513 Sep 09 09:40	26° ♁ 06'06		minimum elong	3514 Aug 15 19:15	23° ♁ 26'46	1°38'49
	3513 Sep 11 12:15	0° ♁			3514 Aug 18 22:08	0° ♁	
desc. node	3513 Sep 22 19:29	19° ♁ 08'53		max. Earth dist.	3514 Aug 19 00:01	0° ♁ 09'46	1.34143 AU
	3513 Sep 30 02:18	0° ♁		evening rise	3514 Aug 23 17:57	9° ♁ 44'15	
evening max el	3513 Oct 14 22:27	18° ♁ 00'03	26°25'10		3514 Sep 03 22:49	0° ♁	
retrograde	3513 Oct 27 18:10	25° ♁ 12'35		desc. node	3514 Sep 09 16:30	9° ♁ 06'32	
evening set	3513 Nov 03 04:15	22° ♁ 34'54			3514 Sep 25 21:44	0° ♁	
min. Earth dist.	3513 Nov 07 07:31	18° ♁ 15'57	0.66328 AU	evening max el	3514 Sep 27 10:59	1° ♁ 32'05	27°09'02
inferior conj	3513 Nov 08 22:16	16° ♁ 18'16	-1°12'03	retrograde	3514 Oct 10 19:06	8° ♁ 49'42	
minimum elong	3513 Nov 09 00:14	16° ♁ 12'19	1°11'14	evening set	3514 Oct 17 16:26	6° ♁ 07'49	
asc. node	3513 Nov 12 10:45	12° ♁ 22'33		min. Earth dist.	3514 Oct 21 13:18	2° ♁ 24'33	0.65091 AU
morning rise	3513 Nov 14 20:48	10° ♁ 31'44		inferior conj	3514 Oct 23 16:05	0° ♁ 02'42	-2°12'38
direct	3513 Nov 17 20:46	9° ♁ 40'53		minimum elong	3514 Oct 23 19:47	29° ♁ 52'23	2°11'12
morning max el	3513 Nov 24 13:17	13° ♁ 21'12	18°36'54		3514 Oct 23 17:03	30° ♁	
	3513 Dec 06 16:23	0° ♁		morning rise	3514 Oct 30 00:04	24° ♁ 29'12	
morning set	3513 Dec 15 04:37	13° ♁ 27'17		asc. node	3514 Oct 30 07:48	24° ♁ 20'37	
desc. node	3513 Dec 19 18:43	20° ♁ 43'35		direct	3514 Nov 01 16:25	23° ♁ 50'49	
	3513 Dec 25 15:53	0° ♁		morning max el	3514 Nov 08 04:15	27° ♁ 19'25	18°05'21
					3514 Nov 10 13:20	0° ♁	
superior conj	3513 Dec 31 06:30	8° ♁ 48'28	-1°13'01	morning set	3514 Nov 26 05:56	24° ♁ 24'51	
minimum elong	3513 Dec 30 21:58	8° ♁ 14'56	1°12'02		3514 Nov 29 15:10	0° ♁	
max. Earth dist.	3513 Dec 31 04:55	8° ♁ 42'13	1.45207 AU	desc. node	3514 Dec 06 15:44	11° ♁ 25'26	
	3514 Jan 13 17:01	0° ♁					
evening rise	3514 Jan 16 00:36	3° ♁ 41'18		superior conj	3514 Dec 10 12:27	17° ♁ 35'57	-0°26'10
greatest brilliancy	3514 Jan 24 10:55	17° ♁ 07'13	-0.8m	minimum elong	3514 Dec 10 09:10	17° ♁ 22'55	0°25'41
	3514 Feb 01 23:56	0° ♁		max. Earth dist.	3514 Dec 14 00:13	23° ♁ 07'19	1.45037 AU
evening max el	3514 Feb 06 20:42	5° ♁ 56'43	18°55'11		3514 Dec 18 09:29	0° ♁	
asc. node	3514 Feb 08 10:03	7° ♁ 24'07		evening rise	3514 Dec 26 20:57	13° ♁ 10'18	
retrograde	3514 Feb 13 15:54	9° ♁ 46'16			3515 Jan 06 19:53	0° ♁	
evening set	3514 Feb 16 22:46	8° ♁ 43'57		greatest brilliancy	3515 Jan 09 04:24	3° ♁ 32'37	-0.7m
inferior conj	3514 Feb 22 13:48	3° ♁ 00'18	3°29'25	evening max el	3515 Jan 21 03:10	19° ♁ 27'32	19°44'20
minimum elong	3514 Feb 22 12:16	3° ♁ 05'06	3°29'14	asc. node	3515 Jan 26 07:05	23° ♁ 18'03	
min. Earth dist.	3514 Feb 24 05:46	0° ♁ 55'37	0.65648 AU	retrograde	3515 Jan 28 13:12	23° ♁ 45'34	
	3514 Feb 25 00:10	30° ♁		evening set	3515 Feb 01 03:42	22° ♁ 29'35	
morning rise	3514 Feb 28 01:22	26° ♁ 48'00		inferior conj	3515 Feb 06 14:31	16° ♁ 31'08	3°07'50
direct	3514 Mar 06 14:29	23° ♁ 57'05		minimum elong	3515 Feb 06 12:13	16° ♁ 38'44	3°07'23
desc. node	3514 Mar 17 17:55	29° ♁ 49'04		min. Earth dist.	3515 Feb 07 15:52	15° ♁ 07'12	0.66811 AU
	3514 Mar 17 22:39	0° ♁		morning rise	3515 Feb 11 20:32	10° ♁ 17'34	
morning max el	3514 Mar 19 15:34	1° ♁ 39'11	26°42'40	direct	3515 Feb 17 21:44	7° ♁ 35'37	
	3514 Apr 09 21:28	0° ♁		morning max el	3515 Mar 02 00:36	14° ♁ 49'11	25°29'39
morning set	3514 Apr 24 13:43	25° ♁ 32'02		desc. node	3515 Mar 04 14:56	17° ♁ 35'15	
	3514 Apr 26 21:21	0° ♁			3515 Mar 14 11:03	0° ♁	

	3515 Apr 02 17:37	0°♿		morning set	3516 Mar 19 01:40	19°♿25'47	
morning set	3515 Apr 07 06:14	8°♿01'16		max. Earth dist.	3516 Mar 22 19:49	26°♿01'35	1.38205 AU
max. Earth dist.	3515 Apr 10 23:31	14°♿54'48	1.36164 AU		3516 Mar 25 00:37	0°♿	
superior conj	3515 Apr 16 20:25	26°♿19'37	-1°10'58	superior conj	3516 Mar 29 23:50	9°♿16'05	-1°36'55
minimum elong	3515 Apr 17 00:08	26°♿38'07	1°10'21	minimum elong	3516 Mar 30 04:26	9°♿38'02	1°36'22
	3515 Apr 18 16:20	0°♿		evening rise	3516 Apr 07 21:43	26°♿39'32	
asc. node	3515 Apr 24 06:24	11°♿22'40			3516 Apr 09 14:42	0°♿	
evening rise	3515 Apr 24 23:02	12°♿47'14		asc. node	3516 Apr 10 03:25	1°♿01'43	
	3515 May 04 01:27	0°♿		evening max el	3516 Apr 24 09:37	23°♿21'08	18°58'06
evening max el	3515 May 12 13:04	11°♿22'33	19°53'25	retrograde	3516 May 02 22:21	27°♿30'47	
retrograde	3515 May 22 16:00	16°♿17'43		evening set	3516 May 05 01:13	27°♿16'23	
evening set	3515 May 24 15:17	16°♿07'22		inferior conj	3516 May 13 03:57	23°♿00'36	1°13'09
desc. node	3515 May 31 14:09	13°♿16'43		minimum elong	3516 May 13 06:40	22°♿55'49	1°12'15
inferior conj	3515 Jun 02 13:03	12°♿06'34	-0°34'36	min. Earth dist.	3516 May 16 06:38	20°♿49'52	0.56779 AU
minimum elong	3515 Jun 02 11:28	12°♿08'59	0°34'00	desc. node	3516 May 17 11:11	20°♿03'10	
min. Earth dist.	3515 Jun 04 14:58	10°♿50'37	0.55390 AU	morning rise	3516 May 21 08:57	17°♿59'22	
morning rise	3515 Jun 11 05:36	7°♿40'54		direct	3516 May 26 14:14	16°♿54'36	
direct	3515 Jun 15 11:21	7°♿01'26		morning max el	3516 Jun 09 21:34	24°♿18'36	25°52'24
morning max el	3515 Jun 29 06:55	13°♿52'06	24°16'22		3516 Jun 15 02:27	0°♿	
	3515 Jul 11 20:17	0°♿			3516 Jul 03 16:59	0°♿	
asc. node	3515 Jul 21 05:38	17°♿07'08		asc. node	3516 Jul 07 02:40	6°♿57'20	
morning set	3515 Jul 24 05:30	23°♿19'12		morning set	3516 Jul 07 16:52	8°♿12'05	
	3515 Jul 27 08:16	0°♿					
superior conj	3515 Jul 31 04:59	8°♿24'11	1°27'52	superior conj	3516 Jul 14 15:53	23°♿19'39	1°12'00
minimum elong	3515 Jul 31 02:47	8°♿12'14	1°27'36	minimum elong	3516 Jul 14 13:32	23°♿06'45	1°11'37
max. Earth dist.	3515 Aug 02 02:20	12°♿29'12	1.33042 AU	max. Earth dist.	3516 Jul 15 11:02	25°♿04'45	1.32353 AU
evening rise	3515 Aug 07 13:12	23°♿54'04			3516 Jul 17 17:08	0°♿	
	3515 Aug 10 14:58	0°♿		evening rise	3516 Jul 21 16:06	8°♿25'04	
desc. node	3515 Aug 27 13:31	28°♿34'15			3516 Aug 02 00:31	0°♿	
	3515 Aug 28 13:41	0°♿		desc. node	3516 Aug 13 10:32	17°♿18'49	
evening max el	3515 Sep 09 22:08	14°♿43'25	27°26'28	evening max el	3516 Aug 22 05:15	27°♿19'15	27°12'18
retrograde	3515 Sep 23 13:44	21°♿59'57			3516 Aug 25 07:23	0°♿	
evening set	3515 Sep 30 17:53	19°♿23'15		retrograde	3516 Sep 05 01:29	4°♿32'57	
min. Earth dist.	3515 Oct 04 09:46	16°♿12'57	0.63513 AU	evening set	3516 Sep 12 04:43	2°♿13'31	
inferior conj	3515 Oct 07 00:49	13°♿34'10	-3°12'33		3516 Sep 15 04:30	30°♿	
minimum elong	3515 Oct 07 06:01	13°♿21'02	3°10'50	min. Earth dist.	3516 Sep 15 19:33	29°♿28'10	0.61634 AU
morning rise	3515 Oct 13 19:30	8°♿17'13		inferior conj	3516 Sep 18 21:19	26°♿43'45	-4°07'27
direct	3515 Oct 16 06:49	7°♿47'41		minimum elong	3516 Sep 19 03:07	26°♿30'46	4°06'01
asc. node	3515 Oct 17 04:49	7°♿51'50		morning rise	3516 Sep 26 03:16	21°♿46'52	
morning max el	3515 Oct 22 20:48	11°♿12'59	17°51'14	direct	3516 Sep 28 12:16	21°♿23'08	
	3515 Nov 04 13:23	0°♿		asc. node	3516 Oct 03 01:51	22°♿54'14	
morning set	3515 Nov 08 09:15	6°♿38'15		morning max el	3516 Oct 05 11:50	24°♿53'33	17°55'27
					3516 Oct 09 16:59	0°♿	
superior conj	3515 Nov 20 15:03	27°♿26'46	0°19'58	morning set	3516 Oct 21 08:00	19°♿46'45	
minimum elong	3515 Nov 20 17:08	27°♿35'21	0°19'40		3516 Oct 26 23:22	0°♿	
	3515 Nov 22 04:22	0°♿		superior conj	3516 Oct 31 20:33	8°♿36'38	0°57'16
desc. node	3515 Nov 23 12:47	2°♿12'04		minimum elong	3516 Nov 01 00:45	8°♿54'50	0°56'42
max. Earth dist.	3515 Nov 26 18:11	7°♿23'54	1.44155 AU	max. Earth dist.	3516 Nov 08 07:36	21°♿12'16	1.42662 AU
evening rise	3515 Dec 06 06:31	22°♿19'00		desc. node	3516 Nov 09 09:49	22°♿59'37	
	3515 Dec 11 07:12	0°♿			3516 Nov 13 18:23	0°♿	
	3516 Jan 01 11:37	0°♿		evening rise	3516 Nov 14 21:16	1°♿46'15	
evening max el	3516 Jan 04 04:16	2°♿59'21	20°47'29		3516 Dec 03 19:37	0°♿	
retrograde	3516 Jan 12 11:14	7°♿53'20		evening max el	3516 Dec 16 23:50	16°♿32'20	22°01'13
asc. node	3516 Jan 13 04:05	7°♿50'37		retrograde	3516 Dec 26 08:06	22°♿06'03	
evening set	3516 Jan 16 10:52	6°♿22'31		asc. node	3516 Dec 30 01:06	20°♿52'03	
inferior conj	3516 Jan 21 19:36	0°♿11'54	2°36'23	evening set	3516 Dec 30 18:34	20°♿19'30	
minimum elong	3516 Jan 21 17:04	0°♿20'32	2°35'40	inferior conj	3517 Jan 05 02:56	14°♿00'06	1°56'52
	3516 Jan 21 23:03	30°♿		minimum elong	3517 Jan 05 00:40	14°♿07'57	1°56'04
min. Earth dist.	3516 Jan 22 07:49	29°♿29'59	0.67562 AU	min. Earth dist.	3517 Jan 05 03:24	13°♿58'27	0.67921 AU
morning rise	3516 Jan 26 23:06	23°♿58'46		morning rise	3517 Jan 10 06:37	7°♿48'53	
direct	3516 Feb 01 10:01	21°♿34'14		direct	3517 Jan 15 02:34	5°♿46'12	
morning max el	3516 Feb 12 09:06	28°♿06'26	24°03'44	morning max el	3517 Jan 24 19:29	11°♿30'09	22°34'56
	3516 Feb 14 04:19	0°♿		desc. node	3517 Feb 05 09:01	25°♿40'49	
desc. node	3516 Feb 19 11:58	6°♿17'46			3517 Feb 08 11:15	0°♿	
	3516 Mar 07 04:25	0°♿		morning set	3517 Feb 27 18:10	29°♿31'23	

	3517 Feb 28 01:09	0°♄			3518 Feb 01 22:03	0°♄	
max. Earth dist.	3517 Mar 04 15:49	7°♄42'27	1.40376 AU	morning set	3518 Feb 07 06:15	8°♄17'29	
				max. Earth dist.	3518 Feb 14 17:30	20°♄16'17	1.42399 AU
superior conj	3517 Mar 12 10:45	21°♄22'33	-1°57'03		3518 Feb 20 13:35	0°♄	
minimum elong	3517 Mar 12 14:46	21°♄40'42	1°56'47				
	3517 Mar 17 03:21	0°♄		superior conj	3518 Feb 22 00:01	2°♄26'48	-2°06'49
evening rise	3517 Mar 22 10:34	9°♄59'00		minimum elong	3518 Feb 22 00:50	2°♄30'18	2°06'48
asc. node	3517 Mar 28 00:27	20°♄21'15		evening rise	3518 Mar 05 09:41	22°♄36'08	
	3517 Apr 02 20:09	0°♄			3518 Mar 09 12:22	0°♄	
evening max el	3517 Apr 07 14:54	5°♄54'23	18°23'03	asc. node	3518 Mar 14 21:29	9°♄14'02	
retrograde	3517 Apr 14 23:35	9°♄33'20		evening max el	3518 Mar 22 01:28	18°♄52'33	18°07'48
evening set	3517 Apr 17 08:52	9°♄11'20		retrograde	3518 Mar 28 17:40	22°♄16'47	
inferior conj	3517 Apr 24 16:19	4°♄35'54	2°30'42	evening set	3518 Mar 31 09:14	21°♄44'52	
minimum elong	3517 Apr 24 20:02	4°♄28'11	2°29'46	inferior conj	3518 Apr 07 00:33	16°♄48'48	3°16'32
min. Earth dist.	3517 Apr 28 02:57	1°♄46'43	0.58736 AU	minimum elong	3518 Apr 07 03:07	16°♄42'39	3°16'08
	3517 Apr 30 14:13	30°♄		min. Earth dist.	3518 Apr 10 05:48	13°♄45'38	0.60916 AU
morning rise	3517 May 02 04:16	29°♄03'42		morning rise	3518 Apr 13 19:01	10°♄56'12	
desc. node	3517 May 04 08:12	28°♄06'05		direct	3518 Apr 20 12:22	8°♄42'05	
direct	3517 May 08 07:25	27°♄24'11		desc. node	3518 Apr 21 05:15	8°♄43'29	
	3517 May 16 07:37	0°♄		morning max el	3518 May 04 18:17	16°♄37'36	27°45'31
morning max el	3517 May 22 16:53	5°♄09'08	27°05'45		3518 May 15 18:44	0°♄	
	3517 Jun 10 00:28	0°♄			3518 Jun 02 14:28	0°♄	
morning set	3517 Jun 22 02:14	22°♄57'25		morning set	3518 Jun 06 07:44	7°♄28'19	
asc. node	3517 Jun 23 23:44	26°♄58'33		asc. node	3518 Jun 10 20:48	17°♄05'18	
	3517 Jun 25 09:23	0°♄		max. Earth dist.	3518 Jun 12 09:28	20°♄24'35	1.32181 AU
superior conj	3517 Jun 29 03:44	8°♄15'23	0°52'01	superior conj	3518 Jun 13 14:43	23°♄04'44	0°28'34
minimum elong	3517 Jun 29 01:42	8°♄04'15	0°51'38	minimum elong	3518 Jun 13 13:28	22°♄57'49	0°28'18
max. Earth dist.	3517 Jun 28 22:41	7°♄47'34	1.32066 AU		3518 Jun 16 18:23	0°♄	
evening rise	3517 Jul 06 00:06	23°♄09'20		evening rise	3518 Jun 20 10:59	7°♄59'01	
	3517 Jul 09 07:40	0°♄			3518 Jul 01 21:02	0°♄	
	3517 Jul 27 05:21	0°♄		evening max el	3518 Jul 16 23:36	20°♄13'45	25°08'38
desc. node	3517 Jul 31 07:32	5°♄02'30		desc. node	3518 Jul 18 04:32	21°♄20'29	
evening max el	3517 Aug 04 06:00	9°♄09'50	26°24'54	retrograde	3518 Jul 30 22:56	27°♄18'41	
retrograde	3517 Aug 18 05:20	16°♄20'24		evening set	3518 Aug 05 12:16	26°♄07'53	
evening set	3517 Aug 24 20:16	14°♄31'15		min. Earth dist.	3518 Aug 10 11:21	23°♄24'13	0.57568 AU
min. Earth dist.	3517 Aug 28 19:18	11°♄55'55	0.59578 AU	inferior conj	3518 Aug 13 11:56	21°♄21'37	-5°07'54
inferior conj	3517 Sep 01 02:06	9°♄22'36	-4°49'51	minimum elong	3518 Aug 13 12:05	21°♄21'21	5°07'54
minimum elong	3517 Sep 01 06:31	9°♄13'56	4°49'15	morning rise	3518 Aug 21 14:21	17°♄09'23	
morning rise	3517 Sep 08 18:55	4°♄48'07		direct	3518 Aug 24 03:42	16°♄50'07	
direct	3517 Sep 11 04:35	4°♄27'38		morning max el	3518 Sep 02 00:17	21°♄00'24	19°03'57
morning max el	3517 Sep 18 22:06	8°♄12'33	18°19'12	asc. node	3518 Sep 06 20:00	26°♄41'35	
asc. node	3517 Sep 19 22:55	9°♄15'50			3518 Sep 09 01:09	0°♄	
	3517 Oct 02 23:24	0°♄		morning set	3518 Sep 18 18:56	17°♄50'20	
morning set	3517 Oct 04 20:36	3°♄34'25			3518 Sep 24 22:30	0°♄	
superior conj	3517 Oct 14 02:08	20°♄56'38	1°23'13	superior conj	3518 Sep 27 02:23	4°♄11'49	1°38'24
minimum elong	3517 Oct 14 05:52	21°♄13'43	1°22'50	minimum elong	3518 Sep 27 04:32	4°♄22'12	1°38'17
	3517 Oct 19 03:30	0°♄		max. Earth dist.	3518 Oct 03 19:52	16°♄44'58	1.38680 AU
max. Earth dist.	3517 Oct 21 15:24	4°♄19'10	1.40755 AU	evening rise	3518 Oct 07 15:44	23°♄30'39	
evening rise	3517 Oct 26 06:42	12°♄05'44			3518 Oct 11 11:36	0°♄	
desc. node	3517 Oct 27 06:52	13°♄44'33		desc. node	3518 Oct 14 03:53	4°♄23'17	
	3517 Nov 06 16:44	0°♄			3518 Oct 31 12:09	0°♄	
	3517 Nov 29 11:50	0°♄		evening max el	3518 Nov 12 03:59	13°♄48'20	24°39'32
evening max el	3517 Nov 29 15:02	0°♄08'03	23°20'40	retrograde	3518 Nov 23 16:30	20°♄31'11	
retrograde	3517 Dec 10 02:16	6°♄19'52		evening set	3518 Nov 29 05:05	18°♄12'47	
evening set	3517 Dec 15 01:11	4°♄17'07		asc. node	3518 Dec 03 19:11	13°♄00'21	
asc. node	3517 Dec 16 22:08	2°♄25'49		min. Earth dist.	3518 Dec 03 19:53	12°♄58'05	0.67575 AU
	3517 Dec 18 21:14	30°♄		inferior conj	3518 Dec 04 16:57	11°♄48'02	0°18'35
inferior conj	3517 Dec 20 10:38	27°♄52'52	1°10'33	minimum elong	3518 Dec 04 16:29	11°♄49'33	0°18'23
minimum elong	3517 Dec 20 09:04	27°♄58'13	1°09'56	morning rise	3518 Dec 10 03:58	5°♄46'42	
min. Earth dist.	3517 Dec 20 00:13	28°♄28'37	0.67920 AU	direct	3518 Dec 13 20:41	4°♄28'13	
morning rise	3517 Dec 25 16:54	21°♄45'28		morning max el	3518 Dec 21 10:28	8°♄46'34	19°59'51
direct	3517 Dec 29 22:33	20°♄05'33			3519 Jan 06 07:12	0°♄	
morning max el	3518 Jan 07 11:09	25°♄02'39	21°11'39	desc. node	3519 Jan 10 03:08	5°♄45'45	
	3518 Jan 11 20:44	0°♄		morning set	3519 Jan 17 02:33	16°♄26'05	
desc. node	3518 Jan 23 06:05	15°♄32'44			3519 Jan 25 18:56	0°♄	

max. Earth dist.	3519 Jan 28 03:16	3°  43'49	1.44001 AU	morning max el	3519 Dec 04 17:27	22°  40'01	19°02'35
					3519 Dec 10 17:38	0° 	
superior conj	3519 Feb 02 11:44	12°  21'55	-2°00'52	morning set	3519 Dec 27 07:58	25°  10'08	
minimum elong	3519 Feb 02 06:50	12°  01'58	2°00'39	desc. node	3519 Dec 28 00:08	26°  13'14	
	3519 Feb 13 01:14	0° 			3519 Dec 30 10:15	0° 	
evening rise	3519 Feb 15 14:45	4°  23'13		max. Earth dist.	3520 Jan 10 19:23	17°  349'11	1.44979 AU
asc. node	3519 Mar 01 18:31	27°  32'11					
	3519 Mar 03 16:07	0° 		superior conj	3520 Jan 12 23:36	21°  315'03	-1°35'36
evening max el	3519 Mar 05 14:11	2°  07'45	18°11'44	minimum elong	3520 Jan 12 14:32	20°  339'14	1°34'45
retrograde	3519 Mar 12 00:30	5°  03'20'1			3520 Jan 18 11:47	0° 	
evening set	3519 Mar 14 21:50	4°  07'48'51		evening rise	3520 Jan 27 21:45	15°  313'27	
	3519 Mar 20 14:53	30° 			3520 Feb 05 23:20	0° 	
inferior conj	3519 Mar 21 00:59	29°  32'48	3°36'15	asc. node	3520 Feb 16 15:33	15°  304'47	
minimum elong	3519 Mar 21 01:44	29°  30'45	3°36'12	evening max el	3520 Feb 17 02:08	15°  332'19	18°34'14
min. Earth dist.	3519 Mar 23 17:16	26°  39'48	0.63007 AU	retrograde	3520 Feb 23 15:46	19°  309'30	
morning rise	3519 Mar 27 04:33	23°  38'32		evening set	3520 Feb 26 18:58	18°  314'19	
direct	3519 Apr 03 02:23	20°  349'30		inferior conj	3520 Mar 03 13:31	12°  339'55	3°36'17
desc. node	3519 Apr 08 02:18	22°  301'42		minimum elong	3520 Mar 03 12:40	12°  342'26	3°36'15
morning max el	3519 Apr 17 00:57	28°  347'06	27°47'42	min. Earth dist.	3520 Mar 05 14:16	10°  314'40	0.64794 AU
	3519 Apr 18 05:22	0° 		morning rise	3520 Mar 09 05:51	6°  329'29	
	3519 May 09 15:12	0° 		direct	3520 Mar 15 23:48	3°  339'15	
morning set	3519 May 21 07:10	21°  338'02		desc. node	3520 Mar 24 23:19	7°  330'03	
	3519 May 25 08:38	0° 		morning max el	3520 Mar 29 10:34	11°  330'17	27°14'55
max. Earth dist.	3519 May 26 15:37	2°  344'07	1.32717 AU		3520 Apr 13 03:25	0° 	
					3520 May 01 03:08	0° 	
superior conj	3519 May 28 23:07	7°  342'00	0°02'19	morning set	3520 May 03 21:46	5°  318'22	
minimum elong	3519 May 28 23:00	7°  341'24	0°02'18	max. Earth dist.	3520 May 08 13:23	14°  336'03	1.33696 AU
behind sun begin	3519 May 28 17:48	7°  313'19					
behind sun end	3519 May 29 04:12	8°  309'32		superior conj	3520 May 12 02:56	22°  301'18	-0°25'51
asc. node	3519 May 28 17:50	7°  313'27		minimum elong	3520 May 12 04:16	22°  308'19	0°25'35
evening rise	3519 Jun 04 22:50	22°  347'51		asc. node	3520 May 14 14:52	27°  319'22	
	3519 Jun 08 10:10	0° 			3520 May 15 20:59	0° 	
	3519 Jun 27 18:55	0° 		evening rise	3520 May 19 09:48	7°  329'48	
evening max el	3519 Jun 28 12:54	0°  344'33	23°34'43		3520 May 31 10:02	0° 	
desc. node	3519 Jul 05 01:33	5°  340'03		evening max el	3520 Jun 09 05:02	11°  312'41	21°58'54
retrograde	3519 Jul 12 03:57	7°  334'18		desc. node	3520 Jun 20 22:34	17°  327'07	
evening set	3519 Jul 16 05:56	6°  357'47		retrograde	3520 Jun 21 21:31	17°  329'14	
min. Earth dist.	3519 Jul 22 22:55	3°  350'03	0.55925 AU	evening set	3520 Jun 24 15:01	17°  312'36	
inferior conj	3519 Jul 25 01:34	2°  334'29	-4°46'14	inferior conj	3520 Jul 03 23:23	13°  308'07	-3°34'40
minimum elong	3519 Jul 24 19:50	2°  343'05	4°45'23	minimum elong	3520 Jul 03 15:01	13°  319'51	3°32'20
	3519 Jul 29 17:40	30° 		min. Earth dist.	3520 Jul 03 09:37	13°  327'25	0.54977 AU
morning rise	3519 Aug 02 12:12	28°  339'28		morning rise	3520 Jul 12 16:37	9°  316'37	
direct	3519 Aug 05 07:42	28°  319'48		direct	3520 Jul 15 20:24	8°  354'34	
	3519 Aug 11 10:31	0° 		morning max el	3520 Jul 27 19:15	14°  329'57	21°36'53
morning max el	3519 Aug 15 15:36	3°  307'26	20°10'25		3520 Aug 08 10:15	0° 	
asc. node	3519 Aug 24 17:04	14°  356'49		asc. node	3520 Aug 10 14:06	3°  349'48	
	3519 Sep 01 19:06	0° 		morning set	3520 Aug 17 08:46	17°  312'28	
morning set	3519 Sep 02 23:46	2°  325'13			3520 Aug 23 10:38	0° 	
superior conj	3519 Sep 10 16:09	18°  307'06	1°44'24	superior conj	3520 Aug 24 15:27	2°  330'51	1°42'48
minimum elong	3519 Sep 10 16:36	18°  309'19	1°44'24	minimum elong	3520 Aug 24 14:29	2°  325'50	1°42'45
max. Earth dist.	3519 Sep 16 01:48	28°  343'25	1.36681 AU	max. Earth dist.	3520 Aug 28 14:06	10°  336'50	1.34957 AU
	3519 Sep 16 17:55	0° 		evening rise	3520 Sep 01 22:41	19°  310'33	
evening rise	3519 Sep 19 22:27	5°  355'42			3520 Sep 07 20:00	0° 	
desc. node	3519 Oct 01 00:53	24°  350'53		desc. node	3520 Sep 16 21:54	15°  3501'42	
	3519 Oct 04 08:16	0° 			3520 Sep 27 10:21	0° 	
evening max el	3519 Oct 25 16:20	27°  330'30	25°50'38	evening max el	3520 Oct 07 04:46	11°  3308'23	26°46'30
	3519 Oct 28 10:16	0° 		retrograde	3520 Oct 20 06:07	18°  323'51	
retrograde	3519 Nov 07 01:56	4°  334'33		evening set	3520 Oct 26 21:34	15°  343'09	
evening set	3519 Nov 13 04:33	2°  3302'36		min. Earth dist.	3520 Oct 30 21:57	11°  3339'47	0.65855 AU
	3519 Nov 15 06:52	30° 		inferior conj	3520 Nov 01 17:50	9°  331'00	-1°37'37
min. Earth dist.	3519 Nov 17 11:53	27°  323'10	0.66891 AU	minimum elong	3520 Nov 01 20:32	9°  323'05	1°36'30
inferior conj	3519 Nov 18 20:00	25°  341'51	-0°37'58	asc. node	3520 Nov 06 13:17	4°  338'42	
minimum elong	3519 Nov 18 21:00	25°  338'43	0°37'32	morning rise	3520 Nov 07 20:15	3°  349'52	
asc. node	3519 Nov 20 16:15	23° 325'59		direct	3520 Nov 10 16:42	3° 3304'47	
morning rise	3519 Nov 24 13:49	19° 3349'14		morning max el	3520 Nov 17 06:19	6° 338'41	18°21'24
direct	3519 Nov 27 19:22	18° 3349'16			3520 Dec 03 09:41	0°	

morning set	3520 Dec 06 16:13	5°♊17'08		morning max el	3521 Oct 31 22:23	20°♊35'57	17°57'12
desc. node	3520 Dec 13 21:09	16°♊51'01			3521 Nov 08 01:20	0°♊	
				morning set	3521 Nov 18 05:22	16°♊49'11	
superior conj	3520 Dec 22 01:35	29°♊47'43	-0°53'47		3521 Nov 26 02:34	0°♊	
minimum elong	3520 Dec 21 18:51	29°♊21'15	0°52'54	desc. node	3521 Nov 30 18:12	7°♊35'25	
	3520 Dec 22 04:43	0°♊					
max. Earth dist.	3520 Dec 23 14:22	2°♊12'09	1.45231 AU	superior conj	3521 Dec 01 14:51	8°♊58'42	-0°05'55
evening rise	3521 Jan 07 05:37	25°♊08'24		minimum elong	3521 Dec 01 14:09	8°♊55'51	0°05'49
	3521 Jan 10 07:53	0°♊		behind sun begin	3521 Dec 01 04:27	8°♊16'45	
greatest brilliancy	3521 Jan 17 22:17	11°♊51'40	-0.8m	behind sun end	3521 Dec 01 23:51	9°♊34'54	
evening max el	3521 Jan 30 11:01	29°♊01'17	19°14'09	max. Earth dist.	3521 Dec 06 09:02	16°♊34'18	1.44741 AU
	3521 Jan 31 11:06	0°♊			3521 Dec 14 23:08	0°♊	
asc. node	3521 Feb 02 12:34	1°♊38'52		evening rise	3521 Dec 17 19:41	4°♊24'27	
retrograde	3521 Feb 06 11:48	3°♊02'14		greatest brilliancy	3522 Jan 01 08:55	26°♊25'33	-0.6m
evening set	3521 Feb 09 21:43	1°♊54'13			3522 Jan 03 20:01	0°♊	
	3521 Feb 12 03:16	30°♊		evening max el	3522 Jan 13 15:15	12°♊32'42	20°09'38
inferior conj	3521 Feb 15 10:38	26°♊03'41	3°21'36	asc. node	3522 Jan 20 09:35	17°♊00'12	
minimum elong	3521 Feb 15 08:43	26°♊09'52	3°21'19	retrograde	3522 Jan 21 09:46	17°♊05'45	
min. Earth dist.	3521 Feb 16 20:09	24°♊16'02	0.66191 AU	evening set	3522 Jan 25 03:50	15°♊43'47	
morning rise	3521 Feb 20 19:26	19°♊50'24		inferior conj	3522 Jan 30 13:32	9°♊39'46	2°55'36
direct	3521 Feb 27 03:44	17°♊02'14		minimum elong	3522 Jan 30 11:05	9°♊48'02	2°55'01
desc. node	3521 Mar 11 20:21	24°♊34'07		min. Earth dist.	3522 Jan 31 09:10	8°♊33'30	0.67178 AU
morning max el	3521 Mar 11 20:27	24°♊34'23	26°13'53	morning rise	3522 Feb 04 18:07	3°♊25'55	
	3521 Mar 16 18:10	0°♊		direct	3522 Feb 10 13:22	0°♊50'25	
	3521 Apr 06 13:51	0°♊		morning max el	3522 Feb 22 05:11	7°♊48'32	24°54'00
morning set	3521 Apr 16 23:43	18°♊17'32		desc. node	3522 Feb 26 17:22	12°♊46'52	
max. Earth dist.	3521 Apr 20 23:45	25°♊55'34	1.35134 AU		3522 Mar 11 13:52	0°♊	
	3521 Apr 23 01:21	0°♊		morning set	3522 Mar 30 08:04	0°♊21'42	
					3522 Mar 30 03:11	0°♊	
superior conj	3521 Apr 25 23:44	5°♊54'56	-0°54'43	max. Earth dist.	3522 Apr 02 23:16	6°♊56'27	1.36996 AU
minimum elong	3521 Apr 26 02:38	6°♊09'41	0°54'11				
asc. node	3521 May 01 11:53	17°♊18'12		superior conj	3522 Apr 09 10:36	19°♊15'14	-1°22'27
evening rise	3521 May 03 17:51	21°♊57'41		minimum elong	3522 Apr 09 14:48	19°♊35'49	1°21'50
	3521 May 07 17:37	0°♊			3522 Apr 14 20:09	0°♊	
evening max el	3521 May 22 07:03	22°♊07'39	20°34'13	evening rise	3522 Apr 17 20:44	6°♊04'57	
retrograde	3521 Jun 02 10:34	27°♊34'00		asc. node	3522 Apr 18 08:54	7°♊05'52	
evening set	3521 Jun 04 11:27	27°♊23'50			3522 May 01 14:20	0°♊	
desc. node	3521 Jun 07 19:35	26°♊27'10		evening max el	3522 May 04 21:20	3°♊43'31	19°27'27
inferior conj	3521 Jun 13 17:08	23°♊26'14	-1°43'54	retrograde	3522 May 14 07:09	8°♊17'36	
minimum elong	3521 Jun 13 12:14	23°♊33'17	1°42'08	evening set	3522 May 16 07:09	8°♊06'08	
min. Earth dist.	3521 Jun 14 21:45	22°♊44'56	0.54956 AU	inferior conj	3522 May 24 21:19	4°♊00'23	0°14'04
morning rise	3521 Jun 22 12:14	19°♊17'33		minimum elong	3522 May 24 21:56	3°♊59'25	0°13'51
direct	3521 Jun 26 05:56	18°♊47'26		transit middle	3522 May 24 21:56	3°♊59'25	0°13'51
morning max el	3521 Jul 09 13:30	25°♊13'31	23°17'04	transit begin	3522 May 24 19:59	4°♊02'33	
	3521 Jul 14 00:19	0°♊		transit end	3522 May 24 23:52	3°♊56'16	
asc. node	3521 Jul 28 11:08	23°♊10'24		desc. node	3522 May 25 16:35	3°♊29'10	
	3521 Jul 31 19:59	0°♊		min. Earth dist.	3522 May 27 12:03	2°♊19'30	0.55890 AU
morning set	3521 Aug 01 19:58	2°♊05'33			3522 May 31 17:09	30°♊	
				morning rise	3522 Jun 02 09:52	29°♊19'24	
superior conj	3521 Aug 08 21:05	17°♊12'39	1°34'53	direct	3522 Jun 07 01:27	28°♊30'26	
minimum elong	3521 Aug 08 19:12	17°♊02'30	1°34'42		3522 Jun 13 08:03	0°♊	
max. Earth dist.	3521 Aug 11 11:08	22°♊42'40	1.33617 AU	morning max el	3522 Jun 21 03:35	5°♊37'46	24°58'58
	3521 Aug 14 23:39	0°♊			3522 Jul 08 16:35	0°♊	
evening rise	3521 Aug 16 12:02	3°♊02'49		asc. node	3522 Jul 15 08:11	12°♊51'21	
	3521 Aug 31 15:37	0°♊		morning set	3522 Jul 17 07:43	16°♊59'33	
desc. node	3521 Sep 03 18:56	4°♊47'38			3522 Jul 23 07:50	0°♊	
evening max el	3521 Sep 19 16:42	24°♊32'02	27°19'58				
	3521 Sep 26 20:18	0°♊		superior conj	3522 Jul 24 06:40	2°♊04'51	1°21'41
retrograde	3521 Oct 03 04:40	1°♊50'36		minimum elong	3522 Jul 24 04:20	1°♊52'10	1°21'21
	3521 Oct 09 00:43	30°♊		max. Earth dist.	3522 Jul 25 16:17	5°♊08'01	1.32697 AU
evening set	3521 Oct 10 05:37	29°♊09'16		evening rise	3522 Jul 31 10:53	17°♊22'19	
min. Earth dist.	3521 Oct 13 23:56	25°♊40'48	0.64458 AU		3522 Aug 06 21:49	0°♊	
inferior conj	3521 Oct 16 08:07	23°♊10'17	-2°38'21	desc. node	3522 Aug 21 15:57	23°♊58'18	
minimum elong	3521 Oct 16 12:30	22°♊58'30	2°36'43		3522 Aug 26 06:16	0°♊	
morning rise	3521 Oct 22 20:34	17°♊43'41		evening max el	3522 Sep 02 02:28	7°♊29'25	27°24'35
asc. node	3521 Oct 24 10:19	17°♊14'49		retrograde	3522 Sep 15 20:43	14°♊45'19	
direct	3521 Oct 25 10:21	17°♊09'37		evening set	3522 Sep 23 01:23	12°♊14'32	

min. Earth dist.	3522 Sep 26 16:07	9° Ω 15'57	0.62736 AU	inferior conj	3523 Sep 12 02:22	19° Π 31'15	-4°27'36
inferior conj	3522 Sep 29 12:02	6° Ω 33'01	-3°36'52	minimum elong	3523 Sep 12 07:54	19° Π 19'32	4°26'29
minimum elong	3522 Sep 29 17:40	6° Ω 19'30	3°35'11	morning rise	3523 Sep 19 12:59	14° Π 43'20	
morning rise	3522 Oct 06 11:29	1° Ω 24'06		direct	3523 Sep 21 21:58	14° Π 21'09	
direct	3522 Oct 08 21:19	0° Ω 57'29		asc. node	3523 Sep 28 04:27	17° Π 02'56	
asc. node	3522 Oct 11 07:22	1° Ω 25'01		morning max el	3523 Sep 29 04:01	17° Π 56'40	18°03'04
morning max el	3522 Oct 15 14:39	4° Ω 24'21	17°50'43		3523 Oct 07 19:34	0° Ω	
morning set	3522 Oct 31 17:44	29° Ω 27'53		morning set	3523 Oct 14 23:03	12° Ω 55'15	
	3522 Nov 01 00:58	0° Π			3523 Oct 24 06:47	0° Π	
superior conj	3522 Nov 12 04:47	19° Π 22'30	0°37'07	superior conj	3523 Oct 24 21:08	1° Π 03'50	1°09'39
minimum elong	3522 Nov 12 08:10	19° Π 36'46	0°36'38	minimum elong	3523 Oct 25 01:22	1° Π 22'34	1°09'09
desc. node	3522 Nov 17 15:15	28° Π 22'33		max. Earth dist.	3523 Nov 01 12:24	14° Π 12'42	1.41891 AU
	3522 Nov 18 15:15	0° Σ		desc. node	3523 Nov 04 12:18	19° Π 09'25	
max. Earth dist.	3522 Nov 19 00:57	0° Σ 39'15	1.43581 AU	evening rise	3523 Nov 07 03:01	23° Π 22'53	
evening rise	3522 Nov 27 05:23	13° Σ 35'47			3523 Nov 11 07:44	0° Σ	
	3522 Dec 08 01:16	0° Σ			3523 Dec 02 02:43	0° Σ	
evening max el	3522 Dec 27 14:03	26° Σ 05'16	21°17'52	evening max el	3523 Dec 10 07:44	9° Σ 39'50	22°34'39
	3523 Jan 01 07:22	0° \approx		retrograde	3523 Dec 20 03:12	15° Σ 29'33	
retrograde	3523 Jan 05 07:27	1° \approx 15'49		evening set	3523 Dec 24 18:53	13° Σ 36'05	
asc. node	3523 Jan 07 06:37	0° \approx 54'41		asc. node	3523 Dec 25 03:39	13° Σ 17'16	
	3523 Jan 08 23:53	30° \Re Σ		inferior conj	3523 Dec 30 03:33	7° Σ 14'22	1°38'00
evening set	3523 Jan 09 11:26	29° Σ 38'37		minimum elong	3523 Dec 30 01:32	7° Σ 21'21	1°37'15
inferior conj	3523 Jan 14 19:50	23° Σ 24'03	2°20'33	min. Earth dist.	3523 Dec 29 23:20	7° Σ 28'58	0.67972 AU
minimum elong	3523 Jan 14 17:22	23° Σ 32'35	2°19'46	morning rise	3524 Jan 04 08:05	1° Σ 04'45	
min. Earth dist.	3523 Jan 15 03:00	22° Σ 59'17	0.67764 AU		3524 Jan 05 21:34	30° \Re Σ	
morning rise	3523 Jan 19 23:06	17° Σ 11'28		direct	3524 Jan 08 21:56	29° Σ 11'40	
direct	3523 Jan 25 03:46	14° Σ 55'36			3524 Jan 12 03:42	0° Σ	
morning max el	3523 Feb 04 13:53	21° Σ 07'36	23°25'40	morning max el	3524 Jan 18 02:03	4° Σ 34'19	21°58'25
	3523 Feb 12 05:04	0° \approx		desc. node	3524 Jan 31 11:30	21° Σ 24'36	
desc. node	3523 Feb 13 14:25	1° \approx 48'12			3524 Feb 06 10:05	0° \approx	
	3523 Mar 04 20:19	0° \Re		morning set	3524 Feb 19 20:38	20° \approx 43'23	
morning set	3523 Mar 11 16:39	11° \Re 13'44		max. Earth dist.	3524 Feb 25 16:29	0° \Re 16'23	1.41283 AU
max. Earth dist.	3523 Mar 15 18:07	18° \Re 12'15	1.39135 AU		3524 Feb 25 12:34	0° \Re	
	3523 Mar 22 07:30	0° Υ		superior conj	3524 Mar 04 09:59	13° \Re 33'32	-2°02'46
superior conj	3523 Mar 23 07:37	1° Υ 51'55	-1°46'25	minimum elong	3524 Mar 04 13:01	13° \Re 46'54	2°02'37
minimum elong	3523 Mar 23 12:12	2° Υ 13'21	1°45'57		3524 Mar 13 11:14	0° Υ	
evening rise	3523 Apr 01 15:37	19° Υ 43'50		evening rise	3524 Mar 14 23:09	2° Υ 46'28	
asc. node	3523 Apr 05 05:56	26° Υ 37'04		asc. node	3524 Mar 22 02:58	15° Υ 46'01	
	3523 Apr 07 01:39	0° \Re		evening max el	3524 Mar 31 06:01	28° Υ 42'44	18°14'05
evening max el	3523 Apr 17 22:05	15° \Re 57'57	18°40'43		3524 Apr 01 16:53	0° \Re	
retrograde	3523 Apr 25 21:10	19° \Re 52'00		retrograde	3524 Apr 07 06:10	2° \Re 13'29	
evening set	3523 Apr 28 02:52	19° \Re 34'38		evening set	3524 Apr 09 18:17	1° \Re 47'22	
inferior conj	3523 May 05 21:10	15° \Re 10'53	1°50'08		3524 Apr 13 02:55	30° \Re Υ	
minimum elong	3523 May 06 00:41	15° \Re 04'15	1°49'03	inferior conj	3524 Apr 16 18:21	27° Υ 02'44	2°53'47
min. Earth dist.	3523 May 09 05:18	12° \Re 41'10	0.57570 AU	minimum elong	3524 Apr 16 21:45	26° Υ 55'13	2°53'03
desc. node	3523 May 12 13:36	10° \Re 32'59		min. Earth dist.	3524 Apr 20 03:50	24° Υ 04'46	0.59663 AU
morning rise	3523 May 13 19:18	9° \Re 55'42		morning rise	3524 Apr 23 22:43	21° Υ 20'45	
direct	3523 May 19 10:53	8° \Re 36'36		desc. node	3524 Apr 28 10:39	19° Υ 36'29	
morning max el	3523 Jun 02 19:31	16° \Re 10'28	26°27'09	direct	3524 Apr 30 09:01	19° Υ 26'11	
	3523 Jun 14 01:46	0° Π		morning max el	3524 May 14 17:22	27° Υ 15'46	27°27'16
	3523 Jun 30 21:32	0° \Re			3524 May 17 08:13	0° \Re	
morning set	3523 Jul 01 18:27	1° \Re 49'37			3524 Jun 06 15:54	0° Π	
asc. node	3523 Jul 02 05:15	2° \Re 46'39		morning set	3524 Jun 15 02:24	16° Π 29'27	
				asc. node	3524 Jun 18 02:17	22° Π 50'30	
superior conj	3523 Jul 08 18:12	17° \Re 01'02	1°03'59		3524 Jun 21 09:05	0° \Re	
minimum elong	3523 Jul 08 15:56	16° \Re 48'33	1°03'36	max. Earth dist.	3524 Jun 21 14:42	0° \Re 30'54	1.32068 AU
max. Earth dist.	3523 Jul 09 02:44	17° \Re 48'07	1.32183 AU				
	3523 Jul 14 17:30	0° Ω		superior conj	3524 Jun 22 05:52	1° \Re 54'24	0°42'27
evening rise	3523 Jul 15 16:17	2° Ω 00'05		minimum elong	3524 Jun 22 04:07	1° \Re 44'46	0°42'06
	3523 Jul 30 20:18	0° Π		evening rise	3524 Jun 29 01:45	16° \Re 47'25	
desc. node	3523 Aug 08 12:57	12° Π 19'29			3524 Jul 05 14:49	0° Ω	
evening max el	3523 Aug 15 07:27	19° Π 48'02	26°56'17	desc. node	3524 Jul 25 09:58	29° Ω 30'08	
retrograde	3523 Aug 29 05:09	26° Π 59'41			3524 Jul 25 21:31	0° Π	
evening set	3523 Sep 05 04:40	24° Π 52'04		evening max el	3524 Jul 27 05:07	1° Π 17'59	25°55'30
min. Earth dist.	3523 Sep 08 21:40	22° Π 12'52	0.60766 AU	retrograde	3524 Aug 10 04:32	8° Π 26'13	





























































































































evening set	3524 Aug 16 10:31	6° \cap 52'48		min. Earth dist.	3525 Aug 02 06:57	15° Ω 17'34	0.56806 AU
min. Earth dist.	3524 Aug 20 17:27	4° \cap 16'30	0.58702 AU	inferior conj	3525 Aug 05 00:29	13° Ω 33'01	-5°04'27
inferior conj	3524 Aug 23 23:25	1° \cap 53'58	-5°01'22	minimum elong	3525 Aug 04 22:08	13° Ω 36'49	5°04'18
minimum elong	3524 Aug 24 02:24	1° \cap 48'28	5°01'08	morning rise	3525 Aug 13 06:38	9° Ω 29'35	
	3524 Aug 26 16:00	30° κ Ω		direct	3525 Aug 15 22:17	9° Ω 10'26	
morning rise	3524 Aug 31 20:30	27° Ω 29'17		morning max el	3525 Aug 25 09:05	13° Ω 34'48	19°29'38
direct	3524 Sep 03 07:36	27° Ω 09'23		asc. node	3525 Aug 31 22:34	21° Ω 41'27	
	3524 Sep 10 06:39	0° \cap			3525 Sep 05 20:58	0° \cap	
morning max el	3524 Sep 11 11:12	1° \cap 03'14	18°35'39	morning set	3525 Sep 11 17:35	11° \cap 20'19	
asc. node	3524 Sep 14 01:31	3° \cap 53'22					
morning set	3524 Sep 27 16:13	26° \cap 56'01		superior conj	3525 Sep 19 17:54	27° \cap 22'47	1°41'59
	3524 Sep 29 06:10	0° Ω		minimum elong	3525 Sep 19 19:18	27° \cap 29'42	1°41'55
					3525 Sep 21 02:06	0° Ω	
superior conj	3524 Oct 06 11:20	13° Ω 49'05	1°30'53	max. Earth dist.	3525 Sep 25 22:47	9° Ω 12'36	1.37802 AU
minimum elong	3524 Oct 06 14:28	14° Ω 03'42	1°30'37	evening rise	3525 Sep 29 16:57	16° Ω 00'03	
max. Earth dist.	3524 Oct 13 18:46	27° Ω 02'50	1.39878 AU		3525 Oct 07 23:51	0° \cap	
	3524 Oct 15 11:39	0° \cap		desc. node	3525 Oct 08 06:19	0° \cap 26'00	
evening rise	3524 Oct 17 22:20	4° \cap 09'10			3525 Oct 29 02:21	0° κ	
desc. node	3524 Oct 21 09:19	9° \cap 51'52		evening max el	3525 Nov 04 09:54	6° κ 57'05	25°11'10
	3524 Nov 03 12:42	0° κ		retrograde	3525 Nov 16 08:11	13° κ 51'05	
evening max el	3524 Nov 21 21:39	23° κ 16'54	23°54'38	evening set	3525 Nov 22 02:47	11° κ 26'16	
retrograde	3524 Dec 02 19:48	29° κ 42'50		min. Earth dist.	3525 Nov 26 14:13	6° κ 26'27	0.67321 AU
evening set	3524 Dec 08 00:33	27° κ 32'59		inferior conj	3525 Nov 27 15:59	5° κ 02'24	-0°04'57
asc. node	3524 Dec 11 00:43	24° κ 20'35		minimum elong	3525 Nov 27 16:07	5° κ 02'00	0°04'54
inferior conj	3524 Dec 13 10:52	21° κ 07'58	0°49'09	transit middle	3525 Nov 27 16:07	5° κ 02'00	0°04'54
minimum elong	3524 Dec 13 09:44	21° κ 11'50	0°48'40	transit begin	3525 Nov 27 13:28	5° κ 10'39	
min. Earth dist.	3524 Dec 12 19:50	21° κ 58'59	0.67817 AU	transit end	3525 Nov 27 18:46	4° κ 53'22	
morning rise	3524 Dec 18 18:55	15° κ 03'10		asc. node	3525 Nov 27 21:46	4° κ 43'34	
direct	3524 Dec 22 18:51	13° κ 32'48			3525 Dec 02 01:08	30° κ \cap	
morning max el	3524 Dec 30 20:57	18° κ 11'54	20°39'33	morning rise	3525 Dec 03 05:41	29° \cap 04'31	
	3525 Jan 09 10:08	0° κ		direct	3525 Dec 06 17:16	27° \cap 54'31	
desc. node	3525 Jan 17 08:33	11° κ 26'09			3525 Dec 11 17:52	0° κ	
morning set	3525 Jan 28 23:34	29° κ 06'18		morning max el	3525 Dec 13 23:41	2° κ 00'09	19°33'35
	3525 Jan 29 13:22	0° \approx		greatest brilliancy	3525 Dec 27 03:13	19° κ 27'26	-0.7m
max. Earth dist.	3525 Feb 06 22:05	13° \approx 16'07	1.43144 AU		3526 Jan 03 02:05	0° κ	
				desc. node	3526 Jan 04 05:35	1° κ 45'30	
superior conj	3525 Feb 13 12:42	24° \approx 08'45	-2°06'30	morning set	3526 Jan 07 20:30	7° κ 20'27	
minimum elong	3525 Feb 13 11:16	24° \approx 02'48	2°06'29	max. Earth dist.	3526 Jan 20 10:22	26° κ 59'47	1.44492 AU
	3525 Feb 16 23:44	0° κ			3526 Jan 22 07:45	0° \approx	
evening rise	3525 Feb 25 15:11	15° κ 03'59					
	3525 Mar 06 05:23	0° \cap		superior conj	3526 Jan 24 13:21	3° \approx 34'14	-1°52'33
asc. node	3525 Mar 09 00:00	4° \cap 25'33		minimum elong	3526 Jan 24 06:07	3° \approx 05'13	1°52'04
evening max el	3525 Mar 14 17:50	11° \cap 49'15	18°07'05	evening rise	3526 Feb 07 11:14	26° \approx 27'01	
retrograde	3525 Mar 21 06:28	15° \cap 12'11			3526 Feb 09 13:52	0° κ	
evening set	3525 Mar 24 00:25	14° \cap 35'41		asc. node	3526 Feb 23 21:03	22° κ 25'48	
inferior conj	3525 Mar 30 10:04	9° \cap 30'46	3°27'39	evening max el	3526 Feb 26 06:29	25° κ 08'52	18°19'07
minimum elong	3525 Mar 30 11:53	9° \cap 26'11	3°27'27	retrograde	3526 Mar 04 17:22	28° κ 37'27	
min. Earth dist.	3525 Apr 02 10:18	6° \cap 29'18	0.61827 AU	evening set	3526 Mar 07 17:01	27° κ 49'27	
morning rise	3525 Apr 05 21:46	3° \cap 32'01		inferior conj	3526 Mar 13 16:07	22° κ 25'34	3°38'18
direct	3525 Apr 12 17:56	1° \cap 06'00		minimum elong	3526 Mar 13 16:09	22° κ 25'30	3°38'19
desc. node	3525 Apr 15 07:41	1° \cap 25'05		min. Earth dist.	3526 Mar 16 02:00	19° κ 42'21	0.63806 AU
morning max el	3525 Apr 26 21:35	9° \cap 03'46	27°51'05	morning rise	3526 Mar 19 14:25	16° κ 17'56	
	3525 May 13 01:17	0° κ		direct	3526 Mar 26 11:28	13° κ 32'06	
	3525 May 29 19:16	0° \cap		desc. node	3526 Apr 02 04:44	15° κ 42'39	
morning set	3525 May 30 05:39	0° \cap 52'53		morning max el	3526 Apr 09 05:53	21° κ 29'11	27°37'40
asc. node	3525 Jun 04 23:19	12° \cap 58'37			3526 Apr 16 15:53	0° \cap	
max. Earth dist.	3525 Jun 05 00:09	13° \cap 03'07	1.32358 AU		3526 May 06 04:23	0° κ	
				morning set	3526 May 14 01:43	14° κ 51'26	
superior conj	3525 Jun 06 15:59	16° \cap 39'35	0°17'44	max. Earth dist.	3526 May 19 02:59	25° κ 11'03	1.33076 AU
minimum elong	3525 Jun 06 15:10	16° \cap 35'08	0°17'34		3526 May 21 09:35	0° \cap	
	3525 Jun 12 19:00	0° Ω					
evening rise	3525 Jun 13 13:17	1° Ω 37'42		superior conj	3526 May 21 22:40	1° \cap 09'59	-0°09'28
	3525 Jun 29 00:21	0° Ω		minimum elong	3526 May 21 23:08	1° \cap 12'31	0°09'22
evening max el	3525 Jul 08 19:58	12° Ω 04'03	24°29'49	behind sun begin	3526 May 21 18:46	0° \cap 49'08	
desc. node	3525 Jul 12 06:57	15° Ω 02'04		behind sun end	3526 May 22 03:30	1° \cap 35'55	
retrograde	3525 Jul 22 17:13	19° Ω 04'59		asc. node	3526 May 22 20:20	3° \cap 06'14	
evening set	3525 Jul 27 16:15	18° Ω 09'47		evening rise	3526 May 29 00:58	16° \cap 24'03	

	3526 Jun 04 19:25	0°☿		evening rise	3527 May 13 10:56	1°♊00'38	
evening max el	3526 Jun 20 09:24	22°☿29'24 22°53'16			3527 May 30 08:23	0°☿	
desc. node	3526 Jun 29 03:57	28°☿20'22		evening max el	3527 Jun 02 05:18	3°☿06'43 21°20'58	
retrograde	3526 Jul 03 17:19	29°☿07'50		retrograde	3527 Jun 14 07:11	9°☿02'28	
evening set	3526 Jul 07 03:50	28°☿41'57		desc. node	3527 Jun 16 00:58	8°☿55'28	
min. Earth dist.	3526 Jul 14 18:09	25°☿19'41 0.55419 AU		evening set	3527 Jun 16 15:24	8°☿49'53	
inferior conj	3526 Jul 16 06:24	24°☿27'24 -4°21'58		inferior conj	3527 Jun 26 00:43	4°☿50'44 -2°50'52	
minimum elong	3526 Jul 15 22:50	24°☿38'21 4°20'24		minimum elong	3527 Jun 25 17:11	5°☿01'16 2°48'26	
morning rise	3526 Jul 24 20:07	20°☿35'46		min. Earth dist.	3527 Jun 26 05:22	4°☿44'13 0.54854 AU	
direct	3526 Jul 27 18:29	20°☿15'37		morning rise	3527 Jul 04 19:33	0°☿54'13	
morning max el	3526 Aug 07 19:26	25°☿23'10 20°44'59		direct	3527 Jul 08 04:36	0°☿29'29	
	3526 Aug 12 00:31	0°♊		morning max el	3527 Jul 20 18:27	6°☿27'02 22°18'20	
asc. node	3526 Aug 18 19:36	10°♊13'52		asc. node	3527 Aug 05 16:37	29°☿19'37	
morning set	3526 Aug 27 00:26	26°♊00'52			3527 Aug 06 01:07	0°♊	
	3526 Aug 28 22:40	0°♊		morning set	3527 Aug 11 10:34	10°♊51'10	
superior conj	3526 Sep 03 12:09	11°♊31'24 1°44'34		superior conj	3527 Aug 18 14:27	26°♊03'39 1°40'08	
minimum elong	3526 Sep 03 11:56	11°♊30'21 1°44'34		minimum elong	3527 Aug 18 13:02	25°♊56'10 1°40'03	
max. Earth dist.	3526 Sep 08 06:31	21°♊04'14 1.35904 AU			3527 Aug 20 11:27	0°♊	
evening rise	3526 Sep 12 07:42	28°♊48'00		max. Earth dist.	3527 Aug 21 22:36	3°♊02'08 1.34341 AU	
	3526 Sep 12 23:14	0°♋		evening rise	3527 Aug 26 14:01	12°♊20'20	
desc. node	3526 Sep 25 03:18	20°♋47'08			3527 Sep 05 07:01	0°♋	
	3526 Oct 01 05:40	0°♌		desc. node	3527 Sep 12 00:18	10°♋48'25	
evening max el	3526 Oct 17 22:17	20°♌38'35 26°16'49			3527 Sep 26 09:44	0°♌	
retrograde	3526 Oct 30 15:38	27°♌49'12		evening max el	3527 Sep 30 10:54	4°♌12'42 27°04'00	
evening set	3526 Nov 05 23:46	25°♌12'58		retrograde	3527 Oct 13 17:20	11°♌29'42	
min. Earth dist.	3526 Nov 10 04:07	20°♌48'35 0.66484 AU		evening set	3527 Oct 20 13:17	8°♌47'55	
inferior conj	3526 Nov 11 17:06	18°♌55'04 -1°03'01		min. Earth dist.	3527 Oct 24 11:05	4°♌59'29 0.65302 AU	
minimum elong	3526 Nov 11 18:48	18°♌49'51 1°02'16		inferior conj	3527 Oct 26 12:02	2°♌40'57 -2°03'25	
asc. node	3526 Nov 14 18:49	15°♌23'18		minimum elong	3527 Oct 26 15:28	2°♌31'13 2°02'02	
morning rise	3526 Nov 17 14:20	13°♌06'45			3527 Oct 28 23:28	30°♌♋	
direct	3526 Nov 20 15:42	12°♌13'38		morning rise	3527 Nov 01 18:31	27°♋05'18	
morning max el	3526 Nov 27 09:25	15°♌56'22 18°43'01		asc. node	3527 Nov 01 15:51	27°♋08'37	
	3526 Dec 07 21:37	0°♌		direct	3527 Nov 04 11:54	26°♋25'14	
morning set	3526 Dec 18 12:11	16°♌36'55		morning max el	3527 Nov 10 23:55	29°♋54'50 18°08'59	
desc. node	3526 Dec 22 02:36	22°♌17'52			3527 Nov 11 01:58	0°♌	
	3526 Dec 27 00:03	0°♍		morning set	3527 Nov 29 09:12	27°♌21'53	
max. Earth dist.	3527 Jan 03 03:40	11°♍13'26 1.45173 AU			3527 Nov 30 23:42	0°♌	
				desc. node	3527 Dec 08 23:37	12°♌58'43	
superior conj	3527 Jan 03 18:42	12°♍12'26 -1°19'25		superior conj	3527 Dec 13 22:57	20°♌54'09 -0°33'28	
minimum elong	3527 Jan 03 09:47	11°♍37'25 1°18'25		minimum elong	3527 Dec 13 18:43	20°♌37'24 0°32'53	
	3527 Jan 15 01:00	0°♎		max. Earth dist.	3527 Dec 16 23:13	25°♌39'17 1.45115 AU	
evening rise	3527 Jan 19 08:13	6°♎52'33			3527 Dec 19 17:40	0°♍	
greatest brilliancy	3527 Jan 26 18:44	18°♎48'38 -0.9m		evening rise	3527 Dec 30 07:19	16°♍27'39	
	3527 Feb 03 00:18	0°♏			3528 Jan 08 01:32	0°♎	
evening max el	3527 Feb 09 17:28	8°♏36'09 18°49'14		greatest brilliancy	3528 Jan 11 23:26	5°♎57'04 -0.7m	
asc. node	3527 Feb 10 18:04	9°♏35'26		evening max el	3528 Jan 24 00:36	22°♎06'27 19°36'03	
retrograde	3527 Feb 16 10:55	12°♏21'59		asc. node	3528 Jan 28 15:06	25°♎40'21	
evening set	3527 Feb 19 16:51	11°♏21'31		retrograde	3528 Jan 31 07:59	26°♎19'43	
inferior conj	3527 Feb 25 08:42	5°♏40'16 3°31'36		evening set	3528 Feb 03 21:17	25°♎05'44	
minimum elong	3527 Feb 25 07:20	5°♏44'30 3°31'28		inferior conj	3528 Feb 09 08:34	19°♎09'11 3°11'48	
min. Earth dist.	3527 Feb 27 02:56	3°♏30'00 0.65442 AU		minimum elong	3528 Feb 09 06:21	19°♎16'28 3°11'22	
	3527 Mar 02 07:29	30°♏♎		min. Earth dist.	3528 Feb 10 11:57	17°♎39'09 0.66665 AU	
morning rise	3527 Mar 02 21:24	29°♎28'26		morning rise	3528 Feb 14 15:13	12°♎55'44	
direct	3527 Mar 09 11:59	26°♎37'16		direct	3528 Feb 20 18:21	10°♎11'57	
	3527 Mar 17 17:16	0°♏		morning max el	3528 Mar 04 00:57	17°♎30'33 25°41'38	
desc. node	3527 Mar 20 01:47	1°♏55'18		desc. node	3528 Mar 05 22:49	19°♎31'06	
morning max el	3527 Mar 22 15:39	4°♏21'54 26°51'47			3528 Mar 14 11:58	0°♏	
	3527 Apr 11 03:25	0°♐			3528 Apr 03 02:52	0°♐	
morning set	3527 Apr 27 11:26	28°♐15'35		morning set	3528 Apr 09 06:36	10°♐53'06	
	3527 Apr 28 09:10	0°♑		max. Earth dist.	3528 Apr 13 01:21	17°♐56'45 1.35882 AU	
max. Earth dist.	3527 May 01 19:50	6°♑47'26 1.34253 AU					
superior conj	3527 May 05 23:50	15°♑19'24 -0°38'05		superior conj	3528 Apr 18 16:52	29°♐00'17 -1°06'45	
minimum elong	3527 May 06 01:50	15°♑29'47 0°37'42		minimum elong	3528 Apr 18 20:22	29°♐17'53 1°06'09	
asc. node	3527 May 09 17:21	23°♑09'35			3528 Apr 19 04:44	0°♑	
	3527 May 12 23:19	0°♒		asc. node	3528 Apr 25 14:24	13°♑04'36	

evening rise	3528 Apr 26 17:07	15°♄21'02		evening rise	3529 Apr 10 16:59	29°♄17'18	
	3528 May 04 07:06	0°♄			3529 Apr 11 01:38	0°♄	
evening max el	3528 May 14 12:36	14°♄19'03	20°03'26	asc. node	3529 Apr 12 11:27	2°♄46'00	
retrograde	3528 May 24 21:53	19°♄22'19		evening max el	3529 Apr 27 07:34	26°♄11'28	19°05'06
evening set	3528 May 26 21:14	19°♄12'11			3529 May 03 04:31	0°♄	
desc. node	3528 Jun 01 22:00	16°♄55'37		retrograde	3529 May 06 01:36	0°♄27'12	
inferior conj	3528 Jun 04 21:21	15°♄12'31	-0°52'43	evening set	3529 May 08 03:31	0°♄13'45	
minimum elong	3528 Jun 04 18:54	15°♄16'12	0°51'47		3529 May 09 01:06	30°♄	
min. Earth dist.	3528 Jun 06 18:02	14°♄05'38	0.55247 AU	inferior conj	3529 May 16 09:16	26°♄00'45	0°58'32
morning rise	3528 Jun 13 14:53	10°♄51'47		minimum elong	3529 May 16 11:32	25°♄56'50	0°57'45
direct	3528 Jun 17 17:15	10°♄15'11		min. Earth dist.	3529 May 19 09:23	23°♄57'18	0.56522 AU
morning max el	3528 Jul 01 10:07	16°♄59'34	24°01'05	desc. node	3529 May 19 19:03	23°♄41'27	
	3528 Jul 11 22:38	0°♄		morning rise	3529 May 24 16:24	21°♄04'36	
asc. node	3528 Jul 22 13:39	18°♄50'19		direct	3529 May 29 18:02	20°♄04'20	
morning set	3528 Jul 25 22:16	25°♄46'13		morning max el	3529 Jun 13 00:32	27°♄24'40	25°39'12
	3528 Jul 27 21:52	0°♄			3529 Jun 15 13:04	0°♄	
					3529 Jul 05 03:56	0°♄	
superior conj	3528 Aug 01 22:04	10°♄51'20	1°29'52	asc. node	3529 Jul 09 10:42	8°♄38'14	
minimum elong	3528 Aug 01 19:56	10°♄39'47	1°29'38	morning set	3529 Jul 10 09:49	10°♄39'36	
max. Earth dist.	3528 Aug 03 23:43	15°♄18'32	1.33181 AU				
evening rise	3528 Aug 09 07:53	26°♄26'04		superior conj	3529 Jul 17 08:43	25°♄46'14	1°14'41
	3528 Aug 11 02:48	0°♄		minimum elong	3529 Jul 17 06:22	25°♄33'18	1°14'20
desc. node	3528 Aug 28 21:20	0°♄21'16		max. Earth dist.	3529 Jul 18 07:34	27°♄51'32	1.32428 AU
	3528 Aug 28 15:29	0°♄			3529 Jul 19 07:06	0°♄	
evening max el	3528 Sep 11 22:18	17°♄27'20	27°25'40	evening rise	3529 Jul 24 09:50	10°♄54'16	
retrograde	3528 Sep 25 12:57	24°♄44'24			3529 Aug 03 08:36	0°♄	
evening set	3528 Oct 02 16:33	22°♄06'04		desc. node	3529 Aug 15 18:21	19°♄13'13	
min. Earth dist.	3528 Oct 06 08:57	18°♄51'21	0.63773 AU		3529 Aug 25 02:23	0°♄	
inferior conj	3528 Oct 08 22:18	16°♄14'21	-3°03'40	evening max el	3529 Aug 25 06:08	0°♄08'54	27°16'29
minimum elong	3528 Oct 09 03:18	16°♄01'30	3°01'57	retrograde	3529 Sep 08 01:59	7°♄23'25	
morning rise	3528 Oct 15 15:21	10°♄54'54		evening set	3529 Sep 15 05:53	5°♄00'30	
direct	3528 Oct 18 03:14	10°♄24'17		min. Earth dist.	3529 Sep 18 20:25	2°♄12'10	0.61928 AU
asc. node	3528 Oct 18 12:53	10°♄25'05			3529 Sep 21 06:41	30°♄	
morning max el	3528 Oct 24 16:27	13°♄49'26	17°52'13	inferior conj	3529 Sep 21 20:50	29°♄27'33	-3°59'45
	3528 Nov 04 21:23	0°♄		minimum elong	3529 Sep 22 02:39	29°♄14'18	3°58'15
morning set	3528 Nov 10 09:01	9°♄24'54		morning rise	3529 Sep 29 01:07	24°♄27'33	
				direct	3529 Oct 01 10:12	24°♄03'11	
superior conj	3528 Nov 22 21:48	0°♄33'42	0°13'26	asc. node	3529 Oct 05 09:56	25°♄14'07	
minimum elong	3528 Nov 22 23:15	0°♄39'40	0°13'13	morning max el	3529 Oct 08 07:57	27°♄32'28	17°53'36
behind sun begin	3528 Nov 22 17:34	0°♄16'25			3529 Oct 10 13:06	0°♄	
behind sun end	3528 Nov 23 04:55	1°♄02'53		morning set	3529 Oct 24 05:16	22°♄26'08	
	3528 Nov 22 13:34	0°♄			3529 Oct 28 09:53	0°♄	
desc. node	3528 Nov 24 20:39	3°♄44'42					
max. Earth dist.	3528 Nov 28 17:29	9°♄57'53	1.44329 AU	superior conj	3529 Nov 03 23:21	11°♄32'00	0°52'18
evening rise	3528 Dec 08 17:32	25°♄36'52		minimum elong	3529 Nov 04 03:26	11°♄49'33	0°51'46
	3528 Dec 11 14:14	0°♄		max. Earth dist.	3529 Nov 11 07:30	23°♄50'39	1.42913 AU
	3529 Jan 01 06:46	0°♄		desc. node	3529 Nov 11 17:42	24°♄32'18	
evening max el	3529 Jan 06 02:30	5°♄37'56	20°37'18		3529 Nov 15 02:56	0°♄	
retrograde	3529 Jan 14 06:06	10°♄26'28		evening rise	3529 Nov 18 06:30	4°♄58'50	
asc. node	3529 Jan 14 12:09	10°♄26'07			3529 Dec 04 23:06	0°♄	
evening set	3529 Jan 18 04:15	8°♄57'56		evening max el	3529 Dec 19 22:52	19°♄10'56	21°49'45
inferior conj	3529 Jan 23 13:10	2°♄48'49	2°41'44	retrograde	3529 Dec 29 03:18	24°♄38'52	
minimum elong	3529 Jan 23 10:39	2°♄57'25	2°41'02	asc. node	3530 Jan 01 09:11	23°♄41'51	
min. Earth dist.	3529 Jan 24 03:14	2°♄00'42	0.67474 AU	evening set	3530 Jan 02 12:00	22°♄54'48	
	3529 Jan 25 15:25	30°♄		inferior conj	3530 Jan 07 20:18	16°♄36'29	2°03'21
morning rise	3529 Jan 28 16:52	26°♄35'24		minimum elong	3530 Jan 07 17:59	16°♄44'34	2°02'33
direct	3529 Feb 03 05:55	24°♄07'58		min. Earth dist.	3530 Jan 07 22:29	16°♄28'54	0.67891 AU
	3529 Feb 13 14:25	0°♄		morning rise	3530 Jan 12 23:48	10°♄24'47	
morning max el	3529 Feb 14 09:32	0°♄47'16	24°16'55	direct	3530 Jan 17 21:59	8°♄18'35	
desc. node	3529 Feb 20 19:52	8°♄06'21		morning max el	3530 Jan 27 19:24	14°♄10'04	22°47'56
	3529 Mar 08 10:54	0°♄		desc. node	3530 Feb 07 16:56	27°♄24'21	
morning set	3529 Mar 22 05:36	22°♄28'16			3530 Feb 09 14:15	0°♄	
max. Earth dist.	3529 Mar 25 22:20	29°♄00'57	1.37883 AU		3530 Mar 01 09:50	0°♄	
	3529 Mar 26 11:24	0°♄		morning set	3530 Mar 03 02:25	2°♄46'25	
				max. Earth dist.	3530 Mar 07 17:40	10°♄34'03	1.40058 AU
superior conj	3529 Apr 01 22:20	12°♄02'56	-1°33'18				
minimum elong	3529 Apr 02 02:52	12°♄24'43	1°32'42	superior conj	3530 Mar 15 12:03	24°♄17'39	-1°54'34

































































































































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	3530 Mar 18 14:20	0° Y		evening rise	3531 Mar 08 08:56	25° X 26'07	
evening rise	3530 Mar 25 07:33	12° Y 42'04			3531 Mar 10 21:16	0° Y	
asc. node	3530 Mar 30 08:30	22° Y 08'49		asc. node	3531 Mar 17 05:32	11° Y 06'14	
	3530 Apr 03 21:42	0° Z		evening max el	3531 Mar 24 21:47	21° Y 35'11	18°08'47
evening max el	3530 Apr 10 11:47	8° Z 39'55	18°26'58	retrograde	3531 Mar 31 15:37	25° Y 00'27	
retrograde	3530 Apr 17 23:49	12° Z 22'10		evening set	3531 Apr 03 06:21	24° Y 30'02	
evening set	3530 Apr 20 08:10	12° Z 01'29		inferior conj	3531 Apr 09 23:49	19° Y 36'55	3°11'22
inferior conj	3530 Apr 27 18:20	7° Z 29'15	2°21'06	minimum elong	3531 Apr 10 02:38	19° Y 30'19	3°10'54
minimum elong	3530 Apr 27 22:06	7° Z 21'40	2°20'04	min. Earth dist.	3531 Apr 13 06:28	16° Y 34'18	0.60597 AU
min. Earth dist.	3530 May 01 04:52	4° Z 44'14	0.58425 AU	morning rise	3531 Apr 16 20:48	13° Y 46'52	
morning rise	3530 May 05 08:58	2° Z 01'04		direct	3531 Apr 23 12:43	11° Y 37'31	
desc. node	3530 May 06 16:05	1° Z 25'08		desc. node	3531 Apr 23 13:07	11° Y 37'31	
direct	3530 May 11 09:24	0° Z 26'47		morning max el	3531 May 07 19:14	19° Y 31'30	27°42'00
morning max el	3530 May 25 18:50	8° Z 09'28	26°56'48		3531 May 16 17:02	0° Z	
	3530 Jun 11 06:22	0° II			3531 Jun 04 01:38	0° II	
morning set	3530 Jun 24 19:34	25° II 25'55		morning set	3531 Jun 09 01:45	9° II 59'20	
asc. node	3530 Jun 26 07:46	28° II 37'44		asc. node	3531 Jun 13 04:49	18° II 43'58	
	3530 Jun 26 23:07	0° III		max. Earth dist.	3531 Jun 15 06:05	23° II 12'01	1.32135 AU
superior conj	3530 Jul 01 20:31	10° III 41'57	0°55'17	superior conj	3531 Jun 16 07:44	25° II 32'40	0°32'20
minimum elong	3530 Jul 01 18:25	10° III 30'22	0°54'54	minimum elong	3531 Jun 16 06:20	25° II 24'58	0°32'02
max. Earth dist.	3530 Jul 01 18:54	10° III 33'03	1.32080 AU		3531 Jun 18 08:22	0° III	
evening rise	3530 Jul 08 17:11	25° III 36'42		evening rise	3531 Jun 23 03:46	10° III 26'12	
	3530 Jul 10 19:51	0° IV			3531 Jul 03 03:42	0° IV	
	3530 Jul 28 02:52	0° V		evening max el	3531 Jul 20 02:44	23° IV 17'51	25°21'33
desc. node	3530 Aug 02 15:22	7° V 07'28		desc. node	3531 Jul 20 12:21	23° IV 40'35	
evening max el	3530 Aug 07 08:02	12° V 06'53	26°34'05		3531 Jul 30 22:08	0° V	
retrograde	3530 Aug 21 07:08	19° V 17'54		retrograde	3531 Aug 03 02:16	0° V 23'37	
evening set	3530 Aug 28 00:39	17° V 23'41			3531 Aug 06 06:17	30° R IV	
min. Earth dist.	3530 Aug 31 21:41	14° V 47'51	0.59884 AU	evening set	3531 Aug 08 20:18	29° IV 07'04	
inferior conj	3530 Sep 04 04:12	12° V 11'46	-4°44'46	min. Earth dist.	3531 Aug 13 14:37	26° IV 25'53	0.57850 AU
minimum elong	3530 Sep 04 09:01	12° V 02'09	4°44'01	inferior conj	3531 Aug 16 17:02	24° IV 17'38	-5°07'27
morning rise	3530 Sep 11 19:28	7° V 33'44		minimum elong	3531 Aug 16 18:02	24° IV 15'55	5°07'25
direct	3530 Sep 14 04:47	7° V 12'55		morning rise	3531 Aug 24 18:06	20° IV 02'11	
morning max el	3530 Sep 21 19:07	10° V 55'14	18°14'20	direct	3531 Aug 27 06:51	19° IV 42'45	
asc. node	3530 Sep 22 07:00	11° V 24'43		morning max el	3531 Sep 04 22:41	23° IV 48'29	18°55'54
	3530 Oct 04 09:32	0° VI		asc. node	3531 Sep 09 04:03	28° IV 41'55	
morning set	3530 Oct 07 16:07	6° VI 08'58			3531 Sep 10 02:22	0° V	
superior conj	3530 Oct 17 01:38	23° VI 42'20	1°19'59	morning set	3531 Sep 21 13:14	20° V 21'47	
minimum elong	3530 Oct 17 05:32	24° VI 00'04	1°19'35		3531 Sep 26 10:39	0° VI	
	3530 Oct 20 14:04	0° VII		superior conj	3531 Sep 29 23:28	6° VI 50'36	1°36'44
max. Earth dist.	3530 Oct 24 16:03	7° VII 04'04	1.41057 AU	minimum elong	3531 Sep 30 01:53	7° VI 02'10	1°36'33
evening rise	3530 Oct 29 12:38	15° VII 09'23		max. Earth dist.	3531 Oct 06 21:04	19° VI 36'59	1.38992 AU
desc. node	3530 Oct 29 14:42	15° VII 17'45		evening rise	3531 Oct 10 18:12	26° VI 24'52	
	3530 Nov 07 23:19	0° VIII			3531 Oct 12 20:52	0° VII	
	3530 Nov 30 00:11	0° IX		desc. node	3531 Oct 16 11:42	5° VII 57'52	
evening max el	3530 Dec 02 14:40	2° IX 46'21	23°08'44		3531 Nov 01 13:47	0° VIII	
retrograde	3530 Dec 12 21:53	8° IX 52'38		evening max el	3531 Nov 15 03:52	16° VIII 26'13	24°28'03
evening set	3530 Dec 17 18:51	6° IX 52'23		retrograde	3531 Nov 26 12:40	23° VIII 04'40	
asc. node	3530 Dec 19 06:14	5° IX 27'39		evening set	3531 Dec 01 23:14	20° VIII 48'26	
inferior conj	3530 Dec 23 04:04	0° IX 28'43	1°17'58	asc. node	3531 Dec 06 03:16	16° VIII 08'12	
minimum elong	3530 Dec 23 02:22	0° IX 34'33	1°17'19	min. Earth dist.	3531 Dec 06 15:11	15° VIII 28'45	0.67656 AU
min. Earth dist.	3530 Dec 22 19:17	0° IX 58'59	0.67945 AU	inferior conj	3531 Dec 07 10:40	14° VIII 23'34	0°26'46
	3530 Dec 23 12:25	30° R VIII		minimum elong	3531 Dec 07 10:02	14° VIII 25'44	0°26'30
morning rise	3530 Dec 28 09:47	24° VIII 20'38		morning rise	3531 Dec 12 20:52	8° VIII 21'18	
direct	3531 Jan 01 17:33	22° VIII 37'15		direct	3531 Dec 16 15:26	6° VIII 59'45	
morning max el	3531 Jan 10 09:59	27° VIII 40'43	21°23'25	morning max el	3531 Dec 24 08:05	11° VIII 22'55	20°09'37
	3531 Jan 12 14:06	0° X			3532 Jan 07 12:12	0° IX	
desc. node	3531 Jan 25 13:57	17° X 12'29		desc. node	3532 Jan 12 10:58	7° X 22'34	
	3531 Feb 03 04:54	0° XI		morning set	3532 Jan 20 15:27	19° X 52'24	
morning set	3531 Feb 10 18:20	11° XI 42'54			3532 Jan 27 03:12	0° XI	
max. Earth dist.	3531 Feb 17 18:17	22° XI 59'51	1.42125 AU	max. Earth dist.	3532 Jan 31 03:07	6° XI 21'02	1.43802 AU
	3531 Feb 21 23:04	0° XII		superior conj	3532 Feb 05 20:23	15° XI 37'15	-2°02'58
superior conj	3531 Feb 25 04:52	5° XII 32'10	-2°06'13	minimum elong	3532 Feb 05 16:24	15° XI 20'55	2°02'49

	3532 Feb 14 10:21	0°♄		superior conj	3533 Jan 15 11:15	24°♄38'03	-1°40'39
evening rise	3532 Feb 18 16:54	7°♄21'00		minimum elong	3533 Jan 15 02:28	24°♄03'12	1°39'53
asc. node	3532 Mar 03 02:33	29°♄30'16			3533 Jan 18 20:12	0°♄	
	3532 Mar 03 11:02	0°♄		evening rise	3533 Jan 30 03:24	18°♄20'18	
evening max el	3532 Mar 07 10:20	4°♄48'17	18°09'56		3533 Feb 06 05:30	0°♄	
retrograde	3532 Mar 13 20:54	8°♄11'47		asc. node	3533 Feb 17 23:35	17°♄10'51	
evening set	3532 Mar 16 17:24	7°♄30'18		evening max el	3533 Feb 18 22:32	18°♄12'00	18°29'45
inferior conj	3532 Mar 22 22:06	2°♄16'59	3°34'36	retrograde	3533 Feb 25 11:15	21°♄46'44	
minimum elong	3532 Mar 22 23:07	2°♄14'15	3°34'32	evening set	3533 Feb 28 13:28	20°♄53'28	
	3532 Mar 25 01:32	30°♄		inferior conj	3533 Mar 06 09:05	15°♄21'39	3°37'18
min. Earth dist.	3532 Mar 25 16:30	29°♄21'17	0.62710 AU	minimum elong	3533 Mar 06 08:28	15°♄23'30	3°37'17
morning rise	3532 Mar 29 03:40	26°♄13'59		min. Earth dist.	3533 Mar 08 12:10	12°♄51'23	0.64547 AU
direct	3532 Apr 05 01:18	23°♄38'02		morning rise	3533 Mar 12 02:51	9°♄11'44	
desc. node	3532 Apr 09 10:09	24°♄33'12		direct	3533 Mar 18 21:44	6°♄22'17	
	3532 Apr 17 09:25	0°♄		desc. node	3533 Mar 27 07:11	9°♄44'34	
morning max el	3532 Apr 19 01:19	1°♄35'43	27°49'46	morning max el	3533 Apr 01 10:47	14°♄15'26	27°21'49
	3532 May 09 22:25	0°♄			3533 Apr 14 05:32	0°♄	
morning set	3532 May 23 02:13	24°♄12'52			3533 May 02 13:48	0°♄	
	3532 May 25 21:48	0°♄		morning set	3533 May 06 18:21	7°♄58'37	
max. Earth dist.	3532 May 28 13:17	5°♄35'43	1.32610 AU	max. Earth dist.	3533 May 11 12:33	17°♄32'41	1.33522 AU
asc. node	3532 May 30 01:50	8°♄52'17					
				superior conj	3533 May 14 21:13	24°♄34'47	-0°21'30
superior conj	3532 May 30 16:36	10°♄12'11	0°06'28	minimum elong	3533 May 14 22:19	24°♄40'36	0°21'16
minimum elong	3532 May 30 16:17	10°♄10'30	0°06'23	asc. node	3533 May 16 22:52	28°♄59'01	
behind sun begin	3532 May 30 11:29	9°♄44'28			3533 May 17 10:16	0°♄	
behind sun end	3532 May 30 21:06	10°♄36'33		evening rise	3533 May 22 02:48	9°♄59'20	
evening rise	3532 Jun 06 15:35	25°♄15'45			3533 Jun 01 13:12	0°♄	
	3532 Jun 08 21:52	0°♄		evening max el	3533 Jun 12 07:16	14°♄17'43	22°12'40
	3532 Jun 27 01:53	0°♄		desc. node	3533 Jun 23 06:23	20°♄32'21	
evening max el	3532 Jun 30 16:11	3°♄51'35	23°49'11	retrograde	3533 Jun 25 04:19	20°♄40'49	
desc. node	3532 Jul 06 09:23	8°♄20'27		evening set	3533 Jun 28 01:45	20°♄22'13	
retrograde	3532 Jul 14 09:08	10°♄44'45		min. Earth dist.	3533 Jul 06 13:09	16°♄43'22	0.55064 AU
evening set	3532 Jul 18 16:44	10°♄03'44		inferior conj	3533 Jul 07 09:04	16°♄15'19	-3°48'35
min. Earth dist.	3532 Jul 25 02:25	7°♄00'31	0.56132 AU	minimum elong	3533 Jul 07 00:42	16°♄27'07	3°46'23
inferior conj	3532 Jul 27 09:31	5°♄37'05	-4°52'38	morning rise	3533 Jul 16 01:30	12°♄24'26	
minimum elong	3532 Jul 27 04:36	5°♄44'34	4°52'03	direct	3533 Jul 19 03:40	12°♄03'04	
morning rise	3532 Aug 04 19:02	1°♄40'20		morning max el	3533 Jul 30 21:03	17°♄31'01	21°22'58
direct	3532 Aug 07 13:32	1°♄20'51			3533 Aug 09 15:11	0°♄	
morning max el	3532 Aug 17 15:42	6°♄01'53	19°59'13	asc. node	3533 Aug 12 22:07	5°♄37'58	
asc. node	3532 Aug 26 01:05	16°♄50'15		morning set	3533 Aug 20 01:45	19°♄39'41	
	3532 Sep 02 06:34	0°♄			3533 Aug 25 00:02	0°♄	
morning set	3532 Sep 04 17:16	4°♄54'16					
				superior conj	3533 Aug 27 09:35	5°♄00'48	1°43'28
superior conj	3532 Sep 12 11:30	20°♄40'47	1°44'01	minimum elong	3533 Aug 27 08:49	4°♄56'47	1°43'27
minimum elong	3532 Sep 12 12:12	20°♄44'14	1°44'00	max. Earth dist.	3533 Aug 31 13:16	13°♄29'26	1.35188 AU
	3532 Sep 17 05:47	0°♄		evening rise	3533 Sep 04 19:47	21°♄49'17	
max. Earth dist.	3532 Sep 18 02:27	1°♄38'12	1.36964 AU		3533 Sep 09 06:11	0°♄	
evening rise	3532 Sep 21 21:54	8°♄41'22		desc. node	3533 Sep 19 05:43	16°♄41'04	
desc. node	3532 Oct 02 08:42	26°♄27'29			3533 Sep 28 09:58	0°♄	
	3532 Oct 04 14:43	0°♄		evening max el	3533 Oct 10 04:27	13°♄46'48	26°39'28
evening max el	3532 Oct 27 16:08	0°♄08'05	25°40'46	retrograde	3533 Oct 23 03:59	21°♄01'38	
	3532 Oct 27 12:49	0°♄		evening set	3533 Oct 29 17:36	18°♄21'47	
retrograde	3532 Nov 08 22:52	7°♄09'46		min. Earth dist.	3533 Nov 02 18:57	14°♄13'02	0.66025 AU
evening set	3532 Nov 14 23:28	4°♄39'26		inferior conj	3533 Nov 04 13:04	12°♄07'55	-1°28'27
	3532 Nov 19 06:11	30°♄		minimum elong	3533 Nov 04 15:30	12°♄00'42	1°27'27
min. Earth dist.	3532 Nov 19 07:50	29°♄54'48	0.67017 AU	asc. node	3533 Nov 08 21:20	7°♄34'03	
inferior conj	3532 Nov 20 14:19	28°♄17'46	-0°29'09	morning rise	3533 Nov 10 14:06	6°♄24'54	
minimum elong	3532 Nov 20 15:05	28°♄15'21	0°28'49	direct	3533 Nov 13 11:43	5°♄37'56	
asc. node	3532 Nov 22 00:17	26°♄31'29		morning max el	3533 Nov 20 02:14	9°♄13'55	18°26'30
morning rise	3532 Nov 26 07:01	22°♄23'48			3533 Dec 04 16:55	0°♄	
direct	3532 Nov 29 14:05	21°♄21'23		morning set	3533 Dec 09 21:53	8°♄21'09	
morning max el	3532 Dec 06 14:04	25°♄15'31	19°10'06	desc. node	3533 Dec 16 05:02	18°♄24'56	
	3532 Dec 10 16:10	0°♄			3533 Dec 23 12:57	0°♄	
desc. node	3532 Dec 29 08:00	27°♄48'20					
morning set	3532 Dec 29 18:02	28°♄27'19		superior conj	3533 Dec 25 13:30	3°♄10'41	-1°00'48
	3532 Dec 30 17:52	0°♄		minimum elong	3533 Dec 25 06:00	2°♄41'18	0°59'53
max. Earth dist.	3533 Jan 12 18:29	20°♄22'06	1.44876 AU	max. Earth dist.	3533 Dec 26 13:01	4°♄42'59	1.45236 AU

evening rise	3534 Jan 10 14:37	28°  23'06		superior conj	3534 Dec 04 23:56	12°  13'07	-0°13'04
	3534 Jan 11 15:10	0° 		minimum elong	3534 Dec 04 22:21	12°  06'45	0°12'51
greatest brilliancy	3534 Jan 20 13:27	14°  02'41	-0.8m	behind sun begin	3534 Dec 04 15:54	11°  40'55	
	3534 Jan 31 19:11	0° 		behind sun end	3534 Dec 05 04:48	12°  32'34	
evening max el	3534 Feb 02 08:01	1°  40'47	19°07'11	max. Earth dist.	3534 Dec 09 07:56	19°  06'40	1.44859 AU
asc. node	3534 Feb 04 20:37	3°  54'58			3534 Dec 16 06:51	0° 	
retrograde	3534 Feb 09 06:45	5°  37'39		evening rise	3534 Dec 21 06:40	7°  34'26	
evening set	3534 Feb 12 15:33	4°  31'40		greatest brilliancy	3535 Jan 04 13:05	29°  23'02	-0.6m
	3534 Feb 17 04:53	30° 			3535 Jan 04 23:07	0° 	
inferior conj	3534 Feb 18 05:10	28°  43'31	3°24'38	evening max el	3535 Jan 16 13:06	15°  12'25	20°00'29
minimum elong	3534 Feb 18 03:22	28°  49'14	3°24'22	asc. node	3535 Jan 22 17:40	19°  28'29	
min. Earth dist.	3534 Feb 19 16:56	26°  49'43	0.66009 AU	retrograde	3535 Jan 24 04:33	19°  40'00	
morning rise	3534 Feb 23 14:51	22°  30'27		evening set	3535 Jan 27 21:19	18°  20'12	
direct	3534 Mar 02 00:53	19°  41'04		inferior conj	3535 Feb 02 07:23	12°  18'07	3°00'11
desc. node	3534 Mar 14 04:14	26°  36'13		minimum elong	3535 Feb 02 04:58	12°  26'11	2°59'38
morning max el	3534 Mar 14 20:45	27°  17'14	26°24'22	min. Earth dist.	3535 Feb 03 05:00	11°  05'35	0.67062 AU
	3534 Mar 17 10:01	0° 		morning rise	3535 Feb 07 12:24	6°  04'19	
	3534 Apr 07 21:25	0° 		direct	3535 Feb 13 09:50	3°  26'19	
morning set	3534 Apr 19 22:29	21°  04'57		morning max el	3535 Feb 25 05:33	10°  30'07	25°06'37
max. Earth dist.	3534 Apr 24 00:34	28°  05'10	1.34891 AU	desc. node	3535 Mar 01 01:18	14°  40'05	
	3534 Apr 24 13:31	0° 			3535 Mar 12 17:39	0° 	
					3535 Mar 31 13:08	0° 	
superior conj	3534 Apr 28 19:16	8°  32'52	-0°50'22	morning set	3535 Apr 02 09:49	3°  18'10	
minimum elong	3534 Apr 28 21:55	8°  46'30	0°49'51	max. Earth dist.	3535 Apr 06 01:19	9°  57'26	1.36699 AU
asc. node	3534 May 03 19:54	18°  59'22					
evening rise	3534 May 06 11:25	24°  29'40		superior conj	3535 Apr 12 07:51	21°  58'49	-1°18'26
	3534 May 09 04:14	0° 		minimum elong	3535 Apr 12 11:53	22°  18'45	1°17'48
evening max el	3534 May 25 07:36	25°  07'48	20°45'47		3535 Apr 16 08:14	0° 	
	3534 Jun 01 15:39	0° 		evening rise	3535 Apr 20 15:14	8°  40'27	
retrograde	3534 Jun 05 17:16	0°  34'15		asc. node	3535 Apr 20 16:57	8°  49'08	
evening set	3534 Jun 07 19:24	0°  31'28			3535 May 02 10:14	0° 	
	3534 Jun 09 23:18	30° 		evening max el	3535 May 07 20:10	6°  13'41	19°36'09
desc. node	3534 Jun 10 03:26	29°  15'41		retrograde	3535 May 17 11:50	11°  18'48	
inferior conj	3534 Jun 17 02:31	26°  13'40	-2°02'03	evening set	3535 May 19 11:25	11°  12'50	
minimum elong	3534 Jun 16 20:49	26°  12'11	2°00'01	inferior conj	3535 May 28 04:23	7°  10'07	-0°02'52
min. Earth dist.	3534 Jun 18 01:09	26°  10'42	0.54899 AU	minimum elong	3535 May 28 04:15	7°  10'41	0°02'49
morning rise	3534 Jun 25 21:46	22°  12'59		transit middle	3535 May 28 04:15	7°  10'41	0°02'49
direct	3534 Jun 29 12:59	22°  10'31		transit begin	3535 May 28 00:24	7°  10'25	
morning max el	3534 Jul 12 16:26	28°  19'41	23°01'41	transit end	3535 May 28 08:07	6°  15'13	
	3534 Jul 14 09:02	0° 		desc. node	3535 May 28 00:29	7°  10'17	
asc. node	3534 Jul 30 19:10	24°  55'07		min. Earth dist.	3535 May 30 15:00	5°  13'48	0.55697 AU
	3534 Aug 02 08:14	0° 		morning rise	3535 Jun 05 18:30	2°  12'39	
morning set	3534 Aug 04 12:44	4°  32'22		direct	3535 Jun 10 06:37	1°  14'12	
				morning max el	3535 Jun 24 06:39	8°  45'00	24°44'18
superior conj	3534 Aug 11 14:28	19°  40'40	1°36'26		3535 Jul 09 23:46	0° 	
minimum elong	3534 Aug 11 12:41	19°  31'08	1°36'18	asc. node	3535 Jul 17 16:13	14°  33'45	
max. Earth dist.	3534 Aug 14 08:58	25°  32'51	1.33790 AU	morning set	3535 Jul 20 00:31	19°  26'55	
	3534 Aug 16 12:31	0° 			3535 Jul 24 21:47	0° 	
evening rise	3534 Aug 19 07:27	5°  17'06					
	3534 Sep 01 21:52	0° 		superior conj	3535 Jul 26 23:35	4°  32'01	1°23'59
desc. node	3534 Sep 06 02:44	6°  31'31		minimum elong	3535 Jul 26 21:18	4°  19'33	1°23'42
evening max el	3534 Sep 22 16:41	27°  14'01	27°16'46	max. Earth dist.	3535 Jul 28 13:13	7°  15'27	1.32809 AU
	3534 Sep 25 20:21	0° 		evening rise	3535 Aug 03 05:07	19°  53'34	
retrograde	3534 Oct 06 03:30	4°  13'34			3535 Aug 08 08:19	0° 	
evening set	3534 Oct 13 03:13	1°  15'05		desc. node	3535 Aug 23 23:46	25°  48'38	
	3534 Oct 15 06:01	30° 			3535 Aug 27 01:53	0° 	
min. Earth dist.	3534 Oct 16 22:24	28°  17'14	0.64682 AU	evening max el	3535 Sep 05 03:03	10°  16'48	27°25'59
inferior conj	3534 Oct 19 04:41	25°  49'34	-2°29'11	retrograde	3535 Sep 18 20:27	17°  32'52	
minimum elong	3534 Oct 19 08:50	25°  38'16	2°27'38	evening set	3535 Sep 26 01:04	14°  59'51	
morning rise	3534 Oct 25 15:32	20°  20'27		min. Earth dist.	3535 Sep 29 16:10	11°  57'17	0.63013 AU
asc. node	3534 Oct 26 18:23	19°  56'39		inferior conj	3535 Oct 02 10:23	9°  15'37	-3°28'21
direct	3534 Oct 28 06:09	19°  44'59		minimum elong	3535 Oct 02 15:53	9°  02'10	3°26'39
morning max el	3534 Nov 03 18:01	23°  12'05	17°59'43	morning rise	3535 Oct 09 08:08	4°  03'44	
	3534 Nov 09 03:49	0° 		direct	3535 Oct 11 18:26	3°  36'09	
morning set	3534 Nov 21 07:04	19° 14'57		asc. node	3535 Oct 13 15:27	3° 53'01	
	3534 Nov 27 11:31	0°		morning max el	3535 Oct 18 10:26	7° 02'21	17°50'30
desc. node	3534 Dec 03 02:03	9° 08'41			3535 Nov 02 10:21	0°	

morning set	3535 Nov 03 16:23	2°♍12'10			3536 Oct 24 17:21	0°♍	
superior conj	3535 Nov 15 09:48	22°♍25'03	0°31'11	superior conj	3536 Oct 26 22:24	3°♍55'20	1°05'27
minimum elong	3535 Nov 15 12:48	22°♍37'34	0°30'47	minimum elong	3536 Oct 27 02:40	4°♍14'04	1°04'56
desc. node	3535 Nov 19 23:05	29°♍55'34		max. Earth dist.	3536 Nov 03 12:51	16°♍55'10	1.42171 AU
	3535 Nov 20 00:10	0°♌		desc. node	3536 Nov 05 20:06	20°♍42'31	
max. Earth dist.	3535 Nov 22 00:37	3°♌16'02	1.43795 AU	evening rise	3536 Nov 09 10:55	26°♍32'17	
evening rise	3535 Nov 30 15:59	16°♌53'04			3536 Nov 11 15:30	0°♌	
	3535 Dec 09 07:04	0°♋			3536 Dec 02 02:46	0°♋	
evening max el	3535 Dec 30 12:45	28°♋45'00	21°07'02	evening max el	3536 Dec 12 07:03	12°♋18'45	22°22'52
	3535 Dec 31 19:28	0°♊		retrograde	3536 Dec 21 22:32	18°♋02'53	
retrograde	3536 Jan 08 02:22	3°♊49'34		asc. node	3536 Dec 26 11:45	16°♋13'02	
asc. node	3536 Jan 09 14:43	3°♊36'59		evening set	3536 Dec 26 12:22	16°♋11'46	
evening set	3536 Jan 12 04:50	2°♊14'35		inferior conj	3536 Dec 31 20:54	9°♋50'45	1°44'52
	3536 Jan 14 11:56	30°♋♋		minimum elong	3536 Dec 31 18:47	9°♋58'04	1°44'06
inferior conj	3536 Jan 17 13:18	26°♋01'25	2°26'23	min. Earth dist.	3536 Dec 31 18:17	9°♋59'49	0.67961 AU
minimum elong	3536 Jan 17 10:48	26°♋10'00	2°25'37	morning rise	3537 Jan 06 01:05	3°♋40'37	
min. Earth dist.	3536 Jan 17 22:13	25°♋30'39	0.67704 AU	direct	3537 Jan 10 17:03	1°♋44'13	
morning rise	3536 Jan 22 16:36	19°♋48'38		morning max el	3537 Jan 20 01:35	7°♋14'10	22°11'03
direct	3536 Jan 27 23:29	17°♋29'38		desc. node	3537 Feb 01 19:21	23°♋06'46	
morning max el	3536 Feb 07 14:06	23°♋48'36	23°38'59		3537 Feb 06 15:00	0°♊	
	3536 Feb 13 02:05	0°♊		morning set	3537 Feb 22 06:44	24°♊04'28	
desc. node	3536 Feb 15 22:20	3°♊35'08			3537 Feb 25 21:33	0°♌	
	3536 Mar 05 03:45	0°♌		max. Earth dist.	3537 Feb 27 18:12	3°♌06'29	1.40970 AU
morning set	3536 Mar 13 22:23	14°♌22'20					
max. Earth dist.	3536 Mar 17 20:36	21°♌10'03	1.38808 AU	superior conj	3537 Mar 07 12:43	16°♌33'46	-2°00'58
	3536 Mar 22 18:19	0°♍		minimum elong	3537 Mar 07 16:09	16°♌49'06	2°00'48
					3537 Mar 14 21:30	0°♍	
superior conj	3536 Mar 25 07:15	4°♍43'15	-1°43'11	evening rise	3537 Mar 17 21:02	5°♍33'34	
minimum elong	3536 Mar 25 11:54	5°♍05'03	1°42'41	asc. node	3537 Mar 24 11:03	17°♍36'40	
evening rise	3536 Apr 03 11:34	22°♍24'44			3537 Apr 01 17:24	0°♌	
asc. node	3536 Apr 06 14:01	28°♍23'41		evening max el	3537 Apr 03 02:35	1°♌27'56	18°16'46
	3536 Apr 07 10:22	0°♌		retrograde	3537 Apr 10 05:30	5°♌01'19	
evening max el	3536 Apr 19 19:33	18°♌47'12	18°46'23	evening set	3537 Apr 12 16:37	4°♌36'42	
retrograde	3536 Apr 27 23:08	22°♌46'23		inferior conj	3537 Apr 19 19:11	29°♍55'13	2°46'08
evening set	3536 Apr 30 03:51	22°♌30'06		minimum elong	3537 Apr 19 22:44	29°♍47'33	2°45'19
inferior conj	3536 May 08 01:04	18°♌09'09	1°37'36		3537 Apr 19 16:57	30°♌♍	
minimum elong	3536 May 08 04:22	18°♌03'04	1°36'33	min. Earth dist.	3537 Apr 23 05:16	26°♍59'49	0.59334 AU
min. Earth dist.	3536 May 11 07:38	15°♌45'46	0.57281 AU	morning rise	3537 Apr 27 02:11	24°♍16'23	
desc. node	3536 May 13 21:31	14°♌05'45		desc. node	3537 Apr 30 18:33	22°♍46'14	
morning rise	3536 May 16 01:42	12°♌58'49		direct	3537 May 03 10:06	22°♍27'06	
direct	3536 May 21 13:46	11°♌44'56			3537 May 17 12:46	0°♌	
morning max el	3536 Jun 04 22:03	19°♌15'23	26°15'34	morning max el	3537 May 17 19:02	0°♌15'16	27°20'33
	3536 Jun 14 00:08	0°♍			3537 Jun 08 00:17	0°♍	
	3536 Jul 01 09:50	0°♎		morning set	3537 Jun 17 20:00	19°♍00'19	
morning set	3536 Jul 03 11:32	4°♎18'31		asc. node	3537 Jun 20 10:18	24°♍30'32	
asc. node	3536 Jul 03 13:15	4°♎27'38			3537 Jun 22 22:57	0°♎	
superior conj	3536 Jul 10 10:57	19°♎28'26	1°06'57	superior conj	3537 Jun 24 22:42	4°♎22'35	0°45'58
minimum elong	3536 Jul 10 08:39	19°♎15'45	1°06'33	minimum elong	3537 Jun 24 20:51	4°♎12'21	0°45'35
max. Earth dist.	3536 Jul 10 23:13	20°♎35'56	1.32236 AU	max. Earth dist.	3537 Jun 24 11:08	3°♎18'51	1.32058 AU
	3536 Jul 15 06:48	0°♏		evening rise	3537 Jul 01 18:41	19°♎15'44	
evening rise	3536 Jul 17 09:43	4°♏29'32			3537 Jul 07 01:06	0°♏	
	3536 Jul 31 01:08	0°♎			3537 Jul 26 05:26	0°♎	
desc. node	3536 Aug 09 20:48	14°♎18'48		desc. node	3537 Jul 27 17:48	1°♎41'44	
evening max el	3536 Aug 17 08:51	22°♎41'53	27°02'32	evening max el	3537 Jul 30 07:31	4°♎18'44	26°06'19
retrograde	3536 Aug 31 05:58	29°♎53'59		retrograde	3537 Aug 13 06:55	11°♎27'54	
evening set	3536 Sep 07 07:04	27°♎41'58		evening set	3537 Aug 19 16:23	9°♎48'43	
min. Earth dist.	3536 Sep 10 23:07	25°♎00'58	0.61078 AU	min. Earth dist.	3537 Aug 23 20:08	7°♎13'14	0.59008 AU
inferior conj	3536 Sep 14 02:56	22°♎18'03	-4°20'47	inferior conj	3537 Aug 27 02:42	4°♎46'29	-4°57'56
minimum elong	3536 Sep 14 08:37	22°♎05'47	4°19'31	minimum elong	3537 Aug 27 06:16	4°♎39'47	4°57'33
morning rise	3536 Sep 21 11:56	17°♎26'55		morning rise	3537 Sep 03 22:21	0°♎18'28	
direct	3536 Sep 23 20:54	17°♎04'13			3537 Sep 05 16:37	30°♌♏	
asc. node	3536 Sep 29 12:29	19°♎18'30		direct	3537 Sep 06 08:52	29°♏58'25	
morning max el	3536 Oct 01 00:26	20°♎37'40	17°59'57		3537 Sep 07 01:01	0°♎	
	3536 Oct 08 01:05	0°♏		morning max el	3537 Sep 14 08:45	3°♎48'49	18°29'27
morning set	3536 Oct 16 19:28	15°♏33'04		asc. node	3537 Sep 16 09:31	5°♎58'54	

morning set	3537 Sep 30 11:06	29° \mathbb{M} 29'31		morning set	3538 Sep 14 11:27	13° \mathbb{M} 51'03	
	3537 Sep 30 17:26	0° \mathbb{L}					
superior conj	3537 Oct 09 09:41	16° \mathbb{L} 32'16	1°28'21	superior conj	3538 Sep 22 14:08	29° \mathbb{M} 59'49	1°40'52
minimum elong	3537 Oct 09 13:03	16° \mathbb{L} 47'51	1°28'02	minimum elong	3538 Sep 22 15:48	0° \mathbb{L} 08'00	1°40'47
	3537 Oct 16 21:40	0° \mathbb{M}			3538 Sep 22 14:10	0° \mathbb{L}	
max. Earth dist.	3537 Oct 16 19:38	29° \mathbb{L} 51'12	1.40187 AU	max. Earth dist.	3538 Sep 28 23:34	12° \mathbb{L} 05'45	1.38105 AU
evening rise	3537 Oct 21 02:41	7° \mathbb{M} 09'06		evening rise	3538 Oct 02 18:00	18° \mathbb{L} 51'08	
desc. node	3537 Oct 23 17:06	11° \mathbb{M} 26'00			3538 Oct 09 08:01	0° \mathbb{M}	
	3537 Nov 04 17:34	0° \mathbb{J}		desc. node	3538 Oct 10 14:06	2° \mathbb{M} 01'58	
evening max el	3537 Nov 24 21:17	25° \mathbb{J} 55'11	23°42'48		3538 Oct 29 23:03	0° \mathbb{J}	
	3537 Nov 29 15:27	0° \mathbb{Z}		evening max el	3538 Nov 07 09:42	9° \mathbb{J} 35'24	25°00'18
retrograde	3537 Dec 05 15:41	2° \mathbb{Z} 16'33		retrograde	3538 Nov 19 04:46	16° \mathbb{J} 25'51	
evening set	3537 Dec 10 18:23	0° \mathbb{Z} 09'07		evening set	3538 Nov 24 21:13	14° \mathbb{J} 03'17	
	3537 Dec 10 22:37	30° \mathbb{R} \mathbb{J}		min. Earth dist.	3538 Nov 29 09:49	8° \mathbb{J} 58'10	0.67417 AU
asc. node	3537 Dec 13 08:46	27° \mathbb{J} 26'37		inferior conj	3538 Nov 30 09:56	7° \mathbb{J} 38'56	0°03'32
min. Earth dist.	3537 Dec 15 14:56	24° \mathbb{J} 30'02	0.67859 AU	minimum elong	3538 Nov 30 09:50	7° \mathbb{J} 39'14	0°03'31
inferior conj	3537 Dec 16 04:22	23° \mathbb{J} 44'13	0°56'54	transit middle	3538 Nov 30 09:50	7° \mathbb{J} 39'14	0°03'31
minimum elong	3537 Dec 16 03:04	23° \mathbb{J} 48'38	0°56'23	transit begin	3538 Nov 30 07:08	7° \mathbb{J} 48'08	
morning rise	3537 Dec 21 11:45	17° \mathbb{J} 38'27		transit end	3538 Nov 30 12:33	7° \mathbb{J} 30'21	
direct	3537 Dec 25 13:36	16° \mathbb{J} 04'51		asc. node	3538 Nov 30 05:48	7° \mathbb{J} 52'31	
morning max el	3538 Jan 02 19:19	20° \mathbb{J} 50'09	20°50'32	morning rise	3538 Dec 05 22:39	1° \mathbb{J} 39'44	
	3538 Jan 10 10:45	0° \mathbb{Z}		direct	3538 Dec 09 11:59	0° \mathbb{J} 26'51	
desc. node	3538 Jan 19 16:21	13° \mathbb{Z} 04'56		morning max el	3538 Dec 16 20:50	4° \mathbb{J} 36'46	19°42'25
	3538 Jan 30 20:45	0° \approx		greatest brilliancy	3538 Dec 30 00:54	22° \mathbb{J} 00'30	-0.7m
morning set	3538 Feb 01 12:30	2° \approx 34'31			3539 Jan 04 08:24	0° \mathbb{Z}	
max. Earth dist.	3538 Feb 09 22:19	15° \approx 57'01	1.42892 AU	desc. node	3539 Jan 06 13:21	3° \mathbb{Z} 21'53	
				morning set	3539 Jan 11 08:33	10° \mathbb{Z} 44'34	
superior conj	3538 Feb 16 19:09	27° \approx 19'13	-2°06'59	max. Earth dist.	3539 Jan 23 09:33	29° \mathbb{Z} 34'30	1.44334 AU
minimum elong	3538 Feb 16 18:34	27° \approx 16'47	2°06'59		3539 Jan 23 15:58	0° \approx	
	3538 Feb 18 09:04	0° \mathbb{H}		superior conj	3539 Jan 27 23:31	6° \approx 54'23	-1°55'57
evening rise	3538 Feb 28 15:37	17° \mathbb{H} 58'10		minimum elong	3539 Jan 27 17:03	6° \approx 28'19	1°55'33
	3538 Mar 07 11:24	0° \mathbb{Y}		evening rise	3539 Feb 10 14:49	29° \approx 29'12	
asc. node	3538 Mar 11 08:05	6° \mathbb{Y} 21'16			3539 Feb 10 22:06	0° \mathbb{H}	
evening max el	3538 Mar 17 14:01	14° \mathbb{Y} 31'44	18°06'56	asc. node	3539 Feb 26 05:07	24° \mathbb{H} 28'00	
retrograde	3538 Mar 24 03:44	17° \mathbb{Y} 54'53		evening max el	3539 Mar 01 02:44	27° \mathbb{H} 49'49	18°16'13
evening set	3538 Mar 26 20:49	17° \mathbb{Y} 20'03			3539 Mar 03 17:14	0° \mathbb{Y}	
inferior conj	3538 Apr 02 08:22	12° \mathbb{Y} 18'14	3°24'06	retrograde	3539 Mar 07 13:15	1° \mathbb{Y} 16'35	
minimum elong	3538 Apr 02 10:28	12° \mathbb{Y} 13'03	3°23'51	evening set	3539 Mar 10 12:05	0° \mathbb{Y} 30'18	
min. Earth dist.	3538 Apr 05 10:30	9° \mathbb{Y} 15'37	0.61511 AU		3539 Mar 11 08:51	30° \mathbb{R} \mathbb{H}	
morning rise	3538 Apr 08 22:22	6° \mathbb{Y} 21'22		inferior conj	3539 Mar 16 12:32	25° \mathbb{H} 09'12	3°37'53
direct	3538 Apr 15 17:43	3° \mathbb{Y} 59'14		minimum elong	3539 Mar 16 12:49	25° \mathbb{H} 08'25	3°37'53
desc. node	3538 Apr 17 15:34	4° \mathbb{Y} 09'44		min. Earth dist.	3539 Mar 19 00:44	22° \mathbb{H} 22'09	0.63533 AU
morning max el	3538 Apr 29 22:19	11° \mathbb{Y} 56'35	27°49'54	morning rise	3539 Mar 22 12:36	19° \mathbb{H} 02'40	
	3538 May 14 04:22	0° \mathbb{B}		direct	3539 Mar 29 10:07	16° \mathbb{H} 18'50	
	3538 May 31 07:19	0° \mathbb{I}		desc. node	3539 Apr 04 12:35	18° \mathbb{H} 06'41	
morning set	3538 Jun 02 00:04	3° \mathbb{I} 26'23		morning max el	3539 Apr 12 06:03	24° \mathbb{H} 16'24	27°41'52
asc. node	3538 Jun 07 07:20	14° \mathbb{I} 38'12			3539 Apr 17 10:08	0° \mathbb{Y}	
max. Earth dist.	3538 Jun 07 21:03	15° \mathbb{I} 52'32	1.32286 AU		3539 May 07 13:16	0° \mathbb{B}	
				morning set	3539 May 16 21:22	17° \mathbb{B} 29'08	
superior conj	3538 Jun 09 09:09	19° \mathbb{I} 09'13	0°21'41	max. Earth dist.	3539 May 22 01:06	28° \mathbb{B} 04'45	1.32938 AU
minimum elong	3538 Jun 09 08:10	19° \mathbb{I} 03'50	0°21'27		3539 May 22 22:53	0° \mathbb{I}	
	3538 Jun 14 08:15	0° \mathbb{D}		superior conj	3539 May 24 16:29	3° \mathbb{I} 42'23	-0°05'13
evening rise	3538 Jun 16 06:00	4° \mathbb{D} 05'42		minimum elong	3539 May 24 16:45	3° \mathbb{I} 43'45	0°05'10
	3538 Jun 30 01:38	0° \mathbb{Q}		behind sun begin	3539 May 24 11:41	3° \mathbb{I} 16'36	
evening max el	3538 Jul 11 23:11	15° \mathbb{Q} 10'22	24°43'41	behind sun end	3539 May 24 21:48	4° \mathbb{I} 10'56	
desc. node	3538 Jul 14 14:50	17° \mathbb{Q} 30'43		asc. node	3539 May 25 04:23	4° \mathbb{I} 46'23	
retrograde	3538 Jul 25 21:27	22° \mathbb{Q} 13'08		evening rise	3539 May 31 17:48	18° \mathbb{I} 53'15	
evening set	3538 Jul 31 01:38	21° \mathbb{Q} 12'37			3539 Jun 06 04:44	0° \mathbb{D}	
min. Earth dist.	3538 Aug 05 10:29	18° \mathbb{Q} 23'40	0.57061 AU	evening max el	3539 Jun 23 12:31	25° \mathbb{D} 37'36	23°07'48
inferior conj	3538 Aug 08 06:49	16° \mathbb{Q} 32'28	-5°06'38		3539 Jun 29 02:35	0° \mathbb{Q}	
minimum elong	3538 Aug 08 05:22	16° \mathbb{Q} 34'50	5°06'36	desc. node	3539 Jul 01 11:51	1° \mathbb{Q} 12'00	
morning rise	3538 Aug 16 11:41	12° \mathbb{Q} 26'08		retrograde	3539 Jul 06 23:19	2° \mathbb{Q} 20'19	
direct	3538 Aug 19 02:27	12° \mathbb{Q} 07'00		evening set	3539 Jul 10 15:04	1° \mathbb{Q} 51'05	
morning max el	3538 Aug 28 08:12	16° \mathbb{Q} 26'19	19°20'13		3539 Jul 15 07:11	30° \mathbb{R} \mathbb{D}	
asc. node	3538 Sep 03 06:33	23° \mathbb{Q} 39'12		min. Earth dist.	3539 Jul 17 21:50	28° \mathbb{D} 34'10	0.55578 AU
	3538 Sep 07 04:35	0° \mathbb{M}					

inferior conj	3539 Jul 19 15:23	27°  33'38	-4°31'45	evening set	3540 Jun 19 01:21	12°  00'34	
minimum elong	3539 Jul 19 08:22	27°  43'54	4°30'28	inferior conj	3540 Jun 28 10:40	7°  59'53	-3°07'16
morning rise	3539 Jul 28 04:02	23°  41'03		minimum elong	3540 Jun 28 02:42	8°  11'01	3°04'47
direct	3539 Jul 31 01:22	23°  21'05		min. Earth dist.	3540 Jun 28 08:47	8°  02'30	0.54877 AU
morning max el	3539 Aug 10 20:19	28°  21'36	20°32'28	morning rise	3540 Jul 07 05:01	4°  05'37	
	3539 Aug 12 11:49	0°  Ω		direct	3540 Jul 10 12:10	3°  41'55	
asc. node	3539 Aug 21 03:35	12°  Ω05'56		morning max el	3540 Jul 22 20:51	9°  31'33	22°03'36
morning set	3539 Aug 29 17:42	28°  Ω30'08			3540 Aug 06 10:09	0°  Ω	
	3539 Aug 30 11:11	0°  ൬		asc. node	3540 Aug 07 00:39	1°  Ω07'15	
				morning set	3540 Aug 13 03:30	13°  Ω19'27	
superior conj	3539 Sep 06 06:57	14°  ൬04'22	1°44'39	superior conj	3540 Aug 20 08:16	28°  Ω33'41	1°41'12
minimum elong	3539 Sep 06 06:58	14°  ൬04'29	1°44'39	minimum elong	3540 Aug 20 07:00	28°  Ω27'03	1°41'08
max. Earth dist.	3539 Sep 11 06:40	23°  ൬59'54	1.36171 AU		3540 Aug 21 00:42	0°  ൬	
	3539 Sep 14 10:20	0°  ♌		max. Earth dist.	3540 Aug 23 21:29	5°  ൬56'05	1.34550 AU
evening rise	3539 Sep 15 06:07	1°  ♌31'52		evening rise	3540 Aug 28 10:25	14°  ൬58'11	
desc. node	3539 Sep 27 11:09	22°  ♌25'52			3540 Sep 05 15:41	0°  ♌	
	3539 Oct 02 09:51	0°  ♌		desc. node	3540 Sep 13 08:12	12°  ♌30'42	
evening max el	3539 Oct 20 22:11	23°  ♌17'47	26°07'58		3540 Sep 26 02:09	0°  ♌	
	3539 Oct 30 18:20	0°  ♌		evening max el	3540 Oct 02 10:48	6°  ♌53'29	26°58'20
retrograde	3539 Nov 02 12:54	0°  ♌26'08		retrograde	3540 Oct 15 15:28	14°  ♌09'53	
	3539 Nov 05 03:55	30°  ♌		evening set	3540 Oct 22 09:56	11°  ♌28'21	
evening set	3539 Nov 08 19:07	27°  ♌51'24		min. Earth dist.	3540 Oct 26 08:39	7°  ♌34'44	0.65505 AU
min. Earth dist.	3539 Nov 13 00:33	23°  ♌21'40	0.66638 AU	inferior conj	3540 Oct 28 07:49	5°  ♌19'32	-1°54'08
inferior conj	3539 Nov 14 11:47	21°  ♌32'25	-0°53'57	minimum elong	3540 Oct 28 10:59	5°  ♌10'26	1°52'52
minimum elong	3539 Nov 14 13:14	21°  ♌27'56	0°53'20	asc. node	3540 Nov 02 23:51	29°  ♌59'35	
asc. node	3539 Nov 17 02:49	18°  ♌26'32			3540 Nov 02 23:34	30°  ♌	
morning rise	3539 Nov 20 07:48	15°  ♌42'26		morning rise	3540 Nov 03 12:51	29°  ♌41'55	
direct	3539 Nov 23 10:35	14°  ♌46'57		direct	3540 Nov 06 07:17	29°  ♌00'08	
morning max el	3539 Nov 30 05:39	18°  ♌32'14	18°49'28		3540 Nov 09 16:08	0°  ♌	
	3539 Dec 09 01:30	0°  ♌		morning max el	3540 Nov 12 19:40	2°  ♌30'56	18°12'59
morning set	3539 Dec 21 20:23	19°  ♌49'02			3540 Dec 01 07:50	0°  ♌	
desc. node	3539 Dec 24 10:24	23°  ♌52'42		morning set	3540 Dec 01 13:04	0°  ♌21'21	
	3539 Dec 28 07:59	0°  ♌		desc. node	3540 Dec 10 07:28	14°  ♌32'44	
max. Earth dist.	3540 Jan 06 02:34	13°  ♌45'47	1.45126 AU				
superior conj	3540 Jan 07 06:49	15°  ♌36'47	-1°25'28	superior conj	3540 Dec 16 09:55	24°  ♌14'33	-0°40'46
minimum elong	3540 Jan 06 21:41	15°  ♌00'53	1°24'31	minimum elong	3540 Dec 16 04:45	23°  ♌54'09	0°40'04
	3540 Jan 16 08:59	0°  ♌		max. Earth dist.	3540 Dec 18 22:10	28°  ♌11'47	1.45173 AU
evening rise	3540 Jan 22 15:18	10°  ♌03'05			3540 Dec 20 01:45	0°  ♌	
	3540 Feb 04 02:54	0°  ♌		evening rise	3541 Jan 01 17:26	19°  ♌45'20	
evening max el	3540 Feb 12 14:07	11°  ♌16'04	18°43'40		3541 Jan 08 07:34	0°  ♌	
asc. node	3540 Feb 13 02:09	11°  ♌45'53		greatest brilliancy	3541 Jan 13 17:30	8°  ♌18'57	-0.7m
retrograde	3540 Feb 19 06:02	14°  ♌58'33		evening max el	3541 Jan 25 21:55	24°  ♌46'15	19°28'02
evening set	3540 Feb 22 11:01	13°  ♌59'54		asc. node	3541 Jan 29 23:10	28°  ♌01'44	
inferior conj	3540 Feb 28 03:45	8°  ♌21'01	3°33'32	retrograde	3541 Feb 02 02:50	28°  ♌55'01	
minimum elong	3540 Feb 28 02:34	8°  ♌24'39	3°33'25	evening set	3541 Feb 05 14:56	27°  ♌43'05	
min. Earth dist.	3540 Mar 01 00:15	6°  ♌05'23	0.65225 AU	inferior conj	3541 Feb 11 02:45	21°  ♌48'31	3°15'31
morning rise	3540 Mar 04 17:40	2°  ♌09'40		minimum elong	3541 Feb 11 00:38	21°  ♌55'27	3°15'08
	3540 Mar 08 01:45	30°  ♌		min. Earth dist.	3541 Feb 12 08:14	20°  ♌12'20	0.66509 AU
direct	3540 Mar 11 09:33	29°  ♌18'36		morning rise	3541 Feb 16 10:05	15°  ♌35'06	
	3540 Mar 14 22:39	0°  ♌		direct	3541 Feb 22 15:04	12°  ♌49'40	
desc. node	3540 Mar 21 09:37	4°  ♌03'57		morning max el	3541 Mar 07 01:21	20°  ♌13'12	25°53'16
morning max el	3540 Mar 24 15:46	7°  ♌05'35	27°00'25	desc. node	3541 Mar 08 06:41	21°  ♌29'12	
	3540 Apr 11 08:20	0°  ♌			3541 Mar 15 10:59	0°  ♌	
	3540 Apr 28 20:35	0°  ♌		morning set	3541 Apr 04 11:35	0°  ♌	
morning set	3540 Apr 29 08:52	0°  ♌58'54			3541 Apr 12 06:32	13°  ♌44'19	
max. Earth dist.	3540 May 03 19:42	9°  ♌46'21	1.34046 AU	max. Earth dist.	3541 Apr 16 03:01	20°  ♌59'21	1.35612 AU
					3541 Apr 20 17:04	0°  ♌	
superior conj	3540 May 07 18:38	17°  ♌55'16	-0°33'43	superior conj	3541 Apr 21 13:04	1°  ♌40'42	-1°02'30
minimum elong	3540 May 07 20:24	18°  ♌04'27	0°33'21	minimum elong	3541 Apr 21 16:22	1°  ♌57'21	1°01'54
asc. node	3540 May 11 01:27	24°  ♌50'45		asc. node	3541 Apr 27 22:30	14°  ♌47'15	
	3540 May 13 11:51	0°  ♌		evening rise	3541 Apr 29 11:04	17°  ♌54'56	
evening rise	3540 May 15 04:10	3°  ♌31'46			3541 May 05 14:32	0°  ♌	
	3540 May 29 23:55	0°  ♌		evening max el	3541 May 17 12:22	17°  ♌16'42	20°13'48
evening max el	3540 Jun 04 07:00	6°  ♌11'06	21°34'01	retrograde	3541 May 28 04:04	22°  ♌28'10	
retrograde	3540 Jun 16 14:11	12°  ♌14'22		evening set	3541 May 30 03:40	22°  ♌18'08	
desc. node	3540 Jun 17 08:53	12°  ♌12'57					

desc. node	3541 Jun 04 05:54	20° Π 32'52		retrograde	3542 May 09 05:08	3° Π 24'53	
inferior conj	3541 Jun 08 05:58	18° Π 19'24	-1°10'55	evening set	3542 May 11 06:13	3° Π 12'15	
minimum elong	3541 Jun 08 02:38	18° Π 24'20	1°09'41		3542 May 18 03:59	30° \mathbb{R} 8	
min. Earth dist.	3541 Jun 09 21:12	17° Π 21'29	0.55125 AU	inferior conj	3542 May 19 14:59	29° \mathbb{B} 01'59	0°43'16
morning rise	3541 Jun 17 00:13	14° Π 03'13		minimum elong	3542 May 19 16:43	28° \mathbb{B} 59'03	0°42'38
direct	3541 Jun 20 23:23	13° Π 29'10		desc. node	3542 May 22 02:55	27° \mathbb{B} 21'13	
morning max el	3541 Jul 04 13:20	20° Π 07'17	23°45'45	min. Earth dist.	3542 May 22 12:11	27° \mathbb{B} 06'06	0.56286 AU
	3541 Jul 12 22:01	0° \mathfrak{D}		morning rise	3542 May 28 00:08	24° \mathbb{B} 11'02	
asc. node	3541 Jul 24 21:44	20° \mathfrak{D} 34'31		direct	3542 Jun 01 22:13	23° \mathbb{B} 14'56	
morning set	3541 Jul 28 15:03	28° \mathfrak{D} 13'42			3542 Jun 15 14:16	0° Π	
	3541 Jul 29 11:07	0° \mathcal{O}		morning max el	3542 Jun 16 03:31	0° Π 31'14	25°25'34
					3542 Jul 06 14:03	0° \mathfrak{D}	
superior conj	3541 Aug 04 15:14	13° \mathcal{O} 19'12	1°31'46	asc. node	3542 Jul 11 18:48	10° \mathfrak{D} 19'58	
minimum elong	3541 Aug 04 13:11	13° \mathcal{O} 08'06	1°31'34	morning set	3542 Jul 13 02:42	13° \mathfrak{D} 07'12	
max. Earth dist.	3541 Aug 06 21:11	18° \mathcal{O} 08'26	1.33324 AU				
evening rise	3541 Aug 12 02:44	28° \mathcal{O} 58'59		superior conj	3542 Jul 20 01:32	28° \mathfrak{D} 13'08	1°17'17
	3541 Aug 12 14:56	0° \mathbb{P}		minimum elong	3542 Jul 19 23:11	28° \mathfrak{D} 00'15	1°16'56
	3541 Aug 29 18:38	0° $\underline{\mathfrak{D}}$			3542 Jul 20 21:03	0° \mathcal{O}	
desc. node	3541 Aug 31 05:13	2° $\underline{\mathfrak{D}}$ 08'11		max. Earth dist.	3542 Jul 21 04:05	0° \mathcal{O} 38'27	1.32508 AU
evening max el	3541 Sep 14 22:23	20° $\underline{\mathfrak{D}}$ 11'07	27°24'16	evening rise	3542 Jul 27 03:38	13° \mathcal{O} 24'06	
retrograde	3541 Sep 28 12:07	27° $\underline{\mathfrak{D}}$ 28'49			3542 Aug 04 17:24	0° \mathbb{P}	
evening set	3541 Oct 05 14:58	24° $\underline{\mathfrak{D}}$ 49'05		desc. node	3542 Aug 18 02:13	21° \mathbb{P} 07'12	
min. Earth dist.	3541 Oct 09 07:57	21° $\underline{\mathfrak{D}}$ 29'47	0.64019 AU		3542 Aug 25 08:31	0° $\underline{\mathfrak{D}}$	
inferior conj	3541 Oct 11 19:32	18° $\underline{\mathfrak{D}}$ 54'47	-2°54'43	evening max el	3542 Aug 28 06:54	2° $\underline{\mathfrak{D}}$ 58'30	27°20'06
minimum elong	3541 Oct 12 00:20	18° $\underline{\mathfrak{D}}$ 42'15	2°53'02	retrograde	3542 Sep 11 02:20	10° $\underline{\mathfrak{D}}$ 13'47	
morning rise	3541 Oct 18 10:58	13° $\underline{\mathfrak{D}}$ 32'50		evening set	3542 Sep 18 06:42	7° $\underline{\mathfrak{D}}$ 47'47	
direct	3541 Oct 20 23:28	13° $\underline{\mathfrak{D}}$ 01'05		min. Earth dist.	3542 Sep 21 21:07	4° $\underline{\mathfrak{D}}$ 56'08	0.62213 AU
asc. node	3541 Oct 20 20:55	13° $\underline{\mathfrak{D}}$ 01'09		inferior conj	3542 Sep 24 20:03	2° $\underline{\mathfrak{D}}$ 11'42	-3°51'52
morning max el	3541 Oct 27 12:07	16° $\underline{\mathfrak{D}}$ 26'27	17°53'36	minimum elong	3542 Sep 25 01:50	1° $\underline{\mathfrak{D}}$ 58'16	3°50'16
	3541 Nov 06 04:17	0° \mathbb{M}			3542 Sep 27 07:08	30° \mathbb{R} 11	
morning set	3541 Nov 13 09:15	12° \mathbb{M} 13'35		morning rise	3542 Oct 01 22:40	27° \mathbb{P} 08'34	
	3541 Nov 23 22:35	0° \mathbb{Z}		direct	3542 Oct 04 07:54	26° \mathbb{P} 43'31	
				asc. node	3542 Oct 07 17:59	27° \mathbb{P} 36'42	
superior conj	3541 Nov 26 05:10	3° \mathbb{Z} 43'20	0°06'42		3542 Oct 10 23:06	0° $\underline{\mathfrak{D}}$	
minimum elong	3541 Nov 26 05:55	3° \mathbb{Z} 46'23	0°06'36	morning max el	3542 Oct 11 03:58	0° $\underline{\mathfrak{D}}$ 11'50	17°52'10
behind sun begin	3541 Nov 25 20:44	3° \mathbb{Z} 08'56		morning set	3542 Oct 27 02:51	25° $\underline{\mathfrak{D}}$ 07'23	
behind sun end	3541 Nov 26 15:07	4° \mathbb{Z} 23'45			3542 Oct 29 20:04	0° \mathbb{M}	
desc. node	3541 Nov 27 04:30	5° \mathbb{Z} 18'01					
max. Earth dist.	3541 Dec 01 16:41	12° \mathbb{Z} 32'00	1.44484 AU	superior conj	3542 Nov 07 02:41	14° \mathbb{M} 29'47	0°47'06
evening rise	3541 Dec 12 04:39	28° \mathbb{Z} 55'55		minimum elong	3542 Nov 07 06:35	14° \mathbb{M} 46'25	0°46'34
	3541 Dec 12 21:20	0° \mathfrak{Z}		desc. node	3542 Nov 14 01:30	26° \mathbb{M} 05'30	
	3542 Jan 02 04:57	0° \approx		max. Earth dist.	3542 Nov 14 07:14	26° \mathbb{M} 28'50	1.43157 AU
evening max el	3542 Jan 09 00:38	8° \approx 17'34	20°27'20		3542 Nov 16 11:28	0° \mathbb{Z}	
asc. node	3542 Jan 16 20:12	13° \approx 00'28		evening rise	3542 Nov 21 16:08	8° \mathbb{Z} 13'22	
retrograde	3542 Jan 17 00:59	13° \approx 00'41			3542 Dec 06 03:16	0° \mathfrak{Z}	
evening set	3542 Jan 20 21:40	11° \approx 34'29		evening max el	3542 Dec 22 21:50	21° \mathfrak{Z} 50'19	21°38'25
inferior conj	3542 Jan 26 06:48	5° \approx 27'00	2°46'52	retrograde	3542 Dec 31 22:24	27° \mathfrak{Z} 12'16	
minimum elong	3542 Jan 26 04:18	5° \approx 35'32	2°46'12	asc. node	3543 Jan 03 17:13	26° \mathfrak{Z} 30'06	
min. Earth dist.	3542 Jan 26 22:46	4° \approx 32'35	0.67379 AU	evening set	3543 Jan 05 05:23	25° \mathfrak{Z} 30'40	
	3542 Jan 30 15:25	30° \mathbb{R} 3		inferior conj	3543 Jan 10 13:41	19° \mathfrak{Z} 13'35	2°09'38
morning rise	3542 Jan 31 10:44	29° \mathfrak{Z} 13'21		minimum elong	3543 Jan 10 11:18	19° \mathfrak{Z} 21'52	2°08'51
direct	3542 Feb 06 01:57	26° \mathfrak{Z} 43'00		min. Earth dist.	3543 Jan 10 17:37	18° \mathfrak{Z} 59'58	0.67856 AU
	3542 Feb 13 13:30	0° \approx		morning rise	3543 Jan 15 17:02	13° \mathfrak{Z} 01'28	
morning max el	3542 Feb 17 10:00	3° \approx 29'16	24°30'00	direct	3543 Jan 20 17:30	10° \mathfrak{Z} 51'46	
desc. node	3542 Feb 23 03:43	9° \approx 56'44		morning max el	3543 Jan 30 19:21	16° \mathfrak{Z} 50'34	23°01'00
	3542 Mar 09 16:35	0° \mathbb{X}		desc. node	3543 Feb 10 00:44	29° \mathfrak{Z} 08'56	
morning set	3542 Mar 25 08:56	25° \mathbb{X} 29'50			3543 Feb 10 15:53	0° \approx	
	3542 Mar 27 21:50	0° \mathbb{Y}			3543 Mar 02 18:06	0° \mathbb{X}	
max. Earth dist.	3542 Mar 29 00:44	2° \mathbb{Y} 01'29	1.37570 AU	morning set	3543 Mar 06 09:56	5° \mathbb{X} 59'58	
				max. Earth dist.	3543 Mar 10 19:33	13° \mathbb{X} 27'11	1.39739 AU
superior conj	3542 Apr 04 20:29	14° \mathbb{Y} 49'26	-1°29'32				
minimum elong	3542 Apr 05 00:56	15° \mathbb{Y} 10'55	1°28'55	superior conj	3543 Mar 18 12:49	27° \mathbb{X} 11'58	-1°51'50
	3542 Apr 12 12:56	0° \mathbb{B}		minimum elong	3543 Mar 18 17:15	27° \mathbb{X} 32'17	1°51'29
evening rise	3542 Apr 13 12:02	1° \mathbb{B} 54'55			3543 Mar 20 01:12	0° \mathbb{Y}	
asc. node	3542 Apr 14 19:32	4° \mathbb{B} 30'44		evening rise	3543 Mar 28 04:10	15° \mathbb{Y} 24'40	
evening max el	3542 Apr 30 05:42	29° \mathbb{B} 02'58	19°12'28	asc. node	3543 Apr 01 16:33	23° \mathbb{Y} 56'26	
	3542 May 01 06:33	0° Π			3543 Apr 05 02:08	0° \mathbb{B}	

evening max el	3543 Apr 13 08:46	11°♄26'39	18°31'20	retrograde	3544 Apr 02 13:54	27°♎45'34	
retrograde	3543 Apr 21 00:23	15°♄12'34		evening set	3544 Apr 05 03:46	27°♎16'38	
evening set	3543 Apr 23 07:48	14°♄53'07		inferior conj	3544 Apr 11 23:27	22°♎26'28	3°05'37
inferior conj	3543 Apr 30 20:47	10°♄23'56	2°10'42	minimum elong	3544 Apr 12 02:30	22°♎19'29	3°05'03
minimum elong	3543 May 01 00:31	10°♄16'35	2°09'39	min. Earth dist.	3544 Apr 15 07:17	19°♎25'01	0.60270 AU
min. Earth dist.	3543 May 04 06:51	7°♄43'43	0.58122 AU	morning rise	3544 Apr 18 23:00	16°♎39'07	
morning rise	3543 May 08 14:05	5°♄00'07		desc. node	3544 Apr 24 20:57	14°♎36'07	
desc. node	3543 May 08 23:57	4°♄48'18		direct	3544 Apr 25 13:10	14°♎34'51	
direct	3543 May 14 11:36	3°♄31'05		morning max el	3544 May 09 20:19	22°♎27'15	27°37'38
morning max el	3543 May 28 20:50	11°♄10'57	26°47'05		3544 May 16 12:15	0°♄	
	3543 Jun 12 10:37	0°♄			3544 Jun 04 12:03	0°♄	
morning set	3543 Jun 27 12:47	27°♄54'32		morning set	3544 Jun 10 19:37	12°♄30'31	
asc. node	3543 Jun 28 15:50	0°♄17'46		asc. node	3544 Jun 14 12:51	20°♄23'18	
	3543 Jun 28 12:30	0°♄		max. Earth dist.	3544 Jun 17 02:42	26°♄00'09	1.32106 AU
superior conj	3543 Jul 04 13:15	13°♄08'53	0°58'29	superior conj	3544 Jun 18 00:40	28°♄00'51	0°36'02
minimum elong	3543 Jul 04 11:05	12°♄56'55	0°58'05	minimum elong	3544 Jun 17 23:08	27°♄52'24	0°35'42
max. Earth dist.	3543 Jul 04 15:06	13°♄19'04	1.32104 AU		3544 Jun 18 22:19	0°♄	
evening rise	3543 Jul 11 10:19	28°♄04'48		evening rise	3544 Jun 24 20:34	12°♄53'58	
	3543 Jul 12 08:21	0°♄			3544 Jul 03 11:33	0°♄	
	3543 Jul 29 02:59	0°♄		desc. node	3544 Jul 21 20:15	25°♄58'26	
desc. node	3543 Aug 04 23:14	9°♄11'22		evening max el	3544 Jul 22 05:41	26°♄21'10	25°33'53
evening max el	3543 Aug 10 09:55	15°♄03'41	26°42'36		3544 Jul 26 15:25	0°♄	
retrograde	3543 Aug 24 08:40	22°♄14'56		retrograde	3544 Aug 05 05:11	3°♄27'38	
evening set	3543 Aug 31 04:30	20°♄15'53		evening set	3544 Aug 11 03:42	2°♄05'10	
min. Earth dist.	3543 Sep 03 23:52	17°♄39'13	0.60190 AU		3544 Aug 14 21:15	30°♄	
inferior conj	3543 Sep 07 05:54	15°♄00'49	-4°39'10	min. Earth dist.	3544 Aug 15 17:41	29°♄26'05	0.58145 AU
minimum elong	3543 Sep 07 11:02	14°♄50'21	4°38'16	inferior conj	3544 Aug 18 21:37	27°♄12'33	-5°06'03
morning rise	3543 Sep 14 19:33	10°♄19'13		minimum elong	3544 Aug 18 23:22	27°♄09'26	5°05'59
direct	3543 Sep 17 04:39	9°♄58'00		morning rise	3544 Aug 26 21:19	22°♄53'52	
morning max el	3543 Sep 24 15:57	13°♄37'52	18°09'57	direct	3544 Aug 29 09:29	22°♄34'16	
asc. node	3543 Sep 24 15:02	13°♄35'38		morning max el	3544 Sep 06 20:48	26°♄35'34	18°48'23
	3543 Oct 05 18:40	0°♄			3544 Sep 09 22:37	0°♄	
morning set	3543 Oct 10 11:53	8°♄44'59		asc. node	3544 Sep 10 12:04	0°♄43'16	
				morning set	3544 Sep 23 07:41	22°♄53'38	
superior conj	3543 Oct 20 01:35	26°♄30'03	1°16'31		3544 Sep 26 22:41	0°♄	
minimum elong	3543 Oct 20 05:38	26°♄48'17	1°16'04	superior conj	3544 Oct 01 20:51	9°♄30'20	1°34'49
	3543 Oct 22 00:35	0°♄		minimum elong	3544 Oct 01 23:32	9°♄43'02	1°34'38
max. Earth dist.	3543 Oct 27 16:46	9°♄49'13	1.41356 AU	max. Earth dist.	3544 Oct 08 22:17	22°♄28'13	1.39304 AU
desc. node	3543 Oct 31 22:31	16°♄51'26		evening rise	3544 Oct 12 21:08	29°♄20'20	
evening rise	3543 Nov 01 19:09	18°♄15'17			3544 Oct 13 06:28	0°♄	
	3543 Nov 09 06:09	0°♄		desc. node	3544 Oct 17 19:33	7°♄32'21	
	3543 Nov 30 17:23	0°♄			3544 Nov 01 16:34	0°♄	
evening max el	3543 Dec 05 14:16	5°♄25'22	22°56'46	evening max el	3544 Nov 17 03:40	19°♄04'05	24°16'27
retrograde	3543 Dec 15 17:21	11°♄25'48		retrograde	3544 Nov 28 08:45	25°♄38'09	
evening set	3543 Dec 20 12:27	9°♄27'59		evening set	3544 Dec 03 17:18	23°♄24'06	
asc. node	3543 Dec 21 14:15	8°♄28'24		asc. node	3544 Dec 07 11:17	19°♄15'50	
inferior conj	3543 Dec 25 21:27	3°♄04'57	1°25'15	min. Earth dist.	3544 Dec 08 10:24	17°♄59'26	0.67722 AU
minimum elong	3543 Dec 25 19:38	3°♄11'14	1°24'34	inferior conj	3544 Dec 09 04:20	16°♄59'08	0°34'53
min. Earth dist.	3543 Dec 25 14:16	3°♄29'44	0.67965 AU	minimum elong	3544 Dec 09 03:30	17°♄01'56	0°34'32
	3543 Dec 28 04:50	30°♄		morning rise	3544 Dec 14 13:45	10°♄55'59	
morning rise	3543 Dec 31 02:42	26°♄56'16		direct	3544 Dec 18 10:10	9°♄31'23	
direct	3544 Jan 04 12:36	25°♄09'26		morning max el	3544 Dec 26 05:56	13°♄59'44	20°19'47
	3544 Jan 13 01:11	0°♄			3545 Jan 07 16:23	0°♄	
morning max el	3544 Jan 13 08:58	0°♄19'20	21°35'24	desc. node	3545 Jan 13 18:46	8°♄59'41	
desc. node	3544 Jan 27 21:45	18°♄52'46		morning set	3545 Jan 23 04:34	23°♄19'51	
	3544 Feb 04 11:15	0°♄			3545 Jan 27 11:16	0°♄	
morning set	3544 Feb 14 05:55	15°♄07'26		max. Earth dist.	3545 Feb 02 03:12	8°♄59'36	1.43584 AU
max. Earth dist.	3544 Feb 20 19:19	25°♄45'17	1.41838 AU	superior conj	3545 Feb 08 04:31	18°♄51'32	-2°04'39
	3544 Feb 23 08:24	0°♄		minimum elong	3545 Feb 08 01:28	18°♄38'53	2°04'33
superior conj	3544 Feb 28 09:06	8°♄36'17	-2°05'18		3545 Feb 14 19:35	0°♄	
minimum elong	3544 Feb 28 11:12	8°♄45'27	2°05'14	evening rise	3545 Feb 20 18:38	10°♄18'04	
evening rise	3544 Mar 10 07:47	28°♄15'23			3545 Mar 04 11:00	0°♄	
	3544 Mar 11 06:38	0°♄		asc. node	3545 Mar 05 10:36	1°♄27'43	
asc. node	3544 Mar 18 13:34	12°♄58'12		evening max el	3545 Mar 10 06:29	7°♄29'25	18°08'34
evening max el	3544 Mar 26 18:09	24°♄18'46	18°10'14				

retrograde	3545 Mar 16 17:36	10° Υ 52'29		evening rise	3546 Feb 02 08:35	21° \approx 26'02	
evening set	3545 Mar 19 13:12	10° Υ 12'46			3546 Feb 07 12:28	0° H	
inferior conj	3545 Mar 25 19:32	5° Υ 02'16	3°32'33	asc. node	3546 Feb 20 07:38	19° H 15'35	
minimum elong	3545 Mar 25 20:50	4° Υ 58'50	3°32'26	evening max el	3546 Feb 21 18:55	20° H 51'46	18°25'39
min. Earth dist.	3545 Mar 28 16:01	2° Υ 04'12	0.62404 AU	retrograde	3546 Feb 28 06:51	24° H 24'13	
	3545 Mar 30 21:17	30° R H		evening set	3546 Mar 03 08:09	23° H 32'50	
morning rise	3545 Apr 01 03:10	29° H 00'35		inferior conj	3546 Mar 09 04:55	18° H 03'43	3°37'57
direct	3545 Apr 08 00:26	26° H 27'58		minimum elong	3546 Mar 09 04:31	18° H 04'54	3°37'57
desc. node	3545 Apr 11 17:59	27° H 08'11		min. Earth dist.	3546 Mar 11 10:24	15° H 28'37	0.64295 AU
	3545 Apr 16 23:28	0° Υ		morning rise	3546 Mar 15 00:11	11° H 54'25	
morning max el	3545 Apr 22 01:50	4° Υ 25'46	27°51'02	direct	3546 Mar 21 19:54	9° H 05'57	
	3545 May 11 04:40	0° B		desc. node	3546 Mar 29 15:01	12° H 00'59	
morning set	3545 May 25 21:07	26° B 47'29		morning max el	3546 Apr 04 11:03	17° H 00'53	27°27'59
	3545 May 27 10:43	0° II			3546 Apr 15 06:13	0° Υ	
max. Earth dist.	3545 May 31 10:49	8° II 27'09	1.32515 AU		3546 May 04 00:08	0° B	
asc. node	3545 Jun 01 09:53	10° II 31'30		morning set	3546 May 09 14:42	10° B 37'46	
				max. Earth dist.	3546 May 14 11:25	20° B 27'56	1.33356 AU
superior conj	3545 Jun 02 10:00	12° II 42'13	0°10'33				
minimum elong	3545 Jun 02 09:30	12° II 39'31	0°10'26	superior conj	3546 May 17 15:24	27° B 07'26	-0°17'11
behind sun begin	3545 Jun 02 05:34	12° II 18'07		minimum elong	3546 May 17 16:16	27° B 12'04	0°16'59
behind sun end	3545 Jun 02 13:26	13° II 00'56			3546 May 18 23:45	0° II	
evening rise	3545 Jun 09 08:20	27° II 43'44		asc. node	3546 May 19 06:56	0° II 38'32	
	3545 Jun 10 10:08	0° E		evening rise	3546 May 24 19:45	12° II 28'09	
	3545 Jun 27 16:45	0° Ω			3546 Jun 02 18:47	0° E	
evening max el	3545 Jul 03 19:26	6° Ω 58'15	24°03'30	evening max el	3546 Jun 15 09:45	17° E 23'09	22°26'41
desc. node	3545 Jul 08 17:17	10° Ω 57'23		desc. node	3546 Jun 25 14:18	23° E 33'20	
retrograde	3545 Jul 17 14:03	13° Ω 54'29		retrograde	3546 Jun 28 11:01	23° E 52'12	
evening set	3545 Jul 22 03:12	13° Ω 08'41		evening set	3546 Jul 01 12:43	23° E 31'23	
min. Earth dist.	3545 Jul 28 05:55	10° Ω 09'35	0.56358 AU	min. Earth dist.	3546 Jul 09 16:47	19° E 58'35	0.55170 AU
inferior conj	3545 Jul 30 17:02	8° Ω 38'31	-4°57'55	inferior conj	3546 Jul 10 18:39	19° E 21'54	-4°01'30
minimum elong	3545 Jul 30 13:00	8° Ω 44'46	4°57'31	minimum elong	3546 Jul 10 10:25	19° E 33'35	3°59'30
morning rise	3545 Aug 08 01:25	4° Ω 39'44		morning rise	3546 Jul 19 10:11	15° E 31'09	
direct	3545 Aug 10 18:55	4° Ω 20'22		direct	3546 Jul 22 10:53	15° E 10'19	
morning max el	3545 Aug 20 15:33	8° Ω 55'12	19°48'29	morning max el	3546 Aug 02 22:41	20° E 31'04	21°09'21
asc. node	3545 Aug 28 09:06	18° Ω 44'23			3546 Aug 10 17:30	0° Ω	
	3545 Sep 03 17:23	0° P		asc. node	3546 Aug 15 06:10	7° Ω 26'44	
morning set	3545 Sep 07 10:50	7° P 23'13		morning set	3546 Aug 22 18:46	22° Ω 06'51	
					3546 Aug 26 13:23	0° P	
superior conj	3545 Sep 15 07:05	23° P 14'55	1°43'26				
minimum elong	3545 Sep 15 08:01	23° P 19'36	1°43'25	superior conj	3546 Aug 30 03:53	7° P 31'02	1°44'00
	3545 Sep 18 17:52	0° A		minimum elong	3546 Aug 30 03:18	7° P 28'02	1°43'59
max. Earth dist.	3545 Sep 21 03:04	4° A 31'45	1.37251 AU	max. Earth dist.	3546 Sep 03 12:38	16° P 22'11	1.35429 AU
evening rise	3545 Sep 24 21:44	11° A 27'52		evening rise	3546 Sep 07 17:12	24° P 28'51	
desc. node	3545 Oct 04 16:36	28° A 03'44			3546 Sep 10 16:47	0° A	
	3545 Oct 05 21:52	0° M		desc. node	3546 Sep 21 13:39	18° A 20'06	
	3545 Oct 27 23:49	0° J			3546 Sep 29 11:19	0° M	
evening max el	3545 Oct 30 15:53	2° J 45'25	25°30'41	evening max el	3546 Oct 13 04:13	16° M 25'04	26°32'00
retrograde	3545 Nov 11 19:46	9° J 44'46		retrograde	3546 Oct 26 01:48	23° M 38'53	
evening set	3545 Nov 17 18:18	7° J 16'14		evening set	3546 Nov 01 13:31	21° M 00'08	
min. Earth dist.	3545 Nov 22 03:42	2° J 26'21	0.67129 AU	min. Earth dist.	3546 Nov 05 15:52	16° M 45'56	0.66190 AU
inferior conj	3545 Nov 23 08:34	0° J 53'40	-0°20'23	inferior conj	3546 Nov 07 08:12	14° M 44'41	-1°19'19
minimum elong	3545 Nov 23 09:05	0° J 51'59	0°20'10	minimum elong	3546 Nov 07 10:22	14° M 38'10	1°18'24
asc. node	3545 Nov 24 08:19	29° M 38'06		asc. node	3546 Nov 11 05:23	10° M 31'23	
	3545 Nov 24 01:22	30° R M		morning rise	3546 Nov 13 07:52	8° M 59'46	
morning rise	3545 Nov 29 00:11	24° M 58'22		direct	3546 Nov 16 06:43	8° M 10'46	
direct	3545 Dec 02 08:46	23° M 53'25		morning max el	3546 Nov 22 22:15	11° M 49'02	18°31'57
morning max el	3545 Dec 09 10:53	27° M 51'19	19°18'02		3546 Dec 05 23:36	0° J	
	3545 Dec 11 10:22	0° J		morning set	3546 Dec 13 04:14	11° J 26'58	
greatest brilliancy	3545 Dec 23 01:15	16° J 10'19	-0.7m	desc. node	3546 Dec 18 12:52	19° J 58'36	
desc. node	3545 Dec 31 15:49	29° J 23'27			3546 Dec 24 21:14	0° B	
	3546 Jan 01 01:15	0° B					
morning set	3546 Jan 02 04:47	1° B 46'39		superior conj	3546 Dec 29 01:37	6° B 34'09	-1°07'39
max. Earth dist.	3546 Jan 15 17:37	22° B 55'22	1.44756 AU	minimum elong	3546 Dec 28 17:29	6° B 02'16	1°06'41
				max. Earth dist.	3546 Dec 29 11:41	7° B 13'39	1.45229 AU
superior conj	3546 Jan 18 22:41	28° B 00'39	-1°45'17		3547 Jan 12 22:50	0° \approx	
minimum elong	3546 Jan 18 14:19	27° B 27'24	1°44'37	evening rise	3547 Jan 13 23:11	1° \approx 36'33	
	3546 Jan 20 04:39	0° \approx		greatest brilliancy	3547 Jan 23 03:06	16° \approx 07'25	-0.8m

	3547 Feb 01 12:44	0°♄		max. Earth dist.	3547 Dec 12 06:47	21°♄38'01	1.44966 AU
evening max el	3547 Feb 05 04:59	4°♄20'06	19°00'32		3547 Dec 17 14:53	0°♄	
asc. node	3547 Feb 07 04:41	6°♄09'04		evening rise	3547 Dec 24 17:28	11°♄01'22	
retrograde	3547 Feb 12 01:44	8°♄12'54			3548 Jan 06 03:32	0°♄	
evening set	3547 Feb 15 09:29	7°♄08'56		greatest brilliancy	3548 Jan 07 12:33	2°♄03'05	-0.7m
inferior conj	3547 Feb 20 23:50	1°♄23'12	3°27'19	evening max el	3548 Jan 19 10:49	17°♄51'24	19°51'38
minimum elong	3547 Feb 20 22:11	1°♄28'24	3°27'07	asc. node	3548 Jan 25 01:42	21°♄54'08	
	3547 Feb 22 02:10	30°♄		retrograde	3548 Jan 26 23:17	22°♄13'43	
min. Earth dist.	3547 Feb 22 13:52	29°♄23'25	0.65822 AU	evening set	3548 Jan 30 14:50	20°♄55'58	
morning rise	3547 Feb 26 10:31	25°♄10'27		inferior conj	3548 Feb 05 01:16	14°♄55'50	3°04'29
direct	3547 Mar 04 22:15	22°♄20'06		minimum elong	3548 Feb 04 22:56	15°♄03'39	3°03'59
desc. node	3547 Mar 16 12:03	28°♄39'10		min. Earth dist.	3548 Feb 06 00:54	13°♄37'07	0.66935 AU
	3547 Mar 17 21:06	0°♄		morning rise	3548 Feb 10 06:48	8°♄42'09	
morning max el	3547 Mar 17 20:59	29°♄59'42	26°34'21	direct	3548 Feb 16 06:19	6°♄01'54	
	3547 Apr 09 04:32	0°♄		morning max el	3548 Feb 28 05:53	13°♄11'02	25°19'05
morning set	3547 Apr 22 20:54	23°♄50'36		desc. node	3548 Mar 02 09:06	16°♄33'27	
	3547 Apr 26 01:39	0°♄			3548 Mar 12 20:34	0°♄	
max. Earth dist.	3547 Apr 27 01:02	1°♄55'09	1.34656 AU		3548 Mar 31 22:56	0°♄	
				morning set	3548 Apr 04 11:06	6°♄12'42	
superior conj	3547 May 01 14:36	11°♄09'39	-0°46'00	max. Earth dist.	3548 Apr 08 03:19	12°♄58'33	1.36407 AU
minimum elong	3547 May 01 17:02	11°♄22'09	0°45'31				
asc. node	3547 May 06 04:00	20°♄40'07		superior conj	3548 Apr 14 04:50	24°♄41'10	-1°14'19
evening rise	3547 May 09 04:54	27°♄00'44		minimum elong	3548 Apr 14 08:42	25°♄00'21	1°13'42
	3547 May 10 15:43	0°♄			3548 Apr 16 20:32	0°♄	
evening max el	3547 May 28 08:31	28°♄08'41	20°57'48	evening rise	3548 Apr 22 09:36	11°♄15'05	
	3547 May 30 10:31	0°♄		asc. node	3548 Apr 22 01:02	10°♄31'49	
retrograde	3547 Jun 09 00:06	3°♄50'32			3548 May 02 11:13	0°♄	
evening set	3547 Jun 11 03:55	3°♄39'32		evening max el	3548 May 09 19:15	9°♄32'19	19°45'16
desc. node	3547 Jun 12 11:17	3°♄22'45		retrograde	3548 May 19 16:55	14°♄20'55	
	3547 Jun 19 23:23	30°♄		evening set	3548 May 21 16:15	14°♄10'19	
inferior conj	3547 Jun 20 12:09	29°♄41'58	-2°19'52	desc. node	3548 May 29 08:18	10°♄50'39	
minimum elong	3547 Jun 20 05:42	29°♄51'04	2°17'39	inferior conj	3548 May 30 11:52	10°♄08'19	-0°20'18
min. Earth dist.	3547 Jun 21 04:36	29°♄18'39	0.54859 AU	minimum elong	3548 May 30 10:57	10°♄09'44	0°19'58
morning rise	3547 Jun 29 07:22	25°♄40'14		min. Earth dist.	3548 Jun 01 17:58	8°♄44'46	0.55521 AU
direct	3547 Jul 02 20:18	25°♄13'13		morning rise	3548 Jun 08 03:22	5°♄38'16	
	3547 Jul 14 04:35	0°♄		direct	3548 Jun 12 12:03	4°♄56'07	
morning max el	3547 Jul 15 19:15	1°♄25'07	22°46'22	morning max el	3548 Jun 26 09:45	11°♄52'00	24°29'24
asc. node	3547 Aug 02 03:14	26°♄40'22			3548 Jul 10 05:29	0°♄	
	3547 Aug 03 19:53	0°♄		asc. node	3548 Jul 19 00:17	16°♄16'22	
morning set	3547 Aug 07 05:32	6°♄59'08		morning set	3548 Jul 21 17:19	21°♄53'53	
					3548 Jul 25 11:42	0°♄	
superior conj	3547 Aug 14 07:56	22°♄08'45	1°37'53				
minimum elong	3547 Aug 14 06:17	21°♄59'54	1°37'45	superior conj	3548 Jul 28 16:34	6°♄58'51	1°26'12
max. Earth dist.	3547 Aug 17 07:06	28°♄23'51	1.33974 AU	minimum elong	3548 Jul 28 14:19	6°♄46'39	1°25'55
	3547 Aug 18 01:39	0°♄		max. Earth dist.	3548 Jul 30 10:19	10°♄45'04	1.32930 AU
evening rise	3547 Aug 22 03:07	8°♄11'55		evening rise	3548 Aug 04 23:29	22°♄24'44	
	3547 Sep 03 05:02	0°♄			3548 Aug 08 19:26	0°♄	
desc. node	3547 Sep 08 10:40	8°♄14'45		desc. node	3548 Aug 25 07:39	27°♄37'37	
evening max el	3547 Sep 25 16:39	29°♄55'10	27°12'52		3548 Aug 27 00:27	0°♄	
	3547 Sep 25 18:41	0°♄		evening max el	3548 Sep 07 03:28	13°♄02'30	27°26'32
retrograde	3547 Oct 09 02:05	7°♄13'19		retrograde	3548 Sep 20 19:55	20°♄18'43	
evening set	3547 Oct 16 00:32	4°♄31'29		evening set	3548 Sep 28 00:20	17°♄43'39	
min. Earth dist.	3547 Oct 19 20:39	0°♄52'38	0.64906 AU	min. Earth dist.	3548 Oct 01 15:50	14°♄36'58	0.63287 AU
	3547 Oct 20 15:54	30°♄		inferior conj	3548 Oct 04 08:22	11°♄56'46	-3°19'42
inferior conj	3547 Oct 22 01:01	28°♄28'03	-2°20'01	minimum elong	3548 Oct 04 13:43	11°♄43'28	3°17'58
minimum elong	3547 Oct 22 04:55	28°♄17'16	2°18'31	morning rise	3548 Oct 11 04:28	6°♄42'05	
morning rise	3547 Oct 28 10:19	22°♄56'30		direct	3548 Oct 13 15:17	6°♄13'28	
asc. node	3547 Oct 29 02:24	22°♄40'14		asc. node	3548 Oct 14 23:28	6°♄22'14	
direct	3547 Oct 31 01:50	22°♄19'31		morning max el	3548 Oct 20 06:06	9°♄39'06	17°50'41
morning max el	3547 Nov 06 13:38	25°♄47'21	18°02'34		3548 Nov 02 19:26	0°♄	
	3547 Nov 10 03:14	0°♄		morning set	3548 Nov 05 15:20	4°♄56'29	
morning set	3547 Nov 24 09:14	22°♄35'28					
	3547 Nov 28 20:29	0°♄		superior conj	3548 Nov 17 15:21	25°♄28'18	0°25'04
desc. node	3547 Dec 05 09:56	10°♄41'27		minimum elong	3548 Nov 17 17:52	25°♄38'45	0°24'42
					3548 Nov 20 09:21	0°♄	
superior conj	3547 Dec 08 09:30	15°♄28'13	-0°20'18	desc. node	3548 Nov 21 06:57	1°♄28'04	
minimum elong	3547 Dec 08 06:59	15°♄18'12	0°19'56	max. Earth dist.	3548 Nov 24 00:08	5°♄51'14	1.43995 AU

evening rise	3548 Dec 03 02:42	20° ♁ 09'54		desc. node	3549 Nov 08 03:57	22° ♁ 15'11	
	3548 Dec 09 13:30	0° ♁		evening rise	3549 Nov 12 19:12	29° ♁ 42'02	
	3548 Dec 31 03:50	0° ♁			3549 Nov 12 23:44	0° ♁	
evening max el	3549 Jan 01 11:16	1° ♁ 23'48	20°56'26		3549 Dec 03 04:29	0° ♁	
retrograde	3549 Jan 09 21:14	6° ♁ 22'36		evening max el	3549 Dec 15 06:10	14° ♁ 56'49	22°11'13
asc. node	3549 Jan 10 22:43	6° ♁ 16'25		retrograde	3549 Dec 24 17:46	20° ♁ 35'26	
evening set	3549 Jan 13 22:11	4° ♁ 49'50		asc. node	3549 Dec 28 19:45	19° ♁ 06'19	
	3549 Jan 18 06:45	30° ♁ 3		evening set	3549 Dec 29 05:48	18° ♁ 46'44	
inferior conj	3549 Jan 19 06:46	28° ♁ 38'02	2°32'02	inferior conj	3550 Jan 03 14:12	12° ♁ 26'32	1°51'37
minimum elong	3549 Jan 19 04:15	28° ♁ 46'40	2°31'17	minimum elong	3550 Jan 03 12:01	12° ♁ 34'09	1°50'50
min. Earth dist.	3549 Jan 19 17:27	28° ♁ 01'18	0.67631 AU	min. Earth dist.	3550 Jan 03 13:14	12° ♁ 29'56	0.67942 AU
morning rise	3549 Jan 24 10:09	22° ♁ 25'06		morning rise	3550 Jan 08 18:06	6° ♁ 15'51	
direct	3549 Jan 29 19:13	20° ♁ 03'05		direct	3550 Jan 13 12:12	4° ♁ 16'03	
morning max el	3549 Feb 09 14:24	26° ♁ 29'11	23°52'21	morning max el	3550 Jan 23 01:14	9° ♁ 53'34	22°23'51
	3549 Feb 12 20:19	0° ♁		desc. node	3550 Feb 04 03:10	24° ♁ 48'45	
desc. node	3549 Feb 17 06:09	5° ♁ 22'00			3550 Feb 07 19:25	0° ♁	
	3549 Mar 06 10:53	0° ♁		morning set	3550 Feb 25 16:10	27° ♁ 23'01	
morning set	3549 Mar 17 03:28	17° ♁ 28'29			3550 Feb 27 06:30	0° ♁	
max. Earth dist.	3549 Mar 20 23:16	24° ♁ 08'49	1.38484 AU	max. Earth dist.	3550 Mar 02 19:56	5° ♁ 56'38	1.40653 AU
	3549 Mar 24 05:13	0° ♁					
superior conj	3549 Mar 28 06:29	7° ♁ 32'39	-1°39'46	superior conj	3550 Mar 10 14:52	19° ♁ 31'36	-1°58'56
minimum elong	3549 Mar 28 11:07	7° ♁ 54'37	1°39'15	minimum elong	3550 Mar 10 18:39	19° ♁ 48'37	1°58'42
evening rise	3549 Apr 06 07:15	25° ♁ 04'13			3550 Mar 16 08:08	0° ♁	
asc. node	3549 Apr 08 22:03	0° ♁ 09'06		evening rise	3550 Mar 20 18:34	8° ♁ 18'45	
	3549 Apr 08 20:10	0° ♁		asc. node	3550 Mar 26 19:05	19° ♁ 25'42	
evening max el	3549 Apr 22 17:08	21° ♁ 36'09	18°52'26		3550 Apr 02 09:22	0° ♁	
retrograde	3549 May 01 01:30	25° ♁ 40'50		evening max el	3550 Apr 05 23:14	4° ♁ 12'48	18°19'55
evening set	3549 May 03 05:13	25° ♁ 25'37		retrograde	3550 Apr 13 05:10	7° ♁ 49'02	
inferior conj	3549 May 11 05:25	21° ♁ 07'26	1°24'17	evening set	3550 Apr 15 15:16	7° ♁ 25'53	
minimum elong	3549 May 11 08:25	21° ♁ 02'02	1°23'18	inferior conj	3550 Apr 22 20:26	2° ♁ 47'38	2°37'48
min. Earth dist.	3549 May 14 10:02	18° ♁ 50'43	0.57007 AU	minimum elong	3550 Apr 23 00:06	2° ♁ 39'54	2°36'54
desc. node	3549 May 16 05:19	17° ♁ 40'07			3550 Apr 26 04:34	30° ♁ 9	
morning rise	3549 May 19 08:26	16° ♁ 01'57		min. Earth dist.	3550 Apr 26 06:54	29° ♁ 55'20	0.59013 AU
direct	3549 May 24 16:53	14° ♁ 53'06		morning rise	3550 Apr 30 06:06	27° ♁ 12'13	
morning max el	3549 Jun 08 00:45	22° ♁ 20'05	26°03'21	desc. node	3550 May 03 02:21	25° ♁ 59'01	
	3549 Jun 14 19:26	0° ♁		direct	3550 May 06 11:32	25° ♁ 28'10	
	3549 Jul 02 21:48	0° ♁			3550 May 17 04:55	0° ♁	
asc. node	3549 Jul 05 21:20	6° ♁ 08'14		morning max el	3550 May 20 20:49	3° ♁ 14'43	27°12'56
morning set	3549 Jul 06 04:31	6° ♁ 46'05			3550 Jun 09 07:58	0° ♁	
				morning set	3550 Jun 20 13:29	21° ♁ 29'43	
superior conj	3549 Jul 13 03:41	21° ♁ 54'35	1°09'48	asc. node	3550 Jun 22 18:22	26° ♁ 10'03	
minimum elong	3549 Jul 13 01:22	21° ♁ 41'45	1°09'25		3550 Jun 24 12:53	0° ♁	
max. Earth dist.	3549 Jul 13 19:40	23° ♁ 22'24	1.32295 AU	superior conj	3550 Jun 27 15:30	6° ♁ 49'34	0°49'22
	3549 Jul 16 20:32	0° ♁		minimum elong	3550 Jun 27 13:33	6° ♁ 38'48	0°49'00
evening rise	3549 Jul 20 03:11	6° ♁ 57'54		max. Earth dist.	3550 Jun 27 07:25	6° ♁ 05'01	1.32057 AU
	3549 Aug 01 07:31	0° ♁		evening rise	3550 Jul 04 11:39	21° ♁ 42'59	
desc. node	3549 Aug 12 04:38	16° ♁ 15'37			3550 Jul 08 12:19	0° ♁	
evening max el	3549 Aug 20 09:59	25° ♁ 33'17	27°08'06		3550 Jul 26 20:14	0° ♁	
	3549 Aug 25 23:56	0° ♁		desc. node	3550 Jul 30 01:39	3° ♁ 50'24	
retrograde	3549 Sep 03 06:34	2° ♁ 46'07		evening max el	3550 Aug 02 09:46	7° ♁ 17'37	26°16'39
evening set	3549 Sep 10 08:58	0° ♁ 29'58		retrograde	3550 Aug 16 09:10	14° ♁ 27'42	
	3549 Sep 11 03:15	30° ♁ 8		evening set	3550 Aug 22 21:45	12° ♁ 43'03	
min. Earth dist.	3549 Sep 14 00:16	27° ♁ 46'48	0.61380 AU	min. Earth dist.	3550 Aug 26 22:45	10° ♁ 07'51	0.59310 AU
inferior conj	3549 Sep 17 03:03	25° ♁ 02'56	-4°13'37	inferior conj	3550 Aug 30 05:34	7° ♁ 37'22	-4°53'51
minimum elong	3549 Sep 17 08:49	24° ♁ 50'13	4°12'16	minimum elong	3550 Aug 30 09:39	7° ♁ 29'32	4°53'21
morning rise	3549 Sep 24 10:26	20° ♁ 08'41		morning rise	3550 Sep 06 23:43	3° ♁ 05'58	
direct	3549 Sep 26 19:23	19° ♁ 45'27		direct	3550 Sep 09 09:44	2° ♁ 45'43	
asc. node	3549 Oct 01 20:31	21° ♁ 34'53		morning max el	3550 Sep 17 06:07	6° ♁ 33'06	18°23'45
morning max el	3549 Oct 03 20:40	23° ♁ 17'07	17°57'18	asc. node	3550 Sep 18 17:35	8° ♁ 05'24	
	3549 Oct 09 04:21	0° ♁			3550 Oct 02 04:27	0° ♁	
morning set	3549 Oct 19 16:06	18° ♁ 10'38		morning set	3550 Oct 03 06:13	2° ♁ 03'07	
	3549 Oct 26 04:01	0° ♁					
superior conj	3549 Oct 30 00:06	6° ♁ 47'26	1°01'00	superior conj	3550 Oct 12 08:27	19° ♁ 16'07	1°25'33
minimum elong	3549 Oct 30 04:21	7° ♁ 05'57	1°00'28	minimum elong	3550 Oct 12 12:02	19° ♁ 32'33	1°25'13
max. Earth dist.	3549 Nov 06 13:04	19° ♁ 35'36	1.42438 AU		3550 Oct 18 07:58	0° ♁	
				max. Earth dist.	3550 Oct 19 20:25	2° ♁ 37'57	1.40493 AU

evening rise	3550 Oct 24 07:37	10° \mathbb{M} 10'09			3551 Oct 10 16:45	0° \mathbb{M}	
desc. node	3550 Oct 26 00:59	12° \mathbb{M} 59'48		desc. node	3551 Oct 12 22:01	3° \mathbb{M} 37'29	
	3550 Nov 05 23:15	0° \mathbb{X}			3551 Oct 30 22:05	0° \mathbb{X}	
evening max el	3550 Nov 27 20:55	28° \mathbb{X} 33'04	23°30'53	evening max el	3551 Nov 10 09:38	12° \mathbb{X} 13'32	24°49'10
	3550 Nov 29 09:07	0° \mathbb{Z}		retrograde	3551 Nov 22 01:15	18° \mathbb{X} 59'58	
retrograde	3550 Dec 08 11:30	4° \mathbb{Z} 49'29		evening set	3551 Nov 27 15:35	16° \mathbb{X} 39'40	
evening set	3550 Dec 13 12:09	2° \mathbb{Z} 44'33		min. Earth dist.	3551 Dec 02 05:21	11° \mathbb{X} 29'21	0.67510 AU
asc. node	3550 Dec 15 16:47	0° \mathbb{Z} 31'08		asc. node	3551 Dec 02 13:50	11° \mathbb{X} 01'24	
	3550 Dec 16 03:12	30° \mathbb{R} \mathbb{X}		inferior conj	3551 Dec 03 03:50	10° \mathbb{X} 15'00	0°11'59
inferior conj	3550 Dec 18 21:50	26° \mathbb{X} 19'55	1°04'35	minimum elong	3551 Dec 03 03:32	10° \mathbb{X} 16'00	0°11'51
minimum elong	3550 Dec 18 20:23	26° \mathbb{X} 24'52	1°04'00	transit middle	3551 Dec 03 03:32	10° \mathbb{X} 16'00	0°11'51
min. Earth dist.	3550 Dec 18 10:01	27° \mathbb{X} 00'22	0.67897 AU	transit begin	3551 Dec 03 01:39	10° \mathbb{X} 22'14	
morning rise	3550 Dec 24 04:35	20° \mathbb{X} 13'14		transit end	3551 Dec 03 05:25	10° \mathbb{X} 09'46	
direct	3550 Dec 28 08:28	18° \mathbb{X} 36'16		morning rise	3551 Dec 08 15:37	4° \mathbb{X} 14'37	
morning max el	3551 Jan 05 17:51	23° \mathbb{X} 27'50	21°01'45	direct	3551 Dec 12 06:46	2° \mathbb{X} 58'43	
	3551 Jan 11 09:29	0° \mathbb{Z}		morning max el	3551 Dec 19 18:11	7° \mathbb{X} 13'02	19°51'34
desc. node	3551 Jan 22 00:12	14° \mathbb{Z} 43'36			3552 Jan 05 14:24	0° \mathbb{Z}	
	3551 Feb 01 04:06	0° \approx		desc. node	3552 Jan 08 21:15	4° \mathbb{Z} 58'25	
morning set	3551 Feb 05 01:10	6° \approx 01'12		morning set	3552 Jan 14 21:02	14° \mathbb{Z} 09'26	
max. Earth dist.	3551 Feb 12 22:36	18° \approx 37'45	1.42632 AU		3552 Jan 25 00:20	0° \approx	
	3551 Feb 19 18:36	0° \mathbb{X}		max. Earth dist.	3552 Jan 26 08:59	2° \approx 09'41	1.44162 AU
superior conj	3551 Feb 20 00:59	0° \mathbb{X} 27'09	-2°07'04	superior conj	3552 Jan 31 09:15	10° \approx 12'44	-1°58'52
minimum elong	3551 Feb 20 01:12	0° \mathbb{X} 28'05	2°07'04	minimum elong	3552 Jan 31 03:37	9° \approx 49'55	1°58'35
evening rise	3551 Mar 03 15:36	20° \mathbb{X} 50'07			3552 Feb 12 06:49	0° \mathbb{X}	
	3551 Mar 08 18:52	0° \mathbb{Y}		evening rise	3552 Feb 13 17:56	2° \mathbb{X} 29'32	
asc. node	3551 Mar 13 16:06	8° \mathbb{Y} 14'59		asc. node	3552 Feb 28 13:08	26° \mathbb{X} 28'10	
evening max el	3551 Mar 20 10:14	17° \mathbb{Y} 13'45	18°07'14		3552 Mar 02 11:11	0° \mathbb{Y}	
retrograde	3551 Mar 27 01:12	20° \mathbb{Y} 37'23		evening max el	3552 Mar 02 22:59	0° \mathbb{Y} 30'24	18°13'42
evening set	3551 Mar 29 17:28	20° \mathbb{Y} 04'08		retrograde	3552 Mar 09 09:18	3° \mathbb{Y} 55'40	
inferior conj	3551 Apr 05 07:01	15° \mathbb{Y} 05'26	3°20'03	evening set	3552 Mar 12 07:21	3° \mathbb{Y} 11'04	
minimum elong	3551 Apr 05 09:22	14° \mathbb{Y} 59'42	3°19'42		3552 Mar 16 09:10	30° \mathbb{R} \mathbb{X}	
min. Earth dist.	3551 Apr 08 10:54	12° \mathbb{Y} 02'15	0.61192 AU	inferior conj	3552 Mar 18 09:12	27° \mathbb{X} 52'44	3°37'04
morning rise	3551 Apr 11 23:24	9° \mathbb{Y} 10'45		minimum elong	3552 Mar 18 09:45	27° \mathbb{X} 51'15	3°37'03
direct	3551 Apr 18 17:44	6° \mathbb{Y} 52'49		min. Earth dist.	3552 Mar 20 23:38	25° \mathbb{X} 02'18	0.63248 AU
desc. node	3551 Apr 19 23:23	6° \mathbb{Y} 57'11		morning rise	3552 Mar 24 11:08	21° \mathbb{X} 47'24	
morning max el	3551 May 02 23:06	14° \mathbb{Y} 49'20	27°47'54	direct	3552 Mar 31 08:54	19° \mathbb{X} 06'03	
	3551 May 15 06:02	0° \mathbb{B}		desc. node	3552 Apr 05 20:25	20° \mathbb{X} 33'02	
	3551 Jun 01 19:07	0° \mathbb{II}		morning max el	3552 Apr 14 06:17	27° \mathbb{X} 03'50	27°45'25
morning set	3551 Jun 04 18:21	5° \mathbb{II} 58'44			3552 Apr 17 00:44	0° \mathbb{Y}	
asc. node	3551 Jun 09 15:24	16° \mathbb{II} 17'22			3552 May 07 21:38	0° \mathbb{B}	
max. Earth dist.	3551 Jun 10 17:52	18° \mathbb{II} 40'56	1.32224 AU	morning set	3552 May 18 16:52	20° \mathbb{B} 05'50	
					3552 May 23 12:12	0° \mathbb{II}	
superior conj	3551 Jun 12 02:17	21° \mathbb{II} 38'02	0°25'33	max. Earth dist.	3552 May 23 23:08	0° \mathbb{II} 57'52	1.32812 AU
minimum elong	3551 Jun 12 01:08	21° \mathbb{II} 31'47	0°25'19				
	3551 Jun 15 21:53	0° \mathbb{B}		superior conj	3552 May 26 10:14	6° \mathbb{II} 14'03	-0°00'59
evening rise	3551 Jun 18 22:46	6° \mathbb{B} 33'12		minimum elong	3552 May 26 10:17	6° \mathbb{II} 14'20	0°00'58
	3551 Jul 01 05:27	0° \mathbb{Q}		behind sun begin	3552 May 26 05:01	5° \mathbb{II} 45'58	
evening max el	3551 Jul 15 02:28	18° \mathbb{Q} 15'56	24°57'16	behind sun end	3552 May 26 15:33	6° \mathbb{II} 42'43	
desc. node	3551 Jul 16 22:41	19° \mathbb{Q} 55'59		asc. node	3552 May 26 12:27	6° \mathbb{II} 26'01	
retrograde	3551 Jul 29 01:26	25° \mathbb{Q} 19'59		evening rise	3552 Jun 02 10:39	21° \mathbb{II} 22'05	
evening set	3551 Aug 03 10:37	24° \mathbb{Q} 13'59			3552 Jun 06 15:09	0° \mathbb{B}	
min. Earth dist.	3551 Aug 08 14:01	21° \mathbb{Q} 28'02	0.57328 AU	evening max el	3552 Jun 25 15:47	28° \mathbb{B} 45'32	23°22'20
inferior conj	3551 Aug 11 12:46	19° \mathbb{Q} 30'34	-5°07'54		3552 Jun 26 23:58	0° \mathbb{Q}	
minimum elong	3551 Aug 11 12:13	19° \mathbb{Q} 31'28	5°07'53	desc. node	3552 Jul 02 19:42	3° \mathbb{Q} 59'29	
morning rise	3551 Aug 19 16:20	15° \mathbb{Q} 21'06		retrograde	3552 Jul 09 04:59	5° \mathbb{Q} 32'07	
direct	3551 Aug 22 06:17	15° \mathbb{Q} 01'55		evening set	3552 Jul 13 02:15	4° \mathbb{Q} 59'05	
morning max el	3551 Aug 31 07:05	19° \mathbb{Q} 16'23	19°11'17	min. Earth dist.	3552 Jul 20 01:31	1° \mathbb{Q} 47'15	0.55762 AU
asc. node	3551 Sep 05 14:38	25° \mathbb{Q} 37'49		inferior conj	3552 Jul 22 00:06	0° \mathbb{Q} 38'33	-4°40'21
	3551 Sep 08 10:27	0° \mathbb{P}		minimum elong	3552 Jul 21 17:45	0° \mathbb{Q} 47'58	4°39'19
morning set	3551 Sep 17 05:33	16° \mathbb{P} 21'52			3552 Jul 23 02:20	30° \mathbb{R} \mathbb{B}	
	3551 Sep 24 02:25	0° \mathbb{B}		morning rise	3552 Jul 30 11:40	26° \mathbb{B} 44'44	
				direct	3552 Aug 02 08:01	26° \mathbb{B} 24'56	
superior conj	3551 Sep 25 10:43	2° \mathbb{B} 37'19	1°39'33		3552 Aug 11 08:39	0° \mathbb{Q}	
minimum elong	3551 Sep 25 12:40	2° \mathbb{B} 46'44	1°39'27	morning max el	3552 Aug 12 20:57	1° \mathbb{Q} 18'22	20°20'21
max. Earth dist.	3551 Oct 02 00:35	14° \mathbb{B} 58'31	1.38413 AU	asc. node	3552 Aug 22 11:42	13° \mathbb{Q} 58'30	
evening rise	3551 Oct 05 19:38	21° \mathbb{B} 43'19			3552 Aug 30 23:30	0° \mathbb{P}	

morning set	3552 Aug 31 11:03	0° \cap 58'54			3553 Aug 22 14:06	0° \cap	
superior conj	3552 Sep 08 01:57	16° \cap 37'04	1°44'34	superior conj	3553 Aug 23 02:11	1° \cap 03'22	1°42'09
minimum elong	3552 Sep 08 02:12	16° \cap 38'21	1°44'33	minimum elong	3553 Aug 23 01:05	0° \cap 57'37	1°42'05
max. Earth dist.	3552 Sep 13 07:01	26° \cap 54'47	1.36447 AU	max. Earth dist.	3553 Aug 26 20:27	8° \cap 49'18	1.34768 AU
	3552 Sep 14 21:55	0° $\underline{\cap}$		evening rise	3553 Aug 31 07:01	17° \cap 35'54	
evening rise	3552 Sep 17 04:54	4° $\underline{\cap}$ 15'48			3553 Sep 07 01:03	0° $\underline{\cap}$	
desc. node	3552 Sep 28 19:03	24° $\underline{\cap}$ 03'30		desc. node	3553 Sep 15 16:04	14° $\underline{\cap}$ 11'43	
	3552 Oct 02 15:09	0° \cap			3553 Sep 26 22:02	0° \cap	
evening max el	3552 Oct 22 22:04	25° \cap 55'58	25°58'46	evening max el	3553 Oct 05 10:36	9° \cap 33'02	26°52'11
	3552 Oct 27 16:53	0° \mathcal{A}		retrograde	3553 Oct 18 13:31	16° \cap 48'58	
retrograde	3552 Nov 04 10:03	3° \mathcal{A} 02'00		evening set	3553 Oct 25 06:23	14° \cap 07'50	
evening set	3552 Nov 10 14:21	0° \mathcal{A} 28'46		min. Earth dist.	3553 Oct 29 05:59	10° \cap 09'01	0.65695 AU
	3552 Nov 11 03:29	30° $\mathcal{R}\cap$		inferior conj	3553 Oct 31 03:24	7° \cap 57'11	-1°44'58
min. Earth dist.	3552 Nov 14 20:49	25° \cap 53'48	0.66780 AU	minimum elong	3553 Oct 31 06:18	7° \cap 48'44	1°43'46
inferior conj	3552 Nov 16 06:22	24° \cap 08'48	-0°45'01	asc. node	3553 Nov 05 07:56	2° \cap 51'51	
minimum elong	3552 Nov 16 07:34	24° \cap 05'04	0°44'30	morning rise	3553 Nov 06 07:00	2° \cap 17'43	
asc. node	3552 Nov 18 10:53	21° \cap 30'17		direct	3553 Nov 09 02:31	1° \cap 34'11	
morning rise	3552 Nov 22 01:11	18° \cap 17'21		morning max el	3553 Nov 15 15:28	5° \cap 06'31	18°17'21
direct	3552 Nov 25 05:26	17° \cap 19'29			3553 Dec 02 15:44	0° \mathcal{A}	
morning max el	3552 Dec 02 02:02	21° \cap 07'32	18°56'20	morning set	3553 Dec 04 17:31	3° \mathcal{A} 22'04	
	3552 Dec 09 04:02	0° \mathcal{A}		desc. node	3553 Dec 12 15:21	16° \mathcal{A} 06'43	
morning set	3552 Dec 24 05:19	23° \mathcal{A} 02'50					
desc. node	3552 Dec 25 18:18	25° \mathcal{A} 27'36		superior conj	3553 Dec 19 21:15	27° \mathcal{A} 35'47	-0°48'01
	3552 Dec 28 15:55	0° \mathcal{B}		minimum elong	3553 Dec 19 15:11	27° \mathcal{A} 11'55	0°47'13
max. Earth dist.	3553 Jan 08 01:38	16° \mathcal{B} 18'23	1.45056 AU		3553 Dec 21 09:56	0° \mathcal{B}	
				max. Earth dist.	3553 Dec 21 21:05	0° \mathcal{B} 43'48	1.45210 AU
superior conj	3553 Jan 09 18:53	19° \mathcal{B} 00'45	-1°31'13	evening rise	3554 Jan 05 03:11	23° \mathcal{B} 01'57	
minimum elong	3553 Jan 09 09:43	18° \mathcal{B} 24'37	1°30'18		3554 Jan 09 14:08	0° \approx	
	3553 Jan 16 17:13	0° \approx		greatest brilliancy	3554 Jan 16 10:42	10° \approx 37'42	-0.7m
evening rise	3553 Jan 24 21:57	13° \approx 12'22		evening max el	3554 Jan 28 19:07	27° \approx 25'48	19°20'22
	3553 Feb 04 07:15	0° \mathcal{H}			3554 Jan 31 18:14	0° \mathcal{H}	
asc. node	3553 Feb 14 10:10	13° \mathcal{H} 54'27		asc. node	3554 Feb 01 07:12	0° \mathcal{H} 21'03	
evening max el	3553 Feb 14 10:42	13° \mathcal{H} 55'48	18°38'27	retrograde	3554 Feb 04 21:44	1° \mathcal{H} 30'15	
retrograde	3553 Feb 21 01:17	17° \mathcal{H} 35'19		evening set	3554 Feb 08 08:39	0° \mathcal{H} 20'25	
evening set	3553 Feb 24 05:19	16° \mathcal{H} 38'30			3554 Feb 08 20:04	30° $\mathcal{R}\approx$	
inferior conj	3553 Mar 01 22:59	11° \mathcal{H} 02'00	3°35'07	inferior conj	3554 Feb 13 21:01	24° \approx 27'58	3°18'57
minimum elong	3553 Mar 01 21:59	11° \mathcal{H} 05'01	3°35'03	minimum elong	3554 Feb 13 19:01	24° \approx 34'29	3°18'37
min. Earth dist.	3553 Mar 03 21:46	8° \mathcal{H} 41'07	0.64996 AU	min. Earth dist.	3554 Feb 15 04:39	22° \approx 45'34	0.66345 AU
morning rise	3553 Mar 07 14:11	4° \mathcal{H} 51'08		morning rise	3554 Feb 19 05:07	18° \approx 14'33	
direct	3553 Mar 14 07:13	2° \mathcal{H} 00'25		direct	3554 Feb 25 11:54	15° \approx 27'36	
desc. node	3553 Mar 23 17:28	6° \mathcal{H} 14'31		morning max el	3554 Mar 10 01:43	22° \approx 55'54	26°04'29
morning max el	3553 Mar 27 15:56	9° \mathcal{H} 49'40	27°08'32	desc. node	3554 Mar 10 14:30	23° \approx 28'32	
	3553 Apr 12 12:22	0° \mathcal{Y}			3554 Mar 16 07:53	0° \mathcal{H}	
	3553 Apr 30 07:47	0° \mathcal{B}			3554 Apr 05 19:53	0° \mathcal{Y}	
morning set	3553 May 02 06:01	3° \mathcal{B} 41'04		morning set	3554 Apr 15 06:01	16° \mathcal{Y} 33'51	
max. Earth dist.	3553 May 06 19:26	12° \mathcal{B} 44'44	1.33851 AU	max. Earth dist.	3554 Apr 19 04:21	24° \mathcal{Y} 01'02	1.35352 AU
					3554 Apr 22 05:22	0° \mathcal{B}	
superior conj	3553 May 10 13:16	20° \mathcal{B} 30'10	-0°29'19				
minimum elong	3553 May 10 14:47	20° \mathcal{B} 38'09	0°29'01	superior conj	3554 Apr 24 08:59	4° \mathcal{B} 19'52	-0°58'11
asc. node	3553 May 13 09:29	26° \mathcal{B} 31'05		minimum elong	3554 Apr 24 12:03	4° \mathcal{B} 35'29	0°57'38
	3553 May 15 00:46	0° \cap		asc. node	3554 Apr 30 06:30	16° \mathcal{B} 28'51	
evening rise	3553 May 17 21:19	6° \cap 02'15		evening rise	3554 May 02 04:50	20° \mathcal{B} 27'49	
	3553 May 30 21:22	0° \mathcal{B}			3554 May 06 23:27	0° \cap	
evening max el	3553 Jun 07 08:52	9° \mathcal{B} 15'33	21°47'20	evening max el	3554 May 20 12:20	20° \cap 14'49	20°24'35
retrograde	3553 Jun 19 21:10	15° \mathcal{B} 26'10		retrograde	3554 May 31 10:28	25° \cap 34'23	
desc. node	3553 Jun 19 16:43	15° \mathcal{B} 26'05		evening set	3554 Jun 02 10:35	25° \cap 24'21	
evening set	3553 Jun 22 11:39	15° \mathcal{B} 10'55		desc. node	3554 Jun 06 13:42	24° \cap 07'24	
inferior conj	3553 Jul 01 20:35	11° \mathcal{B} 08'20	-3°22'49	inferior conj	3554 Jun 11 14:49	21° \cap 26'21	-1°29'12
minimum elong	3553 Jul 01 12:20	11° \mathcal{B} 19'53	3°20'24	minimum elong	3554 Jun 11 10:37	21° \cap 32'29	1°27'39
min. Earth dist.	3553 Jul 01 12:14	11° \mathcal{B} 20'01	0.54923 AU	min. Earth dist.	3554 Jun 13 00:24	20° \cap 37'24	0.55023 AU
morning rise	3553 Jul 10 14:22	7° \mathcal{B} 15'48		morning rise	3554 Jun 20 09:35	17° \cap 14'24	
direct	3553 Jul 13 19:41	6° \mathcal{B} 53'03		direct	3554 Jun 24 05:45	16° \cap 42'34	
morning max el	3553 Jul 25 23:06	12° \mathcal{B} 34'52	21°49'03	morning max el	3554 Jul 07 16:26	23° \cap 14'20	23°30'23
	3553 Aug 07 17:57	0° Ω			3554 Jul 13 17:31	0° \mathcal{B}	
asc. node	3553 Aug 09 08:45	2° Ω 55'16		asc. node	3554 Jul 27 05:47	22° \mathcal{B} 18'52	
morning set	3553 Aug 15 20:26	15° Ω 47'07		morning set	3554 Jul 31 07:48	0° Ω 40'49	

	3554 Jul 31 00:02	0°♎		direct	3555 Jun 05 02:44	26°♄26'31	
					3555 Jun 14 21:26	0°♊	
superior conj	3554 Aug 07 08:26	15°♎47'03	1°33'33	morning max el	3555 Jun 19 06:29	3°♊38'18	25°11'33
minimum elong	3554 Aug 07 06:28	15°♎36'28	1°33'22		3555 Jul 07 23:07	0°♋	
max. Earth dist.	3554 Aug 09 18:45	20°♎58'22	1.33475 AU	asc. node	3555 Jul 14 02:49	12°♋02'07	
	3554 Aug 14 03:22	0°♌		morning set	3555 Jul 15 19:31	15°♋35'03	
evening rise	3554 Aug 14 21:44	1°♌32'16			3555 Jul 22 10:58	0°♌	
	3554 Aug 30 23:06	0°♍					
desc. node	3554 Sep 02 13:04	3°♍54'08		superior conj	3555 Jul 22 18:23	0°♌40'34	1°19'47
evening max el	3554 Sep 17 22:21	22°♍54'09	27°22'15	minimum elong	3555 Jul 22 16:02	0°♌27'46	1°19'27
	3554 Sep 29 09:44	0°♎		max. Earth dist.	3555 Jul 24 00:42	3°♌26'10	1.32600 AU
retrograde	3554 Oct 01 11:11	0°♎12'27		evening rise	3555 Jul 29 21:34	15°♌54'53	
	3554 Oct 03 11:13	30°♎♎			3555 Aug 06 02:51	0°♏	
evening set	3554 Oct 08 13:04	27°♎31'42		desc. node	3555 Aug 20 10:03	23°♏00'08	
min. Earth dist.	3554 Oct 12 06:44	24°♎07'33	0.64259 AU		3555 Aug 25 21:16	0°♏	
inferior conj	3554 Oct 14 16:31	21°♎34'50	-2°45'42	evening max el	3555 Aug 31 07:35	5°♏47'36	27°22'52
minimum elong	3554 Oct 14 21:06	21°♎22'42	2°44'02	retrograde	3555 Sep 14 02:27	13°♏03'20	
morning rise	3554 Oct 21 06:21	16°♎10'22		evening set	3555 Sep 21 07:03	10°♏34'39	
asc. node	3554 Oct 23 05:00	15°♎39'19		min. Earth dist.	3555 Sep 24 21:34	7°♏39'22	0.62498 AU
direct	3554 Oct 23 19:29	15°♎37'27		inferior conj	3555 Sep 27 18:55	4°♏55'33	-3°43'40
morning max el	3554 Oct 30 07:45	19°♎03'15	17°55'20	minimum elong	3555 Sep 28 00:38	4°♏42'02	3°42'01
	3554 Nov 07 09:53	0°♏			3555 Oct 04 08:43	30°♏♏	
morning set	3554 Nov 16 09:55	15°♏03'29		morning rise	3555 Oct 04 19:50	29°♏49'17	
	3554 Nov 25 07:35	0°♐		direct	3555 Oct 07 05:21	29°♏23'26	
				asc. node	3555 Oct 10 02:02	0°♏01'23	
superior conj	3554 Nov 29 13:07	6°♐54'35	-0°00'13		3555 Oct 10 00:46	0°♏	
minimum elong	3554 Nov 29 13:05	6°♐54'26	0°00'13	morning max el	3555 Oct 13 23:53	2°♏50'55	17°51'09
behind sun begin	3554 Nov 29 02:58	6°♐13'27		morning set	3555 Oct 30 00:48	27°♏49'50	
behind sun end	3554 Nov 29 23:12	7°♐35'21			3555 Oct 31 05:59	0°♐	
desc. node	3554 Nov 29 12:22	6°♐51'30					
max. Earth dist.	3554 Dec 04 15:37	15°♐04'59	1.44630 AU	superior conj	3555 Nov 10 06:35	17°♐29'18	0°41'38
	3554 Dec 14 04:43	0°♑		minimum elong	3555 Nov 10 10:14	17°♐44'43	0°41'08
evening rise	3554 Dec 15 15:44	2°♑14'52		desc. node	3555 Nov 16 09:23	27°♐39'05	
	3555 Jan 03 05:28	0°♒		max. Earth dist.	3555 Nov 17 06:50	29°♐06'13	1.43396 AU
evening max el	3555 Jan 11 22:37	10°♒57'02	20°17'40		3555 Nov 17 20:07	0°♑	
asc. node	3555 Jan 19 04:14	15°♒32'27		evening rise	3555 Nov 25 02:08	11°♑29'01	
retrograde	3555 Jan 19 19:48	15°♒34'45			3555 Dec 07 08:08	0°♑	
evening set	3555 Jan 23 15:03	14°♒10'50		evening max el	3555 Dec 25 20:40	24°♑29'45	21°27'16
inferior conj	3555 Jan 29 00:28	8°♒05'11	2°51'47	retrograde	3556 Jan 03 17:22	29°♑45'32	
minimum elong	3555 Jan 28 21:59	8°♒13'34	2°51'10	asc. node	3556 Jan 06 01:16	29°♑15'56	
min. Earth dist.	3555 Jan 29 18:24	7°♒04'23	0.67277 AU	evening set	3556 Jan 07 22:43	28°♑06'20	
morning rise	3555 Feb 03 04:43	1°♒51'21		inferior conj	3556 Jan 13 07:04	21°♑50'35	2°15'47
	3555 Feb 05 21:10	30°♒♑		minimum elong	3556 Jan 13 04:38	21°♑59'01	2°14'59
direct	3555 Feb 08 22:07	29°♑18'09		min. Earth dist.	3556 Jan 13 12:44	21°♑30'56	0.67814 AU
	3555 Feb 12 04:37	0°♒		morning rise	3556 Jan 18 10:20	15°♑38'10	
morning max el	3555 Feb 20 10:24	6°♒11'01	24°42'56	direct	3556 Jan 23 13:04	13°♑25'05	
desc. node	3555 Feb 25 11:32	11°♒48'03		morning max el	3556 Feb 02 19:21	19°♑30'59	23°14'10
	3555 Mar 10 21:38	0°♓			3556 Feb 11 16:06	0°♓	
morning set	3555 Mar 28 11:40	28°♓29'36		desc. node	3556 Feb 12 08:35	0°♓54'23	
	3555 Mar 29 08:03	0°♔			3556 Mar 03 02:05	0°♓	
max. Earth dist.	3555 Apr 01 02:53	5°♔01'46	1.37260 AU	morning set	3556 Mar 08 16:47	9°♓11'47	
				max. Earth dist.	3556 Mar 12 21:38	16°♓21'59	1.39413 AU
superior conj	3555 Apr 07 18:16	17°♔34'54	-1°25'40				
minimum elong	3555 Apr 07 22:36	17°♔55'57	1°25'03	superior conj	3556 Mar 20 13:10	0°♔05'21	-1°48'57
	3555 Apr 14 00:33	0°♕		minimum elong	3556 Mar 20 17:43	0°♔26'24	1°48'31
evening rise	3555 Apr 16 06:52	4°♕31'49			3556 Mar 20 12:01	0°♕	
asc. node	3555 Apr 17 03:32	6°♕14'45		evening rise	3556 Mar 30 00:31	18°♕06'44	
	3555 May 01 08:33	0°♖		asc. node	3556 Apr 03 00:34	25°♕43'45	
evening max el	3555 May 03 04:02	1°♖55'33	19°20'19		3556 Apr 05 08:35	0°♕	
retrograde	3555 May 12 09:02	6°♖23'55		evening max el	3556 Apr 15 05:56	14°♕14'40	18°36'12
evening set	3555 May 14 09:24	6°♖11'59		retrograde	3556 Apr 23 01:26	18°♕04'47	
inferior conj	3555 May 22 21:08	2°♖04'17	0°27'19	evening set	3556 Apr 25 07:55	17°♕46'29	
minimum elong	3555 May 22 22:16	2°♖02'24	0°26'55	inferior conj	3556 May 02 23:44	13°♕20'16	1°59'34
desc. node	3555 May 24 10:42	1°♖02'15		minimum elong	3556 May 03 03:23	13°♕13'16	1°58'29
min. Earth dist.	3555 May 25 15:02	0°♖16'19	0.56061 AU	min. Earth dist.	3556 May 06 08:57	10°♕45'28	0.57818 AU
	3555 May 26 01:23	30°♖♕		desc. node	3556 May 10 07:45	8°♕15'43	
morning rise	3555 May 31 08:09	27°♕18'43		morning rise	3556 May 10 19:39	8°♕01'02	

direct	3556 May 16 14:04	6°♄37'22		desc. node	3557 Apr 27 04:47	17°♄39'10	
morning max el	3556 May 30 23:00	14°♄14'06	26°36'43	direct	3557 Apr 28 13:52	17°♄33'53	
	3556 Jun 12 12:51	0°♄		morning max el	3557 May 12 21:40	25°♄24'43	27°32'25
morning set	3556 Jun 29 05:57	0°♄23'46			3557 May 17 03:27	0°♄	
	3556 Jun 29 01:26	0°♄			3557 Jun 05 21:43	0°♄	
asc. node	3556 Jun 29 23:50	1°♄58'27		morning set	3557 Jun 13 13:24	15°♄01'49	
				asc. node	3557 Jun 16 20:53	22°♄03'07	
superior conj	3556 Jul 06 05:59	15°♄36'30	1°01'36	max. Earth dist.	3557 Jun 19 23:16	28°♄48'32	1.32083 AU
minimum elong	3556 Jul 06 03:46	15°♄24'14	1°01'12				
max. Earth dist.	3556 Jul 06 11:25	16°♄06'26	1.32139 AU	superior conj	3557 Jun 20 17:34	0°♄29'14	0°39'39
	3556 Jul 12 21:06	0°♄		minimum elong	3557 Jun 20 15:55	0°♄20'06	0°39'19
evening rise	3556 Jul 13 03:34	0°♄33'58			3557 Jun 20 12:16	0°♄	
	3556 Jul 29 05:08	0°♄		evening rise	3557 Jun 27 13:26	15°♄22'10	
desc. node	3556 Aug 06 07:04	11°♄13'52			3557 Jul 04 20:26	0°♄	
evening max el	3556 Aug 12 11:41	18°♄00'02	26°50'19	desc. node	3557 Jul 24 04:04	28°♄14'01	
retrograde	3556 Aug 26 09:54	25°♄11'25		evening max el	3557 Jul 25 08:27	29°♄23'53	25°45'43
evening set	3556 Sep 02 07:49	23°♄07'40			3557 Jul 25 23:54	0°♄	
min. Earth dist.	3556 Sep 06 01:49	20°♄29'48	0.60502 AU	retrograde	3557 Aug 08 07:52	6°♄31'12	
inferior conj	3556 Sep 09 07:11	17°♄49'32	-4°33'01	evening set	3557 Aug 14 10:35	5°♄02'47	
minimum elong	3556 Sep 09 12:34	17°♄38'19	4°32'00	min. Earth dist.	3557 Aug 18 20:37	2°♄25'23	0.58443 AU
morning rise	3556 Sep 16 19:14	13°♄04'27		inferior conj	3557 Aug 22 01:45	0°♄06'54	-5°03'56
direct	3556 Sep 19 04:12	12°♄42'45		minimum elong	3557 Aug 22 04:13	0°♄02'27	5°03'45
asc. node	3556 Sep 25 23:05	15°♄48'33			3557 Aug 22 05:34	30°♄	
morning max el	3556 Sep 26 12:37	16°♄20'14	18°06'02	morning rise	3557 Aug 30 00:04	25°♄45'00	
	3556 Oct 06 02:39	0°♄		direct	3557 Sep 01 11:39	25°♄25'15	
morning set	3556 Oct 12 07:52	11°♄22'04		morning max el	3557 Sep 09 18:42	29°♄22'25	18°41'21
					3557 Sep 10 09:58	0°♄	
superior conj	3556 Oct 22 02:00	29°♄19'29	1°12'46	asc. node	3557 Sep 12 20:07	2°♄46'29	
minimum elong	3556 Oct 22 06:10	29°♄38'03	1°12'18	morning set	3557 Sep 26 02:18	25°♄26'28	
	3556 Oct 22 11:05	0°♄			3557 Sep 28 10:24	0°♄	
max. Earth dist.	3556 Oct 29 17:27	12°♄34'01	1.41651 AU				
desc. node	3556 Nov 02 06:25	18°♄25'33		superior conj	3557 Oct 04 18:35	12°♄11'43	1°32'42
evening rise	3556 Nov 04 02:11	21°♄22'53		minimum elong	3557 Oct 04 21:31	12°♄25'30	1°32'28
	3556 Nov 09 13:18	0°♄		max. Earth dist.	3557 Oct 11 23:27	25°♄19'08	1.39613 AU
	3556 Nov 30 13:48	0°♄			3557 Oct 14 16:10	0°♄	
evening max el	3556 Dec 07 13:48	8°♄04'48	22°44'51	evening rise	3557 Oct 16 00:34	2°♄17'48	
retrograde	3556 Dec 17 12:46	13°♄59'26		desc. node	3557 Oct 20 03:27	9°♄07'21	
evening set	3556 Dec 22 06:01	12°♄03'57			3557 Nov 02 20:08	0°♄	
asc. node	3556 Dec 22 22:18	11°♄27'49		evening max el	3557 Nov 20 03:27	21°♄42'46	24°04'45
inferior conj	3556 Dec 27 14:50	5°♄41'38	1°32'26	retrograde	3557 Dec 01 04:48	28°♄12'32	
minimum elong	3556 Dec 27 12:54	5°♄48'18	1°31'42	evening set	3557 Dec 06 11:20	26°♄00'42	
min. Earth dist.	3556 Dec 27 09:15	6°♄00'58	0.67974 AU	asc. node	3557 Dec 09 19:22	22°♄23'51	
	3557 Jan 01 07:02	30°♄		min. Earth dist.	3557 Dec 11 05:36	20°♄31'03	0.67779 AU
morning rise	3557 Jan 01 19:40	29°♄32'27		inferior conj	3557 Dec 11 21:59	19°♄35'41	0°42'53
direct	3557 Jan 06 07:43	27°♄42'13		minimum elong	3557 Dec 11 20:58	19°♄39'05	0°42'28
	3557 Jan 11 23:09	0°♄		morning rise	3557 Dec 17 06:38	13°♄31'39	
morning max el	3557 Jan 15 08:10	2°♄58'52	21°47'39	direct	3557 Dec 21 04:56	12°♄03'59	
desc. node	3557 Jan 29 05:39	20°♄34'24		morning max el	3557 Dec 29 04:02	16°♄37'56	20°30'16
	3557 Feb 04 17:00	0°♄			3558 Jan 08 19:19	0°♄	
morning set	3557 Feb 16 17:04	18°♄31'19		desc. node	3558 Jan 16 02:42	10°♄38'25	
max. Earth dist.	3557 Feb 22 20:44	28°♄33'12	1.41542 AU	morning set	3558 Jan 26 17:47	26°♄48'42	
	3557 Feb 23 17:32	0°♄			3558 Jan 28 18:57	0°♄	
				max. Earth dist.	3558 Feb 05 03:24	11°♄39'48	1.43356 AU
superior conj	3557 Mar 02 12:48	11°♄39'26	-2°04'03				
minimum elong	3557 Mar 02 15:27	11°♄51'03	2°03'57	superior conj	3558 Feb 11 12:08	22°♄05'14	-2°05'52
	3557 Mar 12 16:21	0°♄		minimum elong	3558 Feb 11 09:59	21°♄56'18	2°05'49
evening rise	3557 Mar 13 06:18	1°♄04'18			3558 Feb 16 04:46	0°♄	
asc. node	3557 Mar 20 21:36	14°♄49'52		evening rise	3558 Feb 23 19:58	13°♄14'52	
evening max el	3557 Mar 29 14:37	27°♄03'20	18°12'08		3558 Mar 05 13:56	0°♄	
	3557 Apr 02 19:59	0°♄		asc. node	3558 Mar 07 18:39	3°♄24'55	
retrograde	3557 Apr 05 12:36	0°♄32'06		evening max el	3558 Mar 13 02:41	10°♄11'29	18°07'35
evening set	3557 Apr 08 01:33	0°♄04'41		retrograde	3558 Mar 19 14:32	13°♄34'24	
	3557 Apr 08 06:39	30°♄		evening set	3558 Mar 22 09:14	12°♄56'26	
inferior conj	3557 Apr 14 23:33	25°♄17'28	2°59'13	inferior conj	3558 Mar 28 17:19	7°♄48'52	3°29'55
minimum elong	3557 Apr 15 02:48	25°♄10'09	2°58'34	minimum elong	3558 Mar 28 18:54	7°♄44'47	3°29'46
min. Earth dist.	3557 Apr 18 08:20	22°♄17'43	0.59942 AU	min. Earth dist.	3558 Mar 31 15:50	4°♄48'47	0.62096 AU
morning rise	3557 Apr 22 01:41	19°♄32'55		morning rise	3558 Apr 04 03:06	1°♄48'39	

	3558 Apr 07 09:32	30° K		evening max el	3559 Feb 24 15:15	23° K 32'24	18°21'54
direct	3558 Apr 10 23:49	29° K 19'31		retrograde	3559 Mar 03 02:32	27° K 02'37	
desc. node	3558 Apr 14 01:51	29° K 46'59		evening set	3559 Mar 06 02:56	26° K 13'05	
	3558 Apr 14 18:11	0° Y		inferior conj	3559 Mar 12 00:56	20° K 46'47	3°38'12
morning max el	3558 Apr 25 02:30	7° Y 17'22	27°51'25	minimum elong	3559 Mar 12 00:46	20° K 47'16	3°38'12
	3558 May 12 09:49	0° B		min. Earth dist.	3559 Mar 14 08:49	18° K 07'06	0.64039 AU
morning set	3558 May 28 15:52	29° B 22'08		morning rise	3559 Mar 17 21:48	14° K 38'15	
	3558 May 28 23:17	0° II		direct	3559 Mar 24 18:17	11° K 51'05	
max. Earth dist.	3558 Jun 03 08:09	11° II 18'14	1.32426 AU	desc. node	3559 Mar 31 22:54	14° K 20'29	
asc. node	3558 Jun 03 17:56	12° II 11'09		morning max el	3559 Apr 07 11:18	19° K 47'24	27°33'27
					3559 Apr 16 04:46	0° Y	
superior conj	3558 Jun 05 03:20	15° II 12'28	0°14'35		3559 May 05 09:53	0° B	
minimum elong	3558 Jun 05 02:40	15° II 08'46	0°14'26	morning set	3559 May 12 10:49	13° B 16'52	
behind sun begin	3558 Jun 05 00:29	14° II 56'56		max. Earth dist.	3559 May 17 09:58	23° B 22'48	1.33198 AU
behind sun end	3558 Jun 05 04:50	15° II 20'36					
	3558 Jun 11 22:49	0° E		superior conj	3559 May 20 09:27	29° B 40'27	-0°12'52
evening rise	3558 Jun 12 01:05	0° E 12'04		minimum elong	3559 May 20 10:06	29° B 43'55	0°12'44
	3558 Jun 28 12:35	0° O		behind sun begin	3559 May 20 06:49	29° B 26'25	
evening max el	3558 Jul 06 22:43	10° O 05'22	24°17'44	behind sun end	3559 May 20 13:23	0° II 01'25	
desc. node	3558 Jul 11 01:05	13° O 31'31			3559 May 20 13:07	0° II	
retrograde	3558 Jul 20 18:52	17° O 04'22		asc. node	3559 May 21 14:59	2° II 18'29	
evening set	3558 Jul 25 13:25	16° O 13'34		evening rise	3559 May 27 12:40	14° II 57'28	
min. Earth dist.	3558 Jul 31 09:28	13° O 18'19	0.56590 AU		3559 Jun 04 02:00	0° E	
inferior conj	3558 Aug 03 00:12	11° O 39'52	-5°02'07	evening max el	3559 Jun 18 12:29	20° E 30'15	22°40'58
minimum elong	3558 Aug 02 21:05	11° O 44'48	5°01'53	desc. node	3559 Jun 27 22:06	26° E 31'19	
morning rise	3558 Aug 11 07:24	7° O 38'45		retrograde	3559 Jul 01 17:34	27° E 04'38	
direct	3558 Aug 13 23:54	7° O 19'31		evening set	3559 Jul 04 23:52	26° E 41'15	
morning max el	3558 Aug 23 15:11	11° O 48'38	19°38'13	min. Earth dist.	3559 Jul 12 20:30	23° E 14'15	0.55292 AU
asc. node	3558 Aug 30 17:11	20° O 40'31		inferior conj	3559 Jul 14 04:05	22° E 29'07	-4°13'22
	3558 Sep 05 03:06	0° P		minimum elong	3559 Jul 13 20:09	22° E 40'28	4°11'36
morning set	3558 Sep 10 04:32	9° P 53'31		morning rise	3559 Jul 22 18:37	18° E 38'04	
				direct	3559 Jul 25 18:01	18° E 17'37	
superior conj	3558 Sep 18 02:54	25° P 50'50	1°42'42	morning max el	3559 Aug 06 00:04	23° E 31'17	20°56'06
minimum elong	3558 Sep 18 04:06	25° P 56'46	1°42'38		3559 Aug 11 15:42	0° O	
	3558 Sep 20 05:50	0° A		asc. node	3559 Aug 17 14:13	9° O 17'26	
max. Earth dist.	3558 Sep 24 03:47	7° A 26'05	1.37541 AU	morning set	3559 Aug 25 11:53	24° O 35'23	
evening rise	3558 Sep 27 22:01	14° A 16'43			3559 Aug 28 02:22	0° P	
desc. node	3558 Oct 07 00:27	29° A 40'26					
	3558 Oct 07 05:20	0° M		superior conj	3559 Sep 01 22:21	10° P 02'52	1°44'22
	3558 Oct 28 15:28	0° J		minimum elong	3559 Sep 01 21:59	10° P 00'57	1°44'21
evening max el	3558 Nov 02 15:42	5° J 23'51	25°20'16	max. Earth dist.	3559 Sep 06 12:17	19° P 16'41	1.35678 AU
retrograde	3558 Nov 14 16:38	12° J 20'30		evening rise	3559 Sep 10 14:57	27° P 10'36	
evening set	3558 Nov 20 13:02	9° J 53'56			3559 Sep 12 03:28	0° A	
min. Earth dist.	3558 Nov 24 23:30	4° J 58'43	0.67236 AU	desc. node	3559 Sep 23 21:27	19° A 59'16	
inferior conj	3558 Nov 26 02:43	3° J 30'34	-0°11'44		3559 Sep 30 13:46	0° M	
minimum elong	3558 Nov 26 03:01	3° J 29'36	0°11'36	evening max el	3559 Oct 16 04:01	19° M 04'16	26°24'01
transit middle	3558 Nov 26 03:01	3° J 29'36	0°11'36	retrograde	3559 Oct 28 23:25	26° M 16'34	
transit begin	3558 Nov 26 01:04	3° J 35'55		evening set	3559 Nov 04 09:12	23° M 39'08	
transit end	3558 Nov 26 04:58	3° J 23'18		min. Earth dist.	3559 Nov 08 12:37	19° M 19'25	0.66351 AU
asc. node	3558 Nov 26 16:24	2° J 46'27		inferior conj	3559 Nov 10 03:09	17° M 22'16	-1°10'13
	3558 Nov 28 23:38	30° K M		minimum elong	3559 Nov 10 05:03	17° M 16'28	1°09'24
morning rise	3558 Dec 01 17:17	27° M 33'53		asc. node	3559 Nov 13 13:26	13° M 31'23	
direct	3558 Dec 05 03:28	26° M 26'16		morning rise	3559 Nov 16 01:29	11° M 35'28	
	3558 Dec 11 20:19	0° J		direct	3559 Nov 19 01:39	10° M 44'17	
morning max el	3558 Dec 12 07:50	0° J 28'12	19°26'15	morning max el	3559 Nov 25 18:19	14° M 24'55	18°37'44
greatest brilliancy	3558 Dec 25 14:36	18° J 12'23	-0.7m		3559 Dec 07 05:15	0° J	
	3559 Jan 02 08:10	0° B		morning set	3559 Dec 16 11:14	14° J 35'32	
desc. node	3559 Jan 02 23:45	1° B 00'01		desc. node	3559 Dec 20 20:45	21° J 33'26	
morning set	3559 Jan 05 16:05	5° B 08'32			3559 Dec 26 05:17	0° B	
max. Earth dist.	3559 Jan 18 16:45	25° B 29'37	1.44625 AU				
	3559 Jan 21 12:54	0° A		superior conj	3560 Jan 01 13:49	9° B 58'45	-1°14'16
				minimum elong	3560 Jan 01 05:11	9° B 24'54	1°13'16
superior conj	3559 Jan 22 09:47	1° A 23'18	-1°49'30	max. Earth dist.	3560 Jan 01 10:20	9° B 45'04	1.45209 AU
minimum elong	3559 Jan 22 01:59	0° A 52'10	1°48'56		3560 Jan 14 06:31	0° A	
evening rise	3559 Feb 05 13:16	24° A 31'13		evening rise	3560 Jan 17 07:16	4° A 49'36	
	3559 Feb 08 19:55	0° K		greatest brilliancy	3560 Jan 25 14:27	18° A 03'49	-0.8m
asc. node	3559 Feb 22 15:41	21° K 19'45			3560 Feb 02 10:52	0° K	

evening max el	3560 Feb 08 01:49	7° H 00'18	18°54'17			3560 Dec 17 22:52	0° Z	
asc. node	3560 Feb 09 12:43	8° H 22'25		evening rise		3560 Dec 27 03:59	14° Z 19'23	
retrograde	3560 Feb 14 20:44	10° H 49'13				3561 Jan 06 08:34	0° \approx	
evening set	3560 Feb 18 03:29	9° H 47'08		greatest brilliancy		3561 Jan 09 09:22	4° \approx 34'36	-0.7m
inferior conj	3560 Feb 23 18:37	4° H 03'50	3°29'46	evening max el		3561 Jan 21 08:22	20° \approx 31'06	19°43'07
minimum elong	3560 Feb 23 17:07	4° H 08'31	3°29'36	asc. node		3561 Jan 26 09:45	24° \approx 18'42	
min. Earth dist.	3560 Feb 25 10:56	1° H 58'17	0.65623 AU	retrograde		3561 Jan 28 18:01	24° \approx 48'25	
	3560 Feb 27 03:08	30° $\text{R}\approx$		evening set		3561 Feb 01 08:21	23° \approx 32'39	
morning rise	3560 Feb 29 06:21	27° \approx 51'33		inferior conj		3561 Feb 06 19:13	17° \approx 34'29	3°08'38
direct	3560 Mar 06 19:41	25° \approx 00'36		minimum elong		3561 Feb 06 16:57	17° \approx 42'01	3°08'10
	3560 Mar 16 23:45	0° H		min. Earth dist.		3561 Feb 07 20:52	16° \approx 09'39	0.66794 AU
desc. node	3560 Mar 17 19:57	0° H 44'55		morning rise		3561 Feb 12 01:19	11° \approx 20'55	
morning max el	3560 Mar 19 21:08	2° H 43'08	26°43'58	direct		3561 Feb 18 02:49	8° \approx 38'41	
	3560 Apr 09 10:44	0° Y		morning max el		3561 Mar 02 06:12	15° \approx 52'57	25°31'21
morning set	3560 Apr 24 18:58	26° Y 36'15		desc. node		3561 Mar 04 16:59	18° \approx 29'07	
	3560 Apr 26 13:22	0° B				3561 Mar 13 22:04	0° H	
max. Earth dist.	3560 Apr 29 01:18	4° B 54'59	1.34432 AU			3561 Apr 02 08:12	0° Y	
				morning set		3561 Apr 07 11:52	9° Y 06'34	
superior conj	3560 May 03 09:46	13° B 46'57	-0°41'36	max. Earth dist.		3561 Apr 11 05:20	16° Y 01'25	1.36123 AU
minimum elong	3560 May 03 11:57	13° B 58'17	0°41'10					
asc. node	3560 May 07 12:00	22° B 21'16		superior conj		3561 Apr 17 01:31	27° Y 23'24	-1°10'09
evening rise	3560 May 10 22:17	29° B 32'35		minimum elong		3561 Apr 17 05:11	27° Y 41'45	1°09'32
	3560 May 11 03:34	0° II				3561 Apr 18 08:44	0° B	
	3560 May 29 05:40	0° E		asc. node		3561 Apr 24 09:02	12° B 14'40	
evening max el	3560 May 30 09:42	1° E 11'33	21°10'10	evening rise		3561 Apr 25 03:47	13° B 50'03	
retrograde	3560 Jun 11 06:57	7° E 00'59				3561 May 03 15:14	0° II	
evening set	3560 Jun 13 12:58	6° E 49'13		evening max el		3561 May 12 18:33	12° II 28'30	19°54'48
desc. node	3560 Jun 13 19:08	6° E 46'26		retrograde		3561 May 22 22:24	17° II 24'55	
inferior conj	3560 Jun 22 21:56	2° E 51'01	-2°37'20	evening set		3561 May 24 21:39	17° II 14'36	
minimum elong	3560 Jun 22 14:51	3° E 00'59	2°34'57	desc. node		3561 May 31 16:10	14° II 30'46	
min. Earth dist.	3560 Jun 23 08:04	2° E 36'47	0.54846 AU	inferior conj		3561 Jun 02 19:47	13° II 13'59	-0°38'07
	3560 Jun 28 09:47	30° RII		minimum elong		3561 Jun 02 18:02	13° II 16'39	0°37'28
morning rise	3560 Jul 01 16:58	28° II 52'17		min. Earth dist.		3561 Jun 04 20:57	11° II 59'22	0.55367 AU
direct	3560 Jul 05 03:46	28° II 26'34		morning rise		3561 Jun 11 12:26	8° II 49'05	
	3560 Jul 11 13:49	0° E		direct		3561 Jun 15 17:44	8° II 10'02	
morning max el	3560 Jul 17 21:55	4° E 30'45	22°31'09	morning max el		3561 Jun 29 12:56	14° II 59'45	24°14'14
asc. node	3560 Aug 03 11:16	28° E 26'52				3561 Jul 11 09:09	0° E	
	3560 Aug 04 06:36	0° O		asc. node		3561 Jul 21 08:18	17° E 59'33	
morning set	3560 Aug 08 22:20	9° O 26'42		morning set		3561 Jul 24 10:04	24° E 21'13	
						3561 Jul 27 01:23	0° O	
superior conj	3560 Aug 16 01:29	24° O 37'44	1°39'10	superior conj		3561 Jul 31 09:34	9° O 26'08	1°28'17
minimum elong	3560 Aug 15 23:57	24° O 29'38	1°39'05	minimum elong		3561 Jul 31 07:23	9° O 14'16	1°28'02
	3560 Aug 18 14:47	0° np		max. Earth dist.		3561 Aug 02 07:33	13° O 34'24	1.33062 AU
max. Earth dist.	3560 Aug 19 05:27	1° np 16'07	1.34170 AU	evening rise		3561 Aug 07 18:00	24° O 56'40	
evening rise	3560 Aug 23 22:59	10° np 48'02				3561 Aug 10 06:57	0° np	
	3560 Sep 03 12:46	0° E		desc. node		3561 Aug 27 15:27	29° np 25'41	
desc. node	3560 Sep 09 18:26	9° E 57'27				3561 Aug 28 01:02	0° E	
	3560 Sep 25 02:38	0° ml		evening max el		3561 Sep 10 03:45	15° E 47'39	27°26'23
evening max el	3560 Sep 27 16:35	2° ml 36'26	27°08'20	retrograde		3561 Sep 23 19:12	23° E 04'12	
retrograde	3560 Oct 11 00:27	9° ml 53'55		evening set		3561 Sep 30 23:16	20° E 27'16	
evening set	3560 Oct 17 21:34	7° ml 12'07		min. Earth dist.		3561 Oct 04 15:14	17° E 16'21	0.63551 AU
min. Earth dist.	3560 Oct 21 18:36	3° ml 28'04	0.65124 AU	inferior conj		3561 Oct 07 06:04	14° E 37'48	-3°10'54
inferior conj	3560 Oct 23 21:07	1° ml 06'40	-2°10'49	minimum elong		3561 Oct 07 11:14	14° E 24'43	3°09'11
minimum elong	3560 Oct 24 00:46	0° ml 56'28	2°09'23	morning rise		3561 Oct 14 00:31	9° E 20'31	
	3560 Oct 24 21:10	30° RE		direct		3561 Oct 16 11:53	8° E 50'50	
morning rise	3560 Oct 30 04:54	25° E 32'51		asc. node		3561 Oct 17 07:31	8° E 54'09	
asc. node	3560 Oct 30 10:29	25° E 26'31		morning max el		3561 Oct 23 01:45	12° E 16'06	17°51'19
direct	3560 Nov 01 21:23	24° E 54'14				3561 Nov 04 03:47	0° ml	
morning max el	3560 Nov 08 09:12	28° E 22'55	18°05'48	morning set		3561 Nov 08 14:42	7° ml 42'32	
	3560 Nov 09 21:07	0° ml						
morning set	3560 Nov 26 11:54	25° ml 31'04		superior conj		3561 Nov 20 21:31	28° ml 34'01	0°18'42
	3560 Nov 29 05:06	0° Z		minimum elong		3561 Nov 20 23:28	28° ml 42'06	0°18'26
desc. node	3560 Dec 06 17:45	12° Z 14'48				3561 Nov 21 18:26	0° Z	
				desc. node		3561 Nov 23 14:46	3° Z 00'54	
superior conj	3560 Dec 10 19:29	18° Z 45'15	-0°27'34	max. Earth dist.		3561 Nov 26 23:38	8° Z 26'40	1.44178 AU
minimum elong	3560 Dec 10 16:02	18° Z 31'30	0°27'05	evening rise		3561 Dec 06 13:35	23° Z 27'50	
max. Earth dist.	3560 Dec 14 05:37	24° Z 09'56	1.45053 AU					

	3561 Dec 10 20:08	0°♄			3562 Nov 14 08:06	0°♄	
	3561 Dec 31 19:52	0°♄		evening rise	3562 Nov 16 04:04	2°♄53'59	
evening max el	3562 Jan 04 09:36	4°♄03'00	20°46'03		3562 Dec 04 07:14	0°♄	
retrograde	3562 Jan 12 16:05	8°♄56'13		evening max el	3562 Dec 18 05:15	17°♄35'29	21°59'37
asc. node	3562 Jan 13 06:47	8°♄54'10		retrograde	3562 Dec 27 13:00	23°♄08'28	
evening set	3562 Jan 16 15:32	7°♄25'42		asc. node	3562 Dec 31 03:50	21°♄57'57	
inferior conj	3562 Jan 22 00:15	1°♄15'18	2°37'30	evening set	3562 Dec 31 23:14	21°♄22'14	
minimum elong	3562 Jan 21 21:44	1°♄23'55	2°36'47	inferior conj	3563 Jan 06 07:34	15°♄02'58	1°58'12
min. Earth dist.	3562 Jan 22 12:44	0°♄32'30	0.67550 AU	minimum elong	3563 Jan 06 05:18	15°♄10'52	1°57'25
	3562 Jan 22 22:15	30°♄♄		min. Earth dist.	3563 Jan 06 08:16	15°♄00'31	0.67918 AU
morning rise	3562 Jan 27 03:47	25°♄02'07		morning rise	3563 Jan 11 11:13	8°♄51'42	
direct	3562 Feb 01 15:00	22°♄37'09		direct	3563 Jan 16 07:29	6°♄48'28	
morning max el	3562 Feb 12 14:45	29°♄10'25	24°05'38	morning max el	3563 Jan 26 01:02	12°♄33'31	22°36'43
	3562 Feb 13 10:02	0°♄		desc. node	3563 Feb 06 11:02	26°♄31'49	
desc. node	3562 Feb 19 14:00	7°♄10'18			3563 Feb 08 22:58	0°♄	
	3562 Mar 07 17:29	0°♄			3563 Feb 28 15:13	0°♄	
morning set	3562 Mar 20 07:52	20°♄32'56		morning set	3563 Mar 01 00:56	0°♄39'48	
max. Earth dist.	3562 Mar 24 01:51	27°♄08'26	1.38163 AU	max. Earth dist.	3563 Mar 05 21:38	8°♄47'22	1.40333 AU
	3562 Mar 25 15:54	0°♄					
				superior conj	3563 Mar 13 16:31	22°♄28'02	-1°56'38
superior conj	3562 Mar 31 05:15	10°♄20'57	-1°36'15	minimum elong	3563 Mar 13 20:35	22°♄46'28	1°56'21
minimum elong	3562 Mar 31 09:51	10°♄42'54	1°35'40		3563 Mar 17 18:56	0°♄	
evening rise	3562 Apr 09 02:41	27°♄43'07		evening rise	3563 Mar 23 15:45	11°♄02'53	
	3562 Apr 10 06:36	0°♄		asc. node	3563 Mar 29 03:08	21°♄14'17	
asc. node	3562 Apr 11 06:05	1°♄54'18			3563 Apr 03 08:08	0°♄	
evening max el	3562 Apr 25 14:53	24°♄26'05	18°58'59	evening max el	3563 Apr 08 20:00	6°♄58'18	18°23'33
retrograde	3562 May 04 04:20	28°♄36'34		retrograde	3563 Apr 16 05:09	10°♄37'42	
evening set	3562 May 06 07:02	28°♄22'21		evening set	3563 Apr 18 14:16	10°♄15'55	
inferior conj	3562 May 14 10:15	24°♄06'55	1°10'18	inferior conj	3563 Apr 25 22:07	5°♄40'55	2°28'45
minimum elong	3562 May 14 12:52	24°♄02'18	1°09'24	minimum elong	3563 Apr 26 01:51	5°♄33'14	2°27'47
min. Earth dist.	3562 May 17 12:34	21°♄57'13	0.56744 AU	min. Earth dist.	3563 Apr 29 08:45	2°♄52'17	0.58691 AU
desc. node	3562 May 18 13:12	21°♄16'50		morning rise	3563 May 03 10:27	0°♄09'16	
morning rise	3562 May 22 15:31	19°♄06'24			3563 May 03 17:36	30°♄♄	
direct	3562 May 27 20:20	18°♄02'15		desc. node	3563 May 05 10:14	29°♄15'40	
morning max el	3562 Jun 11 03:33	25°♄25'41	25°50'37	direct	3563 May 09 13:14	28°♄30'28	
	3562 Jun 15 10:01	0°♄			3563 May 15 13:20	0°♄	
	3562 Jul 04 09:06	0°♄		morning max el	3563 May 23 22:42	6°♄15'07	27°04'38
asc. node	3562 Jul 08 05:20	7°♄48'57			3563 Jun 10 14:29	0°♄	
morning set	3562 Jul 08 21:29	9°♄13'51		morning set	3563 Jun 23 06:55	23°♄59'19	
				asc. node	3563 Jun 25 02:24	27°♄49'43	
superior conj	3562 Jul 15 20:28	24°♄21'14	1°12'34		3563 Jun 26 02:37	0°♄	
minimum elong	3562 Jul 15 18:07	24°♄08'19	1°12'12	superior conj	3563 Jun 30 08:20	9°♄17'02	0°52'44
max. Earth dist.	3562 Jul 16 16:07	26°♄09'08	1.32361 AU	minimum elong	3563 Jun 30 06:17	9°♄05'47	0°52'20
	3562 Jul 18 10:23	0°♄		max. Earth dist.	3563 Jun 30 03:43	8°♄51'37	1.32062 AU
evening rise	3562 Jul 22 20:47	9°♄26'58		evening rise	3563 Jul 07 04:43	24°♄11'01	
	3562 Aug 02 14:55	0°♄			3563 Jul 10 00:05	0°♄	
desc. node	3562 Aug 14 12:29	18°♄11'30			3563 Jul 27 15:23	0°♄	
evening max el	3562 Aug 23 10:58	28°♄24'08	27°12'57	desc. node	3563 Aug 01 09:30	5°♄57'35	
	3562 Aug 25 05:29	0°♄		evening max el	3563 Aug 05 11:56	10°♄16'11	26°26'20
retrograde	3562 Sep 06 07:08	5°♄37'56		retrograde	3563 Aug 19 11:15	17°♄26'51	
evening set	3562 Sep 13 10:30	3°♄17'58		evening set	3563 Aug 26 02:37	15°♄36'57	
min. Earth dist.	3562 Sep 17 01:17	0°♄32'12	0.61674 AU	min. Earth dist.	3563 Aug 30 01:18	13°♄01'37	0.59617 AU
	3562 Sep 17 16:03	30°♄♄		inferior conj	3563 Sep 02 08:04	10°♄27'54	-4°49'10
inferior conj	3562 Sep 20 02:51	27°♄47'46	-4°06'10	minimum elong	3563 Sep 02 12:35	10°♄19'02	4°48'32
minimum elong	3562 Sep 20 08:40	27°♄34'42	4°04'42	morning rise	3563 Sep 10 00:41	5°♄52'56	
morning rise	3562 Sep 27 08:36	22°♄50'27		direct	3563 Sep 12 10:16	5°♄32'26	
direct	3562 Sep 29 17:34	22°♄26'39		morning max el	3563 Sep 20 03:21	9°♄17'03	18°18'29
asc. node	3562 Oct 04 04:35	23°♄53'47		asc. node	3563 Sep 21 01:37	10°♄13'33	
morning max el	3562 Oct 06 16:53	25°♄56'55	17°55'08		3563 Oct 03 14:55	0°♄	
	3562 Oct 10 03:42	0°♄		morning set	3563 Oct 06 01:36	4°♄37'39	
morning set	3562 Oct 22 13:08	20°♄49'53					
	3562 Oct 27 14:32	0°♄		superior conj	3563 Oct 15 07:40	22°♄01'23	1°22'32
superior conj	3562 Nov 02 02:27	9°♄42'01	0°56'16	minimum elong	3563 Oct 15 11:26	22°♄18'35	1°22'08
minimum elong	3562 Nov 02 06:38	10°♄00'05	0°55'44		3563 Oct 19 18:25	0°♄	
max. Earth dist.	3562 Nov 09 13:09	22°♄15'26	1.42698 AU	max. Earth dist.	3563 Oct 22 21:09	5°♄23'58	1.40801 AU
desc. node	3562 Nov 10 11:47	23°♄48'06		evening rise	3563 Oct 27 13:10	13°♄13'02	



































































































































desc. node	3563 Oct 28 08:50	14°♄33'24		desc. node	3564 Oct 14 05:52	5°♄12'13	
	3563 Nov 07 05:30	0°♄			3564 Oct 30 22:56	0°♄	
	3563 Nov 29 16:52	0°♄		evening max el	3564 Nov 12 09:33	14°♄51'23	24°37'52
evening max el	3563 Nov 30 20:35	1°♄11'21	23°18'55	retrograde	3564 Nov 23 21:32	21°♄33'35	
retrograde	3563 Dec 11 07:14	7°♄22'21		evening set	3564 Nov 29 09:50	19°♄15'30	
evening set	3563 Dec 16 05:52	5°♄19'58		asc. node	3564 Dec 03 21:54	14°♄09'43	
asc. node	3563 Dec 18 00:52	3°♄34'14		min. Earth dist.	3564 Dec 04 00:48	14°♄00'07	0.67593 AU
	3563 Dec 20 20:34	30°♄		inferior conj	3564 Dec 04 21:39	12°♄50'42	0°20'17
min. Earth dist.	3563 Dec 21 05:07	29°♄30'46	0.67930 AU	minimum elong	3564 Dec 04 21:09	12°♄52'21	0°20'04
inferior conj	3563 Dec 21 15:18	28°♄55'45	1°12'06	morning rise	3564 Dec 10 08:34	6°♄49'15	
minimum elong	3563 Dec 21 13:43	29°♄01'13	1°11'28	direct	3564 Dec 14 01:32	5°♄30'19	
morning rise	3563 Dec 26 21:29	22°♄48'16		morning max el	3564 Dec 21 15:41	9°♄49'15	20°01'06
direct	3563 Dec 31 03:27	21°♄07'50			3565 Jan 05 19:50	0°♄	
morning max el	3564 Jan 08 16:33	26°♄05'42	21°13'12	desc. node	3565 Jan 10 05:08	6°♄35'06	
	3564 Jan 12 05:19	0°♄		morning set	3565 Jan 17 09:51	17°♄35'27	
desc. node	3564 Jan 24 08:05	16°♄22'48			3565 Jan 25 08:38	0°♄	
	3564 Feb 02 11:12	0°♄		max. Earth dist.	3565 Jan 28 08:43	4°♄46'13	1.43975 AU
morning set	3564 Feb 08 13:30	9°♄27'01					
max. Earth dist.	3564 Feb 15 23:05	21°♄19'38	1.42362 AU	superior conj	3565 Feb 02 18:28	13°♄29'46	-2°01'21
	3564 Feb 21 04:07	0°♄		minimum elong	3565 Feb 02 13:44	13°♄10'26	2°01'08
					3565 Feb 12 15:47	0°♄	
superior conj	3564 Feb 23 06:15	3°♄33'27	-2°06'46	evening rise	3565 Feb 15 20:35	5°♄28'42	
minimum elong	3564 Feb 23 07:12	3°♄37'32	2°06'46	asc. node	3565 Mar 01 21:12	28°♄27'18	
evening rise	3564 Mar 05 15:09	23°♄40'44			3565 Mar 03 00:55	0°♄	
	3564 Mar 09 03:18	0°♄		evening max el	3565 Mar 05 19:12	3°♄10'57	18°11'30
asc. node	3564 Mar 15 00:10	10°♄07'58		retrograde	3565 Mar 12 05:33	6°♄35'05	
evening max el	3564 Mar 22 06:31	19°♄56'05	18°07'57	evening set	3565 Mar 15 02:46	5°♄52'10	
retrograde	3564 Mar 28 22:55	23°♄20'27		inferior conj	3565 Mar 21 06:06	0°♄36'31	3°35'47
evening set	3564 Mar 31 14:22	22°♄48'45		minimum elong	3565 Mar 21 06:55	0°♄34'19	3°35'45
inferior conj	3564 Apr 07 05:59	17°♄53'06	3°15'22		3565 Mar 21 19:34	30°♄	
minimum elong	3564 Apr 07 08:36	17°♄46'52	3°14'58	min. Earth dist.	3565 Mar 23 22:42	27°♄43'05	0.62959 AU
min. Earth dist.	3564 Apr 10 11:27	14°♄49'58	0.60867 AU	morning rise	3565 Mar 27 09:58	24°♄32'24	
morning rise	3564 Apr 14 00:49	12°♄00'50		direct	3565 Apr 03 07:45	21°♄53'51	
direct	3564 Apr 20 17:57	9°♄47'25		desc. node	3565 Apr 08 04:18	23°♄02'08	
desc. node	3564 Apr 21 07:17	9°♄48'18			3565 Apr 17 09:54	0°♄	
morning max el	3564 May 04 23:58	17°♄42'47	27°45'09	morning max el	3565 Apr 17 06:33	29°♄51'36	27°48'09
	3564 May 15 05:43	0°♄			3565 May 09 05:21	0°♄	
	3564 Jun 02 06:29	0°♄		morning set	3565 May 21 12:04	22°♄41'02	
morning set	3564 Jun 06 12:30	8°♄30'39			3565 May 25 01:29	0°♄	
asc. node	3564 Jun 10 23:26	17°♄56'23		max. Earth dist.	3565 May 26 20:54	3°♄49'37	1.32698 AU
max. Earth dist.	3564 Jun 12 14:36	21°♄29'15	1.32170 AU	asc. node	3565 May 28 20:29	8°♄04'52	
superior conj	3564 Jun 13 19:21	24°♄06'41	0°29'24	superior conj	3565 May 29 03:48	8°♄44'28	0°03'13
minimum elong	3564 Jun 13 18:04	23°♄59'36	0°29'06	minimum elong	3565 May 29 03:39	8°♄43'37	0°03'11
	3564 Jun 16 11:42	0°♄		behind sun begin	3565 May 28 22:30	8°♄15'46	
evening rise	3564 Jun 20 15:33	9°♄00'48		behind sun end	3565 May 29 08:48	9°♄11'29	
	3564 Jul 01 11:06	0°♄		evening rise	3565 Jun 05 03:23	23°♄49'54	
evening max el	3564 Jul 17 05:42	21°♄21'06	25°10'32		3565 Jun 08 02:28	0°♄	
desc. node	3564 Jul 18 06:33	22°♄18'42			3565 Jun 26 23:03	0°♄	
retrograde	3564 Jul 31 05:03	28°♄26'03		evening max el	3565 Jun 28 19:00	1°♄52'25	23°36'50
evening set	3564 Aug 05 19:07	27°♄14'23		desc. node	3565 Jul 05 03:32	6°♄42'29	
min. Earth dist.	3564 Aug 10 17:28	24°♄31'08	0.57609 AU	retrograde	3565 Jul 12 10:17	8°♄42'37	
inferior conj	3564 Aug 13 18:18	22°♄27'44	-5°08'08	evening set	3565 Jul 16 13:12	8°♄05'23	
minimum elong	3564 Aug 13 18:38	22°♄27'12	5°08'08	min. Earth dist.	3565 Jul 23 05:03	4°♄58'20	0.55958 AU
morning rise	3564 Aug 21 20:33	18°♄15'01		inferior conj	3565 Jul 25 08:21	3°♄41'37	-4°47'44
direct	3564 Aug 24 09:48	17°♄55'44		minimum elong	3565 Jul 25 02:45	3°♄50'02	4°46'57
morning max el	3564 Sep 02 05:43	22°♄05'25	19°02'45		3565 Aug 01 21:50	30°♄	
asc. node	3564 Sep 06 22:40	27°♄37'14		morning rise	3565 Aug 02 18:49	29°♄46'20	
	3564 Sep 08 13:44	0°♄		direct	3565 Aug 05 14:12	29°♄26'41	
morning set	3564 Sep 18 23:44	18°♄52'50			3565 Aug 09 03:12	0°♄	
	3564 Sep 24 14:40	0°♄		morning max el	3565 Aug 15 21:14	4°♄13'17	20°08'45
				asc. node	3565 Aug 24 19:42	15°♄51'00	
superior conj	3564 Sep 27 07:34	5°♄15'17	1°38'03		3565 Sep 01 11:23	0°♄	
minimum elong	3564 Sep 27 09:46	5°♄25'55	1°37'54	morning set	3565 Sep 03 04:27	3°♄27'16	
max. Earth dist.	3564 Oct 04 01:41	17°♄50'33	1.38728 AU				
evening rise	3564 Oct 07 21:42	24°♄36'21		superior conj	3565 Sep 10 21:05	19°♄09'42	1°44'18
	3564 Oct 11 01:53	0°♄		minimum elong	3565 Sep 10 21:34	19°♄12'11	1°44'18

	3565 Sep 16 09:47	0°♄		max. Earth dist.	3566 Aug 29 19:34	11°♏42'14	1.34988 AU
max. Earth dist.	3565 Sep 16 07:29	29°♏49'04	1.36725 AU	evening rise	3566 Sep 03 03:50	20°♏13'53	
evening rise	3565 Sep 20 03:59	7°♄00'04			3566 Sep 08 10:59	0°♄	
desc. node	3565 Oct 01 02:52	25°♄40'05		desc. node	3566 Sep 17 23:51	15°♄51'31	
	3565 Oct 03 21:18	0°♏			3566 Sep 27 20:26	0°♏	
evening max el	3565 Oct 25 21:53	28°♏33'27	25°49'14	evening max el	3566 Oct 08 10:19	12°♏11'49	26°45'33
	3565 Oct 27 10:49	0°♌		retrograde	3566 Oct 21 11:26	19°♏27'15	
retrograde	3565 Nov 07 07:05	5°♌37'12		evening set	3566 Oct 28 02:36	16°♏46'42	
evening set	3565 Nov 13 09:24	3°♌05'31		min. Earth dist.	3566 Nov 01 03:08	12°♏42'36	0.65878 AU
	3565 Nov 16 09:49	30°♏♏		inferior conj	3566 Nov 02 22:47	10°♏34'16	-1°35'45
min. Earth dist.	3565 Nov 17 16:53	28°♏25'22	0.66911 AU	minimum elong	3566 Nov 03 01:25	10°♏26'29	1°34'40
inferior conj	3565 Nov 19 00:48	26°♏44'36	-0°36'09	asc. node	3566 Nov 07 15:58	5°♏45'43	
minimum elong	3565 Nov 19 01:45	26°♏41'36	0°35'44	morning rise	3566 Nov 09 00:59	4°♏52'53	
asc. node	3565 Nov 20 18:56	24°♏34'45		direct	3566 Nov 11 21:36	4°♏07'34	
morning rise	3565 Nov 24 18:27	20°♏51'49		morning max el	3566 Nov 18 11:20	7°♏41'43	18°22'06
direct	3565 Nov 28 00:13	19°♏51'30			3566 Dec 03 23:21	0°♌	
morning max el	3565 Dec 04 22:31	23°♏42'39	19°03'35	morning set	3566 Dec 07 22:35	6°♌24'05	
	3565 Dec 10 04:26	0°♌		desc. node	3566 Dec 14 23:09	17°♌40'03	
morning set	3565 Dec 27 14:54	26°♌18'26			3566 Dec 22 18:15	0°♌	
desc. node	3565 Dec 28 02:09	27°♌02'18					
	3565 Dec 29 23:42	0°♌		superior conj	3566 Dec 23 08:53	0°♌57'31	-0°55'08
max. Earth dist.	3566 Jan 11 00:48	18°♌51'20	1.44967 AU	minimum elong	3566 Dec 23 02:00	0°♌30'27	0°54'16
				max. Earth dist.	3566 Dec 24 19:50	3°♌14'41	1.45234 AU
superior conj	3566 Jan 13 06:48	22°♌24'16	-1°36'36	evening rise	3567 Jan 08 12:31	26°♌17'00	
minimum elong	3566 Jan 12 21:46	21°♌48'34	1°35'46		3567 Jan 10 21:17	0°♏	
	3566 Jan 18 01:35	0°♏		greatest brilliancy	3567 Jan 19 02:46	12°♏51'41	-0.8m
evening rise	3566 Jan 28 04:07	16°♏20'26		evening max el	3567 Jan 31 16:11	0°♏04'39	19°13'04
	3566 Feb 05 12:51	0°♏			3567 Jan 31 14:23	0°♏	
asc. node	3566 Feb 16 18:14	16°♏01'30		asc. node	3567 Feb 03 15:16	2°♏37'56	
evening max el	3566 Feb 17 07:11	16°♏35'18	18°33'32	retrograde	3567 Feb 07 16:39	4°♏04'55	
retrograde	3566 Feb 23 20:40	20°♏12'07		evening set	3567 Feb 11 02:25	2°♏57'11	
evening set	3566 Feb 26 23:43	19°♏17'11			3567 Feb 14 07:14	30°♏♏	
inferior conj	3566 Mar 04 18:24	13°♏43'08	3°36'24	inferior conj	3567 Feb 16 15:25	27°♏07'00	3°22'10
minimum elong	3566 Mar 04 17:36	13°♏45'31	3°36'21	minimum elong	3567 Feb 16 13:31	27°♏13'05	3°21'52
min. Earth dist.	3566 Mar 06 19:30	11°♏17'07	0.64761 AU	min. Earth dist.	3567 Feb 18 01:15	25°♏18'25	0.66172 AU
morning rise	3566 Mar 10 10:57	7°♏32'43		morning rise	3567 Feb 22 00:20	20°♏53'40	
direct	3566 Mar 17 05:01	4°♏42'37		direct	3567 Feb 28 08:53	18°♏05'20	
desc. node	3566 Mar 26 01:21	8°♏26'59		desc. node	3567 Mar 12 22:23	25°♏28'50	
morning max el	3566 Mar 30 16:08	12°♏34'01	27°15'56	morning max el	3567 Mar 13 02:04	25°♏38'05	26°15'18
	3566 Apr 13 15:24	0°♏			3567 Mar 17 02:10	0°♏	
	3566 May 01 18:46	0°♏			3567 Apr 07 03:52	0°♏	
morning set	3566 May 05 02:50	6°♏21'30		morning set	3567 Apr 18 05:05	19°♏21'34	
max. Earth dist.	3566 May 09 18:49	15°♏41'28	1.33669 AU	max. Earth dist.	3567 Apr 22 05:21	27°♏01'12	1.35101 AU
					3567 Apr 23 17:43	0°♏	
superior conj	3566 May 13 07:41	23°♏03'33	-0°24'58				
minimum elong	3566 May 13 08:58	23°♏10'20	0°24'42	superior conj	3567 Apr 27 04:40	6°♏57'41	-0°53'52
asc. node	3566 May 15 17:31	28°♏10'34		minimum elong	3567 Apr 27 07:31	7°♏12'14	0°53'20
	3566 May 16 14:01	0°♏		asc. node	3567 May 02 14:33	18°♏09'39	
evening rise	3566 May 20 14:21	8°♏31'28		evening rise	3567 May 04 22:30	22°♏59'32	
	3566 May 31 22:51	0°♏			3567 May 08 09:38	0°♏	
evening max el	3566 Jun 10 10:52	12°♏19'25	22°00'51	evening max el	3567 May 23 12:37	23°♏13'24	20°35'48
desc. node	3566 Jun 22 00:33	18°♏33'58		retrograde	3567 Jun 03 17:04	28°♏40'55	
retrograde	3566 Jun 23 04:02	18°♏37'00		evening set	3567 Jun 05 18:02	28°♏30'45	
evening set	3566 Jun 25 22:07	18°♏20'05		desc. node	3567 Jun 08 21:35	27°♏38'35	
min. Earth dist.	3566 Jul 04 15:38	14°♏35'51	0.54986 AU	inferior conj	3567 Jun 14 23:57	24°♏33'13	-1°47'26
inferior conj	3566 Jul 05 06:18	14°♏15'17	-3°37'33	minimum elong	3567 Jun 14 18:54	24°♏40'30	1°45'36
minimum elong	3566 Jul 04 21:55	14°♏27'04	3°35'13	min. Earth dist.	3567 Jun 16 03:44	23°♏53'11	0.54942 AU
morning rise	3566 Jul 13 23:23	10°♏23'57		morning rise	3567 Jun 23 19:00	20°♏25'08	
direct	3566 Jul 17 02:59	10°♏01'59		direct	3567 Jun 27 12:25	19°♏55'12	
morning max el	3566 Jul 29 01:04	15°♏36'18	21°34'57	morning max el	3567 Jul 10 19:26	26°♏20'23	23°15'02
	3566 Aug 09 00:12	0°♏			3567 Jul 14 07:32	0°♏	
asc. node	3566 Aug 11 16:45	4°♏42'49		asc. node	3567 Jul 29 13:47	24°♏02'50	
morning set	3566 Aug 18 13:22	18°♏14'12			3567 Aug 01 12:38	0°♏	
	3566 Aug 24 03:33	0°♏		morning set	3567 Aug 03 00:32	3°♏07'22	
superior conj	3566 Aug 25 20:11	3°♏32'55	1°42'55	superior conj	3567 Aug 10 01:43	18°♏14'35	1°35'12
minimum elong	3566 Aug 25 19:16	3°♏28'07	1°42'54	minimum elong	3567 Aug 09 23:51	18°♏04'34	1°35'03

max. Earth dist.	3567 Aug 12 16:25	23°♎47'58	1.33635 AU	morning max el	3568 Jun 21 09:34	6°♐45'21	24°57'02
	3567 Aug 15 16:10	0°♎			3568 Jul 08 07:12	0°♐	
evening rise	3567 Aug 17 16:56	4°♎05'39		asc. node	3568 Jul 15 10:50	13°♐43'43	
	3567 Sep 01 04:49	0°♎		morning set	3568 Jul 17 12:20	18°♐02'00	
desc. node	3567 Sep 04 20:52	5°♎38'31			3568 Jul 23 01:02	0°♎	
evening max el	3567 Sep 20 22:17	25°♎36'11	27°19'35				
	3567 Sep 26 07:33	0°♎		superior conj	3568 Jul 24 11:16	3°♎07'15	1°22'11
retrograde	3567 Oct 04 10:08	2°♎54'49		minimum elong	3568 Jul 24 08:58	2°♎54'37	1°21'52
evening set	3567 Oct 11 10:53	0°♎13'27		max. Earth dist.	3568 Jul 25 21:29	6°♎13'34	1.32707 AU
	3567 Oct 11 17:47	30°♎♎		evening rise	3568 Jul 31 15:40	18°♎25'17	
min. Earth dist.	3567 Oct 15 05:21	26°♎44'14	0.64491 AU		3568 Aug 06 13:10	0°♎	
inferior conj	3567 Oct 17 13:16	24°♎14'06	-2°36'34	desc. node	3568 Aug 21 17:55	24°♎50'54	
minimum elong	3567 Oct 17 17:37	24°♎02'24	2°34'57		3568 Aug 25 14:57	0°♎	
morning rise	3567 Oct 24 01:30	18°♎47'07		evening max el	3568 Sep 02 08:12	8°♎34'53	27°24'51
asc. node	3567 Oct 25 13:01	18°♎19'10		retrograde	3568 Sep 16 02:20	15°♎50'46	
direct	3567 Oct 26 15:22	18°♎12'54		evening set	3568 Sep 23 06:59	13°♎19'40	
morning max el	3567 Nov 02 03:22	21°♎39'18	17°57'29	min. Earth dist.	3568 Sep 26 21:47	10°♎20'31	0.62779 AU
	3567 Nov 08 13:51	0°♎		inferior conj	3568 Sep 29 17:28	7°♎37'45	-3°35'19
morning set	3567 Nov 19 11:08	17°♎54'26		minimum elong	3568 Sep 29 23:04	7°♎24'13	3°33'37
	3567 Nov 26 16:42	0°♎♎		morning rise	3568 Oct 06 16:42	2°♎28'22	
desc. node	3567 Dec 01 20:09	8°♎24'07		direct	3568 Oct 09 02:34	2°♎01'38	
				asc. node	3568 Oct 11 10:03	2°♎26'52	
superior conj	3567 Dec 02 21:41	10°♎07'00	-0°07'18	morning max el	3568 Oct 15 19:41	5°♎28'23	17°50'35
minimum elong	3567 Dec 02 20:49	10°♎03'31	0°07'10	morning set	3568 Oct 31 23:05	0°♎32'19	
behind sun begin	3567 Dec 02 11:27	9°♎25'51			3568 Oct 31 15:47	0°♎	
behind sun end	3567 Dec 03 06:10	10°♎41'08					
max. Earth dist.	3567 Dec 07 14:26	17°♎36'41	1.44763 AU	superior conj	3568 Nov 12 11:03	20°♎29'29	0°35'56
	3567 Dec 15 12:27	0°♎		minimum elong	3568 Nov 12 14:22	20°♎43'24	0°35'29
evening rise	3567 Dec 19 02:46	5°♎33'16		desc. node	3568 Nov 17 17:11	29°♎11'21	
greatest brilliancy	3568 Jan 02 15:38	27°♎33'23	-0.6m		3568 Nov 18 05:09	0°♎♎	
	3568 Jan 04 07:52	0°♎♎		max. Earth dist.	3568 Nov 19 06:28	1°♎42'29	1.43619 AU
evening max el	3568 Jan 14 20:32	13°♎35'57	20°08'19	evening rise	3568 Nov 27 12:26	14°♎44'41	
asc. node	3568 Jan 21 12:18	18°♎01'40			3568 Dec 07 13:48	0°♎	
retrograde	3568 Jan 22 14:36	18°♎08'14		evening max el	3568 Dec 27 19:27	27°♎08'44	21°16'20
evening set	3568 Jan 26 08:30	16°♎46'32			3568 Dec 30 23:31	0°♎♎	
inferior conj	3568 Jan 31 18:14	10°♎42'48	2°56'31	retrograde	3569 Jan 05 12:18	2°♎18'24	
minimum elong	3568 Jan 31 15:48	10°♎51'01	2°55'56	asc. node	3569 Jan 07 09:21	1°♎59'08	
min. Earth dist.	3568 Feb 01 14:10	9°♎35'38	0.67166 AU	evening set	3569 Jan 09 16:06	0°♎41'30	
morning rise	3568 Feb 05 22:52	4°♎28'57			3569 Jan 10 11:27	30°♎♎	
direct	3568 Feb 11 18:26	1°♎53'04		inferior conj	3569 Jan 15 00:30	24°♎27'08	2°21'43
morning max el	3568 Feb 23 10:48	8°♎52'02	24°55'44	minimum elong	3569 Jan 14 22:02	24°♎35'40	2°20'57
desc. node	3568 Feb 27 19:25	13°♎39'47		min. Earth dist.	3569 Jan 15 07:55	24°♎01'30	0.67760 AU
	3568 Mar 11 02:04	0°♎♎		morning rise	3569 Jan 20 03:46	18°♎14'31	
	3568 Mar 29 18:11	0°♎♎		direct	3569 Jan 25 08:44	15°♎58'11	
morning set	3568 Mar 30 13:54	1°♎27'24		morning max el	3569 Feb 04 19:29	22°♎11'07	23°27'28
max. Earth dist.	3568 Apr 03 05:04	8°♎02'22	1.36953 AU		3569 Feb 11 14:41	0°♎♎	
				desc. node	3569 Feb 13 16:26	2°♎39'55	
superior conj	3568 Apr 09 15:48	20°♎19'10	-1°21'42		3569 Mar 04 09:53	0°♎♎	
minimum elong	3568 Apr 09 19:59	20°♎39'40	1°21'04	morning set	3569 Mar 11 23:03	12°♎21'19	
	3568 Apr 14 12:33	0°♎♎		max. Earth dist.	3569 Mar 16 00:02	19°♎18'11	1.39088 AU
evening rise	3568 Apr 18 01:33	7°♎07'46			3569 Mar 21 22:57	0°♎♎	
asc. node	3568 Apr 18 11:36	7°♎58'08					
	3568 Apr 30 23:54	0°♎♎		superior conj	3569 Mar 23 13:10	2°♎57'08	-1°45'50
evening max el	3568 May 05 02:43	4°♎48'59	19°28'40	minimum elong	3569 Mar 23 17:47	3°♎18'42	1°45'23
retrograde	3568 May 14 13:24	9°♎24'08		evening rise	3569 Apr 01 20:40	20°♎47'41	
evening set	3568 May 16 13:16	9°♎12'46		asc. node	3569 Apr 05 08:40	27°♎30'14	
inferior conj	3568 May 25 03:52	5°♎07'21	0°10'48		3569 Apr 06 16:43	0°♎♎	
minimum elong	3568 May 25 04:20	5°♎06'36	0°10'36	evening max el	3569 Apr 18 03:18	17°♎02'52	18°41'29
transit middle	3568 May 25 04:20	5°♎06'36	0°10'36	retrograde	3569 Apr 26 03:00	20°♎57'40	
transit begin	3568 May 25 01:25	5°♎11'17		evening set	3569 Apr 28 08:32	20°♎40'29	
transit end	3568 May 25 07:15	5°♎01'54		inferior conj	3569 May 06 03:15	16°♎17'07	1°47'38
desc. node	3568 May 25 18:38	4°♎43'31		minimum elong	3569 May 06 06:44	16°♎10'35	1°46'33
min. Earth dist.	3568 May 27 18:02	3°♎27'42	0.55856 AU	min. Earth dist.	3569 May 09 11:11	13°♎48'19	0.57527 AU
morning rise	3568 Jun 02 16:36	0°♎27'15		desc. node	3569 May 12 15:40	11°♎45'41	
	3568 Jun 04 06:36	30°♎♎		morning rise	3569 May 14 01:44	11°♎02'38	
direct	3568 Jun 07 07:42	29°♎38'46		direct	3569 May 19 16:50	9°♎44'18	
	3568 Jun 10 08:35	0°♎♎		morning max el	3569 Jun 03 01:25	17°♎17'40	26°25'37

	3569 Jun 13 13:05	0°♂			3570 Jun 07 06:48	0°♂	
	3569 Jun 30 14:09	0°♂		morning set	3570 Jun 16 07:06	17°♂32'02	
morning set	3569 Jul 01 23:05	2°♂51'58		asc. node	3570 Jun 19 04:57	23°♂42'20	
asc. node	3569 Jul 02 07:54	3°♂38'32			3570 Jun 22 02:20	0°♂	
superior conj	3569 Jul 08 22:46	18°♂03'09	1°04'38	superior conj	3570 Jun 23 10:27	2°♂56'37	0°43'13
minimum elong	3569 Jul 08 20:30	17°♂50'37	1°04'14	minimum elong	3570 Jun 23 08:40	2°♂46'51	0°42'51
max. Earth dist.	3569 Jul 09 07:51	18°♂53'09	1.32189 AU	max. Earth dist.	3570 Jun 22 19:45	1°♂35'45	1.32066 AU
	3569 Jul 14 10:25	0°♂		evening rise	3570 Jun 30 06:20	17°♂49'35	
evening rise	3569 Jul 15 20:56	3°♂02'27			3570 Jul 06 06:24	0°♂	
	3569 Jul 30 09:20	0°♂		desc. node	3570 Jul 26 11:59	0°♂26'44	
desc. node	3569 Aug 08 14:58	13°♂13'40			3570 Jul 26 01:56	0°♂	
evening max el	3569 Aug 15 13:16	20°♂53'59	26°57'12	evening max el	3570 Jul 28 11:02	2°♂24'47	25°57'03
retrograde	3569 Aug 29 10:51	28°♂05'37		retrograde	3570 Aug 11 10:25	9°♂33'06	
evening set	3569 Sep 05 10:37	25°♂57'21		evening set	3570 Aug 17 16:57	7°♂58'50	
min. Earth dist.	3569 Sep 09 03:29	23°♂17'55	0.60811 AU	min. Earth dist.	3570 Aug 21 23:25	5°♂22'40	0.58743 AU
inferior conj	3569 Sep 12 08:03	20°♂36'10	-4°26'31	inferior conj	3570 Aug 25 05:26	2°♂59'35	-5°01'01
minimum elong	3569 Sep 12 13:37	20°♂24'19	4°25'22	minimum elong	3570 Aug 25 08:33	2°♂53'52	5°00'45
morning rise	3569 Sep 19 18:28	15°♂47'46			3570 Aug 29 16:45	30°♂♂	
direct	3569 Sep 22 03:24	15°♂25'33		morning rise	3570 Sep 02 02:21	28°♂34'28	
asc. node	3569 Sep 28 07:05	18°♂01'52		direct	3570 Sep 04 13:21	28°♂14'34	
morning max el	3569 Sep 29 09:07	19°♂00'48	18°02'36		3570 Sep 10 00:35	0°♂	
	3569 Oct 07 09:27	0°♂		morning max el	3570 Sep 12 16:26	2°♂07'59	18°34'47
morning set	3569 Oct 15 04:06	13°♂58'47		asc. node	3570 Sep 15 04:08	4°♂50'16	
	3569 Oct 23 21:50	0°♂		morning set	3570 Sep 28 21:04	27°♂59'06	
					3570 Sep 29 22:01	0°♂	
superior conj	3569 Oct 25 02:52	2°♂09'17	1°08'48	superior conj	3570 Oct 07 16:39	14°♂53'31	1°30'21
minimum elong	3569 Oct 25 07:06	2°♂28'00	1°08'17	minimum elong	3570 Oct 07 19:49	15°♂08'19	1°30'04
max. Earth dist.	3569 Nov 01 18:04	15°♂17'04	1.41933 AU	max. Earth dist.	3570 Oct 15 00:28	28°♂08'12	1.39920 AU
desc. node	3569 Nov 04 14:15	19°♂58'22			3570 Oct 16 02:14	0°♂	
evening rise	3569 Nov 07 09:41	24°♂30'51		evening rise	3570 Oct 19 04:30	5°♂16'01	
	3569 Nov 10 21:01	0°♂		desc. node	3570 Oct 22 11:16	10°♂41'14	
	3569 Dec 01 12:50	0°♂			3570 Nov 04 00:40	0°♂	
evening max el	3569 Dec 10 13:13	10°♂43'31	22°32'59	evening max el	3570 Nov 23 03:09	24°♂20'41	23°52'57
retrograde	3569 Dec 20 08:08	16°♂32'29			3570 Nov 30 15:38	0°♂	
evening set	3569 Dec 24 23:33	14°♂39'19		retrograde	3570 Dec 04 00:47	0°♂46'02	
asc. node	3569 Dec 25 06:22	14°♂24'50			3570 Dec 07 03:55	30°♂♂	
inferior conj	3569 Dec 30 08:12	8°♂17'41	1°39'25	evening set	3570 Dec 09 05:15	28°♂36'33	
minimum elong	3569 Dec 30 06:10	8°♂24'44	1°38'40	asc. node	3570 Dec 12 03:23	25°♂30'24	
min. Earth dist.	3569 Dec 30 04:12	8°♂31'33	0.67973 AU	min. Earth dist.	3570 Dec 14 00:42	23°♂01'51	0.67827 AU
morning rise	3570 Jan 04 12:40	2°♂08'01		inferior conj	3570 Dec 14 15:31	22°♂11'30	0°50'46
direct	3570 Jan 09 02:50	0°♂14'26		minimum elong	3570 Dec 14 14:21	22°♂15'29	0°50'17
morning max el	3570 Jan 18 07:34	5°♂38'06	22°00'09	morning rise	3570 Dec 19 23:29	16°♂06'34	
desc. node	3570 Jan 31 13:29	22°♂15'35		direct	3570 Dec 23 23:41	14°♂35'45	
	3570 Feb 05 22:25	0°♂		morning max el	3571 Jan 01 02:16	19°♂15'38	20°41'02
morning set	3570 Feb 20 03:40	21°♂53'07			3571 Jan 09 21:05	0°♂	
	3570 Feb 25 02:44	0°♂		desc. node	3571 Jan 18 10:30	12°♂16'26	
max. Earth dist.	3570 Feb 25 22:20	1°♂21'41	1.41240 AU	morning set	3571 Jan 30 06:55	0°♂16'49	
					3571 Jan 30 02:35	0°♂	
superior conj	3570 Mar 05 15:58	14°♂40'16	-2°02'29	max. Earth dist.	3571 Feb 08 03:38	14°♂19'50	1.43114 AU
minimum elong	3570 Mar 05 19:06	14°♂54'03	2°02'21				
	3570 Mar 14 02:34	0°♂		superior conj	3571 Feb 14 19:07	25°♂16'35	-2°06'41
evening rise	3570 Mar 16 04:29	3°♂51'29		minimum elong	3571 Feb 14 17:51	25°♂11'17	2°06'39
asc. node	3570 Mar 23 05:43	16°♂40'17			3571 Feb 17 14:10	0°♂	
evening max el	3570 Apr 01 11:07	29°♂47'17	18°14'25	evening rise	3571 Feb 26 20:48	16°♂09'37	
	3570 Apr 01 16:23	0°♂			3571 Mar 06 19:06	0°♂	
retrograde	3570 Apr 08 11:39	3°♂18'24		asc. node	3571 Mar 10 02:44	5°♂20'39	
evening set	3570 Apr 10 23:36	2°♂52'31		evening max el	3571 Mar 15 22:49	12°♂53'01	18°07'02
	3570 Apr 15 19:14	30°♂♂		retrograde	3571 Mar 22 11:36	16°♂15'57	
inferior conj	3570 Apr 18 00:01	28°♂08'19	2°52'08	evening set	3571 Mar 25 05:25	15°♂39'42	
minimum elong	3570 Apr 18 03:27	28°♂00'46	2°51'24	inferior conj	3571 Mar 31 15:20	10°♂35'13	3°26'49
min. Earth dist.	3570 Apr 21 09:35	25°♂10'43	0.59616 AU	minimum elong	3571 Mar 31 17:12	10°♂30'31	3°26'37
morning rise	3570 Apr 25 04:47	22°♂26'44		min. Earth dist.	3571 Apr 03 15:51	7°♂33'29	0.61783 AU
desc. node	3570 Apr 29 12:41	20°♂44'55		morning rise	3571 Apr 07 03:22	4°♂36'40	
direct	3570 May 01 14:43	20°♂32'57		direct	3571 Apr 13 23:23	2°♂11'13	
morning max el	3570 May 15 23:09	28°♂22'20	27°26'24	desc. node	3571 Apr 16 09:42	2°♂28'14	
	3570 May 17 13:24	0°♂					

morning max el	3571 Apr 28 03:13	10°Υ09'01	27°51'01	morning rise	3572 Mar 19 19:41	17°Χ22'08	
	3571 May 13 13:54	0°Ϸ		direct	3572 Mar 26 16:47	14°Χ36'36	
	3571 May 30 11:37	0°Π		desc. node	3572 Apr 02 06:43	16°Χ41'59	
morning set	3571 May 31 10:27	1°Π55'49		morning max el	3572 Apr 09 11:27	22°Χ33'52	27°38'19
max. Earth dist.	3571 Jun 06 05:16	14°Π08'11	1.32341 AU		3572 Apr 16 00:57	0°Υ	
asc. node	3571 Jun 06 02:00	13°Π50'33			3572 May 05 19:09	0°Ϸ	
				morning set	3572 May 14 06:40	15°Ϸ55'02	
superior conj	3571 Jun 07 20:35	17°Π42'02	0°18'34	max. Earth dist.	3572 May 19 08:15	26°Ϸ16'45	1.33050 AU
minimum elong	3571 Jun 07 19:44	17°Π37'23	0°18'23		3572 May 21 02:28	0°Π	
	3571 Jun 13 11:57	0°Ϸ					
evening rise	3571 Jun 14 17:49	2°Ϸ39'52		superior conj	3572 May 22 03:22	2°Π12'59	-0°08'35
	3571 Jun 29 12:08	0°Ω		minimum elong	3572 May 22 03:48	2°Π15'15	0°08'29
evening max el	3571 Jul 10 02:02	13°Ω12'07	24°31'53	behind sun begin	3572 May 21 23:14	1°Π50'49	
desc. node	3571 Jul 13 08:59	16°Ω02'31		behind sun end	3572 May 22 08:21	2°Π39'42	
retrograde	3571 Jul 23 23:28	20°Ω13'22		asc. node	3572 May 22 23:02	3°Π58'30	
evening set	3571 Jul 28 23:17	19°Ω17'23		evening rise	3572 May 29 05:30	17°Π26'32	
min. Earth dist.	3571 Aug 03 13:03	16°Ω25'43	0.56837 AU		3572 Jun 04 10:39	0°Ϸ	
inferior conj	3571 Aug 06 07:00	14°Ω40'13	-5°05'12	evening max el	3572 Jun 20 15:27	23°Ϸ37'55	22°55'26
minimum elong	3571 Aug 06 04:49	14°Ω43'44	5°05'05	desc. node	3572 Jun 29 06:00	29°Ϸ25'39	
morning rise	3571 Aug 14 12:58	10°Ω36'24			3572 Jul 01 06:12	0°Ω	
direct	3571 Aug 17 04:29	10°Ω17'15		retrograde	3572 Jul 03 23:49	0°Ω17'03	
morning max el	3571 Aug 26 14:36	14°Ω41'00	19°28'18		3572 Jul 06 18:31	30°Ϸ	
asc. node	3571 Sep 02 01:11	22°Ω37'15		evening set	3572 Jul 07 11:07	29°Ϸ50'39	
	3571 Sep 06 11:41	0°Π		min. Earth dist.	3572 Jul 15 00:16	26°Ϸ29'15	0.55438 AU
morning set	3571 Sep 12 22:19	12°Π23'38		inferior conj	3572 Jul 16 13:19	25°Ϸ35'46	-4°24'09
				minimum elong	3572 Jul 16 05:50	25°Ϸ46'36	4°22'37
superior conj	3571 Sep 20 22:57	28°Π26'58	1°41'44	morning rise	3572 Jul 25 02:50	21°Ϸ44'02	
minimum elong	3571 Sep 21 00:24	28°Π34'09	1°41'40	direct	3572 Jul 28 01:04	21°Ϸ23'53	
	3571 Sep 21 17:58	0°Ϸ		morning max el	3572 Aug 08 01:11	26°Ϸ30'26	20°43'10
max. Earth dist.	3571 Sep 27 04:33	10°Ϸ19'27	1.37844 AU		3572 Aug 11 08:16	0°Ω	
evening rise	3571 Sep 30 22:42	17°Ϸ06'21		asc. node	3572 Aug 18 22:14	11°Ω08'39	
	3571 Oct 08 13:24	0°Π		morning set	3572 Aug 27 05:04	27°Ω03'59	
desc. node	3571 Oct 09 08:18	1°Π16'18			3572 Aug 28 15:10	0°Π	
	3571 Oct 29 10:45	0°Ϸ					
evening max el	3571 Nov 05 15:28	8°Ϸ01'29	25°09'35	superior conj	3572 Sep 03 16:59	12°Π34'56	1°44'34
retrograde	3571 Nov 17 13:19	14°Ϸ55'00		minimum elong	3572 Sep 03 16:49	12°Π34'08	1°44'34
evening set	3571 Nov 23 07:34	12°Ϸ30'33		max. Earth dist.	3572 Sep 08 12:10	22°Π11'18	1.35943 AU
min. Earth dist.	3571 Nov 27 19:10	7°Ϸ29'59	0.67340 AU	evening rise	3572 Sep 12 13:03	29°Π53'09	
inferior conj	3571 Nov 28 20:44	6°Ϸ06'33	-0°03'08		3572 Sep 12 14:32	0°Ϸ	
minimum elong	3571 Nov 28 20:48	6°Ϸ06'18	0°03'07	desc. node	3572 Sep 25 05:19	21°Ϸ37'55	
transit middle	3571 Nov 28 20:48	6°Ϸ06'18	0°03'07		3572 Sep 30 17:30	0°Π	
transit begin	3571 Nov 28 18:05	6°Ϸ15'12		evening max el	3572 Oct 18 03:51	21°Π42'54	26°15'33
transit end	3571 Nov 28 23:32	5°Ϸ57'24		retrograde	3572 Oct 30 20:50	28°Π53'13	
asc. node	3571 Nov 29 00:24	5°Ϸ54'35		evening set	3572 Nov 06 04:41	26°Π17'15	
morning rise	3571 Dec 04 10:16	0°Ϸ08'28		min. Earth dist.	3572 Nov 10 09:12	21°Π52'05	0.66509 AU
	3571 Dec 04 15:28	30°Ϸ		inferior conj	3572 Nov 11 21:56	19°Π59'09	-1°01'07
direct	3571 Dec 07 22:08	28°Π58'03		minimum elong	3572 Nov 11 23:35	19°Π54'05	1°00'26
	3571 Dec 11 09:06	0°Ϸ		asc. node	3572 Nov 14 21:26	16°Π32'43	
morning max el	3571 Dec 15 04:51	3°Ϸ04'13	19°34'45	morning rise	3572 Nov 17 19:00	14°Π10'35	
greatest brilliancy	3571 Dec 28 08:16	20°Ϸ30'10	-0.7m	direct	3572 Nov 20 20:33	13°Π17'09	
	3572 Jan 03 14:54	0°Ϸ		morning max el	3572 Nov 27 14:26	17°Π00'10	18°43'51
desc. node	3572 Jan 05 07:31	2°Ϸ35'40			3572 Dec 07 10:00	0°Ϸ	
morning set	3572 Jan 09 03:44	8°Ϸ30'49		morning set	3572 Dec 18 18:51	17°Ϸ45'36	
max. Earth dist.	3572 Jan 21 15:47	28°Ϸ03'06	1.44477 AU	desc. node	3572 Dec 22 04:34	23°Ϸ07'49	
	3572 Jan 22 21:15	0°≈			3572 Dec 26 13:21	0°Ϸ	
				max. Earth dist.	3573 Jan 03 09:02	12°Ϸ16'30	1.45169 AU
superior conj	3572 Jan 25 20:20	4°≈43'57	-1°53'16				
minimum elong	3572 Jan 25 13:14	4°≈15'26	1°52'47	superior conj	3573 Jan 04 01:59	13°Ϸ23'02	-1°20'35
evening rise	3572 Feb 08 17:18	27°≈34'07		minimum elong	3573 Jan 03 17:00	12°Ϸ47'46	1°19'37
	3572 Feb 10 03:57	0°Χ			3573 Jan 14 14:25	0°≈	
asc. node	3572 Feb 24 23:44	23°Χ22'23		evening rise	3573 Jan 19 14:48	8°≈01'11	
evening max el	3572 Feb 27 11:30	26°Χ12'42	18°18'40	greatest brilliancy	3573 Jan 26 21:32	19°≈42'45	-0.9m
retrograde	3572 Mar 04 22:17	29°Χ40'56			3573 Feb 02 12:04	0°Χ	
evening set	3572 Mar 07 21:50	28°Χ53'10		evening max el	3573 Feb 09 22:33	9°Χ40'24	18°48'24
inferior conj	3572 Mar 13 21:07	23°Χ29'41	3°38'07	asc. node	3573 Feb 10 20:45	10°Χ34'09	
minimum elong	3572 Mar 13 21:12	23°Χ29'28	3°38'07	retrograde	3573 Feb 16 15:46	13°Χ25'42	
min. Earth dist.	3572 Mar 16 07:21	20°Χ45'50	0.63770 AU	evening set	3573 Feb 19 21:34	12°Χ25'27	

inferior conj	3573 Feb 25 13:31	6°  44'34	3°31'56	retrograde	3574 Jan 31 12:49	27°  23'30	
minimum elong	3573 Feb 25 12:12	6°  48'40	3°31'47	evening set	3574 Feb 04 01:58	26°  09'46	
min. Earth dist.	3573 Feb 27 08:06	4°  33'28	0.65413 AU	inferior conj	3574 Feb 09 13:18	20°  13'31	3°12'30
morning rise	3573 Mar 03 02:24	0°  32'46		minimum elong	3574 Feb 09 11:07	20°  20'43	3°12'05
	3573 Mar 03 18:12	30°  R 		min. Earth dist.	3574 Feb 10 16:59	18°  42'35	0.66645 AU
direct	3573 Mar 09 17:11	27°  41'37		morning rise	3574 Feb 14 20:03	14°  00'02	
	3573 Mar 16 09:26	0°  H		direct	3574 Feb 20 23:26	11°  16'02	
desc. node	3573 Mar 20 03:45	2°  H52'08		morning max el	3574 Mar 05 06:35	18°  35'22	25°43'17
morning max el	3573 Mar 22 21:13	5°  H26'37	26°53'04	desc. node	3574 Mar 07 00:47	20°  25'58	
	3573 Apr 10 16:08	0°  Y			3574 Mar 14 22:07	0°  H	
morning set	3573 Apr 27 16:40	29°  Y20'27			3574 Apr 03 17:06	0°  Y	
	3573 Apr 28 00:55	0°  B		morning set	3574 Apr 10 12:10	11°  Y58'59	
max. Earth dist.	3573 May 02 01:23	7°  B54'24	1.34222 AU	max. Earth dist.	3574 Apr 14 07:11	19°  Y04'19	1.35848 AU
superior conj	3573 May 06 04:42	16°  B23'18	-0°37'13	superior conj	3574 Apr 19 21:55	0°  B04'40	-1°05'55
minimum elong	3573 May 06 06:39	16°  B33'27	0°36'48	minimum elong	3574 Apr 20 01:23	0°  B22'06	1°05'19
asc. node	3573 May 09 20:05	24°  B02'28			3574 Apr 19 20:59	0°  B	
	3573 May 12 15:53	0°  II		asc. node	3574 Apr 26 17:07	13°  B57'36	
evening rise	3573 May 13 15:34	2°  II03'50		evening rise	3574 Apr 27 21:51	16°  B24'27	
	3573 May 29 15:57	0°  B			3574 May 04 21:34	0°  II	
evening max el	3573 Jun 02 11:07	4°  B14'43	21°22'49	evening max el	3574 May 15 18:04	15°  II25'25	20°04'47
retrograde	3573 Jun 14 13:46	10°  B11'38		retrograde	3574 May 26 04:15	20°  II29'51	
desc. node	3573 Jun 16 03:00	10°  B06'04		evening set	3574 May 28 03:35	20°  II19'44	
evening set	3573 Jun 16 22:25	9°  B58'52		desc. node	3574 Jun 03 00:01	18°  II09'22	
inferior conj	3573 Jun 26 07:44	5°  B59'32	-2°54'11	inferior conj	3574 Jun 06 04:03	16°  II20'13	-0°56'10
minimum elong	3573 Jun 26 00:07	6°  B10'13	2°51'43	minimum elong	3574 Jun 06 01:26	16°  II24'08	0°55'12
min. Earth dist.	3573 Jun 26 11:26	5°  B54'22	0.54855 AU	min. Earth dist.	3574 Jun 07 23:59	15°  II14'34	0.55229 AU
morning rise	3573 Jul 05 02:26	2°  B03'25		morning rise	3574 Jun 14 21:38	12°  II00'10	
direct	3573 Jul 08 11:17	1°  B38'49		direct	3574 Jun 18 23:38	11°  II23'53	
morning max el	3573 Jul 21 00:24	7°  B35'11	22°16'14	morning max el	3574 Jul 02 16:06	18°  II07'24	23°59'03
asc. node	3573 Aug 05 19:19	0°  Q13'44			3574 Jul 12 10:24	0°  B	
	3573 Aug 05 16:24	0°  Q		asc. node	3574 Jul 23 16:23	19°  B43'32	
morning set	3573 Aug 11 15:11	11°  Q54'12		morning set	3574 Jul 27 02:52	26°  B48'50	
					3574 Jul 28 14:48	0°  Q	
superior conj	3573 Aug 18 19:10	27°  Q06'50	1°40'21	superior conj	3574 Aug 03 02:41	11°  Q53'56	1°30'16
minimum elong	3573 Aug 18 17:47	26°  Q59'32	1°40'16	minimum elong	3574 Aug 03 00:34	11°  Q42'28	1°30'03
	3573 Aug 20 04:05	0°  np		max. Earth dist.	3574 Aug 05 04:57	16°  Q24'18	1.33195 AU
max. Earth dist.	3573 Aug 22 04:03	4°  np08'50	1.34372 AU	evening rise	3574 Aug 10 12:43	27°  Q29'22	
evening rise	3573 Aug 26 19:06	13°  np24'38			3574 Aug 11 18:51	0°  np	
	3573 Sep 04 21:10	0°  Q			3574 Aug 29 03:14	0°  Q	
desc. node	3573 Sep 12 02:20	11°  Q39'50		desc. node	3574 Aug 29 23:21	1°  Q13'40	
	3573 Sep 25 16:34	0°  ml		evening max el	3574 Sep 13 03:56	18°  Q32'34	27°25'36
evening max el	3573 Sep 30 16:30	5°  ml17'16	27°03'13	retrograde	3574 Sep 26 18:28	25°  Q49'46	
retrograde	3573 Oct 13 22:41	12°  ml34'07		evening set	3574 Oct 03 21:58	23°  Q11'14	
evening set	3573 Oct 20 18:24	9°  ml52'25		min. Earth dist.	3574 Oct 07 14:27	19°  Q55'54	0.63804 AU
min. Earth dist.	3573 Oct 24 16:20	6°  ml03'14	0.65332 AU	inferior conj	3574 Oct 10 03:33	17°  Q19'09	-3°02'01
inferior conj	3573 Oct 26 17:03	3°  ml45'08	-2°01'35	minimum elong	3574 Oct 10 08:32	17°  Q06'21	3°00'17
minimum elong	3573 Oct 26 20:26	3°  ml35'31	2°00'14	morning rise	3574 Oct 16 20:24	11°  Q59'21	
	3573 Oct 30 07:33	30°  R  Q		direct	3574 Oct 19 08:20	11°  Q28'37	
morning rise	3573 Nov 01 23:20	28°  Q09'13		asc. node	3574 Oct 19 15:34	11°  Q29'04	
asc. node	3573 Nov 01 18:30	28°  Q15'19		morning max el	3574 Oct 25 21:28	14°  Q53'47	17°52'22
direct	3573 Nov 04 16:51	27°  Q28'56			3574 Nov 05 11:14	0°  ml	
	3573 Nov 10 03:52	0°  ml		morning set	3574 Nov 11 14:36	10°  ml30'38	
morning max el	3573 Nov 11 04:53	0°  ml58'39	18°09'28		3574 Nov 23 03:26	0°  x	
morning set	3573 Nov 29 15:14	28°  ml28'42		superior conj	3574 Nov 24 04:24	1°  x42'28	0°12'07
	3573 Nov 30 13:29	0°  x		minimum elong	3574 Nov 24 05:44	1°  x47'52	0°11'56
desc. node	3573 Dec 09 01:35	13°  x48'26		behind sun begin	3574 Nov 23 23:02	1°  x20'30	
superior conj	3573 Dec 14 06:02	22°  x04'05	-0°34'52	behind sun end	3574 Nov 24 12:25	2°  x15'12	
minimum elong	3573 Dec 14 01:37	21°  x46'37	0°34'15	desc. node	3574 Nov 25 22:37	4°  x34'27	
max. Earth dist.	3573 Dec 17 04:37	26°  x42'31	1.45123 AU	max. Earth dist.	3574 Nov 29 23:00	11°  x01'51	1.44352 AU
	3573 Dec 19 06:56	0°  B		evening rise	3574 Dec 10 00:41	26°  x46'55	
evening rise	3573 Dec 30 14:18	17°  B37'16			3574 Dec 12 03:02	0°  B	
	3574 Jan 07 14:16	0°  B			3575 Jan 01 16:13	0°  B	
greatest brilliancy	3574 Jan 12 04:29	7°  B00'05	-0.7m	evening max el	3575 Jan 07 07:50	6°  B42'32	20°35'51
evening max el	3574 Jan 24 05:49	23°  B10'54	19°34'52	retrograde	3575 Jan 15 10:59	11°  B30'19	
asc. node	3574 Jan 28 17:47	26°  B41'31					

asc. node	3575 Jan 15 14:50	11° \approx 30'10		3575 Dec 05 10:46	0° \approx	
evening set	3575 Jan 19 08:56	10° \approx 02'05		evening max el	3575 Dec 21 04:18	20° \approx 15'04 21°48'07
inferior conj	3575 Jan 24 17:51	3° \approx 53'11 2°42'45		retrograde	3575 Dec 30 08:11	25° \approx 42'09
minimum elong	3575 Jan 24 15:21	4° \approx 01'46 2°42'05		asc. node	3576 Jan 02 11:52	24° \approx 48'19
min. Earth dist.	3575 Jan 25 08:12	3° \approx 04'11 0.67464 AU		evening set	3576 Jan 03 16:39	23° \approx 58'25
	3575 Jan 27 16:45	30° \approx 39'44		inferior conj	3576 Jan 09 00:57	17° \approx 40'16 2°04'38
morning rise	3575 Jan 29 21:35	27° \approx 39'44		minimum elong	3576 Jan 08 22:37	17° \approx 48'23 2°03'51
direct	3575 Feb 04 10:57	25° \approx 31'51		min. Earth dist.	3576 Jan 09 03:24	17° \approx 31'49 0.67892 AU
	3575 Feb 13 16:25	0° \approx		morning rise	3576 Jan 14 04:25	11° \approx 28'29
morning max el	3575 Feb 15 15:12	1° \approx 52'12 24°18'45		direct	3576 Jan 19 02:56	9° \approx 21'46
desc. node	3575 Feb 21 21:50	8° \approx 59'42		morning max el	3576 Jan 29 00:57	15° \approx 14'15 22°49'41
	3575 Mar 08 23:31	0° \approx		desc. node	3576 Feb 08 18:52	28° \approx 16'05
morning set	3575 Mar 23 11:40	23° \approx 35'50			3576 Feb 10 01:19	0° \approx
max. Earth dist.	3575 Mar 27 04:16	0° \approx 08'18 1.37842 AU			3576 Feb 29 23:34	0° \approx
	3575 Mar 27 02:25	0° \approx		morning set	3576 Mar 03 09:03	3° \approx 55'22
				max. Earth dist.	3576 Mar 07 23:25	11° \approx 39'44 1.40011 AU
superior conj	3575 Apr 03 03:40	13° \approx 08'19 -1°32'34		superior conj	3576 Mar 15 17:43	25° \approx 23'53 -1°54'06
minimum elong	3575 Apr 03 08:12	13° \approx 30'05 1°32'00		minimum elong	3576 Mar 15 22:01	25° \approx 43'28 1°53'46
evening rise	3575 Apr 11 21:54	0° \approx 21'26			3576 Mar 18 05:41	0° \approx
	3575 Apr 11 17:34	0° \approx		evening rise	3576 Mar 25 12:39	13° \approx 46'45
asc. node	3575 Apr 13 14:09	3° \approx 39'31		asc. node	3576 Mar 30 11:11	23° \approx 02'53
evening max el	3575 Apr 28 12:51	27° \approx 17'11 19°06'03			3576 Apr 03 10:43	0° \approx
	3575 May 01 23:53	0° \approx		evening max el	3576 Apr 10 16:55	9° \approx 45'14 18°27'37
retrograde	3575 May 07 07:38	1° \approx 33'47		retrograde	3576 Apr 18 05:28	13° \approx 28'04
evening set	3575 May 09 09:22	1° \approx 20'28		evening set	3576 Apr 20 13:39	13° \approx 07'34
	3575 May 13 00:33	30° \approx 39'31		inferior conj	3576 Apr 28 00:14	8° \approx 35'48 2°18'56
inferior conj	3575 May 17 15:35	27° \approx 07'50 0°55'33		minimum elong	3576 Apr 28 04:00	8° \approx 28'15 2°17'55
minimum elong	3575 May 17 17:45	27° \approx 04'06 0°54'47		min. Earth dist.	3576 May 01 10:43	5° \approx 51'27 0.58376 AU
min. Earth dist.	3575 May 20 15:18	25° \approx 05'26 0.56490 AU		morning rise	3576 May 05 15:15	3° \approx 08'15
desc. node	3575 May 20 21:04	24° \approx 55'59		desc. node	3576 May 06 18:04	2° \approx 36'58
morning rise	3575 May 25 22:59	22° \approx 12'25		direct	3576 May 11 15:15	1° \approx 34'45
direct	3575 May 31 00:09	21° \approx 12'41		morning max el	3576 May 26 00:41	9° \approx 17'04 26°55'32
morning max el	3575 Jun 14 06:29	28° \approx 32'26 25°37'23			3576 Jun 10 19:29	0° \approx
	3575 Jun 15 17:33	0° \approx		morning set	3576 Jun 25 00:13	26° \approx 29'09
	3575 Jul 05 19:35	0° \approx		asc. node	3576 Jun 26 10:27	29° \approx 30'28
asc. node	3575 Jul 10 13:25	9° \approx 30'57			3576 Jun 26 15:59	0° \approx
morning set	3575 Jul 11 14:25	11° \approx 42'11				
superior conj	3575 Jul 18 13:17	26° \approx 48'41 1°15'15		superior conj	3576 Jul 02 01:06	11° \approx 44'57 0°56'00
minimum elong	3575 Jul 18 10:56	26° \approx 35'46 1°14'53		minimum elong	3576 Jul 01 22:59	11° \approx 33'17 0°55'36
max. Earth dist.	3575 Jul 19 12:38	28° \approx 56'39 1.32434 AU		max. Earth dist.	3576 Jul 01 23:59	11° \approx 38'48 1.32081 AU
	3575 Jul 20 00:13	0° \approx		evening rise	3576 Jul 08 21:49	26° \approx 39'49
evening rise	3575 Jul 25 14:31	11° \approx 57'05			3576 Jul 10 12:12	0° \approx
	3575 Aug 03 23:08	0° \approx			3576 Jul 27 13:42	0° \approx
desc. node	3575 Aug 16 20:24	20° \approx 07'05		desc. node	3576 Aug 02 17:24	8° \approx 03'32
	3575 Aug 25 05:10	0° \approx		evening max el	3576 Aug 07 13:57	13° \approx 14'16 26°35'21
evening max el	3575 Aug 26 11:52	1° \approx 14'58 27°17'08		retrograde	3576 Aug 21 12:59	20° \approx 25'12
retrograde	3575 Sep 09 07:41	8° \approx 29'41		evening set	3576 Aug 28 06:53	18° \approx 30'15
evening set	3575 Sep 16 11:40	6° \approx 06'19		min. Earth dist.	3576 Sep 01 03:39	15° \approx 54'19 0.59929 AU
min. Earth dist.	3575 Sep 20 02:09	3° \approx 17'33 0.61965 AU		inferior conj	3576 Sep 04 10:05	13° \approx 17'55 -4°43'55
inferior conj	3575 Sep 23 02:23	0° \approx 32'56 -3°58'25		minimum elong	3576 Sep 04 14:59	13° \approx 08'07 4°43'08
minimum elong	3575 Sep 23 08:12	0° \approx 19'37 3°56'52		morning rise	3576 Sep 12 01:09	8° \approx 39'20
	3575 Sep 23 16:50	30° \approx 39'31		direct	3576 Sep 14 10:24	8° \approx 18'29
morning rise	3575 Sep 30 06:27	25° \approx 32'30		morning max el	3576 Sep 22 00:19	12° \approx 00'30 18°13'40
direct	3575 Oct 02 15:31	25° \approx 08'05		asc. node	3576 Sep 22 09:39	12° \approx 23'33
asc. node	3575 Oct 06 12:37	26° \approx 15'22			3576 Oct 04 00:34	0° \approx
morning max el	3575 Oct 09 13:02	28° \approx 37'15 17°53'22		morning set	3576 Oct 07 21:07	7° \approx 13'04
	3575 Oct 10 20:17	0° \approx				
morning set	3575 Oct 25 10:30	23° \approx 30'56		superior conj	3576 Oct 17 07:14	24° \approx 48'04 1°19'16
	3575 Oct 29 00:46	0° \approx		minimum elong	3576 Oct 17 11:10	25° \approx 05'54 1°18'51
					3576 Oct 20 04:52	0° \approx
superior conj	3575 Nov 05 05:24	12° \approx 39'07 0°51'16		max. Earth dist.	3576 Oct 24 21:48	8° \approx 09'32 1.41104 AU
minimum elong	3575 Nov 05 09:26	12° \approx 56'28 0°50'43		evening rise	3576 Oct 29 19:11	16° \approx 17'42
max. Earth dist.	3575 Nov 12 13:04	24° \approx 55'03 1.42952 AU		desc. node	3576 Oct 29 16:42	16° \approx 07'37
desc. node	3575 Nov 12 19:40	25° \approx 21'58			3576 Nov 07 12:04	0° \approx
	3575 Nov 15 16:28	0° \approx			3576 Nov 29 07:12	0° \approx
evening rise	3575 Nov 19 13:26	6° \approx 08'10		evening max el	3576 Dec 02 20:12	3° \approx 50'29 23°07'00

retrograde	3576 Dec 13 02:49	9° ♄ 55'52		evening max el	3577 Nov 15 09:24	17° ♄ 29'58	24°26'27
evening set	3576 Dec 17 23:31	7° ♄ 55'58		retrograde	3577 Nov 26 17:41	24° ♄ 07'53	
asc. node	3576 Dec 19 08:53	6° ♄ 36'40		evening set	3577 Dec 02 03:59	21° ♄ 51'58	
inferior conj	3576 Dec 23 08:43	1° ♄ 32'21	1°19'31	asc. node	3577 Dec 06 05:54	17° ♄ 18'30	
minimum elong	3576 Dec 23 07:00	1° ♄ 38'17	1°18'50	min. Earth dist.	3577 Dec 06 20:05	16° ♄ 31'37	0.67664 AU
min. Earth dist.	3576 Dec 23 00:09	2° ♄ 01'53	0.67954 AU	inferior conj	3577 Dec 07 15:22	15° ♄ 27'04	0°28'30
	3576 Dec 24 11:45	30° ♄ 21		minimum elong	3577 Dec 07 14:41	15° ♄ 29'22	0°28'12
morning rise	3576 Dec 28 14:22	25° ♄ 24'11		morning rise	3577 Dec 13 01:26	9° ♄ 24'42	
direct	3577 Jan 01 22:27	23° ♄ 40'16		direct	3577 Dec 16 20:16	8° ♄ 02'42	
morning max el	3577 Jan 10 15:24	28° ♄ 44'33	21°25'00	morning max el	3577 Dec 24 13:21	12° ♄ 26'32	20°11'02
	3577 Jan 11 20:22	0° ♄			3578 Jan 07 00:19	0° ♄	
desc. node	3577 Jan 25 15:55	18° ♄ 03'16		desc. node	3578 Jan 12 12:57	8° ♄ 12'49	
	3577 Feb 02 17:42	0° ♄		morning set	3578 Jan 20 22:55	21° ♄ 03'20	
morning set	3577 Feb 11 01:31	12° ♄ 53'04			3578 Jan 26 16:36	0° ♄	
max. Earth dist.	3577 Feb 17 23:55	24° ♄ 04'14	1.42085 AU	max. Earth dist.	3578 Jan 31 08:43	7° ♄ 24'58	1.43773 AU
	3577 Feb 21 13:22	0° ♄					
superior conj	3577 Feb 25 11:00	6° ♄ 39'26	-2°06'08	superior conj	3578 Feb 06 03:09	16° ♄ 46'17	-2°03'23
minimum elong	3577 Feb 25 12:37	6° ♄ 46'26	2°06'06	minimum elong	3578 Feb 05 23:20	16° ♄ 30'37	2°03'14
evening rise	3577 Mar 08 14:21	26° ♄ 31'24			3578 Feb 14 00:43	0° ♄	
	3577 Mar 10 12:13	0° ♄		evening rise	3578 Feb 18 22:46	8° ♄ 27'38	
asc. node	3577 Mar 17 08:12	12° ♄ 00'51			3578 Mar 03 21:58	0° ♄	
evening max el	3577 Mar 25 02:50	22° ♄ 39'42	18°09'00	asc. node	3578 Mar 04 05:14	0° ♄ 26'01	
retrograde	3577 Mar 31 20:55	26° ♄ 05'10		evening max el	3578 Mar 08 15:22	5° ♄ 52'24	18°09'41
evening set	3577 Apr 03 11:31	25° ♄ 34'59		retrograde	3578 Mar 15 01:59	9° ♄ 15'47	
inferior conj	3577 Apr 10 05:17	20° ♄ 42'18	3°10'09	evening set	3578 Mar 17 22:21	8° ♄ 34'34	
minimum elong	3577 Apr 10 08:09	20° ♄ 35'37	3°09'38	inferior conj	3578 Mar 24 03:16	3° ♄ 21'38	3°34'05
min. Earth dist.	3577 Apr 13 12:07	17° ♄ 39'50	0.60545 AU	minimum elong	3578 Mar 24 04:21	3° ♄ 18'45	3°34'00
morning rise	3577 Apr 17 02:39	14° ♄ 52'37		min. Earth dist.	3578 Mar 26 21:59	0° ♄ 25'32	0.62667 AU
direct	3577 Apr 23 18:18	12° ♄ 44'03			3578 Mar 27 08:08	30° ♄ 21	
desc. node	3577 Apr 23 15:06	12° ♄ 44'06		morning rise	3578 Mar 30 09:09	27° ♄ 18'45	
morning max el	3577 May 08 00:55	20° ♄ 37'54	27°41'31	direct	3578 Apr 06 06:43	24° ♄ 43'19	
	3577 May 16 02:44	0° ♄		desc. node	3578 Apr 10 12:07	25° ♄ 34'58	
	3577 Jun 03 17:11	0° ♄			3578 Apr 17 09:36	0° ♄	
morning set	3577 Jun 09 06:28	11° ♄ 02'32		morning max el	3578 Apr 20 06:56	2° ♄ 41'02	27°50'02
asc. node	3577 Jun 13 07:29	19° ♄ 36'17			3578 May 10 12:06	0° ♄	
max. Earth dist.	3577 Jun 15 11:12	24° ♄ 17'42	1.32130 AU	morning set	3578 May 24 07:05	25° ♄ 16'08	
					3578 May 26 14:29	0° ♄	
superior conj	3577 Jun 16 12:19	26° ♄ 35'28	0°33'08	max. Earth dist.	3578 May 29 18:30	6° ♄ 41'20	1.32595 AU
minimum elong	3577 Jun 16 10:53	26° ♄ 27'37	0°32'50	asc. node	3578 May 31 04:32	9° ♄ 44'20	
	3577 Jun 18 01:31	0° ♄					
evening rise	3577 Jun 23 08:18	11° ♄ 28'53		superior conj	3578 May 31 21:15	11° ♄ 14'49	0°07'19
	3577 Jul 02 18:06	0° ♄		minimum elong	3578 May 31 20:54	11° ♄ 12'56	0°07'15
evening max el	3577 Jul 20 08:44	24° ♄ 25'35	25°23'18	behind sun begin	3578 May 31 16:14	10° ♄ 47'38	
desc. node	3577 Jul 20 14:24	24° ♄ 39'00		behind sun end	3578 Jun 01 01:34	11° ♄ 38'15	
	3577 Jul 28 01:22	0° ♄		evening rise	3578 Jun 07 20:06	26° ♄ 18'02	
retrograde	3577 Aug 03 08:12	1° ♄ 31'17			3578 Jun 09 14:21	0° ♄	
evening set	3577 Aug 09 02:58	0° ♄ 13'48			3578 Jun 27 09:19	0° ♄	
	3577 Aug 09 15:13	30° ♄ 21		evening max el	3578 Jul 01 22:12	4° ♄ 59'25	23°51'13
min. Earth dist.	3577 Aug 13 20:39	27° ♄ 32'56	0.57897 AU	desc. node	3578 Jul 07 11:24	9° ♄ 22'22	
inferior conj	3577 Aug 16 23:16	25° ♄ 23'59	-5°07'28	retrograde	3578 Jul 15 15:23	11° ♄ 53'01	
minimum elong	3577 Aug 17 00:24	25° ♄ 22'00	5°07'26	evening set	3578 Jul 19 23:51	11° ♄ 11'17	
morning rise	3577 Aug 25 00:09	21° ♄ 08'02		min. Earth dist.	3578 Jul 26 08:29	8° ♄ 08'42	0.56165 AU
direct	3577 Aug 27 12:49	20° ♄ 48'35		inferior conj	3578 Jul 28 16:09	6° ♄ 44'10	-4°53'59
morning max el	3577 Sep 05 04:00	24° ♄ 53'39	18°54'47	minimum elong	3578 Jul 28 11:24	6° ♄ 51'26	4°53'25
asc. node	3577 Sep 09 06:42	29° ♄ 38'16		morning rise	3578 Aug 06 01:31	2° ♄ 47'10	
	3577 Sep 09 13:05	0° ♄		direct	3578 Aug 08 19:54	2° ♄ 27'40	
morning set	3577 Sep 21 18:00	21° ♄ 24'39		morning max el	3578 Aug 18 21:16	7° ♄ 07'48	19°57'39
	3577 Sep 26 02:41	0° ♄		asc. node	3578 Aug 27 03:45	17° ♄ 45'08	
superior conj	3577 Sep 30 04:38	7° ♄ 54'31	1°36'19		3578 Sep 02 22:30	0° ♄	
minimum elong	3577 Sep 30 07:06	8° ♄ 06'18	1°36'09	morning set	3578 Sep 05 21:54	5° ♄ 56'37	
max. Earth dist.	3577 Oct 07 02:46	20° ♄ 42'28	1.39038 AU	superior conj	3578 Sep 13 16:24	21° ♄ 43'46	1°43'53
evening rise	3577 Oct 11 00:09	27° ♄ 31'03		minimum elong	3578 Sep 13 17:09	21° ♄ 47'29	1°43'52
	3577 Oct 12 11:10	0° ♄			3578 Sep 17 21:38	0° ♄	
desc. node	3577 Oct 16 13:44	6° ♄ 47'34		max. Earth dist.	3578 Sep 19 08:05	2° ♄ 44'01	1.37005 AU
	3577 Nov 01 00:52	0° ♄		evening rise	3578 Sep 23 03:24	9° ♄ 46'08	
				desc. node	3578 Oct 03 10:44	27° ♄ 17'22	

	3578 Oct 05 03:53	0°♌			3579 Sep 28 20:35	0°♌	
	3578 Oct 27 17:03	0°♌		evening max el	3579 Oct 11 10:01	14°♌50'45	26°38'24
evening max el	3578 Oct 28 21:39	1°♌11'34	25°39'24	retrograde	3579 Oct 24 09:17	22°♌05'28	
retrograde	3578 Nov 10 04:01	8°♌12'58		evening set	3579 Oct 30 22:37	19°♌25'47	
evening set	3578 Nov 16 04:19	5°♌42'56		min. Earth dist.	3579 Nov 04 00:08	15°♌16'15	0.66054 AU
min. Earth dist.	3578 Nov 20 12:49	0°♌57'35	0.67033 AU	inferior conj	3579 Nov 05 18:00	13°♌11'37	-1°26'36
	3578 Nov 21 06:55	30°♌		minimum elong	3579 Nov 05 20:23	13°♌04'32	1°25'36
inferior conj	3578 Nov 21 19:06	29°♌21'04	-0°27'21	asc. node	3579 Nov 09 24:00	8°♌41'57	
minimum elong	3578 Nov 21 19:48	29°♌18'49	0°27'02	morning rise	3579 Nov 11 18:50	7°♌28'19	
asc. node	3578 Nov 23 02:57	27°♌41'05		direct	3579 Nov 14 16:37	6°♌41'05	
morning rise	3578 Nov 27 11:38	23°♌26'58		morning max el	3579 Nov 21 07:15	10°♌17'18	18°27'10
direct	3578 Nov 30 18:55	22°♌24'11			3579 Dec 05 06:21	0°♌	
morning max el	3578 Dec 07 19:10	26°♌18'47	19°11'10	morning set	3579 Dec 11 04:16	9°♌28'18	
	3578 Dec 11 01:20	0°♌		desc. node	3579 Dec 17 07:01	19°♌14'09	
desc. node	3578 Dec 30 09:58	28°♌37'51			3579 Dec 24 02:28	0°♌	
morning set	3578 Dec 31 01:04	29°♌36'33					
	3578 Dec 31 07:06	0°♌		superior conj	3579 Dec 26 20:44	4°♌20'21	-1°02'08
max. Earth dist.	3579 Jan 13 23:58	21°♌25'07	1.44862 AU	minimum elong	3579 Dec 26 13:07	3°♌50'27	1°01'11
				max. Earth dist.	3579 Dec 27 18:22	5°♌45'11	1.45242 AU
superior conj	3579 Jan 16 18:26	25°♌47'48	-1°41'35	evening rise	3580 Jan 11 21:22	29°♌31'16	
minimum elong	3579 Jan 16 09:41	25°♌13'10	1°40'50		3580 Jan 12 04:39	0°♌	
	3579 Jan 19 09:51	0°♌		greatest brilliancy	3580 Jan 21 17:47	15°♌02'03	-0.8m
evening rise	3579 Jan 31 09:43	19°♌27'43			3580 Feb 01 03:07	0°♌	
	3579 Feb 06 19:11	0°♌		evening max el	3580 Feb 03 13:10	2°♌44'05	19°06'12
asc. node	3579 Feb 19 02:16	18°♌07'44		asc. node	3580 Feb 05 23:18	4°♌53'36	
evening max el	3579 Feb 20 03:35	19°♌15'31	18°29'06	retrograde	3580 Feb 10 11:36	6°♌40'20	
retrograde	3579 Feb 26 16:10	22°♌49'51		evening set	3580 Feb 13 20:16	5°♌34'37	
evening set	3579 Mar 01 18:16	21°♌56'49		inferior conj	3580 Feb 19 09:58	29°♌46'48	3°25'04
inferior conj	3579 Mar 07 14:02	16°♌25'23	3°37'19	minimum elong	3580 Feb 19 08:12	29°♌52'24	3°24'50
minimum elong	3579 Mar 07 13:27	16°♌27'05	3°37'18		3580 Feb 19 05:49	30°♌	
min. Earth dist.	3579 Mar 09 17:29	13°♌54'21	0.64516 AU	min. Earth dist.	3580 Feb 20 22:04	27°♌52'06	0.65986 AU
morning rise	3579 Mar 13 08:01	10°♌15'27		morning rise	3580 Feb 24 19:48	23°♌33'43	
direct	3579 Mar 20 03:01	7°♌26'09		direct	3580 Mar 02 06:04	20°♌44'10	
desc. node	3579 Mar 28 09:09	10°♌42'08		desc. node	3580 Mar 14 06:11	27°♌30'59	
morning max el	3579 Apr 02 16:23	15°♌19'37	27°22'41	morning max el	3580 Mar 15 02:20	28°♌20'54	26°25'45
	3579 Apr 14 16:54	0°♌			3580 Mar 16 16:20	0°♌	
	3579 May 03 05:12	0°♌			3580 Apr 07 11:10	0°♌	
morning set	3579 May 07 23:24	9°♌01'55		morning set	3580 Apr 20 03:51	22°♌09'07	
max. Earth dist.	3579 May 12 17:55	18°♌38'01	1.33494 AU		3580 Apr 24 05:46	0°♌	
				max. Earth dist.	3580 Apr 24 06:08	0°♌01'50	1.34855 AU
superior conj	3579 May 16 01:59	25°♌37'15	-0°20'37				
minimum elong	3579 May 16 03:02	25°♌42'50	0°20'23	superior conj	3580 Apr 29 00:12	9°♌35'52	-0°49'29
asc. node	3579 May 18 01:35	29°♌50'44		minimum elong	3580 Apr 29 02:49	9°♌49'18	0°49'00
	3579 May 18 03:19	0°♌		asc. node	3580 May 03 22:38	19°♌51'11	
evening rise	3579 May 23 07:22	11°♌01'12		evening rise	3580 May 06 16:06	25°♌31'51	
	3579 Jun 02 02:56	0°♌			3580 May 08 20:31	0°♌	
evening max el	3579 Jun 13 13:11	15°♌25'04	22°14'42	evening max el	3580 May 25 13:17	26°♌14'15	20°47'29
desc. node	3579 Jun 24 08:24	21°♌38'55			3580 May 30 10:32	0°♌	
retrograde	3579 Jun 26 10:54	21°♌49'09		retrograde	3580 Jun 05 23:50	1°♌49'35	
evening set	3579 Jun 29 08:56	21°♌30'16		evening set	3580 Jun 08 02:09	1°♌39'04	
min. Earth dist.	3579 Jul 07 19:13	17°♌52'22	0.55072 AU	desc. node	3580 Jun 10 05:26	1°♌08'05	
inferior conj	3579 Jul 08 16:01	17°♌23'03	-3°51'18		3580 Jun 13 02:02	30°♌	
minimum elong	3579 Jul 08 07:39	17°♌34'52	3°49'08	inferior conj	3580 Jun 17 09:27	27°♌41'41	-2°05'31
morning rise	3579 Jul 17 08:16	13°♌32'18		minimum elong	3580 Jun 17 03:36	27°♌50'02	2°03'28
direct	3579 Jul 20 10:15	13°♌11'00		min. Earth dist.	3580 Jun 18 07:13	27°♌10'37	0.54887 AU
morning max el	3579 Aug 01 02:54	18°♌37'59	21°21'04	morning rise	3580 Jun 26 04:37	23°♌37'10	
	3579 Aug 10 04:01	0°♌		direct	3580 Jun 29 19:33	23°♌08'53	
asc. node	3579 Aug 14 00:49	6°♌31'58		morning max el	3580 Jul 12 22:25	29°♌27'04	22°59'36
morning set	3579 Aug 21 06:22	20°♌42'13			3580 Jul 13 12:14	0°♌	
	3579 Aug 25 16:49	0°♌		asc. node	3580 Jul 30 21:52	25°♌48'11	
					3580 Aug 02 00:36	0°♌	
superior conj	3579 Aug 28 14:22	6°♌03'41	1°43'34	morning set	3580 Aug 04 17:21	5°♌34'39	
minimum elong	3579 Aug 28 13:38	5°♌59'53	1°43'33				
max. Earth dist.	3579 Sep 01 18:51	14°♌35'58	1.35220 AU	superior conj	3580 Aug 11 19:09	20°♌43'03	1°36'45
evening rise	3579 Sep 06 01:00	22°♌53'33		minimum elong	3580 Aug 11 17:23	20°♌33'41	1°36'36
	3579 Sep 09 21:12	0°♌		max. Earth dist.	3580 Aug 14 14:20	26°♌38'42	1.33813 AU
desc. node	3579 Sep 20 07:46	17°♌31'45			3580 Aug 16 05:07	0°♌	

evening rise	3580 Aug 19 12:27	6° \cap 40'28		3581 Jul 24 15:02	0° \cap	
	3580 Sep 01 11:25	0° \cap				
desc. node	3580 Sep 06 04:47	7° \cap 22'46		superior conj	3581 Jul 27 04:13	5° \cap 34'00 1°24'28
evening max el	3580 Sep 22 22:16	28° \cap 18'07 27°16'12		minimum elong	3581 Jul 27 01:56	5° \cap 21'35 1°24'10
	3580 Sep 24 19:05	0° \cap		max. Earth dist.	3581 Jul 28 18:26	9° \cap 01'33 1.32824 AU
retrograde	3580 Oct 06 08:55	5° \cap 36'34		evening rise	3581 Aug 03 09:55	20° \cap 56'07
evening set	3580 Oct 13 08:26	2° \cap 54'54			3581 Aug 08 00:01	0° \cap
	3580 Oct 16 12:43	30° \cap		desc. node	3581 Aug 24 01:48	26° \cap 40'40
min. Earth dist.	3580 Oct 17 03:46	29° \cap 20'30 0.64719 AU			3581 Aug 26 11:55	0° \cap
inferior conj	3580 Oct 19 09:47	26° \cap 53'14 -2°27'25		evening max el	3581 Sep 05 08:44	11° \cap 21'23 27°26'05
minimum elong	3580 Oct 19 13:53	26° \cap 42'01 2°25'51		retrograde	3581 Sep 19 01:58	18° \cap 37'22
morning rise	3580 Oct 25 20:26	21° \cap 23'46		evening set	3581 Sep 26 06:33	16° \cap 04'04
asc. node	3580 Oct 26 21:03	21° \cap 01'21		min. Earth dist.	3581 Sep 29 21:44	13° \cap 00'55 0.63054 AU
direct	3580 Oct 28 11:09	20° \cap 48'06		inferior conj	3581 Oct 02 15:42	10° \cap 19'28 -3°26'46
morning max el	3580 Nov 03 22:59	24° \cap 15'13 18°00'00		minimum elong	3581 Oct 02 21:11	10° \cap 06'02 3°25'03
	3580 Nov 08 15:15	0° \cap		morning rise	3581 Oct 09 13:15	5° \cap 07'10
morning set	3580 Nov 21 12:51	20° \cap 47'06		direct	3581 Oct 11 23:35	4° \cap 39'28
	3580 Nov 27 01:40	0° \cap		asc. node	3581 Oct 13 18:07	4° \cap 54'33
desc. node	3580 Dec 03 04:05	9° \cap 57'32		morning max el	3581 Oct 18 15:25	8° \cap 05'33 17°50'27
					3581 Nov 02 01:08	0° \cap
superior conj	3580 Dec 05 06:47	13° \cap 21'19 -0°14'27		morning set	3581 Nov 03 21:45	3° \cap 16'04
minimum elong	3580 Dec 05 05:02	13° \cap 14'15 0°14'12				
behind sun begin	3580 Dec 04 23:56	12° \cap 53'51		superior conj	3581 Nov 15 16:06	23° \cap 31'36 0°30'00
behind sun end	3580 Dec 05 10:07	13° \cap 34'39		minimum elong	3581 Nov 15 19:00	23° \cap 43'42 0°29'35
max. Earth dist.	3580 Dec 09 13:15	20° \cap 08'31 1.44879 AU			3581 Nov 19 14:14	0° \cap
	3580 Dec 15 20:16	0° \cap		desc. node	3581 Nov 20 01:07	0° \cap 44'19
evening rise	3580 Dec 21 13:42	8° \cap 51'53		max. Earth dist.	3581 Nov 22 06:06	4° \cap 18'44 1.43827 AU
	3581 Jan 04 11:26	0° \cap		evening rise	3581 Nov 30 23:00	18° \cap 01'23
greatest brilliancy	3581 Jan 04 18:58	0° \cap 27'52 -0.6m			3581 Dec 08 19:51	0° \cap
evening max el	3581 Jan 16 18:21	16° \cap 15'34 19°59'15			3581 Dec 30 22:49	0° \cap
asc. node	3581 Jan 22 20:19	20° \cap 29'26		evening max el	3581 Dec 30 18:05	29° \cap 47'59 21°05'32
retrograde	3581 Jan 24 09:22	20° \cap 42'24		retrograde	3582 Jan 08 07:11	4° \cap 51'42
evening set	3581 Jan 28 01:59	19° \cap 22'51		asc. node	3582 Jan 09 17:21	4° \cap 40'36
inferior conj	3581 Feb 02 12:05	13° \cap 21'05 3°01'00		evening set	3582 Jan 12 09:27	3° \cap 17'00
minimum elong	3581 Feb 02 09:41	13° \cap 29'05 3°00'29			3582 Jan 15 13:15	30° \cap
min. Earth dist.	3581 Feb 03 10:00	12° \cap 07'37 0.67044 AU		inferior conj	3582 Jan 17 17:56	27° \cap 04'00 2°27'32
morning rise	3581 Feb 07 17:10	7° \cap 07'17		minimum elong	3582 Jan 17 15:26	27° \cap 12'37 2°26'46
direct	3581 Feb 13 14:53	4° \cap 28'56		min. Earth dist.	3582 Jan 18 03:05	26° \cap 32'26 0.67697 AU
morning max el	3581 Feb 25 11:10	11° \cap 33'34 25°08'24		morning rise	3582 Jan 22 21:14	20° \cap 51'14
desc. node	3581 Mar 01 03:15	15° \cap 32'58		direct	3582 Jan 28 04:26	18° \cap 31'47
	3581 Mar 12 05:28	0° \cap		morning max el	3582 Feb 07 19:41	24° \cap 51'45 23°40'49
	3581 Mar 31 03:59	0° \cap			3582 Feb 12 10:47	0° \cap
morning set	3581 Apr 02 15:38	4° \cap 23'56		desc. node	3582 Feb 16 00:18	4° \cap 26'29
max. Earth dist.	3581 Apr 06 07:13	11° \cap 04'04 1.36655 AU			3582 Mar 05 17:14	0° \cap
				morning set	3582 Mar 15 04:38	15° \cap 29'03
superior conj	3581 Apr 12 13:03	23° \cap 02'56 -1°17'38		max. Earth dist.	3582 Mar 19 02:31	22° \cap 15'45 1.38764 AU
minimum elong	3581 Apr 12 17:04	23° \cap 22'45 1°17'01			3582 Mar 23 09:48	0° \cap
	3581 Apr 16 00:39	0° \cap				
evening rise	3581 Apr 20 20:04	9° \cap 43'29		superior conj	3582 Mar 26 12:42	5° \cap 47'38 -1°42'34
asc. node	3581 Apr 20 19:40	9° \cap 41'29		minimum elong	3582 Mar 26 17:21	6° \cap 09'31 1°42'04
	3581 May 01 22:00	0° \cap		evening rise	3582 Apr 04 16:32	23° \cap 27'48
evening max el	3581 May 08 01:37	7° \cap 43'27 19°37'24		asc. node	3582 Apr 07 16:41	29° \cap 16'03
retrograde	3581 May 17 18:08	12° \cap 25'40			3582 Apr 08 01:56	0° \cap
evening set	3581 May 19 17:38	12° \cap 14'46		evening max el	3582 Apr 21 00:45	19° \cap 51'27 18°47'12
inferior conj	3581 May 28 11:01	8° \cap 11'18 -0°06'18		retrograde	3582 Apr 29 04:59	23° \cap 51'24
minimum elong	3581 May 28 10:45	8° \cap 11'44 0°06'12		evening set	3582 May 01 09:32	23° \cap 35'17
transit middle	3581 May 28 10:45	8° \cap 11'44 0°06'12		inferior conj	3582 May 09 07:11	19° \cap 14'41 1°34'57
transit begin	3581 May 28 07:08	8° \cap 17'26		minimum elong	3582 May 09 10:26	19° \cap 08'44 1°33'55
transit end	3581 May 28 14:22	8° \cap 06'02		min. Earth dist.	3582 May 12 13:28	16° \cap 52'16 0.57243 AU
desc. node	3581 May 28 02:26	8° \cap 24'48		desc. node	3582 May 14 23:28	15° \cap 18'11
min. Earth dist.	3581 May 30 21:00	6° \cap 40'15 0.55670 AU		morning rise	3582 May 17 08:09	14° \cap 05'02
morning rise	3581 Jun 06 01:18	3° \cap 36'39		direct	3582 May 22 19:44	12° \cap 51'51
direct	3581 Jun 10 12:59	2° \cap 51'38		morning max el	3582 Jun 06 03:57	20° \cap 21'46 26°13'57
morning max el	3581 Jun 24 12:40	9° \cap 52'32 24°42'16			3582 Jun 14 10:34	0° \cap
	3581 Jul 09 13:53	0° \cap			3582 Jul 02 02:24	0° \cap
asc. node	3581 Jul 17 18:56	15° \cap 26'09		morning set	3582 Jul 04 16:08	5° \cap 19'57
morning set	3581 Jul 20 05:08	20° \cap 28'59		asc. node	3582 Jul 04 15:59	5° \cap 19'09

superior conj	3582 Jul 11 15:30	20°☿29'38	1°07'33			3583 Jun 23 16:18	0°☿	
minimum elong	3582 Jul 11 13:12	20°☿16'55	1°07'10	max. Earth dist.		3583 Jun 25 16:09	4°☿22'44	1.32052 AU
max. Earth dist.	3582 Jul 12 04:16	21°☿39'53	1.32239 AU					
	3582 Jul 15 23:58	0°♌		superior conj		3583 Jun 26 03:15	5°☿23'54	0°46'41
evening rise	3582 Jul 18 14:21	5°♌31'00		minimum elong		3583 Jun 26 01:23	5°☿13'33	0°46'19
	3582 Jul 31 14:53	0°♍		evening rise		3583 Jul 02 23:14	20°☿17'02	
desc. node	3582 Aug 10 22:48	15°♍12'01				3583 Jul 07 17:09	0°♌	
evening max el	3582 Aug 18 14:37	23°♍47'01	27°03'27			3583 Jul 26 12:49	0°♍	
	3582 Aug 27 15:02	0°♎		desc. node		3583 Jul 28 19:47	2°♍37'16	
retrograde	3582 Sep 01 11:39	0°♎59'15		evening max el		3583 Jul 31 13:27	5°♍24'58	26°07'55
	3582 Sep 06 04:29	30°♏♍		retrograde		3583 Aug 14 12:52	12°♍34'17	
evening set	3582 Sep 08 12:59	28°♍46'38		evening set		3583 Aug 20 22:49	10°♍54'16	
min. Earth dist.	3582 Sep 12 04:54	26°♍05'22	0.61115 AU	min. Earth dist.		3583 Aug 25 02:07	8°♍18'53	0.59046 AU
inferior conj	3582 Sep 15 08:33	23°♍22'20	-4°19'36	inferior conj		3583 Aug 28 08:43	5°♍51'36	-4°57'27
minimum elong	3582 Sep 15 14:16	23°♍09'58	4°18'20	minimum elong		3583 Aug 28 12:24	5°♍44'40	4°57'03
morning rise	3582 Sep 22 17:21	18°♍30'47		morning rise		3583 Sep 05 04:11	1°♍23'07	
direct	3582 Sep 25 02:17	18°♍08'02		direct		3583 Sep 07 14:36	1°♍03'04	
asc. node	3582 Sep 30 15:10	20°♍17'25		morning max el		3583 Sep 15 14:00	4°♍53'07	18°28'38
morning max el	3582 Oct 02 05:30	21°♍41'16	17°59'34	asc. node		3583 Sep 17 12:13	6°♍55'50	
	3582 Oct 08 14:12	0°♏				3583 Oct 01 09:17	0°♏	
morning set	3582 Oct 18 00:34	16°♏36'24		morning set		3583 Oct 01 16:00	0°♏32'18	
	3582 Oct 25 08:29	0°♐						
superior conj	3582 Oct 28 04:13	5°♐00'46	1°04'33	superior conj		3583 Oct 10 15:06	17°♏36'30	1°27'45
minimum elong	3582 Oct 28 08:28	5°♐19'27	1°04'01	minimum elong		3583 Oct 10 18:30	17°♏52'14	1°27'27
max. Earth dist.	3582 Nov 04 18:32	17°♐59'14	1.42209 AU	max. Earth dist.		3583 Oct 17 12:28	0°♐	
desc. node	3582 Nov 06 22:08	21°♐31'31		evening rise		3583 Oct 18 01:24	0°♐56'09	1.40230 AU
evening rise	3582 Nov 10 17:40	27°♐40'15		desc. node		3583 Oct 22 08:59	8°♐15'50	
	3582 Nov 12 05:00	0°♑				3583 Oct 24 19:08	12°♐15'07	
	3582 Dec 02 13:35	0°♒		evening max el		3583 Nov 05 05:59	0°♑	
evening max el	3582 Dec 13 12:29	13°♒22'04	22°21'09			3583 Nov 26 02:49	26°♑58'26	23°41'02
retrograde	3582 Dec 23 03:25	19°♒05'26		retrograde		3583 Nov 29 11:04	0°♒	
evening set	3582 Dec 27 17:01	17°♒14'39		evening set		3583 Dec 06 20:41	3°♒19'06	
asc. node	3582 Dec 27 14:22	17°♒20'01				3583 Dec 11 23:04	1°♒12'03	
inferior conj	3583 Jan 02 01:32	10°♒53'43	1°46'19	asc. node		3583 Dec 13 05:30	30°♒♑	
minimum elong	3583 Jan 01 23:24	11°♒01'06	1°45'31	inferior conj		3583 Dec 14 11:25	28°♒35'45	
min. Earth dist.	3583 Jan 01 23:08	11°♒02'01	0.67965 AU	minimum elong		3583 Dec 17 09:01	24°♒47'07	0°58'32
morning rise	3583 Jan 07 05:39	4°♒43'30		min. Earth dist.		3583 Dec 17 07:42	24°♒51'40	0°57'59
direct	3583 Jan 11 21:57	2°♒46'36		morning rise		3583 Dec 16 19:48	25°♒32'15	0.67871 AU
morning max el	3583 Jan 21 07:05	8°♒17'32	22°12'46	direct		3583 Dec 22 16:18	18°♒41'15	
desc. node	3583 Feb 02 21:20	23°♒57'25		morning max el		3583 Dec 26 18:28	17°♒07'08	
	3583 Feb 07 03:14	0°♓				3584 Jan 04 00:40	21°♒53'14	20°52'01
morning set	3583 Feb 23 13:36	25°♓13'02		desc. node		3584 Jan 10 21:10	0°♓	
	3583 Feb 26 11:47	0°♈				3584 Jan 20 18:23	13°♓54'53	
max. Earth dist.	3583 Feb 28 23:57	4°♈10'51	1.40931 AU	morning set		3584 Jan 31 10:05	0°♓	
				max. Earth dist.		3584 Feb 02 19:50	3°♓44'13	
superior conj	3583 Mar 08 18:33	17°♈39'15	-2°00'40			3584 Feb 11 03:51	17°♓00'02	1.42860 AU
minimum elong	3583 Mar 08 22:04	17°♈54'57	2°00'28	superior conj		3584 Feb 18 01:30	28°♓26'08	-2°07'05
	3583 Mar 15 13:03	0°♉		minimum elong		3584 Feb 18 01:05	28°♓24'21	2°07'05
evening rise	3583 Mar 19 02:15	6°♉37'21				3584 Feb 18 23:40	0°♈	
asc. node	3583 Mar 25 13:41	18°♉29'34		evening rise		3584 Feb 29 21:11	19°♈02'54	
	3583 Apr 02 01:03	0°♊				3584 Mar 07 01:47	0°♉	
evening max el	3583 Apr 04 07:38	2°♊31'25	18°17'10	asc. node		3584 Mar 11 10:42	7°♉15'07	
retrograde	3583 Apr 11 10:58	6°♊05'12		evening max el		3584 Mar 17 19:00	15°♉34'52	18°06'56
evening set	3583 Apr 13 21:55	5°♊40'50		retrograde		3584 Mar 24 08:52	18°♉58'03	
inferior conj	3583 Apr 21 00:51	0°♊59'47	2°44'25	evening set		3584 Mar 27 01:50	18°♉23'27	
minimum elong	3583 Apr 21 04:26	0°♊52'05	2°43'35	inferior conj		3584 Apr 02 13:40	13°♉22'07	3°23'12
	3583 Apr 22 04:30	30°♋♉		minimum elong		3584 Apr 02 15:49	13°♉16'49	3°22'55
min. Earth dist.	3583 Apr 24 11:01	28°♉04'46	0.59288 AU	min. Earth dist.		3584 Apr 05 16:05	10°♉19'19	0.61463 AU
morning rise	3583 Apr 28 08:15	25°♉21'23		morning rise		3584 Apr 09 04:01	7°♉25'30	
desc. node	3583 May 01 20:29	23°♉54'16		direct		3584 Apr 15 23:12	5°♉04'00	
direct	3583 May 04 15:47	23°♉32'51		desc. node		3584 Apr 17 17:31	5°♉12'56	
	3583 May 17 14:39	0°♊		morning max el		3584 Apr 30 03:58	13°♉01'23	27°49'46
morning max el	3583 May 19 00:47	1°♊20'49	27°19'35			3584 May 13 16:34	0°♊	
	3583 Jun 08 15:01	0°♋				3584 May 30 23:36	0°♋	
morning set	3583 Jun 19 00:40	20°♋01'57		morning set		3584 Jun 02 04:51	4°♋28'49	
asc. node	3583 Jun 21 13:00	25°♋21'47		asc. node		3584 Jun 07 10:01	15°♋29'35	

max. Earth dist.	3584 Jun 08 02:11	16° Π 57'14	1.32270 AU		3585 May 07 03:56	0° \mathcal{B}	
				morning set	3585 May 17 02:19	18° \mathcal{B} 32'02	
superior conj	3584 Jun 09 13:46	20° Π 11'12	0°22'30	max. Earth dist.	3585 May 22 06:23	29° \mathcal{B} 09'51	1.32918 AU
minimum elong	3584 Jun 09 12:45	20° Π 05'38	0°22'17		3585 May 22 15:52	0° Π	
	3584 Jun 14 01:25	0° \mathcal{C}					
evening rise	3584 Jun 16 10:33	5° \mathcal{C} 07'26		superior conj	3585 May 24 21:11	4° Π 44'38	-0°04'19
	3584 Jun 29 14:32	0° \mathcal{Q}		minimum elong	3585 May 24 21:24	4° Π 45'47	0°04'17
evening max el	3584 Jul 12 05:18	16° \mathcal{Q} 18'02	24°45'44	behind sun begin	3585 May 24 16:16	4° Π 18'11	
desc. node	3584 Jul 14 16:47	18° \mathcal{Q} 29'58		behind sun end	3585 May 25 02:32	5° Π 13'25	
retrograde	3584 Jul 26 03:40	23° \mathcal{Q} 20'57		asc. node	3585 May 25 07:03	5° Π 37'42	
evening set	3584 Jul 31 08:39	22° \mathcal{Q} 19'35		evening rise	3585 May 31 22:21	19° Π 55'02	
min. Earth dist.	3584 Aug 05 16:38	19° \mathcal{Q} 31'08	0.57099 AU		3585 Jun 05 20:34	0° \mathcal{C}	
inferior conj	3584 Aug 08 13:19	17° \mathcal{Q} 39'01	-5°07'16	evening max el	3585 Jun 23 18:33	26° \mathcal{C} 45'04	23°09'52
minimum elong	3584 Aug 08 12:03	17° \mathcal{Q} 41'07	5°07'13		3585 Jun 27 15:07	0° \mathcal{Q}	
morning rise	3584 Aug 16 18:01	13° \mathcal{Q} 32'12		desc. node	3585 Jul 01 13:49	2° \mathcal{Q} 15'23	
direct	3584 Aug 19 08:38	13° \mathcal{Q} 13'05		retrograde	3585 Jul 07 05:41	3° \mathcal{Q} 28'20	
morning max el	3584 Aug 28 13:41	17° \mathcal{Q} 31'42	19°18'53	evening set	3585 Jul 10 22:17	2° \mathcal{Q} 58'33	
asc. node	3584 Sep 03 09:16	24° \mathcal{Q} 34'48			3585 Jul 17 15:40	30° \mathcal{R} \mathcal{C}	
	3584 Sep 06 18:48	0° \mathcal{M}		min. Earth dist.	3585 Jul 18 03:57	29° \mathcal{C} 42'25	0.55605 AU
morning set	3584 Sep 14 16:14	14° \mathcal{M} 53'33		inferior conj	3585 Jul 19 22:13	28° \mathcal{C} 40'43	-4°33'40
	3584 Sep 22 06:18	0° \mathcal{L}		minimum elong	3585 Jul 19 15:18	28° \mathcal{C} 50'51	4°32'26
				morning rise	3585 Jul 28 10:41	24° \mathcal{C} 48'00	
superior conj	3584 Sep 22 19:15	1° \mathcal{L} 03'13	1°40'34	direct	3585 Jul 31 07:56	24° \mathcal{C} 28'01	
minimum elong	3584 Sep 22 20:58	1° \mathcal{L} 11'38	1°40'29	morning max el	3585 Aug 11 02:01	29° \mathcal{C} 27'31	20°30'43
max. Earth dist.	3584 Sep 29 05:21	13° \mathcal{L} 11'30	1.38152 AU		3585 Aug 11 15:40	0° \mathcal{Q}	
evening rise	3584 Oct 02 23:52	19° \mathcal{L} 56'41		asc. node	3585 Aug 21 06:20	13° \mathcal{Q} 00'04	
	3584 Oct 08 22:02	0° \mathcal{M}		morning set	3585 Aug 29 22:21	29° \mathcal{Q} 32'01	
desc. node	3584 Oct 10 16:08	2° \mathcal{M} 51'18			3585 Aug 30 03:49	0° \mathcal{M}	
	3584 Oct 29 08:44	0° \mathcal{X}					
evening max el	3584 Nov 07 15:17	10° \mathcal{X} 38'41	24°58'42	superior conj	3585 Sep 06 11:48	15° \mathcal{M} 06'41	1°44'37
retrograde	3584 Nov 19 09:52	17° \mathcal{X} 28'35		minimum elong	3585 Sep 06 11:52	15° \mathcal{M} 07'03	1°44'36
evening set	3584 Nov 25 02:00	15° \mathcal{X} 06'23		max. Earth dist.	3585 Sep 11 12:16	25° \mathcal{M} 05'20	1.36211 AU
min. Earth dist.	3584 Nov 29 14:47	10° \mathcal{X} 00'31	0.67434 AU		3585 Sep 14 02:03	0° \mathcal{L}	
asc. node	3584 Nov 30 08:29	9° \mathcal{X} 02'21		evening rise	3585 Sep 15 11:31	2° \mathcal{L} 35'48	
inferior conj	3584 Nov 30 14:40	8° \mathcal{X} 41'56	0°05'19	desc. node	3585 Sep 27 13:10	23° \mathcal{L} 15'20	
minimum elong	3584 Nov 30 14:32	8° \mathcal{X} 42'23	0°05'16		3585 Oct 01 22:24	0° \mathcal{M}	
transit middle	3584 Nov 30 14:32	8° \mathcal{X} 42'23	0°05'16	evening max el	3585 Oct 21 03:45	24° \mathcal{M} 20'57	26°06'44
transit begin	3584 Nov 30 11:55	8° \mathcal{X} 51'00			3585 Oct 28 11:42	0° \mathcal{X}	
transit end	3584 Nov 30 17:09	8° \mathcal{X} 33'46		retrograde	3585 Nov 02 18:07	1° \mathcal{X} 29'01	
morning rise	3584 Dec 06 03:14	2° \mathcal{X} 42'34			3585 Nov 07 12:36	30° \mathcal{R} \mathcal{M}	
direct	3584 Dec 09 16:50	1° \mathcal{X} 29'14		evening set	3585 Nov 09 00:03	28° \mathcal{M} 54'33	
morning max el	3584 Dec 17 02:02	5° \mathcal{X} 39'43	19°43'38	min. Earth dist.	3585 Nov 13 05:37	24° \mathcal{M} 24'05	0.66656 AU
greatest brilliancy	3584 Dec 30 06:32	23° \mathcal{X} 04'15	-0.7m	inferior conj	3585 Nov 14 16:39	22° \mathcal{M} 35'23	-0°52'09
	3585 Jan 03 21:19	0° \mathcal{Z}		minimum elong	3585 Nov 14 18:02	22° \mathcal{M} 31'03	0°51'33
desc. node	3585 Jan 06 15:24	4° \mathcal{Z} 11'31		asc. node	3585 Nov 17 05:33	19° \mathcal{M} 35'00	
morning set	3585 Jan 11 15:53	11° \mathcal{Z} 54'14		morning rise	3585 Nov 20 12:28	16° \mathcal{M} 45'14	
	3585 Jan 23 05:41	0° \approx		direct	3585 Nov 23 15:28	15° \mathcal{M} 49'25	
max. Earth dist.	3585 Jan 23 15:00	0° \approx 37'00	1.44312 AU	morning max el	3585 Nov 30 10:43	19° \mathcal{M} 35'02	18°50'24
					3585 Dec 08 13:38	0° \mathcal{X}	
superior conj	3585 Jan 28 06:29	8° \approx 03'11	-1°56'34	morning set	3585 Dec 22 03:12	20° \mathcal{X} 57'17	
minimum elong	3585 Jan 28 00:10	7° \approx 37'40	1°56'12	desc. node	3585 Dec 24 12:26	24° \mathcal{X} 42'03	
evening rise	3585 Feb 10 20:52	0° \mathcal{X} 35'28			3585 Dec 27 21:29	0° \mathcal{Z}	
	3585 Feb 10 12:30	0° \mathcal{X}		max. Earth dist.	3586 Jan 06 08:02	14° \mathcal{Z} 48'25	1.45114 AU
asc. node	3585 Feb 26 07:45	25° \mathcal{X} 23'27					
evening max el	3585 Mar 01 07:46	28° \mathcal{X} 53'05	18°15'48	superior conj	3586 Jan 07 14:08	16° \mathcal{Z} 46'44	-1°26'38
	3585 Mar 02 12:36	0° \mathcal{Y}		minimum elong	3586 Jan 07 04:59	16° \mathcal{Z} 10'42	1°25'40
retrograde	3585 Mar 07 18:13	2° \mathcal{Y} 19'34			3586 Jan 15 22:39	0° \approx	
evening set	3585 Mar 10 16:57	1° \mathcal{Y} 33'32		evening rise	3586 Jan 22 21:52	11° \approx 11'03	
	3585 Mar 12 23:35	30° \mathcal{R} \mathcal{X}			3586 Feb 03 15:33	0° \mathcal{X}	
inferior conj	3585 Mar 16 17:35	26° \mathcal{X} 12'50	3°37'36	evening max el	3586 Feb 12 19:15	12° \mathcal{X} 19'51	18°42'53
minimum elong	3585 Mar 16 17:55	26° \mathcal{X} 11'54	3°37'36	asc. node	3586 Feb 13 04:49	12° \mathcal{X} 43'40	
min. Earth dist.	3585 Mar 19 06:07	23° \mathcal{X} 25'15	0.63493 AU	retrograde	3586 Feb 19 10:56	16° \mathcal{X} 01'52	
morning rise	3585 Mar 22 17:56	20° \mathcal{X} 06'25		evening set	3586 Feb 22 15:49	15° \mathcal{X} 03'26	
direct	3585 Mar 29 15:29	17° \mathcal{X} 22'58		inferior conj	3586 Feb 28 08:39	9° \mathcal{X} 24'55	3°33'44
desc. node	3585 Apr 04 14:35	19° \mathcal{X} 06'02		minimum elong	3586 Feb 28 07:30	9° \mathcal{X} 28'25	3°33'39
morning max el	3585 Apr 12 11:38	25° \mathcal{X} 20'37	27°42'28	min. Earth dist.	3586 Mar 02 05:29	7° \mathcal{X} 08'29	0.65194 AU
	3585 Apr 16 18:06	0° \mathcal{Y}		morning rise	3586 Mar 05 22:45	3° \mathcal{X} 13'36	

direct	3586 Mar 12 14:48	0° H 22'36		desc. node	3587 Mar 09 08:39	22° \approx 23'26	
desc. node	3586 Mar 22 11:37	5° H 00'42			3587 Mar 15 20:39	0° H	
morning max el	3586 Mar 25 21:23	8° H 09'55	27°01'36		3587 Apr 05 01:49	0° Y	
	3586 Apr 11 20:53	0° Y		morning set	3587 Apr 13 12:02	14° Y 49'09	
	3586 Apr 29 12:23	0° B		max. Earth dist.	3587 Apr 17 08:45	22° Y 05'46	1.35576 AU
morning set	3586 Apr 30 14:04	2° B 02'48			3587 Apr 21 09:25	0° B	
max. Earth dist.	3586 May 05 01:16	10° B 52'34	1.34022 AU				
				superior conj	3587 Apr 22 18:05	2° B 44'08	-1°01'38
superior conj	3586 May 08 23:29	18° B 58'11	-0°32'48	minimum elong	3587 Apr 22 21:20	3° B 00'36	1°01'03
minimum elong	3586 May 09 01:12	19° B 07'08	0°32'28	asc. node	3587 Apr 29 01:09	15° B 39'05	
asc. node	3586 May 12 04:06	25° B 42'16		evening rise	3587 Apr 30 15:46	18° B 57'29	
	3586 May 14 04:44	0° II			3587 May 06 05:45	0° II	
evening rise	3586 May 16 08:47	4° II 33'58		evening max el	3587 May 18 17:53	18° II 22'42	20°15'16
	3586 May 30 10:20	0° E		retrograde	3587 May 29 10:32	23° II 35'22	
evening max el	3586 Jun 05 12:47	7° E 17'50	21°35'48	evening set	3587 May 31 10:09	23° II 25'22	
retrograde	3586 Jun 17 20:42	13° E 22'09		desc. node	3587 Jun 05 07:51	21° II 45'53	
desc. node	3586 Jun 18 10:51	13° E 21'21		inferior conj	3587 Jun 09 12:44	19° II 26'46	-1°14'29
evening set	3586 Jun 20 08:20	13° E 08'10		minimum elong	3587 Jun 09 09:14	19° II 31'56	1°13'11
inferior conj	3586 Jun 29 17:36	9° E 07'13	-3°10'19	min. Earth dist.	3587 Jun 11 03:11	18° II 30'08	0.55107 AU
minimum elong	3586 Jun 29 09:34	9° E 18'27	3°07'52	morning rise	3587 Jun 18 07:00	15° II 11'15	
min. Earth dist.	3586 Jun 29 14:48	9° E 11'08	0.54884 AU	direct	3587 Jun 22 05:47	14° II 37'29	
morning rise	3586 Jul 08 11:50	5° E 13'17		morning max el	3587 Jul 05 19:18	21° II 14'43	23°43'41
direct	3586 Jul 11 18:47	4° E 49'41			3587 Jul 13 08:33	0° E	
morning max el	3586 Jul 24 02:44	10° E 38'11	22°01'34	asc. node	3587 Jul 26 00:24	21° E 27'12	
	3586 Aug 07 01:11	0° O		morning set	3587 Jul 29 19:39	29° E 15'56	
asc. node	3586 Aug 08 03:22	2° O 00'26			3587 Jul 30 03:59	0° O	
morning set	3586 Aug 14 08:06	14° O 21'14					
				superior conj	3587 Aug 05 19:52	14° O 21'30	1°32'09
superior conj	3586 Aug 21 12:58	29° O 35'39	1°41'24	minimum elong	3587 Aug 05 17:50	14° O 10'31	1°31'57
minimum elong	3586 Aug 21 11:45	29° O 29'12	1°41'20	max. Earth dist.	3587 Aug 08 02:27	19° O 14'00	1.33340 AU
	3586 Aug 21 17:36	0° np		evening rise	3587 Aug 13 07:37	0° np 02'05	
max. Earth dist.	3586 Aug 25 02:55	7° np 01'31	1.34579 AU		3587 Aug 13 07:12	0° np	
evening rise	3586 Aug 29 15:29	16° np 01'18			3587 Aug 30 07:03	0° E	
	3586 Sep 06 06:19	0° E		desc. node	3587 Sep 01 07:12	2° E 59'56	
desc. node	3586 Sep 14 10:12	13° E 20'55		evening max el	3587 Sep 16 04:00	21° E 15'50	27°24'03
	3586 Sep 26 10:42	0° ml		retrograde	3587 Sep 29 17:37	28° E 33'42	
evening max el	3586 Oct 03 16:22	7° ml 57'01	26°57'33	evening set	3587 Oct 06 20:19	25° E 53'51	
retrograde	3586 Oct 16 20:49	15° ml 13'23		min. Earth dist.	3587 Oct 10 13:24	22° E 33'51	0.64054 AU
evening set	3586 Oct 23 15:02	12° ml 31'55		inferior conj	3587 Oct 13 00:45	19° E 59'09	-2°52'58
min. Earth dist.	3586 Oct 27 13:53	8° ml 37'35	0.65531 AU	minimum elong	3587 Oct 13 05:31	19° E 46'41	2°51'17
inferior conj	3586 Oct 29 12:49	6° ml 22'49	-1°52'21	morning rise	3587 Oct 19 15:59	14° E 36'51	
minimum elong	3586 Oct 29 15:56	6° ml 13'50	1°51'05	asc. node	3587 Oct 21 23:37	14° E 05'11	
asc. node	3586 Nov 04 02:36	1° ml 05'44		direct	3587 Oct 22 04:32	14° E 04'58	
morning rise	3586 Nov 04 17:39	0° ml 44'57		morning max el	3587 Oct 28 17:07	17° E 30'21	17°53'47
direct	3586 Nov 07 12:14	0° ml 02'57			3587 Nov 06 17:49	0° ml	
morning max el	3586 Nov 14 00:40	3° ml 33'55	18°13'32	morning set	3587 Nov 14 14:54	13° ml 18'56	
	3586 Dec 01 21:44	0° A			3587 Nov 24 12:37	0° A	
morning set	3586 Dec 02 19:11	1° A 27'30					
desc. node	3586 Dec 11 09:28	15° A 21'45		superior conj	3587 Nov 27 11:53	4° A 51'42	0°05'22
				minimum elong	3587 Nov 27 12:29	4° A 54'09	0°05'16
superior conj	3586 Dec 17 17:02	25° A 23'40	-0°42'09	behind sun begin	3587 Nov 27 02:57	4° A 15'21	
minimum elong	3586 Dec 17 11:42	25° A 02'36	0°41'26	behind sun end	3587 Nov 27 22:01	5° A 32'52	
max. Earth dist.	3586 Dec 20 03:37	29° A 14'17	1.45180 AU	desc. node	3587 Nov 28 06:31	6° A 07'21	
	3586 Dec 20 15:16	0° B		max. Earth dist.	3587 Dec 02 22:06	13° A 34'52	1.44512 AU
evening rise	3587 Jan 03 00:21	20° B 53'49		evening rise	3587 Dec 13 11:48	0° B 05'10	
	3587 Jan 08 20:43	0° \approx			3587 Dec 13 10:27	0° B	
greatest brilliancy	3587 Jan 14 22:20	9° \approx 20'16	-0.7m		3588 Jan 02 15:40	0° \approx	
evening max el	3587 Jan 27 03:07	25° \approx 49'43	19°26'56	evening max el	3588 Jan 10 05:55	9° \approx 21'01	20°25'55
asc. node	3587 Jan 31 01:52	29° \approx 01'35		asc. node	3588 Jan 17 22:53	14° \approx 02'55	
retrograde	3587 Feb 03 07:42	29° \approx 57'50		retrograde	3588 Jan 18 05:49	14° \approx 03'22	
evening set	3587 Feb 06 19:39	28° \approx 46'11		evening set	3588 Jan 22 02:19	12° \approx 37'27	
inferior conj	3587 Feb 12 07:31	22° \approx 51'54	3°16'08	inferior conj	3588 Jan 27 11:28	6° \approx 30'15	2°47'51
minimum elong	3587 Feb 12 05:25	22° \approx 58'44	3°15'46	minimum elong	3588 Jan 27 08:59	6° \approx 38'44	2°47'12
min. Earth dist.	3587 Feb 13 13:17	21° \approx 14'49	0.66489 AU	min. Earth dist.	3588 Jan 28 03:44	5° \approx 34'52	0.67370 AU
morning rise	3587 Feb 17 14:57	16° \approx 38'27		morning rise	3588 Feb 01 15:27	0° \approx 16'31	
direct	3587 Feb 23 20:11	13° \approx 52'49			3588 Feb 01 22:57	30° R 3	
morning max el	3587 Mar 08 06:59	21° \approx 17'06	25°54'50	direct	3588 Feb 07 06:58	27° B 45'45	

	3588 Feb 13 08:21	0°♊		morning rise	3589 Jan 15 21:39	14°♊04'42	
morning max el	3588 Feb 18 15:37	4°♊32'59	24°31'47	direct	3589 Jan 20 22:26	11°♊54'29	
desc. node	3588 Feb 24 05:43	10°♊49'24		morning max el	3589 Jan 31 00:55	17°♊54'18	23°02'49
	3588 Mar 09 05:12	0°♋		desc. node	3589 Feb 10 02:46	0°♊00'43	
morning set	3588 Mar 25 14:54	26°♋36'16			3589 Feb 10 02:33	0°♊	
	3588 Mar 27 12:55	0°♌			3589 Mar 02 07:49	0°♋	
max. Earth dist.	3588 Mar 29 06:33	3°♌07'40	1.37523 AU	morning set	3589 Mar 06 16:30	7°♋08'24	
				max. Earth dist.	3589 Mar 11 01:23	14°♋32'54	1.39689 AU
superior conj	3588 Apr 05 01:45	15°♌53'53	-1°28'49				
minimum elong	3588 Apr 05 06:11	16°♌15'20	1°28'12	superior conj	3589 Mar 18 18:27	28°♋17'47	-1°51'21
	3588 Apr 12 05:06	0°♍		minimum elong	3589 Mar 18 22:55	28°♋38'18	1°50'58
evening rise	3588 Apr 13 16:54	2°♍58'15			3589 Mar 19 16:37	0°♌	
asc. node	3588 Apr 14 22:11	5°♍23'18		evening rise	3589 Mar 28 09:15	16°♌28'59	
	3588 Apr 30 07:31	0°♎		asc. node	3589 Apr 01 19:12	24°♌49'59	
evening max el	3588 Apr 30 11:01	0°♎08'33	19°13'35		3589 Apr 04 16:08	0°♍	
retrograde	3588 May 09 11:16	4°♎31'29		evening max el	3589 Apr 13 13:56	12°♍31'55	18°32'03
evening set	3588 May 11 12:11	4°♎18'59		retrograde	3589 Apr 21 06:07	16°♍18'29	
inferior conj	3588 May 19 21:24	0°♎09'06	0°40'07	evening set	3589 Apr 23 13:22	15°♍59'13	
minimum elong	3588 May 19 23:02	0°♎06'22	0°39'32	inferior conj	3589 May 01 02:46	11°♍30'30	2°08'26
	3588 May 20 02:49	30°♏♎		minimum elong	3589 May 01 06:29	11°♍23'13	2°07'22
desc. node	3588 May 22 04:52	28°♏36'03		min. Earth dist.	3589 May 04 12:43	8°♏51'05	0.58071 AU
min. Earth dist.	3588 May 22 18:09	28°♏14'22	0.56247 AU	morning rise	3589 May 08 20:27	6°♏07'22	
morning rise	3588 May 28 06:47	25°♏18'59		desc. node	3589 May 09 01:54	6°♏00'47	
direct	3588 Jun 02 04:23	24°♏23'25		direct	3589 May 14 17:31	4°♏39'09	
	3588 Jun 14 13:49	0°♐		morning max el	3589 May 29 02:43	12°♏18'38	26°45'43
morning max el	3588 Jun 16 09:29	1°♐39'07	25°23'40		3589 Jun 11 23:07	0°♑	
	3588 Jul 06 05:19	0°♒		morning set	3589 Jun 27 17:25	28°♑57'37	
asc. node	3588 Jul 11 21:26	11°♒12'24			3589 Jun 28 05:15	0°♒	
morning set	3588 Jul 13 07:17	14°♒09'48		asc. node	3589 Jun 28 18:29	1°♒10'15	
superior conj	3588 Jul 20 06:07	29°♒15'40	1°17'49	superior conj	3589 Jul 04 17:49	14°♒11'42	0°59'10
minimum elong	3588 Jul 20 03:46	29°♒02'48	1°17'29	minimum elong	3589 Jul 04 15:38	13°♒59'40	0°58'46
	3588 Jul 20 14:12	0°♓		max. Earth dist.	3589 Jul 04 20:12	14°♒24'51	1.32108 AU
max. Earth dist.	3588 Jul 21 09:13	1°♓43'56	1.32519 AU	evening rise	3589 Jul 11 14:57	29°♒07'47	
evening rise	3588 Jul 27 08:21	14°♓27'04			3589 Jul 12 00:54	0°♓	
	3588 Aug 04 08:17	0°♑			3589 Jul 28 14:47	0°♑	
desc. node	3588 Aug 18 04:12	22°♑00'22		desc. node	3589 Aug 05 01:11	10°♑06'30	
	3588 Aug 24 14:22	0°♒		evening max el	3589 Aug 10 15:47	16°♑10'30	26°43'42
evening max el	3588 Aug 28 12:36	4°♒04'03	27°20'30	retrograde	3589 Aug 24 14:24	23°♑21'37	
retrograde	3588 Sep 11 07:57	11°♒19'20		evening set	3589 Aug 31 10:36	21°♑21'52	
evening set	3588 Sep 18 12:20	8°♒52'58		min. Earth dist.	3589 Sep 04 05:47	18°♑44'59	0.60239 AU
min. Earth dist.	3588 Sep 22 02:47	6°♒00'46	0.62256 AU	inferior conj	3589 Sep 07 11:41	16°♑06'23	-4°38'11
inferior conj	3588 Sep 25 01:29	3°♒16'27	-3°50'22	minimum elong	3589 Sep 07 16:53	15°♑55'45	4°37'16
minimum elong	3588 Sep 25 07:16	3°♒02'58	3°48'46	morning rise	3589 Sep 15 01:09	11°♑24'15	
	3588 Sep 28 21:32	30°♒♑		direct	3589 Sep 17 10:12	11°♑02'59	
morning rise	3588 Oct 02 03:53	28°♒12'50		asc. node	3589 Sep 24 17:41	14°♒34'24	
direct	3588 Oct 04 13:08	27°♒47'43		morning max el	3589 Sep 24 21:04	14°♒42'29	18°09'18
asc. node	3588 Oct 07 20:39	28°♒37'46			3589 Oct 05 09:23	0°♒	
	3588 Oct 09 23:00	0°♓		morning set	3589 Oct 10 16:50	9°♓48'32	
morning max el	3588 Oct 11 08:59	1°♓15'56	17°51'58				
morning set	3588 Oct 27 08:06	26°♓11'40		superior conj	3589 Oct 20 07:10	27°♓35'19	1°15'45
	3588 Oct 29 11:01	0°♔		minimum elong	3589 Oct 20 11:14	27°♓53'36	1°15'18
					3589 Oct 21 15:30	0°♔	
superior conj	3588 Nov 07 08:47	15°♔36'29	0°46'01	max. Earth dist.	3589 Oct 27 22:23	10°♔53'49	1.41401 AU
minimum elong	3588 Nov 07 12:38	15°♔52'52	0°45'30	desc. node	3589 Nov 01 00:32	17°♔41'01	
desc. node	3588 Nov 14 03:33	26°♔54'57		evening rise	3589 Nov 02 01:40	19°♔23'07	
max. Earth dist.	3588 Nov 14 12:43	27°♔32'19	1.43195 AU		3589 Nov 08 19:09	0°♕	
	3588 Nov 16 01:12	0°♕			3589 Nov 30 01:55	0°♖	
evening rise	3588 Nov 21 23:06	9°♕22'14		evening max el	3589 Dec 05 19:45	6°♖29'15	22°55'06
	3588 Dec 05 15:21	0°♗		retrograde	3589 Dec 15 22:16	12°♖28'54	
evening max el	3588 Dec 23 03:13	22°♖53'58	21°36'50	evening set	3589 Dec 20 17:06	10°♖31'24	
retrograde	3589 Jan 01 03:15	28°♖15'01		asc. node	3589 Dec 21 16:56	9°♖36'49	
asc. node	3589 Jan 03 19:53	27°♖35'34		inferior conj	3589 Dec 26 02:05	4°♖08'29	1°26'47
evening set	3589 Jan 05 10:00	26°♖33'46		minimum elong	3589 Dec 26 00:14	4°♖14'50	1°26'04
inferior conj	3589 Jan 10 18:19	20°♖16'51	2°10'56	min. Earth dist.	3589 Dec 25 19:07	4°♖32'31	0.67968 AU
minimum elong	3589 Jan 10 15:55	20°♖25'10	2°10'08		3589 Dec 29 06:36	30°♗♕	
min. Earth dist.	3589 Jan 10 22:29	20°♖02'23	0.67853 AU	morning rise	3589 Dec 31 07:16	27°♗59'44	

direct	3590 Jan 04 17:29	26° ♄ 12'24		direct	3590 Dec 19 15:01	10° ♄ 34'53	
	3590 Jan 12 03:34	0° ♄		morning max el	3590 Dec 27 11:14	15° ♄ 03'57	20°21'12
morning max el	3590 Jan 13 14:24	1° ♄ 23'12	21°37'05		3591 Jan 08 04:01	0° ♄	
desc. node	3590 Jan 27 23:48	19° ♄ 44'04		desc. node	3591 Jan 14 20:50	9° ♄ 50'45	
	3590 Feb 03 23:51	0° ♄		morning set	3591 Jan 24 12:02	24° ♄ 31'12	
morning set	3590 Feb 14 13:04	16° ♄ 17'35			3591 Jan 28 00:31	0° ♄	
max. Earth dist.	3590 Feb 21 01:03	26° ♄ 50'12	1.41799 AU	max. Earth dist.	3591 Feb 03 08:51	10° ♄ 04'04	1.43557 AU
	3590 Feb 22 22:38	0° ♄					
				superior conj	3591 Feb 09 11:12	20° ♄ 00'37	-2°04'57
superior conj	3590 Feb 28 15:10	9° ♄ 43'25	-2°05'08	minimum elong	3591 Feb 09 08:18	19° ♄ 48'39	2°04'52
minimum elong	3590 Feb 28 17:24	9° ♄ 53'05	2°05'05		3591 Feb 15 09:54	0° ♄	
evening rise	3590 Mar 11 13:09	29° ♄ 20'35		evening rise	3591 Feb 22 00:27	11° ♄ 24'48	
	3590 Mar 11 21:46	0° ♄			3591 Mar 04 23:18	0° ♄	
asc. node	3590 Mar 19 16:14	13° ♄ 52'31		asc. node	3591 Mar 06 13:17	2° ♄ 23'25	
evening max el	3590 Mar 27 23:12	25° ♄ 23'10	18°10'28	evening max el	3591 Mar 11 11:32	8° ♄ 33'41	18°08'20
retrograde	3590 Apr 03 19:15	28° ♄ 50'12		retrograde	3591 Mar 17 22:42	11° ♄ 56'40	
evening set	3590 Apr 06 08:58	28° ♄ 21'31		evening set	3591 Mar 20 18:10	11° ♄ 17'11	
inferior conj	3590 Apr 13 04:59	23° ♄ 31'44	3°04'15	inferior conj	3591 Mar 27 00:45	6° ♄ 07'05	3°31'52
minimum elong	3590 Apr 13 08:04	23° ♄ 24'41	3°03'40	minimum elong	3591 Mar 27 02:07	6° ♄ 03'31	3°31'45
min. Earth dist.	3590 Apr 16 12:58	20° ♄ 30'30	0.60223 AU	min. Earth dist.	3591 Mar 29 21:32	3° ♄ 08'38	0.62364 AU
morning rise	3590 Apr 20 04:55	17° ♄ 44'44		morning rise	3591 Apr 02 08:43	0° ♄ 05'30	
desc. node	3590 Apr 25 22:57	15° ♄ 43'10			3591 Apr 02 11:44	30° ♄	
direct	3590 Apr 26 18:47	15° ♄ 41'15		direct	3591 Apr 09 05:52	27° ♄ 33'24	
morning max el	3590 May 11 02:02	23° ♄ 33'26	27°37'01	desc. node	3591 Apr 12 20:01	28° ♄ 10'38	
	3590 May 16 20:46	0° ♄			3591 Apr 16 14:18	0° ♄	
	3590 Jun 05 03:24	0° ♄		morning max el	3591 Apr 23 07:29	5° ♄ 31'15	27°51'09
morning set	3590 Jun 12 00:20	13° ♄ 33'20			3591 May 11 17:59	0° ♄	
asc. node	3590 Jun 15 15:31	21° ♄ 15'20		morning set	3591 May 27 01:58	27° ♄ 50'45	
max. Earth dist.	3590 Jun 18 07:46	27° ♄ 05'16	1.32097 AU		3591 May 28 03:17	0° ♄	
				max. Earth dist.	3591 Jun 01 16:00	9° ♄ 32'33	1.32497 AU
superior conj	3590 Jun 19 05:14	29° ♄ 03'18	0°36'48	asc. node	3591 Jun 02 12:34	11° ♄ 23'28	
minimum elong	3590 Jun 19 03:41	28° ♄ 54'42	0°36'29				
	3590 Jun 19 15:33	0° ♄		superior conj	3591 Jun 03 14:39	13° ♄ 44'56	0°11'24
evening rise	3590 Jun 26 01:07	13° ♄ 56'19		minimum elong	3591 Jun 03 14:07	13° ♄ 42'00	0°11'17
	3590 Jul 04 02:28	0° ♄		behind sun begin	3591 Jun 03 10:26	13° ♄ 22'01	
desc. node	3590 Jul 22 22:11	26° ♄ 56'08		behind sun end	3591 Jun 03 17:48	14° ♄ 02'01	
evening max el	3590 Jul 23 11:41	27° ♄ 28'51	25°35'40	evening rise	3591 Jun 10 12:52	28° ♄ 46'07	
	3590 Jul 26 08:57	0° ♄			3591 Jun 11 02:49	0° ♄	
retrograde	3590 Aug 06 11:11	4° ♄ 35'26			3591 Jun 28 02:15	0° ♄	
evening set	3590 Aug 12 10:22	3° ♄ 12'04		evening max el	3591 Jul 05 01:30	8° ♄ 06'34	24°05'36
min. Earth dist.	3590 Aug 16 23:43	0° ♄ 33'19	0.58185 AU	desc. node	3591 Jul 09 19:13	11° ♄ 58'57	
	3590 Aug 17 19:01	30° ♄		retrograde	3591 Jul 18 20:23	15° ♄ 03'17	
inferior conj	3590 Aug 20 03:50	28° ♄ 19'04	-5°06'01	evening set	3591 Jul 23 10:22	14° ♄ 16'44	
minimum elong	3590 Aug 20 05:44	28° ♄ 15'42	5°05'54	min. Earth dist.	3591 Jul 29 12:01	11° ♄ 18'18	0.56384 AU
morning rise	3590 Aug 28 03:21	23° ♄ 59'57		inferior conj	3591 Jul 31 23:41	9° ♄ 46'09	-4°59'05
direct	3590 Aug 30 15:25	23° ♄ 40'20		minimum elong	3591 Jul 31 19:48	9° ♄ 52'10	4°58'43
morning max el	3590 Sep 08 02:07	27° ♄ 41'06	18°47'20	morning rise	3591 Aug 09 07:52	5° ♄ 47'06	
	3590 Sep 10 06:23	0° ♄		direct	3591 Aug 12 01:13	5° ♄ 27'46	
asc. node	3590 Sep 11 14:45	1° ♄ 40'23		morning max el	3591 Aug 21 21:08	10° ♄ 01'51	19°47'02
morning set	3590 Sep 24 12:29	23° ♄ 57'05		asc. node	3591 Aug 29 11:49	19° ♄ 40'17	
	3590 Sep 27 14:35	0° ♄			3591 Sep 04 08:50	0° ♄	
				morning set	3591 Sep 08 15:33	8° ♄ 26'41	
superior conj	3590 Oct 03 02:05	10° ♄ 34'56	1°34'22				
minimum elong	3590 Oct 03 04:49	10° ♄ 47'52	1°34'10	superior conj	3591 Sep 16 12:04	24° ♄ 19'05	1°43'16
max. Earth dist.	3590 Oct 10 04:03	23° ♄ 34'26	1.39349 AU	minimum elong	3591 Sep 16 13:04	24° ♄ 24'02	1°43'14
	3590 Oct 13 20:47	0° ♄			3591 Sep 19 09:38	0° ♄	
evening rise	3590 Oct 14 03:11	0° ♄ 27'18		max. Earth dist.	3591 Sep 22 08:52	5° ♄ 39'04	1.37292 AU
desc. node	3590 Oct 18 21:32	8° ♄ 22'18		evening rise	3591 Sep 26 03:22	12° ♄ 33'57	
	3590 Nov 02 03:55	0° ♄		desc. node	3591 Oct 05 18:33	28° ♄ 54'04	
evening max el	3590 Nov 18 09:14	20° ♄ 08'24	24°14'46		3591 Oct 06 11:05	0° ♄	
retrograde	3590 Nov 29 13:47	26° ♄ 41'55			3591 Oct 28 06:01	0° ♄	
evening set	3590 Dec 04 22:03	24° ♄ 28'11		evening max el	3591 Oct 31 21:27	3° ♄ 49'47	25°29'10
asc. node	3590 Dec 08 13:58	20° ♄ 26'28		retrograde	3591 Nov 13 00:55	10° ♄ 48'45	
min. Earth dist.	3590 Dec 09 15:18	19° ♄ 02'51	0.67734 AU	evening set	3591 Nov 13 23:09	8° ♄ 20'31	
inferior conj	3590 Dec 10 09:02	18° ♄ 03'10	0°36'34	min. Earth dist.	3591 Nov 23 08:42	3° ♄ 29'53	0.67151 AU
minimum elong	3590 Dec 10 08:10	18° ♄ 06'06	0°36'12	inferior conj	3591 Nov 24 13:21	1° ♄ 57'47	-0°18'37
morning rise	3590 Dec 15 18:19	11° ♄ 59'56		minimum elong	3591 Nov 24 13:49	1° ♄ 56'14	0°18'24

asc. node	3591 Nov 25 11:02	0°♊48'35		asc. node	3592 Nov 11 08:06	11°♋40'14	
	3591 Nov 26 02:43	30°♋		morning rise	3592 Nov 13 12:35	10°♋03'52	
morning rise	3591 Nov 30 04:48	26°♋02'16		direct	3592 Nov 16 11:36	9°♋14'34	
direct	3591 Dec 03 13:37	24°♋56'57		morning max el	3592 Nov 23 03:17	12°♋53'04	18°32'38
morning max el	3591 Dec 10 16:01	28°♋55'20	19°19'04		3592 Dec 05 12:35	0°♊	
	3591 Dec 11 16:45	0°♊		morning set	3592 Dec 13 10:41	12°♊34'57	
greatest brilliancy	3591 Dec 24 05:04	17°♊08'19	-0.7m	desc. node	3592 Dec 18 14:52	20°♊48'34	
desc. node	3592 Jan 01 17:51	0°♊13'50			3592 Dec 24 10:34	0°♊	
	3592 Jan 01 14:17	0°♊		superior conj	3592 Dec 29 08:50	7°♊44'25	-1°08'55
morning set	3592 Jan 03 11:51	2°♊56'29		minimum elong	3592 Dec 29 00:36	7°♊12'07	1°07'56
max. Earth dist.	3592 Jan 16 23:01	23°♊58'32	1.44743 AU	max. Earth dist.	3592 Dec 29 16:57	8°♊16'14	1.45232 AU
superior conj	3592 Jan 20 05:47	29°♊10'39	-1°46'09		3593 Jan 12 12:12	0°♋	
minimum elong	3592 Jan 19 21:30	28°♊37'43	1°45'29	evening rise	3593 Jan 14 05:50	2°♋45'07	
	3592 Jan 20 18:10	0°♋		greatest brilliancy	3593 Jan 23 07:12	17°♋06'40	-0.8m
evening rise	3592 Feb 03 14:49	22°♋33'38			3593 Jan 31 22:38	0°♌	
	3592 Feb 08 02:16	0°♌		evening max el	3593 Feb 05 10:05	5°♌24'08	18°59'39
asc. node	3592 Feb 21 10:20	20°♌12'47		asc. node	3593 Feb 07 07:22	7°♌08'11	
evening max el	3592 Feb 22 23:58	21°♌55'52	18°25'06	retrograde	3593 Feb 12 06:34	9°♌16'22	
retrograde	3592 Feb 29 11:48	25°♌27'57		evening set	3593 Feb 15 14:12	8°♌12'38	
evening set	3592 Mar 03 12:58	24°♌36'49		inferior conj	3593 Feb 21 04:38	2°♌27'16	3°27'45
inferior conj	3592 Mar 09 09:53	19°♌08'08	3°37'54	minimum elong	3593 Feb 21 03:01	2°♌32'22	3°27'33
minimum elong	3592 Mar 09 09:32	19°♌09'09	3°37'53	min. Earth dist.	3593 Feb 22 19:01	0°♌26'36	0.65794 AU
min. Earth dist.	3592 Mar 11 15:43	16°♌32'18	0.64259 AU		3593 Feb 23 03:39	30°♋	
morning rise	3592 Mar 15 05:23	12°♌58'52		morning rise	3593 Feb 26 15:28	26°♋14'34	
direct	3592 Mar 22 01:13	10°♌10'36		direct	3593 Mar 05 03:24	23°♋24'07	
desc. node	3592 Mar 29 17:04	12°♌59'53		desc. node	3593 Mar 16 14:06	29°♋35'26	
morning max el	3592 Apr 04 16:40	18°♌05'54	27°28'51		3593 Mar 17 00:28	0°♌	
	3592 Apr 14 16:40	0°♍		morning max el	3593 Mar 18 02:33	1°♌04'14	26°35'45
	3592 May 03 15:10	0°♍			3593 Apr 08 17:46	0°♍	
morning set	3592 May 09 19:46	11°♍42'05		morning set	3593 Apr 23 02:12	24°♍55'44	
max. Earth dist.	3592 May 14 16:48	21°♍34'15	1.33328 AU		3593 Apr 25 17:34	0°♍	
superior conj	3592 May 17 20:11	28°♍10'59	-0°16'16	max. Earth dist.	3593 Apr 27 06:39	3°♍02'16	1.34623 AU
minimum elong	3592 May 17 21:01	28°♍15'22	0°16'06	superior conj	3593 May 01 19:31	12°♍13'41	-0°45'06
	3592 May 18 16:38	0°♎		minimum elong	3593 May 01 21:54	12°♍25'58	0°44'39
asc. node	3592 May 19 09:37	1°♎30'51		asc. node	3593 May 06 06:39	21°♍32'34	
evening rise	3592 May 25 00:22	13°♎31'07		evening rise	3593 May 09 09:33	28°♍03'58	
	3592 Jun 02 09:04	0°♏			3593 May 10 08:02	0°♎	
evening max el	3592 Jun 15 15:45	18°♏31'48	22°28'46	evening max el	3593 May 28 14:14	29°♎16'16	20°59'31
desc. node	3592 Jun 25 16:16	24°♏40'13			3593 May 29 08:46	0°♏	
retrograde	3592 Jun 28 17:37	25°♏01'43		retrograde	3593 Jun 09 06:37	4°♏59'13	
evening set	3592 Jul 01 20:00	24°♏40'31		evening set	3593 Jun 11 10:45	4°♏48'07	
min. Earth dist.	3592 Jul 09 22:57	21°♏08'38	0.55181 AU	desc. node	3593 Jun 12 13:19	4°♏34'20	
inferior conj	3592 Jul 11 01:38	20°♏30'45	-4°04'02	inferior conj	3593 Jun 20 19:06	0°♏50'29	-2°23'19
minimum elong	3592 Jul 10 17:27	20°♏42'24	4°02'05	minimum elong	3593 Jun 20 12:31	0°♏59'47	2°21'03
morning rise	3592 Jul 19 16:58	16°♏40'01		min. Earth dist.	3593 Jun 21 10:40	0°♏28'28	0.54857 AU
direct	3592 Jul 22 17:31	16°♏19'14			3593 Jun 22 06:55	30°♋	
morning max el	3592 Aug 03 04:32	21°♏39'00	21°07'29	morning rise	3593 Jun 29 14:13	26°♋49'14	
	3592 Aug 10 04:46	0°♎		direct	3593 Jul 03 02:57	26°♋22'21	
asc. node	3592 Aug 15 08:52	8°♎21'44			3593 Jul 12 23:28	0°♏	
morning set	3592 Aug 22 23:27	23°♎10'24		morning max el	3593 Jul 16 01:13	2°♏33'08	22°44'16
	3592 Aug 26 05:58	0°♐		asc. node	3593 Aug 02 05:54	27°♏33'57	
superior conj	3592 Aug 30 08:44	8°♐34'58	1°44'03		3593 Aug 03 11:50	0°♎	
minimum elong	3592 Aug 30 08:12	8°♐32'12	1°44'02	morning set	3593 Aug 07 10:08	8°♎01'55	
max. Earth dist.	3592 Sep 03 18:17	17°♐29'38	1.35464 AU	superior conj	3593 Aug 14 12:37	23°♎11'39	1°38'08
evening rise	3592 Sep 07 22:31	25°♐34'14		minimum elong	3593 Aug 14 10:59	23°♎02'59	1°38'01
	3592 Sep 10 07:48	0°♑		max. Earth dist.	3593 Aug 17 12:27	29°♎30'04	1.33999 AU
desc. node	3592 Sep 21 15:34	19°♑11'01			3593 Aug 17 18:13	0°♐	
	3592 Sep 28 22:19	0°♒		evening rise	3593 Aug 22 08:06	9°♐15'51	
evening max el	3592 Oct 13 09:47	17°♒29'43	26°30'49		3593 Sep 02 18:45	0°♑	
retrograde	3592 Oct 26 07:04	24°♒43'18		desc. node	3593 Sep 08 12:36	9°♑06'06	
evening set	3592 Nov 01 18:29	22°♒04'47			3593 Sep 24 21:42	0°♒	
min. Earth dist.	3592 Nov 05 21:01	17°♒49'47	0.66219 AU	evening max el	3593 Sep 25 22:15	0°♒59'56	27°12'17
inferior conj	3592 Nov 07 13:06	15°♒49'03	-1°17'28	retrograde	3593 Oct 09 07:29	8°♒17'59	
minimum elong	3592 Nov 07 15:13	15°♒42'41	1°16'34	evening set	3593 Oct 16 05:43	5°♒36'12	

min. Earth dist.	3593 Oct 20 01:57	1°♄56'37	0.64937 AU	min. Earth dist.	3594 Oct 02 21:22	15°♄41'17	0.63320 AU
	3593 Oct 21 20:11	30°♄		inferior conj	3594 Oct 05 13:38	13°♄01'20	-3°18'05
inferior conj	3593 Oct 22 06:05	29°♄32'27	-2°18'12	minimum elong	3594 Oct 05 18:58	12°♄48'03	3°16'21
minimum elong	3593 Oct 22 09:57	29°♄21'46	2°16'43	morning rise	3594 Oct 12 09:31	7°♄46'17	
morning rise	3593 Oct 28 15:11	24°♄00'35		direct	3594 Oct 14 20:23	7°♄17'33	
asc. node	3593 Oct 29 05:07	23°♄46'10		asc. node	3594 Oct 16 02:09	7°♄25'03	
direct	3593 Oct 31 06:48	23°♄23'23		morning max el	3594 Oct 21 11:04	10°♄43'07	17°50'46
morning max el	3593 Nov 06 18:35	26°♄51'19	18°02'57		3594 Nov 03 09:48	0°♄	
	3593 Nov 09 12:35	0°♄		morning set	3594 Nov 06 20:47	6°♄01'41	
morning set	3593 Nov 24 15:07	23°♄41'56					
	3593 Nov 28 10:21	0°♄		superior conj	3594 Nov 18 21:46	26°♄36'19	0°23'49
desc. node	3593 Dec 05 11:53	11°♄31'08		minimum elong	3594 Nov 19 00:11	26°♄46'18	0°23'29
					3594 Nov 20 23:13	0°♄	
superior conj	3593 Dec 08 16:27	16°♄37'47	-0°21'41	desc. node	3594 Nov 22 08:54	2°♄17'31	
minimum elong	3593 Dec 08 13:45	16°♄27'02	0°21'19	max. Earth dist.	3594 Nov 25 05:42	6°♄55'13	1.44023 AU
max. Earth dist.	3593 Dec 12 12:11	22°♄41'18	1.44980 AU	evening rise	3594 Dec 04 09:47	21°♄19'34	
	3593 Dec 17 04:04	0°♄			3594 Dec 10 02:08	0°♄	
evening rise	3593 Dec 25 00:29	12°♄10'58			3594 Dec 31 10:34	0°♄	
	3594 Jan 05 15:51	0°♄		evening max el	3595 Jan 02 16:34	2°♄27'50	20°54'54
greatest brilliancy	3594 Jan 07 17:47	3°♄06'42	-0.7m	retrograde	3595 Jan 11 02:02	7°♄25'48	
evening max el	3594 Jan 19 16:02	18°♄55'41	19°50'24	asc. node	3595 Jan 12 01:25	7°♄20'36	
asc. node	3594 Jan 25 04:24	22°♄55'49		evening set	3595 Jan 15 02:48	5°♄53'19	
retrograde	3594 Jan 27 04:05	23°♄17'13		inferior conj	3595 Jan 20 11:23	29°♄41'42	2°33'07
evening set	3594 Jan 30 19:29	21°♄59'44		minimum elong	3595 Jan 20 08:53	29°♄50'19	2°32'24
inferior conj	3594 Feb 05 05:58	15°♄59'53	3°05'18		3595 Jan 20 06:03	30°♄	
minimum elong	3594 Feb 05 03:38	16°♄07'38	3°04'48	min. Earth dist.	3595 Jan 20 22:19	29°♄04'07	0.67627 AU
min. Earth dist.	3594 Feb 06 05:53	14°♄40'17	0.66918 AU	morning rise	3595 Jan 25 14:47	23°♄28'43	
morning rise	3594 Feb 10 11:34	9°♄46'12		direct	3595 Jan 31 00:10	21°♄06'15	
direct	3594 Feb 16 11:22	7°♄05'40		morning max el	3595 Feb 10 19:58	27°♄33'17	23°54'07
morning max el	3594 Feb 28 11:29	14°♄15'33	25°20'47		3595 Feb 13 03:13	0°♄	
desc. node	3594 Mar 03 11:07	17°♄27'49		desc. node	3595 Feb 18 08:09	6°♄14'33	
	3594 Mar 13 07:40	0°♄			3595 Mar 06 23:58	0°♄	
	3594 Apr 01 13:25	0°♄		morning set	3595 Mar 18 09:34	18°♄35'29	
morning set	3594 Apr 05 16:45	7°♄18'50		max. Earth dist.	3595 Mar 22 05:03	25°♄14'53	1.38442 AU
max. Earth dist.	3594 Apr 09 09:10	14°♄06'01	1.36369 AU		3595 Mar 24 20:27	0°♄	
superior conj	3594 Apr 15 09:55	25°♄45'43	-1°13'31	superior conj	3595 Mar 29 11:48	8°♄37'23	-1°39'09
minimum elong	3594 Apr 15 13:45	26°♄04'46	1°12'53	minimum elong	3595 Mar 29 16:27	8°♄59'24	1°38'36
	3594 Apr 17 12:46	0°♄		evening rise	3595 Apr 07 12:08	26°♄07'42	
asc. node	3594 Apr 23 03:40	11°♄24'37			3595 Apr 09 11:50	0°♄	
evening rise	3594 Apr 23 14:20	12°♄18'37		asc. node	3595 Apr 10 00:43	1°♄02'06	
	3594 May 03 00:12	0°♄		evening max el	3595 Apr 23 22:18	22°♄41'04	18°53'20
evening max el	3594 May 11 00:40	10°♄38'41	19°46'33	retrograde	3595 May 02 07:24	26°♄46'38	
retrograde	3594 May 20 23:12	15°♄28'23		evening set	3595 May 04 10:55	26°♄31'35	
evening set	3594 May 22 22:29	15°♄17'51		inferior conj	3595 May 12 11:33	22°♄13'47	1°21'35
desc. node	3594 May 30 10:20	12°♄05'11		minimum elong	3595 May 12 14:29	22°♄08'32	1°20'36
inferior conj	3594 May 31 18:30	11°♄16'00	-0°23'44	min. Earth dist.	3595 May 15 15:52	19°♄58'03	0.56965 AU
minimum elong	3594 May 31 17:26	11°♄17'40	0°23'20	desc. node	3595 May 17 07:20	18°♄53'31	
min. Earth dist.	3594 Jun 02 23:53	9°♄53'45	0.55500 AU	morning rise	3595 May 20 14:52	17°♄09'02	
morning rise	3594 Jun 09 10:07	6°♄46'43		direct	3595 May 25 22:49	16°♄00'50	
direct	3594 Jun 13 18:24	6°♄04'58		morning max el	3595 Jun 09 06:37	23°♄27'23	26°01'44
morning max el	3594 Jun 27 15:43	12°♄59'53	24°27'20		3595 Jun 15 04:04	0°♄	
	3594 Jul 10 18:45	0°♄			3595 Jul 03 13:54	0°♄	
asc. node	3594 Jul 20 02:55	17°♄08'59		asc. node	3595 Jul 06 23:58	7°♄00'25	
morning set	3594 Jul 22 21:52	22°♄56'17		morning set	3595 Jul 07 09:07	7°♄48'39	
	3594 Jul 26 04:48	0°♄					
				superior conj	3595 Jul 14 08:15	22°♄57'00	1°10'24
superior conj	3594 Jul 29 21:08	8°♄01'10	1°26'38	minimum elong	3595 Jul 14 05:55	22°♄44'09	1°10'01
minimum elong	3594 Jul 29 18:55	7°♄49'03	1°26'22	max. Earth dist.	3595 Jul 15 00:44	24°♄27'38	1.32298 AU
max. Earth dist.	3594 Jul 31 15:29	11°♄50'28	1.32946 AU		3595 Jul 17 13:34	0°♄	
evening rise	3594 Aug 06 04:16	23°♄27'44		evening rise	3595 Jul 21 07:50	8°♄00'38	
	3594 Aug 09 11:13	0°♄			3595 Aug 01 21:26	0°♄	
desc. node	3594 Aug 26 09:38	28°♄29'53		desc. node	3595 Aug 13 06:38	17°♄09'44	
	3594 Aug 27 11:11	0°♄		evening max el	3595 Aug 21 15:46	26°♄39'34	27°08'55
evening max el	3594 Sep 08 09:06	14°♄07'36	27°26'37		3595 Aug 25 14:53	0°♄	
retrograde	3594 Sep 22 01:24	21°♄23'52		retrograde	3595 Sep 04 12:18	3°♄52'34	
evening set	3594 Sep 29 05:47	18°♄48'33		evening set	3595 Sep 11 14:51	1°♄35'50	

	3595 Sep 13 20:53	30° \mathbb{R} \mathbb{M}		evening set	3596 Aug 23 04:06	13° \mathbb{M} 49'22	
min. Earth dist.	3595 Sep 15 06:03	28° \mathbb{M} 52'20 0.61419 AU		min. Earth dist.	3596 Aug 27 04:44	11° \mathbb{M} 14'12 0.59354 AU	
inferior conj	3595 Sep 18 08:39	26° \mathbb{M} 08'23 -4°12'22		inferior conj	3596 Aug 30 11:32	8° \mathbb{M} 43'16 -4°53'14	
minimum elong	3595 Sep 18 14:28	25° \mathbb{M} 55'35 4°10'59		minimum elong	3596 Aug 30 15:43	8° \mathbb{M} 35'13 4°52'42	
morning rise	3595 Sep 25 15:50	21° \mathbb{M} 13'42		morning rise	3596 Sep 07 05:31	4° \mathbb{M} 11'18	
direct	3595 Sep 28 00:45	20° \mathbb{M} 50'25		direct	3596 Sep 09 15:26	3° \mathbb{M} 51'03	
asc. node	3595 Oct 02 23:11	22° \mathbb{M} 35'19		morning max el	3596 Sep 17 11:21	7° \mathbb{M} 38'04 18°22'56	
morning max el	3595 Oct 05 01:46	24° \mathbb{M} 21'55 17°57'00		asc. node	3596 Sep 18 20:14	9° \mathbb{M} 03'13	
	3595 Oct 09 15:52	0° \mathbb{L}			3596 Oct 01 20:01	0° \mathbb{L}	
morning set	3595 Oct 20 21:17	19° \mathbb{L} 15'17		morning set	3596 Oct 03 11:08	3° \mathbb{L} 06'29	
	3595 Oct 26 18:58	0° \mathbb{M}					
superior conj	3595 Oct 31 06:04	7° \mathbb{M} 54'18 1°00'02		superior conj	3596 Oct 12 13:54	20° \mathbb{L} 20'58 1°24'56	
minimum elong	3595 Oct 31 10:18	8° \mathbb{M} 12'43 0°59'30		minimum elong	3596 Oct 12 17:31	20° \mathbb{L} 37'33 1°24'34	
max. Earth dist.	3595 Nov 07 18:46	20° \mathbb{M} 40'31 1.42478 AU			3596 Oct 17 22:45	0° \mathbb{M}	
desc. node	3595 Nov 09 05:56	23° \mathbb{M} 04'50		max. Earth dist.	3596 Oct 20 02:05	3° \mathbb{M} 42'56 1.40540 AU	
	3595 Nov 13 13:08	0° \mathbb{X}		evening rise	3596 Oct 24 13:59	11° \mathbb{M} 17'28	
evening rise	3595 Nov 14 02:06	0° \mathbb{X} 51'22		desc. node	3596 Oct 26 02:57	13° \mathbb{M} 49'07	
	3595 Dec 03 15:32	0° \mathbb{Z}			3596 Nov 05 11:48	0° \mathbb{X}	
evening max el	3595 Dec 16 11:38	16° \mathbb{Z} 01'04 22°09'28		evening max el	3596 Nov 28 02:27	29° \mathbb{X} 36'53 23°29'13	
retrograde	3595 Dec 25 22:41	21° \mathbb{Z} 38'51			3596 Nov 28 11:47	0° \mathbb{Z}	
asc. node	3595 Dec 29 22:27	20° \mathbb{Z} 13'38		retrograde	3596 Dec 08 16:30	5° \mathbb{Z} 52'35	
evening set	3595 Dec 30 10:27	19° \mathbb{Z} 50'29		evening set	3596 Dec 13 16:52	3° \mathbb{Z} 48'01	
inferior conj	3596 Jan 04 18:51	13° \mathbb{Z} 30'22 1°52'59		asc. node	3596 Dec 15 19:29	1° \mathbb{Z} 40'27	
minimum elong	3596 Jan 04 16:38	13° \mathbb{Z} 38'03 1°52'12			3596 Dec 17 04:04	30° \mathbb{R} \mathbb{X}	
min. Earth dist.	3596 Jan 04 18:06	13° \mathbb{Z} 32'58 0.67946 AU		min. Earth dist.	3596 Dec 18 14:55	28° \mathbb{X} 03'09 0.67903 AU	
morning rise	3596 Jan 09 22:42	7° \mathbb{Z} 19'35		inferior conj	3596 Dec 19 02:31	27° \mathbb{X} 23'25 1°06'09	
direct	3596 Jan 14 17:08	5° \mathbb{Z} 19'17		minimum elong	3596 Dec 19 01:02	27° \mathbb{X} 28'29 1°05'34	
morning max el	3596 Jan 24 06:47	10° \mathbb{Z} 57'46 22°25'34		morning rise	3596 Dec 24 09:10	21° \mathbb{X} 16'38	
desc. node	3596 Feb 05 05:11	25° \mathbb{Z} 40'22		direct	3596 Dec 28 13:21	19° \mathbb{X} 39'08	
	3596 Feb 08 07:09	0° \mathbb{A}		morning max el	3597 Jan 05 23:15	24° \mathbb{X} 31'35 21°03'19	
morning set	3596 Feb 26 22:57	28° \mathbb{A} 32'05			3597 Jan 10 18:42	0° \mathbb{Z}	
	3596 Feb 27 20:27	0° \mathbb{H}		desc. node	3597 Jan 22 02:13	15° \mathbb{Z} 34'18	
max. Earth dist.	3596 Mar 03 01:40	7° \mathbb{H} 01'45 1.40612 AU			3597 Jan 31 17:08	0° \mathbb{A}	
superior conj	3596 Mar 10 20:38	20° \mathbb{H} 37'39 -1°58'33		morning set	3597 Feb 05 08:32	7° \mathbb{A} 11'54	
minimum elong	3596 Mar 11 00:30	20° \mathbb{H} 54'59 1°58'19		max. Earth dist.	3597 Feb 13 04:14	19° \mathbb{A} 42'01 1.42594 AU	
	3596 Mar 15 23:34	0° \mathbb{Y}			3597 Feb 19 08:58	0° \mathbb{H}	
evening rise	3596 Mar 20 23:43	9° \mathbb{Y} 23'06		superior conj	3597 Feb 20 07:21	1° \mathbb{H} 34'59 -2°07'06	
asc. node	3596 Mar 26 21:45	20° \mathbb{Y} 19'26		minimum elong	3597 Feb 20 07:42	1° \mathbb{H} 36'32 2°07'06	
	3596 Apr 01 19:59	0° \mathbb{B}		evening rise	3597 Mar 03 21:10	21° \mathbb{H} 55'48	
evening max el	3596 Apr 06 04:17	5° \mathbb{B} 17'06 18°20'23			3597 Mar 08 09:26	0° \mathbb{Y}	
retrograde	3596 Apr 13 10:39	8° \mathbb{B} 53'47		asc. node	3597 Mar 13 18:49	9° \mathbb{Y} 09'55	
evening set	3596 Apr 15 20:35	8° \mathbb{B} 30'51		evening max el	3597 Mar 20 15:17	18° \mathbb{Y} 18'02 18°07'17	
inferior conj	3596 Apr 23 02:09	3° \mathbb{B} 53'05 2°35'56		retrograde	3597 Mar 27 06:26	21° \mathbb{Y} 41'42	
minimum elong	3596 Apr 23 05:49	3° \mathbb{B} 45'21 2°35'02		evening set	3597 Mar 29 22:34	21° \mathbb{Y} 08'42	
min. Earth dist.	3596 Apr 26 12:41	1° \mathbb{B} 01'13 0.58963 AU		inferior conj	3597 Apr 05 12:24	16° \mathbb{Y} 10'27 3°18'58	
	3596 Apr 27 20:46	30° \mathbb{R} \mathbb{Y}		minimum elong	3597 Apr 05 14:49	16° \mathbb{Y} 04'36 3°18'37	
morning rise	3596 Apr 30 12:12	28° \mathbb{Y} 18'09		min. Earth dist.	3597 Apr 08 16:32	13° \mathbb{Y} 07'12 0.61145 AU	
desc. node	3596 May 03 04:23	27° \mathbb{Y} 08'30		morning rise	3597 Apr 12 05:10	10° \mathbb{Y} 16'03	
direct	3596 May 06 17:14	26° \mathbb{Y} 34'52		direct	3597 Apr 18 23:19	7° \mathbb{Y} 58'46	
	3596 May 15 22:49	0° \mathbb{B}		desc. node	3597 Apr 20 01:25	8° \mathbb{Y} 02'10	
morning max el	3596 May 21 02:35	4° \mathbb{B} 21'17 27°11'56		morning max el	3597 May 03 04:47	15° \mathbb{Y} 55'11 27°47'37	
	3596 Jun 08 22:04	0° \mathbb{I}			3597 May 14 17:20	0° \mathbb{B}	
morning set	3596 Jun 20 18:08	22° \mathbb{I} 32'26			3597 Jun 01 11:06	0° \mathbb{I}	
asc. node	3596 Jun 22 21:00	27° \mathbb{I} 02'00		morning set	3597 Jun 04 23:07	7° \mathbb{I} 01'42	
	3596 Jun 24 05:59	0° \mathbb{E}		asc. node	3597 Jun 09 18:05	17° \mathbb{I} 09'16	
superior conj	3596 Jun 27 20:03	7° \mathbb{E} 51'59 0°50'07		max. Earth dist.	3597 Jun 10 22:58	19° \mathbb{I} 46'08 1.32214 AU	
minimum elong	3596 Jun 27 18:05	7° \mathbb{E} 41'07 0°49'43		superior conj	3597 Jun 12 06:54	22° \mathbb{I} 40'35 0°26'23	
max. Earth dist.	3596 Jun 27 12:29	7° \mathbb{E} 10'14 1.32051 AU		minimum elong	3597 Jun 12 05:43	22° \mathbb{I} 34'08 0°26'07	
evening rise	3596 Jul 04 16:13	22° \mathbb{E} 45'26			3597 Jun 15 15:02	0° \mathbb{E}	
	3596 Jul 08 04:25	0° \mathbb{Q}		evening rise	3597 Jun 19 03:19	7° \mathbb{E} 35'29	
	3596 Jul 26 05:08	0° \mathbb{M}			3597 Jun 30 19:00	0° \mathbb{Q}	
desc. node	3596 Jul 30 03:39	4° \mathbb{M} 46'38		evening max el	3597 Jul 15 08:31	19° \mathbb{Q} 23'45 24°59'13	
evening max el	3596 Aug 02 15:41	8° \mathbb{M} 24'44 26°18'07		desc. node	3597 Jul 17 00:40	20° \mathbb{Q} 55'05	
retrograde	3596 Aug 16 15:05	15° \mathbb{M} 34'51		retrograde	3597 Jul 29 07:32	26° \mathbb{Q} 27'52	
				evening set	3597 Aug 03 17:30	25° \mathbb{Q} 21'00	

min. Earth dist.	3597 Aug 08 20:08	22°♎35'29	0.57370 AU	evening max el	3598 Jun 26 21:46	29°♏52'47	23°24'20
inferior conj	3597 Aug 11 19:10	20°♎37'11	-5°08'15		3598 Jun 27 00:46	0°♎	
minimum elong	3597 Aug 11 18:48	20°♎37'49	5°08'16	desc. node	3598 Jul 03 21:42	5°♎02'02	
morning rise	3597 Aug 19 22:34	16°♎27'14		retrograde	3598 Jul 10 11:17	6°♎39'53	
direct	3597 Aug 22 12:25	16°♎08'02		evening set	3598 Jul 14 09:23	6°♎06'15	
morning max el	3597 Aug 31 12:31	20°♎21'49	19°09'59	min. Earth dist.	3598 Jul 21 07:34	2°♎55'08	0.55786 AU
asc. node	3597 Sep 05 17:17	26°♎33'40		inferior conj	3598 Jul 23 06:48	1°♎45'21	-4°42'03
	3597 Sep 07 23:39	0°♎		minimum elong	3598 Jul 23 00:34	1°♎54'36	4°41'04
morning set	3597 Sep 17 10:17	17°♎24'29			3598 Jul 26 08:41	30°♎♏	
	3597 Sep 23 18:30	0°♎		morning rise	3598 Jul 31 18:11	27°♏51'24	
				direct	3598 Aug 03 14:27	27°♏31'35	
superior conj	3597 Sep 25 15:49	3°♎40'49	1°39'13		3598 Aug 11 02:18	0°♎	
minimum elong	3597 Sep 25 17:49	3°♎50'28	1°39'06	morning max el	3598 Aug 14 02:34	2°♎24'08	20°18'45
max. Earth dist.	3597 Oct 02 06:16	16°♎03'57	1.38461 AU	asc. node	3598 Aug 23 14:21	14°♎52'41	
evening rise	3597 Oct 06 01:29	22°♎48'57			3598 Aug 31 15:52	0°♎	
	3597 Oct 10 06:52	0°♎		morning set	3598 Sep 01 15:43	2°♎01'09	
desc. node	3597 Oct 12 23:59	4°♎26'44					
	3597 Oct 30 08:25	0°♎		superior conj	3598 Sep 09 06:49	17°♎39'50	1°44'29
evening max el	3597 Nov 10 15:12	13°♎17'00	24°47'38	minimum elong	3598 Sep 09 07:07	17°♎41'23	1°44'29
retrograde	3597 Nov 22 06:19	20°♎02'54		max. Earth dist.	3598 Sep 14 12:42	28°♎00'56	1.36483 AU
evening set	3597 Nov 27 20:22	17°♎42'56			3598 Sep 15 13:39	0°♎	
min. Earth dist.	3597 Dec 02 10:19	12°♎31'55	0.67521 AU	evening rise	3598 Sep 18 10:20	5°♎20'18	
asc. node	3597 Dec 02 16:33	12°♎11'19		desc. node	3598 Sep 29 21:00	24°♎53'11	
inferior conj	3597 Dec 03 08:34	11°♎18'13	0°13'42		3598 Oct 03 03:54	0°♎	
minimum elong	3597 Dec 03 08:14	11°♎19'20	0°13'34	evening max el	3598 Oct 24 03:39	26°♎59'39	25°57'27
transit middle	3597 Dec 03 08:14	11°♎19'20	0°13'34		3598 Oct 27 12:47	0°♎	
transit begin	3597 Dec 03 06:43	11°♎24'21		retrograde	3598 Nov 05 15:15	4°♎05'22	
transit end	3597 Dec 03 09:45	11°♎14'20		evening set	3598 Nov 11 19:15	1°♎32'23	
morning rise	3597 Dec 08 20:13	5°♎17'41			3598 Nov 13 10:25	30°♎♎	
direct	3597 Dec 12 11:37	4°♎01'21		min. Earth dist.	3598 Nov 16 01:52	26°♎56'42	0.66799 AU
morning max el	3597 Dec 19 23:23	8°♎16'15	19°52'52	inferior conj	3598 Nov 17 11:12	25°♎12'15	-0°43'10
	3598 Jan 05 03:01	0°♎		minimum elong	3598 Nov 17 12:21	25°♎08'39	0°42'41
desc. node	3598 Jan 08 23:14	5°♎48'16		asc. node	3598 Nov 19 13:34	22°♎39'38	
morning set	3598 Jan 15 04:26	15°♎19'48		morning rise	3598 Nov 23 05:50	19°♎20'37	
	3598 Jan 24 13:53	0°♎		direct	3598 Nov 26 10:19	18°♎22'24	
max. Earth dist.	3598 Jan 26 14:33	3°♎13'07	1.44135 AU	morning max el	3598 Dec 03 07:07	22°♎10'49	18°57'18
					3598 Dec 09 15:19	0°♎	
superior conj	3598 Jan 31 16:10	11°♎21'58	-1°59'26	morning set	3598 Dec 25 12:13	24°♎11'37	
minimum elong	3598 Jan 31 10:41	10°♎59'45	1°59'08	desc. node	3598 Dec 26 20:16	26°♎16'59	
	3598 Feb 11 21:10	0°♎			3598 Dec 29 05:17	0°♎	
evening rise	3598 Feb 13 23:57	3°♎36'19		max. Earth dist.	3599 Jan 09 07:09	17°♎21'21	1.45046 AU
asc. node	3598 Feb 28 15:52	27°♎24'20					
	3598 Mar 02 17:15	0°♎		superior conj	3599 Jan 11 02:10	20°♎10'45	-1°32'17
evening max el	3598 Mar 04 04:04	1°♎34'24	18°13'19	minimum elong	3599 Jan 10 17:00	19°♎34'37	1°31'24
retrograde	3598 Mar 10 14:20	4°♎59'26			3599 Jan 17 06:52	0°♎	
evening set	3598 Mar 13 12:16	4°♎15'03		evening rise	3599 Jan 26 04:27	14°♎20'13	
	3598 Mar 18 15:03	30°♎♎			3599 Feb 04 20:24	0°♎	
inferior conj	3598 Mar 19 14:19	28°♎57'05	3°36'40	evening max el	3599 Feb 15 15:49	14°♎59'30	18°37'42
minimum elong	3598 Mar 19 14:55	28°♎55'27	3°36'39	asc. node	3599 Feb 15 12:54	14°♎52'03	
min. Earth dist.	3598 Mar 22 05:04	26°♎06'10	0.63210 AU	retrograde	3599 Feb 22 06:13	18°♎38'34	
morning rise	3598 Mar 25 16:33	22°♎51'51		evening set	3599 Feb 25 10:07	17°♎41'59	
direct	3598 Apr 01 14:17	20°♎10'55		inferior conj	3599 Mar 03 03:55	12°♎05'50	3°35'18
desc. node	3598 Apr 06 22:27	21°♎33'35		minimum elong	3599 Mar 03 02:58	12°♎08'42	3°35'13
morning max el	3598 Apr 15 11:53	28°♎08'39	27°45'49	min. Earth dist.	3599 Mar 05 03:02	9°♎44'10	0.64965 AU
	3598 Apr 17 06:43	0°♎		morning rise	3599 Mar 08 19:18	5°♎54'57	
	3598 May 08 11:57	0°♎		direct	3599 Mar 15 12:29	3°♎04'21	
morning set	3598 May 19 21:45	21°♎08'43		desc. node	3599 Mar 24 19:29	7°♎11'36	
	3598 May 24 05:06	0°♎		morning max el	3599 Mar 28 21:33	10°♎53'57	27°09'35
max. Earth dist.	3598 May 25 04:21	2°♎02'53	1.32797 AU		3599 Apr 13 00:31	0°♎	
					3599 Apr 30 23:28	0°♎	
superior conj	3598 May 27 14:55	7°♎16'20	-0°00'06	morning set	3599 May 03 11:09	4°♎44'38	
minimum elong	3598 May 27 14:55	7°♎16'20	0°00'06	max. Earth dist.	3599 May 08 00:54	13°♎50'28	1.33826 AU
behind sun begin	3598 May 27 09:42	6°♎48'14					
behind sun end	3598 May 27 20:08	7°♎44'28		superior conj	3599 May 11 18:05	21°♎32'49	-0°28'26
asc. node	3598 May 27 15:08	7°♎17'32		minimum elong	3599 May 11 19:33	21°♎40'33	0°28'07
evening rise	3598 Jun 03 15:11	22°♎23'51		asc. node	3599 May 14 12:10	27°♎22'40	
	3598 Jun 07 07:19	0°♎			3599 May 15 17:44	0°♎	

evening rise	3599 May 19 01:55	7° Π 04'13		evening rise	3600 May 02 09:32	21° \mathcal{B} 30'24	
	3599 May 31 09:25	0° \mathfrak{E}			3600 May 06 15:08	0° Π	
evening max el	3599 Jun 08 14:41	10° \mathfrak{E} 22'15	21°49'10	evening max el	3600 May 20 17:58	21° Π 21'24	20°26'14
desc. node	3599 Jun 20 18:43	16° \mathfrak{E} 33'32		retrograde	3600 May 31 17:03	26° Π 42'15	
retrograde	3599 Jun 21 03:40	16° \mathfrak{E} 33'52		evening set	3600 Jun 02 17:15	26° Π 32'13	
evening set	3599 Jun 23 18:39	16° \mathfrak{E} 18'24		desc. node	3600 Jun 06 15:44	25° Π 20'25	
inferior conj	3599 Jul 03 03:29	12° \mathfrak{E} 15'31	-3°25'49	inferior conj	3600 Jun 11 21:45	22° Π 34'18	-1°32'49
minimum elong	3599 Jul 02 19:10	12° \mathfrak{E} 27'07	3°23'23	minimum elong	3600 Jun 11 17:23	22° Π 40'40	1°31'13
min. Earth dist.	3599 Jul 02 18:14	12° \mathfrak{E} 28'26	0.54930 AU	min. Earth dist.	3600 Jun 13 06:29	21° Π 46'41	0.55007 AU
morning rise	3599 Jul 11 21:06	8° \mathfrak{E} 23'13		morning rise	3600 Jun 20 16:30	18° Π 22'57	
direct	3599 Jul 15 02:14	8° \mathfrak{E} 00'32		direct	3600 Jun 24 12:18	17° Π 51'23	
morning max el	3599 Jul 27 04:55	13° \mathfrak{E} 41'17	21°47'09	morning max el	3600 Jul 07 22:28	24° Π 22'10	23°28'12
	3599 Aug 08 08:20	0° Ω			3600 Jul 13 02:09	0° \mathfrak{E}	
asc. node	3599 Aug 10 11:23	3° Ω 48'17		asc. node	3600 Jul 27 08:25	23° \mathfrak{E} 11'29	
morning set	3599 Aug 17 01:01	16° Ω 49'04			3600 Jul 30 16:44	0° Ω	
	3599 Aug 23 06:59	0° \mathfrak{N}		morning set	3600 Jul 31 12:23	1° Ω 43'01	
superior conj	3599 Aug 24 06:54	2° \mathfrak{N} 05'35	1°42'17	superior conj	3600 Aug 07 13:05	16° Ω 49'19	1°33'54
minimum elong	3599 Aug 24 05:50	2° \mathfrak{N} 00'03	1°42'15	minimum elong	3600 Aug 07 11:08	16° Ω 38'51	1°33'43
max. Earth dist.	3599 Aug 28 01:56	9° \mathfrak{N} 55'06	1.34794 AU	max. Earth dist.	3600 Aug 10 00:02	22° Ω 03'53	1.33498 AU
evening rise	3599 Sep 01 12:07	18° \mathfrak{N} 39'23			3600 Aug 13 19:48	0° \mathfrak{N}	
	3599 Sep 07 15:51	0° \mathfrak{E}		evening rise	3600 Aug 15 02:39	2° \mathfrak{N} 35'21	
desc. node	3599 Sep 16 18:02	15° \mathfrak{E} 01'58			3600 Aug 30 12:04	0° \mathfrak{E}	
	3599 Sep 27 07:32	0° \mathfrak{M}		desc. node	3600 Sep 02 15:03	4° \mathfrak{E} 45'19	
evening max el	3599 Oct 06 16:08	10° \mathfrak{M} 36'42	26°51'17	evening max el	3600 Sep 18 03:57	23° \mathfrak{E} 58'16	27°21'51
retrograde	3599 Oct 19 18:48	17° \mathfrak{M} 52'37			3600 Sep 26 10:40	0° \mathfrak{M}	
evening set	3599 Oct 26 11:25	15° \mathfrak{M} 11'36		retrograde	3600 Oct 01 16:38	1° \mathfrak{M} 16'35	
min. Earth dist.	3599 Oct 30 11:10	11° \mathfrak{M} 12'03	0.65724 AU		3600 Oct 06 14:08	30° \mathfrak{R}	
inferior conj	3599 Nov 01 08:21	9° \mathfrak{M} 00'38	-1°43'05	evening set	3600 Oct 08 18:20	28° \mathfrak{E} 35'47	
minimum elong	3599 Nov 01 11:12	8° \mathfrak{M} 52'20	1°41'56	min. Earth dist.	3600 Oct 12 12:08	25° \mathfrak{E} 10'53	0.64296 AU
asc. node	3599 Nov 06 10:35	3° \mathfrak{M} 58'44		inferior conj	3600 Oct 14 21:39	22° \mathfrak{E} 38'30	-2°43'55
morning rise	3599 Nov 07 11:45	3° \mathfrak{M} 20'54		minimum elong	3600 Oct 15 02:12	22° \mathfrak{E} 26'27	2°42'16
direct	3599 Nov 10 07:25	2° \mathfrak{M} 37'09		morning rise	3600 Oct 21 11:16	17° \mathfrak{E} 13'41	
morning max el	3599 Nov 16 20:27	6° \mathfrak{M} 09'39	18°17'57	asc. node	3600 Oct 23 07:37	16° \mathfrak{E} 43'08	
	3599 Dec 03 05:31	0° \mathfrak{X}		direct	3600 Oct 24 00:29	16° \mathfrak{E} 40'36	
morning set	3599 Dec 05 23:43	4° \mathfrak{X} 28'30		morning max el	3600 Oct 30 12:42	20° \mathfrak{E} 06'28	17°55'34
desc. node	3599 Dec 13 17:17	16° \mathfrak{X} 55'29			3600 Nov 06 22:55	0° \mathfrak{M}	
superior conj	3599 Dec 21 04:25	28° \mathfrak{X} 44'57	-0°49'22	morning set	3600 Nov 16 15:36	16° \mathfrak{M} 08'23	
minimum elong	3599 Dec 20 22:11	28° \mathfrak{X} 20'28	0°48'34		3600 Nov 24 21:45	0° \mathfrak{X}	
	3599 Dec 21 23:30	0° \mathfrak{B}		superior conj	3600 Nov 29 19:51	8° \mathfrak{X} 02'31	-0°01'36
max. Earth dist.	3599 Dec 23 02:25	1° \mathfrak{B} 45'44	1.45220 AU	minimum elong	3600 Nov 29 19:41	8° \mathfrak{X} 01'47	0°01'34
evening rise	3600 Jan 06 10:01	24° \mathfrak{B} 10'00		behind sun begin	3600 Nov 29 09:32	7° \mathfrak{X} 20'43	
	3600 Jan 10 03:29	0° \approx		behind sun end	3600 Nov 30 05:50	8° \mathfrak{X} 42'47	
greatest brilliancy	3600 Jan 17 15:13	11° \approx 37'34	-0.7m	desc. node	3600 Nov 29 14:18	7° \mathfrak{X} 40'03	
evening max el	3600 Jan 30 00:16	28° \approx 28'47	19°19'20	max. Earth dist.	3600 Dec 04 20:59	16° \mathfrak{X} 07'06	1.44654 AU
	3600 Jan 31 14:53	0° \mathfrak{H}			3600 Dec 13 18:02	0° \mathfrak{B}	
asc. node	3600 Feb 02 09:54	1° \mathfrak{H} 20'07		evening rise	3600 Dec 15 22:49	3° \mathfrak{B} 23'30	
retrograde	3600 Feb 06 02:34	2° \mathfrak{H} 32'39			3601 Jan 02 17:00	0° \approx	
evening set	3600 Feb 09 13:20	1° \mathfrak{H} 23'04		evening max el	3601 Jan 12 03:52	11° \approx 59'59	20°16'20
	3600 Feb 11 05:55	30° \mathfrak{R}		asc. node	3601 Jan 19 06:54	16° \approx 33'55	
inferior conj	3600 Feb 15 01:47	25° \approx 30'57	3°19'33	retrograde	3601 Jan 20 00:36	16° \approx 36'54	
minimum elong	3600 Feb 14 23:48	25° \approx 37'23	3°19'14	evening set	3601 Jan 23 19:41	15° \approx 13'16	
min. Earth dist.	3600 Feb 16 09:44	23° \approx 47'37	0.66320 AU	inferior conj	3601 Jan 29 05:08	9° \approx 07'53	2°52'43
morning rise	3600 Feb 20 09:59	19° \approx 17'31		minimum elong	3601 Jan 29 02:40	9° \approx 16'14	2°52'07
direct	3600 Feb 26 17:00	16° \approx 30'22		min. Earth dist.	3601 Jan 29 23:21	8° \approx 06'08	0.67264 AU
morning max el	3600 Mar 10 07:21	23° \approx 59'26	26°06'05	morning rise	3601 Feb 03 09:26	2° \approx 54'02	
desc. node	3600 Mar 10 16:31	24° \approx 22'47		direct	3601 Feb 09 03:09	0° \approx 20'26	
	3600 Mar 15 16:41	0° \mathfrak{H}		morning max el	3601 Feb 20 16:01	7° \approx 14'12	24°44'43
	3600 Apr 05 09:58	0° \mathfrak{Y}		desc. node	3601 Feb 25 13:33	12° \approx 40'25	
morning set	3600 Apr 15 11:30	17° \mathfrak{Y} 38'37			3601 Mar 10 10:04	0° \mathfrak{H}	
max. Earth dist.	3600 Apr 19 10:05	25° \mathfrak{Y} 07'26	1.35310 AU	morning set	3601 Mar 28 17:33	29° \mathfrak{H} 35'23	
	3600 Apr 21 21:41	0° \mathfrak{B}			3601 Mar 28 23:07	0° \mathfrak{Y}	
superior conj	3600 Apr 24 13:59	5° \mathfrak{B} 23'17	-0°57'20	max. Earth dist.	3601 Apr 01 08:45	6° \mathfrak{Y} 07'48	1.37213 AU
minimum elong	3600 Apr 24 17:01	5° \mathfrak{B} 38'43	0°56'46	superior conj	3601 Apr 07 23:30	18° \mathfrak{Y} 38'48	-1°24'55
asc. node	3600 Apr 30 09:12	17° \mathfrak{B} 20'52		minimum elong	3601 Apr 08 03:48	18° \mathfrak{Y} 59'47	1°24'18

	3601 Apr 13 16:54	0°♄	
evening rise	3601 Apr 16 11:41	5°♄34'36	
asc. node	3601 Apr 17 06:14	7°♄06'59	
	3601 Apr 30 16:03	0°♄	
evening max el	3601 May 03 09:26	3°♄00'57	19°21'32
retrograde	3601 May 12 15:14	7°♄30'21	
evening set	3601 May 14 15:31	7°♄18'32	
inferior conj	3601 May 23 03:41	3°♄11'11	0°24'06
minimum elong	3601 May 23 04:41	3°♄09'31	0°23'43
desc. node	3601 May 24 12:46	2°♄16'43	
min. Earth dist.	3601 May 25 21:02	1°♄24'28	0.56027 AU
	3601 May 28 05:31	30°♄	
morning rise	3601 May 31 14:55	28°♄26'27	
direct	3601 Jun 05 09:02	27°♄34'47	
	3601 Jun 13 09:26	0°♄	
morning max el	3601 Jun 19 12:30	4°♄45'48	25°09'30
	3601 Jul 07 14:06	0°♄	
asc. node	3601 Jul 14 05:28	12°♄53'58	
morning set	3601 Jul 16 00:06	16°♄36'51	
	3601 Jul 22 04:16	0°♄	
superior conj	3601 Jul 22 22:57	1°♄42'16	1°20'18
minimum elong	3601 Jul 22 20:37	1°♄29'30	1°19'58
max. Earth dist.	3601 Jul 24 05:51	4°♄30'54	1.32616 AU
evening rise	3601 Jul 30 02:18	16°♄57'04	
	3601 Aug 05 18:13	0°♄	
desc. node	3601 Aug 20 12:04	23°♄52'15	
	3601 Aug 25 05:22	0°♄	
evening max el	3601 Aug 31 13:16	6°♄52'02	27°23'10
retrograde	3601 Sep 14 08:01	14°♄07'42	
evening set	3601 Sep 21 12:37	11°♄38'41	
min. Earth dist.	3601 Sep 25 03:12	8°♄42'48	0.62540 AU
inferior conj	3601 Sep 28 00:18	5°♄59'11	-3°42'12
minimum elong	3601 Sep 28 06:00	5°♄45'38	3°40'31
morning rise	3601 Oct 05 01:00	0°♄52'26	
direct	3601 Oct 07 10:31	0°♄26'31	
asc. node	3601 Oct 10 04:40	1°♄01'48	
morning max el	3601 Oct 14 04:51	3°♄53'53	17°51'01
morning set	3601 Oct 30 06:03	28°♄53'17	
	3601 Oct 30 21:02	0°♄	
superior conj	3601 Nov 10 12:44	18°♄35'18	0°40'32
minimum elong	3601 Nov 10 16:19	18°♄50'26	0°40'02
desc. node	3601 Nov 16 11:21	28°♄27'27	
	3601 Nov 17 10:07	0°♄	
max. Earth dist.	3601 Nov 17 12:19	0°♄08'56	1.43428 AU
evening rise	3601 Nov 25 09:07	12°♄37'13	
	3601 Dec 06 20:37	0°♄	
evening max el	3601 Dec 26 02:03	25°♄32'58	21°25'42
	3601 Dec 31 18:27	0°♄	
retrograde	3602 Jan 03 22:13	0°♄47'55	
asc. node	3602 Jan 06 03:56	0°♄20'35	
	3602 Jan 06 21:00	30°♄	
evening set	3602 Jan 08 03:21	29°♄09'01	
inferior conj	3602 Jan 13 11:41	22°♄53'28	2°17'00
minimum elong	3602 Jan 13 09:15	23°♄01'55	2°16'13
min. Earth dist.	3602 Jan 13 17:37	22°♄32'59	0.67809 AU